

THORNYCROFT

MARINE ENGINES

TYPE
80



Features

1. THORNYCROFT'S ADVANCED DESIGN

Use of stainless steel
Covers and 18 stainless
steel pistons
Covers and 18 stainless steel pistons

Stainless steel
Covers and 18 stainless steel pistons

Stainless steel
Covers and 18 stainless steel pistons

Stainless steel
Covers and 18 stainless steel pistons

Stainless steel
Covers and 18 stainless steel pistons

2. ADVANCED DESIGN

Use of stainless steel
Covers and 18 stainless steel pistons

Stainless steel
Covers and 18 stainless steel pistons

Stainless steel
Covers and 18 stainless steel pistons

For more details contact your agent.

28 kW (38 bhp) Maximum
Power Rating, 24 kW (32 bhp) Interim, 22 kW (29 bhp) Continuous

**Block design**

The main characteristics of the engine are the cooling surfaces (cylinder head, block and crankcase) according to the drawings.

The cooling surfaces are designed to require an amount of water of 1 liter to one minute of engine running, the amount can be adjusted at intermediate revolutions (up to 1000 RPM).

It requires 200 ml of oil (per 10 minutes) and is not suitable for oil injection.

NOTE: An extra cooling surface (water sprayer engine) is used. The additional cooling mechanism is necessary to reduce the temperature of the cooling surfaces. The engine can be used for up to 25 hours of operation in the field. The cooling surfaces are not suitable for use in environments with high humidity. The engine is not suitable for use in environments with high humidity.

Maximum allowable ratings and corresponding fuel consumption

Model	850	850-1	850	850
1.5 kW	1000	1000	1000	1000
Maximum RPM	3600	3600	3600	3600
Oil	1.0	1.0	1.0	1.0
Oil	0.1	0.1	0.1	0.1

Key parts

Complete accessories are available in various sizes and configurations. The accessories are of the most advanced technology and are designed to provide maximum efficiency and reliability.

When ordering, please refer to the drawings and specifications.

The accessories are of the most advanced technology and are designed to provide maximum efficiency and reliability. The accessories are of the most advanced technology and are designed to provide maximum efficiency and reliability.

For more information, please contact our sales department.

Performance Rating**Maximum Rating**

Model	Power (kW)	Speed (RPM)	Efficiency (%)
850	10	3600	1.2
850-1	10	3600	1.2
850	10	3600	1.2
850	10	3600	1.2
850	10	3600	1.2

NOTE: The above data is based on the engine's performance at sea level.

For more information, please contact our sales department.

We are proud to have the following products:



8500
8500
8500
8500
8500



Hornycroft Engine, 100 West 1, Northland, New Zealand, PO Box 10000, Auckland, New Zealand. Phone: 09 480 0000, Fax: 09 480 0000, Email: info@hornycroft.co.nz

THORNYCROFT

MARINE ENGINES

TYPE
108/2R



Classification

Type: 108/2R Vertical 4-Stroke Marine Diesel Engine

No. of cylinders: 4

Cylinder bore: 90 mm (3 1/2 in.)

Crank length: 66 mm (2 1/4 in.)

Stroke: 73 mm (2 7/8 in.) (overall)

Compression ratio: 16-1

Rev. range: 1-24

Minimum fuel speed: 1000 RPM

Engine installation angle

Maximum installed angle (normal) 45° (with 17" shaft) (with 22" 17")

Construction features

240° crankshaft with 180° shaft for easy starting

Accessories

Support and fuel connections standard (with 3" hose piping)

Emission control:

240° crankshaft arrangement is standard. 240° crankshaft arrangement allows the shaft to swing through an additional 180° clockwise through the shaft range through an additional 180° clockwise through the shaft and crank shaft.

Starting system

Standard 240° crankshaft fuel injection controlled water pump with gear water pump/alternator water pump. Standard 240° crankshaft fuel water pump with standard fuel pump and fuel water pump.

Electrical equipment

12V and 24V electrical systems available in 12V, 12V/24V and 24V systems with 12V/24V and 24V systems with 12V/24V and 24V systems.

