MARINE Application

NEF series

N45 100

PLEASURE - Diesel

70 kW(100 HP) @ 2800 rpm (A1)

66,5 kW(90 HP) @ 2800 rpm (B)
63 kW(85 HP) @ 2800 rpm (C)

SPECIFICATIONS

Thermodynamic Cycle	Diesel 4 stroke
Air Handling	NA
Arrangement	4L
Bore x Stroke (mm)	104 X 132
Total Displacement (l)	4,5
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)	10
Air Filter	left side
Turbocharger	Naturally Aspirated (NA)
Heat Excharger	tube type
Exhaust gas water mixer - Exhaust cooled elbow	-
Water charge tank	included
Fuel filter (n°)	1
Fuel prefilter	included (loose)
Fuel Pump	included
Lift pump	-
Oil filter (n°)	1
Oil sump	cast iron
Oil vapours blow-by circuit	on valve cover
Oil heat exchanger	built in the crankcase
Oil filler	by cylinder head cover
Starter	12V - 3kW
Alternator	12V - 90A with W contact
Engine stop device	electrical excitation
Wiring harness	with negative to ground connection
Painting color	white “ICE”

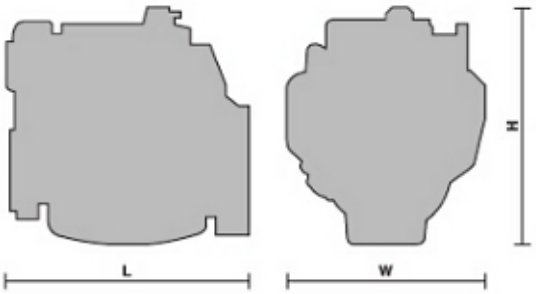
ELECTRICAL SYSTEM

Voltage	12

NOT INCLUDED IN STANDARD CONFIGURATION

Battery - minimum capacity recommended [*] (Ah)	180
Battery - minimum cold cranking capacity recommended [*] (A)	800

WEIGHT AND DIMENSIONS



L = 811
W = 700
H = 836
Dry Weight (without marine gear)= Kg 450

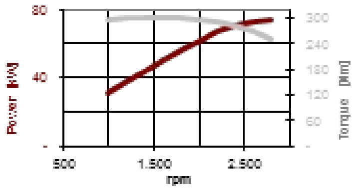
Legend

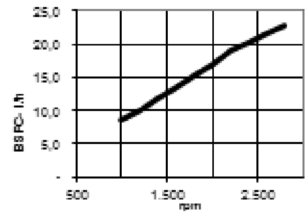
Arrangement	Air Handling	Turbocharger	InjectionSystem	
L (in line)	TAA (Turbocharged with aftercooler) TC (Turbocharged) NA (Naturally Aspirated)	WG (Wastegate) VGT (Variable Geometry Turbocharger)	M (Mechanical) ECR (Electronic Common Rail) EUI (Electronic Unit Injector)	SD: Stern Drive version PD (POD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

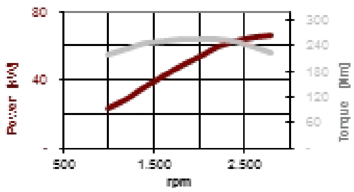
FOR INFORMATION ON THE AVAILABLE RATINGS NOT LISTED IN THIS DOCUMENT PLEASE CONTACT THE FPT INDUSTRIAL SALES NETWORK OR VISIT OUR SITE WWW.FPTINDUSTRIAL.COM

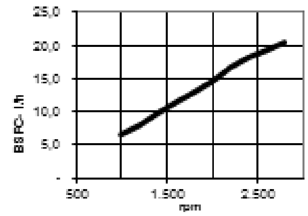
RATING TYPE	A1	A2	B	C
Maximum power (kW(HP)@rpm)	70 (100) @ 2800	-	66,5 (90) @ 2800	63 (85) @ 2800
High idle speed (rpm)	3100	-	3100	3100
Low idle speed (rpm)	± 650	- -	± 650	± 650
Mean piston speed at rated speed (m/s)	12,3	-	12,3	12,3
BMEP at max power (kg/cm)	8,6	-	7,2	7,2
Specific fuel consumption at full load (best value) (g/kWh @ rpm)	230 @ 1800	-	230 @ 1800	230 @ 1800
Oil consumption at max rating (% of fuel cons.)	≤ 0.1			
Minimum starting temperature without auxiliaries (°C)	-10 °			
Oil and oil filter maintenance interval for replacement [***] (hours)	600			

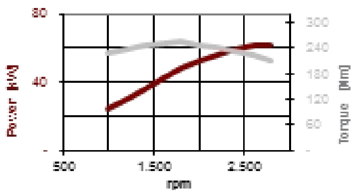
* Net Power at flywheel according to ISO 3046/1, after 50 hours running, Fuel Diesel EN 590. Power tolerance 5%.

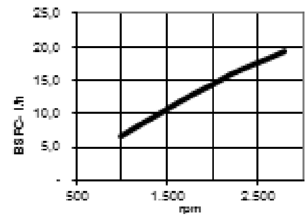












A1	High Performance Crafts. Full throttle operation restricted within 10% of total use period. Cruising speed at engine rpm <90% of rated speed setting - Maximum usage 300 hours per year.
A2	Pleasure Commercial Vessels. Full throttle operation restricted within 10% of total use period. Cruising speed 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	BENEFITS
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.	HIGH TORQUE AND POWER PERFORMANCEMINIMUM FUEL CONSUMPTION AND EXHAUST GAS EMISSION
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.	ENGINE EFFICIENCY AND STIFFNESSVIBRATION & NOISE REDUCTION
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.	REDUCED MAINTENANCE, LONGER ENGINE LIFE AND RELIABILITY
SOLUTIONS FOR LOW OPERATING COSTS High functional engine design and solutions for long intervals in oil and filters replacement (up to 600 h).	REDUCED MAINTENANCE NEEDS AND OPERATING COST
MARINIZATION Functional engine lay-out, design and specific settings focused on marine duties. Optimized engine and turbo-charging cooling systems.	MARINE LAY-OUT AND SETTINGSSAFETY AND PROTECTION ON BOARD
COMPONENT INTEGRATION Improved technical solutions such as: integrated oil cooler, integrated oil pump and water pump, blow-by system.	LEAKAGE PREVENTION
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.	CUSTOMER ORIENTATION
SERVICEABILITY & MAINTENABILITY Widespread worldwide service network.	QUICK AND ACCURATE SERVICE SUPPORT

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