

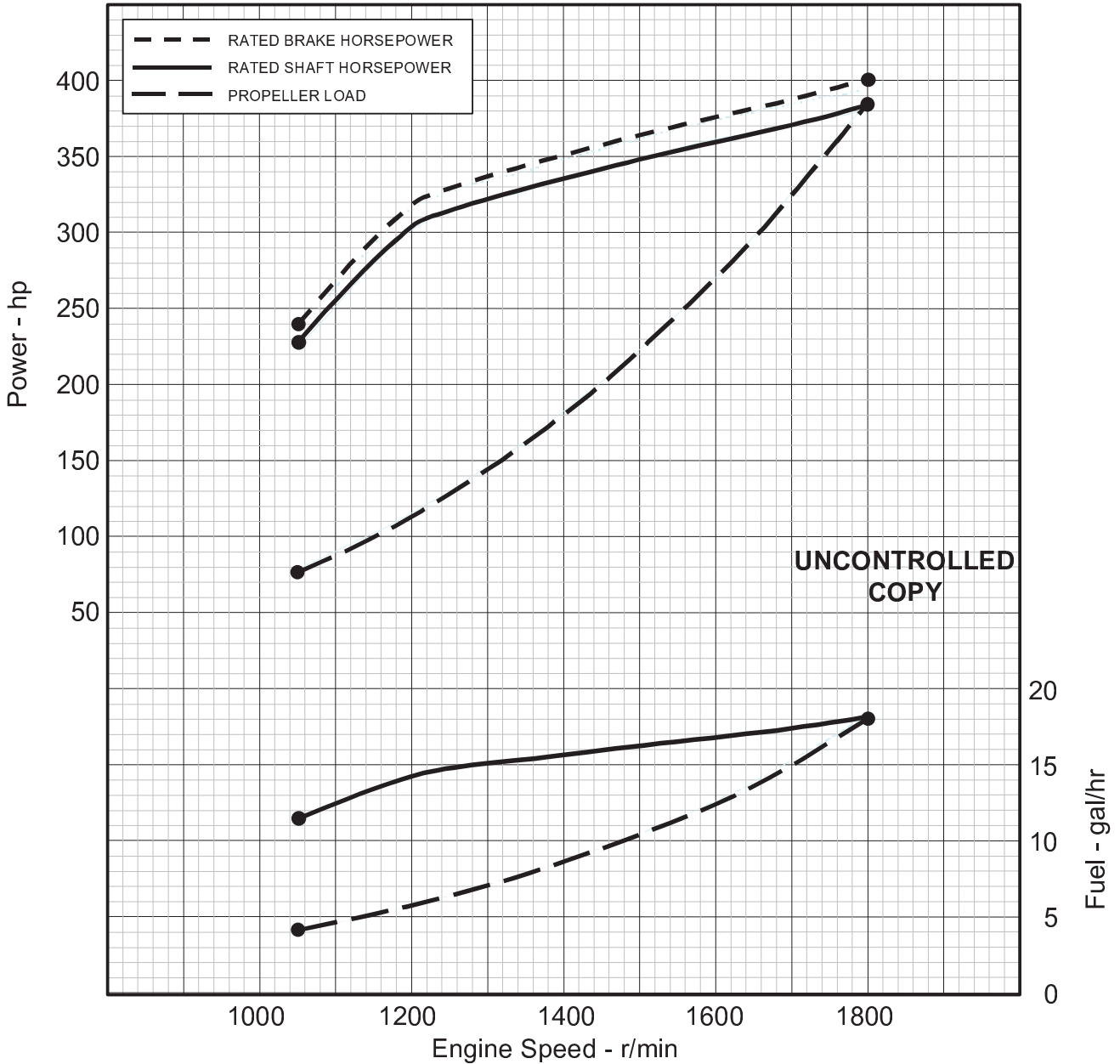


Marine Power

Model: Series 60®

Rating: 400 bhp (298 kW) @ 1800 r/min
385 shp (287 kW) @ 1800 r/min

Continuous
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: TMF55 1.34 A/R Injector : 5235695 Accessories: DD-516 Gear Alternator: 24V, 90A Raw Water Pump: Not Required</p>
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Certified by: *Paul [Signature]*

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Performance Curve

MARINE SPECIFICATION SHEET

General Data

Model	6062-TK20, - TK21	
Number of Cylinders	6	
Bore and Stroke – in. x in. (mm x mm)	5.12 x 6.30 (130 x 160)	
Displacement – in. ³ (L)	778 (12.74)	
Compression Ratio	15.0:1	
Piston Speed – ft/min (m/min)	1890 (576)	
Intake Valves	2	
Exhaust Valves	2	
Combustion System	DIRECT INJECTION	
Engine Type	Inline – 4 Cycle	
Aspiration	TURBOCHARGED	

Configuration

Injection Device	EUI	
Turbocharger	TMF55 (1.34 A/R)	
Charge Air Cooling System	Air to Water	
Low Idle Speed – r/min	600	
Engine Crankcase Vent System	OPEN	

