

# 3516C



## MARINE PROPULSION ENGINE

3045 mhp	(3003 bhp)	2240 kW
3194 mhp	(3150 bhp)	2350 kW
3432 mhp	(3385 bhp)	2525 kW



Image shown may not reflect actual engine

## COMPLETE SOLUTIONS FOR YOUR MARINE APPLICATION

- Single-source for support and service
- Industry-leading warranty coverage for factory packaged components
- Global dealer network for service in any location

## EFFICIENT OPERATION

- Instrument panel with cold mode start strategy and programmable low idle
- Electronic governing control unit minimizes fuel consumption and monitors engine operating parameters
- Optional alarm and protection system

## IMPROVED PERFORMANCE AND FUNCTION

- Advanced combustion design uses the optimum configurations and cylinder geometry
- Enhanced control of fuel injection optimized through crank timing

## ENVIRONMENTALLY CONSCIOUS

- Closed crankcase ventilation system and redesigned piston for improved efficiency and lower emissions
- Optimal nozzle geometry and electronic injection control for improved fuel delivery
- EPA Marine Tier 3/IMO Tier II Emissions Compliant

## SPECIFICATIONS

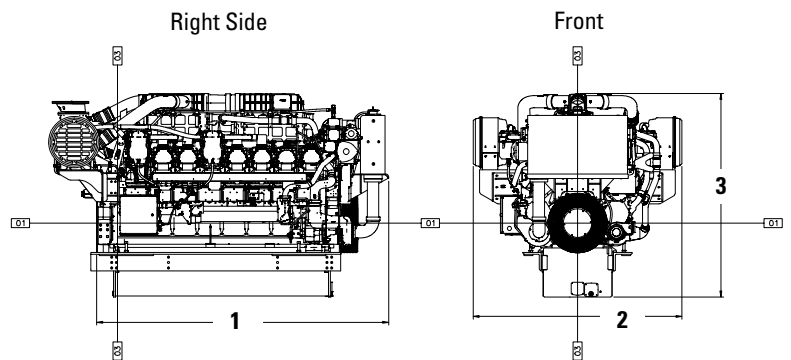
### V-16, 4-Stroke-Cycle-Diesel

- EPA Marine Tier 3 compliant
- IMO Tier II emissions compliant
- 78.08 L (4765 in<sup>3</sup>) displacement
- 1800 rpm
- 170 mm (6.69 in) bore x 215 mm (8.46 in) stroke
- Turbocharged-aftercooled aspiration
- Electronically governed A4 ECU
- Heat exchanger or keel cooled
- Refill capacity
  - Lube oil system: 779.8 L (206 gal)
- 1000-hour oil change interval
- Counterclockwise rotation
- SAE No. 00 flywheel and flywheel housing (183 teeth)
- Engine diagnostic system data link messaging

All new 3500C marine EPA Tier 3 capable engines, including both propulsion and auxiliary units, will be required to use a maximum concentration of 20% glycol mixture in the aftercooler circuit. This restriction applies equally to both heat exchanger cooled and keel cooled configurations (box coolers). In the event that specific project needs require higher levels of freeze protection, (lower freeze temperature), please contact ASC to review the specific engine rating and glycol concentration desired.

The jacket water circuit will continue to be capable of operation up to 50% glycol.

## DIMENSIONS



### ENGINE DIMENSIONS & WEIGHT

<b>(1) Length to Flywheel Housing</b>	3191.8 mm	125.7 in
<b>(2) Width</b>	2283.8 mm	89.9 in
<b>(3) Height</b>	2224.5 mm	87.6 in
<b>Weight, Net Dry (approx)</b>	9600 kg	21,164 lb

Note: Do not use these dimensions for installation design. See general dimension drawings for detail (Drawing #420-1880). For complete information, please refer to the Marine Spec Sheet Wizard.

### MARINE ENGINE PERFORMANCE

rpm	B Rating				C Rating				D Rating			
	bhp	g/hr	bkW	g/bkW-hr	bhp	g/hr	bkW	g/bkW-hr	bhp	g/hr	bkW	g/bkW-hr
1800	3004	147.6	2240	209.2	3151	155.4	2350	209.9	3386	167.4	2525	210.5
1500	3004	141.1	2240	200.0	3151	149.5	2350	202.0	3386	167.4	2525	206.6
1300	2588	116.9	1930	192.3	2682	121.0	2000	192.2	2760	124.5	2058	192.0
1100	1526	71.6	1138	199.9	1526	71.6	1138	199.9	1526	71.6	1138	199.9
900	748	37.6	558	214.3	748	37.6	558	214.3	748	37.6	558	214.3
700	489	24.9	365	216.8	489	24.9	365	216.8	489	24.9	365	216.8

rpm	B Rating				C Rating				D Rating			
	bhp	g/hr	bkW	g/bkW-hr	bhp	g/hr	bkW	g/bkW-hr	bhp	g/hr	bkW	g/bkW-hr
1800	3004	147.6	2240	209.2	3151	155.4	2350	209.9	3386	167.4	2525	210.5
1500	1738	82.5	1296	202.1	1824	86.3	1360	201.5	1959	92.3	1461	200.6
1300	1132	54.4	844	204.6	1187	56.8	885	203.8	1275	60.8	951	202.8
1100	685	34.2	511	212.5	719	35.8	536	211.9	772	38.3	576	210.9
900	375	19.3	280	219.0	394	20.2	294	217.8	424	21.5	316	216.2
700	177	9.7	132	234.2	185	10.1	138	231.9	200	10.7	149	228.8

### STANDARD ENGINE EQUIPMENT

- Corrosion-resistant aftercooler core
- Dual A4 engine control modules w/electronic unit injector fuel system
- Dual turbochargers with water-cooled bearings and heat shields
- Vibration damper and guard
- Closed crankcase ventilation system
- Thermostats and housing
- Electronically cooled unit injectors
- Engine oil cooler and oil filler
- Auxiliary fresh water pump
- Gear-driven, centrifugal jacket water pump
- Oil filter, oil level gauge, and oil pump

### OPTIONAL ATTACHMENTS

- Plate-type heat exchanger
- Special appearance packages with chrome cover
- Marine society certifications
- Power takeoff
- Shutoff and alarm contactors
- SOLAS compliant fuel connections with spill shield
- Instrument panel with color Marine Power Display (MPD)
- Mounting rails
- Sea water pump
- See Marine Price List for additional attachments

### RATING DEFINITIONS AND CONDITIONS

#### B Rating (Heavy Duty)

Typical applications: For vessels operating at rated load and rated speed up to 80% of the time, or 10 hours out of 12, with some load cycling (40% to 80% load factor). Typical applications could include but are not limited to vessels such as mid-water trawlers, purse seiner, crew and supply boats, ferries, or towboats. Typical operation ranges from 3000 to 5000 hours per year.

#### C Rating (Maximum Continuous)

Typical applications: For vessels operating at rated load and rated speed up to 50% of the time, or 6 hours out of 12, with cyclical load and speed (20% to 80% load factor). Typical applications could include but are not limited to vessels such as ferries, harbor tugs,

fishing boats, offshore service boats, displacement hull yachts, or short trip coastal freighters. Typical operation ranges from 2000 to 4000 hours per year.

#### D Rating (Intermittent Duty)

Typical applications: For vessels operating at rated load and rated speed up to 16% of the time, or 2 hours out of 12, (up to 50% load factor). Typical applications could include but are not limited to vessels such as offshore patrol boats, customs boats, police boats, some fishing boats, fireboats, or harbor tugs. Typical operation ranges from 1000 to 3000 hours per year.

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