

**IPSCO CONNECTIONS
RUNNIG MANUAL**

TORQ[®] SFW[™]



In addition to this section, ensure that all instructions from the GENERAL GUIDELINES.

Interchangeability

TORQ® SFW™ is not interchangeable between different weights of the same nominal OD. A crossover is needed if running a mixed weight string or accessories.

Features

1. TORQ® SFW™ utilizes a tapered wedge thread form on both steps of the connection.
2. A fully made up TORQ® SFW™ connection may have up to two exposed threads on the pin OD.
3. TORQ® SFW™ can be distinguished by its unique spherical seal configuration in between the two thread steps and a thread dope relief adjacent to the seal on both pin and box.

Thread Compound Application

1. Tenaris recommends the use of thread compounds that meet or exceed ISO 13678 or API RP 5A3 requirements.
2. The use of an applicator "moustache" brush or a paintbrush is recommended to best control the application and quantity of thread compound.
3. Inspect that the brush is clean and free of any dirt. If the brush has been recently cleaned, make sure that no water or other foreign debris remains in the bristles.
4. Water that is on the brush, connection, or in the running compound bucket must be completely removed before applying the compound. The brush and connection can be dried with a clean rag.
5. Ensure that at least 75% of the connection is covered with "dry moly" prior to applying thread compound if the connection is bead blasted. "Dry moly" is not required if the connection is phosphated.
6. Apply an evenly distributed light coat of thread compound on both steps and seal of the pin as demonstrated in the graphic below. A "light coat" means that the machined thread profile can be clearly and distinctly seen, with no more than 30% of the thread height filled with thread compound.



Make-up Torque

1. TORQ® SFW™ connections shall be made up to the torque specified on the most current Connection Data Sheet.
2. The specified minimum make-up torque in the data sheet is the minimum torque to which the connection should be assembled.
3. The specified optimum make-up torque in the data sheet should be used as the target make-up torque for optimum performance.
4. The specified maximum make-up torque in the data sheet should be used as the highest recommended make-up torque for normal operations.
5. Add 10% to the optimum make-up torque when using thread locking compound. A wedge lock must be visible for proper make-up. Apply the thread locking compound to the threads only and apply running compound to the seal area.

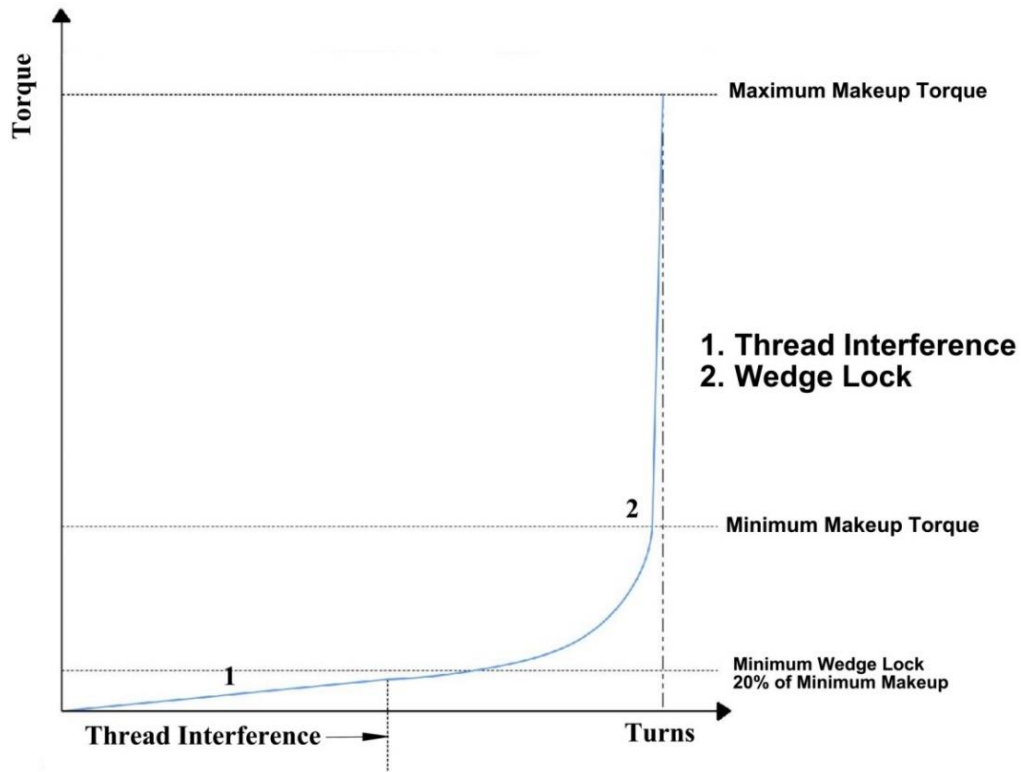
Make-up RPM

1. Initial RPM shall start in high gear with a low torque and high RPM.
2. Switch to low gear before the seal engagement appears in the torque turn graph.
3. Power tongs should remain in low gear and at a constant RPM once the seal engages.
4. The below table lists the approximate recommended make-up RPM for the TORQ® SFW™ connections.

