

Tube Forgings of America, Inc.
 5200 NW Front Avenue
 Portland, OR 97210
 ISO 9001-2000 Certified
 8/4/2004



QUALITY CERTIFICATE



Handwritten: 8-4-04

Sold To: PLESA ANÁHUAC, S.A DE C.V.
 AV. VALLE DE LAS ALAMEDAS NO. 66-2
 TULTITLAN, EDO., MEX. C. P.54940

TFA Sales Order : 129471
Customer ID: 38350
Customer PO Reference: 8270
Attention To:

Ship To: SPECIALISTS IN TRANSIT
 FORWARDING
 1801 MARKLEY MODERN INDUSTRIAL
 PARK
 LAREDO, TX 78041

TFA Heat Code: 469WN
Grade: WPB
TFA Part ID: C22080
Description: 20 X 12 STD CONC
Quantity:
Mill: USS
Mill Heat : B85688
Process: WPB-CN1MIW
Customer Part ID:

Test Bar Type: ROUND
Yield (PSI): 56000
Tensile (PSI): 77000
% Elong In 2" 34.00
B.H.N. :
Tensile Orientation: LONG

C	MN	P	S	SI	MO	CR	NI	CU	V	CB	B	TI	AL	C.E.
0.190	1.080	0.012	0.002	0.240	0.020	0.110	0.030	0.060	0.001	0.001				0.402

Coupon Size:	Ft. Lbs	% Shear	Lateral Expansion (Mils)
Charpy V notch test at	1:	1:	1:
degrees F:	2:	2:	2:
Charpy Orientation:	3:	3:	3:
	Avg:	Avg:	

1. THESE FITTINGS WERE NORMALIZED AT 1650F AND AIR COOLED. 2. THESE FITTINGS WERE S2 TENSILE TESTED TO VERIFY PHYSICAL PROPERTIES AFTER THE HEAT TREAT PROCEDURE. 3. THE STARTING MATERIAL IS SEAMLESS PIPE. 4. THE HARDNESS DOES NOT EXCEED 197BHN PART TO PART. 5. THIS PRODUCT IS SEAMLESS. 6. THIS PRODUCT WAS MANUFACTURED BY (MILLS IRON WORKS INC) IN ACCORDANCE WITH THE QUALITY PROGRAM REQUIREMENTS OF (TUBE FORGINGS OF AMERICA INC).

THE MATERIAL IS MANUFACTURED TO ASTM A 234 GR WPB REV: 03. ,ALSO PER ASME SEC II SA 234 GR WPB,2001 EDITION THRU ALL ADDENDAS AT TIME OF ORDER. 2. DESIGN AND DIMENSIONS TO ASME B16.9-2001 OR MSS-SP-75-98 AS APPLICABLE BY DESIGN. 3.PER NACE MR-01-75, 2003 REVISION. OUR QUALITY SYSTEM HAS BEEN REGISTERED BY (ABS) TO (ISO-9001, REV: 2000), CERTIFICATE #: 30248. OUR ORGANIZATIONAL STRUCTURE AND CERTIFICATION COMPLIES WITH (EN 10204-3.1.B). OUR FITTINGS SATISFY THE MATERIAL REQUIREMENT OF (PED 97/23-EC ANNEX 1-4.3).



Handwritten Signature: John Peachey
 John Peachey, Mgr. Quality Assurance