## CERTIFIED MATERIAL TEST REPORT Hackney Ladish Inc.

P.O. Box 803466 - 5495 Beltline Rd. #290 - Dallas, TX 75254

Phone: (800) 527-4500 Fax: (214) 269-5601

Heat Code Quantity Description / Specifications

E06TTS

RED-ES-12-10STD A/SA 234 - 06 WPB (SMLS)

TRI-47 57 27409

STRESS RELIEVED

NACE MR0175

Chemical Analysis

Ni 
 C
 Mn
 P
 S
 Si
 Cu
 Ni
 Cr
 Mo
 Al

 .190
 1.090
 .014
 .001
 .240
 .121
 .070
 .080
 .033
 .0230
Heat Code Test C E06TTS M

Chemical Analysis (cont.)

Heat Code N 
 Heat Code
 N
 V
 B
 Ti
 Cb
 Sn
 W

 E06TTS
 .0062
 .000
 .0000
 .0000
 .000
 .000
Pb

Physical Properties

Heat Code Tensile KSI Type Thickness Yield KSI % Elong. (4D) % RA Hardness HB 71.5 L 46.9 40.0 69.0 143

Charpy Results

Heat Code Size x 10mm Type Temp. (F) Foot Pounds Later. Expansion % Shear E06TTS

Test: M=Mill Product Type: L=Longitudinal

We certify that the material herein described has been manufactured in accordance with the above standards and specifications and satisfies all the requirements of the editions specified. We certify all materials provided comply with ISO 10204 paragraph. 3.1 which replaces type 3.1.B of the 1991 edition of EN 10204. Our ISO9001:2000 certificate number is CERT11763-2007-AQ-HOU-RVA/ANAB. We certify these fittings capable of passing hydrostatic test compatible with their rating. The above figures are correct as contained in the records of the Company. This information has been electronically transmitted to our customer.