

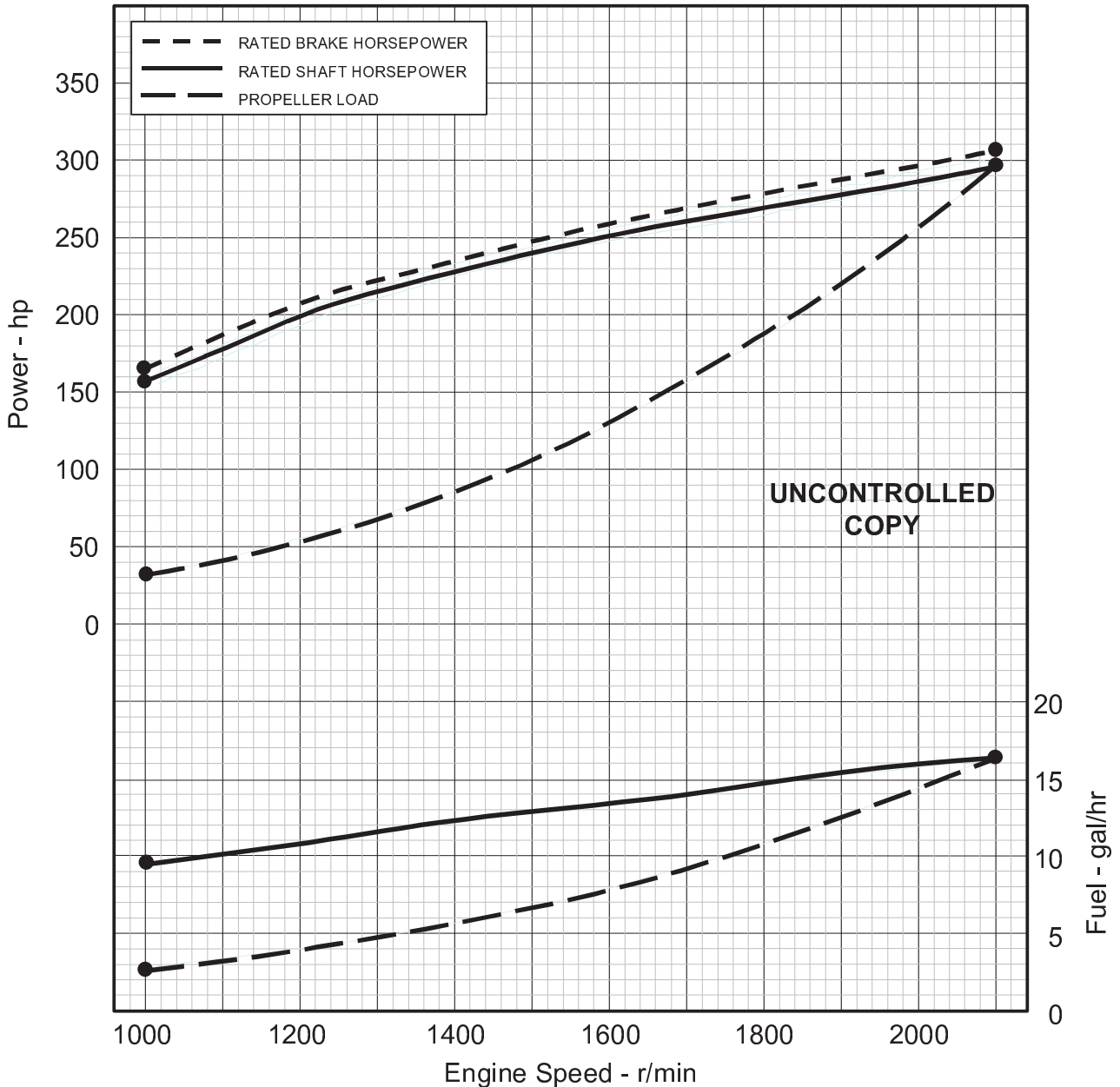
DETROIT DIESEL



Marine Power

Model: 6V-92TA
Rating: 305 bhp (228 kW) @ 2100 r/min
 295 shp (220 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: TW73 (1.03 A/R) Injector: 7G75 Accessories: Allison MH Gear Alternator: 24V, 60A Raw Water Pump: Included</p> |
|---|---|--|

Certified by:  T.J. MOORE

Curve No. E4-8062-32-9
 Rev./ Date: 3 / 10-26-98
 Sheet No. 1 of 2

Performance Curve

MARINE SPECIFICATION SHEET

General Data

| | |
|--|-------------------------|
| Model..... | 8062-7406 |
| Number of Cylinders..... | 6 |
| Bore and Stroke – in. x in. (mm x mm)..... | 4.84 x 5.00 (123 x 127) |
| Displacement – in. ³ (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..... | MUI |
| Turbocharger..... | TW73 (1.03 A/R) |
| Charge Air Cooling System..... | JWAC |
| Blower Type..... | 100% Standard 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)..... | 73.9 (1877) | Not Available |
| Width – in. (mm)..... | 48.3 (1227) | 48.3 (1227) |
| Height – in. (mm)..... | 47.7 (1210) | 47.7 (1210) |
| Weight, Dry – lb (kg)..... | 3300 (1497) | Not Available |
| Weight, Wet – lb (kg)..... | 3447 (1563) | Not Available |
| Center of Gravity Distance: | | |
| From R.F.O.Flg/Blk. (x axis) – in. (mm)..... | 28.1 (713) | |
| Above Output Shaft (y axis) – in. (mm)..... | 12.3 (313) | |
| Right of Output Shaft (z axis) – in. (mm)..... | 0.09 (2.3) | |
| Installation Drawing..... | 23503416 | |

