HUNTING

ANCILLARY SPECIFICATION

SECTION	V	
Approved Engineer	RJH	02/13/96
Approved Mgr Engr	DR	02/13/96
Approved GGM QA	GTF	03/18/02
REVISION	003	03/18/02

SUBJECT: STEEL IMPERFECTIONS

1.0 SCOPE

1.1 This document sets forth the procedure for the evaluation of pipe or 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 OD

3.1.1 The seal surface shall be free of all discontinuities except for (1) minor pitting.

3.1.2 The minimum length of full formed threads shall be free of all discontinuities except (2) minor/repairable thread damage and minor pitting.

3.1.3 Imperfections are allowed in the imperfect thread length provided the imperfection depth does not exceed 12 1/2% of the tube's nominal wall thickness when measured from the projected tube surface. Three (3) Linear imperfections detected in the imperfect thread root cone shall be removed, the surfaces contoured generously, and the remaining wall thickness (87 1/2% minimum) verified.

(1) Minor Pitting - A) Seal surface minor pitting shall be defined as isolated corrosion pitting that has longitudinal/axial component of 1/4" 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 form 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 form thread length, depth, and location of the damage. Impact type damage that is 0.125" or less in circumferential length, spans across less than two (2) full form threads or is less than 0.005" in depth may be repaired by removing all protrusions on the load flank and thread crests by light filing.

(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 seal shall not be greater in depth than the difference of the measured (actual) seal thickness minus the specified minimum seal thickness (TMIN). The formula is as follows:

Allowable ID imperfection depth = Measured seal thickness - TMIN

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 form thread length shall not be greater than 12 1/2% of the nominal wall thickness as measured from the ID surface.

3.2.4 Linear imperfections shall be removed and the surrounding ID surface contoured generously.

A. Measured (actual) seal thickness - shall be measured in the same axial/longitudinal plane with the imperfection (or adjacent on either side of the imperfection) in accordance with the **PIN SEAL THICKNESS MEASUREMENT PROCEDURE.**

B. Minimum Seal Thickness (TMIN) - shall be as specified in Section 7.0 of the applicable **PIN INSPECTION SPECIFICATION**.

3.3 Coupling/Box OD

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

3.4 Coupling/Box ID

3.4.1 The coupling ID, both thread and seal surfaces, shall be free of all discontinuities except for minor pitting and thread damage as defined above in 3.1.3.

4.0 REJECTION

4.1 Any connector that does not meet the acceptance criteria in Section 3.0 of this document shall be rejected and identified in such a manner that the rejected parts do not get shipped as prime.