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

Basic data

Engine model	12M33D1240E310
/ NÁ 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 é é .	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 é	Counter Clockwise
Allowed static bending moment of the flywheel housing (Nm) é .	TBD
NÁ of teeth on flywheel ring gear	194
Inertia of flywheel (kgÅmĮ)	7.18
Inertia of crankshaft	

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Air intake system

Air intake restriction clean filter (mBar)	Ò30
Air intake restriction dirty filter (mBar)	Ò62
Combustion air flow @ DCP (mį/min)	82.6
Combustion air flow @ ESP (mį/min)	87.7
Min. diameter of intake pipe (mm)	160

Aftercooling system

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

Lubrication system

/ Oil capacity Low / High (L)	120/146
Oil pressure in normal condition at idle speed (Bar)	Ó 2
Oil pressure in normal condition at rated speed (Bar)	X Ð W#Â"Q"9 Ð #'4 6 - "5% 6acqÓ
Lowest oil pressure alarm (shutdown) (Bar)	2
High Oil Pressure Warning (Bar)	10
Max. oil temperature (ºC)	105
Oil flow at 1500 rpm (L/min)	392
Oil consumption ratio based on engine fuel consumption data (%)	Ò 0.3

Exhaust system

Max. exhaust back pressure (mBar)	75
Max. Exhaust gas temperature before turbocharger (ºC)	750
Max. Exhaust gas temperature after turbocharger (ºC)	580
Exhaust flow @ DCP (mį/min)	237
Exhaust flow	

	System designed for ambient temperature up to (ºC)	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 (ºC)	108
/	Thermostat opening temperature / full open temperature (ºC)	80/92

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Max. additional restriction for external cooling circuit HT/LT(B

Heat balance test data (with ambient temperature 37.6)

Designation	DCP	ESP

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