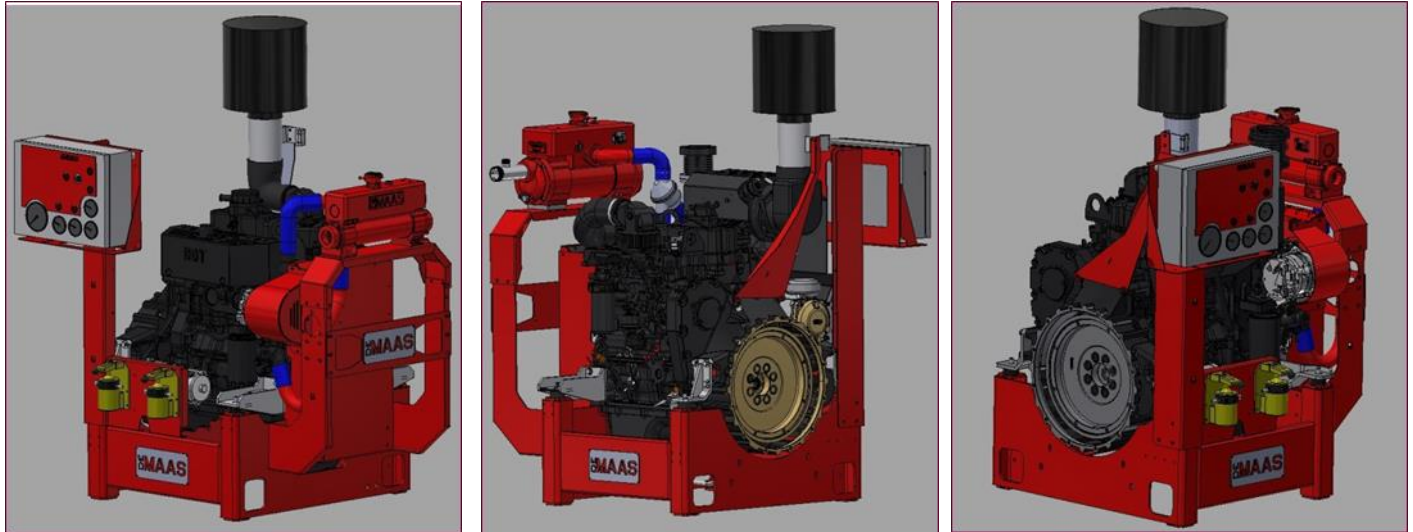


Engine Rating		1,760	2,100	2,200	2,350	2,600	2,800	2,940
IF05AH-F	kW	52	55	55	56	58	59	60
IF05ATH-F	kW	74	86	90	95	97	97	98
IF05ATIH-F	kW	91	118	122	125	130	131	132
IF05BTIH-F	kW	-	-	-	-	144	144	144

Although our FM ratings are shown at specific speeds, De Maas FFE engines can be applied at any intermediate speed. To determine the intermediate speed power; make a linear interpolation from the applicable De Maas power curves.



ENGINE SPECIFICATION		IF05AH-F	IF05ATH-F	IF05ATIH-F	IF05BTIH-F
• Engine Series	<i>FPT IVECO</i>	N45 MNA F40	N45 MNS F40	N45 MNT F41 <sup>Std</sup>	N45 MNT F41 <sup>Plus</sup>
• Engine Type		<b>4 Cylinder In-line, 4 cycle, water cooled</b>			
• Aspiration		Naturally Aspirated	Turbo charged	Turbo charged & Intercooled	
• Combustion Type		<b>Direct injection</b>			
• Bore x Stroke	<i>mm</i>	<b>104 x 132</b>			
• Compression ratio		<b>17.5 : 1</b>			
• Displacement	<i>litre</i>	<b>4.483</b>			
• Rotation		<b>Anti-Clockwise</b>			
• Weight <i>Approximately</i>	<i>kg</i>	<b>600</b>		<b>620</b>	
• Valves lashes at cold	<i>mm</i>	<b>Inlet 0.25 ±0.5 Exhaust 0.50 ±0.5</b>			
• Wiring Diagram		<b>No. 01.900.07EWEN.03</b>			
• Panel Diagram		<b>No. 01.900.07PWEN.03</b>			
• Oil pan capacity	<i>litre</i>	<b>High level 9.5 Low level 7.3</b>			
• Battery Minimum Capacity recommended	<i>Ah</i>	<b>180 (battery not included)</b>			
• Cooling capacity	<i>litre</i>	<b>Please contact FFE Manufacturer</b>			

