TenarisHydril Blue® Near Flush Connection

Scope

These guidelines apply specifically to the use of TenarisHydril Blue® Near Flush connections. This document should be used in conjunction with the TenarisHydril Running Manual, which is the main document applicable to the running of all TenarisHydril premium connections.

References

- Premium Connection Approved Thread Compounds TSH-MD-00.0002.
- Recommended guidelines for the field inspection of TenarisHydril connections, FSOG 13-005.
- TenarisHydril Blue® Near Flush Lift Plug TSH-BD-04.0002.

Equipment, Material & Documents

1. Verify the appropriate thread compound is available.

2. Refer to document TSH-MD-00.0002 for a list of compounds approved by Tenaris.

3. Latest version of the specific Product Data Sheet can be obtained from Tenaris website. In case this is unavailable, request the data sheet from the local Technical Sales representative or contact-tenarishydril@tenaris.com.
Pre-Running

1. Care must be exercised when transporting and handling Blue® Near Flush connections, like any flush or near flush connection they are susceptible to damage if uncontrolled contact with any solid object occurs.

2. Never move or handle pipe without the correct thread protectors securely in place.

3. Ensure connections are cleaned and free of all debris and / or contaminants, cleaning methods employed should conform to the recommendations contained within the TenarisHydril Running Manual.

4. Verify all pipe and accessories have genuine TenarisHydril manufactured connections.

5. Visually inspect threads and seal areas prior to running, ensuring no damage is evident.

6. On Dopeless® connections check condition of both pin and box coating ensuring no peel off or degradation has occurred.

7. Verify the compatibility of the Blue® Near Flush connection with any accessories such as cement heads, safety valves, cross overs, etc.

8. Verify material grade of all accessories ensuring compatibility with main string.

9. Check availability of handling plugs, 3 as a minimum to allow operation flow, ensure they are genuine TenarisHydril manufactured.

10. Check the handling plugs are in good condition and fit correctly onto the pipe.
11. Check single joint elevators have sufficient clearance to slide over the box expanded area and seat against the handling plug.

12. Never exceed the maximum lift capacity of the handling plug, stamped on the plug flange.

13. Refer to the TenarisHydril running manual for the care and use of handling / lift plugs.

14. Blue® Near Flush connections are a weight specific design therefore connections and handling plugs are not interchangeable between different weights of the same OD.

Inspection

1. Inspection criteria for all TenarisHydril connections is as outlined in the Field Service Operative Guideline FSOG 13-005.

2. Pay particular attention to seal areas.

3. Ensure the pin nose has no tears, gouges or raised metal.

4. Ensure the pin and box torque shoulders have no dents, tears or raised material which would interfere with correct assembly.

5. Check for mashes or ovality which may have occurred during transportation or storage.
Blue® Near Flush Configuration

HOOKED THREAD

5 TPI ≤ 7” 26 lb.ft
4 TPI ≥ 7” 29 lb.ft
Thread Compound Application

1. Apply a thin coating of thread compound on the pin connection, fully covering all threads, seals, pin nose and torque shoulder, the thread form should be fully visible.

2. Apply a thin coating of thread compound on the box seals.

3. Do not fill the box dope pocket.

4. For Tenaris approved thread compounds, apply the friction factor indicated in TSH-MD-00.0002. For thread compounds other than those listed, apply the thread compound manufacturers indicated friction factor.
Thread Lock Application

Connections must be clean and dry when applying thread lock

1. Apply a thin coating of thread lock to the first 50% of each thread section.

2. Do not apply thread lock on the seals or torque shoulder.

3. Apply thread compound to the pin external seal.

4. Apply thread compound to the box internal seal and torque shoulder.

5. Do not fill the dope pocket.

6. Apply the thread lock manufacturers indicated friction factor.
1. Minor rust or discolouring of the pin connection can be removed with the use of a clean, dry rag ensuring the Dopeless® coating remains intact.

2. Minor rust or discolouring of the box connection can be removed with the use of a non abrasive plastic scouring pad and a clean, dry rag ensuring the Dopeless® coating remains intact.

3. Dopeless® connections do not require the application of thread compound for make up.

4. If for whatever reason thread compound has to be applied to Blue® Near Flush Dopeless® connections, whether both pin and box are Dopeless® or when mixing a doped connection with a Dopeless®, apply thread compound as indicated below.
NON DOPELESS® PIN INTO DOPELESS® BOX

- Apply a thin coating of thread compound on all pin threads, seals and torque shoulder.

- Apply a thin coat of thread compound to box internal seals and torque shoulder.

- Do not fill the dope pocket with thread compound.

DOPELESS® PIN INTO STANDARD BOX

- Apply a very thin coating of thread compound on all pin threads only.

- Do not dope pin seals or box connection.

