

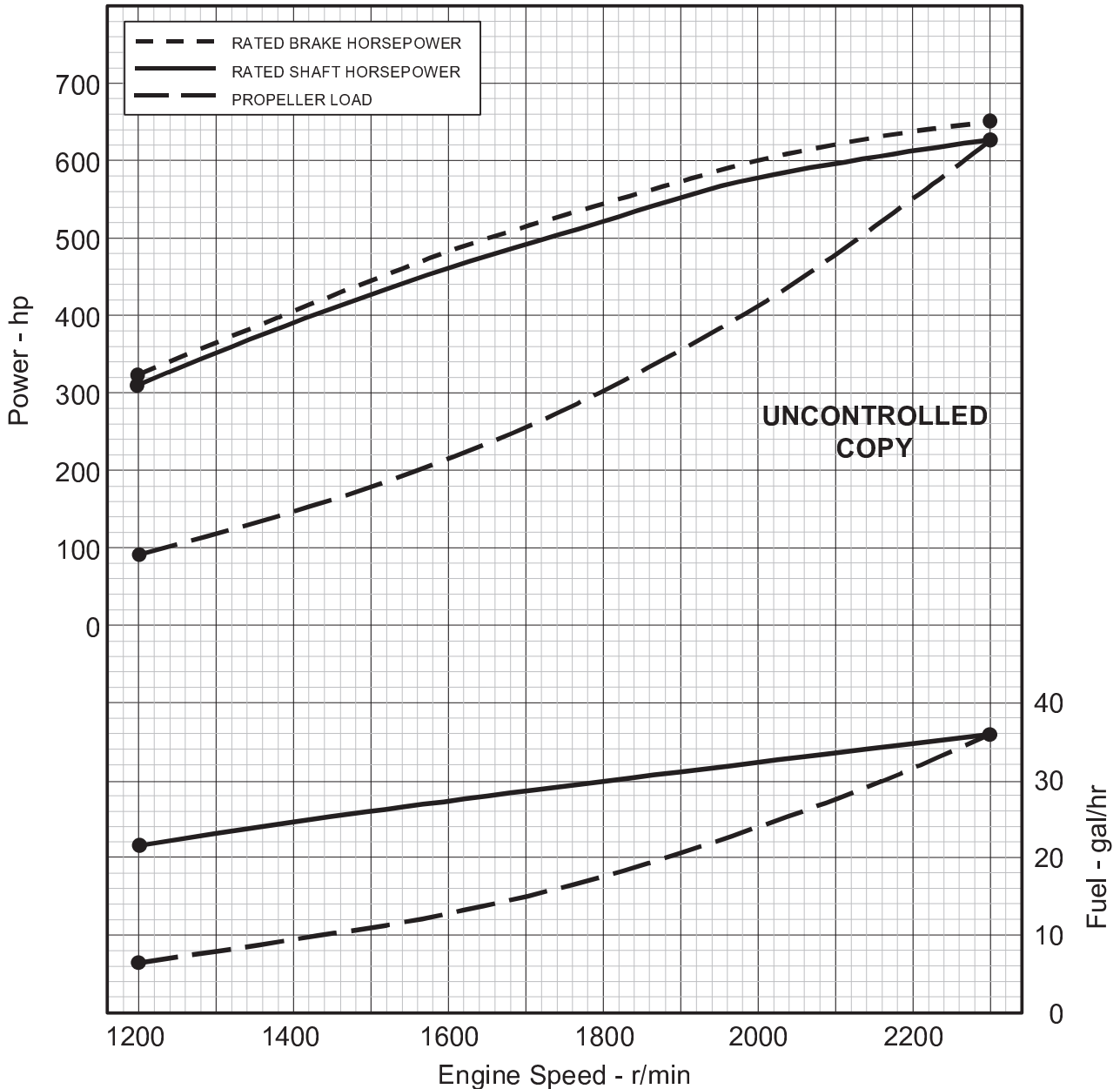


Marine Power

Model: 8V-92TA

Rating: 650 bhp (485 kW) @ 2300 r/min
625 shp (466 kW) @ 2300 r/min

Intermittent
Maximum
Net Power



<p>Power output guaranteed within 5% SAE J1228 conditions: 77°F (25°C) air inlet temperature; 29.31 in. Hg (99kPa) dry barometer; 100°F (38°C) fuel inlet temperature; .853 specific gravity at 60°F. Power rated in accordance with NMMA Procedure Air intake restriction: 10 in. H₂O (2.5 kPa) Exhaust Back Pressure: 15 in. H₂O (3.7 kPa)</p>	<p><i>Conversion Factors:</i> Power: kW = bhp x 0.746 Fuel: kg/kW · hr = lb/bhp · hr x 0.608 Torque: N · m = lb · ft x 1.356</p>	<p>Turbo: TW73 (1.03 A/R) Injector: 7025 Accessories: DD5111V Gear Alternator: 24V, 65A Raw Water Pump: Included</p>
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Certified by: T.J. MOORE

