



# SPAN FORGING PVT. LTD.

Manufacturers of : Steel Forging, CNC Turned Components & Gears

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

## TEST REPORT

Ref. No.		Date	
Issued to: M/sNov Sara India Pvt.Ltd.	Report No.	D.O.T.	
A/2Sara Industrial Estate Ltd.	825	28/8/2011	
Chakrata Road, Rampur -		D.O.R	
Selaqui Dehradun-248001		28/8/2011	
Sample Description	Sample No.	Heat No.	
DIA 56 MM	6616	R-597	

## RESULTS

Chemical Analysis  
By Spectrometer

Sample ID

J.O No.

Element	%
Carbon	0.0716
Silicon	0.466
Sulphur	0.0165
Phosphorus	0.0329
Manganese	1.57
Nickel	10.19
Chromium	16.72
Molybdenum	2.1
Vanadium	0.0657
Copper	0.382
Tungsten	0
Cobalt	0.199
Aluminium	0.0143
Titanium	0.0093
Iron	68.10

Checked By  
Arun Mishra

Autorised 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 PRIVATE LTD.

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

## TEST CERTIFICATE

Customer Name & Destination : M/S.NOV SARA INDIA P.LTD.		T.C.NO.:P-15	Date : 20.08.11	ORDER NO : VERBAL		
Material Specification	Manufacturing Route	Supply Condition	Size	PCS	Colour Code	Weight (Kg)
AISI-316	INDUCTION FURNACE	AS ROLLED	56 MM	126	Blue	

### CHEMICAL ANALYSIS IN PERCENTAGE

CHEMICAL ANALYSIS REPORT											COLOR	Size	Pes.
ELEMENTS		C	Mn	Si	S	P	Cr	Ni	Mo	N			
Specification	Min.												
	Max.												
Heat No.	Grade												
R-595	AISI-316	.064	1.52	.50	.017	.034	16.90	10.14	2.05	.0594	Blue	56MM	44
R-596	AISI-316	.058	1.48	.48	.021	.036	16.61	10.70	2.05	.0610	Blue	56MM	50
R-597	AISI-316	.067	1.56	.52	.015	.032	16.54	10.11	2.03	.0622	Blue	56MM	32

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.
SPEC	-	-	-	-	-	-	-
RESULT	-	-	-	-	-	-	-

### METALLURGICAL TEST RESULT

#### INCLUSION RATING ASTM E - 45

	A	B	C	D	Grain Size E 112	Test Temp : Sr. No	Test Std : Impact Energy (J)	Average
Thin	-	-	-	-		1	-	
Thick	-	-	-	-		2	-	
						3	-	

### JOMINY HARDENABILITY : ASTM - 3848

DIST mm/Inch	J	J	J	J	J	J	Marco Test (ASTM E - 381)	MACROSTREAK FLAW TEST (IS - 4075)		
								1 <sup>st</sup> Step	2 <sup>nd</sup> Step	3 <sup>rd</sup> 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 Private Ltd.

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

Chemist

*[Signature]*



Authorized Signatory (Q.C.)

4680  
5310  
3410