

Welcome Aboard!

GB

Proper care and regular maintenance is an important part in keeping your Mercury Product operating at peak efficiency for maximum performance and economy. The enclosed Owner's Registration Card is your key to trouble-free family fun. Refer to your «Operation and Maintenance Manual» for full details of your warranty coverage.

F *Bienvenue à bord!*

Il convient de prendre soin de son matériel Mercury et de l'entretenir régulièrement afin de préserver des performances et un rendement optimaux.

La carte d'inscription du propriétaire du propriétaire ci-inclut vous garantit des loisirs en famille sans soucis. Reportez-vous au manuel d'utilisation et de maintenance pour obtenir de plus amples informations sur votre garantie.

NL *Welkom aan boord!*

Een juiste behandeling en regelmatig onderhoud zijn een belangrijk gegeven om uw Mercury product optimaal te laten fungeren voor maximum prestaties en economisch gebruik. De bijgesloten eigenaars Registratiekaart is de sleutel tot probleemloos vaarplezier. Raadpleeg uw «Operation and Maintenance Manual» voor een volledige beschrijving van gebruik en onderhoud.

I *Benvenuti a bordo!*

Un uso appropriato ed una manutenzione regolare sono garanzia di perfetta efficienza del vostro prodotto Mercury per ottenere il massimo rendimento con consumi ottimali. L'accluso tagliando di registrazione è la chiave per risolvere i problemi tecnici ove si presentassero. Consultate il manuale d'uso e manutenzione per tutti i dettagli sulla garanzia.

D *Willkommen an Bord!*

Sorgfältige Behandlung und regelmäßiger Kundendienst sind eine wichtige Voraussetzung, um die dauernde Funktionstüchtigkeit Ihres Mercury Motors zu erhalten, um seine Maximalleistung und Wirtschaftlichkeit nutzen zu können. Die beigelegte Eigner-Registrierkarte ist Ihr Schlüssel für den ungetrübten Familienspaß. Bitte informieren sie sich anhand der Bedienungsanleitung und Kundendienst- und Gewährleistungsinformation über die Einzelheiten der Garantiebestimmungen.

E *Bienvenido a bordo!*

El cuidado y mantenimiento adecuado de su motor Mercury es de gran importancia, si desea conseguir las mejores prestaciones y por tanto, el máximo rendimiento y menor consumo de combustible. La Tarjeta de Venta adjunta, es su seguro de diversión familiar sin problemas. Para más información sobre la cobertura de la garantía, consulte el «Manual de Uso y Mantenimiento».

P *Bem-vindo a bordo!*

Para que o seu motor Mercury tenha uma boa eficiência, um maior rendimento e economia, são necessários cuidados adequados e uma manutenção regular. O cartão de registro de propriedade é anexo é a sua chave para o divertimento familiar livre de problemas. Queira consultar o seu «Manual de Operação e Manutenção» que lhe fornece todos os detalhes sobre a garantia do seu motor.

DK *Velkommen ombord!*

Omhyggelig og regelmæssig pleje er en vigtig ting, for at De kan få det bedste ud af Deres Mercury produkt. Vedlagte registreringskort er Deres nøgle til problemfri familie sejlads. Se nærmere oplysninger om reklamationsdækning i instruktionsbogen.

N *Velkommen ombord!*

God behandling og godt vedlikehold er en forutsetning for at din Mercury-motor gir deg topp ytelse og best mulig økonomisk drift. Vedlagte registreringskort er ditt dokument som viser at du har krav på rett behandling etter kjøpsloven.

S *Välkommen ombord!*

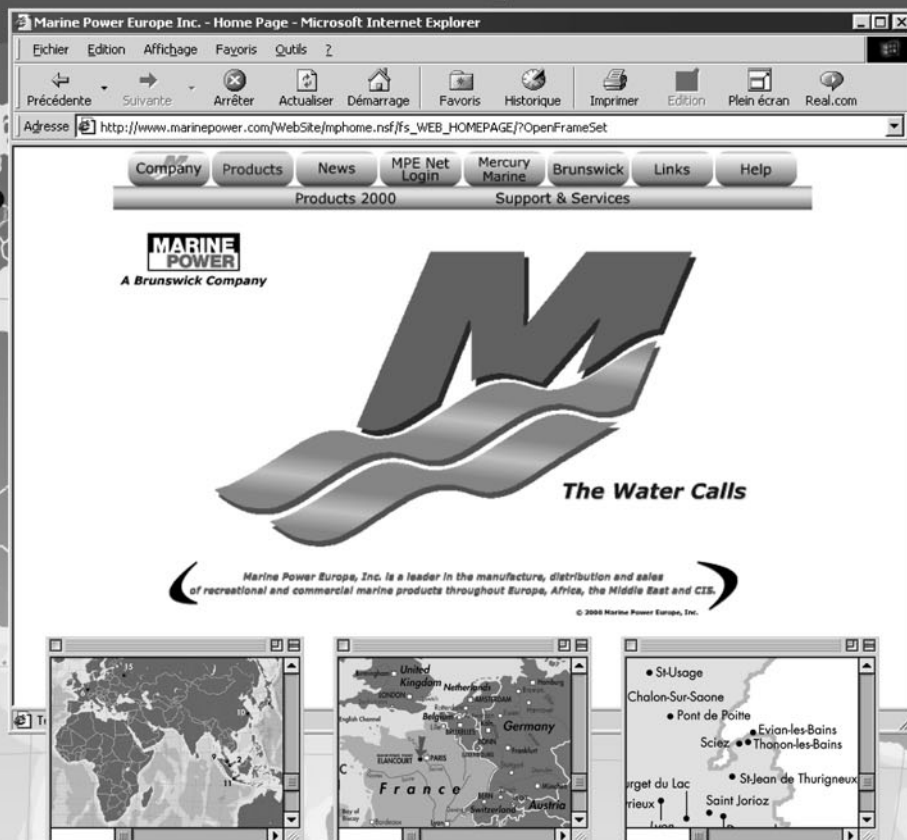
Regelbundet underhåll och skötsel är av största betydelse för att din Mercury-Produkt skall fungera effektivt och felfritt. Bifogat registreringskort är ditt leveransservicebevis och skall vara ifyllt för att gälla.

SF *Astu laivaan!*

Mahdollisimman hyvän suorituskyvyn ja polttoainetalouden saavuttamiseksi moottorin oikea hoito jo määrääkaishuollotovat tärkeä osa moottorin hyvinvointia. Lue huolellisesti moottorin käyttö- ja huolto-ohjekirja. Kirjasta löydät ohjeet moottorin hoitoon ja huoltoon. Oheisessa taskussa on moottorin takuukortti joka on avain huolettomaan veneilyyn.

GR *ΚΑΛΩΣ ΗΛΘΑΤΕ*

Η κατάλληλη φροντίδα και κανονική συντήρηση είναι ένα σημαντικό τμήμα στη διατήρηση του Προϊόντος της Mercury, ώστε αυτή να λειτουργεί με τη μέγιστη αποτελεσματικότητα για τη μέγιστη απόδοση και οικονομία. Η εσώκλειστη Κάρτα Πιστοποίησης Κατόχου είναι το κλειδί σας για οικογενειακή διασκέδαση χωρίς προβλήματα. Αναφερθείτε το «Εγχειρίδιο Συντήρησης και Λειτουργίας» για πλήρης λεπτομέρειες όσον αφορά την κάλυψη της εγγύησης.



GB — Details of your nearest dealer can be found out on www.marinepower.com where country maps and full contact information are displayed.

F — Vous trouverez tous les détails concernant notre réseau de concessionnaires sur www.marinepower.com

I — Potrete trovare tutte le informazioni riguardanti la rete di vendita e assistenza scegliendo il Concessionario/Officina Autorizzata a Voi più vicini sul sito www.marinepower.com

E — Para localizar con más detalle a su distribuidor más cercano, contacte con www.marinepower.com, y busque toda la información necesaria.

P — Consulte na página web www.marinepower.com, os dados mais completos de contacto e a localização do seu concessionário mais próximo com a ajuda de mapas dos diferentes países.

GR — Λεπτομέρειες για τον κοντινότερο εξουσιοδοτημένο αντιπρόσωπο, μπορείτε να βρείτε στο www.marinepower.com, όπου υπάρχουν χάρτες και πληροφορίες.

D — Einzelheiten Ihren lokalen Händler betreffend, finden Sie unter: www.marinepower.com. Dort lassen sich auch Landkarten und vollständige Kontaktinformationen einsehen.

NL — Gegevens betreffende de dichtstbijzijnde dealer kunt u terugvinden op www.marinepower.com waar landkaarten en contactadressen vermeld staan.

S — Uppgifter om närmaste återförsäljare med kontaktinformation och landskartor hittar du på www.marinepower.com

N — Informasjon om din nærmeste forhandler finner du på www.marinepower.com. Her kan du finne Norgeskart og detaljer om forhandleren.

DK — Oplysninger om din nærmeste forhandler kan findes på www.marinepower.com hvor landkort og fuld kontaktadresse vises.

SF — Tietoja lähimmästä jälleenmyyjästä löydät internet osoitteesta www.marinepower.com, sivulta löytyvät maiden kartat ja jälleenmyyjien yhteystiedot.

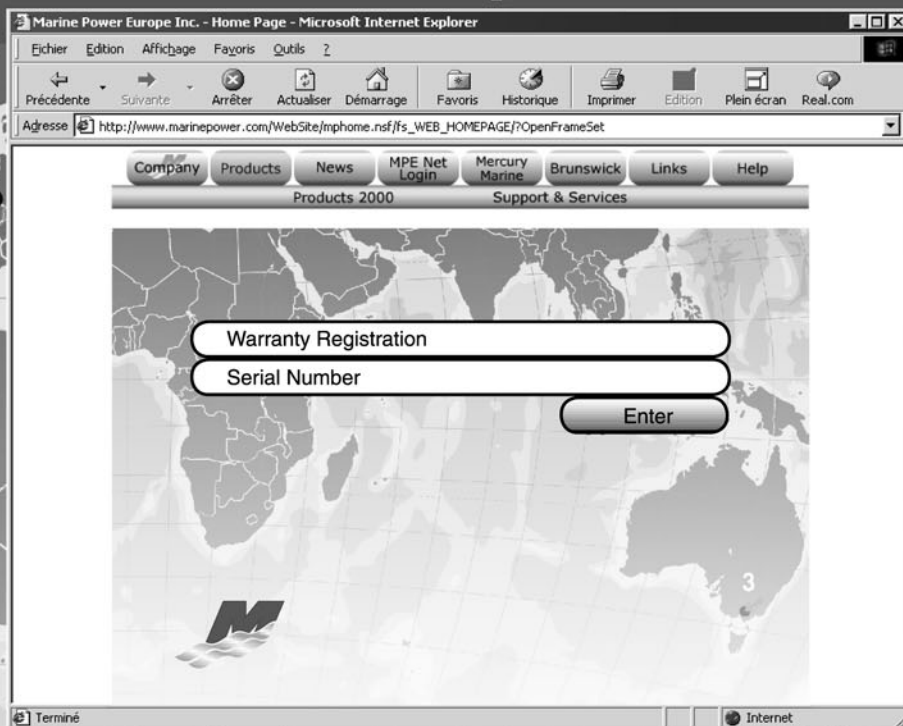
RUS — Подробности о ваших ближайших дилерах могут быть найдены в Интернете на сайте www.marinepower.com, где представлены карты страны и информация для контактов.

TU — En yakın bayimizin detayları www.marinepower.com adresinde ülke haritaları ve tam itibat bilgileri ile birlikte bulunabilir.

PL — Szczegóły dotyczące Twojego najbliższego dealera można odszukać na stronie [HYPERLINK http://www.marinepower.com](http://www.marinepower.com) www.marinepower.com gdzie przedstawiona jest mapa kraju wraz z pełnymi danymi oraz kontaktem.



www.marinepower.com



GB — Is your engine properly registered for warranty purpose? Please check on www.marinepower.com. If necessary, please contact your local dealer.

F — Votre moteur est-il correctement enregistré pour bénéficier de la garantie Marine Power? Vous pouvez le vérifier sur www.marinepower.com. En cas de besoin, veuillez contacter votre concessionnaire.

I — La garanzia del Vostro motore è stata registrata? Potete controllate sul sito www.marinepower.com. Se necessario contattate il Vostro Concessionario.

E — ¿Está su motor cubierto por la garantía? Compruébelo en www.marinepower.com. Si es necesario, contacte con su concesionario más próximo.

P — O seu motor está registado adequadamente para os efeitos de garantia? Por favor, comprove-o na página web www.marinepower.com. Se for necessário, não duvide em contactar com o concessionário mais próximo.

GR — Ελέγξτε εάν ο κινητήρας είναι εγγεγραμμένος σωστά στο www.marinepower.com. Αν χρειαστεί επικοινωνήστε με τον τοπικό αντιπρόσωπο.

D — Ist Ihr Motor sachgerecht zu Garantiezwecken registriert? Bitte konsultieren Sie: www.marinepower.com. Bei Bedarf, wenden Sie sich bitte an Ihren Händler vor Ort!

NL — Is uw motor correct geregistreerd voor garantie? Kijk het na op www.marinepower.com. Contacteer uw dealer indien nodig.

S — Är din motor garantiregistrerad? Kontrollera på www.marinepower.com. Kontakta din återförsäljare om så är nödvändigt.

N — Er din motor riktig registrert for garanti? Vennligst sjekk på www.marinepower.com. Hvis nødvendig, kontakt din lokale forhandler.

DK — Er din motor registreret af hensyn til garantien? Check venligst på www.marinepower.com. Hvis nødvendigt kontakt din lokale forhandler.

SF — Onko moottorisi rekisteröity takuuta varten? Voit tarkistaa asian internet osoitteesta www.marinepower.com. Jos tarpeellista, ota yhteyks paikalliseen jälleenmyyjään.

RUS — Правильно ли зарегистрирован ваш двигатель относительно гарантийных обязательств? Проверьте, пожалуйста, это в Интернете на сайте www.marinepower.com. При необходимости свяжитесь, пожалуйста, с вашим дилером.

TU — Motorunuzun garanti kaydını doğru olarak yaptımı? Lütfen www.marinepower.com adresinden kontrol ediniz. Gerekli ise, yerel bayinizle irtibat kurunuz.

PL — Czy Twój silnik został właściwie zarejestrowany dla celów gwarancyjnych? Sprawdź na stronie HYPERLINK <http://www.marinepower.com> www.marinepower.com. Jeśli istnieje taka potrzeba skontaktuj się z Twoim dealerem.



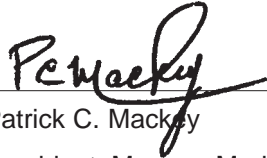
If the outboard motor's serial number plate contains the CE mark in the lower left-hand corner, the following statement applies:

This outboard motor manufactured by Mercury Marine, Fond du Lac, Wisconsin, USA or Marine Power Europe Inc. Park Industrial, de Petit-Rechain, Belgium complies with the requirements of the following directives and standards, as amended:

Recreational Craft Directive: 94/25/EC; std ISO 8665,
ISO 11547

Machinery Directive: 98/37/EC

EMC Directives: 89/336/EC; std. EN50081-1,
SAE J551 (CISPR Pub. 12).
EN 50082-1, IEC 61000 PT4-2,
IEC 61000 PT4-3,



Patrick C. Mackey

President, Mercury Marine, Fond du Lac, USA

European Regulations Contact:

Product Environmental Engineering Department, Mercury Marine,
Fond du Lac, WI USA

EUROPEAN COMMUNITY DECLARATION OF CONFORMITY

Issued in accordance with the
MARINE EQUIPMENT DIRECTIVE (MED) 96/98/EC
AS AMENDED TO THIS DATE

This is to certify that, in compliance with the Council Directive 96/98/EC of December 20th, 1996, as amended to this date, on marine equipment :

MARINE POWER EUROPE, Inc.

Parc Industriel de Petit-Rechain
B-4800 VERVIERS
BELGIUM

Declares that the product detailed below has been manufactured in accordance with the requirements of Annex B, Module D, " Production Quality Assurance" system as approved by Lloyd's Register (Notified Body n5 0038) to conform to type as described in the following EC Type Examination Certificate as issued by Lloyd's Register (Notified Body n5 0038) in accordance with Annex B, Module B. In addition, the product detailed below bears the conformity mark (ship's wheel mark) on the transom bracket.

Certificate N°:	MED0050423 Issued November 17, 2000	MED0050420 Issued November 17, 2000
Product Reference:	MERCURY 20-25 (all versions)	MERCURY 20-25 (all versions)
Product description:	Rescue Boat Propulsion Engine	

J. BRONCHART
General Manager

IMPORTANT NOTICE :

In accordance with the above-mentioned certificate :

- 1 Each engine shall be fitted with the manufacturer's recommended propeller, which when fitted to a rescue boat, shall also be fitted with a guard.
THE PROPELLER MAY NOT BE SUPPLIED AS FACTORY STANDARD EQUIPMENT.
THE PROPELLER GUARD IS NOT SUPPLIED AS FACTORY STANDARD EQUIPMENT.
- 2 When supplied for use on Fast Rescue Boats on Ro-ro Passenger ships to which IMO MSC/Circ.809 Annex applies, for compliance with Annex paragraph 4.1.8. the engine is to be equipped with the facilities necessary to enable it to be re-started following a capsized.
THESE FACILITIES ARE NOT SUPPLIED AS FACTORY STANDARD EQUIPMENT.

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The description and specifications contained herein were in effect at the time this manual was approved for printing. Mercury Marine, whose policy is one of continued improvement, reserves the right to discontinue models at any time, to change specifications, designs, methods, or procedures without notice and without incurring obligation.

Mercury Marine, Fond du Lac, Wisconsin U.S.A.

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WARRANTY INFORMATION

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TRANSFER OF WARRANTY

The limited warranty is transferable to a subsequent purchaser, but only for the remainder of the unused portion of the limited warranty. This will not apply to products used for commercial applications.

