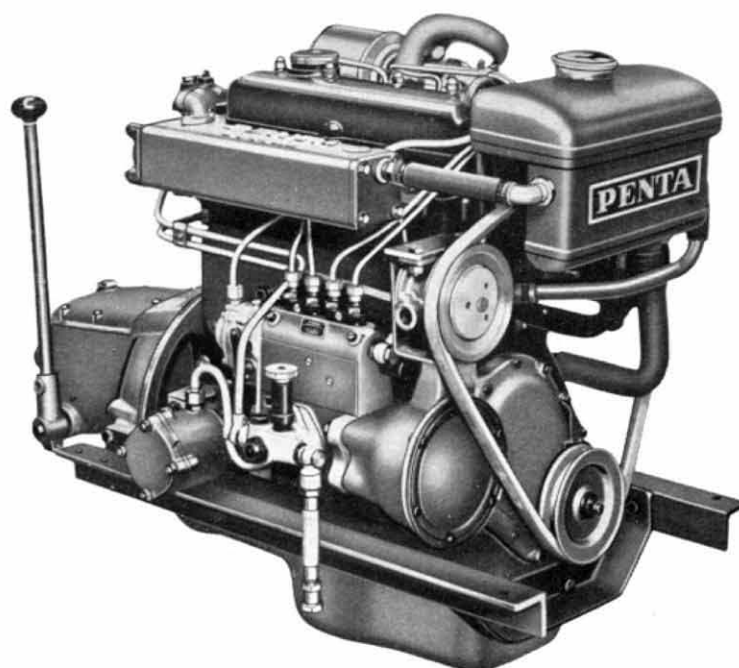


**MAIN DATA**

Continuous output	19 hp—1500 r/m 25 hp—2000 r/m 30 hp—2500 r/m
Cylinder Displacement	1,76 litres (108 cu.in.)
Number of cylinders	4
Bore	75 mm (2.9")
Stroke	100 mm (3.9")
Valves	Overhead
Compression ratio	19: 1
Net weight with reverse gear approx.	230 kgs (510 lbs)
Total length	1010 mm (39 <sup>3</sup> / <sub>4</sub> ")
height	762 mm (30")
width	527 mm (20 <sup>3</sup> / <sub>4</sub> ")



# MD 4 Penta Marine Diesel Engine

The engine is of the pre-combustion chamber type, 4-stroke and has replaceable cylinder lines.

Cooling of the engine by an internal fresh water system. The fresh water is cooled by sea water in a heat exchanger. The sea water pump is of bronze with impeller of neoprene, a material which is not susceptible to sand and slime.

Bosch fuel injection pump and 12 Volt electrical equipment with 1,8 hp starter and 130 watt generator.

Glow plugs make for easy starting even in cold weather.

Fuel consumption about 210 g per hp/hour.

Pressure lubrication. Screen-type oil filter. Oil capacity approx. 6 litres.

The engine is as standard equipped with instrument panel with tachometer, thermometer, oil pressure gauge, battery charging control lamp, panel lighting and switch box with key.

Reverse gear with totally enclosed, planetary type, multiple disc clutch, easily adjustable. A reduction gear ratio 2:1 of the angle-cut internal gear type is available. This gear is fitted directly to the reverse gear and can be arranged so that the propeller shaft is either 34 mm (1.35") above or below the reverse gear shaft which can be an advantage when fitting the engine into the boat.

