

## MARINE Application

## NEF series

## N67 220

PLEASURE - Diesel  
162 kW(220 HP) @ 2800 rpm (A1)

147 kW(200 HP) @ 2800 rpm (B)  
132 kW(180 HP) @ 2800 rpm (C)

### SPECIFICATIONS

Thermodynamic Cycle	Diesel 4 stroke
Air Handling	TC
Arrangement	6L
Bore x Stroke (mm)	104 X 132
Total Displacement (L)	6.7
Valves per cylinder (n°)	2
Cooling System	liquid
Direction of Rotation (viewed facing flywheel)	CCW
Engine management	mechanical
InjectionSystem	MPI

### STANDARD CONFIGURATION

Flywheel housing (type)	SAE 3
Flywheel size (inch)	11.5
Air Filter	-
Turbocharger	Fixed Geometry (water cooled) Turbo (TC)
Heat Exchanger	tube type
Exhaust gas water mixer - Exhaust cooled elbow	-
Water charge tank	included
Fuel filter (n°)	1 - left side
Fuel prefilter	included (supplier loose)
Fuel Pump	included
Lift pump	-
Oil filter (n°)	1 - left side
Oil sump	aluminium
Oil vapours blow-by circuit	rear
Oil heat exchanger	built in the crankcase
Oil filler	by cylinder head cover
Starter	12V - 3kW
Alternator	12V - 90A
Engine stop device	electrical excitation
Wiring harness	with negative to ground connection
Painting color	white "ICE"



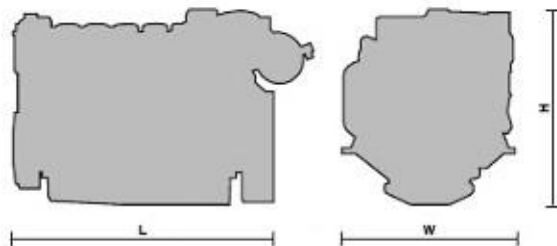
### ELECTRICAL SYSTEM

Voltage	12
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### NOT INCLUDED IN STANDARD CONFIGURATION

Battery - minimum capacity recommended [*] (Ah)	120
Battery - minimum cold cranking capacity recommended [*] (A)	900

### WEIGHT AND DIMENSIONS



L = 1072  
W = 749  
H = 800  
Dry Weight (without marine gear) = Kg 605

### Legend

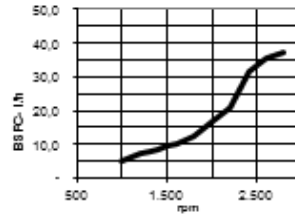
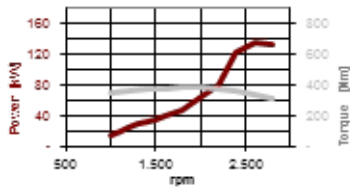
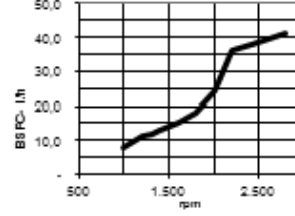
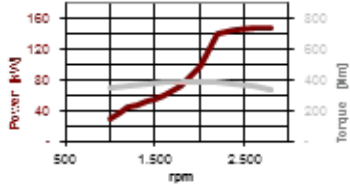
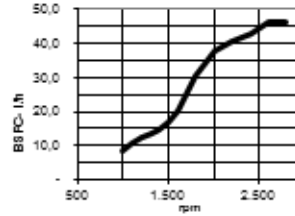
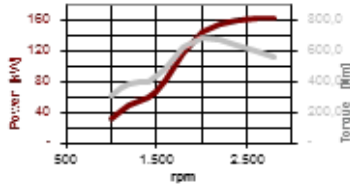
Arrangement	Air Handling	Turbocharger	InjectionSystem
L (in line)	TAA (Turbocharged with aftercooler) TC (Turbocharged) NA (Naturally Aspirated)	WG (Wastegate) VGT (Variable Geometry Turbocharger)	M (Mechanical) ECR (Electronic Common Rail) EUI (Electronic Unit Injector)
			SD: Stern Drive version PD (POD Drive version)

