



Recommended Lubricant

Use *Johnson Outboard Lubricant* or *OMC 2-Cycle Motor Oil* which are *Boating Industry Association (BIA)* certified for service TC-W (Two Cycle-Water Cooled). They are formulated to give best engine performance with least combustion chamber deposits, least piston varnish, maximum spark plug life, and best lubrication.

Always keep an ample supply of the recommended lubricant on hand. Additives such as "tune-ups," "tonics," "friction reducing compounds," etc. are unnecessary and are not recommended for your engine.

If *Johnson Outboard Lubricant* or *OMC 2-Cycle Motor Oil* are not available, another BIA certified TC-W lubricant (oil) may be used. Look for the certification information on the container label.

For high performance boaters, we recommend *Johnson GT™ High Performance Lubricant*. This custom blended outboard lubricant is specially formulated for the extra stress and requirements of the high performance outboard.

See your Johnson DEALER for OMC accessories and lubricants engineered specifically for use with your Johnson outboard.

Carefully read and understand the information supplied in this manual. If you have any questions, please contact your DEALER; he will be pleased to assist you.

See **Fuel and Lubricant** section of this manual before operating this motor.

ENGLISH

Lubricante Recomendado

Johnson Outboard Lubricant o *OMC 2-Cycle Motor Oil* los cuales son certificados por la *Boating Industry Association (BIA)* para operar con los motores TC-W (Dos ciclos enfriados por agua). Ellos fueron formulados para proporcionarle el mejor rendimiento al motor con el mínimo de depósitos en la cámara de combustión, menos varnish en los pistones, máxima vida a las bujías y la mejor lubricación.

Siempre mantenga a mano una cantidad amplia del lubricante recomendado. Aditivos, tales como "tune-ups" (sincronizadores), "tónicos", "compuestos para reducir la fricción", etc. no son necesarios y no son recomendados para su motor.

Si el *Johnson Outboard Lubricant* o el *OMC 2-Cycle Motor Oil* no están disponibles, otro lubricante (aceite) certificado por la BIA para TC-W podrá ser usado. Busque la información de la certificación situada en la etiqueta del recipiente.

Para las embarcaciones de alto rendimiento nosotros recomendamos el *Johnson GT™ High Performance Lubricant*. Este lubricante preparado específicamente para fuera de bordas, fue formulado especialmente para cumplir con los requisitos de potencia adicionales de los motores fuera de borda de alto rendimiento.

Vea a su AGENTE Johnson para obtener los accesorios y lubricantes OMC diseñados específicamente para ser usados con su fuera de borda Johnson.

Lea cuidadosamente y comprenda la información suministrada en este manual. Si usted tiene alguna pregunta, póngase en contacto con su AGENTE; él tendrá mucho placer en ayudarlo.

Vea la sección de **Combustible y Lubricante** que se encuentra en este manual, antes de operar este motor.

ESPAÑOL



Operator's Manual

How To Use This Manual

This Owner's - Operator's manual is divided into two sections:

Section 1

Operator's Manual

- Starting and Operation
- Maintenance

Section 2

Owner's Handbook

- Recommended Fuel and Lubricant
- Fuel Mixing Instructions and Break-In Procedure
- Off Season Storage and Submerged Motor
- DEALER Service and Warranty

Important Information

The Owner's Handbook, Section Two, contains information needed to prepare the owner/operator for proper product operation and safer boating. Read Section Two thoroughly before attempting to operate this motor.

Maximum Boat Horsepower



Safety Warning: Do not over-power by using a motor with a horsepower rating higher than the maximum stated on the boat's capacity plate. Doing so could result in loss of control. If boat is not equipped with capacity plate, see your DEALER.

Photographs and Illustrations

Photographs and illustrations are keyed to the text in this manual with numbers and letters.

Product References, Illustrations and Specifications

When reference is made in this manual to a brand name, number, product or specific tool, an equivalent product may be used in place of the referred to product unless specifically stated otherwise. Equivalent products which are used must meet all current Coast Guard Safety Regulations and ABYC standards to avoid hazards.

Outboard Marine Corporation reserves the right to make changes at any time, without notice, in specifications and models and also to discontinue models. The right is also reserved to change any specifications or parts at any time without incurring any obligation to equip same on models manufactured prior to date of such change. Specifications used are based on the latest product information available at the time of publication.


The continuing accuracy of this manual cannot be guaranteed.

All photographs and illustrations used in this manual may not depict actual models or equipment and are intended as representative views for reference only.

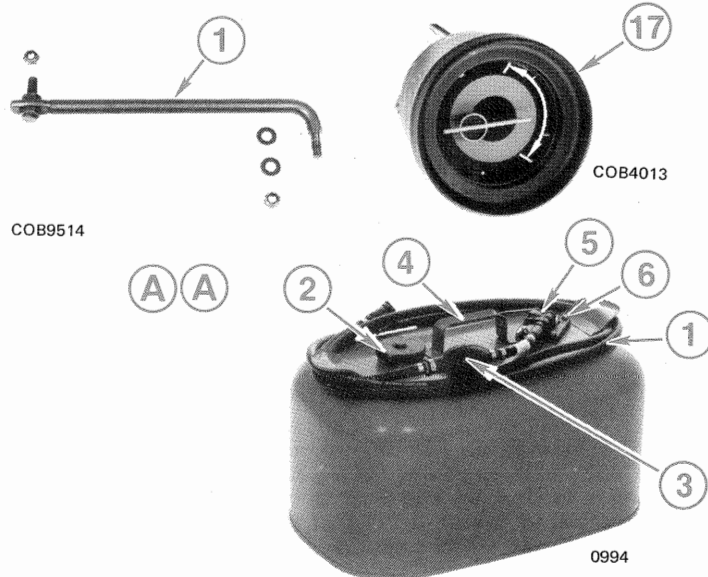
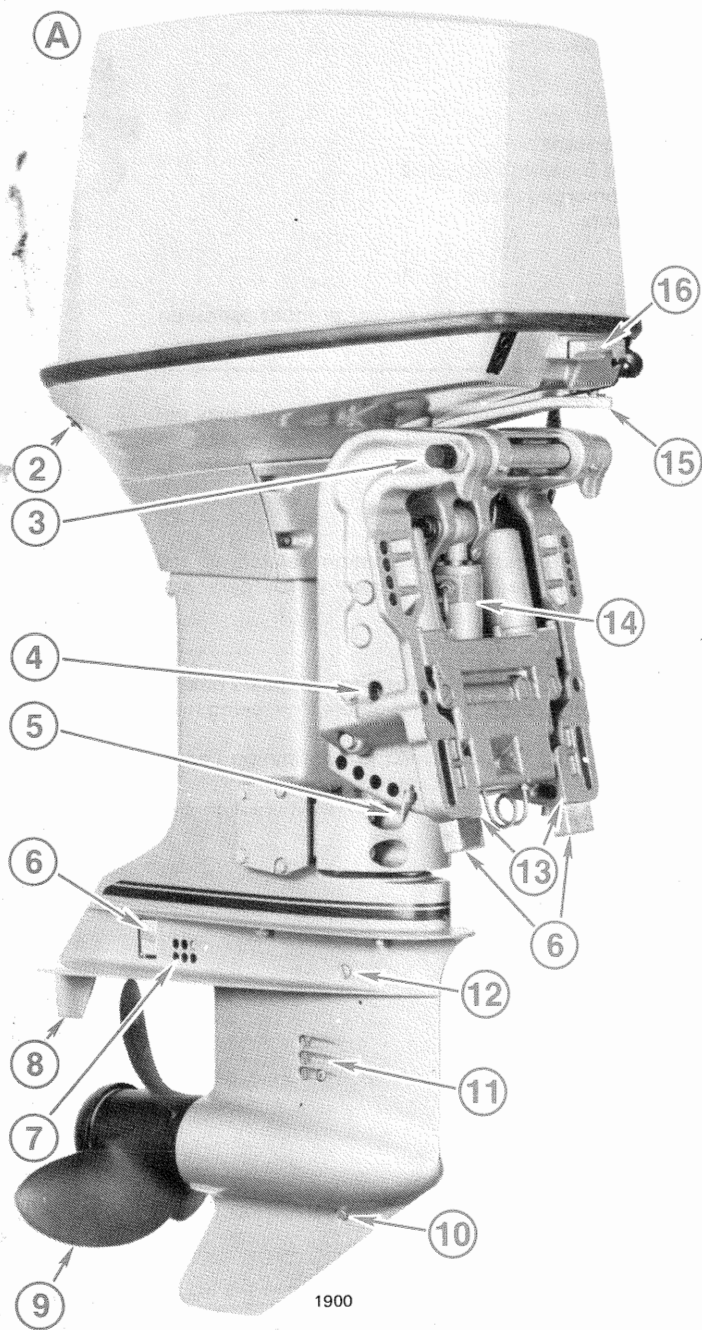
Safety

This manual contains certain information related to the personal safety of you the operator, your passengers and bystanders.

The safety symbol,  **Safety Warning:**, appears next to information important to prevent you and others from being hurt.

The note symbol,  , appears next to information important to keep machinery from being damaged.

Observe all Notes and Safety Warnings contained in this manual.

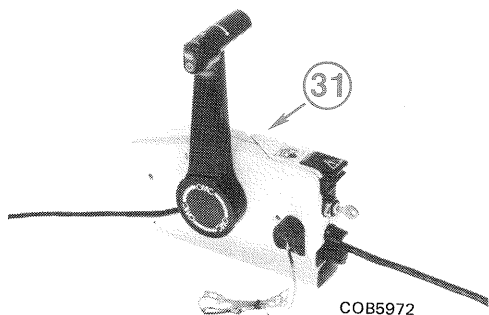


Features

Starboard View - A

POWER TRIM AND TILT MODEL

1. Steering Connector Kit
2. Water Pump Indicator
3. Thru Tilt Pin Steering
4. Manual Release Valve (Power Trim and Tilt Model Only)
5. Angle Adjusting Rod
6. Anti-Corrosion Anode
7. Water Discharge (Port and Starboard)
8. Trim Tab
9. Propeller (Optional)
10. Oil Drain/Fill Plug
11. Water Intake (Port and Starboard)
12. Oil Level Plug
13. Stern Brackets
14. Power Trim and Tilt Assembly (Power Trim and Tilt Model Only)
15. Remote Steering Arm
16. Cover Lock Lever (Front)
17. Trim Gauge (Power Trim and Tilt Model Only)



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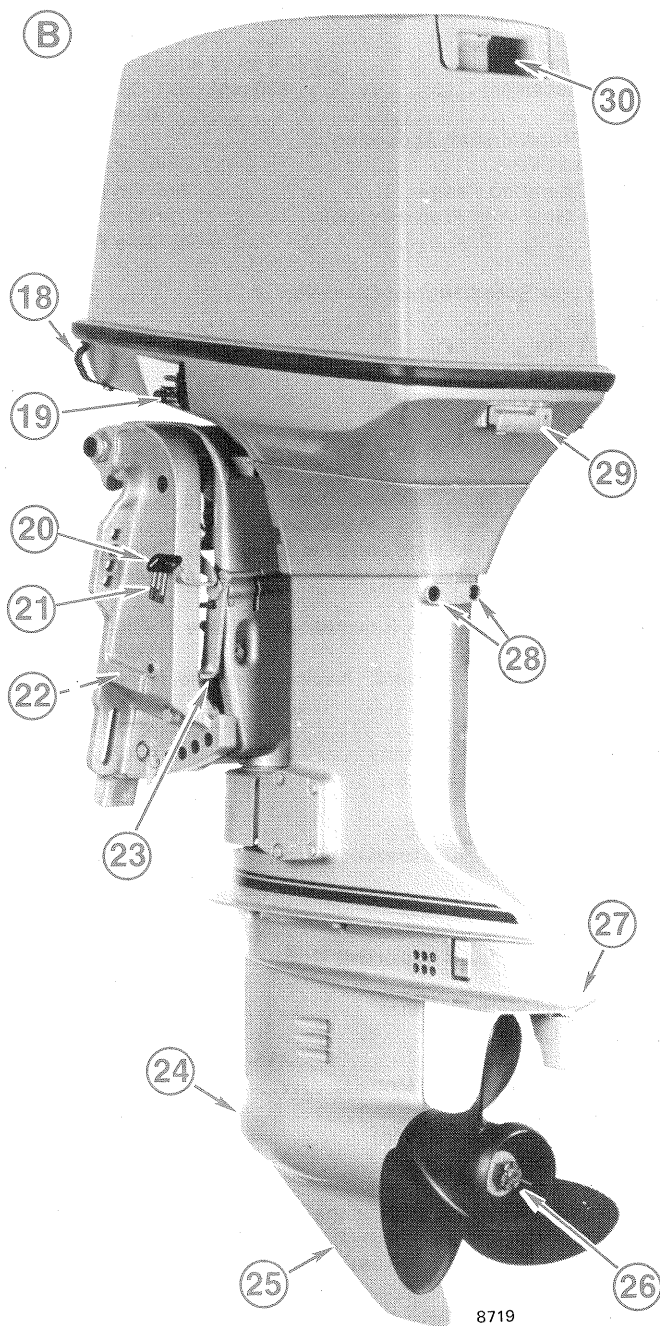
Fuel Tank and Connector - View AA

1. Fuel Hose and Connector Assembly
2. Filler Cap
3. Priming Bulb
4. Handle
5. Fuel Gauge
6. Drain Screw

MANUAL TILT MODEL

Port View - B

18. Fuel Line Retainer
19. Fuel and Oil Hose Connectors
20. Tilt/Run Lever
21. Model and Serial Number Plate
22. Tilt Assist Cylinder
23. Tilt Support
24. Gearcase
25. Skeg
26. Thru Hub Exhaust
27. Anti-Ventilation Plate
28. Exhaust Relief
29. Cover Lock Lever (Aft)
30. Tilt Grip
31. Remote Control



8719

Specifications

Powerhead	3 Cylinder - 2 Cycle
Bore and Stroke	80.97 x 59.54 mm (3.188" x 2.34")
Piston Displacement	920 cm ³ (56.1 Cubic Inches)
*Horsepower	70 at 5500 RPM
*Power at Propellershaft According to ICOMIA 28-83	(52.2 kW) at 5500 RPM
Full Throttle Operating Range	5000 to 6000 RPM
Idle Speed (In Gear With Proper Propeller)	650 to 750 RPM
Ignition	OMC Solid State Electronic
Spark Plugs	
Sustained Low Speed/Normal Operation	QL77JC4
Alternate	L77JC4
Gap Setting	1.0 mm (0.040)
Sustained High Speed Operation	QL78V
Alternate	L78V
Gap Setting	Gap is Permanent
Spark Plug Socket Wrench Size	13/16"
Spark Plug Torque	24-27 N·m (17 to 20 ft. lbs.)
Cooling System	Water Pump - Positive and Centrifugal - Pressure and Thermostat Controlled
Carburetors	Fixed High and Low Speed Jets - Remote Electric and Manual Primer
Alternator (Non Regulated)	6 A
Fuse	Engine 20 A (Located at Port Side of Engine in Wire Terminal Area)
Shift/Throttle Control ...	Forward - Neutral - Reverse, Remote Control
Gear Ratio	0.414 (12:29)
Gearcase Lubricant Capacity	650 ml (22.0 fl. ozs.)
Power Trim and Tilt Fluid Capacity	740 ml (25.0 fl. ozs.)
Fuel Tank (Not Furnished in U.S.)	22.7 Litres (6 U.S. Gallons) (5 Imperial Gallons)
Propeller (Not Furnished in U.S.) (See Propeller and Steering Connector Selection Guide Supplied in Owner's Kit)	
Propeller (Outside U.S.)	Aluminum 3 Blade 33.7 cm (13-1/4") Dia. x 43.2 cm (17") Pitch (See Propeller and Steering Connector Selection Guide Supplied in Owner's Kit)
Propeller Nut Socket Wrench Size	1-1/16"
VRO® Oil Tank Capacity	6.8 Litre (1.8 Gallon)
Transom Height	495-508 mm (19-1/2" to 20")
Weight - (Power Trim and Tilt Models)	112.5 kg (248 lbs.)
- Manual Tilt Models	104.3 kg (230 lbs.)
VRO® Oil Tank (Empty 1.8 Gallon)	1.88 kg (78.0 ozs.)
OMC Fuel Tank (Empty)	5.0 kg (11 lbs.)

*Power ratings are determined after the break-in period and when an additional 4 hours minimum of wide open throttle operation has been accumulated. See **Break-In Procedure**.

Outboards have been rated in accordance with standard ICOMIA 28-83 test procedures and reflect modifications and/or improvements which have been incorporated into the outboard since its initial introduction.

Since a boat's performance can be influenced by factors other than outboard power, these power ratings reflect the performance characteristics of the outboard on a typical boat application.

Starting & Operation

During the initial operation of your new motor, you must follow the "**Engine Break-in**" procedure as described in **General Information**, Owner's Handbook.

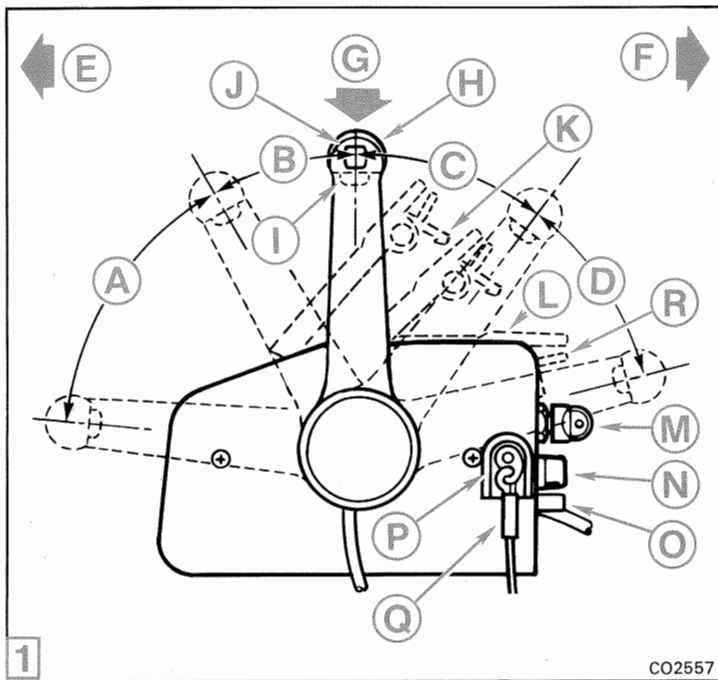
Note Failure to follow the "**Engine Break-in**" procedure can result in serious engine damage.

