



Confirmation of Product Type Approval

Please refer to the "Service Restrictions" shown below to determine if Unit Certification is required for this product.

This certificate reflects the information on the product in the ABS Records as of the date and time the certificate is printed.

Pursuant to the Rules of the American Bureau of Shipping (ABS), the manufacturer of the below listed product held a valid Manufacturing Assessment (MA) with expiration date of 17-MAR-2024. The continued validity of the Manufacturing Assessment is dependent on completion of satisfactory audits as required by the ABS Rules.

And; a Product Design Assessment (PDA) valid until subject to continued compliance with the Rules or standards used in the evaluation of the product.

The above entitle the product to be called Product Type Approved.

The Product Design Assessment is valid for products intended for use on ABS classed vessels, MODUs or facilities which are in existence or under contract for construction on the date of the ABS Rules used to evaluate the Product.

ABS makes no representations regarding Type Approval of the Product for use on vessels, MODUs or facilities built after the date of the ABS Rules used for this evaluation.

Due to wide variety of specifications used in the products ABS has evaluated for Type Approval, it is part of our contract that; whether the standard is an ABS Rule or a non-ABS Rule, the Client has full responsibility for continued compliance with the standard.

Product Name: Starter, Pneumatic

Model Name(s): A15, A17, A25, A27, A45, A47, A47Z, A48, S30, S38

Presented to:

GALI INTERNACIONAL, S.A.
P.I. MAS D'EN CISA
JOSEP TURA, 5
08181-SENTMENAT BARCELONA
Spain

Intended Service:

Air Starter for Internal Combustion Engines and Gas Turbines.

Description:

Pneumatic air starter for motor ratings as per details in the field ratings.

Tier:

3

Ratings:

A15: 15 kW @4000 rpm - 30 bar - 66 Nm - Motors up to 300 kW A17: 16.5 kW @4000 rpm - 40 bar - 88 Nm - Motors up to 300 kW A25: 25 kW @3500 rpm - 30 bar - 133 Nm - Motors 220 - 1100 kW A27: 30 kW @2800 rpm - 40 bar -188 Nm - Motors 220 - 1100 kW A45: 66 kW @2300 rpm - 30 bar -540 Nm - Motors 1100 - 4400 kW A47: 66 kW @2300 rpm - 30 bar - 540 Nm - Motors 1100 - 4400 kW A47Z: 66 kW @2300 rpm - 30 bar - 540 Nm - Motors 1100 - 4400 kW A48: 95 kW @2200 rpm - 40 bar - 925 Nm - Motors 3500 - 7000 kW S30: 41.5 kW @2500 rpm - 30 bar - 305 Nm - Motors 750 - 3200 kW S38: 42 kW @2500 rpm - 30 bar - 360 Nm - Motors 900 - 3800 kW

Service Restrictions:

Unit Certification is not required for this product. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

Comments:

- Unit should be capable of minimum three(3) consecutive starts as per 4-2-1/13.9.2(v), 13.9.3(v) and 4-8-2/5.15 of the Steel Vessel Rules/Marine Vessels

Rules. - The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

Notes / Documentation:

