

# MARINE ENGINE

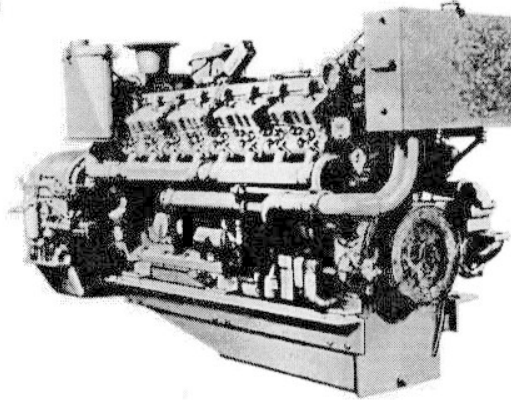
# CATERPILLAR

# D399

1000 hp @ 1225 rpm, 1380 hp @ 1300 rpm

## MARINE PROPULSION

Turbocharged-Aftercooled



### V16, 4-STROKE-CYCLE DIESEL

| MARINE TRANSMISSION | CAT 7251 | CAT 7261 | CAT 7271 |
|---------------------|----------|----------|----------|
| REDUCTION RATIOS    | 1.00:1   | 2.89:1   | 4.50:1   |
|                     |          | 3.18:1   | 5.09:1   |
|                     |          | 3.49:1   | 5.55:1   |
|                     |          | 3.84:1   | 7.00:1   |
|                     |          | 4.22:1   |          |

|  |                               |
|--|-------------------------------|
| BORE—in (mm)   | 6.25 (159)                    |
| STROKE—in (mm)   | 8.00 (203)                    |
| DISPLACEMENT—cu in (liter)                                       | 3,927 (64.4)                  |
| ROTATION (from flywheel end)                                     | Clockwise or Counterclockwise |
| ENGINE WEIGHT, Net Dry (approximate)—lb (kg)                     |                               |
| Separate Circuit Aftercooled (SCAC) (for keel cooling)           | 17,240 (7818)                 |
| Separate Circuit Aftercooled (SCAC) (for heat exchanger cooling) | 17,250 (7823)                 |
| Jacket Water Aftercooled (JWAC)                                  | 17,150 (7778)                 |
| TRANSMISSION WEIGHT, Net Dry (approximate)—lb (kg)               |                               |
| 7251   | 5,290 (2399)                  |
| 7261 (weight varies with gear ratio)                             | 6,340-6,635 (2875-3009)       |
| 7271   | 8,000 (3628)                  |

Note: Caterpillar Marine Engine and Transmissions are approved for certification by the following marine classification societies: ABS, BV, CBSI, DnV, GL, LR, NK, R.I.Na.

### STANDARD EQUIPMENT

**Air Intake System:**  
Air Cleaner Adapters  
Air Cleaner Service Indicators  
Single-Stage Dry Air Cleaners

**Control Systems:**  
Hydra-Mechanical Governor

**Cooling System:**  
Coolant Expansion Tank  
Coolant Pump  
Coolant Thermostats  
Lube Oil Cooler  
Non-Self-Priming Fresh Water Pump (SCAC—KC)  
Self-Priming Sea Water Pump (SCAC—H/E)

**Exhaust System:**  
Watercooled Exhaust Manifolds (continuous rating only)  
Watercooled Turbocharger Shield

**Fuel System:**  
Fuel Filter  
Fuel Priming Pump  
Fuel Transfer Pump

**Instruments and Gauges:**  
Instrument Panel with Ten Gauges  
SAE Standard Dual Tachometer Drive Service Meter

**Lubricating System:**  
Emergency Connections  
Lube Oil Filter  
Lube Oil Pump

Manual Sump Pump  
Prelube Pump

**Mounting System:**  
Lifting Eyes  
Mounting Rails

**Power Takeoffs:**  
Flywheel Housing, SAE No. 00  
Front Accessory Drive

**Protection Devices:**  
Manual Shutoff Control  
Shutoffs—Oil Pressure and Coolant  
Temperature Contactors, Intake  
Manifold Temperature Contactor (SCAC), Overspeed and Engine  
Reversal Protection (1200-1300 rpm)

### ACCESSORY EQUIPMENT\*

**Control Systems:**  
Engine Mounted  
Pilot House  
Woodward UG8 Governor

**Cooling System:**  
Emergency Coolant Connections  
Heat Exchangers

**Exhaust System:**  
Muffler

**Fuel System:**  
Double Wall Fuel Lines  
Duplex Fuel Filter  
Flexible Fuel Lines

### Instruments and Gauges:

Exhaust Pyrometer and Thermocouples  
Pilot House Panels  
Tachometer

### Lubricating System:

Duplex Lube Oil Filters  
**Marine Transmissions:**  
Cat 7271, 7261, 7251  
Emergency Lube Oil Connections (7261)

Trolling Valve (7271, 7261)

### Mounting System:

Sound Isolation Mounting (engine and 7261)

### Power Takeoffs:

Auxiliary Drive Pulleys  
Front Enclosed Clutch

### Protection Devices:

Overspeed Shutoff  
Rack Solenoid Shutoffs (24, 30-32V)

### Spare Parts:

ABS, BV, DnV, GL, LR, NK, R.I.Na  
Approved Parts Kits (engine and 7271, 7261)

### Starting Systems:

Air Starting  
Battery Chargers  
Battery Sets  
Charging Alternators (24, 30-32V)  
Electric Starting (24, 30-32V)  
Glow Plugs

\*Consult your Caterpillar Dealer for additional accessory equipment.