DIRECT SALE BY OWNER

The second owner can be registered as the new owner and retain the unused portion of the limited warranty by sending the former owner's plastic Owner Warranty Registration Card and a copy of the bill of sale to show proof of ownership. In the United States and Canada, mail to:

Mercury Marine
W6250 W. Pioneer Road
P.O. Box 1939
Fond du Lac, WI 54936-1939
Attn: Warranty Registration Department

A new Owner Warranty Registration Card will be issued with the new owner's name and address. Registration records will be changed on the factory computer registration file.

There is no charge for this service.

For products purchased outside the United States and Canada, contact the distributor in your country, or the Mercury Marine Service Office closest to you.

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WARRANTY REGISTRATION

United States And Canada

1. It is important that your selling dealer fills out the Warranty Registration Card completely and mails it to the factory immediately upon sale of the new product.
2. It identifies name and address of the original purchaser, product model and serial number(s), date of sale, type of use and selling dealer's code, name and address. The dealer also certifies that you are the original purchaser and user of the product.
3. Upon receipt of the Warranty Registration Card at the factory, you will be issued a plastic Owner Warranty Registration Card which is your only valid registration identification. It must be presented to the servicing dealer should warranty service be required. Warranty claims will not be accepted without presentation of this card.
4. A temporary Owner Warranty Registration Card will be presented to you when you purchase the product. It is valid only for 30 days from date of sale while your plastic Owner Warranty Registration Card is being processed. Should your product need service during this period, present the temporary registration card to the dealer. He will attach it to your warranty claim form.
5. Because of your selling dealer's continuing personal interest in your satisfaction, the product should be returned to him for warranty service.
6. If your plastic card is not received within 30 days from date of new product sale, please contact your selling dealer.
7. The limited warranty is not effective until the product is registered at the factory.

Note: Registration lists must be maintained by factory and dealer on marine products sold in the United States, should notification under the Federal Boat Safety Act be required.

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WARRANTY REGISTRATION

Outside The United States And Canada

1. It is important that your selling dealer fills out the Warranty Registration Card completely and mails it to the distributor or Marine Power Service Center responsible for administering the warranty registration/claim program for your area.
2. The Warranty Registration Card identifies your name and address, product model and serial number(s), date of sale, type of use and the selling distributor's/dealer's code number, name and address. The distributor/dealer also certifies that you are the original purchaser and user of the product.
3. A copy of the Warranty Registration Card, designated as the "Purchaser's Copy", MUST be given to you immediately after the card has been completely filled out by the selling distributor/dealer. This card represents your factory registration identification, and should be retained by you for future use when required. Should you ever require warranty service on this product, your dealer may ask you for the Warranty Registration Card to verify date of purchase and to use the information on the card to prepare the warranty claim form(s).
4. In some countries, the Marine Power Service Center will issue you a permanent (plastic) Warranty Registration Card within 30 days after receiving the "Factory Copy" of the Warranty Registration Card from your distributor/dealer. If you receive a plastic Warranty Registration Card, you may discard the "Purchaser's Copy" that you received from the distributor/dealer when you purchased the product. Ask your distributor/dealer if this plastic card program applies to you.
5. For further information concerning the Warranty Registration Card and its relationship to Warranty Claim processing, refer to the "International Warranty".

IMPORTANT: Registration lists must be maintained by the factory and dealer in some countries by law. It is our desire to have ALL products registered at the factory should it ever be necessary to contact you. Make sure your dealer/distributor fills out the warranty registration card immediately and sends the factory copy to the Marine Power International Service Center for your area.

MERCURY MARINE TWO YEARS LIMITED WARRANTY(EUROPE)

WHAT IS COVERED

Mercury Marine warrant each new Mercury Outboard, Mariner Outboard, Jet Products, Thruster Electric Trolling Motors, Mercruiser Inboard or Sterndrive engine products to be free of defects in material and workmanship during the period described below.

DURATION OF COVERAGE

This Limited Warranty provides coverage for two (2) years from the date the product is first sold to a recreational use retail purchaser, or the date on which the product is first put into service, whichever occurs first. Commercial users of these products receive warranty coverage of two (2) years from the date of first retail sale, or the accumulation of 500 hours of operation, whichever occurs first. Commercial use is defined as any work or employment related use of the product, or any use of the product which generates income, for any part of the warranty period, even if the product is only occasionally used for such purposes. The repair or replacement of parts, or the performance of service under this warranty, does not extend the life of this warranty beyond its original expiration date. Unexpired warranty coverage can be transferred to one recreational use to a subsequent recreational use customer upon proper re-registration of the product.

CONDITIONS THAT MUST BE MET IN ORDER TO OBTAIN WARRANTY COVERAGE

Warranty coverage is available only to retail customers that purchase from a Dealer authorized by Mercury Marine to distribute the product in the country in which the sale occurred, and then only after the Mercury Marine specified pre-delivery inspection process is completed and documented. Warranty coverage becomes available upon proper registration of the product by the authorized dealer. Inaccurate warranty registration information regarding recreational use, or subsequent change of use from recreational to commercial (unless properly re-registered) may void the warranty at the sole discretion of Mercury Marine. Routine maintenance outlined in the Operation and Maintenance Manual must be timely performed in order to maintain warranty coverage. If this maintenance is performed by the retail customer Mercury Marine reserves the right to make future warranty coverage contingent on proof of proper maintenance.

WHAT MERCURY WILL DO

Mercury's sole and exclusive obligation under this warranty is limited to, at our option, repairing a defective part, replacing such part or parts with new or Mercury Marine certified re-manufactured parts, or refunding the purchase price of the Mercury product. Mercury reserves the right to improve or modify products from time to time without assuming an obligation to modify products previously manufactured.

HOW TO OBTAIN WARRANTY COVERAGE

The customer must provide Mercury with a reasonable opportunity to repair, and reasonable access to the product for warranty service. Warranty claims shall be made by delivering the product for inspection to a Mercury dealer authorized to service the product. If purchaser cannot deliver the product to such a dealer, written notice must be given to Mercury. We will then arrange for the inspection and any covered repair. Purchaser in that case shall pay for all related transportation charges and/or travel time. If the service provided is not covered by this warranty, purchaser shall pay for all related labor and material, and any other expenses associated with that service. Purchaser shall not, unless requested by Mercury, ship the product or parts of the product directly to Mercury. The warranty registration card is the only valid registration identification and must be presented to the dealer at the time warranty service is requested in order to obtain coverage.

WHAT IS NOT COVERED

This limited warranty does not cover routine maintenance items, tune ups, adjustments, normal wear and tear, damage caused by abuse, abnormal use, use of a propeller or gear ratio that does not allow the engine to run in its recommended wide-open-throttle RPM range (see the Operation and Maintenance Manual), operation of the product in a manner inconsistent with the recommended operation/duty cycle section of the Operation and Maintenance Manual, neglect, accident, submersion, improper installation (proper installation specifications and techniques are set forth in the installation instructions for the product), improper service, use of an accessory or part not manufactured or sold by us, jet pump impellers and liners, operation with fuels, oils or lubricants which are not suitable for use with the product (see the Operation and Maintenance Manual), alteration or removal of parts, or water entering the engine through the fuel intake, air intake or exhaust system. Use of the product for racing or other competitive activity, or operating with a racing type lower unit, at any point, even by a prior owner of the product, voids the warranty.

Expenses related to haul-out, launch, towing, storage, telephone, rental, inconvenience, slip fees, insurance coverage, loan payments, loss of time, loss of income, or any other type of incidental or consequential damages are not covered by this warranty. Also, expenses associated with the removal and/or replacement of boat partitions or material caused by boat design for access to the product are not covered by this warranty.

No individual or entity, including Mercury Marine authorized dealers, has been given authority by Mercury Marine to make any affirmation, representation or warranty regarding the product, other than those contained in this limited warranty, and if made, shall not be enforceable against Mercury Marine.

For additional information regarding events and circumstances covered by this warranty, and those that are not, see the Warranty Coverage section of the Operation and Maintenance Manual, incorporated by reference into this warranty.

DISCLAIMERS AND LIMITATIONS:

THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY DISCLAIMED. TO THE EXTENT THAT THEY CANNOT BE DISCLAIMED, THE IMPLIED WARRANTIES ARE LIMITED IN DURATION TO THE LIFE OF THE EXPRESS WARRANTY. INCIDENTAL AND CONSEQUENTIAL DAMAGES ARE EXCLUDED FROM COVERAGE UNDER THIS WARRANTY. SOME STATES/COUNTRIES DO NOT ALLOW FOR THE DISCLAIMERS, LIMITATIONS AND EXCLUSIONS IDENTIFIED ABOVE, AS A RESULT, THEY MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER LEGAL RIGHTS WHICH VARY FROM STATE TO STATE AND COUNTRY TO COUNTRY.

MERCURY MARINE ONE YEAR LIMITED WARRANTY(CONFEDERATION OF INDEPENDENT STATES, MIDDLE- EAST, AFRICA)

WHAT IS COVERED

Mercury Marine warrant each new Mercury outboard, Mariner outboard, Jet Products, Thruster Electric Trolling Motors, Mercruiser Inboard or Stern drive engine products to be free of defects in material and workmanship during the period described below.

DURATION OF COVERAGE

This Limited Warranty provides coverage for one (1) year from the date the product is first sold to a recreational use retail purchaser, or the date on which the product is first put into service, whichever occurs first. Commercial users of these products receive warranty coverage of one (1) years from the date of first retail sale, or the accumulation of 500 hours of operation, whichever occurs first. Commercial use is defined as any work or employment related use of the product, or any use of the product which generates income, for any part of the warranty period, even if the product is only occasionally used for such purposes. The repair or replacement of parts, or the performance of service under this warranty, does not extend the life of this warranty beyond its original expiration date. Unexpired warranty coverage can be transferred to a subsequent purchaser upon proper re-registration of the product.

CONDITIONS THAT MUST BE MET IN ORDER TO OBTAIN WARRANTY COVERAGE

Warranty coverage is available only to retail customers that purchase from a Dealer authorized by Mercury Marine to distribute the product in the country in which the sale occurred, and then only after the Mercury Marine specified pre-delivery inspection process is completed and documented. Warranty coverage becomes available upon proper registration of the product by the authorized dealer. Inaccurate warranty registration information regarding recreational use, or subsequent change of use from recreational to commercial (unless properly re-registered) may void the warranty at the sole discretion of Mercury Marine. Routine maintenance outlined in the Operation and Maintenance Manual must be timely performed in order to maintain warranty coverage. If this maintenance is performed by the retail customer Mercury Marine reserves the right to make future warranty coverage contingent on proof of proper maintenance.

WHAT MERCURY WILL DO

Mercury's sole and exclusive obligation under this warranty is limited to, at our option, repairing a defective part, replacing such part or parts with new or Mercury Marine certified re-manufactured parts, or refunding the purchase price of the Mercury product. Mercury reserves the right to improve or modify products from time to time without assuming an obligation to modify products previously manufactured.

HOW TO OBTAIN WARRANTY COVERAGE

The customer must provide Mercury with a reasonable opportunity to repair, and reasonable access to the product for warranty service. Warranty claims shall be made by delivering the product for inspection to a Mercury dealer authorized to service the product. If purchaser cannot deliver the product to such a dealer, written notice must be given to Mercury. We will then arrange for the inspection and any covered repair. Purchaser in that case shall pay for all related transportation charges and/or travel time. If the service provided is not covered by this warranty, purchaser shall pay for all related labor and material, and any other expenses associated with that service. Purchaser shall not, unless requested by Mercury, ship the product or parts of the product directly to Mercury. The warranty registration card is the only valid registration identification and must be presented to the dealer at the time warranty service is requested in order to obtain coverage.

WHAT IS NOT COVERED

This limited warranty does not cover routine maintenance items, tune ups, adjustments, normal wear and tear, damage caused by abuse, abnormal use, use of a propeller or gear ratio that does not allow the engine to run in its recommended wide-open-throttle RPM range (see the Operation and Maintenance Manual), operation of the product in a manner inconsistent with the recommended operation/duty cycle section of the Operation and Maintenance Manual, neglect, accident, submersion, improper installation (proper installation specifications and techniques are set forth in the installation instructions for the product), improper service, use of an accessory or part not manufactured or sold by us, jet pump impellers and liners, operation with fuels, oils or lubricants which are not suitable for use with the product (see the Operation and Maintenance Manual), alteration or removal of parts, or water entering the engine through the fuel intake, air intake or exhaust system. Use of the product for racing or other competitive activity, or operating with a racing type lower unit, at any point, even by a prior owner of the product, voids the warranty.

Expenses related to haul-out, launch, towing, storage, telephone, rental, inconvenience, slip fees, insurance coverage, loan payments, loss of time, loss of income, or any other type of incidental or consequential damages are not covered by this warranty. Also, expenses associated with the removal and/or replacement of boat partitions or material caused by boat design for access to the product are not covered by this warranty.

No individual or entity, including Mercury Marine authorized dealers, has been given authority by Mercury Marine to make any affirmation, representation or warranty regarding the product, other than those contained in this limited warranty, and if made, shall not be enforceable against Mercury Marine.

For additional information regarding events and circumstances covered by this warranty, and those that are not, see the Warranty Coverage section of the Operation and Maintenance Manual, incorporated by reference into this warranty.

DISCLAIMERS AND LIMITATIONS:

THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY DISCLAIMED. TO THE EXTENT THAT THEY CANNOT BE DISCLAIMED, THE IMPLIED WARRANTIES ARE LIMITED IN DURATION TO THE LIFE OF THE EXPRESS WARRANTY. INCIDENTAL AND CONSEQUENTIAL DAMAGES ARE EXCLUDED FROM COVERAGE UNDER THIS WARRANTY. SOME STATES/COUNTRIES DO NOT ALLOW FOR THE DISCLAIMERS, LIMITATIONS AND EXCLUSIONS IDENTIFIED ABOVE, AS A RESULT, THEY MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER LEGAL RIGHTS WHICH VARY FROM STATE TO STATE AND COUNTRY TO COUNTRY.

3 YEAR LIMITED WARRANTY AGAINST CORROSION FAILURE

WHAT IS COVERED

Mercury Marine warrants each new Mercury outboard, Mariner outboard, Mercury Racing, Jet Products, Thruster Electric Motor, Mercury Racing, Tracker by Mercury Marine Outboard, Mercruiser Inboard or sterndrive engine (Product) rendered inoperative as a direct result of corrosion for the period of time described below.

DURATION OF COVERAGE

This limited corrosion warranty provides coverage for three (3) years from the date the product is first sold, or the date on which the product is first put into service, whichever occurs first. The repair or replacement of parts, or the performance of service under this warranty does not extend the life of this warranty beyond its original expiration date. Unexpired warranty coverage can be transferred to subsequent (noncommercial use) purchaser upon proper re-registration of the product.

CONDITIONS THAT MUST BE MET IN ORDER TO OBTAIN WARRANTY COVERAGE

Warranty coverage is available only to retail customers that purchase from a Dealer authorized by Mercury Marine to distribute the product in the country in which the sale occurred, and then only after the Mercury Marine specified pre-delivery inspection process is completed and documented. Warranty coverage becomes available upon proper registration of the product by the authorized dealer. Corrosion prevention devices specified in the Operation and Maintenance Manual must be in use on the boat, and routine maintenance outlined in the Operation and Maintenance Manual must be timely performed (including without limitation the replacement of sacrificial anodes, use of specified lubricants, and touch-up of nicks and scratches) in order to maintain warranty coverage. If this maintenance is performed by the retail customer Mercury Marine reserves the right to make future warranty coverage contingent on proof of proper maintenance.

WHAT MERCURY WILL DO

Mercury's sole and exclusive obligation under this warranty is limited to, at our option, repairing a corroded part, replacing such part or parts with new or Mercury Marine certified re-manufactured parts, or refunding the purchase price of the Mercury product. Mercury reserves the right to improve or modify products from time to time without assuming an obligation to modify products previously manufactured.

HOW TO OBTAIN WARRANTY COVERAGE

The customer must provide Mercury with a reasonable opportunity to repair, and reasonable access to the product for warranty service. Warranty claims shall be made by delivering the product for inspection to a Mercury dealer authorized to service the product. If purchaser cannot deliver the product to such a dealer, written notice must be given to Mercury. We will then arrange for the inspection and any covered repair. Purchaser in that case shall pay for all related transportation charges and/or travel time. If the service provided is not covered by this warranty, purchaser shall pay for all related labor and material, and any other expenses associated with that service. Purchaser shall not, unless requested by Mercury, ship the product or parts of the product directly to Mercury. The warranty registration card is the only valid registration identification and must be presented to the dealer at the time warranty service is requested in order to obtain coverage.

WHAT IS NOT COVERED

This limited warranty does not cover electrical system corrosion; corrosion resulting from damage, corrosion which causes purely cosmetic damage, abuse or improper service; corrosion to accessories, instruments, steering systems; corrosion to factory installed jet drive unit; damage due to marine growth; product sold with less than a one year limited Product warranty; replacement parts (parts purchased by customer); products used in a commercial application. Commercial use is defined as any work or employment related use of the product, or any use of the product which generates income, for any part of the warranty period, even if the product is only occasionally used for such purposes.

Corrosion damage caused by stray electrical currents (on-shore power connections, nearby boats, submerged metal) is not covered by this corrosion warranty and should be protected against by the use of a corrosion protection system, such as the Mercury Precision Parts or Quicksilver MerCathode system and/or Galvanic Isolator. Corrosion damage caused by improper application of copper base anti-fouling paints is also not covered by this limited warranty. If anti-fouling protection is required, Tri-Butyl-Tin-Adipate (TBTA) base anti-fouling paints are recommended on Outboard and MerCruiser boating applications. In areas where TBTA base paints are prohibited by law, copper base paints can be used on the hull and transom. Do not apply paint to the outboard or MerCruiser product. In addition, care must be taken to avoid an electrical interconnection between the warranted product and the paint. Refer to the Operation and Maintenance Manual for additional details.

