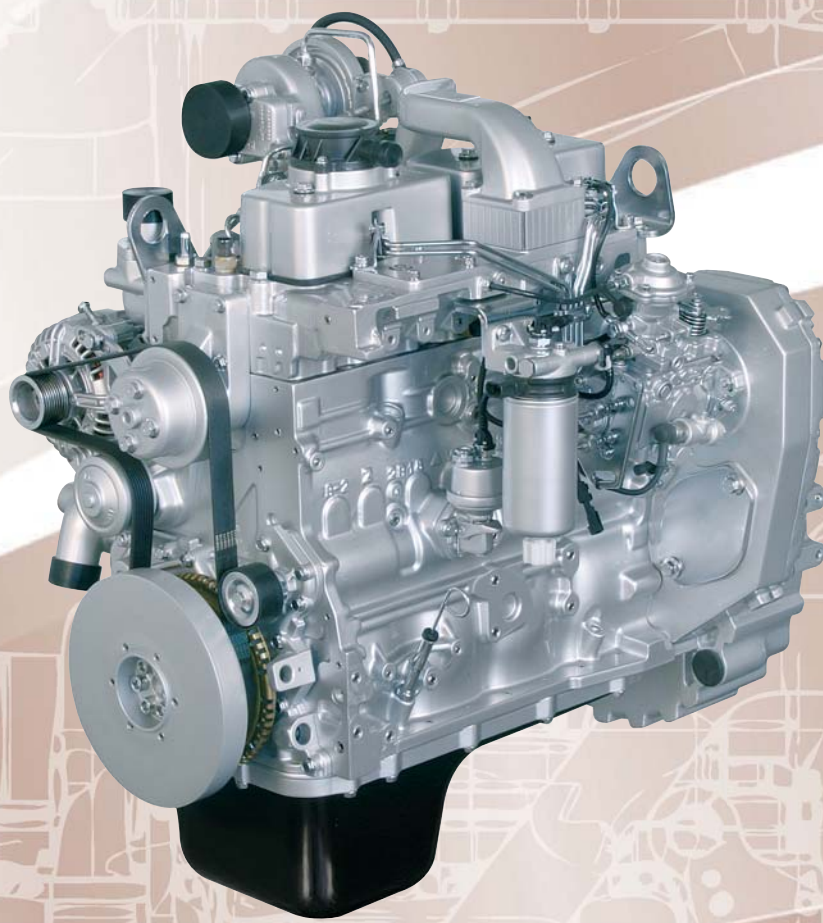


# N45 MNS N45 MSS

4 CYLINDERS IN LINE - DIESEL CYCLE

66.6 kW (90 Hp) @ 2200 rpm - 375 Nm @ 1250 rpm

TIER 3 / STAGE III A



## INDUSTRIAL APPLICATIONS

## N45 MNS - N45 MSS FOR INDUSTRIAL APPLICATIONS

### Specifications

Thermodynamic cycle		Diesel 4 stroke - D.I.
Air intake		TC
Arrangement		4, in line
Bore x Stroke	mm	104 X 132
Total displacement	l	4.5
Valves per cylinder		2
Cooling		liquid
Direction of rotation (viewed facing flywheel)		CCW
Compression ratio		17.5 : 1
Injection system		mechanical

### Performances

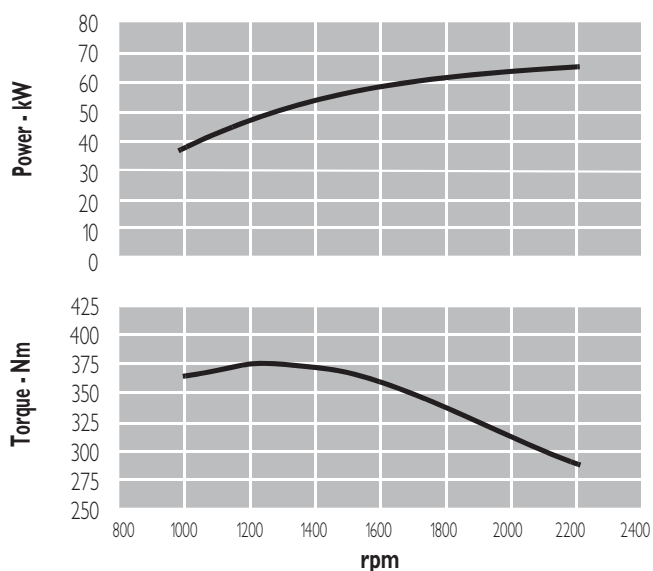
Maximum rating *	kW (Hp)	66 (90)
At speed	rpm	2200
Maximum torque	Nm (kgm)	375 (38)
At speed	rpm	1250
Maximum no load governed speed at max rating	rpm	2430
Minimum idling speed	rpm	800
Minimum starting temperature without auxiliaries	°C	-15
Oil and oil filter maintenance interval for replacement **	hours	600
Dry weight (standard configuration)	kg	390

**FOR INFORMATION ON THE AVAILABLE RATINGS NOT LISTED IN THIS DOCUMENT PLEASE CONTACT THE FPT SALES NETWORK.**

\* **Power** at flywheel according to 2004/26 EC (without fan), after 50 hours running, 3% tolerance, fuel Diesel EN 590.

