



SPAN FORGING PVT. LTD.

Manufacturers of : Steel Forging, CNC Turned Components & Gears

Works : Village - Tatarpur (Near Prithla) Teh. Palwal, Distt. Faridabad, Cell : 9810010535

Date.....

Ref. No.....

TEST REPORT

Issued to: M/s NOV-SARA India(P)Ltd.
A/2Sara Ind.Estate Ltd.Chak-
rata Road,Selaqui,Dehradun.

Report No.

984

D.O.T.

1/12/2011

D.O.R

30/11/2011

Sample Description

TEST SAMPLE

Sample No.

6970

Heat No.

P-91

RESULTS

Chemical Analysis
By Spectrometer

Element	%
Carbon	0.0742
Silicon	0.638
Sulphur	0.0145
Phosphorus	0.0189
Manganese	1.54
Nickel	10.28
Chromium	16.87
Molybdenum	2.21
Vanadium	0.0643
Copper	0.31
Niobium/Columbium	0.011
Cobalt	0.182
Aluminium	0.0118
Titanium	0.0074
Iron	67.70

Checked By
Arun Mishra

Authorised Signatory
(Q.M / T.M)

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. The report can not be used as an evidence in a court of law.
4. Samples will be destroyed after 15 days.
5. Any Complaints about this report should be communicated with in 7 days of issue of this report.
6. This report shall not be reproduced except in full, without the written permission of the Laboratory.
7. *Not Covered under NABL Scope.



PARVATI P.LTD.

Regd Office & Works : 27, Rajasthani Udyog Nagar, G. T. Karnal Road,
NEW DELHI - 33, Phone : 91 - 11 - 47029900 Fax : 91 - 11 - 47029922

TEST CERTIFICATE

Customer Name & Destination : M/S. SARA SAE PVT. LTD.		T.C.NO.:P-31	Date :23.11.11	ORDER NO : VERBAL		
Material Specification	Manufacturing Route	Supply Condition	Size	PCS	Color Code	Weight (Kg)
AISI-316	INDUCTION FURNACE	AS CAST	4X5X44 4X5X44	50 32	BLUE BLUE+PINK	9050

CHEMICAL ANALYSIS IN PERCENTAGE

ELEMENTS		C	Mn	Si	S	P	Cr	Ni	Mo	N	COLOR	Size	Pcs.
Specification	Min.												
	Max.												
Heat No.	Grade												
P-90	AISI-316	.057	1.57	.62	.015	.028	16.85	10.10	2.05	.0615	Blue	4X5X44	50
P-91	AISI-316	.059	1.58	.63	.013	.030	16.84	10.14	2.03	.0594	Blue+Pink	4X5X44	32

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 :

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

JOMINY HARDENABILITY : ASTM - 3848

MACROSTREAK FLAW TEST (IS - 4075)

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

Visual Inspection :

Remarks

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

For Parvati P. Ltd.

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

Chemist

[Signature]



Authorized Signatory (O.C.)

130/0723/11