

# BDK INTERVENTION PRODUCTS

Providing up-to-date products and solutions for your downhole demands.



A Weatherford Company



# DELIVERING TOOLS AND SOLUTIONS FOR THE TOUGHEST CHALLENGES

As the oil and gas industry evolves, so should your tools. Whether operator or service company, you need innovative, high-quality designs for slickline, braided-line, coiled-tubing tools, and surface pressure equipment. From general engineering to comprehensive design, Weatherford BDK® services provide the latest products and solutions to meet your oilfield challenges.

Founded in 1974 to provide specialized engineering support for southern North Sea operations, B. D. Kendle Engineering Ltd soon became the first choice of operating and service companies for routine and urgent manufacturing under stringent oilfield requirements. In 2002, Weatherford purchased BDK to supply pressure-control and toolstring equipment for slickline, braided line, and coiled tubing operations. With more than 40 years of progressive expertise, we have earned a reputation for performance, quality, and reliability.

## THE BDK ADVANTAGE

As the industry's leading brand for coiled tubing, slickline, and braided-line tools and services, we offer standard and custom designs for operations all over the world. Our reliable and cost-effective solutions combined with prompt, professional services provide operators and service companies with the tools required for oilfield operations.

## FULL-SPECTRUM CAPABILITIES

BDK serves a broad and expanding customer base, including most major operators and service companies worldwide. Our capabilities include:

- Specialists in design and supply of slickline, braided-line and coiled-tubing downhole tools, surface pressure control equipment to API 6A (2010), SI 913 (1996), and NACE MR-01-75 (2015) specifications.
- Computer-aided design to BS EN ISO 9001:2015 standards
- Standard and custom designs
- Annual and major survey of existing surface pressure control equipment
- "Fast-track" design facility for special fishing tools
- Comprehensive technical support



## A FOCUS ON SERVICE AND QUALITY

The highest standards in innovation and technical support continue to underscore our reputations for quality and reliability around the world. Our engineering capabilities ensure that all items—whether standard, or specialized; manufactured or refurbished—adhere to customer standards while fully complying with the latest regulations.

## PERFORMANCE - RELIABILITY - SAFETY

We work closely with our customers to continually improve our technology, performance, and efficiency. To maintain our leadership position, we invest heavily in continuous improvement processes, including our companywide Operational Excellence and Performance System (OEPS).

The OEPS was designed for the oil and gas industry. It applies a systematic approach to meet applicable industry and country specific regulatory and legal requirements, yet offers flexibility to accommodate different sites and business sectors. The OEPS meets the following international standards:

- ISO 9001:2015 Quality Management System Standard
- ISO 14001:2015 Environmental Management System Standard
- ISO 45001:2018 Occupational Health and Safety Assessment Specification
- OHSAS 18001:2015 Occupational Health and Safety Assessment Specification
- API Q2:2016 Specification for quality management system requirements for service supply organizations for the petroleum and natural gas industries

With every job that we do—no matter how large or small—our rigorous global training program helps us deliver the right people and tools to your wellsite. Our operational personnel undergo extensive training to master their performance-based competency standards. On the job, these experienced, highly trained crews promote safe work practices to avoid risks to people, property, and the environment. After each job, we follow up through our worldwide reporting system, the Weatherford Performance Tracking System (WPTS), to develop and reinforce best practices and apply hard-won lessons from one operation to the next.

At BDK, we combine the quality, service, and value you expect with the latest technological advancements to bring you the tools you need, wherever you need them.



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\*Other sizes and connections may be available on request.

\*Rental of some items may be available on request.




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\*Other sizes and connections may be available on request.







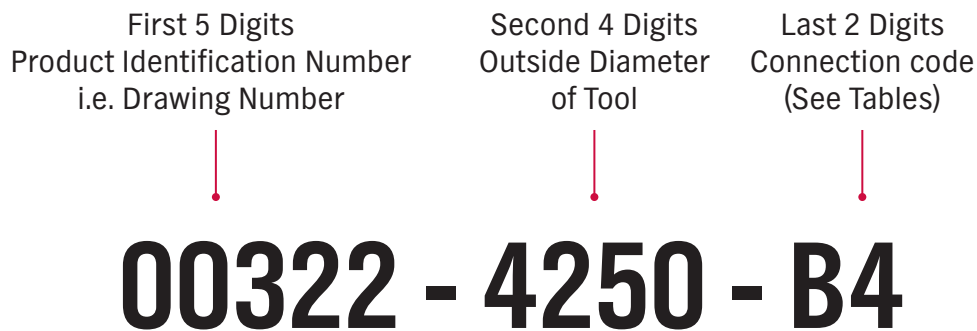
# SLICKLINE/BRAIDED-LINE TOOLS





# DOWNHOLE SLICKLINE/BRAIDED-LINE TOOLS - PART NUMBER GUIDE (Connection codes)

In general, part numbers for downhole tools are compiled as follows:



Using this method, flexibility exists to create a part number when the outside diameter (OD) falls outside those listed where a connection other than the standard size is required.

E.g. 4.312 in. OD Blind Box with 1 1/16 in. Pin x 1.750 in. fish neck  
**Part Number would read : 00039-4312-A4**

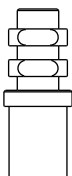
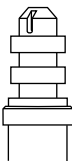
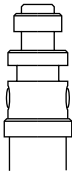
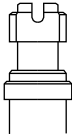
When H<sub>2</sub>S Service is required, -H will be added to the existing part number.



## Downhole Slickline/Braided-line Tools - Part Number Guide (Connection codes)



Sucker Rod	Fish Neck	Connection code
5/8 in. -11	1.000 in.	A1
15/16 in. -10	1.187 in.	A2
15/16 in. -10	1.375 in.	A3
1 1/16 in. -10	1.750 in.	A4
1 1/16 in. -10	2.312 in.	A5
1 9/16 in. -10	2.312 in.	A6
1 1/16 in. -10	3.125 in.	A7
1 9/16 in. -10	3.125 in.	A8
Standard QRJ	Fish Neck	Connection code
1 1/4 in.	1.187 in.	B2
1 1/2 in.	1.375 in.	B3
1 7/8 in.	1.750 in.	B4
1 7/8 in.	2.312 in.	B5
2 1/2 in.	2.312 in.	B6
1 7/8 in.	3.125 in.	B7
Heavy Duty QRJ	Fish Neck	Connection code
1 1/4 in.	1.187 in.	C2
1 1/2 in.	1.375 in.	C3
1 7/8 in.	1.750 in.	C4
1 7/8 in.	2.312 in.	C5
2 1/2 in.	2.312 in.	C6
Trinity	Fish Neck	Connection code
1 1/4 in.	1.187 in.	T2
1 1/2 in.	1.375 in.	T3
1 7/8 in.	1.750 in.	T4
1 7/8 in.	2.312 in.	T5
2 1/2 in.	2.312 in.	T6
QLS	Fish Neck	Connection code
1 1/4 in.	1.187 in.	Q2
1 1/2 in.	1.375 in.	Q3
1 7/8 in.	1.750 in.	Q4
1 7/8 in.	2.312 in.	Q5
2 1/2 in.	2.312 in.	Q6
1 7/8 in.	3.125 in.	Q7





# Heavy Duty Accelerator

## Tool Description

The Weatherford BDK Heavy Duty Accelerator is recommended for use with the Weatherford BDK Hydro-Mechanical and Spring Jars. The slickline and braided-line accelerator is normally run directly below the rope socket to compensate for loss of stretch in the wire or cable when jarring at shallow depths. However, even in deep well operations, an accelerator may be used to deliver higher impact from the jar. Upward tension on the slickline and braided-line compresses the accelerator springs storing energy. When the jar fires the stored energy is released, increasing the jar impact at depth.

## Applications

- Shallow and deep slickline and braided-line operations
- Slickline and braided-cable fishing operations

## Features and Benefits

- Accelerator matched to jar stroke
- Variable operating range
- Variable stroke length
- Field re-dressable

## SPECIFICATIONS

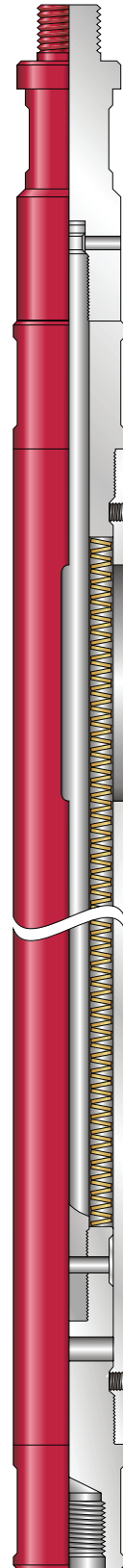
### Heavy Duty Accelerator

Part Number	Max OD	Fish Neck Size	Connection	Range	Stroke Min - Max
4748-A3	1.500 in.	1.375 in. Fish Neck	15/16 in. Sucker Rod	300-1100 lbs	11.2 in. -12.6 in.
4748-C3	1.500 in.	1.375 in. Fish Neck	1.500 in. HDQRJ	300-1100 lbs	11.2 in. -12.6 in.
4748-Q3	1.500 in.	1.375 in. Fish Neck	1.500 in. QLS	300-1100 lbs	11.2 in. -12.6 in.
10722-A4	1.875 in.	1.750 in. Fish Neck	1-1/16 in. Sucker Rod	400-3000 lbs	13.4 in. -16.3 in.
10722-C4	1.875 in.	1.750 in. Fish Neck	1.875 in. HDQRJ	400-3000 lbs	13.4 in. -16.3 in.
10722-Q4	1.875 in.	1.750 in. Fish Neck	1.875 in. QLS	400-3000 lbs	13.4 in. -16.3 in.
10908-A4	2.125 in.	1.750 in. Fish Neck	1-1/16 in. Sucker Rod	400-3000 lbs	13.4 in. -16.3 in.
10908-C4	2.125 in.	1.750 in. Fish Neck	1.875 in. HDQRJ	400-3000 lbs	13.4 in. -16.3 in.
10908-Q4	2.125 in.	1.750 in. Fish Neck	1.875 in. QLS	400-3000 lbs	13.4 in. -16.3 in.
10718-A5	2.500 in.	2.313 in. Fish Neck	1-1/16 in. Sucker Rod	1000-7000 lbs	16.0 in. -25.5 in.
10718-Q5	2.500 in.	2.313 in. Fish Neck	1-1/16 in. Sucker Rod	1000-7000 lbs	16.0 in. -25.5 in.
10718-A6	2.500 in.	2.313 in. Fish Neck	1-9/16 in. Sucker Rod	1000-7000 lbs	16.0 in. -25.5 in.
10718-C6	2.500 in.	2.313 in. Fish Neck	2.500 in. HDQRJ	1000-7000 lbs	16.0 in. -25.5 in.
10718-Q6	2.500 in.	2.313 in. Fish Neck	2.500 in. QLS	1000-7000 lbs	16.0 in. -25.5 in.

QRJ™ and Trinity™ connections available on request.

Additional sizes available on request

Redress kits available on request





## Drive Down Bailer

### Tool Description

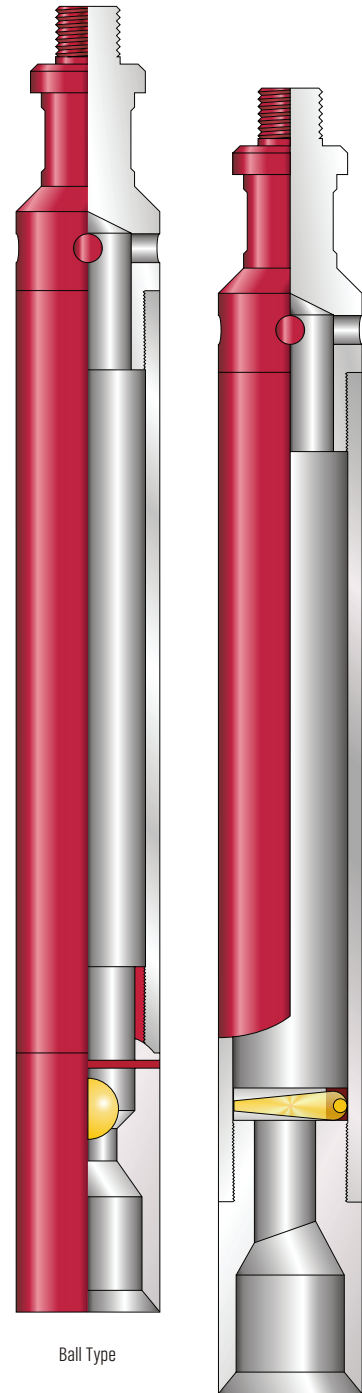
The Weatherford BDK Drive Down Bailer is used to collect samples or remove debris from the wellbore. The Bailer is jarred into the sample or debris forcing material into the cylinder, which is retained by a ball or flapper type non-return seat. The bailer is then jarred upwards and retrieved.

### Applications

- Recovery of in-fill samples from wellbore or sump
- Removal of compacted debris or sand from flow control devices

### Features and Benefits

- Available with either ball or flapper seats
- Field re-dressable
- Available with ball or flapper shoe
- Extension tubes available to increase capacity



Ball Type

Flapper Type



SPECIFICATIONS

Drive Down Bailer

Part Number (Ball Type)	Part Number (Flapper Type)	Max OD	Fish Neck Size	Connection	Std Chamber Length*	Capacity Per Foot
01350-OB-A3	01350-OF-A3	1.500 in.	1.375 in. Fish Neck	15/16 in. Sucker Rod	5 ft	0.2 Litres
01350-OB-C3	01350-OF-C3	1.500 in.	1.375 in. Fish Neck	1.500 in. HDQRJ	5 ft	0.2 Litres
01350-OB-Q3	01350-OF-Q3	1.500 in.	1.375 in. Fish Neck	1.500 in. QLS	5 ft	0.2 Litres
01351-OB-A3	01351-OF-A3	1.750 in.	1.375 in. Fish Neck	15/16 in. Sucker Rod	5 ft	0.3 Litres
01351-OB-C3	01351-OF-C3	1.750 in.	1.375 in. Fish Neck	1.500 in. HDQRJ	5 ft	0.3 Litres
01351-OB-Q3	01351-OF-Q3	1.750 in.	1.375 in. Fish Neck	1.500 in. QLS	5 ft	0.3 Litres
01352-OB-A4	01352-OF-A4	2.000 in.	1.750 in. Fish Neck	1-1/16 in. Sucker Rod	5 ft	0.4 Litres
01352-OB-C4	01352-OF-C4	2.000 in.	1.750 in. Fish Neck	1.875 in. HDQRJ	5 ft	0.4 Litres
01352-OB-Q4	01352-OF-Q4	2.000 in.	1.750 in. Fish Neck	1.875 in. QLS	5 ft	0.4 Litres
01353-OB-A4	01353-OF-A4	2.250 in.	1.750 in. Fish Neck	1-1/16 in. Sucker Rod	5 ft	0.5 Litres
01353-OB-C4	01353-OF-C4	2.250 in.	1.750 in. Fish Neck	1.875 in. HDQRJ	5 ft	0.5 Litres
01353-OB-Q4	01353-OF-Q4	2.250 in.	1.750 in. Fish Neck	1.875 in. QLS	5 ft	0.5 Litres
02168-OB-A4	02168-OF-A4	2.500 in.	1.750 in. Fish Neck	1-1/16 in. Sucker Rod	5 ft	0.6 Litres
02168-OB-C4	02168-OF-C4	2.500 in.	1.750 in. Fish Neck	1.875 in. HDQRJ	5 ft	0.6 Litres
02168-OB-Q4	02168-OF-Q4	2.500 in.	1.750 in. Fish Neck	1.875 in. QLS	5 ft	0.6 Litres
01158-OB-A4	01158-OF-A4	2.625 in.	1.750 in. Fish Neck	1-1/16 in. Sucker Rod	5 ft	0.7 Litres
01158-OB-C4	01158-OF-C4	2.625 in.	1.750 in. Fish Neck	1.875 in. HDQRJ	5 ft	0.7 Litres
01158-OB-Q4	01158-OF-Q4	2.625 in.	1.750 in. Fish Neck	1.875 in. QLS	5 ft	0.7 Litres
02169-OB-A4	02169-OF-A4	3.000 in.	1.750 in. Fish Neck	1-1/16 in. Sucker Rod	5 ft	0.9 Litres
02169-OB-C4	02169-OF-C4	3.000 in.	1.750 in. Fish Neck	1.875 in. HDQRJ	5 ft	0.9 Litres
02169-OB-Q4	02169-OF-Q4	3.000 in.	1.750 in. Fish Neck	1.875 in. QLS	5 ft	0.9 Litres
10912-OB-A6	10912-OF-A6	3.500 in.	2.313 in. Fish Neck	1-9/16 in. Sucker Rod	5 ft	1.3 Litres
10912-OB-C6	10912-OF-C6	3.500 in.	2.313 in. Fish Neck	2.500 in. HDQRJ	5 ft	1.3 Litres
10912-OB-Q4	10912-OF-Q4	3.500 in.	2.313 in. Fish Neck	2.500 in. QLS	5 ft	1.3 Litres
8714-OB-A6	8714-OF-A6	4.000 in.	2.313 in. Fish Neck	1-9/16 in. Sucker Rod	5 ft	1.5 Litres
8714-OB-C6	8714-OF-C6	4.000 in.	2.313 in. Fish Neck	2.500 in. HDQRJ	5 ft	1.5 Litres
8714-OB-Q6	8714-OF-Q6	4.000 in.	2.313 in. Fish Neck	2.500 in. QLS	5 ft	1.5 Litres

\* The bailer can be manufactured to any length required.  
 QRJ™ and Trinity™ connections available on request.  
 Additional sizes available on request.



## Dump Bailer

### Tool Description

The Weatherford BDK Dump Bailer and Inverted Dump Bailer are designed to carry acids, mercury and other fluids down to a point in the wellbore where they will be most effective i.e. plugs, check valves, SSSV flow tubes.

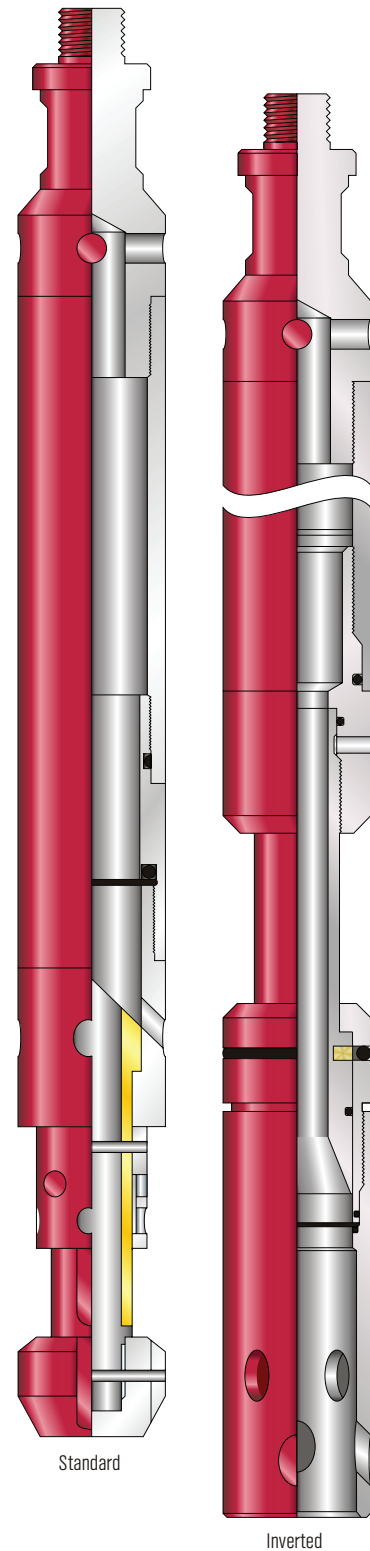
Downward jarring is required to overcome the shear pin that allows the plunger to rupture a shear disc.

### Applications

The Inverted Dump Bailer is utilized to carry heavy viscosity fluids such as cement. With the Inverted Dump Bailer downward jarring is required to shear the pin, which allows the plunger to rupture the shear disc. The shear disc is pushed out through the Bailer, leaving an unrestricted through bore making this Bailer more suitable for use with heavier viscosity fluids.

### Features and Benefits

- Dual shear capability
- Variable shear pin rating
- Available in either standard or inverted designs
- Fully field re-dressable
- Glass disc available for acid service







SPECIFICATIONS

Dump Bailer

Part Number	Max OD	Fish Neck Size	Connection	Std Chamber Length*	Capacity Per Foot
01350-OB-A3	1.500 in.	1.375 in. Fish Neck	15/16 in. Sucker Rod	5 ft	0.2 Litres
01350-OB-C3	1.500 in.	1.375 in. Fish Neck	1.500 in. HDQRJ	5 ft	0.2 Litres
01350-OB-Q3	1.500 in.	1.375 in. Fish Neck	1.500 in. QLS	5 ft	0.2 Litres
01351-OB-A3	1.750 in.	1.375 in. Fish Neck	15/16 in. Sucker Rod	5 ft	0.3 Litres
01351-OB-C3	1.750 in.	1.375 in. Fish Neck	1.500 in. HDQRJ	5 ft	0.3 Litres
01351-OB-Q3	1.750 in.	1.375 in. Fish Neck	1.500 in. QLS	5 ft	0.3 Litres
01352-OB-A4	2.000 in.	1.750 in. Fish Neck	1-1/16 in. Sucker Rod	5 ft	0.4 Litres
01352-OB-C4	2.000 in.	1.750 in. Fish Neck	1.875 in. HDQRJ	5 ft	0.4 Litres
01352-OB-Q4	2.000 in.	1.750 in. Fish Neck	1.875 in. QLS	5 ft	0.4 Litres
01353-OB-A4	2.250 in.	1.750 in. Fish Neck	1-1/16 in. Sucker Rod	5 ft	0.5 Litres
01353-OB-C4	2.250 in.	1.750 in. Fish Neck	1.875 in. HDQRJ	5 ft	0.5 Litres
01353-OB-Q4	2.250 in.	1.750 in. Fish Neck	1.875 in. QLS	5 ft	0.5 Litres
02168-OB-A4	2.500 in.	1.750 in. Fish Neck	1-1/16 in. Sucker Rod	5 ft	0.6 Litres
02168-OB-C4	2.500 in.	1.750 in. Fish Neck	1.875 in. HDQRJ	5 ft	0.6 Litres
02168-OB-Q4	2.500 in.	1.750 in. Fish Neck	1.875 in. QLS	5 ft	0.6 Litres
01158-OB-A4	2.625 in.	1.750 in. Fish Neck	1-1/16 in. Sucker Rod	5 ft	0.7 Litres
01158-OB-C4	2.625 in.	1.750 in. Fish Neck	1.875 in. HDQRJ	5 ft	0.7 Litres
01158-OB-Q4	2.625 in.	1.750 in. Fish Neck	1.875 in. QLS	5 ft	0.7 Litres
02169-OB-A4	3.000 in.	1.750 in. Fish Neck	1-1/16 in. Sucker Rod	5 ft	0.9 Litres
02169-OB-C4	3.000 in.	1.750 in. Fish Neck	1.875 in. HDQRJ	5 ft	0.9 Litres
02169-OB-Q4	3.000 in.	1.750 in. Fish Neck	1.875 in. QLS	5 ft	0.9 Litres
10912-OB-A4	3.500 in.	1.750 in. Fish Neck	1-1/16 in. Sucker Rod	5 ft	1.3 Litres
10912-OB-C4	3.500 in.	1.750 in. Fish Neck	1.875 in. HDQRJ	5 ft	1.3 Litres
10912-OB-Q4	3.500 in.	1.750 in. Fish Neck	1.875 in. QLS	5 ft	1.3 Litres
8714-OB-A6	4.000 in.	2.313 in. Fish Neck	1-9/16 in. Sucker Rod	5 ft	1.5 Litres
8714-OB-C6	4.000 in.	2.313 in. Fish Neck	2.500 in. HDQRJ	5 ft	1.5 Litres
8714-OB-Q6	4.000 in.	2.313 in. Fish Neck	2.500 in. QLS	5 ft	1.5 Litres

\* The bailer can be manufactured to any length required.  
 QRJ™ and Trinity™ connections available on request.  
 Additional sizes available on request.



## Hydrostatic Bailer

### Tool Description

The Weatherford BDK Hydrostatic Bailer is used to remove sand, mud fallout, salt, paraffin, scale and other solids from the wellbore, where pump-type bailers have been ineffective due to the solidified nature of the debris.

When assembled, the chamber remains at atmospheric pressure. On contact with the debris in the wellbore the bailer is activated by jarring down to shear the pins. Once sheared the wellbore pressure (including hydrostatic) forces the piston up into the cylinder, drawing the solids or debris into the chamber.

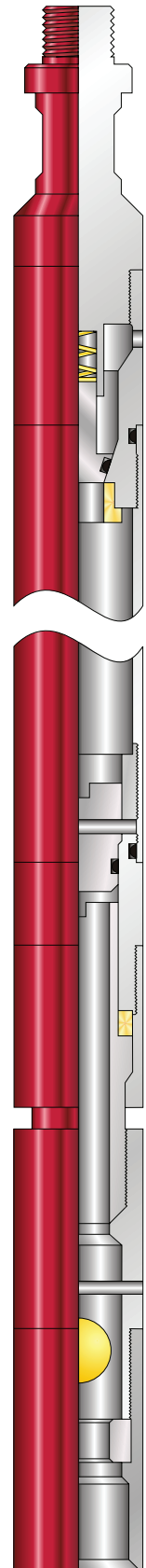
The ball or flapper check prevents debris loss. The pressure relief valve operates automatically as the bailer is recovered from the well, balancing the internal and external pressure. At surface, the internal pressure will be at atmospheric.

### Applications

- Recovery of solids or debris from top of or internally within flow control devices
- Recovery of 'lost-in-hole' objects, which standard fishing methods cannot access

### Features and Benefits

- Pressure relief check valve
- Variable shear pin rating
- Available with ball or flapper shoe
- Fully field re-dressable
- Specialist bottom housings designed on request for fishing operations





SPECIFICATIONS

Hydrostatic Bailer

Part Number	Max OD	Fish Neck Size	Connection	Std Chamber Length*	Capacity Per Foot
02119-00-A2	1.250 in.	1.187 in. Fish Neck	15/16 in. Sucker Rod	5 ft	0.2 Litres
02119-00-Q2	1.250 in.	1.187 in. Fish Neck	1.125 in. QLS	5 ft	0.2 Litres
01042-00-A3	1.500 in.	1.375 in. Fish Neck	15/16 in. Sucker Rod	5 ft	0.2 Litres
01042-00-C3	1.500 in.	1.375 in. Fish Neck	1.500 in. HDQRJ	5 ft	0.2 Litres
01042-00-Q3	1.500 in.	1.375 in. Fish Neck	1.500 in. QLS	5 ft	0.2 Litres
01044-00-A3	1.750 in.	1.375 in. Fish Neck	15/16 in. Sucker Rod	5 ft	0.3 Litres
01044-00-C3	1.750 in.	1.375 in. Fish Neck	1.500 in. HDQRJ	5 ft	0.3 Litres
01044-00-Q3	1.750 in.	1.375 in. Fish Neck	1.500 in. QLS	5 ft	0.3 Litres
02114-00-A4	2.000 in.	1.750 in. Fish Neck	1-1/16 in. Sucker Rod	5 ft	0.4 Litres
02114-00-C4	2.000 in.	1.750 in. Fish Neck	1.875 in. HDQRJ	5 ft	0.4 Litres
02114-00-Q4	2.000 in.	1.750 in. Fish Neck	1.875 in. QLS	5 ft	0.4 Litres
02104-00-A4	2.250 in.	1.750 in. Fish Neck	1-1/16 in. Sucker Rod	5 ft	0.5 Litres
02104-00-C4	2.250 in.	1.750 in. Fish Neck	1.875 in. HDQRJ	5 ft	0.5 Litres
02104-00-Q4	2.250 in.	1.750 in. Fish Neck	1.875 in. QLS	5 ft	0.5 Litres
02115-00-A4	2.500 in.	1.750 in. Fish Neck	1-1/16 in. Sucker Rod	5 ft	0.6 Litres
02115-00-C4	2.500 in.	1.750 in. Fish Neck	1.875 in. HDQRJ	5 ft	0.6 Litres
02115-00-Q4	2.500 in.	1.750 in. Fish Neck	1.875 in. QLS	5 ft	0.6 Litres
02112-00-A4	2.625 in.	1.750 in. Fish Neck	1-1/16 in. Sucker Rod	5 ft	0.7 Litres
02112-00-C4	2.625 in.	1.750 in. Fish Neck	1.875 in. HDQRJ	5 ft	0.7 Litres
02112-00-Q4	2.625 in.	1.750 in. Fish Neck	1.875 in. QLS	5 ft	0.7 Litres
02139-00-A4	3.000 in.	1.750 in. Fish Neck	1-1/16 in. Sucker Rod	5 ft	0.9 Litres
02139-00-C4	3.000 in.	1.750 in. Fish Neck	1.875 in. HDQRJ	5 ft	0.9 Litres
02139-00-Q4	3.000 in.	1.750 in. Fish Neck	1.875 in. QLS	5 ft	0.9 Litres

\* The bailer can be manufactured to any length required.

QRJ™ and Trinity™ connections available on request.

Additional sizes available on request.

Redress kits available on request



## Inverted Dump Bailer

### Tool Description

The Weatherford BDK Inverted Dump Bailer is designed to carry heavy viscosity liquids e.g. cement and other fluids down to a point in the wellbore where they will be most effective, i.e. plugs, check valves etc.

### SPECIFICATIONS

#### Inverted Dump Bailer

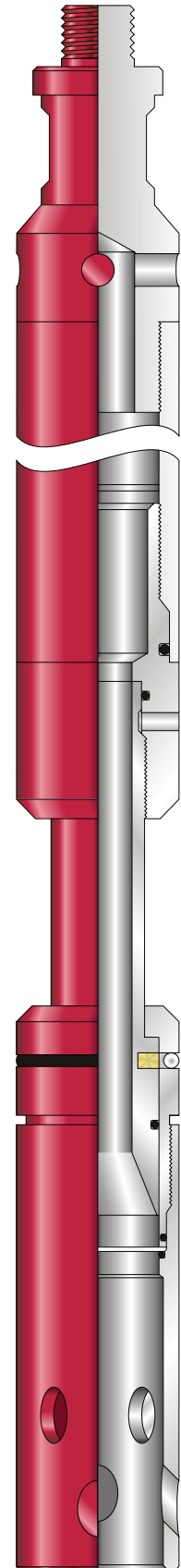
Part Number	Max OD	Fish Neck Size	Connection	Std Chamber Length*	Capacity Per Foot
7540-C3	1.750 in.	1.375 in.	1. 500 in. HDQRJ	5 ft	0.3 Litres
7540-Q3	1.750 in.	1.375 in.	1. 500 in. QLS	5 ft	0.3 Litres
9705-A4	2.000 in.	1.750 in.	1-1/16 in. Sucker Rod	5 ft	0.4 Litres
9705-C4	2.000 in.	1.750 in.	1. 875 in. HDQRJ	5 ft	0.4 Litres
9705-Q4	2.000 in.	1.750 in.	1. 875 in. QLS	5 ft	0.4 Litres
8129-A4	2.250 in.	1.750 in.	1-1/16 in. Sucker Rod	5 ft	0.5 Litres
8129-C4	2.250 in.	1.750 in.	1. 875 in. HDQRJ	5 ft	0.5 Litres
8129-Q4	2.250 in.	1.750 in.	1. 875 in. QLS	5 ft	0.5 Litres
10433-A4	2.500 in.	1.750 in.	1-1/16 in. Sucker Rod	5 ft	0.6 Litres
10433-C4	2.500 in.	1.750 in.	1. 875 in. HDQRJ	5 ft	0.6 Litres
10433-Q4	2.500 in.	1.750 in.	1. 875 in. QLS	5 ft	0.6 Litres
10422-A4	3.000 in.	1.750 in.	1-1/16 in. Sucker Rod	5 ft	0.9 Litres
10422-C4	3.000 in.	1.750 in.	1. 875 in. HDQRJ	5 ft	0.9 Litres
10422-Q4	3.000 in.	1.750 in.	1. 875 in. QLS	5 ft	0.9 Litres
10411-A5	3.500 in.	2.313 in.	1-1/16 in. Sucker Rod	5 ft	1.3 Litres
10411-C5	3.500 in.	2.313 in.	1. 875 in. HDQRJ	5 ft	1.3 Litres
10411-Q5	3.500 in.	2.313 in.	1. 875 in. QLS	5 ft	1.3 Litres

\* The bailer can be manufactured to any length required.

QRJ™ and Trinity™ connections available on request.

Additional sizes available on request.

Redress kits available on request

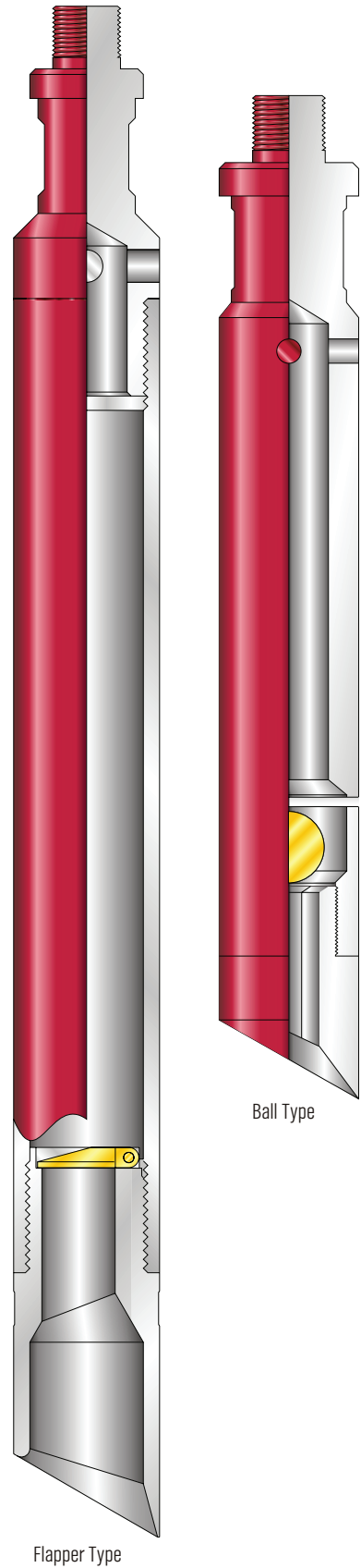




## Sample Bailer

### Tool Description

The Weatherford BDK Sample Bailer is used to retrieve well samples. This tool is generally run in conjunction with the Tubing End Locator. The ball sealing mechanism retains the sample in place as the tool is recovered from the wellbore.



Ball Type

Flapper Type



SPECIFICATIONS

Sample Bailer

OD		1.25 in.	1.50 in.	1.75 in.	1.87 in.	2.00 in.	2.00 in.
*Capacity per Foot		0.1 Litres	0.2 Litres	0.2 Litres	0.2 Litres	0.2 Litres	0.2 Litres
Approximate Chamber length		1 ft	1 ft	1 ft	1 ft	1 ft	2 ft
Make-up Length in.	Ball	16.47 in.	17.25 in.	17.25 in.	17.25 in.	17.75 in.	—
	Flapper	—	18.25 in.	18.25 in.	—	19.50 in.	36 in.
Weight		1.7 kg	—	3 kg	4 kg	5 kg	6.8 kg
Assembly Number	<b>Ball</b>	<b>12994-**</b>	<b>01057-30**</b>	<b>01057-00-**</b>	<b>01057-10-**</b>	<b>01057-20-**</b>	—
	<b>Flapper</b>	—	<b>01057-30-F-**</b>	<b>01057-00-F-**</b>	<b>01057-10-F-**</b>	<b>01057-20-F-**</b>	<b>13447-**</b>
Standard Service	SWL (lb)	40,320	50,170	62,020	62,020	62,020	62,020
	Yield (lb)	44,800	55,471	68,097	68,097	68,097	68,097
	UTS (lb)	57,000	70,599	86,669	86,669	86,669	86,669
H <sub>2</sub> S Service	SWL (lb)	29,320	36,310	44,573	44,573	44,573	44,573
	Yield (lb)	32,560	40,342	49,525	49,525	49,525	49,525
	UTS (lb)	40,720	50,428	61,906	61,906	61,906	61,906
OD		2.25 in.	2.50 in.	3.00 in.	3.50 in.	4.50 in.	
*Capacity per Foot		0.2 Litres	0.55 Litres	0.9 Litres	—	—	
Approximate chamber length		1 ft	1 ft	1 ft			
Make-up Length	Ball	17.25 in.	17.75 in.	18.25 in.	—	—	
	Flapper	—	19.50 in.	19.3 in.	—	—	
Weight		5.2 kg	6 kg	8 kg	—	—	
Assembly Number	<b>Ball</b>	<b>13003-**</b>	<b>01454-00-**</b>	<b>01454-10-**</b>	<b>8742-00-**</b>	<b>8742-10-**</b>	
	<b>Flapper</b>	—	<b>13354-**</b>	<b>12575-**</b>	<b>8742-00-F-**</b>	<b>8742-10-F-**</b>	
Standard Service	SWL (lb)	93,235	162,820	206,785	—	—	
	Yield (lb)	103,594	180,910	229,761	—	—	
	UTS (lb)	131,846	230,249	292,423	—	—	
H <sub>2</sub> S Service	SWL (lb)	67,807	118,414	150,390	—	—	
	Yield (lb)	75,341	131,571	167,100	—	—	
	UTS (lb)	94,176	164,464	208,874	—	—	

\* Standard chamber length: 1 ft  
 The Bailer can be manufactured to any length required  
 \*\* Connection required  
 Strengths stated excluding connection  
 Add suffix 'H' to assembly numbers for H<sub>2</sub>S service



## Sand Pump Bailer

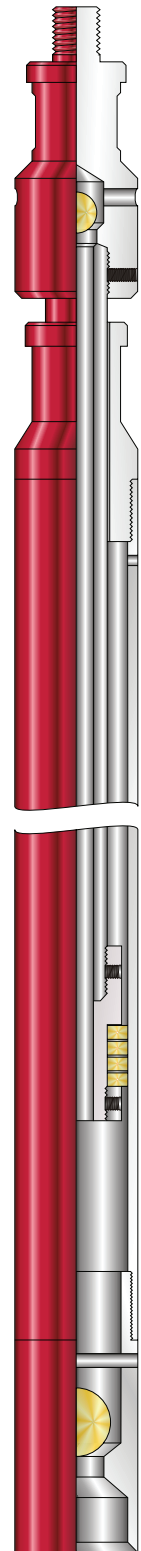
### Tool Description

The Weatherford BDK Sand Pump Bailer is used to remove sand and small pieces of debris from the wellbore.

The Sand Pump Bailer consists of a piston within a cylinder. Manipulating the piston by means of jarring up and down draws debris into the cylinder for retrieval to surface. A ball check valve then prevents the debris from being lost.

### Features and Benefits

- Debris retention via ball seal
- Field re-dressable
- Extension tubes available to increase capacities
- Recovery of in-fill samples from wellbore or sump
- Removal of compacted debris or sand from flow control devices





SPECIFICATIONS

Sand Pump Bailer

Part Number	Max OD	Fish Neck Size	Connection	Std Chamber Length*	Capacity Per Foot
01045-00-A2	1.250 in.	1.187 in. Fish Neck	15/16 in. Sucker Rod	5 ft	0.2 Litres
01045-00-Q2	1.250 in.	1.187 in. Fish Neck	1.250 in. QLS	5 ft	0.2 Litres
01046-00-A3	1.500 in.	1.375 in. Fish Neck	15/16 in. Sucker Rod	5 ft	0.2 Litres
01046-00-C3	1.500 in.	1.375 in. Fish Neck	1.500 in. HDQRJ	5 ft	0.2 Litres
01046-00-Q3	1.500 in.	1.375 in. Fish Neck	1.500 in. QLS	5 ft	0.2 Litres
01132-00-A3	1.750 in.	1.375 in. Fish Neck	15/16 in. Sucker Rod	5 ft	0.3 Litres
01132-00-C3	1.750 in.	1.375 in. Fish Neck	1.500 in. HDQRJ	5 ft	0.3 Litres
01132-00-Q3	1.750 in.	1.375 in. Fish Neck	1.500 in. QLS	5 ft	0.3 Litres
01131-00-A4	2.000 in.	1.375 in. Fish Neck	15/16 in. Sucker Rod	5 ft	0.4 Litres
01131-00-C4	2.000 in.	1.375 in. Fish Neck	1.500 in. HDQRJ	5 ft	0.4 Litres
01131-00-Q4	2.000 in.	1.375 in. Fish Neck	1.500 in. QLS	5 ft	0.4 Litres
01020-00-A4	2.250 in.	1.375 in. Fish Neck	15/16 in. Sucker Rod	5 ft	0.5 Litres
01020-00-C4	2.250 in.	1.375 in. Fish Neck	1.500 in. HDQRJ	5 ft	0.5 Litres
01020-00-Q4	2.250 in.	1.375 in. Fish Neck	1.500 in. QLS	5 ft	0.5 Litres
02123-00-A4	2.500 in.	1.375 in. Fish Neck	15/16 in. Sucker Rod	5 ft	0.6 Litres
02123-00-C4	2.500 in.	1.375 in. Fish Neck	1.500 in. HDQRJ	5 ft	0.6 Litres
02123-00-Q4	2.500 in.	1.375 in. Fish Neck	1.500 in. QLS	5 ft	0.6 Litres
02122-00-A4	2.625 in.	1.750 in. Fish Neck	1-1/16 in. Sucker Rod	5 ft	0.7 Litres
02122-00-C4	2.625 in.	1.750 in. Fish Neck	1.500 in. HDQRJ	5 ft	0.7 Litres
02122-00-Q4	2.625 in.	1.750 in. Fish Neck	1.500 in. QLS	5 ft	0.7 Litres
02120-00-A4	3.000 in.	1.750 in. Fish Neck	1-1/16 in. Sucker Rod	5 ft	0.9 Litres
02120-00-C4	3.000 in.	1.750 in. Fish Neck	1.500 in. HDQRJ	5 ft	0.9 Litres
02120-00-Q4	3.000 in.	1.750 in. Fish Neck	1.500 in. QLS	5 ft	0.9 Litres
02138-00-A5	3.500 in.	2.313 in. Fish Neck	1-1/16 in. Sucker Rod	5 ft	1.3 Litres
02138-00-C5	3.500 in.	2.313 in. Fish Neck	1.875 in. HDQRJ	5 ft	1.3 Litres
02138-00-Q5	3.500 in.	2.313 in. Fish Neck	1.875 in. QLS	5 ft	1.3 Litres
8715-00-A6	4.000 in.	2.313 in. Fish Neck	1-9/16 in. Sucker Rod	5 ft	1.5 Litres
8715-00-C6	4.000 in.	2.313 in. Fish Neck	2.500 in. HDQRJ	5 ft	1.5 Litres
8715-00-Q6	4.000 in.	2.313 in. Fish Neck	2.500 in. QLS	5 ft	1.5 Litres

\*The Bailer can be manufactured to any length required.

QRJ™ and Trinity™ connections available on request.

Additional sizes available on request.

Redress kits available on request.





## Universal Bell Guide

### Tool Description

the weatherford BDK Universal Bell Guide is designed as an alternative to the use of bell skirts. The guide eliminates the need to thread or weld to the pulling tool or overshot body. The universal bell guide offers the flexibility to interchange the size of centralizing bell guide efficiently. The base assembly consists of the top sub, cylinder and protection sleeve, an extensive range of bell guides complements the base assembly.

### Applications

- All slickline and braided-line operations

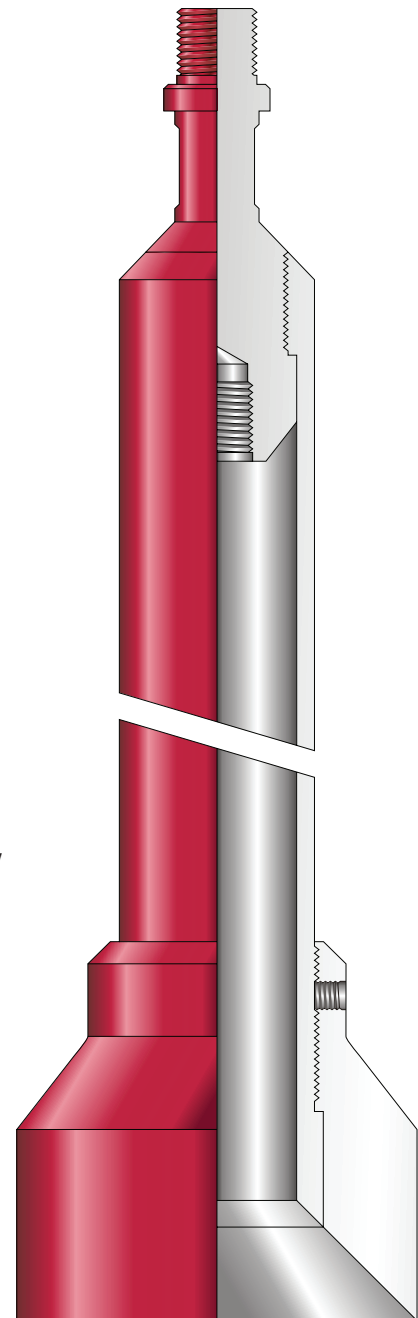
### Features and Benefits

- Available to suit all industry standard pulling tools
- A range of bell guides to suit each nominal base assembly
- Available with a variety of threaded and quick-lock connections
- Provides improved tensile ratings compared to threaded or welded skirts
- Reduce inventory cost
- Reduces risk of failure from threaded or welded skirts on standard pulling tools

### Ordering Information

The Universal Bell Guide should be ordered as two separate components:

1. The base assembly as required by size and connection type
2. The required bell guide(s) by OD size and to suit the relevant base assembly
3. See table detail for information on size availability
4. Alternative sizes and connections available on requested
5. It is recommended that the type of pulling tool to be utilised in conjunction with the universal bell guide is referenced on the order to ensure compatibility with the Universal Bell Guide.





SPECIFICATIONS

Universal Bell Guide

**Sucker Rod Connection**

Part Number	Nominal Size	Fish Neck Size	Connection	To Suit Pulling Tool Size / Type
<b>Base Assembly</b>				
13182-A3	1.500 in.	1.375 in.	15/16 in.-10	1-1/2 in. R and S
10135-A3	1.500 in.	1.375 in.	15/16 in.-10	1-1/2 in. BDK Heavy Duty and BDK Standard
7949-A3	2.000 in.	1.375 in.	15/16 in.-10	2 in. R and S
10139-A3	2.000 in.	1.375 in.	15/16 in.-10	2 in. BDK Heavy Duty
7950-A3	2.500 in.	1.375 in.	15/16 in.-10	2-1/2 in. R and S
10143-A3	2.500 in.	1.375 in.	15/16 in.-10	2-1/2 in. BDK Heavy Duty
7951-A5	3.000 in.	2.312 in.	1-1/16 in.-10	3 in. R and S
10143-A5	3.000 in.	2.312 in.	1-1/16 in.-10	3 in. BDK Heavy Duty
7951-A5	4.000 in.	2.312 in.	1-1/16 in.-10	4 in. R and S
10143-A5	4.000 in.	2.312 in.	1-1/16 in.-10	4 in. BDK Heavy Duty

**HDQRJ Connection**

Part Number	Nominal Size	Fish Neck Size	Connection	To Suit Pulling Tool Size / Type
<b>Base Assembly</b>				
13182-C3	1.500 in.	1.375 in.	1-1/2 in. HDQRJ	1-1/2 in. R and S
10135-C3	1.500 in.	1.375 in.	1-1/2 in. HDQRJ	1-1/2 in. BDK Heavy Duty and BDK Standard
7949-C3	2.000 in.	1.375 in.	1-1/2 in. HDQRJ	2 in. R and S
10139-C3	2.000 in.	1.375 in.	1-1/2 in. HDQRJ	2 in. BDK Heavy Duty
7950-C3	2.500 in.	1.375 in.	1-1/2 in. HDQRJ	2-1/2 in. R and S
10143-C3	2.500 in.	1.375 in.	1-1/2 in. HDQRJ	2-1/2 in. BDK Heavy Duty
7951-C5	3.000 in.	2.312 in.	1-7/8 in. HDQRJ	3 in. R and S
10143-C5	3.000 in.	2.312 in.	1-7/8 in. HDQRJ	3 in. BDK Heavy Duty
7951-C5	4.000 in.	2.312 in.	1-7/8 in. HDQRJ	4 in. R and S
10143-C5	4.000 in.	2.312 in.	1-7/8 in. HDQRJ	4 in. BDK Heavy Duty

**QLS Connection**

Part Number	Nominal Size	Fish Neck Size	Connection	To Suit Pulling Tool Size / Type
<b>Base Assembly</b>				
13182-Q3*	1.500 in.	1.375 in.	1-1/2 in. QLS	1-1/2 in. R and S
10135-Q3*	1.500 in.	1.375 in.	1-1/2 in. QLS	1-1/2 in. BDK Heavy Duty and BDK Standard
7949-Q3*	2.000 in.	1.375 in.	1-1/2 in. QLS	2 in. R and S
10139-Q3*	2.000 in.	1.375 in.	1-1/2 in. QLS	2 in. BDK Heavy Duty
7950-Q3*	2.500 in.	1.375 in.	1-1/2 in. QLS	2-1/2 in. R and S
10143-Q3*	2.500 in.	1.375 in.	1-1/2 in. QLS	2-1/2 in. BDK Heavy Duty
7951-Q5*	3.000 in.	2.312 in.	1-7/8 in. QLS	3 in. R and S
10143-Q5*	3.000 in.	2.312 in.	1-7/8 in. QLS	3 in. BDK Heavy Duty
7951-Q5*	4.000 in.	2.312 in.	1-7/8 in. QLS	4 in. R and S
10143-Q5*	4.000 in.	2.312 in.	1-7/8 in. QLS	4 in. BDK Heavy Duty



SPECIFICATIONS

Universal Bell Guide

**Bell Guide to Suit Base Assembly 13182**

Base Assembly Nominal Size	Bell Skirt OD	Part Number
1.500 in.	2.12 in.	13182-03-2120
1.500 in.	2.25 in.	13182-03-2250
1.500 in.	2.37 in.	13182-03-2370
1.500 in.	2.50 in.	13182-03-2500
1.500 in.	2.62 in.	13182-03-2620
1.500 in.	2.75 in.	13182-03-2750
1.500 in.	2.87 in.	13182-03-2870
1.500 in.	3.00 in.	13182-03-3000
1.500 in.	3.12 in.	13182-03-3120
1.500 in.	3.25 in.	13182-03-3250
1.500 in.	3.37 in.	13182-03-3370
1.500 in.	3.50 in.	13182-03-3500
1.500 in.	3.62 in.	13182-03-3620

**Bell Guide to Suit Base Assembly 10135**

Base Assembly Nominal Size	Bell Skirt OD	Part Number
1.500 in.	2.50 in.	10138-2500
1.500 in.	2.75 in.	10138-2750
1.500 in.	3.00 in.	10138-3000
1.500 in.	3.25 in.	10138-3250
1.500 in.	3.50 in.	10138-3500
1.500 in.	3.75 in.	10138-3750
1.500 in.	4.00 in.	10138-4000
1.500 in.	4.25 in.	10138-4250
1.500 in.	4.50 in.	10138-4500
1.500 in.	4.75 in.	10138-4750
1.500 in.	5.00 in.	10138-5000
1.500 in.	5.25 in.	10138-5250
1.500 in.	5.50 in.	10138-5500

**Bell Guide to Suit Base Assembly 7949**

Base Assembly Nominal Size	Bell Skirt OD	Part Number
2.000 in.	2.87 in.	8590-2870
2.000 in.	3.00 in.	8590-3000
2.000 in.	3.25 in.	8590-3250
2.000 in.	3.50 in.	8590-3500
2.000 in.	3.75 in.	8590-3750
2.000 in.	4.00 in.	8590-4000
2.000 in.	4.25 in.	8590-4250
2.000 in.	4.50 in.	8590-4500
2.000 in.	4.75 in.	8590-4750
2.000 in.	5.00 in.	8590-5000
2.000 in.	5.25 in.	8590-5250
2.000 in.	5.50 in.	8590-5500
2.000 in.	5.50 in.	8590-5500

**Bell Guide to Suit Base Assembly 10139**

Base Assembly Nominal Size	Bell Skirt OD	Part Number
2.000 in.	2.75 in.	10142-2750
2.000 in.	3.00 in.	10142-3000
2.000 in.	3.25 in.	10142-3250
2.000 in.	3.50 in.	10142-3500
2.000 in.	3.75 in.	10142-3750
2.000 in.	4.00 in.	10142-4000
2.000 in.	4.25 in.	10142-4250
2.000 in.	4.50 in.	10142-4500
2.000 in.	4.75 in.	10142-4750
2.000 in.	5.00 in.	10142-5000
2.000 in.	5.25 in.	10142-5250
2.000 in.	5.50 in.	10142-5500
2.000 in.	5.50 in.	10142-5500

**Bell Guide to Suit Base Assembly 7950**

Base Assembly Nominal Size	Bell Skirt OD	Part Number
2.500 in.	3.25 in.	8582-3250
2.500 in.	3.50 in.	8582-3500
2.500 in.	3.75 in.	8582-3750
2.500 in.	4.00 in.	8582-4000
2.500 in.	4.25 in.	8582-4250
2.500 in.	4.50 in.	8582-4500
2.500 in.	4.75 in.	8582-4750
2.500 in.	5.00 in.	8582-5000
2.500 in.	5.25 in.	8582-5250
2.500 in.	5.50 in.	8582-5500
2.500 in.	5.75 in.	8582-5250
2.500 in.	6.00 in.	8582-5500

**Bell Guide to Suit Base Assembly 10143**

Base Assembly Nominal Size	Bell Skirt OD	Part Number
2.500 in.	3.12 in.	10145-3120
2.500 in.	3.37 in.	10145-3370
2.500 in.	3.62 in.	10145-32620
2.500 in.	3.87 in.	10145-3870
2.500 in.	4.12 in.	10145-4120
2.500 in.	4.37 in.	10145-4370
2.500 in.	4.62 in.	10145-4620
2.500 in.	4.87 in.	10145-4870
2.500 in.	5.12 in.	10145-5120
2.500 in.	5.37 in.	10145-5370
2.500 in.	5.62 in.	10145-5620
2.500 in.	5.87 in.	10145-5870



SPECIFICATIONS

Universal Bell Guide

**Bell Guide to Suit Base Assembly 7951**

Base Assembly Nominal Size	Bell Skirt OD	Part Number
3.000 in.	4.00 in.	8586-4000
3.000 in.	4.25 in.	8586-4250
3.000 in.	4.50 in.	8586-4500
3.000 in.	4.75 in.	8586-4750
3.000 in.	5.00 in.	8586-5000
3.000 in.	5.25 in.	8586-5250
3.000 in.	5.50 in.	8586-5550
3.000 in.	5.75 in.	8586-5750
3.000 in.	6.00 in.	8586-6000

**Bell Guide to Suit Base Assembly 10146**

Base Assembly Nominal Size	Bell Skirt OD	Part Number
3.000 in.	3.75 in.	10149-3750
3.000 in.	4.00 in.	10149-4000
3.000 in.	4.25 in.	10149-4250
3.000 in.	4.50 in.	10149-4500
3.000 in.	4.75 in.	10149-4750
3.000 in.	5.00 in.	10149-5000
3.000 in.	5.25 in.	10149-5250
3.000 in.	5.50 in.	10149-5500
3.000 in.	5.75 in.	10149-5750

**Bell Guide to Suit Base Assembly 12798**

Base Assembly Nominal Size	Bell Skirt OD	Part Number
4.000 in.	4.38 in.	12798-04-4380
4.000 in.	4.63 in.	12798-04-4630
4.000 in.	4.88 in.	12798-04-4880
4.000 in.	5.13 in.	12798-04-5130
4.000 in.	5.38 in.	12798-04-5380
4.000 in.	5.63 in.	12798-04-5630
4.000 in.	5.88 in.	12798-04-5880
4.000 in.	6.13 in.	12798-04-6130
4.000 in.	6.38 in.	12798-04-6380
4.000 in.	6.63 in.	12798-04-6630
4.000 in.	6.88 in.	12798-04-6880

**Bell Guide to Suit Base Assembly 10150**

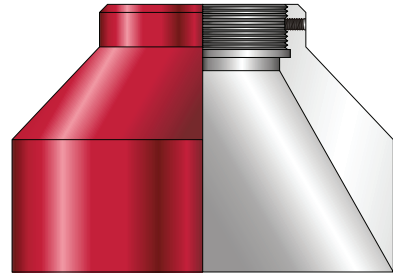
Base Assembly Nominal Size	Bell Skirt OD	Part Number
4.000 in.	4.50 in.	10152-4500
4.000 in.	4.75 in.	10152-4750
4.000 in.	5.00 in.	10152-5000
4.000 in.	5.25 in.	10152-5250
4.000 in.	5.50 in.	10152-5500
4.000 in.	5.75 in.	10152-5750
4.000 in.	6.00 in.	10152-6000
4.000 in.	6.250 in.	10152-6250
4.000 in.	6.500 in.	10152-6500
4.000 in.	6.750 in.	10152-6750
4.000 in.	7.000 in.	10152-7000



## Bell Skirt

### Tool Description

The Weatherford BDK Bell Skirt acts as a centralizer to guide the pulling tool or overshot, over the fish neck when the tubing/casing id greatly exceeds that of the pulling tool or overshot and, is particularly useful in deviated wells. the pulling tool/overshot is machined with a compatible thread to that of the bell skirt. bell skirts can be manufactured to any size required.





## Blind Box

### Tool Description

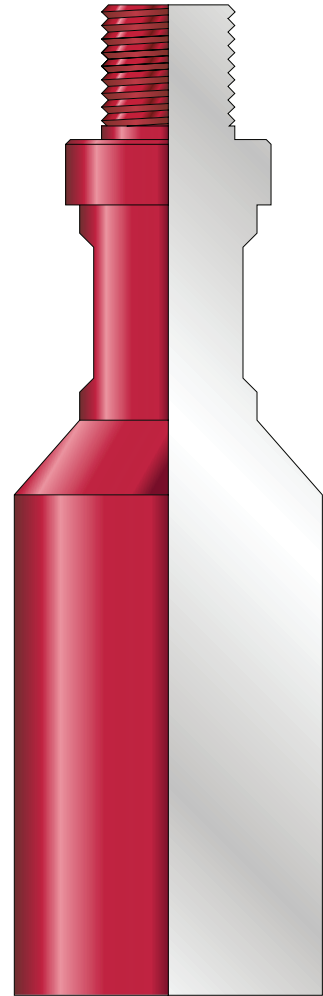
The Weatherford BDK Blind Box is a solid metal tool used when heavy downward jarring is required. The tool is flat on the bottom and is used when boxing off wire at the rope socket during fishing operations.

### SPECIFICATIONS

#### Blind Box

Part Number	Max OD	Fish Neck Size
00039-1500-**	1.500 in.	1.187 in. Fish Neck
00039-1750-**	1.750 in.	1.375 in. Fish Neck
00039-2000-**	2.000 in.	1.375 in. Fish Neck
00039-2250-**	2.250 in.	1.375 in. Fish Neck
00039-2500-**	2.500 in.	1.750 in. Fish Neck
00039-2750-**	2.750 in.	1.750 in. Fish Neck
00039-3000-**	3.000 in.	1.750 in. Fish Neck
00039-3250-**	3.250 in.	2.312 in. Fish Neck
00039-3500-**	3.500 in.	2.312 in. Fish Neck
00039-3750-**	3.750 in.	2.312 in. Fish Neck
00039-4000-**	4.000 in.	2.312 in. Fish Neck
00039-4250-**	4.250 in.	2.312 in. Fish Neck
00039-4500-**	4.500 in.	2.312 in. Fish Neck
00039-4750-**	4.750 in.	2.312 in. Fish Neck
00039-5000-**	5.000 in.	2.312 in. Fish Neck
00039-5250-**	5.250 in.	2.312 in. Fish Neck
00039-5500-**	5.500 in.	2.312 in. Fish Neck
00039-5750-**	5.750 in.	2.312 in. Fish Neck
00039-6000-**	6.000 in.	2.312 in. Fish Neck

\*\*Connection code required, please refer to part number guide.  
QRJ™ and Trinity™ connections available on request.  
Additional sizes available on request.





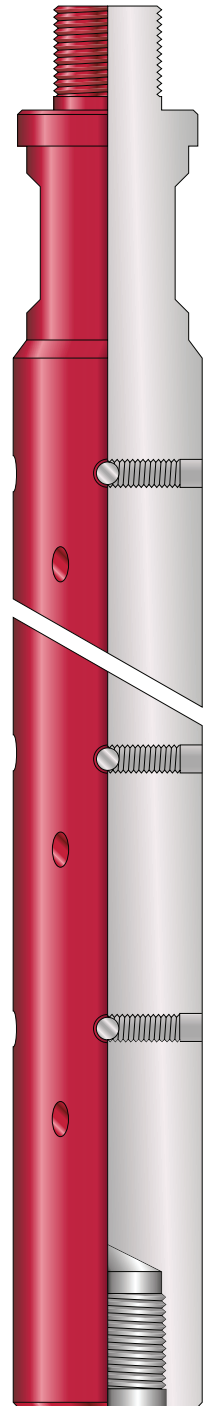
## Wireline Brush

### Tool Description

The Weatherford BDK Wireline Brush is used to brush out waxes, scale and other debris from the tubing string or landing nipples before running downhole flow-control devices.

A wire size up to 7/32 in. is looped (or cut to suitable lengths) and inserted in holes and retained with locking screws. (Wire not supplied).

The Wireline Brush is 3 ft long and can be assembled in the toolstring as a substitute for a 3 ft piece of stem.



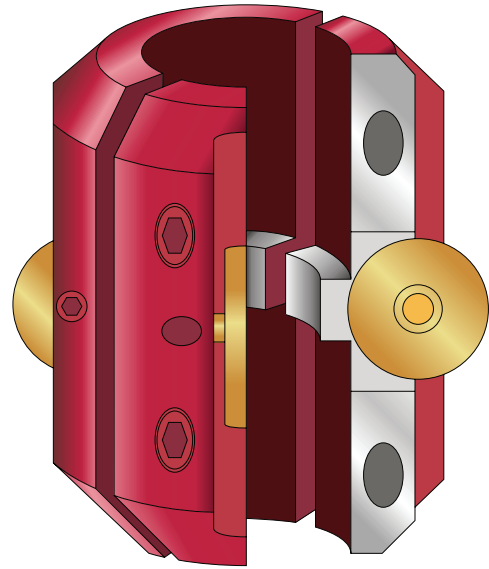


## Multi-Roller Wheel Stepped Slipover Centralizer

### Tool Description

The Weatherford BDK Multi-Roller Wheel Stepped Slipover Centralizer is recommended for use in highly deviated wells. The wheels are designed to overcome friction caused by the toolstring scraping against the tubing wall.

The centralizer is available to fit Stems, Wireline Cutters and Go-Devils. Tools are manufactured to any size required. Part numbers available on request.







# Adjustable Spring Roller Centralizer

## Tool Description

The Weatherford BDK Adjustable Spring Roller Centralizer is capable of providing high centralizing loads. This centralizer contains two spring stacks, which are adjustable independently from each other. A swivel unit is incorporated into the top sub to prevent any torsional force from being transmitted into the wire.

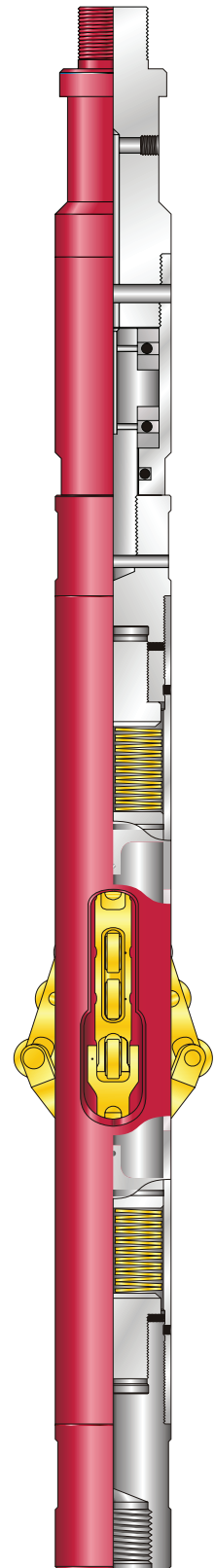
## Features and Benefits

- Robust and durable construction
- Adjustable spring tension
- Available for heavy duty and standard operations
- Can assist depth correlation by locating predetermined recesses within the completion

## SPECIFICATIONS

### Adjustable Spring Roller Centralizer

Arm Range Size (OD)		2.00 in. to 4.00 in.	2.56 in. to 4.25 in.	3.30 in. to 5.50 in.	5.00 in. to 8.00 in.
Tool OD		1.94 in.	2.50 in.	3.25 in.	4.94 in.
Make-up Length	Thread	32.73 in.	38.60 in.	48.90 in.	55.50 in.
	QRJ's	35.29 in.	43.24 in.	58.30 in.	64.80 in.
Weight		9.7 kg	19 kg	33 kg	64 kg
Over-pull through 45° Restriction Max OD to Min OD in.	Single Stack	61.7 - 66.2 lb	150 - 242 lb	119 - 242 lb	124 - 170 lb
	Double Stack	286.7 - 300 lb	—	—	244 - 436 lb
Lift Load Supported by one set of arms @ Max. OD	Single Stack	68.4 - 158.8 lb	140 - 210 lb	198 - 291 lb	74 - 114 lb
	Double Stack	308.7 - 493.9 lb	—	—	218 - 318 lb
Over-pull Through Max OD Bore	Single Stack	8 - 10 lb	18 - 40 lb	18 - 19 lb	20 - 42 lb
	Double Stack	8 - 10 lb	—	—	20 - 42 lb
Assembly Number (Single Stack)		<b>11842-**</b>	<b>7984-**</b>	<b>10959-**</b>	<b>10960-**</b>
Assembly Number (Double Stack)		<b>11842-DS-**</b>	—	—	<b>10960-DS-**</b>
Standard Service	SWL	32,390 lb	71,340 lb	125,500 lb	125,500 lb
	Yield	35,982 lb	79,266 lb	139,424 lb	139,424 lb
	UTS	45,796 lb	100,884 lb	177,450 lb	177,450 lb
H <sub>2</sub> S Service	SWL	30,912 lb	54,660 lb	91,260 lb	91,260 lb
	Yield	34,347 lb	60,728 lb	101,400 lb	101,400 lb
	UTS	44,160 lb	75,910 lb	126,750 lb	126,750 lb





## Inline Spring Roller Centralizer

### Tool Description

The Weatherford Petroline In-Line Spring Roller Centralizer (ILSRC) was developed for electric-line and coiled-tubing operations, which could not be performed using the Slipover Roller Centralizer (SORC). Specifically, the expansion ratio of the SORC is limited by the fact that it is clamped to the outside of the BHA. This means that, in some cases, the SORC cannot collapse sufficiently to pass through small restrictions.

The ILSRC is incorporated directly within the BHA. This means that it offers all of the operational benefits associated with conventional Spring Roller Centralizers.

Two generic types of Inline Spring Roller Centralizer are available:

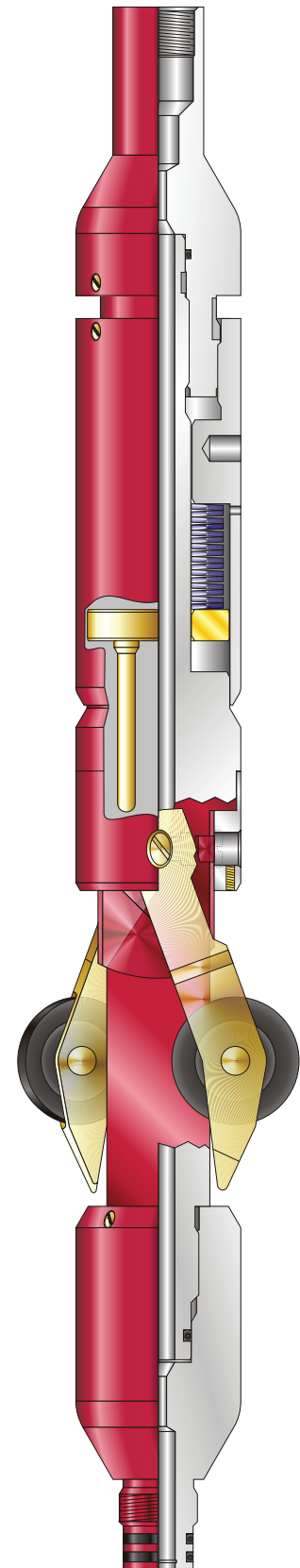
- Suitable for electric line connectors and penetrators
- Suitable for pressure containing coiled tubing threads

The minimum diameter for an In-line Spring Roller Centralizer is 2.500 in. In general, the working ranges for these devices are similar to those of the conventional Spring Roller Centralizer. The table below lists other special sizes of In-line Spring Roller Centralizers, which have been developed for specific applications.

### SPECIFICATIONS

#### Inline Spring Roller Centralizer

ILSRC Nom Ø	Working Range Ø	Connections Box x Pin	Assembly Number
2.500 in.	2.50 in. to 4.25 in.	1-11/16 in. Schlumberger	489-2500-00-01
		1-3/8 in. Go Box x Pin	489-2500-00-02
3.000 in.	3.00 in. to 5.00 in.	1-5/8 in. 6TPI Regular	489-3000-00-02
3.375 in.	3.0 in. to 5.0 in.	2-13/16 in. 6TPI Acme Pin x Pin	489-3375-00-01
3.820 in.	3.822 to 6.40 in.	1.625 in. 6TPI Reg Acme	489-3820-00-01
4.500 in.	4.50 in. to 6.40 in.	3-15/16 in. 6 Reg Acme Pin x Box	489-4500-00-01
5.750 in.	5.72 in. to 8.60 in.	3-1/8 in. SIE Pin x Box	489-5750-00-01
		1.700 in. CT NowSCO Box x Schlumberger Pin	489-5750-00-02





## Multi-Roller Wheel Fluted Centralizer

### Tool Description

The Weatherford BDK Multi-Roller Wheel Fluted Centralizer is designed for use in highly deviated wells. The wheels incorporated in the design overcome friction which can be caused by the toolstring scraping against the tubing wall.

### SPECIFICATIONS

#### Multi-Roller Wheel Fluted Centralizer

Tool OD	Assembly Number
3.250 in.	5311-****-A*
3.500 in.	5312-****-A*
3.750 in.	5313-****-A*
4.000 in.	5306-****-A*
4.250 in.	10794-****-A*
4.500 in.	10795-****-A*
4.750 in.	10796-****-A*
5.000 in.	10797-****-A*
5.250 in.	10798-****-A*
5.500 in.	10799-****-A*
5.750 in.	10800-****-A*
6.000 in.	10801-****-A*

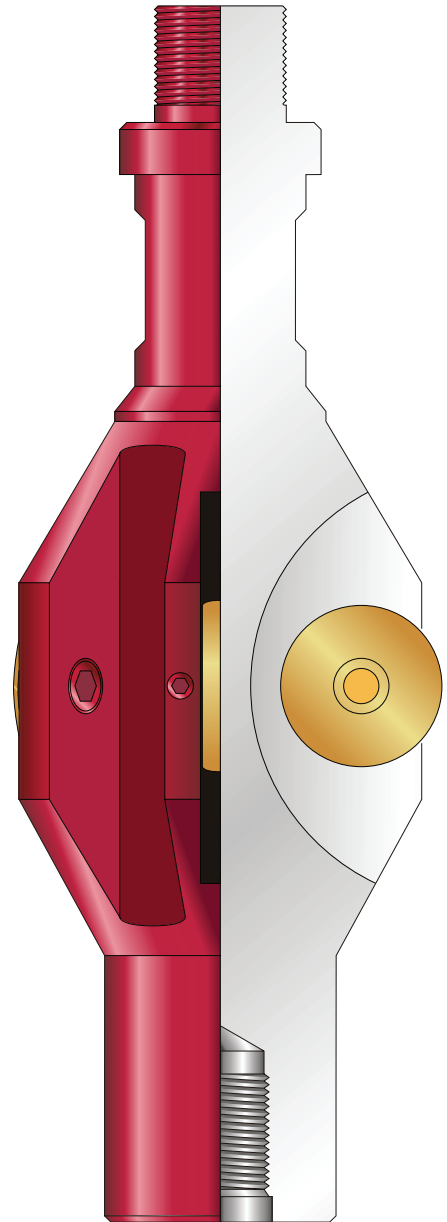
\*\*\*\* - OD across Wheels

\*\*Connection code required, please refer to part number guide.

QRJ™ and Trinity™ connections available on request.

Additional sizes available on request.

Redress kits available on request.

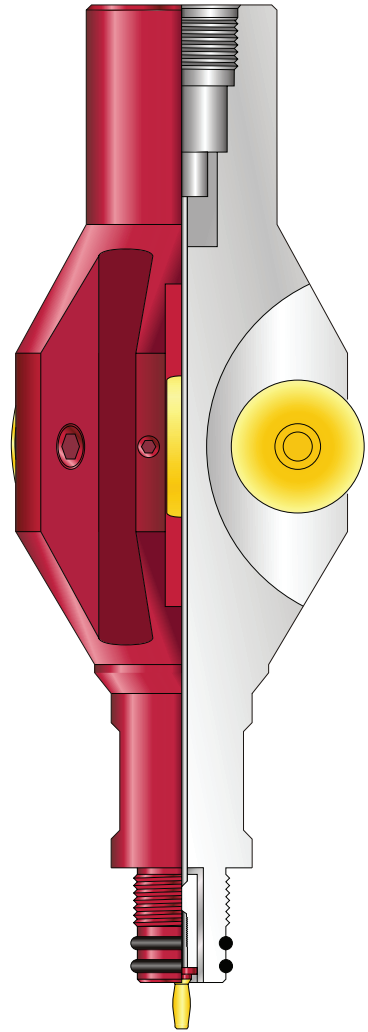




## Mono-Conductor Multi-Roller Wheel Fluted Centralizer

### Tool Description

The Weatherford BDK Mono-Conductor Multi-Roller Wheel Fluted Centralizer is designed for use in highly deviated wells. The wheels incorporated in the design overcome friction, which can be caused by the toolstring scraping against the tubing wall.





SPECIFICATIONS

Mono-Conductor Multi-Roller Wheel Fluted Centralizer

Tool OD	Effective OD	Make-up Length	Weight	Assembly Number
2.500 in.	2.710 in.	8.00 in.	3.9 kg	13248-2710
	2.900 in.			13248-2900
	3.000 in.			13248-3000
	3.250 in.			13248-3250
2.750 in.	3.000 in.	8.50 in.	6.2 kg	13249-3000
	3.150 in.			13249-3150
	3.250 in.			13249-3250
	3.500 in.			13249-3500
3.000 in.	3.210 in.	9.25 in.	6.6 kg	13250-3210
	3.400 in.			13250-3400
	3.500 in.			13250-3500
	3.750 in.			13250-3750
3.250 in.	3.460 in.	9.25 in.	7.2 kg	13251-3460
	3.650 in.			13251-3650
	3.750 in.			13251-3750
	4.000 in.			13251-4000
3.500 in.	3.710 in.	9.75 in.	7.5 kg	13252-3710
	3.750 in.			13252-3750
	3.900 in.			13252-3900
	4.000 in.			13252-4000
	4.250 in.			13252-4250
3.750 in.	4.000 in.	10.25 in.	8.5 kg	13253-4000
	4.150 in.			13253-4150
	4.250 in.			13253-4250
	4.500 in.			13253-4500
4.000 in.	4.250 in.	10.25 in.	17 kg	13254-4250
	4.400 in.			13254-4400
	4.500 in.			13254-4500
	4.750 in.			13254-4750
4.250 in.	4.460 in.	10.75 in.	17.2 kg	13255-4460
	4.650 in.			13255-4650
	4.750 in.			13255-4750
	5.000 in.			13255-5000

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

NOTE : Weights stated are approximate.



### SPECIFICATIONS

#### Mono-Conductor Multi-Roller Wheel Fluted Centralizer

Tool OD	Effective OD	Make-up Length	Weight	Assembly Number
4.500 in.	4.710 in.	10.75 in.	19.3 kg	13256-4710
	4.900 in.			13256-4900
	5.000 in.			13256-5000
	5.250 in.			13256-5250
4.750 in.	4.960 in.	11.25 in.	22.1 kg	13257-4960
	5.150 in.			13257-5150
	5.250 in.			13257-5250
	5.500 in.			13257-5500
5.000 in.	5.210 in.	11.75 in.	25.3 kg	13258-5210
	5.400 in.			13258-5400
	5.500 in.			13258-5500
	5.750 in.			13258-5750
5.250 in.	5.460 in.	11.75 in.	25.7 kg	13259-5460
	5.650 in.			13259-5650
	5.750 in.			13259-5750
	6.000 in.			13259-6000
5.500 in.	5.710 in.	11.75 in.	30 kg	13260-5710
	5.900 in.			13260-5900
	6.000 in.			13260-6000
	6.250 in.			13260-6250
5.750 in.	5.960 in.	12.18 in.	32 kg	13261-5960
	6.150 in.			13261-6150
	6.250 in.			13261-6250
	6.500 in.			13261-6500
6.000 in.	6.210 in.	12.43 in.	33 kg	13262-6210
	6.400 in.			13262-6400
	6.500 in.			13262-6500
	6.750 in.			13262-6750

Add suffix 'H' to assembly number for H<sub>2</sub>S service.  
NOTE : Weights stated are approximate.



# Slipover Roller Centralizer

## Tool Description

The Weatherford's Petroline Slipover Roller Centralizer (SORC) was developed in direct response to problems with logging in highly deviated cased wells. The SORC has applications for both electric line and coiled tubing work, and the same tool can be used interchangeably with these two deployment systems.

## Electric Line

For electric line operations, the objective is to minimize sliding friction forces and allow surveys to be performed at very high deviations. The SORC is clamped over the sinker bar in the logging bottomhole assembly (BHA). Wells that were previously impossible to log on wire have been surveyed, with operations at deviations in excess of 80° being performed.

## Coiled Tubing

For coiled-tubing operations, the objective is reduce friction at the BHA, and then increase the length of horizontal section, that can be reached before the coil locks up. The SORC is clamped over a straight tube incorporated in the BHA.

## Features and Benefits

- Full rolling contact at all times
- High lift capability to centralize the BHA
- Ability to collapse and pass through restrictions
- Positively clamped to the tool string
- No rotation imparted to the BHA

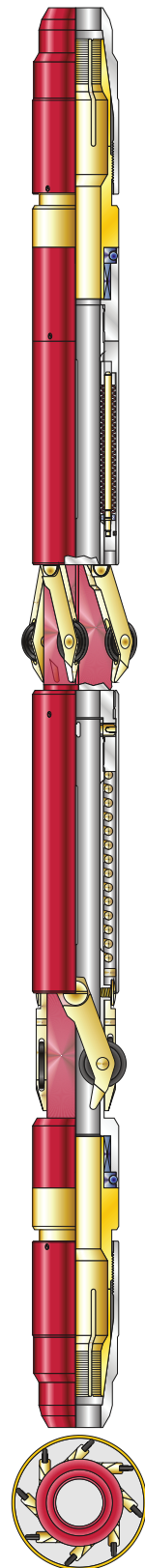
Generally the BHA is arranged with one SORC clamped at the top and one at the bottom. The clamping device employs a slip mechanism with an outer cone, which is precisely torqued onto the BHA. The SORC also incorporates bearings, which allow the centralizer to rotate freely around the BHA without imparting any torque into the toolstring.

The roller arms are connected to individual spring stacks. When a restriction in the wellbore is encountered, the arms move inward against the spring stack and the tool rolls through the restriction. The spring stacks are adjustable according to the tool string weight.

## SPECIFICATIONS

### Slipover Roller Centralizer

Standard SORC Sizes	Assembly Number	Working ID Range
3.000 in.	487-3000-00-02	3.00 in.-5.00 in.
3.600 in.	487-3600-00-01	3.60 in.-6.20 in.
5.720 in.	487-5720-00-01	5.72 in.-8.60 in.





## Short Slipover Roller Centralizer

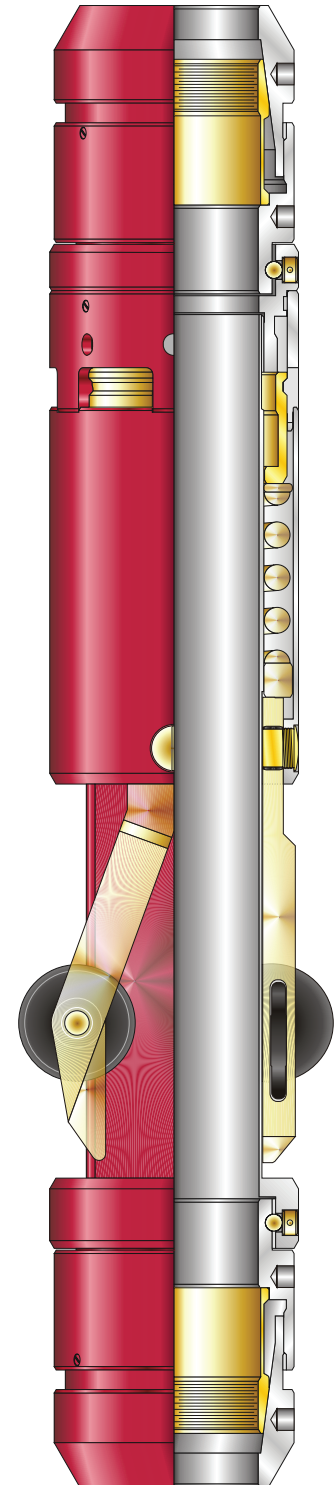
### Tool Description

The Weatherford Petroline Short Slipover Roller Centralizer was specifically developed for logging strings whose performance would have been affected by the length of the standard tool.

The standard design was amended to allow the lengths to be spaced out over the complete string ensuring that none of the actual logging tools are shrouded. The short SORC has also been used to centralize strings featuring multiple gauge carriers.

The very short length of this SORC causes a slight reduction in performance when compared to the standard version. Nevertheless, its capabilities are still far superior to conventional logging centralizers.

The working ranges are identical to those of the standard slipover roller centralizer.







# Spring Centralizer

## Tool Description

The Weatherford BDK Spring Centralizer is designed to assist in centralizing the toolstring inside large-bore tubing. Normally used in the toolstring when running pressure and temperature gauges, it helps centralize and reduce shock being transmitted to the gauges. The design of this centralizer enables one tool to centralize a large range of tubing IDs.

Spring Centralizers for use in larger size tubing or casing are available on request.

## SPECIFICATIONS

### Spring Centralizer

#### Sucker Rod Connection

Max OD	Min OD	Shoulder Length	Number of Springs	Part Number
4.000 in.	2.000 in.	24 in.	4	02092-10-A 4
9.000 in.	2.000 in.	43 in.	6	6245-A4

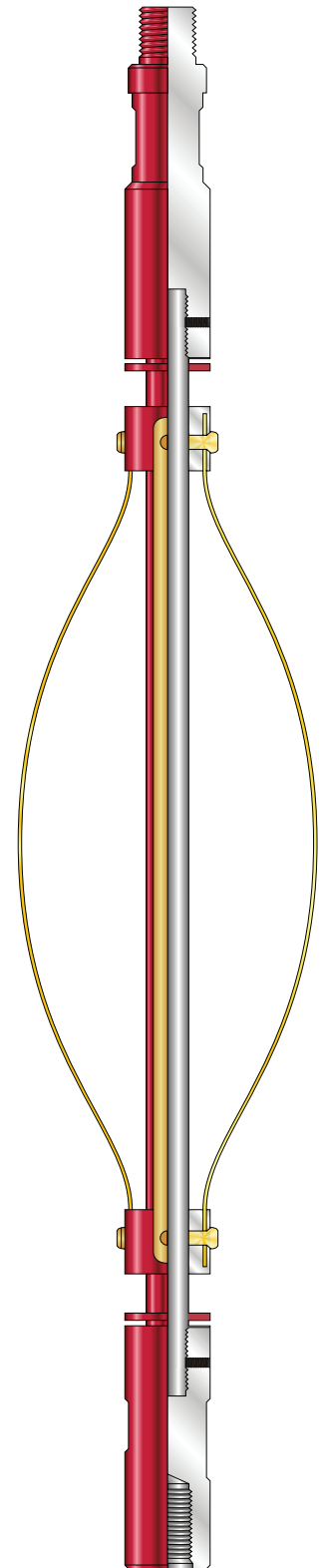
#### Heavy Duty QRJ Connection

Max OD	Min OD	Shoulder Length	Number of Springs	Part Number
4.000 in.	2.000 in.	24 in.	4	02092-10-C4
9.000 in.	2.000 in.	43 in.	6	6245-C4

#### QLS Connection

Max OD	Min OD	Shoulder Length	Number of Springs	Part Number
4.000 in.	2.000 in.	24 in.	4	02092-10-Q4
9.000 in.	2.000 in.	43 in.	6	6245-Q4

QRJ™ and Trinity™ connections available on request.  
 Additional sizes available on request.  
 Redress kits available on request.





# Mono-Conductor Spring Centralizer

## Tool Description

The Weatherford BDK Mono-Conductor Spring Centralizer is designed to assist in centralizing the toolstring inside large-bore tubing. They are normally used in the toolstring when running pressure and temperature gauges. It helps centralize and reduces shocks transmitted to the gauges during the running operation.

The design of this centralizer enables one tool to centralize a large range of tubing IDs. Spring centralizers for use in larger size tubing or casing are available on request.

## SPECIFICATIONS

### Mono-Conductor Spring Centralizer

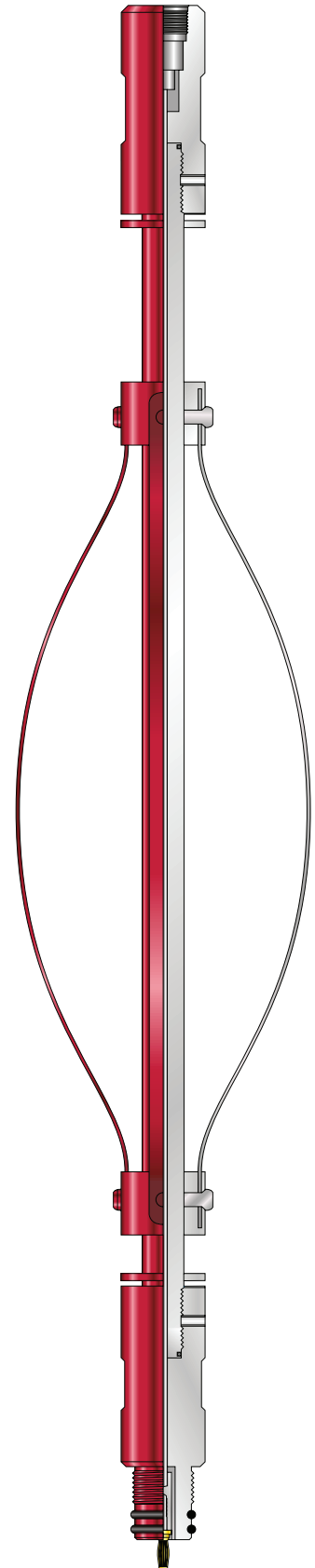
<b>Body OD</b>	<b>1.687 in.</b>	
Maximum OD	9.000 in.	
Make-up Length	42.29 in.	
Number of Springs	6	
Weight	8 kg	
Strength - Standard Service	SWL	52,570 lb
	Yield	58,410 lb
	UTS	74,340 lb
Strength - H <sub>2</sub> S Service	SWL	38,570 lb
	Yield	42,480 lb
	UTS	53,100 lb
Assembly Number	6328	

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

NOTE:

Strengths stated excluding connection.

