

TenarisHydril Wedge 523[®] Dopeless[®] 3.0/3.1 Connections

Scope

These guidelines apply specifically to the use of TenarisHydril Wedge 523[®] connections with Dopeless[®] 3.0 / 3.1 technologies. This document shall 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

- GDL00337 - TenarisHydril Running Manual
- FTD29356 - Premium Connection Approved Thread Compounds
- GDL28701 - Recommended guidelines for the field inspection of TenarisHydril connections.
- PRD30250 - Field Inspection and Manual repair of Tenaris Dopeless[®] 3.0 & 3.1 Connections.

Equipment, Material & Documents

1. 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.
2. The use of a torque turn computer monitoring system is recommended to be used to make up this connection with Dopeless® 3.0 / 3.1 Technology.
3. The use of a torque turn computer monitoring system is strongly recommended to be used to make up this connection when applied on chrome steel.

Pre-Running

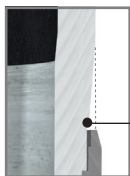
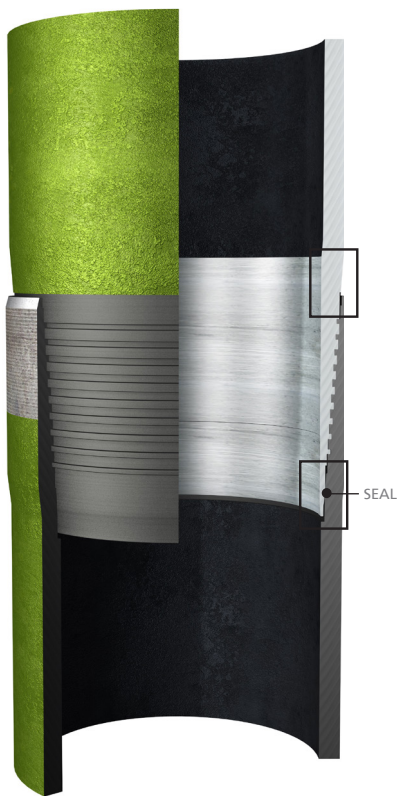
1. Never move or handle pipe without the correct thread protectors securely in place.
2. Ensure connections are clean and free of all debris and / or contaminants, cleaning methods employed should conform to the recommendations contained within the TenarisHydril Running Manual.
3. Verify all pipe and 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® 3.0 / 3.1 coatings ensuring no peel off or degradation has occurred.
6. Verify compatibility of the Wedge 523® pipe with any accessories such as pup joints, cross overs, cement heads etc.

7. Connection weight interchange compatibility is indicated in the product's data sheet.
8. Verify material grade of all accessories ensuring compatibility with main string.
9. Check availability of handling plugs, minimum of 3 to ensure efficiency of running process.
10. Check the handling plugs are in good condition and fit correctly onto pipe.
11. Check single joint elevators have sufficient clearance to slide over the box expanded area and seat against the handling plug.
12. Check the handling plugs are genuine TenarisHydril threads.
13. Verify handling plug number and maximum lift capacity.
14. Never exceed the maximum lift capacity.

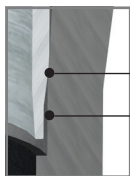
Inspection

1. Inspection criteria for all Wedge 500™ series connections is as outlined in GDL28701.
2. Pay particular attention to seal area.
3. Check box and pin for signs of mashes or deformation caused during transportation / handling.
4. Ensure there are no gouges, tears or raised material on the seal saver area.
5. Check box connections for mashes or ovality caused by transportation, handling or storage.

