

Registered Office: G.T.Road, Miller Ganj, Ludhiana.
Works: Focal Point, LUDHIANA - 141010. (INDIA)
Phone no.: 0161-3006200 Fax: 0161-3006250
MANUFACTURER'S OF: CARBON ALLOYS & SPECIAL STEELS
-: TEST CERTIFICATE: -



-: Original :-

				*	1)					
M/S HP	HAPPY FOR /1. &OPP.H KANGANWAL	D H		INGS LTD.U-II,B-XXIX NDUSTAN TYRE. ROADJUGIANA.LUDHIANA	LTD.U-II,B-XXIX,2254 AN TYRE. UGIANA.LUDHIANA	2254	T.C.NO. Invoice N Truck No.	8006 Da No. 20623 . PB10CH-6505	te	25/01/2018	3 19:36:54
GRADE	SIZE	HEAT	NO.	MANUFA	MANUFACTURING	3 ROUTE	E COLOUR	CODE SUPPLY	LY CONDN.	QTY.	NO. OF PCS.
EN 353 9	90 DIA	6045		S.A.F.+L.F.	E.A.F.+L.F.+V.D.+CCM+EMS	EMS	BLUE+WHITE	Z AS R	ROLLED	16.550	36
			:	CHEMICAL		COMPOSITION	NI	PERCENTAGE :-			
	0	Mn S	— —	Si	Ni	Cr	Mo V	Al Cu	Sn Ti	В Са	a
Min	1	0.5000	-	 -	1.0000		00800 0.7500	- - - 1	- -	<u>-</u>	_
Max	0.2000 1.0000	1.0000 0.	0.0500 0.0500	00 0.3500	0 1.5000	1.2500	0.1500	- -		· - 	_
Actual	0.1730 0.9500		0.0260 0.0170	70 0.2150	0 1.0700	1000	1.1900 0.1250 0.0056	0.0220 0.1150	0.0090 0.0030	0.0004 0.0	0.0007
				ï	: META	METALLURGICAL	CAL RESULTS	-: SI			
INCE	INCLUSION	RATING	SI S	4163/JK		CHART/ASTM	1 E-45A	Aust.Grain		Gas	Content
	I	A		В	ט		D	ASTM No.	7		l Francisco
,	H	н	T	H	E	Н	T	Decarb.	0.16	02	16
STD	2.0	1.0	2.0	1.0	2.0	1.0	2.0 1.0			- N2	85
MAX	7	0.5	0.5	.0.0	0.0	0.0	1.0 0.0	Micro-Structure	e B+F+P	Н2	668.
WE	MECHANICAL TE	PR	M M	ES (ASTM ION (N	M A-370	/IS-1 T)	(809)	MACRO	ULTRASONIC	IC MIX	IX UP TEST
	U.I.		S. EL%	RA	0/0	Impact Value	Hardness B.H.N./Rb	BETTER THAN C2, R2, S2 MAX LEVEL AS PER	100 % DONE OK	SPARI 100%	SPARK TEST 100% DONE OK
Regd.		1	1					PLATE IST OF ASTM-E-381			
Actual	1	1	_				244-249				
				-: HA	HARDENABILITY	ILITY	(HRC) AS I	PER IS : 3848	-:		
Distance		11/16	32/16	J3/16	174/1	6 35/	/16 J6/16	17/16 18/1	16 19/16	1710/1	6 J12/16
Required	- pe		1	1		1	_	37-41 -	1	1	1
Actual	-		1	1	1	1	1	38.5 -	1	1	1
Remarks	l ••	ILLET SIZE:	=240X240 M	M, 100% MOB	BILLET SIZE=240X240 MM, 100% MOBILE SPECTRO DONE OK (X-RAYS)	DONE OK	(X-RAYS)	REDUCTION RATIO=	REDUCTION RATIO=9.1, SURFACE SATISFACTORY	SFACTORY	

RADIOACTIVE CONTAMINATION OUL FOR TESTED Note

& ARE BASED ON CERTIFIED THAT THE TEST FINDINGS ARE CORRECT & ARE BASED ON ACTUAL RESULTS CARRIED OUT ON SAMPLESS DRAWN AS PER Q.A.P.

PRE

SIGNATORY AUTHORISED