TPS DOUBLE SHOULDER (TPS-DS) DRILL PIPE CONNECTION

TPS-DS offers many advantages compared to Standard API Drill Pipe connections. It is particularly suited for difficult operations, such as extended and deep drilling, horizontal and slim hole wells.

**ADVANTAGES:**

- **IMPROVED SAFETY & PERFORMANCE**
  Due to higher torque capacity

- **INCREASED TORQUE CAPACITY**
  Thanks to a second, internal shoulder, the torque distribution throughout the connection is improved. This enables the connection to cope with higher torsional loads.

- **COMPATIBLE WITH OTHER API CONNECTIONS**
  TPS-DS connections are fully interchangeable with API NC or FH connections. During make-up with standard connections, the internal shoulder of TPS-DS will not get in contact with the back of the API connection. This means that you can still use existing BHA equipment.*

- **COSTS SAVINGS**
  The same equipment as for standard API connections can be used for make-up and running. Shorter make-up times can be realized.

- **INCREASED HYDRAULIC EFFICIENCY**
  The Flush ID of TPS-DS connections results in a better hydraulic efficiency. Additionally, it can be produced with smaller OD/larger ID while still offering the same torsional capacities than standard API connections.

- **EXTENDED PRODUCT LIFETIME BY ALLOWING MORE OD WEAR**
  The TPS-DS connection can provide the same torque capacity at a smaller OD compared to standard API Drill Pipe connections. As a result, it can be used longer before being declared as Premium Class or Class II.

*Please consider that the performance is limited to the properties of the weaker connection in such cases.*
TPS DOUBLE SHOULDER
(TPS-DS) DRILL PIPE
CONNECTION

TPS-DS connection | Compatible API Connection
--- | ---
TPS-DS SLH | 2 3/8 SLH90
TPS-DS 26 | NC26
TPS-DS 31 | NC31
TPS-DS 38 | NC38
TPS-DS 40 | NC40
TPS-DS 46 | NC46
TPS-DS 50 | NC50
TPS-DS 55 | 5 1/2 FH

TPS-DS Performance characteristics

<table>
<thead>
<tr>
<th>Connection</th>
<th>OD (in)</th>
<th>ID (in)</th>
<th>Tensile Capacity (lbs)</th>
<th>Torsional Capacity (ft-lbs)</th>
<th>Recommended Make-up Torque (ft-lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TPS-DS SLH</td>
<td>3.25</td>
<td>2</td>
<td>219,600</td>
<td>7,200</td>
<td>4,700</td>
</tr>
<tr>
<td>TPS-DS 26</td>
<td>3.125</td>
<td>1.25</td>
<td>493,000</td>
<td>8,100</td>
<td>4,800</td>
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<tr>
<td>TPS-DS 31</td>
<td>4.125</td>
<td>2</td>
<td>537,000</td>
<td>18,600</td>
<td>11,200</td>
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<tr>
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<td>2.563</td>
<td>703,300</td>
<td>27,800</td>
<td>16,700</td>
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<td>2.688</td>
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<td>35,400</td>
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<td>TPS-DS 46</td>
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<td>3.25</td>
<td>976,300</td>
<td>46,300</td>
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<td>TPS-DS 55</td>
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<td>4</td>
<td>1,371,300</td>
<td>79,000</td>
<td>47,400</td>
</tr>
</tbody>
</table>

* calculated for Tool Joints with 130 ksi yield strength. More data available on request.

Special features:

1. Primary seal shoulder
2. API thread form
3. Flush ID
4. Secondary torque shoulder

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