Marine Auxiliary Engine

3306B

161 bkW (216 bhp) 219 mhp @ 1500 rpm

SPECIFICATIONS

I-6, 4-Stroke-Cycle-Diesel
Emissions ....................................... IMO compliant
Displacement ................................. 10.5 L (641 cu. in.)
Bore ........................................... 120.7 mm (4.75 in.)
Stroke .......................................... 152.4 mm (6.0 in.)
Aspiration ...................................... Turbocharged-Aftercooled
Governor ................................. Hydra-mechanical or PSG
Engine Weight, Net Dry (approx)
Heat Exchanger Cooled ............... 1027 kg (2265 lb)
Keel Cooled .............................. 993 kg (2190 lb)
Capacity for Liquids
Cooling System (engine only) ...... 15.9 L (4.2 U.S. gal)
Lube Oil System ...................... 38.8 L (10.25 U.S. gal)
Oil Change Interval ....................... 250 hr
Caterpillar DEO 10W30 or 15W40
Rotation (from flywheel end) .... Counterclockwise

STANDARD EQUIPMENT

Air Inlet System
    Regular duty air cleaner, rain cap
Charging System
    24V 35 Amp alternator
Cooling System
    Gear driven, self-priming, centrifugal auxiliary water pump with rubber impeller (heat exchanger engines); gear driven, centrifugal, jacket water pump; expansion tank; oil cooler; engine mounted heat exchanger with removable tube bundle and replaceable copper-nickel tubes (heat exchanger engines); thermostat and housing
Exhaust System
    Watercooled manifold and turbocharger; dry elbow and flange, 127 mm (5 in.)
Flywheel and Flywheel Housing
    SAE No. 1 (156 teeth)
Fuel System
    Fuel priming pump, fuel transfer pump, fuel filter, primary fuel filter, flexible fuel lines
Instruments
    RH instrument panel with oil pressure, water temperature, and fuel pressure gauges; service meter
Lube System
    Top mounted crankcase breather, LH oil filter and oil level gauge, oil pan
Mounting System
    Supports
Starting System
    24V electric starting motor
General
    Vibration damper and guard, Caterpillar yellow paint, lifting eyes

ACCESSORY EQUIPMENT

Air Starting Motor
Alarm Contactor — Oil Pressure, Water Temperature
24V 35 Amp, 24V 60 Amp Alternator
Auxiliary Drive Pulley
Digital Tachometer
Double Wall Fuel Lines and Drain
12V Electric Gauges — Oil Pressure, Water Temperature
24V or 32V Electric Gauges — Oil Pressure, Water Temperature
Electric Shutoffs — Oil Pressure, Water Temperature, Overspeed
Ether Starting Aid
Exhaust Elbow, Pipe, Flexible Fittings
Fuel Ratio Control
Generator Installation Arrangement
Hydraulic Pump Drive and Adapter
Magnetic Pickup
Manual Shutoff Lever
Manual Voltage Control
Mechanical Tachometer Drive
Mechanical Overspeed Contactor
Paralleling Kit
Rear Enclosed Clutch and Support
RFI Filter
RH Oil Level Gauge
Solenoid Shutoff — 12V or 24V, ETR or ETS
Spare Parts Kit

PERFORMANCE DATA

Turbocharged-Aftercooled

<table>
<thead>
<tr>
<th>% load</th>
<th>161 bkW ( .8 pf)</th>
<th>Lph</th>
<th>gph</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>157</td>
<td>40.6</td>
<td>10.7</td>
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<tr>
<td>75</td>
<td>117</td>
<td>30.4</td>
<td>8.0</td>
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<td>50</td>
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<td>40</td>
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**DIMENSIONS***

<table>
<thead>
<tr>
<th>Heat Exchanger Cooled</th>
<th>Keel Cooled</th>
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</thead>
<tbody>
<tr>
<td><strong>Overall Length</strong></td>
<td><strong>Overall Height</strong></td>
</tr>
<tr>
<td>mm/in.</td>
<td>mm/in.</td>
</tr>
<tr>
<td>1715.6/67.5</td>
<td>1715.4/67.5</td>
</tr>
<tr>
<td>1285.0/50.6</td>
<td>1285.0/50.6</td>
</tr>
<tr>
<td>149.8/5.9</td>
<td>149.8/5.9</td>
</tr>
<tr>
<td><strong>Overall Height</strong></td>
<td><strong>Overall Width</strong></td>
</tr>
<tr>
<td>mm/in.</td>
<td>mm/in.</td>
</tr>
<tr>
<td>1227.2/48.3</td>
<td>956.7/37.7</td>
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<tr>
<td>904.4/35.6</td>
<td>434.8/17.1</td>
</tr>
<tr>
<td>322.8/12.7</td>
<td>521.9/20.6</td>
</tr>
<tr>
<td><strong>Customer mounting hole diameter</strong></td>
<td></td>
</tr>
<tr>
<td>mm/in.</td>
<td></td>
</tr>
<tr>
<td>62.0/2.4</td>
<td>17.0/0.7</td>
</tr>
<tr>
<td><strong>Width from crankshaft centerline to side</strong></td>
<td></td>
</tr>
<tr>
<td>mm/in.</td>
<td></td>
</tr>
<tr>
<td>265.1/10.4</td>
<td>285.8/11.3</td>
</tr>
<tr>
<td><strong>Length from rear face of block to mounting hole</strong></td>
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<tr>
<td>mm/in.</td>
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<tr>
<td>913.9/36.0</td>
<td>49.5/2.0</td>
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<tr>
<td>125.7/5.0</td>
<td></td>
</tr>
</tbody>
</table>

*Illustrations and dimensions from drawings: 118-7822 for heat exchanger cooled and 186-6450 for keel cooled.