Emergency Ignition Cut-Off Switch

An Emergency Ignition Cut-Off Switch is a feature of the remote control. Use of this switch is highly recommended on any boat considered to have sensitive steering response. In addition, the emergency ignition cut-off switch should be used on any boat where the distance between the driver's seat cushion and the top edge of the boat next to the seat cushion is less than 305 mm (12").

Attach the lanyard to a secure place on clothing. Do not place the lanyard on any part of clothing that may be torn or will permit the lanyard to pull away rather than stopping the engine. Using the switch is simple and does not interfere with normal operating procedures. However, if the operator leaves the helm area, the cut-off switch will stop the engine. This action will prevent your boat from becoming a runaway. Care should be taken to avoid knocking or pulling the lanyard off the switch during regular boating operation. Unexpected loss of forward motion could occur allowing occupants to be thrown forward.

In an emergency situation, any occupant of the boat can restart the motor. Just press in and hold the Emergency Cut-off switch's button while following normal starting procedure. If the button is released, the motor will stop.



Remote Control

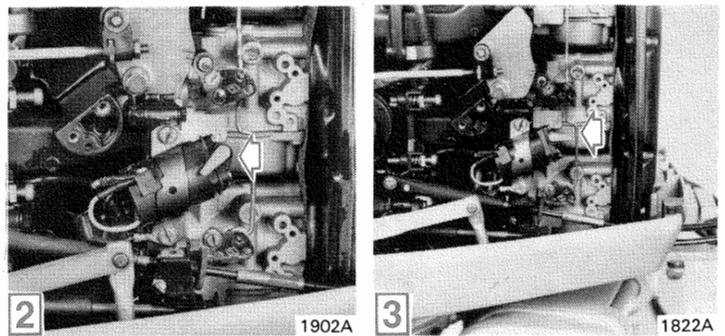
A neutral start switch in control box prevents starting engine when control lever is in gear.

To shift into either gear, lift the lockout on the control handle and move the lever briskly in the desired direction to the fully shifted position. This requires 30° of lever motion. A control handle detent provides a "feel" at the forward idle and reverse idle positions.

When shifting BETWEEN forward and reverse, always hesitate briefly in neutral before shifting briskly into gear. This reduces clutch dog (propeller shaft) RPM to allow easier shifting and positive clutch dog engagement.

1 Remote Control

- A. Forward Speed Range
- B. Forward Shift Range
- C. Reverse Shift Range
- D. Reverse Speed Range
- E. Forward
- F. Reverse
- G. Neutral
- H. Control Handle
- I. Lockout
- J. Trim/Tilt Switch (Power Trim/Tilt Models)
- K. Fast Idle Lever-Start Position
- L. Latch-Fast Idle Lever
- M. Ignition/Starter Primer Switch
- N. Throttle Friction Adjustment
- O. Accessory Plug Connector
- P. Emergency Ignition Cut-Off Switch
- Q. Lanyard
- R. Fast Idle Lever-Run Position



2 3 Manual Primer Valve - Electric Engine Primer

The manual primer valve, under the engine cover, can be set at RUN or MANUAL START position. It will stay in either position it is set. Always set the manual primer valve at RUN position for all normal operation. This allows motor to be primed at the remote control, while pushing key in.

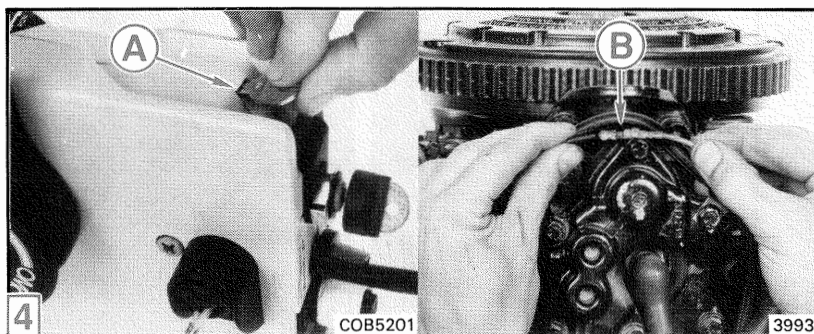


Safety Warning: To prevent possible fire and explosion, manual primer valve lever must be in RUN position except for emergency starting. With lever in MANUAL START position and a pressurized fuel tank connected, leakage could occur through the carburetor air inlet opening.

2. RUN Position
3. MANUAL START Position



Do not operate motor out of water even momentarily without use of a recommended Accessory Flush Kit. Water pump may be damaged or motor may overheat. Turn on water before starting motor.



Warning Horn

There is a warning horn built into the remote control (shipped with motor) or on the accessory engine wiring harness. The warning horn has **three separate sounds** which will alert the operator to the potential problems listed below.

- **Low Oil:** The horn will sound once every 20 seconds when the oil in the VRO tank drops to the reserve level (approximately 1/4 tank of oil). Avoid operating motor on oil reserve. Refill oil tank with recommended lubricant as soon as possible.

Note Failure to refill the VRO tank could result in serious engine damage. If VRO Oil Tank is run dry, the oil hose must be purged of air. Disconnect oil hose and follow the procedure in **VRO Oil Hose Installation**. When the oil hose is disconnected and reconnected to the motor, it is recommended that lubricant be mixed with the gasoline at a 100:1 ratio. See **Fuel Mixing Instructions**. Before using unmixed gasoline, check to see that the level in the oil tank has changed indicating that oil is being used.

- **No Oil Flow:** The horn will sound continuous short pulses if there is no oil flow from the VRO pump to the engine. Do not attempt to operate the motor above 1500 RPM. See your DEALER for service.

Note When the warning horn sound indicates no oil flow from the VRO pump, operation of the motor above 1500 RPM can result in serious engine damage. If it is necessary to operate above 1500 RPM to return to port, lubricant must be mixed with the gasoline at a 50:1 (2% oil) fuel/oil ratio. See **Fuel Mixture** below and follow **Fuel Mixing Instructions** for proper procedure.

Fuel Mixture 50:1 - (2% Oil)

1 part approved lubricant to 50 parts gasoline.
 473 millilitres (16 fl. ozs.) of lubricant to 6 U.S. gallons, 5 imperial gallons or 22.7 litres, of gasoline.
 20 millilitres of lubricant to 1 litre gasoline.

- **Overheating:** The horn will sound continuously if the engine overheats. STOP motor. See **Cooling System**.

4 Warning Horn Test

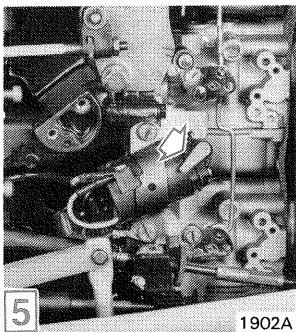
It is advisable to check the operation of the warning horn each time you operate your motor. Turn ignition key to "ON" position, insert a second key approximately one inch into slot located under fast idle lever. Horn should be activated by grounding key to side of slot. If horn does not sound, see your DEALER.

It is also advisable to check the warning horn circuit which will indicate operation of wiring and warning horn at the same time. Slide the insulating sleeve aside to expose the quick disconnect between the temperature switch and the horn lead. Touch terminals to the engine block to ground. With the ignition switch in the "ON" position, the horn should be activated when a good ground contact is made. If the horn does not sound and other electrical components are working indicating a charged battery, see your DEALER for service.

- A. Grounding Slot B. Insulating Sleeve

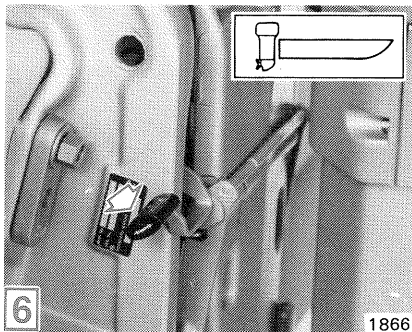
The following are approximate running times for a FULL VRO Oil Tank, excluding reserve (approximately 1/4 tank of oil).

	Cruising (Approximately 75% Throttle)
Single Motor, 6.8 Litre (1.8 Gal.) Reservoir	19 Hours
Single Motor, 11.4 Litre (3.0 Gal.) Reservoir	32 Hours
Dual Motors, 11.4 Litre (3.0 Gal.) Reservoir	16 Hours
Single Motor, 13.2 Litre (3.5 Gal.) Reservoir	37 Hours
Dual Motors, 13.2 Litre (3.5 Gal.) Reservoir	18 Hours
Single Motor, 26.5 Litre (7 Gal.) Reservoir	74 Hours
Dual Motors, 26.5 Litre (7 Gal.) Reservoir	37 Hours



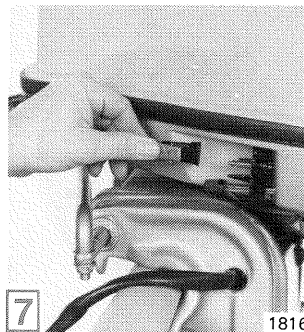
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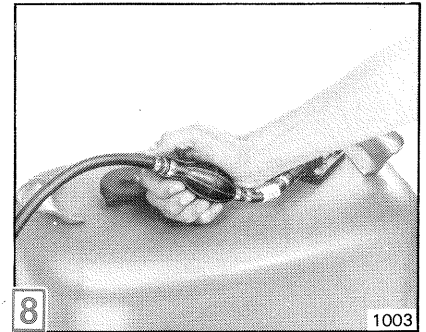
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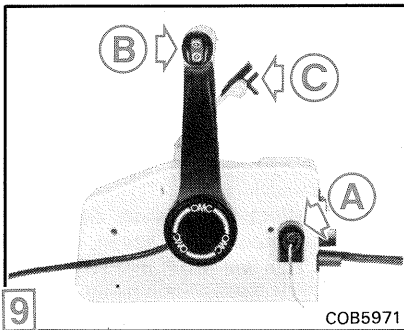
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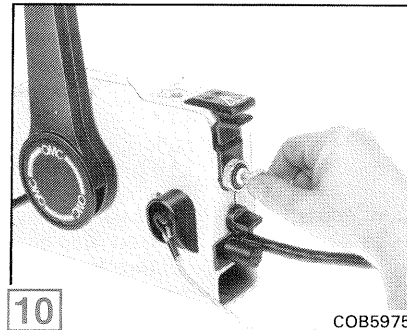
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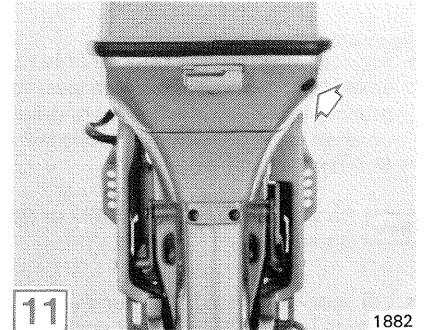
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Fuel Tank

Place fuel tank in boat so tank will not shift around. Be sure fuel line is not wedged under tank. Allow fuel line slack to permit steering.

5 → 11 Starting Procedure

The recommended OMC portable fuel tank and fuel line are used in the following instructions.

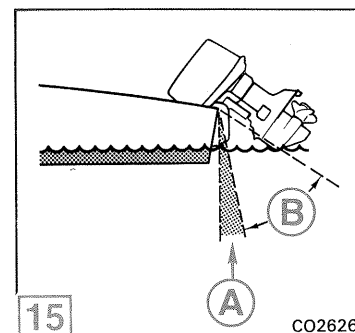
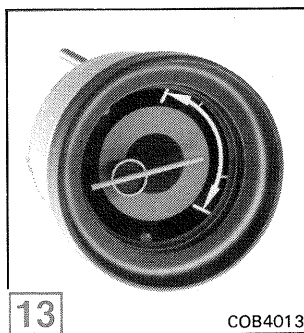
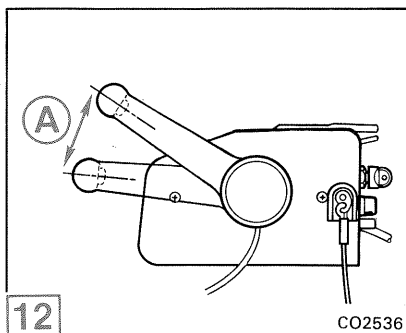
5. • Place manual primer valve in RUN position.
 - POWER TRIM AND TILT MODELS - Put motor in normal running position.
6. • MANUAL TILT MODELS - Put Tilt/Run Lever in RUN position.
7. • Slide fuel connectors onto motor and tank couplings (primer bulb at tank) until locking lever snaps into position. Secure the fuel line to retainer on lower engine cover to avoid interference with steering system.
8. • Holding outlet end slightly up, squeeze fuel line primer bulb several times until resistance is felt.
9. A. • Attach the emergency ignition cut-off switch lanyard to remote control and to a secure place on clothing.
 - B. • Move control handle to NEUTRAL position.
 - C. • Move fast idle lever to START position. (The best start position will vary with each particular installation, use the lowest speed position for reliable starting of your motor.)

10. • Starting-Cold motor - Starting a cold motor normally requires use of the primer. Turn starter key clockwise to ON position and push key in to prime. Hold key in and continue to turn key to START position. Release key as soon as motor starts. If motor does not start, do not hold starter and primer on for over 10 seconds. Let go momentarily and then try again. Immediately after starting, move fast idle lever toward the run position. Fast idle speed must be kept below 3500 RPM to avoid engine damage.
 - Starting-Warm motor - Follow cold motor procedure except warm motor does not normally require primer operation.
11. • Check to see that a steady discharge of water is coming out of the water pump indicator to assure proper water pump operation.
 - Starting-Special Situations - For special starting situations such as starting after long periods of shut-down or after running out of fuel, etc., use fuel line primer bulb (fuel to engine), push starter key in and hold for primer action.

Note Never turn key to start position when motor is running or starter may be damaged.

- If motor does not start, see **Trouble Check Chart**

Note To avoid possible powerhead damage, do not exceed 3500 RPM in neutral.



Operation

- After starting, reduce throttle (if necessary, to avoid excessive high speed idle) by moving fast idle lever toward RUN position. Additional priming (push key in to prime) may be required until the motor warms up, then reduce speed by moving fast idle lever back to RUN position and secure latch.

Note Do not shift into FORWARD or REVERSE position unless motor is running.

- Lift lock-out on control handle and move lever briskly in desired direction to the fully shifted position.
- After shifting is completed, continue to move the lever slowly in the desired direction to increase speed.

Note When shifting from FORWARD to REVERSE or REVERSE to FORWARD always pause at NEUTRAL until motor is at idle speed and boat has slowed, then lift lock-out and shift into gear.

Stopping Motor

- To stop motor, move control handle to NEUTRAL and then turn starter key counterclockwise to OFF position. Always leave the key in the OFF position when motor is not running to prevent battery from discharging. Remove the key when boat is unattended.
- To disconnect fuel line, depress locking lever on fuel line connector and pull-off at motor or tank.

! Safety Warning: To help prevent possible fuel leakage, disconnect fuel line from motor and portable tank when boat is trailered, docked, or when motor is tilted for more than a few minutes.

Coil fuel line on top of tank when not in use. This will help protect fuel line and connector from damage and help prevent sand or dirt from entering connector.

Note Whenever engine will not be used for an extended period of time, disconnect positive (+) battery cable at battery to reduce chance of battery running down and damage caused by electrolysis.

12 Fuel Economy

The economy throttle position can affect fuel savings depending on boat load and hull design. When boat reaches top speed, back off on throttle from FULL SPEED position. This will result in a fuel saving without noticeable loss in speed.

A. Economy Throttle Range

13 14 15 Power Trim and Tilt Operation

Your motor's stern brackets have several trim position holes. Your motor is shipped with the angle adjusting rod in the second hole. The rod must be moved to the innermost hole for normal power trim operation.

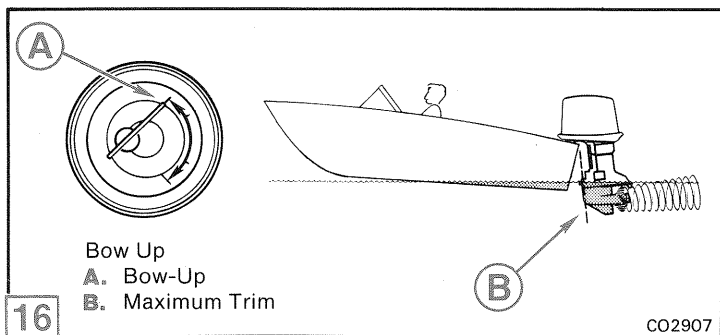
! Safety Warning: Any malfunction of the power trim and tilt unit could result in a loss of shock absorber protection if an underwater obstruction is hit. Malfunction can also result in loss of reverse thrust capability.

POWER TRIM

Power Trim and Tilt feature provides the boat operator with the facility, at the helm, to change the angle of the engine's propeller in relation to the boat bottom.

The Power Trim has a range of 15° and may be operated at any boat speed or at rest. You can trim the boat while underway to improve acceleration, boat speed, and to meet changing water conditions.

To operate the Power Trim, push the Trim/Tilt switch to the desired bow position. Holding the switch in the desired position will activate the motor's trim until the switch is released or the motor reaches its maximum position.



The trim gauge indicates the bow position that is achieved by the trim angle of your motor.

Boat performance and trim position will differ depending on the type of boat, load, propeller and operating conditions. The best ride, fuel economy, performance and speed is determined by the operator's use of the Power Trim.

