

TYPE EXAMINATION CERTIFICATE – EC MODULE B

Certificate no.:
MEDB00008XX

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED), issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Authority. This Certificate is issued by DNV AS under the authority of the Government of Norway.

This is to certify:

that the Lifeboat/rescue boat propulsion engine

with type designation(s)
S30 ENT M23

issued to

Frydenbø Industri AS
Hauglandshella, Norway

is found to comply with the requirements in the following Regulations/Standards:

Regulation **(EU) 2024/1975**,

item No. MED/1.36. SOLAS 74 as amended, Regulation III/4, III/34 & X/3 and LSA Code V and IMO MSC.1/Circ.1630 Rev.2

Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2029-12-04**.

Issued at **Høvik** on **2024-12-05**

DNV local unit:
Mid-North Norway CMC

Approval Engineer:
Dag Harald Williksen



Notified Body
No.: **0575**

for **DNV AS**

.....
Mydlak-Röder, Christine
Head of Notified Body



The mark of conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU.

This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV AS of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled.

Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to USD 300 000.

Product description

Four stroke diesel engine with reduction gear.

Cylinder bore: 95,5 mm
Piston stroke: 104 mm
No. of cylinders: 4 in-line

	Rating A	Rating B	Rating C	GEARBOX/STERN DRIVE*
Power, [kw]	169	129	85	ZF 45 A, 45 C, 45 I, 63 C, 68, 68 A, 68 IV, 220 & 220 A Mercruiser Bravo 1, 2 & 3
Speed, [rpm]	4000	3500	3500	

* Engine rating not to exceed gear/stern drive rating.

Application/Limitation

The engine model is approved for use in rescue boats and self-rightening lifeboats.

Type Examination documentation

Drawing no	Rev no	Document title
		Pictures from test
FRY-S30-006	-	FPT F1 S30 230 E MED Approval Test Procedure ZF Report
FRY-S30-005	S3	68 Outline Drawing
100957	B	SOLAS Engine
	1	S30 Eng Description
		FPT S30 Maintenance Manual
		FPT S30 Maintenance Manual
		FPT S30 Maintenance Manual
FRY-S30-005	1	Engine Outline ZF
		FPT S30 Operation Manual
FRY-S30-004	1	S30 Sea Water Cooling Scheme
FRY-S30-003	1	S30 Fresh Water Cooling Scheme
FRY-S30-002	1	S30 Fuel Oil Scheme
FRY-S30-001	1	S30 Lubricating Oil Scheme
		S30 Eng Description
		Gear manuals and catalogues for the gears mentioned above

Tests carried out

Passed the tests required in IMO Resolution A.689 (17) as amended by IMO Resolution MSC.81(70) with reference to MSC.1/Circ.1630 for lifeboat/rescue boat propulsion inboard engine as follows:

- 4.3.2.3 Cold start test, LSA Code 4.4.6.2; MSC.81(70) 1 /6.10.2 - 6.10.4
- 4.3.2.4 Engine-out-of-water test, LSA Code 4.4.6.3; MSC 81(70) 1/6.10.5
- 4.3.2.5 Submerged engine test, LSA Code 4.4.6.4; MSC.81(70) 1 /6.10.6
- 4.3.2.6 Engine inversion test, LSA Code 4.6.4.2; MSC.81(70) 1 /6.14.6 - 6.14.8

4.3.2.3, 4.3.2.4 and 4.3.2.5 were carried out by engine S30 ENT M23, serial no 4605420, on the 2024-07-05.
4.3.2.6 was carried out by engine S30 ENT M23, serial no 4605420, on the 2024-11-15.

Marking of product

The product is to be indelibly marked with name, address of manufacturer and type designation. The Mark of Conformity (wheel-mark) can be affixed when the conditions on page 1 have been met.

END OF CERTIFICATE