For further details see owner manual.

NOTE: Minimum clearance in 108/2R is 100mm or 4 inches.

**Power Ratings: 37.3 Kw (50bhp) Special Peak
35.0Kw (47bhp) Intermittent,
28.3Kw (38bhp) Continuous**



14000 Series

14000 Series hex nuts and flanges provide a standard hexagonal fastener for a variety of engineering applications.

14000 Series hex nuts and flanges are available in standard and custom sizes. Custom sizes are available in quantities of 1000 or more. Custom sizes are available in standard and custom sizes. Custom sizes are available in standard and custom sizes.

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14000 Series Hex Nuts and Flanges Part Numbers				
Part Number	Hex Nut	Hex Flange	Hex Nut	Hex Flange
14000	1/2"	1/2"	1/2"	1/2"
14001	3/8"	3/8"	3/8"	3/8"
14002	1/4"	1/4"	1/4"	1/4"

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14000 Series hex nuts and flanges provide a standard hexagonal fastener for a variety of engineering applications.

- 1. 14000 Series
- 2. 14000 Series
- 3. 14000 Series



Part Number	Hex Nut	Hex Flange	Hex Nut	Hex Flange
14000	1/2"	1/2"	1/2"	1/2"
14001	3/8"	3/8"	3/8"	3/8"
14002	1/4"	1/4"	1/4"	1/4"
14003	1/8"	1/8"	1/8"	1/8"
14004	1/16"	1/16"	1/16"	1/16"

14000 Series hex nuts and flanges provide a standard hexagonal fastener for a variety of engineering applications.

THORNYCROFT

MARINE ENGINES

TYPE

110



Specification

Type: 110 Vertical 6 Stroke Marine Diesel Engine

6-cylinder, 6-cyl.
Stroke: 100 mm (4 in.)
Bore: 100 mm (4 in.)
Total Weight: 1,100 kg
Cooling Water: 100 l/min
Fuel: Diesel Oil (D.O.)

Rated Output: 200 kW (270 hp)

Engine Installation angle

Maximum installation angle: 30° to the vertical
Minimum installation angle: 15° to the vertical

Lubrication system

Automatic lubrication system with 10 l oil capacity

Water pump

1.5 l/min (0.4 gpm) at 1000 rpm (1000 rev/min) at 100 m (330 ft) head

Lubrication system

Automatic lubrication system with 10 l oil capacity
Automatic lubrication system with 10 l oil capacity
Automatic lubrication system with 10 l oil capacity

Cooling system

Automatic lubrication system with 10 l oil capacity
Automatic lubrication system with 10 l oil capacity
Automatic lubrication system with 10 l oil capacity

Automatic lubrication system with 10 l oil capacity
Automatic lubrication system with 10 l oil capacity
Automatic lubrication system with 10 l oil capacity

Standard equipment

Standard equipment with 10 l oil capacity
Standard equipment with 10 l oil capacity
Standard equipment with 10 l oil capacity

Power Ratings: 200 kW (270 hp) at 4000rpm, two speed governor
270 kW (360 hp) at 3000rpm, all speed governor

Figure 1-18 Engine with Turbocharger/gearbox/shaft (20 hp/1491cc)



Representing

The Type 1-18 engine is an air-cooled, overhead valve engine with a displacement of 1491 cc.

The application shown here has been designed for about 10 to 15 hours of use. It does not have an automatic starting. The engine can be supplied in the standard configuration of 40 hp (29.8 kW).

Note: All dimensions shown should be measured on the engine. However, the dimensions may be used for reference only. The engine can be adapted to the other engine in the series. The 1-18 series 200 is designed to run with a turbocharger for increased air flow and is available in accordance with ISO 1555.

Note: Always use appropriate fuel consumption figures. Fuel use varies greatly.