For additional information regarding events and circumstances covered by this warranty, and those that are not, see the Warranty Coverage section of the Operation and Maintenance Manual, incorporated by reference into this warranty.

DISCLAIMERS AND LIMITATIONS:

THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY DISCLAIMED. TO THE EXTENT THAT THEY CANNOT BE DISCLAIMED, THE IMPLIED WARRANTIES ARE LIMITED IN DURATION TO THE LIFE OF THE EXPRESS WARRANTY. INCIDENTAL AND CONSEQUENTIAL DAMAGES ARE EXCLUDED FROM COVERAGE UNDER THIS WARRANTY. SOME STATES/COUNTRIES DO NOT ALLOW FOR THE DISCLAIMERS, LIMITATIONS AND EXCLUSIONS IDENTIFIED ABOVE, AS A RESULT, THEY MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER LEGAL RIGHTS WHICH VARY FROM STATE TO STATE AND COUNTRY TO COUNTRY.

WARRANTY INFORMATION

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WARRANTY COVERAGE AND EXCLUSIONS

The purpose of this section is to help eliminate some of the more common misunderstandings regarding warranty coverage. The following information explains some of the types of services that are not covered by warranty. The provisions set forth following have been incorporated by reference into the Three-Year Limited Warranty Against Corrosion Failure, the International Limited Outboard Warranty, and the United States and Canada Limited Outboard Warranty.

Keep in mind that warranty covers repairs that are needed within the warranty period because of defects in material and workmanship. Installation errors, accidents, normal wear, and a variety of other causes that affect the product are not covered.

Warranty is limited to defects in material or workmanship, but only when the consumer sale is made in the country to which distribution is authorized by us.

Should you have any questions concerning warranty coverage, contact your authorized dealer. They will be pleased to answer any questions that you may have.

General exclusions from warranty:

1. Minor adjustments and tune-ups, including checking, cleaning or adjusting spark plugs, ignition components, carburetor settings, filters, belts, controls, and checking lubrication made in connection with normal services.
2. Factory Installed Jet Drive units - Specific parts excluded from the warranty are: The jet drive impeller and jet drive liner damaged by impact or wear, and water damaged drive shaft bearings as a result of improper maintenance.
3. Damage caused by neglect, lack of maintenance, accident, abnormal operation or improper installation or service.
4. Haul-out, launch, towing charges, removal and/or replacement of boat partitions or material because of boat design for necessary access to the product, all related transportation charges and/or travel time, etc. Reasonable access must be provided to the product for warranty service. Customer must deliver product to an authorized dealer.
5. Additional service work requested by customer other than that necessary to satisfy the warranty obligation.

WARRANTY COVERAGE

op6

WARRANTY COVERAGE AND EXCLUSIONS

6. Labor performed by other than an authorized dealer may be covered only under following circumstances: When performed on emergency basis (providing there are no authorized dealers in the area who can perform the work required or have no facilities to haul out, etc., and prior factory approval has been given to have the work performed at this facility).
7. All incidental and/or consequential damages (storage charges, telephone or rental charges of any type, inconvenience or loss of time or income) are the owner's responsibility.
8. Use of other than Mercury Precision or Quicksilver replacement parts when making warranty repairs.
9. Oils, lubricants or fluids changed as a matter of normal maintenance is customer's responsibility unless loss or contamination of same is caused by product failure that would be eligible for warranty consideration.
10. Participating in or preparing for racing or other competitive activity or operating with a racing type lower unit.
11. Engine noise does not necessarily indicate a serious engine problem. If diagnosis indicates a serious internal engine condition which could result in a failure, condition responsible for noise should be corrected under the warranty.
12. Lower unit and/or propeller damage caused by striking a submerged object is considered a marine hazard.
13. Water entering engine through the fuel intake, air intake or exhaust system. or submersion.
14. Failure of any parts caused by lack of cooling water, which results from starting motor out of water, foreign material blocking inlet holes, motor being mounted too high or trimmed too far out.
15. Use of fuels and lubricants which are not suitable for use with or on the product. Refer to the Maintenance Section.
16. Our limited warranty does not apply to any damage to our products caused by the installation or use of parts and accessories which are not manufactured or sold by us. Failures which are not related to the use of those parts or accessories are covered under warranty if they otherwise meet the terms of the limited warranty for that product.

GENERAL INFORMATION

oba1

BOATER'S RESPONSIBILITIES

The operator (driver) is responsible for the correct and safe operation of the boat and safety of its occupants and general public. It is strongly recommended that each operator (driver) read and understand this entire manual before operating the outboard.

Be sure at least one additional person on board is instructed in the basics of starting and operating the outboard and boat handling in case the driver is unable to operate the boat.

obb1

BEFORE OPERATING YOUR OUTBOARD

Read this manual carefully. Learn how to operate your outboard properly. If you have any questions, contact your dealer.

Safety and operating information that is practiced along with using good common sense can help prevent personal injury and product damage.

This manual as well as safety labels posted on the outboard use the following safety alerts to draw your attention to special safety instructions that should be followed.

⚠ DANGER

DANGER - Immediate hazards which **WILL** result in severe personal injury or death.

⚠ WARNING

WARNING - Hazards or unsafe practices which **COULD** result in severe personal injury or death.

⚠ CAUTION

CAUTION - Hazards or unsafe practices which could result in minor injury or product or property damage.

gob1

U.S. COAST GUARD CAPACITY

MAXIMUM HORSEPOWER	XXX
MAXIMUM PERSON CAPACITY (POUNDS)	XXX
MAXIMUM WEIGHT CAPACITY	XXX

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abc1

BOAT HORSEPOWER CAPACITY

- Do not overpower or overload your boat. Most boats will carry a required capacity plate indicating the maximum acceptable power and load as determined by the manufacturer following certain federal guidelines. If in doubt, contact your dealer or the boat manufacturer.

⚠ WARNING

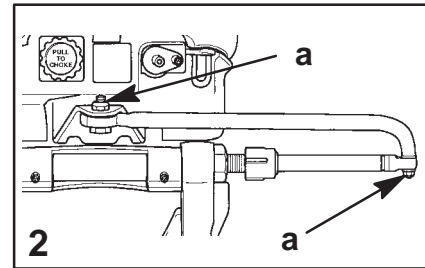
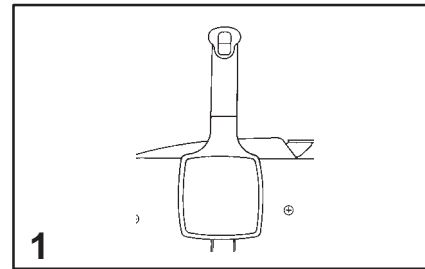
Using an outboard that exceeds the maximum horsepower limit of a boat can: 1. cause loss of boat control 2. place too much weight at the transom altering the designed flotation characteristics of the boat or 3. cause the boat to break apart particularly around the transom area. Overpowering a boat can result in serious injury, death or boat damage.

oba21

HIGH-SPEED AND HIGH-PERFORMANCE BOAT OPERATION

If your outboard is to be used on a high-speed or high-performance boat with which you are unfamiliar, we recommend that you never operate it at its high speed capability without first requesting an initial orientation and familiarization demonstration ride with your dealer or an operator experienced with your boat/outboard combination. For additional information, obtain a copy of our "Hi-Performance Boat Operation" booklet (Part Number 90-848481) from your dealer, distributor, or Mercury Marine.

gob10



obe2

OUTBOARD REMOTE CONTROL (IF EQUIPPED)

- The remote control connected to your outboard must be equipped with a "start-in-neutral" only protection device. This prevents the engine from starting when the shift is actuated in any position other than neutral.

⚠ WARNING

Avoid serious injury or death from a sudden unexpected acceleration when starting your engine. The design of this outboard requires that the remote control used with it must have a built in "start-in-neutral" only protection device.

gob1

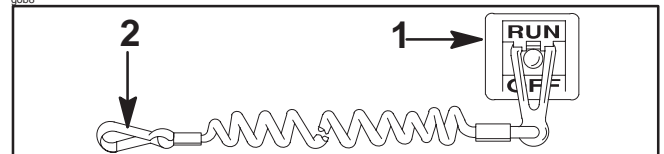
REMOTE STEERING NOTICE

- The steering link rod that connects the steering cable to the engine must be fastened utilizing self-locking nuts (a). These self-locking nuts must never be replaced with common nuts (non locking) as they will work loose and vibrate off, freeing the link rod to disengage.

⚠ WARNING

Disengagement of a steering link rod can result in the boat taking a full, sudden, sharp turn. This potentially violent action can cause occupants to be thrown overboard exposing them to serious injury or death.

gob8



oba6

LANYARD STOP SWITCH

- The purpose of a lanyard stop switch is to turn off the engine when the operator moves far enough away from the operator's position (as in accidental ejection from the operator's position) to activate the switch. Tiller handle outboards and some remote control units are equipped with a lanyard stop switch. A lanyard stop switch can be installed as an accessory - generally on the dashboard or side adjacent to the operator's position.
- The lanyard is a cord usually between 4 and 5 feet (1220 and 1524 mm) in length when stretched out with an element on one end made to be inserted into the switch and a snap on the other end for attaching to the operator. The lanyard is coiled to make its at-rest condition as short as possible so as to minimize the likelihood of lanyard entanglement with nearby objects. It is made as long as it is in its stretched condition to minimize the likelihood of accidental activation should the operator choose to move around in an area close to the normal operator's position. If it is desired to have a shorter lanyard, wrap the lanyard around the operator's wrist or leg, or tie a knot in the lanyard.

GENERAL INFORMATION

LANYARD STOP SWITCH (CONTINUED)

Read the following Safety Information before proceeding.

Important Safety Information: The purpose of a lanyard stop switch is to stop the engine when the operator moves far enough away from the operator's position to activate the switch. This would occur if the operator accidentally falls overboard or moves within the boat a sufficient distance from the operator's position. Accidental ejections and falls overboard are more likely to occur in certain types of boats such as low sided inflatables or bass boats, high-performance boats and light, sensitive-handling fishing boats operated by hand-tiller. Accidental ejections and falls overboard are also likely to occur as a result of poor operating practices such as sitting on the back of the seat or gunwale at planing speeds, standing at planing speeds, sitting on elevated fishing boat decks, operating at planing speeds in shallow or obstacle-infested waters, releasing your grip on a steering wheel or tiller handle that is pulling in one direction, drinking alcohol or consuming drugs, or daring, high-speed boat maneuvers.

While activation of the lanyard stop switch will stop the engine immediately, a boat will continue to coast for some distance depending upon the velocity and degree of any turn at shut-down. However, the boat will not complete a full circle. While the boat is coasting, it can cause injury to anyone in the boat's path as seriously as the boat would when under power.

We strongly recommend that other occupants be instructed on proper starting and operating procedures should they be required to operate the engine in an emergency (e.g. if the operator is accidentally ejected).

⚠ WARNING

Should the operator fall out of the boat, the possibility of serious injury or death from being run over by the boat can be greatly reduced by stopping the engine immediately. Always properly connect both ends of the stop switch lanyard - to the stop switch and the operator.

Accidental or unintended activation of the switch during normal operation is also a possibility. This could cause any, or all, of the following potentially hazardous situations:

1. Occupants could be thrown forward due to unexpected loss of forward motion - a particular concern for passengers in the front of the boat who could be ejected over the bow and possibly struck by the gear case or propeller.
2. Loss of power and directional control in heavy seas, strong current or high winds.
3. Loss of control when docking.

⚠ WARNING

Avoid serious injury or death from deceleration forces resulting from accidental or unintended stop switch activation. The boat operator should never leave the operator's station without first disconnecting the stop switch lanyard from the operator.

gab3



obh2

PROTECTING PEOPLE IN THE WATER

While You are Cruising

It is very difficult for a person standing or floating in the water to take quick action to avoid a boat heading in his/her direction even at slow speed.

Always slow down and exercise extreme caution any time you are boating in an area where there might be people in the water.

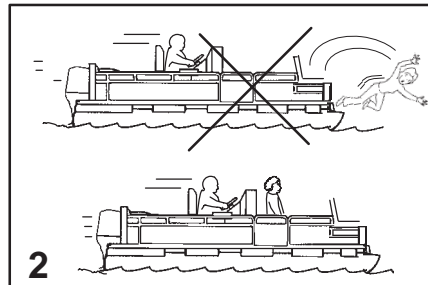
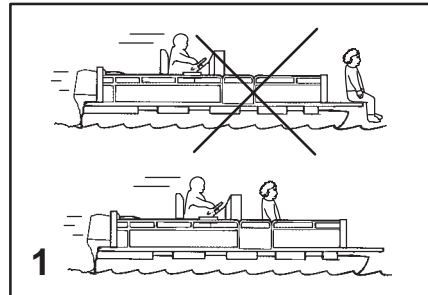
Whenever a boat is moving (coasting) and the outboard gear shift is in neutral position, there is sufficient force by the water on the propeller to cause the propeller to rotate. This neutral propeller rotation can cause serious injury.

While Boat is Stationary

Shift outboard into neutral and shut off the engine before allowing people to swim or be in the water near your boat.

⚠ WARNING

Stop your engine immediately whenever anyone in the water is near your boat. Serious injury to the person in the water is likely if contacted by a rotating propeller, a moving boat, a moving gear case, or any solid device rigidly attached to a moving boat or gear case.



obh2

PASSENGER SAFETY MESSAGE - PONTOON BOATS AND DECK BOATS

Whenever the boat is in motion, observe the location of all the passengers. Do not allow any passengers to stand or use seats other than those designated for traveling faster than idle speed, because a sudden reduction in boat speed, such as the result of plunging into a large wave or wake, a sudden throttle reduction, or a sharp change of boat direction, could throw them over the front of boat. Falling over the front of the boat between the two pontoons will position them to be run over by the outboard.

1 Boats having an open front deck:

No one should ever be on the deck in front of the fence while the boat is in motion. Keep all passengers behind the front fence or enclosure.

Persons on the front deck could easily be thrown overboard or persons dangling their feet over the front edge could get their legs caught by a wave and pulled into the water.

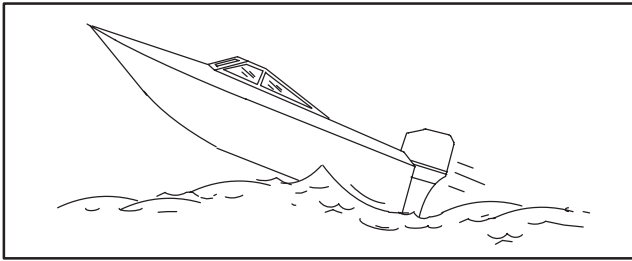
2 Boats with front-mounted, raised pedestal fishing seats:

These elevated fishing seats are not intended for use when the boat is traveling faster than idle or trolling speed. Sit only in seats designated for traveling at faster speeds.

Any unexpected sudden reduction in boat speed could result in the elevated passenger falling over the front of the boat.

⚠ WARNING

Avoid serious injury or death from falling over the front end of a pontoon or deck boat and being run over by the outboard. Stay back from the front end of the deck and remain seated while the boat is in motion.



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GENERAL INFORMATION

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WAVE AND WAKE JUMPING

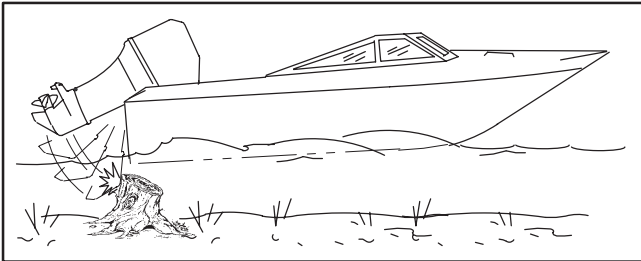
Operating recreational boats over waves and wakes is a natural part of boating. However, when this activity is done with sufficient speed to force the boat hull partially or completely out of the water, certain hazards arise, particularly when the boat re-enters the water.

The primary concern is the boat changing direction while in the midst of the jump. In such case the landing may cause the boat to veer violently in a new direction. Such a sharp change in direction can cause occupants to be thrown out of their seats, or out of the boat.

There is another less common hazardous result from allowing your boat to launch off a wave or wake. If the bow of your boat pitches down far enough while airborne, upon water contact it may penetrate under the water surface and "submarine" for an instant. This will bring the boat to a nearly instantaneous stop and can send the occupants flying forward. The boat may also steer sharply to one side.

⚠ WARNING

Avoid serious injury or death from being thrown within or out of a boat when it lands after jumping a wave or wake. Avoid wave or wake jumping whenever possible. Instruct all occupants that if a wake or wave jump occurs, get low and hang on to any boat hand hold.



ob15

IMPACT WITH UNDERWATER HAZARDS

Reduce speed and proceed with caution whenever you drive a boat in shallow water areas or in areas where you suspect of underwater obstacles may exist which could be struck by the outboard or the boat bottom. **The most important thing you can do to help reduce injury or impact damage from striking a floating or underwater object is to control the boat speed. Under these conditions, boat speed should be kept to a minimum planing speed (15 to 25 MPH).**

⚠ WARNING

To avoid serious injury or death from all or part of an outboard coming into the boat after striking a floating or underwater obstacle maintain a top speed no greater than minimum planing speed.

Striking a floating or underwater object could result in an infinite number of situations. Some of these situations could result in the following:

- Part of the outboard or the entire outboard could break loose and fly into the boat.
- The boat could move suddenly in a new direction. Such a sharp change in direction can cause occupants to be thrown out of their seats or out of the boat.
- A rapid reduction in speed. This will cause occupants to be thrown forward, or even out of the boat.
- Impact damage to the outboard and/or boat.

obn7r

IMPACT WITH UNDERWATER HAZARDS

Keep in mind, the most important thing you can do to help reduce injury or impact damage in these situations is control the boat speed. Boat speed should be kept to a minimum planing speed when driving in waters known to have underwater obstacles.

