CERTIFIED MATERIAL TEST REPORT Hackney Ladish Inc.

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Heat Code Description / Specifications

H07HSS RED CONC 18 X 10 STD A106B 9 A22101

A/SA 234 - 07 STRESS RELIEVED

(SMLS) NACE MR0175

WPB

Chemical Analysis

<u> Heat Code Test C</u> <u>P S Si Cu</u> Ni \mathtt{Cr} Mo Mn .070 H07HSS .180 1.030 .011 .004 .180 .050 .030 .0330 M

Chemical Analysis (cont.)

<u> Heat Code</u> B Ti Cb Sn W Pb .003 .0020 H07HSS .0003 .001 .377

Physical Properties

Heat Code Tensile KSI Type Thickness Yield KSI % Elong. (4D) % RA Hardness HB H07HSS 69.0 37.6 72.0 \mathbf{L} 36.0

Charpy Results

<u> Heat Code Size x 10mm Type Temp. (F) Foot Pounds Later. Expansion </u> H07HSS

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.