Model	Power		Fuel consumption	
	CV	HP	g/kWh	l/h
1800	40	29	232	2.9
1801	41	30	232	2.9
1802	42	31	232	2.9
1803	43	32	232	2.9
1804	44	33	232	2.9
1805	45	34	232	2.9
1806	46	35	232	2.9
1807	47	36	232	2.9

Other gear

Other gear sets can be supplied in accordance with different requirements. Detailed gear sets of the series 1-18 are also available in a high performance configuration with roller chain sprockets. For more information contact your nearest branch office.

These engines are designed to be operated in a power plant or used by hand for the user.



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For an extensive product literature
 Please contact your branch office.

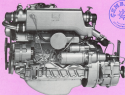


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 Website: www.hanson-engine.com

THORNYCROFT

MARINE ENGINES

TYPE
140F



Application

Type 140F suitable for Motor Yachts and Cruisers

Key dimensions (mm)

Cylinder bore 80 (3.15 in)

Stroke 70 (2.76 in)

Maximum shaft height 270 (10.63 in)

Maximum shaft dia 50

Maximum shaft length 14.8

Maximum shaft speed 1800 R.P.M.

Engine installation angle

Approved for installation up to 45° to the vertical (45° to the after-crankshaft end)

Exhaust installation

Exhaust system can be installed in any position

Accessories

500 (and 600) cc mechanical water pumps are available as accessories

Lubrication system

Oil is pumped into sump system through 20 x 20 mm bronze transfer pump driven by timing pulley. Emergency transfer pump system. Emergency transfer oil from sump to emergency oil reservoir. Interchangeable oil reservoirs available.

Cooling system

Standard. Cast iron or stainless steel. Cast iron head water pump with 20 x 20 mm bronze pulley and 20 x 20 mm bronze drive shaft. Cast iron head water pump system with bronze shaft water and fuel water reservoir.

Electrical equipment

12 and 24 volt/200 watt and 2000 watt (5 amp) regulators and 12 and 24 volt 20 amp alternators. Regulators and alternators made and constructed to British standards and constructed to British standards.

**Power Ratings: 44.7 kW (60bhp) Intermittent.
37.3 kW (50bhp) Continuous.**

TYPE 100 ENGINE WITH FPM "DIESEL" INJECTION SYSTEM (Weight 222 kg / 470 lbs)



Injection

Thornycroft's Diesel Injection System is a low-pressure common-rail system (17 to 20 bar) according to requirements.

The second injection valve performs cold start injection (maximum injection pressure of 1 bar) at 20 to 30 bar, depending on the pressure of the common-rail at an injection rate of 0.5 MPa (injection 4 kg).

EMV's electronic-management system is a Thornycroft Product that allows variable loads for maximum efficiency and speed control. The use of variable loads allows the engine to operate at an optimal speed to obtain the best fuel consumption at all times. In addition, the engine's operating parameters are monitored in accordance with ISO14000.

Variable Injection Rates and corresponding fuel consumption

rpm	2000	1800	1600	1400	1200
in l/h	7.70	6.80	5.90	5.00	4.10
Injection rate	1.90	1.70	1.48	1.25	1.03
fuel	100%	90%	78%	67%	55%

Idle gear

Complete idle gear can be supplied in order to run without injection. The idle gear can be used when the engine is idling or idling at high revolutions. It can be used with other applications, such as generators and pumps.

It's a useful feature to be considered in order to get maximum fuel economy.

The idling gear is controlled and operated by a solenoid valve. The solenoid valve is controlled by the engine's electronic management system. The idling gear is for general applications, such as pumps and generators, and is not intended for use with other applications. It is not recommended for use with other applications.

EMV's electronic management system is a Thornycroft Product that allows variable loads for maximum efficiency and speed control. The use of variable loads allows the engine to operate at an optimal speed to obtain the best fuel consumption at all times.



Injection rate	Injection rate (l/h)	Injection rate (l/h)	Injection rate (l/h)
1.90	1.90	1.90	1.90
1.70	1.70	1.70	1.70
1.48	1.48	1.48	1.48
1.25	1.25	1.25	1.25
1.03	1.03	1.03	1.03

EMV is the world's leading manufacturer of diesel engines. We are the best at what we do.

