# Detroit Diesel Engines marine models

## basic specifications

<table>
<thead>
<tr>
<th>Basic Engine</th>
<th>12V-71</th>
<th>12V-71TI Twin Disc MG514CHP Marine Gear</th>
<th>12V-71TI ZF BW 195 Marine Gear</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model–Port Starboard</td>
<td>7122-3000, 7122-3001**</td>
<td>7122-3300, 3302</td>
<td>—</td>
</tr>
<tr>
<td>Description</td>
<td>Naturally Aspirated</td>
<td>Turbocharged-Intercooled</td>
<td>Turbocharged-Intercooled</td>
</tr>
<tr>
<td>Number of Cylinders</td>
<td>12</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Bore and Stroke</td>
<td>4.25 in x 5 in (108mm x 127mm)</td>
<td>4.25 in x 5 in (108mm x 127mm)</td>
<td>4.25 in x 5 in (108mm x 127mm)</td>
</tr>
<tr>
<td>Displacement</td>
<td>852 cu in (13.97 liters)</td>
<td>852 cu in (13.97 liters)</td>
<td>852 cu in (13.97 liters)</td>
</tr>
<tr>
<td>Compression Ratio</td>
<td>18.7 to 1</td>
<td>17 to 1</td>
<td>17 to 1</td>
</tr>
<tr>
<td>Net Weight (dry)</td>
<td>4925 lbs (2234 kg)</td>
<td>5200 lbs (2359 kg)</td>
<td>5000 lbs (2268 kg)</td>
</tr>
</tbody>
</table>

*Models 7122-3001 and 7122-7001 are designed specifically for workboat use. See continuous ratings for power specifications.*

## power specifications

<table>
<thead>
<tr>
<th>Continuous Injectors</th>
<th>N55</th>
<th>No continuous rating is currently available for the 12V-71TI</th>
<th>No continuous rating is currently available for the 12V-71TI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated Gross Power</td>
<td>359 BHP (268 kW)</td>
<td>@ 1800 RPM*</td>
<td></td>
</tr>
<tr>
<td>@ 1800 RPM*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rated Net Power</td>
<td>340 SHP (254 kW)</td>
<td>@ 1800 RPM*</td>
<td></td>
</tr>
<tr>
<td>@ 1800 RPM*</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Intermittent Injectors</th>
<th>N65</th>
<th>N70</th>
<th>N70</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated Gross Power</td>
<td>456 BHP (340 kW)</td>
<td>539 BHP (402 kW)</td>
<td>539 BHP (402 kW)</td>
</tr>
<tr>
<td>@ 2100 RPM*</td>
<td>@ 2100 RPM*</td>
<td>@ 2100 RPM*</td>
<td></td>
</tr>
<tr>
<td>Rated Net Power</td>
<td>437 SHP (326 kW)</td>
<td>510 SHP (380 kW)</td>
<td>510 SHP (380 kW)</td>
</tr>
<tr>
<td>@ 2100 RPM*</td>
<td>@ 2100 RPM*</td>
<td>@ 2100 RPM*</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Maximum Injectors</th>
<th>N70</th>
<th>7N95</th>
<th>9215</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated Gross Power</td>
<td>500 BHP (373 kW)</td>
<td>750 BHP (560 kW)</td>
<td>870 BHP (649 kW)</td>
</tr>
<tr>
<td>@ 2300 RPM*</td>
<td>@ 2300 RPM†</td>
<td>@ 2300 RPM†</td>
<td></td>
</tr>
<tr>
<td>Rated Net Power</td>
<td>480 SHP (358 kW)</td>
<td>720 SHP (537 kW)</td>
<td>840 SHP (627 kW)</td>
</tr>
<tr>
<td>@ 2300 RPM*</td>
<td>@ 2300 RPM†</td>
<td>@ 2300 RPM†</td>
<td></td>
</tr>
</tbody>
</table>

*Rating conditions of 85°F (29.4°C) and 29.00 in Hg (98.19 kPa) Barometer (Dry).*

†Rating conditions of SAE: 77°F (25°C) and 29.31 in Hg (99 kPa) Barometer (Dry).* Values are derived from currently available data and are subject to change without notice.
12V-71

MODEL 12V-71
MARINE CONTINUOUS RATING
N5 INJECTORS*

VALUES ARE DERIVED FROM CURRENTLY AVAILABLE DATA AND ARE SUBJECT TO CHANGE WITHOUT NOTICE.

