

MERLIN



350



The Merlin 350 is a heavy duty engine ideally suited for rugged commercial use in boats up to fifty feet in length. A superior power to weight ratio ensures excellent fuel consumption and reliability.

POWER BY FORD

ADVANTAGES OF THE MERLIN DIESEL ENGINE

- The world's most powerful 350 HP production-based engine baseline. Power to weight ratio: 3.92 L.A./HP.
- Lighter weight, compact design provides easier service access and higher vessel performance.
- Heavy duty engine mounts are standard.
- Self-priming fuel system will not allow dry fuel line ignition pump.
- Flare or bow cleamps are not used for the cooling system—only 10% oil sump.
- Fuel and oil lines are all standard eye-bolts (no weld).
- All serviceable components can be removed or installed in 1-1/2 hours with standard American tools.
- Single belt to engine drives alternator.
- Dependable acceleration and top speed.
- Ability to run dry speeds without engine overheating.
- Fuel savings up to 20% compared to gas engines of equal output.
- Engine life with scheduled maintenance and overhaul will typically exceed the useful life of the boat.
- Much greater reliability. Detailed guide provides customer safety advantages.
- Much lower maintenance cost.
- Excellent parts availability.

GENERAL SPECIFICATIONS

TYPE

Advanced Red-head type in the widely-used overhead-valve, air-cooled, inverted design. Bore 50 and 55 mm or 1.969 and 2.165 inches.

MAX. WEIGHT

6.8 kg. (15.0 lb.)

DISPLACEMENT CAPACITY

274 cc (16.7 cu. in.)

COMPRESSION RATIO

16.7:1

FUEL SYSTEM

Direct injection. Runs on low pressure carb. or propane. High speed carburetor. High speed fuel injection.

VALVES

Full overhead valve stem.

DISPLACEMENT

274 cc (16.7 cu. in.)

VALVE TRAIN

Single overhead camshaft. Full overhead.

VALVE TIMING

Intake valve open 100° before bottom dead center. Compression valve open 100° before bottom dead center. Exhaust valve open 100° after bottom dead center.

ELECTRICAL SYSTEM

12 volt constant speeding 10 amp. Alternator driven. Ignition coil driven from base. 12 volt power wiring.

ENGINE MOUNTS

4 ball mounted high speed vibration.

VALVE IN POSITION

1.969
2.165

DISPLACEMENT

274 cc (16.7 cu. in.)

VALVE TIMING

Intake valve open 100° before bottom dead center.

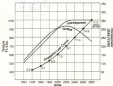
VALVE TRAIN

Single overhead camshaft.

QUALITY CONTROL TESTING

All engines fully tested. Dimensional tolerances.

MERLIN 360 7.8 LITRE



To SAE J484 standards.
Rating conditions of 100°F.



Left Side View



Right Side View



Rear View

Merlin Marine Engine Corporation

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MERLIN

400



The Merlin 400 has a reserve of power combined with a ruggedness derived from it's outstanding power to weight ratio.

POWER BY FORD



ADVANTAGES OF THE MERLIN DIESEL ENGINE

- The world's most powerful 600 HP production diesel engine based on Power to weight ratio: 1.43 HP/LB.
- Lighter weight, compact design provides better service access and higher vessel performance.
- Heavy duty engine mounts are standard.
- Self-purging fuel system will not allow dirty fuel from bypass pump.
- However low change gear set speed for the cooling system—only 3 RPM, 20-cfm.
- Fuel and oil lines are all integral type bonded stainless steel.
- All applicable components can be removed or reinstalled in 2-30 minutes with standard American tools.
- Single belt or engine driven alternator.
- Unprecedented acceleration and top speed.
- Ability to run at top speeds without engine overloading.
- Fuel savings up to 20% compared to gas engines of equal output.
- Engine life with scheduled maintenance and overhaul will typically exceed the useful life of the host.
- Much greater reliability. Diesel fuel provides enormous safety advantage.
- Much lower maintenance cost.
- Excellent parts availability.

GENERAL SPECIFICATIONS

TYPE

American Ford Inboard outboard in line without a water-cooling pump, water-tight, self-priming, direct injection, electric start and 1000 rpm 2000 rpm operation.

DISPLACEMENT

400 cu. in. (6.57 lit.).

COMPRESSION RATIO

10.4 cubic in. 10.4 cubic in.

COMPRESSION RATIO

10.4

FUEL SYSTEM

Water-tight, electric start, electric fuel pump with float valve, 1000 rpm 2000 rpm and fuel filter/strainer.

AIR FILTER

Fold-down, dual element filter.

VALVE CLEARANCE

As shown, open at 1000 rpm.

TECHNICAL NOTES

Major specifications are printed throughout this manual.

SAFETY SYSTEM

Engine shut-off device (kill switch) shown on rear panel equipped with 1000 rpm kill switch. Water pressure resistant release switch.

ELECTRICAL SYSTEM

12VDC in standard configuration. See "Electrical System" chapter for complete information. See all product listings.

ENGINE MOUNTS

4-point adjustable high grade anti-vibration.

WATER INSTALLATION

30° maximum.

MAXIMUM WEIGHT LIMIT

2000 lbs. (907 kg).

EXHAUST SYSTEM

8" water-tight SAE outlet.

TRANSMISSION

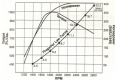
Available open gear.

QUALITY CONTROL TESTING

100 hours fully loaded test.

Standard 1000 rpm testing.

MERLIN 400 7.8 LITRE



To SAE/J149 standards.
Rating conditions of 11.5 PSI.



Front View



Right Side View



Rear View

Merlin Marine Engine Corporation

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