**RATING CONDITIONS**

**Engine Performance Parameters**

- Power: ±3%
- Specific Fuel Consumption: ±3%
- Fuel Rate: ±5%

**Ratings** are based on SAE J1228/ISO8665 standard conditions of 100 kPa (29.61 in. Hg), 25°C (77°F), and 30% relative humidity. These ratings also apply at ISO3046/1, DIN6271/3, and BS5514 conditions of 100 kPa (29.61 in. Hg), 27°C (81°F), and 60% relative humidity.

**Fuel rates** are based on fuel oil of 35° API [16°C (60°F)] gravity having an LHV of 42 780 kJ/kg (18,390 Btu/lb) when used at 29°C (85°F) and weighing 838.9 g/L (7.001 lb/U.S. gal).

Additional ratings may be available for specific customer requirements. Consult your Caterpillar representative for additional information.

Performance data is calculated in accordance with tolerances and conditions stated in this specification sheet and is only intended for purposes of comparison with other manufacturers’ engines. Actual engine performance may vary according to the particular application of the engine and operating conditions beyond Caterpillar’s control.

TMI Reference No.: DM4998-00 (6-18-01)

Material specifications are subject to change without notice.

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STANDARD EQUIPMENT

Air Inlet System
Regular duty air cleaner, rain cap

Charging System
24V 35 Amp alternator

Cooling System
Gear driven, centrifugal, jacket water pump; expansion tank; oil cooler; engine mounted radiator, fan guard, blower fan, fan drive; thermostat and housing

Exhaust System
Watercooled manifold and turbocharger; dry elbow and flange, 127 mm (5 in.)

Flywheel and Flywheel Housing
SAE No. 1 (156 teeth)

Fuel System
Fuel priming pump, fuel transfer pump, fuel filter, primary fuel filter, flexible fuel lines

Instruments
RH instrument panel with oil pressure, water temperature, and fuel pressure gauges; service meter

Lube System
Top mounted crankcase breather, oil filter, LH oil level gauge, oil pan

Mounting System
Supports

Starting System
24V electric starting motor

General
Vibration damper and guard, Caterpillar yellow paint, lifting eyes

ACCESSORY EQUIPMENT

Air Starting Motor
Alarm Contactor — Oil Pressure, Water Temperature
Auxiliary Drive Pulley
Digital Tachometer
Double Wall Fuel Lines and Drain
12V Electric Gauges — Oil Pressure, Water Temperature
24V or 32V Electric Gauges — Oil Pressure, Water Temperature
Electric Shutoffs — Oil Pressure, Water Temperature, Overspeed
Ether Starting Aid
Exhaust Elbow, Pipe, Flexible Fittings
Fuel Ratio Control
Generator Installation Arrangement
High Capacity Radiator and Fan Drive
Hydraulic Pump Drive
Magnetic Pickup
Manual Shutoff Lever
Manual Voltage Control
Mechanical Overspeed Contactor
Mechanical Tachometer Drive
Paralleling Kit
Rear Enclosed Clutch and Support
RFI Filter
RH Oil Level Gauge
Solenoid Shutoff — 12V or 24V, ETR or ETS
Spare Parts Kit

PERFORMANCE DATA

Turbocharged-Aftercooled

<table>
<thead>
<tr>
<th>% load</th>
<th>bkW</th>
<th>Lph</th>
<th>gph</th>
</tr>
</thead>
<tbody>
<tr>
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<td>76</td>
<td>128</td>
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<td>8.8</td>
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<tr>
<td>51</td>
<td>86</td>
<td>22.4</td>
<td>5.9</td>
</tr>
<tr>
<td>26</td>
<td>45</td>
<td>12.8</td>
<td>3.4</td>
</tr>
</tbody>
</table>

SPECIFICATIONS

I-6, 4-Stroke-Cycle-Diesel

Emissions ................... IMO compliant
Displacement ................ 10.5 L (641 cu. in.)
Bore ........................... 120.7 mm (4.75 in.)
Stroke ........................... 152.4 mm (6.0 in.)
Aspiration .................... Turbocharged-Aftercooled
Governor ..................... Hydra-mechanical or PSG
Engine Weight, Net Dry (approx) ... 1120 kg (2470 lb)
Capacity for Liquids
Cooling System (engine only) ... 25 L (6.6 U.S. gal)
Lube Oil System ............. 38.8 L (10.25 U.S. gal)
Oil Change Interval ............ 250 hr
Caterpillar DEO 10W30 or 15W40
Rotation (from flywheel end) .... Counterclockwise
**DIMENSIONS**

<table>
<thead>
<tr>
<th>Dimension Description</th>
<th>mm</th>
<th>in.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Length</td>
<td>2071.1</td>
<td>81.5</td>
</tr>
<tr>
<td>Length from front to rear face of block</td>
<td>1534.8</td>
<td>60.4</td>
</tr>
<tr>
<td>Length from rear face of block to back of flywheel housing</td>
<td>143.6</td>
<td>5.7</td>
</tr>
<tr>
<td>Overall Height</td>
<td>1290.7</td>
<td>50.8</td>
</tr>
<tr>
<td>Height from crankshaft centerline to top of engine</td>
<td>978.9</td>
<td>38.5</td>
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<tr>
<td>Height from crankshaft centerline to bottom of oil pan</td>
<td>311.8</td>
<td>12.3</td>
</tr>
<tr>
<td>Overall Width</td>
<td>970.0</td>
<td>38.2</td>
</tr>
<tr>
<td>Width from crankshaft centerline to port side (left side)</td>
<td>519.5</td>
<td>20.5</td>
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<td>Width from crankshaft centerline to starboard side (right side)</td>
<td>450.5</td>
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<tr>
<td>Customer mounting hole diameter</td>
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<td>Width from crankshaft centerline to side</td>
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</tr>
<tr>
<td></td>
<td>125.7</td>
<td>5.0</td>
</tr>
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</table>

*Ratings are based on SAE J1228/ISO8665 standard conditions of 100 kPa (29.61 in. Hg), 25°C (77°F), and 30% relative humidity. These ratings also apply at ISO3046/1, DIN6271/3, and BS5514 conditions of 100 kPa (29.61 in. Hg), 27°C (81°F), and 60% relative humidity.

