

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
DI16 070M	405-552	550-750	1200-1800	ICFN	1551x1251x1214 / 1670	IMO Tier II, US Tier2, EU Stage IIIA
DI16 071M	405-460	550-625	1200-1800	ICFN	1533x1251x1214 / 1600	IMO Tier II, US Tier2, EU Stage IIIA
DI16 072M	478-662	650-900	1200-2300	IFN, PCL, PCS	1551x1251x1214 / 1670	IMO Tier II, US Tier2, EU Stage IIIA
DI16 076M	662-846	900-1150	1200-2300	IFN, PCL, PCS	1574x1270x1214 / 1660	IMO Tier II, EU Stage IIIA
DI16 077M	662-736	900-1000	1200-2300	IFN, PCL, PCS	1551x1251x1214 / 1670	IMO Tier II, US Tier2, EU Stage IIIA
DI16 079M	405-552	550-750	1200-1800	ICFN	1577x1251x1214 / 1600	IMO Tier II, EU Stage IIIA
DI16 080M	221-515	300-700	1200-1800	ICFN	1551x1251x1214 / 1670	US Tier 3, IMO Tier II, CCNR II
DI16 093M	736-882	1000-1200	1200-2300	PC	1574x1270x1131 / 1660	IMO Tier II, 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.
- PC (Pleasure craft: 2 000 hours / 10 years. Intended for intermittent use where rated power is available. 1 hour/12 hours period.

## Engine General Data\*

Maker	SCANIA
Model	DI16 070M/071M/072M/076M/077M/ 079M/080M/093M
No of cylinders	V-8
Working principle	4-stroke
Displacement, L	16.4
Bore x stroke, mm	130 x 154
Compression ratio	15.7 / 16.7 / 17.4 : 1
Aspiration	Turbocharged
Rotation (seen from flywheel end)	Counter clockwise
Flywheel	SAE14
Injection system type	Unit injector, PDE
Governor type	Electronic (EMS)
Oil capacity	40 (min) – 48 (max) liter
Starter type	2-pole, 24V, DC

\* Other engine parameters are available on request.

## Available Key Options (other options are available on request)

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## 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.

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## 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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