Frac Hydraulic Tubing Anchor

SECURING THE WORKSTRING DURING PUMPING OPERATIONS

OVERVIEW
Halliburton’s Frac Hydraulic Tubing Anchor is a hydraulically activated tool designed to anchor a workstring in place during pumping operations. Based on proven technology, the Anchor uses hydraulically activated hold-down slips to provide an anchoring point for the tieback or workstring during stimulation operations.

Frac Hydraulic Tubing Anchors activate when the internal workstring pressure is greater than the annulus pressure. A series of hold-down slips are then actuated and grasp the wellbore casing string. The assembly has a full bore ID, which allows large volumes of fluid to be pumped at high rates with minimal pressure drop or erosion concerns. The assembly includes functionality that helps prevent debris and/or proppant from getting behind the hydraulic hold-down slips potentially causing the assembly to stick. Once the pressure is equalized (tubing to annulus), the hydraulic hold-down slips retract and the assembly can be safely retrieved from the wellbore with the workstring.

FEATURES
» Hydraulically activates during pumping
» Tungsten carbide slips
» Internal debris barrier
» Large ID

BENEFITS
» Anchors the workstring in place during well stimulation
» Minimal pressure drop during pumping operations
» Anti-stick internal debris barrier
» Retrievable tool with minimal maintenance
» Designed for HPHT and H₂S environments
Frac Hydraulic Tubing Anchor Specifications

<table>
<thead>
<tr>
<th>Casing Size and weight range in. (lb/ft)</th>
<th>Tool Length in. (cm)</th>
<th>Tool ID in. (mm)</th>
<th>(^1)Tool OD in. (mm)</th>
<th>(^2)Max OD Hyd Shift xpansion in. (mm)</th>
<th>Max Temp °F (°C)</th>
<th>(^3)Burst Pressure psi (Mpa)</th>
<th>(^3)Collapse Pressure psi (Mpa)</th>
<th>Max Pump Rate bpm (m^3/ in.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 (23-32)</td>
<td>48.50 (123.19)</td>
<td>2.80 (71.12)</td>
<td>5.85 (148.59)</td>
<td>6.366 (161.7)</td>
<td>350 (177)</td>
<td>14456 (99.67)</td>
<td>15144 (104.41)</td>
<td>57 (9.062)</td>
</tr>
</tbody>
</table>

1. The anchor does not include the OD of the guide shoes; refer to BDMI for guide shoe part numbers.
2. This is the max OD that the hydraulic slips will expand and anchor to the casing without losing o-ring seal or damaging the slip holding straps.
3. Refer to BDMI for tubing thread specs.

For more information, contact your local Halliburton representative or visit us on the web at www.halliburton.com