

TenarisHydril Blue[®] Max Connection

Scope

These guidelines apply specifically to the use of TenarisHydril Blue[®] Max 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

- TenarisHydril Running Manual.
- Premium Connection Approved Thread Compounds TSH-MD-00.0002.
- Recommended guidelines for the field inspection of TenarisHydril connections, FSOG 13-005.

Equipment, Material & Documents

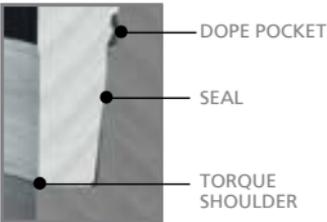
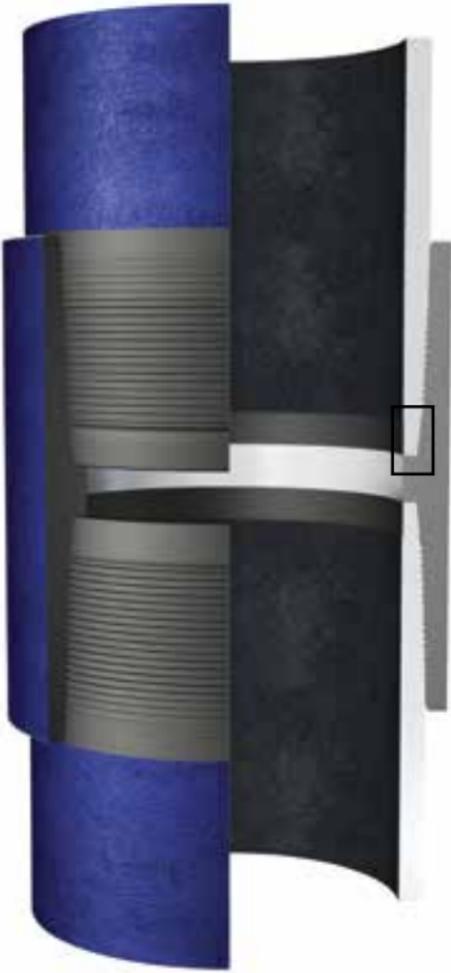
1. Verify the appropriate thread compound is available.
2. Refer to document TSH-MD-00.0002 for a list of compounds approved by Tenaris.
3. Latest version of the specific Product Data Sheet can be obtained from Tenaris web site. In case this is unavailable, request the data sheet from the local Technical Sales representative or contact-tenarishydril@tenaris.com.

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® 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. 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

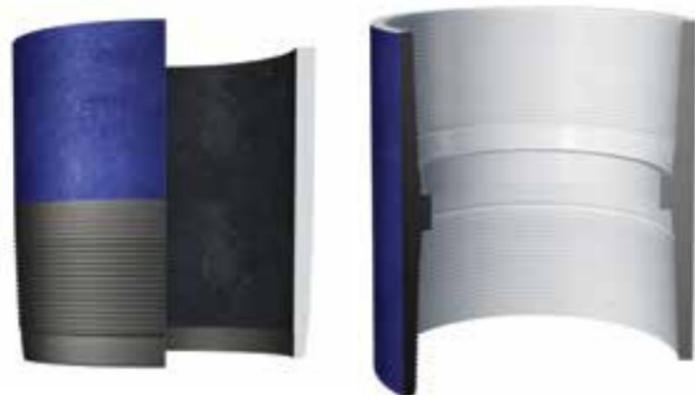


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Inspection

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 could interfere with correct assembly.

Blue[®] Max Dopeless[®]



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.

If for whatever reason thread compound has to be applied to Blue® Max 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, seal and pin nose.
- Apply a thin coat of thread compound to box seal 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 seal 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 seal or box connection.

	DOPELESS® PIN	STANDARD PIN
Standard Box	Dope Pin Threads Only	See page 7
Dopeless® Box	Dope Pin Threads Only	Dope Pin Threads, Seal & Shoulder. Dope Box Seal.

If applying thread compound to Dopeless® connections use the doped variant torque values. Contact Tenaris for torque values.

Blue® Max 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 8.
2. When thread locking Dopeless® connections remove the Dopeless® coating from the threads on the pin connection where thread lock is to be applied.
3. Leave the Dopeless® coating on the pin seal, 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 immediately behind the seal area, as per the diagram in page 8.
6. When assembling Dopeless® connections with thread lock, apply the non Dopeless® torque values taken from the standard product data sheet.
7. Apply the thread lock manufacturers indicated friction factor.
8. The application of thread dope is not required.
9. Contact Tenaris for further information on the thread locking process.

Thread Compound Application

If two non Dopeless® connections are to be assembled apply thread compound as indicated below.



1. Apply a thin coating of thread compound on the pin and box connections, fully covering all threads, seals, pin nose and box torque shoulder, the thread form should be fully visible.
2. Use approximately 50% of the quantity applied to the pin when doping the box.
3. Do not fill the 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

For non Dopeless® connections apply thread lock as indicated below.

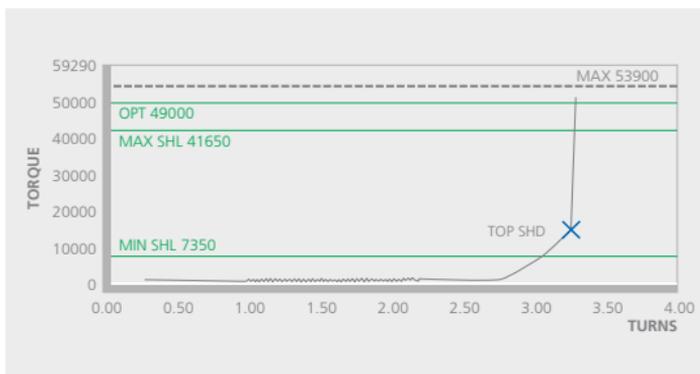


Connections must be clean and dry when applying thread lock.

1. Apply a thin coating of thread lock on 50% of the pin threads furthest from the pipe body.
2. Do not apply thread lock on the seal or torque shoulder.
3. Apply thread compound to the box seal and torque shoulder.
4. Do not fill the dope pocket.
5. 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® Max connections.
2. Shoulder points for Blue® Max.
 - Minimum 15% of optimum.
 - Maximum 85% of optimum.
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. Blue® Max connections are weight specific design therefore are not interchangeable between different weights of the same OD.

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 doped variant torque values.

11. Contact Tenaris for torque values.

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.
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. For any non Dopeless® connections apply clean, dry thread protectors after applying storage compound on clean, dry connections.
10. Storage / thread compound should always be applied to standard connections post job, even rejects.
11. Do not apply storage compound to Dopeless® connections.
12. For long term storage of Dopeless® connections, refurbishment by qualified personnel is recommended.
13. Ensure clean, dry, Dopeless® protectors with seal rings correctly in place are installed.