ACCESSORIES:
-Marine Gear MG514
-Water Pump
-Alternator 85 amp

FUEL CONSUMPTION
POWER PROPELLER LOAD
FUEL PROPELLER LOAD
ENGINE SPEED (RPM)

MODEL 12V-71
MARINE INTERMITTENT RATING
N5 INJECTORS*

VALUES ARE DERIVED FROM CURRENTLY AVAILABLE DATA AND ARE SUBJECT TO CHANGE WITHOUT NOTICE.

ACCESSORIES:
-Marine Gear MG514
-Water Pump
-Alternator 85 amp

FUEL CONSUMPTION
POWER PROPELLER LOAD
FUEL PROPELLER LOAD
ENGINE SPEED (RPM)

MODEL 12V-71
MARINE MAXIMUM RATING
N70 INJECTORS*

VALUES ARE DERIVED FROM CURRENTLY AVAILABLE DATA AND ARE SUBJECT TO CHANGE WITHOUT NOTICE.

ACCESSORIES:
-Marine Gear MG514
-Water Pump
-Alternator 85 amp

FUEL CONSUMPTION
POWER PROPELLER LOAD
FUEL PROPELLER LOAD
ENGINE SPEED (RPM)

12V-71TI
(Twin Disc MG514 and Twin Disc MG514CHP Marine Gear)

No continuous rating is currently available for the 12V-71TI

12V-71TI
(ZF BW 195 Marine Gear)

No continuous rating is currently available for the 12V-71TI

Rating Explanation
RATED BHP—Basic engine gross horsepower.
RATED SHP—Net power available at the marine gear output shaft.
PROPELLER LOAD—Indicates horsepower absorbed by a typical propeller and the corresponding fuel consumption throughout the speed range.
POWER OUTPUT guaranteed within 5% at standard ambient conditions.
MARINE ENGINE RATING—The use of the ratings e.g., maximum, intermittent and continuous, varies with type of vessel in which the engine is installed. See your Detroit Diesel Allison representative for the rating that will apply to your vessel.

*Rating conditions of 85°F (29.4°C) and 29.00 in Hg (98.19 kPa) Barometer (Dry)
†Rating conditions of SAE: 77°F (25°C) and 29.31 in Hg (99 kPa) Barometer (Dry)
Model 7122-3000, 7122-7000

Approximate dimensions shown.
For complete dimensional information, refer to installation drawing 2SA442.

Model 7122-3001, 7122-7001

(Workboat Model)

Approximate dimensions shown.
For complete dimensional information, refer to installation drawing 2SA442.

Model 7122-3300, 7122-7300, 7122-3302, 7122-7302

Twin Disc MG514 and Twin Disc MG514CHP
Marine Gear

Approximate dimensions shown.
For complete dimensional information, refer to installation drawing 2SA367.

Model 7122-7303

12V-71TI
ZF BW 195 Marine Gear

Approximate dimensions shown.
standard equipment

- Air Inlet Housing
- Air Silencers
- Alternator—24 volt, 65 amp
- Crankshaft Pulley (standard equipment on all models except for 12V-71 workboat models 7122-3001 and 7122-7001)
- Engine Mounts—Includes mounts for both engine and marine gear
- Exhaust Manifold—Water cooled
- Flywheel Housing—SAE #1
- Fuel Cooler—12V-71TI only
- Fuel Filters—Spin-on
- Governor—Variable speed
- Heat Exchanger—Includes raw water pump and piping
- Injectors—Cam operated, unit type, clean tip
- Instruments—Includes ammeter, hour meter, tachometer, water temperature gauge, and oil pressure gauges for both engine and marine gear
- Intercooler—12V-71TI only
- Lube Oil Cooler
- Lube Oil Filter—Full Flow, spin-on
- Marine Gear—Twin Disc, hydraulic reverse and reduction gear, 2 to 1 ratio, MG514, 12V-71; 4.13 to 1 ratio, MG514, 12V-71 (workboat model); 2 to 1 ratio, MG514, 12V-71TI; ZF, hydraulic reverse and reduction gear, BW 195, 3 to 1 ratio, 12V-71TI
- Oil Pan—stamped steel pan for 0°-15° inclination angle, rear sump
- Starting Motor—24 volt
- Turbocharger—Twin turbos, 12V-71TI only
- Vibration Damper—Single, heavy, viscous
- Water Filter—Fresh water filter with 30-gallon (113.6 liters) capacity

For a complete listing of standard and optional equipment, consult your authorized Detroit Diesel Allison representative.

Detroit Diesel Allison
Division of General Motors
13400 Outer Drive, West, Detroit, Michigan 48239-4001
(313)/592-5000

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