



# VILLACERO

## MILL TEST REPORT

**PRODUCT:** 1" C80 ASTM A-53-A / NMX B-177  
**FINISHING:** TUBO BARNIZADO EXTREMO LISO

**CUSTOMER:** PLESA ANAHUAC, S.A. DE C.V.

**SHIPPING DATE:** 05/11/14

**SPORT PLATFORM:**

**INVOICE:** FT-22744  
**ORDER:** 1200179666

**TRANSPORT/ TRANSPORTE:** HERNANDEZ RAMIREZ HUGO

**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:** HFW

MANUFACTURING INFORMATION/ INFORMACION DE MANUFACTURA							DIMENSIONS (DIMENSIONES)		
DATE	SHIFT	OPER	ORDER OP #	GRADE	MANUFACT PROCESS	HEAT TREATMENT	OUTSIDE DIAMETER (In)	Thickness (In)	LENGTH (Mts)
20/10/14	1	COM	178	A	E	N/A	1.315"	0.179"	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	
139152	857	AS ROLLED	5	OK	N/A	N/A	OK	OK	

HEAT NUMBER (COLADA)	%C	%Mn	%P	%S	%Si	%Cr	%Mo	%Ni	%Cu
139152	0.0940	0.3160	0.0160	0.0160	0.0040	0.0000	0.0000	0.0000	0.0000
%Nb	%Sn	%Ti	%V		YIELD ST (PSI)	UT (PSI)	% ELONG	HARDNESS (HRb)	CARBON EQUIVALENT %
0.0000	0.0000	0.0000	0.0000		46100	60100	21.900	82	N/A

CHARPY TEST (PRUEBA CHARPY)					
HEAT IDENT NUM	ABSORBED ENERGY (FT-LB)			AVERAGE	TEMPERATURE TEST °C
	1	2	3		
139152	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 COMPAÑÍA PARA AVALAR ESTA INFORMACIÓN.

SINCERELY

ING. DAVID ANGEL MOLINA PEREZ

QUALITY ASSURANCE MANAGER