

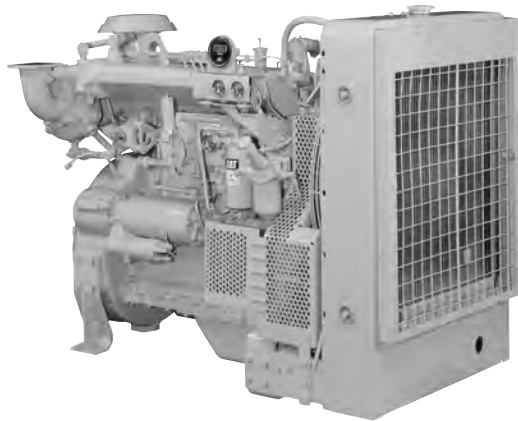


# Marine Auxiliary Engine

# 3304B

*Radiator Cooled*

*94 bkW (126 bhp) 128 mhp @ 1500 rpm*



Shown with  
Accessory Equipment

## STANDARD EQUIPMENT

### Air Inlet System

Regular duty single stage air cleaner, rain cap

### Charging System

24V 35 Amp alternator

### Cooling System

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

### Exhaust System

Watercooled manifold and turbocharger; dry elbow and flange, 102 mm (3 in.)

### Flywheel & 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

### Mounting System

Supports

### Starting System

24V Electric starting motor

### General

Caterpillar yellow paint, lifting eyes

## SPECIFICATIONS

### I-4, 4-Stroke-Cycle-Diesel

Emissions . . . . . IMO compliant  
 Displacement . . . . . 7.0 L (425 cu. in.)  
 Bore . . . . . 121 mm (4.75 in.)  
 Stroke . . . . . 152 mm (6.0 in.)  
 Aspiration . . . . . Turbocharged  
 Governor . . . . . Hydra-mechanical or PSG  
 Engine Weight, Net Dry (approx) . . . . . 848 kg (1870 lb)  
 Capacity for Liquids  
   Cooling System  
     (engine and radiator) . . . . . 32 L (8.5 U.S. gal)  
     Lube Oil System . . . . . 22 L (5.75 U.S. gal)  
 Oil Change Interval . . . . . 250 hr  
   Caterpillar DEO 10W30 or 15W40  
 Rotation (from flywheel end) . . . . . Counterclockwise

## ACCESSORY EQUIPMENT

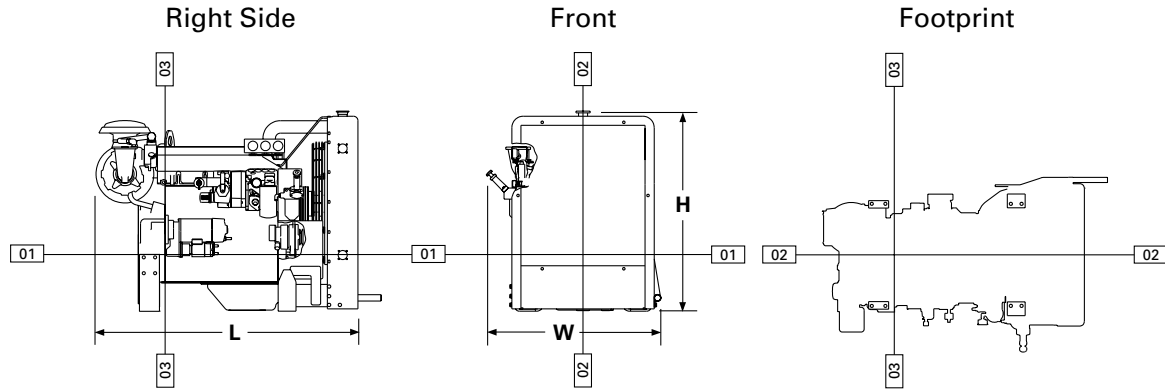
Air Starting Motor  
 Alarm Contactor — Oil Pressure, Water Temperature  
 12V 60 Amp Alternator  
 Auxiliary Drive Pulley  
 Digital Tachometer  
 Double Wall Fuel Lines and Drain  
 12V Electric Gauges — Oil Pressure, Water Temperature  
 24V or 32V Electric Gauges — Oil Pressure, Water Temp.  
 Electric Shutoffs — Oil Pressure, Water Temperature, Overspeed  
 12V Electric Starting Motor  
 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 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

**DM4055-00**

94 bkW (.8 pf) 126 bhp			
% load	bkW	Lph	gph
100	98	27.5	7.3
76	73	20.3	5.4
51	50	16.6	3.8
27	27	9.0	2.4



