

AARTI STEEL INTERNATIONAL LIMITED



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MANUFACTURER'S OF :- CARBON ALLOYS & SPECIAL STEELS

DOC NO. F-1696224 COMPANY :-

TEST CERTIFICATE :-

:- Original :-



M/S.- S.S.B. ENGINEERS PVT. LTD.
PLOT NO.C-158A,M.I.A ALWAR
RAJASTHAN-301030

T.C.NO. 5488

Date :- 22/02/2025 11:56:54

Invoice No. 5400

Truck No. PB10JD-0462

GRADE	SIZE	HEAT NO.	MANUFACTURING ROUTE	COLOUR CODE	SUPPLY COND.N.	QTY. (MT)	NO. OF PCS.
20MNCRS B	80 DIA	6638	E.A.F.+L.F.+V.D.+CCM+EMS	BLUE+WHITE	AS ROLLED	10.330	53

--: CHEMICAL COMPOSITION IN PERCENTAGE :-

	C	Mn	S	P	Si	Ni	Cr	Mo	V	Al	Cu	Sn	Ti	B	Ca
Min	0.1500	1.0000	0.0200	--	--	--	1.0000	--	--	0.0200	--	--	--	0.0010	--
Max	0.2000	1.3000	0.0350	0.0250	0.3000	0.3000	1.3000	0.1200	--	0.0500	--	--	--	0.0030	--
Actual	0.1630	1.2600	0.0230	0.0200	0.2400	0.1030	1.2100	0.0600	0.0043	0.0340	0.2050	0.0110	0.0034	0.0019	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						
T	H	T	H	T	H	T	H					
STD	2.0	1.0	2.0	0.0	2.0	0.0	2.0	1.0	Decarb. (MM)	0.13	O2	13
MAX											N2	95
ACTUAL	1.5	0.0	0.5	0.0	0.0	0.0	1.0	0.0	Micro- Structure	P+F	H2	.887

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

	U.T.S.	Y.S.	EL%	RA%	Impact Value	Hardness BHN / HRB	C2,R2,S2 LEVEL AS PER PLATE Ist OF ASTM-E-381	100 % DONE OK	SPARK,MOBILE SPECTRO TEST 100% DONE OK
Reqd.	-	-	-	-	-	-			
Actual	-	-	-	-	-	226-237			

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

Distance | 5 MM | 10 MM | 25 MM |

Required | 39-43 | 35-39 | 27-31 |

Actual | 42 | 36 | 28 |

Remarks :- REDUCTION RATIO=11.5:1,BILLET SIZE=240X240 MM,SURFACE SATISFACTORY JOMINY: 50 MM=25(24 MIN),HEAT APPROVED MAIL DATE:05.11.2024
THIS RAW MATERIAL MADE FOR ASHOK LEYLAND AS PER STANDARD ALS 258.02 ISSUE-02 & CSR ISSUE 03,DATED 15.02.14 RMQP(P),REV. 03
DATE: 17.12.2015

Note :- TESTED FOR RADIOACTIVE CONTAMINATION - OK

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

PREPARED BY

AUTHORISED SIGNATORY