

## 1. Scope

This document is to be used for field make-up acceptance of the Bushmaster® SL Connection.

This procedure shall be used in conjunction with FT-RP-000 General Running Procedure and the latest revision of the Connection Data Sheet (CDS). Where conflicts exist, this connection-specific running procedure and CDS shall govern.

### 1.1. Product Description

**Bushmaster® SL Connection:**

- Threaded and Coupled - Slim Line
- Constrictor® wedge locking thread form
- Thread sealing



Figure 1 – Product Image

### 1.2. Approvals

|          |                                      |           |
|----------|--------------------------------------|-----------|
| Created  | Angela Hill – Product Engineer       | 8/10/2026 |
| Reviewed | Israel Martinez – Quality Director   | 8/12/2026 |
| Approved | Wesley Ott – Director of Engineering | 8/12/2026 |

1.3. Contents

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1.4. Reference Documents

| Document Number | Document                                                            |
|-----------------|---------------------------------------------------------------------|
| FT-RP-000       | General Running Procedure                                           |
| FT-FI-001       | Fermata Connections Field Visual Inspection and Repair Requirements |

Available online: [fermata-connections.com/running-procedures/](https://fermata-connections.com/running-procedures/)

\*Always confirm the most current Running Procedure through the online portal or by contacting Field Service.

## 2. Connection Running

For general running see FT-RP-000 General Running Procedure

Fermata® strongly recommends using a Fermata® certified thread representative for all casing runs. If not used, the operator is responsible for ensuring all make-ups meet Fermata® criteria.

See Section 4.1 in the FT-RP-000 General Running Procedure for Field Service details.

### 2.1. Connection Compatibility

- Common box connection for multiple pin weights.
- Different pin weights have different wall thickness and critical sections while box is unchanged.
- Different weights have different make-up torques. See CDS for torque range.

**Table 1: Interchangeability Chart**

| OD (inches) | Compatible Weights (lb/ft) |
|-------------|----------------------------|
| 5.500       | 20.00                      |
|             | 23.00                      |
| 6.000       | 24.50                      |
|             | 25.50                      |

**Table 2: Non-Interchangeable Sizes**

| OD (inches) | Weights (lb/ft) |
|-------------|-----------------|
| 5.000       | 18.00           |
| 5.000       | 21.40           |
| 5.500       | 17.00           |

Confirm compatibility in Table 1 and performance properties prior to running. Careful consideration of the performance properties of the weakest connection must be made by the operator.

#### 2.1.1. Coupling Identification

To ensure the correct coupling is matched to the correct weight pin, Bushmaster® SL couplings shall follow Table 3 Color and Band Codes below.

**Table 3 : Coupling Color and Band Codes**

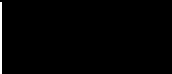
| Coupling Grade | Grade Type | Coupling Color | OD Color | No. of Bands            | Band Colors                                                                         | Connection Size & Weight |
|----------------|------------|----------------|----------|-------------------------|-------------------------------------------------------------------------------------|--------------------------|
| P110           | -          | White          |          | 1 – Black<br>1 – Orange |  | 5.500" 17#               |
| P110           | -          | White          |          | 1 – Black               |  | 5.500" 20 & 23#          |



Figure 2 – Example 5.500-17.00#



Figure 3 – Example 5.500-20.00# and 23.00#

## 2.2. Thread Compound Application

See FT-RP-000 General Running Procedure Section 4.2 for thread compound application.

### 2.2.1. Approved Compounds

- Fermata® Constrictor® Advanced Thread Sealant.

