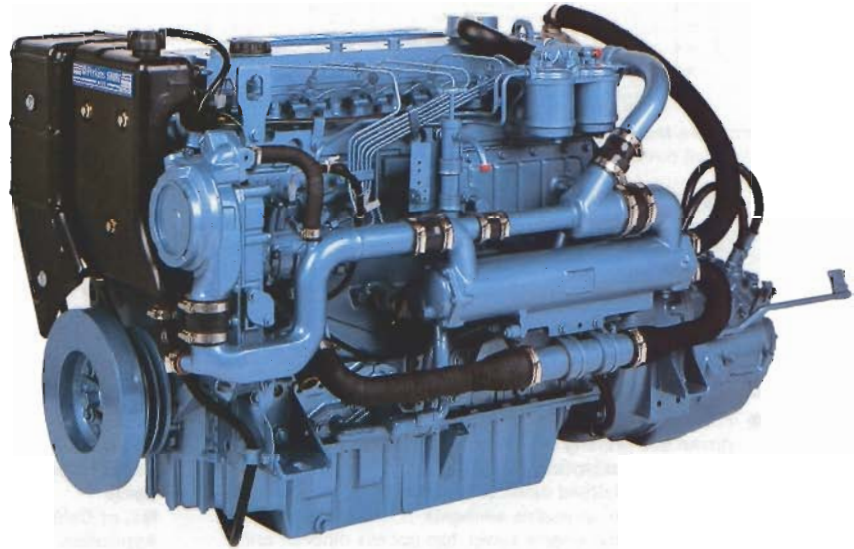




## Propulsion Unit – Pleasure Applications

- **Premium engine features for reliability** – minimises engine down time and service costs
- **Environmentally friendly** – developed with current and proposed emissions legislation in mind. Helping to keep the world environmentally safe
- **Unrivalled worldwide parts and service network** – available wherever you are
- **One of the most compact packages in its class** – offers boat design flexibility with easier new boat and repower installation



### Reliable Power

- High capacity heat exchange equipment with cupro-nickel tube stacks ensuring low component operating temperatures for exceptionally reliable and durable performance
- Leak free operation is ensured by an integral plate oil cooler and viton crankshaft seals giving protection in the toughest conditions
- Gear driven engine and raw water pumps with high quality silicone hoses for the ultimate in reliable cooling
- Developed to meet the arduous demands of the marine environment including worldwide cooling and starting requirements

### Quiet Clean Power

- Operator and environmentally friendly with low noise, rapid startability and low emissions. Achieved with the new 'QUADRAM' combustion system and fully closed breather system

### Cost of Ownership

- Competitive engine and parts pricing, extended service intervals and exceptionally low fuel consumption make the M135 a cost effective choice with significant owner savings over alternative engines

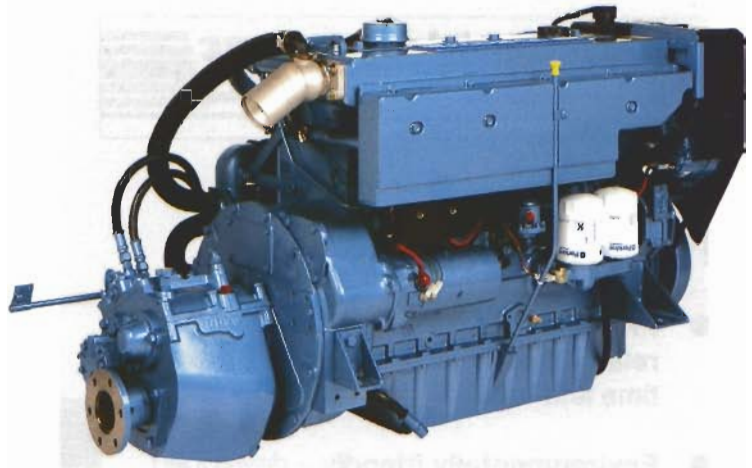
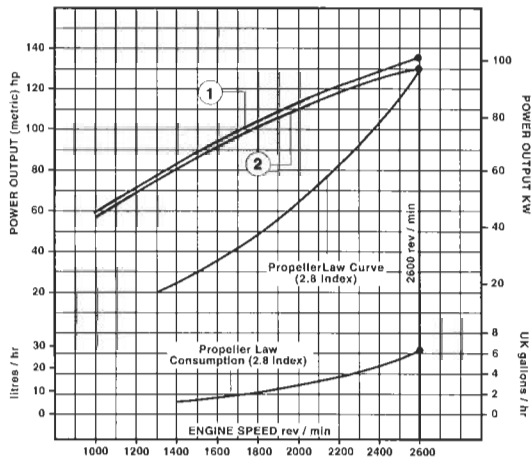
### Ease of Installation

