## **TenarisHydril** Wedge 629™ Connection

### Scope

These guidelines apply specifically to the use of TenarisHydril Wedge 629™ 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

- FTD29356 Premium Connection Approved Thread Compounds
- GDL31457 Recommended Guidelines for the Field Inspection of TenarisHydril Connections
- GDL23351 Handling / Lift plugs
- GDL23356 Dopeless® technology
- GDL23352 Torque Application
- GDL23355 Wedge™ Series Make up Acceptance
- GDL23349 Pre-Running Preparation

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## Equipment, Material & Documents

- 1. Identify the product to be run, the Dopeless® version and the connections of all accessories.
- Latest version of the specific Product Data Sheet can be obtained from the Tenaris web site. In case this is not available, request the data sheet from the local Technical Sales representative.

### **Pre-Running**

- 1. Never move or handle pipe without the correct thread protectors securely in place.
- Ensure connections are cleaned and free of all debris and / or contaminants. Cleaning methods employed should conform to the recommendations contained within GDL23349 - Pre-Running Preparation
- Verify the connections to be assembled are genuine TenarisHydril manufactured connections.
- Visually inspect threads and seal areas prior to running, ensuring no damage is evident.
- 5. Check condition of pin and box Dopeless® coating ensuring no peel off or degradation has occurred.
- 6. Verify the compatibility of the connections with accessories such as cement heads, safety valves, crossovers, etc.
- 7. Wedge 629™ is not compatible with any other connection. Connection interchange compatibility is indicated in the connection data sheet.

- 8. Verify material grade of all accessories ensuring compatibility with main string.
- 9. Tenaris recommends slip type elevators are used to run and pull Wedge 629<sup>™</sup>. Ensure the slips are set on the pipe body below the connection expanded area.
- **10**. Check availability of handling plugs, minimum of 3 to ensure efficiency of running process.
- 11. Check the handling plugs are genuine TenarisHydril threads.
- 12. Ensure handling plug OD / weight is compatible with the pipe connections. Interchange capability is indicated in the product data sheet.
- **13**. Check the handling plugs are in good condition and fit correctly on the pipe.
- 14. Make up the plug by hand and then snug up tight with the assistance of a bar inserted into the holes of the flange. When correctly installed there should be no threads visible on the handling / lift plug nor should the box face contact the flange.
- 15. Check single joint elevator has sufficient clearance to slide over the box expanded area and seat against the handling plug.
- **16**. Verify handling plug number and maximum lift capacity.
- 17. Never exceed the maximum lift capacity.
- **18**. Refer to GDL23351; Handling / Lift plugs, for the care and use of handling & lift plugs.

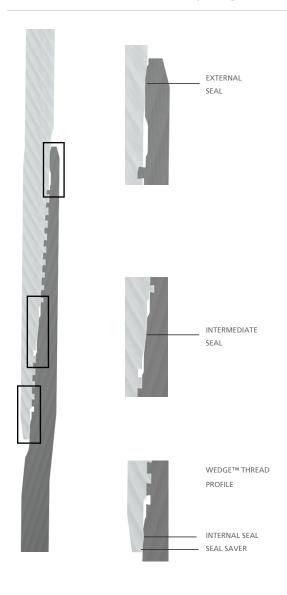
## Inspection

- 1. Inspection criteria for all Wedge™ Series 600 connections are outlined in GDL31457.
- 2. Pay particular attention to seal areas.
- 3. Check box connections for mashes or ovality caused by transportation, handling or storage.
- 4. Ensure there are no gouges, tears or raised material on the threaded areas.
- 5. Ensure the pin seal saver has no deformation or dents which cause material to protrude.
- 6. Ensure Dopeless® coatings are not damaged or peeling off.
- 7. For further information on Dopeless® connections refer to GDL23356 Dopeless® technology.

## Wedge 629® Configuration

## Designed with Dopeless® 3.0 Technology





# Wedge 629<sup>™</sup> Dopeless<sup>®</sup> 3.0 Thread Compound Application

- 1. Dopeless® connections do not require the application of thread compound for make up.
- If for whatever reason thread compound has to be applied to Dopeless<sup>®</sup> connections, follow the indications below:
- Apply a very thin coating of thread compound on the full pin end, threads and seals.
- Do not dope any part of the box connection.
  - 3. For the correct thread compound to apply, refer to FTD29356, Premium Connections Approved Thread Compounds.

