Retrievable Gas Lift Straddles

Halliburton’s retrievable gas lift straddles allow the introduction of controlled gas lift into a well without the need for an expensive workover.

Designed to be positioned across pre-punched tubing or set across existing gas lift mandrels that have lost integrity due to erosion or mechanical damage, the injected gas passes through ports on the straddle OD and into the production flow via gas lift valves incorporated within the straddle system. Dual packing elements provide the pressure seal while a slip mechanism anchors the straddle to the wellbore. The slip mechanism is contained between the packing elements, protected from produced fines and well debris.

The BG0 Econolift gas lift straddle is run in two trips with the straddle installed on the first trip. An SU2 gas injection head with integral gas lift valve is then landed and locked into the top of the straddle on the second trip. Should failure of the gas lift valves occur or changes in the wellbore conditions require that the gas lift valves be reconfigured, the SU2 gas injection head may be retrieved and the gas lift valves changed out without the need to retrieve the entire straddle assembly. Dummy (blank) plugs can also be installed into the SU2 gas injection head to isolate the flow path if required.

The GL0 gas lift straddle and the BM0 Econolift gas lift straddle are both run in a single trip with the gas lift valves built into the straddle body. When these gas lift valves need to be replaced the straddle is retrieved to surface and the gas lift valves are replaced and then repositioned downhole. The BM0 is retrieved in one trip while the GL0 is retrieved in sections over two trips.

Applications

BG0, BM0 and GL0 retrievable gas lift straddles are specifically designed for installation in wells where the cost of a workover cannot be justified or where the well must be closed in until a workover can be planned. These systems also allow the injection of gas to depths previously unavailable or where a failed chemical injection sub is allowing hydrocarbons to enter the injection control line.

Features

- Provide a gas lift solution to suit from 2 7/8-in. to 7-in.
- GL0 and BM0 straddles run in a single trip; retrieval for BM0 is single trip, GL0 in two trips
- GL0 and BM0 straddles designed to accommodate up to three industry standard gas lift valves
- BG0 straddle and SU2 gas injection head can be run and retrieved on separate trips
- SU2 gas injection head accommodates up to four industry standard gas lift valves
- One-piece dual modulus packing elements
- High running and retrieval speeds
- Large footprint segmented slips
- Slip mechanism isolated from wellbore
- Slips mechanically retained on retrieval
- Controlled setting action
- Field redressable
Benefits

- **BM0 Straddle** can be run and retrieved in a single trip, minimizing rig time
- Although run and retrieved in two trips, the **SU2 gas injection head** can be recovered, redressed and replaced without the need to retrieve the entire BG0 straddle assembly
- Cost-effective solution for installation of controlled gas lift in wells with depleted reservoirs
- Allows reinstatement of controlled gas lift in wells where existing system has failed
- Allows extension of existing gas lift to depths previously unavailable
- Helps prevent the need for an expensive workover
- Packing element design enhances ability to return to original shape upon release thus reducing the risk of hanging up
- Slip mechanism isolated from the wellbore and protected from well debris thus improving reliability
- Mechanically retained slips reduce the risk of premature setting while running in hole and hanging up on retrieval
- Controlled setting action and slip design helps ensure stresses exerted on tubing are evenly distributed thus preventing damage

### Retrievable Gas Lift Straddles

<table>
<thead>
<tr>
<th>Casing / Tubing</th>
<th>Maximum OD in. (mm)</th>
<th>Minimum ID in. (mm)</th>
<th>Pressure Rating Above psi (bar)</th>
<th>Pressure Rating Below psi (bar)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Size in. (mm)</strong></td>
<td><strong>Weight Range lb/ft (kg/m)</strong></td>
<td><strong>Above psi (bar)</strong></td>
<td><strong>Below psi (bar)</strong></td>
<td></td>
</tr>
<tr>
<td>2 7/8 (73.03)</td>
<td>6.4 (9.52)</td>
<td>2.280 (57.91)</td>
<td>3,000 (206.7)</td>
<td>3,000 (206.7)</td>
</tr>
<tr>
<td>3 1/2 (88.90)</td>
<td>9.2 (13.69)</td>
<td>2.710 (68.83)</td>
<td>3,000 (206.7)</td>
<td>3,000 (206.7)</td>
</tr>
<tr>
<td>4 1/2 (114.30)</td>
<td>11.6 (17.26)</td>
<td>3.650 (92.71)</td>
<td>4,000 (275.8)</td>
<td>4,000 (275.8)</td>
</tr>
<tr>
<td>5 (127.00)</td>
<td>18.0 (26.78)</td>
<td>4.090 (103.89)</td>
<td>4,000 (275.8)</td>
<td>4,000 (275.8)</td>
</tr>
<tr>
<td>5 1/2 (139.70)</td>
<td>17.0 (25.30)</td>
<td>4.530 (115.06)</td>
<td>4,000 (275.8)</td>
<td>4,000 (275.8)</td>
</tr>
<tr>
<td>7 (177.80)</td>
<td>26.0 (38.68)</td>
<td>5.935 (150.75)</td>
<td>3,500 (241.2)</td>
<td>3,500 (241.2)</td>
</tr>
</tbody>
</table>

**Part Number Prefix: P.815BG0; P.815BM0; P.815GL0**

For more information, visit [www.halliburton.com](http://www.halliburton.com) or e-mail us at completions@halliburton.com.

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