

Technical Data D6-280I (inboard)

Rating 4 280 hp (206 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: HS63AE	kg	656
	lb	1446
Dry weight with reverse gear: HS80AE	kg	677
	lb	1493
Dry weight with reverse gear:HS63VE	kg	688
	lb	1517

Performance	Rating	r/min	1500	2000	2500	3000	3500				
Crankshaft power 1), 5)	4	kW	94	138	175	200	206				
		hp	127,8	187,7	238	272	280,2				
Propellershaft power 1) For HS80AE (At full load)	4	kW	91,84	134,8	171	195,4	201,3				
		hp	124,9	183,4	232,5	265,7	273,7				
Propellershaft power at prop.load x ^{2,5} For	4	kW	24	50	87	137	201				
		hp	33	68	118	186	273				
Propellershaft power at prop.load x ³ For	4	kW	16	38	73	127	201				
		hp	22	52	99	173	273				
Torque at crankshaft 2)	4	Nm	598,4	658,9	668,5	636,6	562				
		lbf ft	441	486	493	470	415				
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)	4	MPa	1,37	1,51	1,53	1,45	1,28				
		psi	198,3	218,4	221,5	211,0	186,3				
Max combustion pressure 2)	4	MPa	12,4	13,7	14,5	13,2	14,5				
		psi	1798	1987	2103	1914	2103				

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 D6-280I-B (inboard)

Rating 4 280 hp (206 kW)

Lubricating system

Specific lubricating oil consumption.		g/kWh	0,2
Max oil volume excl. filters at following inclination:	0°	litres	20
		US gal	5,28
Min oil volume excl. 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)	4	g/kWh	234	211	206	215	228				
		lb/hph	0,379	0,342	0,334	0,348	0,369				
Fuel consumption at prop. load x ^{2,5}	4	l/h	6,8	13,2	23,6	37,4	56				
		US gal/h	1,8	3,5	6,2	9,9	14,8				
Fuel consumption at prop. load x ³	4	l/h	5	10,5	20	34,5	56				
		US gal/h	1,3	2,8	5,3	9,1	14,8				
Fuel consumption at full load	4	l/h	26,09	34,54	42,76	51,01	55,72				
		US gal/h	6,9	9,1	11,3	13,5	14,7				

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	4	°C	230	292	307	305	342					
		°F	446	558	585	581	648					
Permitted back pressure in the exhaust line at rated speed. (Installed back pressure)		kPa						Max	30			
		psi							4,4			
		kPa						Min	10			
		psi							1,5			
Engine air consumption at 25°C / 77°F atmospheric pressure 100kPa and relative humidity 30%.	4	m ³ /min					19,6					
		cu.ft./min					692,2					
Turbo charge pressure. At prop. load exp. 2,5	4	kPa	10	28	70	134	186					
		psi	1,5	4,1	10,2	19,4	27,0					
Exhaust gas flow	4	m ³ /min					35,6					
		cu.ft./min					1257					

Cooling system

	Rating	r/min	1500	2000	2500	3000	3500					
Sea water pump flow.		m ³ /h					12,9					
		foot ³ /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}	4	BSU	0,3	0,2	0,2	0,2	0,7				
Smoke at prop. load x ³	4	BSU	0,3	0,2	0,2	0,2	0,7				

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