

Technical Data D6-370D (IPS)

Rating 5 370 hp (272 kW)

General

4-stroke direct injected, turbocharged and aftercooled diesel engine

Number of cylinders		6
No of valves		24
Displacement, total	litres in ³	5,50 335,6
Firing order		1-5-3-6-2-4
Rotational direction, viewed from the front		Clockwise
Bore	mm in	103 4,06
Stroke	mm in	110 4,33
Compression ratio		17,5:1
Compression pressure at 240 rpm	MPa psi	
Max. static forward inclination:	°	0
Max. static backward inclination:	°	10
Max. intermittent forward inclination while running:	°	10
Max. intermittent backward inclination while running:	°	20
Max. intermittent side inclination while running:	°	30 for max 30 sec.
Idling speed	rpm	600 - 750
Rated speed	rpm	3500
Propeller selection range	rpm	3400-3600
Dry weight with drive IPS	kg lb	887 1956

Performance	Rating	r/min	1500	2000	2500	3000	3500				
Crankshaft power 1), 5)	5	kW hp	130,4 177,3	185 251,6	229,5 312,1	265 360,4	272 369,9				
Propeller shaft power 1) (At full load) With drive IPS	5	kW hp	123,9 168,5	175,8 239	218 296,5	251,8 342,4	258,4 351,4				
Propellershaft power at prop. load x ^{2,5} With drive IPS	5	kW hp	31 42	64 87	111 152	176 239	258 351				
Torque at crankshaft 2)	5	Nm lbf ft	830,2 612	883,3 651	876,6 647	843,5 622	742,1 547				
Mean piston speed		m/s ft/s	5,5 18,0	7,3 24,1	9,2 30,1	11,0 36,1	12,8 42,1				
Effective mean pressure 2)	5	MPa psi	1,90 275,1	2,02 292,7	2,00 290,5	1,93 279,5	1,70 245,9				
Max combustion pressure 2)	5	MPa psi	17,8 2582	18,2 2640	18,1 2625	17,7 2567	17,4 2524				

1) ISO 3046, fuel temp 40°C.

ISO 8665 (=SAE J 1228=ICOMIA 28-83)

2) At power according to 1).

3) If reverse gear is used, 4% in heat rejection will be added for its oil cooler.

4) Acc. to ISO 3744

5) At installed back pressure

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Lubricating system

Specific lubricating oil consumption.	g/kWh	0,2
Max. oil volume including filters for all allowed installation inclinations:	litres	20
	US gal	5,28
Max. oil volume excluding filters for all allowed installation inclinations:	litres	16,5
	US gal	4,36

Fuel system

	Rating	r/min	1500	2000	2500	3000	3500				
Specific fuel consumption 2)	5	g/kWh	213	212	201	211	230				
		lb/hph	0,345	0,343	0,326	0,342	0,373				
Fuel consumption at prop. load x ^{2,5}	5	l/h	9	17,5	30	47,5	74,2				
		US gal/h	2,4	4,6	7,9	12,5	19,6				

Fuel system

	Rating	r/min	1500	2000	2500	3000	3500				
Fuel consumption at full load	5	l/h	32,95	46,52	54,72	66,33	74,21				
		US gal/h	8,7	12,3	14,5	17,5	19,6				

Intake and exhaust system

	Rating	r/min	1500	2000	2500	3000	3500				
Exhaust temperature at the exhaust pipe connecting flange after the turbo charger.	5	°C	235	296	310	314	367				
		°F	455	565	590	597	693				
Permitted back pressure in the exhaust line at rated speed. (Installed back pressure)	5	°C									
		kPa						Max	30		
	psi								4,4		
	kPa							Min	10		
		psi							1,5		

Intake and exhaust system

	Rating	r/min	1500	2000	2500	3000	3500				
Engine air consumption at 25°C / 77°F atmospheric pressure 100kPA and relative humidity 30%.	5	m ³ /min					22,6				
		cu.ft./min					798,1				
Turbo charge pressure. At prop.load exp. 2,5	5	kPa	10	28	70	134	188				
		psi	1,5	4,1	10,2	19,4	27,3				
Exhaust gas flow	5	m ³ /min					42				
		cu.ft./min					1483				

Cooling system

	Rating	r/min	1500	2000	2500	3000	3500				
Sea water pump flow.		l/min					215				
		cu.ft./min					7,6				
Coolant volume engine, including heat exchanger and charge air cooler		litres					16				
		US gal.					4,23				
Thermostat, start open at		°C					82				
		°F					180				
Thermostat, fully open at		°C					92				
		°F					198				

Emissions

	Rating	r/min	1500	2000	2500	3000	3500				
Smoke at prop. load x ^{2,5}	5	*BSU	0,2	0,1	0,1	0,2	0,5				

*NB.! BSU are calculated values. Measured values are acc. to ISO 10054 in FSN units

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