

# DETROIT DIESEL

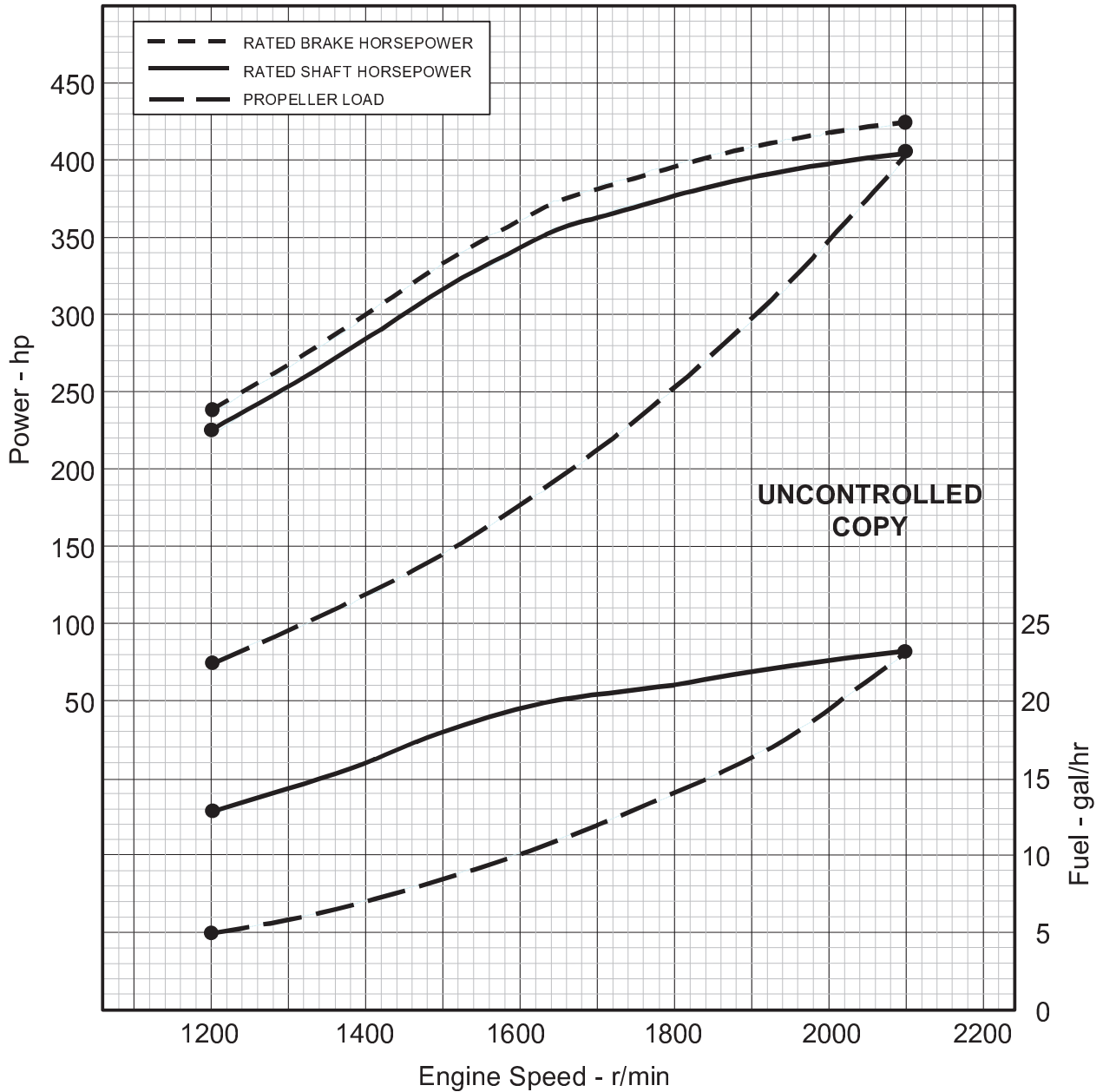


## Marine Power

**Model:** 6V-92TA DDEC®

**Rating:** 425 bhp(317 kW) @ 2100 r/min  
405 shp (302 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. H<sub>2</sub>O (2.5 kPa) Exhaust Back Pressure: 15 in. H<sub>2</sub>O (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><b>Turbo:</b> TV7308 (1.39 A/R) <b>Injector:</b> 5234775 <b>Accessories:</b> 5111V Gear <b>Alternator:</b> 24V, 70A <b>Raw Water Pump:</b> Included</p>
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Certified by: *JR Lebringer*

**Curve No.** E4-8062-32-17  
**Rev. / Date:** 4 / 2-9-98  
**Sheet No.** 1 of 2

### Performance Curve

# MARINE SPECIFICATION SHEET

## General Data

Model	8062-7K22, -7K23	
Number of Cylinders	6	
Bore and Stroke – in. x in. (mm x mm)	4.84 x 5.00 (123 x 127)	
Displacement – in. <sup>3</sup> (L)	552 (9.05)	
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	EUI	
Turbocharger	TW7308 (1.39 A/R)	
Charge Air Cooling System	JWAC	
Blower Type	100% Dual Bypass	
Blower Drive Ratio	2.05:1	
Low Idle Speed – r/min	550	
Maximum No Load Speed – r/min	2200	
Engine Crankcase Vent System	OPEN	

## Physical Data

Size:	WITH GEAR	WITHOUT GEAR
Length – in. (mm)	68.8 (1747)	51.6 (1311)
Width – in. (mm)	42.7 (1085)	42.5 (1085)
Height – in. (mm)	47.0 (1195)	47.0 (1195)
Weight, Dry – lb (kg)	3280 (1488)	2795 (1268)
Weight, Wet – lb (kg)	3511 (1593)	3004(1363)
Center of Gravity Distance:		
From R.F.O.Flg/Blk. (x axis) – in. (mm)	Not Available	9.46 (240)
Above Output Shaft (y axis) – in. (mm)	Not Available	13.28 (337)
Right of Output Shaft (z axis) – in. (mm)	Not Available	-1.74 (-44)
Installation Drawing	23504647 (Ref.)	