DOPELESS® PIN INTO DOPELESS® BOX

- Apply a very thin layer of thread compound on all pin threads only.

- Do not dope pin seals or box connection.

<table>
<thead>
<tr>
<th>DOPELESS® PIN</th>
<th>STANDARD PIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Box</td>
<td>Dope Pin Threads Only</td>
</tr>
<tr>
<td>Dopeless® Box</td>
<td>Dope Pin Threads Only</td>
</tr>
</tbody>
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If applying thread compound to Dopeless® connections use the doped variant torque values.
Blue® Near Flush Dopeless® Thread Lock

1. Ideally when running a Dopeless® string the connections to be thread locked should be the non Dopeless® variant with the connections cleaned of thread compound and completely dried, then thread lock and dope applied as per page 7.

2. When thread locking Dopeless® connections remove the Dopeless® coating from the threads on the pin connection where the thread lock is to be applied.

3. Leave the Dopeless® coating on the pin seals, torque shoulder and threads where no thread lock is to be applied.

4. Dopeless® boxes should be washed with hot water then dried prior to thread locking.

5. Thread lock should be applied to 50% of the pin threads of each thread section, as per the diagram on page 7.

6. The application of thread dope is not required.

7. When assembling Dopeless® connections with thread lock, apply the non Dopeless® torque values, taken from the standard product data sheet.

8. Apply the thread lock manufacturers indicated friction factor.
Torque Application

1. The use of computer make up analysis equipment is strongly recommended when assembling Blue® Near Flush connections.

2. Shoulder points for Blue® Near Flush connections.
   - Minimum 10% of optimum.
   - Maximum 85% of optimum.
   - A shoulder point above 85% can be accepted but should never exceed 90% of optimum torque, additionally the graph must also display a minimum delta torque of 5% of optimum.
   - Delta torque % = \((\text{final torque} - \text{shoulder torque}) \times 100 \div \text{optimum torque}\).

3. Reference torque should initially be set at 5% of optimum torque.

4. The dump valve should be set at optimum, verify correct operation on the pipe body prior to first make up.

5. Set the computer turns to 2 initially then adjust as necessary to attain good graph depiction.

6. Refer to the TenarisHydri Running Manual make up acceptance section for further explanation.

7. Blue® Near Flush connections of the same diameter are not interchangeable with different weights.

8. If different grades of the same diameter and weight are to be mixed use the lower of the two torques.

9. When assembling Dopeless® connections the torques applied must be taken from the Dopeless® variant product data sheet.
10. When mixing standard doped and Dopeless® connections apply the doped variant torque values.

11. The computer make up profile for Blue® Near Flush connections should be similar to the ones below.

**Running**

1. The use of a stabbing guide is strongly recommended.

2. Slip type elevators are recommended.
3. The use of a safety clamp is strongly recommended when running Blue® Near flush connections.

4. The use of a weight compensator is strongly recommended for chrome, large OD and heavy pipe.

5. To avoid cross threading stab pipe in a smooth controlled fashion ensuring the pipe is vertical when doing so, continue to support and stabilise the pipe throughout the stabbing and make up operation.

6. Ensure the back up tong is located below the box upset to prevent damage.

7. Upon commencement of initial rotation use low RPM (5 RPM or below) in order to ensure the pipe has not cross threaded during stabbing.

8. If cross threading is evident, immediately reverse rotate the pipe, completely disassemble, clean and inspect both connections.

9. Maximum spin in speed should not exceed 15 RPM.

10. Apply power at low RPM (do not exceed 5 RPM) for final make up.

11. Walk chrome pipe all the way in to hand tight, then apply tong only for final make up.

Pulling

1. Automatic stabbing system or stabber is highly recommended to stabilise the pipe vertically.

2. The use of a stabbing guide is recommended to assist in centralizing the pin to prevent hang up.
3. The use of a safety clamp is strongly recommended.

4. A weight compensator is strongly recommended for chrome, large OD and heavy weight pipe.

5. Apply the back up tong on the pipe body below the expanded area.

6. Apply power tong in low RPM (3-5 RPM) to break the connection, ensuring the pipe is stabilised during the break and spin out process.

7. Do not exceed 15 RPM during spin out.

8. Walk chrome pipe all the way out by hand after initial break.

9. Visual inspection is recommended to classify the thread condition, any rejected connections should be clearly marked and segregated for further investigation.

10. Apply clean, dry thread protectors after applying storage compound on clean, dry connections.

11. Storage / thread compound should always be applied to connections post job, even rejects.

12. Do not apply storage compound to Dopeless® connections.

13. For long term storage of Dopeless® connections, refurbishment by qualified personnel is recommended.

14. Ensure clean, dry, Dopeless® protectors with seal rings correctly in place are installed.