

TenarisHydril Blue® Near Flush Connection

Scope

These guidelines apply specifically to the use of TenarisHydril Blue® Near Flush connections, all variants including Dopeless® Connections.

This document is part of the TenarisHydril Running Manual, and provides an overview of best practices for these specific products. It should be used in conjunction with the rest of the sections within the TenarisHydril Running Manual.

Tenaris Field Service Representatives can modify these guidelines when circumstances dictate. Implementation will only occur if the representative deems the modification to be non-detrimental to product integrity. All modifications need to be clearly explained and agreed with the client representative prior to implementation and fully documented in the running report.

References

- GDL23349 - Pre-Running Preparation.
- GDL23353 - Blue® Series and Legacy Series Make up Acceptance.
- FTD29356 - Premium Connections Approved Thread Compounds.
- GDL31457 - Recommended Guidelines for the Field Inspection of TenarisHydril Connections.
- GDL23351 - Handling / Lift Plugs.

Equipment, Material & Documents

1. Verify the recommended thread compound is available. Refer to document FTD29356 for a list of compounds approved by Tenaris.
2. Identify the product to be run including the version of Dopeless® Technology if applicable and the connections of all accessories.
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.
4. The use of torque turn computer monitoring equipment is strongly recommended when assembling Blue® Near Flush connections, whether doped or Dopeless® variants.

Pre-Running

1. Ensure of taking care 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 (GDL23349 - Pre Running Preparation).
4. If Dopeless® pipes have storage compound, it should be removed with dry rags prior to run. However, minor residual storage compound remaining is acceptable.

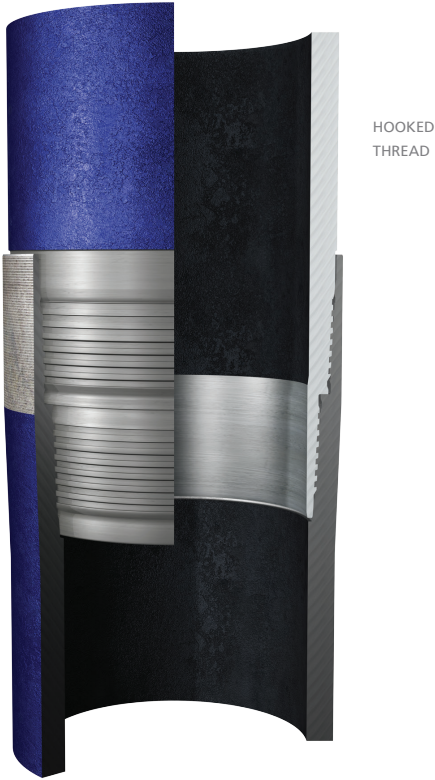
5. Verify all pipe and accessories have genuine TenarisHydril manufactured connections.
6. Visually inspect threads and seal areas prior to running, ensuring no damage is evident.
7. On Dopeless® connections check condition of both pin and box coating ensuring no peel off or degradation has occurred.
8. Verify the compatibility with any accessories such as cement heads, safety valves, cross overs, etc.
9. Verify material grade of all accessories ensuring compatibility with main string.
10. Check availability of handling plugs, 3 as a minimum to allow operation flow, ensure they are genuine TenarisHydril manufactured.
11. Check the handling plugs are in good condition and fit correctly onto the pipe.
12. There are two types of handling plugs for Blue® Near Flush, both of which have different make up characteristics. Refer to GDL23351, Handling / Lift plugs for information on their installation.
13. Check single joint elevators have sufficient clearance to slide over the box expanded area and seat against the handling plug.
14. Never exceed the maximum lift capacity of the handling plug, stamped on the plug flange.
15. TenarisHydril 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 GDL31457.
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.

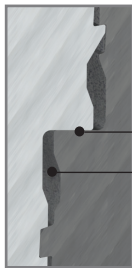
Blue® Near Flush Configuration

The diagram below is applicable to doped and Dopeless® connections.





EXTERNAL SEAL



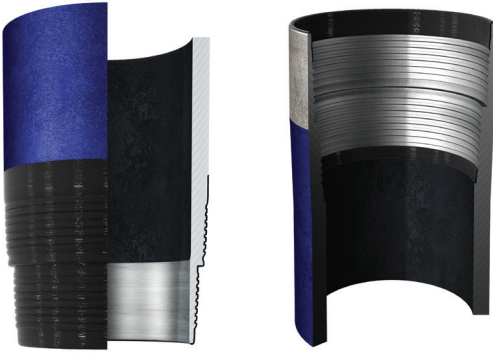
TORQUE SHOULDER

DOPE POCKET



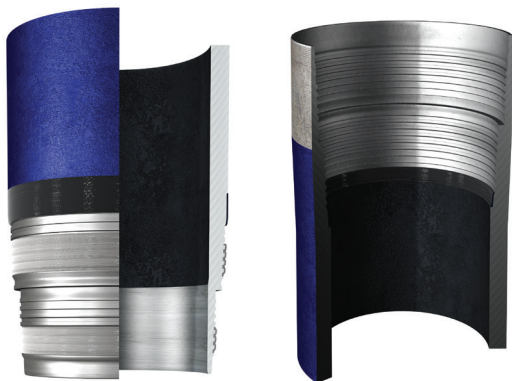
INTERNAL SEAL

Thread Compound Application Doped Variant



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.