---

**RATING CONDITIONS**

**Engine Performance Parameters**

- Power: ±3%
- Specific Fuel Consumption: ±3%
- Fuel Rate: ±5%

**Fuel rates** are based on fuel oil of 35° API [16°C (60°F)] gravity having an LHV of 42 780 kJ/kg (18,390 Btu/lb) when used at 29°C (85°F) and weighing 838.9 g/L (7.001 lb/U.S. gal).

Additional ratings may be available for specific customer requirements. Consult your Caterpillar representative for additional information.

Performance data is calculated in accordance with tolerances and conditions stated in this specification sheet and is only intended for purposes of comparison with other manufacturers' engines. Actual engine performance may vary according to the particular application of the engine and operating conditions beyond Caterpillar's control.

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Marine Auxiliary Engine 3306B

174 bkW (233 bhp) 236 mhp @ 1500 rpm

SPECIFICATIONS

I-6, 4-Stroke-Cycle-Diesel

Emissions .................................... IMO compliant
Displacement ............................... 10.5 L (641 cu. in.)
Bore ............................................ 120.7 mm (4.75 in.)
Stroke .......................................... 152.4 mm (6.0 in.)
Aspiration .................................... Turbocharged-Aftercooled
Governor ................................. Hydra-mechanical or PSG

Engine Weight, Net Dry (approx)

- Heat Exchanger Cooled .................. 1027 kg (2265 lb)
- Keel Cooled ................................ 993 kg (2190 lb)

Capacity for Liquids

- Cooling System (engine only) ....... 15.9 L (4.2 U.S. gal)
- Lube Oil System ......................... 38.8 L (10.25 U.S. gal)

Oil Change Interval .......................... 250 hr

Caterpillar DEO 10W30 or 15W40

Rotation (from flywheel end) ............ Counterclockwise

STANDARD EQUIPMENT

Air Inlet System
- Regular duty air cleaner, rain cap

Charging System
- 24V 35 Amp alternator

Cooling System
- Gear driven, self-priming, centrifugal auxiliary water pump with rubber impeller (heat exchanger engines); gear driven, centrifugal, jacket water pump; expansion tank; oil cooler; engine mounted heat exchanger with removable tube bundle and replaceable copper-nickel tubes (heat exchanger engines); thermostat and housing

Exhaust System
- Watercooled manifold and turbocharger; dry elbow and flange, 127 mm (5 in.)

Flywheel and Flywheel Housing
- SAE No. 1 (156 teeth)

Fuel System
- Fuel priming pump, fuel transfer pump, fuel filter, primary fuel filter, flexible fuel lines

Instruments
- RH instrument panel with oil pressure, water temperature, and fuel pressure gauges; service meter

Lube System
- Top mounted crankcase breather, LH oil filter and oil level gauge, oil pan

Mounting System
- Supports

Starting System
- 24V electric starting motor

General
- Vibration damper and guard, Caterpillar yellow paint, lifting eyes

ACCESSORY EQUIPMENT

Air Starting Motor

Alarm Contactor — Oil Pressure, Water Temperature
- 24V 35 Amp, 24V 60 Amp Alternator

Auxiliary Drive Pulley

Digital Tachometer

Double Wall Fuel Lines and Drain

12V Electric Gauges — Oil Pressure, Water Temperature

24V or 32V Electric Gauges — Oil Pressure, Water Temperature

Electric Shutoffs — Oil Pressure, Water Temperature, Overspeed

Ether Starting Aid

Exhaust Elbow, Pipe, Flexible Fittings

Fuel Ratio Control

Generator Installation Arrangement

Hydraulic Pump Drive and Adapter

Magnetic Pickup

Manual Shutoff Lever

Manual Voltage Control

Mechanical Tachometer Drive

Mechanical Overspeed Contactor

Paralleling Kit

Rear Enclosed Clutch and Support

RFI Filter

RH Oil Level Gauge

Solenoid Shutoff — 12V or 24V, ETR or ETS

Spare Parts Kit

PERFORMANCE DATA

Turbocharged-Aftercooled

DM6051-00

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<th>% load</th>
<th>bkW</th>
<th>Lph</th>
<th>gph</th>
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<tr>
<td>50</td>
<td>86</td>
<td>22.4</td>
<td>5.9</td>
</tr>
<tr>
<td>25</td>
<td>44</td>
<td>12.6</td>
<td>3.3</td>
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### DIMENSIONS*

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<thead>
<tr>
<th>Heat Exchanger Cooled</th>
<th>Keel Cooled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Length</td>
<td>mm</td>
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<tr>
<td>Length from front to rear face of block</td>
<td>1715.6</td>
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<tr>
<td>Length from rear face of block to back of flywheel housing</td>
<td>1285.0</td>
</tr>
<tr>
<td>Overall Height</td>
<td>mm</td>
</tr>
<tr>
<td>Height from crankshaft centerline to top of engine</td>
<td>149.8</td>
</tr>
<tr>
<td>Height from crankshaft centerline to bottom of oil pan</td>
<td>1227.2</td>
</tr>
<tr>
<td>Overall Width</td>
<td>mm</td>
</tr>
<tr>
<td>Width from crankshaft centerline to port side (left side)</td>
<td>904.4</td>
</tr>
<tr>
<td>Width from crankshaft centerline to starboard side (right side)</td>
<td>322.8</td>
</tr>
</tbody>
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*Illustrations and dimensions from drawings: 118-7822 for heat exchanger cooled and 186-6450 for keel cooled.