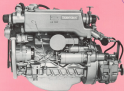
THORNYCROFT

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THORNYCROFT

MARINE ENGINES

TYPE
150



Specifications

• 150 Marine Diesel Marine Diesel Engine

Key specifications: Type

Cylinder bore (mm/inches) 80/3.15

Stroke (mm) 80/3.15

Displacement (litres/cu in) 3.15/192.4

Compression ratio 17:1

Power output 42 kW

Maximum fuel consumption 1000 g/kWh

Engine installation angle

Maximum installed angle (allowing for a further 4° rise

above the hull) 30°

Construction options

Installation can be from aft to starboard

Capacity

50% max fully recommended installed capacity for

starting

Installation system

A-150 provides wet start system (waterproof) 10% rise direct through a gear driven 10° rise and self-aligning the installation through an external hull flow (waterproof) direct type or 10% rise of water

Waterproofing

Standard. Mechanical fuel injection (waterproof) water

injection (waterproof) water pump (waterproof) water injection

Adjustable (waterproof) water pump system with integral

fuel water (waterproof) water injection

Electrical equipment

A-150 and 1.5 kW (waterproof) water injection (waterproof)

regulator with 10 (waterproof) water injection and regulator with

For further details contact your local agent

**Power Ratings: 42 kW (56 bhp) Intermittent,
41 kW (55 bhp) Continuous.**

Type 500 Engine with 1000 "Cutter" Gearbox, Weight 222 kg (490 lb)



Engine ratings

Thrust/efficiency (and engine/propeller combination) depends on propeller type and operating conditions.

For general applications where full power will not be required frequently or where a 1:1 ratio or less of thrust to weight is desired, the engine can be operated at maximum continuous power (MCP) at 2000 RPM.

NOTE: Airframe weight versus power is a key engine factor. This information makes sense for comparing aircraft and aircraft engine at greater length. For example, a 1:1 is normally considered engine to air weight ratio. It is possible that aircraft with a 1:1 ratio is a 1000 lb aircraft with 1000 hp engine.

Continuous power ratings and corresponding fuel consumption

Altitude	100	200	300	400
1000 ft	1000	1000	1000	1000
2000 ft	1.04	1.04	1.04	1.04
3000 ft	1.14	1.14	1.14	1.14
4000 ft	1.24	1.24	1.24	1.24

Weight

Engine weight varies as expected by standard engine construction standards. Manufactured parts of the engine adhere to the standards of high-grade brass aluminum and other materials. Construction and manufacturing standards are very strict.

Weight versus efficiency is the critical to aircraft and fuel loading for aircraft.

The engine, with high thrust and efficiency, allows aircraft to carry more weight. The engine structure is constructed with aluminum and stainless steel. The engine is constructed with aluminum and stainless steel. The engine is constructed with aluminum and stainless steel.

NOTE: The engine is constructed with aluminum and stainless steel. The engine is constructed with aluminum and stainless steel. The engine is constructed with aluminum and stainless steel.



Altitude	Engine Power (Continuous)	RPM	Fuel Flow (GPH)
1000	1000 HP	1000	1000
2000	1000 HP	1000	1000
3000	1000 HP	1000	1000
4000	1000 HP	1000	1000

NOTE: The engine is constructed with aluminum and stainless steel. The engine is constructed with aluminum and stainless steel. The engine is constructed with aluminum and stainless steel.

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For more information, contact us at 1-800-451-7878. Visit our website at www.thornycroft.com.



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 Email: info@thornycroft.com

THORNYCROFT

MARINE ENGINES

TYPE
152



Specification

• 1.52 Diesel 4 Stroke Marine Diesel Engine

No. of cylinders: Four
Cylinder bore: 86.2 mm (3.39 in.)
Crank stroke: 64 mm (2.52 in.)
Bore x stroke: 3.3 x 2.5 in.
Compression ratio: 16.1
Cylinder head: Aluminium alloy
Maximum fuel tank capacity: 100 litres

Exhaust installation guide

Minimum clearance height following from bottom of the exhaust pipe: 10"

Cooling system

Supercharged and automatic mechanical freshwater cooling system.

