

TUBOS CONEX.Y TANQUES,S.A.C.V.
AV. VALLE DE LAS ALAMEDAS, 66-C
COL. SAN FRANCISCO CHILPAN
54940 TULTITLAN-EDO. DE MEXICO

CERTIFICADO DE INSPECCION
Works Certificate - Certificat d'Usine

DIN 50049 / 3.1.B
EN 10204 / 3.1.B

FECHA: 31/03/2004
Date: 31/03/2004

N° 93217
No. 93217

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N°: 922164

ULMA FORJA, S.COOP.

PRODUCTO **BRIDAS**
Article - Produit
SU PEDIDO N° 7988 (02.03.04)
Your Order No. 7988 (02.03.04)
Vofre Cde. N°

DE of. - de 03/03/2004

Certified acc. PED 9723/EC
by TÜV Rheinland
N° 01 202 EQ 02 7443

NORMAS APLICABLES **ASME B16.5-96**
Requirements - Normes Applicables

MATERIAL CORRESPONDIENTE **ASTMA105N-02**
Material Correspondent - Qualité **ASME SA105N**

MODO DE FUSION (*)
Steel Making - Elaboration de l'acier
E = Elec. Y = Oxigeno básico

NACE MIR-01-75/03

DEPARTAMENTO **GARANTIA CALIDAD**
Section
Department

MARCA DEL FABRICANTE
Mark of factory
Marque du fabricant



38945

Bº Zubillaga, 3 - Apdo. 14
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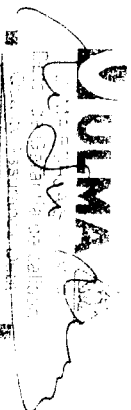
PARTIDA	CANTIDAD	DESCRIPCION	REMARKS	HEAT NO	T. STRENGTH	YIELD POINT	ELONGATION	REDUCTION A	RESILIENCIA	MEDIA	DUREZA
Item	Quantity	Description	Observations	N.°Coulée	Resist Rupt	Limite East	Alongement	Lo: 4 d	Impact test	Average	Hardness
Poste	Quantité	Description	(*)		N/mm2	N/mm2	%	%	Joules	Moyenne	HB
9	384	SO 3 150LB RF A105N	NE	309A3	508	303	31.50	62.60			150
10	468	SO 6 150LB RF A105N	NE	60A4	505	302	30.70	62.80			149
14	20	SO 16 150LB RF A105N	NE	289A3	516	331	30.70	62.70			150
25	30	WN 20 150LB S/STD RF A105N	NE	514564	509	297	31.40	64.00			148
26	21	WN 24 150LB S/STD RF A105N	NE	513298	509	307	33.30	66.00			153
28	27	WN 4 150LB S80 RF A105N	NE	298A3	514	307	32.00	64.80			150
30	12	WN 3 150LB S80 RF A105N	NE	4A4	512	330	32.00	64.10			150
30	28	WN 3 150LB S80 RF A105N	NE	76A4	524	323	31.70	63.80			152

COMPOSICION QUIMICA - STEEL MARKERS - ANALYSE CHIMIQUE

COLADA N°	C %	Si %	Mn %	P %	S %	Cr %	Ni %	Mo %	Nb %	V %	Cu %	CEQ %
Heat No												
N.°Coulée												
289A3	0.180	0.260	0.820	0.018	0.003	0.130	0.130	0.050	0.001	0.003	0.400	0.389
298A3	0.200	0.230	0.900	0.014	0.020	0.030	0.050	0.020	0.000	0.001	0.090	0.370
309A3	0.210	0.190	0.870	0.010	0.027	0.070	0.130	0.020	0.002	0.001	0.250	0.399
4A4	0.180	0.300	0.840	0.010	0.009	0.100	0.140	0.030	0.001	0.001	0.390	0.382
513298	0.200	0.210	0.850	0.008	0.002	0.210	0.140	0.030	0.002	0.005	0.190	0.413
514564	0.180	0.190	0.830	0.016	0.005	0.240	0.270	0.070	0.003	0.005	0.340	0.422
60A4	0.190	0.180	0.870	0.015	0.013	0.090	0.160	0.020	0.002	0.006	0.310	0.390
76A4	0.190	0.260	0.890	0.011	0.007	0.070	0.130	0.040	0.001	0.001	0.400	0.396

- Las dimensiones y la condición superficial se hallaron satisfactorias.
- Dimension and surface condition were found acceptable
- Les dimensions et états de surface sont satisfaisants
- Los materiales citados cumplen las normas aplicables.
- Manufacturing requirements sont satisfaits
- Les normes applicables sont respectées

EL INSPECTOR
Works Inspector - L'inspecteur



(*) OBSERVACIONES: N.° NORMALIZADO A 900 C Y ENFRIADO EN AIRE EN CALMA
Remarks
Observations