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Notice

Throughout this publication, "Dangers", "Warnings" and "Cautions" (accompanied by the International HAZARD Symbol 🛕) are used to alert the mechanic to special instructions concerning a particular service or operation that may be hazardous if performed incorrectly or carelessly. **OBSERVE THEM CAREFULLY!**

These "Safety Alerts" alone cannot eliminate the hazards that they signal. Strict compliance to these special instructions when performing the service, plus "Common Sense" operation, are major accident prevention measures.

A DANGER

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

A WARNING

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

A CAUTION

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

Notice to Users of This Manual

This service manual has been written and published by the Service Department of Mercury Marine to aid our dealers' mechanics and company service personnel when servicing the products described herein.

It is assumed that these personnel are familiar with the servicing procedures of these products, or like or similar products manufactured and marketed by Mercury Marine, that they have been trained in the recommended servicing procedures of these products which includes the use of mechanics' common hand tools and the special Mercury Marine or recommended tools from other suppliers.

We could not possibly know of and advise the service trade of all conceivable procedures by which a service might be performed and of the possible hazards and/or results of each method. We have not undertaken any such wide evaluation. Therefore, anyone who uses a service procedure and/or tool, which is not recommended by the manufacturer, first must completely satisfy himself that neither his nor the products safety will be endangered by the service procedure selected.

All information, illustrations and specifications contained in this manual are based on the latest product information available at the time of publication. As required, revisions to this manual will be sent to all dealers contracted by us to sell and/or service these products.

It should be kept in mind, while working on the product, that the electrical system and ignition system are capable of violent and damaging short circuits or severe electrical shocks. When performing any work where electrical terminals could possibly be grounded or touched by the mechanic, the battery cables should be disconnected at the battery.

Any time the intake or exhaust openings are exposed during service they should be covered to protect against accidental entrance of foreign material which could enter the cylinders and cause extensive internal damage when the engine is started.

It is important to note, during any maintenance procedure replacement fasteners must have the same measurements and strength as those removed. Numbers on the heads of the metric bolts and on the surfaces of metric nuts indicate their strength. American bolts use radial lines for this purpose, while most American nuts do not have strength markings. Mismatched or incorrect fasteners can result in damage or malfunction, or possibly personal injury. Therefore, fasteners removed should be saved for reuse in the same locations whenever possible. Where the fasteners are not satisfactory for re-use, care should be taken to select a replacement that matches the original.

We reserve the right to make changes to this manual without prior notification.

Refer to dealer service bulletins for other pertinent information concerning the products described in this manual.

Engine Mechanical Components

Many of the engine mechanical components are designed for marine applications. Unlike automotive engines, marine engines are subjected to extended periods of heavy load and wide-open-throttle operation and, therefore, require heavy-duty components. Special marine engine parts have design and manufacturing specifications which are required to provide long life and dependable performance. Marine engine parts also must be able to resist the corrosive action of salt or brackish water that will rust or corrode standard automotive parts within a short period of time.

Failure to use recommended Quicksilver service replacement parts can result in poor engine performance and/or durability, rapid corrosion of parts subjected to salt water and possibly complete failure of the engine.

Use of parts other than recommended service replacement parts, will void the warranty on those parts which are damaged as a result of the use of other than recommended replacement parts.

Replacement Parts

WARNING

Electrical, ignition and fuel system components on MerCruiser Engines and Stern Drives are designed and manufactured to comply with U.S. Coast Guard Rules and Regulations to minimize risks of fire or explosion.

Use of replacement electrical, ignition or fuel system components, which do not comply to these rules and regulations, could result in a fire or explosion hazard and should be avoided.

When servicing the electrical, ignition and fuel systems, it is extremely important that all components are properly installed and tightened. If not, any electrical or ignition component opening would permit sparks to ignite fuel vapors from fuel system leaks, if they existed.

Models Covered in This Manual

Sterndrive (MCM) Model	Serial Number
496 Mag HO	0M000000 & Up
496 Mag	0M000000 & Up

Inboard (MIE) Model	Serial Number
8.1S HO	0M000000 & Up
8.1S Horizon	0M000000 & Up

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GENERAL INFORMATION SERVICE MANUAL NUMBER 30

Introduction

This comprehensive overhaul and repair manual is designed as a service guide for the models previously listed. It provides specific information, including procedures for disassembly, inspection, assembly and adjustment to enable dealers and service mechanics to repair and tune these engines.

