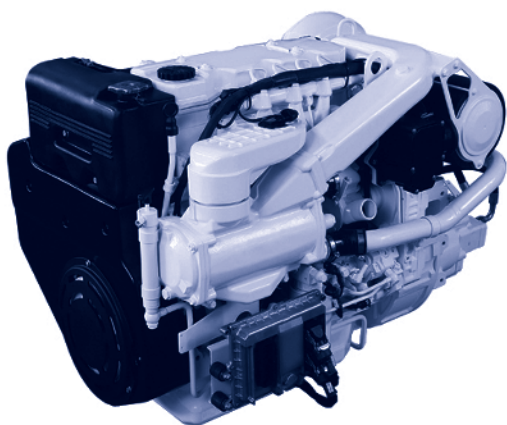


# N-Series Diesels



**N67-220 - 220 HP at 2800 RPM**  
**N67-280 - 280 HP at 2800 RPM**  
**N60-400E - 370 HP at 3000 RPM**  
**N67-450E - 420 HP at 3000 RPM**  
**'FPT by Lancing Marine', based upon a proven base engine by one of the World's leading engine manufacturers.**

Engine specifications may vary as improvements are introduced  
 Specifications are subject to change without notice and are not for engineering purposes  
 See the Lancing Marine Price Book for Complete Installation Kit  
 Lancing Marine reserve the right to alter specifications without notice

## Design Features

### Engine

Low noise, high strength, rugged bottom end with 7 main bearings, piston cooling, thick wall parent bore. Large diameter valves to improve volumetric efficiency. High compression ratio for faster starts and warm ups with reduced white smoke.

### Fuel system

High nozzle opening pressures for high fuel efficiency and low smoke. Self air purge fuel pump, automatic excess fuel and timing retard for excellent cold starting. Full electronic control on 400E and 450E.

### Reliability

The 'FPT by Lancing Marine' range is derived from a partner collaboration of major manufacturers. Inspired from a raceboat pedigree, they are worldwide proven.

### Serviceability

Piston jet oil cooling for extended life. Long filter and oil change intervals (600 hours pleasure). Self adjusting poly vee drive belt for alternator and fresh water pump for low slippage with minimal power loss and longer bearing life.

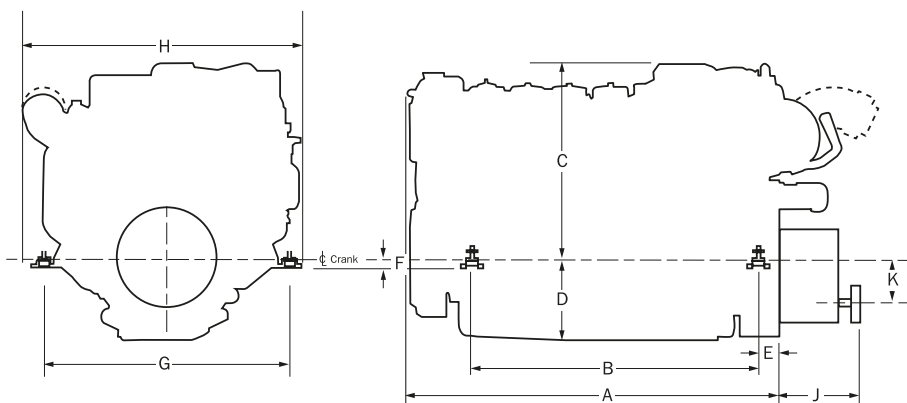
## Variation to standard specification (see inside front cover) and extra optional items for this engine type

### Additional standard items

Electric run/stop control  
 Full power dynamometer test  
 Electronic fuel injection on 'E' models  
 Oil sump drain pump

### Optional items

Drive belt guard  
 Power take-off pulley or shaft  
 Keel cooling and dry exhaust in lieu of heat exchanger system



Dimensions J & K can be found in the gearbox specification pages 9 - 13

### Dimensions in mm

	N67-220	N67-280	N60-400E	N67-450E
A	1071	1071	1071	1089
B	888	888	889	895
C	585	585	542	552
D	236	236	236	236
E	60	60	49	55
F	115	115	115	115
G	610/710	610/710	610/710	610/710
H	710	710	739	724

## Detailed specification

Engine model	N67-220	N67-280	N60-400E	N67-450E
Power Maximum H.P.	220	280	370	420
RPM Maximum	2800	2800	3000	3000
Torque Maximum Nm	700	920	1030	1270
Cubic capacity, litres	6.7	6.7	6.0	6.7
Bore, mm	104	104	102	104
Stroke, mm	132	132	120	132
Aspiration	Turbocharged		Turbocharged/Intercooled	
Engine rotation	Anti-clockwise viewed from rear			
Compression ratio	17.5:1			
Electrics 12v earth return Alt,	Amps 90			
Minimum battery size	1X180 AH 12 volt			
Minimum starter cable, length=size 0.6M = 70mm <sup>2</sup> /1.2M = 95mm <sup>2</sup>				
Engine operating angles				
Engine front down (degrees)	0	0	0	0
Sideways (degrees)	23	23	22	22
Engine front up (degrees)	18	18	18	18

Engine model	N67-220	N67-280	N60-400E	N67-450E
Max Fuel Flow required, lit/hour (includes return)	140	140	250	250
Fuel feed diameter, mm	9			
Fuel return diameter, mm	9			
Exhaust diameter, ins (mm)	5 (127)			
Water intake diameter, mm	45			
Coolant capacity, lit	24.5			
Oil capacity, lit	16.5			
Weight, Engine, Kg	585	605	595	600
Guide to sterngear				
Max Prop dia for gear ratio 1.5:1	22"	23"	24"	24"
Min. Shaft dia. St. St. mm	45	45	50	50
Speed range for this ratio (knots)	24+	24+	30+	30+
Max. Prop. dia. for gear ratio 2:1	28"	28"	28"	28"
Min. Shaft dia. St. St. mm	50	50	55	55
Speed range for this ratio (knots)	17-30	17-30	24-33	25-35