The effect of the maximum Bow-Up and Bow-Down positions will be relatively the same for most applications, however, the bow position that is best for your operating conditions could be at any trim setting between the maximum Bow-Up and Bow-Down positions.

The boat will be properly trimmed when the trim angle is adjusted to provide a bow position that results in the best boat performance for your particular operating conditions.

It will be necessary to utilize a speedometer and tachometer to determine boat and motor performance at the different trim positions.

Note If the trim unit is being trimmed in while the motor is operated in reverse, the motor could suddenly change trim position when shifted to forward.

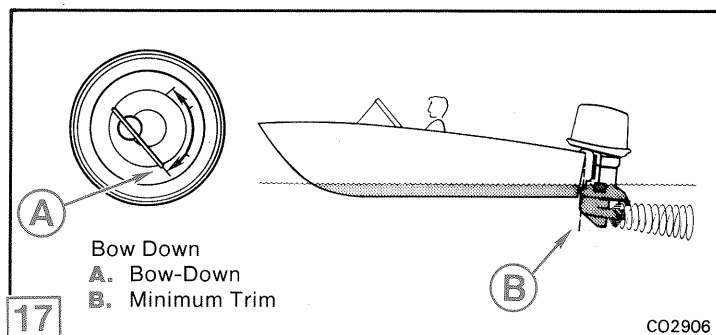
- 13. Trim Gauge
- 14. Trim/Tilt Switch
- 15. A. Trim Range
B. Tilt Range

16 BOW-UP

To move the boat's bow UP, move the Trim/Tilt switch to the UP position.

The Bow-Up position will give the best fuel economy and highest top speed. The Bow-Up position is normally used for cruising or running at full speed. In the Bow-Up position, the boat may tend to turn to the left. If this condition exists, it should be compensated for with the operator's steering or the trim tab should be adjusted, if this is your most commonly used trim position. (See **Trim Tab Adjustment**.)

When the motor is trimmed to full bow UP position you must exert a clockwise force to the steering wheel to keep the boat in a straight ahead path. In this position the boat's bow will want to raise clear of the water. Excessive bow UP trim may cause propeller ventilation resulting in propeller slippage. When operating in rough water or crossing a wake, excessive bow UP trim may result in the boat's bow raising skyward possibly ejecting the occupants.



To familiarize yourself with Power Trim, we suggest you make test runs at the various bow positions. Note the time it takes for the boat to plane, the tachometer and speedometer readings, and the ride and action of the boat.

! Safety Warning: Some boat/motor/propeller combinations may encounter boat instability and/or high steering torque when operated at high speed at or near the motors trim range limits (Full Bow-Up or Bow-Down Positions). Boat stability and steering torque can also vary due to changing water conditions. If any of these conditions occur, reduce throttle and/or adjust trim angle to maintain control. If you experience boat instability and/or high steering torque, see your DEALER to correct these conditions.

17 BOW-DOWN

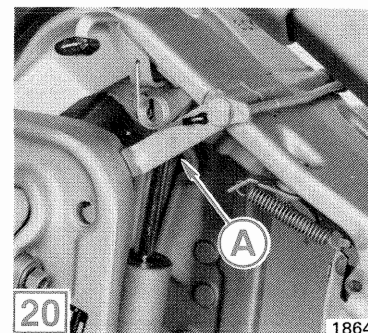
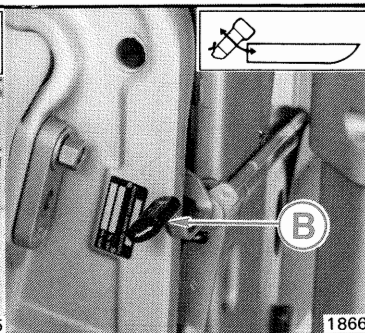
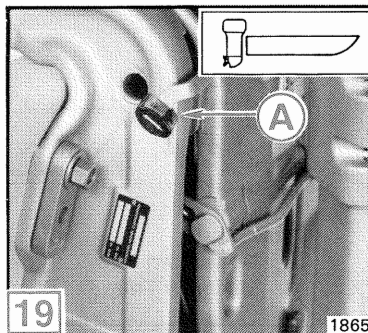
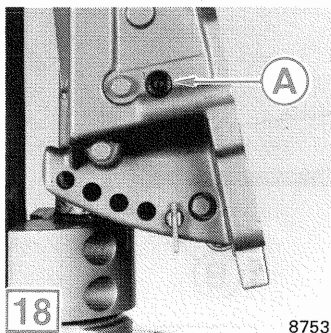
To move the boat's bow DOWN, move the Trim/Tilt switch to the DOWN position.

The Bow-Down position will give the best acceleration onto plane and the best towing power for skiing. The Bow-Down position is normally used for accelerating from a standing start or from idle speed.

In the Bow-Down position the boat may tend to turn to the right. If this condition exists, it should be compensated for with the operator's steering or the trim tab should be adjusted if this is your most commonly used trim position. (See **Trim Tab Adjustment**.)

When the motor is trimmed to full bow DOWN position you must exert a counterclockwise force to the steering wheel to keep the boat on a straight ahead path. In this position the boat's bow will want to go deeper into the water. When operating the boat at high speed, the bow of the boat plows into the water, the boat may tend to bow steer or spin about rapidly and possibly eject the occupants. If the trim unit is being trimmed to bow DOWN position while the motor is operated in reverse, the motor could suddenly change trim position when shifted to forward.

To familiarize yourself with power trim, we suggest you make test runs at various bow DOWN positions. Note the time it takes for the boat to plane, the tachometer and speedometer readings, and the ride and action of the boat.



Note If the trim unit is being trimmed in while the motor is operated in reverse, the motor could suddenly change trim position when shifted to forward.

Tilting

The angle of the motor tilt is also controlled by the Trim/Tilt switch. When the switch is held in the Bow-Up position, the motor is tilted up until the switch is released or the motor reaches the maximum tilt position.

The trim gauge will show maximum Bow-Up position whenever the motor is in the tilt range which is an additional 50° beyond the trim range.

Tilting is normally used for raising the motor to obtain clearance when beaching, launching from a trailer, or mooring.

18 Manual Operation - Power Trim and Tilt

In the event of failure of the boat's electrical system or other problem, it may be necessary to raise or lower the motor manually. Turn manual release screw counterclockwise slowly ONE TURN ONLY - this will allow motor to be pushed down to the outermost trim position.

! Safety Warning: Keep clear of motor when backing out manual release screw. After the motor is lowered be sure to tighten manual release screw clockwise until it stops. This will reactivate shock absorber protection and reverse thrust capability.

The motor is now in the full bow up trim position, and must be operated in a manner suitable for this condition.

A. Manual Release Screw

19 20 Tilting - MANUAL TILT MODEL

A tilt support is provided for launching, loading, beaching or trailering your boat. The Tilt/Run Lever is located on the port stern bracket. This lever releases the reverse lock for full tilt engagement.

This model is equipped with a shock absorber designed to assist in tilting the motor. To tilt motor, raise Tilt/Run Lever to TILT (up) position. Grasp tilt grip and tilt motor up until lock engages automatically.

It is preferable to leave motor in the run position when it will not be used for a period of time. However, if circumstances make it necessary to leave motor tilted, leave the tilt lever in TILT position - never in the RUN position. With lever in RUN position, a tilted motor could drop suddenly if accidentally bumped.

To lower motor, move Tilt/Run Lever to RUN (down) position. Raise motor slightly to release lock, then lower motor completely. The reverse lock must engage, as motor is lowered to Run position. To be sure Reverse lock is engaged grasp tilt grip and attempt to tilt motor.

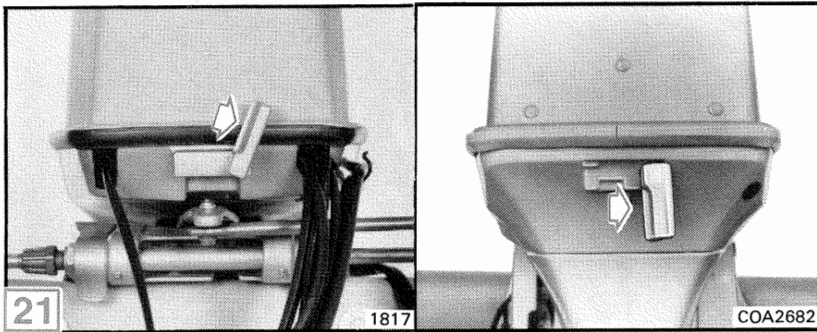
An electric Power Trim and Tilt or Electric Power Tilt are available as an accessory for your motor. See your DEALER.

- 19. A. Run Position
- B. Tilt Position
- 20. A. Tilt Support Engaged

21 Removing Engine Cover

To remove engine cover turn front and rear locking levers 90°. Lift cover off. Reinstall cover assembly in reverse order, making certain rubber seal fits properly between upper and lower engine covers before turning locking levers.

Do not remove or install the engine cover while engine is running. The engine cover is a machinery guard. Its removal exposes the operator to moving parts. Keep hands, hair and clothing away from flywheel, starter, and air intake.



Emergency Starting



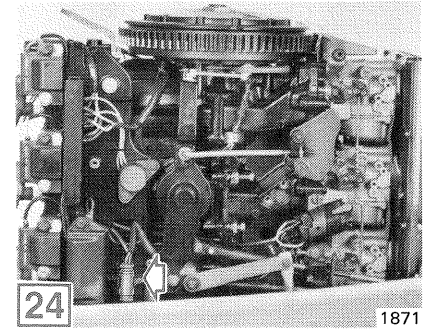
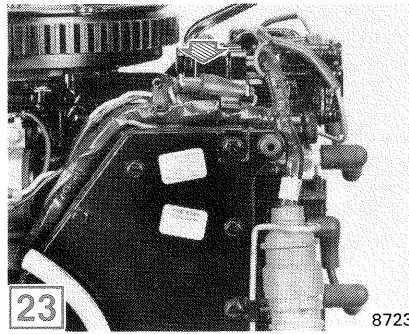
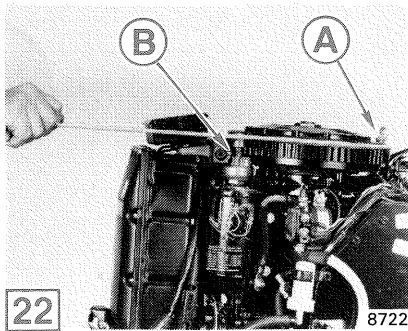
Safety Warning:

- **When using Emergency Starting procedure, the start-in-gear protection provided by the remote control is inoperative. Make sure control handle is in neutral position to prevent sudden propulsion when engine starts. If available, someone should be at steering wheel.**
- **Do not use jumper cables and a booster battery to start engine. Do not charge a battery in the boat with an external charger. Fumes vented during either operation can lead to an explosion.**
- **When releasing filler cap on portable tank, gasoline vapors (and possible liquid fuel if tank is full) will be released. Gasoline is extremely flammable and highly explosive under certain conditions. Do not smoke or allow open flames or spark near the boat when the cap is removed from the fuel tank.**
- **Always return manual primer valve lever to RUN position. With lever in MANUAL START position and a pressurized fuel tank connected, leakage could occur through the carburetor air inlet opening and contribute to possible fire and explosion.**
- **To prevent bodily contact with moving parts, do not turn flywheel by hand. Use starter cord only.**
- **Do not touch high voltage ignition coils or spark plug leads when motor is being started or when running. Shock can cause serious personal injury under certain conditions.**

If the battery does not have sufficient charge to operate the electric starter, the motor can be started manually.

COLD MOTOR

- Place starter key in OFF position.
- Remove engine cover. See **Removing Engine Cover**.
- Using the emergency starting cord, place the knot on end of cord in the notch of the pulley on top of the flywheel. Wrap cord around the pulley clockwise making sure starter cord knot is clear of starter pinion.
- If using the OMC portable 6-gallon gas tank slowly release filler cap on the tank to relieve the pressure in the tank. Close cap.
- Squeeze the fuel line primer bulb to fill carburetors.
- Rotate the MANUAL PRIMER VALVE to the MANUAL START position.
- Squeeze the fuel line primer bulb once and release.
- Rotate the MANUAL PRIMER VALVE lever to the RUN position.
- Raise the fast idle lever to START position and turn starter key to ON position only, to prevent accidental engagement of starter motor.
- Attach lanyard to emergency ignition cut-off switch.
- Pull forcibly on emergency starting cord to start the motor.
- Avoid excessive high RPM.
- After starting allow cold motor to run 2 minutes at less than 3500 RPM. Reduce motor speed by moving fast idle lever down to run position and secure latch. (Speeds above 3500 RPM in neutral can damaged the engine.)
- Do not attempt to replace engine cover after motor has started. Attach emergency ignition cut-off switch lanyard to your clothing and head to nearest boat landing for service and replacement of engine cover.
- If your electrical system is in operating order, the alternator should recharge your battery. If not, have the electrical system checked by your DEALER.



WARM MOTOR

- If engine is warm, follow the COLD MOTOR procedure except delete priming. Place fast idle lever in FAST IDLE position to avoid high RPM. If engine fails to start, repeat COLD MOTOR procedure.

22

- A. Cord Knot
- B. Starter Pinion

Trouble Check Chart

Starter Motor Will Not Operate, check for:

- Shift handle in NEUTRAL
- Battery and electrical connections

Motor Will Not Start, check for:

- Control handle in NEUTRAL and fast idle lever in START position.
- Lanyard attached to emergency ignition cut-off switch.
- Fuel in tank
- Fuel line connector properly attached
- Carburetor primed (squeeze primer bulb)
- Portable fuel tank not resting on fuel line
- Fuel line clear and not kinked
- Cold motor: Engine not primed sufficiently
- Warm motor: Engine over-primed or flooded. (Do not prime motor, disconnect fuel line at motor and crank until cleared.)
- Fuel filter obstructed
- Water in fuel system
- Check battery condition and electrical connections

23. ● Check 20 A fuse at terminal strip on port side of motor. Always carry spare fuses. See **Specifications**.

No spark:

- Loose spark plug leads
- Spark plugs carboned, burned or wet
- Ignition system (see your DEALER)

24. ● Ignition electrical connectors disconnected. (To connect, match connectors and push together.)

- Loose spark plugs, causing poor compression. See **Specifications** for recommended torque.

- Recheck starting instructions

Power Trim/Tilt Inoperative, check for:

- Check fluid level. See **Lubrication**.
- Manual release screw tightened securely

Motor Will Not Idle Properly, check for:

- Damaged spark plugs (Insulator cracked)
- Improper fuel/oil mixture
- Primer in run position

Motor Loses Power, check for:

- Damaged spark plugs (insulator cracked)
- Fuel pump filter partially restricted or fuel contaminated
- Obstruction at water intake. Cooling system not operating properly (See **Cooling System**)

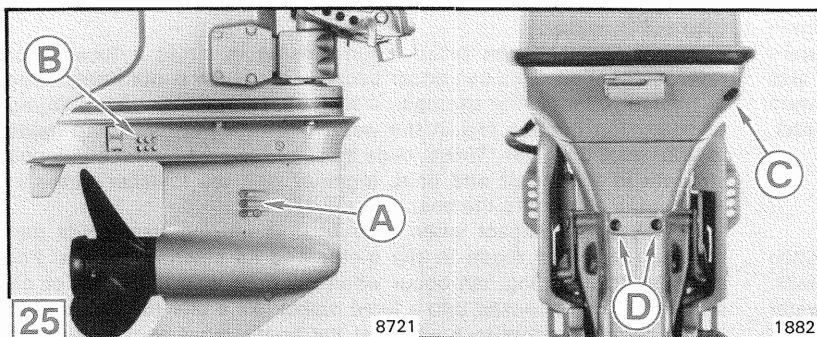
Motor Vibrates Excessively, check for:

- Bent or broken propeller
- Weeds on propeller

Motor Runs, But Makes Little or No Progress, check for:

- Bent or broken propeller
- Weeds on propeller

If this does not solve problem, then contact your DEALER.



25 Cooling System

Note Do not operate motor out of water even momentarily without use of a recommended Accessory Flush Kit. Water pump may be damaged or motor may overheat. Turn on water before starting motor.

Note Never run the engine unless a steady stream of water is visible coming from the water pump indicator.

This motor is water cooled with a thermostatically and throttle controlled cooling system. Water enters the gearcase through a screened intake and is pumped to the powerhead. After the engine is warmed up, the water is discharged at the rear of the gearcase. The thermostat maintains a consistent temperature at low speeds, while pressure relief provides maximum cooling at high speeds.

When operating motor, the water intake must be completely submerged so that it is in nonturbulent water. Observe proper transom height and boat trim.

A water pump indicator is provided and should be discharging a steady stream of water whenever the engine is running. Observe the indicator particularly when operating in weeds, mud or debris laden water. There is also an overheat warning horn built into the remote control. The warning horn will alert the operator should the powerhead overheat.

A weak or intermittent discharge may indicate an obstructed water intake or clogged water pump indicator (i.e., weeds, sand or silt). Check both the intake and the water pump indicator.

If the water pump indicator stops or becomes intermittent or the warning horn sounds indicating a possible overheat situation, stop the engine immediately and check for a restricted water intake screen. After cleaning the screen, start the engine and run at fast idle in neutral. If the water pump indicator is discharging a steady stream, you may have to run up to 2 minutes in neutral to allow the powerhead to cool and the horn to stop sounding. If the indicator does not resume discharging a steady stream or if the horn continues to sound after 2 minutes, stop the engine immediately or serious powerhead damage can occur.

A weak or intermittent stream from the overboard water indicator when the intake screen is not restricted and the water pump indicator is not clogged, or recurring sounding of the overheat warning horn indicates a worn water pump or other cooling system malfunction. See your DEALER.

Retorquing the cylinder head, and cylinder head and exhaust cover screws is recommended anytime the overheat warning horn sounds. See your DEALER.

Some water will normally be discharged at the exhaust relief outlet, but the amount varies depending on discharge water temperature and engine speed. It is not a reliable indication of proper cooling system operation.

