

# 1200 Series E70 TAG1M Marine Auxiliary Engine

129 kW (173 hp) @ 1800 rpm

Based on Perkins universally acclaimed 1206 Series and renowned throughout the power generation industry for its superior performance and reliability. The Perkins® E70M is a turbocharged, charge air-cooled, six cylinder, seven litre engine, one of a family of engines ranging from 120 to 240 kWm @110% load (see rating definition).

Operator and environmentally friendly with low noise, rapid startability and low emissions.

Competitive engine and parts pricing, extended service intervals and exceptionally low fuel consumption make the E70M a cost effective choice with significant owner savings over alternative engines.

You can expect unbeatable expertise and friendly service from Perkins.



## Emissions

EPA Tier 3, IMO 2, CCNR Stage 2.

Specification		
Number of cylinders	6 vertical in-line	
Bore and stroke	105 x 135 mm	4.1 x 5.3 in
Displacement	7 litres	427 in <sup>3</sup>
Aspiration	Turbocharged, air to water cooled	
Cycle	4 stroke	
Combustion system	Direct injection	
Compression ratio	16.5:1	
Rotation	Anti-clockwise, viewed on flywheel	
Total lubricating capacity	21 litres	5.5 US gal
Cooling system	Water cooled	
Total coolant capacity	38 litres	10 US gal

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Final weight and dimensions will depend on completed specification.

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 **Perkins®**

THE HEART OF EVERY GREAT MACHINE

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## Features and benefits

### Powered by your needs

- Perkins engines can be tailored specifically for you.  
These engines offer a choice of standard build configurations to match the needs of customers for a diverse range of applications

### Lower operating costs

- Service intervals 500 hours as standard and Perkins provides comprehensive warranty cover for two years, with three years on major engine components

### Economic power

- Unique combustion system enables high output with lower fuel consumption and noise. Competitively priced parts provide low cost of ownership

### Durable power

- Maximum cooling efficiency is provided by a gear driven water pump. Inserted valve seats, oil spray cooled pistons and compact plate oil cooler give enhanced engine life

### Reliable power

- Suitable for operation in ambient temperatures up to 50°C and sea waters up to 32°C. Starting aid for temperatures down to -15°C. Approved by classification societies and marine authorities

### Product support

- Perkins actively pursues product support excellence by ensuring our distribution network invest in their territory – strengthening relationships and providing more value to you, our customer
- Through an experienced global network of distributors and dealers, fully trained engine experts deliver total service support around the clock, 365 days a year. They have a comprehensive suite of web based tools at their fingertips covering technical information, parts identification and ordering systems, all dedicated to maximising the productivity of your engine
- Throughout the entire life of a Perkins engine, we provide access to genuine OE specification parts and service. We give 100% reassurance that you receive the very best in terms of quality for lowest possible cost .. wherever your Perkins powered machine is operating in the world
- To find your local distributor: [www.perkins.com/distributor](http://www.perkins.com/distributor)

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E-mail: [Marine@Perkins.com](mailto:Marine@Perkins.com) Web: [www.Perkins.com/Marine](http://www.Perkins.com/Marine)

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## Technical information

### Benefits

- Excellent power to weight
- Ease of Installation
- Clean, quiet and smooth operation
- Excellent fuel economy
- Easy to maintain with 500hr Service interval
- Reliability

### Standard features

- Versatile base frame
- 3 Cooling options – Heat exchanger, Keel or Radiator
- Gear driven fresh and auxiliary water pumps
- Hydraulic tappets
- Air intake filter with removable element
- SAE 2 flywheel housing
- Twin pocket flywheel housing
- Water cooled turbo – suitable for gas tight applications
- Fresh water cooled exhaust manifold
- CuNi 90 -10 charge air cooler
- Electronic high pressure common rail fuel system
- Full electronic control system
- Engine harness with IP55 Customer connect for engine sensors and SAE J1939 CAN bus
- Integral plate-type engine oil cooler
- High inclination engine sump
- Crankcase ventilation system
- Base mounted primary and secondary fuel filter with integrated drip tray
- Cold start aid, ECM controlled to -15°C

### Optional equipment

- 12 or 24 volt insulated electrics
- 2 Exhaust options – Water injected or Dry
- Duplex oil and fuel filters
- Double skinned high pressure fuel pipes
- Block heaters
- Sump drain pump engine mounted
- Marine classification society (MCS) approval (TBA)
- DTO (Design to Order) – Custom design capability
- Additional Air/Electric starters

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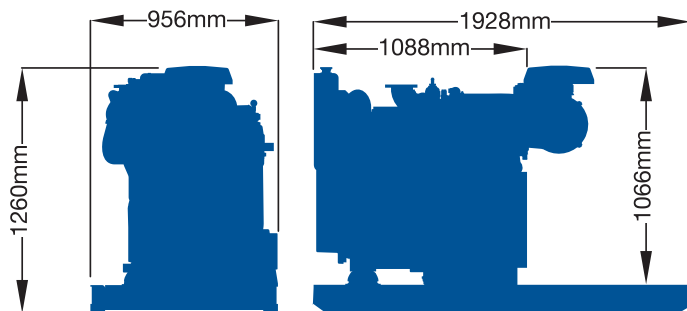
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Engine package weights and dimensions		
Length	1928 mm	76 in
Width	956 mm	38 in
Height	1260 mm	50 in
Weight (dry)	1157 kg	2551 lb

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Speed rpm	Type of operation	Typical generator output (Net)		Engine power			
				Gross		Net	
		kVA	kWe	kW	hp	kW	hp
1800	Prime power	147.5	118	129	173	129	173
	110%	161.3	129	142	190	142	190

#### Rating definitions

**Prime power:** Power for continuous service. Overload of 10% is permitted for 1 hour in every 12 hours' operation.

For further details on definitions please contact your local Perkins distributor.

Percent of prime power	Fuel consumption at 1800 rpm g/kWh	Fuel consumption at 1800 rpm l/hr
100% power	232.8	35.8
110% power	219.8	37.2

These ratings represent the performance capabilities to conditions specified in ISO 3046/1:1995.

Test Conditions Air temperature 25°C (80°F) barometric pressure 100 kPa (29.5 in Hg), relative humidity 30%, maximum exhaust back pressure 15 kPa, maximum inlet restriction 5 kPa.

For operation outside of these conditions please consult your Perkins contact. Performance tolerance quoted by Perkins is  $\pm 5\%$ .

Electrical ratings assume a power factor of 0.8 and a generator efficiency of 93%.

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