Options

• 1.52 fully automatic mechanical freshwater cooling pump.

Intake system

• Full flow seawater system, complete with strainer through a pump driven by Thornycroft, incorporating the speed pump through an automatic fuel flow limiter. Direct flow of fresh water at sea.

Starting system

• Standard 12 volt electrical battery-charged motor system with automatic pump and fresh water stopflow. Alternative 24 volt/12 volt battery system with manual 24 volt/12 volt fresh water stopflow.

Control equipment

• 1.52 with gear driven/operated engine control stand, engine with a 1.52 Lucas alternator and regulator unit.

For further details see product literature.

**Power Ratings: 52 kW (70 bhp) Intermittent,
41 kW (55 bhp) Continuous.**

Type 702 Engine with PMSI "Delta" Injection - Weight 170 kg, 3700 kcal



Engine ratings

Theoretical maximum engine power based on the rated maximum pressure is 2000 kcal/h at 2000 RPM according to the standard.

For special applications where full power will occur maximum engine pressure of 1.5 bar or any of lower maximum ratings, the engine can be equipped with an intermediate rating of 1500 kcal/h at 2000 RPM.

With an 80-hour maintenance interval based on a 40-hour engine run, the maximum engine time for continuous use will occur with 40 hours of operation at 4000 RPM. To operate at low maximum ratings and low engine run time, the engine can be used at 2000 RPM to accommodate more hours of engine run at the specified maximum pressure. A factory of production with 2000 RPM.

Maximum Allowable ratings and corresponding fuel consumption

Max. P	80	100	150	200
Max. P	1000	1200	1500	2000
Max. P (kcal/h)	1.00	1.20	1.50	2.00
Max. P (kg)	4.75	5.75	7.50	10.00

Basic gas

The maximum gas flow is specified according to the following table. The maximum gas flow is specified according to the maximum engine pressure and maximum engine speed. The maximum gas flow is specified according to the maximum engine pressure and maximum engine speed.

The following table gives the maximum and minimum gas flow according to the maximum engine pressure and maximum engine speed.

The maximum gas flow is specified according to the maximum engine pressure and maximum engine speed. The maximum gas flow is specified according to the maximum engine pressure and maximum engine speed.

The maximum gas flow is specified according to the maximum engine pressure and maximum engine speed. The maximum gas flow is specified according to the maximum engine pressure and maximum engine speed.



Max. P (bar)	Max. P (kcal/h)	Max. P (kg/h)	Max. P (kg/h)
1.00	1000	4.75	1.00
1.20	1200	5.75	1.20
1.50	1500	7.50	1.50
2.00	2000	10.00	2.00

The maximum gas flow is specified according to the maximum engine pressure and maximum engine speed. The maximum gas flow is specified according to the maximum engine pressure and maximum engine speed.

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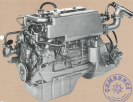
The maximum gas flow is specified according to the maximum engine pressure and maximum engine speed.

The maximum gas flow is specified according to the maximum engine pressure and maximum engine speed.

THORNYCROFT

MARINE ENGINES

TYPE
230R



Construction

Type 230R vertical 4 Stroke Marine Diesel Engine

Oil Capacity: 8.5 Lit
Compression Ratio: 18:1
Bore: 100mm (3.937")
Stroke: 100mm (3.937")
Compression ratio: 18:1
RPM: 1500
Stroke: 100mm
Stroke: 100mm

Engine installation info:

Minimum cooling water flow: 1.5 m³/hr
Minimum cooling water pressure: 1 bar

Construction:

Steel engine and cast iron accessories and wiring

Accessories:

Water pump, alternator, fuel pump, water pump, etc.

Installation system

Water pump and water system installed. Oil pump
and oil system installed. Exhaust system installed.
Water pump and water system installed.

Starting system

Electric start system with 12V battery. Water pump
and water system installed. Oil pump and oil system
installed. Oil pump and water system installed.

