CERTIFIED MATERIAL TEST REPORT Hackney Ladish Inc.

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Heat Code Quantity Description / Specifications

10 X 8 STD ECC RED A/SA 234 - 06A WPB (SMLS) A106B 180 2603909 STRESS RELIEVED N

NACE MR0175

Chemical Analysis

P S Si Cu Ni Cr Heat Code Test C A07NXS M .150 1.100 .003 .001 .280 .010 .010 .020 .000

Chemical Analysis (cont.)

.020 <u>Ti Cb Sn W Pb Co CE</u> .0020 .002 Heat Code N V

Physical Properties

Heat Code Tensile KSI Type Thickness Yield KSI % Elong. (4D) % RA Hardness HB 50.0 30.0 A07NXS 71.0 L

Charpy Results

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

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.