Tubacero

Ave. Guerrero
No. 3725 ote.
Col. Del Norte
Monterrey N.L. México
C.P. 64500
TEL: 8355345
FAX: 8355500

CERTIFICADO DE TUBERIA

PIPE CERTIFICATE

No.CERTIFICADO(certificate No.): 030232

CLIENTE (customer): TUBOS CONEXIONES Y TANQUES, S.A. DE C.V.

DIRECCION(address): V. DE LAS ALAMEDAS #66-C COL. SAN FCO. CHILPAN , TULTITLAN EDO. MEX. C.P.54940

O.T. (order no.)	DIAMETRO (outside diam.)	ESPESOR (thickness)	GRADO (grade)	ESPECIFICACION (specification)	PROCESO (process)	PEDIDO (contract)	O. PREPARACION (preparation order)	PROVEEDOR (supplier)	FECHA (date)
33240	12.750"	0.250"	A-53-B	ASTM	ERW	5725	B-030-2003	AHMSA	13/05/03

TUBO (pipe)	COLADA (heat)	TYPE	LOC	PRUEBA DE TENSION (tensile test) UNIDADES (units)	ORIENTACION (orientation) 1 (T.S.)	TAMAÑO (size) 3 % EL.	Y or T S.	SOLD.	HARDNESS	PRUEBA DE IMPACTO (impact test) °C ORIENTACION (orientation) °C	TAMAÑO (size) 1:	ENERGY (foot) 1	2	3	AVG	SHEAR AREA 1	2	3	AVG	DWTT SHEAR AREA 1	2	AVG	GRAIN SIZE	ANALISIS QUIMICO / chemical analysis (%) TYPE	LOC	C	Mn	P	S	Si	Al	Cu	Cr	Ni	Mo	Ti	Nb	B	V	N	Als	Ca	C	CE
			6	PSI (Y.S.)	80691																																						
488	430050	H	7	61015	74530	33	0.82																	P	7	0.15	0.45	0.019	0.015	0.007	0.050	0.019	0.025	0.015	0.010	0.002	0.001	-	0.003	-	-	-	-	-
			6		77581																																							
115	230606	H	7	49299	66150	32	0.74																	P	7	0.15	0.46	0.017	0.013	0.012	0.043	0.019	0.036	0.028	0.011	0.002	0.001	-	0.002	-	-	-	-	-
			6		78700																																							
256	230528	H	7	49463	69021	33	0.72																	P	7	0.15	0.48	0.017	0.009	0.025	0.020	0.020	0.017	0.045	0.008	0.002	0.002	-	0.002	-	-	-	-	-
			6		74957																																							
655	230601	H	7	50927	65478	33	0.77																	P	7	0.16	0.48	0.013	0.011	0.010	0.042	0.014	0.015	0.033	0.008	0.002	0.001	-	0.002	-	-	-	-	-
			6		81123																																							
509	230523	H	7	55691	67987	34	0.81																	P	7	0.17	0.48	0.009	0.014	0.013	0.033	0.020	0.019	0.031	0.009	0.003	0.002	-	0.002	-	-	-	-	-
			6		74052																																							
53	430076	H	7	62026	77331	30	0.79																	P	7	0.16	0.47	0.017	0.009	0.011	0.042	0.054	0.085	0.055	0.025	0.002	0.001	-	0.002	-	-	-	-	-
			6		79750																																							
628	230524	H	7	53300	68230	33	0.78																	P	7	0.15	0.46	0.015	0.015	0.012	0.050	0.017	0.018	0.028	0.012	0.003	0.001	-	0.002	-	-	-	-	-
			6		73378																																							
675	230529	H	7	52729	66453	36	0.79																	P	7	0.15	0.49	0.018	0.007	0.040	0.040	0.020	0.026	0.025	0.009	0.003	0.001	-	0.002	-	-	-	-	-
			6		85476																																							
181	127896	H	7	60364	75852	33	0.79																	P	7	0.15	0.46	0.016	0.013	0.014	0.042	0.013	0.016	0.024	0.004	0.001	0.001	-	0.001	-	-	-	-	-
			6		79612																																							
393	230607	H	7	51024	68727	32	0.74																	P	7	0.16	0.46	0.018	0.013	0.007	0.031	0.015	0.021	0.019	0.008	0.002	0.003	-	0.001	-	-	-	-	-
			6		84447																																							
1499	230521	H	7	70583	82101	32	0.86																	P	7	0.16	0.47	0.019	0.015	0.013	0.048	0.023	0.024	0.030	0.005	0.001	0.001	-	0.002	-	-	-	-	-

PRUEBA HIDROSTATICA (hidrostatic test): PRESION (pressure): 820 Psi TIEMPO (time): 10 SEC

ULTRASONIDO (U.T.) (ultrasonic): STANDARD DE REFERENCIA (REFERENCE STANDARD): G

RAYOS-X (RT) (x-ray): PENETROMETRO (penetrometer): N/A

NORMALIZADO DE SOLDADURA (heat treatment weld): TEMPERATURA (temperature): 1600° F.

REFERENCE STANDARD: F: U.T. DRILLED HOLE 1/16", G: U.T. DRILLED HOLE 1/8", I: U.T. NOTCH N-5, J: U.T. NOTCH V-10 L: RT HOLE 1/16", N: RT HOLE 2-2T O: RT HOLE 2-4T

ORIENTACION (orientation):
1. TRANSVERSAL (transverse)
2. LONGITUDINAL (longitudinal)

TAMAÑO (size)
3. RECTANGULAR (rectangular) 1½"
4. CILINDRICA (round bar) 0.500"
5. CILINDRICA (round bar) 0.350"

LOCALIZACION (location)
6. SOLDADURA (weld)
7. METAL BASE (base metal)
8. ZONA AFECTADA (h.a.z.)
9. LINEA DE FUSION (fusion line)

TIPO DE PRUEBA (type)
H. COLADA (heat)
P. PRODUCTO (product)
R. REMUESTREO (recheck)

CERTIFICAMOS QUE EL MATERIAL DESCRITO HA SIDO HECHO DE ACUERDO CON LA ESPECIFICACION MENCIONADA, Y QUE LOS RESULTADOS SON COMO APARECEN EN LOS REGISTROS DE LA COMPAÑIA
(WE HEREBY CERTIFY THAT MATERIAL DESCRIBED HEREIN HAS BEEN MADE IN ACCORDANCE WITH THE SPECIFICATION MENTIONED AND THAT THESE TEST RESULT ARE AS THEY APPEAR IN RECORDS OF THE COMPANY).

Control de Calidad (Quality Control)

CONTROL DE CALIDAD TUBACERO, S.A. DE C.V. 04