Certificate No: **2602131336531247**
TL Project No: **25-2774**

TYPE APPROVAL CERTIFICATE

This is to certify that the

INTERNAL COMBUSTION ENGINES

Manufacturer	:	**SOCIETE INTERNATIONALE DES MOTEURS BAUDOUIN**
Address	:	**Technoparc du Brégadan, 13260 Cassis, FRANCE**
Product Type	:	**6M21.3**
Reference Rule	:	**TL Rules, Part B, Chapter 4-1, Automation, 01.01.2022** **TL Rules, Part E, Chapter 103 - Metallic Materials, Special Materials for Naval Ships, 01.01.2022** **TL Rules, Part E, Chapter 104 - Naval Ship Technology, Propulsion Plants, 01.01.2022** **TL Rules, Part E, Chapter 105 - Naval Ship Technology, Electrical Installations, 01.01.2022** **TL Rules, Part E, Chapter 106 - Naval Ship Technology, Automation, 01.01.2022** **TL Rules, Part B, Chapter 5, Electric , 01.01.2024** **TL Rules, Part A, Chapter 2, Material, 01.07.2024** **TL Rules, Part B, Chapter 4, Machinery, 01.07.2024**

Subject to the conditions referred to in the following pages, this certificate is valid until **25.02.2031**

Surveyor: **Sezer Mahir TUĞCU**

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Issued at **İSTANBUL** on **03.03.2026**

This document is electronically signed and does not require a manual signature

Click here for the verification website

Emrah SÖĞÜTÇÜ
New Building Division Manager
TÜRK LOYDU

Expire Date of Previous Certificate: -

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This certificate is subject to terms and conditions described below:
Any significant change in design or construction may render this Certificate invalid. Certificate is not valid for equipment, the design or manufacture of which has been varied or modified from the specimen tested. This certificate is not valid for products without marking above mentioned. The manufacturer should notify TÜRK LOYDU of any modifications or changes to equipment in order to obtain valid certificate. This certificate shows that tested specimens as representative of the product complies of the TÜRK LOYDU rules, and relevant international instruments that apply to it.

Product	**: INTERNAL COMBUSTION ENGINES**
Product Description	**: The engine 6M21.3 is an Electronically Controlled Engine, liquid-cooled four-stroke diesel engine, with direct injection, in-line, trunk piston, non-reversible, charge air cooled, supercharged by turbocharger Borg Warner S410**
Approval No / Date	**: - PAE-EPAS/022844/25-2774/ŞÜ, 23.10.2025** **- PAE-EPAS/022011/25-2774/MY, 31.07.2025** **- PAE-EPAS/024032/25-2774/MY 24.02.2026**
Number of Cylinders	**: 6, in line**
Stroke	**: 165 mm**
Bore	**: 127 mm**
Method of Operation	**: Four Stroke**
Kind of Starting Device	**: Electric starter**
Kind of Cooling	**: Water**
Fuel Type	**: Diesel Oil**
Last Inspection Date	**: 04.12.2025**
Performed Tests	**: - Quality audit** **- Quality assurance certification audit** **- Integration Controls** **- Fire protection Controls** **- Controls According to Approved drawing** **- Subcomponent Controls (crankshaft, pistons, connecting road etc.)** **- Turbo Charger Checks** **- The type test reports review of IACS:** *** Type Approval based on type test performed with engine WP13CD429E211 under P13-0343 serial number at the test lab on 22 & 25/12/2024. Test report No.: D0001137188 dated 13/01/2025.** *** Type Approval based on type test performed with engine WP13Y600-21E210 under P13-0343 serial number at the test lab on 22 & 25/12/2024. Test report No.: D0001137187 dated 13/01/2025.** **were found satisfactory.**
Test Place	**: WEICHAI POWER CO. LTD., Weifang - CHINA**
Application/Limitation	**: 1--Environmental conditions according to TL Enginery Rules and IACS UR M28.** **Inclination limits (degrees) Athwartships Fore --and--Aft.** **Main and Auxiliary enginery Static Dynamic Static Dynamic** **± 15,0° ± 22,5° ± 5,0° ± 7,5°** **Seawater temperature: +32 °C** **Temperature range: 0°C ÷ +45 °C** **Atmospheric pressure: 1 bar** **Suction air temperature: +45 °C** **Relative humidity: 60 %** **For electric components: 0°C ÷ +55 °C** **2--Limitation** **2.1--It cannot be used as the sole main engine or emergency diesel in TL classed ships.** **2.1.1--In order for these engines to be used on ships with single-engine propulsion applications, the control of the engine (in case of failure of the regulator or actuator) must be done with another independent control system. In other words, two separate engine control systems should be arranged. The main engines must be fitted with stand-by cooling pumps that operate independently.If this equipments is not on the engine, the ships should be equipped with more than one main engine.** **2.1.2--Engines intended for single propulsion with a fixed pitch propeller are to be able to run continuously at a speed (r.p.m.) of 40% of full speed along the theoretical propeller curve when one turbocharger is out of operation.** **2.2--Other Conditions;** **2.2.1--Flexible hoses with couplings are to be type approved.** **2.2.2--Engine safety, control and monitoring systems, including sensors and**