Drawing No. 5115068, Pressure part, Revision: 0, Pages: 1 Drawing No. 5115068-A, Pressure test instruction, Revision: 0, Pages: 1 Drawing No. 5125068, Pressure part, Revision: 0, Pages: 1 Drawing No. 5125068-A, Pressure test instruction, Revision: 0, Pages: 1 Drawing No. 51306403, Pressure part, Revision: 0, Pages: 1 Drawing No. 51306403-A, Pressure test instruction, Revision: 0, Pages: 1 Drawing No. 5145068, Pressure part, Revision: 0, Pages: 1 Drawing No. 5145068-A, Pressure test instruction, Revision: 0, Pages: 1 Drawing No. 5147068, Pressure part, Revision: 0, Pages: 1 Drawing No. 5147068-A, Pressure test instruction, Revision: 0, Pages: 1 Drawing No. 5148000-DCO, 5148000-DCO, Revision: -, Pages: - Drawing No. 5148000-DCO, 5148000-DCO, Revision: 0, Pages: 1 Drawing No. A15-A17, A15-A17, Revision: -, Pages: - Drawing No. A15-A17 pressure tests at GALI dated 18 Jan 2019, A15-A17 pressure tests, Revision: -, Pages: - Drawing No. A15-prototype-test at GALI dated 18 Jan 2019, A15-prototype-test, Revision: -, Pages: - Drawing No. A15-test-picture, A15-test-picture, Revision: -, Pages: - Drawing No. A17-prototype-test at GALI dated 18 Jan 2019, A17-prototype-test, Revision: -, Pages: - Drawing No. A17-test-picture, A17-test-picture, Revision: -, Pages: - Drawing No. A25-A27, A25-A27, Revision: -, Pages: - Drawing No. A25-A27 pressure tests at GALI dated 18 Jan 2019, A25-A27 pressure tests, Revision: -, Pages: - Drawing No. A25-prototype-test at GALI dated 18 Jan 2019, A17-prototype-test, Revision: -, Pages: - Drawing No. A25-test-picture, A25-test-picture, Revision: -, Pages: - Drawing No. A27-prototype-test at GALI dated 18Jan 2019, A27-prototype-test, Revision: -, Pages: - Drawing No. A27-test-picture, A27-test-picture, Revision: -, Pages: - Drawing No. A45, A45, Revision: -, Pages: - Drawing No. A45 pressure tests at GALI dated 18 Jan 2019, A45 pressure tests , Revision: -, Pages: - Drawing No. A45-prototype-test, A45-prototype-test, Revision: -, Pages: - Drawing No. A45-test-picture, A45-test-picture, Revision: -, Pages: - Drawing No. A47-A47Z-A48, A47-A47Z-A48, Revision: -, Pages: - Drawing No. A47-A47Z-A48 pressure tests at GALI dated 18 Jan 2019, A47-A47Z-A48 pressure tests, Revision: -, Pages: - Drawing No. A47Z-prototype-test at GALI dated 18 Jan 2019, A47Z-prototype-test, Revision: -, Pages: - Drawing No. A47Z-test-picture, A47Z-test-picture, Revision: -, Pages: - Drawing No. A48-prototype-test at GALI dated 18 Jan 2019, A48-prototype-test, Revision: -, Pages: - Drawing No. Correspondence, reply email, Revision: 0, Pages: 1 Drawing No. GALI STARTERS RATING TABLE (ABS), GALI STARTERS RATING TABLE (ABS), Revision: 1, Pages: 1 Drawing No. Inlet bends, Inlet bends, Revision: -, Pages: - Drawing No. Test device, Test device, Revision: -, Pages: - Drawing No. Type Approval PDA-Application-Form (filled Gali 05 -1, Type Approval PDA - 1, Revision: 0, Pages: 1

Term of Validity:

This Product Design Assessment (PDA) Certificate 19-GE1825849-PDA, dated 18/Mar/2019 remains valid until 17/Mar/2024 or until the Rules or specifications used in the assessment are revised (whichever occurs first). This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product. Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA. Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an agreement between the manufacturer and intended client.

ABS Rules:

ABS Rules for Conditions of Classification (2019) 1-1-4/7.7, 1-1-A3 and A4, which covers the following: 2019 Rules for Building and Classing Marine Vessels 4-6-2/5.11.2, 4-6-2/5.11.4, 4-6-2/5.15 2019 Rules for Building and Classing Steel Vessels 4-6-2/5.11.2, 4-6-2/5.11.4, 4-6-2/5.15 2019 Rules for Building and Classing Offshore Support Vessels 4-6-2/5.11.2, 4-6-2/5.11.4, 4-6-2/5.15 ABS Rules for Conditions of Classification – Offshore Units and Structures (2019) 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following: 2019 Rules for Building and Classing Mobile Offshore Units 4-2-2/9.3, 6-1-6/5.13 2019 Rules for Building and Classing Mobile Offshore Drilling Units 4-2-2/9.3, 6-1-6/5.13

National Standards:
International Standards:
Government Authority:

EUMED:**Others:**

Model Certificate	Model Certificate No	Issue Date	Expiry Date
PDA	19-GE1825849-PDA	18-MAR-2019	17-MAR-2024



ABS Programs

ABS has used due diligence in the preparation of this certificate and it represents the information on the product in the ABS Records as of the date and time the certificate was printed. Type Approval requires Drawing Assessment, Prototype Testing and assessment of the manufacturer's quality assurance and quality control arrangements. Limited circumstances may allow only Prototype Testing to satisfy Type Approval. The approvals of Drawings and Products remain valid as long as the ABS Rule, to which they were assessed, remains valid. ABS cautions manufacturers to review and maintain compliance with all other specifications to which the product may have been assessed. Further, unless it is specifically indicated in the description of the product; Type Approval does not necessarily waive witnessed inspection or survey procedures (where otherwise required) for products to be used in a vessel, MODU or facility intended to be ABS classed or that is presently in class with ABS. Questions regarding the validity of ABS Rules or the need for supplemental testing or inspection of such products should, in all cases, be addressed to ABS.