## Mechanical Data

E4-8000-32-1

## Marine Gear

Type	DD5111V	
Reduction Ratio	3.10:1	
Lube Oil Capacity – qt (L)	11.2 (10.6)	
(marine gear must use straight viscosity oil)		
Gear Weight, Dry – lb (kg)	561 (254)	
Center of Gravity Distance:		
From Mounting Face (x axis) – in. (mm)	9.97 (253)	
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 – Part Number	5234775	
Injector Timing Height – in.	1.520	
Fuel Consumption – lb/hr (kg/hr)	162.4 (73.7)	
Fuel Spill Rate gal/hr (L/hr)	68.0 (257.4)	
Total Fuel Flow gal/hr (L/hr)	91.2 (345.4)	
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. <sup>2</sup> (kPa)	49-70 (338-483)	
Oil Pressure at Low Idle – lb/in. <sup>2</sup> (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°	15°
High Limit – qt (L)	19.2 (18.2)	18.2 (17.2)
Low Limit – qt (L)	14.2 (13.4)	16.3 (15.4)
Total Engine Oil Capacity with Filters – qt (L)	21.2 (20.1)	20.2 (19.1)
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

## Cooling System

Engine Heat Rejection – Btu/min (kW)	16400 (288.4)	
Engine Radiated Heat – Btu/min (kW)	1240 (21.8)	
Coolant Flow:		
Fresh Water Flow – gal/min (L/min)	160 (606)	
Raw Water Flow – gal/min (L/min)	100 (379)	
Maximum Water Pump:		
Inlet Restriction – in. Hg (kPa)	3.0 (10.2)	5.0 (17.0)
Fresh Water Capacity – qt (L)	72 (68)	
Maximum Coolant Pressure		
(Exclusive of Pressure Cap) – lb/in. <sup>2</sup> (kPa)	18 (124)	
Maximum Raw Water Pump Pressure – lb/in. <sup>2</sup> (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 <sub>2</sub> O (kPa)	12 (3.0)	
Dirty Air Cleaner – in. H <sub>2</sub> O (kPa)	20 (5.0)	
Engine Air Flow – ft <sup>3</sup> /min (m <sup>3</sup> /min)	1110 (31.4)	
Air Box Pressure – in. Hg (kPa)	53.0 (179)	
Recommended Intake Pipe Dia. – in. (mm)	6.0 (152)	
Minimum Net Engine Room Vent Area – in. <sup>2</sup> (cm <sup>2</sup> )	107 (688)	
Maximum Crankcase Pressure – in. H <sub>2</sub> O (kPa)	2.5 (0.62)	

## Exhaust System

Exhaust Flow – ft <sup>3</sup> /min (m <sup>3</sup> /min)	2690 (76.2)	
Exhaust Temperature – °F (°C)	810 (432)	
Maximum Back Pressure – in. Hg (kPa)	2.5 (8.4)	
Recommended Exhaust Pipe Diameter:		
Single – in. (mm)	5.0 (127)	6 (152)
Dual – in. (mm)	Not Applicable	

## Performance Data

BMEP – lb/in. <sup>2</sup> (kPa)	145.2 (1001)
Friction Power – fhp (kW)	79 (59)

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	425 (317)	405 (302)	23.2 (88.0)	0.382 (232)
1950	415 (310)	396 (295)	22.3 (84.3)	0.375 (228)
1800	398 (297)	379 (283)	21.0 (79.3)	0.368 (224)
1600	364 (272)	347 (259)	19.5 (73.7)	0.374 (227)
1400	303 (226)	288 (215)	16.1 (61.0)	0.372 (226)
1200	238 (178)	225 (168)	12.9 (48.7)	0.378 (230)

Engine Speed r/min	Prop Load shp (kW)	Prop Fuel Usage gal/hr (L/hr)	Prop BSFC lb/bhp-hr (g/kW-hr)
2100	405 (302)	23.2 (88.0)	0.382 (232)
1950	324 (242)	18.0 (68.0)	0.365 (222)
1800	255 (190)	14.2 (53.7)	0.362 (220)
1600	179 (134)	10.4 (39.4)	0.370 (225)
1400	120 (90)	7.4 (27.9)	0.381 (231)
1200	76 (56)	5.2 (19.7)	0.410 (250)

## Emissions Data

Smoke, Rated Speed – Bosch Number	1.0
Noise – dB(A) @ 1	101.5
Additional Noise Data	Not Available
NO <sub>x</sub> – g/hr	3644
CO – g/hr	1096
HC – gh/r	61
SO <sub>2</sub> – g/hr	737

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

Curve No. E4-8062-32-17  
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Sheet No. 2 of 2

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