### 2.2.2. Compound Amount

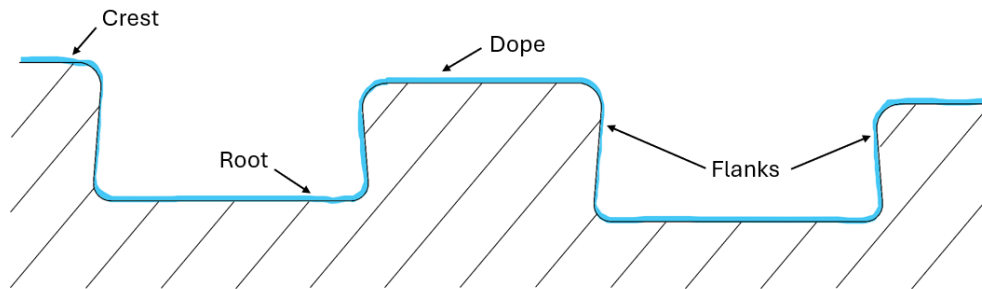
Refer to Table 4 for the required thread compound volume:

**Table 4: Thread Compound Amount**

| OD (inches) | Volume (mL) |
|-------------|-------------|
| 5.000       | 9.0         |
| 5.500       | 10.0        |
| 6.000       | 11.0        |

### 2.2.3. Thread Compound Application

- Apply thread compound only on the pin connection.
- Coat full thread form (flanks, roots, and crests).

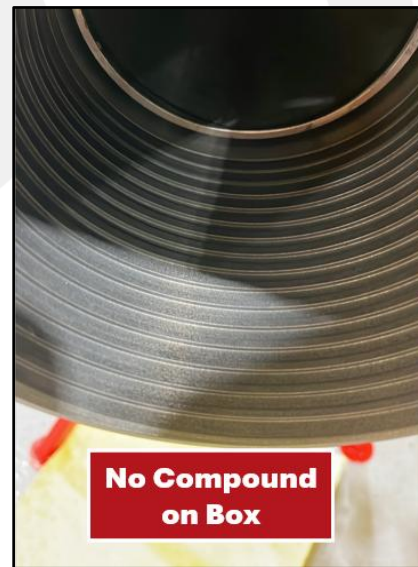


**Figure 4 – Thread Form**

See Figure 5 and Figure 6 for visual reference.



**Figure 5 – Pin Connection Application**



**Figure 6 – Box Connection (no compound)**

## 2.3. Connection Make-Up

### 2.3.1. General

See FT-RP-000 General Running Procedure

### 2.3.2. First Article Make-up

Bushmaster® SL requires First Article Make-Up, see FT-RP-000 General Running Procedure Section 4.4.3 for the detailed process.

### 2.3.3. Bushmaster® SL Torque-Turn Plot

- Verify the make-up result against Figure 7.
- For Bushmaster® SL, the Constrictor® Lock Point is defined as the point where the slope changes from curved to linear. Maintain the Constrictor® Lock Point between 5% and 80% of makeup torque.

