

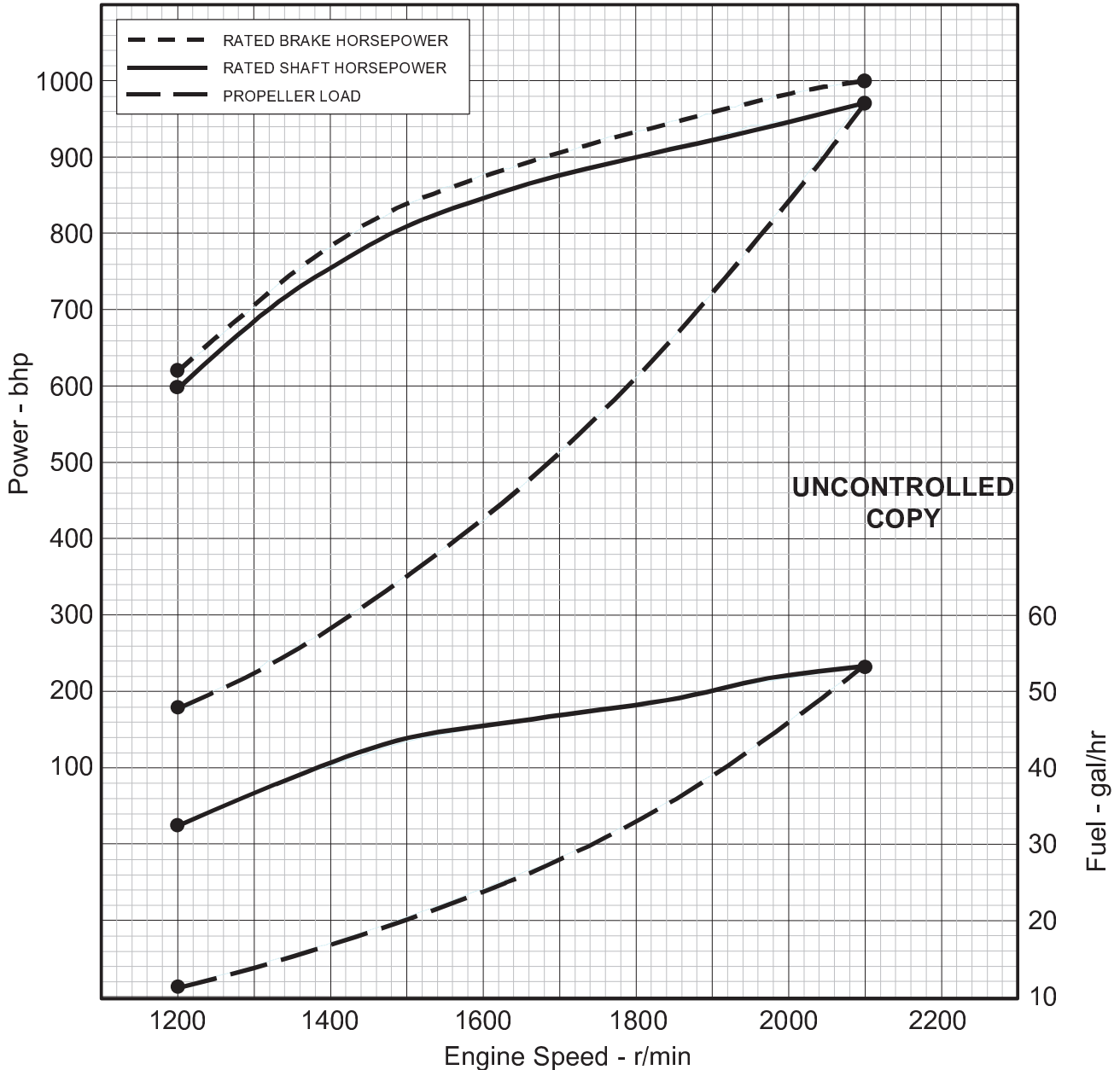


Marine Power

Model: 8V-149TI DDEC®

Rating: 1000 bhp (746 kW) @ 2100 r/min
966 shp (721 kW) @ 2100 r/min

Intermittent
Maximum
Net Power



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. H ₂ O (2.5 kPa) Exhaust Back Pressure: 15 in. H ₂ O (3.7 kPa)	Conversion Factors: Power: kW = hp x 0.746 Fuel: L/hr = gal/hr x 3.785	Turbo: TV8403 (1.23 A/R) Injector: 5234920 Accessories: DD-520 Gear Alternator: 24V, 70A Raw Water Pump: Included
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Certified by: Caley Edgerly

Curve No. E4-9082-32-11
Rev. / Date: 1 / 12-23-97
Sheet No. 1 of 2

Performance Curve

MARINE SPECIFICATION SHEET

General Data

Model	9082-7K02, -7K03
Number of Cylinders.....	8
Bore and Stroke – in. x in. (mm x mm).....	5.75 x 5.75 (146 x 146)
Displacement – in. ³ (L).....	1194 (19.6)
Compression Ratio.....	14.0:1
Piston Speed – ft/min (m/min).....	2012 (613)
Exhaust Valves.....	4
Combustion System.....	DIRECT INJECTION
Engine Type.....	63.5° VEE – 2 Cycle
Aspiration.....	TURBOCHARGED

Configuration

Injection Device.....	EUI
Turbocharger.....	TV8403 (1.23 A/R)
Charge Air Cooling System.....	JWIC
Blower Type.....	Standard (Ext. Bypass)
Blower Drive Ratio.....	2.26:1
Low Idle Speed – r/min.....	650
Maximum No Load Speed – r/min.....	2110
Engine Crankcase Vent System.....	Closed