Curve No. E4-8082-32-20
Rev. / Date: 4 / 8-7-98
Sheet No. 1 of 2

Performance Curve

MARINE SPECIFICATION SHEET

General Data

Model	8082-7404
Number of Cylinders.....	8
Bore and Stroke – in. x in. (mm x mm).....	4.84 x 5.00 (123 x 127)
Displacement – in. ³ (L).....	736 (12.1)
Compression Ratio.....	17.0:1
Piston Speed – ft/min (m/min).....	1917 (584)
Exhaust Valves.....	4
Combustion System	DIRECT INJECTION
Engine Type	63.5° VEE 2 Cycle
Aspiration.....	TURBOCHARGED

Configuration

Injection Device	MUI
Turbocharger.....	TW73 (1.03 A/R)
Charge Air Cooling System.....	JWAC
Blower Type.....	100% Bypass
Blower Drive Ratio.....	2.60:1
Low Idle Speed – r/min.....	550
Maximum No Load Speed – r/min.....	2500
Engine Crankcase Vent System	OPEN

Physical Data

Size:	WITH GEAR	WITHOUT GEAR
Length – in. (mm).....	73.0 (1855)	54.0 (1372)
Width – in. (mm).....	49.5 (1256)	49.5 (1256)
Height – in. (mm).....	49.5 (1256)	49.5 (1256)
Weight, Dry – lb (kg).....	4200 (1905)	3710 (1683)
Weight, Wet – lb (kg).....	4505 (2043)	3991 (1810)
Center of Gravity Distance:		
From R.F.O. Flange/Blk. (x axis) – in. (mm).....	34.5 (876)	
Above Output Shaft (y axis) – in. (mm).....	13.1 (333)	
Right of Output Shaft (z axis) – in. (mm).....	-1.12 (28.4)	
Installation Drawing.....	23504645	

Mechanical Data

Marine Gear

Type.....	DD5111V
Reduction Ratio.....	1.74:1
Lube Oil Capacity– qt (L).....	11.2 (10.6)
(marine gear must use straight viscosity oil)	
Gear Weight, Dry – lb (kg).....	490 (222)
Center of Gravity Distance:	
From Mounting Face (x axis) – in. (mm).....	9.97 (233)
Above Output Shaft (y axis) – in. (mm).....	4.18 (106)
Right of Output Shaft (z axis) – in. (mm).....	1.97 (50.0)

Fuel System

Fuel Injector.....	7025
Injection Timing Height – in.	1.508
Fuel Consumption – lb/hr (kg/hr).....	250.3 (113.5)
Fuel Spill Rate – lb/hr (kg/hr).....	882 (400)
Fuel Spill Rate gal/hr (L/hr).....	126 (478)
Total Fuel Flow.....	1132 (514)
Total Fuel Flow gal/hr (L/hr).....	162 (613)
Maximum Fuel Inlet Temperature – °F (°C).....	140 (60)
Maximum Fuel Pump Suction:	
Clean System – in. Hg (kPa).....	6 (20.3)
Dirty System – in. Hg (kPa).....	12 (41)
Fuel Filter Size, Primary – Microns.....	30
Fuel Filter Size, Secondary – Microns.....	12
Recommended Supply Line I.D. – in. (mm).....	0.75 (19.1)
Smoke Control Device/Setting.....	MOD. 0.454

Lubrication System

Oil Pressure at Rated Speed – lb/in. ² (kPa).....	49-70 (338-483)
Oil Pressure at Low Idle – lb/in. ² (kPa).....	5.0 (34)
In Pan Oil Temperature – °F (°C).....	200 – 250 (93 – 121)
Oil Flow – gal/min (L/min).....	39 (148)
Oil Pan Capacity at Installation Angle	0° 15°
High Limit – qt (L).....	23 (22) 23 (22)
Low Limit – qt (L).....	17 (16) 17 (16)
Total Engine Oil Capacity with Filters – qt (L).....	26 (25) 26 (25)
Maximum Installation Angle – Degrees.....	15.0