**DIMENSIONS\***

	<b>mm</b>	<b>in.</b>		
<b>Overall Length</b>	1467.6	57.8		
Length from front to rear face of block	1080.8	42.6		
<b>Overall Height</b>	1120.9	44.1		
Height from crankshaft centerline to top of engine	803.5	31.6		
Height from crankshaft centerline to bottom of oil pan	317.4	12.5		
<b>Overall Width</b>	979.4	38.6		
Width from crankshaft centerline to port side (left side)	436.6	17.2		
Width from crankshaft centerline to starboard side (right side)	542.8	21.4		
			<b>Front</b>	<b>Rear</b>
			<b>mm</b>	<b>in.</b>
Customer mounting hole diameter	17.5	0.7		
Width from crankshaft centerline to side	285.7	11.3	285.7	11.3
Length from rear face of block to mounting holes	653.4	25.7	49.6	2.0
	713.4	28.1	125.8	5.0

\*Illustrations and dimensions from drawing: 138-9318.

**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).

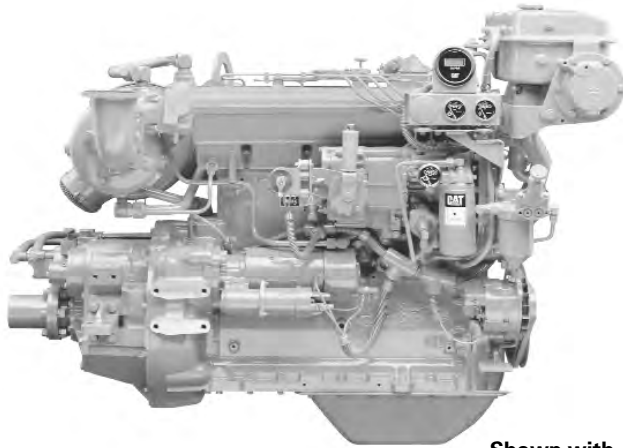
Additional ratings may be available for specific customer requirements. Consult your Caterpillar representative for additional information.

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.



# Marine Auxiliary Engine 3304B

100 bkW (134 bhp) 136 mhp @ 1500 rpm



Shown with Accessory Equipment

## STANDARD EQUIPMENT

### Air Inlet System

Regular duty single-stage 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); expansion tank; thermostat and housing

### Exhaust System

Watercooled manifold and turbocharger; dry elbow and flange, 102 mm (4 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

### Mounting System

Supports

### Starting System

24V Electric starting motor

### General

Caterpillar yellow paint, lifting eyes

## SPECIFICATIONS

### I-4, 4-Stroke-Cycle-Diesel

Emissions . . . . . IMO compliant  
 Displacement . . . . . 7.0 L (425 cu. in.)  
 Bore . . . . . 121 mm (4.75 in.)  
 Stroke . . . . . 152 mm (6.0 in.)  
 Aspiration . . . . . Turbocharged  
 Governor . . . . . Hydra-mechanical or PSG  
 Engine Weight, Net Dry (approx)  
   Heat Exchanger Cooled . . . . . 832 kg (1835 lb)  
   Keel Cooled . . . . . 775 kg (1710 lb)  
 Capacity for Liquids  
   Cooling System (engine only) . . . . 13 L (3.5 U.S. gal)  
   Lube Oil System . . . . . 22.5 L (5.9 U.S. gal)  
 Oil Change Interval . . . . . 250 hr  
   Caterpillar DEO 10W30 or 15W40  
 Rotation (from flywheel end) . . . . . Counterclockwise

## ACCESSORY EQUIPMENT

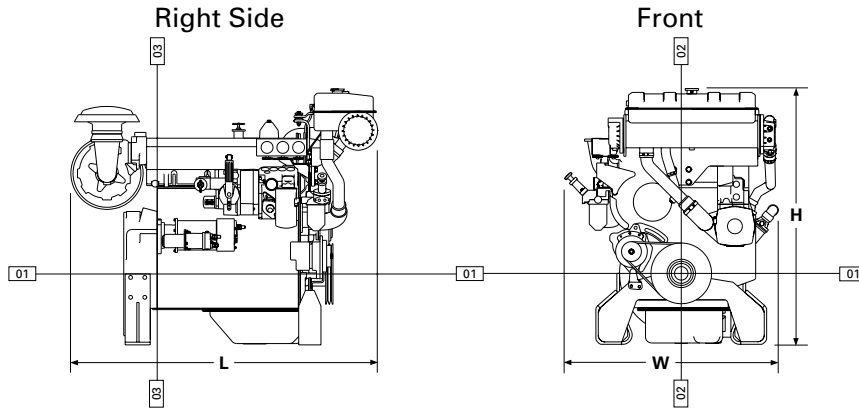
Air Starting Motor  
 Alarm Contactor — Oil Pressure, Water Temperature  
 12V 51 Amp, 24V 35 Amp or 60 Amp Alternator  
 Auxiliary Drive Pulley  
 Digital Tachometer  
 Double Wall Fuel Lines and Drain  
 12V Electric Gauges — Oil Pressure, Water Temperature  
 24V or 32V Electric Gauges — Oil Pressure,  
   Water Temperature  
 Electric Shutoffs — Oil Pressure, Water Temperature,  
   Overspeed  
 12V Electric Starting Motor  
 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