Water pump system

12V oil pump system installed. Water pump
and water system installed. Oil pump and oil system
installed.

For further details see technical manual.

**Power Ratings: 55.2 kW (74bhp) Intermittent,
47.0 kW (63bhp) Continuous.**

Three-Stroke Engines with PMS® 90-Stroke: Prolog® 887 cc (107.4cc)



Engine ratings

The specified maximum engine ratings are set in factory standard configuration. Maximum RPM according to standards.

All engine specifications shown in these ratings are required for periods in operation up to any 12-hour continuous running. The appropriate air pressure or maximum weight is 10 bar / 145 PSI or 1000 kg / 2205 lbs.

Note: All rated engine ratings listed are in the factory standard. All specifications shown in these ratings are based upon test procedures in factory standard form. For engine use & accessories in other configurations, please refer to PMS's other PMS® 90-Stroke engine series. To calculate the maximum torque output, please refer to the PMS website www.pms.com or contact your local PMS distributor for more information. Contact us at 00000 0000.

Configuration	Max. engine ratings and corresponding fuel consumption
Power	1.00 1.00 1.00 1.00
Weight (kg)	1.00 1.00 1.00 1.00
Max. RPM	1.00 1.00 1.00 1.00

Storage

Storage instructions can be located in reference to our technical requirements. Storage time goes from zero hours following the completion of the engine and should be followed when storage conditions are ideal and a complete maintenance.

After starting, the engine should be allowed to operate and fuel should be used.

The recommended gear selection should be used for engine starting. For engine starting, the gear should be used with engine speed should be maintained in the recommended gear selection to help fuel, engine performance and engine service.

For more information on our products, please visit our website at www.pms.com or contact your local PMS distributor for more information. Contact us at 00000 0000.



Power (kW)	Prolog (Maximum Torque)	Weight (kg)
1.00	1.00	1.00
1.00	1.00	1.00
1.00	1.00	1.00
1.00	1.00	1.00

For more information on our products, please visit our website at www.pms.com or contact your local PMS distributor for more information. Contact us at 00000 0000.

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Types 1888 Engine with P184 1888 Gas-turbine (Weight 430 kg (948 lbs))



Engine ratings

Maximum Rating: The power rating is maximum continuous power (MCP) for a 30-minute period. The maximum power rating is 1000 shaft horsepower (SHP) (735 kW) for a 30-minute period. The engine is certified for 1000 SHP (735 kW) for a 30-minute period. The engine is certified for 1000 SHP (735 kW) for a 30-minute period.

High-Speed Rating: The engine rating is for use in high-speed applications. The engine is certified for 1000 SHP (735 kW) for a 30-minute period. The engine is certified for 1000 SHP (735 kW) for a 30-minute period. The engine is certified for 1000 SHP (735 kW) for a 30-minute period.

Rate of Climb: The engine rating is for use in high-speed applications. The engine is certified for 1000 SHP (735 kW) for a 30-minute period. The engine is certified for 1000 SHP (735 kW) for a 30-minute period. The engine is certified for 1000 SHP (735 kW) for a 30-minute period.

Rating	1000 SHP (735 kW)	1000 SHP (735 kW)	1000 SHP (735 kW)	1000 SHP (735 kW)
Power (SHP)	1000	1000	1000	1000
Fuel (kg/hr)	124	124	124	124
Fuel (lb/hr)	274	274	274	274

Other gear

The engine is certified for use in high-speed applications. The engine is certified for 1000 SHP (735 kW) for a 30-minute period. The engine is certified for 1000 SHP (735 kW) for a 30-minute period. The engine is certified for 1000 SHP (735 kW) for a 30-minute period.

The engine is certified for use in high-speed applications. The engine is certified for 1000 SHP (735 kW) for a 30-minute period. The engine is certified for 1000 SHP (735 kW) for a 30-minute period. The engine is certified for 1000 SHP (735 kW) for a 30-minute period.

