NEF 150

N67 MNA M15

FOR MARINE APPLICATIONS
6 CYLINDER IN-LINE - DIESEL CYCLE
110 kW (148 hp) @ 2800 rpm (A1)
99.5 kW (133 hp) @ 2800 rpm (B)
92 kW (123 hp) @ 2800 rpm (C)
92 kW (123 hp) @ 2800 rpm (D)

TECHNOLOGICAL EXCELLENCE

IVECO MOTORS

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Thermodynamic cycle		Diesel 4 stroke - D.I.
Aspiration		NA
Configuration		6L
Bore x Stroke	mm (in.)	104 X 132 (4.10 X 5.20)
Total displacement	liters (cu. in.)	6.7 (409)
Valves per cylinder		2
Cooling		liquid
Direction of rotation (viewed facing flywheel)		CCW
Compression ratio		17.5 : 1
Rotation mass moment of inertia (without flywheel)	kgm^2 ($lbft^2$)	0.30 (7.12)
Standard flywheel inertia	kgm^2 ($lbft^2$)	0.71 (16.85)

Air induction

Max suggested intake restriction with clean air filter	kPa (in. H_2O)	3.5 (14)
Max allowable restriction with dirty air filter	kPa (in. H_2O)	6.5 (26)
Air requirement for combustion at 100% load/rated speed (comb. + ventilation)	kg/h (lb/h)	4000 (8818.4)
Turbocharging pressure at full load/rated speed	kPa (psi)	-
Turbocharging air max temperature (engine inlet)	°C (°F)	-

Exhaust system

Max allowable backpressure	kPa (in. Hg)	7 (2.06)
Max exhaust temperature at full load/rated speed	°C (°F)	720 (1328)
Exhaust flow at max output	kg/h (lb/h)	590 (1300.7)

Lubrication system

Minimum oil pressure at idle at 100°C (212°F)	kPa (psi)	70 (10.15)
Max oil temperature at full load/rated speed	°C (°F)	120 (248)
Engine angularity limits continuous operation: max front up and front down	degrees	20°
max left hand and right hand	degrees	22° 30'
Total system capacity including pipes, filters etc.	liters (quarts)	16.5 (17.4)

Sea water cooling system (open circuit)

Max intake restriction	kPa (in. Hg)	20 (5.9)
Sea water pump flow	m^3/h (gal/min)	8.6 (37.8)
Heat rejected (total) at max power	kW (BTU/min)	85 (4838.2)
Sacrificial zinc anodes	n°	1

Cooling system(closed circuit)

Coolant capacity (engine only)	liters (quarts)	22.5 (23.8)
Water pump flow at rated speed	m^3/h (gal/min)	12 (52.8)
Thermostat (operating range)	°C (°F)	78 to 87 (172.4 to 188.6)
Cooling liquid max temperature	°C (°F)	106 (222.8)
Min/Max pressure in the cooling circuit (for keel cooling)	kPa (psi)	30/100 (4.35/14.5)
External cooling system max pressure drop (for keel cooling)	kPa (psi)	35 (5.0)

Fuel system

Injection system		mechanical pump
Fuel inlet max restriction	kPa (in. H_2O)	10 (40.1)
Fuel inlet max temperature	°C (°F)	60 (140) @ 77°F amb.
Max fuel backpressure to tank	kPa (in. H_2O)	10 (40.1)

