

Technical Data D6-370I (inboard)

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	5,50
	in ³	335,6
Firing order		1-5-3-6-2-4
Rotational direction, viewed from the front		Clockwise
Bore	mm	103
	in	4,06
Stroke	mm	110
	in	4,33
Compression ratio		17,5:1
Maximum forward inclination installed:	°	0
Maximum backward inclination installed:	°	10
Max. intermittent forward inclination while running:	°	10
Max. intermittent backward inclination while running:	°	20
Max. intermittent side tilt while running:	°	30 for max 30 sec.
Idling speed	rpm	600 - 750
Rated speed	rpm	3500
Propeller selection range	rpm	3400-3600
Dry weight engine BT	kg	580
	lb	1279
Dry weight with reverse gear:HS80AE	kg	677
	lb	1493
Dry weight with reverse gear: HS80VE	kg	721
	lb	1590

Performance	Rating	r/min	Rating								
			1500	2000	2500	3000	3500				
Crankshaft power 1), 5)	5	kW	95	179	229,5	265	272				
		hp	129,2	243,4	312,1	360,4	369,9				
Propellershaft power 1) For HS80AE (At full load)	5	kW	94,5	178	228	262	267				
		hp	128,5	242,1	310,1	356,3	363,1				

	Rating	r/min	Rating								
			0	1500	2000	2500	3000	3500	0	0	0
Propellershaft power at prop.load x ^{2,5} For HS80AE	5	kW	32	66	115	182	267				
		hp	44	90	156	248	363				
Propellershaft power at prop.load x ³ For HS80AE	5	kW	21	50	97	168	266				
		hp	29	68	132	228	362				
Torque at crankshaft 2)	5	Nm	604,8	854,7	876,6	843,5	742,1				
		lbf ft	446	630	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	1,38	1,95	2,00	1,93	1,70				
		psi	200,4	283,3	290,5	279,6	246,0				
Max combustion pressure 2)	5	MPa	12,4	16,8	18,1	17,7	17,4				
		psi	1798	2437	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

Technical Data D6-370I-B (inboard)

Rating 5 370 hp (272 kW)

Lubricating system

Specific lubricating oil consumption.		g/kWh	0,2	
Max oil volume incl. filters at following inclination:	0°	litres	20	
		US gal	5,28	
Min oil volume incl. filters at following inclination:	0°	litres	16,5	
		US gal	4,36	

Fuel system

	Rating	r/min	1500	2000	2500	3000	3500				
Specific fuel consumption 2)	5	g/kWh	238	218	201	211	230				
		lb/hph	0,386	0,353	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 consumption at prop. load x ³	5	l/h	5,9	13,1	25,2	43,5	74,2				
		US gal/h	1,6	3,5	6,7	11,5	19,6				
Fuel consumption at full load	5	l/h	26,82	46,29	54,8	66,3	74,2				
		US gal/h	7,1	12,2	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. At prop. load exp. 2,5	5	°C	230	292	310	314	367				
		°F	446	558	590	597	693				
Permitted back pressure in the exhaust line at rated speed. (Installed back pressure)		kPa					Max	30			
		psi						4,4			
		kPa					Min	10			
Engine air consumption at 25°C / 77°F atmospheric pressure 100kPA and relative humidity 30%.	5	m³/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	m³/min					42				
		cu.ft./min					1483				

Cooling system

	Rating	r/min	1500	2000	2500	3000	3500					
Sea water pump flow.		m³/h					12,9					
		foot³/h					456					
Coolant content engine, incl. heat exchangers and air cooler		litres					16					
		U.S. 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	0,3	0,2	0,2	0,2	0,7				
Smoke at prop. load x ³	5	BSU	0,3	0,2	0,2	0,2	0,7				

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