### RATING CONDITIONS

#### Engine Performance Parameters
- Power: ±3%
- Specific Fuel Consumption: ±3%
- Fuel Rate: ±5%

#### Ratings
Ratings are based on SAE J1228/ISO8665 standard conditions of 100 kPa (29.61 in. Hg), 25°C (77°F), and 30% relative humidity. These ratings also apply at ISO3046/1, DIN6271/3, and BS5514 conditions of 100 kPa (29.61 in. Hg), 27°C (81°F), and 60% relative humidity.

#### Fuel Rates
Fuel rates are based on fuel oil of 35° API [16°C (60°F)] gravity having an LHV of 42 780 kJ/kg (18,390 Btu/lb) when used at 29°C (85°F) and weighing 838.9 g/L (7.001 lb/U.S. gal).

Additional ratings may be available for specific customer requirements. Consult your Caterpillar representative for additional information.

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*Performance data is calculated in accordance with tolerances and conditions stated in this specification sheet and is only intended for purposes of comparison with other manufacturers’ engines. Actual engine performance may vary according to the particular application of the engine and operating conditions beyond Caterpillar’s control.*

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**TMI Reference No.: DM6051-00 (6-17-01)**

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Marine Auxiliary Engine 3306B
Radiator Cooled
183 bkW (245 bhp) 248 mhp @ 1800 rpm

SPECIFICATIONS

I-6, 4-Stroke-Cycle-Diesel
Emissions ............................. IMO compliant
Displacement .......................... 10.5 L (641 cu. in.)
Bore ................................. 120.7 mm (4.75 in.)
Stroke ................................. 152.4 mm (6.0 in.)
Aspiration ..................... Turbocharged-Aftercooled
Governor ......................... Hydra-mechanical or PSG
Engine Weight, Net Dry (approx) ....1120 kg (2470 lb)
Capacity for Liquids
Cooling System (engine only) ... 25 L (6.6 U.S. gal)
Lube Oil System ................. 38.8 L (10.25 U.S. gal)
Oil Change Interval ..................... 250 hr
Caterpillar DEO 10W30 or 15W40
Rotation (from flywheel end) ....... Counterclockwise

STANDARD EQUIPMENT

Air Inlet System
Regular duty air cleaner, rain cap

Charging System
24V 35 Amp alternator

Cooling System
Gear driven, centrifugal, jacket water pump;
expansion tank; oil cooler; engine mounted
radiator, fan guard, blower fan, fan drive;
throttle and housing

Exhaust System
Watercooled manifold and turbocharger; dry elbow
and flange, 127 mm (5 in.)

Flywheel and Flywheel Housing
SAE No. 1 (156 teeth)

Fuel System
Fuel priming pump, fuel transfer pump, fuel filter,
primary fuel filter, flexible fuel lines

Instruments
RH instrument panel with oil pressure, water
temperature, and fuel pressure gauges;
service meter

Lube System
Top mounted crankcase breather, oil filter,
LH oil level gauge, oil pan

Mounting System
Supports

Starting System
24V electric starting motor

General
Vibration damper and guard, Caterpillar yellow
paint, lifting eyes

ACCESSORY EQUIPMENT

Air Starting Motor

Alarm Contactor — Oil Pressure, Water Temperature

Auxiliary Drive Pulley

Digital Tachometer

Double Wall Fuel Lines and Drain

12V Electric Gauges — Oil Pressure,
Water Temperature

24V or 32V Electric Gauges — Oil Pressure,
Water Temperature

Electric Shutoffs — Oil Pressure, Water Temperature,
Overspeed

Ether Starting Aid

Exhaust Elbow, Pipe, Flexible Fittings

Fuel Ratio Control

Generator Installation Arrangement

High Capacity Radiator and Fan Drive

Hydraulic Pump Drive

Magnetic Pickup

Manual Shutoff Lever

Manual Voltage Control

Mechanical Overspeed Contactor

Mechanical Tachometer Drive

Paralleling Kit

Rear Enclosed Clutch and Support

RFI Filter

RH Oil Level Gauge

Solenoid Shutoff — 12V or 24V, ETR or ETS

Spare Parts Kit

PERFORMANCE DATA

Turbocharged-Aftercooled
DM4993-00

<table>
<thead>
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<th>% load</th>
<th>bkW</th>
<th>Lph</th>
<th>gph</th>
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<td>24</td>
<td>47</td>
<td>14.6</td>
<td>3.9</td>
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**3306B MARINE AUXILIARY ENGINE — 183 bkW (245 bhp)**

### DIMENSIONS*

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<thead>
<tr>
<th>Dimension Description</th>
<th>mm</th>
<th>in.</th>
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</thead>
<tbody>
<tr>
<td>Overall Length</td>
<td>2071.1</td>
<td>81.5</td>
</tr>
<tr>
<td>Length from front to rear face of block</td>
<td>1534.8</td>
<td>60.4</td>
</tr>
<tr>
<td>Length from rear face of block to back of flywheel housing</td>
<td>143.6</td>
<td>5.7</td>
</tr>
<tr>
<td>Overall Height</td>
<td>1290.7</td>
<td>50.8</td>
</tr>
<tr>
<td>Height from crankshaft centerline to top of engine</td>
<td>978.9</td>
<td>38.5</td>
</tr>
<tr>
<td>Height from crankshaft centerline to bottom of oil pan</td>
<td>311.8</td>
<td>12.3</td>
</tr>
<tr>
<td>Overall Width</td>
<td>970.0</td>
<td>38.2</td>
</tr>
<tr>
<td>Width from crankshaft centerline to port side (left side)</td>
<td>519.5</td>
<td>20.5</td>
</tr>
<tr>
<td>Width from crankshaft centerline to starboard side (right side)</td>
<td>450.5</td>
<td>17.7</td>
</tr>
<tr>
<td>Customer mounting hole diameter</td>
<td>17.0</td>
<td>0.7</td>
</tr>
<tr>
<td>Width from crankshaft centerline to side</td>
<td>285.8</td>
<td>11.3</td>
</tr>
<tr>
<td>Length from rear face of block to mounting hole</td>
<td>49.5</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>125.7</td>
<td>5.0</td>
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</tbody>
</table>

