TenarisHydril Blue[®] Max Connection

Scope

These guidelines apply specifically to the use of TenarisHydril Blue[®] Max connections. In the specific cases of connections with Tenaris dope-free technologies, this document addresses products sold and marked as Dopeless[®] and does not address the use of versions identified as Dopeless[®] 3.0 or Dopeless[®] 3.1. If the product has been procured with any of these newer versions please contact our regional Technical Sales team.

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.

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

- TenarisHydril Running Manual.
- Recommended guidelines for the field inspection of TenarisHydril connections, GDL31457.

Equipment, Material & Documents

Latest version of the specific Product Data Sheet can be obtained from Tenaris web site. In case this is unavailable, request the data sheet from the local Technical Sales representative or <u>contact-tenarishydril@tenaris.com</u>.

Pre-Running

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

2. 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.

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

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

5. Check condition of both pin and box Dopeless[®] Technology coating ensuring no peel off or degradation has occurred.

6. Verify compatibility of the Blue[®] Max connection with any accessories such as cement heads, safety valves, cross overs, etc.

7. TenarisHydril Blue[®] Max is a weight specific design and is therefore not interchangeable with other weights of the same OD.

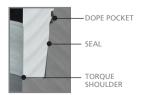
8. Verify material grade of all accessories ensuring compatibility with main string.

Blue[®] Max Configuration

Twin Start Thread 4 TPI Hooked Thread

IDM Code GDL00367/4 / March 2022





Inspection

1. Inspection criteria for all TenarisHydril connections is as outlined in the Field Service Operative Guideline 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 could interfere with correct assembly.

Blue[®] Max Dopeless[®] Technology





1. Minor rust or discolouring of the pin connection can be removed with the use of a clean, dry rag ensuring the Dopeless[®] Technology 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® Technology coating remains intact.

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

If for whatever reason thread compound has to be applied to Blue[®] Max Dopeless[®] Technology connections, apply thread compound as indicated below.

- Apply a very thin layer of thread compound on all pin threads only.
- Do not dope pin seal or box connection.

Blue[®] Max Dopeless[®] Technology Thread Lock

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

2. Use a hand or rotary brass wire wheel to remove the Dopeless[®] Technology coating from the threads, ensuring no contact is made with the seal.

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

4. Dopeless[®] Technology 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 immediately behind the seal area, as per the diagram in the next page.

6. Apply the thread lock manufacturers indicated friction factor.

7. The application of thread dope is not required.

8. Contact Tenaris for further information on the thread locking process.

Thread Lock Application

For Dopeless[®] Technology connections apply thread lock as indicated below.





Torque Application

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

2. Shoulder points for Blue[®] Max can be found in the product data sheet.

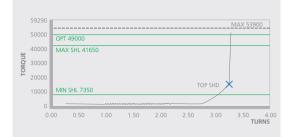
3. Reference torque should initially be set at 5% of optimum.

4. The dump valve should be set at optimum torque, 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 TenarisHydril running manual, make up acceptance section for further explanation.

7. The computer make up profile for Blue[®] Max should be similar to the ones below.





8. TenarisHydril Blue[®] Max connections are weight specific design therefore are not interchangeable between different weights of the same OD.

9. If different weight or grade of connections are to be mixed apply the lower weight or grade make up torque.

10. When assembling Dopeless® Technology connections the torques applied must be taken from the Dopeless® Technology variant product data sheet.

Running

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

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

3. 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.

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

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

6. Maximum spin in speed should not exceed 10 RPM.

7. Apply power tong at low rpm (do not exceed 5 RPM), for final make up.

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

Pulling

1. Automatic stabbing system or stabber is highly recommended to maintain the pipe in a vertical position.

2. The use of a stabbing guide is recommended to assist in centralising the pin to prevent hang up.

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

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4. Apply the back up tong jaw on the lower part, over the mill end of the coupling.

5. 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.

6. Do not exceed 10 RPM during spin out.

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

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

9. Do not apply storage compound to Dopeless[®] Technology connections.

10. For long term storage of Dopeless[®] Technology connections, refurbishment by qualified personnel is recommended.

11. Ensure clean, dry, Dopeless[®] Technology protectors with seal rings correctly in place are installed.

Non-Dopeless[®] connections

Blue[®] Max connection comes with Dopeless[®] technology. In case that non-Dopeless[®] connections are involved, follow the indications from the table below and contact Tenaris for torgue values to apply.

	DOPELESS® BOX	NON-DOPELESS [®] BOX
Dopeless® Pin		Apply thread compound on pin threads, seal and shoulder, and on box seal and shoulder.
Non-Dopeless® Pin	Apply thread compound on pin threads, seal and shoulder, and on box seal and shoulder.	Apply an even coat of thread compound on pin and box connections covering thread, seals and shoulders. Do not fill the dope pocket.

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