After striking a submerged object, stop the engine as soon as possible and inspect the outboard for any broken or loose parts. If damage is present or suspected, the outboard should be taken to an authorized dealer for a thorough inspection and necessary repair.

The boat should also be checked for any hull fractures, transom fractures, or water leaks.

Operating a damaged outboard could cause additional damage to other parts of the outboard, or could affect control of the boat. If continued running is necessary, do so at greatly reduced speeds.

⚠ WARNING

Avoid serious injury or death from loss of boat control. Continued boating with major impact damage can result in sudden outboard component failure with or without subsequent impacts. Have the outboard thoroughly inspected and any necessary repairs made.

Additional safety instructions for Hand tilted outboards

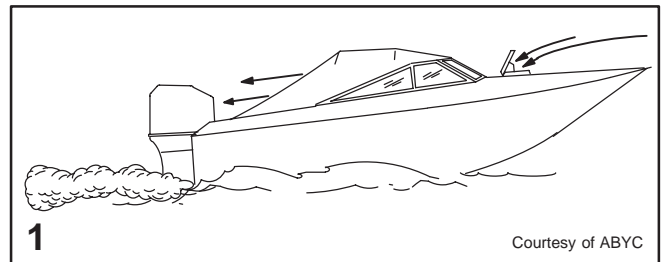
If an obstacle is struck at planing speed and the outboard is not fastened to the boat transom with through bolts in addition to the transom bracket clamp screws, it is possible that the outboard could fly off the transom and possibly land in the boat.

⚠ WARNING

Avoid serious injury or death from being struck by a disconnected outboard. Do not boat above idle speed in water suspected of containing underwater obstacles if the outboard is not bolted to the transom.

When operating a hand tilted outboard, no operator, passenger, or cargo should occupy the space directly in front of the outboard. This space may be violently filled by the outboard if the outboard should kick up from striking an underwater obstacle.

gob4



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Courtesy of ABYC

obi2

EXHAUST EMISSIONS

Be Alert To Carbon Monoxide Poisoning

Carbon monoxide is present in the exhaust fumes of all internal combustion engines including the outboards, stern drives and inboard engines that propel boats, as well as the generators that power various boat accessories. Carbon monoxide is a deadly gas that is odorless, colorless and tasteless.

Early symptoms of carbon monoxide poisoning which should not be confused with seasickness or intoxication, include headache, dizziness, drowsiness, and nausea.

⚠ WARNING

Avoid the combination of a running engine and poor ventilation. Prolonged exposure to carbon monoxide in sufficient concentration can lead to unconsciousness, brain damage, or death.

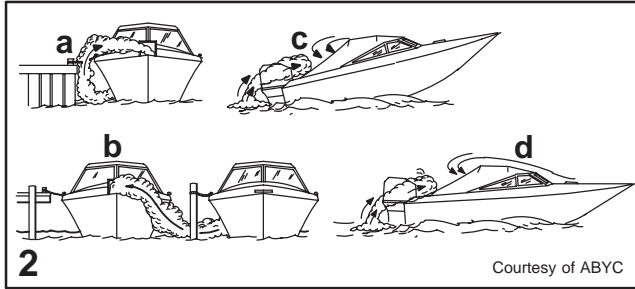
Good Ventilation

Ventilate passenger area, open side curtains, or forward hatches to remove fumes.

1 Example of Desired air flow through the boat

GENERAL INFORMATION

gob39



obi3

Poor Ventilation

Under certain running and/or wind conditions, permanently enclosed or canvas enclosed cabins or cockpits with insufficient ventilation may draw in carbon monoxide. Install one or more carbon monoxide detectors in your boat.

Although the occurrence is rare, on a very calm day, swimmers and passengers in an unclosed area of a stationary boat that contains or is near a running engine may be exposed to a hazardous level of carbon monoxide.

2 Examples of Poor Ventilation:

While boat is stationary

- Running the engine when the boat is moored in a confined space.
- Mooring close to another boat that has its engine running.

While boat is moving

- Running the boat with the trim angle of the bow too high.
- Running the boat with no forward hatches open (station wagon effect).

obj2

SELECTING ACCESSORIES FOR YOUR OUTBOARD

Genuine Mercury Precision or Quicksilver Accessories have been specifically designed and tested for your outboard. These accessories are available from Mercury Marine dealers.

Some accessories not manufactured or sold by Mercury Marine are not designed to be safely used with your outboard or outboard operating system. Acquire and read the installation, operation, and maintenance manuals for all your selected accessories.

WARNING

Check with your dealer before installation of accessories. The misuse of acceptable accessories or the use of unacceptable accessories can result in serious injury, death, or product failure.

obk1

SAFE BOATING SUGGESTIONS

In order to safely enjoy the waterways, familiarize yourself with local and other governmental boating regulations and restrictions, and consider the following suggestions.

Use flotation devices. Have an approved personal flotation device of suitable size for each person aboard (it is the law) and have it readily accessible.

Do not overload your boat. Most boats are rated and certified for maximum load (weight) capacities (refer to your boat capacity plate). If in doubt, contact your dealer or the boats manufacturer.

Perform safety checks and required maintenance. Follow a regular schedule and ensure that all repairs are properly made.

Know and obey all nautical rules and laws of the waterways. Boat operators should complete a boating safety course. Courses are offered in the U.S.A. by (1) The U.S. Coast Guard Auxiliary, (2) The Power Squadron, (3) The Red Cross and (4) your state boating law enforcement agency. Inquiries may be made to the Boating Hot-line, 1-800-368-5647 or the Boat U.S. Foundation information number 1-800-336-BOAT.

Make sure everyone in the boat is properly seated. Don't allow anyone to sit or ride on any part of the boat that was not intended for such use. This includes backs of seats, gunwales, transom, bow, decks, raised fishing seats, any rotating fishing seat; anywhere that sudden unexpected acceleration, sudden stopping, unexpected loss of boat control or sudden boat movement could cause a person to be thrown overboard or into the water.

Never be under the influence of alcohol or drugs while boating (it is the law). They impair your judgment and greatly reduce your ability to react quickly.

Prepare other boat operators. Instruct at least one person on board in the basics of starting and operating the jet outboard and boat handling in case the driver becomes disabled or falls overboard.

Passenger boarding. Stop the engine whenever passengers are boarding, unloading or are near the back (stern) of the boat. Just shifting the outboard into neutral is not sufficient.

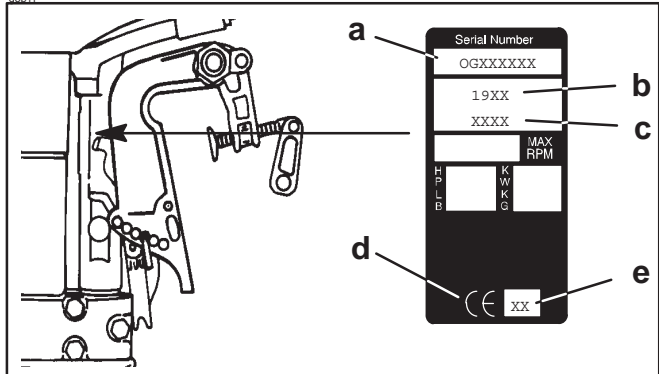
Be alert. The operator of the boat is responsible by law to "maintain a proper lookout by sight (and hearing)." The operator must have an unobstructed view particularly to the front. No passengers, load, or fishing seats should block the operators view when operating the boat above idle speed.

Never drive your boat directly behind a water skier in case the skier falls. As an example, your boat traveling at 25 miles per hour (40 km/hr) in 5 seconds will overtake a fallen skier who was 200 feet (61m) in front of you.

Watch fallen skiers. When using your boat for water skiing or similar activities, always keep a fallen or down skier on the operator's side of the boat while returning to attend the skier. The operator should always have the down skier in sight and never back up to the skier or anyone in the water.

Report accidents. Boat operators are required by law to file a Boating Accident Report with their state boating law enforcement agency when their boat is involved in certain boating accidents. A boating accident must be reported if (1) there is loss of life or probable loss of life, (2) there is personal injury requiring medical treatment beyond first aid, (3) there is damage to boats or other property where the damage value exceeds \$500.00 or (4) there is complete loss of the boat. Seek further assistance from local law enforcement.

gob11



obi2

RECORDING SERIAL NUMBER

It is important to record this number for future reference. The serial number is located on the outboard as shown.

- Serial Number
- Model Year
- Model Designation
- Year Manufactured
- Certified Europe Insignia (as Applicable)

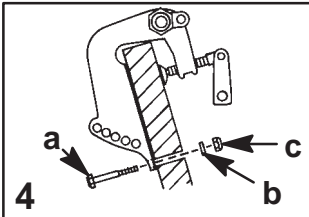
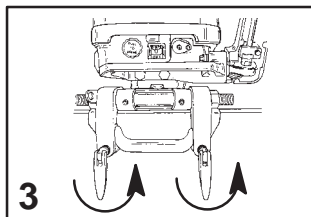
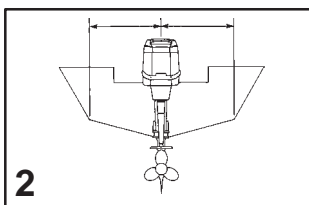
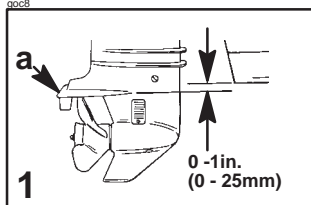
obm5

SPECIFICATIONS

Models	20	25
Horsepower	20	25
Kilowatts	14.8	18.6
Full Throttle RPM Range	4500-5500	5000-6000
Idle Speed in Forward Gear	750 ± 50 RPM	
Number of Cylinders	2	
Piston Displacement	24.4 cu. in. (400cc)	
Cylinder Bore	2.560 in. (65mm)	
Piston Stroke	2.360 in. (60mm)	
Recommended Spark Plug	NGK BP8H-N-10*	
Spark Plug Gap	.040 in. (1.0mm)	
Gear Ratio	2.25:1	
Recommended Gasoline	Refer to Fuel Section	
Recommended Oil	Refer to Fuel Section	
Gear Case Lubricant Capacity	8.8 fl. oz. (260ml)	
Battery Rating	465 Marine Cranking Amps (MCA) or 350 Cold Cranking Amps (CCA)	

* Use NGK BP28H-N-10 spark plug Where radio frequency interference (RFI) suppression is required.

goc8



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INSTALLATION

oca2

INSTALLING OUTBOARD

Note: If your outboard is a remote control electric start model, follow instructions in the outboard installation manual (provided with the outboard) for installing remote steering, shift and throttle cables and remote wiring harness.

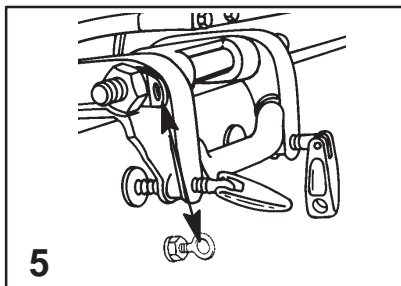
Boat Transom Height Requirement

- 1 Measure the transom height of your boat. The boat bottom should be aligned or be within 1 in. (25mm) above the anti-ventilation plate (a) of the outboard.

Installing Outboard on Transom

- 2 Place outboard on center line of transom.
- 3 Tighten transom clamp handles.
- 4 To prevent loss of outboard overboard, fasten outboard by drilling two 5/16 in. (7.9 mm) holes through the transom using transom clamp holes as a template. Fasten with two bolts (a), flat washers (b) and locknuts (c). Use a marine waterproofing sealer in holes and around bolts to make the installation water tight.

goc9



occ1

FASTENING SECURITY LINE

- 5 The primary purpose for installing a security line is to prevent loss of the outboard if the outboard becomes detached from the boat transom.

An effective security line should be of a working strength of at least five times the weight of the outboard.

The security line should be attached between the boat and outboard following one of these steps.

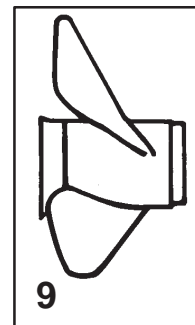
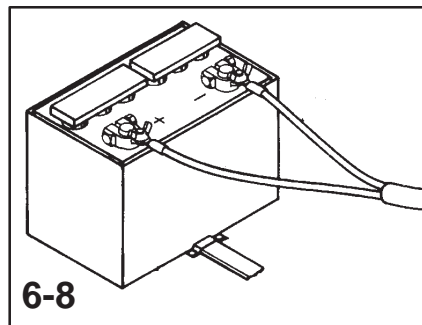
Step 1. The length of the security line should be short enough and affixed in a manner to prevent the outboard from rising up and disengaging off the boat transom.

Step 2. The length of the security line should be long enough and affixed in a manner to permit a detached outboard to submerge completely behind the boat and stop running but not too short that could allow the outboard to continue running and propel itself back into the boat.

⚠ WARNING

If the length of security line being used is long enough to allow the outboard to disengage off the boat transom but is too short to not allow the outboard to submerge behind the boat and stop running, the outboard could continue running and propel itself back into the boat with the propeller rotating under power. This exposes the occupants to serious injury or death.

goc7



ocd1

BATTERY INSTALLATION - ELECTRIC START MODELS

Mounting Battery

- 6 Follow battery manufacturer's instructions carefully. Mount battery in the boat so it is secured against movement, preferably in a battery box. Make sure battery is equipped with a nonconductive shield to prevent accidental shorting of battery terminals.

ocg1

BATTERY CONNECTIONS

Connecting Outboard Battery Cables

- 7 First, connect the red battery cable to the (+) positive battery terminal and then connect the black battery cable to the (-) negative battery terminal.

Disconnecting Outboard Battery Cables

- 8 First, disconnect the black battery cable from the (-) negative terminal and then disconnect the red battery cable from the (+) positive terminal.

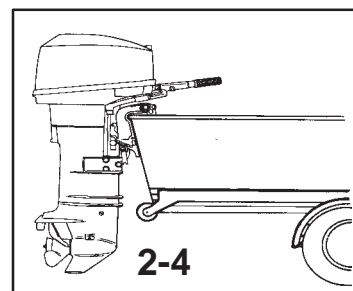
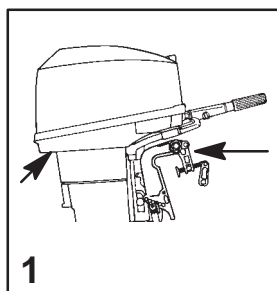
och1

PROPELLER SELECTION

- 9 The propeller supplied with your outboard provides the best overall performance under average operating conditions.

Alternative propellers are available for specific boating requirements. See your outboard dealer.

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TRANSPORTING

CARRYING YOUR OUTBOARD

- 1 Your outboard has a carrying handle located in front and a rear hand grip in the bottom cowl.

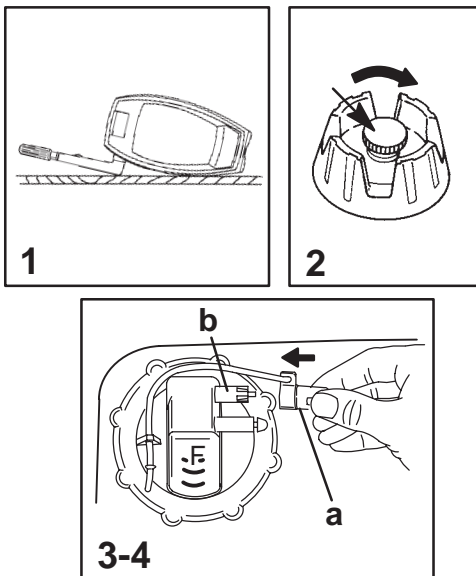
odc6

TRAILERING YOUR BOAT

- 2 Your boat should be trailered with the outboard tilted down (normal operating position).

IMPORTANT: The tilt lock and shallow water drive feature (tiller handle models) on the outboard are not intended to support the outboard in the tilted position when trailering your boat.

- 3 If additional ground clearance is required, the outboard should be tilted up using an outboard support bar. Additional clearance may be needed for railroad crossings, driveways, and trailer bouncing.
- 4 Set the gear shift into forward gear. This prevents the propeller from spinning freely and allows the outboard to tilt up if hit from the front.



TRANSPORTING

TRANSPORTING YOUR OUTBOARD WHEN REMOVED FROM BOAT

- 1 With the outboard still in the water, disconnect the fuel line from the outboard and run engine until it stops, draining carburetor. Remove outboard from the boat and hold upright until all cooling water is drained out. Lay the outboard down horizontally on it's (tiller handle) side. Place a protective pad under the outboard.

TRANSPORTING PORTABLE FUEL TANKS

Manual venting Type Fuel Tank

- 2 Close fuel tank air vent when transporting tank. This will prevent escape of fuel or vapors from tank.

Auto-venting Type Fuel Tank

- 3 Disconnect the remote fuel line from tank. This will close the air vent and prevent escape of fuel or vapors from tank.
- 4 Install tether cap (a) over the fuel line connector stem (b). This will protect the connector stem from being accidentally pushed-in, thus, allowing fuel or vapor to escape.

⚠ WARNING

Avoid serious injury or death from a gasoline fire or explosion. Follow portable fuel tank transporting instructions. Transport the fuel tank in a well ventilated area away from open flame or sparks.

FUEL & OIL

GASOLINE RECOMMENDATIONS

United States and Canada

Use a major brand of automotive unleaded gasoline with a minimum posted octane rating of 87. Mid-grade automotive gasolines that contain fuel injector cleaner are preferred for added internal engine cleanliness. Leaded gasoline is not recommended.

International

Use a major brand of automotive unleaded gasoline with a minimum posted octane rating of 90RON. Automotive gasolines that contain fuel injector cleaner are preferred for added internal engine cleanliness. Leaded gasoline is acceptable in areas where unleaded gasoline is not available.

Alcohol in Gasoline

We do not recommend the use of gasoline which contains alcohol because of the possible adverse effect the alcohol may have on the fuel system. In general, if only gasoline containing alcohol is available, it must not contain more than 10% ethanol or 5% methanol, and the addition of a Water Separating Fuel Filter is recommended.