TM8322-00

100 bkW (.8 pf) 134 bhp			
% load	bkW	Lph	gph
100	95	26.7	7.1
71	67	18.7	4.9
47	45	13.3	3.5
24	24	8.3	2.2



**DIMENSIONS\***

	<b>mm</b>	<b>in.</b>		<b>mm</b>	<b>in.</b>
<b>Overall Length</b>	1373.4	54.1			
Length from front to rear face of block	986.6	38.8			
Length from rear face of block to end of engine	386.8	15.2			
<b>Overall Height</b>	1145.2	45.1			
Height from crankshaft centerline to top of engine	827.7	32.6			
Height from crankshaft centerline to bottom of oil pan	317.5	12.5			
<b>Overall Width</b>	957.5	37.7			
Width from crankshaft centerline to port side (left side)	434.8	17.1			
Width from crankshaft centerline to starboard side (right side)	522.7	20.6			
			<b>Front</b>	<b>Rear</b>	
Customer mounting hole diameter	17.5	0.7	17.5	17.0	0.7
Width from crankshaft centerline to side	285.1	11.3	285.1	285.8	11.3
Length from rear face of block to mounting hole	653.4	25.7	653.4	76.2	3.0
	711.4	28.0		125.7	5.0

\*Illustrations and dimensions from drawing: 118-7825.

**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).

**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.

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.: TM8322-00 (6-15-01)

Materials and specifications are subject to change without notice.

The International System of Units (SI) is used in this publication.

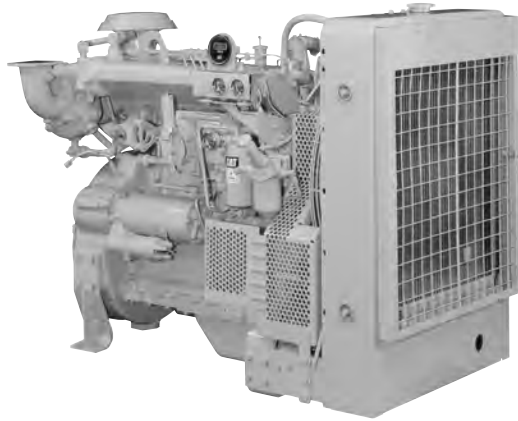


# Marine Auxiliary Engine

# 3304B

*Radiator Cooled*

*116 bkW (156 bhp) 158 mhp @ 1800 rpm*



Shown with  
Accessory Equipment

## STANDARD EQUIPMENT

### Air Inlet System

Regular duty single stage air cleaner, rain cap

### Charging System

24V 35 Amp alternator

### Cooling System

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

### Exhaust System

Watercooled manifold and turbocharger; dry elbow and flange, 102 mm (4 in.)

### Flywheel & 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

### Mounting System

Supports

### Starting System

24V Electric starting motor

### General

Caterpillar yellow paint, lifting eyes

## SPECIFICATIONS

### I-4, 4-Stroke-Cycle-Diesel

Emissions . . . . . IMO compliant  
 Displacement . . . . . 7.0 L (425 cu. in.)  
 Bore . . . . . 121 mm (4.75 in.)  
 Stroke . . . . . 152 mm (6.0 in.)  
 Aspiration . . . . . Turbocharged  
 Governor . . . . . Hydra-mechanical or PSG  
 Engine Weight, Net Dry (approx) . . . . . 848 kg (1870 lb)  
 Capacity for Liquids  
   Cooling System  
     (engine and radiator) . . . . . 32 L (8.5 U.S. gal)  
     Lube Oil System . . . . . 22 L (5.75 U.S. gal)  
 Oil Change Interval . . . . . 250 hr  
   Caterpillar DEO 10W30 or 15W40  
 Rotation (from flywheel end) . . . . . Counterclockwise

