

# F32 MNS

55 kW (2500 rpm) - 275 Nm (1400 rpm)

61 kW (2500 rpm) - 310 Nm (1400 rpm)

Technical code	F5C E9454 E*A 005	F5C E5454B*A 001
Thermodynamic cycle	Diesel 4 stroke-D.I.	
Air intake	TC	
Arrangement	4L	
Bore x Stroke	mm	99x104
Total displacement	L	3,2
Valves per cylinder	2	
Cooling	Liquid	
Direction of rotation (viewed facing flywheel)	CCW	
Compression ratio	17:1	
Rotation mass moment of inertia (without flywheel)	kgm <sup>2</sup>	0,28
Standard flywheel inertia	kgm <sup>2</sup>	0,776

Engine F32 MNS

## AIR INDUCTION

Max suggested intake restriction with clean air filter	kPa(bar)	4,5(0,045)	
Max allowable restriction with dirty air filter	kPa(bar)	6,5(0,065)	
Air requirement for combustion at 100% load/rated speed	kg/h(m <sup>3</sup> /h)	350 (290)	330(273)
Turbocharging pressure at full load/rated speed	kPa(bar)	119(1.19)	103(1.030)
Turbocharging air max temperature (engine inlet)	°C	135	155
Heat rejected to intercooler at maximum power	kW/h	n.a.	
Intercooler system max pressure drop	kPa(bar)	n.a.	

## EXHAUST SYSTEM

Max allowable backpressure	kPa(bar)	10(0,1)	
Max exhaust temperature at full load/rated speed	°C	490	480
Exhaust flow at max output	kg/h	364	345

## LUBRICATION SYSTEM

Minimum oil pressure at idle	kPa(bar)	200(2.0)
Max oil temperature at full load/rated speed	°C	115
Engine angularity limits continuous operation:		
max front up and front down	0/360	35°
max left hand and right hand	0/360	35°
Total system capacity including pipes, filters etc.	liters	n.a.

## COOLING SYSTEM

Coolant capacity (engine only)	liters	4.27(no egr ext)	4,72(egr ext)
Water pump flow at rated speed	m <sup>3</sup> /h	6.06	
Heat to reject by heat exchanger at max power	kJ/s(kcal/h)	51.1(43800)	53,3(43800)
Thermostat (modulating range)	°C	78÷94	
Cooling liquid max temperature	°C	110	
Min/max inner pressure in the cooling circuit	kPa(bar)	n.a.	
External cooling system max pressure drop	kPa(bar)	35(0,35)	

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## FUEL SYSTEM

Injection system		Mechanical rotary pump
Gasoil max intake restriction	kPa(bar)	15(0,15)
Gasoil max intake temperature	°C	43(@25°C amb)

## ELECTRICAL SYSTEM

Voltage	V	12
Maximum rating	kW(CV)	55(75) 61(83)
At speed	rpm	2500
Maximum torque	Nm(kgm)	275(28) 310(31.6)
At speed	rpm	1400
Maximum no load governed speed at max rating	rpm	2750
Minimum idling speed	rpm	1150
Mean piston speed at rated speed	m/s	n.a.
BMEP at max torque	kg/cm <sup>2</sup>	n.a.
Available certifications		CE97/68 PhasellIA-EPA Tier3
Specific fuel consumption at full load (best value)	g/kWh @ rpm	255@2500 231@2500
Oil consumption at max rating	(% of fuel consumpti	0,14
Noise at max rating (ISO 3744)	dBA	93
Minimum starting temperature without auxiliaries	°C	-12
Oil and oil filter maintenance interval for replacement	hours	600
Dry weight (standard configuration)	kg	300

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

\* **Power** at flywheel according to 97/68 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.

## STANDARD CONFIGURATION

Flywheel housing	type	SAE3
Flywheel size	inch	10
Intake manifold location		right side/frontward inlet
Exhaust manifold location		right side/backward outlet
Turbocharger		fixed geometry-without WG
Turbocharger location		top frontward/right side
Fan transmission ratio		1,1 : 1
Distance between fan - crankshaft centers	mm	X = 0, Y = 296
Fuel filter	n°	1- left side
Fuel prefilter		n.a.
Fuel pump		mechanical rotary pump
Oil filter	n°	1- left side
Oil sump		sheet metal/front well
Oil vapours blow-by circuit		on timing cover
Oil heat exchanger		built in the crankcase

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## STANDARD CONFIGURATION

Oil filler		on timing cover
Exhaust counter flange		on plane flange with 3 holes
Starting motor		12V-3kW
Alternator		12V-90A-with W contact
Engine stop device		integrated on pump
		sectioning connector on engine wiring for EGR control unit
Wiring harness		
Power take off (optional) - transmission ratio		1,08÷1
PTO maximum available torque	DIN 4/SAE B	140Nm
Painting	colour	grey RAL7021

## NOT INCLUDED IN THE STANDARD CONFIGURATION

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

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.