



**SEAL-LOCK BOSS
ANCILLARY
SPECIFICATIONS**

SECTION	V	
Prepared	GJR	05/02/12
Engineer	RJH	05/03/12
GM Engr	RSS	05/04/12
QA Mgr	GJR	05/02/12
Revision	009	03/19/12

SUBJECT: COUPLING MAKE-UP

1.0 SCOPE

1.1 This document sets forth the specification for the mill end make-up or bucking of **SEAL-LOCK BOSS** casing connectors.

2.0 DEFINITION

2.1 Make-up shall be defined as the power tight application of a coupling or box connector to a pin connector.

3.0 EQUIPMENT

3.1 The following list of equipment is required in the making-up or the bucking-on of couplings to pin connectors.

3.1.1 Appropriate size, grade, type box connector, or coupling to match the pipe and pin connector.

3.1.2 An adequate supply of clean, uncontaminated thread compound.

NOTE: Hunting recommends Best-O-Life 2000, Best-O-Life PTC, OCR 325, Seal-Lube (LTF 4444 HTM 1001), and Jet Lube EnviroSAFE as the tested and approved thread compounds for Hunting thread sealing products.

NOTE: Hunting does not recommend API modified thread compound for Hunting proprietary connections. However, when an API modified thread compound is specified by the end user, Hunting has standardized on Best-O-Life 72732/72733 as the API modified thread lubricant used for connection qualification testing. Using another thread lubricant may substantially change the recommended torque range listed on the sales data sheet.

3.1.3 Thread lubricant application brushes.

3.1.4 Appropriate **SEAL-LOCK BOSS** barrette pair for the specified size connection. Both barrette members must have the same serial number. Barrettes are not used for accessory make-up as the box ID shoulder determines the make-up position.

3.1.5 Power tongs capable of producing the required torque at 3 - 9 RPM.

3.1.6 Appropriate **SEAL-LOCK BOSS** mill make-up plug.

NOTE: The power and back-up tongs shall have sufficient dies, evenly spaced around the coupling and pipe circumferences, where an even gripping pressure is applied, both axially and circumferentially, to prevent distortion to the connection.

3.1.7 Latest Hunting sales drawing with specified torque values for the appropriate size, weight and grade product.

3.1.8 **OPTIONAL** - Torque turn monitoring system.

