



Marine & Offshore

Certificate number: 19082/D0 BV

File number: MAT6279-2007

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

CMF S.p.A.
CORMONS (GO) - ITALY

for the type of product

STEEL FORGINGS

Carbon, carbon-manganese, alloy steels 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 Marine & Offshore 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: 06 Apr 2027

For Bureau Veritas Marine & Offshore,

At BV VENEZIA, on 06 Apr 2022,

Sandro BRUSEGAN

This certificate was created electronically and is valid without signature



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 Marine & Offshore. 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 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 Marine & Offshore 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.

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION :

Carbon, Carbon-Manganese and Alloy Steel forgings of maximum weight 25tons.
 Duplex Steel forgings of maximum weight 16tons.
 Austenitic Stainless Steel forgings of maximum weight 4,5tons.
 Martensitic Stainless Steel forgings of maximum weight 400kg.

No steelmaking. Forgings operations by forging press and hammers. Heat treatment as applicable.

2. DOCUMENTS AND DRAWINGS :

As per following documents issued by CMF S.p.A.

- "CMF Costruzioni Meccaniche Fucine S.r.l." dated 07/01/2006.
- "Approval test program for stainless steel " dated 26/02/2015.
- "Specific information for approval manufacturing process" dated 08/02/2019 and flow chart.
- Forging process JOB No.13821, drawing N° 2203466-4 Revision 0 and heat treatment records dated 13/02/2019.
- Forging process JOB No.13843, drawing N° 57696/A Revision 0 and heat treatment records dated 16/02/2019.
- Forging process JOB No.13843, drawing N° 57698/A Revision 0 and heat treatment records dated 16/02/2019.
- Forging process JOB No.14147, drawing N° R-4.689053/A Revision 0 and heat treatment records dated 20/02/2019.
- Procedures N° PO-10-0 Rev.4 dated 26/05/2017 and No. IO-8.2-22 Rev.0 dated 30/07/2009.
- "Updated technical information - Extension for Duplex-Austenitic Steel weight" dated 22 December 2021.

3. TEST REPORTS :

3.1 Typical tested grades are:

- C45, S355J2G3, 28Mn6 according to EN10250-2 for carbon, carbon-manganese steels,
- 42CrMo4, 34CrNiMo6, 25CrMo4 according to EN10250-3, 30CrNiMo8 according to EN10083-3 for alloy steels,
- F316L according to ASTM A182 for austenitic stainless steels,
- F51, F55 according to ASTM A182 for austenitic-ferritic stainless steels,
- X4CrNiMo16-5-1 based on EN 10250-4 for martensitic stainless steels.

3.2 As per following documents issued by CMF S.p.A. and testing laboratory Metal services :

- For Carbon, carbon-manganese and alloy steels: "CMF Costruzioni Meccaniche Fucine S.r.l." dated 07/01/2006, No. 11032/mc dated 29/01/2010, No.11465/MC dated 30/03/2010, No.11305/MC dated 12/03/2010, No. 11367/MC dated 17/03/2010.
- For grade F51: No.23173/VT, No.23173/MC, No.23173/UT dated 21/02/2014, No.R.13.202 Rev.0 dated 27/02/2014, No.R.14.154 Rev.01 dated 28/02/2014; No.23140/VT, No.23140/MC, No.23140/UT dated 11/02/2014, No.R.14.134 Rev.0 dated 10/02/2014; Test reports included in Job No.0217-4 and Job No.0217-5 submitted on 27 January 2022.
- For grade F55: No.24991/VT, No.24991/MC, No.24991/UT dated 20/11/2014, No.14.915 Rev.0 dated 21/10/2014; No.25192/VT, No.25192/MC, No.25192/UT dated 18/11/2014, No.14.914 Rev.0 dated 21/10/2014,
- For grade F316L: No.22998/MC dated 06/03/2014, No.23591/MC dated 05/03/2014, No.23705/MC dated 05/05/2014, No.R.14.084 Rev.0, No.23591/UT dated 05/03/2014, No.23705/UT dated 05/05/2014, No.22998/UT dated 02/04/2014, No.344, No.345, No.346 dated 28/04/2015, No.R.14.084 Rev.0 dated 29/01/2014; Test report included in Job No.15376-1 submitted on 14 February 2020; Test report included in Job No.15379-1 submitted on 10 January 2020.
- For grade X4CrNiMo16-5-1: No.25498/VT, No.25498/MC, No.25498/UT dated 14/01/2015; No.25502/VT, No.25502/MC, No.25502/UT dated 17/12/2014, No.342, No.343 dated 27/04/2015.
- Test reports for grade 28Mn6, Heat 65672, JOB No. 13843-1 and Heat 65665, JOB No.13843-2 dated 22 March 2019.
- Test reports for grade 25CrMo4, Heat 043642, JOB No. 14147-2 dated 29 March 2019.
- Test reports for grade 34CrNiMo6, Heat 88943, JOB No. 13821-1 dated 10 May 2019.

4. APPLICATION / LIMITATION :

As per Bureau Veritas Rules for Classification.

5. PRODUCTION SURVEY REQUIREMENTS :

- 5.1 - The steel forgings are to be supplied by CMF S.p.A in compliance with the type and the requirements described in this certificate.
- 5.2 - This type of product is within the category IBV of Bureau Veritas Rule Note NR320.
- 5.3 - BV product certificate is required.

6. MARKING OF PRODUCT :

As per Bureau Veritas Rules for Classification.

7. OTHERS :

This certificate replaces approvals from No.19082/A0 BV to No.19082/C2 BV.

***** END OF CERTIFICATE *****