

Wärtsilä 8L46		RPM	8L46A			8L46B		8L46C	
			450	500	514	500	514	500	514
Engine speed		RPM	450	500	514	500	514	500	514
Engine output		kW		7240		7800		8400	
Engine output		HP		9845		10610		11425	
<b>Combustion air system</b>									
Flow of air, CPP	1)	kg/s	12.7	13.2	13.5	13.7	14.0	14.3	14.5
Flow of air, D-E	1)	kg/s	-	13.2	13.5	14.0	14.3	14.7	14.9
<b>Exhaust gas system</b>									
Temperature after turbocharger, CPP	2)	°C	380	380	375	380	375	380	375
Temperature after turbocharger, D-E	2)	°C	-	360	355	360	355	360	355
Exhaust gas flow, CPP	1)	kg/s	12.9	13.6	13.9	14.1	14.4	14.7	14.9
Exhaust gas flow, D-E	1)	kg/s	-	13.6	13.9	14.4	14.7	15.1	15.3
<b>Heat balance at ISO conditions</b>									
Lubricating oil	3)	kW		970		1020		1080	
Jacket water HT circuit	3)	kW		820		840		870	
Charge air HT-circuit	3)	kW		1120		1340		1580	
Charge air LT-circuit	3)	kW		780		880		980	
Radiation	3)	kW		290		300		320	
<b>Fuel system</b>									
Circulation pump capacity		m <sup>3</sup> /h		4.1...5.0		4.5...5.5		4.8...5.9	
Leak fuel flow, clean heavy fuel (100% load)		kg/h		6		6		6	
Leak fuel flow, marine diesel oil (100% load)		kg/h		30		30		30	
Fuel consumption, 100% load, CPP	4)	g/kWh		172		173		174	
Fuel consumption, 100% load, D-E	4)	g/kWh		173		173		174	
Fuel consumption, 85% load, CPP	4)	g/kWh		171		171		171	
Fuel consumption, 85% load, D-E	4)	g/kWh		173		173		173	
<b>Lubricating oil system</b>									
Pump capacity (main), direct driven									
- variable speed (CPP, FPP)		m <sup>3</sup> /h		198		198		198	
- constant speed (D-E)		m <sup>3</sup> /h	-	149	153	149	153	149	153
Pump capacity (main), separate, el. driven		m <sup>3</sup> /h		145		145		145	
Pump capacity (prelubricating)		m <sup>3</sup> /h		45		45		45	
Oil flow to engine		m <sup>3</sup> /h		115		115		115	
Oil volume in separate system oil tank, nom.		m <sup>3</sup>		10.8		10.8		10.8	
Oil volume in engine		m <sup>3</sup>		0.33		0.33		0.33	
<b>High temperature cooling water system</b>									
Pump capacity		m <sup>3</sup> /h		160		180		180	
Water volume in engine		m <sup>3</sup>		1.35		1.35		1.35	
<b>Low temperature cooling water system</b>									
Pump capacity		m <sup>3</sup> /h		160		180		180	
Water volume in engine		m <sup>3</sup>		0.1		0.1		0.1	
<b>Starting air system</b>									
Air consumption per start (20°C)		Nm <sup>3</sup>		4.8		4.8		4.8	

CPP Controllable-pitch propeller installations

D-E Diesel-electric installations

All engines have a waste-gate (on generator engines operated above 100% load).

- 1) At ISO 3046-1 conditions (ambient air temperature 25°C, LT-water 25°C) and 100% load. Tolerance ± 5%.
- 2) At ISO 3046-1 conditions (ambient air temperature 25°C, LT-water 25°C) and 100% load. Tolerance ± 15°C.
- 3) At ISO 3046-1 conditions (ambient air temperature 25°C, LT-water 25°C) and 100% load. Distribution of heat within the balance has a tolerance of 10%. Fouling factors and a margin to be taken into account when dimensioning the heat exchangers (lubricating oil cooler, central cooler).
- 4) According to ISO 3046-1-1993, lower calorific value 42700 kJ/kg, without engine driven pumps. Tolerance ± 5%. For propulsion engines the consumption is given according to propeller law.