

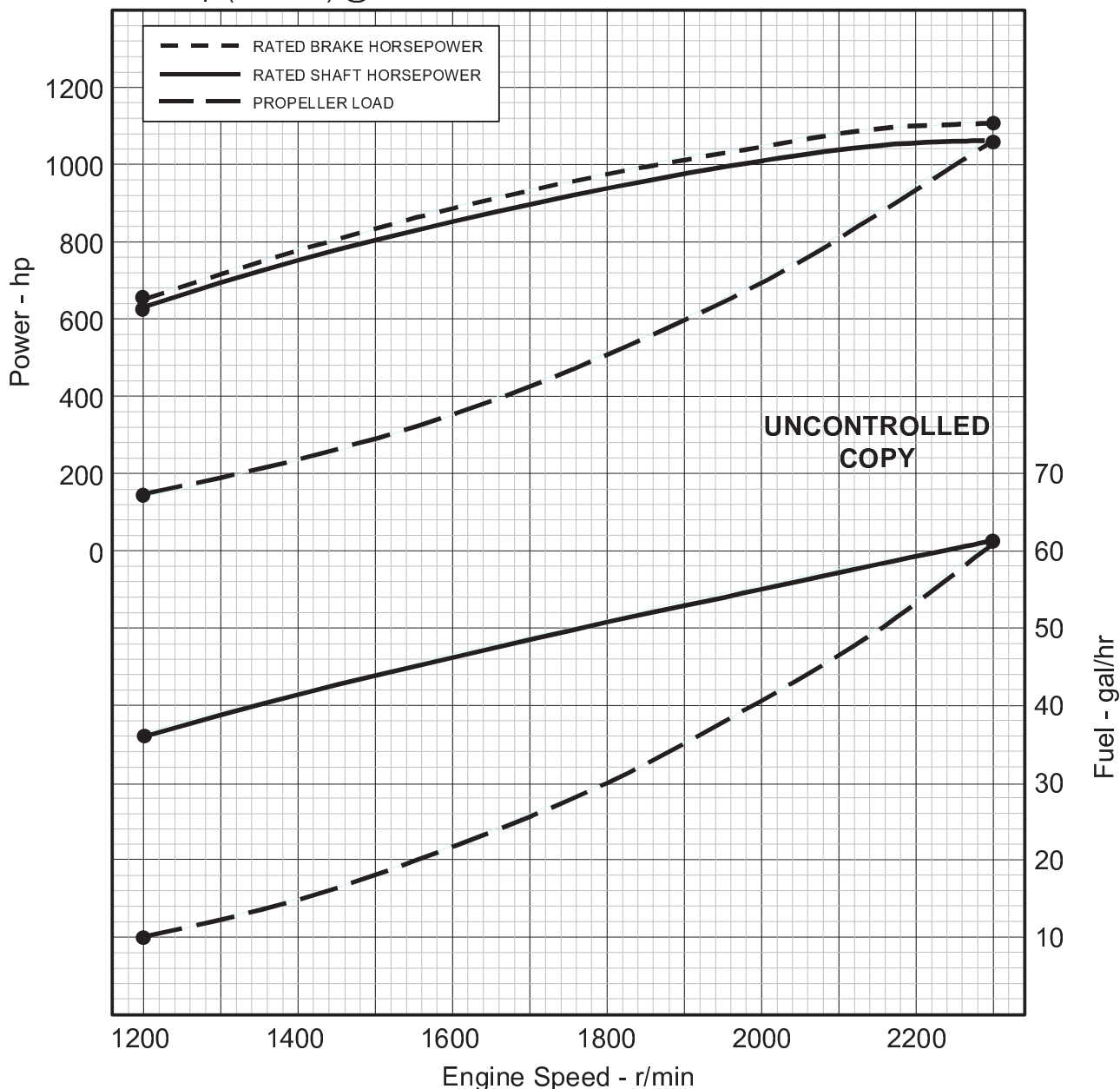


## Marine Power

**Model:** 16V-92TA

**Rating:** 1100 bhp (821 kW) @ 2300 r/min  
1060 shp (791 kW) @ 2300 r/min

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. 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> TW9401 (1.46 A/R) <b>Injector:</b> 7035 <b>Accessories:</b> DD272EV Gear <b>Alternator:</b> 24V, 65A <b>Raw Water Pump:</b> 2 Included</p>
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Certified by: JR Lebringer

### Performance Curve

**Curve No.** E4-8162-32-6  
**Rev. / Date:** 3 / 12-15-97  
**Sheet No.** 1 of 2

# MARINE SPECIFICATION SHEET

## General Data

Model.....	8162-7400
Number of Cylinders.....	16
Bore and Stroke – in. x in. (mm x mm).....	4.84 x 5.00 (123 x 127)
Displacement – in. <sup>3</sup> (L).....	1472 (24.14)
Compression Ratio.....	17.0:1
Piston Speed – ft/min (m/min).....	1917 (584)
Exhaust Valves.....	4
Combustion System.....	DIRECT INJECTION
Engine Type.....	63.5° VEE 2 Cycle
Aspiration.....	TURBOCHARGED

## Configuration

Injection Device.....	MUI
Turbocharger.....	TW9401 (1.46 A/R)
Charge Air Cooling System.....	JWAC with Boost Cooler
Blower Type.....	100% Relieved Bypass
Blower Drive Ratio.....	2.60:1
Low Idle Speed – r/min.....	550
Maximum No Load Speed – r/min.....	2525
Engine Crankcase Vent System.....	OPEN

