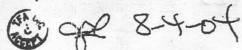
Tube Forgings of America, Inc. 5200 NW Front Avenue Portland, OR 97210 ISO 9001-2000 Certified 8/4/2004



QUALITY CERTIFICATE



TFA Sales Order:

Customer PO Reference:

Customer ID:

Attention To:

PLESA ANÁHUAC, S.A. DE C.V. Sold To:

AV. VALLE DE LAS ALAMEDAS NO. 66-2

TULTITLAN, EDO., MEX. C. P.54940

SPECIALISTS IN TRANSIT

FORWARDING

1801 MARKLEY MODERN INDUSTRIAL

PARK

LAREDO, TX 78041

Test Bar Type:

ROUND

129471

38350

8270

469WN WPB

Yield (PSI):

56000

TFA Part ID:

TFA Heat Code:

C22080

Tensile (PSI):

77000

Description:

% Elong In 2"

20 X 12 STD CONC

B.H.N.:

34.00

Quantity:

Grade:

Ship To:

Mill:

TISS B85688 **Tensile Orientation:**

LONG

Mill Heat: Process:

WPB-CN1MIW

Customer Part ID:

C	MN	P	S	SI	MO	CR	NI	CU	V	CB	В	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	Laterial 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. 5. THIS PRODUCT IS SEAMLESS. 6. THIS PRODUCT WAS THE HARDNESS DOES NOT EXCEED 197BHN PART TO PART. 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).

Heat Code: 469WN Grade WPB

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Certificate: 30248

John Peachey, Mgr. Quality Assurance