4.0 CERTIFICATION

4.1 The torque unit shall be calibrated for accuracy every four (4) months.

5.0 MAKE-UP PROCEDURE

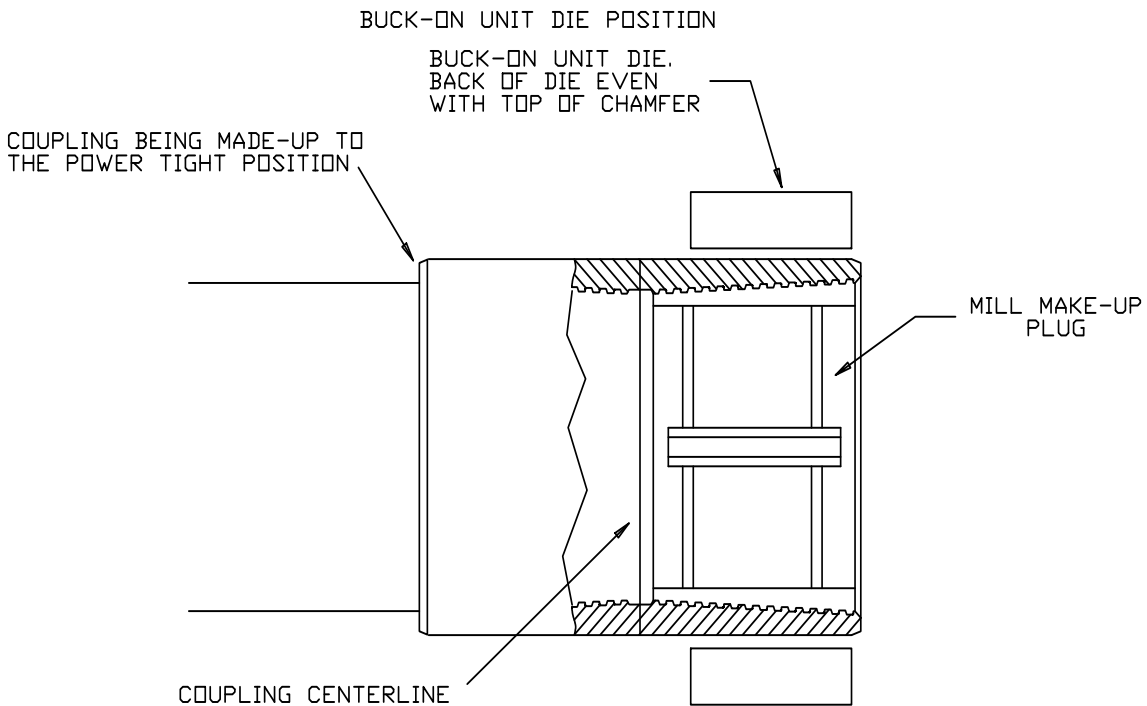
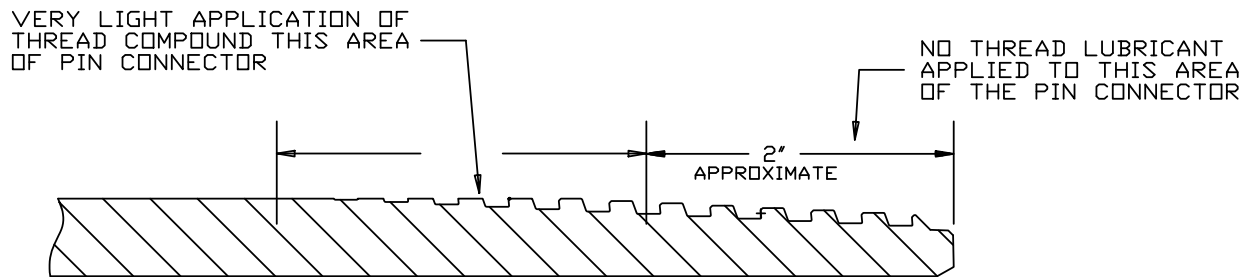
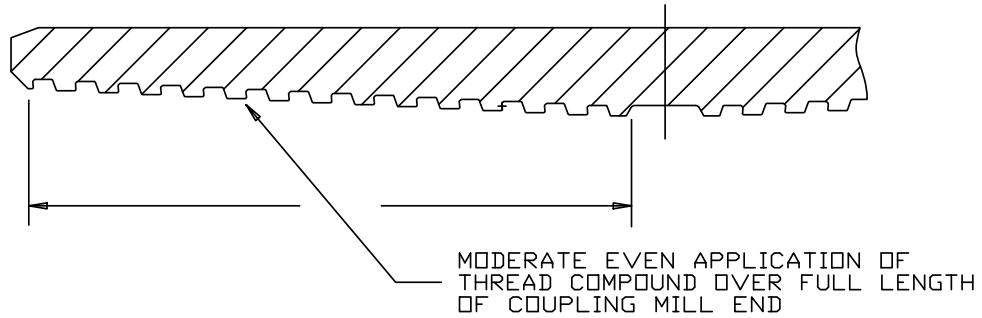
5.1 Thoroughly clean and visually inspect both sides of the connection to be made-up.

5.1.1 Ensure that the pin thread start and full form threads are free from tears and burrs.

5.1.2 Ensure that the coupling or box connector is free from burrs or tears on the starting threads and throughout the full form thread length.

MILL END ASSEMBLY PROCEDURES - BOSS CASING

THREAD LUBRICANT APPLICATION - BOSS MILL END CONNECTIONS





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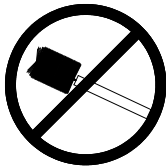
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- 5.1.3 Both connectors shall be free of any debris such as chips, shavings, dirt or other foreign particles that could create galling or damage to the connection during make-up.
- 5.1.4 Make-up lines properly applied to both pin and box connectors in accordance with Ancillary Specification "Make-up Position Using Barrettes, **SEAL-LOCK BOSS.**"

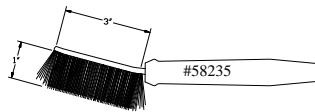
5.2 Apply a moderate, even coat of the recommended thread lubricant to cover the full box/coupling threaded surface. A moderate coating allows the thread form to be fully distinguished after the thread lubricant has been applied.

