

# 2007 Service Manual



75, 90 HP

Evinrude® E-TEC®

**EVINRUDE**®



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# SAFETY INFORMATION



**Before working on any part of the outboard, read the SAFETY section at the end of this manual.**

This manual is written for qualified, factory-trained technicians who are already familiar with the use of *Evinrude®/Johnson®* Special Tools. This manual is not a substitute for work experience. It is an organized guide for reference, repair, and maintenance of the outboard(s).

This manual uses the following signal words identifying important safety messages.

	<b>DANGER</b>	
<b>Indicates an imminently hazardous situation which, if not avoided, WILL result in death or serious injury.</b>		

	<b>WARNING</b>	
<b>Indicates a potentially hazardous situation which, if not avoided, CAN result in severe injury or death.</b>		

	<b>CAUTION</b>	
<b>Indicates a potentially hazardous situation which, if not avoided, MAY result in minor or moderate personal injury or property damage. It also may be used to alert against unsafe practices.</b>		

**IMPORTANT:** Identifies information that will help prevent damage to machinery and appears next to information that controls correct assembly and operation of the product.

These safety alert signal words mean:

ATTENTION!  
BECOME ALERT!  
YOUR SAFETY IS INVOLVED!

Always follow common shop safety practices. If you have not had training related to common shop safety practices, you should do so to protect yourself, as well as the people around you.

It is understood that this manual may be translated into other languages. In the event of any discrepancy, the English version shall prevail.

To reduce the risk of personal injury, safety warnings are provided at appropriate times throughout the manual.

DO NOT make any repairs until you have read the instructions and checked the pictures relating to the repairs.

Be careful, and never rush or guess a service procedure. Human error is caused by many factors: carelessness, fatigue, overload, preoccupation, unfamiliarity with the product, and drugs and alcohol use, to name a few. Damage to a boat and outboard can be fixed in a short period of time, but injury or death has a lasting effect.

When replacement parts are required, use *Evinrude/Johnson Genuine Parts* or parts with equivalent characteristics, including type, strength and material. Using substandard parts could result in injury or product malfunction.

Torque wrench tightening specifications must be strictly followed. Replace any locking fastener (locknut or patch screw) if its locking feature becomes weak. Definite resistance to turning must be felt when reusing a locking fastener. If replacement is specified or required because the locking fastener has become weak, use only authorized *Evinrude/Johnson Genuine Parts*.

If you use procedures or service tools that are not recommended in this manual, YOU ALONE must decide if your actions might injure people or damage the outboard.



## DANGER



Contact with a rotating propeller is likely to result in serious injury or death. Assure the engine and prop area is clear of people and objects before starting engine or operating boat. Do not allow anyone near a propeller, even when the engine is off. Blades can be sharp and the propeller can continue to turn even after the engine is off. Remove propeller before servicing and when running the outboard on a flushing device.

**DO NOT** run the engine indoors or without adequate ventilation or permit exhaust fumes to accumulate in confined areas. Engine exhaust contains carbon monoxide which, if inhaled, can cause serious brain damage or death.



## WARNING



Wear safety glasses to avoid personal injury, and set compressed air to less than 25 psi (172 kPa).

The motor cover and flywheel cover are machinery guards. Use caution when conducting tests on running outboards. **DO NOT** wear jewelry or loose clothing. Keep hair, hands, and clothing away from rotating parts.

During service, the outboard may drop unexpectedly. Avoid personal injury; always support the outboard's weight with a suitable hoist or the tilt support bracket during service.

To prevent accidental starting while servicing, disconnect the battery cables at the battery. Twist and remove all spark plug leads.

The electrical system presents a serious shock hazard. **DO NOT** handle primary or secondary ignition components while outboard is running or flywheel is turning.

Gasoline is extremely flammable and highly explosive under certain conditions. Use caution when working on any part of the fuel system.

Protect against hazardous fuel spray. Before starting any fuel system service, carefully relieve fuel system pressure.

Do not smoke, or allow open flames or sparks, or use electrical devices such as cellular phones in the vicinity of a fuel leak or while fueling.

Keep all electrical connections clean, tight, and insulated to prevent shorting or arcing and causing an explosion.

Always work in a well ventilated area.

Replace any locking fastener (locknut or patch screw) if its locking feature becomes weak. Definite resistance to tightening must be felt when reusing a locking fastener. If replacement is indicated, use only authorized replacement or equivalent.