If gasoline containing alcohol is used or if you suspect the presence of alcohol in your gasoline, increase your inspection of the fuel system, visually checking for fuel leaks or abnormalities.

Gasoline containing alcohol may cause the following problems to your outboard and fuel system:

- Corrosion of metal parts.
- Deterioration of elastomers and plastic parts.
- Wear and damage of internal engine parts.
- Starting and operating difficulties.
- Vapor lock or fuel starvation.

Some of these adverse effects are due to the tendency of gasoline containing alcohol to absorb moisture from the air, resulting in a phase of water and alcohol which separates from the gasoline in the fuel tank.

The adverse effects of alcohol are more severe with methanol and are worse with increasing content of alcohol.

OIL RECOMMENDATION

Mercury or Quicksilver Premium TC-W3 2-cycle oil is recommended for your engine. For added protection and lubrication, Mercury or Quicksilver Premium Plus TC-W3 2-cycle oil is recommended. If Mercury or Quicksilver outboard oil is not available, substitute another brand of 2-cycle outboard oil that is NMMA Certified TC-W3. Severe engine damage may result from use of an inferior oil.

MIXING FUEL AND OIL

Use a 25:1 (4%) gasoline/oil mixture in the first tank of fuel.

After the break-in fuel mixture is used up, use a 100:1 (1%) gasoline/oil mixture in engines used for pleasure applications. To provide additional protection for commercially used products, a 50:1 (2%) gasoline/oil mixture is recommended.

Gasoline/Oil Mixing Ratio Chart

Gas/Oil Ratio	5 Liters	10 Liters	20 Liters
25:1 (4%)	200 ml Oil	400 ml Oil	800 ml Oil
50:1 (2%)	100 ml Oil	200 ml Oil	400 ml Oil
100:1 (1%)	50 ml Oil	100 ml Oil	200 ml Oil

FILLING FUEL TANK

⚠ WARNING

Avoid serious injury or death from a gasoline fire or explosion. Always stop the engine and DO NOT smoke or allow open flames or sparks in the area while filling fuel tanks.

Fill fuel tanks outdoors away from heat, sparks, and open flames.

Always stop engine before refilling tanks.

Do not completely fill the fuel tanks. Leave approximately 10% of the tank volume unfilled. Fuel will expand in volume as its temperature rises and can leak under pressure if the tank is completely filled.

Filling Fuel Tanks Permanently Installed

Slowly pour the correct amount of oil along with the gasoline as the tank is being filled.

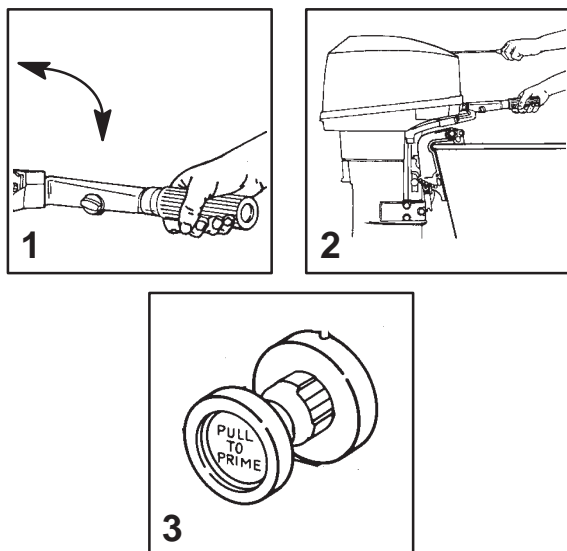
Filling Portable Fuel Tanks

Remove portable fuel tanks from boat to refill them.

Pour the full amount of oil along with approximately one gallon of gasoline into the fuel tank. Mix thoroughly, then pour the remainder of gasoline into the tank.

Portable Fuel Tank Placement in the Boat

Place the fuel tank in the boat so that the tank vent will stay higher than the fuel level in the tank under normal boat operating conditions.



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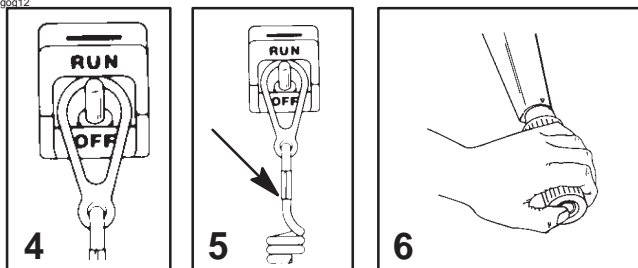
FEATURES & CONTROLS

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TILLER HANDLE MODELS

- 1 Tiller Handle - Handle can be tilted up for convenient handling during transportation and storage.
- 2 Starter Rope - Pulling the starter rope cranks the engine over for starting.
- 3 Primer/Idle Speed Knob - Pulling the knob out supplies a small amount of fuel to the engine for cold starting. Rotate knob to adjust idle speed after engine warms up.

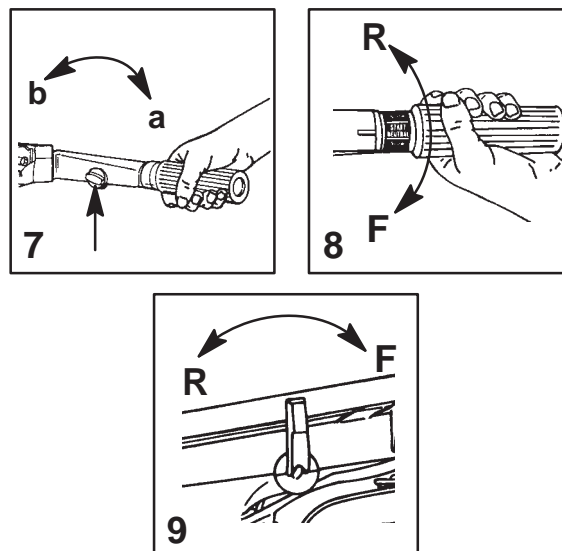
gog12



ogd12

TILLER HANDLE MODELS

- 4 Lanyard Stop Switch - Read the Lanyard Stop Switch safety explanation in the General Information Section.
- 5 Lanyard - Read the Lanyard Stop Switch safety explanation in the General Information Section.
- 6 Engine Stop Switch - Push in to stop engine.



ogd13

TILLER HANDLE MODELS

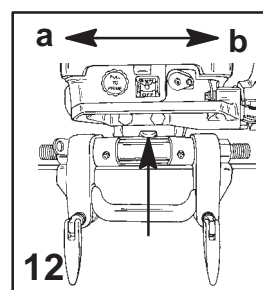
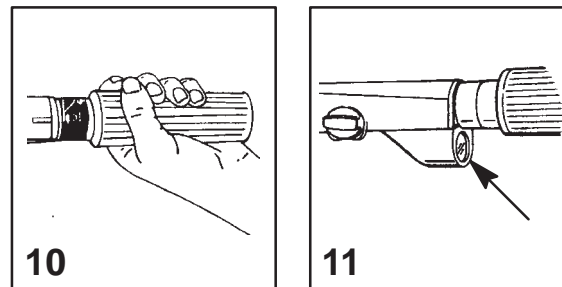
- 7 Throttle Grip Friction Knob - Turn friction knob to set and maintain the throttle at desired speed. Turn knob towards (a) to tighten friction and move knob towards (b) to loosen friction.

- 8 Throttle Grip Gear Shift (if equipped) - controls gear shift and engine speed.

Note: Side handle gear shift outboards (Step 9) are furnished in some worldwide market areas. Side handle gear shift is also available as a Quicksilver or Mercury Precision Accessory.

- 9 Side Handle Gear Shift (if equipped) - controls gear shift.

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ogd7

TILLER HANDLE MODELS

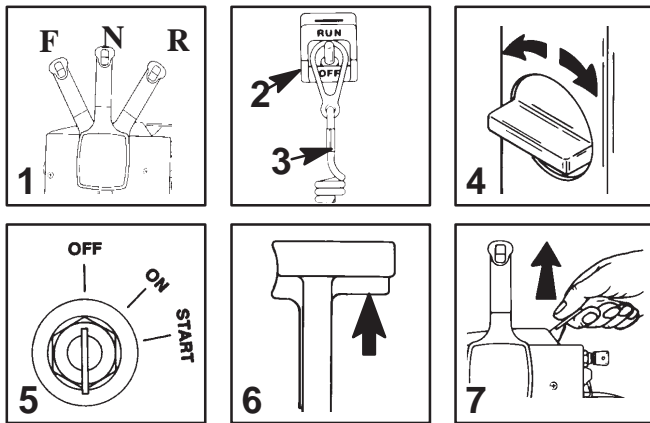
- 10 Throttle Grip (Side Handle Gear Shift Models) - Controls engine speed.

- 11 Electric Start Button (Electric Start Models) - Press button to start engine.

- 12 Steering Friction Adjustment - Adjust this lever to achieve the desired steering friction (drag) on the tiller handle. Move lever towards (a) to tighten friction and move lever towards (b) to loosen friction.

WARNING

Avoid possible serious injury or death from loss of boat control. Maintain sufficient steering friction to prevent the outboard from steering into a full turn if the tiller handle is released.



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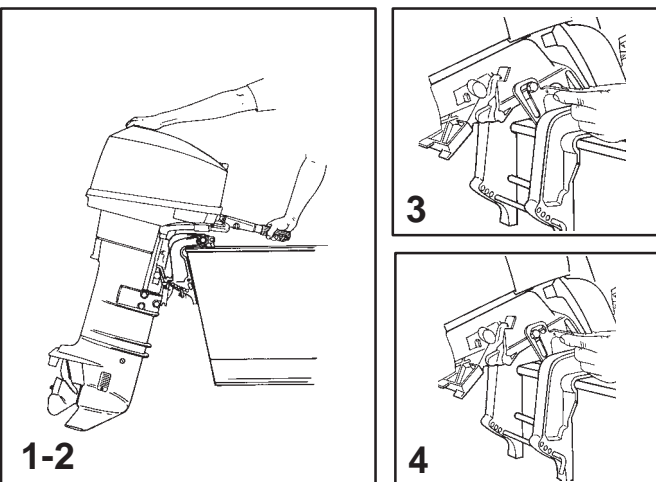
FEATURES & CONTROLS

og65

REMOTE CONTROL MODELS

- 1 Control Handle - Controls gear shift and engine speed.
- 2 Lanyard Stop Switch - Read the Lanyard Stop Switch safety explanation in the General Information Section.
- 3 Lanyard - Read the lanyard stop switch safety explanation and warning in the General Information Section.
- 4 Throttle Friction Adjustment - Adjust to maintain desired tension at the control handle.
- 5 Ignition Key Switch - Turn the key switch for starting and stopping the engine. Push in on key switch to choke the engine.
- 6 Neutral Release Lever - Pull this lever up to move the control handle out of neutral position.
- 7 Fast Idle Lever - Do not raise lever when starting. After engine has started, lift lever to increase idle speed for engine warm up.

gog29



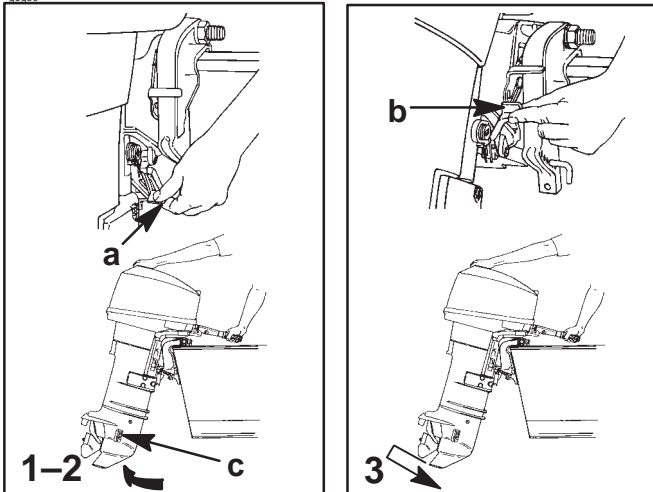
og14

TILTING OUTBOARD TO FULL UP POSITION

- 1 Stop the engine. Shift the outboard into forward gear position.
- 2 Take hold of the top cowl grip and raise outboard to the full up position.
- 3 Move the tilt lock to the lock position.

LOWERING OUTBOARD DOWN TO RUN POSITION

- 4 Lift outboard and release tilt lock lever. Lower outboard.



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SHALLOW WATER OPERATION - TILLER HANDLE MODELS

Tiller handle model outboards are equipped with a shallow water tilt feature that allows you to tilt the outboard to a higher tilt angle to prevent hitting bottom.

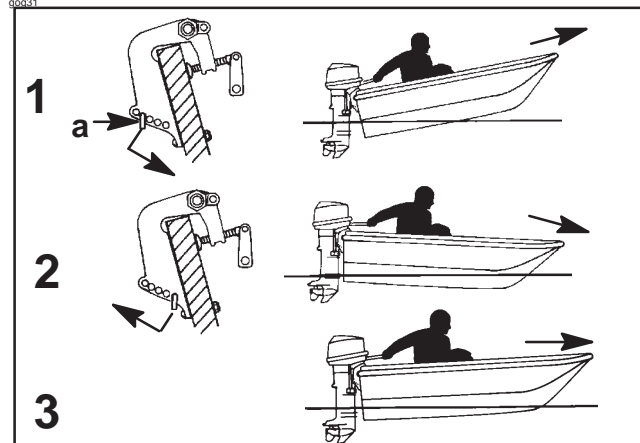
Engaging Shallow Water Drive

- 1 Reduce engine speed to idle. Shift the outboard into forward gear position.
- 2 Push down the shallow water drive lever (a). Tilt outboard up to the shallow water drive position. Be sure the cooling water intake (c) is submerged.

IMPORTANT: While in shallow water drive position, do not operate the outboard in reverse. Operate the outboard at slow speed and keep the cooling water intake submerged.

- 3 To release down to run position, lift up the shallow water drive lever (b). Tilt up the outboard to disengage the shallow water drive lock and lower it down.

gog31



og2

SETTING THE OPERATING ANGLE OF YOUR OUTBOARD

The vertical operating angle of your outboard is adjusted by changing the position of the tilt pin (a) in the five adjustment holes provided. Proper adjustment allows the boat to run stable, achieve optimum performance, and minimize steering effort.

Note: Refer to lists on the following page when adjusting the operating angle of your outboard.

The tilt pin should be adjusted so the outboard is positioned to run perpendicular to the water when the boat is running at full speed. This allows the boat to be driven parallel to the water.

Arrange passengers and load in the boat so the weight is distributed evenly.

- 1 Too Much Angle (Stern Down - Bow Up))
- 2 Not Enough Angle (Stern Up - Bow Down)
- 3 Angle Adjusted Properly (Bow Slightly Up)

FEATURES & CONTROLS

SETTING THE OPERATING ANGLE OF YOUR OUTBOARD (CONTINUED)

Consider the following lists carefully when adjusting the operating angle of your outboard.

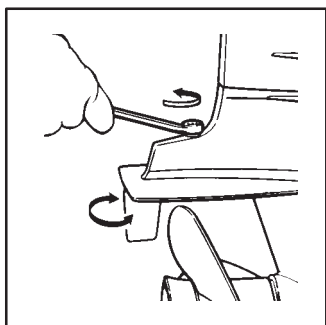
Adjusting the outboard close to the boat transom can:

1. Lower the bow.
2. Result in quicker planing off, especially with a heavy load or a stern heavy boat.
3. Generally improve the ride in choppy water.
4. Increase steering torque or pull to the right (with the normal right hand rotation propeller).
5. In excess, lower the bow of some boats to a point at which they begin to plow with their bow in the water while on plane. This can result in an unexpected turn in either direction called "bow steering" or "over-steering" if any turn is attempted or if a significant wave is encountered.

Adjusting the outboard away from the boat transom can:

1. Lift the bow out of the water.
2. Generally increase top speed.
3. Increase clearance over submerged objects or a shallow bottom.
4. Increase steering torque or pull to the left at a normal installation height (with the normal right hand rotation propeller).
5. In excess, cause boat "porpoising" (bouncing) or propeller ventilation.

gog32



ogn1

TRIM TAB ADJUSTMENT

Propeller steering torque may cause your boat to pull in one direction. This steering torque results from your outboard not being adjusted so the propeller shaft is parallel to the water surface. The trim tab can help compensate for this steering torque and can be adjusted within limits to reduce any unequal steering effort.

Note: Trim tab adjustment will have little effect reducing steering torque if the outboard is installed with the anti-ventilation plate approximately 2 inches (50mm) or more above the boat bottom.

Operate your boat at normal cruising speed, with the outboard set at the desired transom angle adjustment. Turn your boat left and right and note the direction the boat turns more easily.

If adjustment is necessary, loosen trim tab bolt and make small adjustments at a time. If the boat turns more easily to the left, move the trailing edge of trim tab to the left. If the boat turns more easily to the right move the trailing edge of trim tab to the right. Retighten bolt and retest.

of

OPERATION

cfa1

PRE-STARTING CHECK LIST

- ☐ Operator knows safe navigation, boating, and operating procedures.
- ☐ An approved personal flotation device of suitable size for each person aboard and readily accessible (it is the law).
- ☐ A ring type life buoy or buoyant cushion designed to be thrown to a person in the water.
- ☐ Know your boats maximum load capacity. Look at the boat capacity plate.
- ☐ Fuel supply OK.
- ☐ Arrange passengers and load in the boat so the weight is distributed evenly and everyone is seated in a proper seat.
- ☐ Tell someone where you are going and when you expect to return.
- ☐ It is illegal to operate a boat while under the influence of alcohol or drugs.
- ☐ Know the waters and area you will be boating; tides, currents, sand bars, rocks, and other hazards.
- ☐ Make inspection checks listed in the Inspection and Maintenance Schedule. Refer to Maintenance Section.

onf6

OPERATING IN FREEZING TEMPERATURES

When using your outboard or having your outboard moored in freezing or near freezing temperature, keep the outboard tilted down at all times so the gear case is submerged. This prevents trapped water in the gear case from freezing and causing possible damage to the water pump and other components.

