

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

Order Number: 4616

Date: 07/10/08

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

Heat Code Description / Specifications

B08ZS1 ✓	16 STD CAP	A/SA 234 - 07	WPB (SMLS)
	A516-70 154 7108814	HOT FORMED	NACE MR0175
C08AY1S ✓	4 X 2 XH TEE	A/SA 234 - 07	WPB (SMLS)
	470DH 9 A60118	STRESS RELIEVED	NACE MR0175
409ZN ✓	8 X 5 STD ECC	A/SA 234 - 07	WPB (SMLS)
	A106B MIW/7 W80012	NORM	NACE MR0175

Chemical Analysis

Heat Code	Test	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al
B08ZS1	M	.180	1.060	.020	.006	.180	.270	.060	.110	.020	.0230
C08AY1S	M	.180	.740	.009	.003	.230	.030	.070	.080	.020	.0340
409ZN	M	.210	.690	.008	.007	.200	.180	.090	.070	.020	

Chemical Analysis (cont.)

Heat Code	N	V	B	Ti	Cb	Sn	W	Pb	Co	CE
B08ZS1		.002	.0003	.0010	.001	.012				.405
C08AY1S		.003	.0003		.001					.330
409ZN		.001	.0001	.0010	.001					.361

Physical Properties

Heat Code	Tensile KSI	Type	Thickness	Yield KSI	% Elong. (4D)	% RA	Hardness HB
B08ZS1	82.5	T		53.5	23.0		163
C08AY1S	63.0	L		37.2	41.0		120
409ZN	75.5	L		51.0	32.0	66.0	123

Charpy Results

Heat Code	Size x 10mm	Type	Temp. (F)	Foot Pounds	Later. Expansion	% Shear
B08ZS1						
C08AY1S						
409ZN						

Test: M=Mill Product

Type: T=Transverse 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.