



Marine Power

Model: 6-71TI

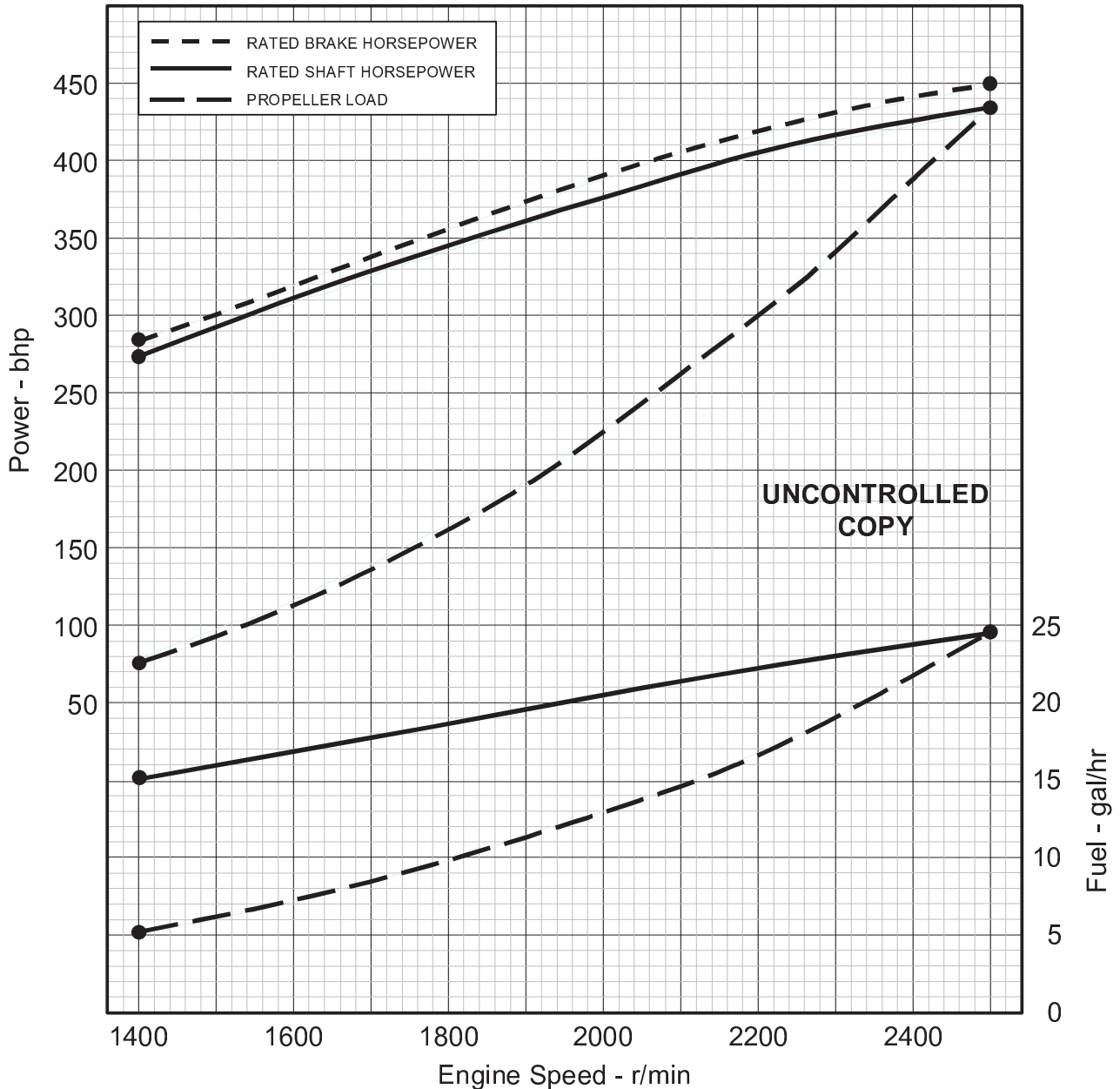
Rating: 450 bhp (336 kW) @ 2500 r/min

434 shp (324 kW) @ 2500 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 = hp x 0.746 Fuel: L/hr = gal/hr x 3.785</p>	<p>Turbo: TW7302 (1.19 A/R) Injector: 7255 Accessories: DD-507-1 Alternator: 12V, 66A Raw Water Pump: Included</p>
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Certified by: JR Hebringer

Curve No. E4-1062-32-7
 Rev. / Date: 5 / 12-23-97
 Sheet No. 1 of 2

Performance Curve

MARINE SPECIFICATION SHEET

General Data

Model	1062-5300
Number of Cylinders.....	6
Bore and Stroke – in. x in. (mm x mm).....	4.25 x 5.00 (108 x 127)
Displacement – in. ³ (L)	426 (6.99)
Compression Ratio	17.0:1
Piston Speed – ft/min (m/min).....	2083 (635)
Exhaust Valves.....	4
Combustion System	DIRECT INJECTION
Engine Type	INLINE – 2 Cycle
Aspiration	TURBOCHARGED

Configuration

Injection Device	MUI
Turbocharger.....	TW7302 (1.19 A/R)
Charge Air Cooling System.....	RWIC
Blower Type.....	BYPASS
Blower Drive Ratio.....	2.00:1
Low Idle Speed – r/min.....	500
Maximum No Load Speed – r/min.....	2700
Engine Crankcase Vent System	CLOSED