Weights stated are approximate.





## Spring Roller Centralizer

### Tool Description

The Weatherford's Petroline Spring Roller Centralizer (SRC) is designed to improve wireline operations in high deviation wells. The SRC has already been widely used in wells of more than 80° deviation.

SRCs are positioned strategically in the wireline toolstring to provide complete rolling contact with the tubing wall. This removes all frictional sliding forces.

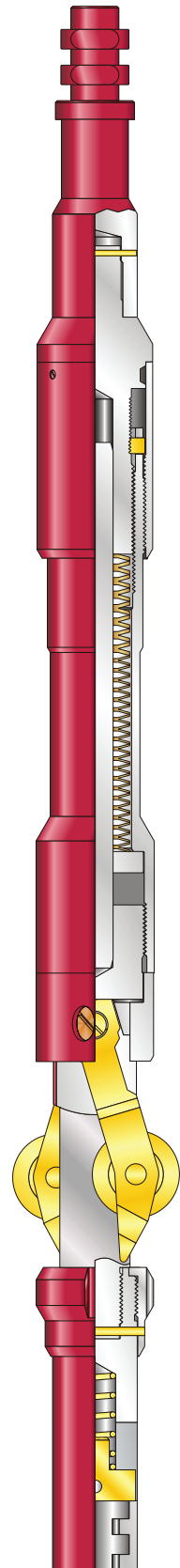
The high-energy spring stack also gives a weight indication at surface when the SRC passes through a profile or restriction. This makes the tool a valuable aid in achieving slickline and braided-line depth control without the need for electric line. The SRC can be used to locate Petroline Depth Correlation Subs when performing slick- or braided-line operations in the liner or completion wellbore.

### Applications

- High angle wireline operations

### Features and Benefits

- Triple roller arm expanders
- Roller arms reduce frictional resistance
- High-energy spring stack gives high lift capability
- Centralizer arm requires minimal force for collapse through restrictions
- High integrity design is suitable for jarring operations
- Maximum circumferential coverage gained for minimal strength loss
- Vastly improved high angle well servicing
- Increased jarring capability
- Reduced damage to plastic coated tubulars





SPECIFICATIONS

Spring Roller Centralizer

Part Number	Range	Top Connection	Bottom Connection	Material	Comments
486-1800-000-001	1.800 in.- 2.700 in.	15/16 in. Sucker Rod Pin	15/16 in. Sucker Rod Box	4140 30-36	
486-1800-000-004	1.800 in.- 2.700 in.	1-1/2 in. QLS Male	1-1/2 in. QLS Female	4140 30-36	
486-2125-00-16	2.125 in.- 3.500 in.	1-1/16 in. Sucker Rod Pin	1-1/16 in. Sucker Rod Box	4140 30-36	with Swivel
486-2125-00-17	2.125 in.- 3.500 in.	1-1/2 in. QLS Male	1-1/2 in. QLS Female	4140 30-36	with Swivel
486-2125-00-18	2.125 in.- 3.500 in.	1-7/8 in. QLS Male	1-1/2 in. QLS Female	4140 30-36	with Swivel
486-2125-000-015	2.125 in.- 3.500 in.	15/16 in. Sucker Rod Pin	15/16 in. Sucker Rod Box	4140 30-36	with Swivel
486-2600-00-02	2.600 in.- 4.125 in.	1-1/16 in. Sucker Rod Pin	1-1/16 in. Sucker Rod Box	4140 30-36	
486-2600-00-05	2.600 in.- 4.125 in.	1-7/8 in. QLS Male	1-7/8 in. QLS Female	4140 30-36	
486-2600-00-09	2.600 in.- 4.125 in.	1-7/8 in. QRJ Male	1-7/8 in. QRJ Female	4140 30-36	
486-2600-00-16	2.600 in.- 4.125 in.	1-1/16 in. Sucker Rod Pin	1-1/16 in. Sucker Rod	4140 30-36	with Swivel
486-2600-00-19	2.600 in.- 4.125 in.	1-7/8 in. QLS Male	1-7/8 in. QLS Female	4140 30-36	with Swivel
486-2600-00-31	2.600 in.- 4.125 in.	1-7/8 in. QLS Male	Bullnose	4140 30-36	
486-3300-00-02	3.300 in.- 5.125 in.	1-1/16 in. Sucker Rod Pin	1-1/16 in. Sucker Rod Box	4145 30-36	
486-3300-00-03	3.300 in.- 5.125 in.	1-9/16 in. Sucker Rod Pin	1-9/16 in. Sucker Rod Box	4145 30-36	
486-3300-00-05	3.300 in.- 5.125 in.	1-7/8 in. QLS Male	1-7/8 in. QLS Female	4145 30-36	
486-3300-00-06	3.300 in.- 5.125 in.	2-1/2 in. QLS Male	2-1/2 in. QLS Female	4145 30-36	
486-3300-00-09	3.300 in.- 5.125 in.	1-7/8 in. QRJ Male	1-7/8 in. QRJ Female	4145 30-36	
486-3300-00-10	3.300 in.- 5.125 in.	2-1/2 in. QRJ Male	2-1/2 in. QRJ Female	4145 30-36	
486-3300-00-12	3.300 in.- 5.125 in.	1-7/8 in.Trinity Male	1-7/8 in.Trinity Female	4145 30-36	
486-3300-00-19	3.300 in.- 5.125 in.	1-7/8 in. QLS Male	1-7/8 in. QLS Female	4145 30-36	with Swivel
486-3300-00-31	3.300 in.- 5.125 in.	2-7/8 in.EUE Box	Bullnose	4145 30-36	
486-3300-00-32	3.300 in.- 5.125 in.	1-7/8 in. QLS Male	1-7/8 in. QLS Female	4145 30-36	GSM Roller Material
486-3750-00-02	3.750 in.- 6.200 in.	1-1/16 in. Sucker Rod Pin	1-1/16 in. Sucker Rod Box	4145 30-36	
486-3750-00-05	3.750 in.- 6.200 in.	1-7/8 in. QLS Male	1-7/8 in. QLS Female	4145 30-36	
486-3750-00-06	3.750 in.- 6.200 in.	2-1/2 in. QLS Male	2-1/2 in. QLS Female	4145 30-36	
486-3750-00-07	3.750 in.- 6.200 in.	1-7/8 in. QLS Male	1-7/8 in. QLS Female	4145 30-36	with Swivel
486-3750-00-08	3.750 in.- 6.200 in.	1-7/8 in. QLS Male	Bullnose	4145 30-36	
486-4900-00-06	4.900 in.- 8.000 in.	2-1/2 in. QLS Male	2-1/2 in. QLS Female	4145 30-36	
486-4900-00-07	4.900 in.- 8.000 in.	1-1/16 in. Sucker Rod Pin	1-1/16 in. Sucker Rod Box	4145 30-36	
486-5000-00-02	4.900 in.- 8.000 in.	1-1/16 in. Sucker Rod Pin	1-1/16 in. Sucker Rod Box	4145 30-36	
486-5000-00-03	4.900 in.- 8.000 in.	1-9/16 in. Sucker Rod Pin	1-9/16 in. Sucker Rod Box	4145 30-36	
486-5000-00-05	4.900 in.- 8.000 in.	2-1/8 in. QLS Male	2-1/8 in. QLS Female	4145 30-36	
486-5000-00-06	4.900 in.- 8.000 in.	2-1/2 in. QLS Male	2-1/2 in. QLS Female	4145 30-36	
486-5000-00-33	4.900 in.- 8.000 in.	1-7/8 in. QLS Male	1-7/8 in. QLS Female	4145 30-36	
486-5500-00-06	5.500 in.- 8.200 in.	2-1/2 in. QLS	2-1/2 in. QLS Female	4145 30-36	



# Wireline Fluted Centralizer

## Tool Description

The Weatherford BDK Wireline fluted centralizers are generally run to centralize pulling tools or accessories in the wellbore. The fluted centralizer can also be used as drift to confirm access to and through wireline nipples or restrictions.

## Applications

- Slickline and braided-line operations
- Completion assembly drifting
- Depth correlation

## Features and Benefits

- Fluted body OD
- Improved running speeds due to increased fluid bypass
- Can be manufactured to any size required

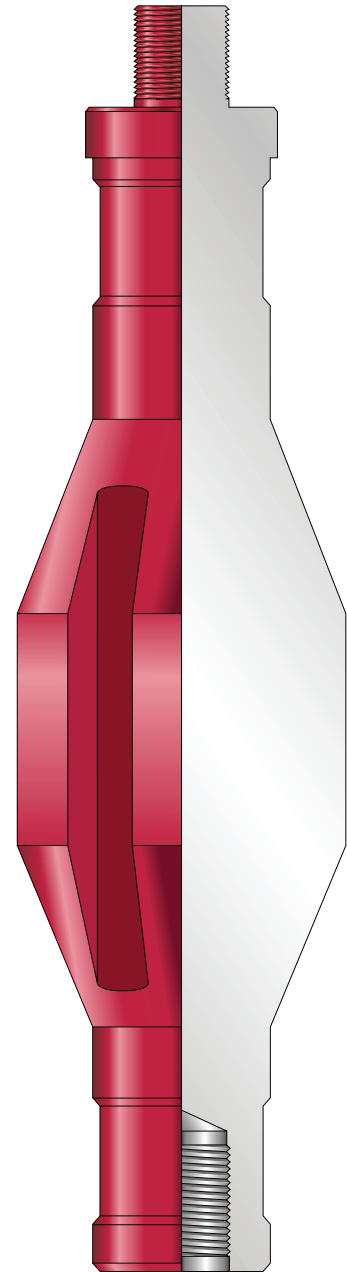
## SPECIFICATIONS

### Wireline Fluted Centralizer

Part Number	Max OD	Fish Neck Size
00332-2250-**	2.250 in.	1.750 in. Fish Neck
00332-2500-**	2.500 in.	1.750 in. Fish Neck
00332-2750-**	2.750 in.	1.750 in. Fish Neck
00332-3000-**	3.000 in.	1.750 in. Fish Neck
00332-3250-**	3.250 in.	1.750 in. Fish Neck
00332-3500-**	3.500 in.	1.750 in. Fish Neck
00332-3750-**	3.750 in.	1.750 in. Fish Neck
03376-4000-**	4.000 in.	2.312 in. Fish Neck
03376-4250-**	4.250 in.	2.312 in. Fish Neck
03376-4500-**	4.500 in.	2.312 in. Fish Neck
03376-4750-**	4.750 in.	2.312 in. Fish Neck
03376-5000-**	5.000 in.	2.312 in. Fish Neck
03376-5250-**	5.250 in.	2.312 in. Fish Neck
03376-5500-**	5.500 in.	2.312 in. Fish Neck
03376-5750-**	5.750 in.	2.312 in. Fish Neck
03376-6000-**	6.000 in.	2.312 in. Fish Neck

\*\*Connection code required, please refer to part number guide.

Additional sizes available on request.



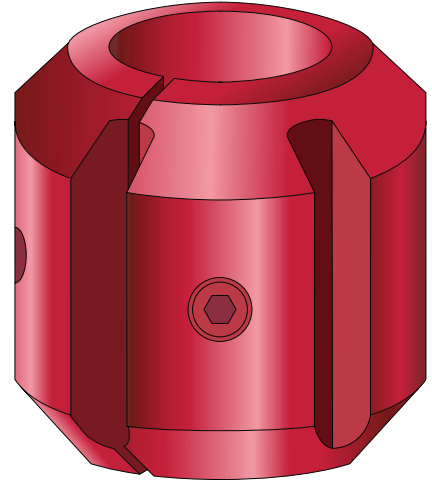


## Wireline Fluted Slipover Centralizer

The Weatherford BDK Wireline Fluted Centralizer is used to centralize the toolstring when well deviation causes the running and pulling tools to lay off-center.

It is held in place by a grub screw located in a groove machined on the body of the Go-Devil, Cutter etc.

The Centralizer is available to suit all Stems, Cutters and Go-Devils and can be manufactured to any size required.



### SPECIFICATIONS

#### Wireline Fluted Slipover Centralizer

	For use with 1.250 in. Stem	For use with 1.500 in.Go-Devil, Snipper, Stem	For use with 1.750 in.Go-Devil, Snipper, Stem	For use with 1.875 in.Go-Devil, Snipper, Stem	For use with 2.125 in.Go-Devil, Snipper, Stem	For use with 2.500 in.Go-Devil, Snipper, Stem
Max OD	Part Number					
2.250 in.	00125-2250	00596-2250				
2.500 in.	00125-2500	00596-2500	00126-2500	00597-2500		
2.750 in.	00125-2750	00596-2750	00126-2750	00597-2750		
3.000 in.	00125-3000	00596-3000	00126-3000	00597-3000		
3.250 in.	00125-3250	00596-3250	00126-3250	00597-3250	00127-3250	00128-3250
3.500 in.	00125-3500	00596-3500	00126-3500	00597-3500	00127-3500	00128-3500
3.750 in.	00125-3750	00596-3750	00126-3750	00597-3750	00127-3750	00128-3750
4.000 in.	00125-4000	00596-4000	00126-4000	00597-4000	00127-4000	00128-4000
4.250 in.	00125-4250	00596-4250	00126-4250	00597-4250	00127-4250	00128-4250
4.500 in.	00125-4500	00596-4500	00126-4500	00597-4500	00127-4500	00128-4500
4.750 in.	00125-4750	00596-4750	00126-4750	00597-4750	00127-4750	00128-4750
5.000 in.	00125-5000	00596-5000	00126-5000	00597-5000	00127-5000	00128-5000
5.250 in.	00125-5250	00596-5250	00126-5250	00597-5250	00127-5250	00128-5250
5.500 in.	00125-5500	00596-5500	00126-5500	00597-5500	00127-5500	00128-5500
5.750 in.	00125-5750	00596-5750	00126-5750	00597-5750	00127-5750	00128-5750
6.000 in.	00125-6000	00596-6000	00126-6000	00597-6000	00127-6000	00128-6000

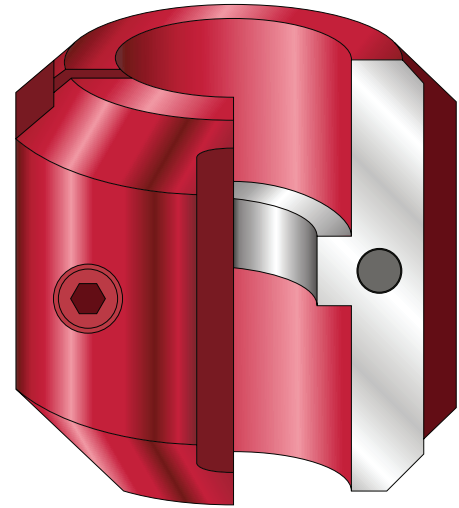


## Wireline Fluted Stepped Slipover Centralizer

The Weatherford BDK Fluted Stepped Slipover Centralizer is available to all Stems, Cutters and Go-Devils.

These are essential to centralize the tools in deviated wells. The step locates in a groove machined into the body of the tool, eliminating any possible movement of the centralizer.

The centralizer can be manufactured to any size required.



### SPECIFICATIONS

#### Wireline Fluted Stepped Slipover Centralizer

	For use with 1.250 in. Stem	For use with 1.500 in. Go-Devil, Snipper, Stem	For use with 1.750 in. Go-Devil, Snipper, Stem	For use with 1.875 in. Go-Devil, Snipper, Stem	For use with 2.125 in. Go-Devil, Snipper, Stem	For use with 2.500 in. Go-Devil, Snipper, Stem
Max OD	Part Number					
2.250 in.						
2.500 in.						
2.750 in.	00244-2750					
3.000 in.	00244-3000	00245-3000				
3.250 in.	00244-3250	00245-3250				
3.500 in.	00244-3500	00245-3500	00246-3500	00247-3500		
3.750 in.	00244-3750	00245-3750	00246-3750	00247-3750	00248-3750	
4.000 in.	00244-4000	00245-4000	00246-4000	00247-4000	00248-4000	
4.250 in.	00244-4250	00245-4250	00246-4250	00247-4250	00248-4250	00977-4250
4.500 in.	00244-4500	00245-4500	00246-4500	00247-4500	00248-4500	00977-4500
4.750 in.	00244-4750	00245-4750	00246-4750	00247-4750	00248-4750	00977-4750
5.000 in.	00244-5000	00245-5000	00246-5000	00247-5000	00248-5000	00977-5000
5.250 in.	00244-5250	00245-5250	00246-5250	00247-5250	00248-5250	00977-5250
5.500 in.	00244-5500	00245-5500	00246-5500	00247-5500	00248-5500	00977-5500
5.750 in.	00244-5750	00245-5750	00246-5750	00247-5750	00248-5750	00977-5750
6.000 in.	00244-6000	00245-6000	00246-6000	00247-6000	00248-6000	00977-6000



## Toolstring Clamp

### Tool Description

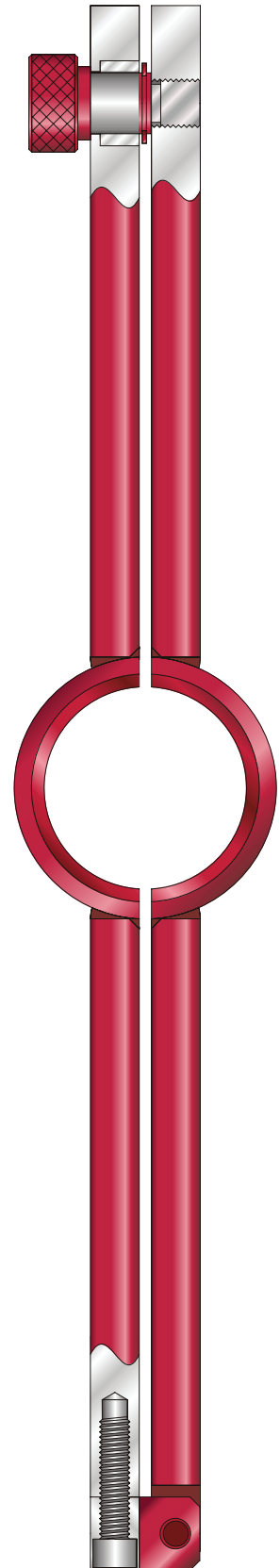
The Weatherford BDK Toolstring Clamp is designed and manufactured to locate around standard toolstring fishing necks. The supporting arms rest on the box section of the wireline valve or riser section to enable extended toolstring make up.

### Applications

- All slickline and braided-line operations

### Features and Benefits

- Hinged plate for ease of installation
- Locking screw to ensure proper closure around tool
- Available for all standard slickline and braided-line toolstring sizes
- Improved safety during toolstring make up
- Reduced risk of damage to production tree valves from dropped objects







# Wireline Clamp

## Tool Description

The Weatherford BDK Wire Clamp is designed to secure the slickline and braided-line without damage enabling the toolstring to be retained within the lubricator section during rigging up or rigging down operations.

## Applications

- All slickline and braided-line operations

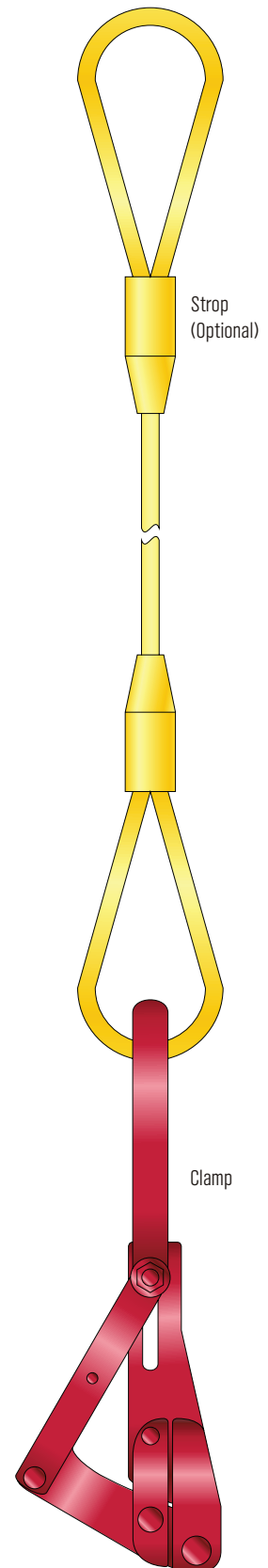
## Features and Benefits

- Simple hand operated latching/unlatching mechanism
- Available with or without integral strop
- Available for all standard wire sizes
- Improved safety during wireline rigging up or rigging down operations
- Reduced risk of damage to wireline or tools
- Reduced risk of dropped objects (toolstring)

## SPECIFICATIONS

### Wireline Clamp

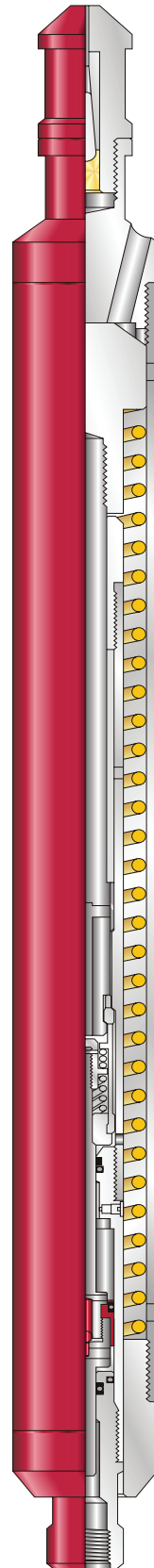
Part Number	Wire Size	Safe Working Load	Comments
00645-01	0.092 in.- 0.108 in.	300 kg	
00645-02	0.125 in.- 0.187 in.	500 kg	
03380-01	0.092 in.- 0.108 in.	500 kg	With Integral Strop
03380-10	0.125 in.- 0.187 in.	500 kg	With Integral Strop





## Combined Action Tool (C.A.T.)

The Combined Action Tool (C.A.T.) is designed for use in applications close to the wellhead where wireline stretch is at a minimum and toolstring length is of critical importance. The C.A.T. consists of an integral rope socket, weight sub, accelerator and hydro-mechanical jar. The tool offers the operator all the components required for high impact upward jarring, housed in one very short unit and is capable of delivering extremely high impact forces, even when used at depths close to the surface, without causing any damage to the wireline.





SPECIFICATIONS

Combined Action Tool (CA.T.)

Tool OD	Part Number	Top Connection	Bottom Connection	Make Up Length Open/ Closed	Hydro Mech Jar Stroke	Main Spring Rate	Weight
3.600 in.	12184-RS-125-A4-A	2.312 in. Rope Socket	1-1/16 in. Sucker Rod	77.3 in./50.0 in.	8.06 in.	500 lbs	38 kg
3.600 in.	12184-RS-125-A4-B	2.312 in. Rope Socket	1-9/16 in. Sucker Rod	77.3 in./50.0 in.	8.06 in.	1000 lbs	38 kg
3.600 in.	12184-RS-125-A6-A	2.312 in. Rope Socket	1-1/16 in. Sucker Rod	77.3 in./50.0 in.	8.06 in.	500 lbs	38 kg
3.600 in.	12184-RS-125-A6-B	2.312 in. Rope Socket	1-9/16 in. Sucker Rod	77.3 in./50.0 in.	8.06 in.	1000 lbs	38 kg
3.600 in.	12184-RS-125-C4-A	2.312 in. Rope Socket	1-7/8 in. HDQRJ	80.8 in./53.5 in.	8.06 in.	500 lbs	38 kg
3.600 in.	12184-RS-125-C4-B	2.312 in. Rope Socket	1-7/8 in. HDQRJ	80.8 in./53.5 in.	8.06 in.	1000 lbs	38 kg
3.600 in.	12184-RS-125-C6-A	2.312 in. Rope Socket	2-1/2 in. HDQRJ	80.8 in./53.5 in.	8.06 in.	500 lbs	38 kg
3.600 in.	12184-RS-125-C6-B	2.312 in. Rope Socket	2-1/2 in. HDQRJ	80.8 in./53.5 in.	8.06 in.	1000 lbs	38 kg
3.600 in.	12184-RS-125-Q4-A	2.312 in. Rope Socket	1-7/8 in. QLS	80.8 in./53.5 in.	8.06 in.	500 lbs	38 kg
3.600 in.	12184-RS-125-Q4-B	2.312 in. Rope Socket	1-7/8 in. QLS	80.8 in./53.5 in.	8.06 in.	1000 lbs	38 kg
3.600 in.	12184-RS-125-Q6-A	2.312 in. Rope Socket	2-1/2 in. QLS	80.8 in./53.5 in.	8.06 in.	500 lbs	38 kg
3.600 in.	12184-RS-125-Q6-B	2.312 in. Rope Socket	2-1/2 in. QLS	80.8 in./53.5 in.	8.06 in.	1000 lbs	38 kg
3.600 in.	12184-RS-108-A4-A	2.312 in. Rope Socket	1-1/16 in. Sucker Rod	77.3 in./50.0 in.	8.06 in.	500 lbs	38 kg
3.600 in.	12184-RS-108-A4-B	2.312 in. Rope Socket	1-9/16 in. Sucker Rod	77.3 in./50.0 in.	8.06 in.	1000 lbs	38 kg
3.600 in.	12184-RS-108-A6-A	2.312 in. Rope Socket	1-1/16 in. Sucker Rod	77.3 in./50.0 in.	8.06 in.	500 lbs	38 kg
3.600 in.	12184-RS-108-A6-B	2.312 in. Rope Socket	1-9/16 in. Sucker Rod	77.3 in./50.0 in.	8.06 in.	1000 lbs	38 kg
3.600 in.	12184-RS-108-C4-A	2.312 in. Rope Socket	1-7/8 in. HDQRJ	80.8 in./53.5 in.	8.06 in.	500 lbs	38 kg
3.600 in.	12184-RS-108-C4-B	2.312 in. Rope Socket	1-7/8 in. HDQRJ	80.8 in./53.5 in.	8.06 in.	1000 lbs	38 kg
3.600 in.	12184-RS-108-C6-A	2.312 in. Rope Socket	2-1/2 in. HDQRJ	80.8 in./53.5 in.	8.06 in.	500 lbs	38 kg
3.600 in.	12184-RS-108-C6-B	2.312 in. Rope Socket	2-1/2 in. HDQRJ	80.8 in./53.5 in.	8.06 in.	1000 lbs	38 kg
3.600 in.	12184-RS-108-Q4-A	2.312 in. Rope Socket	1-7/8 in. QLS	80.8 in./53.5 in.	8.06 in.	500 lbs	38 kg
3.600 in.	12184-RS-108-Q4-B	2.312 in. Rope Socket	1-7/8 in. QLS	80.8 in./53.5 in.	8.06 in.	1000 lbs	38 kg
3.600 in.	12184-RS-108-Q6-A	2.312 in. Rope Socket	2-1/2 in. QLS	80.8 in./53.5 in.	8.06 in.	500 lbs	38 kg
3.600 in.	12184-RS-108-Q6-B	2.312 in. Rope Socket	2-1/2 in. QLS	80.8 in./53.5 in.	8.06 in.	1000 lbs	38 kg

\* Alternative connections available on request

\* Threaded and Quick Connect top subs are available on request

\* 2-15/16 in. and 4-1/2 in. OD Combined Action Tools are available on request from the Product Line Group

Part Number Information (example): 3.60 in.CAT with 0.125 in. Rope Socket, threaded bottom sub, Low Rate Spring, Std Service

12184 = Drawing Number

RS = Top Connection code

125 = Wire Size

A4 = Bottom Connection code

A= Low Rate Spring



## Compact Jarring Tool

The Weatherford BDK Compact Jarring Tool (C.J.T.) has been designed for use in applications where the length of a conventional toolstring may prove to be prohibitive. The C.J.T. consists of a hydro-mech jar housed in a tubular jar body. Careful attention has been paid to reducing the overall length.

**Typical situations where the use of the C.J.T. could be beneficial include:**

- Insufficient lubricator available to accommodate a standard toolstring due to height restrictions in rig up.
- Subsea wells where it is important not to straddle a toolstring across the subsea tree valves.
- Fishing a lost toolstring without necessarily requiring extra lubricator height.
- Deep and highly deviated completions when conventional toolstrings fail to perform.

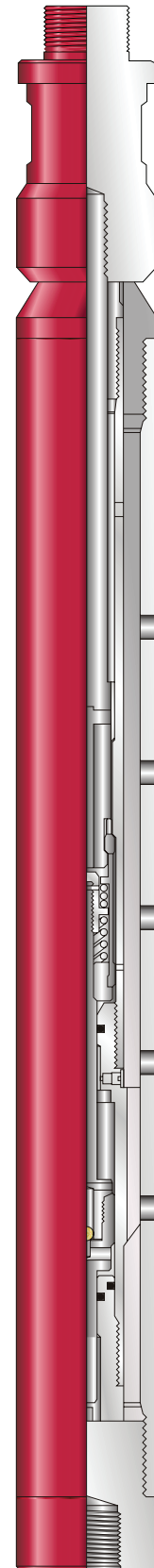
Note that for operations involving jarring at shallow depths, the Combined Action Tool (C.A.T.) may be more suited. This tool has a built-in accelerator to enhance operations.

### SPECIFICATIONS

#### Compact Jarring Tool

Tool OD	Part Number	Connection	Make Up Length Open/Closed	Tubular Jar Stroke	Hydro Mech Jar Stroke	Weight
2.500 in.	12159-A6	1-9/16 in. Sucker Rod	63.61 in./35.31 in.	18.5 in.	7.4 in.	16 kg
3.250 in.	12010-A6	1-9/16 in. Sucker Rod	62.13 in./34.23 in.	18.4 in.	7.0 in.	23 kg
2.500 in.	12159-C6	2-1/2 in. HDQRJ	68.11 in./39.81 in.	18.5 in.	7.4 in.	16 kg
3.250 in.	12010-C6	2-1/2 in. HDQRJ	67.18 in./39.28 in.	18.4 in.	7.0 in.	23 kg
2.500 in.	12159-Q6	2-1/2 in. QLS	68.11 in./39.81 in.	18.5 in.	7.4 in.	16 kg
3.250 in.	12010-Q6	2-1/2 in. QLS	67.18 in./39.28 in.	18.4 in.	7.0 in.	23 kg

\* Alternative connections available on request

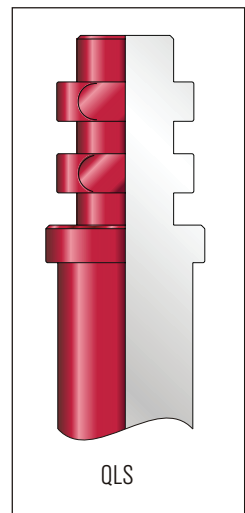
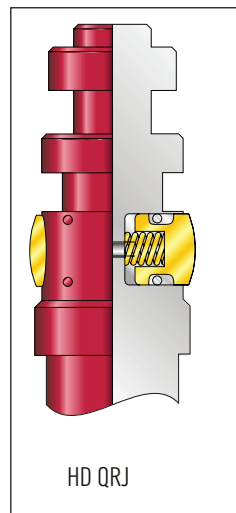
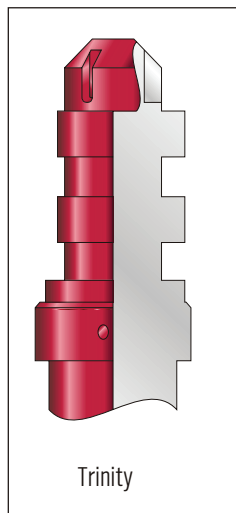
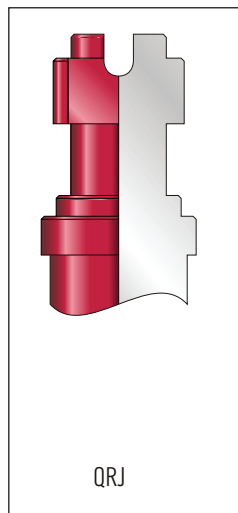
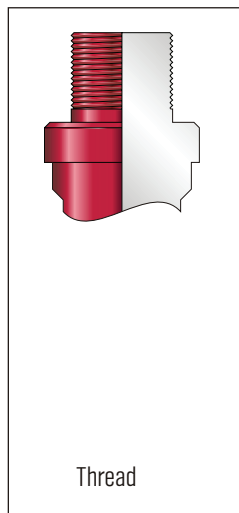




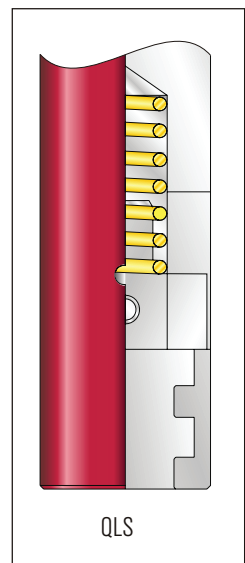
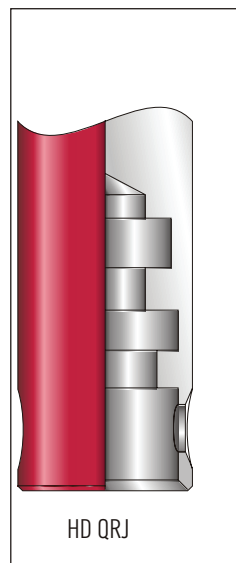
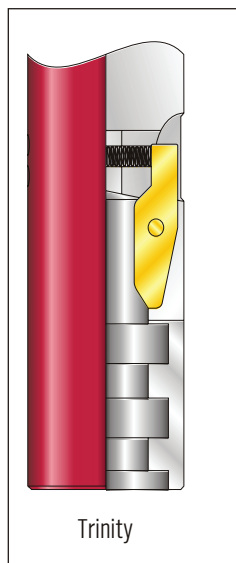
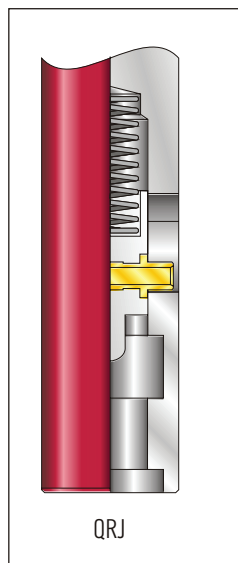
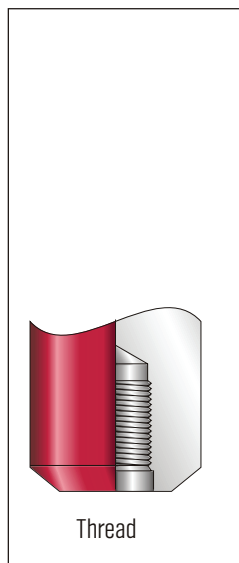
## Wireline Crossovers

The Weatherford® Wireline Crossover allows the connection of two incompatible items within a toolstring. Crossovers are available in any combination required. Part Numbers are available on request.

### Top (Male) Connections available



### Bottom (Female) Connections available





## Mono-Conductor Quick-Release Joint

The Weatherford BDK Mono-Conductor Quick-Release Joint is an efficient and safe connection based on the proven HDQRJ, that allows a gentle but positive assembly of the electric line toolstring. The conductor line quick release joint is offered as an integral part of each tool, thus eliminating the use of threaded connection.

The unique finger release feature eliminates the need for a release tool to provide a connection, which is fast and simple to use. The stepped double-shoulder design is efficient and safe in comparison to the conventional threaded toolstring, which can prove to be time-consuming and sometimes hazardous during slickline, braided-line and e-line operations, often leading to damaged tools or the possible risk of injury.

### SPECIFICATIONS

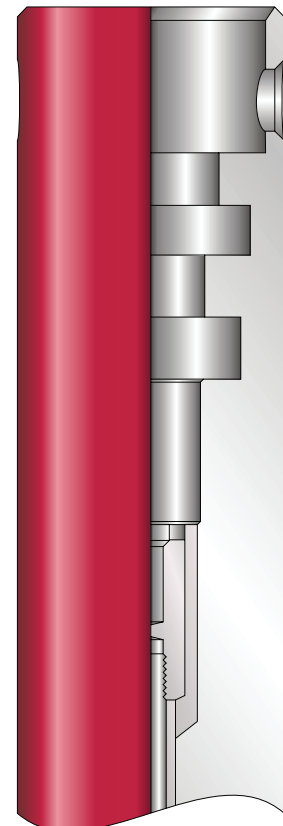
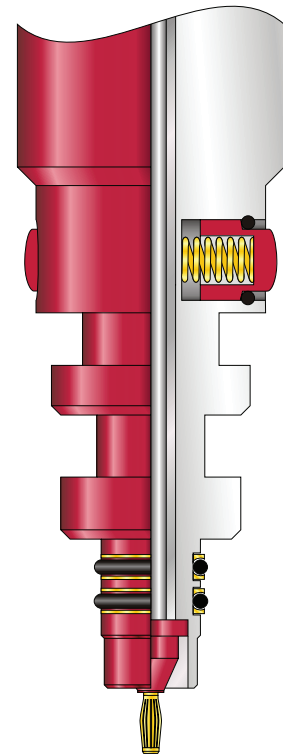
#### Mono-Conductor Quick-Release Joint

Connection	CSA (in <sup>2</sup> )	*Standard Service Yield Strength	*H <sub>2</sub> S Service Yield Strength	Tool OD
1 11/16 in.	0.6	66,000 lb	48,000 lb	1.687 in.

\*Figures based on SMYS = 110 ksi for standard service and SMYS 80 ksi for H<sub>2</sub>S service

Tools are manufactured to any size required.

Part numbers available on request.

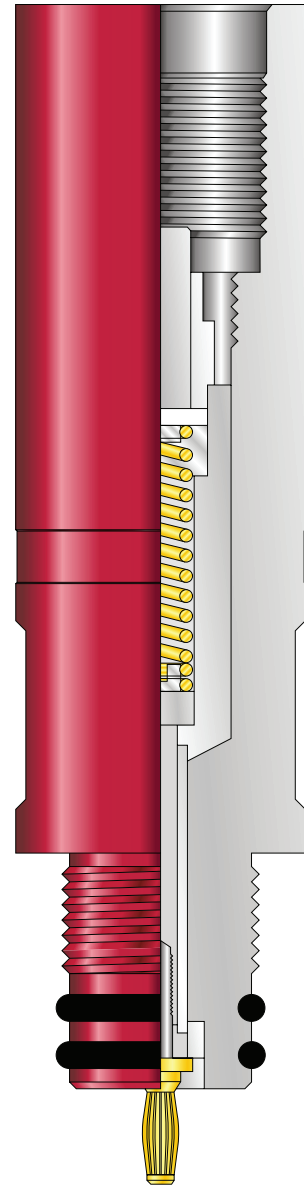




## Mono-Conductor Crossover

The Weatherford BDK Mono-Conductor Crossover allows the connection of otherwise incompatible tools.

Tools are manufactured to any size required.  
Part Number available on request.





## Multi-Roller Wheel Snipper

The Weatherford BDK Multi-Roller Wheel Wireline Snipper is designed for use in deviated wells. The design offers a 360° wheel contact which reduces the friction caused by contact with the tubing wall. The snipper will reach the fish without the normal problems associated with conventional snippers. A jumbo nose cone is supplied for use in gas-lift completions to ensure blade contact is only made at the rope socket, and not prematurely at crossovers or side-pocket mandrels.

### SPECIFICATIONS

#### Multi-Roller Wheel Snipper

Max OD	Effective OD	Wire Size (Range)	Part Number
1.500 in.	1.750 in.	0.092 in./0.187 in.	11001
1.875 in.	2.000 in.	0.092 in./0.187 in.	10779-05
1.875 in.	2.125 in.	0.092 in./0.187 in.	10779-06
1.875 in.	2.250 in.	0.092 in./0.187 in.	10779-07
2.500 in.	2.710 in.	0.092 in./0.218 in.	9471-01
2.500 in.	2.900 in.	0.092 in./0.218 in.	9471-02
2.500 in.	3.000 in.	0.092 in./0.218 in.	9471-03
2.500 in.	3.250 in.	0.092 in./0.218 in.	9471-04

Additional sizes available on request.  
Redress kits available on request.



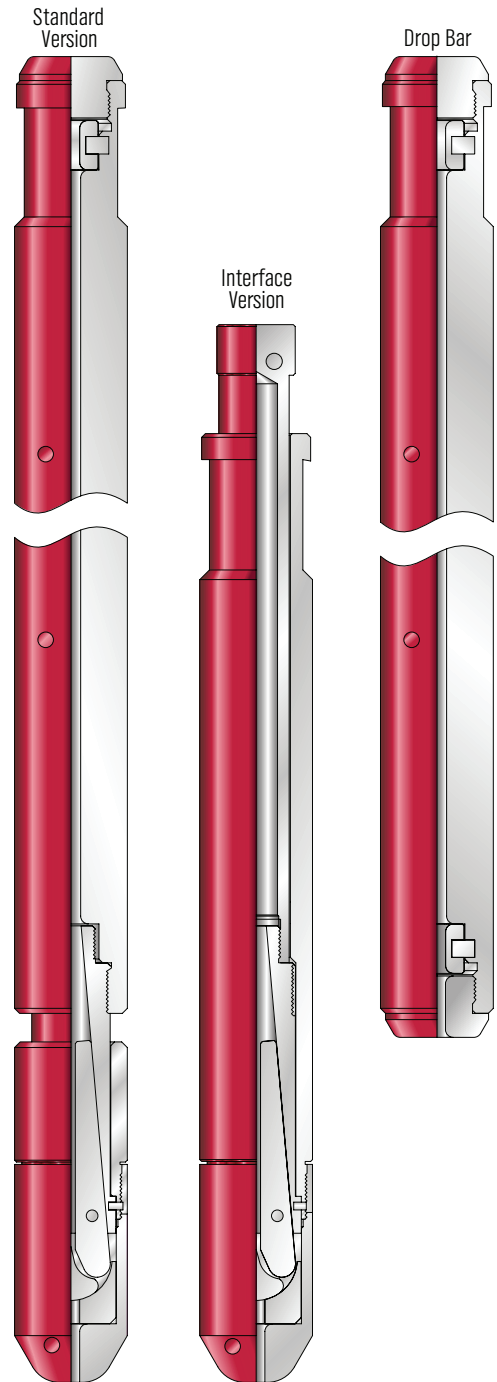




## Rotating Knife Cutter

The Weatherford BDK Rotary Knife Cutter is used to cut the wireline when downhole tools become stuck. The cutter is run under its own weight guided by the wire. When the cutter strikes the tool, the shock is transmitted to the rotating knife, which shears the wire. The rotation of the knife pushes a tapered slip upwards to wedge the wire so that both the cutter and wire can be retrieved.

There are two ways of using the cutter, the 'standard' version or the 'interface' version. The 'interface' version is used in conjunction with the drop bar when there is a risk of premature actuation. If the wire is fouled above the rope socket the interface version can be dropped first followed by the drop bar in order to cut the wire.





## SPECIFICATIONS

### Rotating Knife Cutter

<b>Tool OD</b>		<b>1.500 in.</b>	<b>1.875 in.</b>	<b>2.187 in.</b>
Fishneck Diameter		1.375 in.	1.750 in.	1.750 in.
Wire Range		0.092 in. to 0.125 in.	0.092 in. to 0.218 in.	0.108 in. to 0.312 in.
Overall Length	Standard Version	26.82 in.	53.14 in.	68.44 in.
	Drop Bar	23.59 in.	47.65 in.	60.77 in.
	Interface Version	10.61 in.	15.13 in.	
Weight	Standard Version	5.7 kg	18.7 kg	32.4 kg
	Drop Bar	5 kg	16.6 kg	28.6 kg
	Interface Version	2.4 kg	4.9 kg	
Assembly Number		12156	5065	10680

NOTE : Weights stated are approximate (excluding connection)

#### MULTI-ROLLER WHEEL OPTION

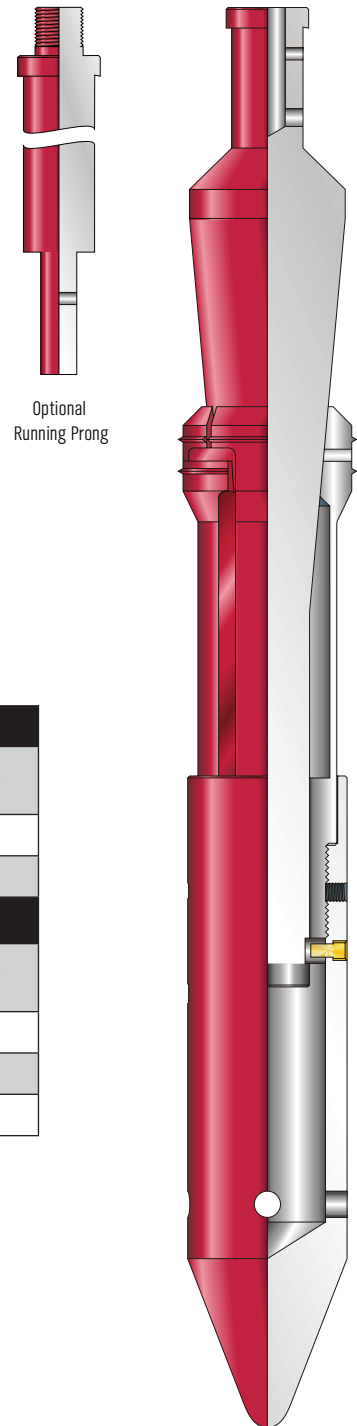
<b>Tool OD</b>		<b>2.187 in.</b>
Effective Diameter		2.250 in.
Fishneck Diameter		1.750 in.
Wire Range		0.108 in. - 0.312 in.
Overall Length	Standard Version	68.44 in.
	Drop Bar	60.77 in.
Weight	Standard Version	32.4 kg
	Drop Bar	28.6 kg
Assembly Number		12196



## Sidewall Cutter

The Weatherford BDK Sidewall Cutter is designed to cut the wireline at any point within the tubing string.

The sidewall cutter is run into the tubing (running prong optional) alongside the wire until the required depth is reached, the cutter is then activated by gently downward jarring. This shears the pin allowing the mandrel to force the cutter against the tubing wall. Further downward jarring will cause the cutter blades to sever the wireline.



### SPECIFICATIONS

#### Sidewall Cutter

Sidewall Cutter Type 1 - with Collet Retainer						
Part Number	Pinned Collet Diameter	Sheared Collet Diameter	Fishing Neck	Neck Wire Size (Maximum)	Length	Weight
9393	1.95 in.	2.48 in.	1.375 in.	0.125 in.	23 in.	4 kg
12150	2.00 in.	2.53 in.	1.375 in.	0.187 in.	23 in.	4 kg
Sidewall Cutter Type 2 - without Collet Retainer						
Part Number	Pinned Collet Diameter	Sheared Collet Diameter	Fishing Neck	Neck Wire Size (Maximum)	Length	Weight
12271	1.67 in.	2.14 in.	1.375 in.	0.125 in.	24.4 in.	3.6 kg
12281	2.12 in.	2.65 in.	1.750 in.	0.125 in.	23.7 in.	5.7 kg
12272	2.51 in.	3.10 in.	1.750 in.	0.125 in.	23 in.	9 kg

Note : Optional Running prongs are available on request.  
Additional sizes available on request.



## Wireline Snipper

The Weatherford BDK Wireline Snipper is used to cut the slickline or braided-line at the rope socket when downhole tools become stuck. When the wire is fouled above the rope socket a Go-Devil, complete with rope socket is dropped.

This will then give the snipper a clear rope socket to cut on when it is dropped. A jumbo nose, as illustrated, can be used to prevent the protruding cutter from fouling a restriction, which will result in premature cutting of the wire.

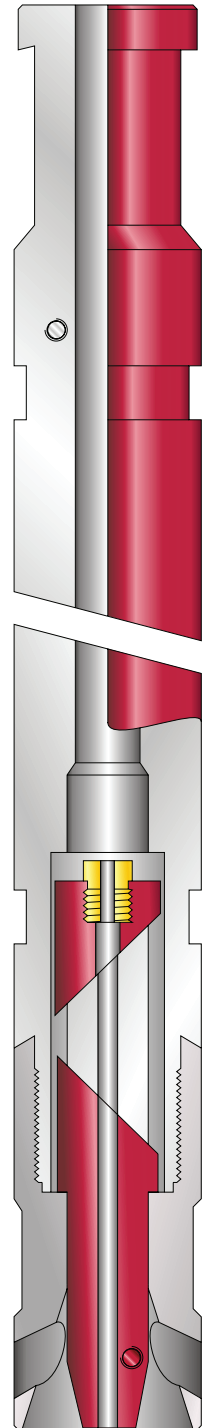
An upside down sub is available for situations in which the fish is fouled above the rope socket, i.e. sand, scale, etc. The cutter is then dropped in the upside-down position, followed by a Go-Devil to activate the cutter.

### SPECIFICATIONS

#### Wireline Snipper

Assembly Part Number	Maximm OD	Fishin Neck	Wire Size	Length	Weight	Blade and Plunger Assembly
7221	1.500 in.	1.375 in.	0.092 in. to 0.125 in.	26.4 in.	5 kg	8544
7223	1.500 in.	1.375 in.	0.187 in.	26.4 in.	5 kg	8545
7224	1.750 in.	1.375 in.	0.092 in. to 0.125 in.	26.4 in.	7.5 kg	8544
7226	1.750 in.	1.375 in.	0.187 in.	26.4 in.	7.5 kg	8545
7227	1.875 in.	1.375 in.	0.092 in. to 0.125 in.	26.4 in.	8.5 kg	8544
7229	1.875 in.	1.375 in.	0.187 in.	26.4 in.	8.5 kg	8545
10967	2.000 in.	1.750 in.	0.092 in. to 0.218 in.	26.9 in.	10 kg	9466
9464	2.000 in.	1.750 in.	0.092 in. to 0.218 in.	26.9 in.	13.6 kg	9466

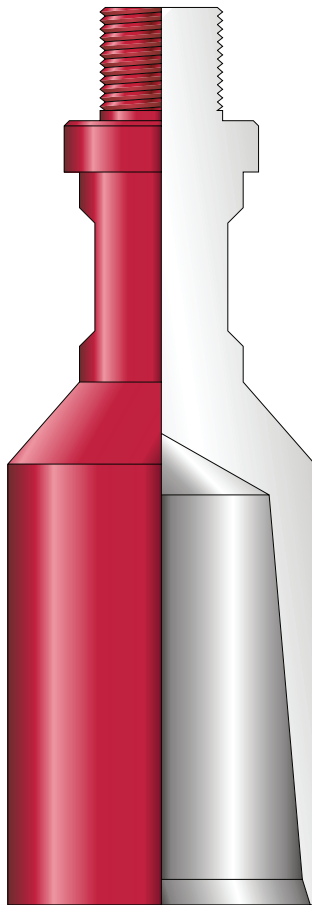
Centralizers are available for use with the wireline snipper.



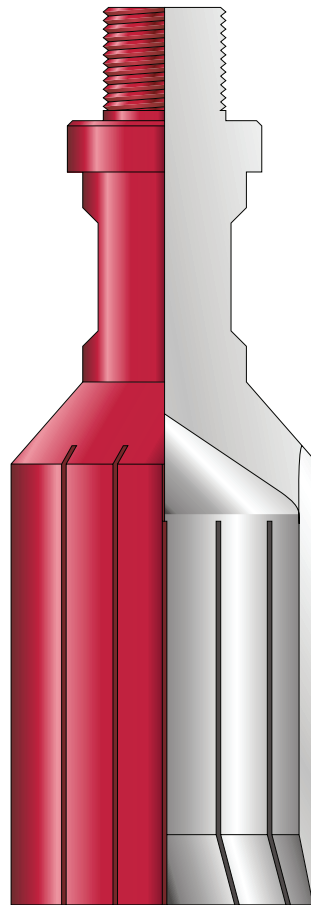


## Wireline Finder

The Weatherford BDK Wireline Finder is used to collect and ball up broken wire or cable downhole prior to running the wireline grab for retrieval.



Standard



Slotted



## SPECIFICATIONS

### Wireline Finders

#### STANDARD

Part Number	Max OD	Fish Neck Size
00041-1500-**	1.500 in.	1.187 in. Fish Neck
00041-1750-**	1.750 in.	1.375 in. Fish Neck
00041-2000-**	2.000 in.	1.375 in. Fish Neck
00041-2250-**	2.250 in.	1.375 in. Fish Neck
00041-2500-**	2.500 in.	1.750 in. Fish Neck
00041-2750-**	2.750 in.	1.750 in. Fish Neck
00041-3000-**	3.000 in.	1.750 in. Fish Neck
00041-3250-**	3.250 in.	2.312 in. Fish Neck
00041-3500-**	3.500 in.	2.312 in. Fish Neck
00041-3750-**	3.750 in.	2.312 in. Fish Neck
00041-4000-**	4.000 in.	2.312 in. Fish Neck
00041-4250-**	4.250 in.	2.312 in. Fish Neck
00041-4500-**	4.500 in.	2.312 in. Fish Neck
00041-4750-**	4.750 in.	2.312 in. Fish Neck
00041-5000-**	5.000 in.	2.312 in. Fish Neck
00041-5250-**	5.250 in.	2.312 in. Fish Neck
00041-5500-**	5.500 in.	2.312 in. Fish Neck
00041-5750-**	5.750 in.	2.312 in. Fish Neck
00041-6000-**	6.000 in.	2.312 in. Fish Neck

#### SLOTTED

Part Number	Max OD	Fish Neck Size
00929-1500-**	1.500 in.	1.187 in. Fish Neck
00929-1750-**	1.750 in.	1.375 in. Fish Neck
00929-2000-**	2.000 in.	1.375 in. Fish Neck
00929-2250-**	2.250 in.	1.375 in. Fish Neck
00929-2500-**	2.500 in.	1.750 in. Fish Neck
00929-2750-**	2.750 in.	1.750 in. Fish Neck
00929-3000-**	3.000 in.	1.750 in. Fish Neck
00929-3250-**	3.250 in.	2.312 in. Fish Neck
00929-3500-**	3.500 in.	2.312 in. Fish Neck
00929-3750-**	3.750 in.	2.312 in. Fish Neck
00929-4000-**	4.000 in.	2.312 in. Fish Neck
00929-4250-**	4.250 in.	2.312 in. Fish Neck
00929-4500-**	4.500 in.	2.312 in. Fish Neck
00929-4750-**	4.750 in.	2.312 in. Fish Neck
00929-5000-**	5.000 in.	2.312 in. Fish Neck
00929-5250-**	5.250 in.	2.312 in. Fish Neck
00929-5500-**	5.500 in.	2.312 in. Fish Neck
00929-5750-**	5.750 in.	2.312 in. Fish Neck
00929-6000-**	6.000 in.	2.312 in. Fish Neck

\*\*Connection code required, please refer to part number guide.

Additional sizes available on request.



## Sleeved Wireline Finder

The Weatherford BDK Sleeved Wireline Finder is used to determine the depth of broken wire. The sleeve is no-goed against a downhole wireline nipple, thereby allowing downward jarring on the sleeve to release the wire finder independently of the sleeve. Once the wire finder has been released from the sleeve, the fingers will expand to the tubing ID for finding wire depths. On retrieval back to the sleeve, the wire finder fingers are collapsed and pulled back into the sleeve, thereby protecting the fingers from damage. The tool is ideally suited to wire-finding operations in which wellbore restrictions are a concern.

### SPECIFICATIONS

#### Sleeved Wireline Finder

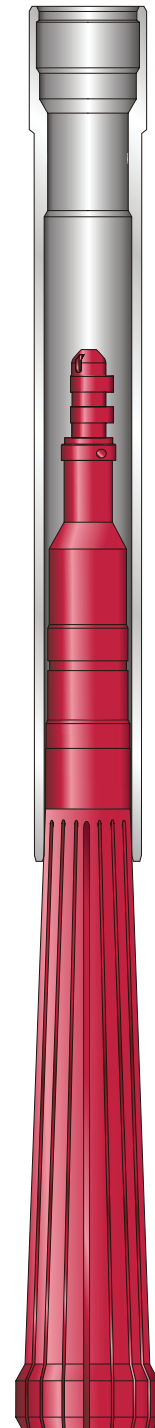
No-Go Diameter	3.80 in.	5.96 in.
Fish Neck Profile	4 in. Internal GS Profile	5 in. Internal GS Profile
Length 'A'	29.75 in.	28 in.
Sleeve Diameter 'B'	3.46 in.	5.75 in.
Finder Diameter Closed	3.37 in.	5.75 in.
Finder Diameter Open	4.67 in.	6.50 in.
Weight	19 kg	42 kg
Part Number	1282-4670-000-**	1282-6500-000-**

\*\*Connection code required, please refer to part number guide.

Add suffix 'H' to Part Number for H<sub>2</sub>S service

NOTE: Weights stated are approximate.

The tool can be manufactured to any size required, this table is offered as a guide.





## Internal Fishing Tool

### Parallel Mandrel

This tool is designed to retrieve downhole flow control devices that move damaged internal fish necks.

The tool (excluding the mandrel) is run using the upper fish neck; downward jarring will set the retrieving collet and shear the running tool. The mandrel is then run in, latching the upper fishing neck; upward jarring sets the tool and retrieves the lock.

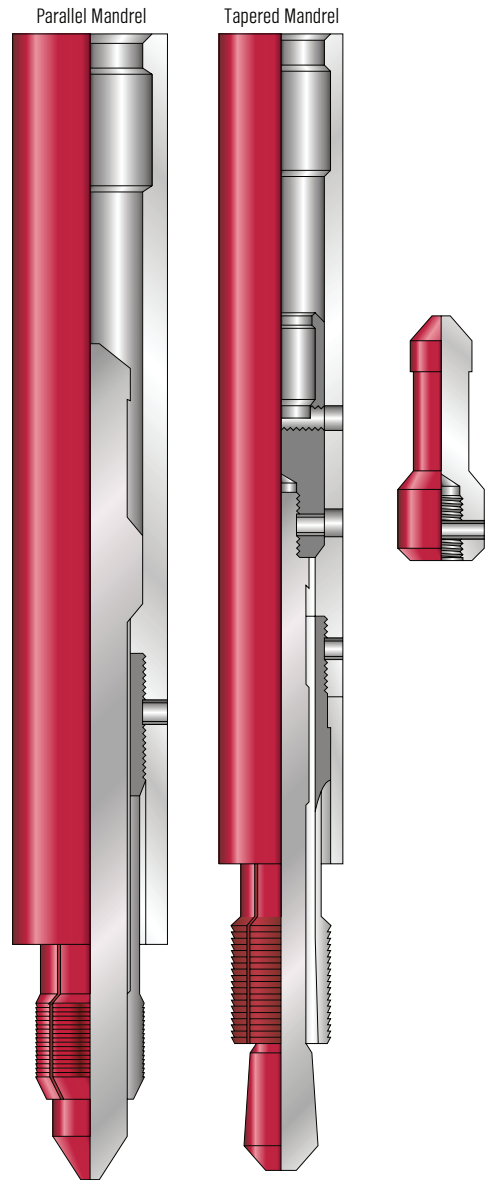
To release from the lock, a reverse of the procedure will allow full retrieval of the fishing tool.

### Tapered Mandrel

This tool is designed to retrieve downhole devices by locating in the bore when the exact internal diameter cannot be determined due to damage, 'wash-out', or wear. The tapered mandrel allows expansion of the collet to contact the bore. The tool is run using the upper fishing neck. Downward jarring will set the retrieving collet and shear the running tool. The pulling tool is then run in, latching the lower fishing neck. Upward jarring sets the tool and retrieves the lock.

To release from the lock a reverse of the procedure will allow full retrieval of the fishing tool. The fishing tool can also be used to retrieve tools with damaged internal fishing necks. An alternative pulling neck is available, should an external fishing neck be preferred.

Tools are manufactured to any size required.  
Part numbers available on request.



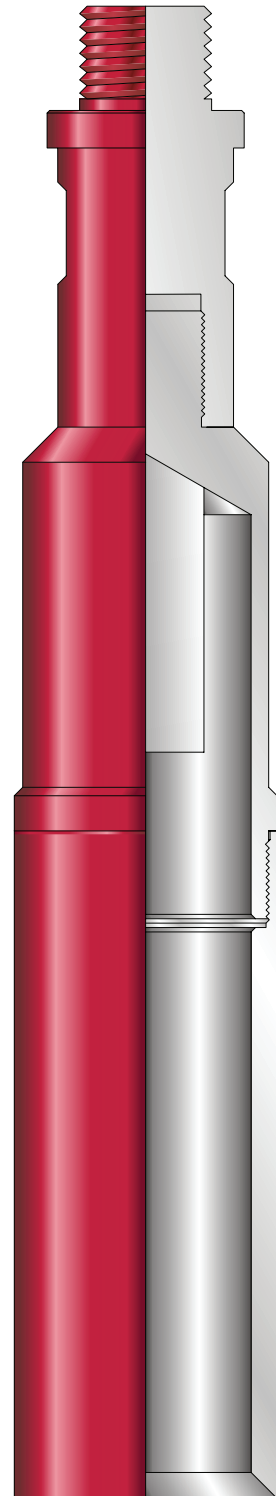




## Gauge Cutter - Extended

The Weatherford BDK Extended Gauge Cutter is used to gauge the tubing and to remove scale, paraffin wax, debris etc. This will ensure that downhole tools will pass through tubing and nipples without obstruction during slickline or braided-line operations.

Tools are manufactured to any size required.  
Part numbers are available on request.

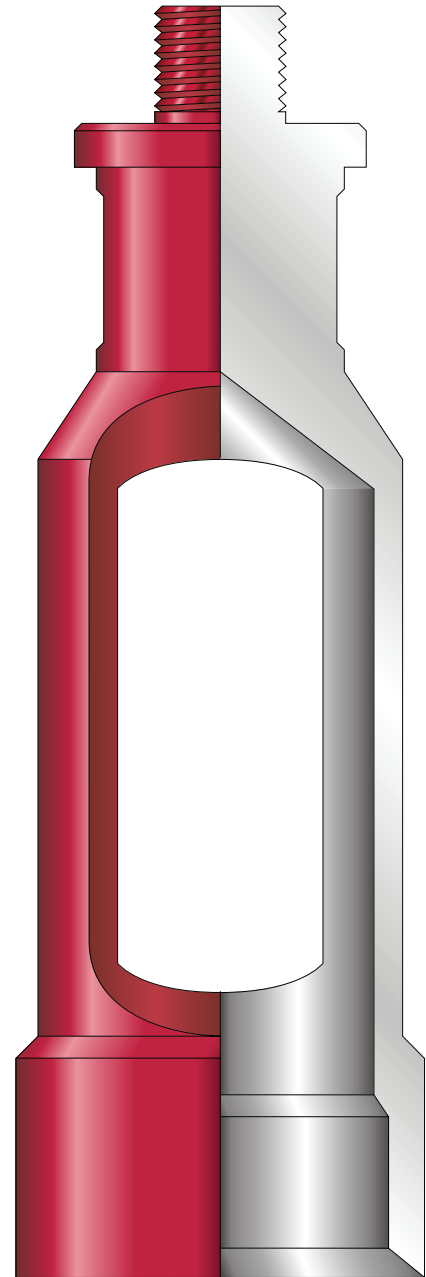




## Gauge Cutter

The Weatherford BDK Extended Gauge Cutter is used to gauge the tubing and to remove scale, paraffin wax, debris etc. This will ensure that downhole tools will pass through tubing and nipples without obstruction during slickline or braided line operations.

Tools are manufactured to any size required.  
Part numbers available on request.





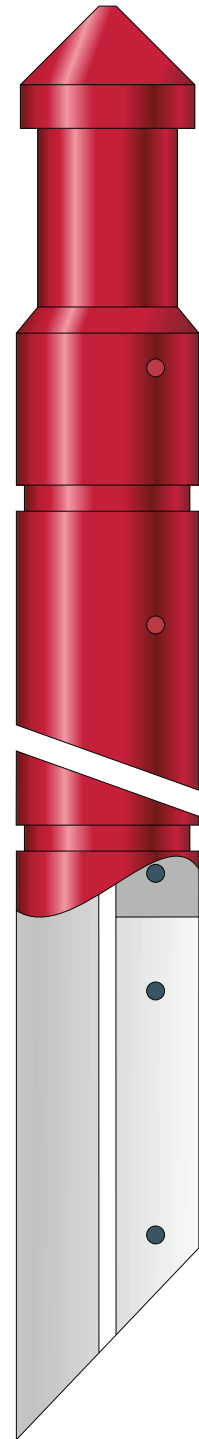
## Go-Devil - Cutter Type

The Weatherford BDK Flat Bottom Go-Devil can be used to cut conventional slickline or braided line. This type of Go-Devil is ideal if the rope socket of the stuck toolstring is obscured with sand or debris. Purpose designed centralizers are available for use with Go-Devils.

### SPECIFICATIONS

#### Go-Devil - Cutter Type

Body Diameter	Fish Neck	Wire Size	Length	Part Number
1.500 in.	1.375 in.	0.092 in./0.108 in.	2 ft	01286-01
1.500 in.	1.375 in.	0.125 in.	2 ft	01286-13
1.500 in.	1.375 in.	0.187 in.	2 ft	01286-02
1.500 in.	1.375 in.	0.092 in./0.108 in.	3 ft	01286-03
1.500 in.	1.375 in.	0.125 in.	3 ft	01286-14
1.500 in.	1.375 in.	0.187 in.	3 ft	01286-04
1.500 in.	1.375 in.	0.092 in./0.108 in.	5 ft	01286-05
1.500 in.	1.375 in.	0.125 in.	5 ft	01286-15
1.500 in.	1.375 in.	0.187 in.	5 ft	01286-06
1.875 in.	1.750 in.	0.092 in./0.108 in.	2 ft	01018-01
1.875 in.	1.750 in.	0.187 in.	2 ft	01018-02
1.875 in.	1.750 in.	0.218 in.	2 ft	01018-03
1.875 in.	1.750 in.	0.092 in./0.108 in.	3 ft	01018-04
1.875 in.	1.750 in.	0.187 in.	3 ft	01018-05
1.875 in.	1.750 in.	0.218 in.	3 ft	01018-06
1.875 in.	1.750 in.	0.092 in./0.108 in.	5 ft	01018-07
1.875 in.	1.750 in.	0.187 in.	5 ft	01018-08
1.875 in.	1.750 in.	0.218 in.	5 ft	01018-09
2.500 in.	2.312 in.	0.092 in./0.108 in.	2 ft	01104-01
2.500 in.	2.312 in.	0.187 in.	2 ft	01104-02
2.500 in.	2.312 in.	0.218 in.	2 ft	01104-03
2.500 in.	2.312 in.	0.092 in./0.108 in.	3 ft	01104-04
2.500 in.	2.312 in.	0.187 in.	3 ft	01104-05
2.500 in.	2.312 in.	0.218 in.	3 ft	01104-06
2.500 in.	2.312 in.	0.092 in./0.108 in.	5 ft	01104-07
2.500 in.	2.312 in.	0.187 in.	5 ft	01104-08
2.500 in.	2.312 in.	0.218 in.	5 ft	01104-09





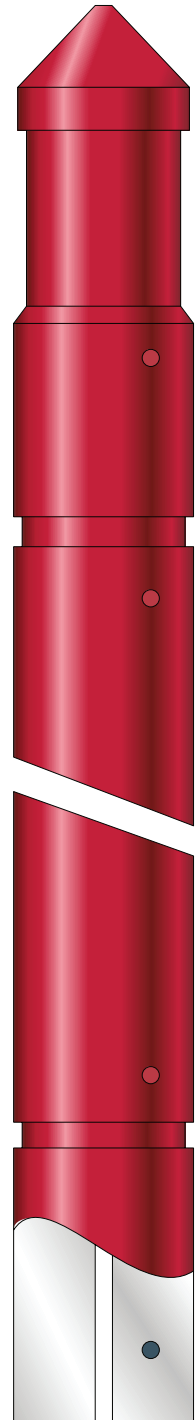
## Go-Devil - Flat Bottom Type

The Weatherford BDK Flat Bottom Go-Devil can be used to cut conventional slickline or braided line. This type of go-devil is ideal if the rope socket of the stuck toolstring is obscured with sand or debris. Purpose designed centralizers are available for use with go-devils.

### SPECIFICATIONS

#### Go-Devil - Flat Bottom Type

Body Diameter	Fish Neck	Wire Size	Length	Part Number
1.500 in.	1.375 in.	0.092 in./0.108 in.	2 ft	01286-07
1.500 in.	1.375 in.	0.125 in.	2 ft	01286-16
1.500 in.	1.375 in.	0.187 in.	2 ft	01286-08
1.500 in.	1.375 in.	0.092 in./0.108 in.	3 ft	01286-09
1.500 in.	1.375 in.	0.125 in.	3 ft	01286-17
1.500 in.	1.375 in.	0.187 in.	3 ft	01286-10
1.500 in.	1.375 in.	0.092 in./0.108 in.	5 ft	01286-11
1.500 in.	1.375 in.	0.125 in.	5 ft	01286-12
1.500 in.	1.375 in.	0.187 in.	5 ft	01286-18
1.875 in.	1.750 in.	0.092 in./0.108 in.	2 ft	01018-10
1.875 in.	1.750 in.	0.125 in.	2 ft	01018-22
1.875 in.	1.750 in.	0.187 in.	2 ft	01018-11
1.875 in.	1.750 in.	0.218 in.	2 ft	01018-12
1.875 in.	1.750 in.	0.092 in./0.108 in.	3 ft	01018-13
1.875 in.	1.750 in.	0.125 in.	3 ft	01018-23
1.875 in.	1.750 in.	0.187 in.	3 ft	01018-14
1.875 in.	1.750 in.	0.218 in.	3 ft	01018-15
1.875 in.	1.750 in.	0.092 in./0.108 in.	5 ft	01018-16
1.875 in.	1.750 in.	0.125 in.	5 ft	01018-24
1.875 in.	1.750 in.	0.187 in.	5 ft	01018-17
1.875 in.	1.750 in.	0.218 in.	5 ft	01018-18
2.500 in.	2.312 in.	0.092 in./0.108 in.	2 ft	01104-10
2.500 in.	2.312 in.	0.125 in.	2 ft	01104-22
2.500 in.	2.312 in.	0.187 in.	2 ft	01104-11
2.500 in.	2.312 in.	0.218 in.	2 ft	01104-12
2.500 in.	2.312 in.	0.092 in./0.108 in.	3 ft	01104-13
2.500 in.	2.312 in.	0.125 in.	3 ft	01104-23
2.500 in.	2.312 in.	0.187 in.	3 ft	01104-14
2.500 in.	2.312 in.	0.218 in.	3 ft	01104-15
2.500 in.	2.312 in.	0.092 in./0.108 in.	5 ft	01104-16
2.500 in.	2.312 in.	0.125 in.	5 ft	01104-24
2.500 in.	2.312 in.	0.187 in.	5 ft	01104-17
2.500 in.	2.312 in.	0.218 in.	5 ft	01104-18





## Multi-Roller Wheel Go-Devil - Cutter Type

The Weatherford BDK Multi-Roller Wheel Go-Devil is designed for use in deviated wells. The design offers a 360° wheel contact, which reduces the friction caused by contact with the tubing wall.

The go-devil will reach the fish without the normal problems associated with the conventional go devils. Proven success in wells up to 72° deviated.

### SPECIFICATIONS

#### Multi-Roller Wheel Go-Devil Cutter Type

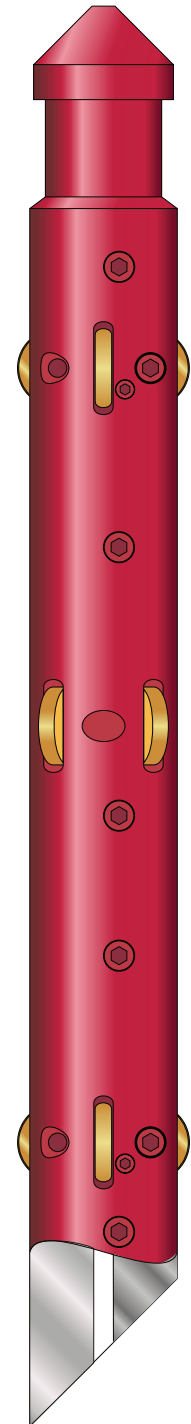
Body Diameter	Effective OD	Fish Neck	Wire Size	Length	Part Number
1.500 in.	1.750 in.	1.375 in.	0.187 in.	5 ft	10990
1.875 in.	2.000 in.	1.750 in.	0.092 in./0.125 in.	2 ft	5245-05
	2.125 in.	1.750 in.	0.092 in./0.125 in.	2 ft	5245-06
	2.250 in.	1.750 in.	0.092 in./0.125 in.	2 ft	5245-07
	2.000 in.	1.750 in.	0.187 in./0.218 in.	2 ft	5248-05
	2.125 in.	1.750 in.	0.187 in./0.218 in.	2 ft	5245-06
	2.250 in.	1.750 in.	0.187 in./0.218 in.	2 ft	5245-07
	2.000 in.	1.750 in.	0.092 in./0.125 in.	3 ft	5246-05
	2.125 in.	1.750 in.	0.092 in./0.125 in.	3 ft	5246-06
	2.250 in.	1.750 in.	0.092 in./0.125 in.	3 ft	5246-07
	2.000 in.	1.750 in.	0.187 in./0.218 in.	3 ft	5249-05
	2.125 in.	1.750 in.	0.187 in./0.218 in.	3 ft	5249-06
	2.250 in.	1.750 in.	0.187 in./0.218 in.	3 ft	5249-07
	2.000 in.	1.750 in.	0.092 in./0.125 in.	5 ft	5247-05
	2.125 in.	1.750 in.	0.092 in./0.125 in.	5 ft	5247-06
	2.250 in.	1.750 in.	0.092 in./0.125 in.	5 ft	5247-07
	2.000 in.	1.750 in.	0.187 in./0.218 in.	5 ft	5250-05
2.125 in.	1.750 in.	0.187 in./0.218 in.	5 ft	5250-06	
2.250 in.	1.750 in.	0.187 in./0.218 in.	5 ft	5250-07	

\*\*Connection code required, please refer to part number guide.

Additional sizes available on request.

Redress kits available on request.

(cont.)





SPECIFICATIONS

Multi-Roller Wheel Go-Devil - Cutter Type (cont.)

Body Diameter	Effective OD	Fish Neck	Wire Size	Length	Part Number
2.500 in.	2.710 in.	2.312 in.	0.092 in./0.125 in.	2 ft	5269-01
	2.900 in.	2.312 in.	0.092 in./0.125 in.	2 ft	5269-02
	3.000 in.	2.312 in.	0.092 in./0.125 in.	2 ft	5269-03
	3.250 in.	2.312 in.	0.092 in./0.125 in.	2 ft	5269-04
	2.710 in.	2.312 in.	0.187 in./0.218 in.	2 ft	5272-01
	2.900 in.	2.312 in.	0.187 in./0.218 in.	2 ft	5272-02
	3.000 in.	2.312 in.	0.187 in./0.218 in.	2 ft	5272-03
	3.250 in.	2.312 in.	0.187 in./0.218 in.	2 ft	5272-04
	2.710 in.	2.312 in.	0.092 in./0.125 in.	3 ft	5270-01
	2.900 in.	2.312 in.	0.092 in./0.125 in.	3 ft	5270-02
	3.000 in.	2.312 in.	0.092 in./0.125 in.	3 ft	5270-03
	3.250 in.	2.312 in.	0.092 in./0.125 in.	3 ft	5270-04
	2.710 in.	2.312 in.	0.187 in./0.218 in.	3 ft	5273-01
	2.900 in.	2.312 in.	0.187 in./0.218 in.	3 ft	5273-02
	3.000 in.	2.312 in.	0.187 in./0.218 in.	3 ft	5273-03
	3.250 in.	2.312 in.	0.187 in./0.218 in.	3 ft	5273-04
	2.710 in.	2.312 in.	0.092 in./0.125 in.	5 ft	5271-01
	2.900 in.	2.312 in.	0.092 in./0.125 in.	5 ft	5271-02
	3.000 in.	2.312 in.	0.092 in./0.125 in.	5 ft	5271-03
	3.250 in.	2.312 in.	0.092 in./0.125 in.	5 ft	5271-04
2.710 in.	2.312 in.	0.187 in./0.218 in.	5 ft	5274-01	
2.900 in.	2.312 in.	0.187 in./0.218 in.	5 ft	5274-02	
3.000 in.	2.312 in.	0.187 in./0.218 in.	5 ft	5274-03	
3.250 in.	2.312 in.	0.187 in./0.218 in.	5 ft	5274-04	

\*\*Connection code required, please refer to part number guide.

Additional sizes available on request.



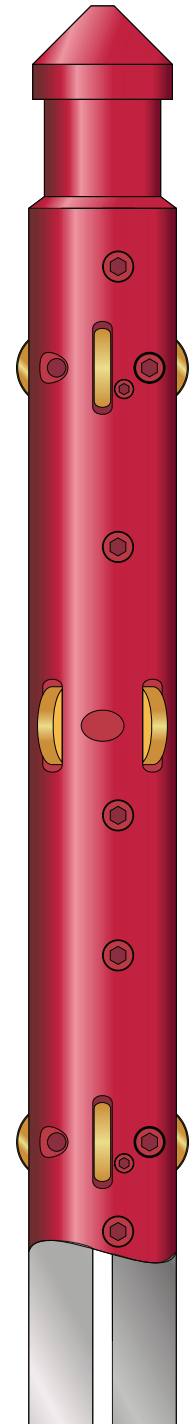
## Multi-Roller Wheel Go-Devil Flat-Bottom Type

The Weatherford BDK Multi-Roller Wheel Go-Devil is designed for use in deviated wells. The design offers a 360° wheel contact which reduces the friction caused by contact with the tubing wall. The go-devil will reach the fish without the normal problems associated with the conventional go-devils. Proven success in wells up to 72° deviated.

### SPECIFICATIONS

#### Multi-Roller Wheel Go-Devil Flat Bottom Type

Body Diameter	Effective OD	Fish Neck	Wire Size	Length
1.500 in.	1.750 in.	1.375 in.	0.092 in./ 0.125 in.	2 ft
	1.750 in.	1.375 in.	0.187 in.	2 ft
	1.750 in.	1.375 in.	0.092 in./ 0.125 in.	3 ft
	1.750 in.	1.375 in.	0.187 in.	3 ft
	1.750 in.	1.375 in.	0.092 in./ 0.125 in.	5 ft
	1.750 in.	1.375 in.	0.187 in.	5 ft
1.875 in.	2.000 in.	1.750 in.	0.092 in./ 0.125 in.	2 ft
	2.125 in.	1.750 in.	0.092 in./ 0.125 in.	2 ft
	2.250 in.	1.750 in.	0.092 in./ 0.125 in.	2 ft
	2.000 in.	1.750 in.	0.187 in./ 0.218 in.	2 ft
	2.125 in.	1.750 in.	0.187 in./ 0.218 in.	2 ft
	2.250 in.	1.750 in.	0.187 in./ 0.218 in.	2 ft
	2.000 in.	1.750 in.	0.092 in./ 0.125 in.	3 ft
	2.125 in.	1.750 in.	0.092 in./ 0.125 in.	3 ft
	2.250 in.	1.750 in.	0.092 in./ 0.125 in.	3 ft
	2.000 in.	1.750 in.	0.187 in./ 0.218 in.	3 ft
	2.125 in.	1.750 in.	0.187 in./ 0.218 in.	3 ft
	2.250 in.	1.750 in.	0.187 in./ 0.218 in.	3 ft
	2.000 in.	1.750 in.	0.092 in./ 0.125 in.	5 ft
	2.125 in.	1.750 in.	0.092 in./ 0.125 in.	5 ft
	2.250 in.	1.750 in.	0.092 in./ 0.125 in.	5 ft
	2.000 in.	1.750 in.	0.187 in./ 0.218 in.	5 ft
	2.125 in.	1.750 in.	0.187 in./ 0.218 in.	5 ft
	2.250 in.	1.750 in.	0.187 in./ 0.218 in.	5 ft



\*\*Connection code required, please refer to part number guide.  
 Additional sizes available on request.  
 Redress kits available on request.



SPECIFICATIONS

Multi-Roller Wheel Go-Devil Flat Bottom Type (cont.)

Body Diameter	Effective OD	Fish Neck	Wire Size	Length	Part Number
2.500 in.	2.710 in.	2.312 in.	0.092 in./ 0.125 in.	2 ft	5266-01
	2.900 in.	2.312 in.	0.092 in./ 0.125 in.	2 ft	5266-02
	3.000 in.	2.312 in.	0.092 in./ 0.125 in.	2 ft	5266-03
	3.250 in.	2.312 in.	0.092 in./ 0.125 in.	2 ft	5266-04
	2.710 in.	2.312 in.	0.187 in./ 0.218 in.	2 ft	5233-01
	2.900 in.	2.312 in.	0.187 in./ 0.218 in.	2 ft	5233-02
	3.000 in.	2.312 in.	0.187 in./ 0.218 in.	2 ft	5233-03
	3.250 in.	2.312 in.	0.187 in./ 0.218 in.	2 ft	5233-04
	2.710 in.	2.312 in.	0.092 in./ 0.125 in.	3 ft	5267-01
	2.900 in.	2.312 in.	0.092 in./ 0.125 in.	3 ft	5267-02
	3.000 in.	2.312 in.	0.092 in./ 0.125 in.	3 ft	5267-03
	3.250 in.	2.312 in.	0.092 in./ 0.125 in.	3 ft	5267-04
	2.710 in.	2.312 in.	0.187 in./ 0.218 in.	3 ft	5234-01
	2.900 in.	2.312 in.	0.187 in./ 0.218 in.	3 ft	5234-02
	3.000 in.	2.312 in.	0.187 in./ 0.218 in.	3 ft	5234-03
	3.250 in.	2.312 in.	0.187 in./ 0.218 in.	3 ft	5234-04
	2.710 in.	2.312 in.	0.092 in./ 0.125 in.	5 ft	5268-01
	2.900 in.	2.312 in.	0.092 in./ 0.125 in.	5 ft	5268-02
	3.000 in.	2.312 in.	0.092 in./ 0.125 in.	5 ft	5268-03
	3.250 in.	2.312 in.	0.092 in./ 0.125 in.	5 ft	5268-04
	2.710 in.	2.312 in.	0.187 in./ 0.218 in.	5 ft	5235-01
	2.900 in.	2.312 in.	0.187 in./ 0.218 in.	5 ft	5235-02
	3.000 in.	2.312 in.	0.187 in./ 0.218 in.	5 ft	5235-03
	3.250 in.	2.312 in.	0.187 in./ 0.218 in.	5 ft	5235-04

\*\*Connection code required, please refer to part number guide.  
 Additional sizes available on request.  
 Redress kits available on request.





## Wireline Grab - 2 Prong

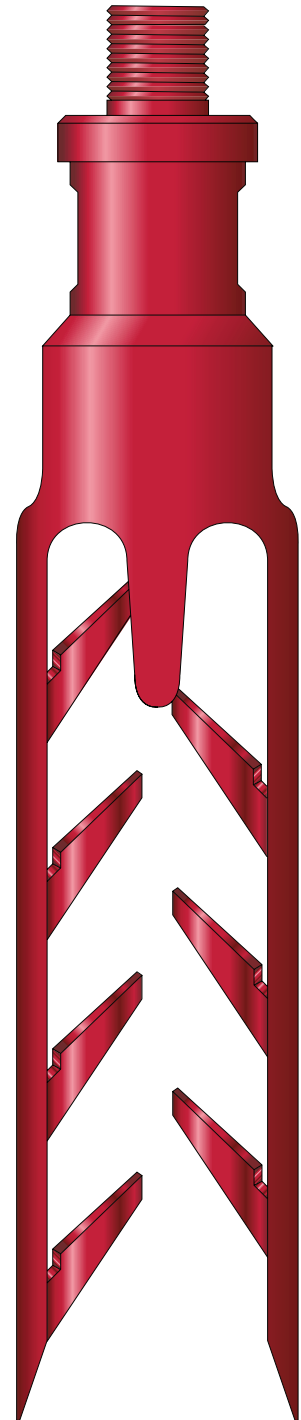
The Weatherford BDK Wireline Grab is used to retrieve broken slickline or braided line or cable downhole. A wireline finder is used to collect and ball up the wire before running the wireline grab. The barbs on the prongs will engage and hook onto the wire for retrieval.

### SPECIFICATIONS

#### Wireline Grab - 2 Prong

Part Number	Max OD	Fish Neck Size
02107-1500-2-**	1.500 in.	1.187 in. Fish Neck
02107-1750-2-**	1.750 in.	1.187 in. Fish Neck
02108-2000-2-**	2.000 in.	1.375 in. Fish Neck
02108-2250-2-**	2.250 in.	1.375 in. Fish Neck
02109-2500-2-**	2.500 in.	1.750 in. Fish Neck
02109-2750-2-**	2.750 in.	1.750 in. Fish Neck
02109-3000-2-**	3.000 in.	1.750 in. Fish Neck
02109-3250-2-**	3.250 in.	2.312 in. Fish Neck
02109-3500-2-**	3.500 in.	2.312 in. Fish Neck
02110-3750-2-**	3.750 in.	2.312 in. Fish Neck
02110-4000-2-**	4.000 in.	2.312 in. Fish Neck
02110-4250-2-**	4.250 in.	2.312 in. Fish Neck
02110-4500-2-**	4.500 in.	2.312 in. Fish Neck
02110-4750-2-**	4.750 in.	2.312 in. Fish Neck
02111-5000-2-**	5.000 in.	2.312 in. Fish Neck
02111-5250-2-**	5.250 in.	2.312 in. Fish Neck
02111-5500-2-**	5.500 in.	2.312 in. Fish Neck
02111-5750-2-**	5.750 in.	2.312 in. Fish Neck
02111-6000-2-**	6.000 in.	2.312 in. Fish Neck

\*\*Connection code required, please refer to part number guide.  
Additional sizes available on request.





## Wireline Grab - 3 Prong

The Weatherford BDK Wireline Grab is used to retrieve broken slickline or braided line or cable downhole. A wireline finder is used to collect and ball up the wire before running the wireline grab. The barbs on the prongs will engage and hook onto the wire for retrieval.

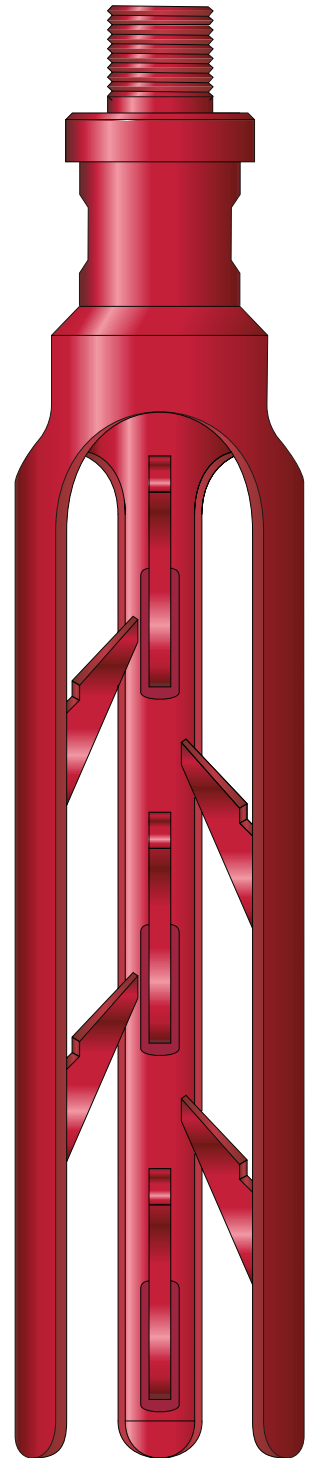
### SPECIFICATIONS

#### Wireline Grab - 3 Prong

Part Number	Max OD	Fish Neck Size
02108-2250-3-A3	2.250 in.	1.375 in. Fish Neck
02109-2500-3-A4	2.500 in.	1.750 in. Fish Neck
02109-2750-3-A4	2.750 in.	1.750 in. Fish Neck
02109-3000-3-A4	3.000 in.	1.750 in. Fish Neck
02109-3250-3-A5	3.250 in.	2.312 in. Fish Neck
02109-3500-3-A5	3.500 in.	2.312 in. Fish Neck
02110-3750-3-A5	3.750 in.	2.312 in. Fish Neck
02110-4000-3-A5	4.000 in.	2.312 in. Fish Neck
02110-4250-3-A5	4.250 in.	2.312 in. Fish Neck
02110-4500-3-A5	4.500 in.	2.312 in. Fish Neck
02110-4750-3-A5	4.750 in.	2.312 in. Fish Neck
02111-5000-3-A5	5.000 in.	2.312 in. Fish Neck
02111-5250-3-A5	5.250 in.	2.312 in. Fish Neck
02111-5500-3-A5	5.500 in.	2.312 in. Fish Neck
02111-5750-3-A5	5.750 in.	2.312 in. Fish Neck
02111-6000-3-A5	6.000 in.	2.312 in. Fish Neck

\*\*Connection code required, please refer to part number guide.

