



MANUAL 1976

75 HP
MODEL 75642
75643

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SPECIAL SERVICE TOOLS

OMC has specially-designed tools to simplify some of the disassembly and reassembly operations. These tools are illustrated in this Service Manual, in many cases in actual use. Refer to the Special Service Tool Catalog for a description and ordering instructions for these tools. Purchasers of individual manuals must order Special Tools through an authorized dealer.

OUTBOARD MOTOR NOMENCLATURE

Sometimes the words "right" and "left" are very confusing when referring to the sides of an outboard motor. Therefore, the sides are referred to as STARBOARD or PORT sides. STARBOARD means on the right hand while facing the bow (FRONT) of the boat; PORT means left hand. See Figures 1-1 and 1-2.

Service required for the motor is generally one of three kinds . . .

1. **NORMAL CARE AND MAINTENANCE**, which includes putting a new motor into operation, storing motors, lubrication, and care under special operating conditions such as salt water and cold weather.
2. **OPERATING MALFUNCTIONS** due to improper motor mounting, propeller condition or size, boat condition, or the malfunction of some part of the motor. This includes motor tune-up procedures to keep the motor in prime operating condition.
3. **COMPLETE DISASSEMBLY** and overhaul, such as inspecting a motor that has been submerged or rebuilding trade-in units.

It is important to you as the service man to determine before disassembly just what the trouble is, and how to correct it quickly and with minimum expense to the owner. This section of the manual is designed to help you diagnose motor malfunctions and correct them.

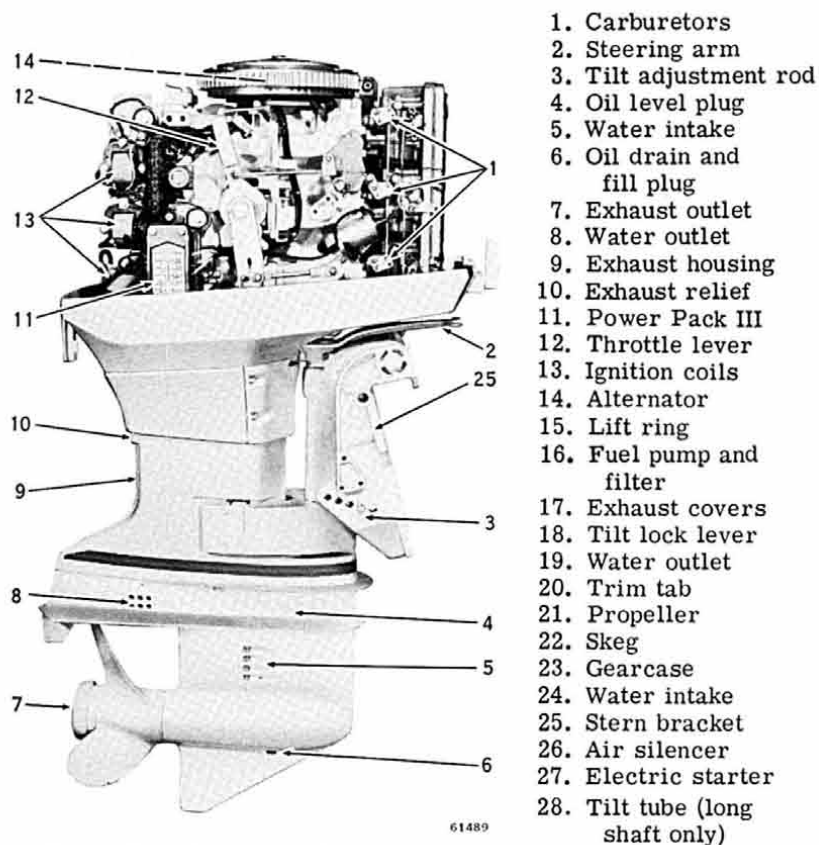


Figure 1-1. Starboard View
(Standard Length)

