

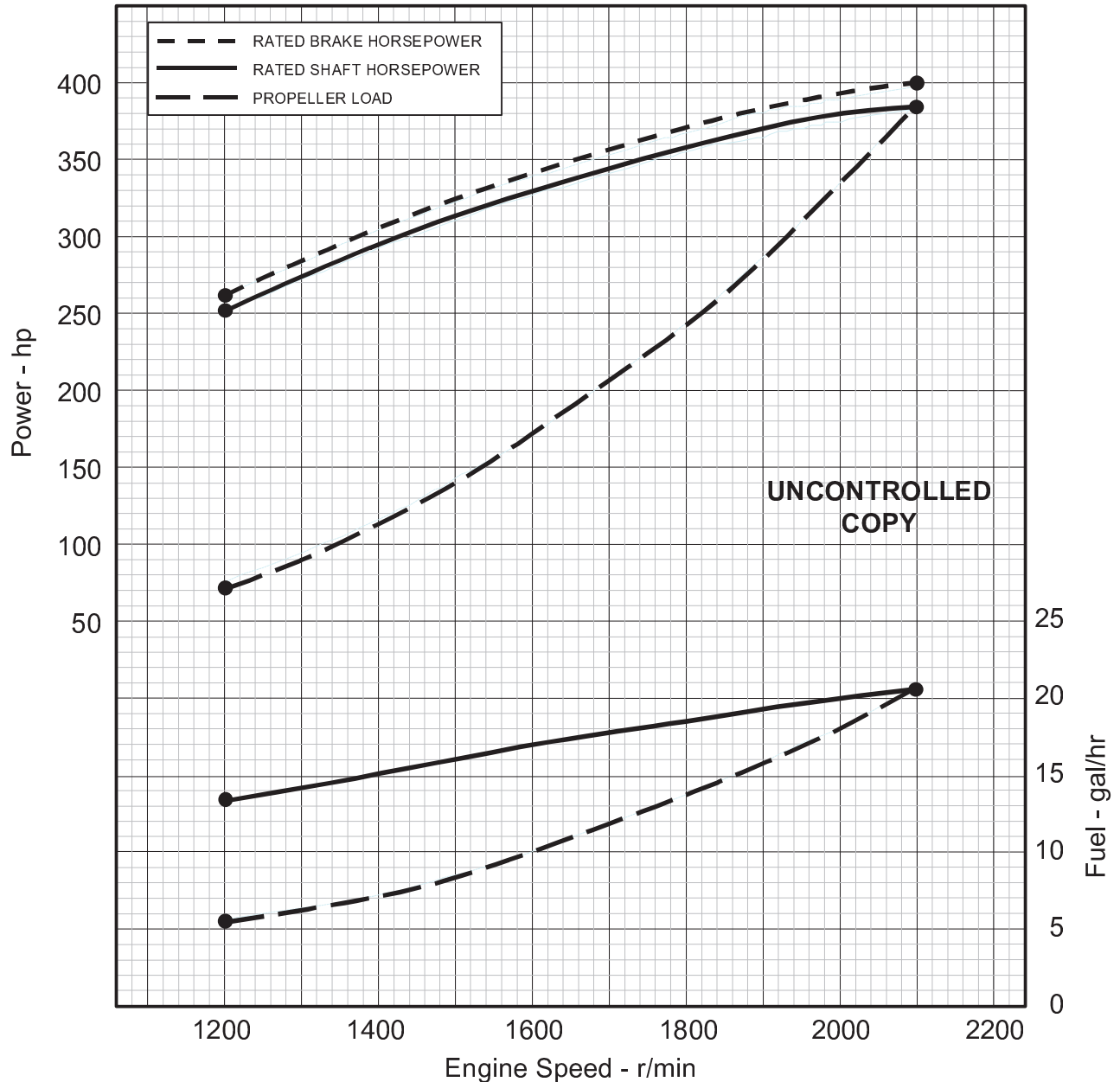


Marine Power

Model: 8V-71TA

Rating: 400 bhp (298 kW) @ 2100 r/min
385 shp (287 kW) @ 2100 r/min

Intermittent
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: TV8405 (1.23 A/R) Injector: 7E75 Accessories: ZF Gear Alternator: 24V, 70A Raw Water Pump: Included</p>
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Certified by: *JR Schringer*

Curve No. E4-7082-32-5
Rev. / Date: 1 / 12-18-97
Sheet No. 1 of 2

Performance Curve

MARINE SPECIFICATION SHEET

General Data

Model	7082-7400
Number of Cylinders	8
Bore and Stroke – in. x in. (mm x mm)	4.25 x 5.00 (108 x 127)
Displacement – in. ³ (L)	568 (9.30)
Compression Ratio	17.0:1
Piston Speed – ft/min (m/min)	1750 (533)
Exhaust Valves	4
Combustion System	Direct Injection
Engine Type	63.5° VEE 2 Cycle
Aspiration	Turbocharged

Configuration

Injection Device	MUI
Turbocharger	TW7302 (1.03 A/R)
Charge Air Cooling System	JWAC
Blower Type	83% Bypass
Blower Drive Ratio	1.95:1
Low Idle Speed – r/min	550
Maximum No Load Speed – r/min	2300
Engine Crankcase Vent System	OPEN