Additional sizes available on request.





## Wireline Grab - 4 Prong

The Weatherford BDK Wireline Grab is used to retrieve broken slickline or braided line or cable downhole. A wireline finder is used to collect and ball up the wire before running the wireline grab. The barbs on the prongs will engage and hook onto the wire for retrieval.

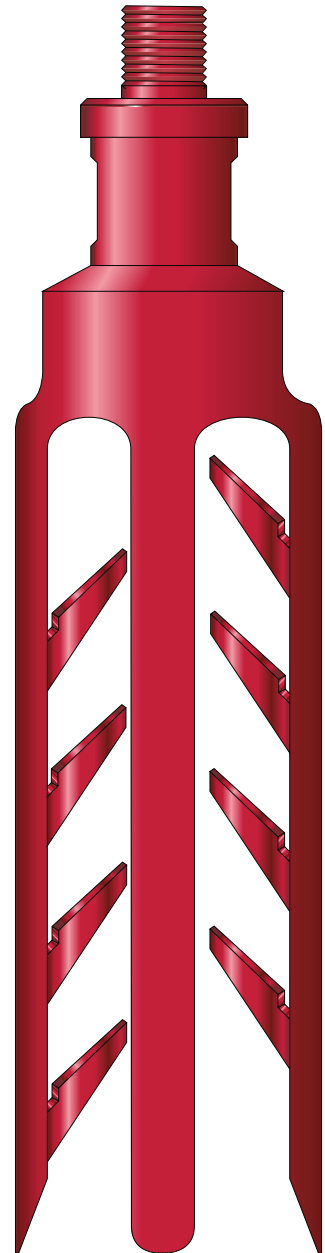
### SPECIFICATIONS

#### Wireline Grab - 4 Prong

Part Number	Max OD	Fish Neck Size
02108-2500-4-A4	2.500 in.	1.750 in. Fish Neck
02109-2750-4-A4	2.750 in.	1.750 in. Fish Neck
02109-3000-4-A5	3.000 in.	2.312 in. Fish Neck
02109-3250-4-A5	3.250 in.	2.312 in. Fish Neck
02109-3500-4-A5	3.500 in.	2.312 in. Fish Neck
02110-3750-4-A5	3.750 in.	2.312 in. Fish Neck
02110-4000-4-A5	4.000 in.	2.312 in. Fish Neck
02110-4250-4-A5	4.250 in.	2.312 in. Fish Neck
02110-4500-4-A5	4.500 in.	2.312 in. Fish Neck
02110-4750-4-A5	4.750 in.	2.312 in. Fish Neck
02111-5000-4-A5	5.000 in.	2.312 in. Fish Neck
02111-5250-4-A5	5.250 in.	2.312 in. Fish Neck
02111-5500-4-A5	5.500 in.	2.312 in. Fish Neck
02111-5750-4-A5	5.750 in.	2.312 in. Fish Neck
02111-6000-4-A5	6.000 in.	2.312 in. Fish Neck

\*\*Connection code required, please refer to part number guide.

Additional sizes available on request.





## Releasable Alligator Grab

### Tool Description

The Weatherford Petroline Releasable Alligator Grab was developed to retrieve loose debris or 'junk' from a wellbore, even at depth at high deviation.

The releasable alligator grab, when in the 'run' position requires a small pin to be sheared before it can activate. This is accomplished by light downward jarring once the 'junk' is located. This prevents premature activation when ID restrictions in the wellbore are encountered. In addition, there is a safety release feature so that if the debris is not retrievable, upward jarring shears a release pin that allows the grab to disengage.

Both these features are further enhanced by the adjustable spring rating, which determines how much force is generated when activated.

### Applications

- Slickline or braided line fishing operations

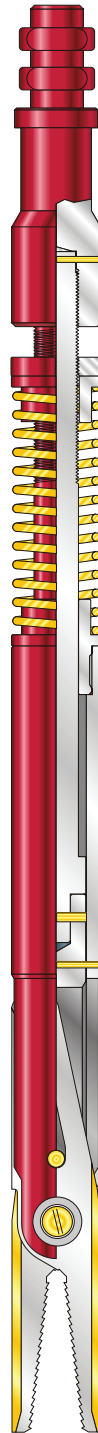
### Features and Benefits

- Custom jaws available on request
- Adjustable spring rating
- Shear release mechanism

### SPECIFICATIONS

#### Releasable Alligator Grab

Part Number	Max OD	Connection
442-1500-00-02	1.500 in.	15/16 in. Sucker Rod
442-1500-00-03	1.500 in.	1-1/2 in. QLS
442-1875-00-04	1.881 in.	1-1/16 in. Sucker Rod
442-1875-00-05	1.881 in.	15/16 in. Sucker Rod
442-1875-00-06	1.881 in.	1-7/8 in. QLS
442-2500-00-02	2.506 in.	1-9/16 in. Sucker Rod
442-2500-00-03	2.506 in.	1-7/8 in. QLS
442-2500-00-04	2.506 in.	1-1/16 in. Sucker Rod
442-2500-00-05	2.506 in.	2-1/2 in. QLS





## Expandable Grab

The Weatherford BDK Expandable Grab is generally run after the wirefinder. The spring-loaded prongs of the Grab continually run against the tubing wall, ensuring that the slickline or braided line will entangle inside the prongs of the Grab.

The advantage of the expandable grab over the more conventional tool, is that it will not pass through the center of the wire coils if the line has not been balled correctly. It will also pass through restricted internal diameters of nipples etc. Expanding into larger internal diameters further downhole.

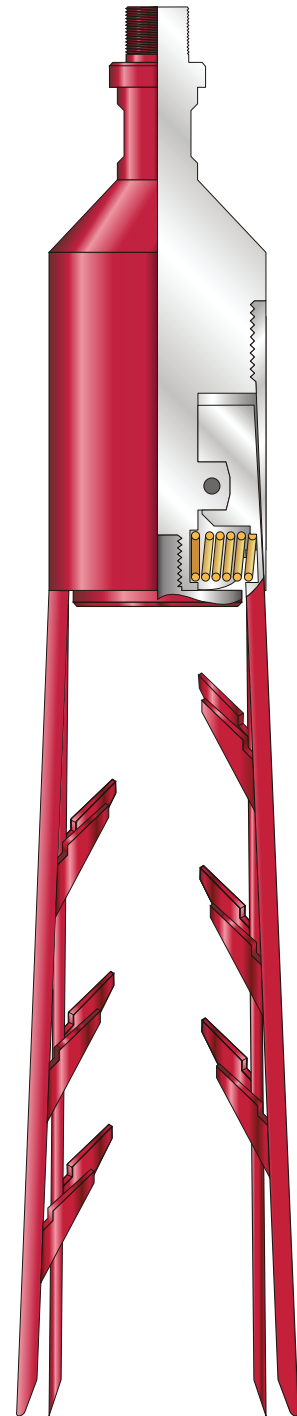
The expandable grab is manufactured with a central box thread so a center spear can be attached if required.

### SPECIFICATIONS

#### Expandable Grab

Part Number	Max OD	Fish Neck	Size Connection
12365-A4	2.30 in. - 5.00 in.	1.750 in. Fish Neck	1-1/16 in. Sucker Rod
12365-C4	2.30 in. - 5.00 in.	1.750 in. Fish Neck	1.875 in. HDQRJ
12365-Q4	2.30 in. - 5.00 in.	1.750 in. Fish Neck	1.875 in. QLS
5850-A4	2.60 in. - 6.25 in.	1.750 in. Fish Neck	1-1/16 in. Sucker Rod
5850-C4	2.60 in. - 6.25 in.	1.750 in. Fish Neck	1.875 in. HDQRJ
5850-Q4	2.60 in. - 6.25 in.	1.750 in. Fish Neck	1.875 in. QLS
02450-A6	2.70 in. - 6.18 in.	2.312 in. Fish Neck	1-9/16 in. Sucker Rod
02450-C6	2.70 in. - 6.18 in.	2.312 in. Fish Neck	2.500 in. HDQRJ
02450-Q6	2.70 in. - 6.18 in.	2.312 in. Fish Neck	2.500 in. QLS
02491-A6	3.18 in. - 6.00 in.	2.312 in. Fish Neck	1-9/16 in. Sucker Rod
02491-C6	3.18 in. - 6.00 in.	2.312 in. Fish Neck	2.500 in. HDQRJ
02491-Q6	3.18 in. - 6.00 in.	2.312 in. Fish Neck	2.500 in. QLS
8746-A6	5.00 in. - 9.00 in.	2.312 in. Fish Neck	1-9/16 in. Sucker Rod
8746-C6	5.00 in. - 9.00 in.	2.312 in. Fish Neck	2.500 in. HDQRJ
8746-Q6	5.00 in. - 9.00 in.	2.312 in. Fish Neck	2.500 in. QLS

QRJ™ and Trinity™ connections available on request.  
Additional sizes available on request.



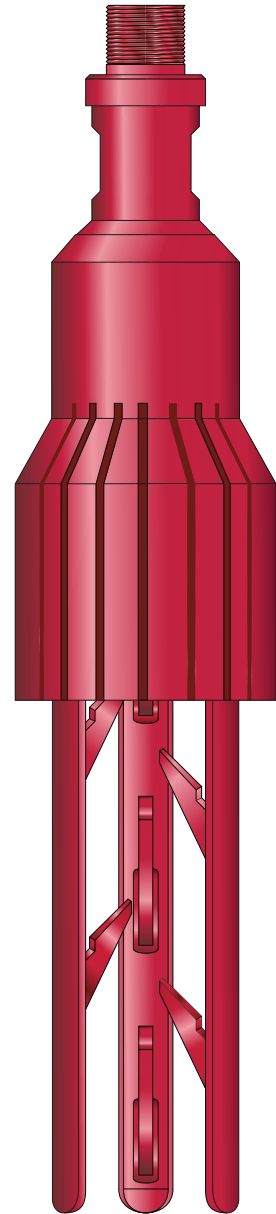


## Finder Grab

### Tool Description

The Weatherford Petroline Finder Grab is used in the same manner as a conventional wire grab to retrieve broken wire downhole. However, with the addition of a wireline finder skirt, there are a number of benefits. The number of slickline or braided line runs needed can be significantly reduced as the finder/grab combination negates the need for separate wirefinder and wire grab runs. Also the possibility of passing the top of the wire is significantly reduced compared with a conventional wire grab.

Various size wire finders can be supplied for each different grab size. Part numbers available on request.





## High Impact Integrated Toolstring (H.I.I.T.)

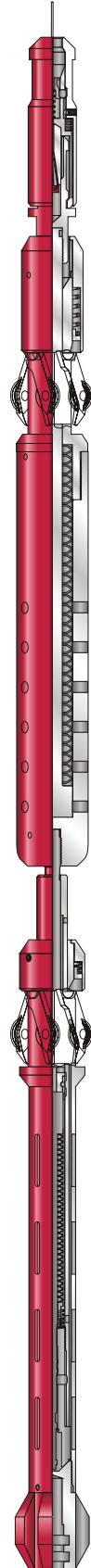
### Tool Description

The Weatherford Petroline H.I.I.T. system has been developed to allow a complete suite of tools to be run with the maximum performance in the shortest configuration. This tool is ideally suited to highly deviated applications or when height restrictions prevail.

The H.I.I.T. system has the following field proven Weatherford Petroline equipment incorporated in the assembly:

- Accelerator
- Tubular Jar
- Adjustable Upstroke Jar

Tools are manufactured to any size required.  
Part numbers are available on request.





## Easy Adjust Jar (EAJ)

### Tool Description

The Weatherford Petroline Easy Adjust Jar was developed for operations in which extreme jarring performance is required. Providing a greater impact force than the adjustable upstroke jar, it is especially suited to jarring in high deviation wells.

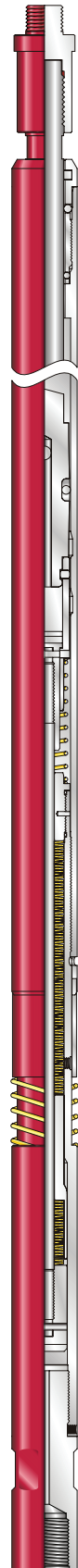
The easy adjust jar impact force can be adjusted without removal from the toolstring.

### Applications

- Standard and high angle wireline operations
- Slickline or braided line fishing operations
- Water, oil or gas environments

### Features and Benefits

- Fully adjustable without removal from toolstring
- Locking feature preventing in-well back-off while downhole
- Secondary spring stack for better control at lower jar settings
- Spring only compressed during actual firing operation
- Low frictional forces between jar rod and housing
- Hydraulic calibration
- Range of sizes from 1.750 in. to 2.500 in.
- Matched stroke accelerators available
- Increased impact force from conventional jar designs due to low-friction design
- Reduced OPEX
- Improved debris tolerance
- Low maintenance costs
- No potential for gas migration, which reduces impact forces







SPECIFICATIONS

Easy Adjust Jar (EAJ)

Size	Part Number	Connection	Material	Stroke	Operating Range
1-3/4 in.	401-1750-000-002	1-1/2 in. QLS	aisi 4140 30-36	12.50 in.	375 - 1200 lbs
1-7/8 in.	401-1875-00-01	1-7/8 in. QLS	aisi 4140 30-36	12.50 in.	350 - 1400 lbs
1-7/8 in.	401-1875-00-02	1-1/16 in. Sucker Rod	aisi 4140 30-36	12.50 in.	350 - 1400 lbs
2-1/8 in.	401-2125-00-02	2-1/8 in. QLS	aisi 4140 30-36	14.00 in.	350 - 2000 lbs
2-1/8 in.	401-2125-00-03	2-1/2 in. QLS	aisi 4140 30-36	13.00 in.	400 - 4000 lbs
2-1/8 in.	401-2125-00-04	1-1/16 in. Sucker Rod	aisi 4140 30-36	14.00 in.	400 - 4000 lbs
2-1/8 in.	401-2125-000-011	1-7/8 in. QLS	aisi 4140 30-36	14.00 in.	400 - 4000 lbs
2-1/2 in.	401-2500-00-01	1-1/2 in. QLS	aisi 4140 30-36	14.00 in.	400 - 4000 lbs
2-1/2 in.	401-2500-00-02	1-9/16 in. Sucker Rod	aisi 4140 30-36	14.00 in.	400 - 4000 lbs
2-1/2 in.	401-2500-00-04	2-1/2 in. Trinity	aisi 4140 30-36	14.00 in.	400 - 4000 lbs

Redress kits available on request.

Universal Calibration Tool

To Calibrate Jar Sizes	Jar Fishneck Sizes	Calibration Sub Assembly Number
1.500 in. to 2.125 in.	1.375 in. / 1.750 in.	736219
2.500 in. / 2.687 in.	2.312 in.	725709



# High-Deviation Tubular Jar

## Tool Description

The Weatherford Petroline High-Deviation Tubular Jar is designed to deliver impact forces either upwards or downwards in highly deviated wells.

Bearings, which are in both the anvil and the bushing, allow effective jarring at high deviations. Because the bearings prevent sliding friction as in spang jars, and coupled with the large-diameter jar rod, they also prevent friction bind at the bushing that obstructs the closing action of the jar.

The design incorporates fluid by-pass holes in the body to optimize the velocity of the anvil to impact.

## Applications

- Standard or high angle slickline or braided line operations

## Features and Benefits

- Robust ball races reduce jar friction
- Full diameter jar rod gives high tensile rating
- Water jet cut slots eliminate hydraulic damping effects
- Debris ingress to jar body prevented by water jet slots, as opposed to drilled holes
- Improved jar action over standard jars

## SPECIFICATIONS

### High Deviation Tubular Jar

Part Number	Max OD	Connection	Stroke	Length Closed
491-1500-000-001	1-1/2 in.	1-1/2 in. QLS	20 in.	36.40 in.
491-1750-000-001	1-3/4 in.	1-1/2 in. QLS	20 in.	41.16 in.
491-1875-00-01	1-7/8 in.	1-7/8 in. QLS	23.62 in.	42.50 in.
491-1875-00-02	1-7/8 in.	1-7/8 in. QLS	30 in.	48.88 in.
491-2125-00-01	2-1/8 in.	2-1/8 in. QLS	23.62 in.	45.25 in.
491-2500-00-01	2-1/2 in.	2-1/2 in. QLS	30 in.	53.87 in.

Available with alternative connections upon request.





## Mark III Hydro-Mechanical Jar

### Tool Description

The Weatherford BDK Mark III Hydro-Mechanical Jar incorporates a hydraulic assembly, which allows for interchangeability of parts to reduce cost of redress. An expansion chamber accommodates any thermal expansion of the working fluid. Modifications to the hydraulics provide consistent firing times and easy re-latching.

The release/delay mechanism comprises a short stroke hydraulic unit linked to a mechanical jarring system. Elimination of the jar rod seal (present in traditional hydraulic jars) reduces the possibility of gas infiltration.

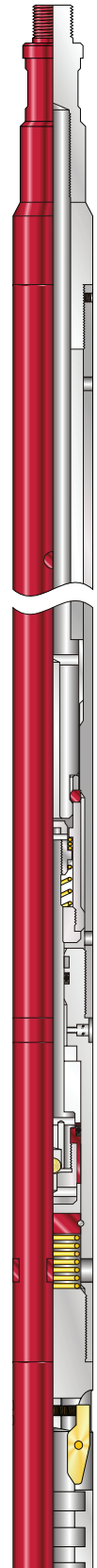
Being principally hydraulic, the hydro-mechanical jar does not require presetting or calibration; it can be activated by exerting any overpull desired by the operator, yet when the jar fires it generates an unrestricted impact force.

Hydro-mechanical jars are available in 1.500 in., 1.687 in., 1.875 in., 2.125 in. and 2.500 in. diameters, and can be supplied with matched Weatherford BDK HD Accelerators.

Each jar is supplied filled with silicone oil, fully tested and tagged indicating test results.

### Features

- No calibration or presetting
- Less prone to gas infiltration than conventional hydraulic jars
- Suitable for use in high temperature wells (200°C / 392°F)
- Consistent firing times
- Reduced maintenance cost
- Longer seal life resulting in increased reliability





SPECIFICATIONS

Hydro-Mechanical Jar

Tool OD	Part Number	Connection	Effective Stroke	Operating Range
1.250 in.	12900-A2	15/16 in. Sucker Rod	9.5 in.	300 - 1000 lbs
1.250 in.	12900-Q2	1-1/4 in. QLS	9.5 in.	300 - 1000 lbs
1.500 in.	12316-A3	15/16 in. Sucker Rod	7.5 in.	300 - 1100 lbs
1.500 in.	12316-C3	1-1/2 in. HDQRJ	7.5 in.	300 - 1100 lbs
1.500 in.	12316-Q3	1-1/2 in. QLS	7.5 in.	300 - 1100 lbs
1.687 in.	12331-A3	15/16 in. Sucker Rod	7.5 in.	300 - 1100 lbs
1.687 in.	12331-C3	1-1/2 in. HDQRJ	7.5 in.	300 - 1100 lbs
1.687 in.	12331-Q3	1-1/2 in. QLS	7.5 in.	300 - 1100 lbs
1.875 in.	12304-A4	1-1/16 in. Sucker Rod	12 in.	400 - 3000 lbs
1.875 in.	12304-C4	1-7/8 in. HDQRJ	12 in.	400 - 3000 lbs
1.875 in.	12304-Q4	1-7/8 in. QLS	12 in.	400 - 3000 lbs
2.125 in.	12317-A4	1-1/16 in. Sucker Rod	12 in.	400 - 3000 lbs
2.125 in.	12317-C4	1-7/8 in. HDQRJ	12 in.	400 - 3000 lbs
2.125 in.	12317-Q4	1-7/8 in. QLS	12 in.	400 - 3000 lbs
2.500 in.	12318-A6	1-9/16 in. Sucker Rod	13 in.	1000 - 7000 lbs
2.500 in.	12318-C6	2-1/2 in. HDQRJ	13 in.	1000 - 7000 lbs
2.500 in.	12318-Q6	2-1/2 in. QLS	13 in.	1000 - 7000 lbs

Note: Minimum operating range is based on use with matched accelerator.  
 QR™ and Trinity™ connections available on request.  
 Additional sizes available on request.



# Knuckle Jar

## Tool Description

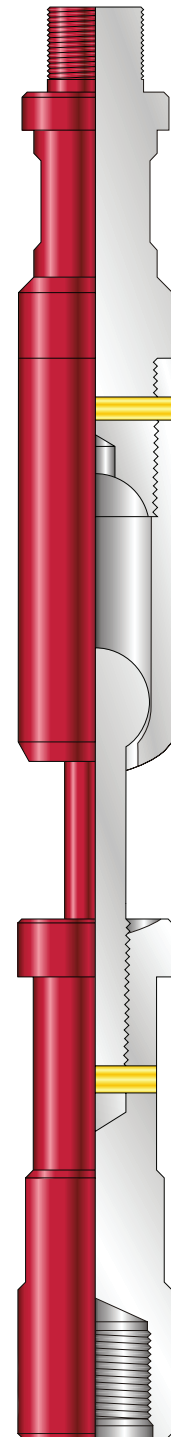
The Weatherford BDK Knuckle Jar is similar in construction to the knuckle joint. The knuckle jar design incorporates a length extension of the socket that allows the ball to move vertically for light jarring.

## SPECIFICATIONS

### Knuckle Jar

Part Number	Max OD	Fish Neck Size	Connection	Stroke
01023-02-A2	1.250 in.	1.187 in. Fish Neck	15/16 in. Sucker Rod	2 in. Stroke
01023-02-Q2	1.250 in.	1.187 in. Fish Neck	1.250 in. QLS	2 in. Stroke
13035-A3	1.500 in.	1.187 in. Fish Neck	15/16 in. Sucker Rod	2 in. Stroke
13035-C3	1.500 in.	1.375 in. Fish Neck	1.500 in. HDQRJ	2 in. Stroke
13035-Q3	1.500 in.	1.187 in. Fish Neck	1.500 in. QLS	2 in. Stroke
13038-A4	1.875 in.	1.750 in. Fish Neck	1-1/16 in. Sucker Rod	2 in. Stroke
13038-C4	1.875 in.	1.750 in. Fish Neck	1.875 in. HDQRJ	2 in. Stroke
13038-Q4	1.875 in.	1.750 in. Fish Neck	1.875 in. QLS	2 in. Stroke
13041-A4	2.125 in.	1.750 in. Fish Neck	1-1/16 in. Sucker Rod	2 in. Stroke
13041-C4	2.125 in.	1.750 in. Fish Neck	1.875 in. HDQRJ	2 in. Stroke
13041-Q4	2.125 in.	1.750 in. Fish Neck	2.125 in. QLS	2 in. Stroke
13044-A6	2.500 in.	1.750 in. Fish Neck	1-9/16 in. Sucker Rod	2 in. Stroke
13044-C6	2.500 in.	2.312 in. Fish Neck	2.500 in. HDQRJ	2 in. Stroke
13044-Q6	2.500 in.	2.312 in. Fish Neck	2.500 in. QLS	2 in. Stroke

QRJ™ and Trinity™ connections available on request.  
Additional sizes available on request.





## Multi-Roller Wheel Tubular Linear Jar

### Tool Description

The Weatherford BDK Multi-Roller Wheel Linear Jar is designed for use in highly deviated wells. The design offers a 360° wheel contact which reduces the friction caused by contact with the tubing wall. The multi-roller wheel linear jar is a telescoping jar that should be run in conjunction with a wireline stem and installed immediately below. The linear bearings create a frictionless action, allowing full force of impact from the stem above. The multi-roller wheel linear jar has a sturdy in construction, making it ideal for use in deviated wells and heavy wireline situations.

Proven success in wells up to 72° deviation.

### SPECIFICATIONS

#### Multi-Roller Wheel Tubular Linear Jar

Tool OD		1.50 in.	1.87 in.	2.12 in.	2.50 in.
*Make-up Length Closed	Thread	52.38 in.	51.50 in.	55.50 in.	58.00 in.
	QRJ	54.88 in.	57.50 in.	58.50 in.	62.25 in.
Weight	20 in. Stroke	9.8 kg	15.1 kg	23.1 kg	31.7 kg
	24 in. Stroke	----	16.4 kg	26.4 kg	36.6 kg
	30 in. Stroke	----	17.7 kg	29.7 kg	42.1 kg
Effective OD		1.750 in.	2.000 in.	2.250 in.	2.710 in.
		----	2.125 in.	2.375 in.	2.900 in.
		----	2.250 in.	2.500 in.	3.000 in.
		----	----	2.625 in.	3.250 in.
Strength Standard Service	SWL	23,690 lb	36,920 lb	59,750 lb	80,366 lb
	Yield	26,330 lb	41,025 lb	66,380 lb	89,296 lb
	UTS	32,910 lb	52,210 lb	84,495 lb	111,620 lb
Strength H <sub>2</sub> S Service	SWL	18,420 lb	26,580 lb	43,450 lb	71,710 lb
	Yield	20,470 lb	29,830 lb	48,280 lb	79,678 lb
	UTS	25,590 lb	37,290 lb	60,350 lb	99,590 lb
Assembly Number		<b>10998</b> Effective Stroke Connection	<b>8762</b> Effective Stroke Connection	<b>8770</b> Effective Stroke Connection	<b>5439</b> Effective Stroke Connection

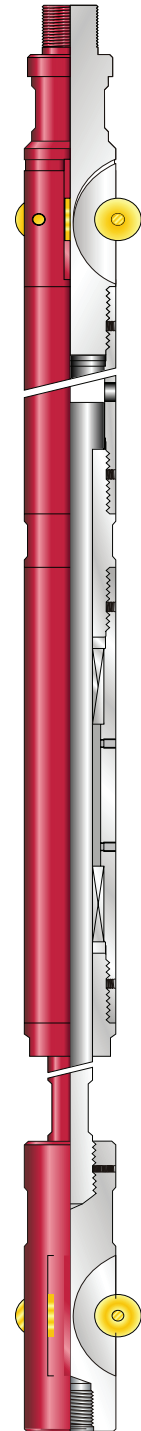
NOTE: Assembly number consists of drawing number-effective OD-stroke connection.

For Example, 10998-1750-20-A3

NOTE: Weights stated are approximate.

Add suffix 'H' to assembly numbers for H<sub>2</sub>S service.

\*Make-up lengths stated are for jars with 20 in. stroke. Additional sizes available on request.





## Mechanical Link Jar (Spring Jar)

### Tool Description

The Weatherford BDK Mechanical Link Jar utilizes the weight of stems connected immediately above to deliver effective up-and-down-stroke jarring impacts. The design is based on an open link, with telescopic action.

### SPECIFICATIONS

#### Mechanical Link Jar

OD	Stroke	Length Closed	Length Open	Weight	Part Number	Strengths		
						SWL	Yield	UTS
0.75 in.	12 in.	29 in.	41 in.	----	12740	10,800 lb	12,000	15,000
1.25 in.	20 in.	48 in.	68 in.	5.5 kg	01256-01- <sup>**</sup>	33,200 lb	36,900 lb	46,200 lb
	24 in.	52 in.	76 in.	6 kg	01256-02- <sup>**</sup>			
	30 in.	58 in.	88 in.	7 kg	01256-03- <sup>**</sup>			
1.50 in.	20 in.	50 in.	70 in.	8.6 kg	01257-01- <sup>**</sup>	48,100 lb	53,400 lb	66,800 lb
	24 in.	54 in.	78 in.	9.1 kg	01257-02- <sup>**</sup>			
	30 in.	60 in.	90 in.	10.1 kg	01257-03- <sup>**</sup>			
1.87 in.	20 in.	50 in.	70 in.	12.5 kg	01258-01- <sup>**</sup>	75,600 lb	84,000 lb	105,000 lb
	24 in.	54 in.	78 in.	13.4 kg	01258-02- <sup>**</sup>			
	30 in.	60 in.	90 in.	15 kg	01258-03- <sup>**</sup>			
2.12 in.	20 in.	50 in.	70 in.	16.2 kg	01259-01- <sup>**</sup>	98,100 lb	109,000 lb	136,200 lb
	24 in.	54 in.	78 in.	17 kg	01259-02- <sup>**</sup>			
	30 in.	60 in.	90 in.	19 kg	01259-03- <sup>**</sup>			
2.50 in.	20 in.	55 in.	75 in.	27.5 kg	01260-01- <sup>**</sup>	134,550 lb	149,500 lb	186,900 lb
	24 in.	59 in.	83 in.	28.3 kg	01260-02- <sup>**</sup>			
	30 in.	65 in.	95 in.	30.2 kg	01260-03- <sup>**</sup>			

ALL LENGTHS ARE APPROXIMATE

<sup>\*\*</sup>Connection code required, please refer to part number guide.

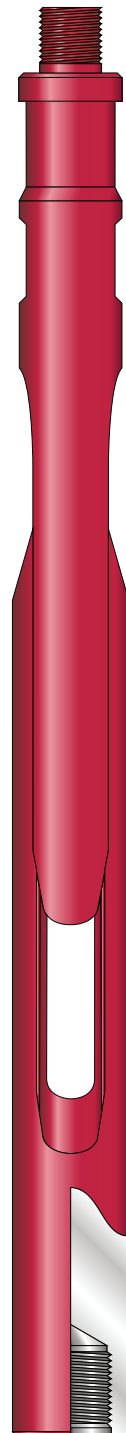
Strengths stated excluding connections, for standard service only (H<sub>2</sub>S service not available).

Add suffix 'H' to part number for H<sub>2</sub>S service.

NOTE:

0.75 in. OD mechanical link jar is available only with threaded connections.

1.25 in. OD mechanical link jar is not available with HD QRJ or Trinity connections.





# Spring Jar

## Tool Description

The Weatherford BDK Spring Jar is a telescoping upstroke jar that should be run in conjunction with the wireline stem installed immediately above. The spring jar can be adjusted on or off the toolstring at surface to a predetermined release force, therefore offering the operator a controlled impact force at the tool during heavy duty wireline operations.

The spring jar operation has been designed using the minimum of working parts, which offers the operator a fast and simple redress, should it become necessary. By utilizing the universal calibration tool, the jar values can be varied to suit operating conditions.

## SPECIFICATIONS

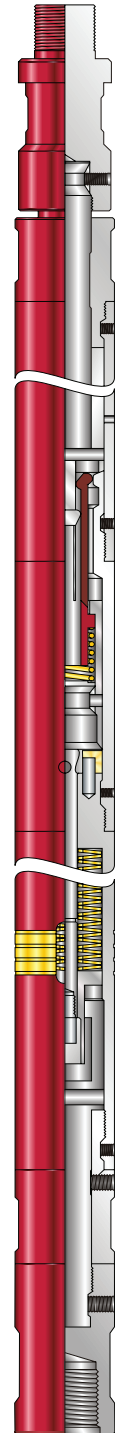
### Spring Jar

Part Number	Max OD	Fish Neck Size	Stroke	Range
4381-A3	1.500 in.	1.375 in. Fish Neck	10.50 in.	300 to 1100 lbs
4381-C3	1.500 in.	1.375 in. Fish Neck	10.50 in.	300 to 1100 lbs
4381-Q3	1.500 in.	1.375 in. Fish Neck	10.50 in.	300 to 1100 lbs
4128-A4	1.875 in.	1.750 in. Fish Neck	12.00 in.	400 to 3000 lbs
4128-C4	1.875 in.	1.750 in. Fish Neck	12.00 in.	400 to 3000 lbs
4128-Q4	1.875 in.	1.750 in. Fish Neck	12.00 in.	400 to 3000 lbs
6987-A4	2.125 in.	1.750 in. Fish Neck	12.00 in.	400 to 3000 lbs
6987-C4	2.125 in.	1.750 in. Fish Neck	12.00 in.	400 to 3000 lbs
6987-Q4	2.125 in.	1.750 in. Fish Neck	12.00 in.	400 to 3000 lbs
9884-A6	2.500 in.	2.313 in. Fish Neck	15.00 in.	1000 to 7000 lbs
9884-C6	2.500 in.	2.313 in. Fish Neck	15.00 in.	1000 to 7000 lbs
9884-Q6	2.500 in.	2.313 in. Fish Neck	15.00 in.	1000 to 7000 lbs

\*\*Connection code required, please refer to part number guide.

Additional sizes available on request.

Redress kits available on request.







# Tubular Jar

## Tool Description

The Weatherford BDK Tubular Jar is designed to deliver upward or downward impact forces. The tubular jar is normally utilized in fishing operations where debris or wire could have an adverse impact on conventional mechanical jars. The design of the tubular jars includes fluid bypass holes in the body to optimize the velocity of the anvil to impact and prevent debris ingress during fishing operations.

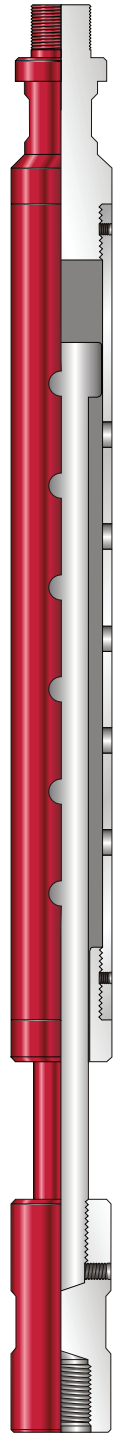
## SPECIFICATIONS

### Tubular Jar

Part Number	Max OD	Fish Neck Size	Stroke
13473	1.12 in.	1.000 in.	12 in. Stroke
13474-12- <sup>**</sup>	1.25 in.	1.000 in.	12 in. Stroke
13474-20- <sup>**</sup>	1.25 in.	1.000 in.	20 in. Stroke
13475-12- <sup>**</sup>	1.500 in.	1.375 in.	12 in. Stroke
13475-20- <sup>**</sup>	1.500 in.	1.375 in.	20 in. Stroke
13475-24- <sup>**</sup>	1.500 in.	1.375 in.	24 in. Stroke
13475-30- <sup>**</sup>	1.500 in.	1.375 in.	30 in. Stroke
13477-12- <sup>**</sup>	1.750 in.	1.375 in.	12 in. Stroke
13477-20- <sup>**</sup>	1.750 in.	1.375 in.	20 in. Stroke
13477-24- <sup>**</sup>	1.750 in.	1.375 in.	24 in. Stroke
13477-30- <sup>**</sup>	1.750 in.	1.375 in.	30 in. Stroke
13478-12- <sup>**</sup>	1.875 in.	1.750 in.	12 in. Stroke
13478-20- <sup>**</sup>	1.875 in.	1.750 in.	20 in. Stroke
13478-24- <sup>**</sup>	1.875 in.	1.750 in.	24 in. Stroke
13478-30- <sup>**</sup>	1.875 in.	1.750 in.	30 in. Stroke
13480-12- <sup>**</sup>	2.000 in.	1.750 in.	12 in. Stroke
13480-20- <sup>**</sup>	2.000 in.	1.750 in.	20 in. Stroke
13480-24- <sup>**</sup>	2.000 in.	1.750 in.	24 in. Stroke
13480-30- <sup>**</sup>	2.000 in.	1.750 in.	30 in. Stroke
13481-12- <sup>**</sup>	2.125 in.	1.750 in.	12 in. Stroke
13481-20- <sup>**</sup>	2.125 in.	1.750 in.	20 in. Stroke
13481-24- <sup>**</sup>	2.125 in.	1.750 in.	24 in. Stroke
13481-30- <sup>**</sup>	2.125 in.	1.750 in.	30 in. Stroke
13482-12- <sup>**</sup>	2.500 in.	2.312 in.	12 in. Stroke
13482-20- <sup>**</sup>	2.500 in.	2.312 in.	20 in. Stroke
13482-24- <sup>**</sup>	2.500 in.	2.312 in.	24 in. Stroke
13482-30- <sup>**</sup>	2.500 in.	2.312 in.	30 in. Stroke

<sup>\*\*</sup>Connection code required, please refer to part number guide.

Additional sizes available on request.





## Tubular Linear Jar

### Tool Description

The Weatherford BDK Tubular Linear Jar is an original unique design by BD Kendle Engineering Limited. It is a telescoping jar that should be run in conjunction with wireline stem installed immediately above. The linear bearings create a frictionless action, allowing full force of impact from the stem above. The tubular linear jar is the ideal tool for use in deviated wells.

This tool has a proven record of success in wells with 65° -75 ° deviation.

### SPECIFICATIONS

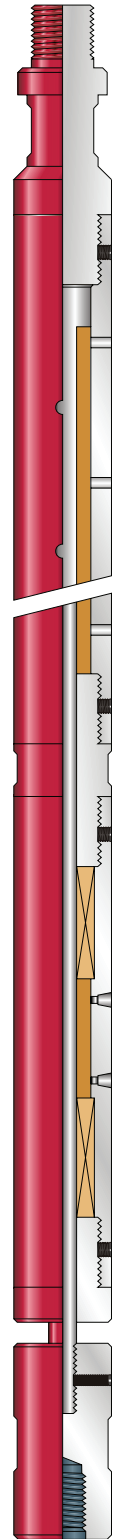
#### Tubular Linear Jar

Part Number	Max OD	Stroke	Fish Neck Size
11316-001- <sup>**</sup>	1.500 in.	20 in. Stroke	1.375 in. Fish Neck
11316-002- <sup>**</sup>	1.500 in.	24 in. Stroke	1.375 in. Fish Neck
11316-003- <sup>**</sup>	1.500 in.	30 in. Stroke	1.375 in. Fish Neck
11654-001- <sup>**</sup>	1.750 in.	20 in. Stroke	1.375 in. Fish Neck
11654-002- <sup>**</sup>	1.750 in.	24 in. Stroke	1.375 in. Fish Neck
11654-003- <sup>**</sup>	1.750 in.	30 in. Stroke	1.375 in. Fish Neck
11684-001- <sup>**</sup>	1.875 in.	20 in. Stroke	1.750 in. Fish Neck
11684-002- <sup>**</sup>	1.875 in.	24 in. Stroke	1.750 in. Fish Neck
11684-003- <sup>**</sup>	1.875 in.	30 in. Stroke	1.750 in. Fish Neck
11712-001- <sup>**</sup>	2.125 in.	20 in. Stroke	1.750 in. Fish Neck
11712-002- <sup>**</sup>	2.125 in.	24 in. Stroke	1.750 in. Fish Neck
11712-003- <sup>**</sup>	2.125 in.	30 in. Stroke	1.750 in. Fish Neck
11741-001- <sup>**</sup>	2.500 in.	20 in. Stroke	1.750 in. Fish Neck
11741-002- <sup>**</sup>	2.500 in.	24 in. Stroke	1.750 in. Fish Neck
11741-003- <sup>**</sup>	2.500 in.	30 in. Stroke	1.750 in. Fish Neck

<sup>\*\*</sup>Connection code required, please refer to part number guide.

Additional sizes available on request.

Redress kits available on request.



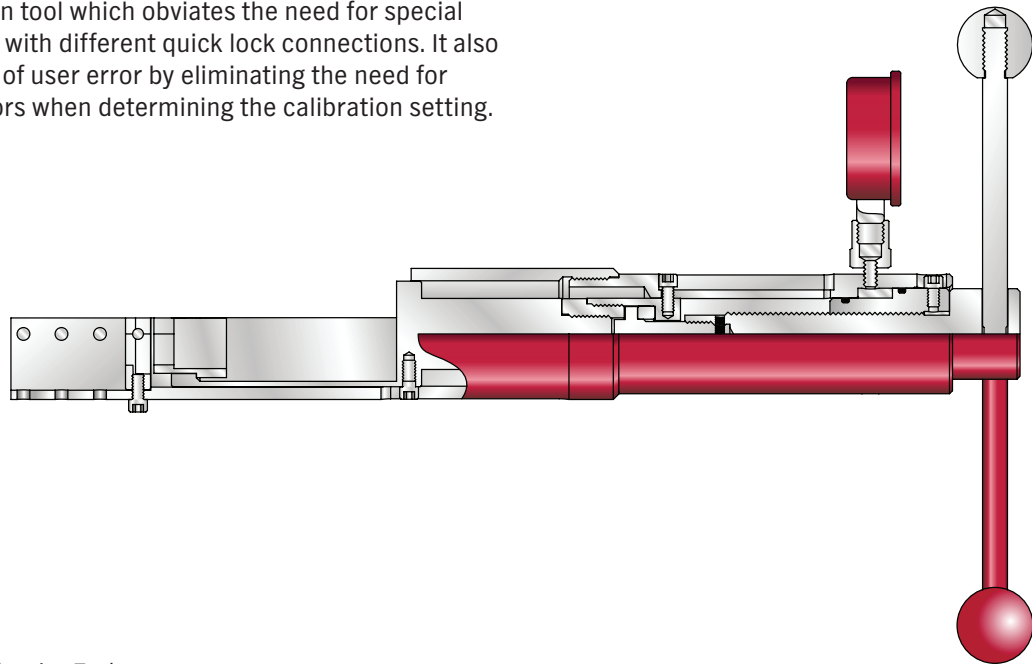


## Jar - Universal Calibration Tool

### Tool Description

The Weatherford BDK Universal Calibration Tool allows quick and simple setting of the release force for all Weatherford jars (BDK Spring, Petrolin PAJ, and EAJ), irrespective of the connection. The tool features direct lead screw actuation and accurate hydraulic-load sensing.

These tools have been designed to be user friendly providing a compact design tool which obviates the need for special adaptors for use with different quick lock connections. It also reduces the risk of user error by eliminating the need for multiplying factors when determining the calibration setting.



### SPECIFICATIONS

#### Jar - Universal Calibration Tool

To Calibrate Jar Sizes	Jar Fishneck Sizes	Calibration Sub Assembly Number
1.500 in. to 2.125 in.	1.375 in. / 1.750 in.	736219
2.500 in. / 2.687 in.	2.312 in.	725709



## J-Slot Rotating Tool

### Tool Description

The Weatherford BDJ J-Slot Rotating Tool is designed to rotate the toolstring in a controlled manner.

To operate the j-slot rotating tool, simply set the toolstring down. As the tool is telescoped down, it rotates to its next indexing. Subsequent up and down movements will continue to rotate the toolstring.

The j-slot rotation tool can be used to loosen debris from around fishing necks and gas valves etc.

### SPECIFICATIONS

#### J-Slot Rotating Tool

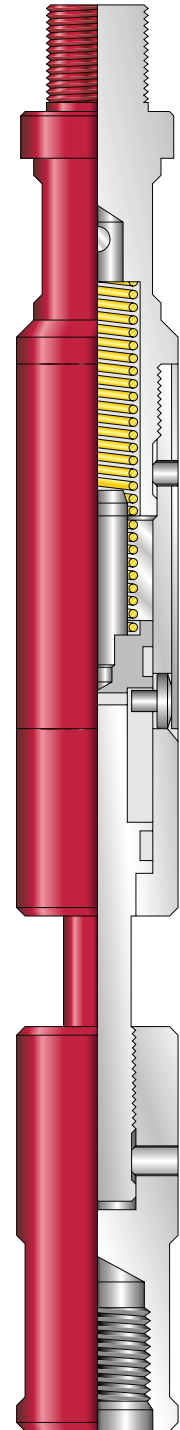
<b>OD</b>		1.500 in.	1.875 in.
<b>Stroke</b>		1.00 in.	1.00 in.
<b>Make-up Length (Open)</b>		11.7 in.	12.74 in.
<b>Weight</b>		2.3 kg	3.8 kg
<b>Strength - Standard Service</b>	SWL	22,500 lb	59,500 lb
	Yield	25,000 lb	66,100 lb
	UTS	31,800 lb	84,100 lb
<b>Strength - H<sub>2</sub>S Service</b>	SWL	16,380 lb	43,300 lb
	Yield	18,200 lb	48,000 lb
	UTS	22,700 lb	60,000 lb
<b>Assembly Number</b>		<b>4275-<sup>**</sup></b>	<b>10163-<sup>**</sup></b>

<sup>\*\*</sup> Connection required.

Strengths stated excluding connection.

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

NOTE: Weights stated are approximate.





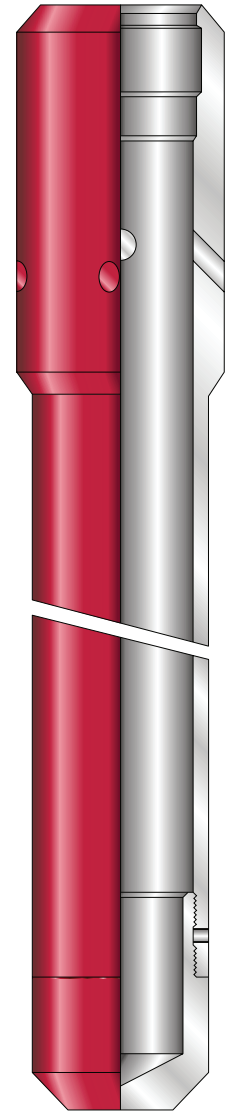
## Junk Catcher

### Tool Description

The Weatherford BDK Junk Catcher is designed to locate in the no-go landing nipple. Used when changing out gas/dummy valves, the catcher is generally installed into the no-go landing nipple directly below a side pocket mandrel. Should the valve inadvertently fall, it is caught within the catcher.

The junk catcher is designed to accommodate the complete valve allowing the catcher, valve etc. To be retrieved to surface. The junk catcher is also installed above flow control devices to catch any debris, which may filter down or may otherwise compact itself around the lock system.

Tools are manufactured to any size required.  
Part numbers are available on request.





## Knuckle Joint - Heavy Duty

### Tool Description

The Weatherford BDK Heavy Duty Knuckle Joint is a toolstring accessory, used to provide flexibility within the slickline toolstring. It is recommended to place a knuckle joint immediately below the rope socket when the rope socket does not accommodate wireline twist. An added benefit is that both the upper and lower connections have fish necks.

### SPECIFICATIONS

#### Knuckle Joint - Heavy Duty

<b>OD</b>		0.750 in.	1.250 in.	1.500 in.	1.875 in.	2.125 in.	2.500 in.
<b>Fish Neck</b>		0.750 in.	1.187 in.	1.375 in.	1.750 in.	1.750 in.	2.312 in.
<b>Weight</b>		1.1 kg	1.7 kg	2.6 kg	4.1 kg	6 kg	8.4 kg
<b>Make-up Length</b>	Thread	8.66 in.	9.74 in.	9.78 in.	10.16 in.	10.16 in.	13.21 in.
	QRJ	N/A	12.37 in.	13.22 in.	13.78 in.	14.16 in.	16.70 in.
<b>Strength Std Service</b>	SWL	7,400 lb	20,590 lb	40,410 lb	55,200 lb	55,200 lb	121,500 lb
	Yield	8,200 lb	22,880 lb	44,900 lb	61,400 lb	61,400 lb	135,000 lb
	UTS	10,500 lb	29,120 lb	57,750 lb	78,900 lb	78,900 lb	172,000 lb
<b>Strength H<sub>2</sub>S Service</b>	SWL	7,100 lb	19,660 lb	40,410 lb	55,200 lb	55,200 lb	88,357 lb
	Yield	7,900 lb	21,840 lb	44,900 lb	61,400 lb	61,400 lb	98,174 lb
	UTS	10,100 lb	28,080 lb	57,750 lb	78,900 lb	78,900 lb	122,718 lb
<b>Assembly Number</b>		32	10962- <sup>**</sup>	10963- <sup>**</sup>	10964- <sup>**</sup>	10965- <sup>**</sup>	10966- <sup>**</sup>

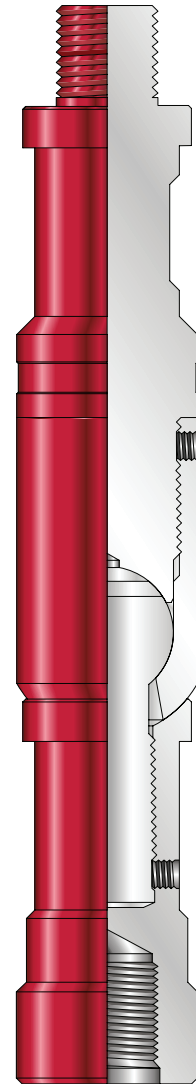
\* Strength stated excluding connection.

\*\* Connection required.

QRJ™ and Trinity™ connections available on request.

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

NOTE: Weights stated are approximate.





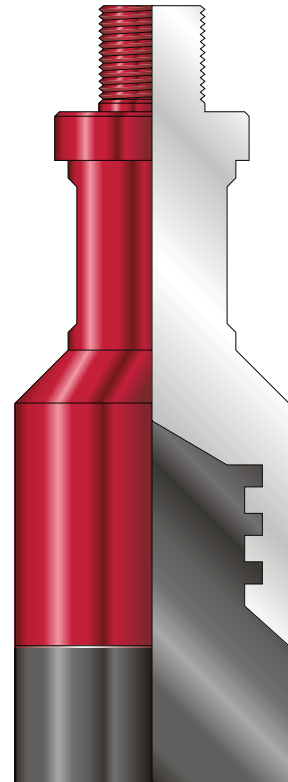
# Lead Impression Block

## Tool Description

The Weatherford BDK Lead Impression Block (LIB) is a slickline or braided line tool used for taking impressions of foreign objects in the tubing string.

The impression taken will define the size, shape and relative position of the obstruction or fish, enabling selection of a suitable fishing tool.

A lead impression block with shroud and ball-assisted lead impression block is also offered, next page.



## SPECIFICATIONS

### Lead Impression Block

Tool OD	Make-up Length Thread	Make-up Length			Weight	Assembly Number
		1 1/2 in. QRJ, HD QRJ and Trinity	1 7/8 in. QRJ, HD QRJ and Trinity	2 1/2 in. QRJ, HD QRJ and Trinity		
1.00 in.	5.75 in.	----	----	----	----	00040-1000-**
1.25 in.	5.87 in.	----	----	----	----	00040-1250-**
1.50 in.	6.00 in.	6	----	----	----	00040-1500-**
1.75 in.	6.12 in.	6.12	----	----	2.2 kg	00040-1750-**
2.00 in.	6.25 in.	6.25	6.75 in.	----	2.5 kg	00040-2000-**
2.25 in.	6.37 in.	6.37	6.87 in.	----	3 kg	00040-2250-**
2.50 in.	6.50 in.	6.5	7.00 in.	7.25	4.5 kg	00040-2500-**
2.75 in.	6.62 in.	6.62 in.	7.12 in.	7.37	5 kg	00040-2750-**
3.00 in.	6.75 in.	6.43 in.	6.68 in.	6.9	6 kg	00040-3000-**
3.25 in.	6.87 in.	6.55 in.	6.80 in.	7.02	7 kg	00040-3250-**
3.50 in.	7.00 in.	6.68 in.	6.92 in.	7.14	8.2 kg	00040-3500-**
3.75 in.	7.12 in.	6.81 in.	7.04 in.	7.26	9 kg	00040-3750-**
4.00 in.	7.25 in.	----	7.16 in.	7.38	10 kg	00040-4000-**
4.25 in.	7.37 in.	----	7.28 in.	7.5	11 kg	00040-4250-**
4.50 in.	7.50 in.	----	7.40 in.	7.62	12 kg	00040-4500-**
4.75 in.	7.62 in.	----	7.64 in.	7.75	14.5 kg	00040-4750-**
5.00 in.	7.75 in.	----	7.76 in.	7.87	16.5 kg	00040-5000-**
5.25 in.	7.87 in.	----	7.88 in.	8	18 kg	00040-5250-**
5.50 in.	8.00 in.	----	8.00 in.	8.12	23.5 kg	00040-5500-**
5.75 in.	8.12 in.	----	8.12 in.	8.25	24.5 kg	00040-5750-**
6.00 in.	8.25 in.	----	8.25 in.	8.37	26.5 kg	00040-6000-**

\*\*Connection code required, please refer to part number guide.

QRJ™ and Trinity™ connections available on request. Additional sizes available on request.

Add suffix 'H' to part number for H<sub>2</sub>S service.



## Lead Impression Block - Ball-Assisted

### Tool Description

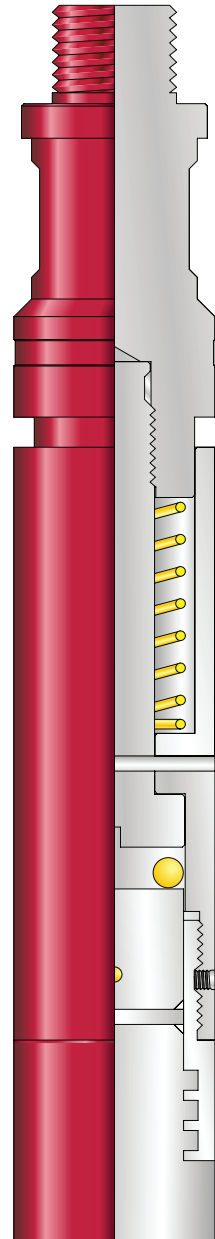
The Weatherford BDK Ball Assisted LIB is designed to provide more accurate information during fishing applications or standard operations. The design allows you to record two sets of data in one application, when the LIB is engaged onto the fish. Firstly, the lower section will give you an indentation of the fish. The upper section will give you the orientation of the fish. This in turn will assist in the correct tool selection for recovery.

Tools are manufactured to any size required.

Part Numbers are available on request.

### Features and Benefits

- Robust design.
- Dual-acting indication
- Provides more accurate information during fishing applications or standard operations
- Design allows you to record two sets of data in one application
- Assists in the correct tool selection for recovery, which can reduce overall operating time







## Wireline Lifting Subs

### Tool Description

Lifting subs are utilized where wireline equipment weight exceeds the recommended manual handling limits.

All lifting subs are proof-loaded to a level that corresponds to twice the safe working load. Individual inspection before delivery from our factories ensures a high quality.

Full test data is documented.

Additionally, finished products are subjected to testing to ensure the correct hardness levels.

Lifting subs carry identification marks for full traceability back to the steel supplier for raw material analysis.

### Applications

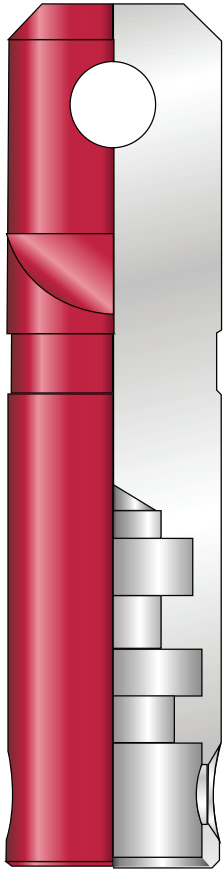
- Slickline, braided line or e-line operations

### Features and Benefits

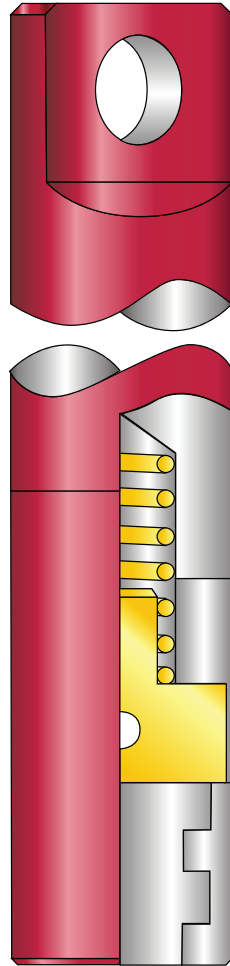
- Full certification and traceability package
- Load tested to industry standard guidelines
- Full range of sizes and connections available as standard
- Improved safety by reducing manual handling



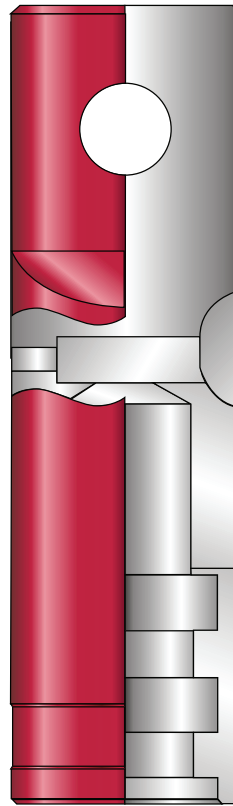
## Wireline Lifting Subs



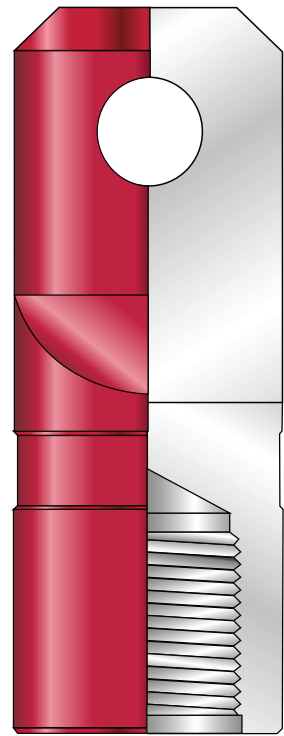
HD QRJ



QLS



Trinity



Thread



SPECIFICATIONS

Wireline Lifting Sub

HDQRJ

Tool OD	Connection	Part Number
1.500 in.	1.500 in. HD QRJ Female x Pad Eye	12697
1.875 in.	1.875 in. HD QRJ Female x Pad Eye	12253
2.125 in.	1.875 in. HD QRJ Female x Pad Eye	13971
2.500 in.	2.500 in. HD QRJ Female x Pad Eye	12254

QLS

Tool OD	Bottom Connections QLS Female	Assembly Number
1.500 in.	1.500 in.	444-1500-00-22
1.875 in.	1.875 in.	444-1875-00-16
2.500 in.	2.500 in.	444-2500-00-06
2.688 in.	2.688 in.	444-2688-00-09

Trinity

Tool OD	Connection	Part Number
1.500 in.	1.500 in. HD QRJ Female x Pad Eye	1026-1500-002
1.875 in.	1.875 in. HD QRJ Female x Pad Eye	1026-1875-002
2.125 in.	1.875 in. HD QRJ Female x Pad Eye	13976
2.500 in.	2.500 in. HD QRJ Female x Pad Eye	1026-2500-002

Thread

Tool OD	Connection	Part Number
1.875 in.	1.063 in. 10 UN Pin x Pad Eye	14345
1.875 in.	1.063 in. 10 UN Pin x Pad Eye	1220
2.500 in.	1.563 in. 10 UN Pin x Pad Eye	12527



# Magnet

## Tool Description

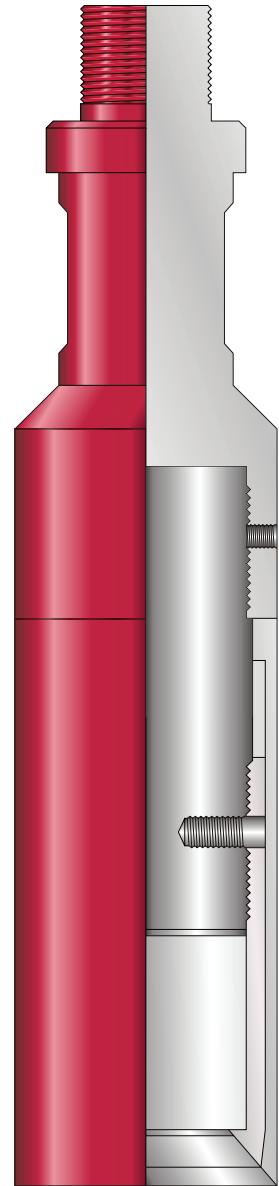
The Weatherford BDK Wireline Magnet is a special-purpose wireline tool that is used to retrieve small magnetically attractable items such as nuts, bolts, tool parts and any ferrous debris lost within the wellbore. The outer sleeve prevents debris from becoming dislodged on retrieval.

## SPECIFICATIONS

### Magnet

Part Number	Max OD	Fish Neck Size
01077-1500-**	1.500 in.	1.187 in. Fish Neck
01077-1750-**	1.750 in.	1.375 in. Fish Neck
01078-2000-**	2.000 in.	1.375 in. Fish Neck
01078-2250-**	2.250 in.	1.375 in. Fish Neck
01079-2500-**	2.500 in.	1.750 in. Fish Neck
01079-2750-**	2.750 in.	1.750 in. Fish Neck
01080-3000-**	3.000 in.	1.750 in. Fish Neck
01080-3250-**	3.250 in.	2.312 in. Fish Neck
01081-3500-**	3.500 in.	2.312 in. Fish Neck
01081-3750-**	3.750 in.	2.312 in. Fish Neck
01081-4000-**	4.000 in.	2.312 in. Fish Neck
01081-4250-**	4.250 in.	2.312 in. Fish Neck
01081-4500-**	4.500 in.	2.312 in. Fish Neck
02098-4750-**	4.750 in.	2.312 in. Fish Neck
02098-5000-**	5.000 in.	2.312 in. Fish Neck
02098-5250-**	5.250 in.	2.312 in. Fish Neck
02098-5500-**	5.500 in.	2.312 in. Fish Neck
02098-5750-**	5.750 in.	2.312 in. Fish Neck
02098-6000-**	6.000 in.	2.312 in. Fish Neck

\*\*Connection code required, please refer to part number guide.  
Additional sizes available on request.





## Measuring Head Assembly

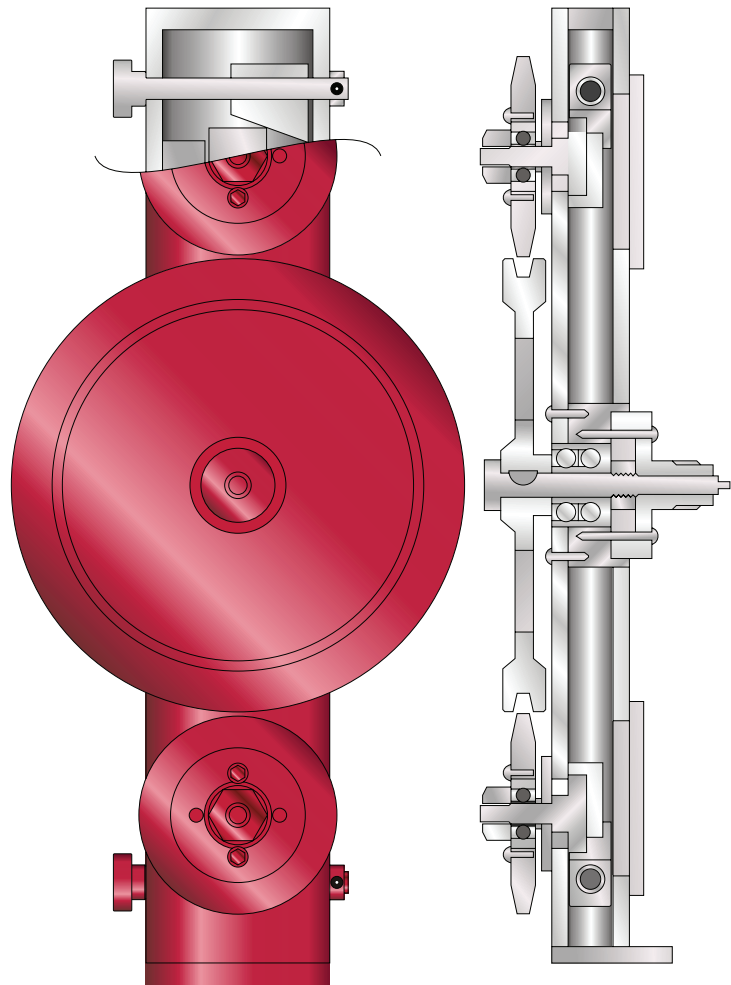
### Tool Description

The Weatherford BDK Measuring Head Assembly is designed and manufactured to suit most slickline or braided line units. The measuring head assembly operates with a simple wrap around system, controlled with the use of pressure wheels. The measuring head assembly measures the slickline or braided line as it enters the well, giving a depth measurement at surface via a veedor root counter.

Metric and imperial measuring wheels are available.

Solid wheels are as standard; spoke wheels are available on request. A dual wire size wheel is also available, e.g. 0.108 in./0.125 in.

Measuring wheels for braided line are available on request.





## SPECIFICATIONS

### Measuring Head Assembly

#### 12 in. MEASURING HEAD

Wire Size	A	Weight	Spooled Wire per Revolution	Assembly Number
0.092 in. (Imperial)	20.43 in.	30 kg	3 ft	13093-092
0.108 in. (Imperial)				13093-108
0.125 in. (Imperial)				13093-125
0.092 in. (Metric)	21.00 in.	30 kg	1 Metre	11506-092
0.108 in. (Metric)				11506-108
0.125 in. (Metric)				11506-125

#### 16 in. MEASURING HEAD

Wire Size	A	Weight	Spooled Wire per Revolution	Assembly Number
0.108 in. (Imperial)	25.00 in.	36 kg	4 ft	03213-01
0.125 in. (Imperial)				03213-02
0.108 in. (Metric)			1.25 Metres	03213-03
0.125 in. (Metric)				03213-04

#### 20 in. MEASURING HEAD

Wire Size	A	Weight	Spooled Wire per Revolution	Assembly Number
0.108 in. (Imperial)	32.62 in.	36 kg	6 ft	8641-01
0.125 in. (Imperial)				8641-02
0.108 in. (Metric)			1.8 Metres	8641-03
0.125 in. (Metric)				8641-04



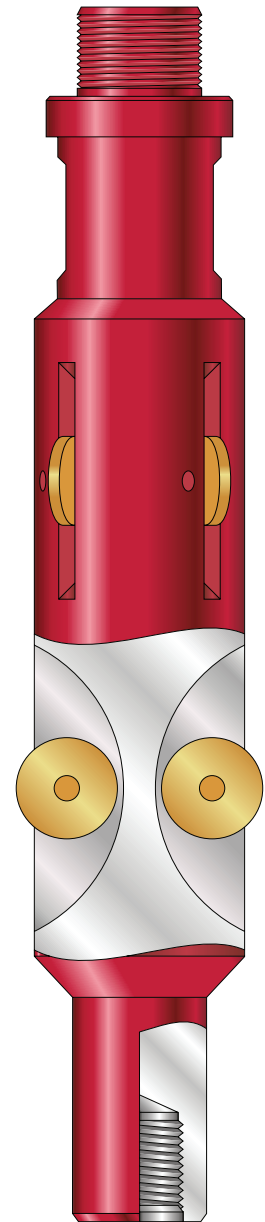
## Multi-Roller Wheel Sub

### Tool Description

The Weatherford BDK Multi-Roller Wheel Sub is designed for use in highly deviated wells. The design offers a 360° wheel contact, reducing the friction caused through contact with the tubing wall.

The multi-roller wheel sub can be incorporated at various points of the string to create a near frictionless toolstring operation.

It is also obtainable as part of the standard toolstring i.e. stems, jars, bailers etc.





SPECIFICATIONS

Multi-Roller Wheel Sub

Effective OD	Make-up Length		Weight		Strength - Standard Service			Strength - H <sub>2</sub> S Service			Assembly Number
	Thread	QRJ	Thread	QRJ	SWL	Yield	UTS	SWL	Yield	UTS	
1.750 in.	11.88 in.	15.19 in.	2.9 kg	4.1 kg	86,630 lb	96,250 lb	122,500 lb	63,000 lb	70,000 lb	87,500 lb	10996-05- <sup>**</sup>
1.875 in.											10996-06- <sup>**</sup>
2.000 in.	10.00 in.	13.00 in.	3.9 kg	5.7 kg	75,640 lb	84,040 lb	106,960 lb	55,000 lb	61,120 lb	76,400 lb	5145-05- <sup>**</sup>
2.125 in.											5145-06- <sup>**</sup>
2.250 in.											5145-07- <sup>**</sup>
2.250 in.	11.00 in.	14.00 in.	5.5 kg	7.8 kg	107,910 lb	119,900 lb	152,600 lb	78,840 lb	87,200 lb	109,000 lb	8754-04- <sup>**</sup>
2.375 in.											8754-03- <sup>**</sup>
2.500 in.											8754-02- <sup>**</sup>
2.625 in.											8754-01- <sup>**</sup>
2.710 in.	12.00 in.	16.25 in.	8.2 kg	12.8 kg	153,450 lb	170,500 lb	217,000 lb	111,600 lb	124,000 lb	155,000 lb	8183-01- <sup>**</sup>
2.900 in.											8183-02- <sup>**</sup>
3.000 in.											8183-03- <sup>**</sup>
3.250 in.											8183-04- <sup>**</sup>

<sup>\*\*</sup> Connection Required.

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

NOTE: Strength stated excluding connections weights stated are approximate.





## Overshot - HD Releasable

### Tool Description

The Weatherford's Petroline Heavy Duty Releasable Overshot has been designed to withstand jarring forces experienced during the most difficult of fishing operations.

The releasable overshot, unlike most others, has been designed with the ability to release from the fish if desired. This is simply achieved by downward jarring.

From an operational point of view the overshot is of simple design with no complex components. No special tools are required for dismantling or reassembling and it therefore requires the minimum of maintenance.

The tool is released by downward jarring until the pin shears, allowing the top sub mandrel to move downwards and latch the top of the slip mandrel.

The overshot is available in a full range of sizes with a complementary range of slips and cores.

The standard assembly can be supplied with a variety of top connectors or a threaded latch housing for use with bell guides if required.

### Features

- Full certification and traceability package
- Robust construction
- Ease of maintenance
- Wide range of slips
- Range of top connectors
- With or without bell guide connection.

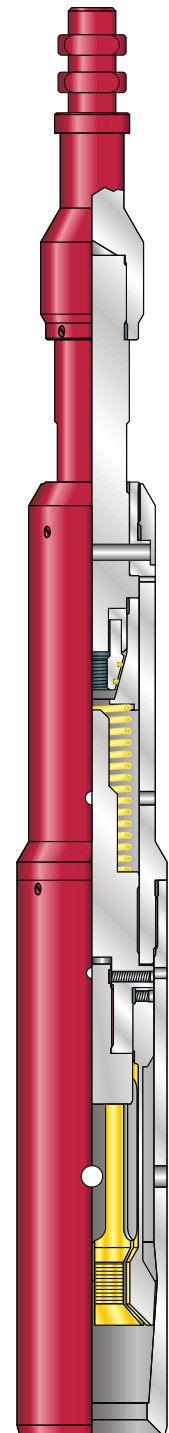
### SPECIFICATIONS

#### Overshot - HD Releasable

##### STANDARD ASSEMBLIES AVAILABLE

Max OD Size	Assembly Number	Slips Range
2.240 in.	440-2240-00- <sup>**</sup>	0.560 in. to 1.750 in.
2.795 in.	440-2795-00- <sup>**</sup>	1.400 in. to 2.030 in.
3.501 in.	440-3501-00- <sup>**</sup>	1.375 in. to 2.500 in. or 1.687 in. to 2.062 in.

<sup>\*\*</sup>Connection code required, please refer to part number guide.  
Additional sizes available on request.





## Overshot - Non-Releasable

### Tool Description

The Weatherford BDK slickline or braided line overshot is designed for use when wear and other mechanical damage prevent the engagement of a regular pulling tool, the slickline or braided line overshot is designed to engage equipment of a specific diameter, although a given size tool may be used to engage a range of diameters, simply by installing the appropriate size set of slips.

### Applications

- Fishing operations

### Features and Benefits

- Robust design
- Easy to maintain
- Quick to use during deployment operations

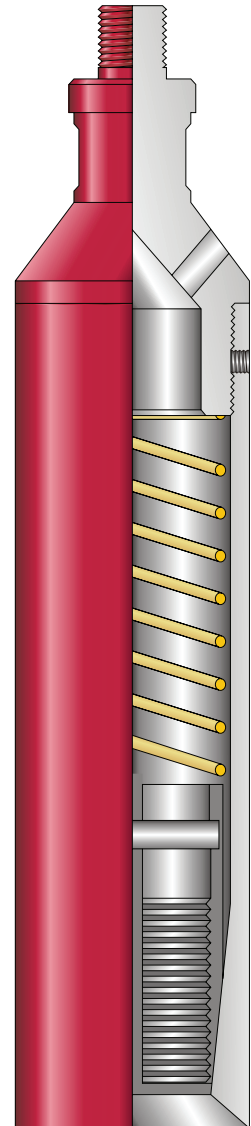
### SPECIFICATIONS

#### Overshot - Non-Releasable

Assembly Number	Tool OD	Slip Range	Fish Neck OD	Length
11591- <sup>**</sup>	1.40 in.	0.75 in. to 1.00 in.	1.187 in.	7.81 in.
01718-00- <sup>**</sup>	1.75 in.	0.50 in. to 1.25 in.	1.375 in.	10.5 in.
8206- <sup>**</sup>	1.85 in.	0.50 in. to 1.50 in.	1.375 in.	10 in.
01719-00- <sup>**</sup>	2.25 in.	0.50 in. to 1.50 in.	1.375 in.	12.62 in.
01720-00-2625- <sup>**</sup>	2.62 in.	0.50 in. to 2.00 in.	1.750 in.	13.56 in.
01720-00- <sup>**</sup>	2.65 in.	0.50 in. to 2.00 in.	1.750 in.	13.56 in.
01721- <sup>**</sup>	3.35 in.	0.75 in. to 2.60 in.	2.312 in.	14 in.
01721- <sup>**</sup>	3.35 in.	0.75 in. to 2.60 in.	2.312 in.	14 in.
01722- <sup>**</sup>	3.80 in.	0.50 in. to 2.90 in.	2.312 in.	14.75 in.
01722- <sup>**</sup>	3.80 in.	0.50 in. to 2.90 in.	2.312 in.	14.75 in.

<sup>\*\*</sup>Connection code required, please refer to part number guide.

Additional sizes available on request.





## Overshot - Releasable

### Tool Description

The Weatherford BDK Releasable Overshot is designed for use when the engagement of a regular pulling tool is impossible due to wear or mechanical damage to the fishing neck.

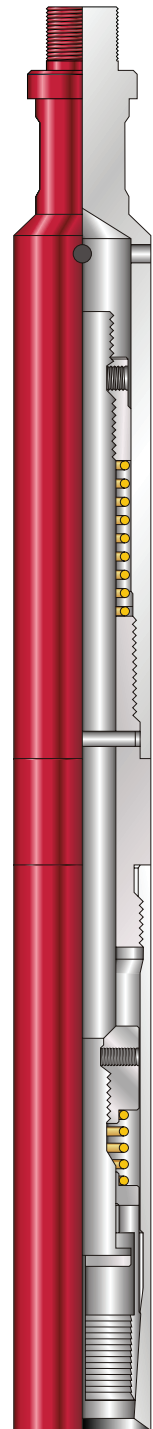
The Releasable overshot has the advantage that, should the fish become stuck, it can be released. Downward jarring will shear the shear pins, releasing the overshot slips from around the fish.

### SPECIFICATIONS

#### Overshot - Releasable

Part Number	Tool OD	Slip Range	Fish Neck OD	Length	Comments
11875-**	1.750 in.	0.500 in. to 1.375 in.	1.187 in.	20.18 in.	Slip Range in 1/8 in. Increments
6484-**	1.770 in.	0.500 in. to 1.375 in.	1.375 in.	20.18 in.	Slip Range in 1/8 in. Increments
12258-**	1.850 in.	0.500 in. to 1.375 in.	1.375 in.	20.18 in.	Slip Range in 1/8 in. Increments
6473-**	2.250 in.	0.500 in. to 1.750 in.	1.750 in.	20.50 in.	Slip Range in 1/8 in. Increments
12259-**	2.300 in.	0.500 in. to 1.750 in.	1.750 in.	20.50 in.	Slip Range in 1/8 in. Increments
11879-**	2.625 in.	0.500 in. to 1.750 in.	1.750 in.	20.68 in.	Slip Range in 1/8 in. Increments
12257-**	2.650 in.	0.500 in. to 2.125 in.	1.750 in.	22.40 in.	Slip Range in 1/8 in. Increments
6461-**	2.740 in.	0.500 in. to 2.125 in.	1.750 in.	22.60 in.	Slip Range in 1/8 in. Increments
10026-**	3.350 in.	0.500 in. to 2.750 in.	1.750 in.	24.50 in.	Slip Range in 1/8 in. Increments
8842-**	3.800 in.	0.500 in. to 3.000 in.	2.312 in.	28.30 in.	Slip Range in 1/8 in. Increments
8843-**	4.150 in.	0.500 in. to 3.000 in.	2.312 in.	29.10 in.	Slip Range in 1/8 in. Increments

\*\*Connection code required, please refer to part number guide.  
Additional sizes available on request.





## BDK Pulling Tool

### Tool Description

The Weatherford BDK Pulling Tool is designed for running and retrieving down-hole flow control devices with external fishing necks.

With the pulling tool in the latched position, the dogs are supported within the skirt of the tool. This allows sustained jarring without fear of shearing the dogs. For surface release operation, the dog assembly has a finger grip to enable manual release of the tool from the retrieved fishing neck without the need to shear the tool.

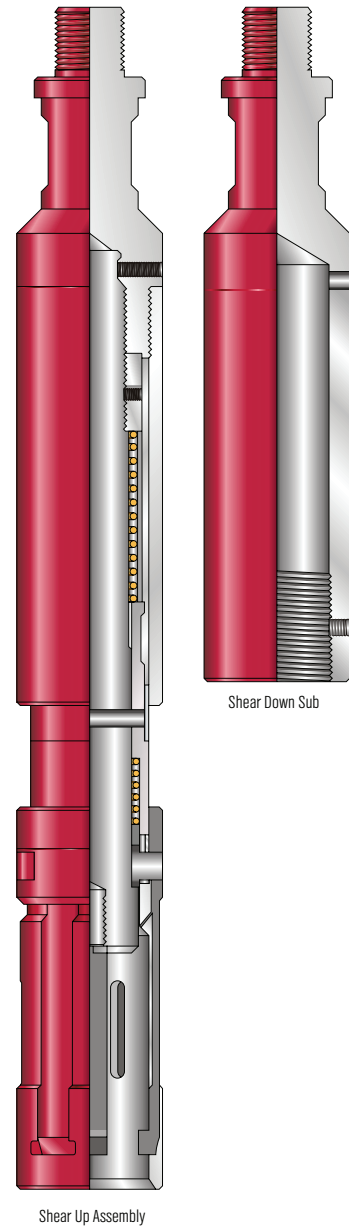
The tool can be converted from a shear up tool to a shear down tool simply by changing the top sub. In addition, a range of cores are available to alter the reach of the tool.

### Applications

- All slickline or braided line operations

### Features and Benefits

- Interchangeable top sub to convert from jar up to jar down
- Range of core lengths
- Supported dog design
- Simple manual release mechanism
- Re-pinning tool available
- Cost effective design minimizes inventory





SPECIFICATIONS

BDK Pulling Tool

Nominal Size	1.187 in.	1.250 in.	1.500 in.	2.000 in.	2.500 in.	3.000 in.	4.000 in.
Maximum OD	1.290 in.	1.450 in.	1.687 in.	1.875 in.	2.235 in.	2.800 in.	3.612 in.
To engage fishing neck OD	0.875 in.	1.000 in.	1.187 in.	1.375 in.	1.750 in.	2.312 in.	3.125 in.
Weight	1.9 kg	2.6 kg	3.6 kg	5.5 kg	8.2 kg	12 kg	15 kg
Make Up Lgth - Shear Up	11.97 in.	14.46 in.	16.40 in.	16.41 in.	16.80 in.	17.14 in.	18.60 in.
Make Up Lgth - Shear Down	12.87 in.	14.91 in.	16.87 in.	16.87 in.	17.37 in.	17.88 in.	19.33 in.
Bearing Load - Std	7,606 lb	8,963 lb	21,673 lb	23,230 lb	31,632 lb	29,930 lb	60,830 lb
Bearing Load - HzS	7,260 lb	8,963 lb	20,688 lb	22,171 lb	30,194 lb	28,570 lb	58,065 lb
<b>Assembly Number - Sucker Rod</b>							
Nominal Size	1.187 in.	1.250 in.	1.500 in.	2.000 in.	2.500 in.	3.000 in.	4.000 in.
Short Reach	10302-A2	8784-S-A2	4794-S-A2	5951-S-A3	5985-S-A4	5964-S-A6	4747-S-A6
Medium Reach		8784-M-A2	4794-M-A2	5950-M-A3	5985-M-A4	5964-M-A6	4747-M-A6
Long Reach			4794-L-A2	5950-L-A3	5985-L-A4	5964-L-A6	4747-L-A6
Extra Long Reach				5950-E-A3	5985-E-A4	5964-E-A6	4747-E-A6
Top Connection Detail	15/16 in. - 10	15/16 in.- 10	15/16 in. - 10	1-1/16 in. -10	1-1/16 in. -10	1-9/16 in.-10	1-9/16 in.-10
<b>Assembly Number - Heavy Duty QRJ</b>							
Nominal Size	1.187 in.	1.250 in.	1.500 in.	2.000 in.	2.500 in.	3.000 in.	4.000 in.
Short Reach				5951-S-C3	5985-S-C4	5964-S-C6	4747-S-C6
Medium Reach				5950-M-C3	5985-M-C4	5964-M-C6	4747-M-C6
Long Reach				5950-L-C3	5985-L-C4	5964-L-C6	4747-L-C6
Extra Long Reach				5950-E-C3	5985-E-C4	5964-E-C6	4747-E-C6
Top Connection Detail				1-1/2 in. HDQRJ	1-7/8 in. HDQRJ	2-1/2 in. HDQRJ	2-1/2 in. HDQRJ
<b>Assembly Number - QLS</b>							
Nominal Size	1.187 in.	1.250 in.	1.500 in.	2.000 in.	2.500 in.	3.000 in.	4.000 in.
Short Reach	10302-Q2*	8784-S-Q2*	4794-S-Q2*	5951-S-Q3*	5985-S-Q4*	5964-S-Q6*	4747-S-Q6*
Medium Reach		8784-M-Q2*	4794-M-Q2*	5950-M-Q3*	5985-M-Q4*	5964-M-Q6*	4747-M-Q6*
Long Reach			4794-L-Q2*	5950-L-Q3*	5985-L-Q4*	5964-L-Q6*	4747-L-Q6*
Extra Long Reach				5950-E-A3*	5985-E-Q4*	5964-E-Q6*	4747-E-Q6*
Top Connection Detail	1-1/4 in. QLS	1-1/4 in. QLS	1-1/4 in. QLS	1-1/2 in. QLS	1-7/8 in. QLS	2-1/2 in. QLS	2-1/2 in. QLS
<b>Core Details</b>							
Nominal Size	1.187 in.	1.250 in.	1.500 in.	2.000 in.	2.500 in.	3.000 in.	4.000 in.
Assembly Number	10302	8784	4794	5951	5985	5964	4747
Part Number Short Reach**	12256 (0.90 in.)	8795-S (0.7 in.)	4786-S (0.9 in.)	5943-S (1.34 in.)	5977-S (1.27 in.)	5956-S (1.52 in.)	4735-S (1.65 in.)
Part Number Medium Reach**	n/a	8795-M (1.5 in.)	4786-M (1.51 in.)	5943-M (1.77 in.)	5977-M (1.52 in.)	5956-M (1.47 in.)	4735-M (1.83 in.)
Part Number Long Reach**	10304 (1.93 in.)	n/a	4786-L (2.51 in.)	5943-L (2.77 in.)	5977-L (2.52 in.)	5956-L (2.78 in.)	n/a
Part Number Extra Long Reach**	n/a	n/a	n/a	5943-E (2.84 in.)	5977-E (2.87 in.)	5956-E (3.00 in.)	n/a

\*Item not released for manufacture, contact product line for information.

\*\*Actual Reach

QRJ™ and Trinity™ connections available on request.

Additional sizes available on request.

HzS Service tools available on request.



## DU Pulling Tool

### Tool Description

The Weatherford Petroline DU Pulling Tool was designed to overcome the weaknesses of conventional pulling tools used to recover equipment with internal fishing necks. When retrieving many lock mandrel types, it is necessary to jar both downwards, to free-off relative key motion, and upwards, to overcome seal friction.

The DU was designed to overcome the following limitations of standard GS-type pulling tools in which 2 separate runs may be required to recover a lock mandrel:

- Downward jarring will shear a GS-type pulling tool.
- Upward jarring will shear the alternative GR-type pulling tool.

Consequently, 'one-run' devices can often require at least two runs to recover. The design of the DU pulling tool overcomes these problems by allowing bi-directional jarring. Initial downward jarring will not affect the tool, no matter how prolonged or severe. Subsequent upward jarring can also be applied indefinitely. This action merely shears screws in the tool mechanism, which moves the tool into a pre-release position. Final downward jarring will shear the release pin, allowing retrieval of the tool from the fishing neck.

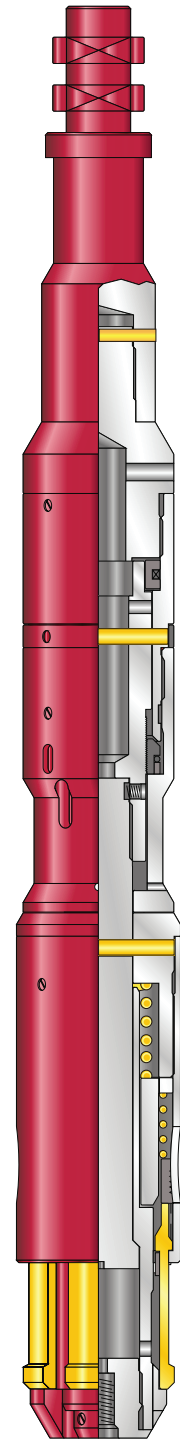
In addition, the tool offers improved retrievability over a conventional GS design. With a GS-type pulling tool, debris inside a lock mandrel, or incorrect equalizing prong spacing, may prevent the pulling tool from shouldering-out on the fishing neck. This means that the GS release pin will not shear, and a fishing job is the likely result. However, the design of the DU pulling tool is such that it can be released from the fishing neck even where the tool does not shoulder-out.

