



# SPAN FORGING PVT. LTD.

Mfrs. of : Steel Forgings, CNC Turned Components, Centrifugal Casting of alloy steel

Mobile : 9999986702

9999986704

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Works : Village Tatarpur (Near Prithla) Teh. & Distt. Palwal

E-mail : spanforging@rediffmail.com

## TEST REPORT

Ref. No. ....

Date.....

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

Report No.

1173

D.O.T.

20/1/2012

D.O.R

20/1/2012

Sample Description

Sample No.

7221

Heat No.

R-645

## RESULTS

### Chemical Analysis

By Spectrometer



Element	%
Carbon	0.0587
Silicon	0.548
Sulphur	0.0219
Phosphorus	0.0199
Manganese	1.75
Nickel	10.01
Chromium	16.53
Molybdenum	2.12
Vanadium	0.0731
Copper	0.365
Niobium/Columbium	0.0158
Cobalt	0.188
Aluminium	0.0234
Titanium	0.0195
Iron	68.20

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 within 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-52	Date :14.1.12	ORDER NO : VERBAL			
Material Specification		Manufacturing Route		Supply Condition	Size	PCS	Color Code	Weight (Kg)	
AISI-316		INDUCTION FURNACE		AS ROLLED	56 MM	50 40	BLUE	5180 4170	

### CHEMICAL ANALYSIS IN PERCENTAGE

ELEMENTS		C	Mn	Si	S	P	Cr	Ni	Mo	N	COLOR	Size	Pcs.
Specification	Min.												
	Max.												
Heat No.	Grade												
R-644	AISI-316	.062	1.48	.56	.015	.033	16.58	10.13	2.08	.0676	Blue	56 MM	50
R-645	AISI-316	.054	1.56	.52	.017	.032	16.58	10.06	2.01	.0646	Blue	56 MM	40

### ULTRASONIC TESTING ACC. STD : 6mm FBH

REMARKS : NA

### MECHANICAL PROPERTIES : TEST STD ASTM A370

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

### METALLURGICAL TEST RESULT

INCLUSION RATING ASTM E - 45				Grain Size E 112	IMPACT TESTING :			Sr. No	Impact Energy (J)	Average
A	B	C	D		Test Temp :	Test Std :	Sr. No	Impact Energy (J)	Average	
Thin	-	-	-	-	1	-	-	-	-	
Thick	-	-	-	-	2	-	-	-	-	

### JOMINY HARDENABILITY : ASTM - 3848

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

Parvati P. Ltd.  
PARVATI P. LTD.  
AUTHORIZED SIGNATORY (Q.C.)  
DELHI