*Ratings are based on SAE J1228/ISO8665 standard conditions of 100 kPa (29.61 in. Hg), 25°C (77°F), and 30% relative humidity. These ratings also apply at ISO3046/1, DIN6271/3, and BS5514 conditions of 100 kPa (29.61 in. Hg), 27°C (81°F), and 60% relative humidity.

**RATING CONDITIONS**

**Engine Performance Parameters**

<table>
<thead>
<tr>
<th>Power</th>
<th>+3%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific Fuel Consumption</td>
<td>+3%</td>
</tr>
<tr>
<td>Fuel Rate</td>
<td>+5%</td>
</tr>
</tbody>
</table>

**Fuel rates** are based on fuel oil of 35° API [16°C (60°F)] gravity having an LHV of 42780 kJ/kg (18390 Btu/lb) when used at 29°C (85°F) and weighing 838.9 g/L (7.001 lb/U.S. gal).

Additional ratings may be available for specific customer requirements. Consult your Caterpillar representative for additional information.

---

*Illustrations and dimensions from drawing: 187-4367.*
Marine Auxiliary Engine 3306B

184 bkW (247 bhp) 251 mhp @ 1800 rpm

SPECIFICATIONS

I-6, 4-Stroke-Cycle-Diesel

Emissions ....................... IMO compliant
Displacement .................... 10.5 L (641 cu. in.)
Bore ................................ 120.7 mm (4.75 in.)
Stroke ............................ 152.4 mm (6.0 in.)
Aspiration ....................... Turbocharged-Aftercooled
Governor ....................... Hydra-mechanical or PSG
Engine Weight, Net Dry (approx)
Heat Exchanger Cooled ........... 1120 kg (2470 lb)
Keel Cooled .................. 1086 kg (2395 lb)
Capacity for Liquids
Cooling System (engine only) . . 15.9 L (4.2 U.S. gal)
Lube Oil System ............ 38.8 L (10.25 U.S. gal)
Oil Change Interval ......................... 250 hr
Caterpillar DEO 10W30 or 15W40
Rotation (from flywheel end) ...... Counterclockwise

STANDARD EQUIPMENT

Air Inlet System
Regular duty air cleaner, rain cap
Charging System
24V 35 Amp alternator
Cooling System
Gear driven, self-priming, centrifugal auxiliary water pump with rubber impeller (heat exchanger engines); gear driven, centrifugal, jacket water pump; expansion tank; oil cooler; engine mounted heat exchanger with removable tube bundle and replaceable copper-nickel tubes (heat exchanger engines); thermostat and housing
Exhaust System
Watercooled manifold and turbocharger; dry elbow and flange, 127 mm (5 in.)
Flywheel and Flywheel Housing
SAE No. 1 (156 teeth)
Fuel System
Fuel priming pump, fuel transfer pump, fuel filter, primary fuel filter, flexible fuel lines
Instruments
RH instrument panel with oil pressure, water temperature, and fuel pressure gauges; service meter
Lube System
Top mounted crankcase breather, LH oil filter and oil level gauge, oil pan
Mounting System
Supports
Starting System
24V electric starting motor
General
Vibration damper and guard, Caterpillar yellow paint, lifting eyes

ACCESSORY EQUIPMENT

Air Starting Motor
Alarm Contactor — Oil Pressure, Water Temperature
24V 35 Amp, 24V 60 Amp Alternator
Auxiliary Drive Pulley
Digital Tachometer
Double Wall Fuel Lines and Drain
12V Electric Gauges — Oil Pressure, Water Temperature
24V or 32V Electric Gauges — Oil Pressure, Water Temperature
Electric Shutoffs — Oil Pressure, Water Temperature, Overspeed
Ether Starting Aid
Exhaust Elbow, Pipe, Flexible Fittings
Fuel Ratio Control
Generator Installation Arrangement
Hydraulic Pump Drive and Adapter
Magnetic Pickup
Manual Shutoff Lever
Manual Voltage Control
Mechanical Tachometer Drive
Mechanical Overspeed Contactor
Paralleling Kit
Rear Enclosed Clutch and Support
RFI Filter
RH Oil Level Gauge
Solenoid Shutoff — 12V or 24V, ETR or ETS
Spare Parts Kit

PERFORMANCE DATA

Turbocharged-Aftercooled

<table>
<thead>
<tr>
<th>% load</th>
<th>bkW</th>
<th>Lph</th>
<th>gph</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>184</td>
<td>48.6</td>
<td>12.8</td>
</tr>
<tr>
<td>75</td>
<td>137</td>
<td>36.4</td>
<td>9.6</td>
</tr>
<tr>
<td>50</td>
<td>92</td>
<td>24.9</td>
<td>6.6</td>
</tr>
<tr>
<td>25</td>
<td>47</td>
<td>14.6</td>
<td>3.9</td>
</tr>
</tbody>
</table>
### DIMENSIONS*