### Applications

- Retrieving flow control lock mandrels
- Setting and retrieving bridge plugs
- Retrieving safety valves

### Features and Benefits

- Bi-directional jarring capability
- Field re-dressable
- Available to suit all industry standard fishing neck sizes
- Improved retrievability
- Reduced operating costs





SPECIFICATIONS

DU Pulling Tool

Part Number	Size	Top Connection	Connection	Max OD
435-2000-00-01	2 in.	1-1/2 in. QLS	1/2 in. - 13 UNC	1.750 in.
435-2000-00-02	2 in.	15/16 in. Sucker Rod	1/2 in. - 13 UNC	1.750 in.
435-2500-00-01	2-1/2 in.	1-1/2 in. QLS	5/8 in. - 11 UNC	2.250 in.
435-2500-00-02	2-1/2 in.	15/16 in. Sucker Rod	5/8 in. - 11 UNC	2.250 in.
435-2500-00-03	2-1/2 in.	1-7/8 in. QLS	5/8 in. - 11 UNC	2.250 in.
435-2500-00-04	2-1/2 in.	1-1/16 in. Sucker Rod	15/16 in. - 10 UNS	2.250 in.
435-3000-00-02	3 in.	15/16 in. Sucker Rod	5/8 in. - 11 UNC	2.710 in.
435-3000-00-03	3 in.	1-7/8 in. QLS	5/8 in. - 11 UNC	2.710 in.
435-3000-00-04	3 in.	1-1/16 in. Sucker Rod	5/8 in. - 11 UNC	2.710 in.
435-3000-00-05	3 in.	1-1/16 in. Sucker Rod	15/16 in. - 10 UNS	2.710 in.
435-3500-00-01	3-1/2 in.	1-7/8 in. QLS	1-3/8 in. - 12 UN	3.110 in.
435-4000-00-05	4 in.	1-1/16 in. Sucker Rod	2-1/8 in. - 12 UN	3.605 in.
435-4000-00-06	4 in.	2-1/2 in. QLS	2-1/8 in. - 12 UN	3.605 in.
435-4000-00-07	4 in.	1-7/8 in. QLS	2-1/8 in. - 12 UN	3.605 in.
435-5000-00-04	5 in.	2-1/2 in. QLS	2-1/2 in. - 10 UN	4.496 in.
435-5000-00-05	5 in.	1-7/8 in. Trinity	2-1/2 in. - 10 UN	4.496 in.
435-5000-00-08	5 in.	1-1/16 in. Sucker Rod	2-1/2 in. - 10 UN	4.496 in.
435-5000-00-10	5 in.	1-7/8 in. QLS	2-1/2 in. - 10 UN	4.496 in.
435-6000-000-020	6 in.	2-1/2 in. QLS	2-3/4 in. - 10 UN	5.543 in.
435-6000-000-022	6 in.	2-1/8 in. QLS	2-3/4 in. - 10 UN	5.433 in.
435-6000-000-023	6 in.	2-1/2 in. Trinity	2-3/4 in. - 10 UN	5.543 in.
435-6000-000-025	6 in.	2-7/8 in. 8.7# Hydril PH-6	2-3/4 in. - 10 UN	5.543 in.
435-6000-000-030	6 in.	1-9/16 in. Sucker Rod	2-3/4 in. - 10 UN	5.543 in.

\*Item not released for manufacture, contact product line for information.

\*\*Actual Reach

QRJ™ and Trinity™ connections available on request.

Additional sizes available on request.

H2S Service Tools available on request.

Redress kits available on request.

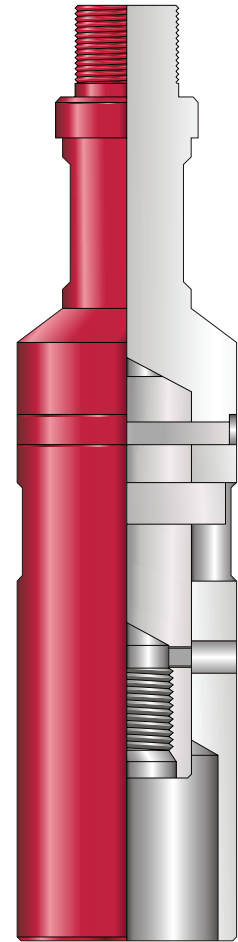


## GU Adaptor

### Tool Description

The Weatherford BDK GU Adaptor converts the standard shear-down Weatherford BDK GS Pulling Tool and Heavy Duty GS Pulling Tool into a shear-up release.

To convert the GS pulling tools into a shear-up tool, remove the shear pin and fish neck from the GS tool and screw on the GU Adaptor. The shear pin is then inserted into the GU adaptor.



### SPECIFICATIONS

#### GU Adaptor

Nom. Size	OD	Fish Neck	Make-up Length	Weight	Assembly Number	To Suit Assembly Number
1.25 in.	1.160 in.	1.000 in.	6.08 in.	0.6 kg	9176- <sup>**</sup>	8052 - <sup>**</sup> (GS Assembly)
1.50 in.	1.470 in.	1.187 in.	6.73 in.	1.2 kg	5154- <sup>**</sup>	4781 - <sup>**</sup> (GS Assembly)
2.00 in.	1.812 in.	1.375 in.	7.23 in.	2.2 kg	5155- <sup>**</sup>	4443 - <sup>**</sup> (GS Assembly)
						12783- <sup>**</sup> (HD GS Assembly)
2.50 in.	2.220 in.	1.750 in.	7.83 in.	3.4 kg	5156- <sup>**</sup>	4454- <sup>**</sup> (GS Assembly)
					13078- <sup>**</sup>	12784- <sup>**</sup> (HD GS Assembly)
3.00 in.					5157- <sup>**</sup>	4293 - <sup>**</sup> (GS Assembly)
					13079- <sup>**</sup>	12785- <sup>**</sup> (HD GS Assembly)
3.50 in.	2.710 in.	2.312 in.	7.24 in.	4.7 kg	5157- <sup>**</sup>	4465 - <sup>**</sup> (GS Assembly)
					13080- <sup>**</sup>	12786- <sup>**</sup> (HD GS Assembly)
4.00 in.					5157- <sup>**</sup>	4476 - <sup>**</sup> (GS Assembly)
					10380- <sup>**</sup>	12307- <sup>**</sup> (HD GS Assembly)
5.00 in.	4.470 in.	3.125 in.	11.87 in.	17 kg	5158- <sup>**</sup>	4770 - <sup>**</sup> (GS Assembly)
					13081- <sup>**</sup>	12787- <sup>**</sup> (HD GS Assembly)
6.00 in.	4.850 in.	3.125 in.	11.87 in.	19 kg	8131- <sup>**</sup>	8983 - <sup>**</sup> (GS Assembly)
7.00 in.	-----	-----	-----	-----	10724- <sup>**</sup>	6292- <sup>**</sup> (GS Assembly)

<sup>\*\*</sup> Connection Required

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

NOTE: Weights stated are approximate.

1.25 in. OD GR. Adaptor is not available with HQ QRJ or Trinity Connections.





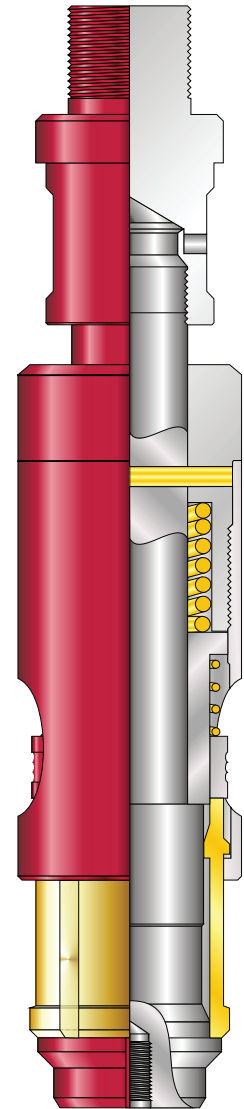
## GS Pulling/Running Tool

### Tool Description

The Weatherford BDK GS Type Pulling/Running Tool is designed to locate in standard internal fishing necks.

To engage the GS Pulling/Running Tool, a sit down weight is required for automatic engagement. To release the tool, downward jarring activates the release mechanism by shearing a pin. If required the Weatherford BDK GS Pulling/Running Tool can be converted to a jar-up release (GR) by fitting a GU adaptor.

For surface operation the dog assembly has a finger grip to enable the tool to be manually released from the fish neck while in the pinned position.





SPECIFICATIONS

GS Running/Pulling Tool

Nom Size	OD	Tool Fish Neck	Make-up Length	Weight	Probe Thread	Assembly Number
1.50 in.	1.48 in.	1.18 in.	11.60 in.	2 kg	1/2 in. - 13 UNC	4781- <b>**</b>
2.00 in.	1.85 in.	1.37 in.	11.60 in.	2.6 kg	1/2 in. - 13 UNC	4443- <b>**</b>
2.50 in.	2.26 in.	1.75 in.	12.10 in.	4.5 kg	5/8 in. -11 UNC	4454- <b>**</b>
3.00 in.	2.72 in.	2.31 in.	12.10 in.	6.4 kg	5/8 in. - 11 UNC	4293- <b>**</b>
3.50 in.	3.10 in.	2.31 in.	12.30 in.	8.3 kg	1-3/8 in. - 12 UNF	4465- <b>**</b>
4.00 in.	3.61 in.	2.31 in.	12.30 in.	10.2 kg	2-1/8 in. - 12 UN	4476- <b>**</b>
5.00 in.	4.50 in.	3.12 in.	17.10 in.	18.5 kg	2-1/2 in. - 10 UN	4770- <b>**</b>
6.00 in.	5.50 in.	3.12 in.	17.22 in.	26.8 kg	2-3/4 in. - 10 UNS	8983- <b>**</b>
7.00 in.	5.82 in.	3.12 in.	20.57 in.	35.1 kg	3-5/8 in. - 10 UN	14229- <b>**</b>

Nom Size	Bearing Load		Strength - Standard Service			Strength - H <sub>2</sub> S Service		
	Standard	H <sub>2</sub> S	SWL	Yield	UTS	SWL	Yield	UTS
1.25 in.	10,190 lb	7,410 lb	13,460 lb	14,960 lb	19,040 lb	9,800 lb	10,880 lb	13,600 lb
1.50 in.	13,150 lb		17,000 lb	18,900 lb	25,900 lb	12,330 lb	13,700 lb	18,800 lb
2.00 in.	22,980 lb		30,200 lb	33,540 lb	42,700 lb	21,960 lb	24,400 lb	30,500 lb
2.50 in.	41,120 lb		62,440 lb	69,370 lb	88,300 lb	45,400 lb	50,450 lb	63,060 lb
3.00 in.	64,780 lb		72,900 lb	81,000 lb	107,800 lb	53,100 lb	59,000 lb	78,000 lb
3.50 in.	100,100 lb		73,040 lb	81,150 lb	107,800 lb	53,100 lb	59,000 lb	78,000 lb
4.00 in.	104,200 lb		72,900 lb	81,000 lb	107,600 lb	53,010 lb	58,900 lb	78,300 lb
5.00 in.	195,370 lb		146,280 lb	162,530 lb	208,960 lb	146,300 lb	162,530 lb	208,960 lb
6.00 in.	419,860 lb		207,450 lb	230,500 lb	288,100 lb	207,450 lb	230,500 lb	288,100 lb
7.00 in.	303,300 lb	212,310 lb	261,270 lb	290,300 lb	369,470 lb	190,020 lb	211,130 lb	269,900 lb

**\*\*** Connection required.

Strengths stated excluding connection.

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

NOTE: 1.25 in. OD GS Pulling/Running Tool is not available with HD QRJ or Trinity Connections.

Weights stated are approximate.



## Heavy Duty Pulling Tool

### Tool Description

The Weatherford BDK Heavy Duty Pulling Tool was developed to withstand high impact forces. The tool incorporates a 360° coverage collet to maximize contact on the fishing profile. This collet is supported by the bottom sub to give increased load bearing capability. A fish neck cage is positioned between the collet fingers to support the fishing profile upon release, this ensures there are no 'hang ups', even when used in heavily deviated wells.

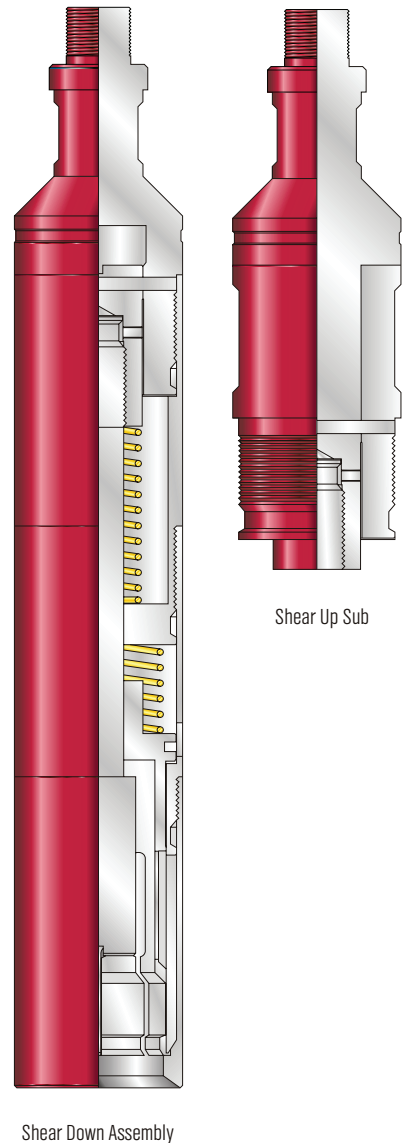
The fishing profile is encased in a 360° coverage collet to give maximum contact at the fish neck/collet union. The heavy-duty pulling tool is available in both jar up to release and jar down to release versions. It only takes a small number of parts to convert the jar-down version into a jar-up to release tool.

Because of the design of the pulling tool, no shoulders are left exposed after release to hinder removal of the fish neck, a common problem.

Change in reach is accommodated by running the tool with different core lengths or running without a core for the longest reach.

### Features and Benefits

- Large contact area
- Jar-up to release conversion
- Clean exit off fishing profile
- Variable reach



Shear Up Sub

Shear Down Assembly



SPECIFICATIONS

Heavy Duty Pulling Tool

<b>Nom Size</b>		<b>1.187 in.</b>	<b>1.25 in.</b>	<b>1.50 in.</b>	<b>2.00 in.</b>	<b>2.50 in.</b>	<b>3.00 in.</b>	<b>4.00 in.</b>
OD		1.29 in.	1.688 in.	1.875 in.	2.125 in.	2.50 in.	3.05 in.	3.80 in.
To Engage Fish Neck		0.875 in.	1.00 in.	1.187 in.	1.375 in.	1.75 in.	2.312 in.	3.125 in.
Make-up Length	Shear Up	N/A	18.65 in.	18.07 in.	20.85 in.	23.46 in.	22.24 in. (Thread) 25.4 in. (QRJ)	28.00 in.
	Shear Down	13 in.	17.10 in.	17.35 in.	19.78 in.	22.41 in.	21.68 in. (Thread) 22.84 (QRJ)	26.40 in.
Weight	Shear Up	2.1 kg	3.9 kg	4.9 kg	8.1 kg	11.7 kg	16 kg	27 kg
	Shear Down	1.9 kg	3.7 kg	4.4 kg	7.3 kg	10.1 kg	13.7 kg	24 kg
Bearing Load	Standard	11,375 lb	19,466 lb	33,293 lb	48,840 lb	60,919 lb	65,406 lb	81,282 lb
	H <sub>2</sub> S			24,213 lb	35,520 lb	44,305 lb		59,114 lb
Strength - Standard Service	SWL	19,132 lb	62,273 lb	69,928 lb	79,736 lb	101,787 lb	125,114 lb	141,612 lb
	Yield	21,257 lb	69,193 lb	77,698 lb	88,595 lb	113,097 lb	139,015 lb	157,346 lb
	UTS	27,331 lb	78,418 lb	88,060 lb	100,408 lb	128,176 lb	157,550 lb	178,326 lb
Strength - H <sub>2</sub> S Service	SWL	19,132 lb	43,591 lb	37,295 lb	42,526 lb	54,286 lb	66,727 lb	75,526 lb
	Yield	21,257 lb	48,435 lb	41,439 lb	47,250 lb	60,318 lb	74,141 lb	83,918 lb
	UTS	27,331 lb	62,273 lb	51,798 lb	59,063 lb	75,400 lb	92,676 lb	104,897 lb
<b>Assembly Number</b>		<b>12339-C-<sup>**</sup></b>	<b>9866-C-<sup>**</sup></b>	<b>7650-C-<sup>**</sup></b>	<b>7422-C-<sup>**</sup></b>	<b>6223-C-<sup>**</sup></b>	<b>7651-C-<sup>**</sup></b>	<b>7652-C-<sup>**</sup></b>

<sup>\*\*</sup> Connection required

"C" - In the assembly number C denotes the core number, as this varies depending on customer requirements.

A table showing the various reaches and core numbers is available.

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

NOTE:

1.187 in. OD heavy duty pulling tool is only available with threaded connections.

1.25 in. OD heavy duty pulling tool is not available with HD QRJ or Trinity connections.

Strengths stated excluding connection.



SPECIFICATIONS

Heavy Duty Pulling Tool

Assembly Number	Core	To Fish	Max Reach for engagement (A)	Reach in latch position (B)	Core Part Number
12339	Short Reach	1 in. G.L.V. Bottom latch	-----	-----	12339-05
	Long Reach	1 in. G.L.V. Bottom latch	-----	-----	12339-09
9866	Short Reach	Rope Socket	0.95 in.	1.61 in.	9873
	Medium Reach	Thread Profile	1.53 in.	2.19 in.	9872
7650	Short Reach	Rope Socket	1.09 in.	1.77 in.	7876
	Medium Reach	Thread Profile	1.53 in.	2.21 in.	7875
	Long Reach	BDK QRJ	2.28 in.	2.96 in.	7885
7422	Short Reach	Rope Socket	1.07 in.	1.78 in.	7435
	Medium Reach	Thread Profile	1.44 in.	2.14 in.	7434
	Long Reach	BDK QRJ	2.44 in.	3.15 in.	7433
	Extra Long Reach	Safe Joint Bottom sub	2.76 in.	3.47 in.	7432
	Heavy Duty Reach	BDK HD QRJ	2.85 in.	3.56 in.	7427
	Trinity Reach	Trinity	3.07 in.	3.78 in.	10183
6223	Short Reach	Rope Socket	1.31 in.	2.12 in.	6749
	Medium Reach	Thread Profile	1.51 in.	2.32 in.	6272
	Long Reach	BDK QRJ	2.61 in.	3.42 in.	6271
	Extra Long Reach	Safe Joint Bottom Sub	2.84 in.	3.65 in.	6270
	Heavy Duty Reach	BDK HD QRJ	3.57 in.	4.38 in.	6228
	Trinity Reach	Trinity	3.13 in.	3.94 in.	10184
7651	Short Reach	Rope Socket	1.52 in.	2.29 in.	7894
	Medium Reach	Thread Profile			
	Long Reach	BDK QRJ	2.77 in.	3.54 in.	7899
	Extra Long Reach	Safe Joint Bottom Sub	3.00 in.	3.77 in.	7893
	Heavy Duty Reach	BDK HD QRJ	4.54 in.	5.31 in.	7895
	Trinity Reach	Trinity	4.03 in.	4.80 in.	10185
7652	Short Reach	Thread Profile	1.51 in.	2.29 in.	8387
	Medium Reach	Rope Socket	1.99 in.	2.77 in.	8388
	Long Reach	BDK QRJ	2.76 in.	3.54 in.	8393
	Heavy Duty Reach	BDK HD QRJ	5.01 in.	5.79 in.	8382

\*\* Connection required

"C" - In the assembly number C denotes the core number, as this varies depending on customer requirements.

A table showing the various reaches and core numbers is available.

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

NOTE:

1.187 in. OD Heavy Duty Pulling Tool is only available with Threaded connections.

1.25 in. OD Heavy Duty Pulling Tool is not available with HD QRJ or Trinity connections.

Strengths stated excluding connection.



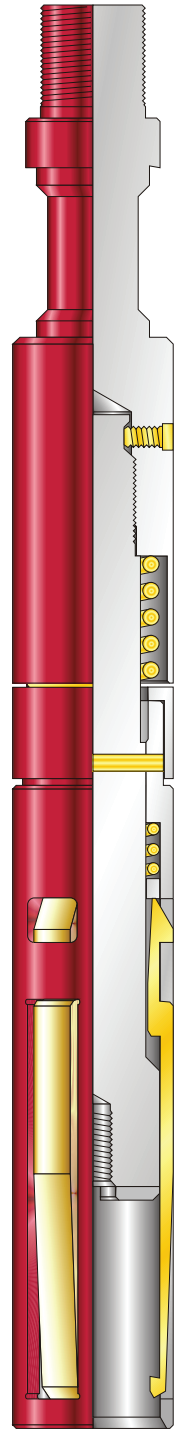
## 'R' Type Pulling Tool

### Tool Description

The Weatherford BDK R-Type Pulling Tool is designed to locate onto external fishing necks. This tool releases with upward jarring action and can be pinned with aluminum, brass or steel shear pins.

The 'R' type tool is ideal for retrieving flow-control devices where a releasing probe has to be run in conjunction with the running tool, as jarring down to locate will not shear the 'R' type tool.

The 'R' type pulling tool is available with a choice of cores, expanding the range capabilities of the tool.





SPECIFICATIONS

'R' Type Pulling Tool

<b>Nominal Size</b>		<b>1.250 in.</b>	<b>1.500 in.</b>	<b>2.000 in.</b>	<b>2.500 in.</b>	<b>3.000 in.</b>	<b>4.000 in.</b>
Maximum OD		1.220 in.	1.42 in.	1.766 in.	2.187 in.	2.740 in.	3.67 in.
To Engage Fish Neck		1.00 in.	1.187 in.	1.375 in.	1.750 in.	2.312 in.	3.125 in.
Reach	Core - RB	1.219 in.	1.078 in.	1.228 in.	1.277 in.	1.361 in.	1.498 in.
	Core - RS	1.550 in.	1.550 in.	2.000 in.	1.992 in.	2.229 in.	2.158 in.
	Core - RJ	2.547 in.	2.547 in.	2.547 in.	2.547 in.	2.606 in.	-----
Make-up Length	Thread	11.8 in.	11.6 in.	15.6 in.	15.37 in.	15 in.	17 in.
	QRJ					17 in.	19 in.
Weight		1.5 kg	1.9 kg	3.8 kg	5.5 kg	7.6 kg	14.3 kg
Bearing Load	Std Service	15,220 lb	26,000 lb	39,700 lb	40,055 lb	56,320 lb	97,800 lb
	H <sub>2</sub> S Service	11,100 lb	24,900 lb	37,890 lb	38,200 lb	53,760 lb	91,400 lb
Strength - Standard Service	SWL	15,590 lb	20,200 lb	34,500 lb	56,800 lb	49,300 lb	114,740 lb
	Yield	17,320 lb	22,440 lb	38,390 lb	63,140 lb	54,780 lb	127,490 lb
	UTS	22,050 lb	28,560 lb	48,860 lb	80,360 lb	69,700 lb	162,260 lb
Strength - H <sub>2</sub> S Service	SWL	14,850 lb	19,280 lb	32,980 lb	54,240 lb	47,060 lb	109,500 lb
	Yield	16,500 lb	21,420 lb	36,650 lb	60,270 lb	52,290 lb	121,700 lb
	UTS	21,200 lb	27,540 lb	47,100 lb	77,500 lb	67,230 lb	156,500 lb
Assembly Number	<b>RB Short Reach</b>	<b>0236A-RB-**</b>	<b>4487-RB-**</b>	<b>4498-RB-**</b>	<b>4509-RB-**</b>	<b>4520-RB-**</b>	<b>4531-RB-**</b>
	<b>RS Medium Reach</b>	<b>0236A-RS-**</b>	<b>4487-RS-**</b>	<b>4498-RS-**</b>	<b>4509-RS-**</b>	<b>4520-RS-**</b>	<b>4531-RS-**</b>
	<b>RJ Long Reach</b>	<b>0236A-RJ-**</b>	<b>4487-RJ-**</b>	<b>4498-RJ-**</b>	<b>4509-RJ-**</b>	<b>4520-RJ-**</b>	-----

\*\* Connection Required

Strengths stated excluding connection.

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

NOTE:

Weights stated are approximate.

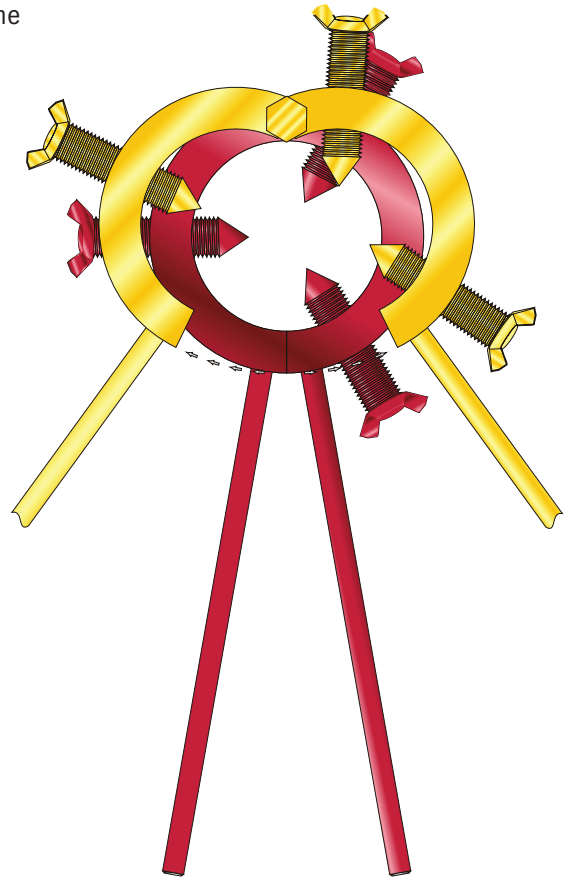
1.25 in. OD 'R' Type Pulling Tool is not available with HD QRJ or Trinity connections (Single Shoulder QRJ Only).



## Releasing Tool for SB/RB Type Running/Pulling Tools

### Tool Description

The Weatherford BDK SB/RB Releasing Tool is designed as a hand-held release tool for the standard SB/RB Running and Pulling Tool. The tool allows the operator to remove a latched device from the Pulling/Running tool without removing the shear pin.



### SPECIFICATIONS

Releasing Tool for SB/RB Type Running/Pulling Tools

Nominal Size	Weight	Part Number	To suit 'R' Type Pulling Tool Assembly	To suit 'S' Type Pulling Tool Assembly
1.25 in.	0.1 kg	01766-00	00236A	00235A
1.50 in.	0.3 kg	01766-01	4487	4399
2.00 in.	0.4 kg	01766-02	4498	4410
2.50 in.	0.8 kg	01766-03	4509	4421
3.00 in.	0.8 kg	01766-03	4520	4432
4.00 in.	1 kg	01766-04	4531	4203

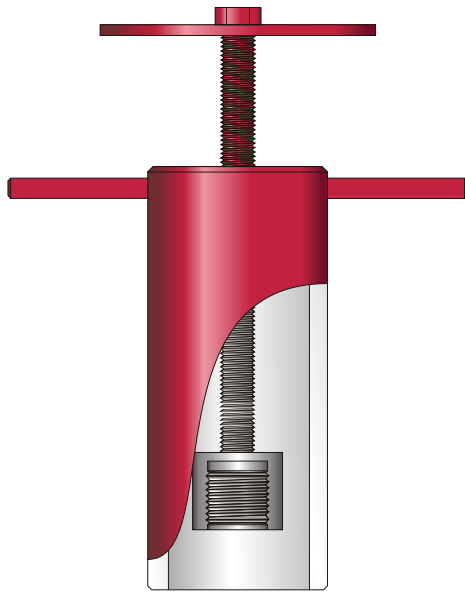




## Re-Pinning Tool for GS Type Running/Pulling Tools

### Tool Description

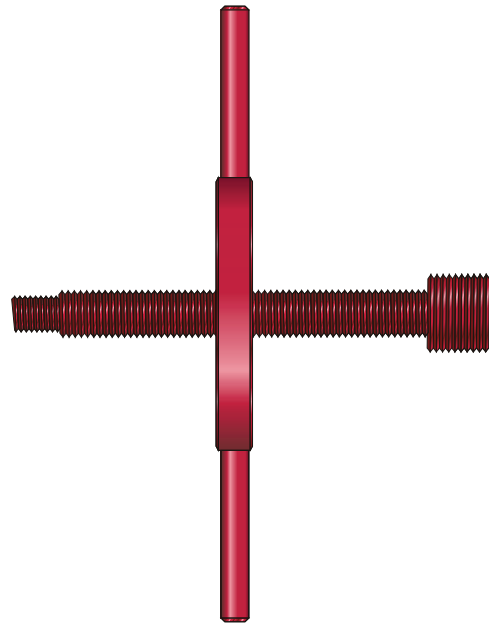
The Weatherford BDK Re-Pinning Tool compresses the core springs allowing easy re-pinning of the GS Pulling and Running Tools.



## Re-Pinning Tool for SB/RB/BDK Type Running/Pulling Tools

### Tool Description

The Weatherford BDK Re-Pinning Tool compresses the core springs allowing easy re-pinning of the GS Pulling and Running Tools.



### SPECIFICATIONS

Nominal Size	Weight	Part Number	Suits GS Assembly
1.25 in.	1.9 kg	01542-05	8052
1.50 in.	1.9 kg	01542-04	4781
2.00 in.	1.9 kg	01542-01	4443
2.50 in.	2.6 kg	01542-02	4454
3.00 in.	3.5 kg	01542-00	4293
3.50 in.	3.5 kg	01542-00	4465
4.00 in.	3.5 kg	01542-00	4476
5.00 in.	5.8 kg	01542-03	4770
6.00 in.	5.8 kg	01542-06	8983
7.00 in.	6.8 kg	01542-07	6292

### SPECIFICATIONS

Nom OD of Pulling Tool	Re-Pinning Tool Part Number	Weight	To Suit Weatherford BDK Pulling Tool Assembly	To Suit 'R' Type Pulling Tool Assembly	To Suit 'S' Type Pulling Tool Assembly
1.187 in.	00518-2 (Use for 1 1/2 in. on 'R' Type Only)	1.2 kg	10302	----	----
1.25 in.			8784	00236A	00235A
1.50 in.	4794		4487	4399	
2.00 in.	00518-1		5951	4498	4410
2.50 in.			5985	4509	4421
3.00 in.			5964	4520	4432
4.00 in.		4747	4531	4203	



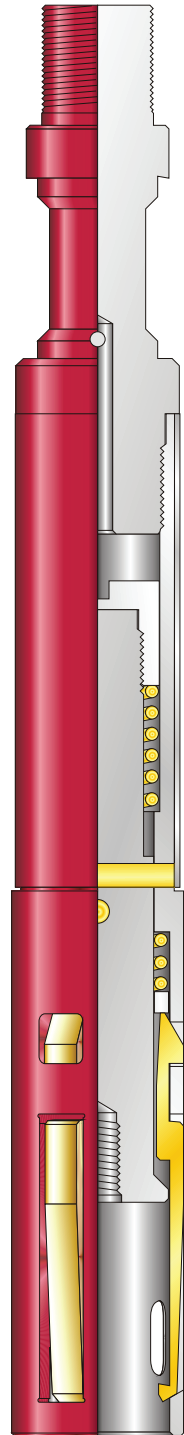
## S-Type Pulling Tool

### Tool Description

The Weatherford BDK S Type Pulling Tool is designed to locate onto external fishing necks. This tool releases with downward jarring action and can be pinned with aluminum, brass or steel shear pins.

The S type pulling tool is ideal for running downhole flow control devices against a no-go shoulder in the landing nipples.

The S type pulling tool is available with a choice of cores, expanding the range capabilities of the tool.





SPECIFICATIONS

S-Type Pulling Tool

Nominal Size		1.25 in.	1.500 in.	2.000 in.	2.500 in.	3.000 in.	4.000 in.
Maximum OD		1.220 in.	1.430 in.	1.766 in.	2.187 in.	2.844 in.	3.670 in.
To Engage Fish Neck		1.000 in.	1.187 in.	1.375 in.	1.750 in.	2.312 in.	3.125 in.
Reach	Core - SB	1.32 in.	0.94 in.	1.20 in.	1.20 in.	1.26 in.	1.42 in.
	Core - SM	-----	-----	2.01 in.	-----	-----	-----
	Core - SS	-----	1.49 in.	1.59 in.	2.11 in.	2.20 in.	
Make-up Length	Thread Conn.	11.87 in.	10.9 in.	14.87 in.	15.37 in.	16.5 in.	17 in.
	QRJ Conn.					17.5 in.	18 in.
Weight		1.5 kg	1.6 kg	3.6 kg	4.6 kg	8.5 kg	12 kg
Bearing Load	Std Service	15,220 lb	18,400 lb	39,719 lb	40,046 lb	68,000 lb	95,850 lb
	H <sub>2</sub> S Service	11,100 lb	17,500 lb	37,914 lb	38,230 lb	65,000 lb	91,490 lb
Strength - Standard Service	SWL	15,590 lb	21,600 lb	19,550 lb	48,210 lb	87,200 lb	87,420 lb
	Yield	17,320 lb	24,000 lb	21,720 lb	53,570 lb	96,900 lb	97,130 lb
	UTS	22,050 lb	30,500 lb	27,640 lb	68,180 lb	123,300 lb	123,620 lb
Strength - H <sub>2</sub> S Service	SWL	14,850 lb	20,600 lb	18,660 lb	46,030 lb	83,250 lb	83,450 lb
	Yield	16,500 lb	22,930 lb	20,730 lb	51,140 lb	92,500 lb	92,720 lb
	UTS	21,200 lb	29,500 lb	26,650 lb	65,750 lb	118,900 lb	119,200 lb
Assembly Number	SB Short Reach	0235A-SB-**	4399-SB-**	4410-SB-**	4421-SB-**	4432-SB-**	4203-SB-**
	SM Medium Reach	-----	-----	4410-SM- **	-----	-----	-----
	SS Long Reach	-----	4399-SS-**	4410-SS-**	4421-SS-**	4432-SS-**	-----

\*\* Connection Required

Strengths Stated excluding Connection.

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

NOTE:

Weights stated are approximate.

1.25 in. OD 'S' Type Pulling Tool is not available with HD QRJ or Trinity Connection. Only available with single shoulder QRJ.



# Retriever

## Tool Description

The Weatherford BDK slickline or braided line retriever is used for recovering cut or broken single strand measuring lines or small diameter stranded lines. As the slickline or braided line retriever is lowered into the wellbore, the effect of well fluids and friction cause the skirt to ride up over the mandrel exposing the opening between the cone and skirts. When the tool contacts the broken line, the line passes between the skirt and the cone. When a loss in wire tension is noted at the surface the operator will cease running in. The outer skirt will move down trapping the wire between cone and cylinder. Pulling on the slickline or braided line securely wedges the line.

## SPECIFICATIONS

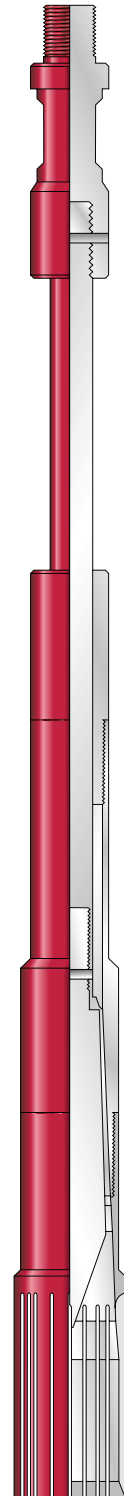
### Retriever

Body Size	Strength - Standard Service			Strength - H <sub>2</sub> S Service			Weight	Assembly Number
	SWL	Yield	UTS	SWL	Yield	UTS		
1.812 in.	32,380 lb	35,980 lb	45,800 lb	23,500 lb	26,150 lb	32,700 lb	5.6 kg	02118-00-**

\*\* Connection Required  
Strengths stated excluding connections  
Add suffix 'H' to assembly number for H<sub>2</sub>S service.

Nominal Size	Part Number	Weight
2.000 in.	00353-01	0.6 kg
2.500 in.	00354-01	0.8 kg
3.000 in.	00355-01	1.2 kg
4.000 in.	00356-01	1.6 kg
5.000 in.	00438-01	1.9 kg
6.000 in.	01692-01	2.7 kg

Skirts can be manufactured to any size required





# Clamp Type Rope Socket

## Tool Description

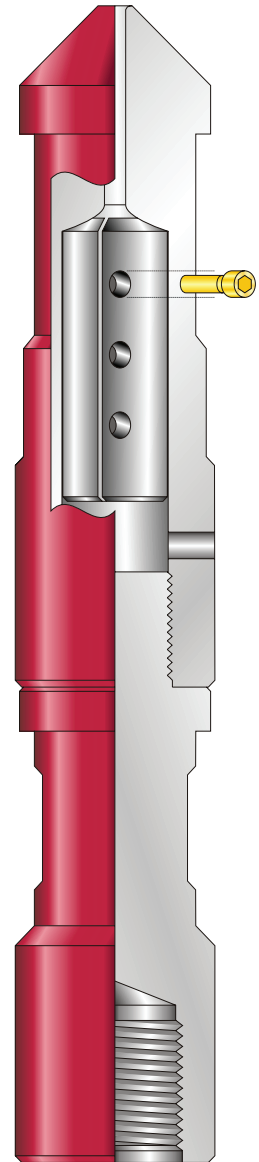
The Weatherford BDK Clamp Type Rope Socket is used as the method of attaching braided type wire to the toolstring. The main body houses a clamp arrangement which is grooved internally to accept the braided line. The clamp is tightened around the line giving a positive method of retention.

## SPECIFICATIONS

### Clamp Type Rope Socket

Part Number	Max OD	Fish Neck Size	Wire Size
12333-187- <sup>**</sup>	1.500 in.	1.375 in. Fish Neck	0.187 in.
12333-218- <sup>**</sup>	1.500 in.	1.375 in. Fish Neck	0.218 in.
12334-187- <sup>**</sup>	1.875 in.	1.750 in. Fish Neck	0.187 in.
12334-218- <sup>**</sup>	1.875 in.	1.750 in. Fish Neck	0.218 in.
12335-187- <sup>**</sup>	2.500 in.	2.313 in. Fish Neck	0.187 in.
12335-218- <sup>**</sup>	2.500 in.	2.313 in. Fish Neck	0.218 in.

<sup>\*\*</sup>Connection code required, please refer to part number guide.  
 Add suffix 'H' to assembly number for H<sub>2</sub>S service.  
 Additional sizes available on request





## Rope Socket - Disc/Spring Type

### Tool Description

The Weatherford BDK Rope Socket is the uppermost component in a slickline or braided line toolstring and forms an essential link between the toolstring and the wire.

The Disc/Spring Type Rope Socket is used with .092 in. single strand solid slickline wire.

### SPECIFICATIONS

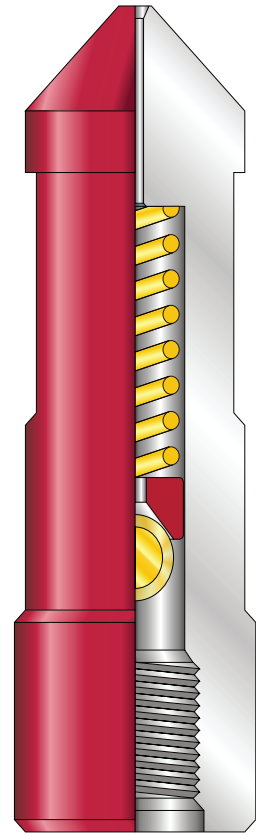
#### Rope Socket - Disc/Spring Type

Part Number	Max OD	Fish Neck Size	Wire Size	Insert Kit Part Number
00016-10-A2	1.250 in.	1.187 in. Fish Neck	0.092 in.	00016-4/5/6
00016-11-A3	1.500 in.	1.375 in. Fish Neck	0.092 in.	00016-4/5/6
00016-12-A4	1.500 in.	1.750 in. Fish Neck	0.092 in.	00016-4/5/6

\*\*Connection code required, please refer to part number guide.

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

Additional sizes available on request





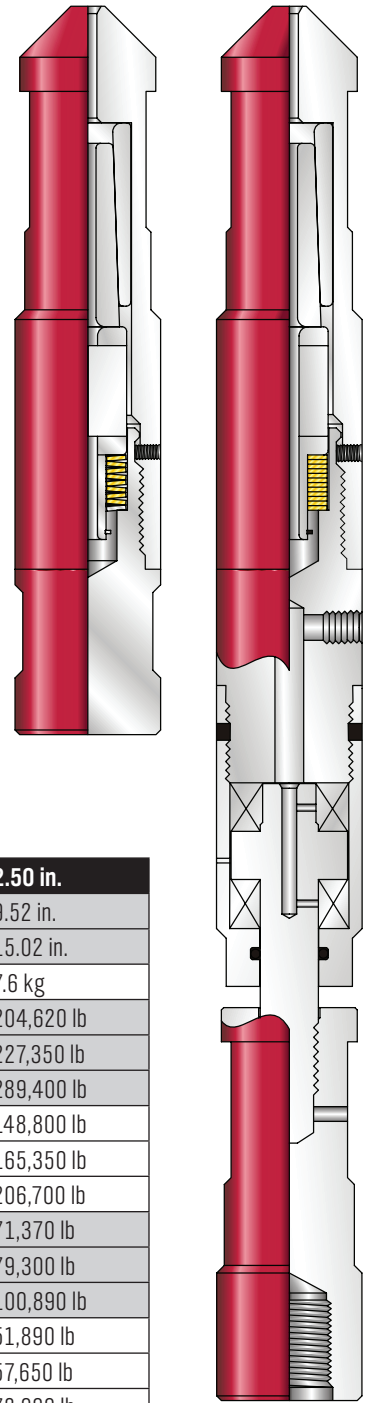
# Max Grip Rope Socket

## Tool Description

The Weatherford BDK Max Grip Rope Socket is the uppermost component in a braided line toolstring and forms the essential interface between the toolstring and the wire. The specially designed slips and pre-loaded initiator clamp assembly secures the braided wireline to the Rope Socket. Belleville Springs are used to pre-load the slips, and ensure that the pre-load is maintained even if wireline line tension is reduced.

On testing no slippage was observed, with the pre-loaded slips providing maximum grip equal in value to the breaking strain of the wire.

The max grip rope socket is also available with the option of a swivel. The Swivel incorporates thrust bearings for durability and reliability, which helps to minimize line twist when running.



## SPECIFICATIONS

### Max Grip Rope Socket

Tool OD		1.25 in.	1.50 in.	1.87 in.	2.50 in.
Make-up Length	Thread	11.25 in.	9.01 in.	9.38 in.	9.52 in.
	QRJ	----	11.82 in.	12.43 in.	15.02 in.
Weight		1.5 kg	2.4 kg	3.3 kg	7.6 kg
Strength - Max Grip excluding Swivel Standard Service	SWL	30,700 lb	37,400 lb	75,640 lb	204,620 lb
	Yield	34,100 lb	41,550 lb	84,040 lb	227,350 lb
	UTS	43,430 lb	53,000 lb	106,960 lb	289,400 lb
Strength - Max Grip Excluding Swivel H <sub>2</sub> S Service	SWL	22,320 lb	27,200 lb	55,000 lb	148,800 lb
	Yield	24,800 lb	30,200 lb	61,120 lb	165,350 lb
	UTS	31,020 lb	37,800 lb	76,400 lb	206,700 lb
Strength - Max Grip including Swivel Standard Service	SWL	10,075 lb	21,800 lb	32,400 lb	71,370 lb
	Yield	11,194 lb	24,230 lb	36,000 lb	79,300 lb
	UTS	12,687 lb	30,830 lb	45,800 lb	100,890 lb
Strength - Max Grip including Swivel H <sub>2</sub> S Service	SWL	7,052 lb	15,860 lb	30,920 lb	51,890 lb
	Yield	7,836 lb	17,620 lb	34,350 lb	57,650 lb
	UTS	10,075 lb	22,030 lb	44,200 lb	72,060 lb
<b>Assembly Number (Exc. Swivel)</b>		<b>12621-WIRE-**</b>	<b>12578-WIRE-**</b>	<b>12760-WIRE-**</b>	<b>12822-WIRE-**</b>
<b>Assembly Number (Inc. Swivel)</b>		<b>12989-WIRE-**</b>	<b>12990-WIRE-**</b>	<b>12313-WIRE-**</b>	<b>12991-WIRE-**</b>

WIRE - Denotes wire size.

\*\*Connection code required, please refer to part number guide.<sup>1</sup>

Strengths stated excluding connection and swivel.

Add suffix 'H' to assembly number for H<sub>2</sub>S service.<sup>1</sup>

NOTE: 1.25 in. OD Max Grip Rope Socket is not available with HD QRJ or Trinity connections<sup>1</sup>

Weights stated are approximate (not including swivel).



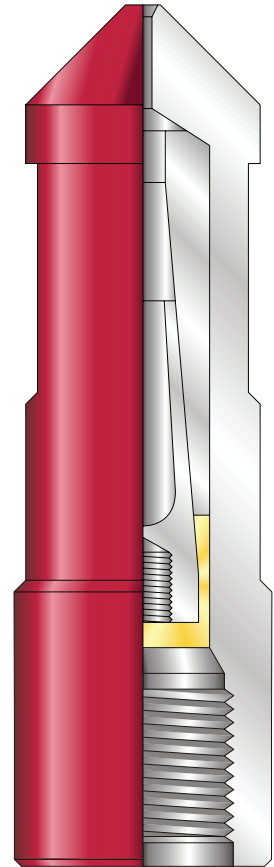
## Rope Socket - Pear Drop for Slickline

### Tool Description

The Weatherford BDK Rope Socket is the uppermost component in a slickline toolstring and forms an essential link between the toolstring and the wire. The pear drop type incorporates a tapered plug (pear drop) which is grooved to accommodate the slickline. This acts against an opposite taper within the body retaining the wire.

### Features

- Range of sizes and connections available as standard







SPECIFICATIONS

Rope Socket - Pear Drop for Slickline

Part Number	Max OD	Fish Neck Size	Connection	Wire Size
00369-00-A2	1.250 in.	1.187 in. Fish Neck	15/16 in. Sucker Rod	0.092 in.
00369-10-A2	1.250 in.	1.187 in. Fish Neck	15/16 in. Sucker Rod	0.108 in.
01545-00-Q2	1.250 in.	1.187 in. Fish Neck	1.250 in. QLS	0.092 in.
01545-10-Q2	1.250 in.	1.187 in. Fish Neck	1.250 in. QLS	0.108 in.
00370-00-A3	1.500 in.	1.375 in. Fish Neck	15/16 in. Sucker Rod	0.092 in.
00370-10-A3	1.500 in.	1.375 in. Fish Neck	15/16 in. Sucker Rod	0.108 in.
00370-20-A3	1.500 in.	1.375 in. Fish Neck	15/16 in. Sucker Rod	0.125 in.
7094-C3	1.500 in.	1.375 in. Fish Neck	1.500 in. HDQRJ	0.092 in.
7096-C3	1.500 in.	1.375 in. Fish Neck	1.500 in. HDQRJ	0.108 in.
7098-C3	1.500 in.	1.375 in. Fish Neck	1.500 in. HDQRJ	0.125 in.
01469-00-Q3	1.500 in.	1.375 in. Fish Neck	1.500 in. QLS	0.092 in.
01469-10-Q3	1.500 in.	1.375 in. Fish Neck	1.500 in. QLS	0.108 in.
01469-20-Q3	1.500 in.	1.375 in. Fish Neck	1.500 in. QLS	0.125 in.
00036-00-A4	1.875 in.	1.750 in. Fish Neck	1-1/16 in. Sucker Rod	0.092 in.
00036-10-A4	1.875 in.	1.750 in. Fish Neck	1-1/16 in. Sucker Rod	0.108 in.
00036-20-A4	1.875 in.	1.750 in. Fish Neck	1-1/16 in. Sucker Rod	0.125 in.
7100-C4	1.875 in.	1.750 in. Fish Neck	1.875 in. HDQRJ	0.092 in.
7102-C4	1.875 in.	1.750 in. Fish Neck	1.875 in. HDQRJ	0.108 in.
7104-C4	1.875 in.	1.750 in. Fish Neck	1.875 in. HDQRJ	0.125 in.
01470-00-Q4	1.875 in.	1.750 in. Fish Neck	1.875 in. QLS	0.092 in.
01470-10-Q4	1.875 in.	1.750 in. Fish Neck	1.875 in. QLS	0.108 in.
01470-20-Q4	1.875 in.	1.750 in. Fish Neck	1.875 in. QLS	0.125 in.
00283-00-A4	2.125 in.	1.750 in. Fish Neck	1-1/16 in. Sucker Rod	0.108 in.
00283-10-A4	2.125 in.	1.750 in. Fish Neck	1-1/16 in. Sucker Rod	0.125 in.
7106-C4	2.125 in.	1.750 in. Fish Neck	1.875 in. HDQRJ	0.108 in.
7108-C4	2.125 in.	1.750 in. Fish Neck	1.875 in. HDQRJ	0.125 in.
01546-00-Q4	2.125 in.	1.750 in. Fish Neck	1.875 in. QLS	0.108 in.
01546-10-Q4	2.125 in.	1.750 in. Fish Neck	1.875 in. QLS	0.125 in.
00072-00-A6	2.500 in.	2.313 in. Fish Neck	1-9/16 in. Sucker Rod	0.108 in.
00072-10-A6	2.500 in.	2.313 in. Fish Neck	1-9/16 in. Sucker Rod	0.125 in.
7110-C6	2.500 in.	2.313 in. Fish Neck	2.500 in. HDQRJ	0.108 in.
7112-C6	2.500 in.	2.313 in. Fish Neck	2.500 in. HDQRJ	0.125 in.
01547-00-Q6	2.500 in.	2.313 in. Fish Neck	2.500 in. QLS	0.108 in.
01547-10-Q6	2.500 in.	2.313 in. Fish Neck	2.500 in. QLS	0.125 in.

QRJ™ and Trinity™ connections available on request.  
 Add suffix 'H' to assembly number for H<sub>2</sub>S service.  
 Additional sizes available on request.



## TDR Time Delay Releasable Rope Socket

### Tool Description

The Weatherford BDK Time Delay Releasable Rope Socket (T.D.R) is run in place of the standard rope socket and provides a safe, reliable means of release should the toolstring become stuck downhole. To release the TDR, the operator simply slacks off the line weight for a predetermined time; this then activates the release system.

The TDR release function can be stopped at any time by re-applying line weight to the toolstring, the TDR is then reset. Once the TDR release sequence has been completed the top section of the TDR can then be retrieved with the wireline/braided line, leaving a clean fishing neck downhole for future recovery operations.

The TDR can also be utilized as a Soft Release Tool to deploy Gauges and other delicate instruments into completion profiles. The tool has been designed so that no presetting or calibration is required prior to use. The tool is easy to maintain and redress without the need for any specialist tools.

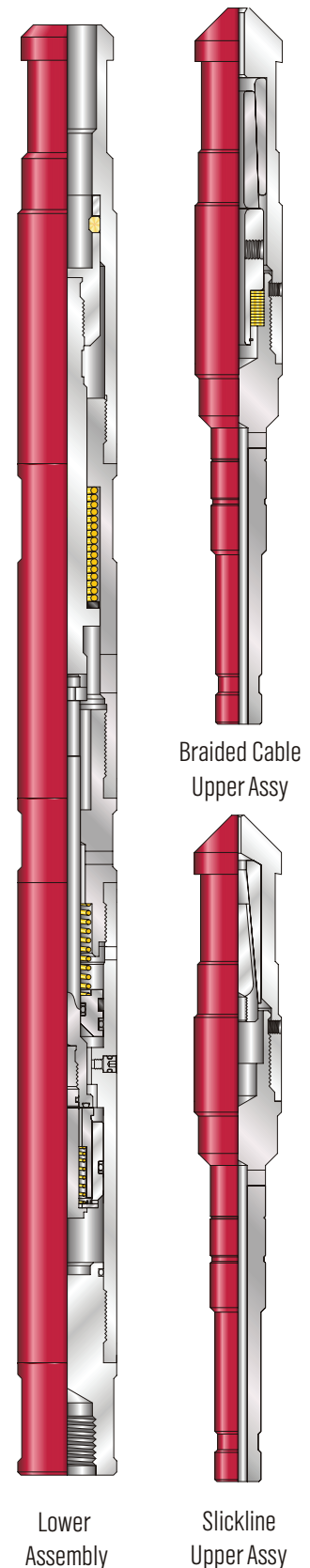
Utilizing a hydraulic metering system similar to that used in the Weatherford BDK Hydro-Mech Jar, the materials have been matched to limit the effects of thermal expansion on the release times. Using a balanced pressure system that also provides for hydraulic fluid expansion the tool can operate throughout a wide range of conditions up to 200°C and 10,000 psi.

### Applications

- All slickline and braided cable operations
- Soft release of instrument gauges

### Features and Benefits

- Suitable for slickline or braided cable
- Will operate in deviated wells
- Field proven reliable release mechanism
- Standard rope socket top for easy re-entry to tailpipe
- Also acts as a swivel joint
- Leaves clean fishing neck for future recovery
- Available in the following sizes: 1 1/2 in., 1 7/8 in., and 2 1/2 in.
- Available with popular wireline quick connect systems
- No need to close BOP's or de-pressurise Lubricator
- Eliminates need for cutter/drop bars
- Eliminates need to box off wire or braided cable
- Allows all wire/braided cable to be returned to surface





SPECIFICATIONS

TDR Time Delay Releasable Rope Socket

Assy Number Upper*	Assy Number Lower	Max OD	Fish Neck Size	Connection	Wire Size	Make Up Length	Minimum Line Tension	Safe Working Load	Temperature Range	Maximum Working Pressure
12597-0108	12596-A3	1.500 in.	1.375 in.	1-1/16 in. Sucker Rod	0.108 in.	37 in.	90 lbs	1000 lbf	20-200° C	10,000 psi
12597-0108	12596-C3	1.500 in.	1.375 in.	1.875 in. HDQRJ	0.108 in.	42 in.	90 lbs	1000 lbf	20-200° C	10,000 psi
12597-0108	12596-Q3	1.500 in.	1.375 in.	1.875 in. QLS	0.108 in.	42 in.	90 lbs	1000 lbf	20-200° C	10,000 psi
12597-0125	12596-A3	1.500 in.	1.375 in.	1-1/16 in. Sucker Rod	0.125 in.	37 in.	90 lbs	1000 lbf	20-200° C	10,000 psi
12597-0125	12596-C3	1.500 in.	1.375 in.	1.875 in. HDQRJ	0.125 in.	42 in.	90 lbs	1000 lbf	20-200° C	10,000 psi
12597-0125	12596-Q3	1.500 in.	1.375 in.	1.875 in. QLS	0.125 in.	42 in.	90 lbs	1000 lbf	20-200° C	10,000 psi
12583-0108	12562-A4	1.875 in.	1.750 in.	1-1/16 in. Sucker Rod	0.108 in.	40 in.	130 lbs	3000 lbf	20-200° C	10,000 psi
12583-0108	12562-C4	1.875 in.	1.750 in.	1.875 in. HDQRJ	0.108 in.	44 in.	130 lbs	3000 lbf	20-200° C	10,000 psi
12583-0108	12562-Q4	1.875 in.	1.750 in.	1.875 in. QLS	0.108 in.	44 in.	130 lbs	3000 lbf	20-200° C	10,000 psi
12583-0125	12562-A4	1.875 in.	1.750 in.	1-1/16 in. Sucker Rod	0.125 in.	40 in.	130 lbs	3000 lbf	20-200° C	10,000 psi
12583-0125	12562-C4	1.875 in.	1.750 in.	1.875 in. HDQRJ	0.125 in.	44 in.	130 lbs	3000 lbf	20-200° C	10,000 psi
12583-0125	12562-Q4	1.875 in.	1.750 in.	1.875 in. QLS	0.125 in.	44 in.	130 lbs	3000 lbf	20-200° C	10,000 psi
12598-0108	12585-A6	2.500 in.	2.312 in.	1-9/16 in. Sucker Rod	0.108 in.	40 in.	180 lbs	7000 lbf	20-200° C	10,000 psi
12598-0108	12585-C6	2.500 in.	2.312 in.	2.500 in. HDQRJ	0.108 in.	48.5 in.	180 lbs	7000 lbf	20-200° C	10,000 psi
12598-0108	12585-Q6	2.500 in.	2.312 in.	2.500 in. QLS	0.108 in.	48.5 in.	180 lbs	7000 lbf	20-200° C	10,000 psi
12598-0125	12585-A6	2.500 in.	2.312 in.	1-9/16 in. Sucker Rod	0.125 in.	40 in.	180 lbs	7000 lbf	20-200° C	10,000 psi
12598-0125	12585-C6	2.500 in.	2.312 in.	2.500 in. HDQRJ	0.125 in.	48.5 in.	180 lbs	7000 lbf	20-200° C	10,000 psi
12598-0125	12585-Q6	2.500 in.	2.312 in.	2.500 in. QLS	0.125 in.	48.5 in.	180 lbs	7000 lbf	20-200° C	10,000 psi

Note : 2 1/8 in. size available on request

Add suffix 'H' to Assembly Number for H<sub>2</sub>S service

\*Additional wire sizes on TDR's available on request

Release time well conditions (such as pressure and temperature) affect the time the tool takes to release.

Each TDR is supplied calibrated such that the maximum release time is approx 150 minutes.



## Weak Point Rope Socket

### Tool Description

The Weatherford BDK Weak Point Rope Socket is designed for use with braided line when high pulling forces are anticipated.

Internally the line is secured by means of an initiator clamp in conjunction with a tapered sleeve and slips. This configuration allows for very high line pull with minimum slippage. The tool also incorporates an emergency release feature that acts as a weak point should the toolstring become stuck, allowing the upper portion of the rope socket to be retrieved with the braided line intact.

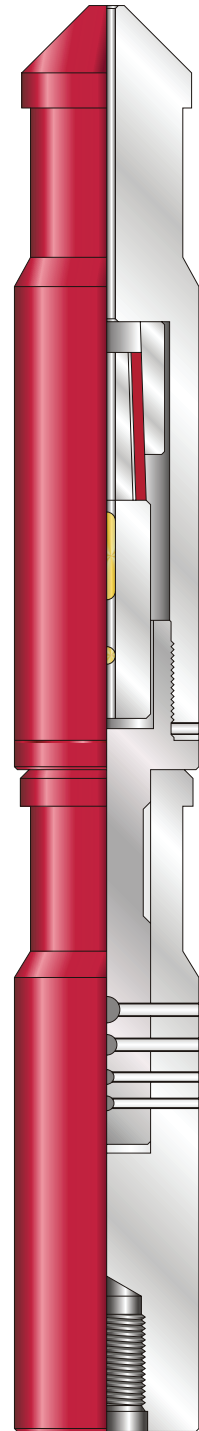
The weak point consists of a series of shear pins of pre-determined strength, which are sheared using a pre-determined overpull.

### SPECIFICATIONS

#### Weak Point Rope Socket

Part Number	Max OD	Fish Neck Size	Connection	Wire Size
W10181875-0002-A4	1.875 in.	1.750 in. Fish Neck	1-1/16 in. Sucker Rod	5/16 in.
W10181875-0002-C4	1.875 in.	1.750 in. Fish Neck	1.875 in. HDQRJ	5/16 in.
W10181875-0002-Q4	1.875 in.	1.750 in. Fish Neck	1.875 in. QLS	5/16 in.
W10182500-200-A6	2.500 in.	2.313 in. Fish Neck	1-9/16 in. Sucker Rod	7/32 in.
W10182500-200-A6	2.500 in.	2.313 in. Fish Neck	1-9/16 in. Sucker Rod	5/16 in.
W10182500-200-A6	2.500 in.	2.313 in. Fish Neck	1-9/16 in. Sucker Rod	7/16 in.
W10182500-0001-C6	2.500 in.	2.313 in. Fish Neck	2.500 in. HDQRJ	7/32 in.
W10182500-0001-C6	2.500 in.	2.313 in. Fish Neck	2.500 in. HDQRJ	5/16 in.
W10182500-0001-C6	2.500 in.	2.313 in. Fish Neck	2.500 in. HDQRJ	7/16 in.
W10102500-100-Q6	2.500 in.	2.313 in. Fish Neck	2.500 in. QLS	7/32 in.
W10102500-100-Q6	2.500 in.	2.313 in. Fish Neck	2.500 in. QLS	5/16 in.
W10102500-100-Q6	2.500 in.	2.313 in. Fish Neck	2.500 in. QLS	7/16 in.

QRJ™ and Trinity™ connections available on request.  
Additional sizes available on request.



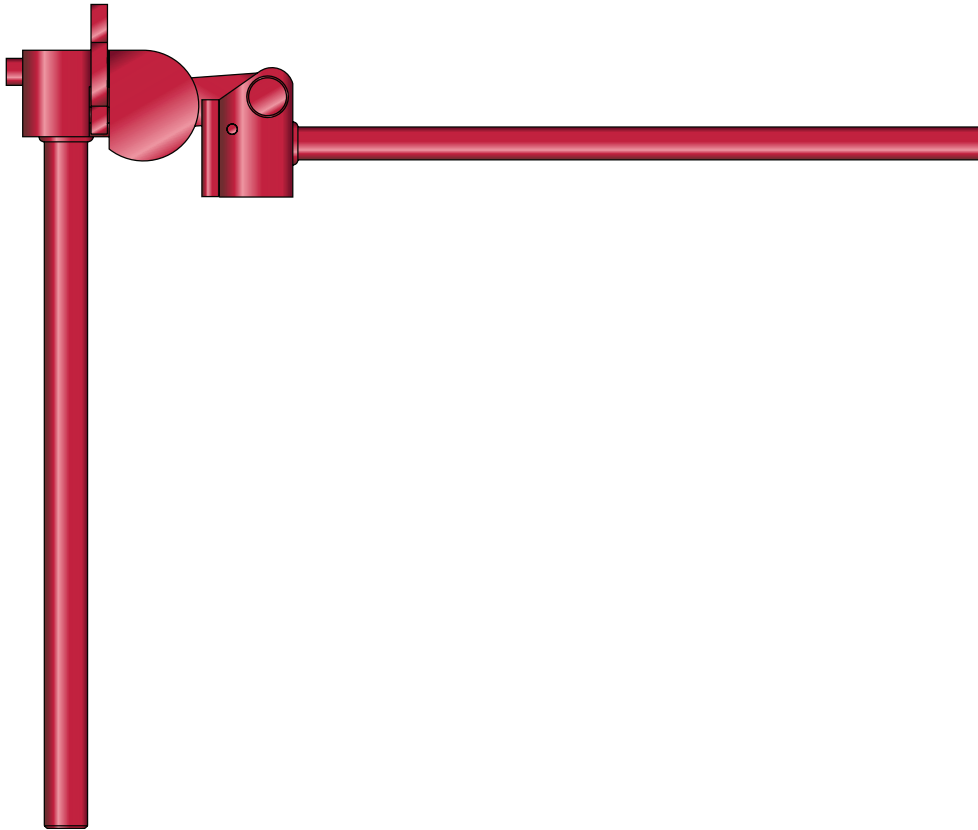


## Rope Socket - Wire Preparation Tool for Pear Drop Type

### Tool Description

The Weatherford BDK Wire Preparation Tool is used for the safe and efficient preparation of slickline when using pear drop rope sockets. This tool is extremely useful with larger sizes of slickline.

Tools are manufactured to any size required.  
Part numbers are available on request.





# Mono-Conductor Rope Socket

## Tool Description

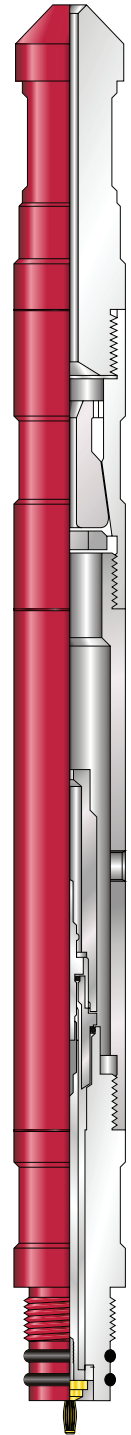
The Weatherford BDK Mono-Conductor Rope Socket is the upper most component in the electric line toolstring, and forms and essential link between the toolstring and the wire.

## SPECIFICATIONS

### Mono-Conductor Rope Socket

Tool OD		1.250 in.	1.437 in.	1.687 in.
Wire Size		0.187 in.	0.187 in.	0.187 in.
Make-up Length		16.00 in.	15.87 in.	15.87 in.
Weight		2.5 kg	3.3 kg	4.6 kg
Strength - Standard Service	SWL	37,350 lb	47,560 lb	50,290 lb
	Yield	41,500 lb	52,840 lb	55,880 lb
	UTS	52,820 lb	67,250 lb	71,120 lb
Strength - H <sub>2</sub> S Service AISI 316 Stainless Steel	SWL	10,200 lb	12,970 lb	13,720 lb
	Yield	11,320 lb	14,410 lb	15,240 lb
	UTS	29,430 lb	37,470 lb	39,630 lb
<b>Assembly Number</b>		<b>6356</b>	<b>12703</b>	<b>12261</b>

Add suffix 'H' to assembly number for H<sub>2</sub>S.  
NOTE: Strengths stated excluding connections.  
Weights stated are approximate.





# Wireline Scratcher

## Tool Description

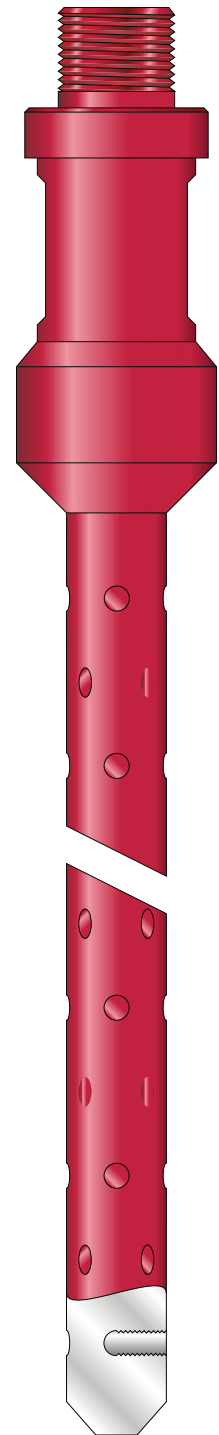
The Weatherford BDK Wireline Scratcher is used to dislodge scale, paraffin wax or packing debris. A wire size of up to 3/16 in. is looped (or cut to suitable length) and inserted in holes and retained with locking screws. (Wire not supplied).

## SPECIFICATIONS

### Wireline Scratcher

Nom. Size	Connection	Body OD	Fish Neck	Make-up Length	Weight	Assembly Number
2.000 in.	15/16 in. - 10 UN	1.500 in.	1.375 in.	18.37 in.	2 kg	01019-01-**
	1 1/2 in. QRJ			18.37 in.	2 kg	
	1 1/2 in. HD QRJ			18.3 in.	2 kg	
2.500 in.	1 1/16 in. - 10UN	1.875 in.	1.750 in.	18.75 in.	2.8 kg	01019-02-**
	1 7/8 in. QRJ			18.75 in.	3 kg	
	1 7/8 in. HD QRJ			18.65 in.	3 kg	
3.000 in.	1 1/16 in. - 10UN	2.500 in.	2.312 in.	19.37 in.	3.7 kg	01019-03-**
	1 9/16 in. - 10UN			19.37 in.	3.5 kg	
	2 1/2 in. QRJ			19.5 in.	3.5 kg	
	2 1/2 in. HD QRJ			19.65 in.	-----	

\*\*Connection code required, please refer to part number guide.  
Add suffix 'H' to assembly number for H<sub>2</sub>S service.



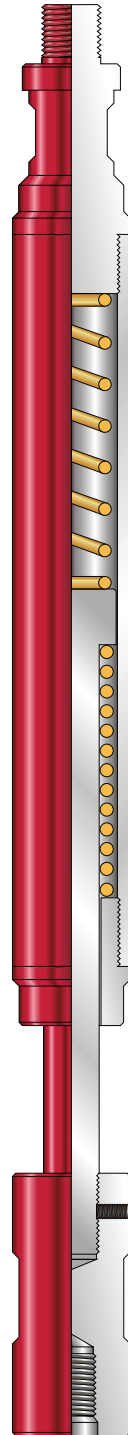


## Shock Absorber

### Tool Description

The Weatherford BDK Shock Absorber is used in the slickline or braided line toolstring to reduce the effects of shock when running delicate gauges etc. The shock absorber is most effective when run directly above the gauges.

Tools are manufactured to any size required.  
Part numbers are available on request.







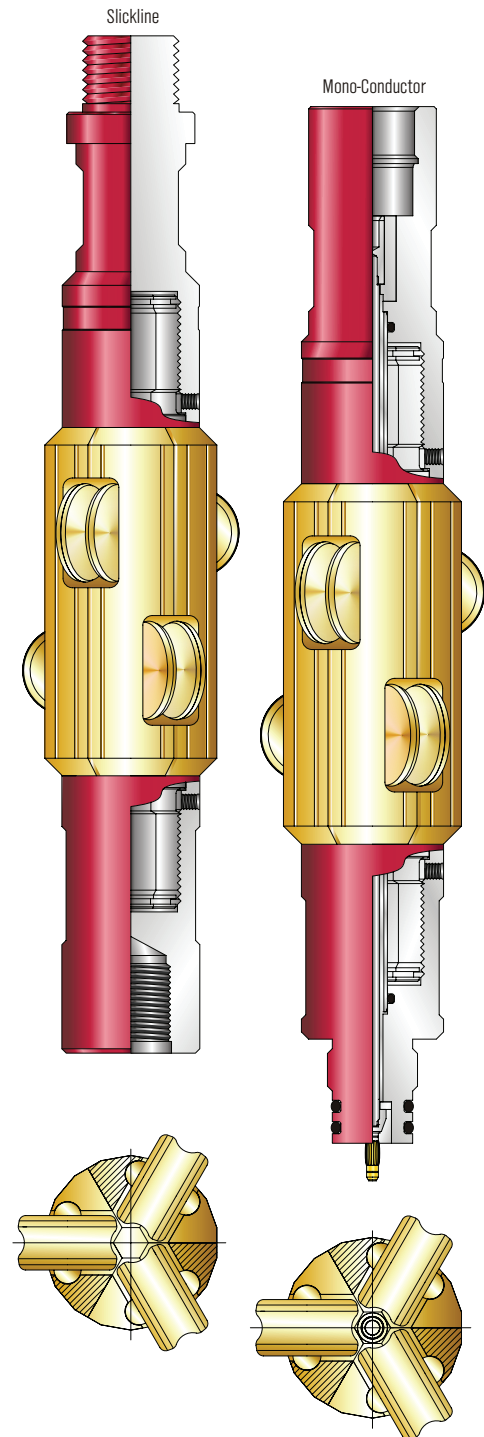
## Skate System

### Tool Description

The Weatherford BDK Skate System transports the toolstring downhole to the well's furthest extremities. Advantages include permanent wheel contact with the tubing wall in any orientation, reduced friction, increased reliability and extended service life.

### Features

- 360° roller orientation eliminating the requirements for swivel joints
- Profiled wheels for easier traversing of tubing wall debris
- Integral axles for increased strength
- Spherical axle ends for maximum roller support during side loads
- No wheel axle locking screws, seals or pins
- Clearance between wheel and cavity to eliminate the ingress of debris
- Quick and easy maintenance through wheel only redress.
- Satisfactorily tested at 85° deviation
- Available with BDK quick-release or conventional connections
- Minimum requirements of two per toolstring, dependent upon application
- Sizes available from 2.00 in. effective diameter
- Electric-line and coiled-tubing versions available with no compromise to standard design





SPECIFICATIONS

Skate System

Body Diameter			1.87 in.	2.13 in.	2.39 in.	2.69 in.
Wheel Diameter			0.680 in.	0.807 in.	0.852 in.	0.908 in.
			0.802 in.	0.931 in.	0.971 in.	1.030 in.
			0.930 in.	1.053 in.	1.094 in.	1.162 in.
			N/A	N/A	1.155 in.	1.262 in.
			N/A	N/A	1.356	1.392 in.
			N/A	N/A	N/A	1.523 in.
Wheel Width			0.68 in.	0.68 in.	0.75 in.	0.88 in.
Effective Diameter			2.00 in.	2.25 in.	2.63 in.	2.88 in.
			2.13 in.	2.37 in.	2.75 in.	3.00 in.
			2.25 in.	2.50 in.	2.88 in.	3.13 in.
			N/A	N/A	3.00 in.	3.25 in.
			N/A	N/A	3.13 in.	3.37 in.
			N/A	N/A	N/A	3.50 in.
Make-up Length Slickline	1.50 in. Connections	Thread	11.6 in.	11.80 in.	12.81 in.	13.80 in.
		QRJ	14.4 in.	14.60 in.	15.61 in.	16.60 in.
	1.87 in. Connections	Thread	11.65 in.	11.85 in.	12.86 in.	13.54 in.
		QRJ	14.68 in.	14.88 in.	15.89 in.	16.57 in.
	2.50 in. Connections	Thread	N/A	N/A	N/A	13.83 in.
		QRJ	N/A	N/A	N/A	17.43 in.
Make-up Length Electric Line	1.68 in. G.O. Connections		11.06 in.	11.26 in.	12.21 in.	12.44 in.
	2.12 in. G.O. Connections		N/A			
Strengths - Standard and H <sub>2</sub> S Service Slickline	1.50 in. Connections	SWL	51,408 lb	71,280 lb	75,168 lb	124,200 lb
		Yield	57,120 lb	79,200 lb	83,520 lb	138,000 lb
		UTS	71,400 lb	99,000 lb	104,400 lb	172,500 lb
	1.87 in. Connections	SWL	51,408 lb	71,280 lb	75,168 lb	124,200 lb
		Yield	57,120 lb	79,200 lb	83,520 lb	138,000 lb
		UTS	71,400 lb	99,000 lb	104,400 lb	172,500 lb
	2.50 in. Connections	SWL	N/A	N/A	75,168 lb	124,200 lb
		Yield	N/A	N/A	83,520 lb	138,000 lb
		UTS	N/A	N/A	104,400 lb	172,500 lb
Strengths - Standard and H <sub>2</sub> S Service Electric Line	1.68 in. G.O. Connections	SWL	51,408 lb	71,280 lb	75,168 lb	124,200 lb
		Yield	57,120 lb	79,200 lb	83,520 lb	138,000 lb
		UTS	71,400 lb	99,000 lb	104,400 lb	172,500 lb
	2.12 in. G.O. Connections	SWL	N/A	71,280 lb	75,168 lb	124,200 lb
		Yield	N/A	79,200 lb	83,520 lb	138,000 lb
		UTS	N/A	99,000 lb	104,400 lb	172,500 lb
<b>Assembly Number (Slickline)</b>			<b>12606-01-E-**</b>	<b>12880-01-E-**</b>	<b>12281-01-E-**</b>	<b>12882-01-E-**</b>
<b>Assembly Number (Electric Line)</b>			<b>12606-02-E-CD</b>	<b>12880-02-E-CD</b>	<b>12281-02-E-CD</b>	<b>12822-02-E-CD*</b>

\*\*Connection code required, please refer to part number guide.

E - Denotes effective diameter required

CD - Denotes connection diameter. Example of assembly number for electric line -

Add suffix 'H' to assembly number for H<sub>2</sub>S Service 2.12 in. G.O. Connection, 1.483 in. Wheels for effective diameter 3.37 in.

Strengths stated excluding connection assembly number - 12882-02-3370-2125.

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# Bull Dog Spear

## Tool Description

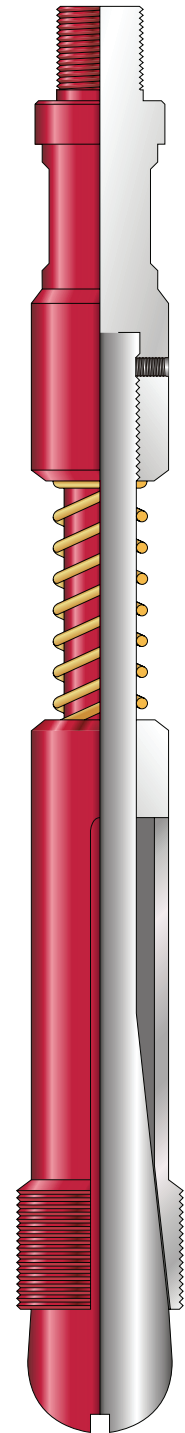
The Weatherford BDK Bull Dog Spear is a fishing tool designed to catch tubular sections lost in the well or catch damaged internal fishing necks of flow control devices.

## SPECIFICATIONS

### Bull Dog Spear

Part Number	Tool OD	Collet OD	Fish Neck OD	Length	Weight
01226-00-**	0.750 in.	0.500 in.	0.875 in.	6.87 in.	0.3 kg
01481-00-**	0.875 in.	0.750 in.	1.00 in.	8.75 in.	0.4 kg
01227-00-**	1.000 in.	1.000 in.	1.187 in.	9.68 in.	0.6 kg
01482-00-**	1.250 in.	1.250 in.	1.187 in.	10.25 in.	1.1 kg
01229-10-**	1.375 in.	1.500 in.	1.375 in.	12.37 in.	1.7 kg
01229-00-**	1.500 in.	1.750 in.	1.375 in.	14 in.	2.2 kg
01483-00-**	1.750 in.	2.000 in.	1.375 in.	15.18 in.	3.4 kg
01230-00-**	2.000 in.	2.250 in.	1.750 in.	16.06 in.	4.7 kg
01230-20-**	2.000 in.	2.500 in.	1.750 in.	16.06 in.	6 kg
01234-00-**	2.375 in.	3.750 in.	1.750 in.	tbc	tbc
01234-10-**	2.375 in.	3.875 in.	1.750 in.	tbc	tbc
01234-20-**	2.375 in.	4.000 in.	1.750 in.	tbc	tbc
01233-10-**	2.500 in.	2.750 in.	1.750 in.	17.56 in.	7.5 kg
01233-00-**	2.500 in.	2.80 in./2.84 in.	1.750 in.	17.56 in.	8.7 kg
01235-00-**	2.750 in.	4.250 in.	1.750 in.	tbc	tbc
01237-10-**	2.875 in.	3.000 in.	1.750 in.	19.25 in.	9.9 kg
01237-00-**	2.875 in.	3.250 in.	1.750 in.	19.25 in.	11.7 kg
01237-20-**	2.875 in.	3.500 in.	1.750 in.	tbc	tbc
01234-00-**	3.375 in.	3.750 in.	1.750 in.	19.25 in.	tbc
01234-10-**	3.375 in.	3.875 in.	1.750 in.	19.25 in.	tbc
01234-20-**	3.375 in.	4.000 in.	1.750 in.	19.25 in.	tbc
01235-00-**	3.750 in.	4.250 in.	2.312 in.	tbc	tbc

\*\*Connection code required, please refer to part number guide.  
Additional sizes available on request.





# Center Spear

## Tool Description

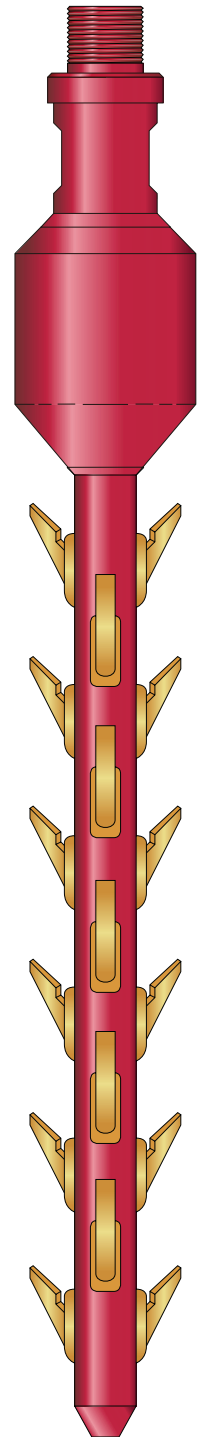
The Weatherford BDK Center Spear is used to release and retrieve balls of wire that become stuck in the wellbore.

## SPECIFICATIONS

### Center Spear

Part Number	Tool OD	Fish Neck OD	Length	Weight
9589-1250-A2	1.250 in.	1.187 in.	19.00 in.	2.1 kg
9593-1500-A3	1.500 in.	1.375 in.	19.50 in.	2.3 kg
9593-1750-A3	1.750 in.	1.375 in.	19.50 in.	2.3 kg
9597-1875-A4	1.875 in.	1.750 in.	20.75 in.	2.6 kg
9597-2000-A4	2.000 in.	1.750 in.	20.75 in.	2.7 kg
9597-2125-A4	2.125 in.	1.750 in.	20.75 in.	2.7 kg
9597-2250-A4	2.250 in.	1.750 in.	20.75 in.	2.7 kg
9597-2500-A4	2.500 in.	1.750 in.	20.75 in.	2.8 kg
9597-2750-A4	2.750 in.	1.750 in.	20.75 in.	2.8 kg
9601-3000-A4	3.000 in.	1.750 in.	22.00 in.	2.9 kg

\*\*Connection code required, please refer to part number guide.  
Additional sizes available on request.



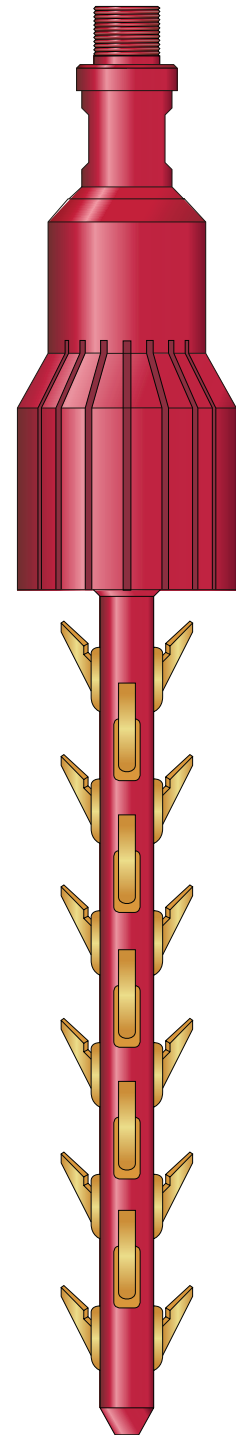


## Finder Spear

### Tool Description

The Weatherford BDK Finder Spear is used in the same way as the standard center spear, to release or retrieve balls of wire that have become stuck in the wellbore. However, by using a skirt with the spear, the chances of passing the wire are reduced.

Tools are manufactured to suit any size required. Part numbers are available on request.





## Internal Spear - Self Releasing

### Tool Description

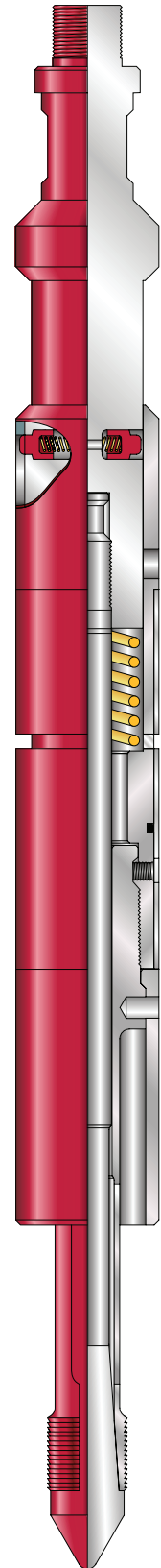
The Weatherford BDK Self Releasing Internal Fishing Spear is a fishing tool especially designed for downhole flow control devices that have damaged fishing necks. The tool is run to depth and the collet retracts to allow entry into the fish. Upward jarring can then be continued to free the fish. To release from the fish, downward jarring will shear the pin and activate the release mandrel.

### SPECIFICATIONS

#### Internal Spear - Self Releasing

Part Number	Nominal Size	Tool OD	Slip Range	Fish Neck OD	Comments
10525-**	2.00 in.	1.850 in.	1.000 in. - 1.625 in.	1.375 in.	Collet Range in 1/8 in. Increments
10534-**	2.50 in.	2.250 in.	1.250 in. - 2.125 in.	1.750 in.	
10543-**	3.00 in.	2.650 in.	1.500 in. - 2.500 in.	1.750 in.	
10552-**	3.50 in.	3.350 in.	1.500 in. - 3.125 in.	1.750 in.	
10559-**	4.00 in.	3.800 in.	1.750 in. - 3.625 in.	2.312 in.	
10566-**	5.00 in.	4.125 in.	2.000 in. - 3.875 in.	2.312 in.	

\*\*Connection code required, please refer to part number guide.  
Additional sizes available on request.





# Star Bit

## Tool Description

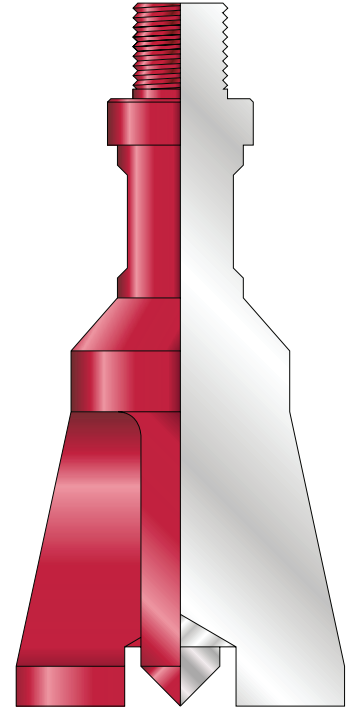
The Weatherford BDK Star Bit has hardened chisel edges, making it a useful tool to break up debris within the tubing.

## SPECIFICATIONS

### Star Bit

Part Number	Max OD	Fish Neck Size	Weight	Length
12285-**	2.500 in.	1.750 in. Fish Neck	2.7 kg	4.65 in.
12252-**	2.800 in.	1.750 in. Fish Neck	3 kg	5.50 in.
12251-**	2.875 in.	1.750 in. Fish Neck	3.1 kg	5.50 in.
12248-**	3.500 in.	2.312 in. Fish Neck	4.3 kg	6.10 in.

\*\*Connection code required, please refer to part number guide.  
Additional sizes available on request.





## Wireline Stem

### Tool Description

The Weatherford BDK Wireline Stem serves a dual purpose. It provides the necessary weight to overcome the effects of friction, fluid viscosity and pressure. It also provides the kinetic energy that is converted into upward and downward jarring force.

### Features and Benefits

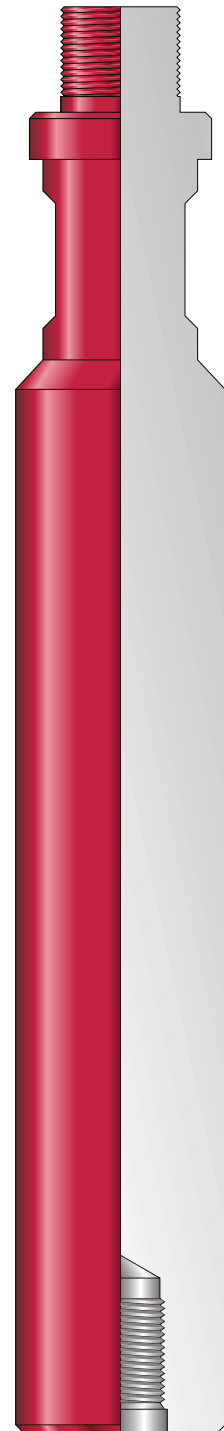
- Available in 2 ft, 3 ft, and 5 ft lengths as standard
- Standard and quick-lock connections
- Standard fishing neck sizes

### SPECIFICATIONS

#### Wireline Stem

Part Number	Max OD	Fish Neck Size	Length	Weight
8593-01-**	1.250 in.	1.187 in. Fish Neck	2 ft	8.4 lbs
8593-02-**	1.250 in.	1.187 in. Fish Neck	3 ft	12.8 lbs
8593-03-**	1.250 in.	1.187 in. Fish Neck	5 ft	20.9 lbs
8319-01-**	1.500 in.	1.375 in. Fish Neck	2 ft	11.0 lbs
8319-02-**	1.500 in.	1.375 in. Fish Neck	3 ft	17.6 lbs
8319-03-**	1.500 in.	1.375 in. Fish Neck	5 ft	28.7 lbs
8592-01-**	1.750 in.	1.375 in. Fish Neck	2 ft	14.3 lbs
8592-02-**	1.750 in.	1.375 in. Fish Neck	3 ft	22.0 lbs
8592-03-**	1.750 in.	1.375 in. Fish Neck	5 ft	39.7 lbs
8318-01-**	1.875 in.	1.750 in. Fish Neck	2 ft	17.6 lbs
8318-02-**	1.875 in.	1.750 in. Fish Neck	3 ft	26.5 lbs
8318-03-**	1.875 in.	1.750 in. Fish Neck	5 ft	45.2 lbs
8317-01-**	2.125 in.	1.750 in. Fish Neck	2 ft	22.9 lbs
8317-02-**	2.125 in.	1.750 in. Fish Neck	3 ft	34.8 lbs
8317-03-**	2.125 in.	1.750 in. Fish Neck	5 ft	58.6 lbs
8316-01-**	2.500 in.	2.313 in. Fish Neck	2 ft	31.3 lbs
8316-02-**	2.500 in.	2.313 in. Fish Neck	3 ft	48.5 lbs
8316-03-**	2.500 in.	2.313 in. Fish Neck	5 ft	81.6 lbs

\*\*Connection code required, please refer to part number guide.  
Additional sizes available on request.







