



***TS HP, TS HP-SR
TS HD, TS HD-SR
ANCILLARY
SPECIFICATION***

SECTION	V	
Prepared By	GJR/ EAD	01/05/05
Approved Engineer	RJH	01/07/05
Approved Dir Engr	DR	01/19/05
Approved GGM QA	GTF	01/06/05
REVISION	002	01/03/05

SUBJECT: STEEL IMPERFECTIONS

1.0 SCOPE

- 1.1 This document sets forth the procedure for the evaluation of steel imperfections in the connection area for Hunting proprietary connections.

2.0 REFERENCES

- 2.1 The following documents were used as references in the context of this specification:
- 2.1.1 API Specification 5CT
 - 2.1.2 API Specification 5B

3.0 ACCEPTANCE CRITERIA

3.1 Pin Connector

- 3.1.1 The 14° seal surface shall be free of all discontinuities. Minor surface discontinuities are allowed on the 30° external torque shoulder that can be removed by 000 or 0000 steel wool, extra fine Scotch Brite or 120 grit Emory cloth.

NOTE: Discoloration due to the onset of oxidation (corrosion) is not considered a discontinuity; therefore, discoloration is not cause for rejection.

- 3.1.2 The full thread length of both steps shall be free of all discontinuities except for the two (2) below listed imperfections:

1. Minor Pitting - 30° Shoulder - A) Seal surface minor pitting shall be defined as isolated corrosion pitting that has longitudinal/axial components of 0.125" or less and a depth of .003" or less. Isolated pitting may not be aligned longitudinally or diagonally where a potential leak path may be created. B) Thread surface minor pitting shall be defined as isolated corrosion pitting in the full thread length which does not affect the thread height or form per Hunting's definition of full form thread.
2. Minor/Repairable Thread Damage - No absolute blanket acceptance/rejection criteria concerning thread damage can be specified due to factors such as actual full thread length, depth, and location of the damage. Impact type damage that is 0.250" or less in circumferential length, spans across less than three (3) full threads or is less than 0.005" in depth may be repaired by removing all protrusions on the flanks and thread crests by light filing.

- 3.1.3 Linear Imperfections - as defined in the latest edition of API Specification 5CT.

3.2 Pin Connector ID

- 3.2.1 Steel imperfections detected on the ID surface directly beneath the pin connector shall not be greater in depth than the maximum allowable I.D. bore diameter (J) when measuring the I.D. diameter from the maximum depth of the imperfection.
- 3.2.2 For products with specified bored ID's beneath the pin seal, the maximum allowable imperfection depth shall not exceed maximum allowable ID bore dimension.
- 3.2.3 Steel imperfections detected on the ID surface directly beneath the pin connector full thread length shall not be greater than 5% of the nominal wall thickness as measured from the ID surface on the (1st) step and 7% of the (2nd) second step.
- 3.2.4 Linear imperfections shall be removed and the surrounding ID surface contoured generously.

NOTE: The maximum imperfection diameter must not be greater than the allowable I.D. bore diameter (J) specified on the manufacturing drawing tolerance.



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3.3 Box O.D.

3.3.1 Steel imperfections detected on the OD surface of a box connector shall not reduce its outside diameter more than that allowed on the manufacturing tolerance.

3.4 Box ID

3.4.1 The box I.D., both thread and seal surfaces, shall be free of all discontinuities except for minor pitting and thread damage as defined above in 3.1.2.

4.0 REJECTION

4.1 Any connector that does not meet the acceptance criteria in Section 3.0 of this document shall be rejected.

4.2 All rejects shall have the entire threaded area painted red.

4.3 All rejects shall be clearly identified on the appropriate inspection report form.

4.4 All rejects shall be clearly identified as "reject" to protect against out-of-tolerance material being shipped as prime material.

4.5 Rejection may be reworked by removing the defective condition and re-threading the parts within the appropriate tolerances.

4.6 Any discrepancies shall be clarified and dispositioned by Hunting's Q.A. Department before further process or delivery.