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# TABLE OF CONTENTS

<b>SECTION</b> .....	<b>PAGE</b>
INTRODUCTION .....	5
1 SERVICE SPECIFICATIONS AND SPECIAL TOOLS ..	17
2 INSTALLATION AND PREDELIVERY .....	31
3 MAINTENANCE .....	71
4 ENGINE MANAGEMENT MODULE (EMM) .....	85
5 SYSTEM ANALYSIS .....	103
6 ELECTRICAL AND IGNITION .....	123
7 FUEL SYSTEM .....	155
8 OILING SYSTEM .....	177
9 COOLING SYSTEM .....	191
10 POWERHEAD .....	201
11 MIDSECTION .....	239
12 GEARCASE .....	255
13 TRIM AND TILT .....	285
SAFETY .....	S-1
INDEX .....	Index-1
TROUBLE CHECK CHART .....	T-1
DIAGRAMS	
<i>EMM</i> SERVICE CODE CHART	

# INTRODUCTION

## CONTENTS

<b>MODELS COVERED IN THIS MANUAL</b> .....	<b>6</b>
IDENTIFYING MODEL AND SERIAL NUMBERS .....	<b>6</b>
<b>MODEL DESIGNATION</b> .....	<b>7</b>
<b>TYPICAL PAGE – A</b> .....	<b>8</b>
<b>TYPICAL PAGE – B</b> .....	<b>9</b>
<b>TYPICAL PAGE – C</b> .....	<b>10</b>
<b>TYPICAL PAGE – D</b> .....	<b>11</b>
<b>ABBREVIATIONS USED IN THIS MANUAL</b> .....	<b>12</b>
UNITS OF MEASUREMENT .....	<b>12</b>
LIST OF ABBREVIATIONS .....	<b>12</b>
<b>ENGINE EMISSIONS INFORMATION</b> .....	<b>13</b>
MANUFACTURER’S RESPONSIBILITY .....	<b>13</b>
DEALER’S RESPONSIBILITY .....	<b>13</b>
OWNER’S RESPONSIBILITY .....	<b>13</b>
EPA EMISSION REGULATIONS .....	<b>13</b>
<b>PRODUCT REFERENCE AND ILLUSTRATIONS</b> .....	<b>14</b>
<b>SYMBOLS</b> .....	<b>14</b>
ELECTRICAL .....	<b>14</b>
VALUES .....	<b>15</b>
<b>NOTES</b> .....	<b>16</b>

## INTRODUCTION

### MODELS COVERED IN THIS MANUAL

# MODELS COVERED IN THIS MANUAL

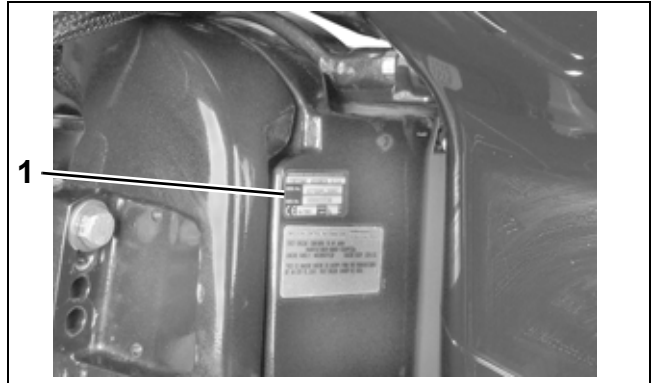
This manual covers service information on all 3-cylinder, 79 cubic inch, *Evinrude E-TEC™* models.

Model Number	Start	Shaft	Steer
E75DPLSUM	Electric	20"	Remote
E90DPLSUM	Electric	20"	Remote
E90DPXSUM	Electric	25"	Remote
E90DSLUM	Electric	20"	Remote

Use this manual together with the proper Parts Catalog for part numbers and for exploded views of the outboard, which are a valuable aid to disassembly and reassembly. This manual presents the U.S. values and dimensions first and the metric values and dimensions second, inside parentheses ( ).

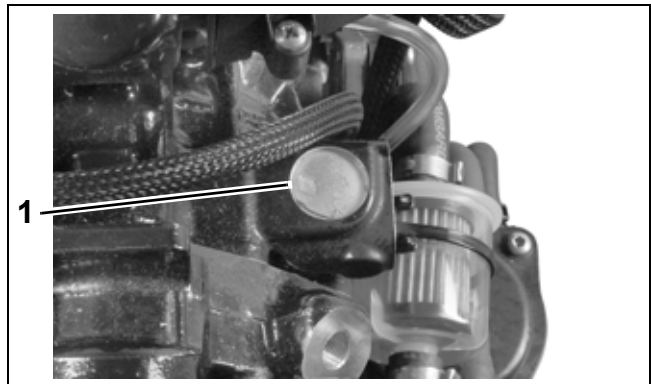
## Identifying Model and Serial Numbers

Outboard model and serial numbers are located on the swivel bracket and on the powerhead.



