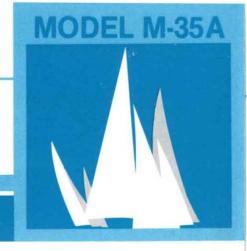
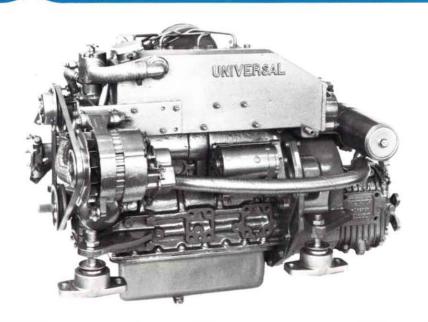
# Universal

## **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 1.8:1. 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.

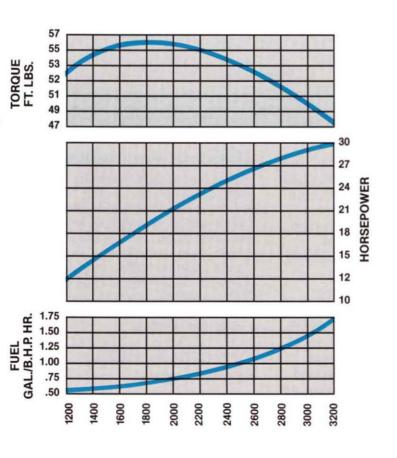
#### **Propeller Rotation**

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 vlave. Technical manual. Other gear ratios. 72 amp, 12 volt alternator.

#### M-35A installation dimensions 20.3 **FUEL RETURN** SEA WATER FILL STOP SEA WATER INLET 14.0 OIL FILTER 22.9 THROTTLE 8.9 16.75 (On 11.5 Centers) 11.5 (Fits Atomic-4 Mtg.) 17.7 3.4 16.0 31.8



# specifications

Engine Type	4 cycle
Number of Cylinders	4-Vertical
Displacement	
Bore 2.95 In	. Stroke 2.76 In.
Starter	12 Volt
H.P./KW	30 @ 3200 RPM/22.3
Alternator	12 Volt 51 Amp
Maximum Installation Angle .	15°
Engine Weight	
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 change rate voltmeter, 15' wiring harness
- Both panels include high water temperature and low oil pressure alarms

## **Universal Motors**

Westerbeke Corporation
Avon Industrial Park • Avon, MA 02322
TEL. (508) 588-7700 FAX (508) 559-9323