MAHARASHTRA SEAMLESS LIMITED
WORKS (MILL) TEST CERTIFICATE
EN 10204 : 3.1B

QCF 20A

Customer :
P.O.No : 42456 Dtd. 04-03-2022
OC/Loading slip no. : 66210080 (Item No. 02)
Specification : ASTM A106 GR.B / API 5L GR.B / X42 PSL-1
Process/Type of Pipe : Hot Finished seamless carbon steel pipes

OD X WT : 33.40 mm X 4.55 mm (1.315" X 0.179")
Length Range : 20 - 20 Feet
Total Length : 26080 Feet (1304 Pcs)
Material Code : ----------

Test Certificate No. : MSL-6/QC/0001N/2022
Date : 14 July 2022

A) CHEMICAL COMPOSITION (%) - Reference standard ASTM A-751 & ASTM E-415

Sl No	Heat No	Test Unit	Analysis	C	Mn	Si	P	S	Cr	Mo	Ni	Cu	V	Nb	Ti	Nb+V	Nb+V+Ti	B	Ca	Al	N	Mn/C	Cu+Ni	CE Pcm	CE IIW
Req.	Min.	%			0.290	0.100																			
	Max.	%		0.260	1.060	0.500	0.030	0.010	0.400	0.150	0.400	0.400	0.080	0.110	0.110			0.001							
1	AB721		H	0.175	1.030	0.250	0.017	0.006	0.014	0.0010	0.006	0.006	0.0040	0.0020	0.0010	0.0060	0.0070	0.0003		0.031		5.886	0.012		0.351
			P1	0.175	1.030	0.240	0.017	0.005	0.015	0.0000	0.005	0.007	0.0039	0.0023	0.0011	0.0062	0.0073	0.0002		0.032		5.886	0.012		0.351
			P2	0.185	1.020	0.260	0.018	0.007	0.014	0.0020	0.007	0.005	0.0041	0.0021	0.0012	0.0062	0.0074	0.0003		0.030		5.514	0.012		0.360

B) Special / supplementary Reqts.

C) MECHANICAL PROPERTIES

Sl No.	Heat No.	Test Unit	Quantity Pcs	Quantity Feet	Name of the Steel Maker and Address/Supplier Heat No.	Orientn.	YST (Mpa)	UTS (Mpa)	YST/UTS Ratio	El (%)
						Reference standard ASTM 370 & E-8				
						Tensile Testing (Loc Pipe Body)				
						G.L.=50 mm Nom. Width= 12.70 mm				
Req.	Min.						290	415		30
	Max.									
1	AB721		1304	26080	JSW Ispat, Chhattisgarh/ M007278B	L	418.61	546.47	0.77	34.42
							422.32	551.22	0.77	34.20
							420.17	547.62	0.77	34.28
							414.25	542.25	0.76	34.62

Reference standard ASTM E-23 — CVN Impact Test (Pipe Body)

Sl No.	Absorbed Energy (J) Temperature°C: 1	2	3	Avg	% Shear Area 1	2	3	Avg
1								

Size & Orientation:

Reference standard ASTM E-18 — Through Wall Hardness (Pipe Body) — Hardness (HRB) — Transverse Direction

Sl No.	OD 1	2	3	4	Avg.	Mid 1	2	3	4	Avg.	ID 1	2	3	4	Avg.
1	77	78	77	77	77										

Raw Material	Fully killed & Fine Grain Practice	Dimension	Good
Steel Route	EAF-LRF-VD-CCM	Weight	Good
Hot Rolling Temp. °C	880-940	End Finish	SQUARE CUT
Heat Treatment	NA	Straightness	OK
Delivery Condition	R	Visual	OK
Norm./Temp. Temp(°C)	NA	Bend Test	OK
HIC	NA	SSC	NA
Inclusion Rating	NA	Hot Straight. Temp.°C	NA

NDE Method	Ultrasonic Testing - GOOD	End Area Inspection	OK
Location & Orientation	Longitudinal & Transverse Notch at OD	Hydro Test Pressure	2970 Psi
Type & Size of Ref.Indicator	10% Notch X 50mm Length X 1.0mm Width	Holding Time	5 Sec.
Residual Magnetism	10 Gauss Max	End Protection	Plastic end cap
Field Weldability	NA	External Coating	Black Varnished
Flattening Test	NA	Flaring Test	NA
Micro Structure/Grain Size	Reveals fine Ferrite and pearlite /ASTM No. 7-8	CTOD	NA
Colour Coding	NA		

D) Marking/Stencilling : MAHA ((M) MSL API 5L X-42 PSL-1 / ASTM A106 GR.B / NACE MR0175/ MR0103(% S HARDNESS CONTROLLED) BE SMLS SRL OD 1.315 INCH X WT 0.179 INCH HFS HEATNO.... + 2970 PSI + LENGTH...IN FEET + MADE IN INDIA + WEIGHT - 2.17 LB/FT + PO/SHIPPING MARK : "PO # 25.436" + B.NO....

E) Remarks : 1) Matl Confirms to API 5L GR.B PSL-1 / X42 (EDN. 2018)/ ASTM/ASME A106 B (EDN. 2019a)/ SA106 B (EDN. 2021). 2) "Country of melt and pour : INDIA".

Legends : T-Transverse, L-Longitudinal, YST-Yield Strength, UTS-Ultimate Tensile Strength, EL-Elongation, GL-Gauge Length, H-Heat , P1-Product 1, P2-Product 2, R-As Rolled, Q-Quenched & Tempered, N-Normalised, N&T-Normalised & Tempered, PE-Plain-end, BC-Buttress Thread Casing, LC-Long Round Thread Casing, SC-Short Round Thread Casing, NU-Non-upset tubing, EU-External Upset tubing, NA- Not Applicable

Maharashtra Seamless VI SEAL

The material has been manufactured, sampled,tested and inspected and has been found conforming to the specification and PO

FOR MAHARASHTRA SEAMLESS LTD
DEBTANU PAL - Asst. Engineer

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Warning : Modification or unauthorized use of this certification is strictly prohibited. Violation calls for criminal prosecution. For authenticity verification, you can contact us at: msltc@mahaseam.com.