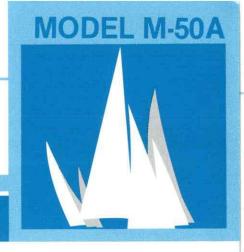
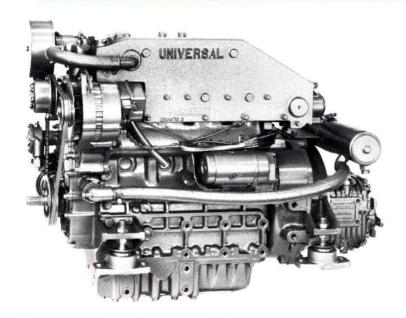
# Universal

### **DIESEL MARINE ENGINES**





When Mother Nature takes the wind out of your sails, nothing will put it back like a Universal Diesel. Smoothly. Dependably. With the right combination of high torque and low R.P.M. to get you where you want to go ... quiet as the wind.

With a choice of seven models ranging from 18 to 44 horsepower, there's a lightweight, compact Universal Diesel engine that's exactly the right size for your boat.

#### **Features**

**CYLINDER BLOCK:** Spherical graphite cast iron for maximum vibration dampening.

CYLINDER HEAD: Marine chrome nickel alloy iron with spherical combustion chamber for smooth running and clean exhaust.

**CRANKSHAFT:** High grade steel, statically and dynamically balanced. Drilled for pressure lubrication.

**OIL PAN:** Stamped steel, detachable for inspection purposes.

**COOLING SYSTEM:** Closed fresh water heat exchanger.

**FUEL SYSTEM:** Bosch fuel injection system. Fuel filter with replaceable element and E-Z bleed.

**LUBRICATION:** Full pressure lubrication with full flow spin-on oil filter.

**TRANSMISSION:** Drop center gear with helical gears and a mechanical friction clutch permit free wheeling of the propeller with no effect on the gear. Standard reduction ratio of 1.9:1. Lubricated separately from the engine.

FLEXIBLE MOUNTS: Engine equipped with four point adjustable mounting for ease of installation and minimum vibration.

**ELECTRICAL SYSTEM:** 12 volt system standard. Marine type 51 Amp alternator with transistorized regulator, electric starter with solenoid for remote starting.

**GLOW PLUGS:** For easy starting year around.

#### **Universal Motors**

THE LEADER IN MARINE POWER SINCE 1898

#### **Standard Equipment**

Fresh water cooling, sea water pump, alternator, flex mounts, lifting eye, Hurth reduction transmission, electric fuel pump, fuel filter, lube oil filter, glow plugs, E-Z bleed fuel system, hand sump pump – oil, prewired engine, battery charging alternator, coolant recovery tank, control brackets — fuel – shift – stop, lube oil drain hose, operator's manual and parts list.

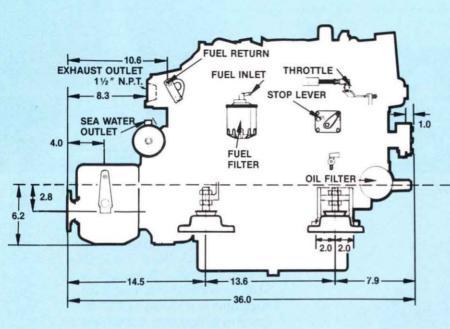
#### **Propeller Rotation**

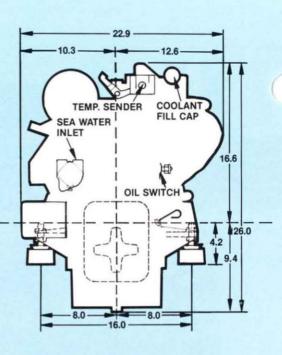
Right hand propeller.

#### **Optional**

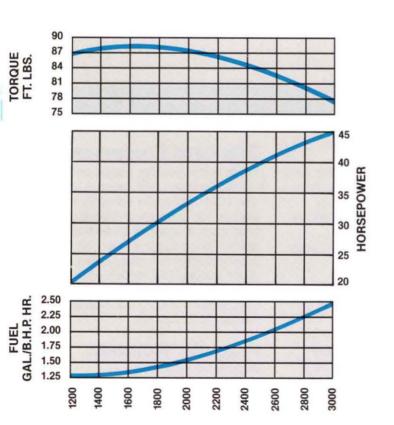
On-board spare parts kit. Instrument panels. Flexible coupling. E-Z Align V-Drive gear. Remote expansion tank. Exhaust connection (90°, 45° elbows and riser). Anti-siphon valve. Technical manual. Other gear ratios. 72 amp, 12 volt alternator.

## M-50A installation dimensions





4 point mounts only



specifications

Engine Type	4 cycle
Number of Cylinders	4-Vertical
Displacement	115 Cu. In.
Bore	3.25 In.
Starter	12 Volt
H.P./KW	3000 RPM/32.8
Alternator	12 Volt 51 Amp
Maximum Installation Angle	15°
Engine Weight	545 Lbs.
Propeller Rotation	Right Hand



- Captain Instrument Panel with indicating lights and 15' wiring harness
- Admiral Instrument Panel with oil pressure and water temperature gauges, battery charge rate voltmeter, 15' wiring harness
- Both panels include high water temperature and low oil pressure alarms

#### **Universal Motors**

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