FOR INFORMATION ON THE AVAILABLE RATINGS NOT LISTED IN THIS DOCUMENT PLEASE CONTACT THE FPT INDUSTRIAL SALES NETWORK OR VISIT OUR SITE [WWW.FPTINDUSTRIAL.COM](http://WWW.FPTINDUSTRIAL.COM)



RATING TYPE	A1	A2	B	C
Maximum power (kW(HP)@rpm)	162 (220) @ 2800	-	147 (200) @ 2800	132 (180) @ 2800
High idle speed (rpm)	-	-	-	-
Low idle speed (rpm)	-	-	-	-
Mean piston speed at rated speed (m/s)	-	-	-	-
BMEP at max power (kg/cm)	-	-	-	-
Specific fuel consumption at full load (best value) (g/kWh @ rpm)	213 @ 1500	-	213.8 @ 1800	218.7 @ 2400
Oil consumption at max rating (% of fuel cons.)	-	-	-	-
Minimum starting temperature without auxiliaries (°C)	-	-	-15 °	-
Oil and oil filter maintenance interval for replacement [**] (hours)	-	-	600	-

\* Net Power at flywheel according to ISO 3046/1, after 50 hours running, Fuel Diesel EN 590. Power tolerance 5%.



- A1 High Performance Crafts. Full throttle operation restricted within 10% of total use period. Cruising speed at engine rpm <90% of rated speed setting - Maximum usage 300 hours per year.
- A2 Pleasure Commercial Vessels. Full throttle operation restricted within 10% of total use period. Cruising speed at engine rpm <90% of rated speed setting - Maximum usage 1000 hours per year.
- B Light Duty: Full throttle operation restricted within 10% of use period. Cruising speed at engine rpm <90% of rated speed setting - Maximum usage 1500 hours per year.
- C Medium Duty: Full throttle operation < 25% of use period. Cruising speed at engine rpm <90% of rated speed setting - Maximum usage 3000 hours per year.
- D Heavy Duty

## FEATURES

### INJECTION SYSTEM

The NEF Series mechanical fuel injection system is characterized by advanced components ensuring high/continuous power and torque performance also at lower rpm, reliability, low fuel consumption and exhaust gas emissions, low servicing costs.

### TECHNOLOGICAL INNOVATION

Features achieved using innovative technologies and production processes such as: advanced injection system, ladder frame cylinder block, fracture split connecting rods, rear gear-train timing system.

### TECHNOLOGICAL SOLUTIONS FOR SERVICING

To reduce maintenance operations and improve engine life and reliability, the Electronic Common Rail NEF Series adopts plateaux machined cylinder walls and oil cooled pistons by J-jets.

### SOLUTIONS FOR LOW OPERATING COSTS

High functional engine design and solutions for long intervals in oil and filters replacement (up to 600 h).

### MARINIZATION

Functional engine lay-out, design and specific settings focused on marine duties. Optimized engine and turbo-charging cooling systems.

### COMPONENT INTEGRATION

Improved technical solutions such as: integrated oil cooler, integrated oil pump and water pump, blow-by system.

### OPTION LIST

Wide range of accessories including keel cooling version availability, monitoring systems, international emission certifications as IMO MARPOL, 2004/26/EC, CCNR, EPA Recreational & Commercial and propulsion homologation as RINA.

### SERVICEABILITY & MAINTENABILITY

Widespread worldwide service network.

## BENEFITS

HIGH TORQUE AND POWER PERFORMANCE  
MINIMUM FUEL CONSUMPTION AND EXHAUST GAS EMISSION

ENGINE EFFICIENCY AND STIFFNESS  
VIBRATION & NOISE REDUCTION

REDUCED MAINTENANCE, LONGER ENGINE LIFE AND RELIABILITY

REDUCED MAINTENANCE NEEDS AND OPERATING COST

MARINE LAY-OUT AND SETTINGS  
SAFETY AND PROTECTION ON BOARD

LEAKAGE PREVENTION

CUSTOMER ORIENTATION

QUICK AND ACCURATE SERVICE SUPPORT

## Lees Group

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FPT INDUSTRIAL OFFERS THE WIDEST AVAILABILITY OF ENGINE BUILD OPTIONS TO CUSTOMER SPECIFIC REQUIREMENTS WITHIN THE ENGINE SUPPLY. TO FIND OUT MORE ABOUT THE CONFIGURATIONS AND ACCESSORIES WHICH ARE AVAILABLE