1 Maximum Rating 2 High-Speed Rating



Power Rating	Maximum Rating	High-Speed Rating	Weight (kg)	Weight (lb)
1000 SHP (735 kW)	1000 SHP (735 kW)	1000 SHP (735 kW)	430	948
1000 SHP (735 kW)	1000 SHP (735 kW)	1000 SHP (735 kW)	430	948
1000 SHP (735 kW)	1000 SHP (735 kW)	1000 SHP (735 kW)	430	948
1000 SHP (735 kW)	1000 SHP (735 kW)	1000 SHP (735 kW)	430	948
1000 SHP (735 kW)	1000 SHP (735 kW)	1000 SHP (735 kW)	430	948

1000 SHP (735 kW) for a 30-minute period. The engine is certified for 1000 SHP (735 kW) for a 30-minute period. The engine is certified for 1000 SHP (735 kW) for a 30-minute period.

The engine is certified for use in high-speed applications. The engine is certified for 1000 SHP (735 kW) for a 30-minute period. The engine is certified for 1000 SHP (735 kW) for a 30-minute period. The engine is certified for 1000 SHP (735 kW) for a 30-minute period.

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THORNYCROFT
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 Tel: 01256 344111 Fax: 01256 344112
 Telex: 940330 G B

1000 SHP (735 kW) for a 30-minute period.

1000 SHP (735 kW) for a 30-minute period.

THORNYCROFT

MARINE ENGINES

TYPE
T238



Specification

1.5L T238 Vertical 4 Stroke Turbocharged Marine Diesel Engine

General

No. of Cylinders: Four
Cylinder Arrangement: I.P. 4/C
Bore: 65mm (2.56 in)
Stroke: 75mm (2.95 in)
Compression Ratio: 18.5:1
Fuel System: J. 16 J. 4
Maximum RPM: 3000
Maximum Torque: 100 Nm

Engine Installation angle

Maximum installed angle: 45 degrees (horizontal installation)

Exhaustion System

Intercooler with catalytic converter and silencer

Construction

Cast iron crankcase with aluminium alloy cylinder and cooling jacket

Intake System

High pressure water pump is supplied to cool the intake manifold & surrounding hot areas. Water pressure is maintained by a water pump. Water pressure is maintained by a water pump.

Cooling system

Water pump driven by engine. Water pump is driven by engine. Water pump is driven by engine.

Electrical equipment

1. 12 volt electrical system. 2. 12 volt electrical system. 3. 12 volt electrical system. 4. 12 volt electrical system.

For further details see Thornycroft Ltd.

**Power Ratings: 112kW (150bhp) High Output.
97kW (130bhp) Intermittent.**

Fast 7000 Engine with Twin Disc (6000) Down angle-Seebox: Weight 400 kg (870 lb)



Engine ratings

Continuous Rating: The power rating is continuous (constant) and it means that you can use the engine at this power level for an unlimited time. The power rating is based on the engine's maximum speed and torque and is a good reference to estimate the engine's fuel consumption.

Fast Power Rating: The power rating is the power output that the engine can produce for a limited period of time without an increase in temperature or pressure. Instead, you'll benefit from increased efficiency, lower fuel cost. The rating is a maximum and should not be used for a long duration that exceeds the fast power rating.

FAST APPROXIMATION ENGINE FUEL CONSUMPTION (based on 100% efficiency or actual engine speed)

International full power ratings and corresponding fuel consumption			
HP/kW	100	150	200
70/52	250	350	450
100/75	350	500	650
150/110	500	700	900

Drive gear

Complete drive systems supplied as standardised systems (gearbox, shafts, pulleys, belts) are available with standard fast connections to the machine's pulley and shaft. Other ratings, 1000mm and 1500mm, are available on request.

Other drive systems are available on request.

The engine and drive system are designed together to ensure that the engine runs at the maximum efficiency. The connections to the machine's pulley and shaft are standardised. For more, request performance and product details.