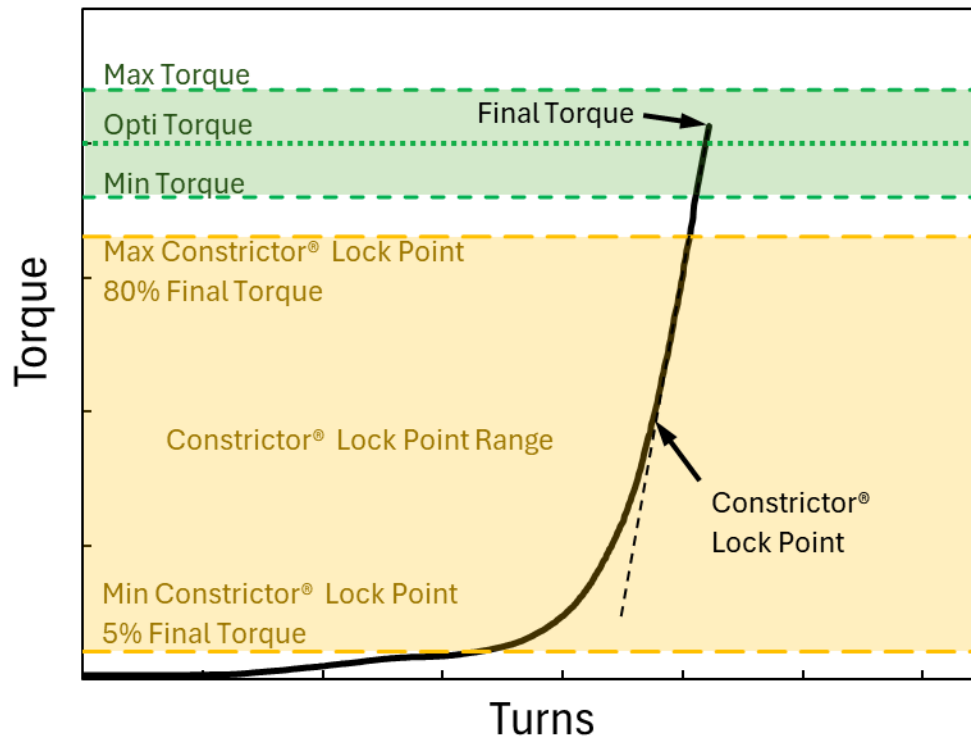


Figure 7 – Bushmaster® SL Torque-Turn Signature

### 2.3.4. Make-up Acceptance Criteria

Connections are accepted based on required graph elements (2.3.3), and Knurling/Triangle stamp make-up indicators.

#### 2.3.4.1. Make-up Indicator

Verification of connection make-up can be made by checking the triangle stamp or knurling.

##### **Triangle:**

- To locate the triangle there is a 1" wide X 24" long white paint stripe is applied to the field end pin.
- After make-up, the box face must be at least to the base of the triangle but not past the tip.

##### **Knurl:**

- The knurl is applied around the circumference of the pin.
- After make-up, locate a region around the circumference that has full knurl width indented. The box face must be at least to the base of the knurl but not pass over full width.

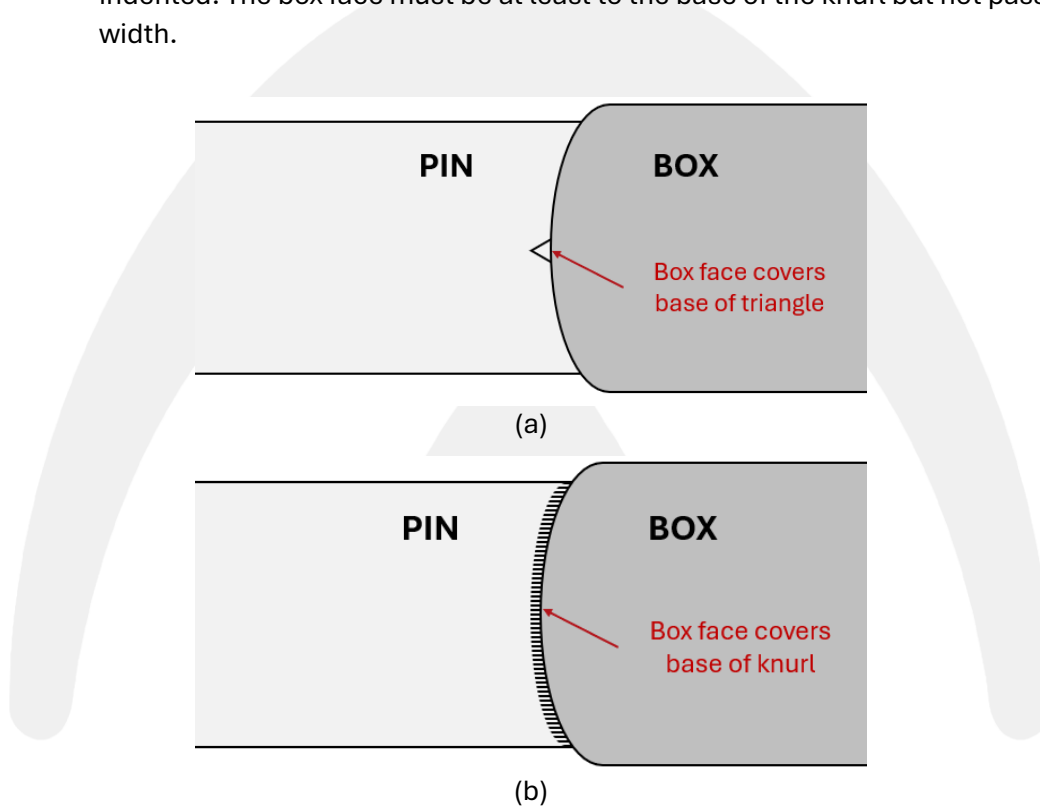
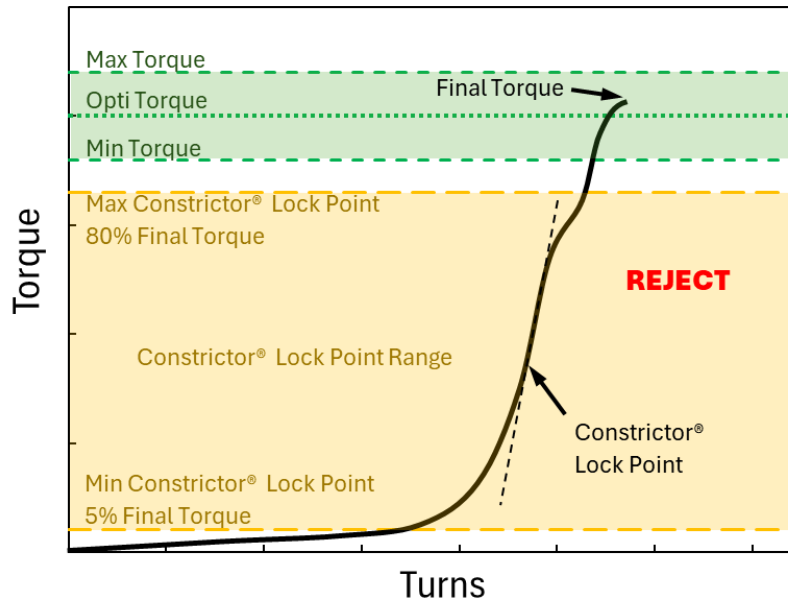