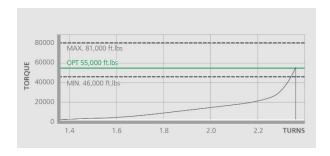
## Wedge 629<sup>™</sup> Dopeless<sup>®</sup> 3.0 Thread Lock Application

- 1. When thread locking remove the Dopeless® coating from 50% of the large step threads near the intermediate seal on the pin connection.
- 2. Use a hand or rotary brass wire wheel to remove the Dopeless® coating from the threads on the large step ensuring no contact is made with any of the seals.
- 3. Leave the Dopeless<sup>®</sup> coating on all the pin seals and threads where no thread lock is to be applied (small step).
- 4. Dopeless® boxes should be washed with hot water then dried prior to thread locking.

- CONNECTION SPECIFIC RUNNING GUIDELINES
- Thread lock should be applied to the threads of the large step of the pin connection where the Dopeless<sup>®</sup> coating has been removed.
- 6. Do not apply thread lock to seal area.
- 7. The application of thread compound is not required.
- Do not apply thread lock manufacturers friction factor, apply optimum torque +20% then double bump the connection.

## **Torque Application**

- The use of computer make up analysis equipment is recommended.
- 2. Check calibration certificates of computer equipment used for make up.
- Reference torque should initially be set at 5% of optimum.
- 4. Set tong dump valve at optimum torque then test on the pipe body prior to the first make up.
- Set the computer turns to 2 initially then adjust as necessary to attain good graph depiction.
- 6. Apply optimum torques as indicated on the data sheet.
- 7. Graph profile should be similar to the one below.
- 8. Refer to GDL23355 Wedge™ Series Make up Acceptance, for further explanation.



- 9. If thread compound has been applied, proceed as follows:
- Consider Dopeless® torque values, and do not apply thread compound manufacturer's friction factor.
- Once optimum torque has been attained relax the tong and re-apply optimum torque ("double bump").
- 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 thread compound.
- Continue making up further joints applying optimum or a higher torque if required.
- Refer to GDL23352 Torque Application.
  - **10**. For Dopeless® connections applying optimum torque twice (double bump) is not necessary.

- 11. When applying thread lock to Dopeless® connections, Dopeless® optimum torque value + 20% should be used then double bump the connection.
- **12.** Wedge 629<sup>™</sup> connections have limited same size / weight interchange capability, as indicated in the product data sheet.
- 13. 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. The use of slip type elevators is recommended.
- 3. The use of a safety clamp is strongly recommended.
- 4. The use of a weight compensator is strongly recommended for pipe with an OD  $\geq$  14" and stands of three joints with an OD  $\geq$  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 stabilize the pipe throughout the stabbing and 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. If cross threading is evident, immediately reverse rotate the pipe, completely disassemble, clean and inspect both connections.

- 7. Maximum spin in speed should not exceed 15 RPM. Do not exceed 5 RPM for final make up.
- High winds or excessive pipe movement among other variables will necessitate a lower RPM to be used.
- Apply the back up tong on the pipe body, below the connection expanded area. Never apply either tong over the connection area.

## **Pulling**

- Automatic stabbing system or stabber is strongly recommended to maintain the pipe in a vertical position.
- 2. The use of slip type elevators is recommended.
- 3. The use of a safety clamp is strongly recommended.
- 4. The use of a weight compensator is strongly recommended for pipe with an OD ≥ 14" and stands of three joints with an OD≥ 7".
- **5**. Apply the back up tong on the pipe body, below the connection expanded area. Never apply either tong over the connection area.
- Apply power tong in low RPM (3-5 RPM) to break out the connection, ensuring the pipe is stabilized during the break out process.
- 7. Do not exceed 15 RPM during spin out.
- 8. It is recommended the stabbing guide is used when lifting the pin from the box to prevent hang up of the threads.

- Visual inspection is recommended to classify the thread condition, any rejected connections should be clearly marked and segregated for further investigation.
- 10. It is not necessary to apply storage compound to Dopeless® connections.
- 11. Ensure clean, dry Dopeless® protectors with the seal rings in place are installed.
- **12.** For long term storage of Dopeless® connections, refurbishment by qualified personnel is recommended.
- 13. If refurbishment cannot be done prior to storage, storage compound may be applied to Dopeless® connections. In this case remove the rubber rings from the Dopeless® thread protectors prior to installation. Remove storage compound prior to re-run.

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