

BSL**SPECTRO LAB**

CERTIFICATE NO.
T - 1452 & T- 1453

METALLURGICAL TESTING CENTRE

(A Unit of BSL Castings Pvt. Ltd.)

(NABL ACCREDITED LAB)

TEST REPORT

WORKS & OFFICE :

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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. 157457

D.O.T. : 30.11.2010

Ref. No. Nil

D.O.R. : 30.11.2010

Sample Description Sample No. - 5402, Heat No. - R-560,
Dia - 70.0mm

J.O. No. : 47920

RESULTS

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

Sample ID; J.O.No. - 47920/1

<u>Element</u>	<u>%</u>
Carbon	0.063
Silicon	0.582
Sulphur	0.016
Phosphorus	0.037
Manganese	1.186
Nickel	10.43
Chromium	16.53
Molybdenum	2.026
Vanadium	<0.04
Copper	0.335
Tungsten	<0.02
Cobalt	<0.03
Aluminium	0.032
Titanium	<0.02
Iron	68.75

Checked By



- 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

Bo/0693/110

TEST CERTIFICATE

Customer Name & Destination : M/S.NOV SARA INDIA P.LTD.		T.C.NO.: P-838	Date : 1.11.10	ORDER NO : VERBAL		
Material Specification	Manufacturing Route	Supply Condition	Size	PCS	Colour Code	Weight (Mt)
AISI-316	INDUCTION FURNACE	AS ROLLED	70 MM	37	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-560	AISI-316	.064	1.49	.51	.017	.029	16.74	10.15	2.06	.0611	70 MM	14
R-561	AISI-316	.068	1.54	.48	.014	.032	16.79	10.09	2.04	.0570	70 MM	14
R-562	AISI-316	.070	1.52	.50	.018	.030	16.68	10.14	2.04	.0582	70 MM	9

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			
Thin	-	-	-	-	1	-	
Thick	-	-	-	-	2	-	
					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.

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

Chemist

Authorized Signatory (Q.C.)