Figure 8 – Triangle stamp after make-up (a) and knurl after make-up (b).

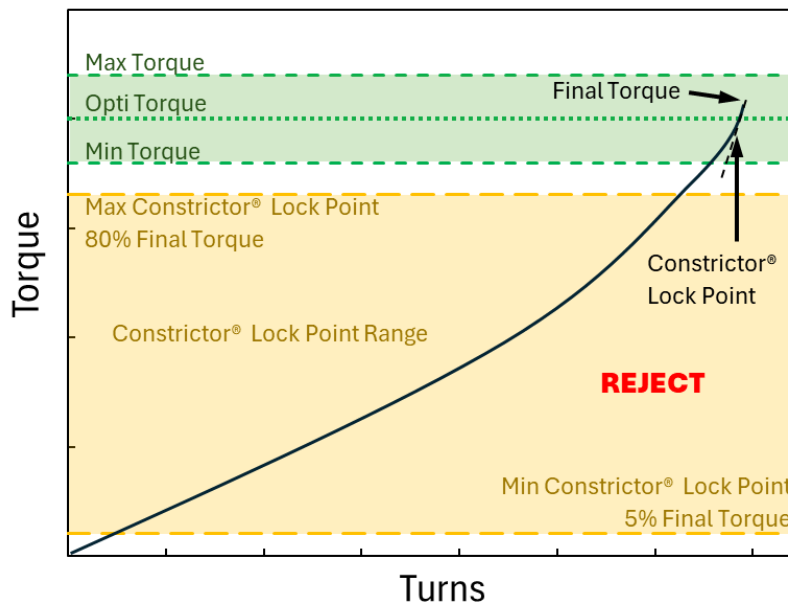
#### 2.3.4.2. Graph Acceptance

- Figure 7 shows an example of an acceptable make-up signature.
- Figure 9 shows examples of unacceptable make-up graphs.
- Contact Fermata® Support for any graph irregularity's acceptance.
- See FT-RP-000 General Running Procedure for further examples.



NOTE: Irregular torque build and loss of linearity near final torque. Break-out, inspect the connection and remake-up with less thread compound.

(a)



NOTE: High or unachieved lock point. Break-out, inspect the connection and remake-up with less thread compound.

(b)

Figure 9 – Examples of unacceptable make-up graphs.

**Contact Information:**

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Field Services 24/7 Operations: (855) 322-7104

