

Marine Diesel Propulsion units of "PM" series are designed to drive the main propulsion system as well as auxiliary thrusters of all types of vessels. The propulsion units are equally applicable on the sea as well as river-based vessels. The production of the RD units implies usage of up-to-date gearboxes of worldwide known brands, such as TWIN DISC, ZF and others, as well as application of such couplings as VULKAN, CENTA and STROMAG. The propulsion units are equipped with monitoring and management systems, developed in-house by the technical department of RIGAS DIZELIS plant, in accordance with target customer needs and requirements of the classification societies.



Description & Key Scope

- Keel or heat exchanger cooling system
- Engine heater
- 24V starter, engine-driven charging alternator
- Flexible compensator and silencer
- Gearbox (ZF, TwinDisc, etc.) with different ratio available
- Flexible coupling between engine and gearbox
- Local and remote control panels
- Vibration isolators
- Drawing & Manual package
- Factory Test Report
- Certificates from major IACS members are available
- EIAPP certificate with Technical File
- Torsional Vibration Calculation

Engine type	Gross power, full load*, kW	Gross power, full load*, HP	Engine speed (rpm)	Power rating**	Preliminary dimensions in mm L x W x H / weight in kg	Emission
DI13 070M (071M)	294-405	400-550	1200-1800	ICFN	1503x974x1174 / 1285	IMO Tier II / EU Stage IIIA
DI13 072M (073M)	294-478	400-650	1200-2300	IFN, PCL	1419x975x1174 / 1285	IMO Tier II / EU Stage IIIA
DI13 076M	515-643	700-875	1200-2300	IFN, PCL	1536x973x1218 / 1285	IMO Tier II / EU Stage IIIA
DI13 077M	515-551	700-750	1200-2300	PCL, PCS	1503x974x1227 / 1285	IMO Tier II / EU Stage IIIA
DI13 078M	280-405	380-550	1200-2100	IFN	1503x974x1174 / 1285	IMO Tier II / EU Stage IIIA
DI13 080M	162-294	220-400	1200-1800	ICFN	1503x974x1174 / 1285	US Tier 3, IMO Tier II, CCNR II
DI13 081M	162-368	220-500	1200-1800	ICFN	1503x974x1174 / 1285	US Tier 3, IMO Tier II, CCNR II
DI13 087M	478-588	650-800	1200-2300	IFN, PCL	1536x973x1218 / 1285	US Tier3, IMO Tier II, EU Stage IIIA
DI13 088M	478-552	650-750	1200-2300	IFN, PCL	1536x973x1218 / 1285	US Tier3, IMO Tier II, EU Stage IIIA
DI13 092M	257-405	350-550	1200-1800	ICFN	1503x974x1174 / 1285	IMO Tier III, EU stage IIIA

Description & Key Scope

* Power rated in accordance with ISO 3046-1 at ambient temperature of 45°C and sea water temperature 32°C.

** Power rating:

- ICFN, Continuous service: Rated power available 1 h/1 h. Unlimited h/year service time at a total load factor of 100%.
- IFN, Intermittent service: Intended for intermittent use where rated power is available 1 hour/3 hours period. Accumulated load factor must not exceed 80% of rated power. Unlimited h/year service time. Total service time depends on load factor.
- PCL (Patrol craft long): Intended for intermittent use where rated power is available 1 hour/6 hours period. Between full load operations engine rpm must be reduced at least 10% from max. obtained rpm. Accumulated total service time max. 2000 h/year.
- PCS (Patrol craft short): Intended for intermittent use where rated power is available 1 hour/12 hours period. Between full load operations engine rpm must be reduced at least 10% from max. obtained rpm. Accumulated total service time max. 1200 h/year.

Engine General Data*

Maker	SCANIA
Model	DI13 070M/071M/072M/073M/076M/077M/ 078M/080M/081M/087M/088M/092M
No of cylinders	6 in-line
Working principle	4-stroke
Displacement, L	12.7
Bore x stroke, mm	130 x 160
Compression ratio	16.3 / 17.3 : 1
Aspiration	Turbocharged
Rotation (seen from flywheel end)	Counter clockwise
Flywheel	SAE14
Injection system type	Unit injector, PDE
Governor type	Electronic (EMS)
Oil capacity	39 (min) – 45 (max) liter
Starter type	2-pole, 24V, DC

* Other engine parameters are available on request.

Available Key Options (other options are available on request)

Engine

- Radiator cooling system
- Manual or electric lub oil drain pump
- Starting batteries
- Static battery charger
- Air, spring or hydraulic starter
- Duplex oil and fuel filters

Gearbox

- Nonstandard ratios
- Trolling valves
- Power take off (PTO)
- Power take in (PTI)
- etc.

Other

- Special tools and spare parts
- Commissioning and start-up
- Extended warranty
- Propulsion lines (shafts, propellers, nozzles, thrusters, etc.)
- Deck mounted systems with Z-type azimuth thrusters



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