Thread Lock Application Doped Variant



Connections should be clean and dry when applying thread lock

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

Thread Compound Application Blue® Near Flush Dopeless® Connections

1. Dopeless® connections do not require the application of thread compound for make up.
2. 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® connection, proceed as indicated below.
 - Apply a very thin coating of thread compound on all pin threads, seals and torque shoulder.
 - Apply a thin layer of thread compound to the box seals.

Blue® Near Flush Dopeless® Connections Thread Lock

1. Ideally the connections to be thread locked should be the doped 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 coating from the threads on the pin connection where the thread lock is to be applied.
3. Use a hand or rotary brass wire wheel to remove the coating from the threads, ensuring no contact is made with the seal.
4. Leave the coating on the pin seals, torque shoulder and threads where no thread lock is to be applied.
5. Dopeless® boxes should be washed with hot water then dried prior to thread locking.

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

7. The application of thread dope is not required.

8. When assembling Dopeless® connections with thread lock, apply the doped variant torque values adjusted by the thread lock manufacturers indicated friction factor.

9. If thread locking a Dopeless® Pin into a doped variant Box:

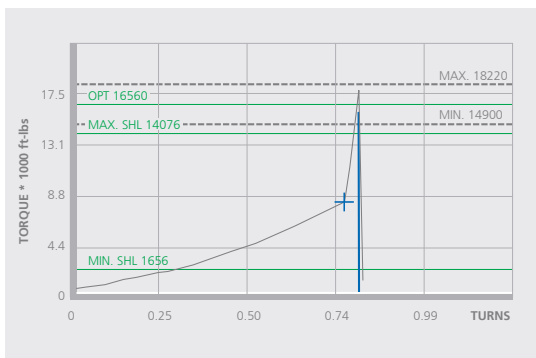
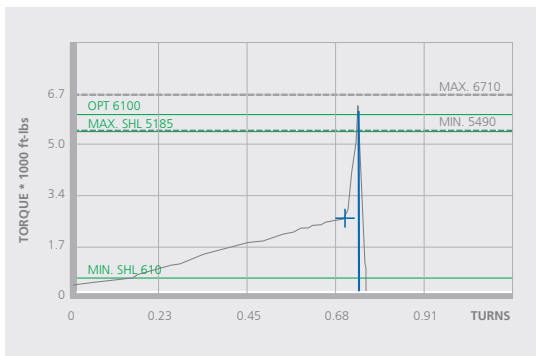
- Remove coating from pin threads and apply thread lock as indicated in points 1-4 above.
- Apply thread compound to the pin external seal
- Apply thread compound to the box internal seal and torque shoulder.
- Use the doped variant torque values adjusted by the thread lock manufacturers indicated friction factor.

10. If thread locking a doped variant Pin into a Dopeless® variant Box:

- Apply thread lock and dope to the pin as indicated on page 7.
- Dopeless® boxes should be washed with hot water then dried prior to thread locking.
- Apply thread compound to the box internal seal and torque shoulder.
- Use the doped variant torque values adjusted by 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, doped and Dopeless® variants.
2. Make sure the torques applied are taken from the product data sheet corresponding to the correct variant of the connection.
3. 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 should also display a minimum delta torque of 5% of optimum.
 - $\text{Delta torque \%} = (\text{final torque} - \text{shoulder torque}) \times 100 \div \text{optimum torque}$.
4. Reference torque should initially be set at 5% of optimum torque.
5. The dump valve should be set at optimum, verify correct operation on the pipe body prior to first make up.
6. Set the computer turns to 2 initially then adjust as necessary to attain good graph depiction.
7. The computer make up profile for Blue® Near Flush connections, doped and Dopeless® variants, should be similar to the ones below.



8. For computer graph profiles specific to Dopeless® connections also reference GDL23356.

9. The maximum acceptable delta turn indicated cannot exceed 0.1.

10. Refer to document GDL23353 - Blue® Series and Legacy Series Make Up Acceptance for further detail on make-up acceptance.

11. Torque values of mixed assemblies can be obtained from the tool available at https://dcp.tenaris.com/Mixed_Assemblies

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, pipe with an OD ≥ 14 " and stands of 3 pipe ≥ 7 ".
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-threading 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, pipe with an OD ≥ 14 " and stands of 3 pipe ≥ 7 ".
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.

15. If refurbishment cannot be done prior to storage, storage compound may be applied to Dopeless® connections. In this case, ensure to remove rubber rings from Dopeless® thread protectors prior to installation as they are not compatible with storage compound.

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