

Sample Result Name	Type	Measure Date Time	Recalculation Date Time	Origin
10230 heat no. s-658 sharu steel dia 90 mm	Unknown	Thursday, November 13, 2014	4:46:01 PM	Measured
Method Name	Method Version	Operator Name	Check Type	Check Status
Fe-10-MO		SARA SAE	None	Not Used
Grade Verification Name	Grade Verification Similarity	Correction Type	Type Corr Sample Name	Grade Search Name
	0	None		
Grade Search Similarity	Type	Status	Outlier Removal	
0	None	Not Used		
Sample Name	Grade			
10230 heat no. s-658 sharu steel dia 90 mm				

	C Conc %	Si Conc %	Mn Conc %	P Conc %	S Conc %	Cr Conc %	Mo Conc %	Ni Conc %	Al Conc %	Co Conc %	Cu Conc %	Nb Conc %	Ti Conc %	V Conc %	W Conc %	Pb Conc %	Sn Conc %	As Conc %	Zr Conc %
19	0.081	0.081	0.48	0.019	0.034	0.088	0.011	0.049	0.028	0.007	0.063	0.006	0.005	0.003	0.043	<0.010	0.004	<0.005	<0.003
20	0.10	0.097	0.48	0.026	0.053	0.087	0.014	0.057	0.032	0.007	0.064	0.004	0.006	0.002	0.051	<0.010	<0.002	<0.005	<0.003
21	0.096	0.096	0.49	0.031	0.046	0.088	0.016	0.057	0.028	0.007	0.064	0.004	0.006	0.002	0.051	<0.010	<0.002	<0.005	<0.003
Rep	0.093	0.091	0.48	0.026	0.044	0.087	0.014	0.054	0.029	0.007	0.063	0.004	0.006	0.003	0.055	<0.010	0.003	<0.005	<0.003
Min Cal	0.005	0.005	0.004	0.003	0.002	0.005	0.003	0.005	0.003	0.002	0.002	0.003	0.006	0.003	0.050	<0.010	0.003	<0.005	0.003
Mean	0.093	0.091	0.48	0.026	0.044	0.087	0.014	0.054	0.029	0.007	0.063	0.003	0.006	0.003	0.050	<0.010	0.003	<0.005	0.003
Max Cal	1.80	24.00	2.76	0.16	0.30	10.10	10.20	6.48	2.40	2.52	1.44	0.005	0.006	0.003	0.050	<0.008	0.003	<0.005	<0.002
	Ca Conc %	Ce Conc %	B Conc %	Zn Conc %	La Conc %	Fe Conc %													
19	0.003	0.007	<0.0005	<0.003	<0.002	99.0													
20	0.003	0.008	<0.0005	0.003	<0.002	98.9													
21	0.003	<0.006	0.0008	0.004	<0.002	98.9													
Rep	0.003	0.007	0.0006	0.003	<0.002	98.9													
Min Cal	0.0005	0.006	0.0005	0.003	0.002														
Mean	0.003	0.007	<0.0003	<0.003	<0.001	98.9													
Max Cal	0.016	0.66	0.018	0.036	0.27														

Qualify in 1008 as per
 per 26-615
 Dupak

11/17/2014

Sample Results



SHARU STEELS (P) LTD.

B-48 & D-251, Phase-VII, Focal Point, LUDHIANA - 141 010.

Mobile : 98550-82559 E-mail : info@sharusteels.com & sales@sharusteels.com

QUALITY ASSURANCE DEPARTMENT
METALLURGICAL TEST REPORT

TEST CERTIFICATE

M/S. SARA SAE PRIVATE LIMITED DIVISION-II
A-2 SARA INDUSTRIAL ESTATE LTD.
CHAKRATA ROAD, SELAQUI RAMPUR
DEHRADUN (UTTRAKHAND)

T.C. No. 1466

Date 11-11-2014

Invoice No.

Truck No. MP09HF/8633

GRADE	SIZE	HEAT NO.	MANUFACTURING ROUTE	COLOUR CODE	SUPPLY COND.	QNTY. M.T.	NO. OF PCS.
SAE1008	90 MM	S-658	L/HT	BROWN	AS ROLLED	3.465 MT	LOOSE

CHEMICAL COMPOSITION IN PERCENTAGE

	C	Mn	S	P	Si	Ni	Cr	Mo	V	Al	Cu	Sn	Ti	B	Ca
Min.	-	0.30													
Max.	0.10	0.50	0.040	0.040	0.10										
Actual	0.07✓	0.45✓	0.024✓	0.037✓	0.07✓					0.022					

METALLURGICAL RESULTS

INCLUSION RATING IS : 4163/JK CHART/ASTM E-45A									Aust. Grain Size ASTM No. (E-112)	6/7	Gas content (ppm)		
	A		B		C		D				Decarb. (MM)	O ₂	
	T	H	T	H	T	H	T	H				N ₂	
STD MAX													
ACTUAL	1.5		1.0		1.0		1.5				Micro- Structure	P/F	H ₂

MECHANICAL PROPERTIES

	U.T.S.	Y.S.	EL %	RA %	Impact Value	Hardness B.H.N. / Rb	MACRO	ULTRASONIC TEST	MIX UP TEST
Reqd.							OK	OK	OK
Actual						97			

HARDENABILITY (HRC) AS PER IS : 3848

Distance												
Regd.												
Actual												

Remarks : REDUCTION RATIO = 7.33:1 ✓

OK AS per
Ses 26-615
Bany

[Signature]