

## HDL Compression-Set Packer

Isolates annulus pressure from formation pressure and allows formation fluid to flow into tubing

### Applications

- Tubing-conveyed perforating operations
- Drillstem testing
- Casing production testing
- Squeeze cementing

### Features and Benefits

- A one-quarter turn sets the packer and a pickup unsets it, which minimizes trip time.
- An automatic jay mechanism comes standard on the HDL packer, simplifies operations, and reduces rig time.
- The heavy-duty mandrel supports high-tensile loads, enabling heavy strings to hang from the packer.
- Carbide slips, buttons, and drag blocks come standard on the packer and provide long service life.
- Interchangeable end subs enable easy thread changing for quick changes between tubing and drillpipe.
- The pressure-balanced mandrel holddown counteracts pressure from below, permitting circulation without unsetting the packer.
- High-integrity seals reduce leak occurrence, which minimizes the need to redress the tool.
- The long setting stroke of the packer facilitates circulation and equalization through the unloader valve without unsetting the packer.

### Tool Description

The Weatherford HDL compression-set service packer is a modified version of the Weatherford HD service packer. The setting stroke of the HDL packer is longer to provide easier opening of the unloader valve when setting the packer. By preventing disturbance of the lower slip and drag block assembly, this feature helps to eliminate the risk of unsetting the packer. The HDL packer was specifically designed for tubing-conveyed perforating (TCP) and drillstem testing applications, which often require setting the packer and then opening the unloader valve to circulate fluids.

The HDL packer sets with a quarter-turn rotation and slack-off weight. Standard drag blocks, lower slips, and holddown buttons are equipped with carbide inserts for extra gripping ability. The hydraulically operated holddown buttons anchor the packer during operations, creating high-pressure differential from below the packer.



The Weatherford HDL compression-set packer is a mechanical retrievable packer with holddown buttons and a concentric bypass that enables circulation across the packer to reduce the squeezing effect to the reservoir while RIH and reduce swabbing effect while pulling out of hole.



# HDL Compression-Set Packer

## Tool Description Continued

The packer has an integral, internal unloader valve that enables equalization of pressure or circulation below the packer before the tool is unset. The unloader valve also enables circulation around the holddown body, making it possible to remove debris that would otherwise interfere with retrieval. The capability to bypass through the valve and packer allows for faster trip times with less swabbing.

The HDL packer is also well-suited to function as a TCP “shoot and pull” or drillstem test packer. Its long stroke allows for opening the unloader without unsetting the packer. All internal threads on the mandrel are high-strength, stubacme threads. Interchangeable end subs are available for switching easily from tubing to drillpipe threads.

## Specifications

Casing				Packer			
OD	Weight	Minimum ID	Maximum ID	Maximum OD	Minimum OD	Thread Connection Box × Pin	Part Number
5 in. (127.00 mm)	11.5 to 18.0 lb/ft (17.1 to 26.8 kg/m)	4.276 in. (108.61 mm)	4.560 in. (115.82 mm)	4.130 in. (104.90 mm)	1.610 in. (40.89 mm)	2-3/8 in. EU 8 RD	1154607
	18.0 to 21.0 lb/ft (26.8 to 31.3 kg/m)	4.154 in. (105.51 mm)	4.276 in. (108.61 mm)	3.974 in. (100.94 mm)	1.610 in. (40.89 mm)		1147202
5-1/2 in. (139.70 mm)	14.0 to 17.0 lb/ft (20.8 to 25.3 kg/m)	4.892 in. (124.26 mm)	5.012 in. (127.30 mm)	4.641 in. (117.88 mm)	1.700 in. (43.18 mm)		1159251
	20.0 to 23.0 lb/ft (29.8 to 34.2 kg/m)	4.670 in. (118.62 mm)	4.7778 in. (121.36 mm)	4.516 in. (114.71 mm)	1.700 in. (43.18 mm)		1157757
6-5/8 in. (168.22 mm)	24.0 to 32.0 lb/ft (35.7 to 47.6 kg/m)	5.675 in. (144.15 mm)	5.921 in. (150.39 mm)	5.505 in. (139.83 mm)	2.370 in. (60.20 mm)	2-7/8 in. EU 8 RD	1166010
7 in. (177.80 mm)	17.0 to 26.0 lb/ft (25.3 to 38.7 kg/m)	6.276 in. (159.41 mm)	6.538 in. (166.07 mm)	6.099 in. (154.91 mm)	2.370 in. (60.20 mm)		1169954
	26.0 to 32.0 lb/ft (38.7 to 47.6 kg/m)	6.094 in. (154.79 mm)	6.276 in. (159.41 mm)	5.891 in. (149.63 mm)			1170731
	29.0 to 35.0 lb/ft (43.2 to 52.1 kg/m)	6.004 in. (152.50 mm)	6.184 in. (157.07 mm)	5.828 in. (148.03 mm)			1171945
7-5/8 in. (193.68 mm)	24.0 to 29.7 lb/ft (35.7 to 44.2 kg/m)	6.875 in. (174.63 mm)	7.025 in. (178.44 mm)	6.693 in. (170.00 mm)	2.370 in. (60.20 mm)		1180772
	33.7 to 39.0 lb/ft (50.2 to 58.0 kg/m)	6.625 in. (168.28 mm)	6.765 in. (171.83 mm)	6.458 in. (164.03 mm)			1181252
9-5/8 in. (244.48 mm)	43.5 to 53.5 lb/ft (64.7 to 79.6 kg/m)	8.535 in. (216.79 mm)	8.755 in. (222.38 mm)	8.281 in. (210.34 mm)	3.475 in. (88.27 mm)	4-1/2 in. ER 8 RD	1192310

