

32554-1



### MILL TEST REPORT

**PRODUCT:** 3-4" C80 ASTM A-53-A / NMX B-177  
**FINISHING:** TUBO BARNIZADO EXTREMO LISO

**CUSTOMER:** BODEGA PYLSA

**SHIPPING DATE:** 04/08/13

**SPORT PLATAFORM:**

**LOGISTICA ABURTO**

**INVOICE:** 5665T

**ORDER:** N/A

**TRANSPORT/ TRANSPORTE:**

**MANUFACTURER/ PLANTA :** LAMINA Y PLACA COMERCIAL S.A DE C.V.  
DIEGO DIAZ DE BERLANGA, NO. 1002 SUR  
SAN NICOLAS DE LOS GARZA, NUEVO LEON, MEXICO

I HEREBY CERTIFY THAT THE PRODUCT ACCOMPLISHED WITH THE SPECIFICATION TO THE INVOICE AND/ OR REMISSION ( DATABASE OF SYSTEM ).  
ESTE PRODUCTO FUE FABRICADO BAJO LA NORMA QUE SE DESCRIBE HACIENDO CUMPLIR LOS REQUERIMIENTOS DE LA ESPECIFICACION (BASE DE DATOS DEL SISTEMA).

**PROCESS:** HFV / HOT STRECHT REDUCTION MILL

MANUFACTURING INFORMATION/ INFORMACION DE MANUFACTURA							DIMENSIONS (DIMENSIONES)		
DATE	SHIFT	OPER	ORDER OP #	GRADE	MANUFACT PROCESS	HEAT TREATMENT	OUTSIDE DIAMETER (in)	Thickness (in)	LENGTH (Mts)
16/03/13	1	COM	63	A	E	900°C	1.050"	.154"	6.40

ONLINE TESTS (PRUEBAS DE CAMPO)									
HEAT NUMBER (COLADA)	HYDROSTATIC TEST (PSI)	DELIVERY CONDITION	TIME (Sec.)	NON-DESTRUCTIVE TEST (PND)	METALLOGRAPHY TEST	BENDING TEST	FLATTENING TEST	VISUAL INSPECTION	
268602011	1000	N	5	OK	N/A	N/A	OK	OK	

CHEMICAL ANALYSIS (ANALISIS QUIMICOS)/ MECHANICAL PROPERTIES (PROPIEDADES MECANICAS)									
HEAT NUMBER (COLADA)	%C	%Mn	%P	%S	%Si	%Cr	%Mo	%Ni	%Cu
268602011	0.0860	0.3410	0.0100	0.0160	0.0080	0.0160	0.0020	0.0080	0.0130
%Nb	%Sn	%Ti	%V		YIELD ST (PSI)	UT (PSI)	% ELONG	HARDNESS (HRb)	CARBON EQUIVALENT %
0.0000	0.0000	0.0000	0.0000		54081	59290	31.700	74	N/A

CHARPY TEST (PRUEBA CHARPY)					
HEAT IDENT NUM	ABSORBED ENERGY (FT-LB)			AVERAGE	TEMPERATURE TEST °C
	1	2	3		
268602011	N/A	N/A	N/A	N/A	N/A

NOTE: THE SUM OF THE NIOBIUM, VANADIUM AND TITANIUM CONCENTRATIONS SHALL BE  $\leq 0.15\%$   
NOTA: LA SUMA DE LA CONCENTRACION DE NIOBIO, VANADIO Y TITANIO NO DEBE SER  $\leq 0.15\%$

I HAVE PERSONAL KNOWLEDGE AS TO ACCURACY OF THE ABOVE INFORMATION, AND HAVE AUTHORITY TO SIGN ON BEHALF OF THE COMPANY.

TENGO EL CONOCIMIENTO Y AUTORIZACION EN NOMBRE DE LA COMPAÑIA PARA AVALAR ESTA INFORMACION.

SINCERELY

QUALITY ASSURANCE MANAGER