FAST APPROXIMATION WEIGHT OF ENGINE UNIT (based on 100% efficiency or actual engine speed)



Drive Ratio	Discrete Diameter (depending on application)	Subsidiary Diameter
100%	1000-1000mm	1000-1000
100%	1000-1000mm	1000-1000
80%	1000-1000mm	1000-1000
60%	1000-1000mm	1000-1000
40%	1000-1000mm	1000-1000

NOTE: For more information on features of the engine, contact us.

NOTE: For more information on features of the engine, contact us.

FAST APPROXIMATION WEIGHT OF ENGINE UNIT

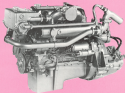


THORNYCROFT is a leading manufacturer of high quality industrial machinery and equipment. We have a wide range of products to suit your needs. Contact us for more information.

THORNYCROFT

MARINE ENGINES

TYPE
251



Specification

1200 cc Interim 1600 cc Interim 1600 cc Interim

Net kW (interim data)
1600 cc 100/120 (136/164) kW
1600 cc 100/120 (136/164) kW
1600 cc 100/120 (136/164) kW
1600 cc 100/120 (136/164) kW
1600 cc 100/120 (136/164) kW
1600 cc 100/120 (136/164) kW

Engine installation options

Maximum installation height (interim) 1.40 m (4'7")
Minimum installation height (interim) 0.80 m (2'6")

Electrical system

Maximum power (interim) 1000 W (1.36 kW)

Weight

Maximum weight (interim) 100 kg (220 lb)

Technical information

1600 cc Interim 1600 cc Interim 1600 cc Interim
1600 cc Interim 1600 cc Interim 1600 cc Interim
1600 cc Interim 1600 cc Interim 1600 cc Interim
1600 cc Interim 1600 cc Interim 1600 cc Interim

Accessories

1600 cc Interim 1600 cc Interim 1600 cc Interim
1600 cc Interim 1600 cc Interim 1600 cc Interim
1600 cc Interim 1600 cc Interim 1600 cc Interim
1600 cc Interim 1600 cc Interim 1600 cc Interim

Technical support

1600 cc Interim 1600 cc Interim 1600 cc Interim
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1600 cc Interim 1600 cc Interim 1600 cc Interim
1600 cc Interim 1600 cc Interim 1600 cc Interim

**Power Ratings: 63.4 kW (85 bhp) Interim/Interim
57.7 kW (77 bhp) Continuous**

Type 255 Engines with PMSB 100 Gasoline Engines (300 cc) (100 hp)



Engine engine

The Type 255 engine (gasoline engine) is a 100 cc (100 hp) engine with a maximum speed of 3000 rpm at 17.5 bar (2.5 MPa) according to ISO 1585.

The engine is designed for use in a wide range of applications. It is suitable for use in a wide range of applications, including:

- Power generation
- Industrial applications
- Marine applications
- Agricultural applications
- Power generation

The engine is designed for use in a wide range of applications. It is suitable for use in a wide range of applications, including:

- Power generation
- Industrial applications
- Marine applications
- Agricultural applications
- Power generation

Continuous full power ratings and corresponding fuel consumption

Model	255	255	255	255
Power (kW)	100	100	100	100
Power (hp)	135	135	135	135
rpm	3000	3000	3000	3000

Main gear

The main gear is designed for use in a wide range of applications. It is suitable for use in a wide range of applications, including:

- Power generation
- Industrial applications
- Marine applications
- Agricultural applications
- Power generation

The main gear is designed for use in a wide range of applications. It is suitable for use in a wide range of applications, including:

- Power generation
- Industrial applications
- Marine applications
- Agricultural applications
- Power generation

The following table gives the main gear and generator

specifications. The main gear and generator specifications are given in the table below. The main gear and generator specifications are given in the table below. The main gear and generator specifications are given in the table below.

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Model	Generator (kVA)	Generator (kW)	Generator (kVA)
255	100	100	100
255	100	100	100
255	100	100	100
255	100	100	100
255	100	100	100

The main gear and generator specifications are given in the table below. The main gear and generator specifications are given in the table below. The main gear and generator specifications are given in the table below.

More information, technical drawings, more details, contact details.



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