If there is a chance of ice forming on the water, the outboard should be removed and drained completely of water. If ice should form at the water level inside the outboard drive shaft housing, it will block water flow to the engine causing possible damage.

An engine thermostat (accessory) is available for your outboard. The thermostat will help your outboard warm up and run at normal operating temperature more quickly. See your dealer.

onb3

OPERATING IN SALT WATER OR POLLUTED WATER

We recommend that you flush the internal water passages of your outboard with fresh water after each use in salt or polluted water. This will prevent a buildup of deposits from clogging the water passages. Refer to "Flushing The Cooling System" procedure in the Maintenance Section.

If you keep your boat moored in the water, always tilt the outboard so the gear case is completely out of water (except in freezing temperature) when not in use.

Wash down the outboard exterior and flush out the exhaust outlet of the propeller and gear case with fresh water after each use. Each month, spray Mercury Precision or Quicksilver Corrosion Guard on external metal surfaces (do not spray on corrosion control anodes as this will reduce the effectiveness of the anodes).

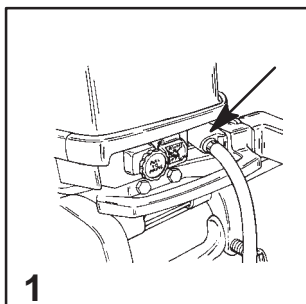
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OPERATING AT HIGH ELEVATIONS

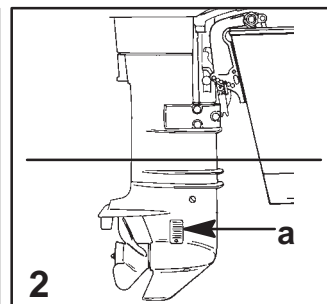
Operating your outboard at an elevation higher than 2500 ft. (750 m) above sea level may require a carburetor jet change and/or different pitch propeller. Consult your dealer. This will reduce the normal performance loss experienced as a result of reduced oxygen in the air causing an overly rich fuel mixture.

IMPORTANT: To prevent serious damage to the engine caused by a lean fuel mixture, DO NOT operate your outboard (if the jets were changed for high elevation) at a lower elevation unless the jets are changed again to correspond to the new elevation.

gof30



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dlc1

PRE-STARTING INSTRUCTIONS

- 1 Connect the remote fuel line to the outboard. Make sure connector is snapped into place.
- 2 Lower the outboard to the run position. Make sure the cooling water intake (a) is submerged.

CAUTION

Never start or run your outboard (even momentarily) without water circulating through the cooling water intake in the gear case to prevent damage to the water pump (running dry) or overheating of the engine.

dlc1

ENGINE BREAK-IN PROCEDURE

Engine Break-in Fuel Mixture

Use a 25:1 (4%) gasoline/oil mixture in the first tank of fuel.

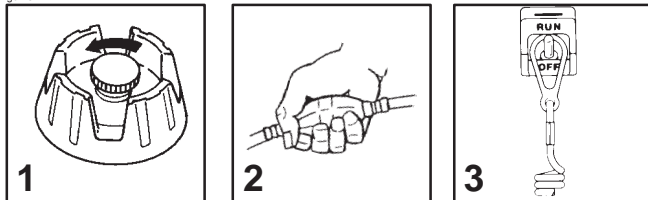
Engine Break-in Procedure

Vary the throttle setting during the first hour of operation. During the first hour of operation, avoid remaining at a constant speed for more than two minutes and avoid sustained wide open throttle.

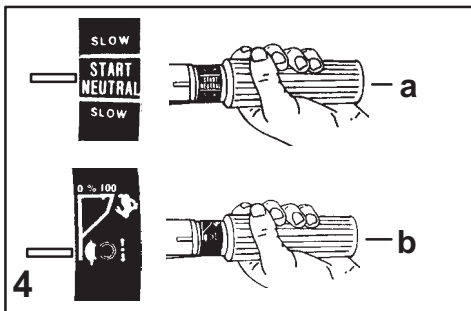
CAUTION

Severe damage to the engine can result by not complying with the Engine Break-in Procedure.

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OPERATION

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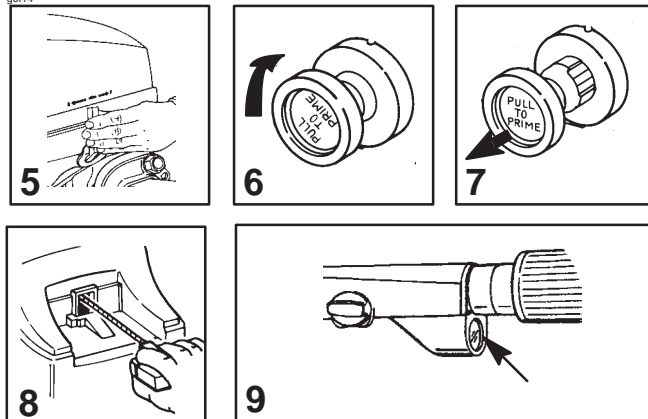
STARTING THE ENGINE - TILLER HANDLE MODELS

Before starting, read the Pre-Starting Check List, Special Operating Instructions, Pre-Starting Instructions, and Engine Break-in Procedure on the first three pages in the Operation Section.

- 1 Open fuel tank vent on manual venting type tanks.
- 2 Squeeze the fuel line primer bulb several times until it feels firm.
- 3 Set the lanyard stop switch to RUN position.
- 4 Set the throttle grip to start position.
 - a. Throttle Grip Gear Shift Models
 - b. Side Handle Gear Shift Models

IMPORTANT: Electric starting outboards must not be run or started (either manually or electrically), without having the outboard battery cables connected to a battery, as damage to the charging system could result.

gof14

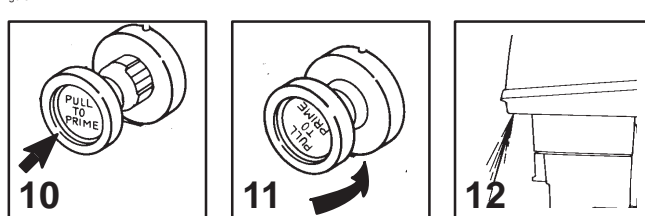


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STARTING THE ENGINE - TILLER HANDLE MODELS

- 5 Side Handle Gear Shift Models - Set the gear shift to NEUTRAL position.
- 6 Turn Primer/idle speed knob full clockwise (direction of arrow) to increase engine idle speed for starting.
- 7 When engine is cold, pull out and push in the primer/idle speed knob one to three times to prime the engine. Leave the knob in the pulled-out position when starting.
- 8 Manual Starting Models - Pull the starter rope slowly until you feel the starter engage, then pull rapidly to crank the engine. Allow rope to return slowly. Repeat until engine starts.
- 9 Electric Starting Models - Push starter button and crank the engine. Release button when engine starts. Do not operate starter motor continuously for longer than ten seconds at a time. If engine fails to start, wait 30 seconds and try again.

gof31



of17

STARTING THE ENGINE - TILLER HANDLE MODELS

- 10 Push in the primer/idle speed knob after engine starts. If engine begins to stall, re-prime until engine is running smoothly.

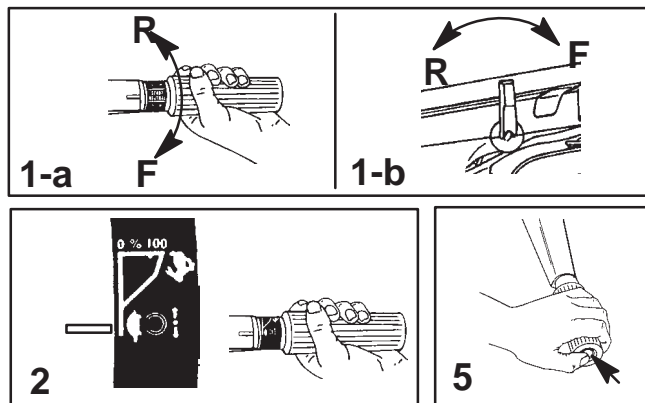
Note: Starting Flooded Engine - push in the primer/idle speed knob and turn full clockwise. Continue to crank the engine for starting.

- 11 Turn the primer/idle speed knob counterclockwise (direction of arrow) to obtain desired idle speed as engine warms up.

- 12 Check for water flowing out of the water pump indicator hole. For models equipped with a thermostat, the amount of water flow can vary, from droplets to a full spray, due to the thermostat operation. It may take several minutes for the engine to warm up enough for water to start spraying out of the indicator hole.

IMPORTANT: If no water is coming out of the water pump indicator hole, stop engine and check cooling water intake for obstruction. No obstruction may indicate a water pump failure or blockage in the cooling system. These conditions will cause the engine to overheat. Have the outboard checked by your dealer. Operating the engine while overheated may cause serious engine damage.

gof16



of12

GEAR SHIFTING - TILLER HANDLE MODELS

- 1 Your outboard has three gear shift positions to provide operation: Forward (F), Neutral (out of gear), and Reverse (R).
 - a. Throttle Grip Gear Shift Models
 - b. Side Handle Gear Shift Models
- 2 Side Handle Gear Shift Models - Align throttle grip pointer with slow speed shift position before shifting outboard into gear.

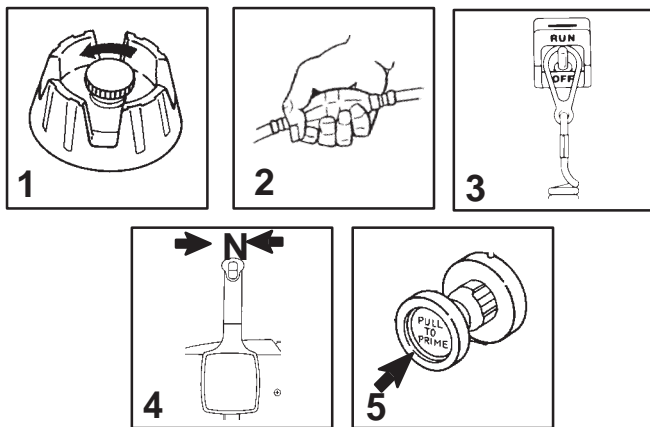
IMPORTANT: Do not attempt to shift outboard into Reverse gear when the engine is not running. This could cause damage to the gear shift mechanism.

- 3 Always shift outboard with a quick motion.
- 4 After shifting outboard into gear, advance the throttle to increase speed.

of11

STOPPING THE ENGINE - TILLER HANDLE MODELS

- 5 Reduce engine speed and shift outboard to neutral position. Push in the engine stop button or move the lanyard stop switch to the OFF position.



of

OPERATION

olp10

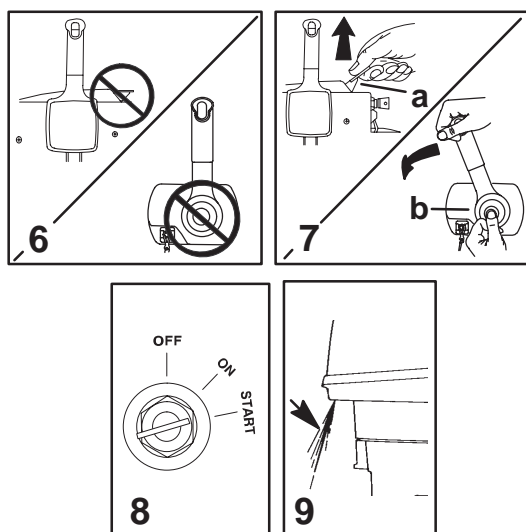
STARTING THE ENGINE - REMOTE CONTROL MODELS

Before starting, read the Pre-Starting Check List, Special Operating Instructions, Pre-Starting Instructions, and Engine Break-in Procedure on the first three pages in the Operation Section.

- 1 Open fuel tank vent screw (in filler cap) on manual venting type tanks.
- 2 Squeeze the fuel line primer bulb several times until it feels firm.
- 3 Insure that the lanyard stop switch is in the RUN position.
- 4 Set the remote control handle to neutral position.
- 5 In extreme cold temperature, it may be helpful to prime the engine 1 to 3 times using the manual primer knob on the outboard before starting.

IMPORTANT: Electric starting outboard models must not be started manually using the starter rope, or run, without having the battery leads connected to a battery, as damage to the charging system could result.

gof64



olp13

STARTING THE ENGINE - REMOTE CONTROL MODELS

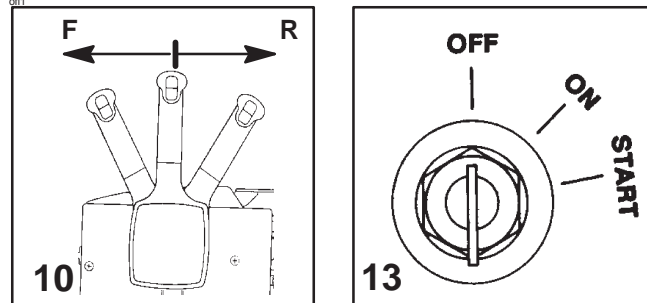
- 6 **Cold Engine** - Do not advance the neutral fast idle speed feature on the remote control for initial starting. After the engine has started, you can slowly advance the fast idle speed feature to increase idle speed until engine is warmed up. Keep engine speed below 2000 RPM.
- 7 **Warm Engine** - Advance the fast idle lever (a) or throttle only feature (b) to an approximate halfway (1/2) setting. After engine start up, immediately reduce engine speed back to idle.
- 8 Turn ignition key to the START position. If engine is cold, push in on key to choke. If engine fails to start in ten seconds, return key to ON position, wait 30 seconds and try again.

Note: Starting Flooded Engine - Advance the fast idle lever or throttle only feature to the full maximum position. Without activating primer, crank engine for 10 seconds. Wait 30 seconds and repeat until engine starts. Immediately start to reduce engine speed after engine starts.

- 9 Check for water flowing out of the water pump indicator hole. For models equipped with a thermostat, the amount of water flow can vary, from droplets to a full spray, due to the thermostat operation. It may take several minutes for the engine to warm up enough for water to start spraying out of the indicator hole.

IMPORTANT: If no water is coming out of the water pump indicator hole, stop engine and check cooling water intake for obstruction. No obstruction may indicate a water pump failure or blockage in the cooling system. These conditions will cause the engine to overheat. Have the outboard checked by your dealer. Operating the engine while overheated will cause engine damage.

olp1



olp2

GEAR SHIFTING - REMOTE CONTROL MODELS

- 10 Your outboard has three gear shift positions to provide operation: Forward (F), Neutral (out of gear), and Reverse (R).

IMPORTANT: Do not attempt to shift outboard into Reverse gear when the engine is not running. This could cause damage to the gear shift mechanism.

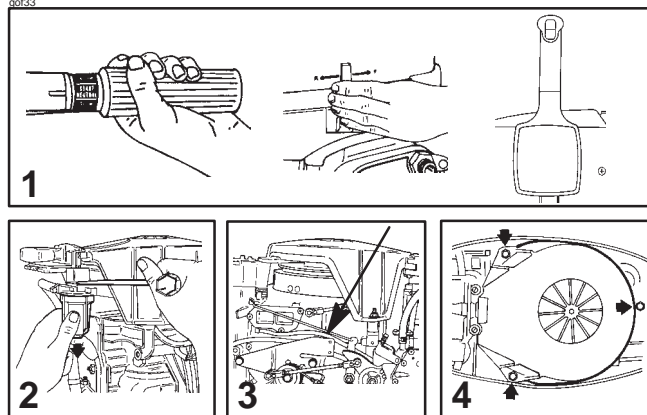
- 11 Always shift outboard into gear with a quick motion.
- 12 After shifting outboard into gear, advance the throttle to increase speed.

olp1

STOPPING THE ENGINE - REMOTE CONTROL MODELS

- 13 Reduce engine speed and shift outboard to neutral position. Turn ignition key to OFF position.

gof33



olp4

EMERGENCY STARTING

If the starter rope should break or the rewind starter fails, use the spare starter rope (provided) and follow this procedure.

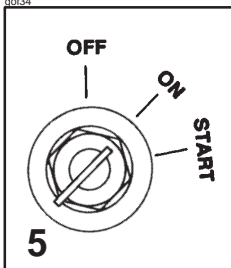
- 1 Shift outboard to neutral position.

WARNING

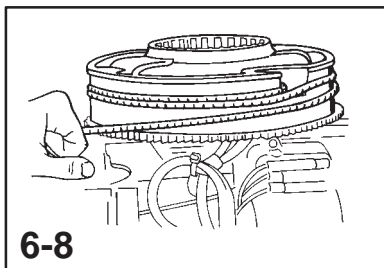
When using emergency starter rope to start engine, the start-in-gear protection provided by the remote control is inoperative. Make sure to set the outboard gear shift into neutral to prevent outboard from starting in gear. Sudden unexpected acceleration could result in serious injury or death.

- 2 Pry the fuel filter out of its mount.
- 3 Disconnect linkage from rewind starter assembly.
- 4 Remove three bolts and rewind starter assembly.

gc34



of



OPERATION

of5

EMERGENCY STARTING (CONTINUED)

- 5 Electric Start Remote Control Models - Turn the ignition key to ON position.
- 6 Tie one end of the spare starter rope around screwdriver tool (provided) and tie a knot in other end.

WARNING

To prevent getting an electrical shock, DO NOT touch any ignition component, wiring, or spark plug wire when starting or running the engine.

WARNING

The exposed moving flywheel can cause serious injury. Keep your hands, hair, clothing, tools, and other objects away from engine when starting or running the engine. Do not attempt to reinstall the rewind starter assembly or top cowl when engine is running.