- A. Water Intake
- B. Water Discharge
- C. Water Pump Indicator
- D. Exhaust Relief

Note For continuous operation in waters containing excessive amounts of sand or silt, we recommend an OMC Accessory Chrome Plated Water Pump Kit. See your DEALER.

Shallow Water Operation

When operating in shallow waters, observe water pump indicator and proceed at slow speeds until deeper water is reached.

Note If an obstruction is hit, retard the throttle immediately and stop motor. Check motor, propeller and angle adjusting rod for possible damage.

If motor vibrates excessively after striking an underwater obstruction, it may indicate a bent or damaged propeller. Operate at slow speed. Your DEALER is equipped to check for propeller damage.

Note Operating motor with gearcase dragging on bottom will result in propeller wear. It may also cause sand to be forced into water pump which may cause damage to the pump.


Note If angle adjusting rod is bent it may alter the breakaway force required to release the reverse lock when operating in forward gear, resulting in possible damage to stern brackets. It may also affect the force required to release the reverse lock when operating in reverse causing motor to tilt out of the water. Replace bent angle adjusting rod.

TRIM AND TILT MODEL

When operating in very shallow waters, the motor may be tilted slightly higher than normal trim range and operated at slow speeds. (Be sure the engine's water intake is in the water at all times and water is being discharged from the water pump indicator.) The motor should be lowered immediately when back in deep water.

MANUAL TILT MODEL

With Tilt/Run Lever in RUN position the motor will automatically tilt up if an obstruction is hit while going forward at normal running speed. The motor may not release when running in shallow water at slow speeds. When Tilt/Run Lever is in RUN position, the reverse lock is automatically engaged. When running in shallow water, at slow speeds, place the Tilt/Run Lever in TILT position which allows the motor to kick-up more easily if an obstruction is hit. Before resuming normal running speed in deeper waters, be sure to return Tilt/Run Lever to RUN position.

 **Safety Warning: Do not operate motor in reverse with Tilt/Run Lever in TILT position as motor may tilt into boat resulting in possible loss of control.**

Dual Motor Maneuvering

When leaving or approaching the dock, or for any other close maneuvering at slow speed, start both engines. Leave the stand-by engine idling in NEUTRAL. Use the engine with the control nearest the operator to maneuver. The use of one control is very effective and more convenient. In the event that this engine stops, you can immediately go to the other engine which has been on stand-by.

Note Stand-by engine must be running when maneuvering or water may be forced back through the underwater exhaust outlet and cause serious damage to the powerhead.

High Altitude Operation

The fuel calibration must be altered for operation at 900 m (3,000 feet) above sea level or higher.

See your DEALER for installation of a High Altitude Performance Kit.

To maintain performance at high altitude, it may be necessary to replace the previously selected propeller with one of less pitch.

Note If a High Altitude Performance Kit is installed, the original carburetor parts must be installed before operating below 900 m (3,000 feet) above sea level. Serious powerhead damage could result if this is not done.

Impact Damage

Impact damage can occur when moving in either a forward or reverse direction. This can occur because the water is not always free of hidden hazards. For example, a high speed collision with a stump or heavy log floating low in the water can transmit damaging loads to your boat or motor. These loads must be resisted by the combined strength of the motor and boat, together with the installer's care in attaching the motor to the boat.

A low speed impact when your boat is moving backwards can transmit very high loads to the motor and its steering system. For example, this loading can occur when the boat is in the water or on a trailer and it is backed into a fixed object like a pier or garage wall. If this contact occurs in a way that the boat's movement is stopped suddenly by the motor contacting the fixed object, the motor or steering system can be damaged.

Should you hit any object, stop immediately and examine your motor for loosening of motor attaching hardware and for damage to swivel and stern brackets (clamps) and steering system parts. Examine the boat for possible structural damage. Tighten any loosened hardware and proceed slowly to shore. Before boating again, take your boat and motor to your DEALER so that it can be thoroughly inspected for possible damage.



Safety Warning: Failure to inspect for damage may:

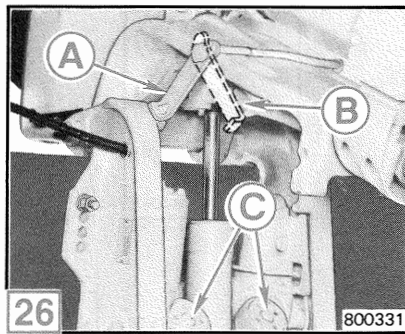
- **Result in sudden loss of steering control**
- **Adversely affect your boat and motor's ability to resist subsequent high speed impacts.**

Trailer - MANUAL TILT MODEL

We recommend your motor be trailered in its normal running position. If trailer does not provide adequate road clearance, a Tilt Support is provided to secure motor in full tilt position for trailering.

To engage or disengage Tilt Support see **Tilting - MANUAL TILT MODEL**.

Note To prevent possible engine damage when trailering, secure the lower unit to boat transom or trailer.



26 Trailering - POWER TRIM AND TILT MODELS

We recommend your motor be trailered in its normal running position. If trailer does not provide adequate road clearance, a Trail Lock is provided to secure motor in full tilt position for trailering.

Note Do not trailer motor in a tilted position unless Trail Lock is engaged. Failure to engage Trail Lock while trailering may damage the hydraulic system.

! Safety Warning: Disconnect fuel line at motor whenever motor is not being used for any length of time. (Example: when trailering or docked.)

- If portable tank is used, coil fuel line on top of tank.
- If built-in tank is used, store end of fuel line as high above top of tank as possible.

Failure to do so may result in fuel being siphoned from fuel tank into boat.

Coil fuel line on top of tank when not in use. This will help protect fuel line and connector from damage and help prevent sand or dirt from entering connector.

TO ENGAGE TRAIL LOCK:

- Place motor in full TILT position. See **Tilting**.
- Pull Trail Lock down so it rests on stern brackets. A detent will hold the Trail Lock in trailering position or in stow position.
- Lower motor so that trail locks rest against stern brackets. Continue to activate "down" switch until the two trim rods are fully retracted. This can be recognized by the change of the sound from the power trim/tilt unit.

TO DISENGAGE TRAIL LOCK:

- Tilt motor to full TILT position.
- Move Trail Lock up into stow position. Position motor in full tilt position before launching.

! Safety Warning: The power tilt should be used to lift and support the motor before disengaging the trail lock. Loss of oil pressure while on the trail lock could allow the engine to drop suddenly when the trail lock is disengaged.

Note To prevent possible engine damage when trailering, secure the lower unit to boat transom or trailer.

- A. Trail Lock - Engaged
- B. Trail Lock - Stow Position
- C. Trim Rods Retracted

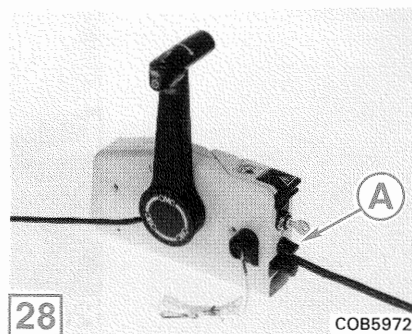
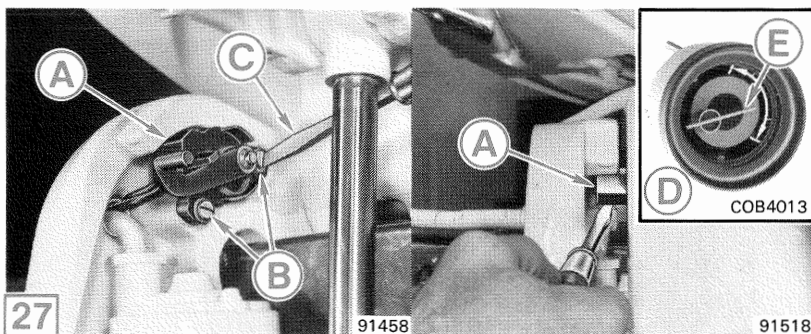
Salt Water Operation

Your motor is built for operation in either fresh or salt water. Fresh water internal flushing is not normally required, however, it may be desirable after use in especially polluted or brackish water. Your local DEALER will assist you in securing the appropriate flushing device.

If motor is to remain on boat during long periods of inoperation, tilt gearcase out of water (except during freezing temperatures). When removing motor from water, allow cooling system to drain thoroughly, by placing motor in upright position. We recommend that motor exterior be rinsed with fresh water and wiped dry.

Operating in Weedy Water

Weeds on the propeller will cause motor to vibrate. Run at reduced throttle when weeds are thick. Reverse motor periodically to clear weeds from propeller. Stop motor, clear propeller and water intake completely of weeds before resuming speed in clear water. Check water pump indicator at intervals.



Operating In Freezing Weather

In freezing temperatures, keep the gearcase submerged in the water at all times. This will avoid freezing and possible damage to the water pump or other parts of the motor. When removing the motor from the water, keep the motor in an upright position until water is completely drained from the cooling system.

Prior to operation in freezing temperatures, check gearcase lubrication. If leakage is evident, gearcase seals may need attention. See your DEALER.

Note Any leakage of water into gearcase may result in freezing and damage to gearcase when motor is removed from water.

- A. Sending Unit
- B. Mounting Screws
- C. Screwdriver
- D. Trim Gauge
- E. Center Position

Carburetor Adjustment

HIGH AND LOW SPEED

Fuel ratio calibration is maintained through use of fixed high and low speed jets. No adjustment is required.

28 Throttle Friction Adjusting Knob - Remote Control

This knob may be adjusted so that throttle setting will not wander while you are underway.

To adjust, start engine and move control handle into throttle range. While you are underway, turn adjustment knob as required for proper friction adjustment.

The friction device is only effective in the forward throttle range.

- A. Friction Adjusting Knob

Idle Speed Adjustment

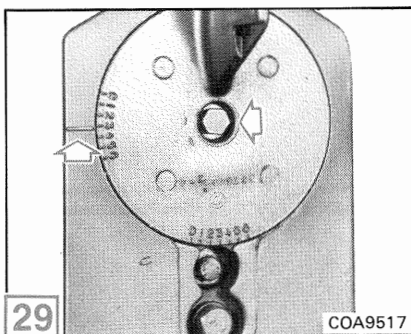
The correct procedure for idle speed adjustment must be carefully performed to insure proper engine performance and remote control operation, see your DEALER.

Maintenance

27 Adjusting Trim Gauge and Sending Unit - POWER TRIM AND TILT MODELS

In some cases, it may be necessary to adjust the trim sending unit to coincide with the trim gauge. To do this, proceed as follows:

- Turn ignition key to ON position.
- Raise engine, with tilt switch, to maximum tilt position.
- Move angle adjusting rod to number 3 hole.
- Loosen sending unit screws, slightly but snug, so sending unit can be pivoted.
- Lower engine all the way down against angle adjusting rod.
- Observe trim gauge. If needle does not show center position, adjust sending unit by pivoting it up or down with screwdriver, until gauge shows needle in center position.
- Raise engine and tighten sending unit screws. Lower engine and recheck gauge. (Readjust if necessary).
- Raise engine to remove angle adjusting rod and reinsert rod into the innermost hole.



29 Trim Tab Adjustment

! Safety Warning: Improper trim tab adjustment can cause difficult steering.

An adjustable trim tab is provided to compensate for propeller torque. The adjustable trim tab allows steering effort to be balanced when turning in either direction. Your DEALER has adjusted the trim tab for average boating conditions and the propeller provided. If further adjustment is necessary, proceed as follows:

- With a firm grip on the steering wheel and weight in the boat evenly distributed, run the boat at full throttle in a straight line. Do this in an area where current and wind will not be a factor.
- Turn the steering wheel to determine the direction that requires the least amount of steering effort.
- Loosen trim tab screw.
- If less steering effort is required in port turn, move the trim tab slightly to port.
- If less steering effort is required in a starboard turn, move the trim tab slightly to starboard.
- Retighten the trim tab screws and recheck the adjustment.

Repeat the above procedure as necessary until the steering effort is equal in both directions.

After adjustment is complete, torque the trim tab adjusting screw to 24-27 N·m (18-20 ft. lbs.).

Twin engines follow the same procedure as a single engine except both trim tabs should be adjusted the same amount.

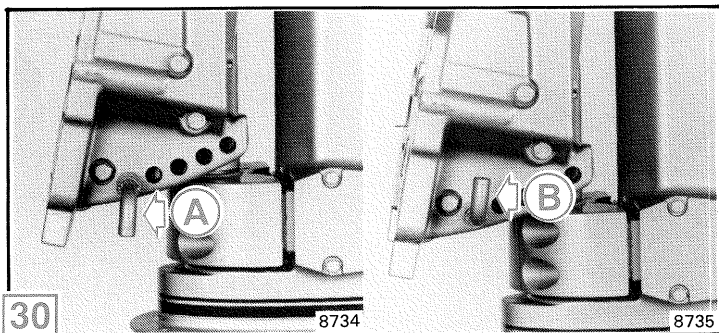
Emergency Ignition Cut-Off Switch

! Safety Warning: The emergency ignition cut-off switch can only be effective if it is in good working condition. Observe the following:

- Lanyard must always have freedom of movement and be away from any obstructions or entanglements which could hinder its operation.

Once a month:

- Inspect switch for proper operation. With engine running, removal of the lanyard and cap must stop the engine. If engine does not stop, see your DEALER for replacement of switch.
- Inspect lanyard for cuts, fraying, worn cap, etc. Replace if in doubt.



30 Motor Angle Adjustment - MANUAL TILT MODELS

The stern bracket has several positions for adjusting the motor to allow for transom angle and boat loading. The vertical angle of motor on boat must be adjusted for best performance. Motor should be perpendicular to water when boat is underway. This adjustment can only be determined by observing boat operation at full speed. Set angle adjustment for your usual load. Angle adjustment should be changed if boat loading results in improper motor angle. Planing type hull should ride with bow slightly out of water at full throttle.

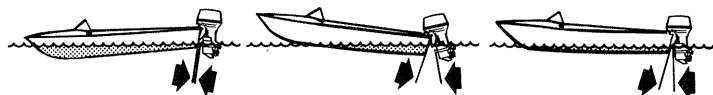
- Stop motor.
- Set Tilt/Run Lever in TILT (up) position and tilt motor away from transom until locked in tilt position. See **Tilting - MANUAL TILT MODEL**.
- Hold the angle adjusting rod handle facing up and press in against spring pressure to position the retainer in release position. Slide the adjusting rod assembly all the way out. Place rod in desired position. Make sure rod passes through both stern brackets. Press in against spring pressure, turn adjusting rod handle down, and make sure that retainer drops into lock position.
- Place Tilt/Run Lever in RUN (down) position. Tilt motor forward slightly to allow tilt lock to disengage, then lower motor against adjusting rod. Make a trial run and note boat attitude (motor angle). Motor should be perpendicular to water when boat is underway.

A. Angle Adjusting Rod Retainer - Release Position

B. Angle Adjusting Rod Retainer - Lock Position



Safety Warning: If engine is tilted forward so as to cause plowing (see A), swamping may occur in rough water. If engine is tilted aft so as to cause porpoising (see B), steering may be erratic or unstable. See correct angle adjustment (see C).



(A)

Incorrect
CAUSES BOAT
TO "PLOW"

(B)

Incorrect
CAUSES BOAT
TO "PORPOISE"

(C)

Correct
GIVES MAXIMUM
PERFORMANCE

Boat Trim

For best boat and motor performance, the boat should be driven as nearly parallel to the water as possible. Passengers and equipment should be so distributed in the boat that it is evenly balanced both front to rear and side to side.



(A)

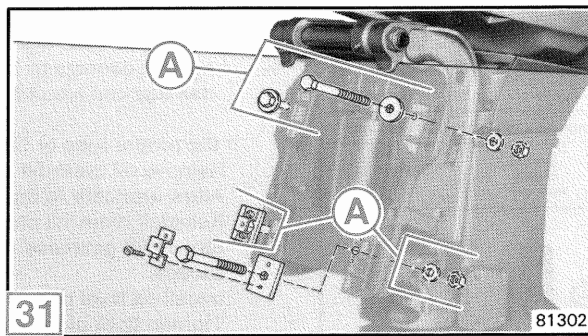
Incorrect
OVERLOAD
FORWARD
CAUSES BOAT
TO "PLOW"

(B)

Incorrect
OVERLOAD AFT
CAUSES BOAT
TO "SQUAT"

(C)

Correct
BALANCED LOAD
GIVES MAXIMUM
PERFORMANCE



31 Adjustable Stern Brackets

The adjustable stern brackets provided with your motor allow you to position the motor on the transom to obtain the best possible performance. Proper height adjustment of the stern brackets can, depending upon boat size and weight, increase the top speed performance. If it was necessary to use the alternate location holes when mounting motor to transom, the stern brackets are no longer adjustable. Your DEALER should be consulted for the proper setting on your boat.

- After the correct propeller has been selected, test run your boat. If no propeller ventilation is evident, raise the motor one position.

Note When changing position of stern brackets, it is only necessary to remove the upper bolts; the bottom bolts need only be loosened. Secure the brackets, and test for improved performance.

- Continue to raise the motor (one position at a time) and check for improved performance. This raising and checking should be continued until propeller ventilation occurs in turns. Propeller ventilation will result in a loss of top speed and a marked increase in RPM. The final setting should be one position below the setting where the ventilation occurs.






- Check for any interference between motor and transom mounted remote steering system parts when motor is in maximum tilt position. Should the motor strike an underwater object and tilt rapidly into the boat, interference may result in part breakage or weakening.
- Check for interference between boat transom and stern brackets. Boat molding must not restrict stern brackets from full contact with boat transom. Failure to ensure full contact can result in stern brackets breaking with possible loss of motor and control of boat. Contact your DEALER or boat manufacturer for assistance, if necessary.



Safety Warning: Failure to perform the above may result in severance of the steering system and sudden unexpected loss of boat control.