## Wireline Lead Filled and Tungsten Stem

### Tool Description

The Weatherford BDK Wireline Stem serves a dual purpose. It provides the necessary weight to overcome the effects of friction, fluid viscosity and pressure. It also provides the kinetic energy which is converted into upward and downward jarring force.

Lead filled and tungsten stems are used instead of conventional stems when additional weight per foot on given OD is required.

### Features and Benefits

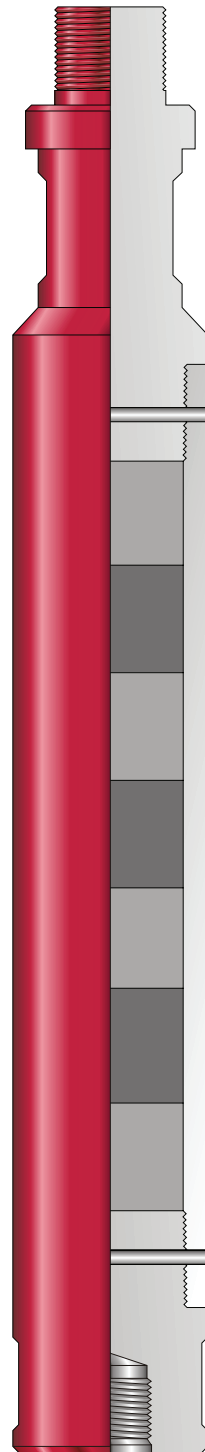
- Available in 2 ft, 3 ft, and 5 ft lengths as standard
- Standard and quick-lock connections
- Standard fishing neck sizes

### SPECIFICATIONS

#### Wireline Lead Filled and Tungsten Stem

Assembly Number		Max OD	Fish Neck Size	Length	Weight	
Lead	Tungsten				Lead	Tungsten
00166-01- <sup>**</sup>	00978-01- <sup>**</sup>	1.250 in.	1.187 in.	2 ft	8.8 lbs	10.4 lbs
00166-02- <sup>**</sup>	00978-02- <sup>**</sup>	1.250 in.	1.187 in.	3 ft	14.3 lbs	16.3 lbs
00166-03- <sup>**</sup>	00978-03- <sup>**</sup>	1.250 in.	1.187 in.	5 ft	24.3 lbs	28.4 lbs
00167-01- <sup>**</sup>	00979-01- <sup>**</sup>	1.500 in.	1.375 in.	2 ft	13.9 lbs	15.9 lbs
00167-02- <sup>**</sup>	00979-02- <sup>**</sup>	1.500 in.	1.375 in.	3 ft	20.9 lbs	23.6 lbs
00167-03- <sup>**</sup>	00979-03- <sup>**</sup>	1.500 in.	1.375 in.	5 ft	36.4 lbs	41.7 lbs
00163-01- <sup>**</sup>	00981-01- <sup>**</sup>	1.875 in.	1.750 in.	2 ft	20.7 lbs	28.3 lbs
00163-02- <sup>**</sup>	00981-02- <sup>**</sup>	1.875 in.	1.750 in.	3 ft	32.2 lbs	38.6 lbs
00163-03- <sup>**</sup>	00981-03- <sup>**</sup>	1.875 in.	1.750 in.	5 ft	56.7 lbs	65.3 lbs
00169-01- <sup>**</sup>	00982-01- <sup>**</sup>	2.125 in.	1.750 in.	2 ft	26.9 lbs	31.1 lbs
00169-02- <sup>**</sup>	00982-02- <sup>**</sup>	2.125 in.	1.750 in.	3 ft	41.9 lbs	49.4 lbs
00169-03- <sup>**</sup>	00982-03- <sup>**</sup>	2.125 in.	1.750 in.	5 ft	68.8 lbs	86.0 lbs
00170-01- <sup>**</sup>	00983-01- <sup>**</sup>	2.500 in.	2.313 in.	2 ft	37.5 lbs	40.0 lbs
00170-02- <sup>**</sup>	00983-02- <sup>**</sup>	2.500 in.	2.313 in.	3 ft	57.3 lbs	68.8 lbs
00170-03- <sup>**</sup>	00983-03- <sup>**</sup>	2.500 in.	2.313 in.	5 ft	99.2 lbs	120.0 lbs

<sup>\*\*</sup>Connection code required, please refer to part number guide.  
Additional sizes available on request.





## Mono-Conductor Stem

### Tool Description

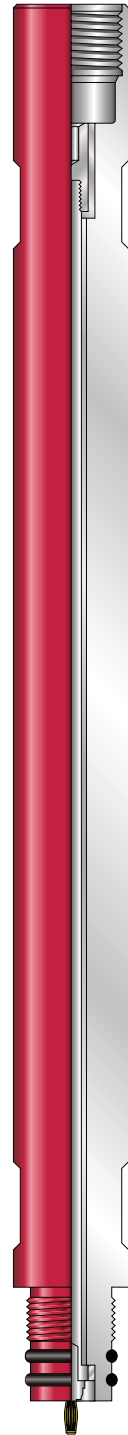
The Weatherford BDK Mono-Conductor Stem is designed to provide the necessary weight to overcome the effects of friction, fluid viscosity and pressure.

### SPECIFICATIONS

#### Mono-Conductor Stem

Tool OD	Make-up Length	Weight	Assembly Number
1.500 in.	3 ft	7.7 kg	3268-03
	4 ft	10.3 kg	13268-04
	5 ft	12.9 kg	13268-05
	6 ft	15.5 kg	13268-06
1.687 in.	3 ft	9.9 kg	12772-03
	4 ft	13.2 kg	12772-04
	5 ft	16.5 kg	12772-05
	6 ft	19.8 kg	12772-06
1.875 in.	3 ft	12.3 kg	13269-03
	4 ft	16.4 kg	13269-04
	5 ft	20.6 kg	13269-05
	6 ft	24.7 kg	13269-06
2.125 in.	3 ft	16 kg	12773-03
	4 ft	21.3 kg	12773-04
	5 ft	26.6 kg	12773-05
	6 ft	31.9 kg	12773-06
2.500 in.	3 ft	22.3 kg	13270-03
	4 ft	29.7 kg	13270-04
	5 ft	37.1 kg	13270-05
	6 ft	44.6 kg	13270-06

Add suffix 'H' to assembly number for H<sub>2</sub>S service.  
NOTE: Weights stated are approximate.





# Mono-Conductor Lead Filled and Tungsten Stem

## Tool Description

The Weatherford BDK Mono-Conductor Lead Filled and Tungsten Stems provide the mass required in wireline operations to enable the toolstring to travel against the differential pressure acting on the cross section of the wireline toolstring, thus helping to overcome the effects of friction. Lead-filled and tungsten stems are used instead of conventional stems when additional weight per foot on a given outside diameter is required.

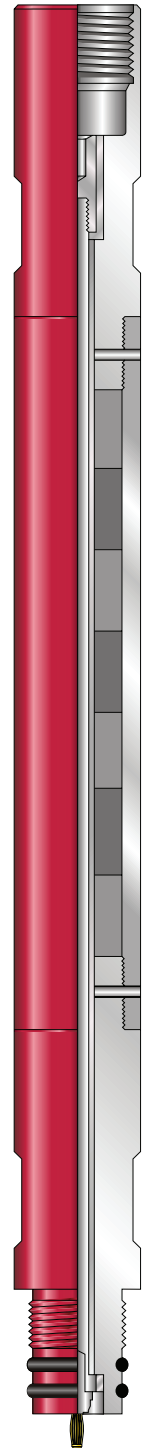
## SPECIFICATIONS

### Mono-Conductor Lead Filled and Tungsten Stem

OD	Length	Weight		Assembly Number	
		Lead	Tungsten	Lead	Tungsten
1.500 in.	3 ft	N/A	7.7 lb	7002 - 04	13268-03
	4 ft	N/A	10.3 lb	7002 - 05	13268-04
	5 ft	N/A	12.9 lb	7002 - 06	13268-05
	6 ft	N/A	15.5 lb	7002 - 07	13268-06
1.687 in.	3 ft		9.9 lb		12772-03
	4 ft	16.2 lb	13.2 lb	7002 - 04	12772-04
	5 ft	19.6 lb	16.5 lb	7002 - 05	12772-05
	6 ft	24.5 lb	19.8 lb	7002 - 06	12772-06
	7 ft	27.7 lb		7002 - 07	
1.875 in.	3 ft	N/A	12.3 lb	N/A	13269-03
	4 ft	N/A	16.4 lb	N/A	13269-04
	5 ft	N/A	20.6 lb	N/A	13269-05
	6 ft	N/A	24.7 lb	N/A	13269-06
2.125 in.	3 ft	N/A	16 lb	N/A	12773-03
	4 ft	26 lb	21.3 lb	5149 - 04	12773-04
	5 ft	32. lb	26.6 lb	5149 - 05	12773-05
	6 ft	40 lb	31.9 lb	5149 - 06	12773-06
	7 ft	46 lb		5149 - 07	
2.500 in.	3 ft	N/A	22.3 lb	N/A	13270-03
	4 ft	N/A	29.7 lb	N/A	13270-04
	5 ft	N/A	37.1 lb	N/A	13270-05
	6 ft	N/A	44.6 lb	N/A	13270-06
2.750 in.	4 ft	44.3 lb	N/A	7001 - 04	N/A
	5 ft	55.1 lb	N/A	7001 - 05	N/A
	6 ft	66.7 lb	N/A	7001 - 06	N/A
	7 ft	78 lb	N/A	7001 - 07	N/A

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

NOTE: Weights stated are approximate.





## Multi-Roller Wheel Stem

### Tool Description

The Weatherford BDK Multi-Roller Wheel Stem is designed for use in highly deviated wells. The wheels overcome friction which can be caused by the toolstring scraping against the tubing wall.

The multi-roller wheel stem serves a dual purpose, providing the necessary weight to overcome the effects of friction, fluid viscosity and pressure, in addition to providing the kinetic energy which is converted into upward and downward jarring force.

### SPECIFICATIONS

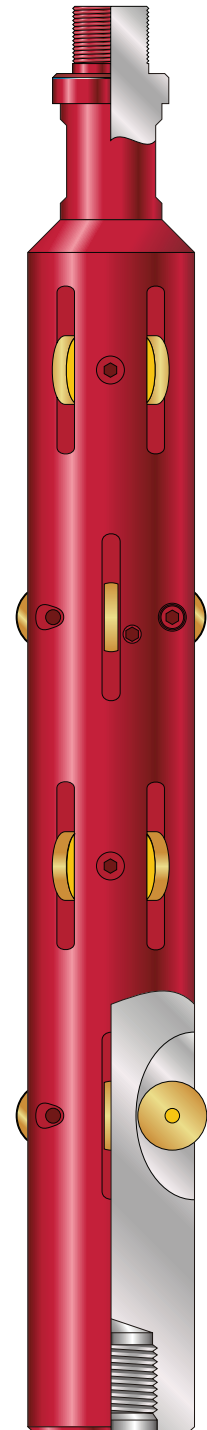
#### Multi-Roller Wheel Stem

Body Diameter	Effective OD	Length	Part Number
1.500 in.	1.750 in.	2 ft	11004- <sup>**</sup>
1.500 in.	1.750 in.	3 ft	11005- <sup>**</sup>
1.500 in.	1.750 in.	5 ft	11006- <sup>**</sup>
1.875 in.	2.000 in.	2 ft	8143-05- <sup>**</sup>
1.875 in.	2.000 in.	3 ft	8144-05- <sup>**</sup>
1.875 in.	2.000 in.	5 ft	8145-05- <sup>**</sup>
1.875 in.	2.125 in.	2 ft	8143-06- <sup>**</sup>
1.875 in.	2.125 in.	3 ft	8144-06- <sup>**</sup>
1.875 in.	2.125 in.	5 ft	8145-06- <sup>**</sup>
1.875 in.	2.250 in.	2 ft	8143-07- <sup>**</sup>
1.875 in.	2.250 in.	3 ft	8144-07- <sup>**</sup>
1.875 in.	2.250 in.	5 ft	8145-07- <sup>**</sup>
2.125 in.	2.250 in.	2 ft	8146-04- <sup>**</sup>
2.125 in.	2.250 in.	3 ft	8147-04- <sup>**</sup>
2.125 in.	2.250 in.	5 ft	8148-04- <sup>**</sup>
2.125 in.	2.375 in.	2 ft	8146-03- <sup>**</sup>
2.125 in.	2.375 in.	3 ft	8147-03- <sup>**</sup>
2.125 in.	2.375 in.	5 ft	8148-03- <sup>**</sup>
2.125 in.	2.500 in.	2 ft	8146-02- <sup>**</sup>
2.125 in.	2.500 in.	3 ft	8147-02- <sup>**</sup>
2.125 in.	2.500 in.	5 ft	8148-02- <sup>**</sup>
2.125 in.	2.625 in.	2 ft	8146-01- <sup>**</sup>
2.125 in.	2.625 in.	3 ft	8147-01- <sup>**</sup>
2.125 in.	2.625 in.	5 ft	8148-01- <sup>**</sup>

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

NOTE: Weights stated are approximate.

Redress kits available on request.



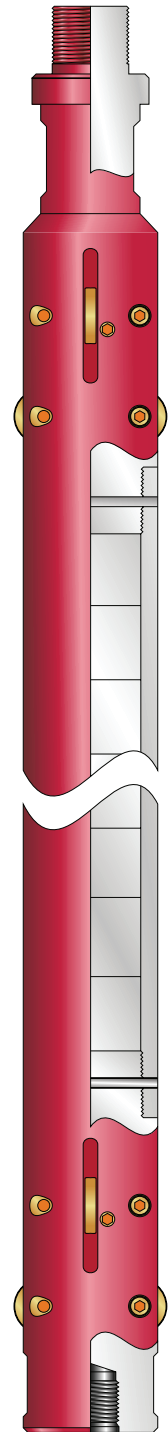


## Multi-Roller Wheel Lead Filled and Tungsten Stem

### Tool Description

The Weatherford BDK Multi-Roller Wheel Stem is designed for use in highly deviated wells. The wheels overcome friction, which can be caused by the toolstring scraping against the tubing wall.

The multi-roller stem provides the mass required in slickline or braided line operations to enable the toolstring to travel against the differential pressure acting on the cross section of the wireline toolstring. Used in jarring operations. The multi-roller wheel stem will improve impact forces at the fish. The tungsten/lead filled multi-roller wheel stems are used instead of conventional multi-roller wheel stems when additional weight per foot on a given OD is required.





## SPECIFICATIONS

### Multi-Roller Wheel Lead Filled and Tungsten Stem

Tool OD	Length	Effective OD	Assembly Number	
			Tungsten Inserts	Lead Inserts
1.500 in.	3 ft	1.750 in.	12863-1750-T-**	12863-1750-L-**
		1.875 in.	12863-1875-T-**	12863-1875-L-**
	5 ft	1.750 in.	13331-1750-T-**	13331-1750-L-**
		1.875 in.	13331-1875-T-**	13331-1875-L-**
1.875 in.	3 ft	2.000 in.	12864-2000-T-**	12864-2000-L-**
		2.125 in.	12864-2125-T-**	12864-2125-L-**
		2.250 in.	12864-2250-T-**	12864-2250-L-**
	5 ft	2.000 in.	13332-2000-T-**	13332-2000-L-**
		2.125 in.	13332-2125-T-**	13332-2125-L-**
		2.250 in.	13332-2250-T-**	13332-2250-L-**
2.125 in.	3 ft	2.250 in.	12865-2250-T-**	12865-2250-L-**
		2.375 in.	12865-2375-T-**	12865-2375-L-**
		2.500 in.	12865-2500-T-**	12865-2500-L-**
		2.625 in.	12865-2625-T-**	12865-2625-L-**
	5 ft	2.250 in.	13333-2250-T-**	13333-2250-L-**
		2.375 in.	13333-2375-T-**	13333-2375-L-**
		2.500 in.	13333-2500-T-**	13333-2500-L-**
		2.625 in.	13333-2625-T-**	13333-2625-L-**
2.500 in.	3 ft	2.710 in.	12866-2710-T-**	12866-2710-L-**
		2.900 in.	12866-2900-T-**	12866-2900-L-**
		3.000 in.	12866-3000-T-**	12866-3000-L-**
		3.250 in.	12866-3250-T-**	12866-3250-L-**
	5 ft	2.710 in.	13334-2710-T-**	13334-2710-L-**
		2.900 in.	13334-2900-T-**	13334-2900-L-**
		3.000 in.	13334-3000-T-**	13334-3000-L-**
		3.250 in.	13334-3250-T-**	13334-3250-L-**

\*\*Connection code required, please refer to part number guide.

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

Additional sizes available on request.

Continued...



SPECIFICATIONS

Multi-Roller Wheel Lead Filled and Tungsten Stem

Tool OD	Length	Weight		Strength - Standard Service			Strength - H <sub>2</sub> S Service		
		Tungsten	Lead	SWL	Yield	UTS	SWL	Yield	UTS
1.500 in.	3 ft	22.02 lb (10.0) kg	20.03 lb (9.1) kg	26,460 lb	29,400 lb	36,800 lb	26,100 lb	29,000 lb	40,900 lb
	5 ft	36.77 lb (16.7) kg	33.03 lb (15.0) kg						
1.875 in.	3 ft	37.84 lb (17.2) kg	33.66 lb (15.3) kg	35,460 lb	39,400 lb	49,300 lb	35,000 lb	38,900 lb	54,800 lb
	5 ft	57.42 lb (26.1) kg	49.50 lb (22.5) kg						
2.125 in.	3 ft	46.20 lb (21.0) kg	42.46 lb (19.3) kg	62,240 lb	73,600 lb	92,000 lb	65,250 lb	72,600 lb	102,200 lb
	5 ft	61.38 lb (27.9) kg	57.86 lb (26.3) kg						
2.500 in.	3 ft	65.34 lb (29.7) kg	59.18 lb (26.9) kg	63,800 lb	70,800 lb	88,600 lb	62,800 lb	69,800 lb	98,400 lb
	5 ft	111.76 lb (50.8) kg	99.88 lb (45.4) kg						

NOTE:

Weights stated are approximate.  
Strengths stated excluding connection.



## Roller Stem

### Tool Description

The Weatherford BDK Roller Stem is used to assist upward and downward jarring forces where deviation in a well is encountered and jarring using traditional jars is unsuccessful.

### Applications

- Low and high angle slickline or braided line operations

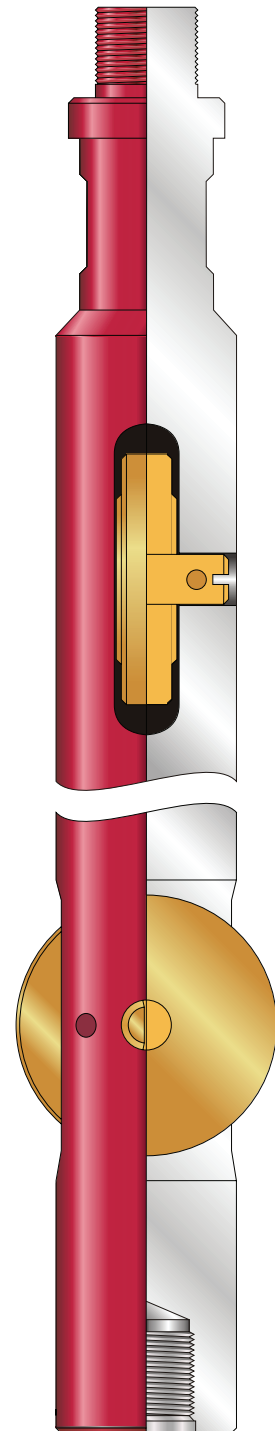
### Features and Benefits

- Field re-dressable
- No welded parts
- Available in tungsten and lead filled versions - Part numbers available on request.
- Reduced friction
- Improved jar action

### SPECIFICATIONS

#### Roller Stem

Part Number	Max OD	Roller OD	Length
01250-01-**	1.250 in.	1.400 in.	2 ft
01250-02-**	1.250 in.	1.400 in.	3 ft
01250-03-**	1.250 in.	1.400 in.	5 ft
01275-01-**	1.500 in.	2.000 in.	2 ft
01275-02-**	1.500 in.	2.000 in.	3 ft
01275-03-**	1.500 in.	2.000 in.	5 ft
01010-01-**	1.875 in.	2.500 in.	2 ft
01010-02-**	1.875 in.	2.500 in.	3 ft
01010-03-**	1.875 in.	2.500 in.	5 ft
01058-01-**	2.125 in.	2.750 in.	2 ft
01058-02-**	2.125 in.	2.750 in.	3 ft
01058-03-**	2.125 in.	2.750 in.	5 ft
01278-01-**	2.500 in.	3.250 in.	2 ft
01278-02-**	2.500 in.	3.250 in.	3 ft
01278-03-**	2.500 in.	3.250 in.	5 ft
01278-01-**	2.500 in.	3.250 in.	2 ft
01278-02-**	2.500 in.	3.250 in.	3 ft
01278-03-**	2.500 in.	3.250 in.	5 ft



\*\*Connection code required, please refer to part number guide.  
Additional sizes available on request.





# Swivel Joint

## Tool Description

The Weatherford BDK Swivel Joint is installed directly below the rope socket to provide rotation of the toolstring, thereby preventing wireline twist or 'nesting' when used in conjunction with braided line.

The swivel joint incorporates heavy-duty thrust bearings for durability and reliability.

## SPECIFICATIONS

### Swivel Joint

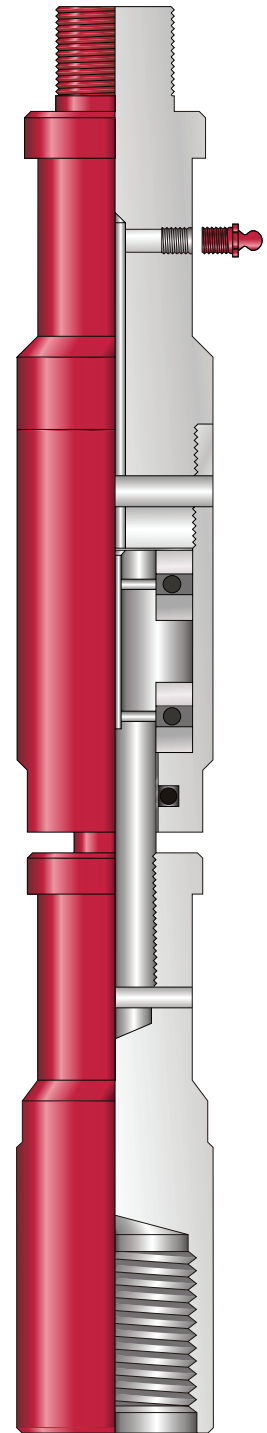
OD		1.250 in.	1.500 in.	1.875 in.	2.125 in.	2.500 in.
Lower Fish Neck		1.187 in.	1.375 in.	1.750 in.	1.750 in.	2.312 in.
Make-up Length	Thread	10.39 in.	11.87 in.	12.20 in.	12.20 in.	12.57 in.
	QRJ	13.39 in.	14.87 in.	15.20 in.	15.20 in.	17.19 in.
Weight		—	2.2 kg	3.8 kg	5 kg	6.8 kg
Strength - Standard Service	SWL	10,075 lb	21,800 lb	32,400 lb	32,400 lb	71,370 lb
	Yield	11,194 lb	24,230 lb	36,000 lb	36,000 lb	79,300 lb
	UTS	12,687 lb	30,800 lb	45,800 lb	45,800 lb	100,900 lb
Strength - H <sub>2</sub> S Service	SWL	7,052 lb	15,860 lb	30,920 lb	30,920 lb	51,890 lb
	Yield	7,836 lb	17,620 lb	34,350 lb	34,350 lb	57,650 lb
	UTS	10,075 lb	22,030 lb	44,200 lb	44,200 lb	72,060 lb
<b>Assembly Number</b>		<b>12920-<sup>**</sup></b>	<b>01084-00-<sup>**</sup></b>	<b>01086-00-<sup>**</sup></b>	<b>01085-00-<sup>**</sup></b>	<b>01334-00-<sup>**</sup></b>

<sup>\*\*</sup>Connection code required, please refer to part number guide.

Additional sizes available on request.

Strengths quoted excluding connection.

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

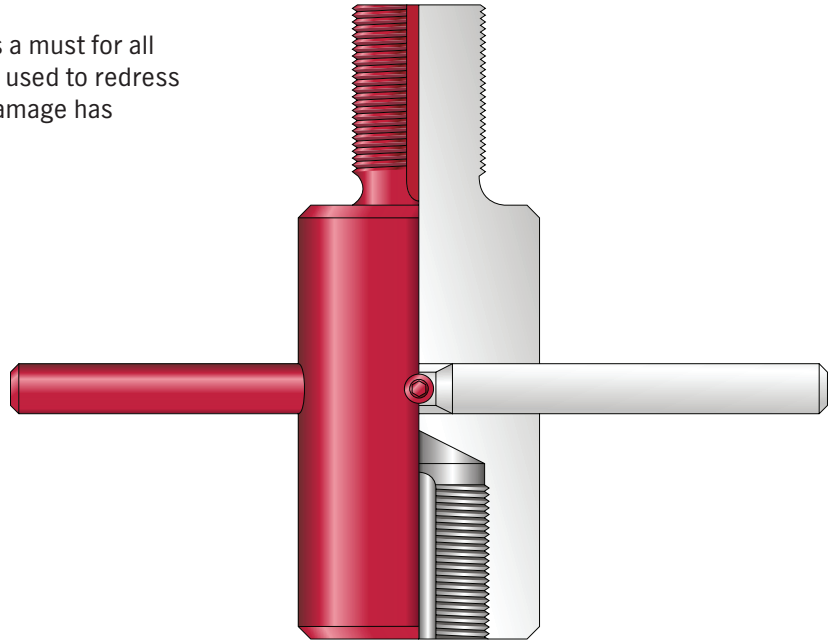




## Thread Chaser

### Tool Description

The Weatherford BDK Thread Chaser is a must for all slickline or braided line toolboxes. It is used to redress sucker rod connections when minor damage has occurred.



### SPECIFICATIONS

#### Thread Chaser

Part Number	Size	Weight
01279-01	15/16 in. - 10	1.5 kg
01279-02	1-1/16 in. - 10	2 kg
01279-03	1-9/16 in. - 10	2 kg

\*\*Connection code required, please refer to part number guide.  
Additional sizes available on request.

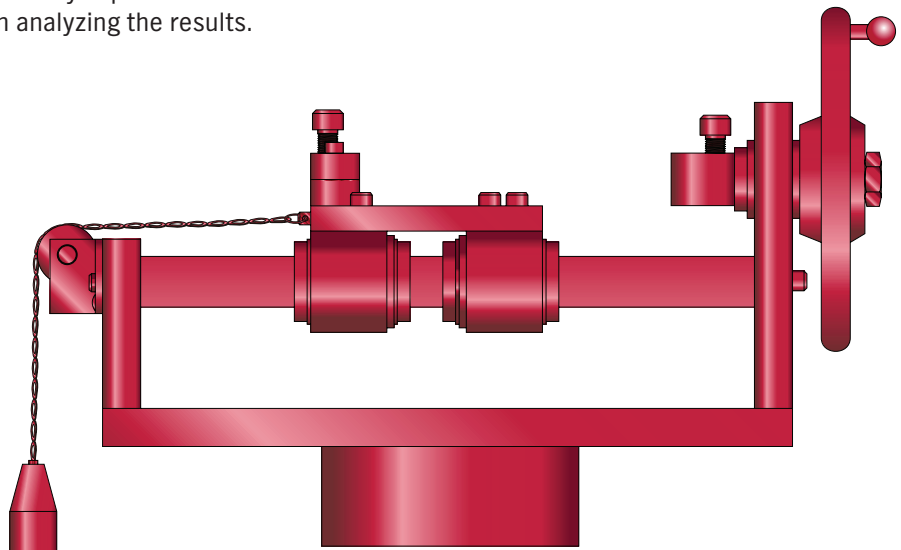


# Torsion Tester

## Tool Description

The Weatherford BDK Torsion Tester is a portable bench mounted apparatus to allow the testing of slickline to A.P.I. 9A specification. Regular testing of wire lines in service is strongly recommended to monitor the inevitable deterioration in wire properties and to prevent slickline failure downhole. The torsion tester is designed to access the ductility of wire ranging from 0.092 In. Up to and including 0.125 In. Diameter. The test consists of twisting a sample of wireline round its own axis until failure occurs, noting the number of turns to failure.

Each torsion tester is supplied with a set of operation and maintenance procedures, which fully explain the test procedure and provide guidance in analyzing the results.



## SPECIFICATIONS

### Torsion Tester

Length	Width	Height	Weight	Assembly Number
20 in.	5.25 in.	11 in.	26 kg	02063-00

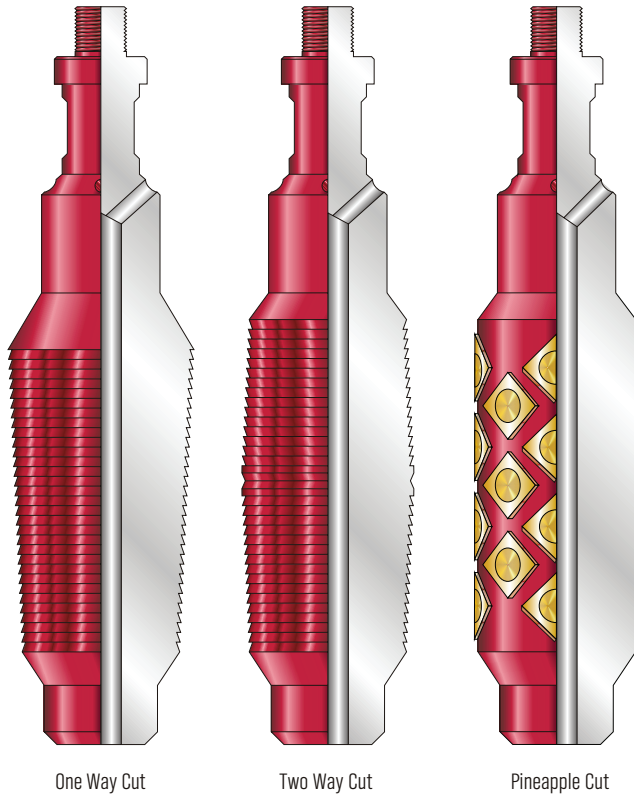
The Weatherford BDK Torsion Tester comes complete in a purpose-built case to protect the jaws.



## Tubing Broach - One Piece Solid

### Tool Description

The Weatherford BDK One Piece Solid Tubing Broach is manufactured as a one size/one piece construction with hardened tapered cutting edges. These remove burrs in the tubing left after perforating procedures have been carried out. Other uses include the removal of rust scale or broaching through damaged sections of production tubing.



### SPECIFICATIONS

#### Tubing Broach - One Piece Solid

Fish Neck	One Way	Two Way	Make-up Length (Two Way)		Weight	
			Thread	QRJ	One Way	Two Way
1.187 in.	14255-****-**	14256-****-**	----	----	----	----
1.375 in.	8729 - **** - **	10765 - **** - **	----	----	----	----
1.750 in.	10906 - **** - **	4891 - **** - **	12 in.	17.7 in.	2.8 kg	4.1 kg
2.312 in.	10907 - **** - **	7421 - **** - **	14 in.	----	----	10.6 kg

\*\*Connection code required, please refer to part number guide. \*\*\*\* Specify actual OD required.

Add suffix 'H' to part number for H<sub>2</sub>S service.

NOTE: Weights stated are approximate, for minimum OD of each Broach.

Part numbers for the pineapple cut broach are available on request.

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# Tubing Broach - Universal

## Tool Description

The Weatherford BDK Tubing Broach is manufactured with hardened, tapered cutting edges. Various broaches may be fitted to one mandrel, offering greater flexibility. The broach is designed to remove burrs in the tubing left after perforating procedures have been carried out. Other uses include the removal of rust scale or broaching through damaged sections of production tubing.

## SPECIFICATIONS

### Tubing Broach - Universal

Body Diameter		1.500 in.	1.875 in.	2.500 in.
Description		Assembly Number		
Body, Mandrel and Cap		03145-00-**	8731-**	8735-**
One Way Cut Slip On Sleeve	Up To 2.75 in.	03145-****		
	Up To 3.75 in.		8733-****	
	Up To 6.00 in.			8737-****
Two Way Cut Slip On Sleeve	Up To 2.75 in.	8730-****		
	Up To 3.75 in.		8734-****	
	Up To 6.00 in.			8738-****
Weight		3.1 kg	5.2 kg	8 kg
Make-up Length		8.82 in.	11.08 in.	14.2 in.
Strength - Standard Service	SWL	53,700 lb	53,700 lb	125,100 lb
	Yield	59,700 lb	59,700 lb	139,000 lb
	UTS	76,000 lb	76,000 lb	177,000 lb
Strength - H <sub>2</sub> S Service	SWL	39,100 lb	39,100 lb	91,100 lb
	Yield	43,400 lb	43,400 lb	101,200 lb
	UTS	54,300 lb	54,300 lb	126,400 lb

\*\*Connection code required, please refer to part number guide.

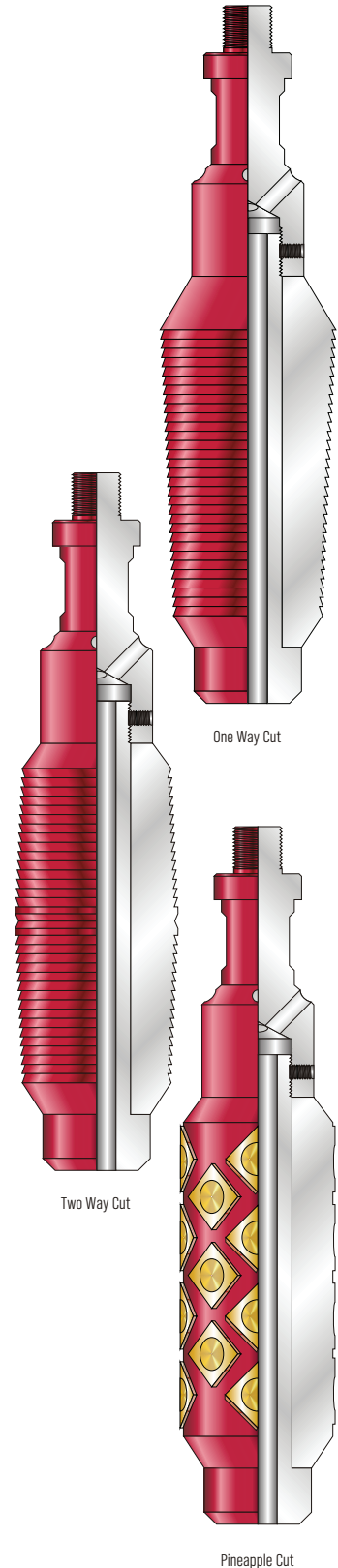
\*\*\*\* Specify actual OD required.

Strengths stated excluding connection.

NOTE: Weights stated are approximate.

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

Part Numbers for Pineapple Broaches are available on request.





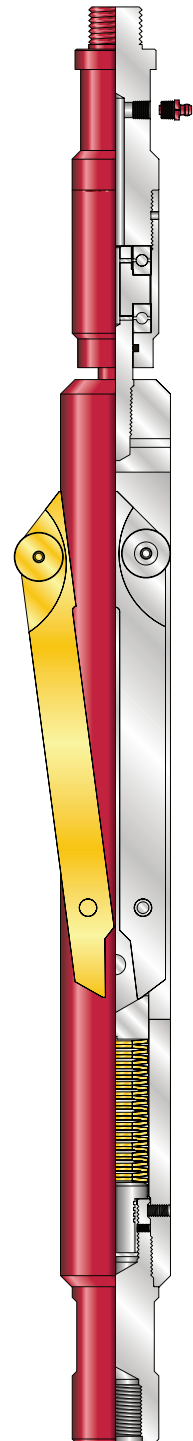
## Tubing End Locator - Multi-Shot

### Tool Description

The Weatherford BDK Multi-Shot Tubing End Locator is used to provide accurate wireline toolstring depth correlation. Provision is made to adjust the spring tension, which acts to naturally keep the arms open. Wheels in the end of the arms reduce drag whilst running in hole. The tool is run past the theoretical end and, when re-entering the tubing, an overpull allows the slickline operator to tag the end of the tubing. The overpull produced is dependent on the spring setting used and the restriction size.

Elimination of the shear pin, present in many traditional designs, allows the wireline operator to repeat the depth measurement as many times as necessary without the need for redress.

The top sub contains a roller bearing swivel, which will prevent any tangential loads from being transmitted to the wire.



### SPECIFICATIONS

#### Tubing End Locator - Multi-Shot

Body OD		1.70 in.	2.00 in.	2.37 in.	2.88 in.	3.00 in.
Max OD		3.02 in.	3.57 in.	4.38 in.	4.81 in.	5.34 in.
Make-up Length	Thread	24.1 in.	28.3 in.	30.1 in.	30.1 in.	35.28 in.
	QRJ	27.9 in.	31.3 in.	33.09 in.	33.09 in.	39.92 in.
Approx. Overpull Range		34 - 90	48 - 98	44 - 90	44 - 90	57 - 460
Weight		6.3 kg	10.8 kg	13.9 kg	13.9 kg	25 kg
Strength - Standard Service	SWL	21,800 lb	32,400 lb	32,400 lb	32,400 lb	71,300 lb
	Yield	24,230 lb	36,000 lb	36,000 lb	36,000 lb	79,200 lb
	UTS	30,800 lb	45,800 lb	45,800 lb	45,800 lb	100,800 lb
Strength - H <sub>2</sub> S Service	SWL	15,860 lb	23,550 lb	23,550 lb	23,550 lb	51,840 lb
	Yield	17,620 lb	26,170 lb	26,170 lb	26,170 lb	57,600 lb
	UTS	22,020 lb	32,700 lb	32,700 lb	32,700 lb	72,000 lb
Assembly Number		12623- <sup>**</sup>	12624- <sup>**</sup>	12625- <sup>**</sup>	12625-4810- <sup>**</sup>	12374- <sup>**</sup>

<sup>\*\*</sup>Connection code required, please refer to part number guide.

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

NOTE:

Strengths stated excluding connection and thrust races.

Actual overpull is dependent upon the spring setting and the size of the restriction.

Weights stated are approximate.

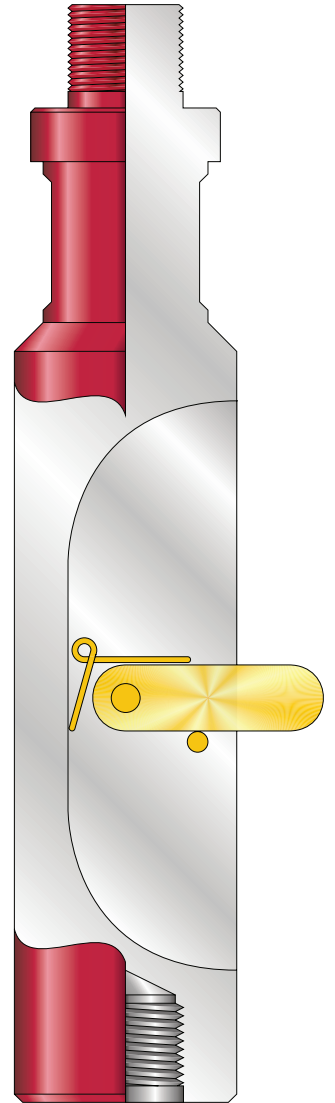


## Tubing End Locator

### Tool Description

The Weatherford BDK Tubing End Locator is used to locate the end of the tubing so that its depth may be measured accurately. When running in, the spring loaded latch trails in the tubing. As it enters the casing/open hole, the latch springs out fully to its stop (shear pin).

To reenter the tubing, the pin must be sheared, allowing the latch arm to collapse into the locator body.





SPECIFICATIONS

Tubing End Locator

**Sucker Rod Connection**

Part Number	Max OD	Fish Neck Size	Length	Finger Length	Connection
9887-1500-A2	1.500 in.	1.187 in.	10.25 in.	2.00 in.	15/16 in.-10
7489-1750-A3	1.750 in.	1.375 in.	10.25 in.	2.13 in.	15/16 in.-10
12778-1875-A3	1.870 in.	1.375 in.	10.25 in.	2.13 in.	15/16 in.-10
7637-2000-A4	2.000 in.	1.375 in.	11.00 in.	2.13 in.	15/16 in.-10
01317-2500-A4	2.500 in.	1.750 in.	11.25 in.	2.13 in.	1-1/16 in.-10
9923-3000-A4	3.000 in.	1.750 in.	11.50 in.	2.13 in.	1-1/16 in.-10
8739-3500-A5	3.500 in.	2.312 in.	11.50 in.	2.13 in.	1-1/16 in.-10
8740-4500-A5*	4.500 in.	2.312 in.	tbc	tbc	1-1/16 in.-10
8741-5500-A5*	5.500 in.	2.312 in.	tbc	tbc	1-1/16 in.-10

**Heavy Duty QRJ Connection**

Part Number	Max OD	Fish Neck Size	Length	Finger Length	Connection
9887-1500-C2*	1.500 in.	1.187 in.	tbc	2.00 in.	1.500 in. HDQRJ
7489-1750-C3*	1.750 in.	1.375 in.	tbc	2.13 in.	1.500 in. HDQRJ
12778-1870-C3	1.870 in.	1.375 in.	16.7 in.	2.13 in.	1.500 in. HDQRJ
7637-2000-C4*	2.000 in.	1.375 in.	tbc	2.13 in.	1.500 in. HDQRJ
01317-2500-C4*	2.500 in.	1.750 in.	tbc	2.13 in.	1.875 in. HDQRJ
9923-3000-C4	3.000 in.	1.750 in.	17.7 in.	2.13 in.	1.875 in. HDQRJ
8739-3500-C5	3.500 in.	2.312 in.	22.60 in.	2.13 in.	1.875 in. HDQRJ
8740-4500-C5*	4.500 in.	2.312 in.	tbc	tbc	1.875 in. HDQRJ
8741-5500-C5*	5.500 in.	2.312 in.	tbc	tbc	1.875 in. HDQRJ

**QLS Connection**

Part Number	Max OD	Fish Neck Size	Length	Finger Length	Connection
9887-1500-Q2*	1.500 in.	1.187 in.	tbc	2.00 in.	1.500 in. QLS
7489-1750-Q3*	1.750 in.	1.375 in.	tbc	2.13 in.	1.500 in. QLS
12778-1870-Q3*	1.870 in.	1.375 in.	tbc	2.13 in.	1.500 in. QLS
7637-2000-Q4*	2.000 in.	1.375 in.	tbc	2.13 in.	1.500 in. QLS
01317-2500-Q4*	2.500 in.	1.750 in.	tbc	2.13 in.	1.875 in. QLS
9923-3000-Q4*	3.000 in.	1.750 in.	tbc	2.13 in.	1.875 in. QLS
8739-3500-C5*	3.500 in.	2.312 in.	tbc	2.13 in.	1.875 in. QLS
8740-4500-C5*	4.500 in.	2.312 in.	tbc	tbc	1.875 in. QLS
8741-5500-C5*	5.500 in.	2.312 in.	tbc	tbc	1.875 in. QLS

\*\*Connection code required, please refer to part number guide.

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

NOTE:

Strengths stated excluding connection and thrust races.

Actual overpull is dependent upon the spring setting and the size of the restriction.

Weights stated are approximate.





# Tubing Swage

## Tool Description

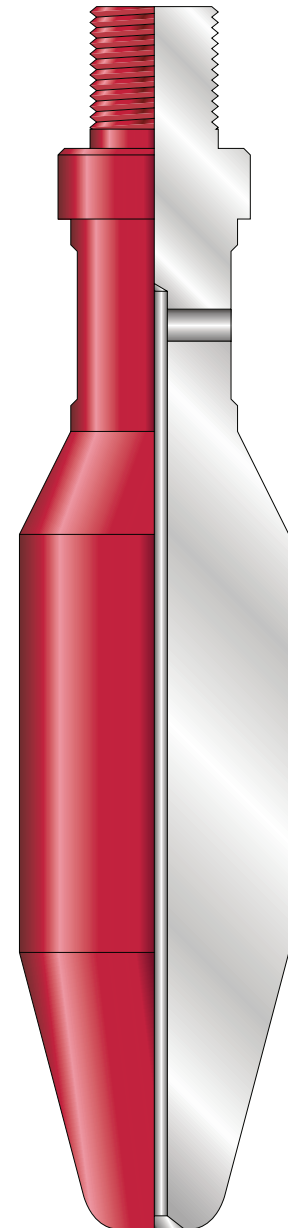
The Weatherford BDK Tubing Swage is used for swaging collapsed tubing to ensure the free passage of slickline or braided line run flow control devices.

## SPECIFICATIONS

### Tubing Swage

Part Number	Max OD	Fish Neck Size
01252-1250-A2	1.250 in.	1.187 in. Fish Neck
01252-1500-A2	1.500 in.	1.187 in. Fish Neck
01252-1750-A3	1.750 in.	1.375 in. Fish Neck
01253-2000-A3	2.000 in.	1.375 in. Fish Neck
01253-2250-A3	2.250 in.	1.375 in. Fish Neck
01253-2500-A4	2.500 in.	1.750 in. Fish Neck
01253-2750-A4	2.750 in.	1.750 in. Fish Neck
01254-3000-A4	3.000 in.	1.750 in. Fish Neck
01254-3250-A5	3.250 in.	2.312 in. Fish Neck
01254-3500-A5	3.500 in.	2.312 in. Fish Neck
01254-3750-A5	3.750 in.	2.312 in. Fish Neck
01255-4000-A5	4.000 in.	2.312 in. Fish Neck
01255-4250-A5	4.250 in.	2.312 in. Fish Neck
01255-4500-A5	4.500 in.	2.312 in. Fish Neck
01255-4750-A5	4.750 in.	2.312 in. Fish Neck
01255-5000-A5	5.000 in.	2.312 in. Fish Neck
01255-5250-A5	5.250 in.	2.312 in. Fish Neck
01255-5500-A5	5.500 in.	2.312 in. Fish Neck
01255-5750-A5	5.750 in.	2.312 in. Fish Neck
01255-6000-A5	6.000 in.	2.312 in. Fish Neck

\*\*Connection code required, please refer to part number guide.  
Additional sizes available on request.





## Wirefinder - Expandable

### Tool Description

The Weatherford Petroline Expandable Wirefinder is for use in well in which tubing diameters increase deeper in the well. For example in some wells, 5.5-in. the tubing is run between tubing hanger and downhole safety valve, with 7-in. tubing below the valve. Should a wire break occur when performing slickline work in the 7-in. tubing section, the wire will have to be fished in 7-in. tubing.

As the wirefinder is run through the smaller bore tubing, the outer collet finger will move back and collapse inwards. Once the tool enters the large tubing, the collet fingers will expand. Pulling back to the crossover to a smaller tubing will allow the collet fingers to locate against a wirefinder trip sub profile. The shear ring will be loaded, causing the mandrel pins to shear, which will release the power spring. The expandable fingers will be pushed from the outer body and expand to the larger tubing ID. As the inner mandrel moves down, the ratchet mechanism will lock it in place relative to the outer body.

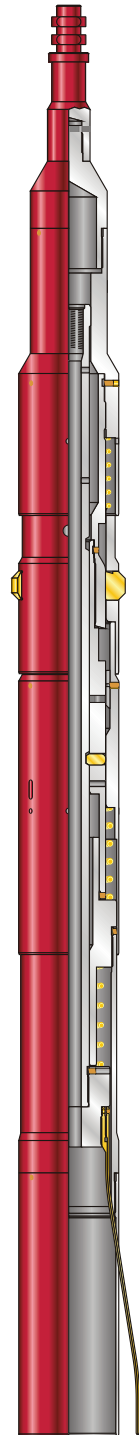
Normal slickline finding operations can now take place. When pulling out of the hole into the smaller tubing, the wirefinder fingers will collapse inwards, allowing the tool to be retrieved.

### SPECIFICATIONS

#### Wirefinder - Expandable

Nom OD Size	Assembly Number	Tubing ID	Triping Range
3.900 in.	484-3900-000-**	5-1/2 in.	4.244 in. to 4.344 in.
5.500 in.	484-5500-000-**	7 in.	> 4.450 in.
7.000 in.	484-7000-000-**	9-5/8 in.	7.000 in. to 9.625 in.

\*\*Connection code required, please refer to part number guide.





# COILED TUBING





## Coiled Tubing Specification

### Manufacture Specification

- Tools are manufactured with identification groove and wrench flats.
- Standard tool material is AISI 4140 18-22 RC. 80,000 PSI Min Yield to NACE MR-01-75 for H<sub>2</sub>S Service.
- Some part assemblies may have stainless steel components where design dictates.
- Stainless steel is offered as an alternative at customer's request, or where environment conditions dictate stronger or anti-corrosive material.

### Part Number Guide

In general, part numbers for coiled tubing products are compiled as follows:

**Example:** 1.500 in. CT Grub Screw Connector x 1 1/4 in. -10 UN Pin Connection

Part number would read:

**4648 - 3315 - H**

Product Identification Code

Connection Code

Service

For complete assembly / part numbers, refer to applicable Technical Data Book.



## Coiled Tubing Thread Connections

Weatherford BDK coiled tubing tools can be supplied with different thread styles to suit customer requirements. The tables below are intended as a guide to show the standard connection threads offered by Weatherford BDK and are not meant to be exhaustive.

### DS Style

Minimum OD	Maximum ID	Thread Diameter (Nom)	H <sub>2</sub> S Service Yield Strength	O-Ring	Part Number
1.250 in.	0.562 in.	1.000 in. - 10 SA	30,830 lb	2 x 115	4012
*1.500 in.	0.562 in.	1.125 in. - 10 SA	49,440 lb	1 x 120	4020
1.500 in.	0.625 in.	1.250 in. - 12 UN	40,340 lb	1 x 121	4022
1.750 in.	0.750 in.	1.500 in. - 10 SA	40,050 lb	2 x 215	4009
*2.000 in.	1.062 in.	1.700 in. - 10 SA	61,720 lb	1 x 129	4008
2.250 in.	1.125 in.	1.812 in. - 10 SA	103,180 lb	2 x 221	4010
2.500 in.	1.500 in.	2.000 in. - 10 SA	90,620 lb	1 x 328	7059
2.500 in.	1.375 in.	2.062 in. - 10 SA	115,600 lb	2 x 223	4011

\* NOTE: These are not interchangeable with Nowsco threads.

### PAC Style

Minimum OD	Maximum ID	Thread Diameter (Nom)	H <sub>2</sub> S Service Yield Strength	O-Ring	Part Number
2.500 in.	1.500 in.	2.062 in. - 10 SA	115,600 lb	2 x 223	4011

Figures based on SMYS = 80 ksi for H<sub>2</sub>S service with minimum od and maximum ID. Continued



## SPECIFICATIONS

### Coiled Tubing Thread Connections

#### AMMT Style

Minimum OD	Maximum ID	Thread Diameter (Nom)	H <sub>2</sub> S Service Yield Strength	O-Ring	Part Number
1.750 in.	0.625 in.	1.000 in. - 6	45,400 lb	1 x 122	4026
1.750 in.	0.750 in.	1.250 in. - 6	62,650 lb	1 x 124	4027
2.125 in.	1.000 in.	1.500 in. - 6	84,730 lb	1 x 128	4028

#### REGULAR Style

Minimum OD	Maximum ID	Thread Diameter (Nom)	H <sub>2</sub> S Service Yield Strength	O-Ring	Part Number
2.187 in.	0.625 in.	1.250 in. - 7	103,530 lb	1 x 222	4024
3.125 in.	1.000 in.	2.375 in. - 5	250,330 lb	1 x 331	4025

#### NOWSCO Style

Minimum OD	Maximum ID	Thread Diameter (Nom)	H <sub>2</sub> S Service Yield Strength	O-Ring	Part Number
1.250 in.	0.562 in.	1.062 in. - 16 UN	25,500 lb	1 x 116	3004
1.375 in.	0.688 in.	1.062 in. - 12 SA	33,180 lb	1 x 119	320007
*1.500 in.	0.625 in.	1.125 in. - 10 SA	44,740 lb	1 x 120	320008
1.687 in.	0.875 in.	1.375 in. - 10 SA	53,660 lb	1 x 124	320010
1.687 in.	1.000 in.	1.469 in. - 12 SA	38,420 lb	1 x 125	320013
2.000 in.	1.000 in.	1.562 in. - 8 SA	73,460 lb	1 x 127	320014
*2.125 in.	1.000 in.	1.700 in. - 10 SA	94,110 lb	1 x 129	320016
2.125 in.	1.500 in.	1.875 in. - 10 SA	53,890 lb	1 x 132	320017
2.375 in.	1.563 in.	2.080 in. - 10 SA	72,550 lb	1 x 225	320019
2.875 in.	1.875 in.	2.500 in. - 8 SA	114,000 lb	1 x 141	9740
2.750 in.	1.125 in.	2.125 in. - 8 SA	180,350 lb	1 x 226	320020
3.125 in.	2.125 in.	2.650 - 8 SA	127,090 lb	1 x 144 and 1 x 145	320023
3.125 in.	1.125 in.	2.500 in. - 5 ACME	208,200 lb	1 x 228	10354

\* NOTE: These are not interchangeable with DS style threads.  
 Figures based on SMYS = 80 ksi for H<sub>2</sub>S service with minimum OD and maximum ID.



## CT Blind Box

### Tool Description

The Weatherford BDK Blind Box is available for any combination of Coiled tubing and thread sizes and has circulating ports, which can be positioned and angled to suit the Coiled tubing operation.

### SPECIFICATIONS

#### CT Blind Box

Tool OD (Maximum)	Connection OD	Overall Length	Weight	Assembly Number
2.250 in.	2.000 in.	9.00 in.	2.5 kg	12206-2250-xxxx
2.500 in.		9.12 in.	3.2 kg	12206-2500-xxxx
2.750 in.		9.25 in.	3.5 kg	12206-2750-xxxx
3.000 in.		9.37 in.	4 kg	12206-3000-xxxx
3.250 in.		9.50 in.	4.7 kg	12206-3250-xxxx
3.500 in.		9.62 in.	5.5 kg	12206-3500-xxxx
3.750 in.		9.75 in.	6.3 kg	12206-3750-xxxx
4.000 in.		9.87 in.	7.3 kg	12206-4000-xxxx
4.250 in.		10.00 in.	8.3 kg	12206-4250-xxxx
4.500 in.		10.12 in.	9.4 kg	12206-4500-xxxx
4.750 in.		10.25 in.	10.7 kg	12206-4750-xxxx
5.000 in.		10.37 in.	12 kg	12206-5000-xxxx

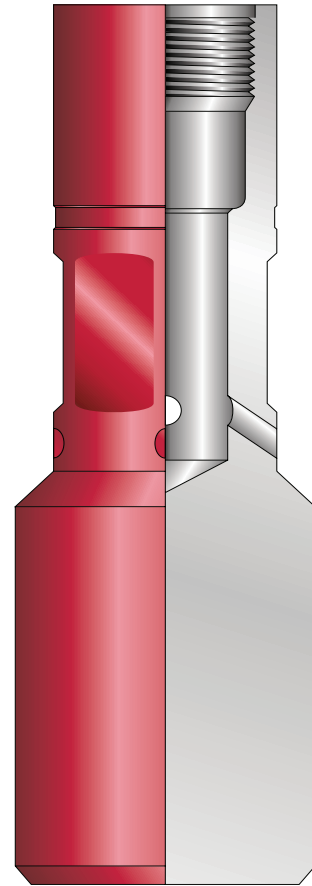
XXXX denotes connection (see coiled tubing thread connections).

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

Strengths stated excluding connections.

Weights stated are approximate (excluding connections).

Minimum ID may change, dependent on connection type.





## CT Bulkhead

### Tool Description

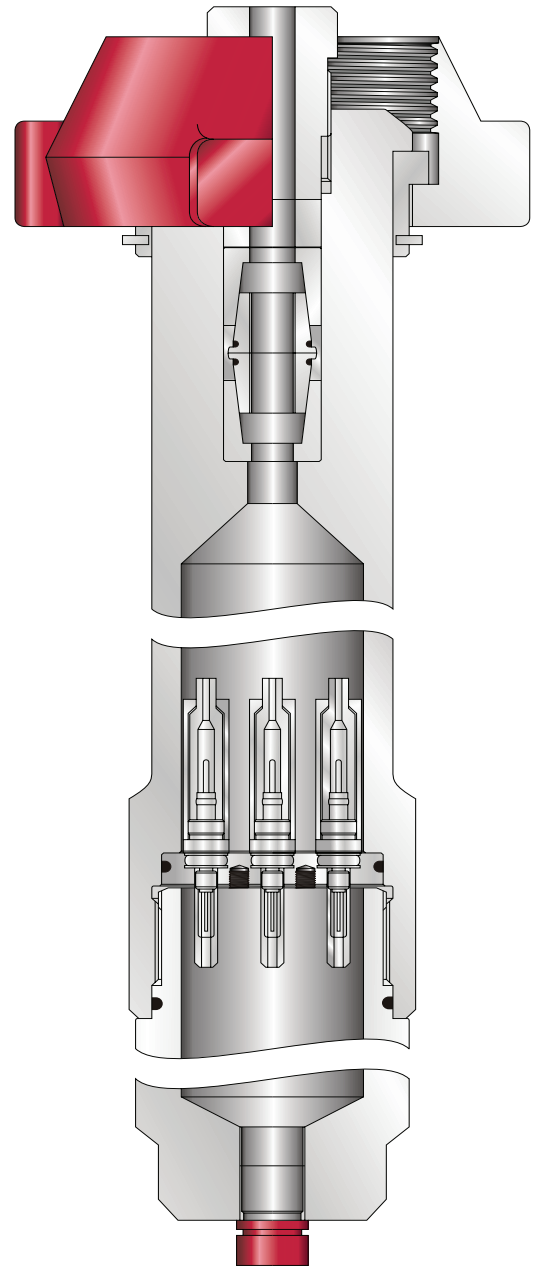
The Weatherford BDK Bulkhead is a pressure-retaining termination point providing electrical communication for logging/steering tools when using stiff wireline.

### SPECIFICATIONS

#### CT Bulkhead

Number of Terminals	8	8	9
Make-up Length (Excluding Nut)	36.20 in.	19.26 in.	10.22 in.
Connection	2 in. 1502 Weco Male/Nut	2 in. 1502 Weco Male/Nut	2 in. 1502 Weco Male/Nut
Working Pressure	10,000 psi	10,000 psi	10,000 psi
Connectors	Kemlon	Kemlon	Kemlon
Cable OD	7/16 in.	7/16 in.	7/16 in.
Weight	23.1 kg	14 kg	7.2 kg
Slips	YES	YES	NO
Min. Design Temp.	-32	-32	-32
Max. Design Temp.	121	121	121
<b>Assembly Number</b>	<b>6689</b>	<b>12501</b>	<b>5893</b>

NOTE : Weights stated are approximate (excluding nut).







# CT Adjustable Spring Roller Centralizer

## Tool Description

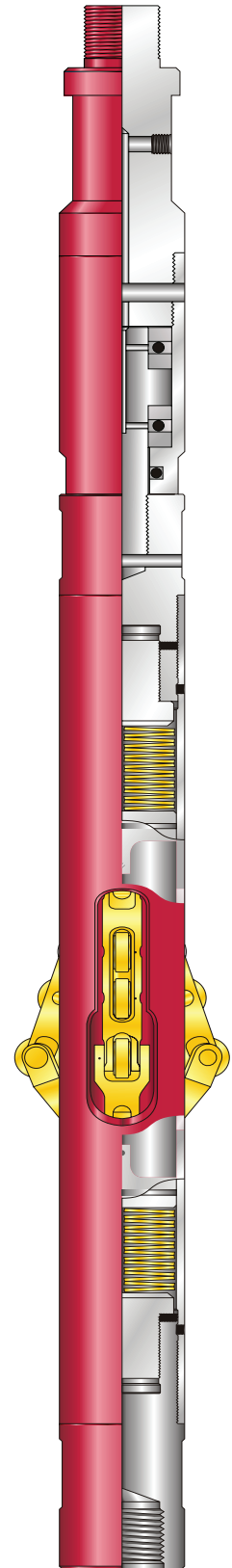
The Weatherford BDK Adjustable Spring Roller Centralizer is capable of providing high centralizing loads. Loads Taken by the arms are fully adjustable, to support individual toolstring configurations in deviated wells. A full through bore is incorporated to allow conveyance of fluids.

## SPECIFICATIONS

### CT Adjustable Spring Roller Centralizer

Body OD		1.938 in.	2.500 in.	3.250 in.	4.94 in.
Tool ID		190 in.	0.370 in.	0.531 in.	0.741 in.
Range		2.000 in. to 4.000 in.	2.563 in. to 4.250 in.	3.300 in. to 5.500 in.	5.000 in. to 8.000 in.
Make-up Length		29.00 in.	33.83 in.	43.88 in.	50.35 in.
Weight		6.8 kg	12.8 kg	26.3 kg	57.3 kg
Strength-Standard Service	SWL	55,170 lb	75,150 lb	127,120 lb	226,980 lb
	Yield	61,300 lb	83,500 lb	141,240 lb	252,200 lb
	UTS	78,100 lb	106,270 lb	179,760 lb	321,000 lb
Strengths-H <sub>2</sub> S Service	SWL	40,140 lb	54,650 lb	92,450 lb	165,060 lb
	Yield	44,600 lb	60,730 lb	102,720 lb	183,400 lb
	UTS	55,770 lb	75,900 lb	128,400 lb	229,300 lb
<b>Assembly Numbers</b>		<b>11842-CT-xxxx</b>	<b>7984-CT-xxxx</b>	<b>10959-CT-xxxx</b>	<b>10960-CT-xxxx</b>

XXXX denotes connection (see coiled tubing thread connections).  
 Add suffix 'H' to assembly number for H<sub>2</sub>S service.  
 Strengths stated excluding connections.  
 Weights stated are approximate (excluding connections).  
 Minimum ID may change, dependent on connection type.





# CT Bow Spring Centralizer

## Tool Description

The Weatherford BDK Pump Through Bow Spring Centralizer is designed to assist in centralizing the coiled tubing BHA in large bore completion tubing. The centralizer can be installed at any point within the coiled tubing bottomhole assembly (BHA).

This device provides a centralizing force whilst passing through a range of diameters. Springs can be designed to suit operator requirements. Any combination of BHA sizes and centralizing diameters are available.

## Applications

- All coiled tubing operations
- Milling operations
- Deviated operations
- Impact deck operations
- Memory PLT operations

## Features and Benefits

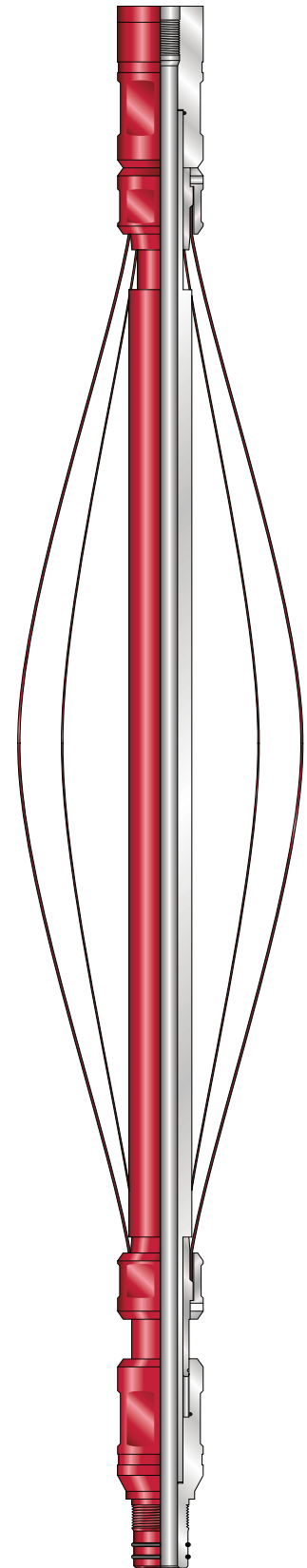
- Flexibility to pass through completion profiles
- Centralization of coiled tubing BHA
- Robust design
- Easy to maintain

## SPECIFICATIONS

### CT Bow Spring Centralizer

Assembly Number	Body OD	Maximum OD	Minimum ID*	Make Up Length	Number of Springs	Weight
6981-XXXX	1.750 in.	9.000 in.	0.787 in.	34.38	6	4.9 kg
10468-XXXX	2.000 in.	7.250 in.	1.000 in.	34.68 in.	6	6.1 kg
13152-XXXX	2.125 in.	9.250 in.	1.000 in.	34.68 in.	6	6.7 kg
6918-XXXX	2.250 in.	7.500 in.	1.155 in.	34.38 in.	6	7.7 kg
8352-XXXX	2.375 in.	7.000 in.	1.155 in.	34.38 in.	6	8.0 kg
6909-XXXX	2.500 in.	7.750 in.	1.405 in.	34.38 in.	6	9.1 kg
7632-XXXX	3.125 in.	7.750 in.	1.405 in.	36.68 in.	6	11.7 kg

XXXX denotes connection (see coiled tubing thread connections).  
 Add suffix 'H' to assembly number for H<sub>2</sub>S service.  
 Strengths stated excluding connections.  
 Weights stated are approximate (excluding connections).  
 Minimum ID may change, dependent on connection type.





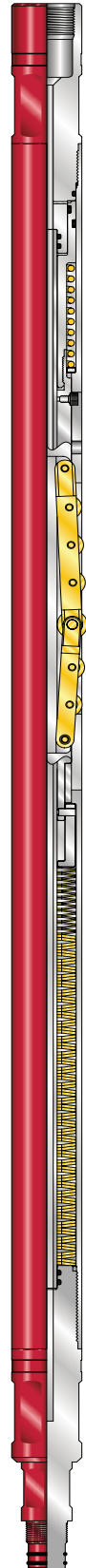
## Flow Activated Centralizer

### Tool Description

The Weatherford BDK Flow Activated Roller Centralizer is used to centralize the toolstring within the Wellbore. Three arms are used, which are spring-loaded in the collapsed position. An increase in flow rate is required to activate the arms, this provides the centralising force. Each arm has roller wheels, which reduces friction when the toolstring is moving within the wellbore. If the arms become stuck in the open position during operation, a shear sub provides a means of collapsing the arms back into the body.

This is achieved with an increase in the over-pull to pass through a restriction in the well completion.

The flow activated centralizer can also be used for depth correlation (tagging), if an increase in force required to pull the centralizer arms in, will identify the completion profile/restriction.





SPECIFICATIONS

Flow Activated Centralizer

<b>Arm Range Size</b>		<b>2.00 in. – 5.00 in.</b>	
Tool OD		1.690 in.	
Minimum ID (Excluding Orifice)		0.335 in.	
Recommended Orifice Size		0.281 in.	
Make-up Length		39 in.	
Working Pressure (psi)		10,000	
Pressure to Open Arms		94 psi	
Flow Rate To Open Arms		81 ltr/min	
Force Required to Shear Pins	1 Screw	Brass	1,200 lb
		Mild Steel	1,600 lb
	2 Screws	Brass	2,400 lb
		Mild Steel	3,200 lb
	3 Screws	Brass	3,600 lb
		Mild Steel	4,800 lb
	4 Screws	Brass	4,800 lb
		Mild Steel	6,400 lb
	5 Screws	Brass	6,000 lb
		Mild Steel	8,000 lb
	6 Screws	Brass	7,200 lb
		Mild Steel	9,600 lb
Arm Support Load	Flow Rate	79.5 ltr/min	44.2 lb
		159 ltr/min	176.9 lb
		238.5 ltr/min	398 lb
		318 ltr/min	707 lb
		397.5 ltr/min	1106 lb
Force required to overcome Belleville Stack		1,300 lb	
Strength Standard and H <sub>2</sub> S Service	SWL	25,515 lb	
	Yield	28,350 lb	
	UTS	36,450 lb	
Assembly Number		13923-xxxx	

XXXX denotes connection (see coiled tubing thread connections).

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

Strengths stated excluding connections.

Weights stated are approximate (excluding connections).

Minimum ID may change, dependent on connection type.



## CT Fluted Centralizer

### Tool Description

The Weatherford BDK Fluted Centralizer is used to centralize the coiled tubing BHA at points within the wellbore where problems of centralization are paramount.

The design of the flutes allow maximum fluid bypass, past the centralizer which is an advantage during milling applications, where debris to be circulated to surface.

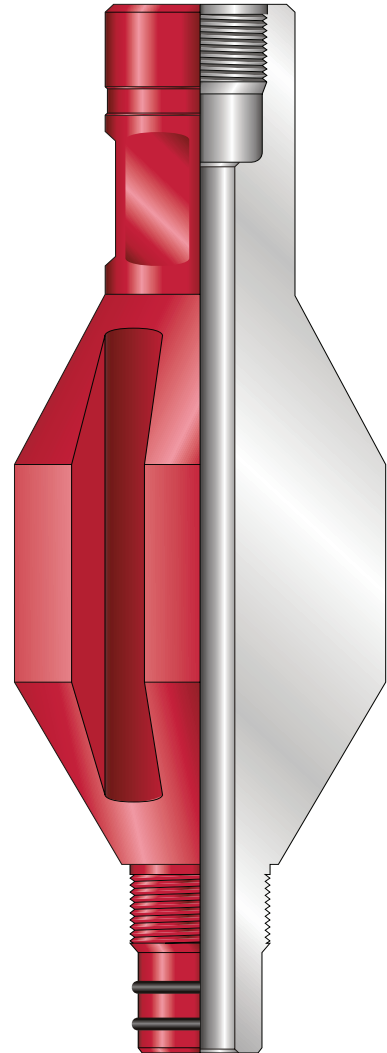
The fluted centralizer is available in any combination of toolstring and centralizing diameter.

### Applications

- All coiled tubing operations
- Milling applications
- Deviated wells
- Memory PLT operations
- Fishing operations: standards and heavy duty

### Features and Benefits

- Fluted flow path for removal of well and completion debris
- Centralization of coiled tubing BHA
- Robust design
- Easy to maintain





SPECIFICATIONS

CT Fluted Centralizer

Assembly Number	Body OD	Fluted OD	Overall Length	Weight
8186-XXXX	1.500 in.	2.000 in.	6.0 in.	1.6 kg
6150-XXXX	1.750 in.	2.000 in.	6.0 in.	1.9 kg
6151-XXXX	1.750 in.	2.250 in.	6.3 in.	2.2 kg
6152-XXXX	1.750 in.	2.500 in.	6.5 in.	2.6 kg
6153-XXXX	1.750 in.	2.750 in.	6.8 in.	3.2 kg
6718-XXXX	2.250 in.	2.500 in.	6.5 in.	2.9 kg
6719-XXXX	2.250 in.	2.750 in.	6.8 in.	3.4 kg
12536-XXXX	2.250 in.	2.875 in.	6.8 in.	3.6 kg
6154-XXXX	2.250 in.	3.000 in.	7.0 in.	4.0 kg
6155-XXXX	2.250 in.	3.250 in.	7.3 in.	4.8 kg
6156-XXXX	2.250 in.	3.500 in.	7.5 in.	5.6 kg
6157-XXXX	2.250 in.	3.750 in.	7.8 in.	6.6 kg
6158-XXXX	2.250 in.	4.000 in.	8.0 in.	7.3 kg
6714-XXXX	2.875 in.	3.250 in.	7.3 in.	4.8 kg
6715-XXXX	2.875 in.	3.500 in.	7.5 in.	5.6 kg
6716-XXXX	2.875 in.	3.750 in.	7.8 in.	6.6 kg
6717-XXXX	2.875 in.	4.000 in.	8.0 in.	7.6 kg
6159-XXXX	3.125 in.	4.250 in.	8.3 in.	7.1 kg
6160-XXXX	3.125 in.	4.500 in.	8.5 in.	7.8 kg
6161-XXXX	3.125 in.	4.750 in.	8.8 in.	8.6 kg
6162-XXXX	3.125 in.	5.000 in.	9.0 in.	9.3 kg
6163-XXXX	3.125 in.	5.250 in.	9.3 in.	10.2 kg
6164-XXXX	3.125 in.	5.500 in.	9.5 in.	10.9 kg
6165-XXXX	3.125 in.	5.750 in.	9.8 in.	12.0 kg
6166-XXXX	3.125 in.	6.000 in.	10.0 in.	12.7 kg

XXXX denotes connection (see coiled tubing thread connections).  
 Add suffix 'H' to assembly number for H<sub>2</sub>S service.  
 Strengths stated excluding connections.  
 Weights stated are approximate (excluding connections).  
 Minimum ID may change, dependent on connection type.

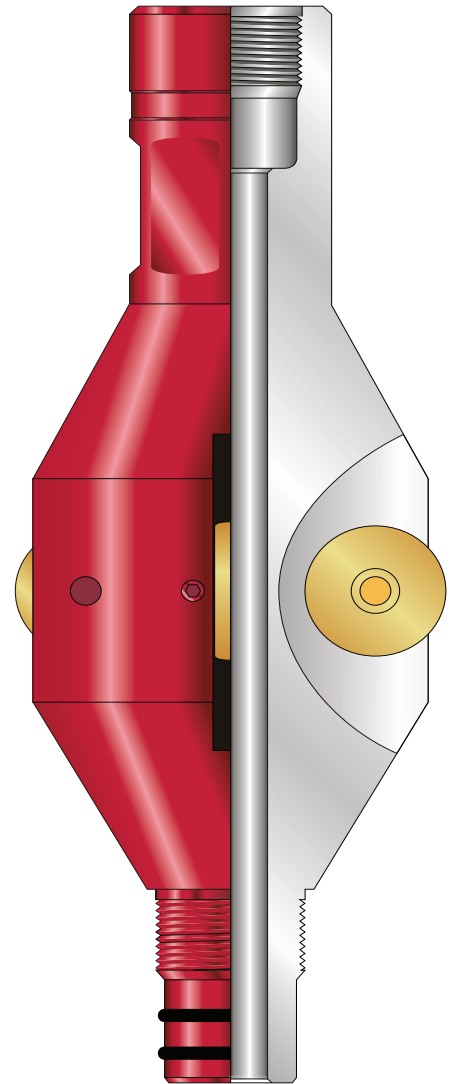


## CT Multi-Roller Wheel Fluted Centralizer

### Tool Description

The Weatherford BDK CT Multi-Roller Wheel Fluted Centralizer is designed for use in highly deviated wells. Its wheels reduce friction caused by the toolstring scraping against the tubing wall.

Any combination of body and diameters available.  
Part numbers are available on request.





## CT Non-Rotating Centralizer

### Tool Description

The Weatherford BDK CT Non-Rotating Centralizer is installed in the toolstring where support and centralization are required. The non-rotating centralizer allows the bottomhole assembly to rotate independently from the centralizing sleeve, reducing friction and toolstring wear.

Centralizer diameters can be manufactured to suit customer requirements.

### Applications

- All coiled tubing operations
- Milling applications
- Deviated wells
- Memory PLT operations
- Fishing operations

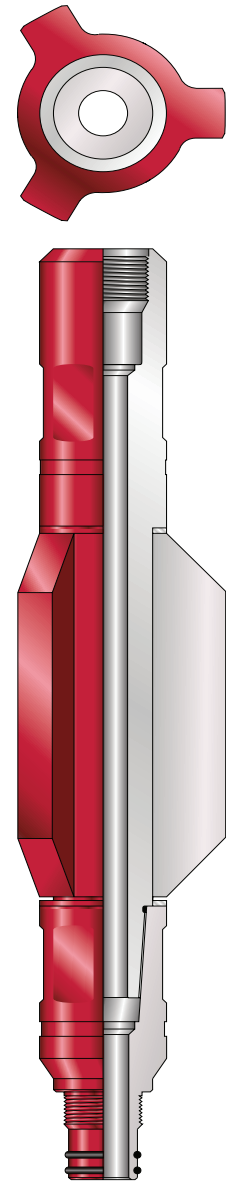
### Features and Benefits

- Interchangeable sleeves for a wider selection of centralization
- Centralization of coiled tubing BHA
- Robust design
- Easy to maintain
- Cost effective

### SPECIFICATIONS

#### CT Non-Rotating Centralizer

Description	OD	Part Number
Mandrel	1.750 in.	12582 XXXX
Sleeve 2.125 in. OD		12582-03-2125
Sleeve 2.250 in. OD		12582-03-2250
Sleeve 2.275 in. OD		12582-03-2750
Sleeve 2.375 in. OD		12582-03-2375
Sleeve 2.500 in. OD		12582-03-2500
Mandrel	2.125 in.	12245 XXXX
Sleeve 2.250 in. OD		12445-03-2250
Sleeve 2.300 in. OD		12445-03-3000
Sleeve 2.500 in. OD		12445-03-2500
Sleeve 2.750 in. OD		12445-03-2750
Sleeve 3.250 in. OD		12445-03-3250
Sleeve 3.500 in. OD		12445-03-3500
Mandrel	2.250 in.	8472 XXXX
Sleeve 3.000 in. OD		8472-03-3000
Sleeve 3.500 in. OD		8472-03-3500
Sleeve 4.000 in. OD		8472-03-4000
Mandrel	3.125 in.	8479 XXXX
Sleeve 4.125 in. OD		8479-03-4125



XXXX denotes connection (see coiled tubing thread connections).  
 Add suffix 'H' to assembly number for H<sub>2</sub>S service.  
 Strengths stated excluding connections.  
 Weights stated are approximate (excluding connections).  
 Minimum ID may change dependent on connection type.  
 Please note that you need to order the mandrel and sleeve as separate items.





# CT Slipover Spring Centralizer

## Tool Description

The Weatherford BDK CT Slipover Spring Centralizer is designed to assist in centralizing the coiled tubing BHA in large bore completion tubing.

The centralizer can be installed at any point within the coiled tubing bottomhole assembly. This style of centralizer provides a centralizing force whilst passing through a range of diameters. Springs can be designed to suit operator requirements. Any combination of BHA sizes and centralizing diameters are available.

## Applications

- All coiled tubing operations
- Milling operations
- Deviated wells
- Memory PLT operations

## Features and Benefits

- Flexibility to pass through completion profiles
- Centralization of coiled tubing BHA
- Robust design
- Easy to maintain



## SPECIFICATIONS

### CT Slipover Spring Centralizer

Assembly Number	Body OD	Maximum OD	Tool Bore ID	Slip-over Diameter	Make Up Length	Number of Springs	Weight
7741-4000	2.000 in.	4.000 in.	1.390 in.	1.375 in.	23.71 in.	6	1.3 kg
7741-7000	2.000 in.	7.000 in.	1.390 in.	1.375 in.	27.71 in.	6	1.3 kg
5874-4000	2.625 in.	4.000 in.	1.700 in.	1.687 in.	25.67 in.	6	2.6 kg
5874-7000	2.625 in.	7.000 in.	1.700 in.	1.687 in.	29.17 in.	6	2.6 kg
12593-7630	3.100 in.	7.630 in.	21.80 in.	2.156 in.	30.40 in.	12	3.4 kg

XXXX denotes connection (see coiled tubing thread connections).  
 Add suffix 'H' to assembly number for H<sub>2</sub>S service.  
 Strengths stated excluding connections.  
 Weights stated are approximate (excluding connections).  
 Minimum ID may change, dependent on connection type.



## CT Center Spear

### Tool Description

The Weatherford BDK Center Spear is an adaptation of a standard wireline spear that has been converted to run on coiled tubing. The spear can be designed and manufactured to meet all well parameters, and can be manufactured with as many barbs as required.

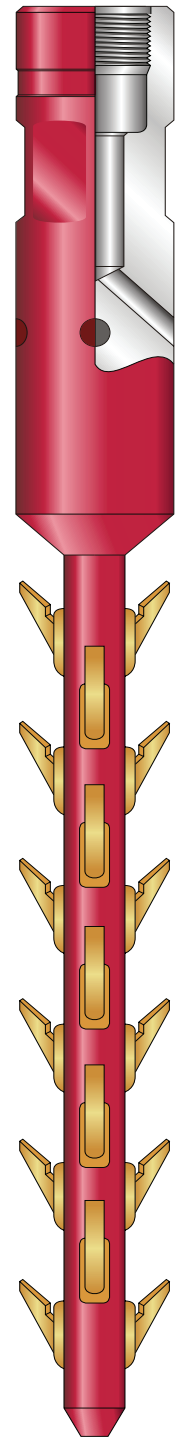
The top sub of the spear has been ported to allow circulation whilst conducting the fishing operation.

### Applications

- Fishing operations

### Features and Benefits

- Circulation sub at top of spear
- Manufactured to customer requirements
- Robust design
- Suitable for all sizes of coiled tubing





SPECIFICATIONS

CT Center Spear

Assembly Number	Body OD	Spear OD	Overall Length	Weight
13221-1500-XXXX	1.250 in.	1.500 in.	21.57 in.	1.3 kg
13221-1750-XXXX	1.250 in.	1.750 in.	21.57 in.	1.3 kg
13222-1625-XXXX	1.750 in.	1.625 in.	22.96 in.	2.1 kg
13222-1750-XXXX	1.750 in.	1.750 in.	22.96 in.	2.1 kg
13222-2000-XXXX	1.750 in.	2.000 in.	22.96 in.	2.1 kg
13222-2250-XXXX	1.750 in.	2.250 in.	22.96 in.	2.1 kg
13222-2500-XXXX	1.750 in.	2.500 in.	22.96 in.	2.1 kg
13222-2750-XXXX	1.750 in.	2.750 in.	22.96 in.	2.1 kg
13223-2375-XXXX	2.375 in.	3.000 in.	24.21 in.	3.9 kg

XXXX denotes connection (see coiled tubing thread connections).  
 Add suffix 'H' to assembly number for H<sub>2</sub>S service.  
 Strengths stated excluding connections.  
 Weights stated are approximate (excluding connections).  
 Minimum ID may change, dependent on connection type.

Centre Spear with Finder Skirt

Assembly Number	Body OD	Finder OD	Spear OD	Overall Length	Weight
12148-2125-1625-XXXX	1.750 in.	2.125 in.	1.625 in.	23.10 in.	2.9 kg
12148-2500-1625-XXXX	1.750 in.	2.500 in.	1.625 in.	23.10 in.	2.9 kg
11682-2500-1875-XXXX	2.125 in.	2.500 in.	1.875 in.	23.50 in.	3.7 kg
11682-2750-2000-XXXX	2.125 in.	2.750 in.	2.000 in.	23.50 in.	3.7 kg
11682-3000-2250-XXXX	2.125 in.	3.000 in.	2.250 in.	23.50 in.	3.7 kg
11682-3250-2500-XXXX	2.125 in.	3.250 in.	2.500 in.	23.50 in.	3.7 kg
11682-3500-2750-XXXX	2.125 in.	3.500 in.	2.750 in.	23.50 in.	3.7 kg
12923-4500-4500-XXXX	3.125 in.	4.500 in.	4.500 in.	35.10 in.	10.4 kg

XXXX denotes connection (see coiled tubing thread connections).  
 Add suffix 'H' to assembly number for H<sub>2</sub>S service.  
 Strengths stated excluding connections.  
 Weights stated are approximate (excluding connections).  
 Minimum ID may change, dependent on connection type.  
 Assembly number consists of: Drawing Number-Skirt OD-SpearOD-Connection.



## CT Double-Flapper Check Valve with Cable Bypass

### Tool Description

The Weatherford BDK Double Flapper Check Valve with Cable Bypass is designed for coiled tubing electric line applications.

This system incorporates dual check valves, cable anchor system and pressure sealing pack off housing electrical connections to isolate from fluid migration.

### SPECIFICATIONS

#### CT Double Flapper Check Valve with Cable Bypass

Tool OD		2.000 in.	2.500 in.
Make-up Length		32.7 in.	36.6 in.
Weight		9.5 kg	14.6 kg
Working Pressure		5,000 psi	5,000 psi
Test Pressure		6,000 psi	6,000 psi
Strength - Standard Service	SWL	60,200 lb	60,200 lb
	Yield	66,880 lb	66,880 lb
	UTS	85,120 lb	85,120 lb
Strength - H <sub>2</sub> S Service	SWL	43,780 lb	43,780 lb
	Yield	48,640 lb	48,640 lb
	UTS	60,800 lb	60,800 lb
<b>Full Assembly Number</b>		<b>6523-xxxx</b>	<b>7276-xxxx</b>
<b>Cartridge Assembly Number</b>		<b>7407</b>	<b>6195</b>

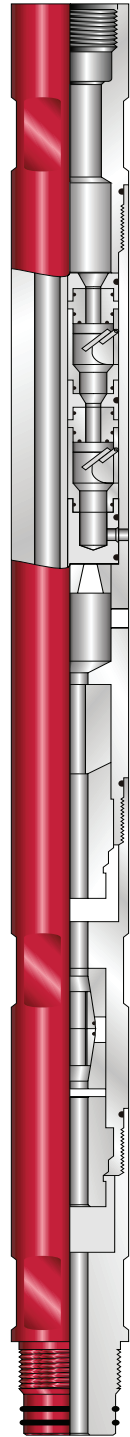
XXXX denotes connection (see coiled tubing thread connections).

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

Strengths stated excluding connections.

Weights stated are approximate (excluding connections).

Minimum ID may change, dependent on connection type.





# CT Check Valve - Back Pressure/Sequence

## Tool Description

The Weatherford BDK CT Back Pressure/Sequence Check Valve enables a hydrostatic head to be maintained within the coiled tubing head. The pressure differential required to open the valve can be adjusted by inserting spacers, to allow for well conditions.

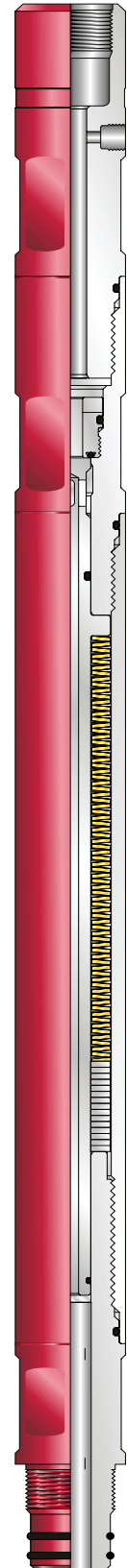
Provided the internal coiled tubing pressure exceeds the set pressure differential, flow is directed through the centre of the BHA. If this is not the case, then the springs return the valve onto its seat, preventing reverse flow or loss of fluid from the coiled tubing.

## SPECIFICATIONS

### CT Check Valve - Back Pressure/Sequence

Tool OD		1.687 in.	1.750 in.
Make-up Length		25.53 in.	25.53 in.
Differential Pressure Range		250 - 4,000 psi	250 - 4,000 psi
Weights		5.9 kg	6.2 kg
Strength - Standard Service	SWL	66,400 lb	83,240 lb
	Yield	73,780 lb	92,490 lb
	UTS	93,900 lb	117,710 lb
Strength - H <sub>2</sub> S Service	SWL	48,300 lb	60,530 lb
	Yield	53,660 lb	67,260 lb
	UTS	67,070 lb	84,080 lb
Burst Disc Part Numbers	Blanking Plug	6259	6259
	1,000 psi	6099	6099
	2,000 psi	11445	11445
	3,000 psi	6100	6100
	4,000 psi	11446	11446
	5,000 psi	6101	6101
	6,000 psi	12721	12721
<b>Assembly Number</b>		<b>13009-xxxx</b>	<b>13023-xxxx</b>

XXXX denotes connection (see coiled tubing thread connections).  
 Add suffix 'H' to assembly number for H<sub>2</sub>S service.  
 Strengths stated excluding connections.  
 Weights stated are approximate (excluding connections).  
 Minimum ID may change, dependent on connection type.