**ENGINE RATINGS BASELINES**

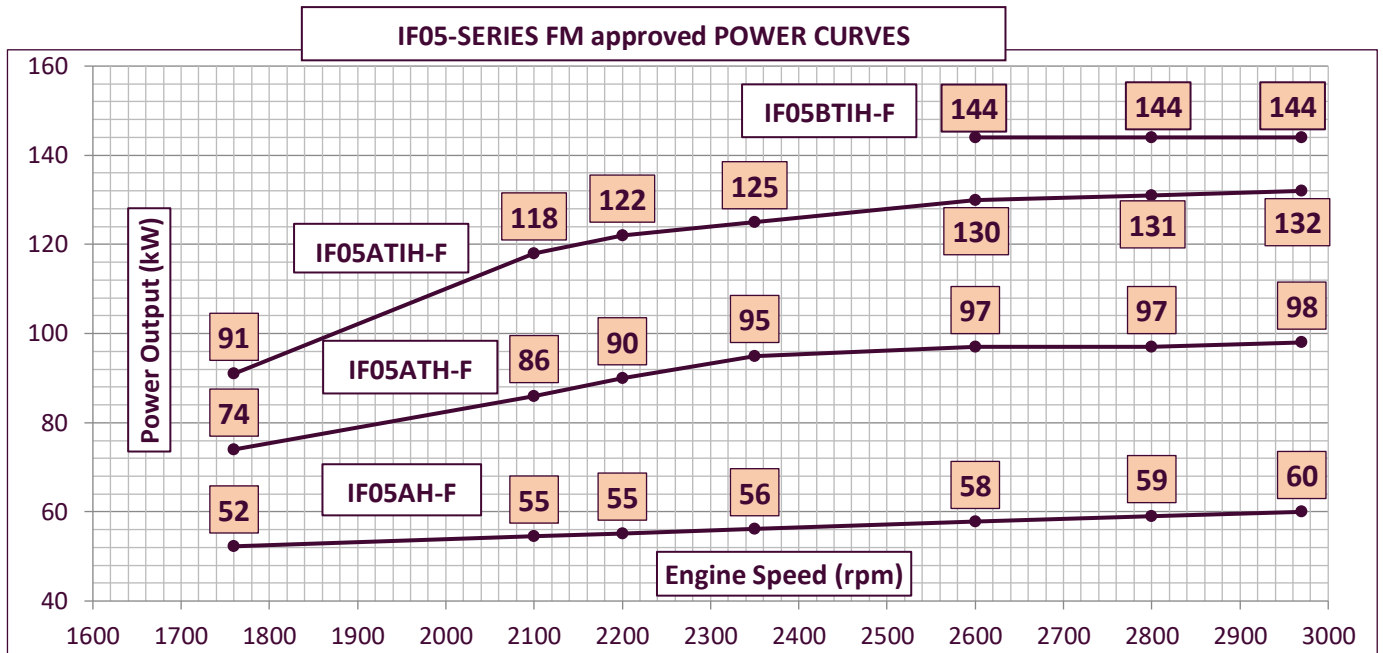
Engines are not to be used for continuous duty. Engines are to be used only for stationary emergency standby fire pump service. According to NFPA 25 engines are to be tested 30 minutes per week at no pump flow and full pump flow once per year. Power at flywheel according to 97/68 EC, after 50 hours running, 3% tolerance, fuel Diesel EN 590

Engines rated at standard ISO 3046/1, 25 ° Celsius air temperature, 100 kPa atmospheric pressure, 30 % relative humidity – Applicable also to DIN 6271, BS 5514, SAE J1349 Standards.

A deduction of 3 percent from engine horsepower rating at standard SAE conditions shall be made for diesel engines for each 1,000ft. (305m) altitude above 300ft. (91.4m). A deduction of 1 percent from engine horsepower rating as corrected to standard SAE conditions shall be made for diesel engines for every 10°F (5.6°C) above 77°F (25°C) ambient temperature.

**Restrictions:** Use ratings only for stand-by fire pump applications





Although our FM ratings are shown at specific speeds, De Maas FFE engines can be applied at any intermediate speed. To determine the intermediate speed power; make a linear interpolation from the applicable De Maas power curves.

Engine Equipment	Standard	Optional
Air cleaner	Drip proof, disposable	Heavy Duty Dry Air Filter Version
Alternator	24 Volts x 90 Amps with belt guard	-
Exhaust protection	Heat Shield, Elbow Matrass	-
Exhaust flex. connection <i>mm (inch)</i>	75 (3")	IF05AH-F Optional
Flywheel housing	SAE 3	DRIVE LINE
Flywheel connection	SAE 11½ " with 125 number of teeth	STUB SHAFT
Fuel filter	Full flow, cartridge type	Pre filter with water separator
Fuel Lines by flex. hoses acc. ISO15540	Fix connections for Ø10 Pipes	Loose extension lines
Fuel Lift Pump	Not included	Electrical 24 Volts version
Engine heater	230 Volts 1500 Watt	-
Governor speed	Constant speed, mechanical	-
Mechanical stop lever	-	Built in fuel pump
Heat Exchanger <b>DE MAAS</b> model	1½ " IN and 1½ " OUT (BSP)	20 Bar pressure end-caps (TIH)
Instrument panel	Build on Engine	-
Junction box	Integral with instrument panel	-
Lube Oil filter	Full flow, cartridge type	-
Lube Oil pump	Gear type, driven by crankshaft	-
Manual start	Built on	-
Overspeed control	Test on instrument panel	-
Run-stop control	On instrument panel	-
Starter motor	24 Volts x 3 kW	-
Throttle Control	Adjustable speed control	Test (low speed) provision with cable
Water pump	Centrifugal type driven by gear	-
Mountings	Pedestal type ( <i>Centre Line 400 mm</i> )	-
Exhaust system	-	Complete standard assembly Kits
Cooling Loop	Standard ¾ " Built on Pedestal	Diversity of specifications
Sea worthy packing	-	Crate or case

As part of our policy of on-going improvement resulting from continuing test and development programs, we reserve the right to alter design or specification without notice. Please check the latest information at De Maas to inform yourself of any changes.

Note: All the hereof technical information is, unless stated otherwise, based on the maximum speed of 2,940 rpm