



**SEAL-LOCK HC, GS  
ANCILLARY  
SPECIFICATIONS**

SECTION	V	
Prepared By	GTF	05/15/08
Engineer	RJH	05/15/08
Dir Engr	DR	05/16/08
GM QA	GTF	05/15/08
<b>REVISION</b>	<b>004</b>	<b>05/13/08</b>

**SUBJECT: VISUAL THREAD INSPECTION**

**1.0 SCOPE**

1.1 This document sets forth the broad guidelines for the field visual thread inspection of Hunting's **SEAL-LOCK HC** connections by independent inspection agencies.

**2.0 DEFINITION**

2.1 Visual thread inspection shall be defined as those inspections that may be performed on Hunting's proprietary connections without the use of proprietary thread element gages.

**3.0 PIN/FIELD END INSPECTION**

3.1 Pin Face

3.1.1 Place a straight edge across the pin face. Sight between the pin face and the straight edge to determine that the pin face has been cut at a negative angle. Ensure that the pin nose radius is fully blended and is free from sharp edges or burrs.

3.1.2 Visually inspect the pin face for surface irregularities. Minor dents or dings to the pin face are detrimental to the connection, however, most can be repaired by lightly filing to remove all protrusions. Dents or dings on new connections that are sufficiently deep to cause a raised area or protrusion on the seal surface are rejectable. The repair of such conditions during the running of the connection is at the discretion of a Hunting service representative.

3.1.3 The pin face, ID chamfer and OD chamfer are to be smooth and free from burrs.

3.2 Seal Surface

3.2.1 For products with a metal-to-metal seal, carefully place a straight edge across the seal surface. It should be a slightly tapered, flat surface. Galls, burrs, dents, or dings on a new seal surface is cause for rejection. The repair of such conditions during the running of the connection is at the discretion of the Hunting service representative.

3.2.2 Visually inspect the phonograph seal finish. The microgrooves should be distinct and uninterrupted from the pin face to the thread start within the definitions of minor pitting, inclusions and continuity of seal surface.

3.2.3 Repair of a new seal surface by wire brushing, sanding or filing is unacceptable. Acceptable repair methods include polishing with 000 and 0000 steel wool, medium or fine grit scotch brite, #5 sugar sand blasting or phosphate coating.

3.3 Threaded Area

3.3.1 Visually inspect for full form thread length. The full form thread length is measured from the thread start point axially along the thread crests. Most connections are required to have between 2 and 3 full form threads.

**NOTE: Even though a portion of a thread has a black crest, it may conform to Hunting's requirement for a full form thread. This is determined by a thread height measurement with a proprietary thread height gage.**

**4.0 COUPLING/MILL END INSPECTION**

4.1 Mill Make-up

4.1.1 Visually inspect the powertight connection for indications of proper make-up. For internally shouldering connections, the pin face should be in contact with the coupling's torque shoulder.

4.1.2 Visually inspect the made-up pin ID on internally shouldered connections. It should show no signs of the seal buckling to the tube ID or torque shoulder rollover due to an overtorque condition during mill make-up.



**SEAL-LOCK HC, GS  
ANCILLARY  
SPECIFICATIONS**

SECTION	V	
Prepared By	GTF	05/15/08
Engineer	RJH	05/15/08
Dir Engr	DR	05/16/08
GM QA	GTF	05/15/08
<b>REVISION</b>	<b>004</b>	<b>05/13/08</b>

**SUBJECT: VISUAL THREAD INSPECTION**

- 4.2 Internal Torque Shoulder
  - 4.2.1 Visually inspect the internal torque shoulder. The torque shoulder height should be approximately the same height for 360°. It shall be free from protrusions due to corrosion pitting or impact damage and free from burrs for 360°.
  
- 4.3 Seal Surface
  - 4.3.1 Visually inspect the thread-to-seal radius and the seal surface. The radius shall present a smooth, burr free transition from the threaded area to the seal surface. The seal shall be a slightly tapered, flat surface with a phonograph finish. Galls, burrs, dents or dings (drift created defects) on new couplings or box connectors are rejectable.
  - 4.3.2 Visually inspect the phonograph seal finish. The microgrooves should be finer than those on the pin but still distinct and uninterrupted for the entire seal length within the definitions of minor pitting, inclusions and continuity of seal surface.
  - 4.3.3 Repair of coupling or box connector seal surfaces should not be attempted on new parts because the phosphate coating will be damaged and galling may occur.
  
- 4.4 Threaded Area
  - 4.4.1 Visually inspect the full form threaded area for damage. Small areas of impact damage or galls should be repaired. Field repairable thread damage on new connectors shall not exceed 0.125" in circumferential length or 0.003" in depth. All repaired areas should be covered with an anti-gall and anti-corrosion compound such as Moly-Kote.
  - 4.4.2 Allowable corrosion pitting in the full form thread area shall be as defined in the **DEFINITION OF TERMS** under Minor Pitting.
  
- 4.5 Coupling Face
  - 4.5.1 Visually inspect the coupling face and OD chamfer for impact damage. Impact damage that has caused the starting thread crest to be indented sufficiently to cause interference with the pin connector thread root on make-up is cause for rejection.

**5.0 CONNECTION GAGING**  
5.1 The gaging of Hunting's proprietary connections shall only be performed by a Hunting Quality Assurance or Service Representative or an approved Licensee. Hunting personnel or Licensee are the only persons that have availability to the proprietary gages to which the products are manufactured.

**6.0 THREAD/STORAGE COMPOUND**  
6.1 Upon completion of visual thread inspection verify appropriate thread or storage compound is being applied to both ends of the tube. The approved thread/storage compound shall be as stated in the applicable "**FIELD RUNNING AND HANDLING PROCEDURE**".

**NOTE: Notify Hunting Northpoint, Houston, Texas, Quality Assurance Department immediately if thread/storage compound being applied is not listed in the applicable "FIELD RUNNING AND HANDLING PROCEDURE".**



**SEAL-LOCK HC, GS  
ANCILLARY  
SPECIFICATIONS**

SECTION	V	
Prepared By	GTF	05/15/08
Engineer	RJH	05/15/08
Dir Engr	DR	05/16/08
GM QA	GTF	05/15/08
<b>REVISION</b>	<b>004</b>	<b>05/13/08</b>

**SUBJECT: VISUAL THREAD INSPECTION**

- 7.0 REJECTION**
- 7.1 Any thread that does not meet the specified requirements, shall be considered a reject.
  - 7.2 All rejects shall have the entire thread area painted red.
  - 7.3 All rejects shall be clearly identified as “reject” to protect against out-of-tolerance material being shipped as prime material.
  - 7.4 Rejection may be reworked by removing the defective condition and re-threading the parts within the appropriate tolerances.
  - 7.5 Any discrepancies shall be clarified and dispositioned by Hunting’s Q.A. Department before any further processing or delivery.