## CT Ball Check Valve

### Tool Description

The Weatherford BDK Ball-Type Check Valve offers a safety system to guard against reverse flow within the coiled tubing. Spring-assisted balls are also available to enable quicker response from the valve.

### SPECIFICATIONS

#### CT Ball Check Valve

Tool OD		1.00 in.	1.25 in.	1.50 in.	1.75 in.
Make-Up Length	Single Ball Valve	7.63 in.	7.12 in.	9.20 in.	9.20 in.
	Double Ball Valve	11.06 in.	10.44 in.	12.60 in.	15.00 in.
Weight	Single Ball Valve	0.5 kg	0.55 kg	0.9 kg	1.7 kg
	Double Ball Valve	0.8 kg	0.9 kg	1.7 kg	2.8 kg
Working Pressure		10,000 psi	10,000 psi	10,000 psi	10,000 psi
Test Pressure		12,000 psi	12,000 psi	12,000 psi	12,000 psi
Strength - Standard Service	SWL	22,290 lb	30,020 lb	49,200 lb	72,580 lb
	Yield	24,770 lb	33,450 lb	54,680 lb	80,640 lb
	UTS	31,520 lb	42,560 lb	69,590 lb	102,630 lb
Strength - H <sub>2</sub> S Service	SWL	16,200 lb	21,900 lb	35,820 lb	52,790 lb
	Yield	18,000 lb	24,320 lb	37,760 lb	58,650 lb
	UTS	22,500 lb	30,400 lb	49,700 lb	73,300 lb
Assembly Drawing	Single Ball Valve	6178-xxxx	6171-xxxx	6184-xxxx	6190-xxxx
	Double Ball Valve	6179-xxxx	6085-xxxx	6185-xxxx	6191-xxxx

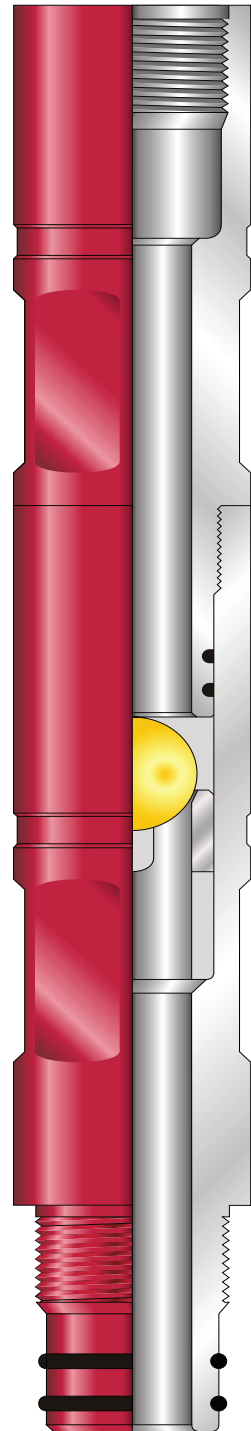
XXXX denotes connection (see coiled tubing thread connections).

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

Strengths stated excluding connections.

Weights stated are approximate (excluding connections).

Minimum ID may change, dependent on connection type.



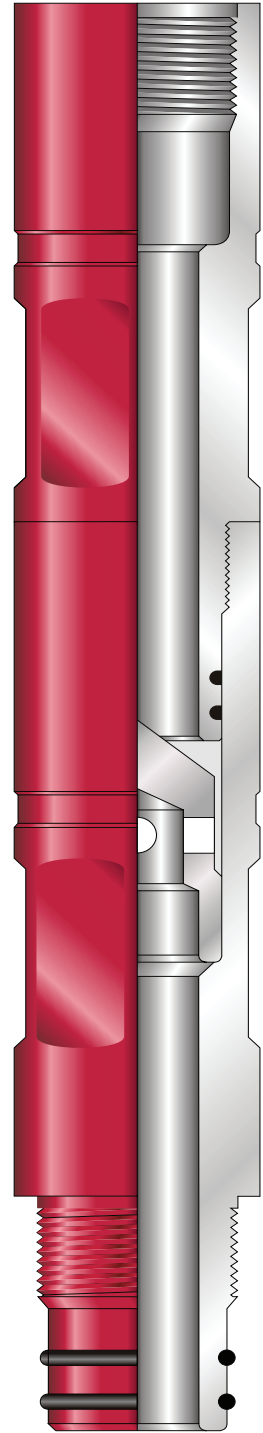


## CT Dart Check Valve

### Tool Description

The Weatherford BDK Dart Check Valve offers a safety system that ensures against reverse flow within the coiled tubing.

The dart check valve is obtainable with a double dart if required. Spring-assisted and polymer darts are also available to enable quicker response from the valve.





SPECIFICATIONS

CT Dart Check Valve

Tool Diameter		1.00 in.	1.25 in.	1.50 in.	1.75 in.	2.125 in.
Make-up Length	Single Dart Valve	7.63 in.	7.12 in.	9.20 in.	9.20 in.	10.54 in.
	Double Dart Valve	11.06 in.	10.44 in.	12.60 in.	15.00 in.	15.51 in.
	Single Spring Assisted Dart Valve	-----	-----	-----	-----	-----
	Double Spring Assisted Dart Valve	-----	12.48 in.	-----	-----	-----
Weight	Single Dart Valve	0.5 kg	0.55 kg	0.9 kg	1.7 kg	2.3 kg
	Double Dart Valve	0.8 kg	0.9 kg	1.7 kg	2.8 kg	3.9 kg
	Single Spring Assisted Dart Valve	-----	-----	-----	-----	-----
	Double Spring Assisted Dart Valve	-----	1.1 kg	-----	-----	-----
Working Pressure		10,000 psi	10,000 psi	10,000 psi	10,000 psi	10,000 psi
Test Pressure		12,000 psi	12,000 psi	12,000 psi	12,000 psi	12,000 psi
Strength - Std Service	SWL	22,290 lb	30,020 lb	49,200 lb	72,580 lb	105,408 lb
	Yield	24,770 lb	33,450 lb	54,680 lb	80,640 lb	117,120 lb
	UTS	31,520 lb	42,560 lb	69,590 lb	102,630 lb	149,062 lb
Strength - H <sub>2</sub> S Service	SWL	16,200 lb	21,900 lb	35,820 lb	52,790 lb	76,660 lb
	Yield	18,000 lb	24,320 lb	37,760 lb	58,650 lb	85,178 lb
	UTS	22,500 lb	30,400 lb	49,700 lb	73,300 lb	106,473 lb
Assembly Number	Single Dart Valve	5510-xxxx	5540-xxxx	4633-xxxx	5525-xxxx	13358-xxxx
	Double Dart Valve	6177-xxxx	6174-xxxx	6183-xxxx	6189-xxxx	13149-xxxx
	Single Spring Assisted Dart Valve	13141-xxxx	13142-xxxx	13143-xxxx	13144-xxxx	13359-xxxx
	Double Spring Assisted Dart Valve	13138-xxxx	11003-xxxx	13139-xxxx	13140-xxxx	13360-xxxx

XXXX denotes connection (see coiled tubing thread connections).  
 Add suffix 'H' to assembly number for H<sub>2</sub>S service.  
 Strengths stated excluding connections.  
 Weights stated are approximate (excluding connections).  
 Minimum ID may change, dependent on connection type.





## CT Dart/Ball Check Valve

### Tool Description

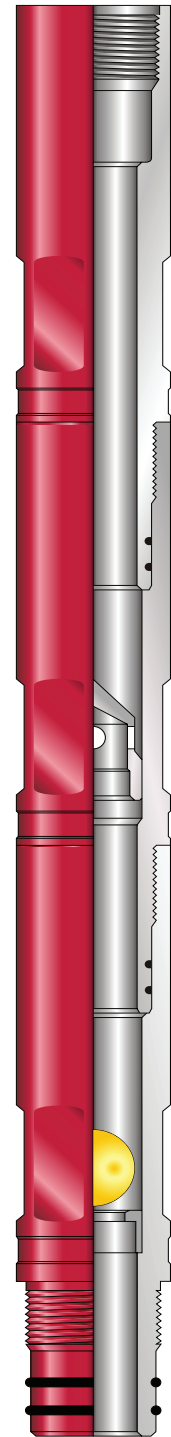
The Weatherford BDK Dart/Ball Check Valve offers a dual safety system to guard against reverse flow within the coiled tubing.

### SPECIFICATIONS

#### CT Dart/Ball Check Valve

Tool Diameter		1.00 in.	1.25 in.	1.50 in.	1.75 in.
Make-up Length		11.06 in.	10.44 in.	12.60 in.	15.00 in.
Weight		0.8 kg	0.9 kg	1.7 kg	2.8 kg
Working Pressure		10,000 psi	10,000 psi	10,000 psi	10,000 psi
Test Pressure		12,000 psi	12,000 psi	12,000 psi	12,000 psi
Strength - Standard Service	SWL	22,290 lb	30,020 lb	49,200 lb	72,580 lb
	Yield	24,770 lb	33,450 lb	54,680 lb	80,640 lb
	UTS	31,520 lb	42,560 lb	69,590 lb	102,630 lb
Strength - H <sub>2</sub> S Service	SWL	16,200 lb	21,900 lb	35,820 lb	52,790 lb
	Yield	18,000 lb	24,320 lb	37,760 lb	58,650 lb
	UTS	22,500 lb	30,400 lb	49,700 lb	73,300 lb
<b>Assembly Number</b>		<b>6180-xxxx</b>	<b>6173-xxxx</b>	<b>6186-xxxx</b>	<b>6192-xxxx</b>

XXXX denotes connection (see coiled tubing thread connections).  
 Add suffix 'H' to assembly number for H<sub>2</sub>S service.  
 Strengths stated excluding connections.  
 Weights stated are approximate (excluding connections).  
 Minimum ID may change, dependent on connection type.





## CT Double Flapper Check Valve - Cartridge

### Tool Description

The Weatherford BDK Double Flapper Check Valve, with Cartridge Inserts, offers dual safety system with a low pressure elastomer seal and has the added advantage of fast and efficient redress with easy replacement of the flapper cartridge assemblies.

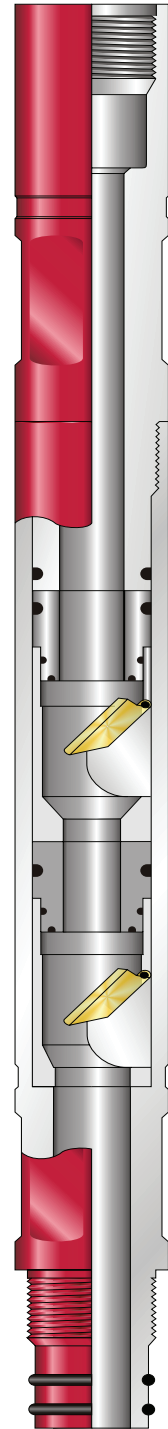
This style of flapper check valve can be utilized on low or high-pressure applications.

### Applications

- All standard coiled tubing operations
- Milling operations
- Fishing operations
- Memory PLT operations
- High and low pressure applications

### Features and Benefits

- This design allows optimum bore through the check valve
- Robust design
- Easy to maintain
- Easy to install onto the coiled tubing bottomhole assembly





## SPECIFICATIONS

## CT Double Flapper Check Valve - Cartridge

Full Assembly Number	Cartridge Only Assembly Number	Outside Diameter	Tool ID*	Drift Size*	Working Pressure	Test Pressure	Make Up Length	Weight
7564-XXXX	7407	1.250 in.	0.312 in.	0.250 in.	10,000 psi	12,000 psi	12.00 in.	1.5 kg
7558-XXXX	7571	1.500 in.	0.393 in.	0.312 in.	10,000 psi	12,000 psi	13.22 in.	3.4 kg
4264-XXXX	6195	1.750 in.	0.711 in.	0.640 in.	10,000 psi	12,000 psi	16.10 in.	3.8 kg
6794-XXXX	6195	2.000 in.	0.711 in.	0.640 in.	10,000 psi	12,000 psi	16.32 in.	4.8 kg
9446-XXXX	9211	2.125 in.	0.840 in.	0.750 in.	10,000 psi	12,000 psi	15.56 in.	5.5 kg
4274-XXXX	6196	2.250 in.	1.020 in.	0.937 in.	10,000 psi	12,000 psi	17.90 in.	6.1 kg
12837-XXXX	6196	2.375 in.	1.020 in.	0.937 in.	10,000 psi	12,000 psi	17.90 in.	6.6 kg
11058-XXXX	6197	2.875 in.	1.310 in.	1.250 in.	10,000 psi	12,000 psi	18.84 in.	9.8 kg
4273-XXXX	6197	3.125 in.	1.310 in.	1.250 in.	10,000 psi	12,000 psi	18.84 in.	14.0 kg
7273-XXXX	6197	3.500 in.	1.310 in.	1.250 in.	10,000 psi	12,000 psi	19.54 in.	15.6 kg

XXXX denotes connection (see coiled tubing thread connections).

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

Strengths stated excluding connections.

Weights stated are approximate (excluding connections).

Minimum ID may change, dependent on connection type.



## CT Double Flapper Check Valve - Integral Housing

### Tool Description

The Weatherford BDK Double Flapper Check Valve with Integral Housing offers a dual-safety system that ensures against reverse flow within the coiled tubing in the event of a BHA failure or sudden well pressure increase.

This style of flapper check valve can be utilized on low or high-pressure applications.

### Applications

- All standard coiled tubing operations
- Milling operations
- Fishing operations
- Memory PLT operations
- High and low pressure applications

### Features and Benefits

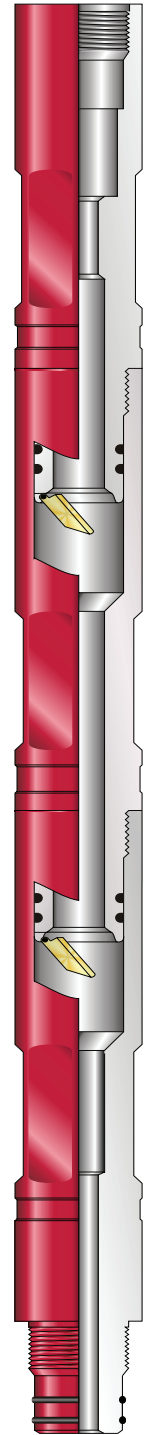
- This design allows optimum bore with metal-to-metal seal between the flapper and seat
- Designed for working in high pressure wells
- Robust design
- Easy to maintain
- Easy to install onto the coiled tubing bottomhole assembly

### SPECIFICATIONS

#### CT Double Flapper Check Valve - Integral Housing

Full Assembly Number	Outside Diameter	Tool ID*	Drift Size*	Working Pressure	Test Pressure	Make Up Length	Weight
5458-XXXX	1.250 in.	0.500 in.	0.437 in.	10,000 psi	12,000 psi	11.50 in.	1.3 kg
5426-XXXX	1.500 in.	0.540 in.	0.468 in.	10,000 psi	12,000 psi	13.20 in.	2.1 kg
5423-XXXX	1.750 in.	0.750 in.	0.687 in.	10,000 psi	12,000 psi	16.00 in.	3.9 kg
5381-XXXX	2.000 in.	1.060 in.	1.000 in.	10,000 psi	12,000 psi	17.50 in.	5.1 kg
6060-XXXX	2.125 in.	1.060 in.	1.000 in.	10,000 psi	12,000 psi	17.50 in.	5.5 kg
5452-XXXX	2.250 in.	1.156 in.	1.093 in.	10,000 psi	12,000 psi	15.70 in.	5.8 kg
5446-XXXX	2.500 in.	1.338 in.	1.275 in.	10,000 psi	12,000 psi	18.60 in.	7.6 kg

XXXX denotes connection (see coiled tubing thread connections).  
 Add suffix 'H' to assembly number for H<sub>2</sub>S service.  
 Strengths stated excluding connections.  
 Weights stated are approximate (excluding connections).  
 Minimum ID may change, dependent on connection type.





## CT Burst Disc Circulating Sub

### Tool Description

The Weatherford BDK Burst Disc Sub is designed to regain circulation by means of over-pressurizing a burst disc at a predetermined pressure.

If during coiled tubing circulation is lost through the BHA and circulation is required to prevent differential collapse of the coiled tubing or to activate the disconnect, then the burst disc would be activated to allow circulation through the coiled tubing.

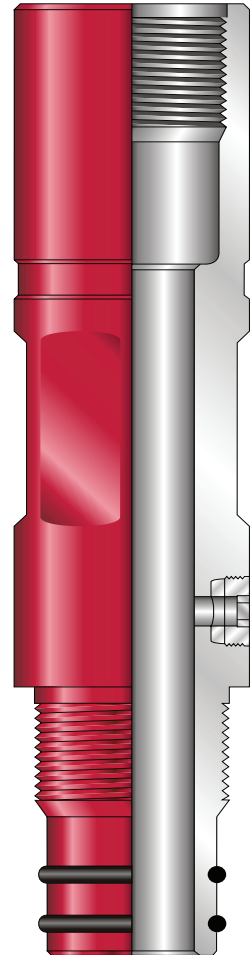
Tools are manufactured to any size required. Part numbers available on request.

### Applications

- All coiled tubing operations
- Deviated operations
- Milling operations

### Features and Benefits

- Compact tool
- Known burst value of burst disc
- Enables circulation to be obtained up the coiled tubing annulus
- Gives a circulation path through the coiled tubing to allow the ball to be seated on this disconnect





## CT Dual-Function Circulating Sub - Shear Screw

### Tool Description

The Weatherford BDK Dual-Function Circulating and Burst Disc Sub is designed as a circulating safety component within the bottomhole assembly.

The design features a shear-out ball seat coupled with a burst disc. Should circulation be lost during a coiled tubing operation, an increase in applied pressure to the coiled tubing will burst the disc, which will regain a sufficient circulation rate to pump a ball.

Pressure can then be applied to the coiled tubing to shear the shear screws and shift the piston to regain maximum circulation.

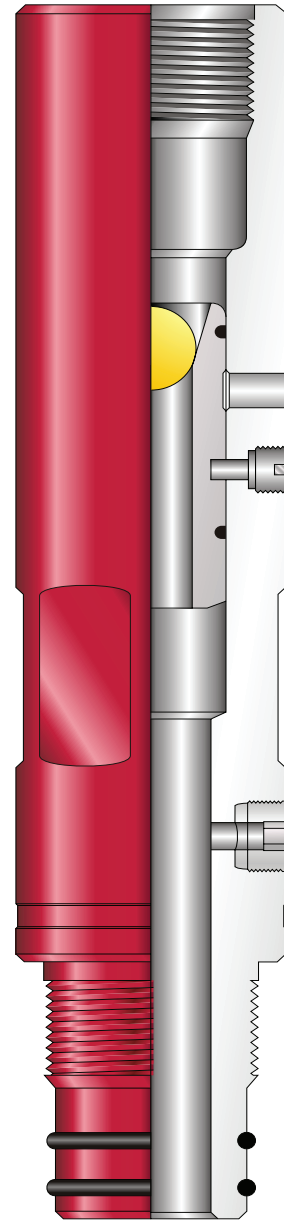
The dual-function circulating sub is available for any outside diameter with or without bursting discs. Tools are manufactured to any size required. Part numbers available on request.

### Applications

- All coiled tubing operations
- Deviated operations
- Milling operations
- Fishing operations
- Cementation and cleanout operations
- Memory PLT operations

### Features and Benefits

- Compact tool
- Known burst value of burst disc
- Known value of shear pins
- Enables full radial circulation to be obtained up the coiled tubing annulus
- Gives a circulation path through the coiled tubing to allow the ball to be seated on this disconnect





## CT Dimple-On Connector

### Tool Description

The Weatherford BDK Dimple-On Connector is an inline-type coiled tubing connector designed and manufactured to join coiled tubing to the bottomhole assembly.

This type of coiled tubing connector offers a nonupset connection, and is designed to withstand heavy jarring and drilling operations.

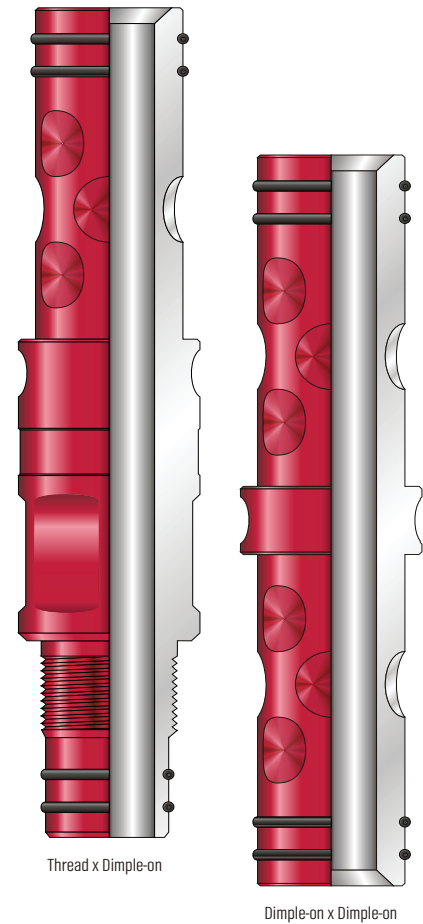
The Dimple-on connector has been in service since September 1996 in Qatar, and many other geographical locations.

### Applications

- Fishing operations: standard and heavy duty
- Milling applications
- Coiled tubing conveyed drilling operations
- Extended reach operations

### Features and Benefits

- Superior mechanical strength (comparable with that of the coiled tubing)
- Connector make up time; typically 10 -15 minutes
- Large through bore
- Re-useable connector
- Hydraulic installation
- Torque through capability
- Robust design
- Easy installation into the coiled tubing



Thread x Dimple-on

Dimple-on x Dimple-on



## SPECIFICATIONS

### Dimple-On Connector

Coiled Tubing	Coiled Tubing Wall Thickness	Assembly Number Thread x Dimple On	Assembly Number Dimple-On x Dimple On
1.250 in.	0.095 in.	9382-XXXX	9382
1.250 in.	0.102 in.	9383-XXXX	9383
1.250 in.	0.109 in.	9384-XXXX	9384
1.250 in.	0.118 in.	10956-XXXX	10956
1.250 in.	0.125 in.	9385-XXXX	9385
1.250 in.	0.134 in.	9386-XXXX	9386
1.250 in.	0.156 in.	9387-XXXX	9387
1.500 in.	0.095 in.	7342-XXXX	7342
1.500 in.	0.102 in.	7343-XXXX	7343
1.500 in.	0.109 in.	7344-XXXX	7344
1.500 in.	0.118 in.	12007-XXXX	12007
1.500 in.	0.125 in.	7345-XXXX	7345
1.500 in.	0.134 in.	7346-XXXX	7346
1.500 in.	0.145 in.	12134-XXXX	12134
1.500 in.	0.156 in.	7347-XXXX	7347
1.500 in.	0.175 in.	7348-XXXX	7348
1.500 in.	0.188 in.	8174-XXXX	8174
1.500 in.	0.190 in.	8174-190-XXXX	8174-190
1.750 in.	0.109 in.	7349-XXXX	7349
1.750 in.	0.118 in.	11460-XXXX	11460
1.750 in.	0.125 in.	7350-XXXX	7350
1.750 in.	0.134 in.	7351-XXXX	7351
1.750 in.	0.145 in.	12564-XXXX	12564
1.750 in.	0.156 in.	7352-XXXX	7352
1.750 in.	0.175 in.	7353-XXXX	7353
1.750 in.	0.188 in.	7354-XXXX	7354
1.750 in.	0.190 in.	7354-190-XXXX	7354-190
1.750 in.	0.203 in.	12129-XXXX	12129

XXXX denotes connection (see coiled tubing thread connections).

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

Strengths stated excluding connections.

Weights stated are approximate (excluding connections).

Minimum ID may change, dependent on connection type.

The Dimple-on Connector can be used to join differing wall thicknesses together.

Example : To join 1.250 in. 0.095 in. WT and 0.109 in. WT, the part number would be 9382-9384.





## SPECIFICATIONS

## Dimple-On Connector

Coiled Tubing	Coiled Tubing Wall Thickness	Assembly Number Thread x Dimple On	Assembly Number Dimple-On x Dimple On
2.000 in.	0.109 in.	7355-XXXX	7355
2.000 in.	0.188 in.	12488-XXXX	12488
2.000 in.	0.125 in.	7356-XXXX	7356
2.000 in.	0.134 in.	7357-XXXX	7357
2.000 in.	0.156 in.	7358-XXXX	7358
2.000 in.	0.175 in.	7359-XXXX	7359
2.000 in.	0.188 in.	7360-XXXX	7360
2.000 in.	0.190 in.	7360-190-XXXX	7360-190
2.000 in.	0.203 in.	7361-XXXX	7361
2.375 in.	0.109 in.	7362-XXXX	7362
2.375 in.	0.125 in.	7363-XXXX	7363
2.375 in.	0.134 in.	7364-XXXX	7364
2.375 in.	0.145 in.	11018-XXXX	11018
2.375 in.	0.156 in.	7365-XXXX	7365
2.375 in.	0.175	7366-XXXX	7366
2.375 in.	0.188 in.	7367-XXXX	7367
2.375 in.	0.190 in.	7367-190-XXXX	7367-190
2.375 in.	0.203 in.	7368-XXXX	7368
2.875 in.	0.125 in.	8187-XXXX	8187
2.875 in.	0.156 in.	8132-XXXX	8132
2.875 in.	0.188 in.	9059-XXXX	9059
2.875 in.	0.190 in.	9059-190-XXXX	9059-190
2.875 in.	0.203 in.	10265-XXXX	10265
3.500 in.	0.134 in.	11903-XXXX	11903
3.500 in.	0.156 in.	11904-XXXX	11904
3.500 in.	0.175 in.	11905-XXXX	11905
3.500 in.	0.188 in.	11906-XXXX	11906
3.500 in.	0.190 in.	11906-190-XXXX	11906-190
3.500 in.	0.203 in.	11907-XXXX	11907

XXXX denotes connection (see coiled tubing thread connections).

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

Strengths stated excluding connections.

Weights stated are approximate (excluding connections).

Minimum ID may change, dependent on connection type.

The dimple-on connector can be used to join differing wall thicknesses together.

Example : To join 1.250 in. 0.095 in. WT and 0.109 in. WT, the part number would be 9382-9384.



## CT Reelable Dimple-On Connector

### Tool Description

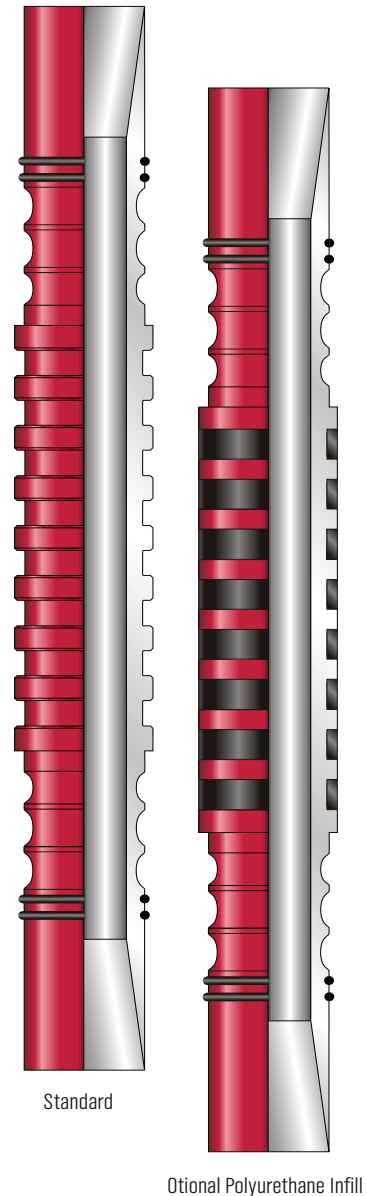
The Weatherford BDK CT Reelable Dimple-On Connector is available in both dimple-on and roll-on styles. The dimple-on style is generally preferred, as it eliminates the stress raisers experienced at the roll-on groove/tube interface. The dimple-on style has a smooth through bore and notched exterior profile. The notches allow a plastic bending modulus equal to the coiled tubing while preserving the OD so that the connector can be passed through the injector chains and the stuffing box. Elastomer infills within the flexi-grooves are sometimes required (depending on operation) to provide a flush outer diameter which will not damage the seals when running through the stuffing box. Tapered end spigots support the coiled tubing to prevent flaring.

### Applications

- Fishing operations
- Extended-reach operations

### Features and Benefits

- Superior mechanical strength (comparable with that of the coiled tubing)
- Connector make up time - typically 10 -15 minutes
- Large through bore
- Re-useable connector
- Elastomer infills within the flexi-grooves are sometimes required (depending on operation) to provide a flush outer diameter which will not damage seals when running through the stuffing box
- Hydraulic installation
- Torque through capability
- Robust design
- Easy installation into the coiled tubing
- Reelable design allows the coiled tubing to be joined then spooled over the reel core diameter as well as the gooseneck radius
- Eliminates the requirement to weld coiled tubing for extended-reach applications





## SPECIFICATIONS

## CT Reelable Dimple-On Connector

Assembly Number Standard	Coiled Tubing Diameter	Coiled Tubing Wall Thickness	Assembly Number Polyurethane Infill
12012	1.250 in.	0.095 in.	12012-P
12013	1.250 in.	0.102 in.	12013-P
12014	1.250 in.	0.109 in.	12014-P
12015	1.250 in.	0.118 in.	12015-P
12016	1.250 in.	0.125 in.	12016-P
12017	1.250 in.	0.134 in.	12017-P
12018	1.250 in.	0.156 in.	12018-P
8905	1.500 in.	0.095 in.	8905-P
8269	1.500 in.	0.102 in.	8269-P
6563	1.500 in.	0.109 in.	6563-P
9994	1.500 in.	0.125 in.	9994-P
9995	1.500 in.	0.134 in.	9995-P
12019	1.500 in.	0.156 in.	12019-P
8917	1.500 in.	0.175 in.	8917-P
8559	1.750 in.	0.109 in.	8559-P
12020	1.750 in.	0.118 in.	12020-P
12021	1.750 in.	0.125 in.	12021-P
12022	1.750 in.	0.134 in.	12022-P
12023	1.750 in.	0.156 in.	12023-P
12024	1.750 in.	0.175 in.	12024-P
12025	1.750 in.	0.188 in.	12025-P
12025-190	1.750 in.	0.190 in.	12025-190-P

XXXX denotes connection (see coiled tubing thread connections).

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

Strengths stated excluding connections.

Weights stated are approximate (excluding connections).

Minimum ID may change, dependent on connection type.

The dimple on connector can be used to join differing wall thicknesses together.

Example : To join 1.250 in. 0.095 in. WT and 0.109 in. WT the part number would be 12012-12014.



SPECIFICATIONS

CT Releable Dimple-On Connector

Assembly Number Standard	Coiled Tubing Diameter	Coiled Tubing Wall Thickness	Assembly Number Polyurethane Infill
10350	2.000 in.	0.125 in.	10350-P
10351	2.000 in.	0.134 in.	10351-P
12122	2.000 in.	0.156 in.	12122-P
12029	2.000 in.	0.175 in.	12029-P
11923	2.000 in.	0.188 in.	11923-P
11923-190	2.000 in.	0.190 in.	11923-190-P
12031	2.000 in.	0.203 in.	12031-P
12032	2.375 in.	0.109 in.	12032-P
12033	2.375 in.	0.125 in.	12033-P
12034	2.375 in.	0.134 in.	12034-P
11076	2.375 in.	0.145 in.	11076-P
12035	2.375 in.	0.156 in.	12035-P
11027	2.375 in.	0.175 in.	11027
6969	2.375 in.	0.188 in.	6969-P
6969-190	2.375 in.	0.190 in.	6969-190-P
12036	2.375 in.	0.203 in.	12036-P
12038	2.875 in.	0.125 in.	12038-P
8128	2.875 in.	0.156 in.	8128-P
12026	2.875 in.	0.175	12026-P
12037	2.875 in.	0.188 in.	12037-P
12037-190	2.875 in.	0.190 in.	12037-190-P
12039	3.500 in.	0.134 in.	12039-P
12040	3.500 in.	0.156 in.	12040-P
12041	3.500 in.	0.175 in.	12041-P
12042	3.500 in.	0.188 in.	12042-P
12042-190	3.500 in.	0.190 in.	12042-190-P
12043	3.500 in.	0.203 in.	12043-P

XXXX denotes connection (see coiled tubing thread connections).

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

Strengths stated excluding connections.

Weights stated are approximate (excluding connections).

Minimum ID may change, dependent on connection type.

The dimple on connector can be used to join differing wall thicknesses together.

Example : To join 1.250 in. 0.095 in.WT and 0. 109 in. WT the part number would be 12012-12014.



## CT Dimple-On Hydraulic Yoke and Jig

### Tool Description

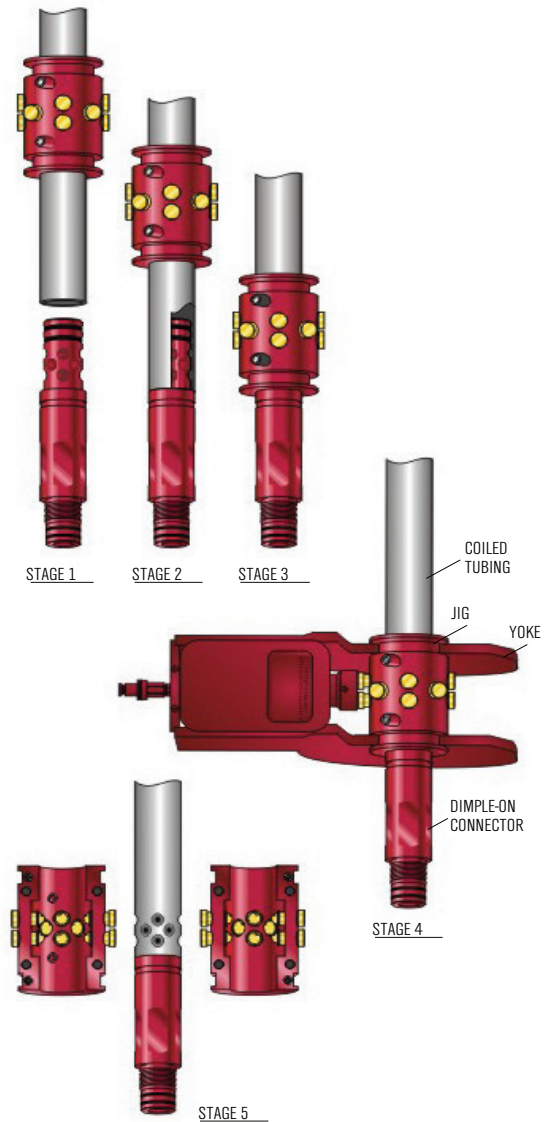
The Weatherford BDK Hydraulic Yoke and Jig is an essential tool for making up Weatherford BDK Dimple-On Connectors. The hydraulic yoke and jig assembly is compact, easy to install and simple to operate.

### Applications

- Designed for the installation of all the Weatherford BDK coiled tubing dimple-on product range

### Features and Benefits

- The hydraulic yoke can be operated via a hydraulic hand pump or control panel
- The dimple-on jig is designed to suit all wall thickness and sizes of coiled tubing
- These tools offer a fast, efficient and safe means of connecting the coiled tubing connector to the coiled tubing. Once the connection is made, it has the same tensile and torque capability as the coiled tubing
- Robust design
- Easy to operate
- Known hydraulic pressure values for correctly formed dimples
- Time saving during make up of bottomhole assembly



### SPECIFICATIONS

#### CT Dimple-On Hydraulic Yoke and Jig

Coiled Tubing Size	Part Number Yoke	Part Number Jig	Weight Yoke - Jig	Operating Pressure 1 - 2 Indentations
1.250 in.	7297	7305-05	23 - 7.0 kg	3000 - 6000 psi
1.500 in.	7297	7305-01	23 - 6.5 kg	3000 - 6000 psi
1.750 in.	7297	7305-02	23 - 6.0 kg	3000 - 6000 psi
2.000 in.	7297	7305-03	23 - 5.5 kg	3000 - 6000 psi
2.375 in.	7297	7305-04	23 - 4.75 kg	3000 - 6000 psi
2.875 in.	8280	8281-01	48 - 11.0 kg	3000 - 6000 psi
3.500 in.	8280	8281-02	48 - 9.5 kg	3000 - 6000 psi

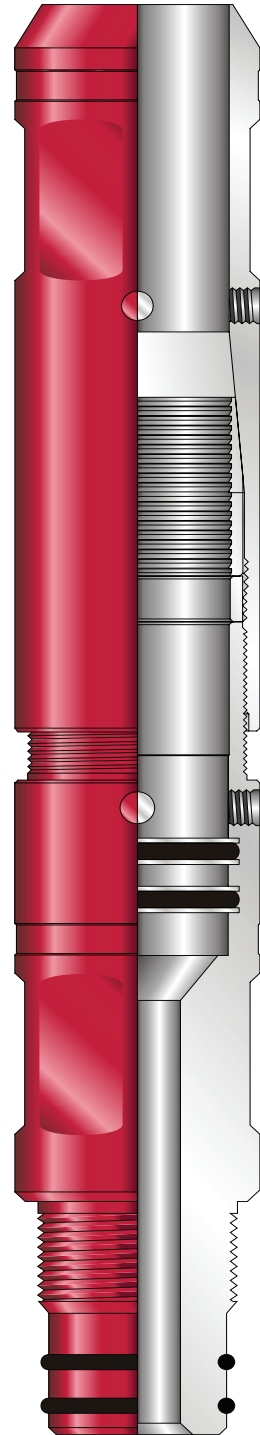
Hydraulic Hand Pump Unit is available for use with this tool. Part Number 9058



## CT Slimline Grapple Connector

### Tool Description

The Weatherford BDK CT Slimline Grapple Connector incorporates tapered slips, enhancing the grip of the connector to the tubing while maintaining maximum strength within the slimline design.





## SPECIFICATIONS

### CT Slimline Grapple Connector

CT Size		1.250 in.	1.250 in.	1.500 in.	1.500 in.	1.750 in.	1.750 in.	2.000 in.	2.000 in.	2.375 in.	2.875 in.
Body OD		1.875 in.	2.000 in.	2.125 in.	2.250 in.	2.375 in.	2.500 in.	2.625 in.	2.750 in.	3.125 in.	3.625 in.
O-Ring and Back-up Ring		OV 218	OV 218	OV 222	OV 222	OV 224	OV 224	OV 226	OV 226	OV 229	OV 233
Working Pressure		10,000 psi	10,000 psi	10,000 psi	10,000 psi	10,000 psi	10,000 psi	10,000 psi	10,000 psi	10,000 psi	10,000 psi
Make-up Length		12.62 in.	12.87 in.	12.62 in.	12.64 in.	12.55 in.	13.25 in.	12.62 in.	12.77 in.	13.6 in.	13.46 in.
Stab-In Depth		9.87 in.	10.12 in.	9.73 in.	10.24 in.	9.97 in.	10.57 in.	9.91 in.	9.93 in.	10.71 in.	10.62 in.
Weight		2.4 kg	3 kg	2.9 kg	3.5 kg	3.2 kg	4 kg	3.7 kg	4.5 kg	6 kg	6.4 kg
Test Strength (No Slippage)		-----	30,000 lb	-----	-----	-----	-----	-----	-----	-----	-----
Strength Std Service	Mech SWL	59,400 lb	69,210 lb	69,840 lb	78,390 lb	78,390 lb	82,620 lb	92,180 lb	91,080 lb	103,720 lb	128,950 lb
	Mech Yield	66,000 lb	76,900 lb	77,600 lb	87,100 lb	87,100 lb	91,800 lb	102,420 lb	101,200 lb	115,240 lb	143,280 lb
	Mech UTS	84,000 lb	97,850 lb	98,750 lb	110,850 lb	110,850 lb	116,850 lb	130,350 lb	128,800 lb	146,670 lb	182,350 lb
Strength H <sub>2</sub> S Service	Mech SWL	43,200 lb	50,310 lb	50,800 lb	57,020 lb	57,020 lb	60,100 lb	67,040 lb	66,240 lb	75,420 lb	93,780 lb
	Mech Yield	48,000 lb	55,900 lb	56,430 lb	63,350 lb	63,350 lb	66,770 lb	74,500 lb	73,600 lb	83,800 lb	104,200 lb
	Mech UTS	60,000 lb	69,900 lb	70,540 lb	79,200 lb	79,200 lb	83,460 lb	93,110 lb	92,000 lb	104,760 lb	130,250 lb
Assembly Number		9965-xxxx	7709-xxxx	9991-xxxx	7704-xxxx	9966-xxxx	7699-xxxx	9967-xxxx	7694-xxxx	7714-xxxx	8106-xxxx

XXXX denotes connection (see coiled tubing thread connections).

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

Strengths stated excluding connections.

Weights stated are approximate (excluding connections).

Minimum ID may change, dependent on connection type.

**NOTE:**

**Mechanical strengths are based on the theoretical cross-sectional area and do not represent the pullout load.**



## CT Heavy Duty Grapple Connector

### Tool Description

The Weatherford BDK Heavy Duty Grapple Connector has been developed for use with velocity strings and more non-standard coiled tubing applications. The coiled tubing connector has a larger OD than the compact/slimline version, and a new style grapple arrangement.

### Applications

- All coiled tubing operations
- Fishing operations
- Milling operations
- E-Line operations
- Velocity string installations
- ESP installations

### Features and Benefits

- The connector utilizes a modified buttress-form helical feature rather than a conventional taper to close the grapple onto the coiled tubing
- The grapple is designed to grip better on oval coiled tubing
- It is suitable for high-tensile loads and out-performs other style grapple connectors, whilst being easy to make-up and use
- All Weatherford BDK Outline Connectors are fitted with double back-up rings to ensure good sealing capability
- The coiled tubing grapple connector can also be manufactured with a metal x metal seal
- The Weatherford BDK Heavy Duty Grapple is available in a Grapple x Grapple Style for joining velocity strings

### SPECIFICATIONS

#### CT Heavy Duty Grapple Connector

Assembly Number	Outside Diameter	Working Pressure	Make Up Length	Weight
11208-XXXX	2.750 in.	10,000 psi	13.51 in.	5.9 kg
11214-XXXX	3.000 in.	10,000 psi	17.63 in.	8.3 kg
11079-XXXX	3.375 in.	10,000 psi	17.63 in.	10.5 kg
11220-XXXX	3.875 in.	10,000 psi	17.63 in.	14.5 kg
11226-XXXX	4.500 in.	10,000 psi	17.63 in.	15.0 kg

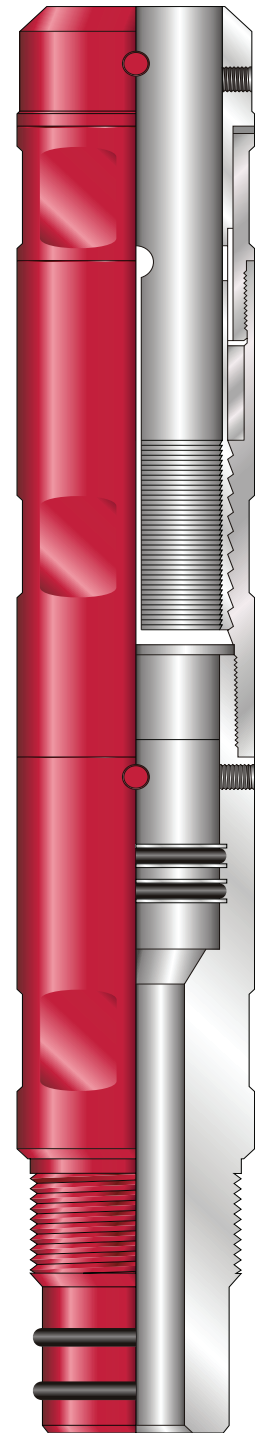
XXXX denotes connection (see coiled tubing thread connections).

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

Strengths stated excluding connections.

Weights stated are approximate (excluding connections).

Minimum ID may change, dependent on connection type.







# CT Grub Screw Connector

## Tool Description

The Weatherford BDK grub screw connector is an outline connector manufactured to suit a specific size of coiled tubing.

## Applications

- Standard coiled tubing applications
- Memory PLT operations
- E-Line operations - standard

## Features and Benefits

- A specially designed grub screw retains the coiled tubing within the connector
- Dual elastomer seal
- The grub screw connector is available for any combination of coiled tubing and thread sizes
- All outline connectors are fitted with double back-up rings to ensure good sealing capability
- Robust design
- Easy installation onto the coiled tubing

## SPECIFICATIONS

### CT Grub Screw Connector

Assembly Number	CT Diameter	Outside Diameter	Stab In Depth	Number of Grub Screws	Weight
5677-XXXX	1.250 in.	1.750 in.	2.87 in.	8	1.3 kg
4648-XXXX	1.500 in.	2.000 in.	3.62 in.	12	2.3 kg
5290-XXXX	1.750 in.	2.250 in.	4.00 in.	12	2.4 kg
4007-XXXX	2.000 in.	2.500 in.	4.00 in.	12	2.4 kg
5678-XXXX	2.375 in.	2.875 in.	4.00 in.	12	3.0 kg
5679-XXXX	2.875 in.	3.375 in.	4.00 in.	12	3.2 kg
5680-XXXX	3.500 in.	4.000 in.	4.00 in.	12	5.4 kg

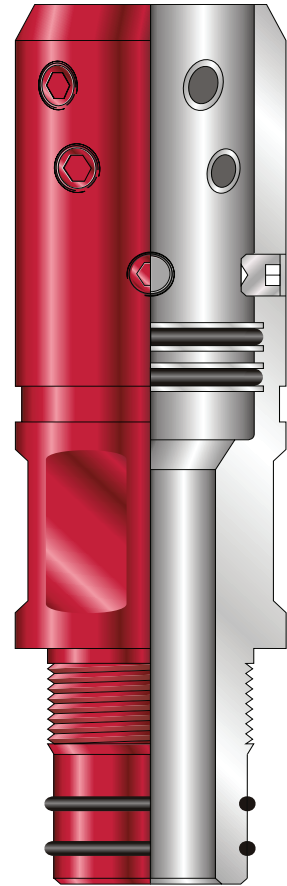
XXXX denotes connection (see coiled tubing thread connections).

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

Strengths stated excluding connections.

Weights stated are approximate (excluding connections).

Minimum ID may change, dependent on connection type.





## CT Grub Screw Preparation and Removal Tool

### Tool Description

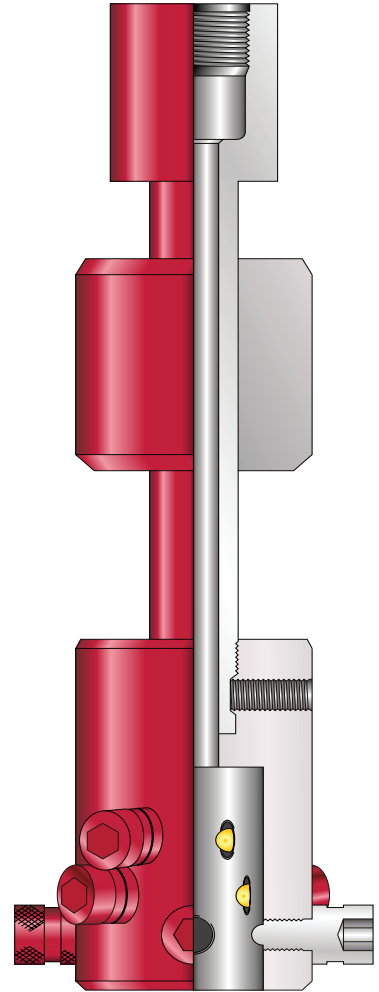
The Weatherford BDK Grub Screw Connector Preparation Tool incorporates specially profiled screws for preparation of the coiled tubing before to assembling of the Weatherford BDK Grub Screw Connector. The preparation tool is designed so that once the coiled tubing has been prepared for the coiled tubing connector the preparation tool can be installed and the profiled setting screws secured into the coiled tubing, causing the coiled tubing to deform to a pre-determined depth. After the coiled tubing tool as been deformed to the pre determined depth, the preparation tool can be removed and the end connector can be installed.

### Applications

- All standard operations where a coiled tubing grub screw connector is utilized

### Features and Benefits

- The sliding hammer action has a dual releasing feature and can be reversed for removal of the grub screw connector
- Pre-set length on the preparation tool indentation screws to ensure that the coiled tubing is deformed to the correct depth
- Robust design
- Easy to operate
- Low maintenance costs



### SPECIFICATIONS

#### CT Grub Preparation and Removal Tool

Assembly Number	Coiled Tubing Diameter	Dimple Head Box Depth	Overall Length	Weight
5764-XXXX	1.250 in.	2.87 in.	22.40 in.	9.7 kg
5769-XXXX	1.500 in.	3.62 in.	23.40 in.	11.0 kg
5771-XXXX	1.750 in.	4.00 in.	23.90 in.	13.2 kg
5773-XXXX	2.000 in.	4.00 in.	25.60 in.	14.4 kg
5775-XXXX	2.375 in.	4.00 in.	25.70 in.	17.5 kg
5777-XXXX	2.875 in.	4.00 in.	26.40 in.	20.0 kg
5779-XXXX	3.500 in.	4.00 in.	25.70 in.	23.2 kg

XXXX denotes connection (see coiled tubing thread connections)  
Weights stated are approximate (excluding connections)



## CT Internal combination Reamer System (I.C.R.S.)

### Tool Description

The Weatherford BDK Internal Combination Reamer System (ICRS) is a hand-operated, self-aligning unit, that prepares the coiled tubing to accept an elastomer sealed inline connector. This system ensures that the elastomer seal prevents from being damaged during installation.

Two Styles of cutter are available. The reamer style is used to produce an acceptable seal bore finish on the tubing ID, whilst the de-burr/bevel style cutter is used to remove any sharp edges from the coiled tubing, which would otherwise cut the seal. By changing out the tubing bush and selecting the correct size of reamer the ICRS can be used on any size of coiled tubing.

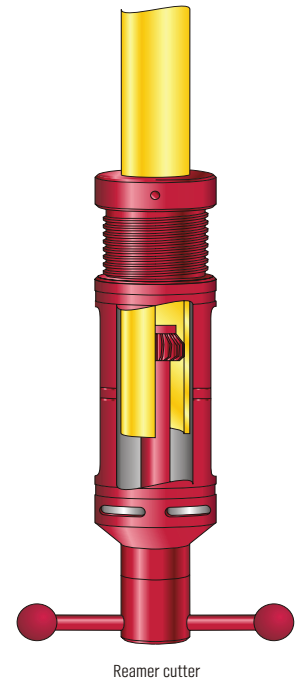
If there is a need to remove a large amount of material it is recommended that a multi-stage reamer system be used. This allows the optimum amount of material to be removed for ease of operation, while giving an improved surface finish.

### Applications

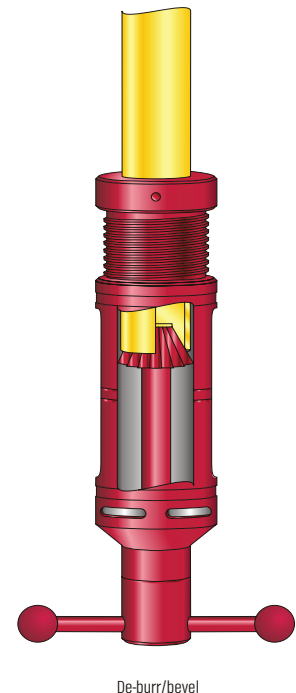
- To be utilized when installing any internal coiled tubing connector to remove the weld seam to prevent the elastomer sealing area from getting damaged during make up

### Features and Benefits

- Self-centering retainer sleeve
- Depth adjustment
- Internal reamer designed to provide precision finish to coiled tubing bore
- De-burring/bevel cutter creates a beveled lead in for elastomers
- Can be supplied with a through bore to allow installation of stiff wireline connectors
- Robust design
- Easy to operate
- Reduces time to install coiled tubing end connector
- Reduces the failure rate of elastomer seals on the coiled tubing connector



Reamer cutter



De-burr/bevel



## SPECIFICATIONS

### Internal Combination Reamer System

Assembly Number	Coiled Tubing Size	Weight
10808	1.250 in.	tbc
8301	1.500 in. - 2.375 in.	7 kg
8346	2.875 in. - 3.500 in.	11 kg

Note:

The ICRS is not supplied with tubing bush, bevel/de-burr cutter or reamer cutter. These items must be ordered separately, see below.

#### Tubing Bush

Coiled Tubing Size	Part Number
1.250 in.	N/A
1.500 in.	8296
1.750 in.	8297
2.000 in.	8298
2.375 in.	N/A
2.625 in.	8343-01
2.875 in.	8343
3.500 in.	N/A

#### Bevel / De-Burr Cutter

Coiled Tubing Size	Part Number
1.250 in.	10803
1.500 in. - 2.375 in.	8295
2.625 in. - 3.500 in.	8342

#### Reamer Cutter

Coiled Tubing Size	Part Number
1.250 in. x 0.095 in. Wall	10802-095
1.250 in. x 0.102 in. Wall	10802-102
1.250 in. x 0.109 in. Wall	10802-109
1.250 in. x 0.118 in. Wall	10802-118
1.250 in. x 0.125 in. Wall	10802-125
1.250 in. x 0.134 in. Wall	10802-134
1.250 in. x 0.156 in. Wall	10802-156
1.500 in. x 0.095 in. Wall	8304
1.500 in. x 0.102 in. Wall	8300
1.500 in. x 0.109 in. Wall	8305
1.500 in. x 0.118 in. Wall	9536
1.500 in. x 0.125 in. Wall	8306
1.500 in. x 0.134 in. Wall	8307
1.500 in. x 0.156 in. Wall	8308
1.500 in. x 0.175 in. Wall	8309
1.500 in. x 0.188 in. Wall	8191
1.750 in. x 0.109 in. Wall	8310
1.750 in. x 0.125 in. Wall	8311
1.750 in. x 0.134 in. Wall	8312
1.750 in. x 0.156 in. Wall	8313
1.750 in. x 0.175 in. Wall	8330
1.750 in. x 0.188 in. Wall	8331
2.000 in. x 0.109 in. Wall	8332
2.000 in. x 0.116 in. Wall	12679
2.000 in. x 0.125 in. Wall	8333
2.000 in. x 0.134 in. Wall	8334
2.000 in. x 0.156 in. Wall	8335

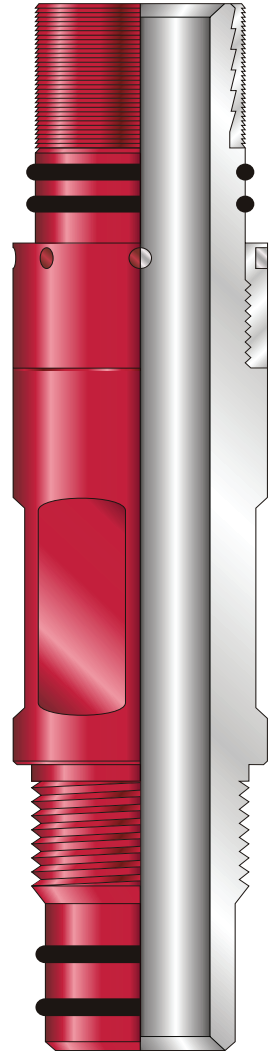
Coiled Tubing Size	Part Number
2.000 in. x 0.175 in. Wall	8320
2.000 in. x 0.188 in. Wall	8336
2.000 in. x 0.203 in. Wall	8322
2.375 in. x 0.109 in. Wall	8323
2.375 in. x 0.125 in. Wall	8324
2.375 in. x 0.134 in. Wall	8325
2.375 in. x 0.156 in. Wall	8326
2.375 in. x 0.175 in. Wall	8327
2.375 in. x 0.188 in. Wall	8328
2.375 in. x 0.203 in. Wall	8329
2.625 in. x 0.125 in. Wall	8395-01
2.625 in. x 0.134 in. Wall	8395-02
2.625 in. x 0.156 in. Wall	8395-03
2.625 in. x 0.175 in. Wall	8395-04
2.625 in. x 0.188 in. Wall	8395-05
2.625 in. x 0.203 in. Wall	8395-06
2.875 in. x 0.125 in. Wall	8395
2.875 in. x 0.134 in. Wall	8396
2.875 in. x 0.156 in. Wall	8397
2.875 in. x 0.175 in. Wall	8398
2.875 in. x 0.188 in. Wall	8399
2.875 in. x 0.203 in. Wall	8400
3.500 in. x 0.134 in. Wall	8401
3.500 in. x 0.156 in. Wall	8402
3.500 in. x 0.175 in. Wall	8403
3.500 in. x 0.188 in. Wall	8404
3.500 in. x 0.203 in. Wall	8405



## CT Internal Grapple Connector

### Tool Description

The Weatherford BDK Internal Grapple Connector is an inline means of connecting the toolstring to the coiled tubing using a lockout to prevent the grapple from slipping. The internal grapple connector can be manufactured to any OD requirements for flush installation or upset. Tools are manufactured to any size required. Part numbers available on request.





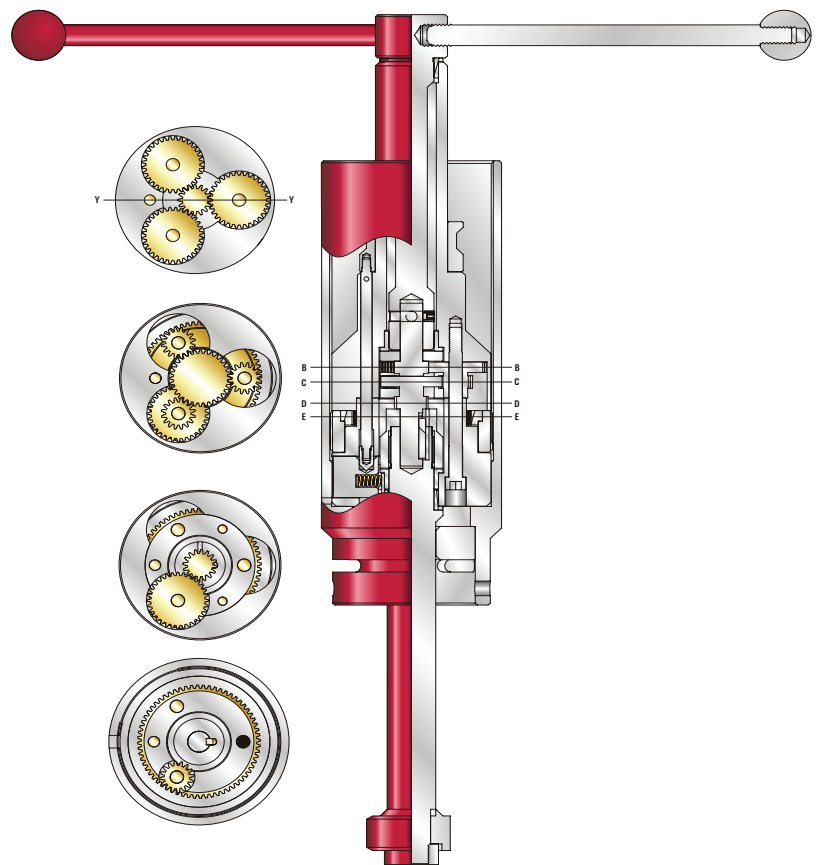
## CT Internal Power Reamer

### Tool Description

The Weatherford BDK CT Internal Power Reamer has been designed to help reduce manual handling and time whilst removing the coiled tubing weld seam on larger sizes of coiled tubing. The internal power reamer consists of a gearing system that allows the cutter blade to travel at a set penetration rate and rotational speed throughout the reaming operation finish.

### Features and Benefits

- Robust design
- Geared reaming action
- Automatic feed
- Quick return on completion of cut
- Reduces manual handling
- Time reduction in the preparation of coiled tubing





## CT Roll-On Connector

### Tool Description

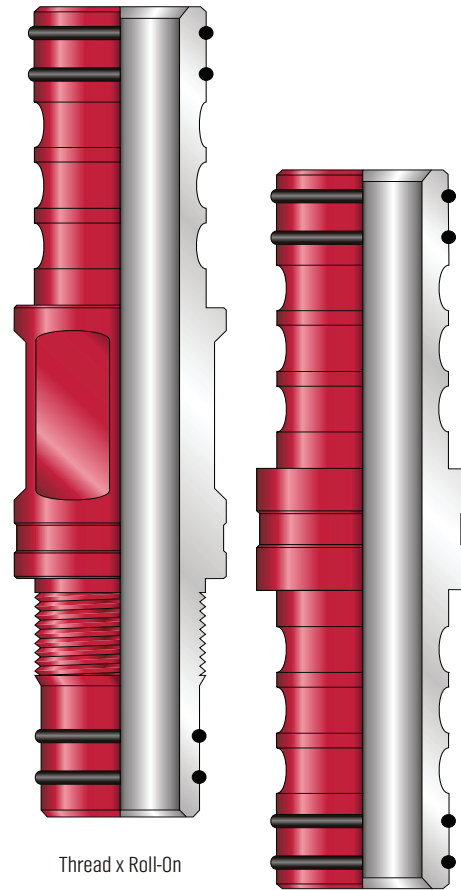
The Weatherford BDK Coiled Tubing Roll-On Connector is an inline connector for standard coiled tubing applications. The connector is manufactured for a specific wall thickness and is easy and quick to install.

### Applications

- All standard coiled tubing operations
- Joining two different wall thickness of coiled tubing

### Features and Benefits

- Flush OD with coiled tubing
- Robust design
- Re-usable connection



Thread x Roll-On

Roll-On x Roll-On



SPECIFICATIONS

Roll-On Connector

Coiled Tubing Diameter	Coiled Tubing Wall Thickness	Assembly Number	
		Roll-On x Roll-On	Roll-On x Thread
1.250 in.	0.087 in.	4350	4350-XXXX
1.250 in.	0.095 in.	4351	4351-XXXX
1.250 in.	0.102 in.	4641	4641-XXXX
1.250 in.	0.109 in.	4352	4352-XXXX
1.250 in.	0.118 in.	5422	5422-XXXX
1.250 in.	0.125 in.	4353	4353-XXXX
1.250 in.	0.134 in.	4354	4354-XXXX
1.250 in.	0.148 in.	6022	6022-XXXX
1.250 in.	0.156 in.	4355	4355-XXXX
1.500 in.	0.087 in.	4327	4327-XXXX
1.500 in.	0.095 in.	4328	4328-XXXX
1.500 in.	0.102 in.	6303	6303-XXXX
1.500 in.	0.109 in.	4329	4329-XXXX
1.500 in.	0.118 in.	9760	9760-XXXX
1.500 in.	0.125 in.	4330	4330-XXXX
1.500 in.	0.134 in.	4331	4331-XXXX
1.500 in.	0.148 in.	6023	6023-XXXX
1.500 in.	0.156 in.	4332	4332-XXXX
1.500 in.	0.175 in.	5515	5515-XXXX
1.500 in.	0.188 in.	5516	5516-XXXX
1.500 in.	0.190 in.	5516-190	5516-190-XXXX
1.500 in.	0.203 in.	5517	5517-XXXX
1.750 in.	0.087 in.	4337	4337-XXXX
1.750 in.	0.095 in.	4338	4338-XXXX
1.750 in.	0.102 in.	6105	6105-XXXX
1.750 in.	0.109 in.	4342	4342-XXXX
1.750 in.	0.118 in.	6106	6106-XXXX
1.750 in.	0.125 in.	4339	4339-XXXX
1.750 in.	0.134 in.	4340	4340-XXXX
1.750 in.	0.148 in.	6024	6024-XXXX
1.750 in.	0.156 in.	4341	4341-XXXX
1.750 in.	0.175 in.	5518	5518-XXXX
1.750 in.	0.188 in.	5519	5519-XXXX
1.750 in.	0.190 in.	5519-190	5519-190-XXXX
1.750 in.	0.203 in.	5520	5520-XXXX

XXXX denotes connection (see coiled tubing thread connections).

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

Strengths stated excluding connections.

Weights stated are approximate (excluding connections).

Minimum ID may change, dependent on connection type.

The Roll-On Connector can be used to join differing wall thicknesses together

Example : To join 2 3/8 in. OD (0.109 in. WT) with 2 3/8 in. OD (0.125 in. WT), the part number would be 7449-6883





SPECIFICATIONS

Roll-On Connector

Coiled Tubing Diameter	Coiled Tubing Wall Thickness	Assembly Number	
		Roll-On x Roll-On	Roll-On x Thread
2.000 in.	0.095 in.	5642	5642-XXXX
2.000 in.	0.109 in.	4187	4187-XXXX
2.000 in.	0.125 in.	5643	5643-XXXX
2.000 in.	0.134 in.	4644	4644-XXXX
2.000 in.	0.148 in.	6025	6025-XXXX
2.000 in.	0.156 in.	4073	4073-XXXX
2.000 in.	0.175 in.	5644	5644-XXXX
2.000 in.	0.188 in.	5645	5645-XXXX
2.000 in.	0.190 in.	5645-190	5645-190-XXXX
2.000 in.	0.203 in.	5646	5646-XXXX
2.375 in.	0.109 in.	7449	7449-XXXX
2.375 in.	0.125 in.	6883	6883-XXXX
2.375 in.	0.134 in.	6884	6884-XXXX
2.375 in.	0.156 in.	4231	4231-XXXX
2.375 in.	0.175 in.	9221	9221-XXXX
2.375 in.	0.188 in.	7170	7170-XXXX
2.375 in.	0.190 in.	7170-190	7170-190-XXXX
2.375 in.	0.203	11329	11329-XXXX
2.875 in.	0.156 in.	7171	7171-XXXX
2.875 in.	0.175 in.	12044	12044-XXXX
2.875 in.	0.188 in.	12045	12045-XXXX
2.875 in.	0.190 in.	12045-190	12045-190-XXXX
2.875 in.	0.203 in.	12046	12046-XXXX

XXXX denotes connection (see coiled tubing thread connections).

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

Strengths stated excluding connections.

Weights stated are approximate (excluding connections).

Minimum ID may change, dependent on connection type.

The Roll-On Connector can be used to join differing wall thicknesses together

Example : To join 2 3/8 in. OD (0.109 in. WT) with 2 3/8 in. OD (0.125 in. WT), the part number would be 7449-6883



## CT Reelable Roll-On Connector

### Tool Description

The Weatherford BDK Reelable Roll-On Connector provides an effective inline connection.

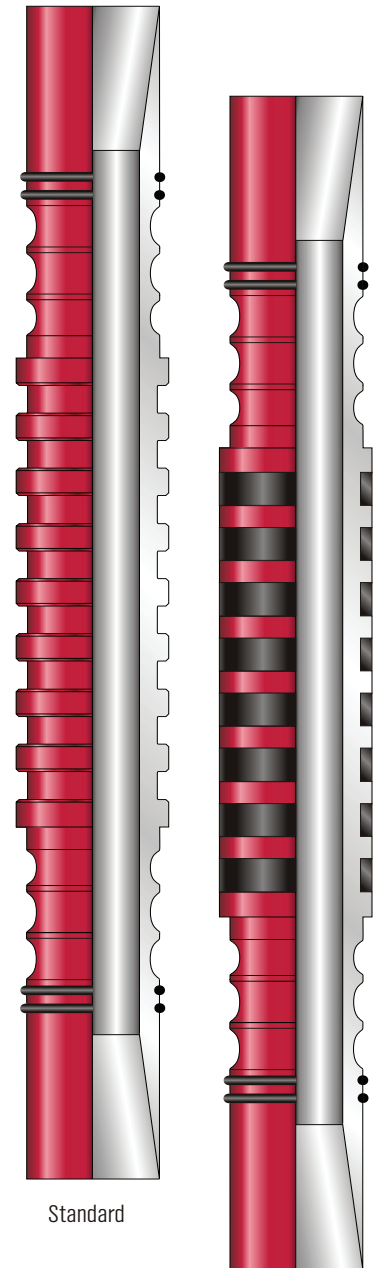
The central part of the connector has a smooth through bore and notched exterior profile. The notches allow a plastic bending modulus equal to the coiled tubing, while preserving the OD so that the connector can be passed through the injector chains and the stuffing box. Elastomer infills within the flexi-grooves are sometimes required (depending on operation) to provide a flush outer diameter that will not damage the seals when running through the Stuffing Box. Tapered end spigots support the coiled tubing which prevents flaring.

### Applications

- Standard coiled tubing operations
- Fishing operations

### Features and Benefits

- Flush OD with coiled tubing
- Re-usable connection
- Elastomer infills within the flexi-grooves are sometimes required (depending on operation) to provide a flush outer diameter which will not damage seals when running through the stuffing box
- Reelable design allows the coiled tubing to be joined then spooled over the reel core diameter as well as the gooseneck radius
- Eliminates the requirement to weld coiled tubing for extended reach applications



Standard

Optional Polyurethane Infill



## SPECIFICATIONS

## CT Reelable Roll-On Connector

Coiled Tubing Diameter	Coiled Tubing Wall Thickness	Assembly Number	
		Standard	Polyurethane Infill
1.250 in.	0.087 in.	12047	12047-(P)
1.250 in.	0.095 in.	12048	12048-(P)
1.250 in.	0.102 in.	12049	12049-(P)
1.250 in.	0.109 in.	12050	12050-(P)
1.250 in.	0.118 in.	10240	10240-(P)
1.250 in.	0.125 in.	6425	6425-(P)
1.250 in.	0.134 in.	12051	12051-(P)
1.250 in.	0.148 in.	12052	12052-(P)
1.250 in.	0.156 in.	12053	12053-(P)
1.500 in.	0.087 in.	12054	12054-(P)
1.500 in.	0.095 in.	4333	4333-(P)
1.500 in.	0.102 in.	12055	12055-(P)
1.500 in.	0.109 in.	6370	6370-(P)
1.500 in.	0.118 in.	12056	12056-(P)
1.500 in.	0.125 in.	10842	10842-(P)
1.500 in.	0.134 in.	12058	12058-(P)
1.500 in.	0.148 in.	12059	12059-(P)
1.500 in.	0.156 in.	12060	12060-(P)
1.500 in.	0.175 in.	12061	12061-(P)
1.500 in.	0.188 in.	12062	12062-(P)
1.500 in.	0.190 in.	12062-190	12062-190-(P)
1.500 in.	0.203 in.	12063	12063-(P)
1.750 in.	0.087 in.	12064	12064-(P)
1.750 in.	0.095 in.	12065	12065-(P)
1.750 in.	0.102 in.	12066	12066-(P)
1.750 in.	0.109 in.	6727	6727-(P)
1.750 in.	0.118 in.	12067	12067-(P)
1.750 in.	0.125 in.	12068	12068-(P)
1.750 in.	0.134 in.	12069	12069-(P)
1.750 in.	0.148 in.	12070	12070-(P)
1.750 in.	0.156 in.	11053	11053-(P)
1.750 in.	0.175 in.	11054	11054-(P)
1.750 in.	0.188 in.	12071	12071-(P)
1.750 in.	0.190 in.	12071-190	12071-190-(P)
1.750 in.	0.203 in.	12072	12072-(P)

XXXX denotes connection (see coiled tubing thread connections).

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

Strengths stated excluding connections.

Weights stated are approximate (excluding connections).

Minimum ID may change, dependent on connection type.

The Reelable Roll-On Connector can be used to join differing wall thicknesses together.

Example : To join 2 3/8 in. OD (0.109 in. WT) with 2 3/ 8 in. OD (0.125 in. WT), the part number would be 12078-12079.



SPECIFICATIONS

CT Releable Roll-On Connector

Coiled Tubing Diameter	Coiled Tubing Wall Thickness	Assembly Number	
		Standard	Polyurethane Infill
2.000 in.	0.095 in.	12073	12073-(P)
2.000 in.	0.109 in.	12074	12074-(P)
2.000 in.	0.125 in.	7172	7172-(P)
2.000 in.	0.134 in.	7173	7173-(P)
2.000 in.	0.148 in.	12075	12075-(P)
2.000 in.	0.156 in.	7406	7406-(P)
2.000 in.	0.175 in.	7139	7139-(P)
2.000 in.	0.188 in.	12076	12076-(P)
2.000 in.	0.190 in.	12076-190	12076-190-(P)
2.000 in.	0.203 in.	12077	12077-(P)
2.375 in.	0.109 in.	12078	12078-(P)
2.375 in.	0.125 in.	12079	12079-(P)
2.375 in.	0.134 in.	12080	12080-(P)
2.375 in.	0.156 in.	4216	4216-(P)
2.375 in.	0.175 in.	9220	9220-(P)
2.375 in.	0.188	6968	6968-(P)
2.375 in.	0.190 in.	12379	12379-(P)
2.375 in.	0.204	11055	11055-(P)
2.875 in.	0.156 in.	4215	4215-(P)
2.875 in.	0.175 in.	11295	11295-(P)
2.875 in.	0.188 in.	11296	11296-(P)
2.875 in.	0.190 in.	11296-190	11296-190-(P)
2.875 in.	0.203 in.	11375	11375-(P)

XXXX denotes connection (see coiled tubing thread connections).

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

Strengths stated excluding connections.

Weights stated are approximate (excluding connections).

Minimum ID may change, dependent on connection type.

The Releable Roll-On Connector can be used to join differing wall thicknesses together.

Example : To join 2 3/8 in. OD (0.109 in. WT) with 2 3/ 8 in. OD (0.125 in. WT), the part number would be 12078-12079.



## CT Crimping Tool

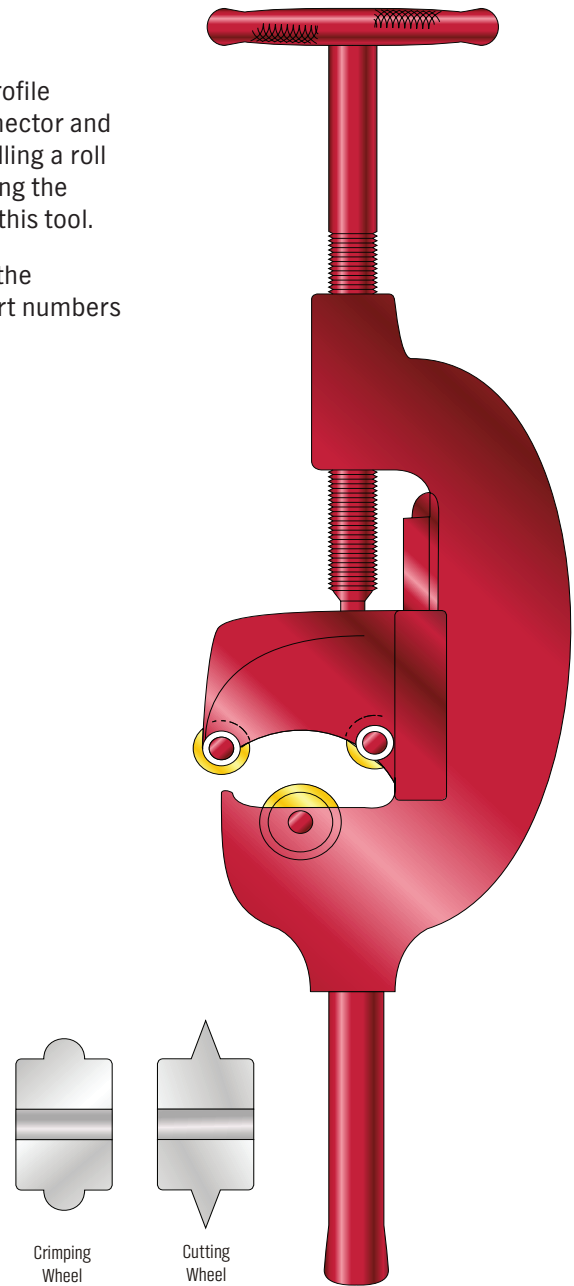
### Tool Description

The Weatherford BDK Crimping Tool is supplied with special profile crimping wheel to allow assembly of coiled tubing roll-on connector and also a cutter wheel for removing the coiled tubing. When installing a roll on connector to the coiled tubing, the best method of deforming the coiled tubing into the roll-on connector grooves is by utilizing this tool.

Spare wheels are available and recommended when ordering the crimping tool. Tools are manufactured to any size required. Part numbers available on request.

### Features and Benefits

- Light weight in design
- Robust design
- Easy to handle and operate





## CT Torque Through Quick Connect

### Tool Description

The Weatherford BDK Torque Through Quick Connect is a self aligning connector designed to eliminate the problems of connecting coiled tubing when there is no means of rotating the coiled tubing or the bottomhole assembly. The inter-locking system allows the tool to experience a high level of torque without any detrimental effects on the connector.

### Applications

- Standard coiled tubing operations
- Milling applications
- Fishing operations
- Impact deck operations
- Toolstring deployments operations

### Features and Benefits

- An optional bleed-off plug is incorporated in the lower section of the tool as an additional safety feature
- Only 10 degrees of movement is required to line up the interlocking system prior to make up
- Compact design for use on impact deck application
- Robust design
- Easy to maintain
- Quick to use during deployment operations

### SPECIFICATIONS

#### CT Torque Through Quick Connect

Assembly Number	Outside Diameter	Drift Diameter	Minimum ID	Weight	Torsional Yield	
					Standard	H <sub>2</sub> S
12893-XXXX	1.750 in.	0.625 in.	0.655 in.	3.4 kg	1063 ft. lb	773 ft. lb
12894-XXXX	2.125 in.	0.875 in.	0.905 in.	5.0 kg	1816 ft. lb	1320 ft. lb
12895-XXXX	2.250 in.	1.000 in.	1.030 in.	5.3 kg	2273 ft. lb	1653 ft. lb
12704-XXXX	2.875 in.	1.312 in.	1.375 in.	8.1 kg	7300 ft. lb	5316 ft. lb
13114-XXXX	3.200 in.	1.875 in.	1.890 in.	7.7 kg	6000 ft. lb	4363 ft. lb

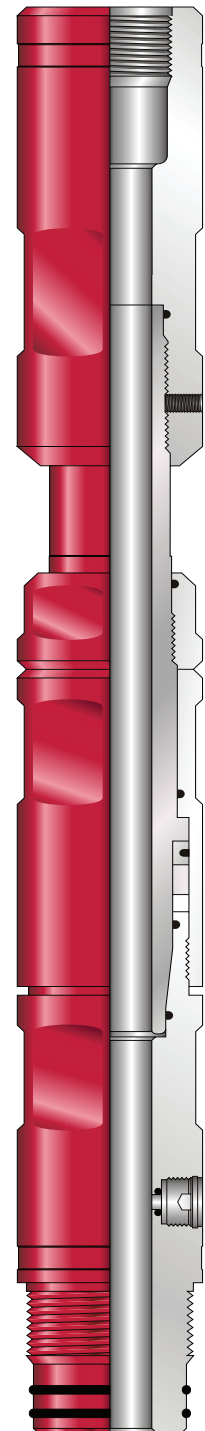
XXXX denotes connection (see coiled tubing thread connections).

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

Strengths stated excluding connections.

Weights stated are approximate (excluding connections).

Minimum ID may change, dependent on connection type.

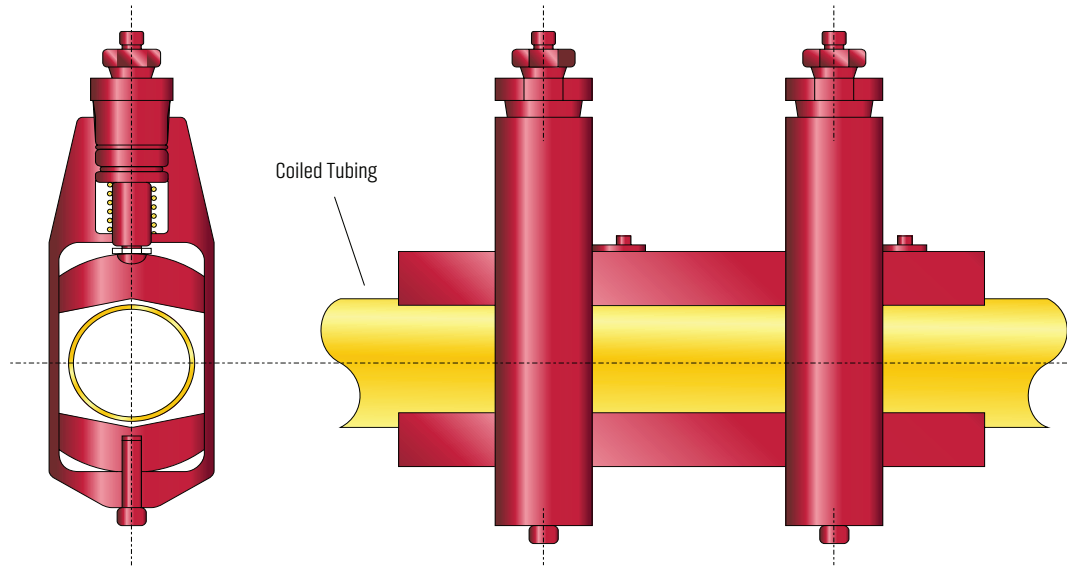




# CT Tubing Circularizer

## Tool Description

The Weatherford BDK Coiled Tubing Circularizer is a hydraulically operated tool used to reduce the ovality of the coiled tubing.



## SPECIFICATIONS

### CT Tubing Circularizer

CT Size	Adaptor Part Number	Weight	Working Pressure	Assembly Number
1.250 in.	11563-06	23.3 kg	10,000 psi	11394
1.500 in.	11563-05	23.7 kg		
1.750 in.	11563-04	23.9 kg		
2.000 in.	11563-03	24.1 kg		
2.375 in.	11563-02	24.3 kg		
2.875 in.	11563-01	24.5 kg		

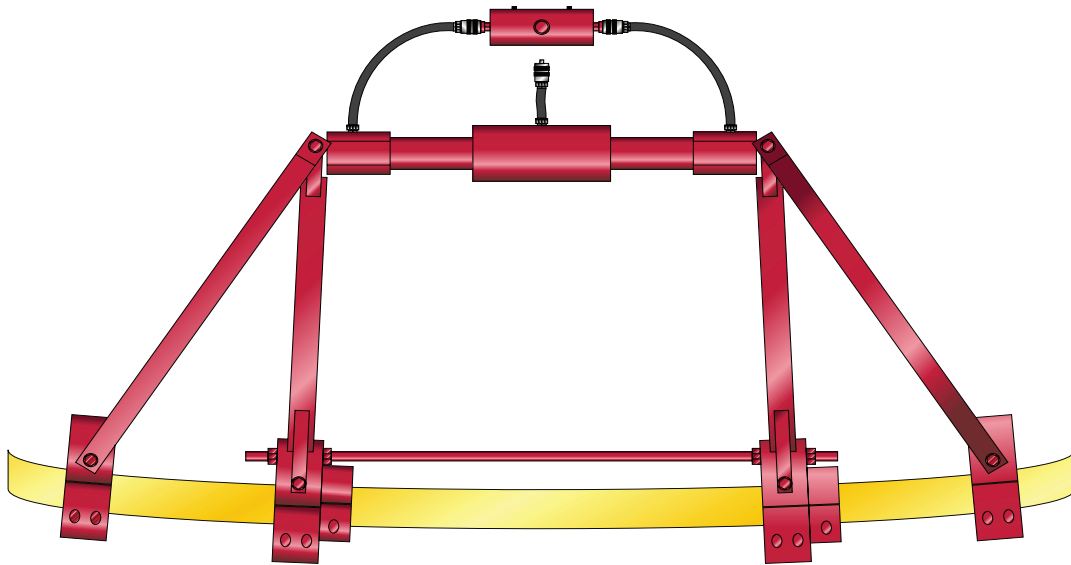
NOTE: Weights stated are approximate.



## CT Tubing Straightener

### Tool Description

The Weatherford BDK Coiled Tubing Straightener is a hydraulically operated tool which is used to remove the residual bend of the coiled tubing to allow unrestricted installation of the connector.



### SPECIFICATIONS

#### CT Tubing Straightener

CT Size	Weight	Max Working Pressure	Assembly Number
1.250 in.	91 kg	5,000 psi	11727-125
1.500 in.			11727-150
1.750 in.			11727-175
2.000 in.			11727-200
2.375 in.			11727-237
2.875 in.			11727-287
3.500 in.			11727-350

NOTE: Weight stated is approximate.

For complete package (including hydraulics) add 'CP' to assembly number





## CT Surface Handling Tool

### Tool Description

The Weatherford BDK Surface Handling Tool assembly incorporates an internal grapple connector and is designed for guiding the coiled tubing over the gooseneck and into the injector head while rigging up.

The tool is designed with an internal coiled tubing grapple connector that covers a range of coiled tubing wall thickness for each size of coiled tubing, so that one surface handling tool will cover a selected coiled tubing size. Installation of the grapple is quick and easy. By removing the weld seam, the grapple can be inserted into the coiled tubing then engaged by tightening the lock nut. This expands the grapple onto the wall of the coiled tubing.

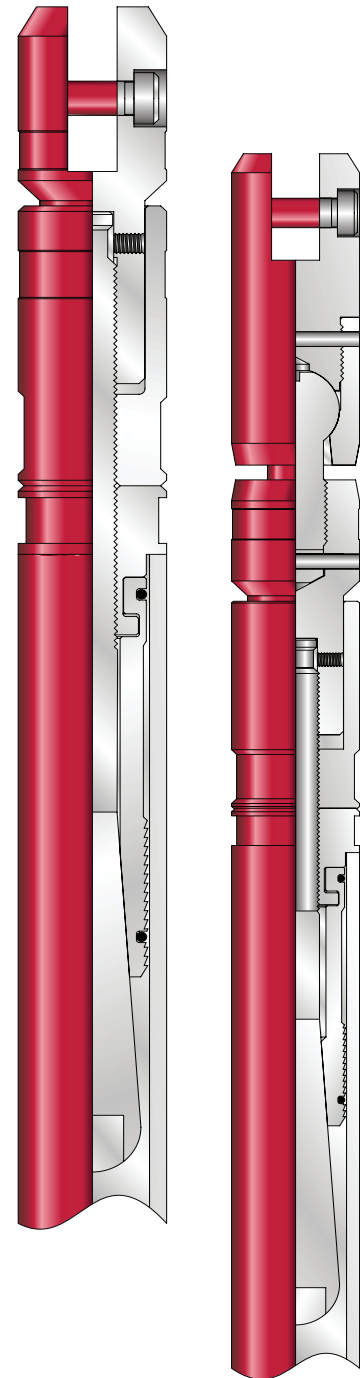
Once the coiled tubing is stabbed into the injector head the grapple can be removed by un-screwing the lock nut.

### Applications

- Providing the ability to stab the coiled tubing into the injector head during rig up

### Features and Benefits

- Internal grapple covers a wide range of coiled tubing wall thickness
- Lock nut engages grapple for quick and easy installation
- Can be manufactured with a knuckle joint for added flexibility
- Robust design
- Reduces manual handling
- Reduces the amount of personnel required on the injector head
- Reduces rig up time
- Available in all coiled tubing sizes





## SPECIFICATIONS

### CT Surface Handling Tool

#### Surface Handling Tool - Standard

Part Number	Coiled Tubing Size	Coiled Tubing Wall Range
14420	1.250 in.	0.095 in. to 0.156 in.
14421	1.500 in.	0.095 in. to 0.175 in.
14422	1.750 in.	0.109 in. to 0.188 in.
14423	2.000 in.	0.109 in. to 0.203 in.
14424	2.375 in.	0.109 in. to 0.203 in.
14425	2.875 in.	0.125 in. to 0.203 in.
14426	3.500 in.	0.134 in. to 0.203 in.

