



CERTIFICATE NUMBER 20-1980367-PDA

EFFECTIVE DATE 26-May-2020

EXPIRATION DATE 25-May-2025

ABS TECHNICAL OFFICE London Ship Eng - Materials

CERTIFICATE OF

Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

ARCELORMITTAL TUBULAR PRODUCTS ROMAN SA

located at

15A STEFAN CEL MARE STREET, ROMAN, Romania, 611038

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

Product Piping System and Fittings

Model API 5L/ ISO 3183: Gr. B, X42, X46, X52, X56, X60, X65, X70 (PSL1, PSL2); API 5CT/ ISO 11960/ API5B: Gr. J55, K55, N80Q, L80-Type1, C90 Type1, T95 Type1, P110, Q125 Type1 (PSL1, PSL2, PSL3 and High Collapse); ASTM/ ASME SA 53 Gr. B; ASTM/ ASME SA 106 grade B & C; ASTM/ ASME 333 Gr.6; ASTM/ ASME SA 335 Gr. P1, P9, P11, P12, P22; EN 10216-2 Gr. P235GH, P265GH, 16Mo3

This Product Design Assessment (PDA) Certificate remains valid until 25/May/2025 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau of Shipping

Nikolaos (Nikos Vrellos) Vrellos, Engineer/Consultant

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement

ARCELORMITTAL TUBULAR PRODUCTS ROMAN SA

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Tier: 5 - Unit Certification Required

Product: Piping System and Fittings

Model: API 5L/ ISO 3183: Gr. B, X42, X46, X52, X56, X60, X65, X70 (PSL1, PSL2); API 5CT/ ISO 11960/API5B: Gr. J55, K55, N80Q, L80-Type1, C90 Type1, T95 Type1, P110, Q125 Type1 (PSL1, PSL2, PSL3 and High Collapse); ASTM/ASME SA 53 Gr. B; ASTM/ASME SA 106 grade B & C; ASTM/ASME 333 Gr.6; ASTM/ASME SA 335 Gr. P1, P9, P11, P12, P22; EN 10216-2 Gr. P235GH, P265GH, 16Mo3

Intended Service:

Process Piping for Marine and Offshore Application (Oil, steam, Gas, etc.).

Description:

Seamless Steel Pipes in size range of OD: 88.9mm – 508mm x WT 4.5mm-50mm.

Rating:

Pressure/ temperature ratings as per relevant standard and attached table.

Service Restriction:

1. Unit Certification is required for this product when used in Pressure Vessels Group I & II and Piping Class I & II, except for hydraulic piping. Otherwise, Unit Certification is not required for these products.

2. The pipes are not to be used for temperatures above 400 degrees Celsius unless their metallurgical behavior and time dependent strengths are in accordance with national or international codes or standards and that such behavior and strengths are guaranteed by the steel manufacturer.

3. Ferrous materials used in piping systems operating at lower than -18 degrees Celsius are to have adequate notch toughness properties.

4. These pipes are not to be used on Gas Carriers cargo piping without prior notice to ABS.

5. These pipes are not to be used for structural applications without prior notice to ABS.

6. The installation of mechanical joints, if applicable, is to be in accordance with applicable ABS Rules and the manufacturer's assembly instructions.

7. If the manufacturer or purchaser requests an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

Comments:

1. The manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

2. When compliance with specific ABS Rules is required, i.e. unit certification, the pipes are to be fabricated and tested in accordance with the applicable ABS Rules under ABS survey and marked accordingly.

Notes/Drawing/Documentation:

Drawing No. Correspondence, Fee Agreement

Drawing No. AMTP Roman Statement, PDA Revalidation Declaration

Drawing No. Type Approval Request Form-AMR, PDA Request Form

Drawing No. Certificate Q1-0059, API Accreditation

Drawing No. Certificate ISO 9001-0330, QA Certificate

Drawing No. Correspondence, Client PDA Confirmation

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Terms of Validity:

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STANDARDS

ABS Rules:

2020 Rules for Conditions of Classification, Part 1 - 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following:

2020 Rules for Building and Classing Steel Vessels, 4-6

2020 Rules for Building and Classing Marine Vessels, 4-6

2020 Rules for Conditions of Classification, Part 1 - Offshore Units and Structures 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following:

2020 Rules for Building and Classing Mobile Offshore Drilling Units, 6-1-1/9, 4-2-2/5

2020 Rules for Building and Classing Mobile Offshore Units, 6-1-1/9, 4-2-2/5

2020 Rules for Building and Classing Facilities on Offshore Installations, 3-3

2019 Guide for Classification of Drilling Systems, 3-2/3.1, 5-3

National:

NA

International:

2018 API 5L, Specification for Line Pipe

2019 ISO 3183, Petroleum and natural gas industries - Steel pipe for pipeline transportation systems

2018 API Spec 5CT, Specification for Casing and Tubing

2020 ISO 11960, Petroleum and Natural Gas Industries - Steel Pipes for Use as Casing or Tubing for Wells

2018 ASTM A53/ASME SA 53, Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless

2019 ASTM A106/ASME SA 106, Standard Specification for Seamless Carbon Steel Pipe for High-Temperature Service

2018 ASTM A333/ASME SA333, Standard Specification for Seamless and Welded Steel Pipe for Low-Temperature Service and Other Applications with Required Notch Toughness

2009 EN 10208, Steel Pipes for Pipelines for Combustible Fluids - Part 1: Pipes of Requirement Class A and Part 2: Pipes of Requirement Class B

2020 BS EN 10216-2, Seamless steel tubes for pressure purposes. Non-alloy and alloy steel tubes with specified elevated temperature properties

Government:

NA

EUMED:

NA

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OTHERS:

NA