Physical Data

Size:	WITH GEAR	WITHOUT GEAR
Length – in. (mm)	77.8 (1976)	57.2 (1453)
Width – in. (mm)	35.0 (1889)	35.0 (1889)
Height – in. (mm)	57.3 (1455)	54.2 (1377)
Weight, Dry – lb (kg)	4150 (1882)	2570 (1166)
Weight, Wet – lb (kg)	4444 (2016)	2798 (1269)
Center of Gravity Distance:		
From R.F.O.B. (x axis) – in. (mm)	33.6 (853)	
Above Crankshaft (y axis) – in. (mm)	15.6 (396)	
Right of Crankshaft (z axis) – in. (mm)	1.48 (37.6)	
Installation Drawing	Not Available	

Mechanical Data

Marine Gear

Type	DD-516	
Reduction Ratio	6.0:1	
Lube Oil Capacity – qt (L)	35.0 (33.1)	
(marine gear must use straight viscosity oil)		
Gear Weight, Dry – lb (kg)	1580 (717)	
Center of Gravity Distance:		
From Mounting Face (x axis) – in. (mm)	9.56 (243)	
Above Output Shaft (y axis) – in. (mm)	5.32 (135)	
Right of Output Shaft (z axis) – in. (mm)	1.64 (41.7)	

Fuel System

Fuel Injector	5235695	
Fuel Consumption – lb/hr (kg/hr)	124.8 (56.6)	
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	8	
Recommended Supply Line I.D. – in. (mm)	0.75 (19.05)	

Lubrication System

Oil Pressure at Rated Speed – lb/in. ² (kPa)	50 (345)	
Oil Pressure at Low Idle – lb/in. ² (kPa)	12 (83)	
In Pan Oil Temperature – °F (°C)	235 (113)	
Oil Flow – gal/min (L/min)	31 (117)	
Oil Pan Capacity at Installation Angle	0°	12°
High Limit – qt (L)	32.0 (30.3)	32.0 (30.3)
Low Limit – qt (L)	26.0 (24.6)	26.0 (24.6)
Total Engine Oil Capacity with Filters – qt (L)	38.0 (36.0)	38.0 (36.0)
Maximum Installation Angle – Degrees	12.0	

Electrical System

Recommended Battery Capacity (CCA @ 0°F):	
12 Volt System	1875
24 Volt System	950
Maximum Resistance of Starting Circuit:	
12 Volt System – ohms	0.0012
24 Volt System – ohms	0.002

* Engine Only

Cooling System

Engine Heat Rejection – Btu/min (kW)	5900 (103.7)	
Charge Air Heat Rejection – Btu/min (kW)	3335 (58.6)	
Engine Radiated Heat – Btu/min (kW)	2410 (42.4)	
Coolant Flow:		
Fresh Water Flow – gal/min (L/min)	96 (363)	
Raw Water Flow – gal/min (L/min)	100 (378.5)	
Charge Air Cooler Water flow – gal/min (L/min)	57 (216)	
Thermostats:		
Start to Open – °F (°C)	190 (88)	
Fully Open – °F (°C)	205 (96)	
Maximum Water Pump:		
Inlet Restriction – in. Hg (kPa)	0.0 (0.0)	3.0 (10)
Fresh Water Capacity – qt (L)	43 (163)	
Minimum Pressure Cap – lb/in. ² (kPa)	9 (62)	
Maximum Coolant Pressure (Exclusive of Pressure Cap) – lb/in. ² (kPa)	10 (69)	
Maximum Top Tank Temperature – °F (°C)	210 (99)	
Minimum Top Tank Temperature – °F (°C)	160 (71)	
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)	25 (13.9)
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)	910 (25.8)
Intake Manifold Pressure – in. Hg (kPa)	43.8 (148)
Minimum Net Engine Room Vent Area, – in. ² (cm ²)	123 (792)
Maximum Crankcase Pressure – in. H ₂ O (kPa)	1.20 (0.75)

Exhaust System

Exhaust Flow – ft ³ /min (m ³ /min)	2000 (56.6)
Exhaust Temperature – °F (°C)	695 (368)
Maximum Back Pressure – in. Hg (kPa)	2.5 (8.47)
Recommended Exhaust Pipe Diameter:	
Single – in. (mm)	5.0 (127)
Dual – in. (mm)	6 (152)
	Not Applicable

Performance Data

BMEP – lb/in. ² (kPa)	226.3 (1561)
Friction Power – fhp (kW)	58 (43)

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)
1800	400 (298)	385 (287)	17.9 (67.6)	0.312 (190)
1600	380 (283)	365 (273)	16.8 (63.4)	0.308 (187)
1400	353 (263)	339 (253)	15.6 (59.0)	0.308 (188)
1200	320 (239)	307 (229)	14.6 (55.3)	0.319 (194)
1050	240 (179)	229 (171)	11.5 (43.5)	0.335 (204)

Engine Speed r/min	Prop Load shp (kW)	Prop Fuel Usage gal/hr (L/hr)	Prop BSFC lb/bhp-hr (g/kW-hr)
1800	385 (287)	17.9 (67.6)	0.312 (190)
1600	270 (202)	12.5 (47.2)	0.309 (188)
1400	181 (135)	8.7 (32.9)	0.318 (194)
1200	114 (85)	5.8 (22.1)	0.334 (203)
1050	76 (57)	4.2 (15.9)	0.350 (213)

Emissions Data

Smoke, Rated Speed – Bosch Number	1.0
Noise – dB(A) @ 1m	101.2
Additional Noise Data	Not Available
NO _x – g/hr	2150
CO – g/hr	61
HC – g/hr	16.6
SO ₂ – g/hr	566
Particulates – g/hr	12.5

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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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