#### Surface Handling Tool - With Knuckle Joint

Part Number	Coiled Tubing Size	Coiled Tubing Wall Range
14427	1.250 in.	0.095 in. to 0.156 in.
14428	1.500 in.	0.095 in. to 0.175 in.
14429	1.750 in.	0.109 in. to 0.188 in.
14430	2.000 in.	0.109 in. to 0.203 in.
14431	2.375 in.	0.109 in. to 0.203 in.
14432	2.875 in.	0.125 in. to 0.203 in.
14433	3.500 in.	0.134 in. to 0.203 in.



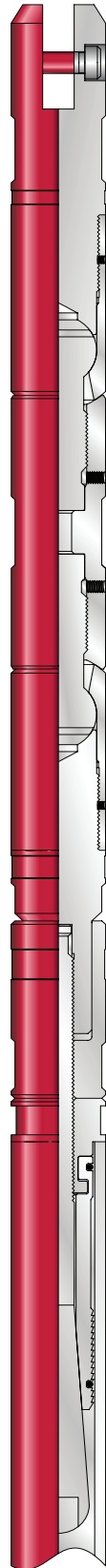
## CT Surface Handling Tool - Double Knuckle

### Tool Description

The Weatherford BDK Surface Handling Tool (Double Knuckle Joint Type), complete with Bleed screw assembly has been designed to assist in stabbing coiled tubing into the injector head. Tools are manufactured to any size required. Part numbers available on request.

### Features and Benefits

- Dual knuckle enhances flexibility
- A range of accessories includes a pull sub to manipulate the coiled tubing into the injector head and a pressure test sub to allow testing of the coiled tubing.





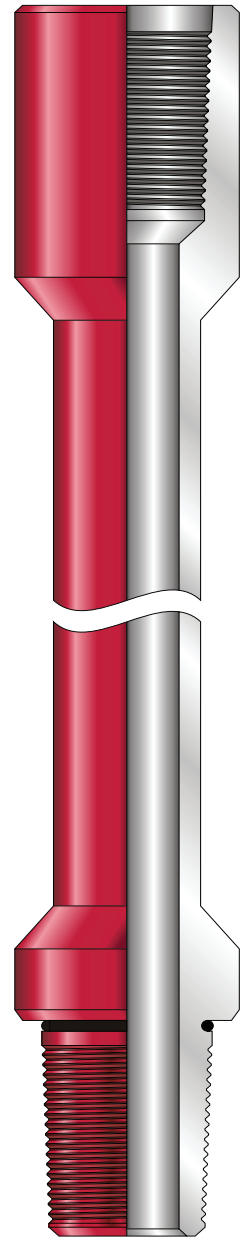
## CT Deployment Bar

### Tool Description

The Weatherford BDK Deployment Bar permits the safe deployment of the coiled tubing, providing a section onto which the wireline valve/BOP rams may be closed.

Deployment bars are supplied with an OD between connections equal to the coiled tubing diameter and an ID determined by the thread connections.

Length between connections : 48 in. standard.  
Tools are manufactured to any size required.  
Part numbers available on request.





## CT Shear Release Disconnect Sub (Torque Through)

### Tool Description

The Weatherford BDK Shear Release Disconnect Sub offers torque through capability and a straight pull release. Shear pins of a known strength are installed at surface to achieve a predetermined rating.

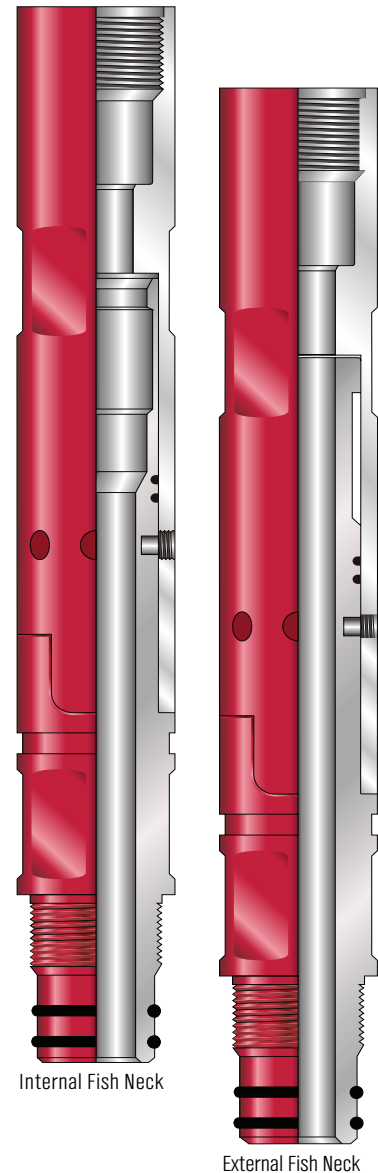
To release, a load is applied greater than that of the combined shear pin strength. Failure of shear pins enables instant retrieval of the upper section, leaving a standard fish neck profile exposed for future retrieval of the lower section. The Weatherford BDK shear release disconnect sub is available with either an Internal or external fish neck.

### Applications

- Deviated coiled tubing operations
- Standard coiled tubing operations
- Memory PLT operations
- Cementation and cleanout operations

### Features and Benefits

- No ball required to activate release sequence
- Internal or external fishing neck profile can be manufactured
- Known shear rating for pull release
- Easy to maintain whilst on location
- Good for release in highly deviated wells
- Robust, and proven design





SPECIFICATIONS

CT Shear Release Disconnect Sub (Torque Through)

**External Fishing Neck**

Assembly Number	Max OD	Make Up Length	Tool ID*	Tool Dri ft Size	Fishing Profile	Number of Shear Screws	Shear Screw Size	Hyd Area on Shear Screw	Weight	Torque ( ft/lbs) 18-22RC (17/4PH)
12960-XXXX	1.750 in.	11.86 in.	0.750 in.	0.687 in.	1.375 in.	1 to 8	0.125 in.	1.038 sq. in.	2.2 kg	1,200 (1,650)
13033-XXXX	2.125 in.	14.20 in.	1.031 in.	0.968 in.	1.750 in.	1-8 or 1-16	0.250 in.	1.701 sq. in.	3.4 kg	2,600 (3,570)
5356-XXXX	2.250 in.	13.20 in.	1.031 in.	0.968 in.	1.750 in.	1-8 or 1-16	0.250 in.	1.701 sq. in.	5.2 kg	2,750 (3,780)
13034-XXXX	2.875 in.	13.80 in.	1.405 in.	1.343 in.	2.312 in.	1-8 or 1-16	0.250 in.	2.641 sq. in.	5.9 kg	3,510 (4,830)

**Internal Fishing Neck**

Assembly Number	Max OD	Make Up Length	Tool ID*	Tool Dri ft Size	Fishing Profile	Number of Shear Screws	Shear Screw Size	Hyd Area on Shear Screw	Weight	Torque ( ft/lbs) 18-22RC (17/4PH)
13375-XXXX	1.750 in.	11.86 in.	0.750 in.	0.687 in.	1.25 in. GS	1 to 8	0.125 in.	1.038 sq. in.	2.2 kg	1,200 (1,650)
13376-XXXX	2.125 in.	14.20 in.	1.031 in.	0.968 in.	1.50 in. GS	1-8 or 1-16	0.250 in.	1.701 sq. in.	3.3 kg	2,600 (3,570)
5361-XXXX	2.250 in.	13.20 in.	1.031 in.	0.968 in.	2.00 in. GS	1-8 or 1-16	0.250 in.	1.701 sq. in.	4.9 kg	2,750 (3,780)
5443-XXXX	2.875 in.	13.80 in.	1.405 in.	1.343 in.	2.50 in. GS	1-8 or 1-16	0.250 in.	2.641 sq. in.	5.3 kg	3,510 (4,830)

**Shear Screw Information**

Shear Screw Size	Material	Rating (lbs) x 1	Material	Rating (lbs) x 1
0.125 in.	Mild Steel	580	Brass	410
0.250 in.	Mild Steel	2,623	Brass	1,845

XXXX denotes connection (see coiled tubing thread connections).

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

Strengths stated excluding connections.

Weights stated are approximate (excluding connections).

Minimum ID may change, dependent on connection type.

CT Shear Release Disconnect Sub is supplied with 8 Shear Pin holes, tool can be supplied with extra holes if required.



## CT Hydraulic Disconnect Sub (Torque Through) - Shear Screw

### Tool Description

The Weatherford BDK Heavy Duty Disconnect Sub provides an emergency release for the bottomhole assembly in the event of a stuck toolstring.

The hydraulic disconnect is fitted below the flapper check valve assembly and when activated will allow retrieval of the coiled tubing whilst maintaining a well control barrier. This will leave a clear GS fish neck 'looking up' for future fishing operations.

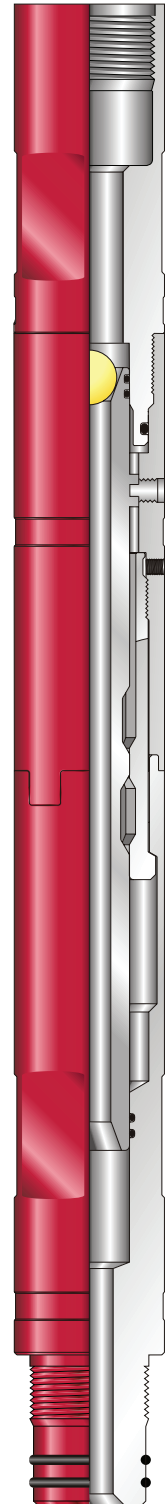
The design incorporates unique interlocking fingers which, when combined with the support given from the bobbin, provides high torque and bending capability for the joint.

### Applications

- Deviated coiled tubing operations
- Standard coiled tubing operations
- Memory PLT operations
- Cementation and cleanout operations

### Features and Benefits

- Ball-activated release system
- Torque resistant design
- Robust design
- Easy to maintain



Shear Screw



SPECIFICATIONS

CT Hydraulic Disconnect Sub (Torque Through) - Shear Screw

Assembly Number	Maximum OD	Make Up Length	Tool Dri ft Size (actual bore)	Drop Ball Size	Fishing Profile	Working Pressure	Weight
11898-XXXX	1.250 in.	12.45 in.	0.219 in. (0.281 in.)	0.312 in.	1.25 in. GS	10,000 psi	1.4 kg
11899-XXXX	1.500 in.	13.61 in.	0.312 in. (0.375 in.)	0.437 in.	12137	10,000 psi	1.8 kg
11098-XXXX	1.750 in.	14.75 in.	0.437 in. (0.500 in.)	0.562 in.	2 in. GS	10,000 psi	3.0 kg
12591-XXXX	2.000 in.	15.31 in.	0.437 in. (0.500 in.)	0.562 in.	2 in. GS	10,000 psi	4.0 kg
12506-XXXX	2.125 in.	15.47 in.	0.437 in. (0.500 in.)	0.562 in.	2 in. GS	10,000 psi	4.6 kg
11333-XXXX	2.250 in.	16.70 in.	0.595 in. (0.656 in.)	0.750 in.	2.5 in. GS	10,000 psi	5.0 kg
12838-XXXX	2.375 in.	16.70 in.	0.595 in. (0.656 in.)	0.750 in.	2.5 in. GS	10,000 psi	5.9 kg
12097-XXXX	2.875 in.	18.76 in.	0.937 in. (1.000 in.)	1.125 in.	3 in. GS	10,000 psi	9.0 kg
12096-XXXX	3.125 in.	19.80 in.	1.062 in. (1.125 in.)	1.187 in.	3.5 in. GS	10,000 psi	11.8 kg

XXXX denotes connection (see coiled tubing thread connections).  
 Add suffix 'H' to assembly number for H<sub>2</sub>S service.  
 Strengths stated excluding connections.  
 Weights stated are approximate (excluding connections).  
 Minimum ID may change, dependent on connection type.

**Shear Screw Information**

Assembly Number	Hydraulic Area	Shear Pin Dia Size (Qty)	Release Pressure 1 x Screw** Brass (mild steel)	Torsional Strength ft/lbs Standard (H <sub>2</sub> S)
11898-XXXX	0.248 sq. in.	0.115 in. (4)	1,653 psi (2,338 psi)	530 (500)
11899-XXXX	0.441 sq. in.	0.151 in. (4)	1,673 psi (2,367 psi)	1,030 (750)
11098-XXXX	0.691 sq. in.	0.151 in. (2)	1,070 psi (1,510 psi)	1,200 (1,200)
12591-XXXX	0.691 sq. in.	0.151 in. (2)	1,070 psi (1,510 psi)	2,610 (1,900)
12506-XXXX	0.691 sq. in.	0.151 in. (2)	1,070 psi (1,510 psi)	3,090 (2,250)
11333-XXXX	0.994 sq. in.	0.151 in. (6)	740 psi (1,050 psi)	3,580 (2,606)
12838-XXXX	0.994 sq. in.	0.151 in. (6)	740 psi (1,050 psi)	4,790 (3,480)
12097-XXXX	2.237 sq. in.	0.214 in. (2)	661 psi (936 psi)	8,410 (6,117)
12096-XXXX	3.097 sq. in.	0.214 in. (4)	476 psi (674 psi)	10,980 (7,895)

Brass shear screws are supplied unless specified.





## CT Flow Activated Venturi Junk Catcher

### Tool Description

The Weatherford BDK Flow Activated Venturi Junk Catcher is designed to retrieve debris from the wellbore.

This is achieved by circulating fluid through the coiled tubing, which activates the venturi effect on the tool.

The flow, which is directed via the jetting nozzles located in the upper section, creates a partial vacuum within the flow activated junk catcher and sucks the debris through the lower non-return flapper system, which is then retained in the catcher cylinder.

The lower double flapper system will then retain the debris within the catcher.

The debris filter screen, situated below the jetting system, filters the fluids for continued circulation.

The nozzles are interchangeable to enable the tool to function at differing flow rates.

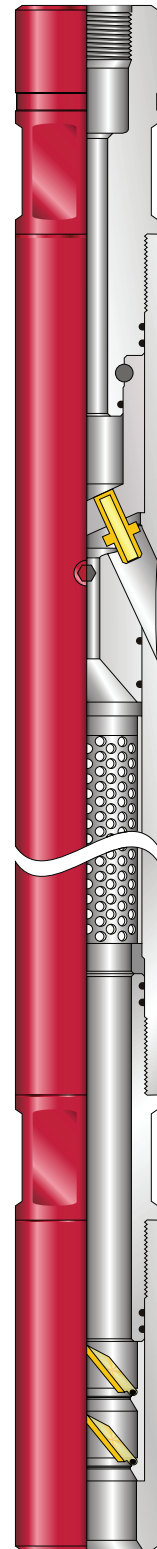
Extension catcher cylinders are available to increase the carrying capacity of the tool.

### Applications

- Debris removal

### Features and Benefits

- Manufactured to customer's specific requirements
- Nozzles are interchangeable to enable the tool to function with differing flow rates
- Extension catcher cylinders are available to increase the carrying capacity of the tool
- Robust design
- Suitable for all sizes of coiled tubing





SPECIFICATIONS

CT Flow Activated Venturi Junk Catcher

Assembly Part Number	Maximum OD	Make Up Length	Weight
9777-XXXX	1.687 in.	42.81 in.	6.7 kg
9777-02-XXXX	1.687 in.	68.81 in.	10.4 kg
9777-03-XXXX	1.687 in.	80.81 in.	12.1 kg
9777-04-XXXX	1.687 in.	92.81 in.	13.8 kg
9777-05-XXXX	1.687 in.	106.81 in.	15.5 kg
9777-06-XXXX	1.687 in.	116.81 in.	17.2 kg
12417-XXXX	2.062 in.	44.26 in.	8.9 kg
12417-02-XXXX	2.062 in.	70.26 in.	13.6 kg
12417-03-XXXX	2.062 in.	82.26 in.	15.6 kg
12417-04-XXXX	2.062 in.	94.26 in.	17.5 kg
12417-05-XXXX	2.062 in.	106.26 in.	19.5 kg
12417-06-XXXX	2.062 in.	118.26 in.	21.4 kg
5216-XXXX	2.125 in.	44.02 in.	10.6 kg
5216-02-XXXX	2.125 in.	70.02 in.	15.9 kg
5216-03-XXXX	2.125 in.	82.02 in.	18.2 kg
5216-04-XXXX	2.125 in.	94.02 in.	20.4 kg
5216-05-XXXX	2.125 in.	106.02 in.	22.7 kg
5216-06-XXXX	2.125 in.	118.02 in.	25.0 kg
5388-XXXX	2.625 in.	48.08 in.	15.3 kg
5388-02-XXXX	2.625 in.	74.08 in.	22.2 kg
5388-03-XXXX	2.625 in.	86.08 in.	25.2 kg
5388-04-XXXX	2.625 in.	98.08 in.	28.1 kg
5388-05-XXXX	2.625 in.	110.08	31.0 kg
5388-06-XXXX	2.625 in.	122.08	33.8 kg
12710-XXXX	4.250 in.	48.08 in.	29.2 kg
12710-02-XXXX	4.250 in.	74.08 in.	42.0 kg
12710-03-XXXX	4.250 in.	86.08 in.	46.9 kg
12710-04-XXXX	4.250 in.	98.08 in.	51.7 kg
12710-05-XXXX	4.250 in.	110.08	56.6 kg
12710-06-XXXX	4.250 in.	122.08	61.4 kg

XXXX denotes connection (see coiled tubing thread connections).  
 Add suffix 'H' to assembly number for H<sub>2</sub>S service.  
 Strengths stated excluding connections.  
 Weights stated are approximate (excluding connections).  
 Minimum ID may change, dependent on connection type.



## CT Flow Activated External Slimline Pulling Tool

### Tool Description

The Weatherford BDK Flow Activated External Slimline Pulling Tool is designed for running and retrieving downhole flow control components with external fishing necks.

The tool offers a slimline option to the heavy duty pulling tool, in which severe restrictions in the completion tubular dictate the external pulling tool body diameter.

To engage the external pulling tool, a sit down weight is required for automatic engagement onto the fishing profile whilst pulling in a latched position; the dogs are supported within the skirt of the tool, which allows the operator to continue heavy jarring without the fear of shearing the dogs.

For surface operation, the dog assembly has a finger grip to enable the tool to be manually released from the fishing neck.

To release the flow activated external pulling tool, fluid is pumped through the coiled tubing at a set rate. Internal pressure buildup caused by fluid flow through an orifice placed in the pulling tool releases the tool from the fish neck by the dogs.

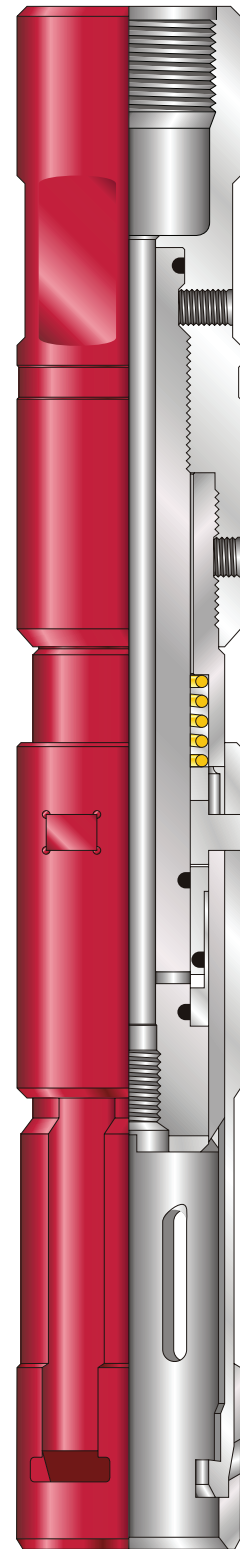
All Weatherford BDK flow release tools are supplied with a high and low flow rate orifice and blank plugs.

### Applications

- Standard fishing operations
- Heavy duty fishing operations
- Fishing operations in small completion tubulars

### Features and Benefits

- Multi-functional operation
- Finger release at surface
- Slim body OD
- Supplied with a bull end, drilled with recommended size orifice and an adaptor to accept customer specific orifices
- Robust design
- Interchangeable orifice enables the tool to be run with all sizes of coiled tubing
- Easy to test and re-dress on location





SPECIFICATIONS

CT Flow Activated External Slimline Pulling Tool

Assembly Part Number	Nominal Size	Maximum OD	Tool ID* Excluding Orifice	Activation Pressure	Make Up Length	FlowRate (bbl/min)	Orifice Size	Weight
11518-XXXX	1.250 in.	1.450 in.	0.312 in.	118 psi	13.73 in.	0.562	1/4 in. NPT X 0.265 in.	1.5 kg
11472-XXXX	1.500 in.	1.687 in.	0.312 in.	213 psi	16.07 in.	0.560	3/8 in. NPT X 0.250 in.	2.5 kg
11472-XXXX	1.500 in.	1.687 in.	0.312 in.	213 psi	16.07 in.	0.700	3/8 in. NPT X 0.265 in.	2.5 kg
12155-XXXX	2.000 in.	1.810 in.	0.312 in.	95 psi	16.20 in.	0.377	3/8 in. NPT X 0.250 in.	3.3 kg
12155-XXXX	2.000 in.	1.810 in.	0.312 in.	95 psi	16.20 in.	0.501	3/8 in. NPT X 0.281 in.	3.3 kg
11483-XXXX	2.000 in.	1.875 in.	0.312 in.	95 psi	16.20 in.	0.377	3/8 in. NPT X 0.250 in.	3.3 kg
11483-XXXX	2.000 in.	1.875 in.	0.312 in.	95 psi	16.20 in.	0.501	3/8 in. NPT X 0.281 in.	3.3 kg
11342-XXXX	2.500 in.	2.235 in.	0.531 in.	250 psi	16.43 in.	0.478	3/8 in. NPT X 0.250 in.	5.0 kg
11342-XXXX	2.500 in.	2.235 in.	0.531 in.	250 psi	16.43 in.	0.780	3/8 in. NPT X 0.312 in.	5.0 kg
11471-XXXX	3.000 in.	2.740 in.	0.531 in.	150 psi	17.95 in.	0.497	3/8 in. NPT X 0.312 in.	7.8 kg
11471-XXXX	3.000 in.	2.740 in.	0.531 in.	150 psi	17.95 in.	0.755	3/8 in. NPT X 0.343 in.	7.8 kg
11447-XXXX	3.000 in.	2.800 in.	0.531 in.	150 psi	17.95 in.	0.598	3/8 in. NPT X 0.312 in.	7.8 kg
11447-XXXX	3.000 in.	2.800 in.	0.531 in.	150 psi	17.95 in.	0.755	3/8 in. NPT X 0.343 in.	7.8 kg
11494-XXXX	4.000 in.	3.612 in.	0.531 in.	71 psi	19.66 in.	0.414	1/2 in. NPT X 0.312 in.	12.1 kg
11494-XXXX	4.000 in.	3.612 in.	0.531 in.	71 psi	19.66 in.	0.647	1/2 in. NPT X 0.375 in.	12.1 kg

XXXX denotes connection (see coiled tubing thread connections).

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

Strengths stated excluding connections.

Weights stated are approximate (excluding connections).

Minimum ID may change, dependent on connection type.

Flow Rate figures are approximate

6 Orifice Plugs are supplied with each tool - 4 drilled with specific ID and 2 blank



## CT Flow Activated Heavy Duty Pulling Tool

### Tool Description

The Weatherford BDK Flow Activated Heavy Duty Pulling Tool is designed for running and retrieving downhole flow control components.

The heavy duty pulling tool has installed a collet to give maximum contact with the external fishing neck profile, for use in heavy duty jarring operations and features a unique Fish Neck Cage between the Collet Fingers.

The fish neck cage supports the fish neck, preventing any hang up on the Collet fingers in highly deviated wells. A full sleeve both supports the Collet and gives the tool a clean profile.

To engage the Heavy Duty External Pulling Tool, a sit down weight is required for automatic engagement onto the fishing profile whilst pulling in a latched position; the dogs are supported within the skirt of the tool this allows the operator to continue heavy jarring without the fear of shearing the dogs.

To release the Flow Activated Heavy Duty External Pulling Tool fluid is pumped through the coiled tubing at a set rate. This then causes an internal pressure buildup caused by the fluid flow going through an orifice placed in the pulling tool, this then releases the tool from the fish neck by retracting the dogs.

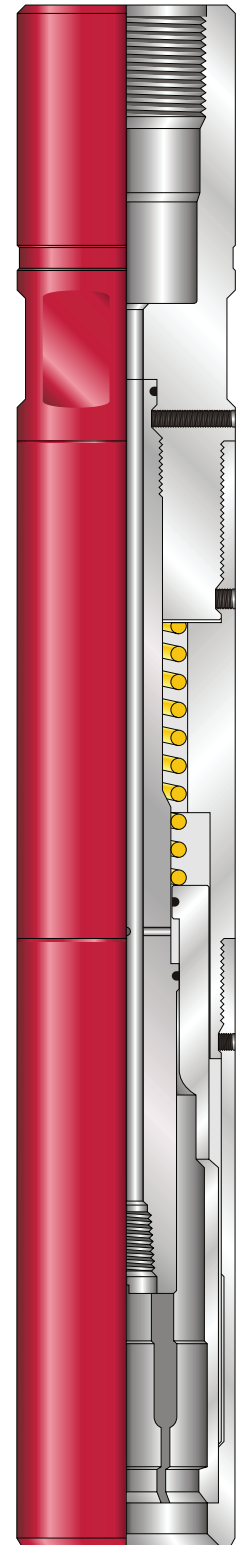
All Weatherford BDK Flow release tools are supplied with a high and low flow rate orifice and blank plugs.

### Applications

- Standard fishing operations
- Heavy duty fishing operations

### Features and Benefits

- Multi-functional operation
- Fish neck support cage
- Supplied with a bull end drilled with recommended size orifice and an adaptor to accept customer specific orifices
- Robust design
- Interchangeable orifice that enables the tool to be run with all sizes of coiled tubing
- Easy to test and re-dress on location





SPECIFICATIONS

CT Flow Activated Heavy Duty Pulling Tool

Assembly Part Number	Nominal Size	Maximum OD	Tool ID* Excluding Orifice	Reach	Activation Pressure	Make Up Length	FlowRate (bbl/min)	Orifice Size	Weight
13238-XXXX	1.250 in.	1.688 in.	0.312 in.	2.46 in.	328 psi	15.36 in.	0.583	1/4 in. NPTX 0.236 in.	3.0 kg
9895-XXXX	1.250 in.	1.688 in.	0.312 in.	2.48 in.	200 psi	15.36 in.	0.566	1/4 in. NPTX 0.250 in.	3.0 kg
9095-XXXX	1.500 in.	1.875 in.	0.312 in.	3.10 in.	328 psi	16.30 in.	0.698	3/8 in. NPTX 0.250 in.	3.7 kg
9095-XXXX	1.500 in.	1.875 in.	0.312 in.	3.10 in.	328 psi	16.30 in.	0.881	3/8 in. NPTX 0.281 in.	3.7 kg
8691-XXXX	2.000 in.	2.125 in.	0.375 in.	3.73 in.	234 psi	19.74 in.	0.503	3/8 in. NPTX 0.250 in.	6.3 kg
8691-XXXX	2.000 in.	2.125 in.	0.375 in.	3.73 in.	234 psi	19.74 in.	0.692	3/8 in. NPTX 0.281 in.	6.3 kg
7941-XXXX	2.500 in.	2.500 in.	0.500 in.	3.74 in.	160 psi	19.29 in.	0.610	3/8 in. NPTX 0.281 in.	8.5 kg
7941-XXXX	2.500 in.	2.500 in.	0.500 in.	3.74 in.	160 psi	19.29 in.	0.780	3/8 in. NPTX 0.312 in.	8.5 kg
8702-XXXX	3.000 in.	3.050 in.	0.50 in.	5.42 in.	233 psi	21.72 in.	0.604	3/8 in. NPTX 0.281 in.	12.4 kg
8702-XXXX	3.000 in.	3.050 in.	0.50 in.	5.42 in.	233 psi	21.72 in.	0.767	3/8 in. NPTX 0.312 in.	12.4 kg
9819-XXXX	4.000 in.	3.800 in.	0.709 in.	5.87 in.	114 psi	22.60 in.	0.629	1/2 in. NPTX 0.344 in.	16.3 kg
9819-XXXX	4.000 in.	3.800 in.	0.709 in.	5.87 in.	114 psi	22.60 in.	0.755	1/2 in. NPTX 0.375 in.	16.3 kg
11308-XXXX	4.000 in.	4.125 in.	0.709 in.	5.87 in.	114 psi	22.60 in.	0.629	1/2 in. NPTX 0.344 in.	20.0 kg
11308-XXXX	4.000 in.	4.125 in.	0.709 in.	5.87 in.	114 psi	22.60 in.	0.755	1/2 in. NPTX 0.375 in.	20.0 kg

XXXX denotes connection (see coiled tubing thread connections).

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

Strengths stated excluding connections.

Weights stated are approximate (excluding connections).

Minimum ID may change, dependent on connection type.

Flow Rate figures are approximate.

6 Orifice Plugs are supplied with each tool - 4 drilled with specific ID and 2 blank.



## CT Flow Activated Expandable Overshot

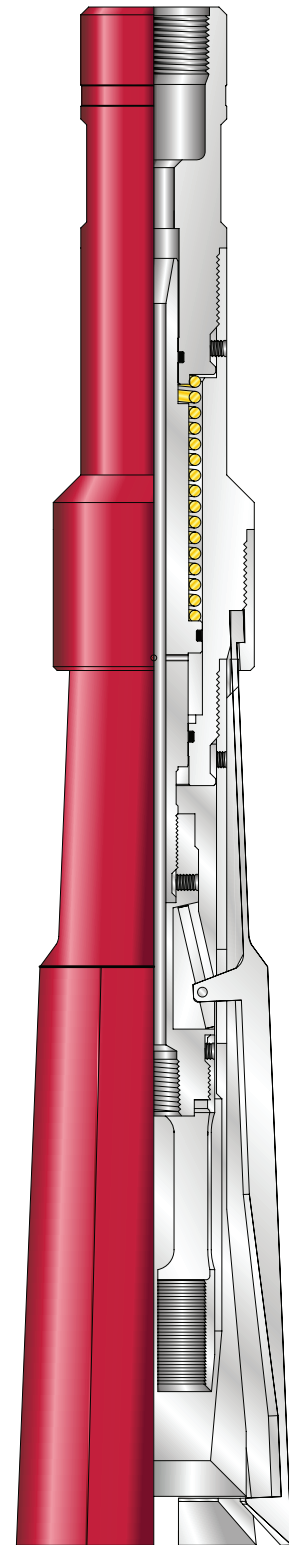
### Tool Description

The Weatherford BDK Flow Activated Expandable Overshot is designed to allow access through well restrictions for fishing applications. Once the overshot is activated with flow through an orifice, the lower skirt expands to allow better centralization whilst engaging the fish. The robust design ensures that once engaged, heavy duty jarring can be performed.

Tools are manufactured to any size required. Part numbers available on request.

### Features and Benefits

- Robust design
- Self-centralizing
- Multi-functional operation
- Self-centralizing for fish engagement
- Reduction in operational time





## CT Flow Activated GS Running/Pulling Tool

### Tool Description

The Weatherford BDK Flow Activated GS Running/Pulling Tool is designed to locate in standard internal GS fish necks.

To engage the GS Tool, a sit down weight is applied for automatic engagement into the profile.

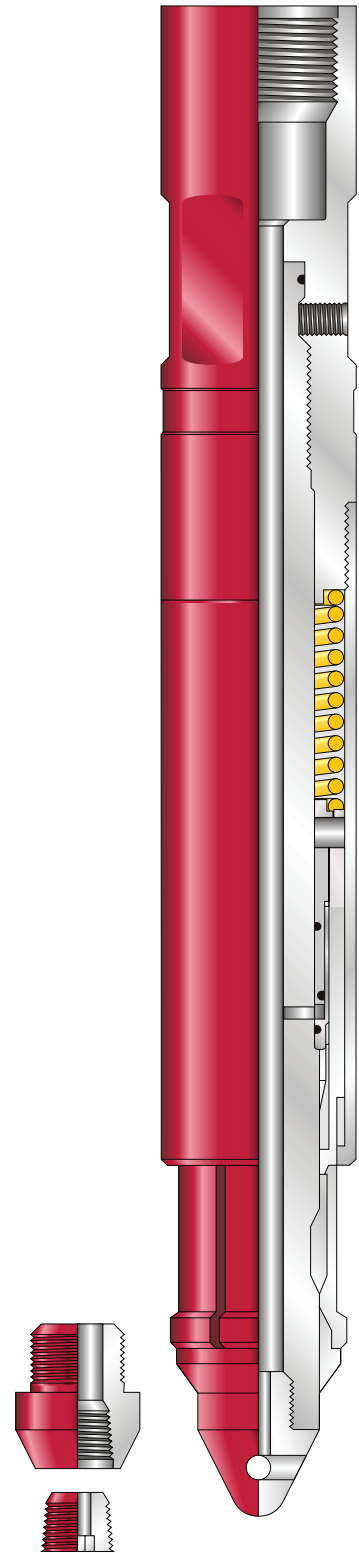
To release the Flow Activated GS tool fluid is pumped through the coiled tubing at a set rate this then causes an internal pressure build up caused by the fluid flow going through an orifice placed in the nose of the GS, this then releases the tool from the fish neck by retracting the dogs.

### Applications

- Standard fishing operations
- Heavy duty fishing operations
- Completion component deployment

### Features and Benefits

- Multi-functional operation
- Fully enclosed springs to prevent debris from entering the tool
- Heavy-duty dogs
- All Weatherford BDK Flow Release GS Tools are supplied with a bull end drilled with recommended size orifice and an adaptor to accept customer specific orifices
- Robust design
- Interchangeable orifice that enables the tool to be run with all sizes of coiled tubing
- Easy to test and re-dress on location







SPECIFICATIONS

CT Flow Activated GS Running/Pulling Tool

Assembly Number	Nominal Size	Maximum OD	Tool ID Excluding Orifice	Activation Pressure	Make Up Length	Flow Rate (bbl/min)	Orifice Size	Weight
9764-XXXX	1.500 in.	1.470 in.	0.312 in.	328 psi	15.37 in.	0.472	0.219 in.	1.4 kg
6255-XXXX	2.000 in.	1.850 in.	0.312 in.	355 psi	14.50 in.	0.346	0.190 in.	2.7 kg
6742-XXXX	2.500 in.	2.250 in.	0.531 in.	282 psi	15.40 in.	0.509	0.250 in.	5.2 kg
6307-XXXX	3.000 in.	2.710 in.	0.531 in.	266 psi	15.70 in.	0.497	0.250 in.	8.5 kg
6801-XXXX	3.500 in.	3.100 in.	0.531 in.	275 psi	16.40 in.	0.503	0.250 in.	11.2 kg
6778-XXXX	4.000 in.	3.600 in.	0.531 in.	255 psi	17.30 in.	0.484	0.250 in.	15.0 kg
6949-XXXX	5.000 in.	4.480 in.	1.500 in.	116 psi	21.00 in.	0.717	0.375 in.	23.5 kg
10623-XXXX	6.000 in.	5.500 in.	1.500 in.	172 psi	24.06 in.	0.874	0.375 in.	33.9 kg
7930-XXXX	7.000 in.	5.820 in.	1.500 in.	172 psi	26.97 in.	0.874	0.375 in.	40.0 kg

XXXX denotes connection (see coiled tubing thread connections).

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

Strengths stated excluding connections.

Weights stated are approximate (excluding connections).

Minimum ID may change dependent on connection type.

6 Orifice Plugs are supplied with each tool - 4 drilled with specific ID and 2 blank.



## CT Flow Activated Retrieval Tool

(For Disconnect/Motorhead Assemblies)

### Tool Description

The Weatherford BDK Flow Activated Retrieval Tool is a custom built tool to retrieve any style of motorhead and disconnect devices as specified by our customer.

The Weatherford BDK flow activated retrieval tool features fully enclosed springs and heavy-duty dogs.

To engage the retrieval tool, a sit down weight is applied for automatic engagement into the profile.

To release the flow activated retrieval tool fluid is pumped through the coiled tubing at a set rate this then causes an internal pressure build up caused by the fluid flow going through an orifice placed in the nose of the retrieval tool, this then releases the tool from the fish neck by retracting the dogs.

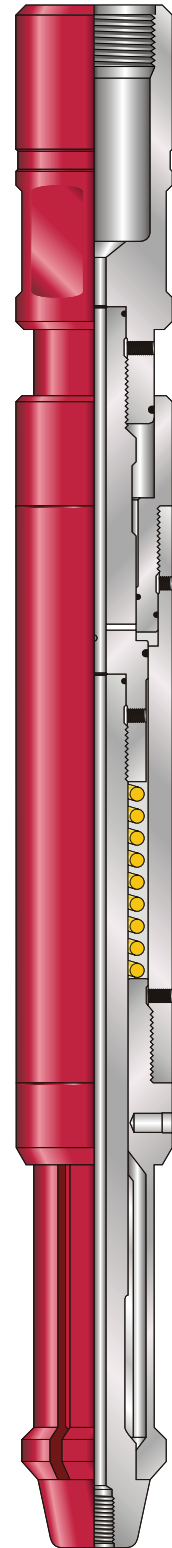
All Weatherford BDK flow release tools are supplied with a high and low flow rate orifice and blank plugs.

### Applications

- Standard fishing operations
- Heavy duty fishing operations

### Features and Benefits

- Multi-functional operation
- Manufactured to any current design of motorhead assembly
- All Weatherford BDK Flow Release Pulling Tools are supplied with a bull end drilled with recommended size orifice and an adaptor to accept customer specific orifices
- Robust design
- Interchangeable orifice that enables the tool to be ran with all sizes of coiled tubing
- Easy to test and re-dress on location





SPECIFICATIONS

CT Flow Activated Retrieval Tool

**Flow Activated Retrieval Tool for PSL Profile**

Maximum Tool OD		2.250 in.	2.625 in.
Minimum Tool ID (exc. Orifice)		0.375 in.	0.375 in.
Make-up Length		22.90 in.	25.60 in.
To Fish		2.375 in. P.S.L. Profile	2.875 in. P.S.L. Profile
Reach		2.47 in.	2.26 in.
Activation Pressure		250 psi	250 psi
Flow Rate brll/min (ltr/min)	0.250 in. Orifice	0.523 (83)	0.510 (81)
	0.281 in. Orifice	0.715 (113)	0.692 (110)
Weight		7.2 kg	10.2 kg
Strength Standard Service	SWL (lb)	65,460	65,460
	Yield (lb)	72,730	72,730
	UTS (lb)	92,560	92,560
Strength H <sub>2</sub> S Service	SWL (lb)	47,600	47,600
	Yield (lb)	52,890	52,890
	UTS (lb)	66,110	66,110
<b>Assembly Number</b>		<b>9246-xxxx</b>	<b>9249-xxxx</b>

**Flow Activated Retrieval Tool for Petrotech Profile**

Maximum Tool OD		1.850 in.	2.250 in.	2.562 in.	2.875 in.
Minimum Tool ID (exc. Orifice)		0.281 in.	0.375 in.	0.375 in.	0.375 in.
Make-up Length		23.31 in.	24.86 in.	25.20 in.	25.22 in.
To Fish		1.687 in. Petrotech Profile	2.125 in. Petrotech Profile	2.562 in. Petrotech Profile	2.875 in. Petrotech Profile
Reach		4.13 in.	4.11 in.	4.03 in.	4.03 in.
Activation Pressure (psi)		250	250	386	386
Flow Rate brll/min (ltr/min)	0.218 in. Orifice	0.440 (70)	----	----	----
	0.250 in. Orifice	0.755 (120)	0.547 (87)	0.649 (103)	0.649 (103)
	0.281 in. Orifice	----	0.755 (120)	0.887 (141)	0.887 (141)
Weight		5 kg	7.7 kg	9.7 kg	12 kg
Strength Standard Service	SWL (lb)	37,030	49,650	37,770	37,770
	Yield (lb)	41,140	55,165	41,970	41,970
	UTS (lb)	52,350	70,205	53,960	53,960
Strength H <sub>2</sub> S Service	SWL (lb)	26,930	36,105	37,770	37,770
	Yield (lb)	29,920	40,120	41,970	41,970
	UTS (lb)	37,400	50,120	53,960	53,960
<b>Assembly Number</b>		<b>8916-xxxx</b>	<b>8925-xxxx</b>	<b>9318-xxxx</b>	<b>9891-xxxx</b>

XXXX denotes connection (see coiled tubing thread connections).

Add suffix 'H' to assembly number for H<sub>2</sub>S service. Strengths stated excluding connections.

Weights stated are approximate (excluding connections) Minimum ID may change dependent on connection type .

NOTE: Flow Rate based on fluid density of 950 kg/m<sup>3</sup> (7.928 (lb/gal)).



SPECIFICATIONS

CT Flow Activated Retrieval Tool

Maximum Tool OD		1.687 in.	1.750 in.	2.125 in.	2.875 in.	3.125 in.
Minimum Tool ID (exc. Orifice)		0.281 in.	0.281 in.	0.375 in.	0.375 in.	0.375 in.
Make-up Length		21.55 in.	21.55 in.	22.36 in.	26.19 in.	26.40 in.
To Fish		1.687 in. Bakke Profile	1.750 in. Bakke Profile	2.125 in. Bakke Profile	2.875 in. Bakke Profile	3.125 in. Bakke Profile
Reach		2.62 in.	2.65 in.	2.56 in.	3.29 in.	3.35 in.
Activation Pressure		250 psi	250 psi	427 psi	386 psi	386 psi
Flow Rate brrl/min (ltr/min)	0.218 in. Orifice	-----	0.440 (70)	0.494 (78.5)	-----	-----
	0.250 in. Orifice	0.755 (120)	0.755 (120)	0.679 (108)	0.649 (103)	0.649 (103)
	0.281 in. Orifice	-----	-----	-----	0.887 (141)	0.887 (141)
Weight		3.7 kg	4.4 kg	6 kg	13.1 kg	14.7 kg
Strength Standard Service	SWL (lb)	24,100	24,100	57,120	37,770	37,770
	Yield (lb)	26,970	26,970	63,470	41,970	41,970
	UTS ( lb)	34,330	34,330	80,780	53,960	53,960
Strength H <sub>2</sub> S Service	SWL (lb)	23,130	23,130	53,940	37,770	37,770
	Yield (lb)	25,700	25,700	59,930	41,970	41,970
	UTS (lb)	33,100	33,100	74,900	53,960	53,960
<b>Assembly Number</b>		<b>12465-xxxxx</b>	<b>10013-xxxx</b>	<b>10843-xxxx</b>	<b>11377-xxxx</b>	<b>10269-xxxx</b>

XXXX denotes connection (see coiled tubing thread connections)

Add suffix 'H' to assembly number for H<sub>2</sub>S service. Strengths stated excluding connections

Weights stated are approximate (excluding connections) Minimum ID may change dependent on connection type

NOTE: Flow Rate based on fluid density of 950 kg/m<sup>3</sup> (7.928 lb/gal)



## CT Flow Activated Overshot

### Tool Description

The Weatherford BDK Flow Activated Releasable Overshot is designed to fish by location on an external diameter.

The Flow Release Overshot performs the same operation as the wireline Overshot but is activated by flow and not by fracture of a shear pin.

The bowl and collet slips are manufactured as interchangeable items allowing the tool to be customized to suit a range of fishing diameters.

The Overshot is operated by automatic latch on using sit down weight and released by a combination of reducing the sit down weight and increasing the flow through the tool.

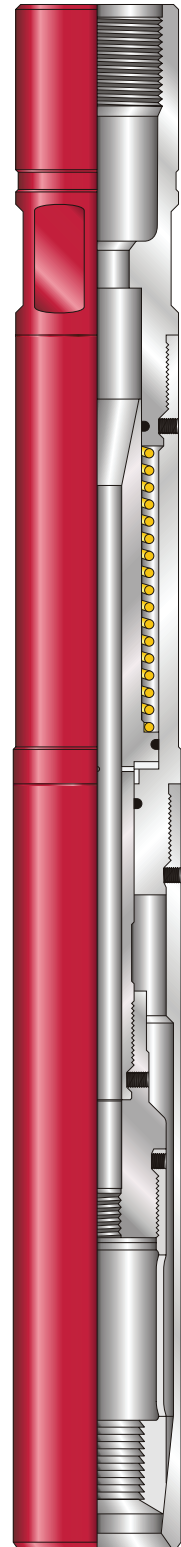
To release the Flow Activated Overshot fluid is pumped through the coiled tubing at a set rate this then causes an internal pressure build up caused by the fluid flow going through an orifice placed in the nose of the Retrieval Tool, this then releases the tool from the fish neck by retracting the dogs.

### Applications

- Standard fishing operations
- Heavy duty fishing operations

### Features and Benefits

- Multi-functional operation
- Manufactured to any current design of motorhead assembly
- All Weatherford BDK Flow Release Pulling Tools are supplied with a bull end drilled with recommended size orifice and an adaptor to accept customer specific orifices
- Robust design
- Interchangeable orifice that enables the tool to be ran with all sizes of coiled tubing
- Easy to test and re-dress on location





## SPECIFICATIONS

### CT Flow Activated Overshot

Assembly Number	Nominal Size	Maximum OD	Tool ID*Excl. Orifice	Collet Range	Reach	Make Up Length	FlowRate (bbl /min)	Orifice Size
11433-XXXX	2.000 in.	1.750 in.	0.250 in.	0.437 in. - 1.312 in.	3.94 in.	18.14 in.	0.314 - 0.535	0.187 in. / 0.218 in.
7841-XXXX	2.000 in.	1.850 in.	0.250 in.	0.437 in. - 1.312 in.	3.94 in.	18.38 in.	0.314 - 0.535	0.187 in. / 0.218 in.
11234-XXXX	2.250 in.	2.125 in.	0.375 in.	0.687 in. - 1.562 in.	4.74 in.	19.54 in.	0.528 - 0.717	0.250 in. / 0.281 in.
7856-XXXX	2.500 in.	2.250 in.	0.375 in.	0.687 in. - 1.687 in.	4.74 in.	19.54 in.	0.528 - 0.720	0.250 in. / 0.281 in.
11406-XXXX	3.000 in.	2.562 in.	0.709 in.	0.937 in. - 2.062 in.	4.86 in.	24.52 in.	0.692 - 0.862	0.281 in. / 0.312 in.
8089-XXXX	3.000 in.	2.630 in.	0.750 in.	0.937 in. - 2.062 in.	4.90 in.	24.55 in.	0.692 - 0.862	0.281 in. / 0.312 in.
8429-XXXX	3.500 in.	3.350 in.	0.750 in.	1.312 in. - 2.687 in.	6.68 in.	28.40 in.	0.522 - 0.758	0.312 in. / 0.375 in.
5265-XXXX	3.500 in.	3.600 in.	0.750 in.	1.312 in. - 2.687 in.	6.69 in.	28.53 in.	0.522 - 0.759	0.312 in. / 0.375 in.
11263-XXXX	3.875 in.	3.750 in.	1.000 in.	1.562 in. - 3.062 in.	6.69 in.	28.68 in.	0.598 - 0.742	0.281 in. / 0.312 in.
8430-XXXX	4.000 in.	3.800 in.	1.000 in.	1.562 in. - 3.062 in.	6.71 in.	28.70 in.	0.598 - 0.743	0.281 in. / 0.312 in.
8066-XXXX	5.000 in.	4.150 in.	1.125 in.	1.812 in. - 3.562 in.	5.96 in.	26.50 in.	0.692 - 0.843	0.250 in. / 0.281 in.
8108-XXXX	7.000 in.	5.870 in.	1.000 in.	2.062 in. - 4.937 in.	6.23 in.	28.21 in.	0.830 - 1.088	0.218 in. / 0.250 in.

XXXX denotes connection (see Coiled tubing thread connections)  
 Add suffix 'H' to assembly number for H<sub>2</sub>S service. Strengths stated excluding connections  
 Weights stated are approximate (excluding connections) Minimum ID may change  
 dependent on connection type Flow Rate figures are approximate  
 6 Orifice Plugs are supplied with each tool - 4 drilled with specific ID and 2 blank  
 Continued...



SPECIFICATIONS

CT Flow Activated Overshot

Description	OD	Nom Size	Part Number
<b>Assembly</b>	<b>1.75 in.</b>	<b>2.00 in.</b>	<b>11433 XXXX</b>
Collet 0.437 in. - 0.562 in.	1.75 in.	2.00 in.	11438
Collet 0.562 in. - 0.687 in.	1.75 in.	2.00 in.	11439
Collet 0.687 in. - 0.812 in.	1.75 in.	2.00 in.	11440
Collet 0.812 in. - 0.937 in.	1.75 in.	2.00 in.	11441
Collet 0.937 in. - 1.062 in.	1.75 in.	2.00 in.	11442
Collet 1.062 in. - 1.187 in.	1.75 in.	2.00 in.	11443
Collet 1.187 in. - 1.312 in.	1.75 in.	2.00 in.	11444
<b>Assembly</b>	<b>1.85 in.</b>	<b>2.00 in.</b>	<b>7841 XXXX</b>
Collet 0.437 in. - 0.562 in.	1.85 in.	2.00 in.	7850
Collet 0.562 in. - 0.687 in.	1.85 in.	2.00 in.	7851
Collet 0.687 in. - 0.812 in.	1.85 in.	2.00 in.	7852
Collet 0.812 in. - 0.937 in.	1.85 in.	2.00 in.	7853
Collet 0.937 in. - 1.062 in.	1.85 in.	2.00 in.	7854
Collet 1.062 in. - 1.187 in.	1.85 in.	2.00 in.	9606
Collet 1.187 in. - 1.312 in.	1.85 in.	2.00 in.	9607
<b>Assembly</b>	<b>2.125 in.</b>	<b>2.25 in.</b>	<b>11234 XXXX</b>
Collet 0.687 in. - 0.812 in.	2.125 in.	2.25 in.	11239
Collet 0.812 in. - 0.937 in.	2.125 in.	2.25 in.	11240
Collet 0.937 in. - 1.062 in.	2.125 in.	2.25 in.	11241
Collet 1.062 in. - 1.187 in.	2.125 in.	2.25 in.	11242
Collet 1.187 in. - 1.312 in.	2.125 in.	2.25 in.	11243
Collet 1.312 in. - 1.437 in.	2.125 in.	2.25 in.	11244
Collet 1.437 in. - 1.562 in.	2.125 in.	2.25 in.	11245
<b>Assembly</b>	<b>2.25 in.</b>	<b>2.50 in.</b>	<b>7856 XXXX</b>
Collet 0.687 in. - 0.812 in.	2.25 in.	2.50 in.	8832
Collet 0.812 in. - 0.937 in.	2.25 in.	2.50 in.	8833
Collet 0.937 in. - 1.062 in.	2.25 in.	2.50 in.	8834
Collet 1.062 in. - 1.187 in.	2.25 in.	2.50 in.	8835
Collet 1.187 in. - 1.312 in.	2.25 in.	2.50 in.	8836
Collet 1.312 in. - 1.437 in.	2.25 in.	2.50 in.	8837
Collet 1.437 in. - 1.562 in.	2.25 in.	2.50 in.	8838

Description	OD	Nom Size	Part Number
<b>Assembly</b>	<b>2.562 in.</b>	<b>3.00 in.</b>	<b>11406 XXXX</b>
<b>Assembly</b>	<b>2.625 in.</b>	<b>3.00 in.</b>	<b>8089 XXXX</b>
Collet 0.937 in. - 1.062 in.	2.562/2.625 in.	3.00 in.	8140
Collet 1.062 in. - 1.187 in.	2.562/2.625 in.	3.00 in.	8139
Collet 1.187 in. - 1.312 in.	2.562/2.625 in.	3.00 in.	8138
Collet 1.312 in. - 1.437 in.	2.562/2.625 in.	3.00 in.	8137
Collet 1.437 in. - 1.562 in.	2.562/2.625 in.	3.00 in.	8136
Collet 1.562 in. - 1.687 in.	2.562/2.625 in.	3.00 in.	8135
Collet 1.687 in. - 1.812 in.	2.562/2.625 in.	3.00 in.	8134
Collet 1.812 in. - 1.937 in.	2.562/2.625 in.	3.00 in.	8133
Collet 1.937 in. - 2.062 in.	2.562/2.625 in.	3.00 in.	8098
<b>Assembly</b>	<b>3.35 in.</b>	<b>3.50 in.</b>	<b>8429 XXXX</b>
Collet 1.312 in. - 1.437 in.	3.35 in.	3.50 in.	9635
Collet 1.437 in. - 1.562 in.	3.35 in.	3.50 in.	9636
Collet 1.562 in. - 1.687 in.	3.35 in.	3.50 in.	9637
Collet 1.687 in. - 1.812 in.	3.35 in.	3.50 in.	9638
Collet 1.812 in. - 1.937 in.	3.35 in.	3.50 in.	9639
Collet 1.937 in. - 2.062 in.	3.35 in.	3.50 in.	9640
Collet 2.062 in. - 2.187 in.	3.35 in.	3.50 in.	9641
Collet 2.187 in. - 2.312 in.	3.35 in.	3.50 in.	9642
Collet 2.312 in. - 2.437 in.	3.35 in.	3.50 in.	9643
Collet 2.437 in. - 2.562 in.	3.35 in.	3.50 in.	9644
Collet 2.562 in. - 2.687 in.	3.35 in.	3.50 in.	9645

XXXX denotes connection (see Coiled tubing thread connections)  
 Add suffix 'H' to assembly number for H<sub>2</sub>S service. Strengths stated excluding connections  
 Weights stated are approximate (excluding connections)  
 Minimum ID may change dependent on connection type  
 Please note that you need to order the overshot and collet as separate items  
 Continued...



SPECIFICATIONS

CT Flow Activated Overshot

Description	OD	Nom Size	Part Number
<b>Assembly</b>	<b>3.75 in.</b>	<b>3.875 in.</b>	<b>11263 XXXX</b>
<b>Assembly</b>	<b>3.80 in.</b>	<b>4.000 in.</b>	<b>8430 XXXX</b>
Collet 1.562 in. - 1.687 in.	3.75/3.80 in.	3.875/4.000 in.	9056
Collet 1.687 in. - 1.812 in.	3.75/3.80 in.	3.875/4.000 in.	8810
Collet 1.812 in. - 1.937 in.	3.75/3.80 in.	3.875/4.000 in.	8811
Collet 1.937 in. - 2.062 in.	3.75/3.80 in.	3.875/4.000 in.	8812
Collet 2.062 in. - 2.187 in.	3.75/3.80 in.	3.875/4.000 in.	8813
Collet 2.187 in. - 2.312 in.	3.75/3.80 in.	3.875/4.000 in.	8814
Collet 2.312 in. - 2.437 in.	3.75/3.80 in.	3.875/4.000 in.	8815
Collet 2.437 in. - 2.562 in.	3.75/3.80 in.	3.875/4.000 in.	8816
Collet 2.562 in. - 2.687 in.	3.75/3.80 in.	3.875/4.000 in.	8817
Collet 2.687 in. - 2.812 in.	3.75/3.80 in.	3.875/4.000 in.	8818
Collet 2.812 in. - 2.937 in.	3.75/3.80 in.	3.875/4.000 in.	8819
Collet 2.937 in. - 3.062 in.	3.75/3.80 in.	3.875/4.000 in.	8820
<b>Assembly</b>	<b>4.15 in.</b>	<b>5.000 in.</b>	<b>8066 XXXX</b>
Collet 1.812 in. - 1.937 in.	4.15 in.	5.000 in.	9624
Collet 1.937 in. - 2.062 in.	4.15 in.	5.000 in.	9625
Collet 2.062 in. - 2.187 in.	4.15 in.	5.000 in.	9626
Collet 2.187 in. - 2.312 in.	4.15 in.	5.000 in.	9627
Collet 2.312 in. - 2.437 in.	4.15 in.	5.000 in.	9628
Collet 2.437 in. - 2.562 in.	4.15 in.	5.000 in.	8076
Collet 2.562 in. - 2.687 in.	4.15 in.	5.000 in.	9629
Collet 2.687 in. - 2.812 in.	4.15 in.	5.000 in.	9630
Collet 2.812 in. - 2.937 in.	4.15 in.	5.000 in.	9631
Collet 2.937 in. - 3.062 in.	4.15 in.	5.000 in.	9632
Collet 3.062 in. - 3.187 in.	4.15 in.	5.000 in.	9633
Collet 3.187 in. - 3.312 in.	4.15 in.	5.000 in.	8075
Collet 3.312 in. - 3.437 in.	4.15 in.	5.000 in.	9634
Collet 3.437 in. - 3.562 in.	4.15 in.	5.000 in.	8074

Description	OD	Nom Size	Part Number
<b>Assembly</b>	<b>5.875 in.</b>	<b>7.00 in.</b>	<b>8108 XXXX</b>
Collet 2.062 in. - 2.187 in.	5.875 in.	7.00 in.	8117
Collet 2.187 in. - 2.312 in.	5.875 in.	7.00 in.	8122
Collet 2.312 in. - 2.437 in.	5.875 in.	7.00 in.	8123
Collet 2.437 in. - 2.562 in.	5.875 in.	7.00 in.	8124
Collet 2.562 in. - 2.687 in.	5.875 in.	7.00 in.	8125
Collet 2.687 in. - 2.812 in.	5.875 in.	7.00 in.	8126
Collet 2.812 in. - 2.937 in.	5.875 in.	7.00 in.	8127
Collet 2.937 in. - 3.062 in.	5.875 in.	7.00 in.	9608
Collet 3.062 in. - 3.187 in.	5.875 in.	7.00 in.	9609
Collet 3.187 in. - 3.312 in.	5.875 in.	7.00 in.	9610
Collet 3.312 in. - 3.437 in.	5.875 in.	7.00 in.	9611
Collet 3.437 in. - 3.562 in.	5.875 in.	7.00 in.	9612
Collet 3.562 in. - 3.687 in.	5.875 in.	7.00 in.	9613
Collet 3.687 in. - 3.812 in.	5.875 in.	7.00 in.	9614
Collet 3.812 in. - 3.937 in.	5.875 in.	7.00 in.	9615
Collet 3.937 in. - 4.062 in.	5.875 in.	7.00 in.	9616
Collet 4.062 in. - 4.187 in.	5.875 in.	7.00 in.	9617
Collet 4.187 in. - 4.312 in.	5.875 in.	7.00 in.	9618
Collet 4.312 in. - 4.437 in.	5.875 in.	7.00 in.	9619
Collet 4.437 in. - 4.562 in.	5.875 in.	7.00 in.	9620
Collet 4.562 in. - 4.687 in.	5.875 in.	7.00 in.	9621
Collet 4.687 in. - 4.812 in.	5.875 in.	7.00 in.	9622
Collet 4.812 in. - 4.937 in.	5.875 in.	7.00 in.	9623

XXXX denotes connection (see coiled tubing thread connections) Add suffix 'H' to assembly number for H<sub>2</sub>S service.

Strengths stated excluding connections

Weights stated are approximate (excluding connections) Minimum ID may change dependent on connection type

Please note that you need to order the overshot and collet as separate items





## CT Flow Activated Internal Spear

### Tool Description

The Weatherford BDK Flow Activated Internal Spear is designed to fish completion components or toolstrings, which has damaged internal fishing necks, or tubular sections lost within the wellbore.

To engage the flow activated internal spear a sit down weight is required when entering the component to be recovered, once the component has been engaged routine fishing operations can commence.

If during the fishing operation you need to release the flow activated internal spear all you do is to start pumping fluid through the coiled tubing this then creates a back pressure over the tool which activates the release sequence.

At this point the coiled tubing can be picked up and the flow activated internal spear will be released from the fish.

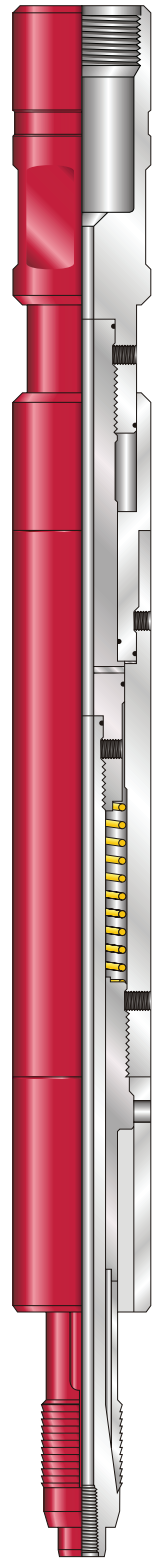
All Weatherford BDK flow release tools are supplied with a high and low flow rate orifice and blank plugs.

### Applications

- Fishing operations

### Features and Benefits

- Various orifice settings for optimum performance
- Easy to maintain
- Robust design
- Multi-operational
- Suitable for all sizes of coiled tubing





SPECIFICATIONS

CT Flow Activated Internal Spear

Assembly Number	Nominal Size	Maximum OD	Tool ID *Excl. Orifice	Fishing Range	Reach	Make Up Length	FlowRate (bbl /min)	Orifice Size
11412-XXXX	2.000 in.	1.750 in.	0.218 in.	0.750 in. - 1.625 in.	3.00 in.	25.30 in.	0.648	not used
7855-XXXX	2.000 in.	1.850 in.	0.218 in.	0.750 in. - 1.625 in.	3.00 in.	25.30 in.	0.648	not used
11246-XXXX	2.250 in.	2.125 in.	0.375 in.	1.250 in. - 2.062 in.	3.53 in.	25.20 in.	0.667 - 0.912	0.250 in. - 0.281 in.
8057-XXXX	2.500 in.	2.250 in.	0.375 in.	1.250 in. - 2.062 in.	2.88 in.	25.30 in.	0.667 - 0.912	0.250 in. - 0.281 in.
11409-XXXX	3.000 in.	2.562 in.	0.375 in.	1.750 in. - 2.375 in.	2.92 in.	25.60 in.	0.535 - 0.723	0.250 in. - 0.281 in.
8160-XXXX	3.000 in.	2.625 in.	0.375 in.	1.750 in. - 2.375 in.	3.00 in.	25.60 in.	0.535 - 0.723	0.250 in. - 0.281 in.
8192-XXXX	3.500 in.	3.350 in.	0.562 in.	2.000 in. - 3.125 in.	4.17 in.	29.70 in.	0.544 - 0.698	0.281 in. - 0.312 in.
8370-XXXX	4.000 in.	3.800 in.	0.562 in.	2.000 in. - 3.562 in.	4.49 in.	34.20 in.	0.770	0.312 in.
8431-XXXX	5.000 in.	4.150 in.	0.687 in.	2.375 in. - 3.875 in.	3.95 in.	30.90 in.	0.541 - 0.818	0.312 in. - 0.375 in.

XXXX denotes connection (see coiled tubing thread connections)  
 Add suffix 'H' to assembly number for H<sub>2</sub>S service.  
 Strengths stated excluding connections  
 Weights stated are approximate (excluding connections)  
 Minimum ID may change dependent on connection type  
 Flow Rate figures are based on fluid density of 7.928 lb/gal  
 6 Orifice Plugs are supplied with each tool - 4 drilled with specific ID and 2 blank  
 2 in. Spear utilises different lower mandrels for 0.750 in. - 1.125 in. and 1.250 in. - 1.625 in.  
 NOTE: Please order Spear and Collet as separate items



SPECIFICATIONS

CT Flow Activated Internal Spear

Description	OD	Nom Size	Part Number
<b>Assembly</b>	<b>1.75 in.</b>	<b>2.000 in.</b>	<b>11412 XXXX</b>
<b>Assembly</b>	<b>1.85 in.</b>	<b>2.000 in.</b>	<b>7855 XXXX</b>
Collet 0.750 in. - 0.875 in.	1.75/1.85 in.	2.000 in.	8866
Collet 0.875 in. - 1.000 in.	1.75/1.85 in.	2.000 in.	9231
Collet 1.000 in. - 1.125 in.	1.75/1.85 in.	2.000 in.	8881
Collet 1.125 in. - 1.250 in.	1.75/1.85 in.	2.000 in.	8884
Collet 1.250 in. - 1.375 in.	1.75/1.85 in.	2.000 in.	8042
Collet 1.375 in. - 1.500 in.	1.75/1.85 in.	2.000 in.	8882
Collet 1.500 in. - 1.625 in.	1.75/1.85 in.	2.000 in.	8883
<b>Assembly</b>	<b>2.125 in.</b>	<b>2.250 in.</b>	<b>11246 XXXX</b>
<b>Assembly</b>	<b>2.250 in.</b>	<b>2.500 in.</b>	<b>8057 XXXX</b>
Collet 1.250 in. - 1.375 in.	2.125/2.250 in.	2.250/2.500 in.	8061
Collet 1.375 in. - 1.500 in.	2.125/2.250 in.	2.250/2.500 in.	8079
Collet 1.500 in. - 1.625 in.	2.125/2.250 in.	2.250/2.500 in.	8081
Collet 1.625 in. - 1.750 in.	2.125/2.250 in.	2.250/2.500 in.	8083
Collet 1.750 in. - 1.875 in.	2.125/2.250 in.	2.250/2.500 in.	8085
Collet 1.875 in. - 2.000 in.	2.125/2.250 in.	2.250/2.500 in.	8158
<b>Assembly</b>	<b>2.562 in.</b>	<b>3.000 in.</b>	<b>11409 XXXX</b>
<b>Assembly</b>	<b>2.635 in.</b>	<b>3.000 in.</b>	<b>8160 XXXX</b>
Collet 1.750 in. - 1.875 in.	2.562/2.625 in.	3.000 in.	8164
Collet 1.875 in. - 2.000 in.	2.562/2.625 in.	3.000 in.	9229
Collet 2.000 in. - 2.125 in.	2.562/2.625 in.	3.000 in.	8907
Collet 2.125 in. - 2.250 in.	2.562/2.625 in.	3.000 in.	9230
Collet 2.250 in. - 2.375 in.	2.562/2.625 in.	3.000 in.	8908

Description	OD	Nom Size	Part Number
<b>Assembly</b>	<b>3.350 in.</b>	<b>3.500 in.</b>	<b>8192 XXXX</b>
Collet 2.000 in. - 2.125 in.	3.350 in.	3.500 in.	8906
Collet 2.125 in. - 2.250 in.	3.350 in.	3.500 in.	9232
Collet 2.250 in. - 2.375 in.	3.350 in.	3.500 in.	8196
Collet 2.375 in. - 2.500 in.	3.350 in.	3.500 in.	9233
Collet 2.500 in. - 2.625 in.	3.350 in.	3.500 in.	8862
Collet 2.625 in. - 2.750 in.	3.350 in.	3.500 in.	9234
Collet 2.750 in. - 2.875 in.	3.350 in.	3.500 in.	8863
Collet 2.875 in. - 3.000 in.	3.350 in.	3.500 in.	9235
Collet 3.000 in. - 3.125 in.	3.350 in.	3.500 in.	8864
<b>Assembly</b>	<b>3.800 in.</b>	<b>4.000 in.</b>	<b>8370 XXXX</b>
Collet 2.000 in. - 2.125 in.	3.800 in.	4.000 in.	8374-2062
Collet 2.125 in. - 2.250 in.	3.800 in.	4.000 in.	8374-2187
Collet 2.250 in. - 2.375 in.	3.800 in.	4.000 in.	8374-2312
Collet 2.375 in. - 2.500 in.	3.800 in.	4.000 in.	8374-2437
Collet 2.500 in. - 2.625 in.	3.800 in.	4.000 in.	8374-2562
Collet 2.625 in. - 2.750 in.	3.800 in.	4.000 in.	8374-2687
Collet 2.750 in. - 2.875 in.	3.800 in.	4.000 in.	8374-2812
Collet 2.875 in. - 3.000 in.	3.800 in.	4.000 in.	8374 2937
Collet 3.000 in. - 3.125 in.	3.800 in.	4.000 in.	8374-3062
Collet 3.125 in. - 3.250 in.	3.800 in.	4.000 in.	8374-3187
Collet 3.250 in. - 3.375 in.	3.800 in.	4.000 in.	8374-3312
Collet 3.375 in. - 3.500 in.	3.800 in.	4.000 in.	8374-3437
Collet 3.500 in. - 3.562 in.	3.800 in.	4.000 in.	8374-3562

XXXX denotes connection (see coiled tubing thread connections)

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

Strengths stated excluding connections

Weights stated are approximate (excluding connections)

Minimum ID may change dependent on connection type

Flow Rate figures are based on fluid density of 7.928 lb/gal

6 Orifice Plugs are supplied with each tool - 4 drilled with specific ID and 2 blank 2 in. Spear utilises different lower mandrels for 0.750 in. - 1.125 in. and 1.250 in. - 1.625 in. NOTE: Please order spear and collet as separate items



SPECIFICATIONS

CT Flow Activated Internal Spear

Description	OD	Nom Size	Part Number
<b>Assembly</b>	<b>4.150 in.</b>	<b>5.000 in.</b>	<b>8431 XXXX</b>
Collet 2.375 in. - 2.500 in.	4.150 in.	5.000 in.	9082
Collet 2.500 in. - 2.625 in.	4.150 in.	5.000 in.	9083
Collet 2.625 in. - 2.750 in.	4.150 in.	5.000 in.	9084
Collet 2.750 in. - 2.875 in.	4.150 in.	5.000 in.	9085
Collet 2.875 in. - 3.000 in.	4.150 in.	5.000 in.	9086
Collet 3.000 in. - 3.125 in.	4.150 in.	5.000 in.	9087
Collet 3.125 in. - 3.250 in.	4.150 in.	5.000 in.	9088
Collet 3.250 in. - 3.375 in.	4.150 in.	5.000 in.	9089
Collet 3.375 in. - 3.500 in.	4.150 in.	5.000 in.	9090
Collet 3.500 in. - 3.625 in.	4.150 in.	5.000 in.	9091
Collet 3.625 in. - 3.750 in.	4.150 in.	5.000 in.	9092
Collet 3.750 in. - 3.875 in.	4.150 in.	5.000 in.	9093
Collet 1.500 in. - 1.625 in.	2.125/2.250 in.	2.250/2.500 in.	8081
Collet 1.625 in. - 1.750 in.	2.125/2.250 in.	2.250/2.500 in.	8083
Collet 1.750 in. - 1.875 in.	2.125/2.250 in.	2.250/2.500 in.	8085
Collet 1.875 in. - 2.000 in.	2.125/2.250 in.	2.250/2.500 in.	8158
<b>Assembly</b>	<b>2.562 in.</b>	<b>3.000 in.</b>	<b>11409 XXXX</b>
<b>Assembly</b>	<b>2.635 in.</b>	<b>3.000 in.</b>	<b>8160 XXXX</b>
Collet 1.750 in. - 1.875 in.	2.562/2.625 in.	3.000 in.	8164
Collet 1.875 in. - 2.000 in.	2.562/2.625 in.	3.000 in.	9229
Collet 2.000 in. - 2.125 in.	2.562/2.625 in.	3.000 in.	8907
Collet 2.125 in. - 2.250 in.	2.562/2.625 in.	3.000 in.	9230
Collet 2.250 in. - 2.375 in.	2.562/2.625 in.	3.000 in.	8908

Description	OD	Nom Size	Part Number
<b>Assembly</b>	<b>5.800 in.</b>	<b>7.000 in.</b>	<b>8432 XXXX</b>
Collet 2.500 in. - 2.625 in.	5.800 in.	7.000 in.	9111
Collet 2.625 in. - 2.750 in.	5.800 in.	7.000 in.	9112
Collet 2.750 in. - 2.875 in.	5.800 in.	7.000 in.	9113
Collet 2.875 in. - 3.000 in.	5.800 in.	7.000 in.	9114
Collet 3.000 in. - 3.125 in.	5.800 in.	7.000 in.	9115
Collet 3.125 in. - 3.250 in.	5.800 in.	7.000 in.	9116
Collet 3.250 in. - 3.375 in.	5.800 in.	7.000 in.	9117
Collet 3.375 in. - 3.500 in.	5.800 in.	7.000 in.	9118
Collet 3.500 in. - 3.625 in.	5.800 in.	7.000 in.	9119
Collet 3.625 in. - 3.750 in.	5.800 in.	7.000 in.	9120
Collet 3.750 in. - 3.875 in.	5.800 in.	7.000 in.	9121
Collet 3.875 in. - 4.000 in.	5.800 in.	7.000 in.	9122
Collet 4.000 in. - 4.125 in.	5.800 in.	7.000 in.	9123
Collet 4.125 in. - 4.250 in.	5.800 in.	7.000 in.	9124
Collet 4.250 in. - 4.375 in.	5.800 in.	7.000 in.	9125
Collet 4.375 in. - 4.500 in.	5.800 in.	7.000 in.	9126
Collet 4.500 in. - 4.625 in.	5.800 in.	7.000 in.	9127
Collet 4.625 in. - 4.750 in.	5.800 in.	7.000 in.	9128
Collet 4.750 in. - 4.875 in.	5.800 in.	7.000 in.	9129
Collet 4.875 in. - 5.000 in.	5.800 in.	7.000 in.	9130
Collet 5.000 in. - 5.125 in.	5.800 in.	7.000 in.	9131
Collet 5.125 in. - 5.250 in.	5.800 in.	7.000 in.	9132
Collet 5.250 in. - 5.375 in.	5.800 in.	7.000 in.	9133
Collet 5.375 in. - 5.500 in.	5.800 in.	7.000 in.	9134
Collet 5.500 in. - 5.625 in.	5.800 in.	7.000 in.	9135

XXXX denotes connection (see coiled tubing thread connections)

Add suffix 'H' to assembly number for HzS service.

Strengths stated excluding connections

Weights stated are approximate (excluding connections)

Minimum ID may change dependent on connection type

Flow rate figures are based on fluid density of 7.928 lb/gal

6 orifice plugs are supplied with each tool - 4 drilled with specific ID and 2 blank 2 in. spear utilises different lower mandrels for 0.750 in. - 1.125 in. and 1.250 in. - 1.625 in. NOTE: Please order Spear and Collet as separate items



## CT Gauge Cutter

### Tool Description

The Weatherford BDK Gauge Cutter is used to gauge the tubing and to remove the scale, paraffin wax and debris etc., as well as ensuring the unhindered passage of subsequent bottomhole assembly.

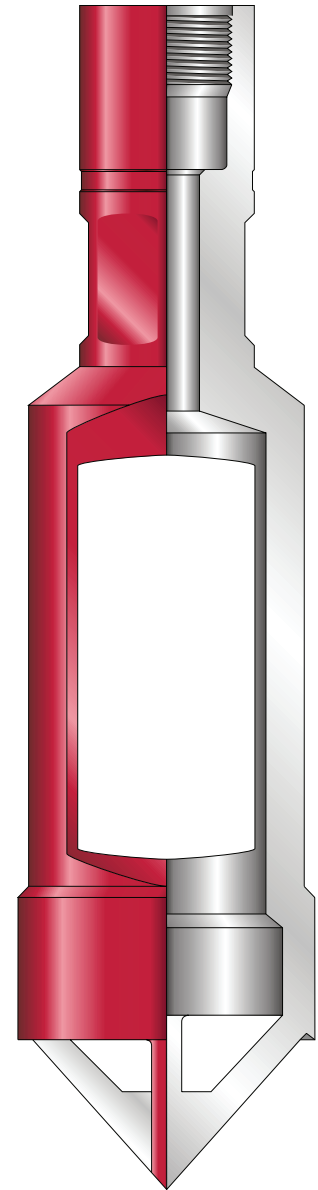
This unique style of cutter has no hard edges and the protection cage helps in guiding the cutter as well as preventing damage to the cutting edge.

### Applications

- Wax removal
- Tubular drifting

### Features and Benefits

- Manufactured to customers requirements
- Protection cage for centralization
- Protection to gauge cutter edge
- Robust design
- Suitable for all sizes of coiled tubing



### SPECIFICATIONS

#### CT Gauge Cutter

Assembly Number	Tool OD
12278-01-XXXX	1.250 in.
12278-02-XXXX	1.500 in.
12278-03-XXXX	1.750 in.
12278-04-XXXX	2.000 in.
12278-05-XXXX	2.375 in.
12278-06-XXXX	2.875 in.

XXXX denotes connection (see coiled tubing thread connections).  
 Add suffix 'H' to assembly number for H<sub>2</sub>S service.  
 Strengths stated excluding connections.  
 Weights stated are approximate (excluding connections).  
 Minimum ID may change, dependent on connection type.



## CT Alligator Grab

### Tool Description

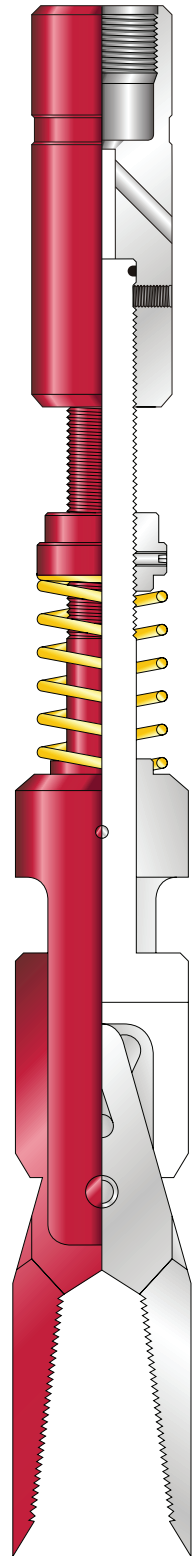
The Weatherford BDK CT Alligator Grab is designed to collect foreign objects from the completion tubular.

During operations the alligator grab is in the closed position but once an internal pressure build up has been produced through the orifice, the alligator jaws are opened allowing engagement of the debris. Once engaged, the internal pressure build up is reduced allowing the jaws to close on the debris.

Tools are manufactured to any size required.  
Part numbers available on request.

### Features and Benefits

- Adjustable orifices for a wider flow.
- Flow through capacity
- Robust design
- Multi-functional during fishing applications.
- Custom design jaws to suit application





## CT Flow Activated Alligator Grab

### Tool Description

The Weatherford BDK Flow Activated Alligator Grab is used to recover debris from within the completion / liner.

To activate the flow activated alligator grab an internal pressure build up created by flowing fluid through the coiled tubing as the fluid reaches the orifice a back pressure is created and the jaws open out.

Once the jaws are activated the alligator grab is positioned over the debris and the fluid flow rate is then relaxed at this point a heavy duty spring is functioned closing the jaws onto the debris.

The jaws will remain closed until the flow rate is re-established. All Weatherford BDK flow release tools are supplied with a High and Low

Flow rate orifice and blank plugs.

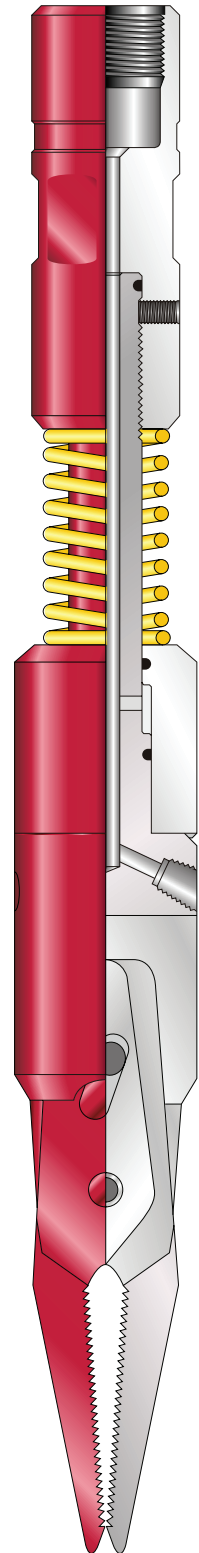
The alligator grab can be manufactured to any size

### Applications

- Fishing operations

### Features and Benefits

- Various orifice settings for optimum performance
- Positive grip once activated
- Easy to maintain
- Robust design
- Multi operational
- Suitable for all sizes of coiled tubing





## SPECIFICATIONS

### CT Flow Activated Alligator Grab

Assembly Part Number	Maximum OD	Jaw OD Open	Reach	Activation Pressure	Make Up Length	Flow Rate (bbl/min)	Orifice Size	Weight
12135-XXXX	2.000 in.	1.63 in.	2.46 in.	758 psi	23.50 in.	0.42	2 x 0.125 in.	4.5 kg
12135-XXXX	2.000 in.	1.63 in.	2.46 in.	758 psi	23.50 in.	0.69	2 x 0.156 in.	4.5 kg
12135-XXXX	2.000 in.	1.63 in.	2.46 in.	758 psi	23.50 in.	1.09	2 x 0.187 in.	4.5 kg
12135-XXXX	2.000 in.	1.63 in.	2.46 in.	758 psi	23.50 in.	1.43	2 x 0.203 in.	4.5 kg
12135-XXXX	2.000 in.	1.63 in.	2.46 in.	758 psi	23.50 in.	1.94	2 x 0.219 in.	4.5 kg
12136-XXXX	2.700 in.	2.15 in.	2.48 in.	716 psi	27.70 in.	0.41	2 x 0.125 in.	9.2 kg
12136-XXXX	2.700 in.	2.15 in.	2.48 in.	716 psi	27.70 in.	0.67	2 x 0.156 in.	9.2 kg
12136-XXXX	2.700 in.	2.15 in.	2.48 in.	716 psi	27.70 in.	1.07	2 x 0.187 in.	9.2 kg
12136-XXXX	2.700 in.	2.15 in.	2.48 in.	716 psi	27.70 in.	1.39	2 x 0.203 in.	9.2 kg
12136-XXXX	2.700 in.	2.15 in.	2.48 in.	716 psi	27.70 in.	1.88	2 x 0.219 in.	9.2 kg

XXXX denotes connection (see coiled tubing thread connections).

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

Strengths stated excluding connections.

Weights stated are approximate (excluding connections).

Minimum ID may change, dependent on connection type.

Flow Rate figures are approximate





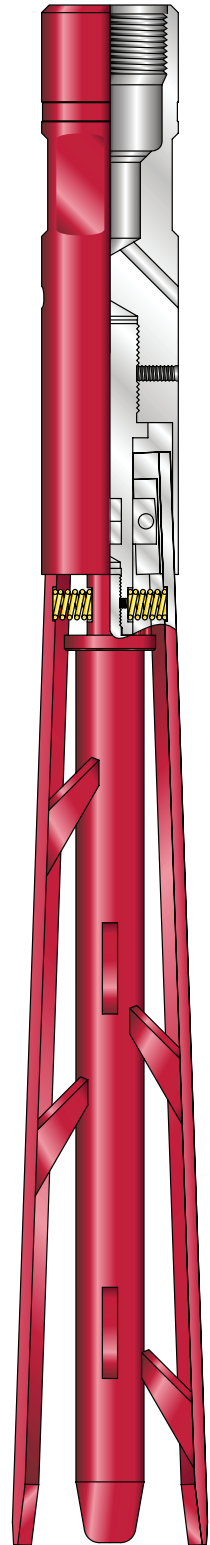
## CT Expandable Wire Grab

### Tool Description

The Weatherford BDK CT Expandable Grab (Non Flow Activated) is used to retrieve wire. The spring-loaded prongs of the grab continually run against the tubing wall ensuring that the wireline will entangle inside the prongs of the grab.

The advantage of the expandable grab over the more conventional tool is that it will not pass through the center of the wire coils if the line has not been balled correctly. It will also pass through restricted internal diameters of nipples etc expanding into larger diameters further downhole.

Tools are manufactured to any size required. Part numbers available on request.





## CT Flow Activated Expandable Wire Grab

### Tool Description

The Weatherford BDK Flow Activated Expandable Wire Grab is used for the retrieval of wire after failed wireline operations.

When running, the arms are retained within the sleeve and are released by application of internal pressure developed by flowing through an orifice.

Arms can be expanded and retracted any number of times downhole without redress.

### SPECIFICATIONS

#### CT Flow Activated Expandable Wire Grab

Body OD		2.375 in.	2.750 in.
Maximum Expanded OD		5.000 in.	5.500 in.
Make-up Length		28.56 in.	29.70 in.
Tool ID (Excluding Orifice)		0.312 in.	0.437 in.
Weight		5.7 kg	7.4 kg
Number of Prongs		4	4
Activation Pressure		153 psi	126 psi
Flow Rate brrl/min (ltr/min)	0.276 in. Orifice	0.72 (114)	-----
	0.355 in. Orifice	-----	0.74 (117)
Strength - (Per Arm) Standard Service	SWL	8,030 lb	9,250 lb
	Yield	8,920 lb	10,280 lb
	UTS	11,150 lb	12,840 lb
Strength - (Per Arm) H <sub>2</sub> S Service	SWL	7,910 lb	9,120 lb
	Yield	8,790 lb	10,130 lb
	UTS	12,390 lb	14,270 lb
<b>Assembly Number</b>		<b>12364-xxxx</b>	<b>13094-xxxx</b>

XXXX denotes connection (see coiled tubing thread connections).

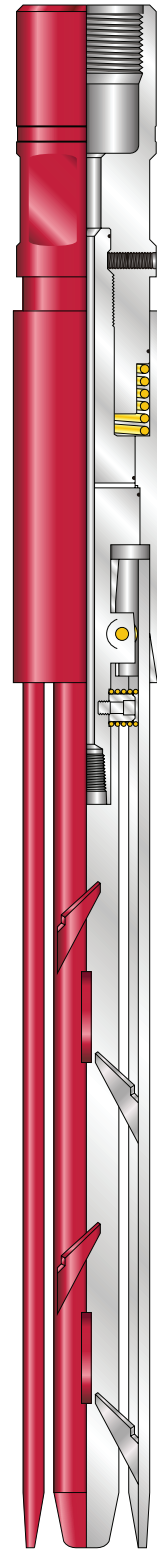
Add suffix 'H' to assembly number for H<sub>2</sub>S service.

Strengths stated excluding connections.

Weights stated are approximate (excluding connections).

Minimum ID may change, dependent on connection type.

Flow Rate based on fluid density of 950 kg/m<sup>3</sup>.





# CT Wire Grab

## Tool Description

The Weatherford BDK Coiled Tubing Wire Grab is for the retrieval of Wireline/Electric line.

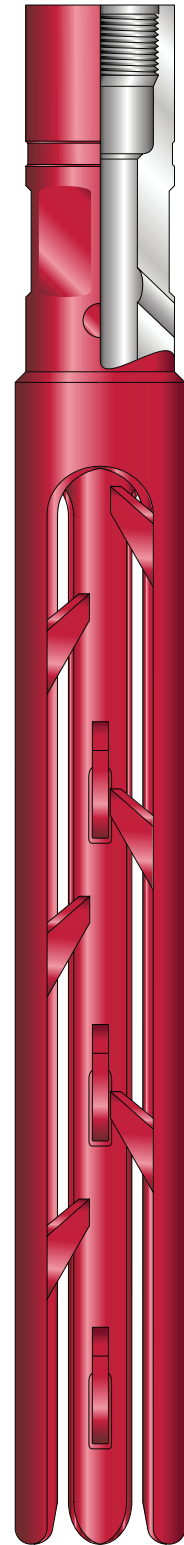
Any combination of style, OD and thread connection is available.