- 7 Place the starter rope knot into the flywheel notch and wind the rope clockwise around the flywheel.
- 8 Pull the starter rope to start the engine.

oh

MAINTENANCE

oha4

OUTBOARD CARE

To keep your outboard in the best operating condition, it is important that your outboard receive the periodic inspections and maintenance listed in the Inspection and Maintenance Schedule. We urge you to keep it maintained properly to ensure the safety of you and your passengers and retain its dependability.

WARNING

Neglected inspection and maintenance service of your outboard or attempting to perform maintenance or repair on your outboard if you are not familiar with the correct service and safety procedures could cause personal injury, death, or product failure.

Record maintenance performed in Maintenance Log at the back of this book. Save all maintenance work orders and receipts.

SELECTING REPLACEMENT PARTS FOR YOUR OUTBOARD

We recommend using original Mercury Precision or Quicksilver replacement parts and Genuine Lubricants.

WARNING

Using a replacement part that is inferior to the original part could result in personal injury, death, or product failure.

MERCURY		EMISSION CONTROL INFORMATION	
This engine conforms to <input type="checkbox"/> model year EPA regulations for Marine SI engines. Refer to Owner's Manual for required maintenance.			
a	IDLE SPEED: <input type="text"/>	f	FAMILY: <input type="text"/>
b	<input type="text"/> hp	g	FEL: <input type="text"/> g kWh
c	TIMING (IN DEGREES): <input type="text"/>	h	
d	Standard spark plug: <input type="text"/>	i	
	Suppressor spark plug: <input type="text"/>		
	GAP: <input type="text"/>		
e	Valve Clearance (Cold) mm	Intake <input type="text"/>	Exhaust <input type="text"/>

ot8

EMISSION CERTIFICATION LABEL

An emission certification label, showing emission levels and engine specifications directly related to emissions, is placed on the engine at time of manufacture.

- | | |
|------------------------------------|--|
| a. Idle Speed | f. Family Number |
| b. Engine Horsepower | g. Maximum Emission Output for the Engine Family |
| c. Timing Specification | h. Piston Displacement |
| d. Recommended Spark Plug & Gap | i. Date of Manufacture |
| e. Valve Clearance (if Applicable) | |

ot7

OWNER RESPONSIBILITY

The owner/operator is required to have engine maintenance performed to maintain emission levels within prescribed certification standards.

The owner/operator is not to modify the engine in any manner that would alter the horsepower or allow emissions levels to exceed their predetermined factory specifications.

ohd32

INSPECTION AND MAINTENANCE SCHEDULE

Before Each Use

1. Check that lanyard stop switch stops the engine.
2. Visually inspect the fuel system for deterioration or leaks.
3. Check outboard for tightness on transom.
4. Check steering system for binding or loose components.
5. Remote control models - Visually check steering link rod fasteners for proper tightness.
6. Check propeller blades for damage.

After Each Use

1. Flush out the outboard cooling system if operating in salt or polluted water. (page 19)
2. Wash off all salt deposits and flush out the exhaust outlet of the propeller and gear case with fresh water if operating in salt water.

Every 100 Hours of Use or Once yearly, Whichever occurs first

1. Lubricate all lubrication points. Lubricate more frequently when used in salt water. (page 21)
2. Inspect and clean spark plugs. (page 21)
3. Check fuel line filter for contaminants. (pages 19)
4. Check carburetor adjustments, if required. (page 21)
5. Check corrosion control anodes. Check more frequently when used in salt water. (page 20)
6. Drain and replace gear case lubricant. (page 22)
7. Lubricate splines on the drive shaft.*
8. Electric start models - Inspect battery. (page 19)
9. Remote control models - Check control cable adjustments.*
10. Remove engine deposits with Quicksilver Power Tune Engine Cleaner.
11. Check tightness of bolts, nuts, and other fasteners.
12. Clean fuel tank pick up filter.

Every 300 Hours of Use or Three Years

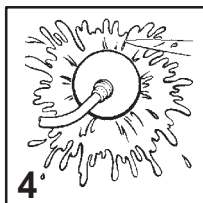
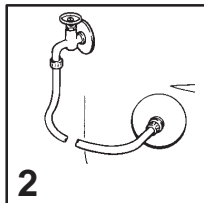
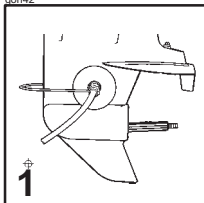
1. Replace water pump impeller (more often if overheating occurs or reduced water pressure is noted).

Before Periods of Storage

1. Refer to Storage procedure. (page 22)

* These items should be serviced by an authorized dealer.

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MAINTENANCE

ohc18

FLUSHING THE COOLING SYSTEM

Flush the internal water passages of the outboard with fresh water after each use in salt, polluted, or muddy water. This will help prevent a buildup of deposits from clogging the internal water passages.

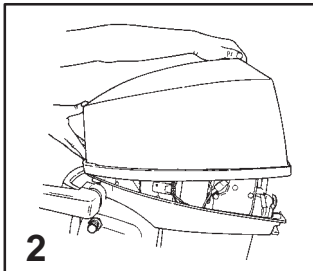
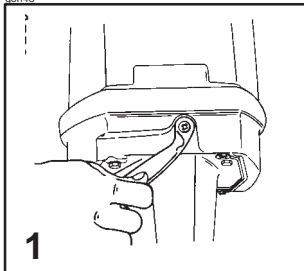
Use a Mercury Precision or Quicksilver accessory (or equivalent) flushing attachment.

⚠ WARNING

To avoid possible injury when flushing, remove the propeller. Refer to Propeller Replacement.

- 1 Remove propeller (refer to Propeller Replacement). Install the flushing attachment so the rubber cups fit tightly over the cooling water intake holes.
- 2 Attach a water hose to the flushing attachment. Turn on the water and adjust the flow so water is leaking around the rubber cups to ensure the engine receives an adequate supply of cooling water.
- 3 Start the engine and run it at idle speed in neutral shift position.
- 4 Adjust water flow (if necessary) so excess water continues leaking out from around the rubber cups to ensure the engine is receiving an adequate supply of cooling water.
- 5 Check for a steady stream of water flowing out of the water pump indicator hole. Continue flushing the outboard for 3 to 5 minutes, carefully monitoring water supply at all times.
- 6 Stop the engine, turn off the water, and remove the flushing attachment. Reinstall the propeller.

goh43



ohz2

TOP COWL REMOVAL AND INSTALLATION

Removal

- 1 Unlock the rear latch by pushing lever down.
- 2 Lift rear of cowl and disengage front hook.

Installation

Engage the front hook and push cowl back over the cowl seal. Push cowl down and move the rear latch lever up to lock.

ohn1

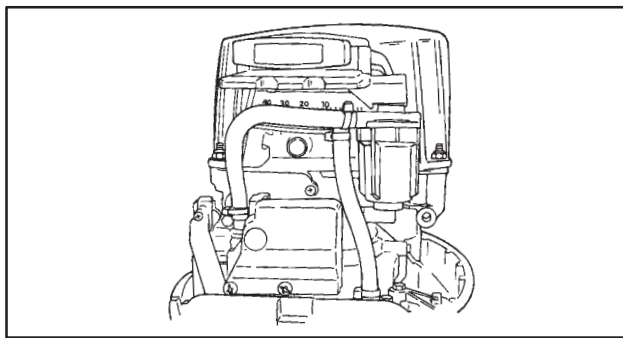
BATTERY INSPECTION

The battery should be inspected at periodic intervals to ensure proper engine starting capability.

IMPORTANT: Read the safety and maintenance instructions which accompany your battery.

1. Turn off the engine before servicing the battery.
2. Add water as necessary to keep the battery full.
3. Make sure the battery is secure against movement.
4. Battery cable terminals should be clean, tight, and correctly installed. Positive to positive and negative to negative.
5. Make sure the battery is equipped with a nonconductive shield to prevent accidental shorting of battery terminals.

goh44



ohh2

FUEL SYSTEM

⚠ WARNING

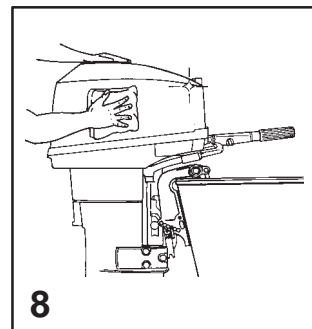
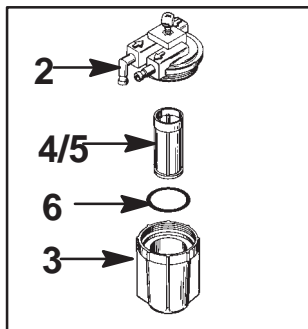
Avoid serious injury, or death from gasoline fire, or explosion. Carefully follow all fuel system service instructions. Always stop the engine, and DO NOT smoke or allow open flames, or sparks in the area while servicing any part of the fuel system.

Before servicing any part of the fuel system, stop engine and disconnect the battery. Drain the fuel system completely. Use an approved container to collect and store fuel. Wipe up any spillage immediately. Material used to contain spillage must be disposed of in an approved receptacle. Any fuel system service must be performed in a well ventilated area. Inspect any completed service work for signs of fuel leakage.

Fuel Line Inspection

Visually inspect the fuel line and primer bulb for cracks, swelling, leaks, hardness or other signs of deterioration or damage. If any of these conditions is found, the fuel line or primer bulb must be replaced.

goh45



ohz2

Engine Fuel Filter

Inspect the sight bowl for water accumulation and inspect the filter element for sediment. Clean filter as follows.

Removal

- 1 Read Fuel System servicing information and Warning on the previous page.
- 2 Hold onto the cover to prevent it from turning.
- 3 Turn off the sight bowl.
- 4 Pull out the filter element and wash it with cleaning solvent.

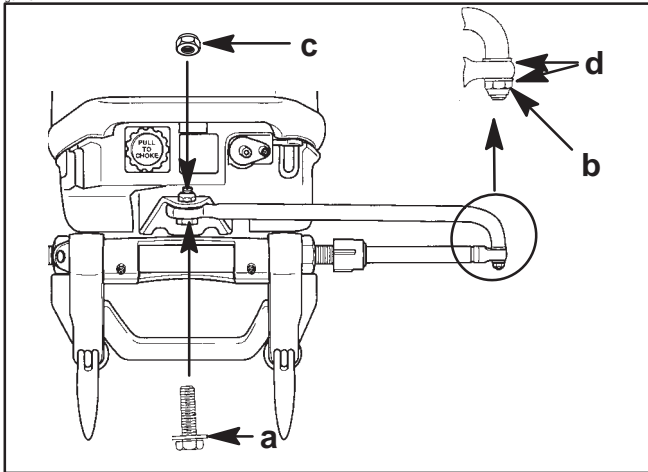
Installation

- 5 Push the filter element (with open end toward cover) into cover.
- 6 Place the O-ring seal into the sight bowl and screw the sight bowl hand tight into the cover.
- 7 Visually inspect for fuel leakage around the sight bowl by squeezing the primer bulb until firm, forcing fuel into the sight bowl.

otg1

EXTERIOR CARE

- 8 Your outboard is protected with a durable baked enamel finish. Clean and wax often using marine cleaners and waxes.



oh

MAINTENANCE

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STEERING LINK ROD FASTENERS

IMPORTANT: The steering link rod that connects the steering cable to the engine must be fastened using special washer head bolt ("a" - Part Number 10-14000) and self locking nylon insert locknuts ("b" & "c" - Part Number 11-34863). These locknuts must never be replaced with common nuts (non locking) as they will work loose and vibrate off, freeing the link rod to disengage.

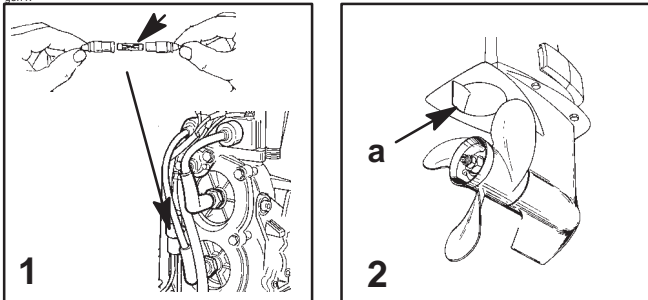
⚠ WARNING

Disengagement of a steering link rod can result in the boat taking a full, sudden, sharp turn. This potentially violent action can cause occupants to be thrown overboard exposing them to serious injury or death.

Assemble steering link rod to steering cable with two flat washers (d) and nylon insert locknut ("b" - Part Number 11-34863). Tighten locknut (b) until it seats, then back nut off 1/4 turn.

Assemble steering link rod to engine with special washer head bolt ("a" - Part Number 10-14000) and self locking nylon insert locknut ("c" - Part Number 11-34863). First torque bolt (a) to 20 lb. ft. (27 N-m), then torque locknut (c) to 20 lb. ft. (27 N-m).

gqh47



oma1

FUSE REPLACEMENT - ELECTRIC START REMOTE CONTROL MODELS

IMPORTANT: Always carry spare SFE 20 AMP fuses.

The electric starting circuit is protected from overload by a SFE 20 AMP fuse. If the fuse is blown, the electric starter motor will not operate. Try to locate and correct the cause of the overload. If the cause is not found, the fuse may blow again. Replace the fuse with a fuse of the same rating.

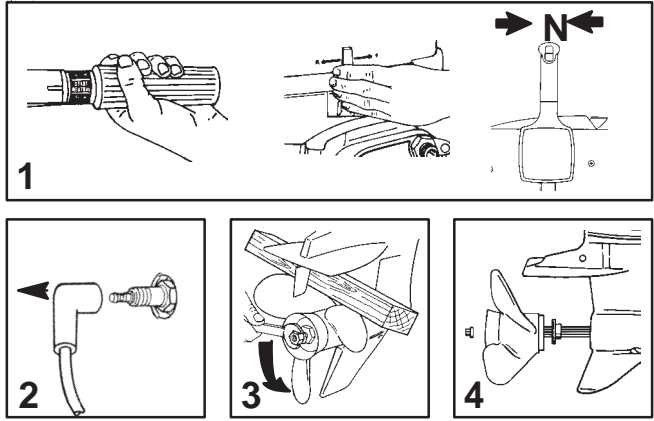
- 1 Replace with a new SFE 20 AMP fuse.

oh1

CORROSION CONTROL ANODE

Your outboard has a corrosion control anode installed to the gear case. An anode helps protect the outboard against galvanic corrosion by sacrificing its metal to be slowly eroded instead of the outboard metals.

- 2 The anode (a) requires periodic inspection especially in salt water which will accelerate the erosion. To maintain this corrosion protection, always replace the anode before it is completely eroded. Never paint or apply a protective coating on the anode as this will reduce effectiveness of the anode.



oh5

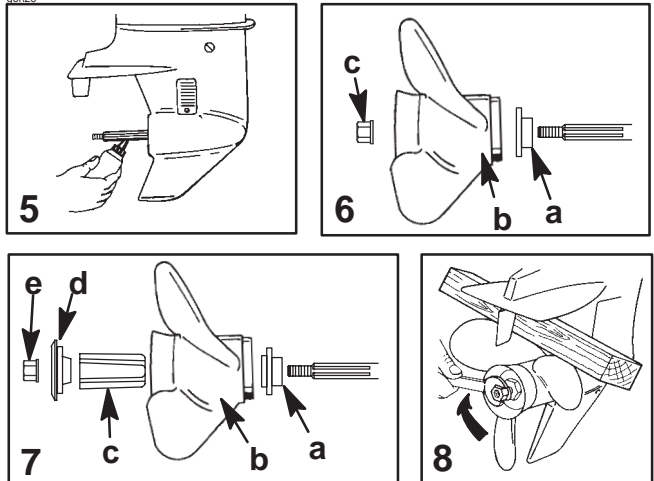
PROPELLER REPLACEMENT

⚠ WARNING

If the propeller shaft is rotated while the engine is in gear, there is the possibility that the engine will crank over and start. To prevent this type of accidental engine starting and possible serious injury caused from being struck by a rotating propeller, always shift outboard to neutral position and remove spark plug leads when you are servicing the propeller.

- 1 Shift the outboard to neutral position.
- 2 Remove the spark plug leads to prevent engine from starting.
- 3 Place a block of wood between gear case and propeller to hold propeller and remove propeller nut.
- 4 Pull propeller straight off shaft. If propeller is seized to the shaft and cannot be removed, have the propeller removed by an authorized dealer.

gqh26



oh31

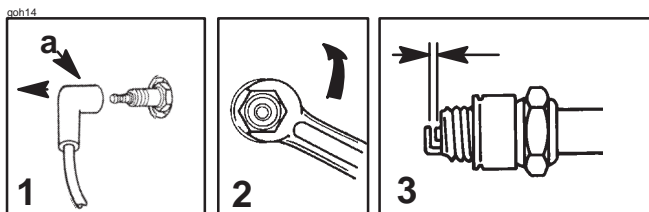
PROPELLER REPLACEMENT

- 5 Coat the propeller shaft with Quicksilver or Mercury Precision Lubricants Anti-Corrosion Grease or 2-4-C Marine Lubricant with Teflon.

IMPORTANT: To prevent the propeller hub from corroding and seizing to the propeller shaft, especially in salt water, always apply a coat of the recommended lubricant to the entire propeller shaft at the recommended maintenance intervals and also each time the propeller is removed.

- 6 Flo-Torque I Drive Hub Propellers - Install forward thrust hub (a), propeller (b), rear thrust hub (c) and propeller nut (d) onto the shaft.
- 7 Flo-Torque II Drive Hub Propellers - Install forward thrust hub (a), replaceable drive sleeve (b) propeller (c), rear thrust hub (d) and propeller nut (e) onto the shaft.
- 8 Place a block of wood between gear case and propeller and tighten propeller nut.

gqh26



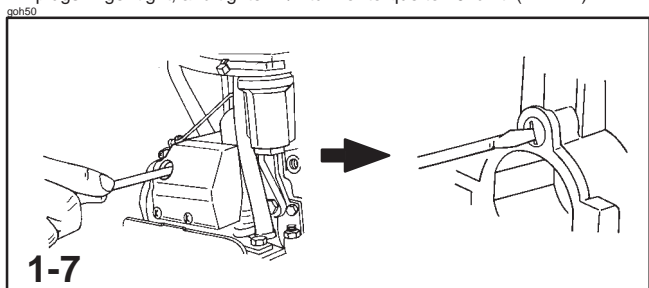
MAINTENANCE

SPARK PLUG INSPECTION AND REPLACEMENT

⚠ WARNING

Avoid serious injury or death from fire or explosion caused by damaged spark plug boots (a). Damaged spark plug boots can emit sparks. Sparks can ignite fuel vapors under engine cowl. To avoid damaging spark plug boots, do not use any sharp object or metal tool such as pliers, screwdriver, etc. to remove spark plug boots.