Physical Data

Size:	WITH GEAR	WITHOUT GEAR
Length – in. (mm).....	71.1 (1806)	53.0 (1346)
Width – in. (mm).....	34.0 (864)	34.0 (864)
Height – in. (mm).....	40.1 (1019)	40.1 (1019)
Weight, dry – lb (kg).....	2925 (1327)	2575 (1168)
Weight, wet – lb (kg).....	3079 (1397)	2729 (1238)
Center of Gravity Distance:		
From R.F.O. Flange/Blk. (x axis) – in. (mm).....	30.5 (775)	13.98 (355)
Above Crankshaft (y axis) – in. (mm).....	8.10 (206)	9.0 (229)
Right of Crankshaft (z axis) – in. (mm).....	-0.12 (-3.0)	0.01 (0.25)
Installation Drawing.....	23505514	

Mechanical Data

E4-1000-32-1

Marine Gear

Type.....	DD507-1
Reduction Ratio.....	1.51:1
Lube Oil Capacity – qt (L)	7.4 (7.0)
(marine gear must use straight viscosity oil)	
Gear Weight, Dry – lb (kg)	350 (159)
Center of Gravity Distance:	
From Rear Face of Flange (x axis) – in. (mm).....	30.5 (775)
Above Output Shaft (y axis) – in. (mm).....	8.10 (206)
Right of Output Shaft (z axis) – in. (mm).....	-12 (-3.0)

Fuel System

Fuel Injector.....	7255
Injection Timing Height – in.	1.500
Fuel Consumption – lb/hr (kg/hr).....	171.3 (77.7)
Fuel Spill Rate gal/hr (L/hr).....	77.4 (293)
Total Fuel Flow gal/hr (L/hr).....	101.9 (385.7)
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)

Lubrication System

Oil Pressure at Rated Speed – lb/in. ² (kPa).....	42-55 (290-379)
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).....	40 (151)
Oil Pan Capacity at Installation Angle	
High Limit – qt (L).....	29.0 (27) 29.0 (27)
Low Limit – qt (L).....	25.0 (24) 25.0 (24)
Total Engine Oil Capacity with Filters – qt (L).....	32.0 (30) 32.0 (30)
Maximum Installation Angle - Degrees	9.0

Electrical System

Recommended Battery Capacity (CCA @ 0°F):	
12 Volt System, Above 32°	950
12 Volt System, Below 32°	1250
24 Volt System, Above 32°	475
24 Volt System, Below 32°	625
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):.....	15000 (263.8)
Intercooler Heat Rejection – Btu/min (kW):.....	3750 (65.9)
Engine Radiated Heat – Btu/min (kW).....	790 (13.8)
Coolant Flow:	
Fresh Water Flow – gal/min (L/min).....	150 (568)
Raw Water Flow – gal/min (L/min).....	108 (409)
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)	48 (45)
Maximum Coolant Pressure	
(Exclusive of Pressure Cap) – lb/in. ² (kPa).....	37 (255)
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).....	10 (2.5)
Dirty Air Cleaner – in. H ₂ O (kPa).....	15 (3.7)
Engine Air Flow – ft ³ /min (m ³ /min).....	1070 (30.3)
Air Box Pressure – in. Hg (kPa).....	57.5 (194.2)
Recommended Intake Pipe Dia. – in. (mm)	6.0 (152)
Minimum Net Engine Room Vent Area, – in. ² (cm ²)	103 (663)
Maximum Crankcase Pressure – in. H ₂ O (kPa)	3.0 (0.80)

Exhaust System

Exhaust Flow – ft ³ /min (m ³ /min).....	2390 (67.7)
Exhaust Temperature – °F (°C).....	740 (393)
Maximum Back Pressure – in. Hg (kPa).....	2.5 (8.4)
Recommended Exhaust Pipe Diameter:	Dry Wet
Single – in. (mm)	6.0 (152) 8 (204)
Dual – in. (mm).....	Not Applicable

Performance Data

BMEP – lb/in. ² (kPa)	167.5 (1155)
Friction Power – fhp (kW)	93 (69)

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)
2500	450 (336)	434 (324)	24.5 (92.8)	0.381 (231)
2300	431 (322)	416 (310)	22.9 (86.6)	0.371 (226)
2100	405 (302)	391 (292)	21.3 (80.7)	0.368 (224)
1800	356 (266)	343 (256)	18.7 (70.6)	0.366 (223)
1600	320 (239)	309 (230)	16.9 (64.0)	0.369 (225)
1400	284 (212)	274 (204)	15.2 (57.6)	0.374 (228)

Engine Speed	Prop Load	Prop Fuel Usage	Prop BSFC
r/min	shp (kW)	gal/hr (L/hr)	lb/bhp-hr (g/kW-hr)
2500	434 (324)	24.5 (92.8)	0.381 (231)
2300	338 (252)	18.9 (71.5)	0.376 (229)
2100	257 (192)	14.7 (55.6)	0.383 (233)
1800	162 (121)	9.8 (37.1)	0.403 (245)
1600	114 (85)	7.2 (27.1)	0.417 (253)
1400	76 (57)	5.1 (19.3)	0.438 (267)

Emissions Data

Smoke, Rated Speed – Bosch Number	0.9
Noise – dB(A) @ 1	103
Additional Noise Data	Not Available
NO _x – g/hr	4330
CO – g/hr	1800
HC – g/hr.....	62
SO ₂ – g/hr	777

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

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