

Technical Data D9-575

Rating 5

General

4-stroke direct injected, turbocharged and aftercooled diesel engine

Number of cylinders		6
No of valves		24
Displacement, total	litres	9,36
	in ³	571,4
Firing order		1-5-3-6-2-4
Rotational direction, viewed from the front		Clockwise
Bore	mm	120
	in	4,72
Stroke	mm	138
	in	5,43
Compression ratio		16,5 : 1
Max installed forward inclination:	°	0
Max installed backward inclination:	°	7
Max. intermittent forward tilt while running:	°	10
Max. intermittent backward tilt while running:	°	12
Max. intermittent side tilt while running:	°	22,5
Idling speed	rpm	550 (- 50 / + 200)
Rated speed	rpm	2500
Recommended WOT range	rpm	2300-2600
Dry weight engine BT	kg	1075
	lb	2370

Performance	Rating	r/min	900	1100	1300	1500	1700	1900	2100	2300	2500
Crankshaft power 1), 5)	5	kW	90	156	234	298	348	384	406	423	423
		hp	122,4	212,2	318,2	405,3	473,3	522,2	552,2	575,3	575,3
Propeller shaft power 1) (At full load)	5	kW	87,3	151,3	227	289,1	337,6	372,5	393,8	410,3	410,3
		hp	118,7	205,8	308,7	393,1	459,1	506,6	535,6	558	558
Propellershaft power at prop.load x ^{2,5}	5	kW	32	53	80	114	157	207	265	333	410
		hp	43	72	109	156	213	281	361	453	558
Torque at crankshaft 2)	5	Nm	954,9	1354	1719	1897	1955	1930	1846	1756	1616
		lbf ft	704	999	1268	1399	1442	1423	1362	1295	1192
Mean piston speed		m/s	4,1	5,1	6,0	6,9	7,8	8,7	9,7	10,6	11,5
		ft/s	13,6	16,6	19,6	22,6	25,7	28,7	31,7	34,7	37,7
Effective mean pressure 2)	5	MPa	1,28	1,82	2,31	2,55	2,62	2,59	2,48	2,36	2,17
		psi	185,9	263,6	334,5	369,2	380,5	375,6	359,3	341,8	314,5
Max combustion pressure 2)	5	MPa	13	16,2	18,4	19,9	19,8	20	20	20,1	20
		psi	1885	2350	2669	2886	2872	2901	2901	2915	2901

Lubricating system

Specific lubricating oil consumption.		g/kWh	0,1
Max oil volume incl. filters at following inclination:	0°	litres	38
		US gal	10,04
Max oil volume excl. filters at following inclination:	0°	litres	33
		US gal	8,72
Min oil volume excl. filters at following inclination:	0°	litres	29
		US gal	7,66
Max oil volume incl. filters at following inclination:	7°	litres	30
		US gal	7,93
Max oil volume excl. filters at following inclination:	7°	litres	25
		US gal	6,60
Min oil volume excl. filters at following inclination:	7°	litres	21
		US gal	5,55

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 max permitted back pressure

2007-10-03

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Fuel system	Rating	r/min	900	1100	1300	1500	1700	1900	2100	2300	2500
Specific fuel consumption 2)	5	g/kWh	256	239	217	203,6	198,2	200,6	204,7	208,3	212,6
		lb/hph	0,415	0,387	0,352	0,33	0,321	0,325	0,332	0,337	0,344
Fuel consumption at prop. load x ^{2,5}	5	l/h	9,558	14,79	21,69	30,47	40,09	52,43	67,27	85,64	107,5
		US gal/h	2,5	3,9	5,7	8,0	10,6	13,9	17,8	22,6	28,4
Fuel consumption at full load	5	l/h	27,53	44,55	60,67	72,5	82,42	92,04	99,3	105,3	107,5
		US gal/h	7,3	11,8	16,0	19,2	21,8	24,3	26,2	27,8	28,4

Intake and exhaust system	Rating	r/min	900	1100	1300	1500	1700	1900	2100	2300	2500	
Specific exhaust heating effect in percent of crankshaft power	5	%	70	78	71	68	68	73	77	81	83	
Exhaust temperature at the exhaust pipe connecting flange after the turbo charger.	5	°C	521	627	590	534	491	487	498	511	507	
		°F	970	1161	1094	993	916	909	928	952	945	
		°C										
Permitted back pressure in the exhaust line at rated speed. (Installed back pressure)		kPa									Max	15
		psi										2,2
		kPa									Min	0
Engine air consumption at 25°C / 77°F atmospheric pressure 100kPA and relative humidity 30%.	5	m³/min	5,117	8,033	11,93	16,48	21,38	25,62	28,02	29,77	30,93	
		cu.ft./min	180,7	283,7	421,4	582,1	755,1	904,6	989,4	1051	1092	
Turbo charge pressure.	5	kPa	37	77	124	166	207	232	230	225	216	
		psi	5,4	11,2	18,0	24,1	30,0	33,6	33,4	32,6	31,3	
Exhaust gas flow	5	m³/min	15	26,63	36,93	46,2	54,52	62,72	67,75	71,68	73,25	
		cu.ft./min	529,7	940,5	1304	1632	1925	2215	2393	2531	2587	

Cooling system	Rating	r/min	900	1100	1300	1500	1700	1900	2100	2300	2500
Sea water pump flow.		m³/h	6,0	7,2	8,7	10,2	11,4	12,9	14,4	15,6	16,8
		foot³/h	212	254	307	360	403	456	509	551	593
Fresh water circulation pump flow		m³/h	16,2	20,4	24,6	28,8	32,7	36,6	40,8	45,1	48,5
		foot³/h	572	720	869	1017	1155	1293	1441	1591	1712
Max permissible temperature on fresh water circulation outlet from the engine		°C	96								
		°F	205								
Coolant content engine, incl. heat exchangers and air cooler		litres	39								
		U.S. gal.	10,30								
Maximum additional coolant for cabin heater etc. with std expansion tank		litres	40								
		U.S. gal.	10,57								
Thermostat, start open at		°C	86								
		°F	187								
Thermostat, fully open at		°C	96								
		°F	205								

Emissions	Rating	r/min	900	1100	1300	1500	1700	1900	2100	2300	2500
Smoke at prop. load x ^{2,5}	5	*BSU	0,1	0,2	0,3	0,7	0,5	0,5	0,4	0,5	0,7
Noise at prop. load x ^{2,5} . 4)	5	dBA	106,7	108	108,8	109,9	111,4	113	114,7	116,3	118,9

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

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