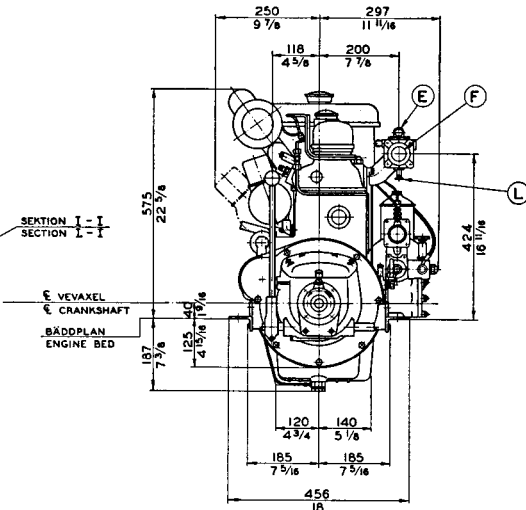
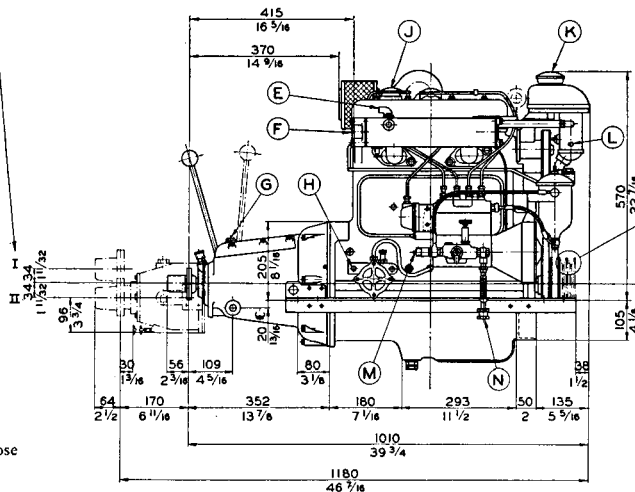
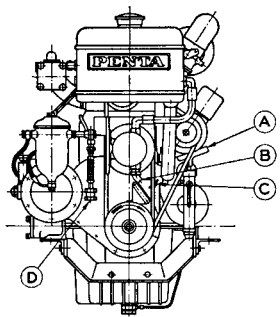
This marine Diesel unit, based on a Daimler-Benz engine, is a completion of our well-known line of Penta marine Diesel engines ranging from 5—205 hp.

Propeller equipment — see back page. Left hand thread propeller both with and without reduction gear.

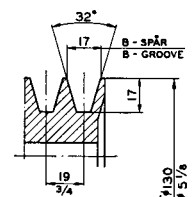
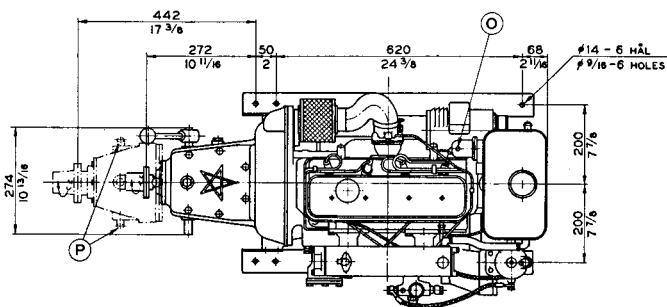


## Dimensions drawing

REDUKTIONSVÄKELN KAN ERHÅLLAS  
I TVÅ UTFÖRANDE ALT. I OCH II.  
REDUCTION GEAR UP OR DOWN OPTIONAL

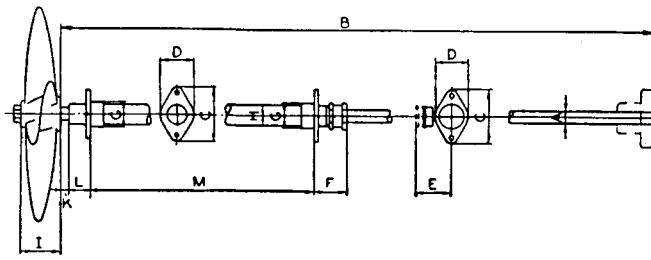


- A Oil scavenging pump
- B Sea water inlet. Nipple for 3/4" hose
- C Fresh water drain
- D Fuel return for 3/8" o. d. pipe
- E Sea water outlet, nipple for 3/4" hose
- F Exhaust outlet R 1 1/2"
- G Oil filler, reverse gear and reduction gear
- H Oil pressure gauge connection
- J Oil filler, engine
- K Fresh water filler
- L Sea water drain
- M Revolution counter connection
- N Fuel inlet for 3/8" o. d. pipe
- O Remote mounted cooling water connection
- P Cooling water connections, reduction gear. Nipples for 3/4" hose



EXTRA REMSKIVA SOM KAN LEVERERAS  
EXTRA PULLEY CAN BE DELIVERED

MÅTT I MILLIMETER OCH TUM.  
DIMENSIONS IN MILLIMETRES AND INCHES.



**Propeller equipment  
for lefthand thread propeller**

Reduction	A	B	C	D	E	F	G	H	I	K	L	M	
1:1	mm inch	25 63/61	2000 79	90 3 1/2	58 2 1/4	70 2 3/4	75 3	42 1 5/8	34 1 3/8	64 2 1/2	approx. 15 5/8	37 1 1/2	1000 39 1/2
2:1	mm inch	30 1 3/16	2000 79	120 4 3/4	62 2 1/2	76 3	80 3 1/8	50 2	40 1 5/8	78 3 1/8	approx. 15 5/8	50 2	1500 59 1/4

Without engagement



Box 392, Göteborg 1  
Sweden

Cables: Penta  
— a Volvo company