

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

(A Unit of BSL Castings Pvt. Ltd.)

(NABL ACCREDITED LAB)

WORKS & OFFICE :PLOT NO. 263, SECTOR-24
FARIDABAD-121005 (INDIA)

Fax No. : +91-129-4065535

Ph. No. : 4065531, 4065532

E-mail : castings@bsltd.net

CERTIFICATE NO.
T - 1452 & T- 1453**TEST REPORT**

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

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

Report No. 153277

Ref. No. Nil

D.O.T. : 04.10.2010

D.O.R. : 04.10.2010

J.O. No. : 46955

Sample Description Sample No. - 5248, Heat No. - R-555, Dia - 56.0mm

RESULTS

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

Sample ID; J.O.No. - 46955/2

<u>Element</u>	<u>%</u>
Carbon	0.075
Silicon	0.571
Sulphur	0.024
Phosphorus	0.033
Manganese	1.628
Nickel	10.26
Chromium	17.09
Molybdenum	2.079
Vanadium	0.049
Copper	0.421
Tungsten	<0.02
Cobalt	0.094
Aluminium	0.014
Titanium	0.021
Iron	67.63

Checked By



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

- Note :
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.



PARVATI LTD.

Regd Office & Works : 27, Rajasthani Udyog Nagar, G. T. Karnal Road,
NEW DELHI - 33, Phone : 91 - 11 - 27691481, 1282, 1283 Fax : 91 - 11 - 27691909

TEST CERTIFICATE

Customer Name & Destination : M/S. NOV SARA INDIA P.LTD.		T.C.NO.: P- 831	Date : 27.9.10	ORDER NO : VERBAL		
Material Specification	Manufacturing Route	Supply Condition	Size	PCS	Colour Code	Weight (Mt)
AISI-316	INDUCTION FURNACE	AS ROLLED	56 MM	91	BLUE	

CHEMICAL ANALYSIS IN PERCENTAGE

ELEMENTS	C	Mn	Si	S	P	Cr	Ni	Mo	N	NB	Size	Pcs.
Specification	Min.											
	Max.											
Heat No.	Grade											
R-555	AISI-316	.069	1.52	.52	.015	.031	16.69	10.11	2.05	.0571	56 MM	25
R-556	AISI-316	.063	1.59	.57	.010	.034	16.82	10.07	2.02	.0566	56 MM	25
R-557	AISI-316	.073	1.54	.53	.013	.036	16.57	10.13	2.06	.0592	56 MM	25
R-558	AISI-316	.066	1.54	.55	.014	.033	16.72	10.10	2.04	.0588	56 MM	16

ULTRASONIC TESTING
ACC. STD : 6mm FBH

REMARKS: **NA**

MECHANICAL PROPERTIES : TEST STD ASTM A370

	Test Condition	UTS (N/MM ²)	YS (N/MM ²)	% EL	% RA	Hardness (BHN)	
						Min.	Max.
SPEC	-	-	-	-	-	-	-
RESULT	-	-	-	-	-	-	-

METALLURGICAL TEST RESULT

Grain Size
E 112

IMPACT TESTING :

Test Temp :
Test Std :

INCLUSION RATING ASTM E - 45					Sr. No	Impact Energy (J)	Average
A	B	C	D		1	-	
Thin	-	-	-	-	2	-	
Thick	-	-	-	-	3	-	

JOMINY HARDENABILITY : ASTM - 3848

MACROSTREAK FLAW TEST (IS - 4075)

DIST mm/Inch	J	J	J	J	J	J	Marco Test (ASTM E - 381)	1 st Step	2 nd Step	3 rd Step
ACTUAL HRC										

Visual Inspection :

Remarks

- 1 Impact Testing as per DINEN 10015 - 1
- 2 Ultrasonic testing as per ASTM A 388
- 3 Material is free from residual radioactive elements.
- 4 Lead not added during manufacturing.

For Parvati Ltd.

For Parvati Ltd.

WE CONFIRM THAT THE TEST
CERTIFICATE FINDINGS ARE
CORRECT & RESULTS ARE
AS PER STANDARD /
CUSTOMER'S REQUIREMENTS

Chemist



Authorized Signatory (Q.C.)