Physical Data

Size:	WITH GEAR	WITHOUT GEAR
Length – in. (mm)	†	62.1 (1577)
Width – in. (mm)	†	41.8 (1062)
Height – in. (mm)	†	46.6 (1184)
Weight, dry – lb (kg)	†	2495 (1132)
Weight, wet – lb (kg)	†	2735 (1241)
Center of Gravity Distance:		
From R.F.O. Flange/Blk. (x axis) – in. (mm)	†	12.9 (328)
Above Output Shaft (y axis) – in. (mm)	†	6.0 (152)
Right of Output Shaft (z axis) – in. (mm)	†	1.31 (33)
Installation Drawing	Not Available	

Mechanical Data

Marine Gear

Type	†
Reduction Ratio	†
Lube Oil Capacity – qt (L)	†
(marine gear must use straight viscosity oil)	
Gear Weight, dry – lb (kg)	†
Center of Gravity Distance:	
From R.F.O. Flange/Blk. (x axis) – in. (mm)	†
Above Output Shaft (y axis) – in. (mm)	†
Right of Output Shaft (z axis) – in. (mm)	†

Fuel System

Fuel Injector	7E75
Injector Timing Height- in.	1.460
Fuel Consumption – lb/hr (kg/hr)	143.6 (65.1)
Fuel Spill Rate gal/hr (L/hr)	72.0 (272.5)
Total Fuel Flow gal/hr (L/hr)	92.5 (350.3)
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)	0.5 (12.7)
Smoke Control Device	TD – 0.385

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)	37 (140)
Oil Pan Capacity – at Installation Angle	0°
High Limit – qt (L)	24.5 (23.2) 24.5 (23.2)
Low Limit – qt (L)	18.5 (17.5) 18.5 (17.5)
Total Engine Oil Capacity with Filters – qt (L)	26.5 (25.1) 26.5 (25.1)
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

† Value will vary depending on customer selection.

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

Cooling System

Engine Heat Rejection – Btu/min (kW)	12250 (215.4)
Boost Cooler Heat Rejection – Btu/min (kW)	Not Applicable
Engine Radiated Heat – Btu/min (kW)	2020 (35.5)
Coolant Flow:	
Fresh Water Flow – gal/min (L/min)	130 (492)
Raw Water Flow – gal/min (L/min)	100 (379)
Maximum Water Pump:	Fresh Water
Inlet Restriction – in. Hg (kPa)	3.0 (10.2)
Fresh Water Capacity – qt (L)	90 (85.2)
Maximum Coolant Pressure	
(Exclusive of Pressure Cap) – lb/in. ² (kPa)	17 (117)
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)	3.0 (76)
Outlet – in. (mm)	2.5 (64)
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)	1080 (30.6)
Air Box Pressure – in. Hg (kPa)	45.0 (152)
Recommended Intake Pipe Dia. – in.(mm)	6.0 (152)
Minimum Net Engine Room Vent Area, – in. ² (cm ²)	104 (669)
Maximum Crankcase Pressure – in. H ₂ O (kPa)	1.9 (0.47)

Exhaust System

Exhaust Flow – ft ³ /min (m ³ /min)	2430 (68.8)
Exhaust Temperature – °F (°C)	725 (385)
Maximum Back Pressure – in. Hg (kPa)	2.5 (8.4)
Recommended Exhaust Pipe Diameter:	
Single – in. (mm)	6.0 (152) 8 (203)
Dual – in. (mm)	Not Applicable

Performance Data

BMEP – lb/in. ² (kPa)	132.9 (916)
Friction Power – fhp (kW)	85 (63)

Engine Speed r/min	Brake Power bhp (kW)	Shaft Power shp (kW)	Rated Fuel Usage gal/hr (L/hr)	Rated BSFC lb/bhp·hr (g/kW·hr)
2100	400 (298)	385 (287)	20.5 (77.8)	0.359 (218)
1950	388 (289)	374 (279)	19.5 (73.7)	0.351 (213)
1800	370 (276)	356 (266)	18.3 (69.4)	0.346 (211)
1600	340 (254)	327 (244)	16.8 (63.4)	0.344 (209)
1400	305 (228)	293 (219)	15.0 (57.0)	0.345 (210)
1200	263 (196)	252 (188)	13.2 (50.1)	0.352 (214)

Engine Speed r/min	Prop Load shp (kW)	Prop Fuel Usage gal/hr (L/hr)	Prop BSFC lb/bhp·hr (g/kW·hr)
2100	385 (287)	20.5 (77.8)	0.359 (218)
1950	308 (230)	16.9 (63.9)	0.366 (222)
1800	242 (181)	13.6 (51.5)	0.371 (225)
1600	170 (127)	10.0 (37.9)	0.382 (232)
1400	114 (85)	7.2 (27.1)	0.397 (241)
1200	72 (54)	5.7 (21.7)	0.485 (295)

Emissions Data

Smoke, Rated Speed – Bosch Number	0.3
Noise – dB(A) @ 1	103
Additional Noise Data	Not Available
NO _x – g/hr	4020
CO – g/hr	150
HC – gh/r	82
SO ₂ – g/hr	651

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All information subject to change without notice.

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