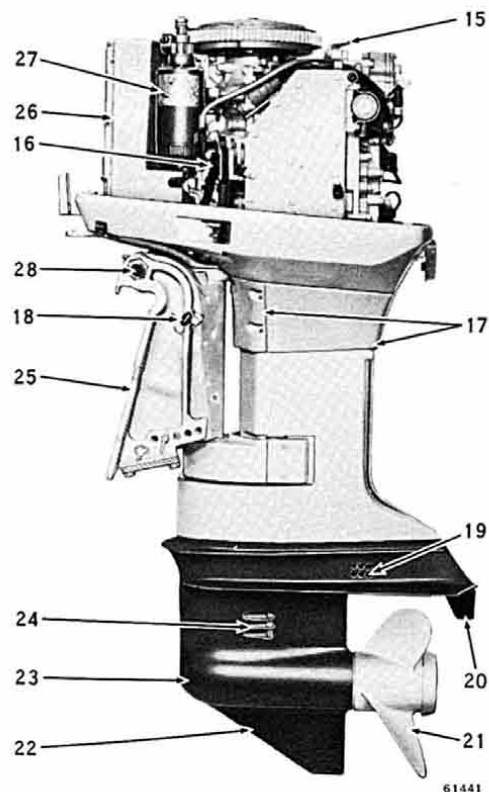


Figure 1-2. Port Side View
(Long Shaft Model)

SPECIFICATIONS

Model Numbers	75642 (standard length) 75643 (5" longer)
*Horsepower (B.I.A.-certified)	75 hp at 5500 rpm
Full throttle operating range	5200 to 5800 rpm
Tank test with test wheel Part Number 386950 (standard length)	5200 rpm
Tank test with test wheel Part Number 386665 (long shaft)	5200 rpm
Engine type	2 cycle, 3 cylinders in line
Bore and stroke	3" bore x 2-11/32" stroke
Piston displacement	49.7 cubic inches
Piston ring sets (2 per set) standard	Part Number 385807
.020" oversize	Part Number 385808
.030" oversize	Part Number 385809
Diameter of ring	3.000 in. (standard)
Width of ring	Upper, .0900 - .0895 in. Lower, .0625 - .0615 in.
Piston ring lbs. compression recommended when compressed.	Upper, 1,0 to 3,0 lbs. Lower, 4 to 8 lbs.
Piston with rings	
Standard	Part Number 385877
.020" oversize	Part Number 385878
.030" oversize, without rings	Part Number 385873
Crankshaft size	
Top journal	1.4979 - 1.4974 in.
Center journals	1.3752 - 1.3748 in.
Bottom journal	1.1815 - 1.1810 in.
Connecting rod crank pin	1.1828 - 1.1823 in.
Carburetion	3 carburetors - Float feed. Manual lever and remote control choke
Float level setting	Remove float bowl, turn it upside down so weight of float closes needle; float should now be parallel to and 1/16" above surface of gasket
Carburetor orifice plug (high speed)	Part Number 320921 - Hole size .055"
Carburetor orifice plug (low speed)	Part Number 317474 - Hole size .027"
Inlet needle seat065 - .062 Use a #52 drill as gage.
Cooling system	Pressure and Thermostatically controlled system
Propeller gear ratio	
Standard length	15:28
Long shaft	12:29
Propeller supplied with motor - standard length	3 blade 11-3/4" dia. by 17" pitch
Optional aluminum propellers	3 blade 13" dia. by 11" pitch 3 blade 12-1/2" dia. by 13" pitch 3 blade 12-1/4" dia. by 15" pitch 3 blade 11-1/2" dia. by 19" pitch
Propeller supplied with motor - long shaft	3 blade 13" dia. by 19" pitch
Optional aluminum propellers	3 blade 14" dia. by 9" pitch 3 blade 14" dia. by 11" pitch 3 blade 14" dia. by 13" pitch 3 blade 13-3/4" dia. by 15" pitch 3 blade 13-1/4" dia. by 17" pitch 3 blade 12-3/4" dia. by 21" pitch 3 blade 12-3/4" dia. by 23" pitch
Speed control	Remote control - synchronized throttle and spark
Gear shift control	POWER PILOT - forward, neutral, reverse - remote control
Weight (without fuel tank)	Standard length - 202 lbs. 5" longer - 220 lbs. (Fuel tank weight 11 lbs. net)
Fuel capacity	6 gallons
Starter	Electric and emergency rope
Electrical system	6 amp alternating current generator
Starter amp draw when cranking	American Bosch 120 amperes or Prestolite, 135 amperes
Ignition Magneto Breakerless CD	Power Pack
Timing	16° @ 4800 - 5200 rpm in gear
Spark plug	Champion L77J4 or AC M40 FFX
Spark plug gap040"
Spark plug torque	17-1/2 - 20-1/2 foot-pounds
Sensor Air Gap	Fixed
Coil	Part No. 581609

*Horsepower established at sea level. Allow 2% reduction per 1000' above sea level.

NOTE

The recommended full power operating range for your outboard motor is from 5200 - 5800 R.P.M. In order to get the best performance from your outboard the upper end of this range, from 5200 - 5800 R.P.M., is the engine speed to use in selecting the proper propeller. The R.P.M. should be measured with your expected average load in the boat.