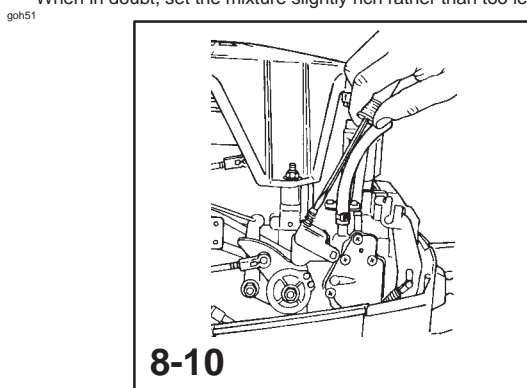
- 1 Remove the spark plug leads by twisting the rubber boots slightly and pull off.
- 2 Remove the spark plugs to inspect. Replace spark plug if electrode is worn or the insulator is rough, cracked, broken, blistered or fouled.
- 3 Set the spark plug gap. See Specification Chart in General Information Section.
- 4 Before installing spark plugs, clean away dirt on the spark plug seats. Install plugs finger tight, and tighten 1/4 turn or torque to 20 lb. ft. (27 N-m).



CARBURETOR ADJUSTMENTS

Slow Speed Mixture Adjustment

- 1 Remove access plug from cover.
- 2 Before starting engine, turn the slow speed mixture screw in until it is lightly seated then back it out 1-1/2 turns.
- 3 With the boat tied securely to dock, start engine and allow it to warm up.
- 4 Shift the outboard to forward gear and reduce engine speed to idle.
- 5 Turn the slow speed mixture screw slowly in until the engine starts to misfire or stall due to a lean mixture. Note the position of the screw slot.
- 6 Turn the slow speed mixture screw slowly out until the engine starts to "load up" or fire unevenly due to a rich mixture.
- 7 Set the slow speed mixture screw midway between the rich and lean setting. When in doubt, set the mixture slightly rich rather than too lean.

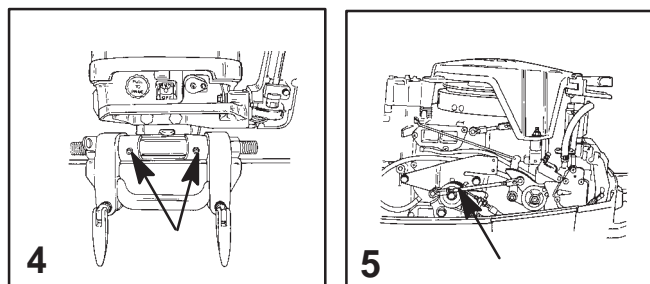
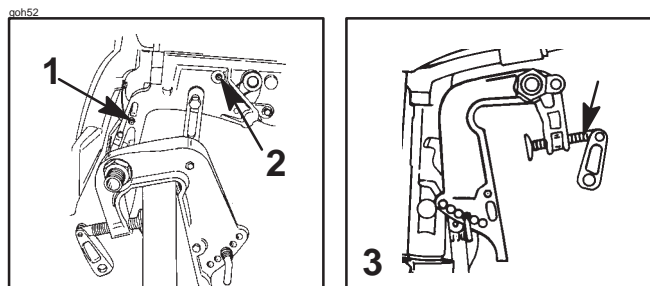


Engine Idle Speed Adjustment

- 8 With boat tied securely to dock, start engine and allow it to warm up.
- 9 Shift outboard to forward gear and reduce engine speed to idle. Make sure the Primer/Fast Idle Knob is pushed all the way in and turned to the slowest idle speed.
- 10 Adjust the idle speed screw to obtain the recommended engine idle speed. (Refer to Specification Chart in General Information Section.)

High Speed Mixture Adjustment

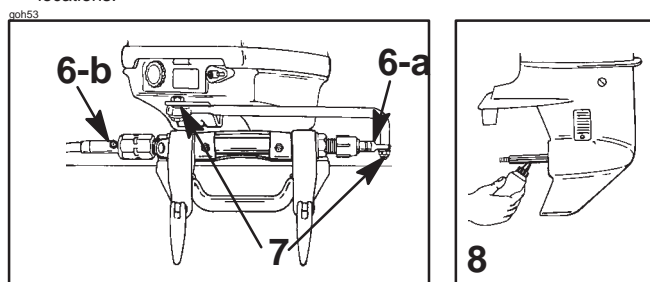
The carburetor is equipped with a standard size high speed fixed jet that is replaceable for operation at higher elevations.



LUBRICATION POINTS

Lubricate Points 1 thru 6 with Quicksilver or Mercury Precision Lubricants 2-4-C Marine Lubricant with Teflon or Special Lubricant 101.

- 1 Steering Friction Adjustment Shaft (Tiller Handle Models) - Lubricate fitting.
- 2 Swivel Bracket - Lubricate fitting.
- 3 Transom Clamp Screws - Lubricate threads.
- 4 Tilt Tube - Lubricate fittings.
- 5 Lubricate the throttle and shaft cables, moving components and pivot locations.



LUBRICATION POINTS (CONTINUED)

⚠ WARNING

The end of the steering cable must be fully retracted into the outboard tilt tube before adding lubricant. Adding lubricant to steering cable when fully extended could cause steering cable to become hydraulically locked. An hydraulically locked steering cable will cause loss of steering control, possibly resulting in serious injury or death.

- 6 Steering Cable Grease Fitting (If Equipped) - Rotate steering wheel to fully retract the steering cable end (a) into the outboard tilt tube. Lubricate through fitting (b).

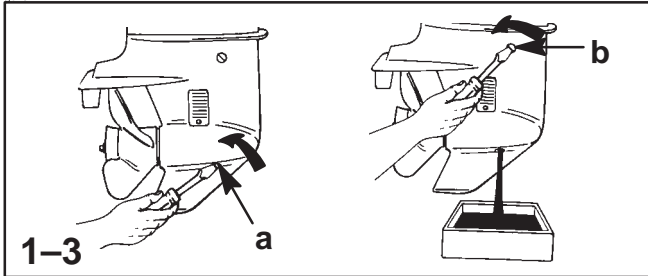
Lubricate points 7 With Light Weight Oil

- 7 Steering Link Rod Pivot Points - Lubricate points.

Lubricate Point 8 with Quicksilver or Mercury Precision Lubricants Anti-Corrosion Grease or 2-4-C Marine Lubricant with Teflon.

- 8 Propeller Shaft - Refer to Propeller Replacement for removal and installation of the propeller. Coat the entire propeller shaft with lubricant to prevent the propeller hub from corroding to the shaft.

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MAINTENANCE

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GEAR CASE LUBRICATION

When adding or changing gear case lubricant, visually check for the presence of water in the lubricant. If water is present, it may have settled to the bottom and will drain out prior to the lubricant, or it may be mixed with the lubricant, giving it a milky colored appearance. If water is noticed, have the gear case checked by your dealer. Water in the lubricant may result in premature bearing failure or, in freezing temperatures, will turn to ice and damage the gear case.

Whenever you remove the fill/drain plug, examine the magnetic end for metal particles. A small amount of metal filings or fine metal particles indicates normal gear wear. An excessive amount of metal filings or larger particles (chips) may indicate abnormal gear wear and should be checked by an authorized dealer.

Draining Gear Case

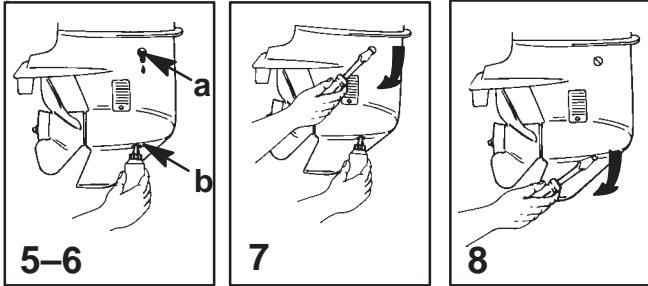
- 1 Place outboard in a vertical operating position.
- 2 Place drain pan below outboard.
- 3 Remove fill/drain plug (a) and vent plug (b) and drain lubricant.

ohv7

Gear Case Lubricant Capacity

Gear case lubricant capacity is approximately 8.8 fl. oz. (260 ml).

goh55



ohq3

Checking Lubricant Level and Refilling Gear case

- 4 Place outboard in a vertical operating position.
- 5 Remove vent plug from vent hole (a).
- 6 Place lubricant tube into the fill hole (b) and add lubricant until it appears at the vent hole (a).
- 7 Stop adding lubricant. Install the vent plug and sealing washer before removing the lubricant tube.
- 8 Remove lubricant tube and reinstall cleaned fill/drain plug and sealing washer.

ohr1

SUBMERGED OUTBOARD

A submerged outboard will require service within a few hours by an authorized dealer once the outboard is recovered from the water. This immediate attention by a servicing dealer is necessary once the engine is exposed to the atmosphere to minimize internal corrosion damage to the engine.

oi

STORAGE

oia1

STORAGE PREPARATION

The major consideration in preparing your outboard for storage is to protect it from rust, corrosion, and damage caused by freezing of trapped water.

The following storage procedures should be followed to prepare your outboard for out-of-season storage or prolonged storage (two months or longer).

CAUTION

Never start or run your outboard (even momentarily) without water circulating through the cooling water intake in the gear case to prevent damage to the water pump (running dry) or overheating of the engine.

eia11

Fuel system

IMPORTANT: Gasoline containing alcohol (ethanol or methanol) can cause a formation of acid during storage and can damage the fuel system. If the gasoline being use contains alcohol, it is advisable to drain as much of the remaining gasoline as possible from the fuel tank, remote fuel line, and engine fuel system.

Fill the fuel system (tank, hoses, fuel pump, and carburetor) with treated (stabilized) fuel at a 2% gasoline/oil mix to help prevent corrosion and the formation of varnish and gum. Proceed with following instructions.

1. Portable Fuel Tank - Pour the required amount of Gasoline Stabilizer (follow instructions on container) into fuel tank. Tip fuel tank back and forth to mix stabilizer with the fuel.
2. Permanently Installed Fuel Tank - Pour the required amount of Gasoline Stabilizer (follow instructions on container) into a separate container and mix with approximately one quart (one liter) of gasoline. Pour this mixture into fuel tank.
3. Place the outboard in water or connect flushing attachment for circulating cooling water. Run the engine for ten minutes to allow treated fuel to reach the carburetor.

oia4

Protecting External Outboard Components

4. Lubricate all outboard components listed in the Inspection and Maintenance Schedule.
5. Touch up any paint nicks. See your dealer for touch-up paint.
6. Spray Quicksilver or Mercury Precision Lubricants Corrosion Guard on external metal surfaces (except corrosion control anodes).

oid12

Protecting Internal Engine Components

Note: Before performing Steps 7 and 8, make sure the fuel system has been prepared for storage. Refer to Fuel System on previous page.

7. Place the outboard in water or connect flushing attachment for circulating cooling water. Start the engine and let it run in neutral to warm up.
8. With engine running at fast idle, stop the fuel flow by disconnecting the remote fuel line. When engine begins to stall, quickly spray Quicksilver or Mercury Precision Lubricants Storage Seal into carburetor until engine stops from lack of fuel.
9. Remove the spark plugs and inject a five second spray of storage seal around the inside of each cylinder.
10. Rotate the flywheel manually several times to distribute the storage seal in the cylinders. Reinstall spark plugs.

oia1

Gear Case

11. Drain and refill the gear case lubricant (refer to maintenance procedure).

oil2

Positioning Outboard for Storage

Store outboard in an upright position to allow water to drain out of outboard.

CAUTION

If outboard is stored tilted up in freezing temperature, trapped cooling water or rain water that may have entered the propeller exhaust outlet in the gear case could freeze and cause damage to the outboard.

oig1

Battery Storage

1. Follow the battery manufacturers instructions for storage and recharging.
2. Remove the battery from the boat and check water level. Recharge if necessary.
3. Store the battery in a cool, dry place.
4. Periodically check the water level and recharge the battery during storage.

TROUBLESHOOTING

02

1 STARTER MOTOR WILL NOT CRANK THE ENGINE (ELECTRIC START MODELS)

Possible Causes

- Remote control models - Blown 20 Amp fuse in the starting circuit. Refer to Maintenance Section
- Outboard is not shifted to neutral position.
- Weak battery or battery connections are loose or corroded.
- Ignition key switch failure.
- Wiring or electrical connection faulty.
- Starter motor or starter solenoid failure.

2 ENGINE WILL NOT START

Possible Causes

- Lanyard stop switch not in RUN position.
- Incorrect starting procedure. Refer to Operating Section.
- Old or contaminated gasoline.
- Engine flooded. Refer to Operating Section.
- Fuel is not reaching the engine.
 - a. Fuel tank is empty.
 - b. Fuel tank vent not open or restricted.
 - c. Fuel line is disconnected or kinked.
 - d. Primer bulb not squeezed.
 - e. Primer bulb check valve is faulty.
 - f. Fuel filter is obstructed. Refer to Maintenance Section.
 - g. Fuel pump failure.
 - h. Fuel tank filter obstructed.
- Ignition system component failure
- Spark plugs fouled or defective. Refer to Maintenance Section.

3 ENGINE RUNS ERRATICALLY

Possible Causes

- Spark plugs fouled or defective. Refer to Maintenance Section.
- Incorrect setup and adjustments.
- Fuel is being restricted to the engine.
 - a. Engine Fuel filter is obstructed. Refer to Maintenance Section.
 - b. Fuel tank filter obstructed.
 - c. Stuck anti-siphon valve located on permanently built in type fuel tanks.
 - d. Fuel line is kinked or pinched.
- Fuel pump failure.
- Ignition system component failure.

4 PERFORMANCE LOSS

Possible Causes

- Throttle not fully open.
- Damaged or improper size propeller.
- Incorrect engine timing, adjustments, or setup.
- Boat overloaded or load improperly distributed.
- Excessive water in bilge.
- Boat bottom is dirty or damaged.

5 BATTERY WILL NOT HOLD CHARGE

Possible Causes

- Battery connections are loose or corroded.
- Low electrolyte level in battery.
- Worn out or inefficient battery.
- Excessive use of electrical accessories.
- Defective rectifier, alternator, or voltage regulator.

or

OWNER SERVICE ASSISTANCE

006

LOCAL REPAIR SERVICE

Always return your outboard to your local authorized dealer should the need for service arise. Only he has the certified mechanics, knowledge, special tools and equipment and the genuine parts and accessories to properly service your engine should the need occur. He knows your engine best.

002

SERVICE AWAY FROM HOME

If you are away from your local dealer and the need arises for service, contact the nearest authorized dealer. Refer to the Yellow Pages of the telephone directory. If, for any reason, you cannot obtain service, contact the nearest Mercury Marine (International) Marine Power Service Office

or

PARTS AND ACCESSORIES INQUIRES

All inquiries concerning genuine replacement parts and accessories should be directed to your local authorized dealer. The dealer has the necessary information to order parts and accessories for you. When inquiring on parts and accessories, the dealer requires the model and serial number to order the correct parts.

004

SERVICE ASSISTANCE

Your satisfaction with your outboard product is very important to your dealer and to us. If you ever have a problem, question or concern about your outboard product, contact your dealer or any Authorized Dealership. If additional assistance is required, take these steps.

1 *Talk with the dealership's sales manager or service manager. If this has already been done, then contact the owner of the dealership.*

2 *Should you have a question, concern or problem that cannot be resolved by your dealership, please contact Mercury Marine Service Office (International) Marine Power branch or distributor Service for assistance. They will work with your dealership to resolve all problems.*

The following information will be needed by the service office:

- Your name and address
- Daytime telephone number
- Model and serial number of your outboard
- The name and address of your dealership
- Nature of problem




Mercury Marine Service Offices are listed on the next page.

OWNER SERVICE ASSISTANCE

or

MERCURY MARINE SERVICE OFFICES

For assistance, call, fax, or write. *Please include your daytime telephone number with mail and fax correspondence.*

		
United States		
(920) 929 - 5040	(920) 929 - 5893	Mercury Marine W6250 W. Pioneer Road, P.O. Box 1939 Fond du Lac, WI 54936 - 1939, USA
Canada		
(905) 567-6372	(905) 567-8515	Mercury Marine Ltd. 2395 Meadowpine Blvd. Mississauga, Ontario L5N 7W6
Australia, Pacific		
(61) (3) 9791 - 5822	(61) (3) 9793 - 5880	Mercury Marine Australia 132 - 140 Frankston Road Dandenong, Victoria 3164, Australia
Europe, Middle East, Africa		
(32) (87) 32 • 32 • 11	(32) (87) 31 • 19 • 65	Marine Power - Europe, Inc. Parc Industriel de Petit - Rechain B - 4800 Verviers, Belgium
Mexico, Central America, South America, Caribbean		
(305) 385 - 9585	(305) 385 - 5507	Mercury Marine - Latin America & Caribbean 9010 S.W. 137th Ave., Suite 226 Miami, FL 33186 U.S.A.
Japan		
81-53-423-2500	81-53-423-2510	Mercury Marine - Japan 283-1 Anshin-cho Hamamatsu, Shizuoka, 435-0005 Japan
Asia, Singapore		
5466160	5467789	Mercury Marine Singapore 72 Loyang Way Singapore 508762

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Abstract