Physical Data

Size:	WITH GEAR	WITHOUT GEAR
Length – in. (mm).....	64.0 (1625)	64.0 (1625)
Width – in. (mm).....	64.0 (1625)	64.0 (1625)
Height – in. (mm).....	68.0 (1727)	68.0 (1727)
Weight, dry – lb (kg).....	6000 (2727)	6000 (2727)
Weight, wet – lb (kg).....	6400 (2909)	6400 (2909)
Center of Gravity Distance:		
From R.F.O.B. (x axis) – in. (mm).....	18.7 (475.5)	18.7 (475.5)
Above Crankshaft (y axis) – in. (mm).....	14.5 (367.3)	14.5 (367.3)
Right of Crankshaft (z axis) – in. (mm).....	0.9 (22.9)	0.9 (22.9)
Installation Drawing.....	23502703 Ref.	
Mechanical Data.....	E4-9000-32-2	

Mechanical Data

Marine Gear

Type.....	Not Available
Reduction Ratio.....	Not Available
Lube Oil Capacity – qt (L).....	Not Available (marine gear must use straight viscosity oil)
Gear Weight, dry – lb (kg).....	Not Available
Center of Gravity Distance:	
From Mounting Face (x axis) – in. (mm).....	Not Available
Above Output Shaft (y axis) – in. (mm).....	Not Available
Right of Output Shaft (z axis) – in. (mm).....	Not Available

Fuel System

Fuel Injector Part Number.....	5234920
Injector Timing – in.	2.524
Fuel Consumption – lb/hr (kg/hr).....	372.0 (168.7)
Fuel Spill Rate gal/hr (L/hr).....	356.7 (1350.3)
Total Fuel Flow gal/hr (L/hr).....	410 (1552)
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.....	5
Recommended Supply Line I.D. – in. (mm).....	1.0 (25.4)

Lubrication System

Oil Pressure at Rated Speed – lb/in. ² (kPa).....	65-85 (448-586)
Oil Pressure at Low Idle – lb/in. ² (kPa).....	10 (69)
In Pan Oil Temperature – °F (°C).....	200 – 250 (93 – 121)
Oil Flow – gal/min (L/min).....	120 (454)
Oil Pan Capacity at Installation Angle	0° 12°
High Limit – qt (L).....	104 (98.4) 104 (98.4)
Low Limit – qt (L).....	87 (82.3) 87 (82.3)
Total Engine Oil Capacity with Filters – qt (L).....	124 (117.3) 124 (117.3)
Maximum Installation Angle – Degrees.....	12.0

Electrical System

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

Cooling System

Engine Heat Rejection – Btu/min (kW):.....	34800 (612)
Engine Radiated Heat – Btu/min (kW).....	3530 (62)
Coolant Flow:	
Fresh Water Flow – gal/min (L/min).....	300 (1136)
Raw Water Flow – gal/min (L/min).....	172 (651)
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).....	91 (86.1)
Maximum Coolant Pressure	
(Exclusive of Pressure Cap) – lb/in. ² (kPa).....	30 (204)
Maximum Raw Water Pump Pressure – lb/in. ² (kPa).....	14 (97)
Maximum Top Tank Temperature – °F (°C).....	200 (93)
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).....	15 (3.73)
Engine Air Flow – ft ³ /min (m ³ /min).....	3200 (91)
Air Box Pressure – in. Hg (kPa).....	73 (246.4)
Recommended Intake Pipe Dia. – in. (mm).....	10.0 (254)
Minimum Net Engine Room Vent Area. – in. ² (cm ²).....	307 (1980)
Maximum Crankcase Pressure – in. H ₂ O (kPa).....	2.5 (0.62)

Exhaust System

Exhaust Flow – ft ³ /min (m ³ /min).....	7200 (203)
Exhaust Temperature – °F (°C).....	750 (399)
Maximum Back Pressure – in. Hg (kPa).....	2.5 (8.5)
Recommended Exhaust Pipe Diameter:	Dry Wet
Single – in. (mm).....	12 (305) 14 (356)
Dual – in. (mm).....	8.0 (203) 10 (25.4)

Performance Data

BMEP – lb/in. ² (kPa).....	105 (724)
Friction Power – fhp (kW).....	230 (172)

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)
2100	1000 (746)	966 (721)	53.3 (201.8)	0.372 (227)
1950	970 (724)	937 (699)	51.1 (193.3)	0.368 (224)
1800	932 (695)	901 (672)	48.3 (182.9)	0.362 (220)
1600	877 (654)	848 (632)	45.4 (171.8)	0.362 (220)
1400	781 (583)	755 (563)	40.3 (152.7)	0.361 (219)
1200	620 (463)	599 (447)	32.4 (122.5)	0.365 (222)

Engine Speed	Prop Load	Prop Fuel Usage	Prop BSFC
r/min	shp (kW)	gal/hr (L/hr)	lb/bhp-hr (g/kW-hr)
2100	966 (721)	53.3 (201.8)	0.372 (227)
1950	773 (699)	42.2 (159.7)	0.368 (224)
1800	608 (672)	32.9 (124.6)	0.365 (222)
1600	427 (632)	24.0 (90.7)	0.378 (230)
1400	286 (563)	16.9 (63.9)	0.396 (241)
1200	180 (447)	11.1 (42.0)	0.412 (251)

Emissions Data

Smoke, Rated Speed – Bosch Number.....	0.45
Noise – dB(A) @ 1.....	107.1
Additional Noise Data.....	Not Available
NO _x – g/hr.....	12400
CO – g/hr.....	1930
HC – g/hr.....	390
SO ₂ – g/hr.....	1690

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Curve No. E4-9082-32-11
Rev. / Date: 1 / 12-23-97
Sheet No. 2 of 2

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

All information subject to change without notice.

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