Electrical System

Recommended Battery Capacity (CCA @ 0°F):	
12 Volt System, Above 32°.....	1900
12 Volt System, Below 32°.....	2500
24 Volt System, Above 32°.....	950
24 Volt System, Below 32°.....	1250
Maximum Resistance of Starting Circuit:	
12 Volt System – ohms.....	0.0012
24 Volt System – ohms.....	0.002

Cooling System

Engine Heat Rejection – Btu/min (kW):.....	29500 (519)
Boost Cooler Heat Rejection – Btu/min (kW):.....	4500 (79.1)
Engine Radiated Heat – Btu/min (kW).....	1530 (27.0)
Coolant Flow:	
Fresh Water Flow – gal/min (L/min).....	300 (1135)
Raw Water Flow – gal/min (L/min).....	107 (405)
Maximum Water Pump:	Fresh Water Raw Water
Inlet Restriction – in. Hg (kPa).....	3.0 (10.2) 5.0 (17.0)
Fresh Water Capacity – qt (L).....	108 (102.2)
Maximum Coolant Pressure	
(Exclusive of Pressure Cap) – lb/in. ² (kPa).....	18 (124)
Maximum Raw Water Pump Pressure – lb/in. ² (kPa).....	14 (97)
Maximum Top Tank Temperature – °F (°C).....	210 (99)
Recommended Raw Water Pipe I.D.	
Inlet – in. (mm).....	4.0 (152)
Outlet – in. (mm).....	3.0 (76)
Recommended Sea Strainer Size:	
(Max. Screen Opening – 2.0 mm)	
Simplex – in. (mm).....	3.0 (76)
Duplex – in. (mm).....	4.0 (102)

Air System

Maximum Temperature Rise	
(Ambient Air to Engine Inlet) – °F (°C).....	30 (16.7)
Maximum Air Intake Restriction:	
Clean Air Cleaner – in. H ₂ O (kPa).....	12 (3.0)
Dirty Air Cleaner – in. H ₂ O (kPa).....	20 (5.0)
Engine Air Flow – ft ³ /min (m ³ /min).....	1900 (53.8)
Air Box Pressure – in. Hg (kPa).....	46.0 (155)
Recommended Intake Pipe Dia. – in. (mm).....	6.0 (152)
Minimum Net Engine Room Vent Area, – in. ² (cm ²).....	151 (975)
Maximum Crankcase Pressure – in. H ₂ O (kPa).....	3.5 (0.87)

Exhaust System

Exhaust Flow – ft ³ /min (m ³ /min).....	4460 (126.3)
Exhaust Temperature – °F (°C).....	620 (327)
Maximum Back Pressure – in. Hg (kPa).....	2.5 (8.5)
Recommended Exhaust Pipe Diameter:	Dry Wet
Single – in. (mm).....	6.0 (152) 8 (203)
Dual – in. (mm).....	4.0 (102) 5 (127)

Performance Data

BMEP – lb/in. ² (kPa).....	152 (1049)
Friction Power– fhp (kW).....	125 (93)

Engine Speed	Brake Power	Shaft Power	Rated Fuel Usage	Rated BSFC
r/min	bhp (kW)	shp (kW)	gal/hr (L/hr)	lb/bhp-hr (g/kW-hr)
2300	650 (485)	625 (466)	35.8 (135.6)	0.385 (234)
2100	619 (462)	595 (444)	33.2 (125.7)	0.375 (228)
1950	585 (436)	563 (420)	31.5 (119.2)	0.376 (229)
1800	542 (404)	521 (389)	29.6 (112.2)	0.382 (232)
1500	441 (329)	423 (316)	25.8 (97.5)	0.408 (248)
1200	325 (242)	311 (232)	21.6 (81.6)	0.463 (282)

Engine Speed	Prop Load	Prop Fuel Usage	Prop BSFC
r/min	shp (kW)	gal/hr (L/hr)	lb/bhp-hr (g/kW-hr)
2300	625 (466)	35.8 (135.6)	0.385 (234)
2100	476 (355)	27.1 (102.7)	0.382 (232)
1950	381 (284)	21.9 (82.7)	0.384 (233)
1800	300 (223)	17.3 (65.6)	0.385 (234)
1500	173 (129)	10.5 (39.8)	0.399 (243)
1200	89 (66)	5.8 (22.1)	0.423 (258)

Emissions Data

Smoke, Rated Speed – Bosch Number.....	1.0
Noise – dB(A) @ 1.....	Not Available
Additional Noise Data.....	Not Available
NO _x – g/hr.....	4680
CO – g/hr.....	2380
HC – g/hr.....	189
SO ₂ – g/hr.....	1135

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All values are at rated speed and power at SAE J1228 with standard engine hardware, unless otherwise noted.