



**Marine & Offshore
Division**

Certificate number: 44299/A0 BV

File number: MAT 105013-2016

Product code: 8153I

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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APPROVAL CERTIFICATE for MATERIALS

This certificate is issued to

PRADEEP METALS LTD.
NAVI MUMBAI - INDIA

for the type of product

STEEL FORGINGS

Carbon, Carbon Manganese, Alloy, Low alloy and Stainless Steels Forgings

Requirements:

Bureau Veritas Rules on Materials and Welding for the Classification of Marine Units

This certificate is issued to attest that BUREAU VERITAS did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 18 Apr 2021

For BUREAU VERITAS,

At BV MUMBAI (BOMBAY), on 18 Apr 2016,

Shailendra NATH

Shailendra Nath



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with BUREAU VERITAS. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of BUREAU VERITAS Marine & Offshore Division available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against BUREAU VERITAS for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

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BV Mod. Ad.E 1533 October 2014

This certificate consists of 2 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION :

Forgings in Carbon, Carbon-manganese, Low alloy and Alloy steels, and, Austenitic stainless steels having weight up to 20 Kg. Typical use are closed die raw forgings, bars., flanges and fittings.

No steelmaking. Forgings operations Hammering, Press open die and close die, as applicable; heat treatment as applicable.

2. DOCUMENTS AND DRAWINGS :

"General preliminary information & steel forgings specific information" Revision No.01 dated 23/03/2016 issued by Pradeep Metals, Ltd.

3. TEST REPORTS :

Typical grades tested:

- Grade A105 according to ASTM A105 for carbon steels,
- Grade 70 according to ASME SA675 for carbon-manganese steels,
- Grade B7 according to ASME SA193 for alloy steels,
- Grade F22 according to ASTM A182M for low alloy steels,
- Grade F316L according to ASTM A182, 1.4404 according to EN 10222-5 for austenitic stainless steels.

- Reports Ref.D1698; Ref.D1706;Ref.D1707; Ref.D1708; Ref.D1699 ; Ref.D1700 dated 20/12/2015 issued by Pradeep Metals, Ltd.

4. APPLICATION / LIMITATION :

As per Bureau Veritas Rules for Classification. Chemical composition, tensile properties and Charpy-V notch test requirements are to be as per Bureau Veritas rules NR216 and/or alternative specification mentioned on reviewed drawings, as applicable.

5. PRODUCTION SURVEY REQUIREMENTS :

The forgings are to be supplied by Pradeep Metals, Ltd. in compliance with the type and the requirements described in this certificate. This type of product is within the category IBV of Bureau Veritas Rule Note NR320. BV product certificate is required.

6. MARKING OF PRODUCT :

As per Bureau Veritas Rules for Classification.

7. OTHERS :

Nil.

*** END OF CERTIFICATE ***