1. Model and serial number

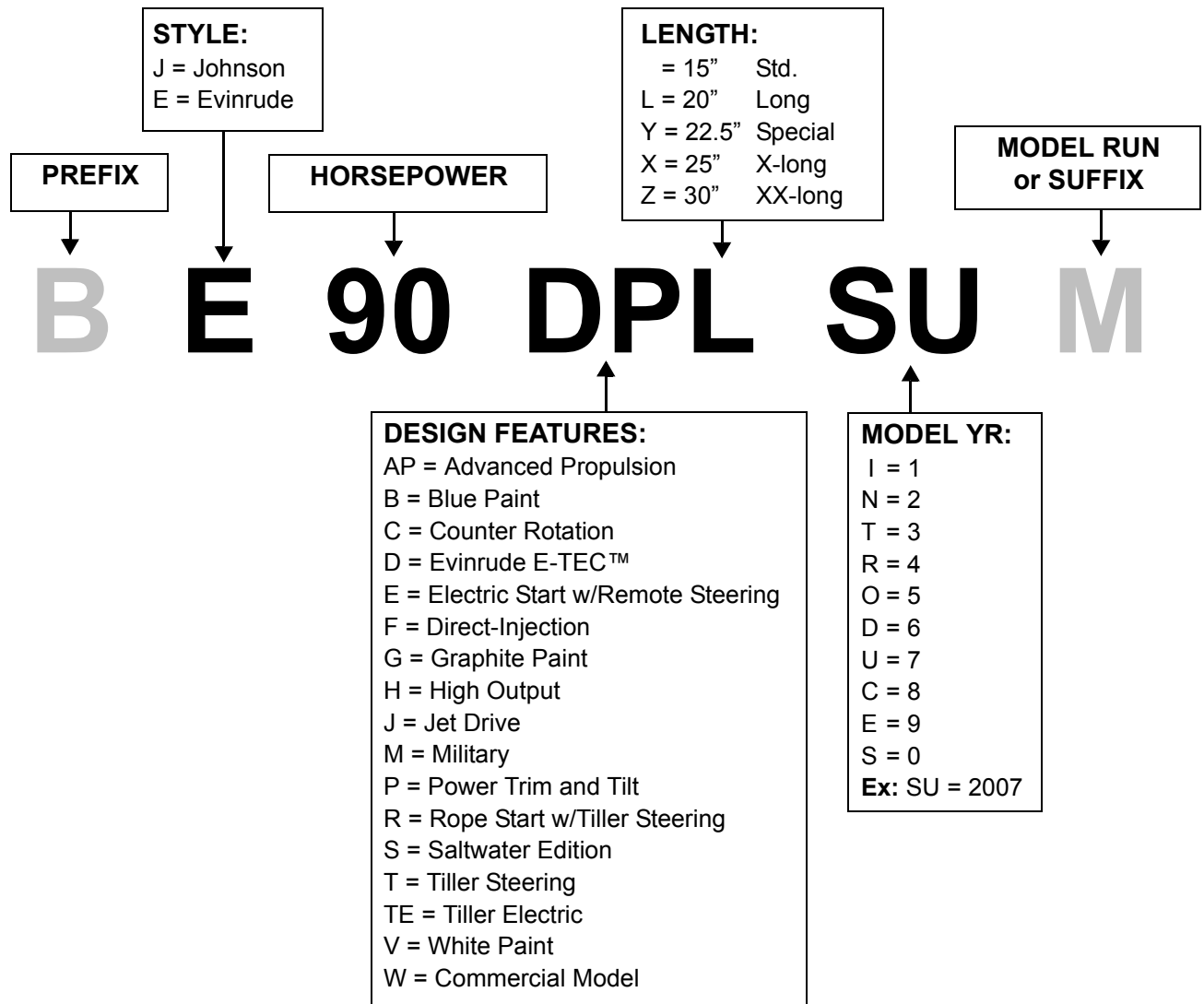
002147



1. Serial number

002226

# MODEL DESIGNATION



# TYPICAL PAGE – A

## GEARCASE SERVICE CHART

### **SERVICE CHART**

*60° V4 20 IN. MODELS*

Subsection title indicates beginning of the subsection.

