

M/S.- FORGE INDIA (PVT.) LIMITED. PLOT.NO.60, SEC-5, PARWANOO. (H.P)	T.C.NO. 8973 Date -: 27/02/2018 20:11:41 Invoice No. 21841 Truck No. HR69B-8781
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GRADE	SIZE	HEAT NO.	MANUFACTURING ROUTE	COLOUR CODE	SUPPLY COND.N.	QTY. (MT)	NO. OF PCS.
EN 353	65 RCS	5814	E.A.F.+L.F.+V.D.+CCM+EMS	GREEN+WHITE+PINK LINE	AS ROLLED	10.280	54

-: CHEMICAL COMPOSITION IN PERCENTAGE :-

	C	Mn	S	P	Si	Ni	Cr	Mo	V	Al	Cu	Sn	Ti	B	Ca
Min	--	0.5000	--	--	--	1.0000	0.7500	0.0800	--	--	--	--	--	--	--
Max	0.2000	1.0000	0.0500	0.0500	0.3500	1.5000	1.2500	0.1500	--	--	--	--	--	--	--
Actual	0.1630	0.8000	0.0240	0.0190	0.2300	1.0800	0.8100	0.0920	0.0032	0.0260	0.1600	0.0170	0.0028	0.0004	0.0006

-: METALLURGICAL RESULTS :-

INCLUSION RATING IS : 4163/JK CHART/ASTM E-45A								Aust. Grain Size ASTM No. (E-112)	7	Gas Content (ppm)	
A		B		C		D		Decarb. (MM)		O2	16
	T	H	T	H	T	H	T	H			
STD	2.0	1.0	2.0	1.0	2.0	1.0	2.0	1.0			
MAX											
ACTUAL	1.5	0.5	0.5	0.0	0.0	0.0	1.0	0.0	Micro-Structure	B+F+P	H2 .899

MECHANICAL PROPERTIES (ASTM A-370/IS-1608) TEST CONDITION (N / H & T)	AS ROLLED	MACRO	ULTRASONIC TEST	MIX UP TEST
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	U.T.S.	Y.S.	EL%	RA%	Impact Value	Hardness B.H.N./Rb	BETTER THAN C2,R2,S2 MAX LEVEL AS PER PLATE 1st OF ASTM-E-381	100 % DONE OK	SPARK TEST 100% DONE OK
Reqd.	-	-	-	-	-	-			
Actual	-	-	-	-	-	180-185			

-: HARDENABILITY (HRC) AS PER IS : 3848 :-

Distance	J1/16	J2/16	J3/16	J4/16	J5/16	J6/16	J7/16	J8/16	J9/16	J10/16	J12/16
Required	-	-	-	36-40	-	-	-	-	-	-	-
Actual	-	-	-	36.8	-	-	-	-	-	-	-

Remarks :- REDUCTION RATIO=9.5,100% MOBILE SPECTRO DONE OK (X-RAYS) SURFACE SATISFACTORY

Note :- TESTED FOR RADIOACTIVE CONTAMINATION *OK*

[Signature]