Before attempting repairs or tune-up, it is suggested that the procedure first be read through to gain knowledge of the methods and tools used and the cautions and warnings required for safety.

How to Use This Manual

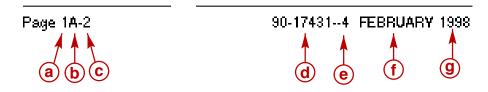
This manual is divided into sections which represent major components and systems.

Some sections are further divided into parts which more fully describe the component.

Sections and section parts are listed on the Service Manual Outline page following V-8 Models Covered in This Manual page.

Page Numbering

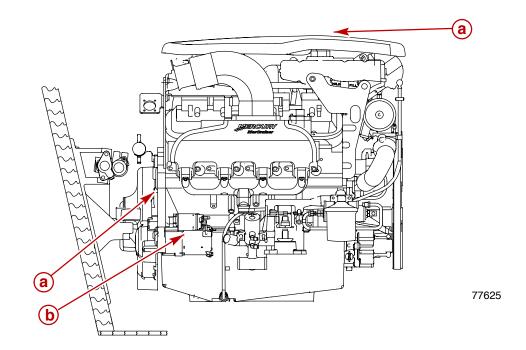
Two number groups appear at the bottom of each page. Following is an example and description.



- a Section Number
- **b** Section Part
- c Page Number
- d Manual Number
- e Revision No. 4
- f Month Printed
- g Year Printed

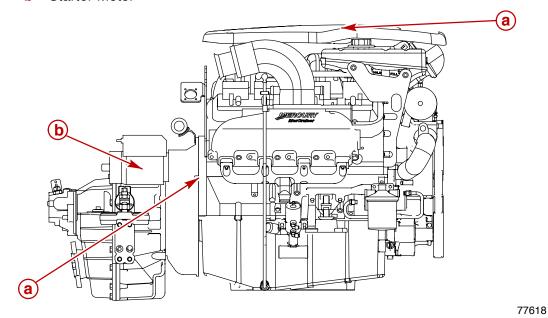
SERVICE MANUAL NUMBER 30 GENERAL INFORMATION

Engine Serial Number Locations



Sterndrive (MCM)

- a Serial Number Plate
- **b** Starter Motor



Inboard (MIE)

- a Serial Number Plate
- **b** Starter Motor

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MAINTENANCE SERVICE MANUAL NUMBER 30

Lubricants / Sealants / Adhesives

Description	Part Number
Quicksilver Liquid Neoprene	92-257113
Quicksilver 2-4-C Marine Lubricant With Teflon	92-825407A3
Loctite Pipe Sealant With Teflon	Obtain Locally
Quicksilver U-Joint and Gimbal Bearing Grease	92-828052A2
Quicksilver Engine Coupler Spline Grease	92-816391A4

Maintenance Schedules

Maintenance Intervals

Maintenance intervals and the corresponding tasks, as shown in this schedule or found in a previous schedule, are based on an average boating application and environment. However, individual operating habits and personal maintenance preferences can impact the suggested intervals. In consideration of these factors, Mercury Mercruiser has adjusted some maintenance intervals and corresponding tasks. In some cases, this may allow for more individual tasks to be performed in a single visit to the serving dealer. Therefore, the boat owner and servicing dealer should discuss the current Maintenance Schedule and develop appropriate maintenance intervals.

Always disconnect battery cables from battery BEFORE working around electrical systems components to prevent injury to yourself and damage to electrical system should a wire be accidentally shorted.

Gas Inboard

Routine Maintenance *						
	Each Day Start	Each Day End	Weekly	Every Two Months		
Check crankcase oil (interval can be extended based on experience).	*					
If operating in salt, brackish or polluted waters, flush cooling system after each use.		*				
Check transmission fluid.			*			
Check water pickups for debris or marine growth. Check water strainer and clean. Check coolant level.			*			

^{*} Only perform maintenance which applies to your particular power package