## ACCESSORY EQUIPMENT

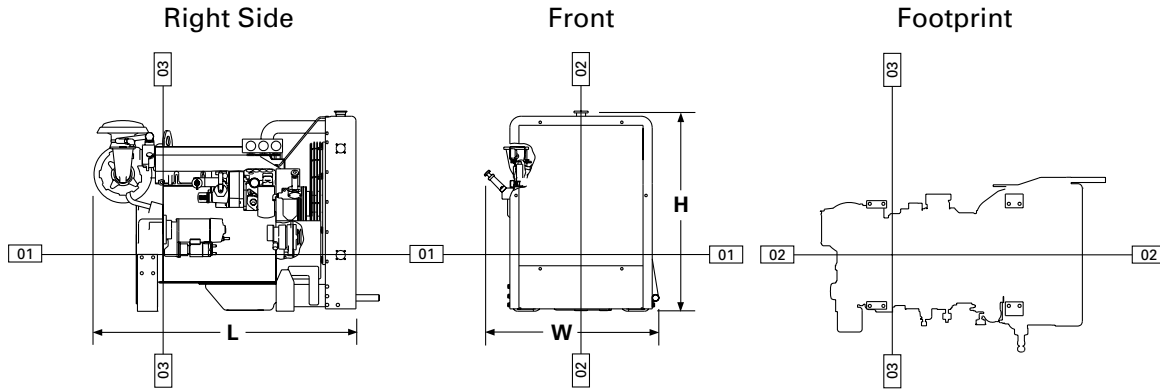
Air Starting Motor  
 Alarm Contactor — Oil Pressure, Water Temperature  
 12V 60 Amp Alternator  
 Auxiliary Drive Pulley  
 Digital Tachometer  
 Double Wall Fuel Lines and Drain  
 12V Electric Gauges — Oil Pressure, Water Temperature  
 24V or 32V Electric Gauges — Oil Pressure, Water Temperature  
 Electric Shutoffs — Oil Pressure, Water Temperature, Overspeed  
 12V Electric Starting Motor  
 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 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

**DM4056-00**

116 bkW (.8 pf) 156 bhp			
% load	bkW	Lph	gph
94	102	35.8	9.5
74	89	25.0	6.6
53	66	19.0	5.0
23	30	10.8	2.9



**DIMENSIONS\***

	<b>mm</b>	<b>in.</b>		
<b>Overall Length</b>	1467.6	57.8		
Length from front to rear face of block	1080.8	42.6		
<b>Overall Height</b>	1120.9	44.1		
Height from crankshaft centerline to top of engine	803.5	31.6		
Height from crankshaft centerline to bottom of oil pan	317.4	12.5		
<b>Overall Width</b>	979.4	38.6		
Width from crankshaft centerline to port side (left side)	436.6	17.2		
Width from crankshaft centerline to starboard side (right side)	542.8	21.4		
			<b>Front</b>	<b>Rear</b>
			<b>mm</b>	<b>in.</b>
Customer mounting hole diameter	17.5	0.7		
Width from crankshaft centerline to side	285.7	11.3	285.7	11.3
Length from rear face of block to mounting holes	653.4	25.7	49.6	2.0
	713.4	28.1	125.8	5.0

\*Illustrations and dimensions from drawing: 138-9318.

**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.: DM4056-00 (6-18-01)

Materials and specifications are subject to change without notice.

The International System of Units (SI) is used in this publication.

LEHM1590-00 (6-01)

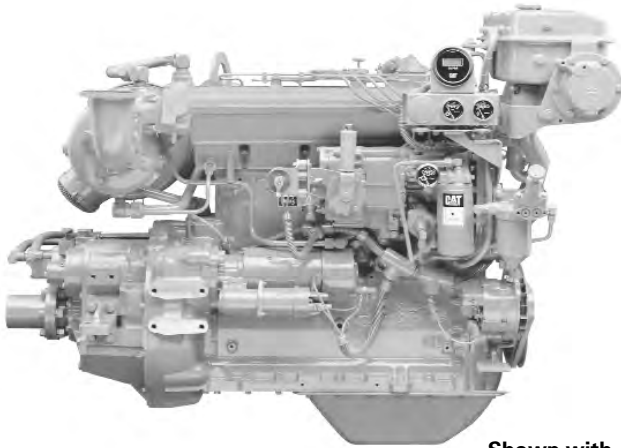
Printed in U.S.A.

