

heat treatment

RAW MATERIAL LAB TEST REPORT																					
MILL TC SUPPLIER NAME:		ADHUNIK				HEAT NO:				16AC266				REPORT NO:				1802047			
FORGER TC SUPPLIER NAME:		F-Forge India				MATERIAL GRADE:				20MnCr5				DATE:				2018-02-13			
CONDITION:		as rolled				LENGTH				-				WEIGHT:				0			
BLOOM SIZE:		200 , 200				SECTION SIZE MM/RCS:				75				SECTION SIZE DIA:							
RE. RATIO AS PER MILL TC:		7.1				RE. RATIO AS PER CALCULATOR:				7.111111111111111											
% CHEMICAL COMPOSTION																					
PARAMETER		C%	Mn%	S%	P%	Si%	Ni%	Cr%	Mo%	V%	Al%	B%	Cu%	Ca%	Sn%						
MIN SPEC		0.17	1.10	--	--	--	-	1.00	-	-	-	-	-	-	-						
MAX SPEC		0.22	1.40	0.035	0.035	0.40	-	1.30	-	-	-	-	-	-	-						
MILL TC VALUE		0.185	1.15	0.031	0.025	0.25	0	1.02	0	0	0	0	0	0	0						
FORGER TC VALUE		0.185	1.15	0.0254	0.020	0.27	0	1.06	0	0	0	0	0	0	0						
THIRD PARTY VALUE		0.20	1.25	0.034	0.027	0.24	0	1.05	0	0	0	0	0	0	0						
JOMINY HARDENABILITY BAND (IS : 3848)																					
DISTANCE (in inches)	J1/16	2/16	3/16	4/16	5/16	6/16	7/16	8/16	9/16	10/16	11/16	12/16	13/16	14/16	15/16	16/16	18/16	18/16	19/16	20/16	
DISTANCE (in mm)	1.59	3.175	4.77	6.35	7.94	9.525	11.1125	12.7	14.29	15.875	17.47	19.05	20.64	22.225	23.82	25.4	26.99	28.58	30.17	31.75	
MIN SPEC	41	39	36	33	30	28	26	25	23	21											
MAX SPEC	49	49	48	46	43	42	41	39	37	35											
MILL TC VALUE				37																	
FORGER TC VALUE				37																	
VECV VALUE				36																	
CALCULATED VALUE	43.3	42.6	39.8	36.4	34.4	32.1	30.2	28.5	27.1	25.8	24.8	23.9	23.1	22.4	21.8	21.3	20.9	20.6	20.4	20.2	
METALLOGRAPHIC CHARACTERISTICS											GAS CONTENT (PPM)										
INCLUSION RATING IS:4163							GRAIN SIZE IS:4748				GAS				REQ		ACT				
	ACT					ACT				O2				20		17					
	Tn			Tk		7				N2				100		77					
A	1.5			0						H2				2		1.3					
B	0.5			0																	
C	0			0																	
D	1.0			0																	
PART NO.		OBSERVATION				MATERIAL GRADE				ACCEPTED/REJECTED				REMARK							
8534		J7mm = 36-40				20MnCr5				ACCEPTED				ok							
811		J7 MM-38 - 42				20MnCr5				REJECTED				Adhunik steel not approve for ETB and ZF part							
814		J7 MM-38 - 42				20MnCr5				REJECTED				Adhunik steel not approve for ETB and ZF part							
817		J7 MM-36 - 40				20MnCr5				REJECTED				Adhunik steel not approve for ETB and ZF part							
818		J7 MM-40~45				20MnCr5				REJECTED				Adhunik steel not approve for ETB and ZF part							
819		J7 MM-36 - 40				20MnCr5				REJECTED				Adhunik steel not approve for ETB and ZF part							
820		J7 MM-36 - 40				20MnCr5				REJECTED				Adhunik steel not appr							
6115		J9mm - 35~39				20MnCr5				REJECTED											
7454		J7 mm - 35 ~ 40				20MnCr5				REJECTED											
5614		J7mm - 38~42				20MnCr5				REJECTED											
5617		J7mm - 36 - 40				20MnCr5				REJECTED											

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CHECKED BY:	Anshul Sharma	VERIFIED BY:	Vishw deepak Tripathi	APPROVED BY:	Ravindra kale
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