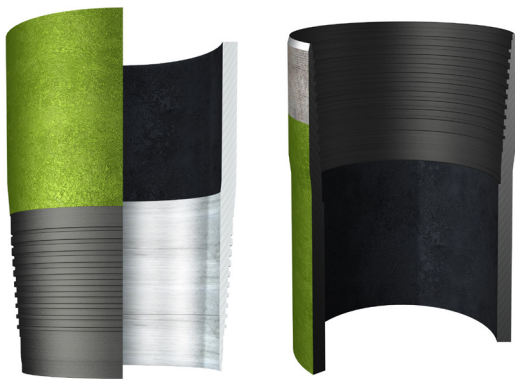
Wedge 523[®] Dopeless[®] 3.0 / 3.1 Configuration



MACHINED
CYLINDRICAL
AREA



SEAL
SEAL SAVER



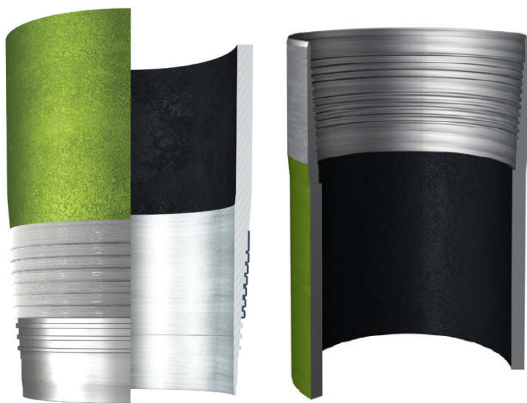
Dopeless® 3.0/3.1 Interchange Capability

When assembling together two interchangeable Wedge 523® connections with different weight and/or grade of any variant (Dopeless®, Dopeless® 3.0 / 3.1 or doped), follow the recommendations below.

RUNNING COMPOUND APPLICATION

- In case one of the ends is Dopeless® 3.0 / 3.1, apply a very thin coating of running compound on the full pin end, threads and seal. Do not dope any part of the box connection.
- In case both ends are Dopeless® 3.0 / 3.1 there is no need to apply running compound. If for whatever reason dope has to be applied anyway, follow indications from previous bullet as well.

Thread Lock Application



Connections must be clean and dry when applying thread lock.

1. Ideally when running a Dopeless® 3.0 / 3.1 strings the connections to be thread locked should be the doped variant with the connections cleaned of thread compound and completely dried, then thread lock applied as indicated above.
2. Thread lock should be applied to 50% of the threads at the back of the pin connection.
3. Running compound should then be applied to the threads and seal at the back of the box.
4. When thread locking Dopeless® 3.0 / 3.1 Technology remove the coating from the threads on the pin connection where the thread lock is to be applied.

5. Remove the coating with the aid of a hand held wire brush or a rotary brass wire brush and suitable rotary device.
6. Leave the coating on the pin seal and threads where no thread lock is to be applied.
7. Dopeless® 3.0 / 3.1 boxes should be washed with hot water then dried prior to thread locking.
8. Thread lock should be applied to the threads furthest from the pin nose, approximately 50% of the threads should have thread lock applied.
9. The application of running compound is not required.
10. Do not apply thread lock to seal area.

Torque Application

1. Check calibration certificates of any torque gauge and computer equipment used for make up.
 2. Set tong dump valve at optimum torque then test on pipe body.
 3. For Dopeless® 3.0 / 3.1 Technology apply the specified torques as indicated on the data sheet.
 4. Do not apply running compound.
 5. For Dopeless® 3.0 / 3.1 Technology, applying optimum torque twice (double bump) is not necessary.
 6. If dope is applied to a Dopeless® 3.0 / 3.1 Technology apply 'Double Bump';
- Once optimum torque has been attained relax the tong and re apply optimum torque.

- If movement over ½" is witnessed re apply optimum torque +20%.
- Repeat process, checking to ensure no other factors are absorbing the applied torque.
- Often the issue is caused by excessive application of running compound.
- Continue making up further joints applying higher torque if required.

7. Double bump, (as above) every connection with an OD of 10 ¾" or larger if dope is applied.

8. When applying thread lock to doped variant of the connections, doped version torque values +20% should be used then double bump the connection.

