



AARTI STEELS LIMITED
 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 :-

M/S.- UNITED GEARS. 136,137,INDL.AREA,PHASE-1, PANCHKULA.(HYA)	T.C.NO. 1596 Date :- 01/06/2018 20:28:34 Invoice No. 1705 Truck No. PB10DZ-6496
--	--

GRADE	SIZE	HEAT NO.	MANUFACTURING ROUTE	COLOUR CODE	SUPPLY COND.N.	QTY. (MT)	NO. OF PCS.
SAE 8620	75 RCS	2557	E.A.F.+L.F.+V.D.+CCM+EMS	BROWN+WHITE	AS ROLLED	16.300	64

-: CHEMICAL COMPOSITION IN PERCENTAGE :-

	C	Mn	S	P	Si	Ni	Cr	Mo	V	Al	Cu	Sn	Ti	B	Ca
Min	0.1800	0.7000	--	--	0.1500	0.4000	0.4000	0.1500	--	--	--	--	--	--	--
Max	0.2300	0.9000	0.0400	0.0350	0.3000	0.7000	0.6000	0.2500	--	--	--	--	--	--	--
Actual	0.1920	0.8700	0.0240	0.0160	0.2200	0.4550	0.5700	0.2100	0.0031	0.0240	0.0680	0.0038	0.0034	0.0004	0.0005

-: 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				
	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	Decarb. (MM)	0.13	O2 15
MAX											N2 78
ACTUAL	1.5	0.5	0.5	0.0	0.0	0.0	1.0	0.0	Micro- Structure	P+F+B	H2 .942

MECHANICAL PROPERTIES (ASTM A-370/IS-1608)	AS ROLLED	MACRO	ULTRASONIC TEST	MIX UP TEST
TEST CONDITION (N / H & T)				

	U.T.S.	Y.S.	EL%	RA%	Impact Value	Hardness B.H.N./Rb	BETTER THAN C2,R2,S2 MAX LEVEL AS PER PLATE Ist OF ASTM-E-381	100 % DONE OK	SPARK TEST 100% DONE OK
Reqd.	-	-	-	-	-	240 MAX			
Actual	-	-	-	-	-	176-184			

-: 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	-	-	-	33-37	-	-	-	-	-	-	-
Actual	-	-	-	35	-	-	-	-	-	-	-

Remarks :- REDUCTION RATIO=7.1,100% MOBILE SPECTRO DONE OK(X-RAYS)

BILLET SIZE=200X200 MM,SURFACE SATISFACTORY

Note :- TESTED FOR RADIOACTIVE CONTAMINATION *OK*

[Signature]