

# Technical Data D6-370A (DPH/DPR)

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 <sup>3</sup>	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
Propeller selection range	rpm	
Dry weight with reverse gear DPH/DPR	kg lb	766 1689
Dry weight with reverse gear DPH/DPR and Power steering	kg lb	770 1698

Performance	Rating	r/min	1500	2000	2500	3000	3500				
Crankshaft power 1), 5)	5	kW	130,4	185	229,5	265	272				
			177,3	251,6	312,1	360,4	369,9				
Propeller shaft power 1) (At full load) With drive DPH/DPR	5	kW	125,2	177,6	220,3	254,4	261,1				
			170,3	241,5	299,6	346	355,1				
Propellershaft power at prop. load x <sup>2,5</sup> With drive DPH/DPR	5	kW	31	64	113	178	261				
			43	88	153	242	355				
Torque at crankshaft 2)	5	Nm	830,2	883,3	876,6	843,5	742,1				
			612	651	647	622	547				
Mean piston speed		m/s	5,5	7,3	9,2	11,0	12,8				
			ft/s	18,0	24,1	30,1	36,1	42,1			
Effective mean pressure 2)	5	MPa	1,90	2,02	2,00	1,93	1,70				
			psi	275,1	292,7	290,5	279,5	245,9			
Max combustion pressure 2)	5	MPa	17,8	18,2	18,1	17,7	17,4				
			psi	2582	2640	2625	2567	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 <sup>2,5</sup>	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 <sup>3</sup> /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 <sup>3</sup> /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 <sup>2,5</sup>	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

- 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