Inflatable Packers



Plug-and-Abandon Retainer Kit One-Trip Openhole Cement Retainer

Weatherford's plug-and-abandon retainer kit consists of field-proven hydraulic- and mechanical-disconnect products and a hydraulically activated dump valve that make up to the conventional Weatherford annulus casing inflated packer (ACPTM). These components enable the *ACP* tool to be set in an open hole and inflated with cement so that it can serve as a retainer. Immediately after inflation, additional cement can be squeezed into the open hole below the packer. The conventional *ACP* tool, which is normally run on a casing or liner, is crossed over to run on drillpipe or work strings for placement in the well.

When the assembly is run to the proper position in the well, a latch-down dart is pumped from the surface with cement behind it. A second dart is dropped behind the cement slurry. When the dart lands below the assembly, surface pressure is applied to inflate the packer with the cement. After the packer is inflated, additional surface pressure is applied to hydraulically open the dump valve, enabling cement to be squeezed below the inflated packer. Additional surface pressure is then applied to hydraulically disconnect the packer, aiding as an emergency release. Once the packer is disconnected, cement can be dumped directly on top of the *ACP* tool or reverse-circulated out of the well. The result is a plug set and cement squeeze in a single trip for horizontal or deviated wells.

Applications

- Useful in any circumstance where a section of a hole requires abandoning and plugging of cement and high-pressure squeeze-cementing operations
- Applicable in wells requiring proper placement of an ACP to shut off water, oil, or gas

Features, Advantages and Benefits

- The plug-and-abandon retainer kit significantly reduces rig time when cement is being squeezed in high-angle or horizontal openhole sections for abandonment.
- The kit is compatible with all standard *ACP* assemblies with seal elements 10 ft (3 m) and longer, maximizing operational efficiency with minimized equipment inventory.
- The standard kit includes all required equipment and does not require any special *ACP* inventory, contributing further to cost savings.





Plug-and-Abandon Retainer Kit One-Trip Openhole Cement Retainer

Features, Advantages and Benefits

- Hydraulic-disconnect shear screws are field accessible, simplifying overall job setup.
- The kit can be easily assembled at any operating district, enabling the kit to be shipped separately from the *ACP* tool, saving rig time.

Specifications

| Packer Size (in./ <i>mm</i>) | Top Connection Box (in.) | Overall Length | | | | | | |
|----------------------------------|--------------------------------|--------------------------------|-----------------------------|----------------------|-------------------|--------------------------|--------------------------|---------------------------------------|
| | | Kit Only (ft/ <i>m</i>) | Complete Assembly (ft/m) | | Minimum ID | Maximum OD Disconnect | Maximum Pull | Pressure Required to Disconnect |
| | | | 10-ft (3- <i>m</i>) | 20-ft (6- <i>m</i>) | (in./ <i>mm</i>) | (in./mm) | (lb/ <i>kg</i>) | (psi/MPa) |
| 2-3/8 60.3 | 2-3/8 (EUE) | 4.00 1.2 | 21.30 6.5 | 31.90 9.7 | 1.00 25.4 | 3.38 85.9 | 104,340 <i>47,328</i> | 500 or 1,000 3.4 or 6.9 |
| 2-7/8 73.0 | | | | | 2.88 73.2 | 4.00 101.6 | | |
| 3-1/2 88.9 | 2-7/8 (EUE) | 19.90 6.1 | 23.50 7.2 | 33.80 10.3 | 2.88 73.2 | 4.63 117.6 | 144,960 65,753 | 500 or 1,000 3.4 or 6.9 |
| 4-1/2 114.3 | | | | | | | | |
| 5-1/2 139.7 | | | 23.80 7.3 | | | | | |
| 7 177.8 | | | | | | | | |
| 9-5/8 244.5 | | | | | | | | |

Contact product liner management for availability.

weatherford.com

© 2006–2011 Weatherford. All rights reserved. 2779.01

Weatherford products and services are subject to the Company's standard terms and conditions, available on request or at weatherford.com. For more information contact an authorized Weatherford representative. Unless noted otherwise, trademarks and service marks herein are the property of Weatherford and may be registered in the United States and/or other countries. Weatherford products named herein may be protected by one or more U.S. and/or foreign patents. For more information, contact patents@weatherford.com. Specifications are subject to change without notice. Weatherford sells its products and services in accordance with the terms and conditions set forth in the applicable contract between Weatherford and the client.