

**BSL****SPECTRO LAB****&****METALLURGICAL TESTING CENTRE**

(A Unit of BSL Castings Pvt. Ltd.)

(NABL ACCREDITED LAB)

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FARIDABAD-121005 (INDIA)

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CERTIFICATE NO.
452 & T- 1453**TEST REPORT**

BSL/SPECTRO/5.10F-01/01/00

d to : M/s. Nov Sara India (P) Ltd.
7/1, Pritam Road, Unit - II,
Dehra Dun - 248001

Report No. 149823

D.O.T. : 16.08.2010

Ref. No. Nil

D.O.R. : 14.08.2010

Sample Description Sample No. - 5103, Heat No. - S-471 A

J.O. No. : 46123

RESULTS**Chemical Analysis** (Fe Base - LAS)
Protocol : ASTM E 1507 (By O.E.S)

Sample ID; J.O.No. - 46123/4

<u>Element</u>	<u>%</u>
Carbon	0.068
Silicon	0.126
Sulphur	0.017
Phosphorus	0.038
Manganese	0.431
Nickel	<0.05
Chromium	<0.05
Molybdenum	<0.05
Vanadium	<0.04
Copper	0.071
Tungsten	<0.02
Cobalt	<0.03
Aluminium	0.019
Titanium	<0.02
Iron	99.16

Checked By

Authorised Signatory
(Q.M. / T.M.)

- te : 1. The result listed refer only to the tested samples and applicable parameters, Endorsement of product is neither inferred nor implied.
2. Total Liability of our Laboratory is limited to the invoiced amount. No liability will be accepted after the sample is taken back.
3. *Not Covered under NABL Scope.
4. This report can not be used as an evidence in a court of law.
5. Samples will be destroyed after 15 days.
6. Any Complaints about this report should be communicated within 7 days of issue of this report.
7. This report shall not be reproduced except in full, without the written permission of the Laboratory.

F-QCD-03

ISO 9001:2008
ISO 14001:2004
 1431/08-2010
 SAE 1008
 65 MM
 2
 S 471
 YELLOW

SHARU STEELS (P) LTD.

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

E-mail : info@sharusteels.com

E-mail : sharusteels@connect2.dsl.net

QUALITY ASSURANCE DEPARTMENT METALLURGICAL TEST REPORT

Customer
AddressNOV SARA INDIA PRIVATE LIMITED
DEHRADUN UTTARAKHAND

Date

27-08-2010

TEST RESULTS

CERTIFICATE NO.:

GRADE :

SIZE :

SAMPLE NO.:

HEAT NO.:

COLOUR CODE :

QTY/NO. OF BARS

MULTIPLE/FIX LENGTH

A. CHEMICAL ANALYSIS :

	C	Mn	S	P	Si	Ni	Cr	Mo	V	Al	Cu.	Ti	B
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Spec : Low-
High

Obtained

0.08 0.48 0.022 0.026 0.19 0.023

B. METALLOGRAPHIC CHARACTERISTICS :

Inclusion Rating :

(In accordance with IS : 4163)

A

B

C

D

Thin Thick

Thin Thick

Thin Thick

Thin Thick

1.5

1.0

1.0

1.5

Grain Size

High

Low

(In accordance With IS : 4748)

7

C. MACRO RESULTS :

(In accordance With ASTM E-381)

OK

D. JOMINY HARDENABILITY : (In accordance with IS : 3848)

E. OTHER SPECIAL TESTS :

F. MECHANICAL PROPERTIES :

Tensile Strength

Yield Strength

% Elongation

% Area Reduction Impact Horizontal/
VerticalHardness High/
Low

REMARKS :

 For any Quality related issue please contact
 Mr. Karanpal Singh (Technical Director)
 Mobile : 98141-31288
 Mr. J. P. Singh (Manager Q/C & Mkt.)
 Mobile : 98550-82559

CHECKED BY

Approved By :

AUTHORISED SIGNATORY