NOTE: See Section 3.1 for recommended thread compounds.

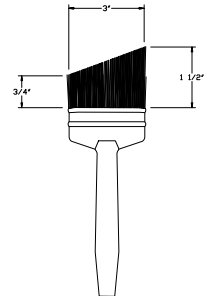
5.3 Apply a very light coat of the recommended thread lubricant to the imperfect thread area only (approximately 2" from the pin face) on the pin connector.



Do Not Use
Bottle Brush



Preferred Moustache Brush #58235



Alternate Acceptable
Modified Paint Brush

NOTE: Adjust the amount of lubricant applied to the pin and coupling connectors to cause a gradual increase in torque throughout the make-up. An indicator of connection overlube is during the last one-half of a turn to final make-up position there is no gradual increase of torque even though the pin is continuing to advance into the coupling.

- 5.4 Apply the box or coupling to the pin end by hand to the hand-tight position.
- 5.5 Insert the mill make-up plug into the open end of the coupling handtight and back off approximately 1/8 of a thread turn.
- 5.6 Position the connection in the power tongs.

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5.7 Apply the specified torque to the connection at 3 - 9 RPM.

TARGET MAKE-UP RPM

7 5/8" - 9.0 RPM	13 3/8" - 5.0 RPM
8 5/8" - 8.0 RPM	13 5/8" - 4.0 RPM
9 5/8" - 7.0 RPM	14" - 5.0 RPM
9 3/4" - 7.0 RPM	16" - 4.0 RPM
10 3/4" - 6.5 RPM	18 5/8" - 3.5 RPM
11 3/4" - 6.0 RPM	20" - 3.0 RPM
11 7/8" - 5.0 RPM	

NOTE: If shoulder torques are high or low, adjust the thread compound application to give good make up torque curves. For high torque, apply more compound. For very high torque, apply Molybdenum disulfide to both pin and box connectors prior to the application of the thread compound.

NOTE: The SEAL-LOCK BOSS connection is a position make-up connection. The make-up indicator lines must be properly aligned for the connection to work as designed. The internal torque shoulders on box accessories determines the correct make-up position on accessory connections.

5.8 Remove the mill make-up plug.

6.0 MAKE-UP ACCEPTANCE AND REJECTION

- 6.1 For an acceptable make-up both position and torque requirements must be met.
 - 6.1.1 The criteria for proper make-up shall be as described in Section 5.0 of Ancillary Specification "Make-up Position Using Barrettes, **SEAL-LOCK BOSS**."
 - 6.1.2 The torque applied to the connection must meet the minimum published torque when the position requirements are met.
 - 6.1.3 Accessory connections must exhibit a positive shoulder; pin face to box shoulder engagement. The delta torque of the shouldered connection shall be a minimum of 10% of the actual shoulder torque. The maximum published torque may be exceeded on thick wall accessories but shall not exceed 80% of the published minimum yield torque.
- 6.2 Connections which do not meet the criteria of Paragraph 6.1 should be set aside and a Hunting representative contacted as soon as possible.

7.0 RUNNING PROCEDURE FOR ACCESSORIES MADE UP USING THREAD LOCKING COMPOUND / LUBRICANT

- 7.1 Using steam, soap and hot water, or safety solvent, remove all thread storage or running compound from both pin and box connectors.
- 7.2 Ensure that the thread and sealing surfaces are clean, dry, and free of oil, grease, or residues.
- 7.3 On thread sealing connections, apply the Hunting recommended thread compound on the first three (3) thread of the pin and last three (3) threads of the box (area of the perfect threads engagement).

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- 7.4 Just prior to make up, the thread locking lubricant shall only be applied on the pin threads (not on the box), on the area that has not been covered by the approved thread compound.
- 7.5 When making up accessories like float equipment, hangers, thick wall accessories, and others, shoulder torques might be higher than normal due to relationship of the friction factors of the thread locking lubricant in comparison with the API Modified thread compounds and the wall thickness.
- 7.6 The make up torque of the accessories should be aimed to the maximum recommended torque. Therefore, if necessary, the published torque may be exceeded but in any case shall not exceed 80% of the published minimum yield torque.