

Retrievable DwC Workstring Release-Retrieval Device

Releases and retrieves the latch and bottomhole assembly (BHA) from the profile collar and casing string

Applications

- Performing retrievable drilling-with-casing (DwC) operations in vertical, inclined, and extended-reach-drilling wells

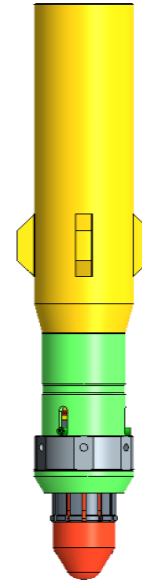
Features and Benefits

- The workstring release-retrieval device (WRRD) is run on drillpipe to retrieve the latched BHA and replace a BHA component without pulling the casing string.
- The field-proven GS spear in the WRRD is compatible with the latch and hydraulic releasing device (HRD) components in the retrievable DwC system.
- The jetting ports on the WRRD bullnose provide effective cleaning of debris that has settled on the latch and HRD top subs to facilitate stabbing in and engaging with the GS spear.
- Running the drill disconnect tool above the WRRD is recommended to mitigate the risk of sacrificing the drillpipe because of a stuck BHA.

Tool Description

The Weatherford retrievable DwC system enables operators to drill or ream with casing and retrieve the BHA before and after reaching the target depth. The system includes four key components: the WRRD, latch, HRD, and hydraulic locking device (HLD).

Run on drillpipe, the WRRD releases and retrieves the latch and BHA from the profile collar and casing string. The WRRD is also used in tandem with the latch and the BHA to retrieve the HRD after reaching total depth (TD). A pulling force of approximately 1,000 lbf (4,448 N) unlocks the latch and associated assemblies from the casing string, and then the casing is lowered to cover the rathole.



The retrievable DwC WRRD is run on drillpipe to retrieve the latched BHA after reaching TD or before reaching TD to replace a BHA component.



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Specifications

Casing size	9.625 in. (244.5 mm)
Casing weight	36 to 53.5 lb/ft (53.5 to 79.6 kg/m)
Maximum OD: stabilizer	8.375 in. (212.7 mm)
Maximum OD: body	6.25 in. (158.8 mm)
Minimum ID	1.5 in. (38.1 mm)
Length	38 in. (965.2 mm)
Weight	215 lb (97.5 kg)
Maximum flow rate	23 gal/min (87 L/min)
Spear tensile yield strength	150,000 lbf (667,233 N)
Spear required engaging force	1,600 lbf (6,672.3 N)
Operating temperature	30°F to 300°F (-1°C to 149°C)
Top and bottom connections	NC50 box
Bottom connections	GS spear



The photo to the left shows the retrievable DwC WRRD at the wellsite.

