



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

QCF.20A

Page 1 of 1

Tc No : MSL-7/QC/ 0136Q/2018 Customer : TOYOTA TSUSHO AMERICA, INC  
 Date : 19-JUL-18  
 Specification : ASTM A333 GR.6 (2016), ASME SA333 GR.6 (2015),  
 CSA Z245.1 GR.290 CAT-II M45C(2014)  
 Process/Product: HOT FINISH SEAMLESS Carbon Steel Pipes P.O. No : CI-18-140 Dt. 22-JAN-18  
 W.O. No : 6170053

**DESCRIPTION**

Sl NO	Material/Item Code	SIZE (Inch)	Length Range (Feet/Mtr)	Heat No.	No Of PCS	Length (Feet/Mtr)	End Finish	Hydro Test Pressure at 10 Sec	Bend Test	Flattening Test	Flaring Test	Drift Test	Crushing Test
1		3.500 X 0.300	38-39	MA528			BEVEL	3000 PSI	NA	OK	NA	NA	NA

**PHYSICAL PROPERTIES**

**CHEMICAL COMPOSITION (%)**

Sl No	Heat No	YST (PSI)	UTS (PSI)	El (%)	Hardness HRB	Impact Test Charpy V-notch Joule	LA/PA	C	Mn	Si	P	S	Cr	Mo	Ni	V	Cu	Al	Ti	Nb	CE
		71800	110200		92			.26	1.35	.5	.025	.01	.3	.12	.4	.08	.4		.11	.02	.4
Required (Max)		42100	60200	30																	
Required (Min)																					
1	MA528	53097	73728	40.80	74,76	144,110,115 Av. 123.0	LA PA PA	.130	1.270	.310	.017	.006	.010	.003	.005	.002	.005	.028	.009	.001	.345
		53079	73686	38.20				.132	1.272	.315	.009	.001	.009	.001	.005	.001	.004	.027	.001	.000	.347
								.136	1.278	.318	.008	.002	.010	.002	.004	.002	.005	.026	.002	.000	.352

Tuboscope Vetco (D) GmbH

Vendor Services

RECEIVED  DILIP BHOSALE  
 APPROVED  SIGNATURE  
 WITNESSED  DATE: 19/07/2018

Dimensions : Outside diameter, thickness, weight, length conforms to above specification.  
 Coating : All Pipes are coated with rust preventive from outside surface only.  
 N.D.T. : Not Applicable  
 Heat Treatment : Normalized  
 Raw material : Purchased  
 Marking/Stenciling : MSL DATE OF MANUFACTURING (M/Y) ASTM A 333 GR.6/ASME SA 333 GR.6, CSA Z245.1 GR.290 CAT-II M45C-2014 SS NPS 3 OD 3.500 INCH X WT. 0.300 INCH X LENGTH (38.00-39.00 IN FEET) HPS HEAT NO..3000 PSI-NORM+LT - 45 DEG.C+WEIGHT-10.26 PPF+MADE IN INDIA+POWCI-18-140

Remarks : Material Conforms to NACE MR-0175/ISO15156, NACE MR-0103; Pipes are according to ANSI B36.10; Material is free from mercury contamination; Mfg. Process BOP/EAF; Fine Grained & Vacuum Degassed; Material comply with A999/A999M Spec. Ca = 0.0014% & B = 0.0003%; Shear area = (81,76,77)%; Normalized done at Temp. range of 920-940 Deg.C & cycle time 25-35 min.; Raw Material : JSPL (Indian Origin). Impact at - 56 DEG.C, Specimen size (mm) : 10X5X55, Charpy V-Notch LONGITUDINAL

CERTIFY THAT THE MATERIAL CONFORMS TO ABOVE SPECIFICATION.

FOR MAHARASHTRA SEAMLESS LIMITED

R.K. SRIVASTAVA Asst. ENGINEER

Warning: Modification or reuse of this certification is strictly prohibited. Violation calls for original prosecution for authenticity verification, you can contact us at: msmtc@mahasem.com

M.S.R.O.Pipenager, 149, Sakali, N.V.P., B.K.G. Road, Dist. Raigad, Maharashtra-402126 Phone: 02194238511, 222010 Fax: 238513 Rev.No: 8.11.12.2017