## SPECIFICATIONS

### CT Wire Grab

Connection OD	Grab OD	Make-up Length	Part Number		
			2 Prong	3 Prong	4 Prong
1.750 in.	2.000 in.	23.50 in.	12147-2000-2-xxxx	12147-2000-3-xxxx	-----
	2.125 in.		12147-2125-2-xxxx	12147-2125-3-xxxx	-----
	2.250 in.		12147-2250-2-xxxx	12147-2250-3-xxxx	-----
	2.490 in.		12147-2490-2-xxxx	12147-2490-3-xxxx	-----
2.000 in.	2.000 in.	23.50 in.	13172-2000-2-xxxx	13172-2000-3-xxxx	-----
	2.125 in.		13172-2125-2-xxxx	13172-2125-3-xxxx	-----
	2.250 in.		13172-2250-2-xxxx	13172-2250-3-xxxx	-----
	2.490 in.		13172-2490-2-xxxx	13172-2490-3-xxxx	-----
2.125 in.	2.500 in.	24.98 in.	11681-2500-2-xxxx	11681-2500-3-xxxx	11681-2500-4-xxxx
	2.625 in.		11681-2625-2-xxxx	11681-2625-3-xxxx	11681-2625-4-xxxx
	2.750 in.		11681-2750-2-xxxx	11681-2750-3-xxxx	11681-2750-4-xxxx
	2.875 in.		11681-2875-2-xxxx	11681-2875-3-xxxx	11681-2875-4-xxxx
	3.000 in.		11681-3000-2-xxxx	11681-3000-3-xxxx	11681-3000-4-xxxx
	3.125 in.		11681-3125-2-xxxx	11681-3125-3-xxxx	11681-3125-4-xxxx
	3.250 in.		11681-3250-2-xxxx	11681-3250-3-xxxx	11681-3250-4-xxxx
	3.375 in.		11681-3375-2-xxxx	11681-3375-3-xxxx	11681-3375-4-xxxx
	3.500 in.		11681-3500-2-xxxx	11681-3500-3-xxxx	11681-3500-4-xxxx
	3.625 in.		11681-3625-2-xxxx	11681-3625-3-xxxx	11681-3625-4-xxxx
3.125 in.	4.500 in.	39.87 in.	-----	-----	12925-xxxx

XXXX denotes connection (see coiled tubing thread connections).  
 Add suffix 'H' to assembly number for H<sub>2</sub>S service.  
 Strengths stated excluding connections.  
 Weights stated are approximate (excluding connections).  
 Minimum ID may change, dependent on connection type.





SPECIFICATIONS

CT Wire Grab

Connection OD	Grab OD	Make-up Length	Weight			Strengths (Per Arm) - Standard Service			Strengths (Per Arm) - H <sub>2</sub> S Service		
			2 Prong	3 Prong	4 Prong	SWL	Yield	UTS	SWL	Yield	UTS
1.750 in.	2.000 in.	23.50 in.	2.2	2.4 kg	-----	9,920 lb	10,320 lb	12,900 lb	9,150 lb	10,170 lb	14,330 lb
	2.125 in.										
	2.250 in.										
	2.490 in.										
2.000 in.	2.000 in.	23.50 in.	2.4 kg	2.6 kg	-----	9,920 lb	10,320 lb	12,900 lb	9,150 lb	10,170 lb	14,330 lb
	2.125 in.										
	2.250 in.										
	2.490 in.										
2.125 in.	2.500 in.	24.98 in.	3.3 kg	3.6 kg	3.9 kg	12,120 lb	13,470 lb	16,830 lb	11,950 lb	13,280 lb	18,700 lb
	2.625 in.										
	2.750 in.										
	2.875 in.										
	3.000 in.										
	3.125 in.										
	3.250 in.										
	3.375 in.										
	3.500 in.										
3.625 in.											
3.125 in.	4.500 in.	39.87 in.	-----	-----	20.5 kg	34,150 lb	37,940 lb	47,420 lb	33,660 lb	37,400 lb	52,690 lb

XXXX denotes connection (see coiled tubing thread connections).  
 Add suffix 'H' to assembly number for H<sub>2</sub>S service.  
 Strengths stated excluding connections.  
 Weights stated are approximate (excluding connections).  
 Minimum ID may change, dependent on connection type.



## CT High Flow Knuckle Joint

### Tool Description

The Weatherford BDK High Flow Knuckle Joint provides a degree of flexibility within the bottomhole assembly.

The totally enclosed design makes this style of knuckle joint suitable for jarring and providing more support for compressive loads.

This knuckle joint has a large through bore for conveying fluids.

### Applications

- All coiled tubing operations
- Fishing operations tools

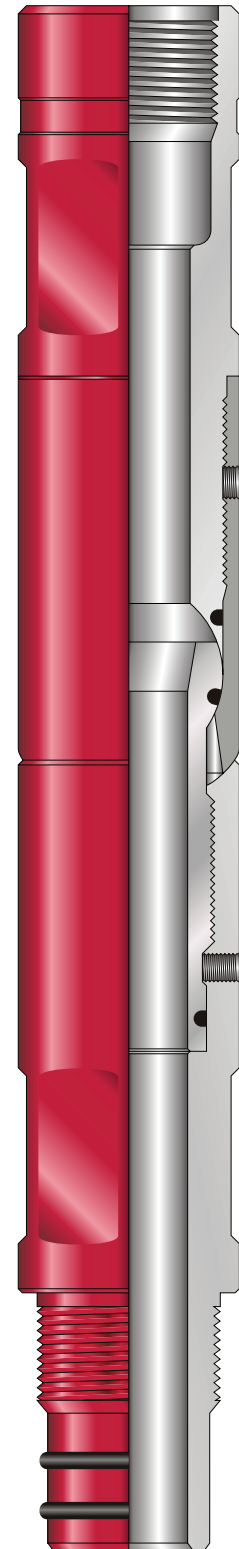
### Features and Benefits

- Large ID for higher flow rate through tool
- Suitable for jarring applications
- Adds flexibility to the BHA in deviated wells
- Robust design
- Easy to maintain
- Manipulation of BHA

### SPECIFICATIONS

#### CT High Flow Knuckle Joint

Part Number	Outside Diameter	Minimum ID*	Working Pressure	Make Up Length	Reach (Kickover)	Weight
12088-XXXX	1.250 in.	0.312 in.	10,000 psi	10.13 in.	10°	1.4 kg
11733-XXXX	1.500 in.	0.500 in.	10,000 psi	11.50 in.	10°	1.8 kg
12086-XXXX	1.687 in.	0.500 in.	10,000 psi	11.50 in.	10°	2.4 kg
11302-XXXX	1.750 in.	0.750 in.	10,000 psi	12.85 in.	10°	2.6 kg
12090-XXXX	2.000 in.	0.750 in.	10,000 psi	13.30 in.	10°	3.5 kg
11307-XXXX	2.125 in.	1.125 in.	10,000 psi	13.42 in.	10°	3.5 kg
12505-XXXX	2.250 in.	1.000 in.	10,000 psi	14.05 in.	10°	4.5 kg
12283-XXXX	2.375 in.	1.000 in.	10,000 psi	14.12 in.	10°	5 kg
11753-XXXX	2.500 in.	1.000 in.	10,000 psi	14.12 in.	10°	5.5 kg
12216-XXXX	2.875 in.	1.125 in.	10,000 psi	15.46 in.	10°	8.2 kg
11403-XXXX	3.125 in.	1.125 in.	10,000 psi	15.76 in.	10°	10.4 kg





## CT Torque Through Double Knuckle Joint

### Tool Description

The Weatherford BDK Torque Through Double Knuckle Joint provides flexibility within the bottomhole assembly.

The totally enclosed design makes this style of knuckle joint suitable for downward jarring and providing more support for compressive loads.

This double knuckle joint incorporates a unique polygonal internal drive, which provides a high torque capability.

### Applications

- All coiled tubing operations
- Fishing operations

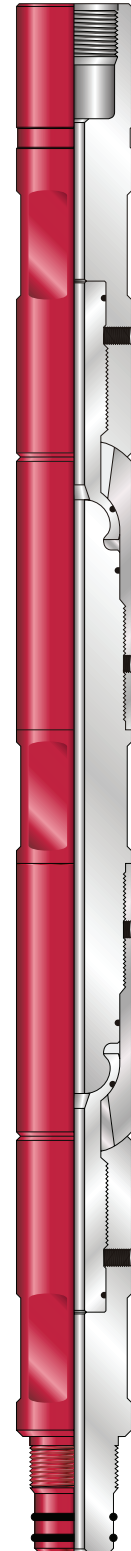
### Features and Benefits

- High torque capacity
- Multi-shot manipulations
- Adds flexibility to the BHA in deviated wells
- Robust design
- Easy to maintain
- Manipulation of BHA

### SPECIFICATIONS

#### CT Torque Through Double Knuckle Joint

Assembly Part Number	Outside Diameter	Minimum ID	Working Pressure	Reach (Kickover)	Torque Rating
11974-XXXX	1.500 in.	0.500 in.	10,000 psi	10°	430 ft. lb
12099-XXXX	1.687 in.	0.562 in.	10,000 psi	10°	550 ft. lb
11979-XXXX	1.750 in.	0.625 in.	10,000 psi	10°	600 ft. lb
11894-XXXX	2.000 in.	0.625 in.	10,000 psi	10°	1000 ft. lb
11989-XXXX	2.125 in.	0.687 in.	10,000 psi	10°	1200 ft. lb
13147-XXXX	2.250 in.	0.750 in.	10,000 psi	10°	1400 ft. lb
11994-XXXX	2.500 in.	0.812 in.	10,000 psi	10°	1950 ft. lb
13184-XXXX	2.875 in.	0.937 in.	10,000 psi	10°	2950 ft. lb
11999-XXXX	3.125 in.	1.000 in.	10,000 psi	10°	3940 ft. lb





# CT Torque Through Kickover Knuckle Joint

## Tool Description

The Weatherford BDK Torque Through Kickover Knuckle Joint provides for controlled manipulation of the bottomhole assembly.

Pressure is applied to the piston face either by flowing through an orifice or after dropping a ball causing the knuckle joint to kick-over.

Anti-rotation screws provide a torque through capability.

## Applications

- All coiled tubing operations
- Fishing operations

## Features and Benefits

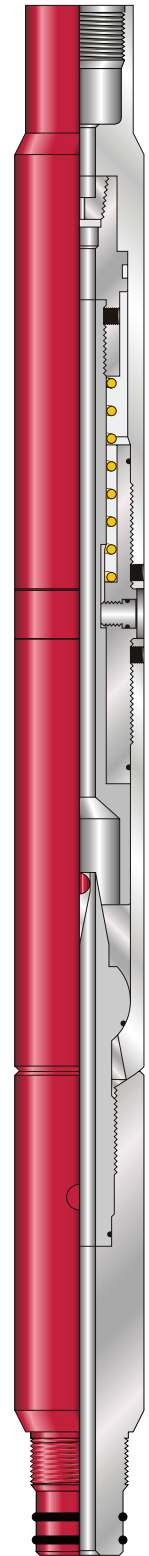
- 10 Degree manipulation of tool once activated
- Multi-shot manipulations
- Adds flexibility to the BHA in deviated wells
- Robust design
- Easy to maintain
- Manipulation of BHA up to 10°

## SPECIFICATIONS

### CT Torque Through Kickover Knuckle Joint

Assembly Part Number	Outside Diameter	Minimum ID*	Working Pressure	Maximum Kickover Angle	Torque Rating	Weight
71052125-0001	2.125 in.	0.375 in.	10,000 psi	10°	130 ft. lb	12 kg
71052250-0001	2.250 in.	0.375 in.	10,000 psi	10°	130 ft. lb	13.6 kg

XXXX denotes connection (see coiled tubing thread connections).  
 Add suffix 'H' to assembly number for H<sub>2</sub>S service.  
 Strengths stated excluding connections.  
 Weights stated are approximate (excluding connections).  
 Minimum ID may change, dependent on connection type.





## CT Torque Through Knuckle Joint

### Tool Description

The Weatherford BDK Torque Through Knuckle Joint provides a degree of flexibility within the bottomhole assembly.

The totally enclosed design makes this style of knuckle joint suitable for jarring, and provides more support for compressive loads.

This knuckle joint incorporates a unique polygonal internal drive that provides a high torque capacity.

### Applications

- All coiled tubing operations
- Fishing operations

### Features and Benefits

- High torque capacity
- Multi-shot manipulations
- Adds flexibility to the BHA in deviated wells
- Robust design
- Easy to maintain
- Manipulation of BHA

### SPECIFICATIONS

#### CT Torque Through Knuckle Joint

Assembly Part Number	Outside Diameter	Minimum ID*	Working Pressure	Make Up Length	Reach (Kickover)	Weight	Torque Rating
11944-XXXX	1.500 in.	0.500 in.	10,000 psi	9.34 in.	10°	1.4 kg	430 ft. lb
12234-XXXX	1.687 in.	0.562 in.	10,000 psi	10.18 in.	10°	1.8 kg	550 ft. lb
12489-XXXX	1.750 in.	0.625 in.	10,000 psi	10.22 in.	10°	2.0 kg	600 ft. lb
11954-XXXX	2.000 in.	0.625 in.	10,000 psi	11.70 in.	10°	3.1 kg	1000 ft. lb
12225-XXXX	2.125 in.	0.687 in.	10,000 psi	12.19 in.	10°	3.7 kg	1200 ft. lb
12496-XXXX	2.250 in.	0.750 in.	10,000 psi	12.38 in.	10°	4.1 kg	1400 ft. lb
11964-XXXX	2.500 in.	0.812 in.	10,000 psi	13.46 in.	10°	5.3 kg	1950 ft. lb
12215-XXXX	2.875 in.	0.937 in.	10,000 psi	15.75 in.	10°	8.8 kg	2950 ft. lb
11969-XXXX	3.125 in.	1.000 in.	10,000 psi	15.56 in.	10°	9.7 kg	3940 ft. lb

XXXX denotes connection (see coiled tubing thread connections).

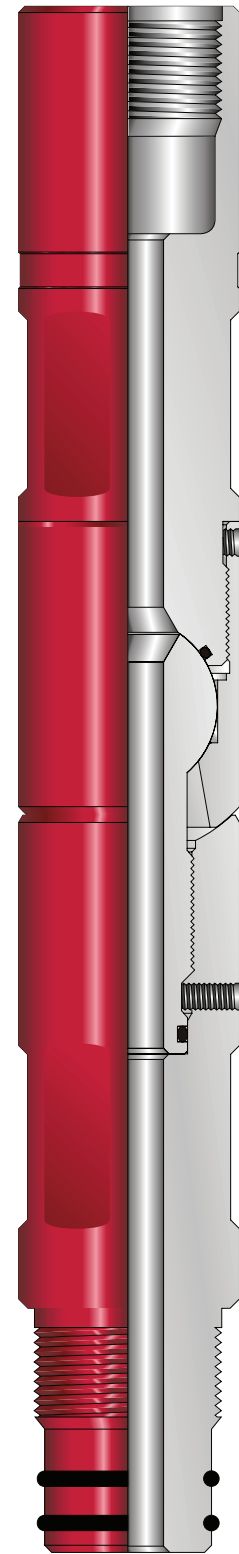
Add suffix 'H' to assembly number for H<sub>2</sub>S service.

Strengths stated excluding connections.

Weights stated are approximate (excluding connections).

Minimum ID may change, dependent on connection type.

Torsional capacity excludes connection.







## CT Lead Impression Block

### Tool Description

The Weatherford BDK Lead Impression Block (LIB) is used to identify fishing necks and debris during coiled tubing-conveyed fishing operations, and can be manufactured to any size.

The lead impression block has a circulation sub at the top, which enables fluids to be pumped during the operation. The lead is protected by an outer skirt, which prevents damage whilst running into the completion tubular.

### Applications

- Fish identification

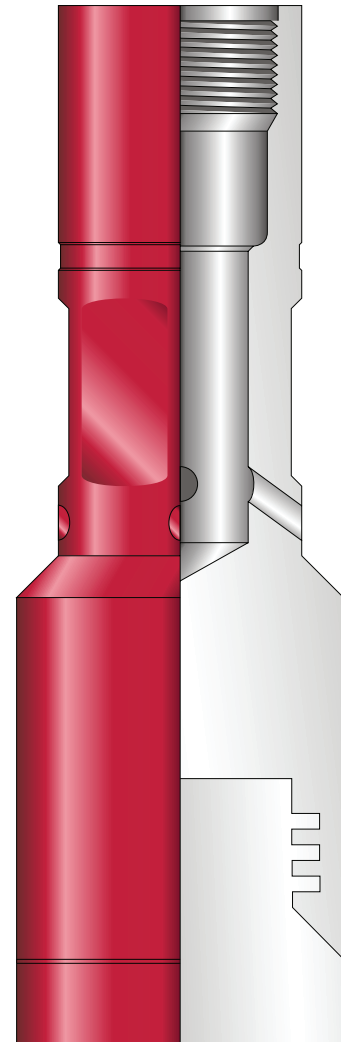
### Features and Benefits

- Manufactured to customers requirements
- Circulation sub at top of LIB
- Skirt to protect lead whilst running in to locate fish
- Robust design
- Suitable for all sizes of coiled tubing

### SPECIFICATIONS

#### CT Lead Impression Block

Assembly Number	Max OD	Connection OD	Overall Length	Weight
9291-1875-XXXX	1.875 in.	1.562 in.	9.17 in.	1.8 kg
9291-2500-XXXX	2.500 in.	2.250 in.	9.87 in.	3.2 kg
9291-2750-XXXX	2.750 in.	2.250 in.	10.00 in.	3.8 kg
9291-3000-XXXX	3.000 in.	2.250 in.	10.13 in.	4.3 kg
9291-3250-XXXX	3.250 in.	2.250 in.	10.25 in.	5.1 kg
9291-3500-XXXX	3.500 in.	2.250 in.	10.38 in.	5.7 kg
9291-3750-XXXX	3.750 in.	2.250 in.	10.50 in.	6.2 kg
9291-4000-XXXX	4.000 in.	2.250 in.	10.75 in.	7.3 kg
9291-4250-XXXX	4.250 in.	2.250 in.	10.87 in.	9.0 kg
9291-4500-XXXX	4.500 in.	2.250 in.	11.00 in.	9.0 kg
9291-4750-XXXX	4.750 in.	2.250 in.	11.13 in.	9.9 kg
9291-5000-XXXX	5.000 in.	2.250 in.	11.25 in.	10.7 kg
9291-5250-XXXX	5.250 in.	2.250 in.	11.38 in.	11.8 kg
9291-5500-XXXX	5.500 in.	2.250 in.	11.50 in.	12.8 kg
9291-5750-XXXX	5.750 in.	2.250 in.	11.75 in.	14.2 kg
9291-6000-XXXX	6.000 in.	2.250 in.	11.87 in.	15.4 kg
9291-6250-XXXX	6.250 in.	2.250 in.	12.00 in.	16.7 kg
9291-6500-XXXX	6.500 in.	2.250 in.	12.23 in.	18.2 kg
9291-6750-XXXX	6.750 in.	2.250 in.	12.25 in.	19.5 kg
9291-7000-XXXX	7.000 in.	2.250 in.	12.38 in.	21.0 kg





## CT Lead Impression Block - Ball Indicator

### Tool Description

The Weatherford BDK Ball Indicator Lead Impression Block (LIB) is designed to provide more accurate information during fishing applications or standard operations. This design can record two sets of data in one application. When the LIB is engaged onto the fish, the lower section will make an indentation of the fish and the upper section will give the orientation of the fish. This in turn will assist in the correct tool selection for recovery.

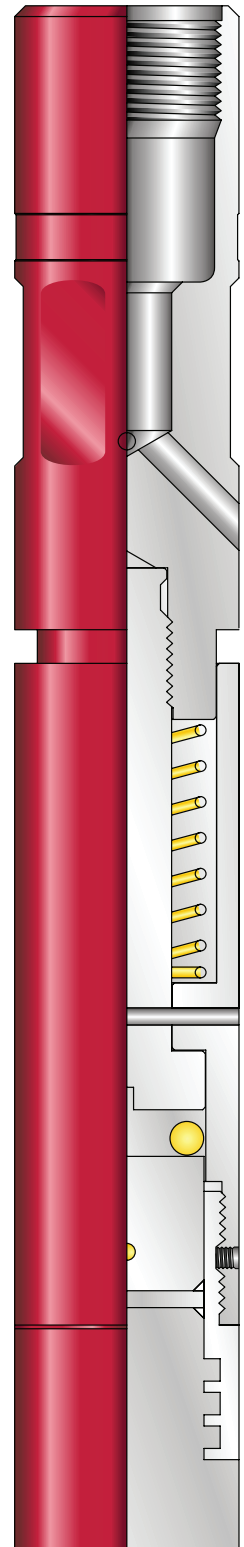
The coiled tubing ball-assisted LIB incorporates a ported sub at the top to allow circulation through the coiled tubing if required.

Tools are manufactured to any size required.

Part numbers available on request.

### Features and Benefits

- Dual acting indication
- Flow through capacity
- Robust design
- Provides more accurate information during fishing applications or standard operations





## CT Magnet

### Tool Description

The Weatherford BDK Coiled Tubing Magnet is designed to retrieve small magnetically attractable metal items such as milling debris, nuts and bolts, which can cause problems within the completion tubular.

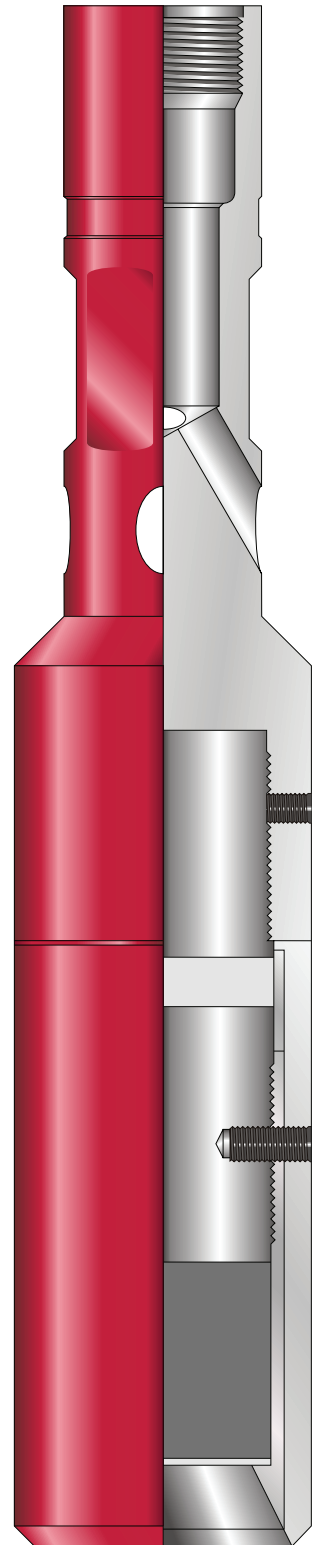
The magnet has circulation ports at the top to enable circulation through the coiled tubing during the operation; the magnet is also protected by an outer sleeve to keep any debris that is collected from becoming dislodged while the coiled tubing is being retrieved to surface.

### Applications

- Removal of milling debris
- Removal of small metal particles

### Features and Benefits

- Manufactured to customer requirements
- Circulation sub at top of magnet
- Skirt to protect magnet prevent debris from becoming dislodged
- Robust design
- Suitable for all sizes of coiled tubing





SPECIFICATIONS

CT Magnet

Assembly Number	Max OD	Connection OD	Overall Length	Weight
12207-2300-XXXX	2.300 in.	2.000 in.	13.25 in.	3.9 kg
12207-2350-XXXX	2.350 in.	2.000 in.	13.27 in.	4.1 kg
12207-2400-XXXX	2.400 in.	2.000 in.	13.30 in.	4.2 kg
12207-2450-XXXX	2.450 in.	2.000 in.	13.32 in.	4.5 kg
12207-2500-XXXX	2.500 in.	2.000 in.	13.35 in.	4.7 kg
12207-2550-XXXX	2.550 in.	2.000 in.	13.37 in.	4.8 kg
12207-2600-XXXX	2.600 in.	2.000 in.	13.40 in.	4.9 kg
12207-2650-XXXX	2.650 in.	2.000 in.	13.43 in.	5.2 kg
12207-2700-XXXX	2.700 in.	2.000 in.	13.45 in.	5.4 kg
12207-2750-XXXX	2.750 in.	2.000 in.	13.48 in.	5.7 kg
12207-2800-XXXX	2.800 in.	2.000 in.	13.50 in.	5.8 kg
12207-2850-XXXX	2.850 in.	2.000 in.	13.53 in.	6.1 kg
12207-2900-XXXX	2.900 in.	2.000 in.	13.55 in.	6.3 kg
12207-2950-XXXX	2.950 in.	2.000 in.	13.58 in.	6.5 kg
9314-3000-XXXX	3.000 in.	2.250 in.	14.02 in.	6.8 kg
9314-3050-XXXX	3.050 in.	2.250 in.	14.05 in.	7.0 kg
9314-3100-XXXX	3.100 in.	2.250 in.	14.07 in.	7.3 kg
9314-3150-XXXX	3.150 in.	2.250 in.	14.10 in.	7.4 kg
9314-3200-XXXX	3.200 in.	2.250 in.	14.12 in.	7.7 kg
9314-3250-XXXX	3.250 in.	2.250 in.	14.15 in.	8.0 kg
9314-3300-XXXX	3.300 in.	2.250 in.	14.17 in.	8.3 kg
9314-3350-XXXX	3.350 in.	2.250 in.	14.20 in.	8.6 kg
12922-3400-XXXX	3.400 in.	3.125 in.	14.65 in.	8.5 kg

Assembly Number	Max OD	Connection OD	Overall Length	Weight
12922-3450-XXXX	3.450 in.	3.125 in.	14.68 in.	8.8 kg
12922-3500-XXXX	3.500 in.	3.125 in.	14.70 in.	9.1 kg
12922-3550-XXXX	3.550 in.	3.125 in.	14.73 in.	9.3 kg
12922-3600-XXXX	3.600 in.	3.125 in.	14.75 in.	9.7 kg
12922-3650-XXXX	3.650 in.	3.125 in.	14.78 in.	9.9 kg
12922-3700-XXXX	3.700 in.	3.125 in.	14.80 in.	10.3 kg
12922-3750-XXXX	3.750 in.	3.125 in.	14.83 in.	10.6 kg
12922-3800-XXXX	3.800 in.	3.125 in.	14.85 in.	10.9 kg
12922-3850-XXXX	3.850 in.	3.125 in.	14.88 in.	11.2 kg
12922-3900-XXXX	3.900 in.	3.125 in.	14.90 in.	11.6 kg
12922-3950-XXXX	3.950 in.	3.125 in.	14.93 in.	11.8 kg
12922-4000-XXXX	4.000 in.	3.125 in.	14.95 in.	12.2 kg
12922-4050-XXXX	4.050 in.	3.125 in.	14.97 in.	12.6 kg
12922-4100-XXXX	4.100 in.	3.125 in.	15.00 in.	12.9 kg
12922-4150-XXXX	4.150 in.	3.125 in.	15.03 in.	13.3 kg
12922-4200-XXXX	4.200 in.	3.125 in.	15.05 in.	13.7 kg
12922-4250-XXXX	4.250 in.	3.125 in.	15.08 in.	14.0 kg
12922-4300-XXXX	4.300 in.	3.125 in.	15.10 in.	14.4 kg
12922-4350-XXXX	4.350 in.	3.125 in.	15.13 in.	14.8 kg
12922-4400-XXXX	4.400 in.	3.125 in.	15.15 in.	15.2 kg
12922-4450-XXXX	4.450 in.	3.125 in.	15.18 in.	15.5 kg
12922-4500-XXXX	4.500 in.	3.125 in.	15.20 in.	16.0 kg
12922-4550-XXXX	4.550 in.	3.125 in.	15.23 in.	16.4 kg

XXXX denotes connection (see coiled tubing thread connections).  
 Add suffix 'H' to assembly number for H<sub>2</sub>S service.  
 Strengths stated excluding connections.  
 Weights stated are approximate (excluding connections).  
 Minimum ID may change, dependent on connection type.



## CT Motorhead Assembly

### Tool Description

The Weatherford BDK Motorhead Assembly incorporates the standard tools used in coiled tubing operations in one compact assembly.

A choice of top connections is available for joining to the coiled tubing to the motorhead assembly.

The tool is supplied as standard with thread connections. Optional integral connectors are available upon request. These can either be an outline connector such as the grub screw connector or grapple style connector, or an in-line type such as the dimple-on or roll-on connector which allows the operator to achieve a minimum makeup length.

Part numbers available on request.

### Applications

- Standard coiled tubing operations
- Impact deck operations

### Features and Benefits

- Below the top connection is a cartridge style double flapper check valve, which offers a dual safety system combined with the added advantage of fast and efficient redress.
- Below the double flapper check valve is a hydraulic disconnect, which offers a torque-through facility and pump-off release. To release, a drop ball is deployed, which seats on the bobbin. Pressure is then applied to overcome the strength of the shear screws. Failure of the shear screws causes the bobbin to move into the release position, which allows retrieval of the upper section, leaving a fish neck profile exposed for future retrieval of the lower section.
- The lower tool is a dual-function circulating sub, designed as a circulating safety component within the BHA. The design features a shear activated ball seat coupled with a burst disc. Should circulation be lost during a coiled tubing operation, an increase in applied pressure to the tubing will rupture the burst disc, and allow sufficient circulation to pump a ball. Pressure can then be applied to shear the shear screws and shift the piston to regain maximum circulation.
- The shear screws provide for quick and easy redress, and are positioned such that they are readily accessible.
- Robust design
- Reduced toolstring length
- Cost effective



Shear Screw



## CT Bull Nose Jetting Nozzle

### Tool Description

The Weatherford BDK Bull Nose Jetting Nozzles are available in single-and multi-port designs.

The multi-port nozzle is designed to give full radial coverage over the completion tubular during well intervention operations, the ports can be manufactured in either side jet, down jet or up-jet configurations with the size of the jetting holes set to the maximum performance for each size of nozzle.

The single-ported design has a hole bored through the center for placement of slurry during a shut off operation.

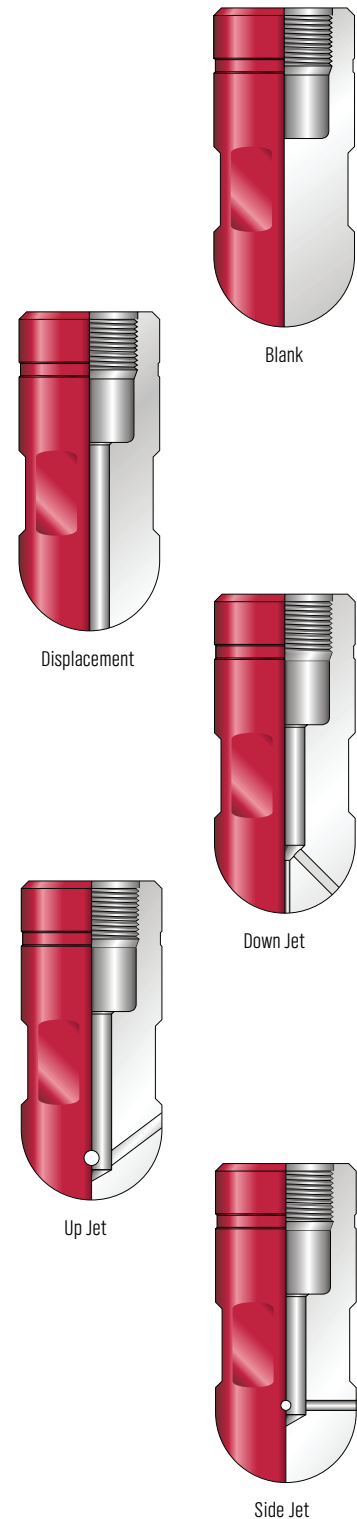
These nozzles can also be manufactured with out any ports if requested.

### Applications

- Standard coiled tubing operations
- Cementation operation
- Acidization operations

### Features and Benefits

- Various porting configurations for different applications
- Full radial coverage on multi-ported nozzle
- Single port for placement applications
- Robust design
- Suitable for all sizes of coiled tubing





SPECIFICATIONS

CT Bull Nose Jetting Nozzle

Assembly Number	Tool OD	Hole Pattern	Number of Holes	Hole Diameter	Overall Length
4938-XXXX	1.250 in.	Blank	0	n/a	4.6 in.
4939-XXXX	1.250 in.	Displacement	1	0.620 in.	4.6 in.
4940-XXXX	1.250 in.	Side	4	0.190 in.	4.6 in.
4941-XXXX	1.250 in.	Up Jet	4	0.190 in.	4.6 in.
4942-XXXX	1.250 in.	Down	5	0.190 in.	4.6 in.
4943-XXXX	1.500 in.	Blank	0	n/a	5.00 in.
4944-XXXX	1.500 in.	Displacement	1	0.620 in.	5.00 in.
4945-XXXX	1.500 in.	Side	4	0.190 in.	5.00 in.
4946-XXXX	1.500 in.	Up Jet	4	0.190 in.	5.00 in.
4947-XXXX	1.500 in.	Down	5	0.190 in.	5.00 in.
4948-XXXX	1.750 in.	Blank	0	n/a	5.40 in.
4949-XXXX	1.750 in.	Displacement	1	0.620 in.	5.40 in.
4950-XXXX	1.750 in.	Side	4	0.190 in.	5.40 in.
4951-XXXX	1.750 in.	Up Jet	4	0.190 in.	5.40 in.
4952-XXXX	1.750 in.	Down	5	0.190 in.	5.40 in.
4953-XXXX	2.000 in.	Blank	0	n/a	5.80 in.
4954-XXXX	2.000 in.	Displacement	1	0.620 in.	5.80 in.
4955-XXXX	2.000 in.	Side	4	0.190 in.	5.80 in.
4956-XXXX	2.000 in.	Up Jet	4	0.190 in.	5.80 in.
4957-XXXX	2.000 in.	Down	5	0.190 in.	5.80 in.
4958-XXXX	2.125 in.	Blank	0	n/a	6.00 in.
4959-XXXX	2.125 in.	Displacement	1	0.620 in.	6.00 in.
4960-XXXX	2.125 in.	Side	4	0.190 in.	6.00 in.
4961-XXXX	2.125 in.	Up Jet	4	0.190 in.	6.00 in.
4962-XXXX	2.125 in.	Down	5	0.190 in.	6.00 in.
4963-XXXX	2.250 in.	Blank	0	n/a	6.20 in.
4964-XXXX	2.250 in.	Displacement	1	0.620 in.	6.20 in.
4965-XXXX	2.250 in.	Side	4	0.190 in.	6.20 in.
4966-XXXX	2.250 in.	Up Jet	4	0.190 in.	6.20 in.
4967-XXXX	2.250 in.	Down	5	0.190 in.	6.20 in.

XXXX denotes connection (see coiled tubing thread connections).  
 Add suffix 'H' to assembly number for H<sub>2</sub>S service.  
 Strengths stated excluding connections.  
 Weights stated are approximate (excluding connections).  
 Minimum ID may change, dependent on connection type.



SPECIFICATIONS

CT Bull Nose Jetting Nozzle

Assembly Number	Tool OD	Hole Pattern	Number of Holes	Hole Diameter	Overall Length
4968-XXXX	2.375 in.	Blank	0	n/a	6.30 in.
4969-XXXX	2.375 in.	Displacement	1	0.620 in.	6.30 in.
4970-XXXX	2.375 in.	Side	4	0.190 in.	6.30 in.
4971-XXXX	2.375 in.	Up Jet	4	0.190 in.	6.30 in.
4972-XXXX	2.375 in.	Down	5	0.190 in.	6.30 in.
4973-XXXX	2.500 in.	Blank	0	n/a	6.50 in.
4974-XXXX	2.500 in.	Displacement	1	0.620 in.	6.50 in.
4975-XXXX	2.500 in.	Side	4	0.190 in.	6.50 in.
4976-XXXX	2.500 in.	Up Jet	4	0.190 in.	6.50 in.
4977-XXXX	2.500 in.	Down	5	0.190 in.	6.50 in.
6000-XXXX	2.750 in.	Blank	0	n/a	7.30 in.
6001-XXXX	2.750 in.	Displacement	1	0.620 in.	7.30 in.
6002-XXXX	2.750 in.	Side	4	0.190 in.	7.30 in.
6003-XXXX	2.750 in.	Up Jet	4	0.190 in.	7.30 in.
5993-XXXX	2.750 in.	Down	5	0.190 in.	7.30 in.
4938-XXXX	1.250 in.	Blank	0	n/a	4.6 in.
4939-XXXX	1.250 in.	Displacement	1	0.620 in.	4.6 in.
4940-XXXX	1.250 in.	Side	4	0.190 in.	4.6 in.
4941-XXXX	1.250 in.	Up Jet	4	0.190 in.	4.6 in.
4942-XXXX	1.250 in.	Down	5	0.190 in.	4.6 in.
4943-XXXX	1.500 in.	Blank	0	n/a	5.00 in.
4944-XXXX	1.500 in.	Displacement	1	0.620 in.	5.00 in.
4945-XXXX	1.500 in.	Side	4	0.190 in.	5.00 in.
4946-XXXX	1.500 in.	Up Jet	4	0.190 in.	5.00 in.
4947-XXXX	1.500 in.	Down	5	0.190 in.	5.00 in.

XXXX denotes connection (see coiled tubing thread connections).

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

Strengths stated excluding connections.

Weights stated are approximate (excluding connections).

Minimum ID may change, dependent on connection type.





## SPECIFICATIONS

## CT Bull Nose Jetting Nozzle

Assembly Number	Tool OD	Hole Pattern	Number of Holes	Hole Diameter	Overall Length
4948-XXXX	1.750 in.	Blank	0	n/a	5.40 in.
4949-XXXX	1.750 in.	Displacement	1	0.620 in.	5.40 in.
4950-XXXX	1.750 in.	Side	4	0.190 in.	5.40 in.
4951-XXXX	1.750 in.	Up Jet	4	0.190 in.	5.40 in.
4952-XXXX	1.750 in.	Down	5	0.190 in.	5.40 in.
4953-XXXX	2.000 in.	Blank	0	n/a	5.80 in.
4954-XXXX	2.000 in.	Displacement	1	0.620 in.	5.80 in.
4955-XXXX	2.000 in.	Side	4	0.190 in.	5.80 in.
4956-XXXX	2.000 in.	Up Jet	4	0.190 in.	5.80 in.
4957-XXXX	2.000 in.	Down	5	0.190 in.	5.80 in.
4958-XXXX	2.125 in.	Blank	0	n/a	6.00 in.
4959-XXXX	2.125 in.	Displacement	1	0.620 in.	6.00 in.
4960-XXXX	2.125 in.	Side	4	0.190 in.	6.00 in.
4961-XXXX	2.125 in.	Up Jet	4	0.190 in.	6.00 in.
4962-XXXX	2.125 in.	Down	5	0.190 in.	6.00 in.
4963-XXXX	2.250 in.	Blank	0	n/a	6.20 in.
4964-XXXX	2.250 in.	Displacement	1	0.620 in.	6.20 in.
4965-XXXX	2.250 in.	Side	4	0.190 in.	6.20 in.
4966-XXXX	2.250 in.	Up Jet	4	0.190 in.	6.20 in.
4967-XXXX	2.250 in.	Down	5	0.190 in.	6.20 in.
4968-XXXX	2.375 in.	Blank	0	n/a	6.30 in.
4969-XXXX	2.375 in.	Displacement	1	0.620 in.	6.30 in.
4970-XXXX	2.375 in.	Side	4	0.190 in.	6.30 in.
4971-XXXX	2.375 in.	Up Jet	4	0.190 in.	6.30 in.
4972-XXXX	2.375 in.	Down	5	0.190 in.	6.30 in.
4973-XXXX	2.500 in.	Blank	0	n/a	6.50 in.
4974-XXXX	2.500 in.	Displacement	1	0.620 in.	6.50 in.
4975-XXXX	2.500 in.	Side	4	0.190 in.	6.50 in.
4976-XXXX	2.500 in.	Up Jet	4	0.190 in.	6.50 in.
4977-XXXX	2.500 in.	Down	5	0.190 in.	6.50 in.
6000-XXXX	2.750 in.	Blank	0	n/a	7.30 in.
6001-XXXX	2.750 in.	Displacement	1	0.620 in.	7.30 in.
6002-XXXX	2.750 in.	Side	4	0.190 in.	7.30 in.
6003-XXXX	2.750 in.	Up Jet	4	0.190 in.	7.30 in.
5993-XXXX	2.750 in.	Down	5	0.190 in.	7.30 in.

XXXX denotes connection (see coiled tubing thread connections).

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

Strengths stated excluding connections.

Weights stated are approximate (excluding connections).

Minimum ID may change, dependent on connection type.

Back to TOC



## CT Fluted Jetting Nozzle

### Tool Description

The Weatherford BDK Fluted Nozzles are available in single-and multi-port designs.

The fluted jetting nozzle allows well debris to pass through the flutes during a cleanout operation and gives some centralization to the BHA.

The multi port nozzle is designed to give full radial coverage over the completion tubular during well intervention operations. The porting can be manufactured in either side-jet, down-jet or up-jet configurations with the size of the jetting holes set to the maximum performance for each size of nozzle.

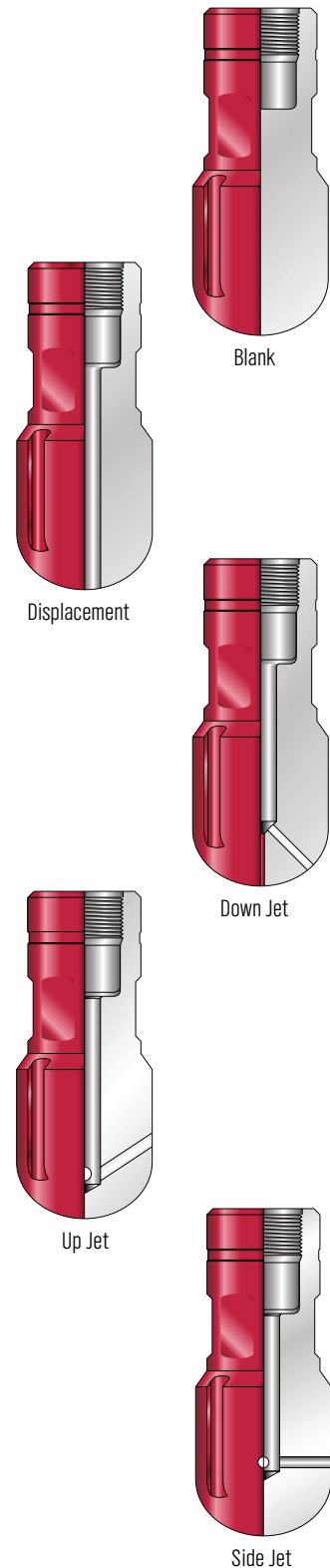
The single-ported design has a hole bored through the center for placement of slurry during a shut off operation. These nozzles can also be manufactured with out any ports if requested.

### Applications

- Standard coiled tubing operations
- Cementation operation
- Acidization operations

### Features and Benefits

- Various porting configurations for different applications
- Full radial coverage on multi-ported nozzle
- Single port for placement applications
- Robust design
- Suitable for all sizes of coiled tubing





## SPECIFICATIONS

## CT Fluted Jetting Nozzle

Assembly Number	Tool OD	Hole Pattern	Number of Holes	Hole Diameter	Overall Length
4994-XXXX	1.750 in.	Blank	0	n/a	6.3 in.
5001-XXXX	1.750 in.	Displacement	1	0.620 in.	6.3 in.
5002-XXXX	1.750 in.	Side	4	0.190 in.	6.3 in.
5003-XXXX	1.750 in.	Up Jet	4	0.190 in.	6.3 in.
5004-XXXX	1.750 in.	Down	5	0.190 in.	6.3 in.
5005-XXXX	2.000 in.	Blank	0	n/a	6.7 in.
5006-XXXX	2.000 in.	Displacement	1	0.620 in.	6.7 in.
5007-XXXX	2.000 in.	Side	4	0.190 in.	6.7 in.
5008-XXXX	2.000 in.	Up Jet	4	0.190 in.	6.7 in.
5009-XXXX	2.000 in.	Down	5	0.190 in.	6.7 in.
5010-XXXX	2.125 in.	Blank	0	n/a	6.9 in.
5011-XXXX	2.125 in.	Displacement	1	0.620 in.	6.9 in.
5012-XXXX	2.125 in.	Side	4	0.190 in.	6.9 in.
5013-XXXX	2.125 in.	Up Jet	4	0.190 in.	6.9 in.
5014-XXXX	2.125 in.	Down	5	0.190 in.	6.9 in.
5015-XXXX	2.250 in.	Blank	0	n/a	7.0 in.
5016-XXXX	2.250 in.	Displacement	1	0.620 in.	7.0 in.
5017-XXXX	2.250 in.	Side	4	0.190 in.	7.0 in.
5018-XXXX	2.250 in.	Up Jet	4	0.190 in.	7.0 in.
5019-XXXX	2.250 in.	Down	5	0.190 in.	7.0 in.
5020-XXXX	2.375 in.	Blank	0	n/a	7.35 in.
5021-XXXX	2.375 in.	Displacement	1	0.620 in.	7.35 in.
5022-XXXX	2.375 in.	Side	4	0.190 in.	7.35 in.
5023-XXXX	2.375 in.	Up Jet	4	0.190 in.	7.35 in.
5024-XXXX	2.375 in.	Down	5	0.190 in.	7.35 in.
5030-XXXX	2.500 in.	Blank	0	n/a	7.40 in.
5031-XXXX	2.500 in.	Displacement	1	0.620 in.	7.40 in.
5032-XXXX	2.500 in.	Side	4	0.190 in.	7.40 in.
5033-XXXX	2.500 in.	Up Jet	4	0.190 in.	7.40 in.
5034-XXXX	2.500 in.	Down	5	0.190 in.	7.40 in.
6004-XXXX	2.750 in.	Blank	0	n/a	7.50 in.
6005-XXXX	2.750 in.	Displacement	1	0.620 in.	7.50 in.
6006-XXXX	2.750 in.	Side	4	0.190 in.	7.50 in.
6007-XXXX	2.750 in.	Up Jet	4	0.190 in.	7.50 in.
6008-XXXX	2.750 in.	Down	5	0.190 in.	7.50 in.
5035-XXXX	2.875 in.	Blank	0	n/a	7.90 in.
5036-XXXX	2.875 in.	Displacement	1	0.620 in.	7.90 in.
5037-XXXX	2.875 in.	Side	4	0.190 in.	7.90 in.
5038-XXXX	2.875 in.	Up Jet	4	0.190 in.	7.90 in.
5039-XXXX	2.875 in.	Down	5	0.190 in.	7.90 in.



SPECIFICATIONS

CT Fluted Jetting Nozzle

Assembly Number	Tool OD	Hole Pattern	Number of Holes	Hole Diameter	Overall Length
6218-XXXX	3.000 in.	Blank	0	n/a	8.10 in.
6219-XXXX	3.000 in.	Displacement	1	0.620 in.	8.10 in.
6220-XXXX	3.000 in.	Side	4	0.190 in.	8.10 in.
6221-XXXX	3.000 in.	Up Jet	4	0.190 in.	8.10 in.
6222-XXXX	3.000 in.	Down	5	0.190 in.	8.10 in.
5040-XXXX	3.125 in.	Blank	0	n/a	8.20 in.
5041-XXXX	3.125 in.	Displacement	1	0.620 in.	8.20 in.
5042-XXX	3.125 in.	Side	4	0.190 in.	8.20 in.
5043-XXXX	3.125 in.	Up Jet	4	0.190 in.	8.20 in.
5044-XXXX	3.125 in.	Down	5	0.190 in.	8.20 in.
5045-XXXX	3.500 in.	Blank	0	n/a	9.00 in.
5553-XXXX	3.500 in.	Displacement	1	0.620 in.	9.00 in.
5554-XXXX	3.500 in.	Side	4	0.190 in.	9.00 in.
5555-XXXX	3.500 in.	Up Jet	4	0.190 in.	9.00 in.
5556-XXXX	3.500 in.	Down	5	0.190 in.	9.00 in.
5575-XXXX	3.750 in.	Blank	0	n/a	9.20 in.
5576-XXXX	3.750 in.	Displacement	1	0.620 in.	9.20 in.
5577-XXXX	3.750 in.	Side	4	0.190 in.	9.20 in.
5578-XXXX	3.750 in.	Up Jet	4	0.190 in.	9.20 in.
5579-XXXX	3.750 in.	Down	5	0.190 in.	9.20 in.
5592-XXXX	4.000 in.	Blank	0	n/a	9.70 in.
5593-XXXX	4.000 in.	Displacement	1	0.620 in.	9.70 in.
5594-XXXX	4.000 in.	Side	4	0.190 in.	9.70 in.
5595-XXXX	4.000 in.	Up Jet	4	0.190 in.	9.70 in.
5596-XXXX	4.000 in.	Down	5	0.190 in.	9.70 in.
5597-XXXX	4.250 in.	Blank	0	n/a	10.00 in.
5598-XXXX	4.250 in.	Displacement	1	0.620 in.	10.00 in.
5599-XXXX	4.250 in.	Side	4	0.190 in.	10.00 in.
5600-XXXX	4.250 in.	Up Jet	4	0.190 in.	10.00 in.
5601-XXX	4.250 in.	Down	5	0.190 in.	10.00 in.
5602-XXXX	4.500 in.	Blank	0	n/a	10.40 in.
5603-XXXX	4.500 in.	Displacement	1	0.620 in.	10.40 in.
5604-XXXX	4.500 in.	Side	4	0.190 in.	10.40 in.
5605-XXXX	4.500 in.	Up Jet	4	0.190 in.	10.40 in.
5606-XXXX	4.500 in.	Down	5	0.190 in.	10.40 in.
5607-XXXX	5.000 in.	Blank	0	n/a	11.20 in.
5608-XXXX	5.000 in.	Displacement	1	0.620 in.	11.20 in.
5609-XXXX	5.000 in.	Side	4	0.190 in.	11.20 in.
5610-XXXX	5.000 in.	Up Jet	4	0.190 in.	11.20 in.
5611-XXXX	5.000 in.	Down	5	0.190 in.	11.20 in.

XXXX denotes connection (see coiled tubing thread connections).

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

Strengths stated excluding connections.

Weights stated are approximate (excluding connections).

Minimum ID may change, dependent on connection type.



## CT Mule Shoe Nozzle

### Tool Description

The Weatherford BDK Mule Shoe Jetting Nozzles are available in single and multi port designs

The mule shoe jetting nozzle is designed with a lead in edge for entering through completion profiles.

The multi-port nozzle is designed to give full radial coverage over the completion tubular during well intervention operations. The porting can be manufactured in either side-jet, down-jet or up-jet configurations with the size of the jetting holes set to the maximum performance for each size of nozzle.

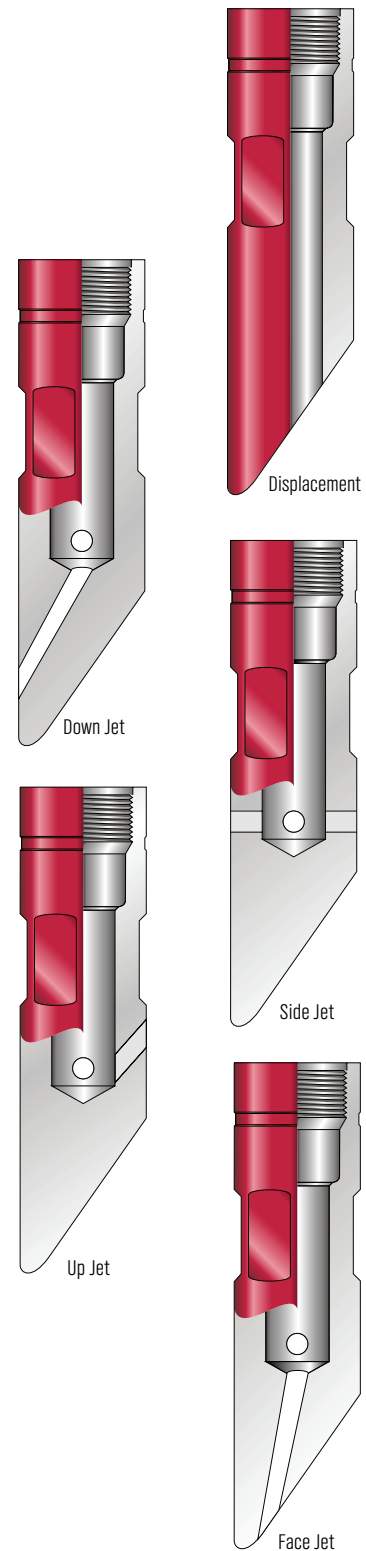
The single-ported design has a hole bored through the center for placement of slurry during a shut off operation. These nozzles can also be manufactured with out any ports if requested.

### Applications

- Standard coiled tubing operations
- Cementation operation
- Acidization operations

### Features and Benefits

- Various porting configurations for different applications
- Full radial coverage on multi-ported nozzle
- Single port for placement applications
- Robust design
- Suitable for all sizes of coiled tubing





SPECIFICATIONS

CT Mule Shoe Nozzle

Assembly Number	Tool OD	Hole Pattern	Number of Holes	Hole Diameter	Overall Length
03165-02-XXXX	1.250 in.	Displacement	1	0.375 in.	3.87 in.
03165-03-XXXX	1.250 in.	Down Jet	1	0.187 in.	3.87 in.
03165-01-XXXX	1.250 in.	Side Jet	4	0.187 in.	3.87 in.
03165-XX-XXXX*	1.250 in.	Up Jet	tbc	tbc	3.87 in.
03165-XX-XXXX*	1.250 in.	Face Jet	tbc	tbc	3.87 in.
01726-01-XXXX	1.500 in.	Displacement	1	0.625 in.	4.90 in.
01726-02-XXXX	1.500 in.	Down Jet	4	0.250 in.	4.90 in.
01726-03-XXXX	1.500 in.	Side Jet	4	0.250 in.	4.90 in.
01726-04-XXXX	1.500 in.	Up Jet	4	0.250 in.	4.90 in.
01726-07-XXXX	1.500 in.	Face Jet	1	0.375 in.	4.90 in.
12817-XXXX	1.750 in.	Displacement	1	0.625 in.	5.69 in.
12817-XX-XXXX*	1.750 in.	Down Jet	tbc	tbc	5.69 in.
12817-XX-XXXX*	1.750 in.	Side Jet	tbc	tbc	5.69 in.
12817-XX-XXXX*	1.750 in.	Up Jet	tbc	tbc	5.69 in.
12817-XX-XXXX*	1.750 in.	Face Jet	tbc	tbc	5.69 in.
01668-01-XXXX	2.250 in.	Displacement	1	1.000 in.	11.87 in.
01668-04-XXXX	2.250 in.	Down Jet	1	0.375 in.	12.00 in.
01668-02-XXXX	2.250 in.	Side Jet	4	0.375 in.	12.23 in.
01668-03-XXXX	2.250 in.	Up Jet	4	0.375 in.	12.25 in.
01668-05-XXXX	2.250 in.	Face Jet	1	0.375 in.	12.38 in.

XXXX denotes connection (see Coiled tubing thread connections)  
 Add suffix 'H' to assembly number for H2S service.  
 Strengths stated excluding connections  
 Weights stated are approximate (excluding connections)  
 Minimum ID may change dependent on connection type



## CT Multi-Jet Wash Nozzle

### Tool Description

The Weatherford BDK Multi-Jet Jetting Nozzle offers the versatility of an interchangeable variable jetting orifice. This tool ensures that a full tubular radius is obtained during cleanout operations.

The multi-jet jetting nozzle is designed to allow the operator to set up the jetting sequence that best suit his and his customer's requirements.

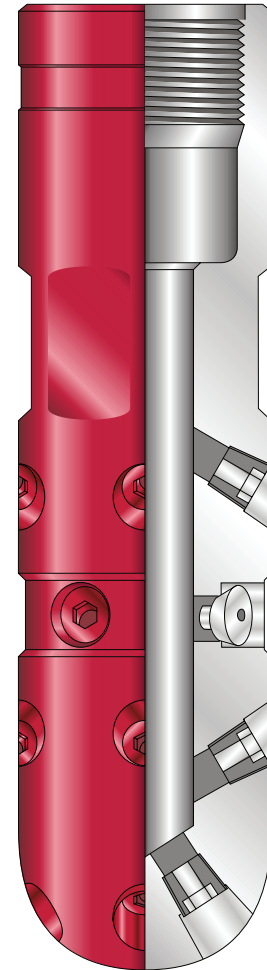
This is achieved by removing the blanking plugs and inserting the ported plugs for a specific application the hole size in the ports can be changed as required.

### Applications

- Standard coiled tubing operations
- Acidization operations

### Features and Benefits

- Various porting configurations for different applications
- Easy to adjust porting arrangements on location for specific operations
- Robust design
- Suitable for all sizes of coiled tubing



### SPECIFICATIONS

#### CT Rotary Jetting Nozzle

Assembly Number	Tool OD	Number of Holes	Hole Size	Overall Length
8043-XXXX	1.750 in.	17	1/8 in. NPT	8.25 in.
8044-XXXX	2.000 in.	17	1/4 in. NPT	9.40 in.
8045-XXXX	2.125 in.	17	1/4 in. NPT	9.40 in.
8046-XXXX	2.250 in.	17	1/4 in. NPT	10.10 in.
8047-XXXX	2.375 in.	17	1/4 in. NPT	10.20 in.
8048-XXXX	2.500 in.	17	1/4 in. NPT	10.40 in.
8049-XXXX	2.875 in.	17	1/4 in. NPT	10.70 in.
8050-XXXX	3.125 in.	17	1/4 in. NPT	11.60 in.

XXXX denotes connection (see coiled tubing thread connections).

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

Strengths stated excluding connections.

Weights stated are approximate (excluding connections).

Minimum ID may change, dependent on connection type.

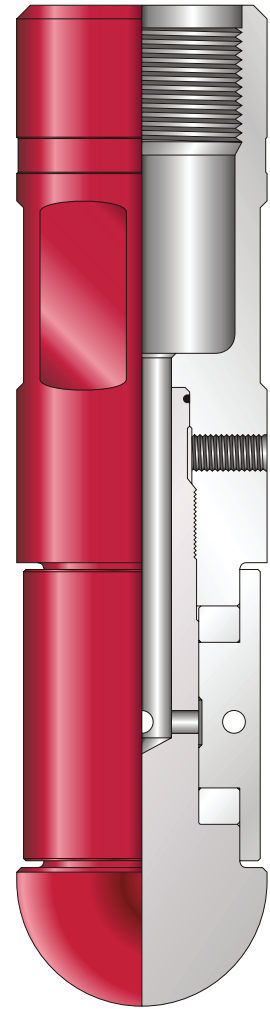


## CT Rotary Jetting Nozzle

### Tool Description

The Weatherford BDK Rotary Jetting Nozzle is equipped with tangential ports for more powerful and effective washing.

This tool is supplied with optional sleeves, for various jetting angles.







## SPECIFICATIONS

### CT Rotary Jetting Nozzle

Tool OD		1.500 in.	1.750 in.	1.875 in.	2.125 in.	2.375 in.	2.625 in.
Make-up Length		8.24 in.	8.56 in.	9.04 in.	8.74 in.	10.10 in.	10.55 in.
Number of Ports		4	4	4	4	4	4
Size of Ports		0.156 in.	0.156 in.	0.156 in.	0.156 in.	0.156 in.	0.156 in.
Weight		0.9 kg	1.3 kg	1.6 kg	2.2 kg	2.9 kg	3.8 kg
Std Standard Service	SWL	27,300 lb	21,240 lb	39,510 lb	39,510 lb	68,340 lb	126,500 lb
	Yield	30,340 lb	23,600 lb	43,900 lb	43,900 lb	75,940 lb	140,550 lb
	UTS	38,620 lb	30,040 lb	55,880 lb	55,880 lb	96,650 lb	178,880 lb
Strength H <sub>2</sub> S Service	SWL	19,860 lb	15,450 lb	28,740 lb	28,740 lb	49,700 lb	92,000 lb
	Yield	22,070 lb	17,170 lb	31,930 lb	31,930 lb	55,230 lb	102,220 lb
	UTS	27,590 lb	21,460 lb	39,920 lb	39,920 lb	69,030 lb	127,770 lb
Assembly Number	Up or Down Jet	9829-01-xxxx	9830-01-xxxx	7253-01-xxxx	9832-01-xxxx	9834-01-xxxx	7507-01-xxxx
	Side Jet	9829-02-xxxx	9830-02-xxxx	7253-02-xxxx	9832-02-xxxx	9834-02-xxxx	7507-02-xxxx

XXXX denotes connection (see coiled tubing thread connections).

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

Strengths stated excluding connections.

Weights stated are approximate (excluding connections).

Minimum ID may change, dependent on connection type.

The rotary jetting nozzle is supplied as standard with side jet ports.

The tool is available with up or down jet ports on request.



## CT Plug Catcher

### Tool Description

The Weatherford BDK Plug Catcher is used to retain coiled tubing plugs in the bottomhole assembly (BHA) after cementation, acidization or cleaning operations.

The design enables the plug to be caught at the lower section of the Plug Catcher and allows the treatment that is being displaced to be positioned in a controlled manner while giving a surface indication of the plugs being ruptured or bumped at surface during cementation operations.

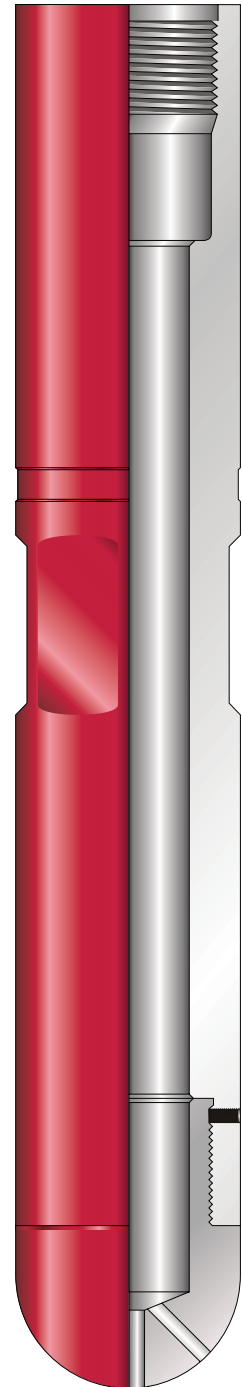
The plug catcher is available for any size of coiled tubing. Tools are manufactured to any size required. Part numbers are available on request.

### Applications

- Standard coiled tubing applications
- Cementation operation
- Acidization operations

### Features and Benefits

- Plug indication once the plug is at the BHA
- Controlled displacement
- Robust design
- Easy to operate
- Positive indication that the plug is on seat





# CT Plug Launcher

## Tool Description

The Weatherford BDK Plug Launcher allows various styles of wiper/cementation plugs to be inserted into the coiled tubing in a controlled manner.

The plug launcher incorporates a bleed-off system to allow the coiled tubing isolation valve to be closed for inflow testing prior to removing the top cap being removed for the plug installation.

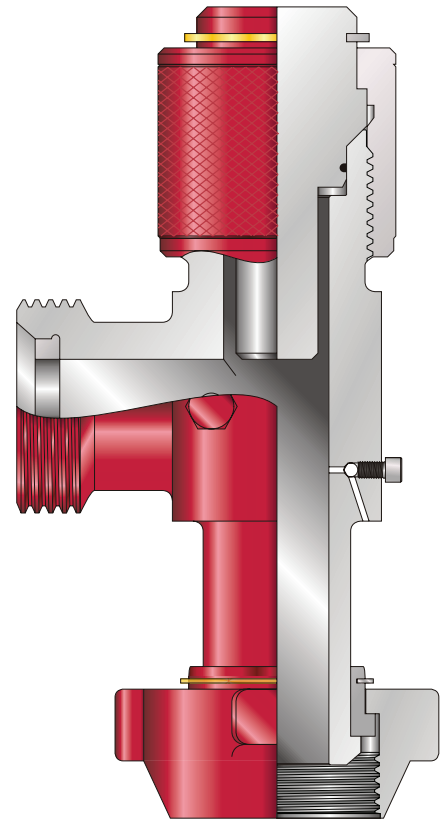
When the plug is inserted into the plug launcher the top cap is then replaced. While this is being tightened, the plug is being lowered into position just below the fluid entry point to ease injection of the plug into the coiled tubing.

## Applications

- Standard coiled tubing applications
- Cementation operation
- Acidization operations

## Features and Benefits

- Fully certified
- Pressure bled facility
- Plug location system
- Robust design
- Easy to operate
- Prevents damage to coiled tubing wiper / cementation plugs
- Controlled installation



## SPECIFICATIONS

### CT Plug Launcher

Assembly Number	To Suit plug	Connection	Working Pressure	Test Pressure	Overall Length
9168	1.968 in. (50 mm)	2 in. Weco 1502	10,000 psi	15,000 psi	14.75 in.



## CT Skate

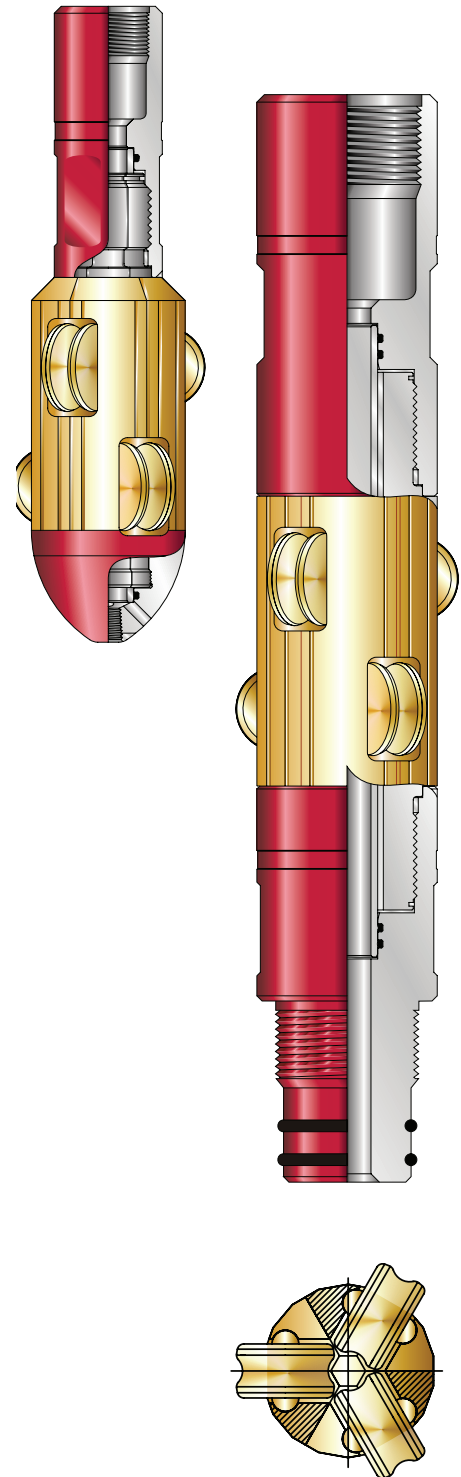
### Tool Description

The Weatherford BDK Coiled Tubing Skate System transports the toolstring downhole to the wells furthest extremities.

Part numbers are available on request.

### Features and Benefits

- 360° roller orientation eliminates requirements for swivel joints
- Profiled wheels for easier traversing of tubing wall debris.
- Integral axles for increased strength
- Spherical axle ends for maximum roller support during side loads
- No wheel axle locking screws, seals or pins
- Clearance between wheel and cavity eliminates the ingress of debris
- Quick and easy maintenance
- Available with BDK quick-release or conventional connections
- Minimum requirements of two per toolstring, dependent upon application
- Skate style jetting nozzle is also available (as shown)
- Permanent wheel contact with the tubing wall in any orientation
- Reduced friction
- Increased reliability
- Extended service life





SPECIFICATIONS

CT Skate

Body Diameter	Through Bore	Wheel Diameter	Wheel Width	Effective Diameter
3.13 in.	0.83 in.	0.680 in.	0.99 in.	3.25 in.
		0.680 in.		3.38 in.
		0.680 in.		3.50 in.
		0.680 in.		3.62 in.
		0.680 in.		3.75 in.
		0.802 in.		3.87 in.
		0.930 in.		4.00 in.
4.00 in.	1.00 in.	0.813 in.	1.13 in.	4.12 in.
		0.813 in.		4.25 in.
		0.813 in.		4.38 in.
		0.813 in.		4.50 in.
		0.813 in.		4.62 in.
		0.813 in.		4.75 in.
		0.813 in.		4.88 in.
		0.813 in.		5.00 in.
		0.935 in.		5.13 in.
5.00 in.	1.50 in.	0.845 in.	1.63 in.	5.13 in.
		0.845 in.		5.25 in.
		0.845 in.		5.37 in.
		0.975 in.		5.50 in.
		1.106 in.		5.62 in.
		1.226 in.		5.75 in.
		1.347 in.		5.88 in.
		2.110 in.		6.13 in.
		1.347 in.		6.25 in.
2.299 in.	6.38 in.			
6.00 in.	1.75 in.	0.872 in.	2.13 in.	6.13 in.
		0.872 in.		6.25 in.
		0.872 in.		6.38 in.
		0.872 in.		6.50 in.
		0.872 in.		6.62 in.
		0.872 in.		6.75 in.
		0.872 in.		6.88 in.
		1.002 in.		7.00 in.
		1.134 in.		7.13 in.
		1.262 in.		7.25 in.
		2.646 in.		7.37 in.
2.853 in.	7.50 in.			
7.00 in.	TBC	1.079 in.	TBC	3.50 in.
		1.185 in.		3.63 in.
		1.315 in.		3.75 in.
		1.445 in.		3.88 in.
		1.575 in.		4.00 in.
		1.704 in.		4.13 in.
		1.824 in.		4.25 in.
		1.943 in.		4.37 in.



## CT Lead Filled and Tungsten Stem

### Tool Description

The Weatherford BDK Lead Filled and Tungsten Stem increases toolstring momentum, improving the effectiveness of jarring operations. This stem provides extra weight per foot when compared with the conventional weight bar.

### Applications

- All coiled tubing operations
- Fishing operations
- Cementation operations
- Cleanout operations

### Features and Benefits

- Removes the residual curve from the coiled tubing when conducting complex fishing operations
- Provides additional length to the BHA for cementation and cleanout operations
- Adds mass to the BHA for jarring operations
- Removes residual curve from coiled tubing
- Gives BHA addition length and weight if required

### SPECIFICATIONS

#### CT Lead Filled and Tungsten Stem

OD	Min ID*	Drift ID*	Length	Weight		Assembly Number	
				Lead	Tungsten	Lead	Tungsten
1.812 in.	0.375 in.	0.312 in.	36 in.	11.4 kg	12.6 kg	13133-XXXX	11605-XXXX
1.875 in.	0.375 in.	0.312 in.	36 in.	12.2 kg	13.4 kg	13134-XXXX	6330-XXXX
2.125 in.	0.500 in.	0.438 in.	36 in.	15.1 kg	N/A	13135-XXXX	N/A
2.250 in.	0.500 in.	0.438 in.	36 in.	21.2 kg	23 kg	13136-XXXX	6331-XXXX
2.875 in.	0.500 in.	0.438 in.	36 in.	33.0 kg	36 kg	13137-XXXX	7014-XXXX

XXXX denotes connection (see coiled tubing thread connections).

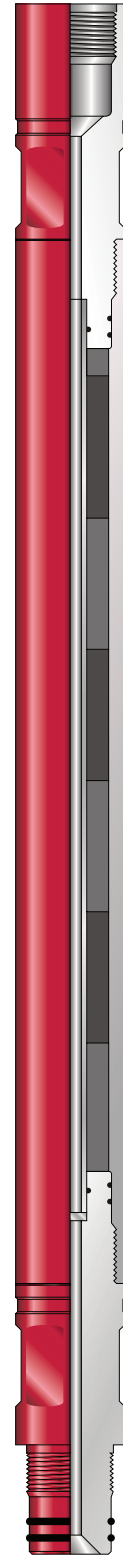
Add suffix 'H' to assembly number for H<sub>2</sub>S service.

Strengths stated excluding connections.

Weights stated are approximate (excluding connections).

Minimum ID may change, dependent on connection type.

Additional OD and length configurations available on request.





## CT Straight Joint/Weight Bar

### Tool Description

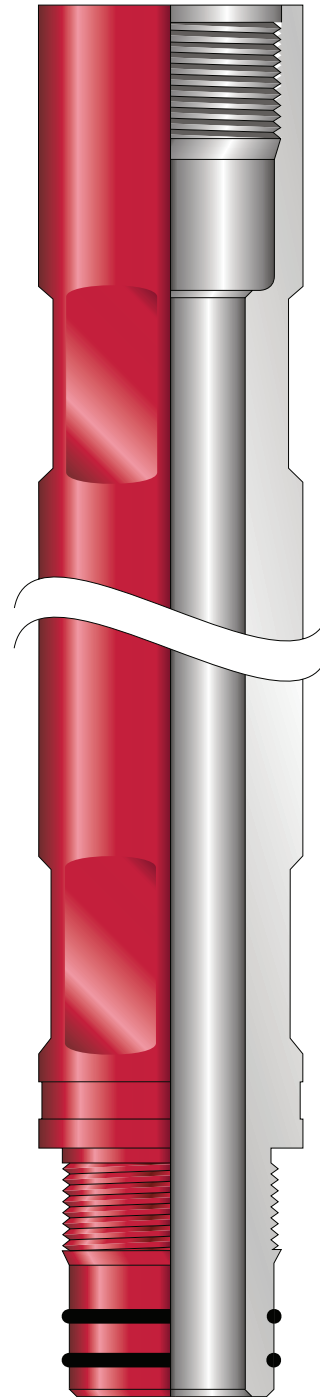
The Weatherford BDK Straight Joint/Weight Bar adds extra mass to the coiled tubing string for various applications. This straight joint/weight bar is manufactured with box x pin connections and is available in various sizes. The straight joint offers the operator a means of removing the CT residual curve at the bottomhole assembly. By straightening the BHA the coiled tubing can pass unrestricted through crossovers, landing nipples and other restrictions within the wellbore.

### Applications

- All coiled tubing operations
- Fishing operations
- Cementation operations
- Cleanout operations

### Features and Benefits

- Removes residual curve from the coiled tubing when conducting complex fishing operations
- Gives additional length to the BHA for cementation and cleanout operations
- Adds mass to the BHA for jarring operations
- Gives BHA addition length and weight if required





## SPECIFICATIONS

## CT Straight Joint/Weight Bar

Assembly Number	Outside Diameter	Minimum ID*	Length	Weight
4808-XXXX	1.250 in.	0.375 in.	30 in.	4.0 kg
6086-XXXX	1.250 in.	0.375 in.	36 in.	4.8 kg
6304-XXXX	1.250 in.	0.375 in.	48 in.	6.5 kg
6329-XXXX	1.500 in.	0.625 in.	30 in.	5.1 kg
4869-XXXX	1.500 in.	0.625 in.	36 in.	6.2 kg
5990-XXXX	1.500 in.	0.625 in.	48 in.	8.5 kg
12152-XXXX	1.687 in.	0.625 in.	36 in.	8.2 kg
7419-XXXX	1.750 in.	0.905 in.	30 in.	6.1 kg
5870-XXXX	1.750 in.	0.905 in.	36 in.	7.5 kg
5871-XXXX	1.750 in.	0.905 in.	48 in.	10.2 kg
7420-XXXX	2.000 in.	1.030 in.	30 in.	7.9 kg
6087-XXXX	2.000 in.	1.030 in.	36 in.	9.7 kg
4316-XXXX	2.125 in.	1.150 in.	36 in.	10.5 kg
6088-XXXX	2.250 in.	1.220 in.	36 in.	12.2 kg
6089-XXXX	2.375 in.	1.280 in.	36 in.	13.1 kg
6090-XXXX	2.500 in.	1.400 in.	36 in.	14.0 kg
5294-XXXX	2.500 in.	1.400 in.	48 in.	19.0 kg
6091-XXXX	2.875 in.	1.780 in.	36 in.	16.4 kg
6092-XXXX	3.125 in.	2.030 in.	36 in.	18.0 kg
6093-XXXX	3.500 in.	2.280 in.	36 in.	22.2 kg

XXXX denotes connection (see coiled tubing thread connections).

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

Strengths stated excluding connections.

Weights stated are approximate (excluding connections).

Minimum ID may change, dependent on connection type.

Additional OD and length configurations available on request





# CT Swivel Joint

## Tool Description

The Weatherford BDK Swivel Joint offers bearing assisted rotation when making up the bottomhole assembly (BHA) in the riser. The bearing-operated swivel is smooth in operation and can be used in large deployment operations or where the coiled tubing tools are needed.

## Applications

- All coiled tubing operations
- Fishing operations
- Cementation operations
- Cleanout operations

## Features and Benefits

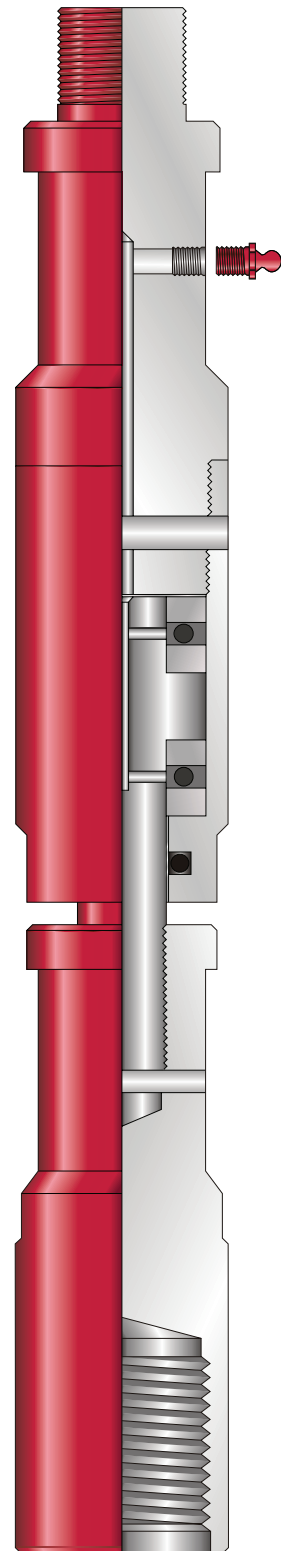
- Enclosed swivel prevents well fluids from affecting the bearing assembly
- Anti-rotational roll pins stop movement of the BHA once deployed
- Short make up length for tool
- Robust design
- Easy to maintain
- Quick to install and easy to operate
- Enclosed bearing system reduces maintenance

## SPECIFICATIONS

### CT Swivel Joint

Assembly Number	Outside Diameter	Minimum ID*	Length	Weight
12448-XXXX	1.500 in.	0.375 in.	10.08 in.	1.5 kg
7278-XXXX	1.750 in.	0.530 in.	12.13 in.	2.3 kg
6845-XXXX	2.000 in.	0.780 in.	12.43 in.	2.7 kg
7830-XXXX	2.125 in.	1.010 in.	12.68 in.	3.0 kg
7939-XXXX	2.250 in.	1.125 in.	12.68 in.	3.2 kg
6951-XXXX	2.500 in.	0.930 in.	14.40 in.	5.3 kg
6554-XXXX	2.875 in.	1.040 in.	14.40 in.	7.0 kg
10809-XXXX	3.875 in.	2.000 in.	16.38 in.	12.3 kg

XXXX denotes connection (see coiled tubing thread connections).  
 Add suffix 'H' to assembly number for H<sub>2</sub>S service.  
 Strengths stated excluding connections.  
 Weights stated are approximate (excluding connections).  
 Minimum ID may change, dependent on connection type.





## Tubing Clamp

### Tool Description

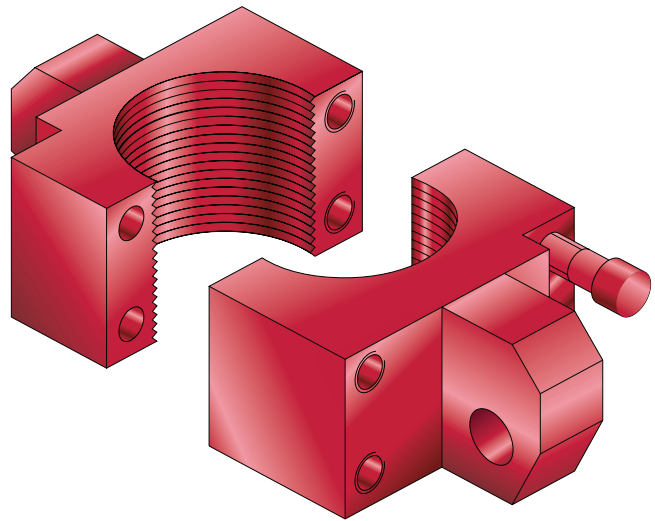
The Weatherford BDK Tubing Clamp is used to secure the coiled tubing at surface, and can be utilized in various coiled tubing applications.

### Applications

- Toolstring deployment
- Securing coiled tubing in fishing operations
- Backup to BOP slip rams

### Features and Benefits

- Easy to install onto the coiled tubing
- Can be manufactured for all coiled tubing sizes
- Each clamp supplied with test load certification
- Robust design



## SPECIFICATIONS

### Tubing Clamp

Part Number	CT Size
8439	1.250 in.
8801	1.500 in.
8802	1.750 in.
8803	2.000 in.
8826	2.375 in.
8827	2.875 in.
11734	3.500 in.

S.W.L. 5 Ton

Supplied c/w proof load certification.



# CT Tubing End Locator

## Tool Description

The Weatherford BDK Tubing End Locator has a positive arm locator. After being run outside the tubing end, the locator spring loaded finger falls against the shear release pin. An over-pull greater than the string weight will shear the pin, which will allow the finger to collapse inside the body.

## SPECIFICATIONS

### CT Tubing End Locator

OD		1.900 in.	2.125 in.	2.125 in.	
Make-up Length		23 in.	23 in.	23 in.	
Standard Finger Length		2.625 in.	2.625 in.	2.16 in.	
* Length 'A'		3.53 in.	3.78 in.	3.31 in.	
Approximate Overpull to Shear Pin	2.625 in. Finger	Mild Steel	380 lb	380 lb	----
		Brass	280 lb	280 lb	----
	3.625 in. Finger	Mild Steel	280 lb	280 lb	----
		Brass	200 lb	200 lb	----
	4.625 in. Finger	Mild Steel	220 lb	220 lb	----
		Brass	160 lb	160 lb	----
2.16 in. Finger	Mild Steel	----	----	2,000lb	
2.92 in. Finger	Mild Steel	----	----	----	
Weight		5.8 kg	6.1 kg	6.1 kg	
Strength - Standard Service	SWL	84,990 lb	108,050 lb	108,050 lb	
	Yield	97,430 lb	120,060 lb	120,060 lb	
	UTS	124,000 lb	152,800 lb	152,800 lb	
Strength - H <sub>2</sub> S Service	SWL	63,770 lb	78,590 lb	78,590 lb	
	Yield	70,860 lb	87,320 lb	87,320 lb	
	UTS	88,570 lb	109,140 lb	109,140 lb	
Assembly Number		6375-F-xxxx	01830-00-F-xxxx	13492-xxxx	

XXXX denotes connection (see coiled tubing thread connections).

Add suffix 'H' to assembly number for H<sub>2</sub>S service.

Strengths stated excluding connections.

Weights stated are approximate (excluding connections).

Minimum ID may change, dependent on connection type.

Assembly number consists of - drawing number - finger length required - connection required

E.g. For 1.900 in. OD tubing end locator with 3.625 in. long finger - assembly number 6375-3625-xxxx

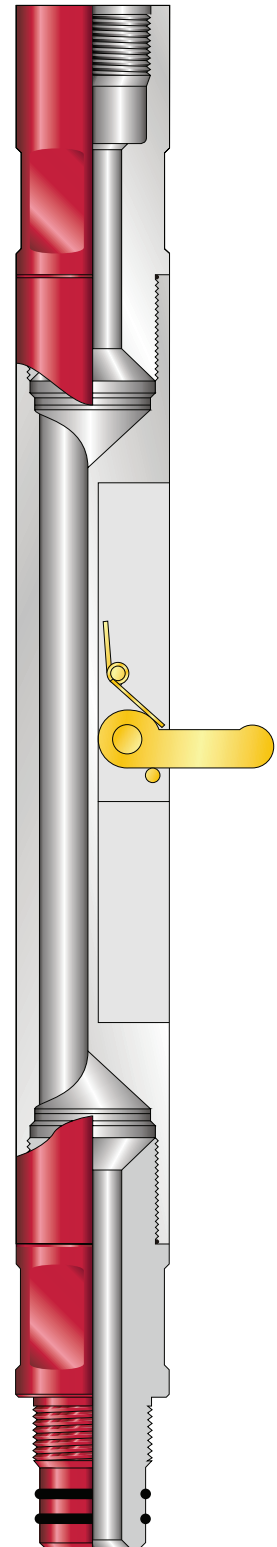
Finger lengths are available at customer request.

Lengths above 4.625 in. will increase make-up length

\* Length 'A'

When using 3.625 in. Finger the length stated increases by 1 in.

When using 4.625 in. Finger the length stated increases by 2 in.





## CT Tubing Snake

### Tool Description

The Weatherford BDK Coiled Tubing Snake is used to manipulate the coiled tubing into the injector head prior to making up the bottomhole assembly.

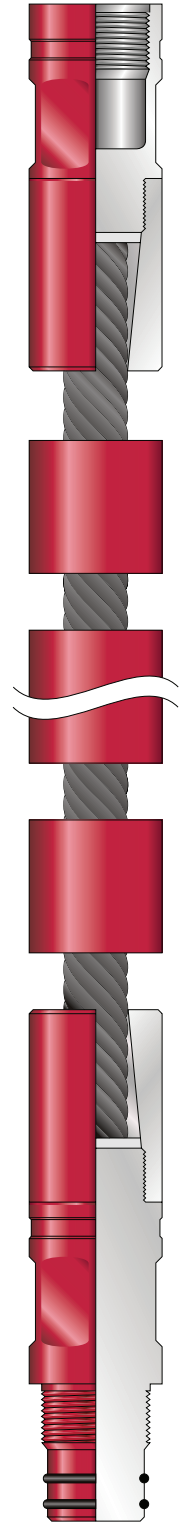
The tubing snake is available in any combination of length and OD part numbers are available on request.

### Applications

- Standard coiled tubing operations
- Milling applications
- Fishing operations
- Impact deck operations
- Coiled tubing deployment into the injector head

### Features and Benefits

- Snake is easy to install onto the coiled tubing
- Can be manufactured for all coiled tubing sizes
- Reduces manual handling required to install the coiled tubing into the injector head
- Reduces rig up time



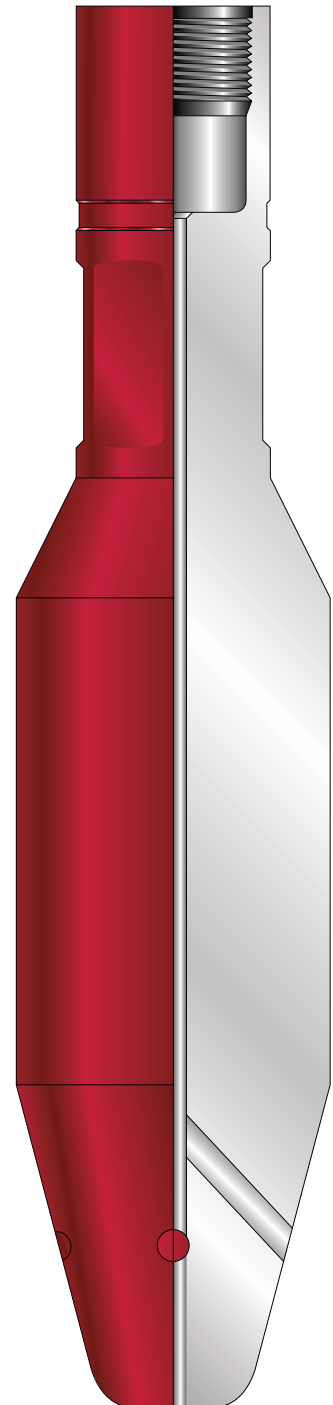


## CT Tubing Swage

### Tool Description

The Weatherford BDK Tubing Swage is used to open collapsed tubing to enable the free passage of flow-control devices. The flow passage helps to wash loose scale and lubricates the swage to reduce friction as the tool is run in the tubing.

Tools are manufactured to any size required.  
Part numbers available on request.





**BDK INTERVENTION PRODUCTS**





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A Weatherford Company

## OILFIELD TOOLS FOR THE TOUGHEST CHALLENGES

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