

CERTIFIED MATERIAL TEST REPORT

Trinity Fitting Group Inc.

Hackney \* Ladish \* Flo-Bend

P.O. Box 568887 - 2525 Stemmons Freeway - Dallas, TX 75356 - 8887

Phone: (214) 589-8177 Fax: (214) 589-8892

Order Number: 7816

Date: 03/10/04

Sold to: FERRETERA ANAHUAC, SA DE CV Ship to:  
 VALLE DE LAS ALAMEDAS NO 66 B  
 SAN FRANCISCO CHILPAN  
 TULTITLAN EOO DE 54940

Heat Code	Quantity	Description / Specifications		
197WO	8 X 4	STD ECC	A/SA 234 - 02	WPB
		A106B MIW/ 07/ R60232	HOT FORMED	NACE MR0175
ED03BZ	20 X 12	STD CONC	A/SA 234 - 01	WPB
		A106-B 9/A43078	NORM. 1650	NACE MR0175
EM03MP	20 X 16	STD CONC	A/SA 234 - 01	WPB
		A106-B 9/A60823	NORM. 1650	NACE MR0175
EH03HE	2 XH	TEE	A/SA 234 - 01	WPB
		A106-B 9/A62280	NORM. 1650	NACE MR0175

Chemical Analysis

Heat Code	Test	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al
197WO	M	.190	.870	.006	.005	.220	.160	.080	.060	.020	
ED03BZ	M	.200	1.050	.005	.004	.230	.030	.050	.040	.020	.0290
EM03MP	M	.200	1.090	.008	.006	.230	.020	.050	.080	.010	.0350
EH03HE	M	.180	.730	.011	.007	.290	.050	.030	.050	.030	.0200

Chemical Analysis (cont.)

Heat Code	N	V	B	Ti	Cb	Sn	W	Pb	Co	CE
197WO		.001			.010					.367
ED03BZ		.010	<.0005	<.0100	<.010	.004	.002	.004	<.050	.394
EM03MP		<.010	<.0005	<.0100	<.010	.002	<.002	.004	<.050	.406
EH03HE	.0060	<.010	<.0005	<.0100	<.010	.005	.003	.002	<.050	.324

Physical Properties

Heat Code	Tensile KSI	Type	Thickness	Yield KSI	% Elong. (4D)	% RA	Hardness HB
197WO	74.7	T		50.1	36.7		197
ED03BZ	79.2	L		47.9	36.0	75.0	131
EM03MP	82.6	L		48.4	34.0	73.0	135
EH03HE	75.3	L		49.2	25.0	57.0	135

Charpy Results

Heat Code	Size x 10mm	Type	Temp. (F)	Foot Pounds	Later. Expansion	% Shear
197WO						
ED03BZ						
EM03MP						
EH03HE						

Test: M=Mill Product

Type: T=Transverse L=Longitudinal

We certify that the material herein described has been manufactured, heat treated, sampled, tested, and inspected in accordance with the above standards and specifications and satisfies those requirements. We certify these flanges and 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.