



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. Sara Sae (P) Ltd.
7/1, Pritam Road, Unit - II
Dehra Dun - 248001

Report No. 9770
Ref. No. Nil

D.O.T. : 03.09.2013
D.O.R. : 02.09.2013
J.O. No. : 2622

Sample Description. : Sample No. - 8666, Heat No. - 165775, Dia - 70.0mm

RESULTS

Chemical Analysis (Fe Base - LAS)
Protocol : ASTM E 415:2008 (By O.E.S)

Sample ID; J.O.No. - 2622/4

Element	%
Carbon	0.022
Silicon	0.201
Sulphur	0.004
Phosphorus	0.013
Manganese	0.745
Nickel	39.05
Chromium	22.91
Molybdenum	3.110
# Vanadium	0.036
Copper	1.925
Tungsten	0.102
Cobalt	0.220
# Aluminium	0.005
Titanium	0.951
# Boron	0.000
Iron	30.70

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.
 8. # Results found outside the range of NABL accredited scope.

Inspection certificate 112978/0
DIN EN 10204/01.05 3.1

Order No. 418877 Delivery No. 88908 Purchase Order No. TK/115/12

Sara Sae Private Limited

7/1, Pritam Road
IND - 248001 (Uttarakhand) India

Trademark
Nicrofer 4221
2.4858

EN ISO 9001, AS 9100
LRQA Approval
KLN 4000941/E

Product
Bar, round, hot rolled, annealed, machined

Specification

FMC M40116 Rev. C
mechanical properties from prolongation of the bar; Hardness max. 210 HB

Material

UNS N08825

Item	Pcs	Wht [kg]	Dimension [mm]	Cast	Lot
4	12	1765	70,00 Ø x 3000-6000	165775	103863403

Analysis (weight %)

LE=combustion analysis

RF=XRF

FMC M40116 Rev. C

Cast	Melting Pr.	C	S	Cr	Ni	Mn	Si	Mo	Ti	Cu	Fe	Al
165775	EF/VD	0,01	0,003	22,5	39,2	0,7	0,3	3,1	0,8	1,9	R30,7	0,2
	top Meth	LE	LE	RF	RF	RF	RF	RF	RF	RF		RF

Sample Condition annealed

Tensile Test

1 ASTM E8 - 11 / longitudinal specimen

Temp Yield0.2% Yield1.0% Tensile Elongation
[°C] [MPa] [MPa] [MPa] A [%] A [%] RoA [%]

Lot	Sample No.	Temp	Yield0.2%	Yield1.0%	Tensile	Elongation A	Elongation A	RoA
103863403	1-A1	1	RT	295	648	4D	52	
103863403	1-A2							

Hardness Test

1 ASTM E 10

HBW 10/3000

1	205 surface

Heat Treatment	Lot
950°C/1.35h/Water	103863403

Spectrographic analytical mixup test/PMI check: without objection

Dimensional and visual inspection performed: without objection

No mercury contamination; no Radium, Luminous or Alpha source materials were used in the manufacture or testing of the items furnished.

No weld repairs performed.

We herewith certify, that the material is in conformance with the above mentioned specifications

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Thomas Gymnich, authorized inspection representative

Date of release: 23.04.2013

Mark of the Inspector

Q

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