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actuators are not covered by this type approval certificate. Documentation for engine safety, control including speed governing and monitoring systems shall be submitted for approval according to the TL-Part B-Chapter 4-1-Section 2 (January 2022). (It is only required for Turkish Lloyd's product certificate.)
2.2.3--Electric cables and cabling are not covered by this approval and must be verified to comply to the TL-Part B-Chapter 5-Section 9 (January 2022). (It is only required for Turkish Lloyd's product certificate.)
2.2.4--SOCIETE INTERNATIONALE DES MOTEURS BAUDOUIN is responsibility to inform the shipbuilders and/or their subcontractors about the installation, use, general maintenance of the approved equipment and the conditions of this approval.
2.3--Service Restriction:
2.3.1--In order for this product to be used on TL classified ships, Unit Certification (Türk Loydu Product Certification) is required according to IACS UR M51.
2.3.2--Signalization and protection related to the engine shall be subjected to Türk Loyduapproval in each particular case and will depend on service applied and the degree of the vessel's automation. These engines can be installed on ships with automation notation provided that all the conditions specified in our rules are followed. For this purpose, equipment that meets the requirements of the Automation Rules must be on the engine and our surveyors must check whether these requirements are met during FAT or ship trials.

Others

: Continuation of Application/Limitation*:
3--Comments
3.1--Torsion vibration analysis is required for each propulsion installation unit.
3.2--The fitting of Rules required protective devices is to be verified at installation on board a vessel in class with the Türk Loydu as well as the Rule required quantity of pump units depending on actual installation arrangements.
3.3--For engines intended to be used for emergency services, supplementary tests in accordance with regulations of the Administration whose flag the vessel flies may be required.
3.4--Products requiring witnessed testing by a Surveyor as part of their Certification for use on a vessel,or facility classed by Türk Loydu,as defined in the applicable section of the Rules,will continue to require witnessed testing. Each engine produced in future where Türk Loyducertification is required is to be shop tested in the presence of our Surveyor.
3.5--This certificate does not cover the following plans which are to be reviewed for each installation:
3.5.1--Schematic diagram of engine control and safety system. Electronic monitoring and control system(s)-software and hardware
3.5.2--Turbochargers
3.5.3--Flexible Hoses.
3.5.4--The electrical and electronic equipment located within areas protected by local Fixed Pressure Water-spraying or Water-mist Fire Extinguishing system and those with in adjacent areas exposed to direct spray are to have a degree of protection not less than IP 44.
3.5.5--Crankcase explosion relief devices
3.5.6--Oil mist detection and alarm devices
3.5.7--Fuel management system (where dual fuel arrangements are fitted)
3.5.8--Engine driven pumps
3.5.9--Engine mounted filters
3.6--Use of the Product for non-Türk Loyduunits is subject to agreement between the manufacturer and intended client.
3.7--The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

	Type of Product	Application	Rated Power	Rated RPM
1	6M21.3	Main propulsion	441 kW	2100 rpm

2	6M21.3	Main propulsion	405 kW	1800 rpm
3	6M21.3	Main propulsion	360 kW	1500 rpm
4	6M21.3	Auxiliary	390 kW	1800 rpm
5	6M21.3	Auxiliary	390 kW	1500 rpm

Approval Conditions **: Power ratings (at the same rated power) lower than those stated is accepted as long as they are within the values approved by engine designer.**

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