

SERIES 4000



Commercial - Continuous

1500 bhp
1522 mhp



Specifications

Version DDC/MTU 12V-4000
Displacement 2975 cu in (48 liters)
Bore and Stroke 6.50 in x 7.50 in (165 mm x 190 mm)
Description Charge Air Cooled, Turbocharged
Governor Electronic

Port Model 71227K22
Starboard Model 71227K23

Power

| | bhp SAE J1228 | mhp | kW | rpm |
|-------------|------------------|------|------|------|
| Rated Power | 1500 | 1522 | 1119 | 1600 |
| Shaft Power | 1455 | 1476 | 1085 | 1600 |

Certification Complies With MARPOL 73/78 (IMO) Annex VI NOx Limits

Performance

The electronic control system manages both fuel and air systems for maximum output, low smoke and precise control
Outstanding fuel economy for extended range and safety
Four valve cylinder heads for high output turbocharged engine performance
Sequential turbochargers for outstanding acceleration
Common Rail Fuel System for outstanding throttle response at all RPM's.

Reliability and Durability

Pilot Installation Description assures proper engine installation
Individual cylinder heads reduce thermal stress and ensure long compression seal life
Sputtered main and rod bearings for high load capacity and long life
High capacity oil pump and three oil galleries for maximum piston cooling and bearing life
Five hour production dyno test including oil analysis
Three year limited warranty

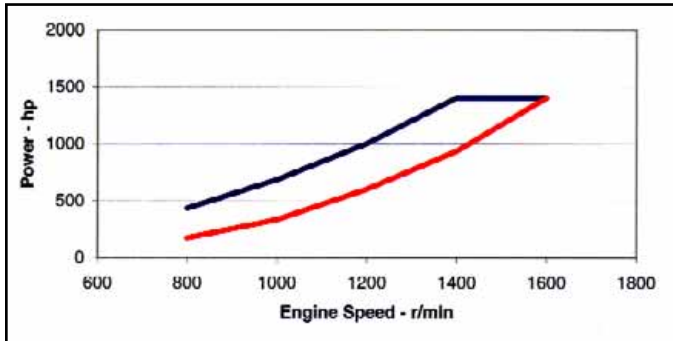
Maintenance and Serviceability

Triple wall exhaust manifolds reduce engine room heat
Centrifugal bypass oil filter system for superior lube oil filtration
Gear driven accessories eliminate expense of drive belt maintenance
Engine mounted duplex fuel and lube oil filters for easy access
Extended oil change intervals
Clean engine room with closed breather system
Aluminum intake manifold located on the outboard side of the engine can be touched by hand with the engine running
Extended service coverage (P-3) available
Captain/Crew training available at a number of locations
True worldwide parts and service support
Transferable warranties

Fully Supported by the Worldwide Professional Marine Network

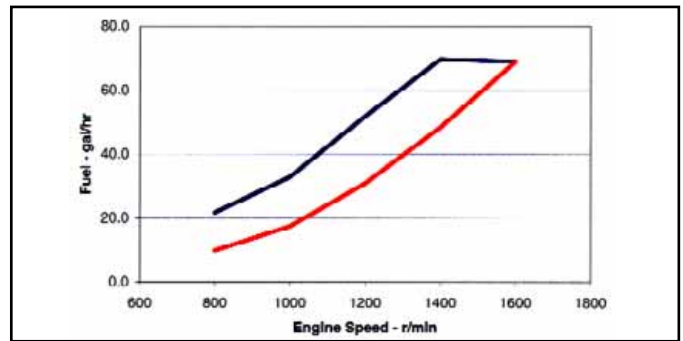
For a complete listing of standard and optional equipment, consult your authorized MTU/DDC representative. Photograph represents a typical marine engine.

Rated Power: 1500 bhp @ 1600 r/min



Power output guaranteed within +2/-0% at SAE J1228 conditions:
 77°F (25°C) air inlet temperature
 29.31 in. Hg (99 kPa) dry barometer
 100°F (38°C) fuel inlet temperature
 .853 specific gravity at 60°F (15°C)

Rated Power: 1500 bhp @ 1600 r/min

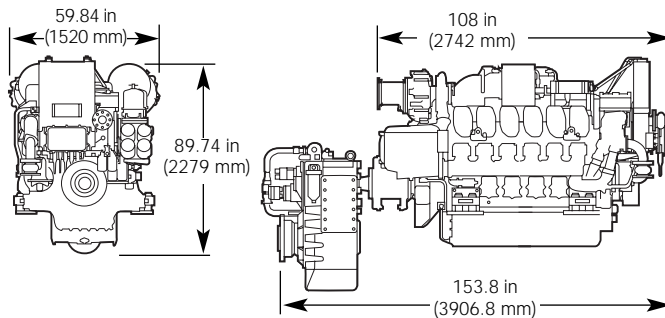


Performance shown includes:
 Air intake restriction: 10 in. H₂O (2.5kPa)
 Exhaust back pressure: 15 in. H₂O (3.7kPa)
 Fuel Density: 7.11 lb/gal

Rating Definition - Continuous

The marine continuous rating applies to medium or low speed boats (normally of the displacement type) which operate up to 24 hours a day, 365 days a year, at high load factors. Typical examples include tugs, towboats, offshore supply boats, fishing trawlers and draggers.

Dimensional Information



Dry Weight w/o Marine Gear: 14,448 lbs. (6554 kg)

All dimensions are approximate. For complete dimensional information, refer to installation drawing provided by your authorized Detroit Diesel Corporation representative. Marine transmission shown represents standard option marine gear.

Standard Equipment

- Main Engines** - Sequential turbocharger and watercooled exhaust components; flywheel housing size SAE #00
- Fuel System** - Electronic common rail direct injection system; duplex secondary fuel filters mounted on front of engine; jacketed high pressure lines
- Engine Oil System** - Duplex oil filters mounted on engine with diverter valve; centrifugal bypass filter
- Engine Cooling System** - Keel cooled with expansion tank and separate circuit charge air cooling
- Air Inlet System** - Direct mounted turbochargers
- Electrical** - Starter: 24V, 2-pole isolated ground; Alternator: 28V/120 amp, 2-pole isolated ground
- Engine Mounting** - DDC engine mounts with isolators
- Exhaust Connection System** - (2) Horizontal dry outlet flanges
- Marine Gear** - DDC vertical offset electronic shift marine gear; remote connected with torsional coupling and gear oil cooler

Optional Equipment

- Starter** - Air starter
- Exhaust Connection System** - (2) Vertical dry flange elbows (2) Bellows
- Accessory Drives** - 3 SAE B from front gear train
- Type PTO Options** - Radial drive off front crank pulley Axial drive off front crank hub
- Transmission Accessory Options** - Companion Flange, PTO - Live or clutchable
- Engine Cooling System** - Titanium plate modular heat exchanger system with integral fuel cooler; gear driven self-priming raw water pump with 5" inlet and 5" outlet of special bronze alloy



For more information contact your MTU distributor. All Detroit Diesel distributors in NAFTA are authorized MTU distributors.