- A. Primary Locations

Lubrication

Types of Lubricant		Contact your DEALER for OMC Lubricants.		
OMC Triple-Guard* Grease		OMC Hi-Vis® Gearcase Lube	General Electric Versilube®	OMC Power Trim/Tilt Fluid
 A	 B	 C	 D	 E
Tube	Grease Gun			

Frequency of Lubrication	
TYPE OF USE	FREQUENCY
Fresh water	Every 60 days
Salt water	Every 30 days
Storage of 30 days or longer	Before placing in storage

1 → 8 Lubrication Points

GEARCASE

Change after first 20 hours of operation and check after 50 hours of operation.

Add lubricant if necessary.

Drain and refill every 100 hours of operation or once each season whichever occurs first.

With engine in vertical position, remove oil drain/fill and oil level plugs.

Allow lubricant to drain completely.

To refill, place tube of OMC Hi-Vis® gearcase lube or equivalent in drain/fill hole. If OMC Hi-Vis gearcase lube is not available, OMC Premium Blend gearcase lube or equivalent can be used. Fill until lubricant appears at oil level hole. See **Specifications** for gearcase capacity.

Install oil level plug before removing lubricant tube from drain/fill hole.

Drain/fill plug can now be installed without loss of lubricant.

Tighten both plugs securely.

Note Recommended lubricants which have been formulated to protect against damage to bearings and gears must be used as extensive damage can result from improper lubrication.

If the proper tube or filler type can is not available:

Remove oil drain/fill and oil level plugs.

Allow lubricant to drain completely.

Reinstall drain/fill plug.

Slowly fill gearcase through oil level hole allowing trapped air to escape.

Install oil level plug.

Tighten both plugs securely.

Air still trapped inside gearcase will escape after motor is operated or allowed to stand in vertical position for several hours. Recheck oil level and refill as required.

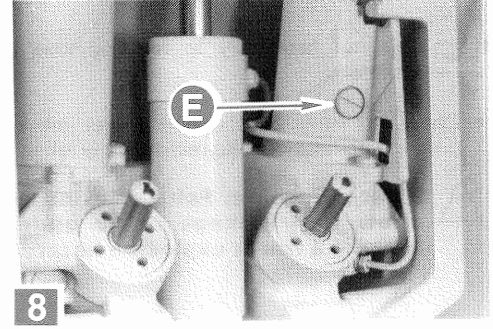
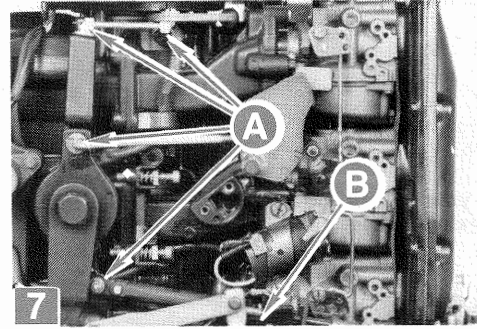
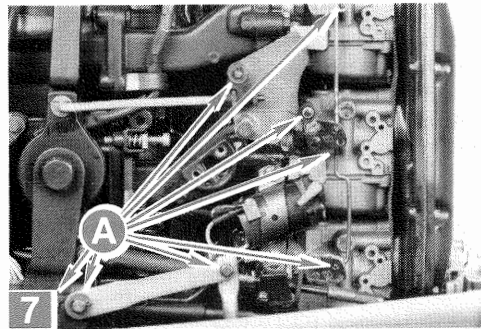
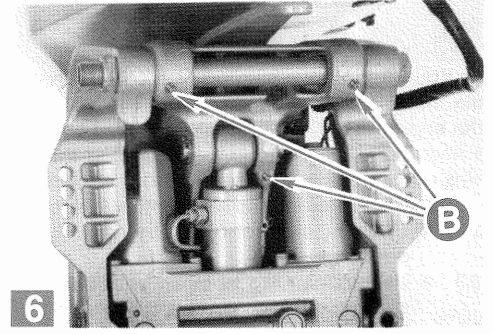
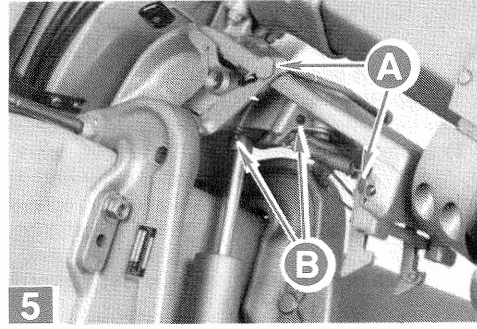
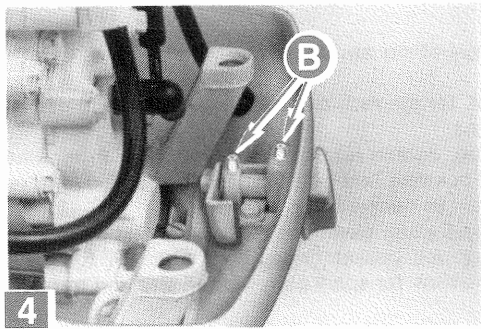
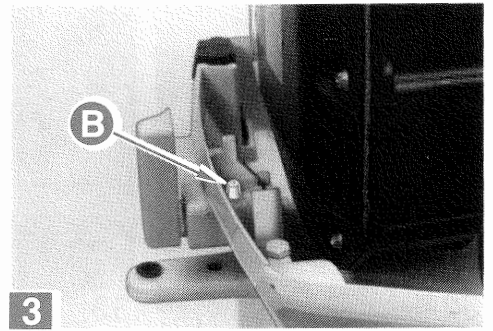
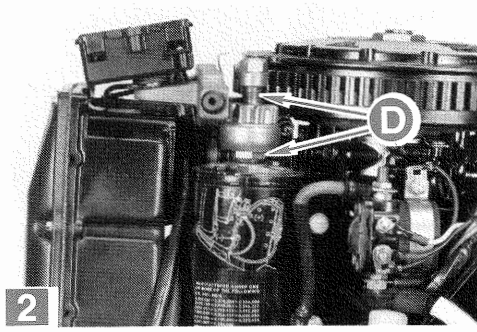
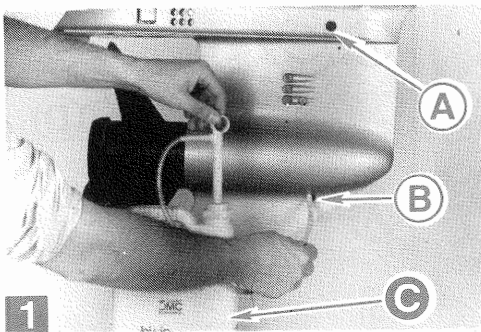
- 1 Gearcase
 - A. Oil Level Plug
 - B. Oil Drain/Fill Plug
- 2 Starter Pinion Shaft
- 3 4 Cover Latches Front and Rear
- 5 Tilt Trail Lock, Swivel Bracket, Tilt/Run Lever, Reverse Lock
- 6 Tilt Tube Shaft, Upper Tilt Cylinder Rod
- 7 Control Shaft and Lever Bushings, Carburetor Linkage, Cam Roller and Shift Shaft
- 8 Power Trim and Tilt Oil Reservoir. With engine tilted up, remove the filler plug and check the fluid level. If necessary, add enough OMC Power Trim/Tilt Fluid to bring the fluid level even with the bottom of fill hole when unit is at full tilt.

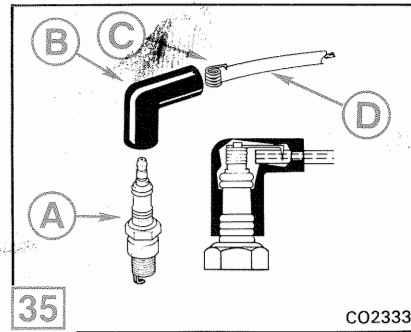
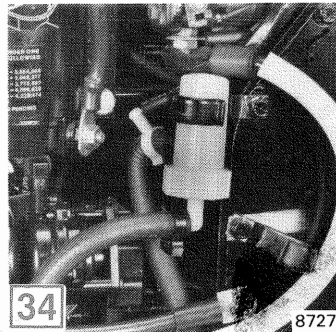
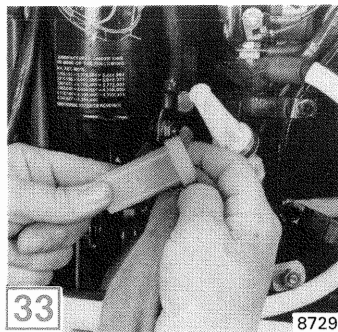
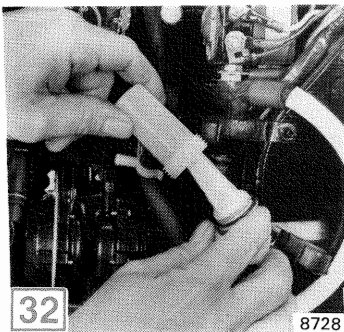
Steering System Lubrication

The installer was instructed to grease the steering cable ram during installation. Once the engine is put into use, periodic regreasing with OMC Triple-Guard Grease is required as specified in the **Frequency of Lubrication Chart**.



Safety Warning: Failure to regrease as recommended could result in steering system corrosion. Corrosion may affect steering effort making operator control difficult.





32 33 34 Fuel Filter

Your engine is equipped with a fuel filter which is located between the motor fuel line coupling and the VRO pump. Inspect the filter at the end of the 10 hour break-in period as most dirt or impurities from a new fuel system would be present at this time. The filter should be cleaned periodically for best motor performance.

- Raise fuel filter assembly to allow for easy cleaning.
- 32. ● Unscrew cap from base by rotating cap in a counterclockwise direction.
- 33. ● Use a clean rag to clean filter base and trap. Clean screen by shaking into a clean rag.
- 34. ● Reassemble filter cap and base and place in original location.

Note It is not necessary to remove hose and clamps from filter assembly.

- Check for leaks by connecting fuel line to motor and squeezing primer bulb until definite resistance is felt in bulb.

⚠ Safety Warning: Failure to inspect your work could allow fuel leakage to go undetected. This could become a fire or explosion hazard.

35 Spark Plug Inspection and Replacement

See **Specifications** for the recommended spark plug and gap for your operating conditions.

To remove spark plug, detach rubber covered spark plug terminal (twist slightly counterclockwise and pull off). Remove spark plug for inspection or replacement as necessary.

When reinstalling spark plug, clean the spark plug seat in cylinder head. Install spark plug and gasket finger tight plus 1/4 turn with wrench. See **Specifications** for spark plug wrench size and torque.

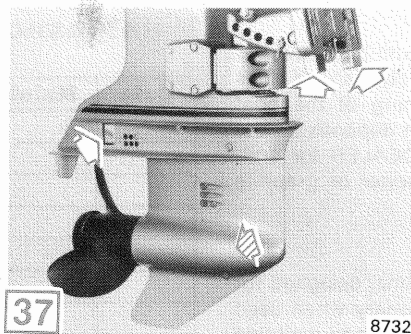
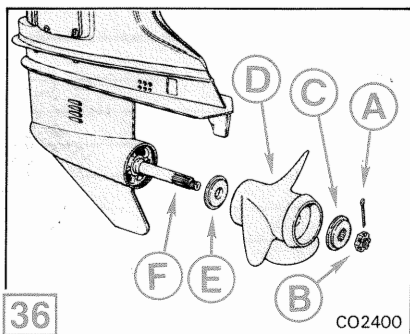
Note Do not overtighten, or damage may result to cylinder head.

⚠ Safety Warning: Avoid abusive handling which could crack ceramic portion of spark plug. Damaged spark plugs can emit sparks which could ignite fuel vapors under the engine cover.

When reinstalling the rubber cover on the ignition coil, apply approximately 1 cc of OMC Triple-Guard® grease or equivalent inside rubber cover. This will help prevent corrosion of the spring terminal onto the ignition coil terminal. Do not apply grease inside spark plug covers.

The spring inside rubber terminal lead cover must be positioned to fit properly over spark plug terminal.

A. Spark Plug B. Cover C. Spring D. Lead



Propeller Care

Unusual or excessive vibration may indicate a bent or unbalanced propeller. Avoid or limit operation under these conditions. Carry a spare propeller and replace the damaged propeller as soon as practical. See your DEALER.

36 Propeller Replacement/Installation

Your motor has a shock absorber in the propeller hub to minimize propeller damage when propeller strikes an object.



Safety Warning: To avoid accidental start-up of motor, place shift lever in neutral and disconnect electrical connector between power pack and charge coil.

To remove propeller:

- Remove cotter pin propeller nut. See **Specifications** for propeller nut socket wrench size.
- Remove thrust bushing, spacer and propeller.

To install propeller:

- Apply OMC Triple-Guard grease to full length of propeller shaft.
- Install large propeller thrust bushing onto propeller shaft with shoulder of thrust bushing facing aft (rear).
- Install propeller onto propeller shaft.
- Propeller should seat onto thrust bushing.
- Install the spacer, engaging the propeller shaft splines.
- Install and tighten the propeller nut to a torque of 14 N·m (120 in. lbs.). Continue to tighten to align next cotter pin hole.

After propeller is installed, the propeller shaft should turn freely (engine in neutral). Install and secure cotter pin (use new pin if necessary).

- A. Cotter Pin
- B. Propeller Nut
- C. Spacer
- D. Propeller
- E. Thrust Bushing
- F. Propeller Shaft

Propeller Hub Replacement

A rubber bushing in the propeller hub absorbs shock and minimizes the chances of damaging the propeller or the outboard motor. However, if the bushing should become damaged or slips, it can be easily replaced by your DEALER or at a propeller station.

37 Anti-Corrosion Protection

Your motor is equipped with anti-corrosion zinc anodes. The anodes protect your motor from galvanic corrosion. Galvanic corrosion may occur in fresh water or salt water, however, salt water usage will accelerate corrosion.

Erosion or disintegration of the anodes indicates they are performing their function.

Periodically inspect the condition of the anodes and replace if necessary.

Replace the anodes before they are completely eroded or corrosion to motor will increase. See your DEALER for replacement anodes.

Note Never paint or cover the anode with any coating. If you do, corrosion protection from the anode will be lost.

Do not use either copper or graphite base paints on boat bottom. These types could cause harmful galvanic corrosion to the motor. Anti-fouling paints containing tin (TBTA or TBTF compound) as an active material are acceptable.

Owner's Handbook

- ① **General Information** covers information needed to prepare the operator for proper product operation and safer boating.
- ② **Installation Instructions** explains VRO® Oil Hose Installation along with recommendations for motor installation.
- ③ **Warranty** explains the warranty that covers your outboard motor.

① General Information

Items of Special Importance

Maximum Boat Horsepower



Safety Warning: Do not over-power by using a motor with a horsepower rating higher than the maximum stated on the boat's capacity plate. Doing so could result in loss of control. If boat is not equipped with capacity plate, see your DEALER.

Boating Responsibilities

The operator is responsible for the correct operation of the boat and for the safety of its occupants. Be sure that all operators read this manual before operating boat. Show your passengers the location and use of emergency equipment. Instruct one of your passengers in how to handle your boat in case of emergency. Requirements for personal flotation devices vary, depending on the type of boat. Be sure to comply with the regulation which applies to your boat.

Basic Boating Safety Rules

- Know your boat, what it can do and what it can't do, how it will handle in all kinds of weather.
- Load your boat with the weight properly distributed. Don't overload or overpower your boat. On small craft, standing up, shifting weight, and sitting on the bow or gunwale should be avoided.
- Leave a Float Plan with a friend or relative before you depart.
- Life vests or preservers should be worn by all occupants when boating conditions are hazardous, and by children and non-swimmers at all times.
- Keep a good lookout. Failure to do so is the cause of most collisions.
- Operate at safe speeds. Watch your wake.

- Know the marine traffic laws and obey them.
- Respect the weather. Listen to weather forecasts and heed weather warnings.
- When a boat capsizes, the occupants should stay with the boat.
- Prevent fires or explosions:
 - be careful in handling volatile fuels.
 - have a safe fuel system installation and maintain it in top condition.
- Keep your boat and equipment neat and in prime operating condition. Carry a sufficient number of spare parts.
- Don't operate a boat if intoxicated.
- Always have a suitable anchor and suitable emergency signaling device aboard.

Insurance

Insurance on your outboard motor and/or boat should be procured as soon as practicable for protection against loss by fire, theft, etc. Consult your local insurance agent.

Stolen Motors

In case of theft, report Model and Serial Number to local authorities, insurance agent and the manufacturer.

Model and Serial Number

The model and serial number are stamped on a nameplate attached to the stern bracket. See **Features**.

Record Model and Serial Number below.

Model Number

Serial Number

Symbols

Certain symbols or combinations of symbols may appear on your new outboard motor or on its accessories. It is very important that you understand their meaning or purpose. If any symbol is not clearly understood, see your DEALER.

“Safety Warning” Symbols



Means risk of **SERIOUS** injury is present. Follow instructions in the Owner's/Operator's Manual before using motor or accessory.



Means place shift control in **NEUTRAL** before starting motor. Follow instructions in Owner's/Operator's Manual before starting motor.



Indicates that **ELECTRICITY** of more than 50 volts is present.



Indicates that contents are under pressure.




Identifies poisonous material.




Indicates a potential fire hazard.

“Position Indicator” Symbols



Indicates upward movement. Example: While boat is at planing speed, activating trim switch to  raises the bow of the boat.



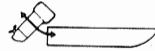
Indicates downward movement. Example: While boat is at planing speed, activating trim switch to  lowers the bow of the boat.



Indicates gear shift control positions. **FORWARD**, **NEUTRAL** and **REVERSE**.



Indicates a continuous regulating function. Example: Moving engine speed control in direction of increasing symbol width will continuously increase engine speed.



Identifies **TILT/RUN** (or **REVERSE LOCK**) control lever position that allows motor to be raised (or tilted) from the water.



Identifies **TILT/RUN** (or **REVERSE LOCK**) control lever position that engages **REVERSE LOCK** mechanism. Motor must be in normal running position to engage lock.



