



Model : 12M33D1240E310

Date : 01/01/25

Revision : Rev.25.01

Engine Datasheet

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Ratings

Gross Engine Output				
RPM	DCP		ESP	
	kWm	BHP	kWm	BHP
1500	1130	1515	1240	1663

Basic data

Engine model	12M33D1240E310		
/ NÃ of Cylinders / Valves	12/48		
Cylinders arrangement	V-Type V		
x Bore x Stroke (mm)	150x185		
Displacement (L)	39.2		
Thermodynamic Cycle	Diesel 4 stroke		
Firing Order	ë ë .	A1-B2-A5-B4-A3-B1-A6-B5-A2-B3-A4-B6	
Number of turbochargers	2		
Mean Piston Speed (m/s)	9.25		
BMEP (Bar)	24.69		
Cooling System	Liquid (water + 50% antifreeze)	+ 50%	
Injection System	Direct		
Fuel System	High Pressure Common Rail		
Aspiration	Turbocharged and Aftercooled		
Compression ratio	15 : 1		
Flywheel housing	SAE 0		
Flywheel	18"		
	Rotation Viewed from Flywheel	ë	Counter Clockwise
Allowed static bending moment of the flywheel housing (Nm)	ë .		TBD
NÃ of teeth on flywheel ring gear	194		
Inertia of flywheel (kgçmi)	7.18		
Inertia of crank ^	6		

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Exhaust wet weight with radiator (includes oil, coolant)(kg) N/A

Air intake system

Air intake restriction clean filter (mBar)	030
Air intake restriction dirty filter (mBar)	062
Combustion air flow @ DCP (m ³ /min)	82.6
Combustion air flow @ ESP (m ³ /min)	87.7
Min. diameter of intake pipe (mm)	160

Aftercooling system

Aftercooler system type	Air to Air
Max. intake manifold temperature(°C)	80
Max. difference between intake manifold temperature and ambient temperature (°C)	30
Max. intake pressure drop of aftercooler (mBar)	120

Lubrication system

Oil capacity Low / High (L)	120/146
Oil pressure in normal condition at idle speed (Bar)	0.2
Oil pressure in normal condition at rated speed (Bar)	4 - 6.5
Lowest oil pressure alarm (shutdown) (Bar)	2
High Oil Pressure Warning (Bar) ÷	10
Max. oil temperature [±] (°C)	105
Oil flow at 1500 rpm (L/min)	392
Oil consumption ratio based on engine fuel consumption data (%)	0.3

Exhaust system

Max. exhaust back pressure (mBar)	75
Max. Exhaust gas temperature before turbocharger (°C)	750
Max. Exhaust gas temperature after turbocharger (°C).....	580
Exhaust flow @ DCP (m ³ /min)	237
Exhaust flow	

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	System designed for ambient temperature up to (°C)	50
	Min. inside diameter of coolant outlet pipe (mm)	60
	Coolant capacity of engine HT (L)	75.94
	Coolant capacity of engine LT (L)	N/A
	Coolant alarm (shutdown) temperature (°C)	108
/	Thermostat opening temperature / full open temperature (°C)	80/92
/		
Max. additional restriction for external cooling circuit HT/LT(B		

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Heat balance test data (with ambient temperature 37.6)

Designation DCP ESP

Coola

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Ratings definitions

Data Centre Power (DCP)