- Easy access to all routine servicing points in either single or twin installations

- Engine developed to permit a wide range of operating angles in both conventional shaft or vee-drive installations
- Support and advice on all aspects of power, performance and installation available from Sabre Application Engineers and global distributor network

### Service

- Perkins unrivalled service network with over 4,000 distributors and dealers provides a fast and effective parts and after market support service
- A genuine top quality warranty package offering a full two year cover for engines operating less than 250 hours per year
- Extended service intervals including a 400 hour or once a season oil change period



Propellers should be matched to achieve rated engine speed under fully laden boat conditions. Engine as delivered from factory will be set to produce gross (flywheel) power output within manufacturing tolerance and run-in allowance

### General Pleasure Craft Rating (Gross output rating standards BA AU141a : 1974 conditions)

● Gross (flywheel) power output without gearbox – Curve 1	99 kW (135 hp)
● Nett shaft output with Hurth HSW 450A gearbox – Curve 2	96 kW (130 hp)
● Rated engine speed	2600 rev/min

### Standard Engine Specification

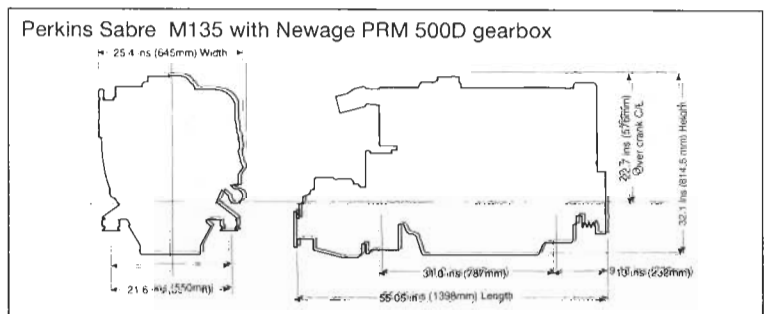
- Fresh water heat exchanger cooled engine with gear driven self priming raw water and fresh water pumps or keel cooling adaption
- Fresh water cooled exhaust manifold
- Air intake with re-usable elements
- High inclination engine sump, top access dipstick and engine mounted sump drain pump
- Integral plate type engine lubricating oil cooler
- Twin spin-on element lubricating oil filter
- Closed breather system
- High mounted twin element fuel filter
- Thermostart cold start aid
- Manual control adaption parts
- Electric stop solenoid
- Alarm switches and warning siren

### Optional Equipment

- **Backends** – suitable for a range of transmissions
- **Marine Transmissions (standard)**
  - Hurth HSW 450A
  - Newage PRM 500D
- **Electrical** – 12 and 24 volt insulated marine electrics
- **Exhaust Outlets**
  - Water injected outlet including high rise option
  - Dry outlets with flexible expansion bellows
- **Instrumentation** – single and dual station instrumentation including audible/visual alarms and gauges complete with senders, switches, loom and varying lengths of interconnecting cables
- **Power Take Off** – crankshaft PTO extension shaft with pulley drive option
- **Mountings**
  - Engine mounting brackets
  - Flexible engine mountings with alignment shims
- **Miscellaneous**
  - Solid and flexible output couplings
  - Tool kit
  - On board parts kit
  - Electro-magnetic bilge pumps (engine mounted)
  - Calorifier connections
  - Fuel pre-filter with water alarm
  - Flexible fuel feed and return pipes

### General Data

<b>Bore</b>	100mm (3.937 in)
<b>Stroke</b>	127mm (5.00 in)
<b>Cubic Capacity</b>	6.00 litres (365.0 in <sup>3</sup> )
<b>Cycle</b>	4 stroke
<b>No. of Cylinders</b>	6 in-line
<b>Aspiration</b>	Natural
<b>Combustion System</b>	Quadram direct injection
<b>Engine Rotation</b>	Anti-clockwise viewed from rear
<b>Fuel Pump</b>	Stanadyne rotary with electric stop solenoid
<b>Engine Operating Angles</b>	Maximum continuous operating angles: 20° engine front up, 8° engine front down (option kit) 30° sideways
<b>Power Take Off</b>	Available from front end drive (for drive limitations refer to Sabre Engines Ltd)
<b>Weight (Wet)</b>	595 kg (1312 lb) engine only 620 kg (1367 lb) with Hurth HSW 450A gearbox 672 kg (1481 lb) with Newage PRM 500D gearbox
<b>Application</b>	The Perkins Sabre M135 is approved for use in non-revenue earning pleasure craft applications



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