Italic subheading above Service Chart indicates pertaining models.

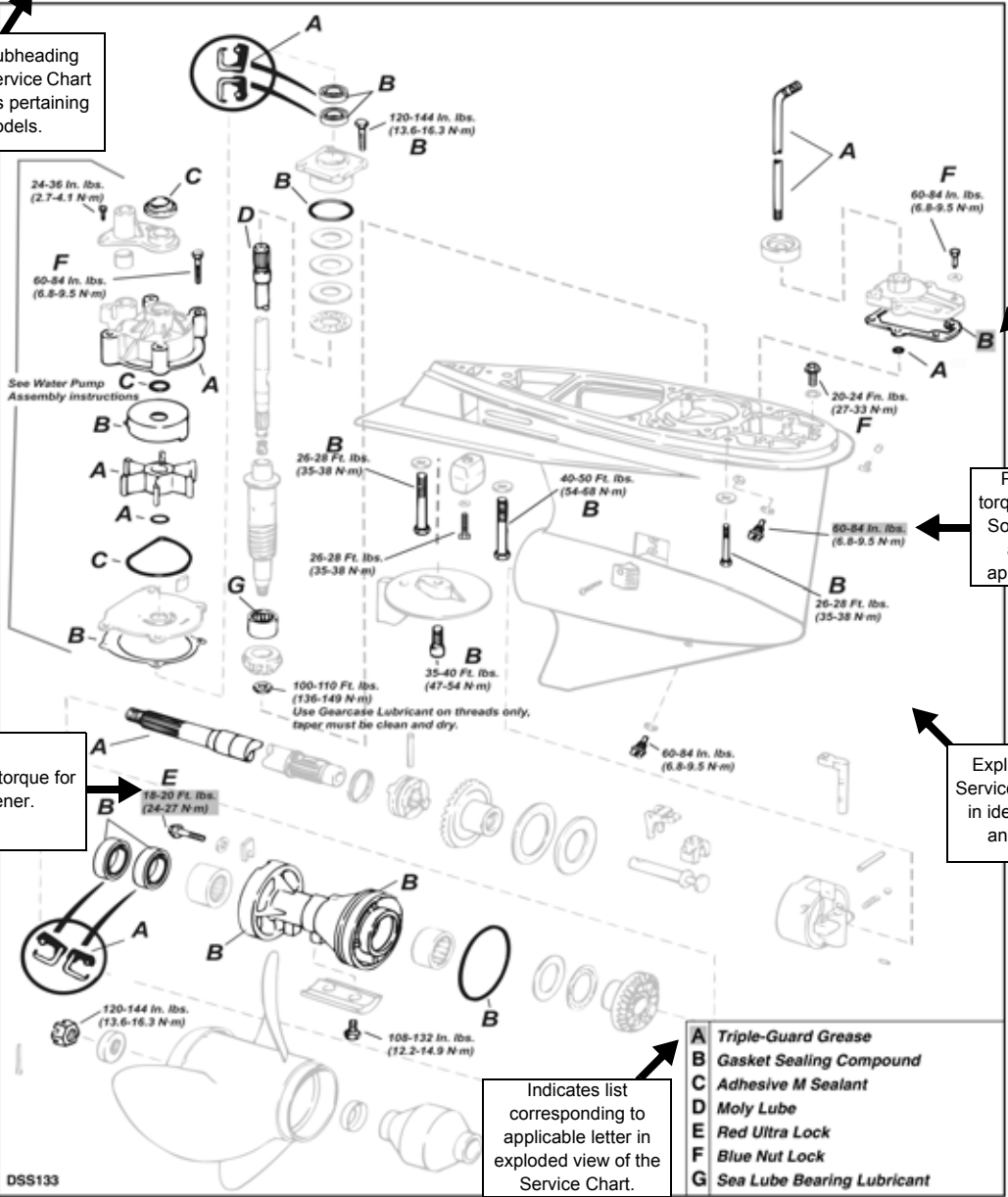
Bold letter indicates liquid product to be applied to a surface

Pay attention to torque specifications. Some units appear as in. lbs. Use appropriate torque.

Exploded view of Service Chart assists in identifying parts and positions

Tightening torque for a fastener.

Indicates list corresponding to applicable letter in exploded view of the Service Chart.



- A** Triple-Guard Grease
- B** Gasket Sealing Compound
- C** Adhesive M Sealant
- D** Moly Lube
- E** Red Ultra Lock
- F** Blue Nut Lock
- G** Sea Lube Bearing Lubricant

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