Identifies the priming device or the priming position. Pump that provides starting fuel.



Identifies the **PRIME OFF** position of the control knob after engine warm-up, and primer function is no longer required.



Indicates position of throttle control device during starting. May also identify **STARTING** control.

“Condition” Symbols



Identifies the meter which indicates accumulative running hours of engine.



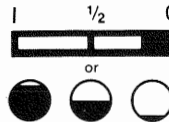
Identifies the meter which indicates battery voltage, or amperage.



Identifies the meter which indicates engine speed expressed in revolutions per minute.



Identifies battery or a meter which indicates status of battery-generator charging system.



Indicates the amount of liquid in tank.



Identifies the meter which indicates engine coolant pressure.



Identifies the meter which indicates engine coolant temperature.

"Functional Description" Symbols



FILTER: Identifies a device which removes contaminants from fuel.



Identifies the **EMERGENCY IGNITION CUT-OFF SWITCH**. Emergency engine stop.



FUSE: Identifies a device which protects the electrical system from overload.



Identifies the negative ground or negative voltage connection.



CHOKE control.



Identifies a **VALVE** used to control the flow of liquid or gas.



Identifies the **STOP SWITCH**. It may also identify **STOP** position of the throttle control.



Identifies the operating device for starting the motor.



Identifies the location of the alternating current source.



Identifies the device used to **LATCH** or **UNLATCH** the engine cover.



FUEL SHUT OFF identifies the device used to cut off the fuel supply to the engine.



Identifies control used to fill or prime fuel system.

"Instructional" Symbols



Indicates **GASOLINE** is to be used or **GASOLINE** is present.



Means read your **Owner's/Operator's Manual** before operating the product. It contains information or instructions vital for operation of product.



Indicates areas to be lubricated.



Indicates **OIL** is to be used or **OIL** is present.



Identifies **KEROSENE/OIL** mixture ratio for 2-stroke engines. Indicates 30 parts of **KEROSENE** are to be mixed with 1 part of **OIL**.



Indicates the **GASOLINE/OIL** mixture ratio for certain 2-stroke engines. Indicates 50 parts of **GASOLINE** are to be mixed with 1 part **OIL**.



Indicates the **GASOLINE/OIL** mixture ratio for certain 2-stroke engines. Indicates 100 parts of **GASOLINE** are to be mixed with 1 part **OIL**.

Fuel and Lubricant

Recommended Gasoline

Use automotive gasoline with the following minimum octane specifications:

In the U.S. - 87 Anti-Knock Index (AKI)

Outside the U.S. - 90 Research Octane Number (RON)

Some gasolines being sold contain alcohol, even though they may not be so identified. Use of these fuels should be avoided until the type and percentage of alcohol are determined to be acceptable.

Preferred Fuel: Any regular unleaded, regular leaded, or premium unleaded gasoline having the recommended octane rating and not extended with alcohol is the preferred fuel.

Acceptable Fuel: Any of the above gasolines with up to 10% maximum alcohol volume:

10% ETHANOL (ethyl alcohol) (may be called gasohol)
5% METHANOL (methyl alcohol) + 5% cosolvent alcohols

Note Alcohol extended fuels may result in engine running quality problems, vapor lock or "fuel starvation" problems, or moisture absorption (phase separation) problems. If running quality problems are experienced, switch to a gasoline without alcohol as described in **Preferred Fuel**.

Fuels Not Acceptable: Do not use any regular unleaded, regular leaded or premium unleaded gasoline having more than 10% ETHANOL or more than 5% METHANOL even if it contains cosolvents or corrosion inhibitor and regardless of octane rating.

OMC products have been designed to operate using the **Preferred Fuel** or **Acceptable Fuel**; however, be aware of the following:

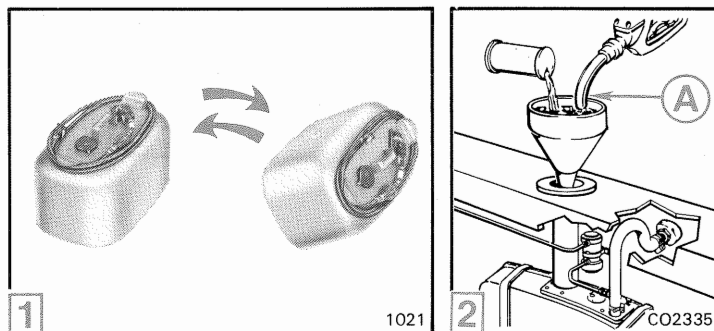
- The boat fuel system may be different regarding use of alcohol fuels. Refer to boat owner's manual.
- Alcohol attracts and holds moisture which may cause corrosion of metallic parts of the fuel system.
- Metallic and nonmetallic parts of the entire fuel system should be inspected frequently and replaced if signs of excessive stiffness, deterioration, corrosion or fuel leakage are found. Inspect at least annually.



Safety Warning: Fuel leakage can contribute to a fire or explosion.

Recommended Lubricant

This is a two cycle engine that requires lubricant to be mixed with gasoline. See inside front cover for **Recommended Lubricant**



Note

Recommended lubricant and gasoline must be properly mixed or serious damage will result to the engine.

If the recommended lubricant is not available, another BIA Certified TC-W Lubricant (oil) may be used.

Note

Avoid use of the following, as they will contribute to deterioration of your engine and/or shorten spark plug life:

- Automotive oils
- Premix fuel of unknown oil quality
- Premix fuel not of the recommended fuel/oil ratio
- Lubricants which are not BIA certified

Engine Break-In

During the first 10 hours of break-in operation your engine's fuel must be mixed to a 100:1 (1% oil) fuel/oil ratio in addition to the operation of the VRO Oil Injection System. The additional oiling during the first ten hours of operation will allow the engine a smooth break-in for long engine life. After the 10 hour break-in period, check to see that the oil level in the VRO tank has changed indicating that oil has been used before using unmixed gasoline in the fuel system. See

Operating Procedure During Break-In

1 2 Fueling Instructions



Safety Warning: Gasoline is extremely flammable and highly explosive under certain conditions.

- **Always mix fuel outdoors, never indoors.**
- **Never smoke or allow open flames or sparks nearby when mixing or refueling.**
- **Always stop motor before refueling.**
- **Remove portable tanks from boat when refueling.**

All gasoline should be poured through a fine mesh strainer (100 mesh or finer). This will eliminate water and dirt which might otherwise clog fuel passages. Use only clean containers for mixing. Always use fresh gasoline.

Fuel Mixture During Break-In - 100:1 (1% Oil)

1 part approved lubricant to 100 parts gasoline.

236 millilitres (8 fl. ozs.) of lubricant to 6 U.S. gallons, 5 imperial gallons or 22.7 litres, of gasoline.

10 millilitres of lubricant to 1 litre gasoline.

Above 32°F. (0°C)

1. Portable Tank - Pour lubricant into tank, add gasoline. Replace filler cap securely. To mix fuel, tip tank on side and back to upright position.
2. Permanently Installed Tank - Pour lubricant slowly with the gasoline as tank is filled.

Below 32°F. (0°C)

1. Portable Tank - Pour approximately 4 litres (one gallon) gasoline into tank, add required lubricant. Replace filler cap securely. Thoroughly mix by shaking tank. Add balance of gasoline.
2. Permanently Installed Tank - In separate container mix all lubricant needed with 4 litres (one gallon) or more of gasoline. Pour this mixture slowly with gasoline as tank is filled.

- A. To prevent electrostatic spark, fuel nozzle must contact metal funnel.

Operating Procedure During Break-In - First 10 Hours of Operation

Use only the recommended lubricant in VRO Oil Tank and for 100:1 (1% oil) mix in fuel system during break-in. You must use a 100:1 (1% oil) fuel/oil ratio in the engine's fuel system during break-in in addition to the operation of the VRO Oil Injection System.

Note Fuel systems with built-in tanks, particularly those that include anti-siphon valves, filter/primer units etc., may have restrictions that will not allow the engine fuel pump to deliver the proper amount of fuel under all conditions. This can result in a loss of performance and possible engine damage. Your DEALER can help you determine if your boat's fuel system is restrictive and can advise you how to correct it.

OPERATION (FIRST HOUR): For the first 5-10 minutes, operate engine at a fast idle. For remainder of first hour, do not operate engine over 3000 RPM or one-half throttle (approximate). Check to see that a steady discharge of water is coming out of the water pump indicator to assure proper water pump operation.

Note With easy planing boats, bring the boat into planing position with full power and then immediately reduce the throttle setting to approximately one-half throttle. BE SURE boat maintains planing attitude at this throttle setting.

OPERATION (SECOND HOUR): Bring boat into planing attitude and reduce power to approximately three-quarter throttle while maintaining planing attitude. At intervals during the second hour, apply full power for periods of one to two minutes, returning throttle to original setting (three-quarter throttle) for a cooling period.

OPERATION (NEXT EIGHT HOURS): Avoid continuous full throttle operation for extended periods.

② Installation Instructions

Maximum Boat Horsepower



Safety Warning: Do not over-power by using a motor with a horsepower rating higher than the maximum stated on the boat's capacity plate. Doing so could result in loss of control. If boat is not equipped with capacity plate, see your DEALER.

High Performance Boating

The high performance sport boat, a high speed boat with a high power-to-weight ratio, is popular with certain boaters. It falls somewhere between the family boat and a full racing craft. This type of boat demands:

- The best in equipment.
- Careful, secure assembly of all equipment to the boat.
- Driver knowledge of how the boat will act under all operating conditions.
- Driver skill in anticipating and reacting to changing boat control conditions.

As the operator of a high performance boat, you should also have an understanding of the dangers you may encounter, and what you can do to enhance safety while obtaining full enjoyment of your boat.

The information which follows, should not be considered a substitute for the more detailed assistance and advice available from your local DEALER, or a recognized high performance boating expert. Your DEALER may be able to recommend such an individual in your area. Seek his advice.

A person who has not been properly trained in the operation of a high performance boat should never attempt to drive such a boat at, or near, its highest speed capability. Never allow passengers or friends to drive your high performance boat unless they are experienced high performance boat drivers. Loss of boat control at high speed can occur suddenly and can result in persons being thrown from the boat. Accidents associated with high speed ejection can be serious, but the chances of injury can be substantially reduced by using the proper safety equipment.

Boats capable of the very high speeds of a racing craft deserve the best racing safety equipment. So, in addition to the safety equipment required by law, the sport boat operator should also have and use the following:

- A quality ignition shut-off device.
- Life jackets approved for use at the speeds your boat is capable of reaching.
- An approved helmet with eye protection.

The performance limits of a high performance sport boat should be approached gradually. Even if you have experience in another high performance boat, this one will probably react differently and you will have to adapt your skills to this new boat/motor combination. Your first few hours of use should be at part throttle and without passengers in the boat. This is the time when you should learn the effects of changes in trim, throttle position and steering. As you gain familiarity and confidence you can increase your speed in steps—all the while testing the affects of trim changes and sudden throttle directional changes. Always remember: **Never Take Your Boat To The Point Where You Do Not Feel In Control!**

High performance boating is an exciting, exhilarating sport. The sport boater must, however, be considerate of others who may use the same waters. Make sure your pursuit of pleasure does not create a hazard or annoyance to nearby homeowners, fishermen, swimmers, water skiers, sailors, or other powerboaters. Make common sense and courtesy a regular part of your boating routine.

For additional information, obtain a copy of **“Introduction to High Performance Sport Boating”** Part Number 507600.

Motor Installation

We recommend that your DEALER install your motor. However, if you choose to install the motor yourself, you must obtain a copy of the **“Outboard Motor Installation Guidelines,”** OMC Part Number 507564. This manual contains vital installation instructions to install the motor on a boat.



Safety Warning: The “Outboard Motor Installation Guidelines” MUST be used to install this motor on the boat. This manual contains important information to prevent you and others from being hurt.

You may purchase a copy of either of the above publications from your DEALER or from one of the locations listed.

United States

OMC Parts & Accessories
P.O. Box 718
3225 N. Prairie Avenue
Beloit, WI 53511

Canada

Outboard Marine Corporation of Canada, Ltd.
910 Monaghan Road
Peterborough, Ontario, Canada
K9J7B6

In the U.S. or Canada send a check or money order for \$5.00 each. Specify the name and part number of the publication, and the language you desire, English, Spanish, French or Portuguese.

The cost and languages available will vary when ordering from the following locations. Request details before ordering.

Caribbean, Mexico, Central America, South America

Outboard Marine International, Inc.
75 N.E. 179th Street
Miami, Florida 33162 U.S.A.
305/652-2311

Bangladesh, Brunei, Burma, Guam, Hong Kong, India, Indonesia, Japan, Korea, Macau, Malaysia, Maldives, Micronesia, Pakistan, People's Republic of China, Philippines, Singapore, Sri Lanka, Taiwan, Thailand

Outboard Marine Asia, Ltd.
T.Y.T.L. 54
Tsing Yi Island, New Territories
Hong Kong

Australia, New Zealand, Southwest Pacific

Outboard Marine Australia Pty. Ltd.
84 Canterbury Road
Bankstown, New South Wales
Australia, Sydney 70-0701

Europe, Middle East, Africa

Outboard Marine Belgium, N.V.
Pathoekeweg 120
8000 Brugge, Belgium
050/31.51.87

Propeller Selection

General

The selection of a propeller is one of the most critical factors in achieving satisfactory performance of boat and motor. Propellers must be custom selected to match the motor to the boat, load or application.

Note

Selection of an incorrect propeller can cause serious damage to the motor.

Selection

To select the correct propeller for your boating application, your boat and motor must be water tested. Contact your DEALER for assistance. For selection procedure and available propellers, see the "Propeller and Steering Connector Selection Guide" shipped with your motor.

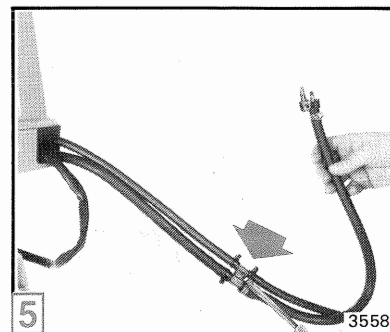
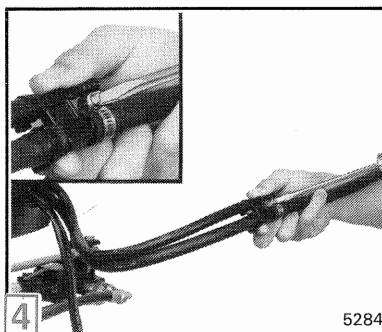
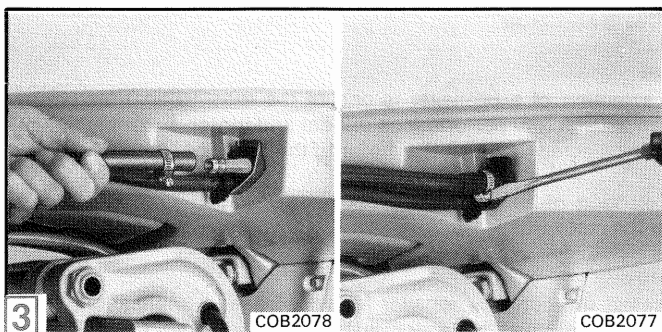
See **Propeller Replacement** before removing or installing propeller.

Optional OMC Portable Fuel Tanks And Fuel Lines

When using portable fuel tanks, we recommend use of the OMC fuel tanks and fuel lines which are designed to provide correct fuel flow for your engine requirements. OMC fuel tank hoses include a primer bulb assembly and a fuel line connector for attachment to your motor. See your DEALER.

Note

Serious engine damage may occur from use of improper portable fuel tanks and/or fuel lines. If portable fuel tanks and fuel lines other than genuine OMC parts are used, they must have equivalent characteristics for correct fuel flow for your engine. Your DEALER can advise you.



Battery and Battery Box (Not supplied with motor)

Read and understand battery manufacturer's safety information supplied with the battery before installation is attempted. Install battery in a battery box that is securely installed in the boat.

Note Maintenance free or sealed batteries are acceptable for use ONLY on engines that are equipped with a regulated alternator. See **Specifications**.

In order to operate your electrical system, a good 12 volt battery is required (not supplied with motor). For best performance, we recommend the following as suggested minimum requirements:

- 40 thru 140 Models - 12 volt battery with a 360 amperes cold cranking rating at -18° C (0° F) and 115 minutes reserve capacity rating at 27° C (80° F).
- 150 thru 225 Models - 12 volt battery with 500 amperes cold cranking rating at -18° C (0° F) and 99 minutes reserve capacity rating at 27° C (80° F).

3 4 Installation of Fuel Line to Engine

10 mm (3/8 inch) I.D. hose is required for installation to the fuel inlet nipple.

See your DEALER for OMC hose or equivalent which meets your fuel systems requirements.

See **Recommendations** for **Permanently Installed Fuel Systems Outboard Motor Installation Guideline**.

Use the hose clamp provided in the owner's kit when installing the fuel hose on the motor and proceed as follows:

- Place the clamp over the recommended hose and slide the hose over the fuel inlet nipple.
- Position the clamp over the inlet nipple and tighten securely.