©2001 Caterpillar  
All rights reserved.



# Marine Auxiliary Engine 3304B

119 bkW (160 bhp) 162 mhp @ 1800 rpm



Shown with Accessory Equipment

## SPECIFICATIONS

### I-4, 4-Stroke-Cycle-Diesel

Emissions . . . . . IMO compliant  
 Displacement . . . . . 7.0 L (425 cu. in.)  
 Bore . . . . . 121 mm (4.75 in.)  
 Stroke . . . . . 152 mm (6.0 in.)  
 Aspiration . . . . . Turbocharged  
 Governor . . . . . Hydra-mechanical or PSG  
 Engine Weight, Net Dry (approx)  
   Heat Exchanger Cooled . . . . . 832 kg (1835 lb)  
   Keel Cooled . . . . . 775 kg (1710 lb)  
 Capacity for Liquids  
   Cooling System (engine only) . . . . 13 L (3.5 U.S. gal)  
   Lube Oil System . . . . . 22.5 L (5.9 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 single-stage 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); expansion tank; thermostat and housing

### Exhaust System

Watercooled manifold and turbocharger; dry elbow and flange, 102 mm (4 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

### Mounting System

Supports

### Starting System

24V Electric starting motor

### General

Caterpillar yellow paint, lifting eyes

## ACCESSORY EQUIPMENT

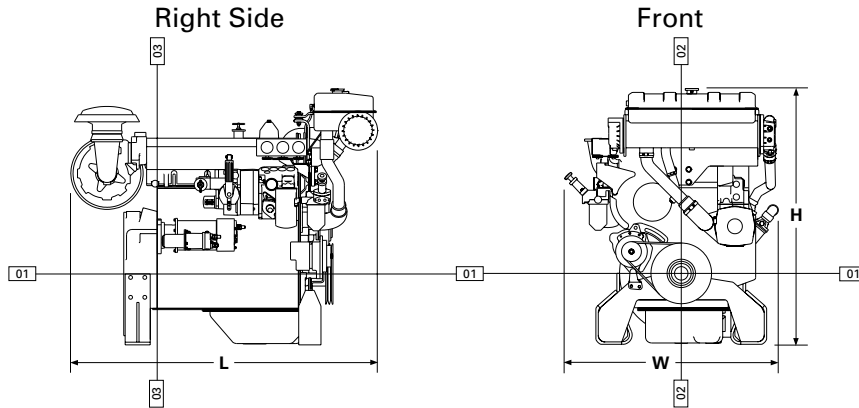
Air Starting Motor  
 Alarm Contactor — Oil Pressure, Water Temperature  
 12V 51 Amp, 24V 35 Amp or 60 Amp Alternator  
 Auxiliary Drive Pulley  
 Digital Tachometer  
 Double Wall Fuel Lines and Drain  
 12V Electric Gauges — Oil Pressure, Water Temperature  
 24V or 32V Electric Gauges — Oil Pressure, Water Temperature  
 Electric Shutoffs— Oil Pressure, Water Temperature, Overspeed  
 12V Electric Starting Motor  
 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

TM7786-00

119 bkW (.8 pf) 160 bhp			
% load	bkW	Lph	gph
100	116	33.0	8.7
76	88	25.1	6.6
48	56	16.9	4.5
29	35	11.9	3.1



**DIMENSIONS\***

	<b>mm</b>	<b>in.</b>		<b>mm</b>	<b>in.</b>
<b>Overall Length</b>	1373.4	54.1			
Length from front to rear face of block	986.6	38.8			
Length from rear face of block to end of engine	386.8	15.2			
<b>Overall Height</b>	1145.2	45.1			
Height from crankshaft centerline to top of engine	827.7	32.6			
Height from crankshaft centerline to bottom of oil pan	317.5	12.5			
<b>Overall Width</b>	957.5	37.7			
Width from crankshaft centerline to port side (left side)	434.8	17.1			
Width from crankshaft centerline to starboard side (right side)	522.7	20.6			
			<b>Front</b>	<b>Rear</b>	
Customer mounting hole diameter	17.5	0.7	17.5	17.0	0.7
Width from crankshaft centerline to side	285.1	11.3	285.1	285.8	11.3
Length from rear face of block to mounting hole	653.4	25.7	653.4	76.2	3.0
	711.4	28.0		125.7	5.0

\*Illustrations and dimensions from drawing: 118-7825.

**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).

**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.

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.: TM7786-00 (6-15-01)

Materials and specifications are subject to change without notice.

The International System of Units (SI) is used in this publication.