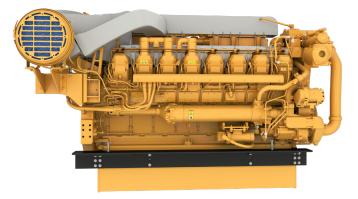
# **3516C INO Marine Propulsion Engine** Commercial Applications





## **ENGINE SPECIFICATIONS**

CONFIGURATION	V-16, 4-Stroke Cycle diesel	
EMISSIONS	IMO II	
RATED ENGINE SPEED	1200 / 1600 / 1800	
DISPLACEMENT	Standard: 69 L / 4211 in³ High Displacement: 78 L / 4765 in³	
ASPIRATION	Twin Turbocharged – Aftercooled	
GOVERNOR	Electronic (ADEM6)	
FLYWHEEL HOUSING	HOUSING Flywheel housing, SAE No. 00	

BORE X STROKE	Standard: 170mm x 190mm / 6.69 in x 7.48 in High Displacement: 170mm x 215mm / 6.69 in x 8.46 in				
REFILL CAPACITY LUBE OIL SYSTEM W/OIL FILTER CHANGE	204 L (53 gal) / 807 L (213 gal)				
OIL CHANGE INTERVAL	Options for 250 / 1000 hrs				
ROTATION (FROM FLYWHEEL END)	Clockwise or Counterclockwise				
COOLING	Heat Exchanger or Keel Cooled				

### **KEY FEATURES & BENEFITS**

- · Electronic control monitors engine operation and helps to minimize fuel consumption
- Dual ECMs provide redundant control for uninterrupted operation avoiding single point failure
- Instrument panel with cold mode start strategy and programmable low idle
- Mandatory control panel and optional MCS compliant alarm & protection system

### STANDARD EQUIPMENT

- Dual engine controller modules
- Corrosion-resistant aftercooler core
- Dual turbochargers with water-cooled bearings and heat shields
- Centrifugal auxiliary water pump
- Electronic unit injectors
- Vibration damper and guard
- Gear-driven centrifugal jacket water pump
- Oil filter, oil level gauge, and oil pump
- CW or CCW Rotation, LH or RH Service

- Electronic controllers are MCS (IACS E10) and cyber security (IEC 62443 - Level 1) compliant
- · Meticulous configuration and cylinder geometry design helps improve combustion characteristics
- Exact control of fuel injection and piston design improve efficiency and reduce emissions
- Precise nozzle geometry and electronic injection control for improved fuel delivery

## **OPTIONAL ATTACHMENTS**

- Plate-type heat exchanger
- Special appearance package with chrome cover available
- Marine Class Society certifications
- Power takeoff
- Shutoff and alarm contactors
- · SOLAS compliant fuel connections with spill shield
- LECP-CMG, LECP II and LECP III instrument panel options
- Mounting rails
- · Sea water pump
- See Marine Price List for additional attachments

## **RATINGS & FUEL CONSUMPTION**

## IMO II

RPM	Rating	mhp	bhp	bkW	U.S. gal/hr	g/bkWh	IMO	U.S. EPA	EU	China
1600	А	2028	2000	1492	92.2	198.9	Ш	NC	NC	NC
	A1	2292	2260	1685	104.1	198.6	П	NC	NC	NC
		2482	2448	1825	111.2	196.1	П	NC	NC	NC
	В	2130	2100	1566	96.3	198.0	П	NC	NC	NC
	B1	2407	2375	1771	108.4	196.9	П	NC	NC	NC
		2611	2575	1920	116.3	194.9	П	NC	NC	NC
	С	2231	2200	1640	101.0	198.1	П	NC	NC	NC
	C1	2534	2500	1864	113.3	195.5	II	NC	NC	NC
		2720	2682	2000	121.0	194.7	П	NC	NC	NC
	D1	2855	2816	2100	127.4	195.2	П	NC	NC	NC
1800	B1	3046	3005	2240	143.6	206.3	II	NC	NC	NC
	C1	3196	3150	2350	149.9	205.3	II	NC	NC	NC
	D1	3434	3385	2525	159.9	203.7	Ш	NC	NC	NC

<sup>1</sup> denotes High Displacement Engine

#### **Rating Definitions:**

#### A Rating (Unrestricted Continuous)

Typical applications: For vessels operating at rated load and rated speed up to 100% of the time without interruption or load cycling (80% to 100% load factor). Typical operation ranges from 5000 to 8000 hours per year.

#### **B** Rating (Heavy Duty)

Typical applications: For vessels operating at rated load and rated speed up to 80% of the time with some load cycling (40% to 80% load factor). 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 with cyclical load and speed (20% to 80% load factor). 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 (up to 50% load factor). Typical operating ranges from 1000 to 3000 hours per year.

## **ENGINE DIMENSIONS & WEIGHT**

LENGTH (APPROX.)	148.0 in / 3761 mm
HEIGHT (APPROX.)	84.6 in / 2150 mm
WIDTH (APPROX.)	84.3 in / 2142 mm
DRY WEIGHT (APPROX.)	17,550 lb / 7961 kg

