

Sep. 7. 2006 3:10PM

No. 2082 P. 4/14

CERTIFIED MATERIAL TEST REPORT
Hackney Ladish Inc.

P.O. Box 568887 - 2525 Stemmons Freeway - Dallas, TX 75356 - 8887
 Phone: (214) 589-8177 Fax: (214) 589-8892

Order Number: 1884

Date: 09/07/06

Sold to: PLESA ANAHUAC Y CIAS S. A. DE Ship to:
 VALLE DE LAS ALAMEDAS NO 66-0
 TULTITLAN MX 54940

Heat Code	Quantity	Description / Specifications
RE05HG	18 STD LR 45	A/SA 234 - 03 WPB (SMLS)
	TM47 48 21142	HOT FORMED NACE MR0175
A06BT	18 STD LR 45	A/SA 234 - 05A WPB (SMLS)
	A106B 55 25319	HOT FORMED NACE MR0175
L05TW	24 XH CAP	A/SA 234 - 05A WPB (SMLS)
	A516-70 164 821M11550	HOT FORMED NACE MR0175
EH05AE	14 X 10 STD TEE	A/SA 234 - 05A WPB (SMLS)
	470-D 09/A02943	HOT FORMED NACE MR0175

Chemical Analysis

Heat Code	Test	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al
RE05HG	M	.170	1.040	.010	.001	.240	.122	.070	.080	.048	
A06BT	M	.160	1.020	.010	.001	.230	.011	.080	.090	.030	.0200
L05TW	M	.180	1.080	.012	.005	.344	.230	.140	.040	.013	.0230
EH05AE	M	.210	.760	.007	.006	.240	.030	.020	.060	.020	

Chemical Analysis (cont.)

Heat Code	N	V	B	Ti	Cb	Sn	W	Pb	Co	CE
RE05HG		.000			.000					.381
A06BT	.0006	.000	.0000	.0000	.000	.007				.360
L05TW		.007	.0002		.002					.396
EH05AE		.001	.0000		.001					.356

Physical Properties

Heat Code	Tensile KSI	Type	Thickness	Yield KSI	% Elong. (4D)	% RA	Hardness HB
RE05HG	74.6			54.4	46.0		155
A06BT	75.8	L		52.8	44.0		197
L05TW	81.8			55.2	42.0		167
EH05AE	68.5	L		46.3	50.0		143

Charpy Results

Heat Code	Size x 1.0mm	Type	Temp. (F)	Foot Pounds	Later. Expansion	% Shear
RE05HG						
A06BT						
L05TW						
EH05AE						

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 latest editions unless otherwise noted. We certify these fittings capable of passing a 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.
 /S/ Glinda LaFleur