<table>
<thead>
<tr>
<th></th>
<th>Heat Exchanger Cooled</th>
<th>Keel Cooled</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Overall Length</strong></td>
<td><strong>mm</strong></td>
<td><strong>in.</strong></td>
</tr>
<tr>
<td>Overall Length</td>
<td>1715.6</td>
<td>67.5</td>
</tr>
<tr>
<td>Length from front to rear face of block</td>
<td>1285.0</td>
<td>50.6</td>
</tr>
<tr>
<td>Length from rear face of block to back of flywheel housing</td>
<td>149.8</td>
<td>5.9</td>
</tr>
<tr>
<td><strong>Overall Height</strong></td>
<td><strong>mm</strong></td>
<td><strong>in.</strong></td>
</tr>
<tr>
<td>Overall Height</td>
<td>1227.2</td>
<td>48.3</td>
</tr>
<tr>
<td>Height from crankshaft centerline to top of engine</td>
<td>904.4</td>
<td>35.6</td>
</tr>
<tr>
<td>Height from crankshaft centerline to bottom of oil pan</td>
<td>322.8</td>
<td>12.7</td>
</tr>
<tr>
<td><strong>Overall Width</strong></td>
<td><strong>mm</strong></td>
<td><strong>in.</strong></td>
</tr>
<tr>
<td>Overall Width</td>
<td>956.7</td>
<td>37.7</td>
</tr>
<tr>
<td>Width from crankshaft centerline to port side (left side)</td>
<td>434.8</td>
<td>17.1</td>
</tr>
<tr>
<td>Width from crankshaft centerline to starboard side (right side)</td>
<td>521.9</td>
<td>20.6</td>
</tr>
<tr>
<td>Customer mounting hole diameter</td>
<td>62.0</td>
<td>2.4</td>
</tr>
<tr>
<td>Width from crankshaft centerline to side</td>
<td>265.1</td>
<td>10.4</td>
</tr>
<tr>
<td>Length from rear face of block to mounting hole</td>
<td>913.9</td>
<td>36.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Illustrations and dimensions from drawings: 118-7822 for heat exchanger cooled and 186-6450 for keel cooled.

### RATING CONDITIONS

**Engine Performance Parameters**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power</td>
<td>±3%</td>
</tr>
<tr>
<td>Specific Fuel Consumption</td>
<td>±3%</td>
</tr>
<tr>
<td>Fuel Rate</td>
<td>±5%</td>
</tr>
</tbody>
</table>

**Ratings** are based on SAE J1228/ISO8665 standard conditions of 100 kPa (29.61 in. Hg), 25°C (77°F), and 30% relative humidity. These ratings also apply at ISO3046/1, DIN6271/3, and BS5514 conditions of 100 kPa (29.61 in. Hg), 27°C (81°F), and 60% relative humidity.

**Fuel rates** are based on fuel oil of 35° API [16°C (60°F)] gravity having an LHV of 42 780 kJ/kg (18,390 Btu/lb) when used at 29°C (85°F) and weighing 838.9 g/L (7.001 lb/U.S. gal).

Additional ratings may be available for specific customer requirements. Consult your Caterpillar representative for additional information.

Performance data is calculated in accordance with tolerances and conditions stated in this specification sheet and is only intended for purposes of comparison with other manufacturers' engines. Actual engine performance may vary according to the particular application of the engine and operating conditions beyond Caterpillar’s control.

TMI Reference No.: DM4992-00 (6-18-01)

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Marine Auxiliary Engine 3306B
Radiator Cooled
205 bkW (275 bhp) 279 mhp @ 1800 rpm

SPECIFICATIONS

I-6, 4-Stroke-Cycle-Diesel

<table>
<thead>
<tr>
<th>Emissions</th>
<th>IMO compliant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Displacement</td>
<td>10.5 L (641 cu. in.)</td>
</tr>
<tr>
<td>Bore</td>
<td>120.7 mm (4.75 in.)</td>
</tr>
<tr>
<td>Stroke</td>
<td>152.4 mm (6.0 in.)</td>
</tr>
<tr>
<td>Aspiration</td>
<td>Turbocharged-Aftercooled</td>
</tr>
<tr>
<td>Governor</td>
<td>Hydra-mechanical or PSG</td>
</tr>
<tr>
<td>Engine Weight, Net Dry (approx)</td>
<td>1211 kg (2670 lb)</td>
</tr>
<tr>
<td>Capacity for Liquids</td>
<td></td>
</tr>
<tr>
<td>Cooling System (engine only)</td>
<td>25 L (6.6 U.S. gal)</td>
</tr>
<tr>
<td>Lube Oil System</td>
<td>38.8 L (10.25 U.S. gal)</td>
</tr>
<tr>
<td>Oil Change Interval</td>
<td>250 hr</td>
</tr>
<tr>
<td>Caterpillar DEO 10W30 or 15W40</td>
<td></td>
</tr>
<tr>
<td>Rotation (from flywheel end)</td>
<td>Counterclockwise</td>
</tr>
</tbody>
</table>

STANDARD EQUIPMENT

Air Inlet System
Regular duty air cleaner, rain cap

Charging System
24V 35 Amp alternator

Cooling System
Gear driven, centrifugal, jacket water pump; expansion tank; oil cooler; engine mounted radiator, fan guard, blower fan, fan drive; thermostat and housing

Exhaust System
Watercooled manifold and turbocharger; dry elbow and flange, 127 mm (5 in.)