3. 150/175 Models
4. 120/140/200/225 Models

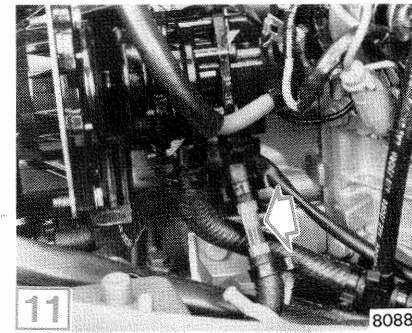
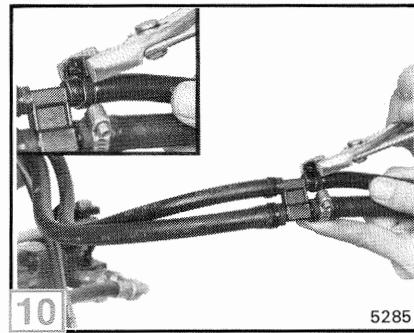
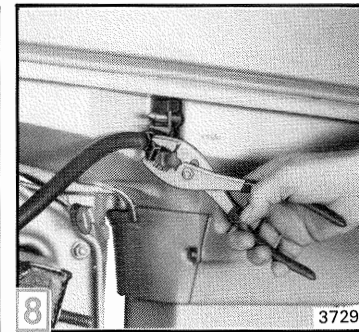
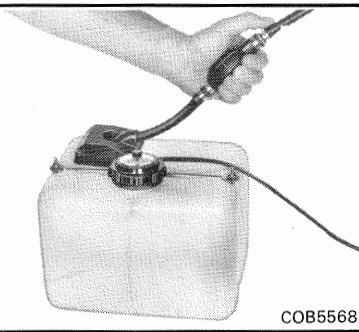
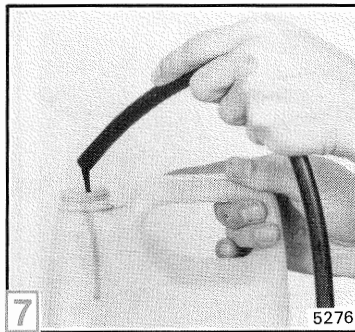
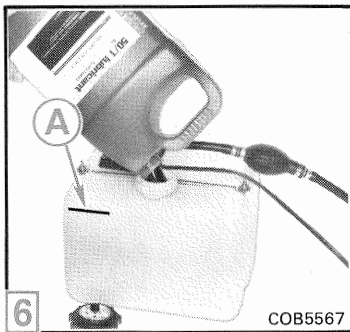
5 Installation of Hose and Connector Assembly

120/140 Models

A hose and connector assembly is provided with some models for use of an OMC Portable Fuel Tank. Use the hose clamp provided in the owner's kit when installing the assembly and proceed as follows:

- Place the clamp over the hose and slide the hose over the fuel inlet nipple.

5. • Position the clamp over the inlet nipple and tighten securely.



OMC VRO® Oil Injection System

Your motor is equipped with a VRO variable ratio oil injection system to automatically meter oil to the engine.

There are optional size oil tanks available for use with your motor, a 6.8 Litre (1.8 gal. shipped with your motor) 11.4 Litre (3.0 gal.), 13.3 Litre (3.5 gal.), or 26.6 Litre (7 gal.). Follow the installation instructions provided with the oil tank for installation of tank in boat. See your DEALER for an optional oil tank, Remote Fill Kit or Oil Level Gauge.

Use only the recommended lubricant or other BIA Certified TC-W oil to fill the oil tank. See **Recommended Lubricant**.

Note Operating this motor without the **VRO** system requires modification that must be performed by your **DEALER**. When operating without the **VRO** system, the recommended fuel/oil ratio is **50:1 (2% oil)**.

6 FILLING VRO OIL TANK

- Remove filler cap on oil tank or remote oil fill location.
- 6. • Fill oil tank with the recommended lubricant.
- 6. • After the oil tank is filled, mark the full oil level with a permanent marking pen. This mark will allow for an easier oil level check during the break-in period.

A. Oil Level Mark

7 → 11 VRO Oil Hose Installation

Note The oil hose must be purged of air before it is connected to the motor. Failure to purge air from oil hose and make an airtight connection may result in engine damage.

- Place open end of oil hose in a container to catch the oil.
- 7. • Holding the outlet end of the oil primer bulb up, squeeze the bulb until the hose is purged of air and oil flows from the oil hose.
- Install the oil hose and clamp to the fitting on the lower engine cover and fasten clamp securely using pliers.
- 8. 40 thru 110 Models
- 9. 150/175 Models
- Install the oil hose and clamp to the fitting on the oil hose extending from the lower engine cover. Fasten clamp securely using pliers.
- 10. 120/140/200/225 Models

Note If clamp is damaged replace with a new clamp.

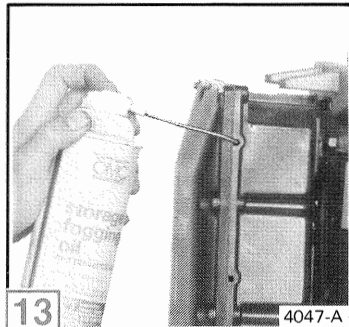
- 11. • To complete priming, squeeze oil primer bulb until oil is visible at the sight tube located in the oil hose near the VRO pump.

Note Prime the VRO Oil System before priming fuel system. If fuel system is primed first; the oil system must be primed with the engine idling. Prime until oil is visible at the sight tube. **No Oil Flow** warning horn will sound until oil reaches the VRO pump.



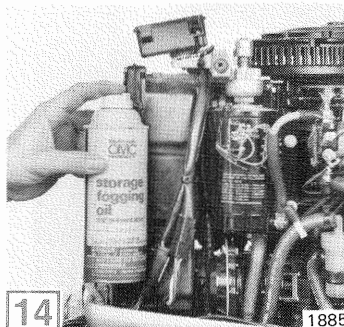
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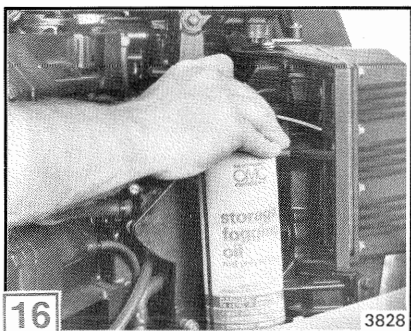
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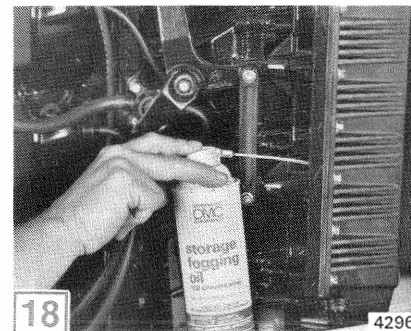
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Off Season Storage

Your warranty does not cover engine failures caused by neglect. It is important that you protect your engine with a well planned storage pattern. The off season storage of your outboard motor is important to its long life and trouble free operation. Temperature and humidity changes while in storage can cause corrosion of piston rings, cylinder walls, and bearing surfaces that are not properly protected. It is to your advantage to protect your motor as soon as possible before storage. We recommend that your DEALER prepare your motor for off season storage. Fuel system requires periodic cleaning and adjustment to maintain top performance. This is the best time to have your DEALER perform an engine tune-up.

If you desire to prepare your own engine for storage, proceed as follows:

See your DEALER for OMC 2+4® fuel conditioner and OMC Storage Fogging Oil.

- Use OMC 2+4 fuel conditioner or equivalent in your fuel mixture to stabilize the gasoline. It eliminates need for draining fuel for up to one year of storage. Add 8 ml (one ounce) of OMC 2+4 for every litre (every gallon) of gasoline. Then operate motor in fresh water for a few minutes to allow fuel mixed with OMC 2+4 to enter carburetor.

Note Do not operate motor out of water even momentarily. Water pump may be damaged or motor may overheat.

- Remove engine cover. See **Removing Engine Cover**.
- 40/50 Models - Remove rubber plugs from air silencer cover.
- Start engine.
- While engine is running, rapidly inject OMC Storage Fogging Oil, or equivalent into carburetor air intakes until motor smokes excessively. See illustrations listed below.

12. 40/50 Models

60/70/75 Models - Each fogging hole located on port side of air silencer.

13. 60/75 Models

14. 70 Models

90 thru 225 Models - Air inlets located on port and starboard side of air silencer.

15. 90/110 Models (4 inlets)

16. 120/140 Models (4 inlets)

17. 150/175 Models (6 inlets)

18. 200/225 Models (6 inlets)

- Stop motor.
- 40/50 Models - Replace rubber plugs in air silencer.



Safety Warning: To prevent accidental starting of engine, before servicing motor:

- **40 thru 75 and 120/140 Models - Disconnect electrical connector between power pack and charge coil.**
- **90/110, 150/175 and 200/225 Models - Disconnect two (2) electrical connectors between power packs and charge coils (port and starboard).**

- Remove spark plugs. Inject OMC Storage Fogging Oil or equivalent into the spark plug holes. Turn engine through a number of revolutions. This will lubricate and protect internal parts of powerhead while motor is in storage.
- Check spark plugs. Clean or replace if necessary. Refer to **Spark Plug Inspection and Replacement**.



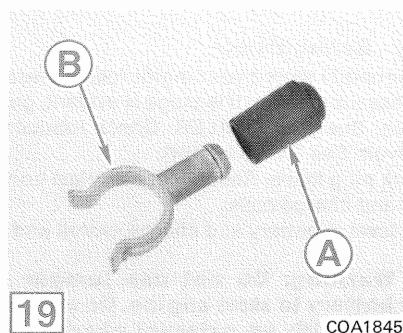
Safety Warning: To prevent escape of liquid or vapors from tank which could be accidentally ignited, do the following:

- **Portable Fuel Tank with Gauge - Disconnect fuel line from motor and tank.**
- **Portable Tank without Gauge - Disconnect fuel line from motor and close vent screw on filler cap.**
- **Store tank in a well ventilated area away from heat or open flame (such as a pilot light).**

- Coil fuel line on top of portable tank when not in use. This will help protect fuel line and connector from damage and help prevent sand or dirt from entering connector.
- Motor may be left on boat or placed on a stand. If motor is removed from boat, store the special locking type fasteners which attach the remote steering, shift, and throttle control systems to the motor to prevent their being substituted. When reinstalling motor on boat, make sure the control systems are reattached to the motor in their original positions and fasteners tightened as specified in the manufacturer's installation instructions.



Safety Warning: Failure to carefully reattach control systems with original specified hardware may result in sudden unexpected loss of control of the boat at some later time.



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- If motor is removed from boat, the VRO oil hose must be disconnected from the motor. After disconnecting the oil hose, cap the oil fitting on the motor and plug the oil hose from the VRO tank with the cap and plug provided. The cap and cap holder/plug are located on the fuel line near the VRO pump.

A. Cap

B. Cap Holder/Plug

Note

Store motor in the normal running (vertical) position to ensure proper drainage of the motors cooling system.

- Remove battery and check condition. Charge if required following precautions on battery label. Clean battery thoroughly. Store in a cool, dry place and not in direct sunlight. Check water level and charge periodically during storage.
- Service fuel filter.
Portable fuel tank - If OMC 2+4 Fuel Conditioner has not been used in fuel mix, remove fuel tank drain screw (Portable tank with gauge) and drain thoroughly. Replace drain screw securely.
- Remove propeller and have it checked by your DEALER. A slightly bent propeller blade may not be noticed on casual observation but will affect the performance of your motor. Clean the propeller shaft and lubricate with OMC Triple-Guard Grease. See **Propeller Replacement and Propeller Installation**.
- Drain and refill gearcase. Lubricate motor. See **Lubrication**.
- Touch up paint. See your DEALER.
- Clean fuel tank and inspect for rust, or leakage in metal body. Replace if needed.
- Give motor visual check and make sure:
 - screws and nuts are tight (torque as specified in service manual),
 - spark plug boots, starter solenoid terminal boot and connector sleeves are in place,
 - electrical leads are clamped in place to prevent contact with other moving motor parts,
 - deteriorated (cut, cracked, abraded) or damaged parts such as wires, coils, boots, sleeves are replaced,
 - deteriorated or damaged fuel system parts; hoses, clamps, fuel bulb, gaskets are replaced,
 - badly rusted or leaking fuel tank is replaced.
- Replace engine cover.

After Storing - Before Using

If you have properly stored your motor follow these suggestions.

- Check gearcase lubrication. If leakage is evident, gearcase seals may need attention. See your DEALER. Check lubricant level in power trim/tilt reservoir. See **Lubrication**.
- Connect spark plug leads. Reconnect electrical connectors between power packs and charge coils.
- Check water level in battery and charge. Install and connect battery.



Safety Warning: Do not use jumper cables and a booster battery to start engine. Do not charge a battery in the boat with an external charger. Fumes vented during either operation can lead to an explosion.

- It is IMPORTANT that the battery connections are correct: the (-) negative Black battery cable must be attached to the (-) negative terminal on the battery and the (+) positive Red cable must be attached to the (+) positive terminal.



Note If the cables are reversed, the charging unit will be immediately damaged. DO NOT attempt to connect or disconnect any part of the electrical circuit while the motor is running.

- Connect battery cables, making sure clamps are tight on either post to insure good contact. Apply a coat of petroleum jelly to exposed area of the battery posts and clamp connectors to retard corrosion. High resistance in the charging circuit can seriously affect the electrical system. We recommend that you make periodic checks to insure clean, tight connections throughout the electrical system.



Safety Warning: Failure to ensure the above may result in sparks and ignite fuel vapors under the engine cover.

If motor was removed from the boat:

- Make sure the control systems are reattached to the motor in their original positions and the original specified fasteners are tightened as specified in the manufacturer's installation instructions.



Safety Warning: Failure to carefully reattach control systems with original specified hardware may result in sudden unexpected loss of control of the boat at some later time.

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- If the oil hose was disconnected from the motor, the oil hose must be purged of air. See **VRO Oil Hose Installation**. Return the oil fitting cap and cap holder/plug to their storage position.

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- If the oil hose has been disconnected and reconnected to the motor, it is recommended that lubricant be mixed with the gasoline at a 100:1 (1% oil) fuel/oil ratio, see **Fuel Mixing Instructions**. Before using unmixed gasoline, check to see that the level in the oil tank has changed indicating that oil is being used. Refer to **Filling VRO Oil Tank** for marking oil level.

Submerged Motor

Motor Dropped Overboard

If motor is recovered from water immediately, it must be serviced within 3 hours after recovery. See your DEALER.

Since this motor is provided with needle bearings, it must be serviced within 3 hours after recovery to avoid costly repairs. Both fresh and salt water characteristically will start etching the highly machined bearing surfaces of the crankshaft and connecting rods as well as the bearings once exposed to the surrounding atmosphere.



Note If service is not readily available, the motor should be re-submerged immediately in fresh water to avoid exposure to the atmosphere. Make arrangements to have it serviced with the least possible delay.

Dealer Service

When away from home and in need of an authorized DEALER to service your OMC product, consult the local telephone directory. If no listing is available in the U.S. (except Alaska and Hawaii) call 800-255-2550.

This inspection will be performed at local DEALER rates and paid for by the owner. After the DEALER 20-hour check-up, your unit should be taken to an authorized DEALER every 6 months or 100 hours of operation, whichever occurs first.

20 Hour Check

This is important. After the first 20 hours of operation, we recommend that you return your motor to your DEALER for minor inspection and adjustment (if necessary).

20 Hour Check Includes:

- Drain, flush and refill gearcase. See **Lubrication**.
- Torque cylinder head and spark plugs
- Adjust carburetor
- Check propeller
- Check timing (where applicable) and ignition
- Adjust remote control and linkage (where applicable)

This is an opportune time to discuss with your DEALER any questions on your outboard motor which have arisen in the first 20 hours of operation, and establish a routine preventative maintenance schedule.

The 20 hour check will be performed at local DEALER rates and paid for by the owner.

Owner's Obligation and Responsibility

See your DEALER for proper maintenance and care of your outboard motor. Proper maintenance and care will assist in keeping your overall operating costs at a minimum. Normal maintenance service and replacement of service items are the responsibility of the owner and as such are not considered defects in material or workmanship within the terms of the warranty. The principal service and replacement items are described as follows:

- Engine Tune-Up: See your DEALER.
- Lubrication: Grease requirements and oil changes are listed in the Owner's-Operator's Manual.
- Fuel System Check: Fuel filters should be replaced or cleaned periodically. Carburetors need periodic adjustment. Both are necessary to obtain peak performance from the engine.
- Spark Plugs: These items are subject to wear and contamination and should be checked periodically.
- Carbon Deposits: A degree of carbon build-up is normal in the combustion chamber of any gasoline engine, depending on fuel quality and operating conditions, and should be periodically removed. For best results, follow the gasoline and oil recommendations.
- Propellers: Propellers should be serviced, straightened or replaced when necessary for maximum performance. Propellers are subject to various underwater hazards and resulting damage is the owner's responsibility.
- Water Pump Parts Wear: These parts are subject to various amounts of wear depending upon water conditions and are normal maintenance service items. Your DEALER will be able to tell you how often these parts need replacing in your area.

- Clutch Wear or Clutch Dog Wear (where applicable): These parts are subject to various amounts of wear depending upon individual operating habits and are therefore the owner's responsibility. Where applicable, refer to instructions in your Owner's-Operator's Manual on shifting.

Warranty Service

Warranty

The warranty covering this product is located at the end of this handbook. Read your warranty carefully, to understand the terms and conditions that apply to your particular area.

To make a claim under warranty, contact the authorized DEALER from whom the outboard motor was originally purchased, or the nearest authorized DEALER. Remember, your outboard motor must be delivered to an authorized DEALER within the warranty period, and all warranty work must be performed by an authorized DEALER. Proof of purchase may be required by the DEALER to substantiate any warranty claim.

Examples Of Items Not Covered By Warranty

Provisions of the Warranty Will Not Apply to:

Normal service requirements arising during the warranty period, such as carburetor or ignition adjustment or repair, or wear to piston ring, or cylinder, or water pump.

Outboard motors subject to misuse, neglect, negligence, accident, or used for racing purposes.

Outboard motors that have been altered or modified so as to adversely affect their operation, performance or durability or to change their intended use.

Repairs made necessary by the use of parts or accessories which are either incompatible with the outboard motor or adversely affect its operation, performance or durability.

Outboard motors not operated or maintained in accordance with the instructions in the Owner's-Operator's Manual.

Twenty-hour check-up, service check-up, tune-up, or diagnosis.

Normal cleaning, adjusting or replacing of spark plugs in the outboard motor.

Periodic checking or adding of oil to the gearcase of the outboard motor.