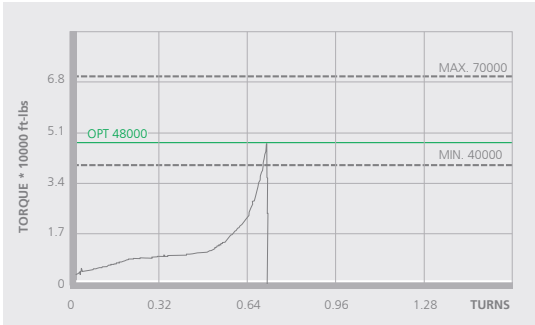
9. When applying thread lock to Dopeless® 3.0 / 3.1 Technology, Dopeless® 3.0 / 3.1 torque values +20% should be used then double bump the connection.

10. Computer make up equipment is not mandatory for Wedge 523® connections in carbon steel, but is recommended.

11. Computer make up equipment is strongly recommended for Wedge 523® connections in chrome steel.

12. Graph analysis for Wedge 523® is similar to that for all Wedge Series 500™ refer to the TenarisHydril running manual make up acceptance section for further explanation.

13. When computer equipment is used to monitor connection make up, the graph profiles should be similar to the ones below.



14. Wedge 523[®] has limited same size / weight interchange capability, if mixing weight / grade ensure compatibility of design and apply the higher torque value of the two connections.

15. Wedge 521[®] and Wedge 523[®] are not interchangeable.

16. Wedge 523[®] and 513[®] are compatible in the same size / weight combination.

When assembling together two interchangeable Wedge 523[®] connections with different weight and/or grade and/or variants (Dopeless[®], Dopeless[®] 3.0 / 3.1 or doped), apply the higher of the two optimum torques, regardless of the specific combination weight/grade/lubrication technology.

Running

1. The use of a stabbing guide is strongly recommended.
2. The use of slip type elevators are recommended.

3. The use of a safety clamp is strongly recommended when running Wedge 523[®] connections.
4. The use of a weight compensator is strongly recommended for chrome, large OD or heavy weight 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 make-up operation.
6. Upon commencement of initial rotation use low RPM (5 RPM or below) in order to ensure the pipe has not cross threaded during stabbing.
7. If cross threading is evident, immediately reverse rotate the pipe, completely disassemble, clean and inspect both connections.
8. Apply power tong at low rpm (do not exceed 5 RPM), for final make up.
9. Do not exceed 15 RPM during spin in.
10. Walk chrome pipe all the way in to hand tight, then apply tong only for final make up.
11. Ensure the back-up tong is located below the box upset to prevent damage.
12. Minor rust or discolouration can be removed with the use of a clean, dry rag or Scotch-Brite™ ensuring the Dopeless[®] 3.0 / 3.1 coatings remains intact.

Pulling

1. The use of a stabbing guide is strongly recommended to prevent hang up.
2. A single joint compensator is strongly recommended for chrome, large OD or heavy pipe.
3. The use of a safety clamp is strongly recommended.
4. Apply the back-up tong jaw well below the box.
5. Apply power tong in low rpm (3-5 RPM) to break out the connection, ensuring the pipe is stabilised during the break out process.
6. Do not exceed 15 RPM during spin out.
7. Walk chrome pipe all the way out by hand after initial break out.
8. Visual inspection is recommended to classify the thread condition, any rejected connections should be clearly marked and segregated for further investigation.
9. After pulling Dopeless® connections (any variant), clean and dry connections as soon as possible. Cleaning should only be carried out using fresh water and mild detergent with soft bristle brush or clean rags. Do not use steam, rotary brushes, or any sort of solvent.
10. For heavily contaminated connections it is possible to clean with pressure washer, controlling water application to avoid peeling-off the coating system.
11. Ensure clean and dry, Dopeless® Technology protectors with seal rings correctly in place are installed.

12. For long term storage of Dopeless® 3.0/3.1 Technology, refurbishment by qualified personnel is recommended.

13. If refurbishment cannot be done prior to storage, storage compound may be applied to the connections. In this case, remove rubber rings from Dopeless® thread protectors prior to installation. Storage compound should be removed prior to re-run.

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