Flywheel and Flywheel Housing
SAE No. 1 (156 teeth)

Fuel System
Fuel priming pump, fuel transfer pump, fuel filter, primary fuel filter, flexible fuel lines

Instruments
RH instrument panel with oil pressure, water temperature, and fuel pressure gauges; service meter

Lube System
Top mounted crankcase breather, oil filter, LH oil level gauge, oil pan

Mounting System
Supports

Starting System
24V electric starting motor

General
Vibration damper and guard, Caterpillar yellow paint, lifting eyes

ACCESSORY EQUIPMENT

Air Starting Motor
Alarm Contactor — Oil Pressure, Water Temperature
Auxiliary Drive Pulley
Digital Tachometer
Double Wall Fuel Lines and Drain
12V Electric Gauges — Oil Pressure, Water Temperature
24V or 32V Electric Gauges — Oil Pressure, Water Temperature
Electric Shutoffs — Oil Pressure, Water Temperature, Overspeed
Ether Starting Aid
Exhaust Elbow, Pipe, Flexible Fittings
Fuel Ratio Control
Generator Installation Arrangement
High Capacity Radiator and Fan Drive
Hydraulic Pump Drive
Magnetic Pickup
Manual Shutoff Lever
Manual Voltage Control
Mechanical Overspeed Contactor
Mechanical Tachometer Drive
Paralleling Kit
Rear Enclosed Clutch and Support
RFI Filter
RH Oil Level Gauge
Solenoid Shutoff — 12V or 24V, ETR or ETS
Spare Parts Kit

PERFORMANCE DATA

Turbocharged-Aftercooled

<table>
<thead>
<tr>
<th>% load</th>
<th>bkW</th>
<th>Lph</th>
<th>gph</th>
</tr>
</thead>
<tbody>
<tr>
<td>90</td>
<td>188</td>
<td>49.7</td>
<td>13.1</td>
</tr>
<tr>
<td>76</td>
<td>158</td>
<td>33.3</td>
<td>11.0</td>
</tr>
<tr>
<td>51</td>
<td>107</td>
<td>22.4</td>
<td>7.6</td>
</tr>
<tr>
<td>26</td>
<td>57</td>
<td>12.8</td>
<td>4.4</td>
</tr>
</tbody>
</table>
**DIMENSIONS***

<table>
<thead>
<tr>
<th>Dimension Description</th>
<th>mm</th>
<th>in.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Length</td>
<td>2071.1</td>
<td>81.5</td>
</tr>
<tr>
<td>Length from front to rear face of block</td>
<td>1534.8</td>
<td>60.4</td>
</tr>
<tr>
<td>Length from rear face of block to back of flywheel housing</td>
<td>143.6</td>
<td>5.7</td>
</tr>
<tr>
<td>Overall Height</td>
<td>1290.7</td>
<td>50.8</td>
</tr>
<tr>
<td>Height from crankshaft centerline to top of engine</td>
<td>978.9</td>
<td>38.5</td>
</tr>
<tr>
<td>Height from crankshaft centerline to bottom of oil pan</td>
<td>311.8</td>
<td>12.3</td>
</tr>
<tr>
<td>Overall Width</td>
<td>970.0</td>
<td>38.2</td>
</tr>
<tr>
<td>Width from crankshaft centerline to port side (left side)</td>
<td>519.5</td>
<td>20.5</td>
</tr>
<tr>
<td>Width from crankshaft centerline to starboard side (right side)</td>
<td>450.5</td>
<td>17.7</td>
</tr>
<tr>
<td>Customer mounting hole diameter</td>
<td>17.0</td>
<td>0.7</td>
</tr>
<tr>
<td>Width from crankshaft centerline to side</td>
<td>285.8</td>
<td>11.3</td>
</tr>
<tr>
<td>Length from rear face of block to mounting hole</td>
<td>49.5</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>125.7</td>
<td>5.0</td>
</tr>
</tbody>
</table>

*Illustrations and dimensions from drawing: 187-4367.

**RATING CONDITIONS**

**Engine Performance Parameters**

- Power ........................................... ±3%
- Specific Fuel Consumption .......... ±3%
- Fuel Rate ................................. ±5%

**Ratings** are based on SAE J1228/ISO8665 standard conditions of 100 kPa (29.61 in. Hg), 25°C (77°F), and 30% relative humidity. These ratings also apply at ISO3046/1, DIN6271/3, and BS5514 conditions of 100 kPa (29.61 in. Hg), 27°C (81°F), and 60% relative humidity.

**Fuel rates** are based on fuel oil of 35° API [16°C (60°F)] gravity having an LHV of 42 780 kJ/kg (18,390 Btu/lb) when used at 29°C (85°F) and weighing 838.9 g/L (7.001 lb/U.S. gal).

Additional ratings may be available for specific customer requirements. Consult your Caterpillar representative for additional information.

Performance data is calculated in accordance with tolerances and conditions stated in this specification sheet and is only intended for purposes of comparison with other manufacturers’ engines. Actual engine performance may vary according to the particular application of the engine and operating conditions beyond Caterpillar’s control.

TMI Reference No.: DM4995-00 (6-18-01)
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**Marine Auxiliary Engine**

**3306B**

**205 bkW (275 bhp) 279 mhp @ 1800 rpm**

**SPECIFICATIONS**

I-6, 4-Stroke-Cycle-Diesel

- **Emissions** ............... IMO compliant
- **Displacement** ............ 10.5 L (641 cu. in.)
- **Bore** .................. 120.7 mm (4.75 in.)
- **Stroke** .................. 152.4 mm (6.0 in.)
- **Aspiration** .............. Turbocharged-Aftercooled
- **Governor** ............... Hydra-mechanical or PSG
- **Engine Weight, Net Dry (approx)**
  - Heat Exchanger Cooled ........... 1120 kg (2470 lb)
  - Keel Cooled ................... 1086 kg (2395 lb)
- **Capacity for Liquids**
  - Cooling System (engine only) ... 15.9 L (4.2 U.S. gal)
  - Lube Oil System ............. 38.8 L (10.25 U.S. gal)
- **Oil Change Interval** ........... 250 hr
  - Caterpillar DEO 10W30 or 15W40
- **Rotation (from flywheel end)** ........ Counterclockwise