**Test conditions:** ISO 3046/1, 25 °C air temperature, 100 kPa atmospheric pressure, 30% relative humidity - Applicable also to DIN 6271, BS 5514, SAE J1349 Standards.

\*\* Oil type: ACEA E3 - E5.



## N45 MNS - N45 MSS FOR INDUSTRIAL APPLICATIONS

### Standard configuration

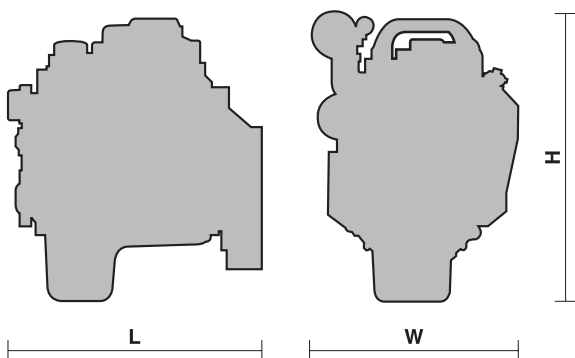
Flywheel housing	type	SAE 3 - (wide / narrow) - cast iron
Flywheel size	inch	11" 1/2
Intake manifold location		rearwards
Turbo exhaust location		middle high / right side / frontwards
Turbocharger		fix geometry, waste gate valve
Turbocharger location		middle / right side
Fan transmission ratio		14 : 1
Distance between fan - crankshaft centers	mm	x = 0 , y = 296
Fuel filter	n°	single cartridge - left side
Fuel prefilter		optional
Fuel pump		mechanical rotary pump
Oil filter	n°	single cartridge - right side
Oil sump		suspended sheet steel / front sump, 35° angularity limits continuous in all directions
Oil vapours blow-by circuit		on valve cover
Oil heat exchanger		incorporated into the block
Oil fill		on valve cover
Lift pump		mechanical - left side
Starting motor		12 V - 3 kW
Alternator		12 V - 90 A with W contact
Electrostop		incorporated in the pump
Wiring harness		-
Power take off (optional) - transmission ratio		1.03 : 1
PTO arrangement		cover plate only
Painting	colour	grey

### Not included in the standard configuration

Battery - minimum capacity recommended	180 Ah (12 V)
Battery - minimum cold cranking capacity recommended	950 A (12 V)

**FPT 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 FPT SALES NETWORK.**

### Dimensions



**N45 MNS**  
wide gear train

L = 807 mm  
W = 643 mm  
H = 983 mm

**N45 MSS**  
narrow gear train

L = 807 mm  
W = 587 mm  
H = 983 mm

## ENGINE BENEFITS

- **PERFORMANCE:** New engines, but run in; lean lay-out; starting temperature without auxiliaries down to  $-15^{\circ}\text{C}$  (with grid heater down to  $-25^{\circ}$ , with water and oil heater down to  $-30^{\circ}\text{C}$ ); high engine inclination:  $35^{\circ}$  continuous in all directions; performance achieved without external EGR, VGT or electronics.
- **SERVICEABILITY:** Worldwide service network.
- **RELIABILITY:** By-pass valve on oil/fuel filters.
- **COST EFFECTIVENESS:** New extended 600h maintenance intervals (oil and filters change); reduced oil consumption; new blow-by recirculation system.
- **ENVIRONMENTALLY FRIENDLY:** Reduced noise; rear geartrain layout; suspended oil pan; engine balancer arrangement.
- **CUSTOMER ORIENTATION:** Options for transmissions, radiators, air filters, mufflers; on demand production; standard transmission interface SAE; PTO arrangement SAE A-B; air conditioning compressor arrangement; two possible oil pan bidirectional orientations; consistency with standard and alternative fuels in compliance with regulator requirements.

### FIAT POWERTRAIN TECHNOLOGIES

Via Puglia, 15 - 10156 Torino

### FIAT POWERTRAIN TECHNOLOGIES

Viale dell'Industria, 15/17 - 20010 Pregnana Milanese (MI)

[www.fptpowertrain.com](http://www.fptpowertrain.com)

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