TARGET MAKE-UP RPM		
OD	INITIAL RPM	FINAL RPM
4 – 5 ½	35	15
6 ⅝ – 7 ⅝	20	10
8 ⅝ – 9 ⅝	10	5
10 ¾ – 13 ⅝	6	3

Wedge Lock Torque

1. The wedge lock shall be clearly visible at a minimum of 20% of minimum make-up torque and at a maximum of 90% of minimum make-up torque.
2. If the wedge lock is outside of these specifications, break out and inspect the pin and box.
3. A large torque increase prior to 1 turn from the wedge lock may indicate a problem in make-up such as cross threading or galling.
4. See the example graph below that demonstrates the make-up limits for TORQ® SFW™ connections.



Downhole Rotation

1. Tenaris recommends using the minimum amount of torque necessary to break the friction between the tubing or casing and the well bore if downhole rotation of the string is required.
2. The TORQ® SFW™ connection should not be rotated beyond the specified operating torque and RPM should be limited to 40 RPM or lower.
3. Care should be taken to gradually increase and decrease torque when rotating to allow the stored kinetic energy to dissipate and prevent downhole connection yielding or break out.
4. Tenaris advises caution as the torque measurement accuracy and dump-valve response time may vary depending on the specific equipment used.

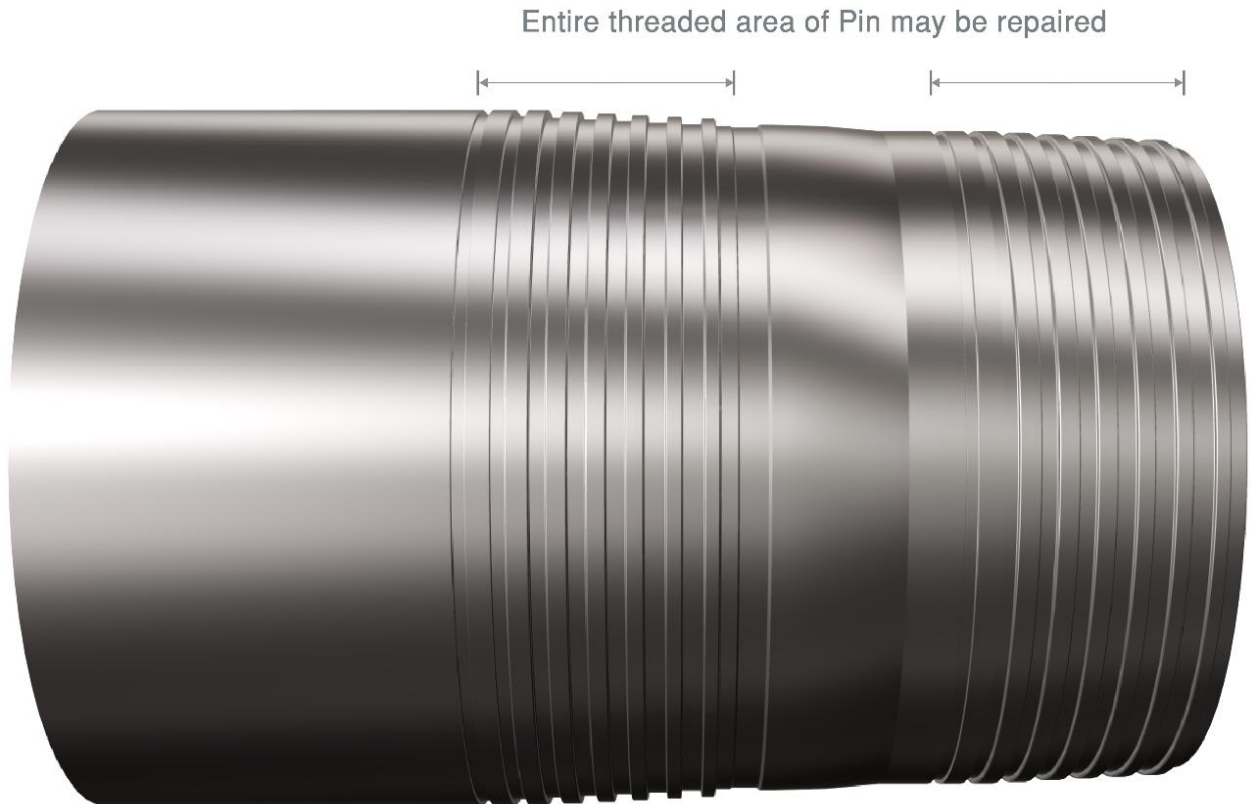
Re-run

1. The pin and box must be thoroughly cleaned and visually inspected for any damage after each break out.
2. Apply or ensure that at least 75% coverage of dry moly is present on the connection if it is bead blasted. Dry moly is not required if the connection is phosphated.
3. Do not re-run the string if any portion of the string has been taken beyond the specified operating torque.
4. The TORQ® SFW™ connections shall not be used as work strings.

Field Repair

1. Field repair of TORQ® SFW™ connections shall only be conducted by Field Service Technicians certified by Tenaris.
2. Minor tears, galls, dents or burrs on the thread profile may be able to be repaired by qualified personnel in the field.
3. Small scratches and dents on the pin and box face may be permissible or repaired.

4. Repair connections using a file, stone, sandpaper or appropriate abrasive tool, and Scotch-Brite™ sponge or equivalent.
5. For best results it is recommended to spray the connection with an even coat of “dry moly” and allow it to dry.
6. Only qualified personnel may make the decision regarding the serviceability of a given connection.
7. ***Seal areas cannot be repaired in the field and must be free of any damages.***
8. ***Loose burrs and sharp raised edges must be removed or rounded down.***



Entire threaded area of Box may be repaired