**STANDARD EQUIPMENT**

- **Air Inlet System**
  - Regular duty air cleaner, rain cap
- **Charging System**
  - 24V 35 Amp alternator
- **Cooling System**
  - Gear driven, self-priming, centrifugal auxiliary water pump with rubber impeller (heat exchanger engines); gear driven, centrifugal, jacket water pump; expansion tank; oil cooler; engine mounted heat exchanger with removable tube bundle and replaceable copper-nickel tubes (heat exchanger engines); thermostat and housing
- **Exhaust System**
  - Watercooled manifold and turbocharger; dry elbow and flange, 127 mm (5 in.)
- **Flywheel and Flywheel Housing**
  - SAE No. 1 (156 teeth)
- **Fuel System**
  - Fuel priming pump, fuel transfer pump, fuel filter, primary fuel filter, flexible fuel lines
- **Instruments**
  - RH instrument panel with oil pressure, water temperature, and fuel pressure gauges; service meter
- **Lube System**
  - Top mounted crankcase breather, LH oil filter and oil level gauge, oil pan
- **Mounting System**
  - Supports
- **Starting System**
  - 24V electric starting motor
- **General**
  - Vibration damper and guard, Caterpillar yellow paint, lifting eyes

**ACCESSORY EQUIPMENT**

- **Air Starting Motor**
- **Alarm Contactor** — Oil Pressure, Water Temperature
- **24V 35 Amp, 24V 60 Amp Alternator**
- **Auxiliary Drive Pulley**
- **Digital Tachometer**
- **Double Wall Fuel Lines and Drain**
- **12V Electric Gauges** — Oil Pressure, Water Temperature
- **24V or 32V Electric Gauges** — Oil Pressure, Water Temperature
- **Electric Shutoffs** — Oil Pressure, Water Temperature, Overspeed
- **Ether Starting Aid**
- **Exhaust Elbow, Pipe, Flexible Fittings**
- **Fuel Ratio Control**
- **Generator Installation Arrangement**
- **Hydraulic Pump Drive and Adapter**
- **Magnetic Pickup**
- **Manual Shutoff Lever**
- **Manual Voltage Control**
- **Mechanical Tachometer Drive**
- **Mechanical Overspeed Contactor**
- **Paralleling Kit**
- **Rear Enclosed Clutch and Support**
- **RFI Filter**
- **RH Oil Level Gauge**
- **Solenoid Shutoff** — 12V or 24V, ETR or ETS
- **Spare Parts Kit**

**PERFORMANCE DATA**

Turbocharged-Aftercooled

- **DM4994-00**

<table>
<thead>
<tr>
<th>% load</th>
<th>bkW</th>
<th>Lph</th>
<th>gph</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>205</td>
<td>54.0</td>
<td>14.3</td>
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<tr>
<td>75</td>
<td>153</td>
<td>40.7</td>
<td>10.8</td>
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<td>50</td>
<td>103</td>
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<tr>
<td>25</td>
<td>53</td>
<td>15.8</td>
<td>4.2</td>
</tr>
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</table>
### DIMENSIONS*

<table>
<thead>
<tr>
<th></th>
<th>Heat Exchanger Cooled</th>
<th>Keel Cooled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Length</td>
<td>mm</td>
<td>mm</td>
</tr>
<tr>
<td>Length from front to rear face of block</td>
<td>1715.6 67.5</td>
<td>1715.4 67.5</td>
</tr>
<tr>
<td>Length from rear face of block to back of flywheel housing</td>
<td>1285.0 50.6</td>
<td>1285.0 50.6</td>
</tr>
<tr>
<td>Overall Height</td>
<td>mm</td>
<td>mm</td>
</tr>
<tr>
<td>Height from crankshaft centerline to top of engine</td>
<td>904.4 35.6</td>
<td>904.4 35.6</td>
</tr>
<tr>
<td>Height from crankshaft centerline to bottom of oil pan</td>
<td>322.8 12.7</td>
<td>322.8 12.7</td>
</tr>
<tr>
<td>Overall Width</td>
<td>mm</td>
<td>mm</td>
</tr>
<tr>
<td>Width from crankshaft centerline to port side (left side)</td>
<td>434.8 17.1</td>
<td>376.7 14.8</td>
</tr>
<tr>
<td>Width from crankshaft centerline to starboard side (right side)</td>
<td>521.9 20.6</td>
<td>521.9 20.6</td>
</tr>
<tr>
<td>Customer mounting hole diameter</td>
<td>62.0 2.4</td>
<td>17.0 0.7</td>
</tr>
<tr>
<td>Width from crankshaft centerline to side</td>
<td>265.1 10.4</td>
<td>285.8 11.3</td>
</tr>
<tr>
<td>Length from rear face of block to mounting hole</td>
<td>913.9 36.0</td>
<td>49.5 2.0</td>
</tr>
<tr>
<td></td>
<td>mm</td>
<td>in.</td>
</tr>
<tr>
<td></td>
<td>Front</td>
<td>Rear</td>
</tr>
</tbody>
</table>

*Illustrations and dimensions from drawings: 118-7822 for heat exchanger cooled and 186-6450 for keel cooled.

### RATING CONDITIONS

**Engine Performance Parameters**
- Power: ±3%
- Specific Fuel Consumption: ±3%
- Fuel Rate: ±5%

**Ratings** are based on SAE J1228/ISO8665 standard conditions of 100 kPa (29.61 in. Hg), 25°C (77°F), and 30% relative humidity. These ratings also apply at ISO3046/1, DIN6271/3, and BS5514 conditions of 100 kPa (29.61 in. Hg), 27°C (81°F), and 60% relative humidity. Additional ratings may be available for specific customer requirements. Consult your Caterpillar representative for additional information.

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