## Physical Data

Size:	<b>WITH GEAR</b>	<b>WITHOUT GEAR</b>
Length – in. (mm).....	103.9 (2639)	81.1 (2060)
Width – in. (mm).....	49.1 (1247)	49.1 (1247)
Height – in. (mm).....	54.0 (1372)	54.0 (1372)
Weight, dry – lb (kg).....	7006 (3178)	6080 (2758)
Weight, wet – lb (kg).....	7452 (3380)	6498 (2948)
Center of Gravity distance:		
From R.F.O.Flg/Blk. (x axis) – in. (mm).....	41.9 (1064)	16.87 (428)
Above Output Shaft (y axis) – in. (mm).....	23.4 (594)	17.56 (446)
Right of Output Shaft (z axis) – in. (mm).....	-0.23 (-5.84)	0.12 (3.05)
Installation Drawing.....	23503599 Ref.	

## Mechanical Data

### Marine Gear

Type.....	DD-272EV
Reduction Ratio.....	2.04:1
Lube Oil Capacity– qt (L).....	15.9 (15.0)
(marine gear must use straight viscosity oil)	
Gear Weight, dry – lb (kg).....	926 (420)
Center of Gravity Distance:	
From Mounting Face (x axis) – in. (mm).....	11.97 (304)
Above Output Shaft (y axis) – in. (mm).....	5.20 (132)
Right of Output Shaft (z axis) – in. (mm).....	2.56 (65)

### Fuel System

Fuel Injector/Timing.....	7035/1.484
Fuel Consumption – lb/hr (kg/hr).....	426.7 (193.5)
Fuel Spill Rate gal/hr (L/hr).....	142.4 (539)
Total Fuel Flow gal/hr (L/hr).....	203 (770)
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).....	0.75 (19.1)

### 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).....	85 (322)
Oil Pan Capacity at Installation Angle	<b>0°</b> <b>15°</b>
High Limit – qt (L).....	65.0 (62.0) 65.0 (62.0)
Low Limit – qt (L).....	53.0 (50.0) 53.0 (50.0)
Total Engine Oil Capacity with Filters – qt (L).....	67.0 (64.0) 67.0 (64.0)
Maximum Installation Angle – Degrees.....	15.0

### 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

## Cooling System

Engine Heat Rejection – Btu/min (kW).....	40260 (707.9)
Boost Cooler Heat Rejection – Btu/min (kW).....	8010 (140.9)
Engine Radiated Heat – Btu/min (kW).....	1960 (34.5)
Coolant Flow:	
Fresh Water Flow – gal/min (L/min).....	357 (1351)
Raw Water Flow – gal/min (L/min).....	214 (810)
Maximum Water Pump:	<b>Fresh Water</b> <b>Raw Water</b>
Inlet Restriction – in. Hg (kPa).....	3.0 (10.2) 5.0 (17.0)
Fresh Water Capacity – qt (L).....	138 (130.6)
Maximum Coolant Pressure	
(Exclusive of Pressure Cap) – lb/in. <sup>2</sup> (kPa).....	17.5 (121)
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).....	3580 (101.4)
Air Box Pressure – in. Hg (kPa).....	47.0 (158.7)
Recommended Intake Pipe Dia. – in. (mm).....	10.0 (254)
Minimum Net Engine Room Vent Area, – in. <sup>2</sup> (cm <sup>2</sup> ).....	344 (2219)
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).....	6930 (196.3)
Exhaust Temperature – °F (°C).....	580 (304)
Maximum Back Pressure – in. Hg (kPa).....	2.5 (8.4)
Recommended Exhaust Pipe Diameter:	<b>Dry</b> <b>Wet</b>
Single – in. (mm).....	10.0 (254) 12 (304)
Dual – in. (mm).....	8.0 (203) 10.0 (254)

## Performance Data

BMEP – lb/in. <sup>2</sup> (kPa).....	128.7 (887)
Friction Power– fhp (kW).....	250 (187)

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)
2300	1100 (821)	1060 (791)	61.1 (231.3)	0.388 (236)
2100	1070 (798)	1032 (770)	57.5 (217.7)	0.375 (228)
1950	1025 (765)	988 (737)	54.4 (205.9)	0.371 (226)
1800	970 (724)	935 (698)	51.1 (193.3)	0.368 (224)
1500	832 (621)	802 (598)	44.1 (167.0)	0.371 (225)
1200	653 (487)	628 (469)	36.6 (138.3)	0.391 (238)

Engine Speed	Prop Load	Prop Fuel Usage	Prop BSFC
r/min	shp (kW)	gal/hr (L/hr)	lb/bhp-hr (g/kW-hr)
2300	1060 (791)	61.1 (231.1)	0.388 (236)
2100	807 (602)	46.2 (176.2)	0.385 (234)
1950	646 (482)	37.6 (142.3)	0.391 (238)
1800	508 (379)	30.1 (113.7)	0.397 (242)
1500	294 (219)	18.2 (72.2)	0.411 (250)
1200	151 (112)	10.0 (41.2)	0.434 (264)

## Emissions Data

Smoke, Rated Speed – Bosch Number.....	0.6
Noise – dB(A) @ 1.....	105
Additional Noise Data.....	Not Available
NO <sub>x</sub> – g/hr.....	7140
CO – g/hr.....	2290
HC – g/hr.....	360
SO <sub>2</sub> – g/hr.....	1935

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

Curve No. E4-8162-32-6  
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Sheet No. 2 of 2

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