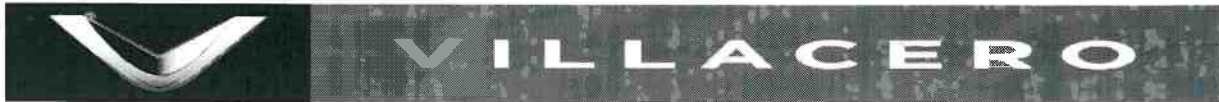


EA-114270



MILL TEST REPORT

PRODUCT: 1" C80 ASTM A-53-A / NMX B-177

FINISHING: TUBO BARNIZADO CON EXTREMO LISO

CUSTOMER: PLESA ANAHUAC Y COMPAÑIAS S.A. DE C.V.

SHIPPING DATE: 24/01/19

INVOICE: FT-40843

PURCHASE ORDER: 1200318967

TRANSPORT/ TRANSPORTE:

AUTOTRANSPORTES PABLO DANIEL

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 MM (IN) | Thickness MM (IN) | LENGT MTS (FT) |
| 03/07/18 | 1 | COM | 181 | A | E | N/A | 1.315" | 0.179" | 6.40 |

| ONLINE TESTS (PRUEBAS DE CAMPO) | | | | | | | | |
|---------------------------------|----------------------------|--------------------|-------------|----------------------------|--------------------|--------------|-----------------|-------------------|
| HEAT NUMBER (COLADA) | HYDROSTATIC TEST BAR (PSI) | DELIVERY CONDITION | TIME (Sec.) | NON-DESTRUCTIVE TEST (PND) | METALLOGRAPHY TEST | BENDING TEST | FLATTENING TEST | VISUAL INSPECTION |
| 381456 | 857 | AS ROLLED | 5 | OK | N/A | N/A | OK | OK |

| CHEMICAL ANALYSYS (ANALISIS QUIMICOS)/ MECHANICAL PROPERTIES (PROPIEDADES MECANICAS) | | | | | | | | | |
|--|--------|--------|--------|--------|--------------------|--------------|---------|----------------|---------------------|
| HEAT NUMBER (COLADA) | %C | %Mn | %P | %S | %Si | %Cr | %Mo | %Ni | %Cu |
| 381456 | 0.1300 | 0.5600 | 0.0080 | 0.0130 | 0.0070 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| | %Nb | %Sn | %Ti | %V | YIELD ST MPA (PSI) | UT MPA (PSI) | % ELONG | HARDNESS (HRb) | CARBON EQUIVALENT % |
| 0.0010 | 0.0000 | 0.0010 | 0.0020 | | 44552 | 66077 | 39,000 | 78 | N/A |

| CHARPY TEST (PRUEBA CHARPY) | | | | | |
|-----------------------------|--------------------------------|-----|-----|---------|---------------------|
| HEAT IDENT NUM | ABSORBED ENERGY MTS-KG (FT-LB) | | | AVERAGE | TEMPERATURE TEST °C |
| | 1 | 2 | 3 | | |
| 381456 | 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 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

Ing. Erick Maximino Dávila García

QUALITY ASSURANCE MANAGER