Mechanical Data

Marine Gear

| | |
|--|---------------|
| Type..... | Allison MH45 |
| Reduction Ratio..... | 4.5:1 |
| Lube Oil Capacity – qt (L)..... | 6.0 (5.7) |
| (marine gear must use straight viscosity oil) | |
| Gear Weight, Dry – lb (kg)..... | 490 (222) |
| Center of Gravity Distance: | |
| From Mounting Face (x axis) – in. (mm)..... | Not Available |
| Above Output Shaft (y axis) – in. (mm)..... | Not Available |
| Right of Output Shaft (z axis) – in. (mm)..... | Not Available |

Fuel System

| | |
|---|---------------|
| Fuel Injector..... | 7G75 |
| Injector Timing..... | 1.460 |
| Fuel Consumption – lb/hr (kg/hr)..... | 113.8 (51.6) |
| Fuel Spill Rate gal/hr (L/hr)..... | 108.0 (408.8) |
| Total Fuel Flow gal/hr (L/hr)..... | 124.3 (470.4) |
| 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. 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° 15° |
| High Limit – qt (L)..... | 20.0 (19.0) 20.0 (19.0) |
| Low Limit – qt (L)..... | 16.0 (15.0) 16.0 (15.0) |
| Total Engine Oil Capacity with Filters – qt (L)..... | 22.0 (21.0) 22.0 (21.0) |
| 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)..... | 12410 (218.3) |
| Engine Radiated Heat – Btu/min (kW)..... | 525 (9.2) |
| Coolant Flow: | |
| Fresh Water Flow – gal/min (L/min)..... | 160 (606) |
| Raw Water flow – gal/min (L/min)..... | 100 (379) |
| 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)..... | 72 (68) |
| Maximum Coolant Pressure | |
| (Exclusive of Pressure Cap) – lb/in. ² (kPa)..... | Not Available |
| 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)..... | 12 (3.0) |
| Dirty Air Cleaner – in. H ₂ O (kPa)..... | 20 (5.0) |
| Engine Air Flow – ft ³ /min (m ³ /min)..... | 840 (23.8) |
| Air Box Pressure – in. Hg (kPa)..... | 36.0 (121.6) |
| Recommended Intake Pipe Dia. – in. (mm)..... | 6.0 (152) |
| Minimum Net Engine Room Vent Area. – in. ² (cm ²)..... | 74 (477) |
| Maximum Crankcase Pressure – in. H ₂ O (kPa)..... | 2.5 (0.62) |

Exhaust System

| | |
|--|-------------------------------------|
| Exhaust Flow – ft ³ /min (m ³ /min)..... | 1610 (45.6) |
| Exhaust Temperature – °F (°C)..... | 570 (299) |
| Maximum Back Pressure – in. Hg (kPa)..... | 2.5 (8.4) |
| Recommended Exhaust Pipe Diameter: | Dry Wet |
| Single – in. (mm)..... | 5.0 (127) (152) |
| Dual – in. (mm)..... | Not Applicable |

Performance Data

| | |
|---------------------------------------|-------------|
| BMEP – lb/in. ² (kPa)..... | 104.2 (719) |
| 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 | 305 (228) | 295 (220) | 16.3 (61.7) | 0.373 (227) |
| 1800 | 277 (207) | 268 (200) | 14.5 (54.9) | 0.366 (223) |
| 1600 | 259 (193) | 251 (187) | 13.3 (50.4) | 0.360 (219) |
| 1400 | 236 (176) | 228 (170) | 12.1 (45.7) | 0.357 (217) |
| 1200 | 206 (153) | 198 (148) | 10.7 (40.4) | 0.363 (221) |
| 1000 | 164 (122) | 157 (117) | 9.2 (34.8) | 0.392 (238) |

| Engine Speed r/min | Prop Load shp (kW) | Prop Fuel Usage gal/hr (L/hr) | Prop BSFC lb/bhp-hr (g/kW-hr) |
|-----------------------|-----------------------|----------------------------------|----------------------------------|
| 2100 | 295 (220) | 16.3 (61.7) | 0.373 (227) |
| 1800 | 186 (139) | 10.6 (40.1) | 0.380 (231) |
| 1600 | 131 (97) | 7.7 (29.0) | 0.386 (235) |
| 1400 | 87 (65) | 5.4 (20.6) | 0.390 (237) |
| 1200 | 55 (41) | 3.7 (14.1) | 0.418 (254) |
| 1000 | 32 (24) | 2.5 (9.5) | 0.455 (277) |

Emissions Data

| | |
|--|---------------|
| Smoke, Rated Speed – Bosch Number..... | 0.8 |
| Noise – dB(A) @ 1..... | Not Available |
| Additional Noise Data..... | Not Available |
| NO _x – g/hr..... | Not Available |
| CO – g/hr..... | Not Available |
| HC – gh/r..... | Not Available |
| SO ₂ – g/hr..... | 520 |

**UNCONTROLLED
COPY**

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

Curve No. E4-8062-32-9
Rev. / Date: 3 / 10-26-98
Sheet No. 2 of 2

All information subject to change without notice.
Detroit Diesel and Spinning Arrows Design® are registered trademarks of Detroit Diesel Corporation.
© 1998 DETROIT DIESEL CORPORATION