Expense of returning the outboard motor to the DEALER and expense of delivering it back to the owner.

Removal of the outboard motor from a boat and reinstallation, mechanic's travel time, and in-and-out-of-water charges.

Replacement of anode(s).



OMC
Systematched™
ACCESSORIES

ENGLISH

Quality with the assurance it's matched to your outboard. That's what you can expect when you select OMC Systematched™ accessories to fill out your new boat and outboard package.

Your OMC dealer can match a digital Quartach® tachometer permanently calibrated to your new outboard, rig your tiller outboard for remote steering or fit your smaller outboard with an accessory remote control system. He can supply a SST Raker® stainless steel silver prop for that high performance boat, or give you a full selection of other propeller sizes and styles including a variety of SST® stainless steel models.

If there's a special need for your outboard, chances are it can be further customized by you or your dealer with an OMC accessory.

But OMC has many accessory items for your boat and personal use, too, including the computerized OMC Tracker® 2000 digital electronic fish/depth locator that reads underwater activity and reports it with amazing accuracy and clarity. There's even a new OMC Tracker® 100 in-dash depth sounder.

Ask your dealer for complete information on OMC parts and accessories. They're tailor-made for your boating enjoyment.

WARRANTY LIMITED ONE (1) YEAR WARRANTY

At the locations above, Outboard Marine Corporation (OMC) warrants this new OMC product for one (1) year. The warranty commences on the date of first retail purchase and extends to original and subsequent retail purchasers; however, the duration of this warranty shall not exceed one year measured from the original retail sale.

If an OMC product is found in the reasonable judgment of OMC to be defective in material or workmanship, it will be repaired or replaced by an authorized Evinrude, Johnson or OMC Drive Systems dealer without charge for parts and labor.*

The OMC product including any defective part therein must be returned to an authorized Evinrude, Johnson or OMC Drive Systems dealer within the warranty period. **The OMC dealer will then execute the warranty procedures on the owner's behalf.** The expense of returning the OMC product to the authorized dealer for warranty service and the expense of returning it back to the owner after repair or replacement will be paid for by the owner. OMC's responsibility in respect to warranty claims is limited to the required repairs or replacements, and no claim of breach of warranty shall be cause for cancellation or rescission of the sale of any OMC product. Proof of purchase will be required by the authorized Evinrude, Johnson or OMC Drive Systems dealer to substantiate any warranty claim.

If an OMC product is used commercially for such purposes as rental or other income-producing activities, then the warranty is limited to six (6) months from the date of original retail purchase.

The warranty does not cover any OMC product that has been subject to misuse, neglect, negligence or accident, or that has not been properly maintained, operated or installed. **The warranty does not apply** to any damage to the OMC product that is the result of rust or corrosion. **The warranty does not cover** any OMC product that has been altered or modified so as to adversely affect its operation, performance or durability or that has been altered or modified so as to change the intended use of the OMC product. In addition, **the warranty does not extend** to repairs made necessary by normal wear, or by the use of other parts or accessories which in the reasonable judgment of OMC are either incompatible with the OMC product or adversely affect its operation, performance or durability.

OMC reserves the right to change or improve the design of any OMC product without assuming any obligation to modify any OMC product previously manufactured.

IMPLIED WARRANTIES ARE LIMITED IN DURATION TO THE APPROPRIATE ONE (1) YEAR OR SIX (6) MONTHS WARRANTY PERIOD.

IMPLIED WARRANTIES INCLUDING MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OTHERWISE ARE DISCLAIMED IN THEIR ENTIRETY AFTER EXPIRATION OF THE APPROPRIATE ONE (1) YEAR OR SIX (6) MONTHS WARRANTY PERIOD.

OMC'S OBLIGATION UNDER THIS WARRANTY IS STRICTLY AND EXCLUSIVELY LIMITED TO THE REPAIR OR REPLACEMENT OF DEFECTIVE PARTS, AND OMC DOES NOT ASSUME OR AUTHORIZE ANYONE TO ASSUME FOR THEM ANY OTHER OBLIGATION.

IN SOME JURISDICTIONS DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

OMC ASSUMES NO RESPONSIBILITY FOR INCIDENTAL, CONSEQUENTIAL OR OTHER DAMAGES, INCLUDING, BUT NOT LIMITED TO EXPENSE FOR GASOLINE, EXPENSE OF RETURNING THE OMC PRODUCT TO AN AUTHORIZED DEALER AND REINSTALLATION, MECHANIC'S TRAVEL TIME, IN-AND-OUT-OF-WATER CHARGES, TELEPHONE OR TELETYPE CHARGES, TRAILERING OR TOWING CHARGES, RENTAL OF A LIKE PRODUCT DURING THE TIME WARRANTY SERVICE IS BEING PERFORMED, TRAVEL, LODGING, LOSS OR DAMAGE TO PERSONAL PROPERTY, LOSS OF REVENUE, LOSS OF USE OF THE OMC PRODUCT, LOSS OF TIME, OR INCONVENIENCE.

IN SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

This warranty gives you specific legal rights, and you may also have other rights which vary from jurisdiction to jurisdiction.

Europe, Middle East, Africa
Outboard Marine Belgium, N.V.
De Weertweg 120
Brugge, Belgium
031.51.87

Caribbean, Mexico, Central America, South America
Outboard Marine International, Inc.
75 N.E. 179th Street
Miami, Florida 33162 U.S.A.
305/652-2311

Garantie

Outboard Marine garantit son produit contre tout défaut de pièces ou de main-d'œuvre (six mois en cas d'utilisation commerciale) à compter de la date du premier achat. En cas de défauts constatés et reconnus comme tels par nos revendeurs agréés, le produit sera réparé par remplacement de la ou des pièces défectueuses et fourniture de la main-d'œuvre, à l'exclusion de tous autres coûts externes et de toute responsabilité au titre des dommages causés.

Outboard Marine ne sera pas tenue responsable de cause de la garantie légale pour défauts et vices cachés dans les conditions prévues par le Code Civil.

Le présent document et la présente garantie doit être renvoyé à un revendeur agréé qui exécutera la réparation au nom du propriétaire.

Garantia

Este producto ha sido probado para ser usado y puesto en servicio de acuerdo con los requisitos de las Operaciones del Propietario del Producto. Outboard Marine garantiza que su producto será reparado o reemplazado o en la mano de obra, por un periodo de doce meses (seis meses si es para uso comercial) a contar a partir de la fecha de la primera compra verificada; si algún defecto fuera comprobado y justificado por cualquiera de nuestros Agentes de Servicio autorizados, será reparado o reemplazado, incluyendo la mano de obra en dicho trabajo de reemplazo, con exclusión de cualquier responsabilidad por daños incidentales, consiguientes, u otros perjuicios.

Outboard Marine no será responsable de otorgue al propietario de nuestro producto cualquier derecho obligatorio con respecto a los defectos ocultos. Sin embargo, Outboard Marine, esos derechos serán respetados.

Este documento y la presente garantía debe ser enviado a un Agente autorizado, quien se encargará de la reparación a nombre del propietario.

United States of America
Outboard Marine Corporation
100 Sea Horse Drive
Waukegan, Illinois 60085 U.S.A.
312/689-5630

Canada
Outboard Marine Corporation of C
910 Monaghan Road
Peterborough, Ontario, Canada
K9J7B6 (postal code)
705/876-2699

WARRANTY LIMITED ONE (1) YEAR WARRANTY

Outboard Marine Corporation (OMC) warrants this new OMC product for one (1) year. This warranty is valid only if registered with OMC. Return of the Owner's Registration Card is a condition of this warranty. Outboard motors purchased from authorized United States dealers and intended for sale in the United States must be registered with OMC.

This warranty begins on the date of first retail purchase and extends to original and subsequent retail purchasers; however, this warranty shall not exceed one year measured from the original retail sale.

If, in the reasonable judgment of OMC to be defective in material or workmanship, it will be repaired or replaced, at the discretion of OMC, by an authorized Evinrude, Johnson or OMC Drive Systems dealer without charge for parts and labor.

When any defective part therein must be returned to an authorized Evinrude, Johnson or OMC Drive Systems dealer, the cost of shipping and handling charges will be the responsibility of the owner. The OMC dealer will then execute the warranty procedures on the owner's behalf.

When returning the OMC product to the authorized dealer for warranty service and the expense of returning it back to the owner, the cost of shipping and handling charges will be the responsibility of the owner. OMC's responsibility in respect to warranty claims is limited to the repair or replacement of defective parts, and no claim of breach of warranty shall be cause for cancellation or rescission of the warranty. Proof of purchase will be required by the authorized Evinrude, Johnson or OMC Drive Systems dealer.

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UNDER THIS WARRANTY IS STRICTLY AND EXCLUSIVELY LIMITED TO THE REPAIR OR REPLACEMENT OF DEFECTIVE PARTS, AND OMC DOES NOT ASSUME OR AUTHORIZE ANYONE TO ASSUME FOR THEMSELVES ANY OTHER OBLIGATIONS.

OMC DOES NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE WARRANTY SHALL APPLY TO YOU.

OMC ASSUMES NO RESPONSIBILITY FOR INCIDENTAL, CONSEQUENTIAL OR OTHER DAMAGES, INCLUDING, BUT NOT LIMITED TO, LOSS OF PROFITS, LOSS OF BUSINESS, LOSS OF REVENUE, LOSS OF TIME, OR INCONVENIENCE.

OMC DOES NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING, BUT NOT LIMITED TO, LOSS OF PROFITS, LOSS OF BUSINESS, LOSS OF REVENUE, LOSS OF TIME, OR INCONVENIENCE.

THIS WARRANTY DOES NOT LIMIT OR EXCLUDE ANY RIGHTS OR REMEDIES WHICH YOU MAY HAVE UNDER ANY APPLICABLE LAW.

OUTSIDE THE UNITED STATES, THIS WARRANTY IS LIMITED TO THE CONTINENTAL UNITED STATES WITH THE EXCEPTION OF ALASKA AND HAWAII.

CHARGES NOT COVERED UNDER WARRANTY BASED ON LOCAL PRACTICES AND CONDITIONS, SUCH AS, BUT NOT LIMITED TO, LICENSE FEES, IMPORT DUTIES AND ANY AND ALL OTHER FINANCIAL CHARGES, INCLUDING THOSE LEVIED BY GOVERNMENTS, STATE OR LOCAL, OR RESPECTIVE AGENCIES WHICH WILL BE THE RESPONSIBILITY OF THE RETAIL PURCHASER.

THIS WARRANTY IS VALID ONLY IF REGISTERED WITH OMC. RETURN OF THE OWNER'S REGISTRATION CARD IS A CONDITION OF THIS WARRANTY.

OUTBOARD MOTORS PURCHASED FROM AUTHORIZED UNITED STATES DEALERS AND INTENDED FOR SALE IN THE UNITED STATES MUST BE REGISTERED WITH OMC.

THIS WARRANTY BEGINS ON THE DATE OF FIRST RETAIL PURCHASE AND EXTENDS TO ORIGINAL AND SUBSEQUENT RETAIL PURCHASERS; HOWEVER, THIS WARRANTY SHALL NOT EXCEED ONE YEAR MEASURED FROM THE ORIGINAL RETAIL SALE.

IF, IN THE REASONABLE JUDGMENT OF OMC TO BE DEFECTIVE IN MATERIAL OR WORKMANSHIP, IT WILL BE REPAIRED OR REPLACED, AT THE DISCRETION OF OMC, BY AN AUTHORIZED EVINRUDE, JOHNSON OR OMC DRIVE SYSTEMS DEALER WITHOUT CHARGE FOR PARTS AND LABOR.

WHEN ANY DEFECTIVE PART THEREIN MUST BE RETURNED TO AN AUTHORIZED EVINRUDE, JOHNSON OR OMC DRIVE SYSTEMS DEALER, THE COST OF SHIPPING AND HANDLING CHARGES WILL BE THE RESPONSIBILITY OF THE OWNER.

THE OMC DEALER WILL THEN EXECUTE THE WARRANTY PROCEDURES ON THE OWNER'S BEHALF.

WHEN RETURNING THE OMC PRODUCT TO THE AUTHORIZED DEALER FOR WARRANTY SERVICE AND THE EXPENSE OF RETURNING IT BACK TO THE OWNER, THE COST OF SHIPPING AND HANDLING CHARGES WILL BE THE RESPONSIBILITY OF THE OWNER.

FRANÇAIS

GARANTIE GARANTIE LIMITEE A UN (1) AN

Outboard Marine Corporation (OMC) garantit ce nouveau produit OMC pour une durée d'un (1) an, dans les pays mentionnés ci-dessus.

Cette garantie prend cours à la date du premier achat et peut être invoquée par le premier acheteur ou les acheteurs ultérieurs; cependant, la période de garantie ne pourra en aucun cas dépasser un an à compter de la date du premier achat.

Si OMC estime que ce produit OMC présente un défaut de matière ou un vice de fabrication, il sera réparé ou remplacé par un distributeur agréé Evinrude, Johnson ou OMC Drive Systems, sans aucun frais de pièces ou de main-d'oeuvre(*).

Ce produit OMC, ainsi que toute pièce défectueuse, doit être retourné à un distributeur agréé Evinrude, Johnson ou OMC Drive Systems avant l'échéance de la garantie. **Le distributeur OMC se chargera alors, au nom du propriétaire, des procédures de garantie.**

Les frais d'expédition du produit OMC au distributeur pour les réparations sous garantie, ainsi que les frais de sa restitution au client après réparation ou remplacement sont à charge du client. La responsabilité d'OMC en ce qui concerne les demandes de garantie se limite aux réparations et aux remplacements nécessaires, et une rupture de garantie ne pourra être invoquée comme motif de révocation ou de résiliation du contrat de vente de n'importe quel produit OMC. Le distributeur agréé Evinrude, Johnson ou OMC Drive Systems demandera une preuve d'achat pour établir la demande de garantie.

Si ce produit OMC est utilisé à des fins commerciales telles que la location ou toute autre activité lucrative, la garantie se limite à six (6) mois à compter de la date d'achat.

Cette garantie ne couvre aucun produit OMC qui aurait fait l'objet d'une mauvaise utilisation, d'un manque de soins, d'une négligence ou d'un accident, ou qui aurait été entretenu, utilisé ou installé de manière incorrecte. **La garantie ne s'applique pas** aux détériorations dues à la rouille ou à la corrosion. **La garantie ne couvre pas les** produits qui auraient été altérés ou modifiés de manière à influencer défavorablement leur fonctionnement, leurs performances ou leur durée de vie, ou qui auraient été altérés ou modifiés de manière à les détourner de l'utilisation normale du produit OMC. **En outre, la garantie ne s'applique pas** aux réparations rendues nécessaires par l'usure normale, ou par l'utilisation de pièces qui, dans l'opinion d'OMC, sont incompatibles avec le produit OMC ou affectent négativement le fonctionnement, les performances ou la durée de vie de ce produit.

OMC se réserve le droit de modifier ou d'améliorer la conception de tout produit OMC sans assumer l'obligation de modifier les produits construits précédemment.

LA VALIDITE DE TOUTES LES GARANTIES TACITES SE LIMITE A UNE PERIODE D'UN (1) AN OU DE SIX (6) MOIS, SELON LE CAS.

TOUTES LES GARANTIES TACITES, Y COMPRIS LA CONFORMITE DU PRODUIT, SON APTITUDE POUR UNE UTILISATION PARTICULIERE ET AUTRES, EXPIRENT A LA FIN DE LA PERIODE D'UN (1) AN OU DE SIX (6) MOIS.

LES OBLIGATIONS D'OMC SOUS CETTE GARANTIE SE LIMITENT STRICTEMENT ET EXCLUSIVEMENT A LA REPARATION OU AU REMPLACEMENT DES PIECES DEFECTUEUSES; OMC NE S'ENGAGE A RIEN D'AUTRE ET REFUSE A QUICONQUE LE DROIT DE CONTRACTER TOUTE OBLIGATION EN SON NOM.

PUISQUE DANS CERTAINES JURIDICTIONS AUCUNE LIMITATION DE LA DUREE DE LA GARANTIE N'EST PERMISE, IL EST POSSIBLE QUE LES LIMITATIONS CI-DESSUS NE S'APPLIQUENT PAS A VOTRE CAS.

OMC DECLINE TOUTE RESPONSABILITE POUR LES DOMMAGES FORTUITS, INDIRECTS OU AUTRES, Y COMPRIS LES FRAIS D'ESSENCE, LES FRAIS DE RETOUR DU PRODUIT OMC AU DISTRIBUTEUR ET LES FRAIS DE RESTITUTION DU PRODUIT OMC AU CLIENT, LES FRAIS DE DEPOSE ET DE REMONTAGE DU PRODUIT OMC, LES FRAIS DE DEPLACEMENT DU MECANICIEN, LES FRAIS DE LEVAGE ET DE REMISE A FLOT DU BATEAU, LES FRAIS DE TELEPHONE OU DE TELEGRAPHE, LES FRAIS DE REMORQUAGE, LES FRAIS DE LOCATION D'UN PRODUIT SIMILAIRE PENDANT LA DUREE DE LA REPARATION, LES FRAIS DE VOYAGE, DE LOGEMENT, LA PERTE DE OU LES DOMMAGES AUX EFFETS PERSONNELS, LES PERTES DE REVENUS, L'IMPOSSIBILITE D'UTILISER LE PRODUIT OMC, OU LA PERTE DE TEMPS, SANS QUE CETTE ENUMERATION AIT UN CARACTERE RESTRICTIF.

PUISQUE DANS CERTAINES JURIDICTIONS L'EXCLUSION OU LA LIMITATION DES DOMMAGES FORTUITS OU INDIRECTS N'EST PAS PERMISE, IL EST POSSIBLE QUE LA LIMITATION OU L'EXCLUSION CI-DESSUS NE VOUS CONCERNE PAS.

Cette garantie vous confère des droits légaux spécifiques, auxquels peuvent s'ajouter d'autres droits qui varient en fonction de la juridiction locale.

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