Electrical system

Voltage	V	12

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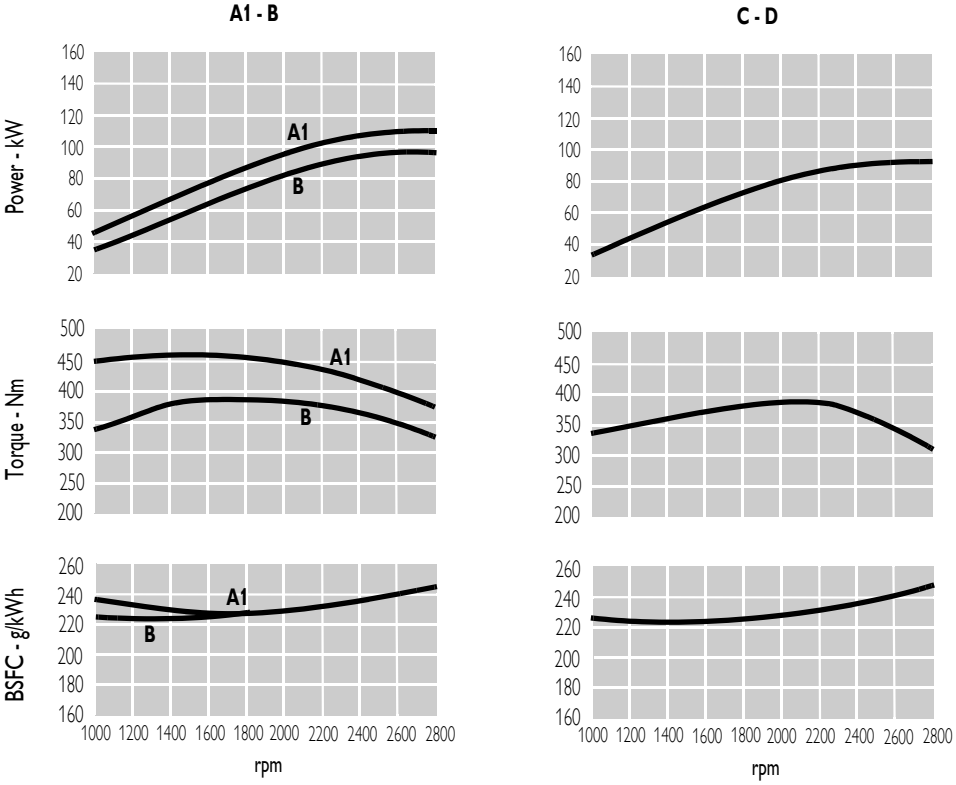
Rating type		A1	B	C	D
Maximum power *	kW(hp)	110 (148)	99.5 (133)	92 (123)	92 (123)
At speed	rpm	2800	2800	2800	2800
Maximum no load governed speed	rpm	3100	3100	3100	3100
Minimum idle speed	rpm	650	650	650	650
Mean piston speed at rated rpm	m/s (ft./s)	12.3 (40.3)	12.3 (40.3)	12.3 (40.3)	12.3 (40.3)
BMEP at max torque	kg/cm^2 (psi)	8.6 (122.3)	7.3 (103.8)	7.3 (103.8)	7.3 (103.8)
BSFC	g/kWh (lb/hp h) @ rpm	230 (0.378) @ 1800			
Oil consumption at max rating	(% of fuel consumption)	0.1			
Minimum starting temperature without aids	°C (°F)	-10 (+14)			
Oil and oil filter maintenance interval for replacement	hours	600			
Dry weight (without marine gear)	kg (lb)	530 (1168)			

*** Net Power** *at flywheel according to ISO 3046/1, after 50 hours running, fuel Diesel EN 590. Power tolerance 5%.*
Test conditions : *ISO 3046/1, 25 °C air temperature, 100 kPa atmospheric pressure, 30 % relative humidity.*



A1= High performance crafts.
B = Light duty.
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 (A1 service)
- 1500 hours per year (B service).

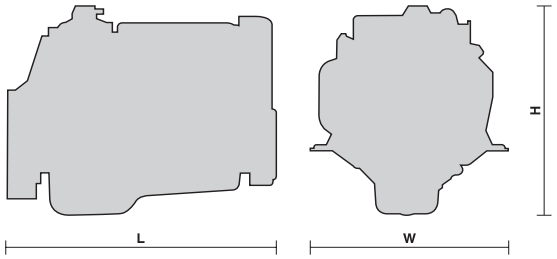
C = Medium duty.
Full throttle operation < 25% of use period.
Cruising speed at engine rpm < 90% of rated speed setting - Maximum usage 3000 hours per year.

D = Heavy duty.
Maximum rating utilisation up to 100% of use period,for unlimited hours per year.

L = 1071 mm (42.2 in.)

W = 780 mm (30.7 in.)

H = 869 mm (34.2 in.)



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Standard configuration

Flywheel housing	SAE	3
Flywheel diameter	in.	11 ½
Air filter		left side
Turbocharger		-
Heat exchanger		tube type
Exhaust cooled elbow		-
Water charge tank		included
Fuel filter		1
Fuel prefilter		included (loose)
Fuel pump		included
Oil filter		1
Oil sump		sheet steel
Oil vapors blow-by circuit		on valve cover
Oil heat exchanger		built in the crankcase
Oil filler		on valve cover
Starter motor		12 V - 3 kW
Alternator		12 V - 90 A with W contact
Engine shut-off		electrical excitation
Wiring harness		engine wiring
Painting	color	white " ICE "

Not included in the standard configuration

Battery - minimum capacity recommended	180 Ah
Battery - minimum cold cranking capacity recommended	800 CCA

IVECO MOTORS 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, CONTACT THE IVECO MOTORS SALES NETWORK.

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