

# Service Bulletin

**Bulletin No. 2011-01** 

Circulate to:	Sales Manager	☐ Accounting	Service Manager	Technician	Parts Manager

## Upgraded Gearcase Offering - Verado L6 Models

### **Models Affected**

Models Covered	Serial Number Or Year
200/225/250/275/300 with 4.8 Inch Gearcase Torpedo	1B831023 and Below

NOTE: The gearcase for the 350 Verado SCi is not covered by this service bulletin.

#### Situation

With the introduction of the new 5.44 inch Verado gearcase, Mercury Marine can provide its customers with an improved gearcase for world-class reliability, durability, corrosion resistance, performance, and versatility in all waters of the world. Mercury Marine would like to offer the new gearcase as an upgrade to our qualifying customers as follows.

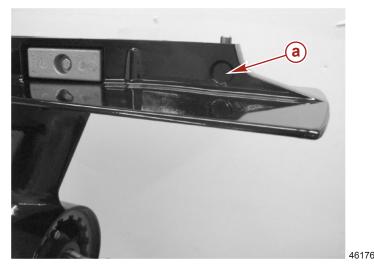
**NOTE:** Propellers and propeller hardware requirements are not covered under this upgrade and are the responsibility of the customer.

#### SINGLE OUTBOARD - HEAVY BOATS

Should a Verado standard gearcase (4.8 inch torpedo) experience a warrantable failure on a single outboard, heavy boat (7 meters [23 feet] or longer), Mercury Marine will replace the gearcase with the new 5.44 inch gearcase.

#### MULTIPLE OUTBOARD BOATS

When servicing a warrantable 4.8 inch gearcase failure on a multiple outboard Verado boat package, Mercury Marine will replace the failed gearcase with the new 5.44 inch gearcase and upgrade the remaining serviceable gearcases on the boat to the new gearcase to maintain a matching set. These gearcases will be provided at no charge to qualifying customers.



 a - Recessed circle (port side) identification mark for new gearcase with 5.44 inch torpedo

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## **Parts Required**

Order the appropriate warranty gearcase replacement from the following table.

NOTE: When upgrading a 300 HP Verado with a 1.75:1 gear ratio, the replacement gearcase will be a 1.85:1 gear ratio.

5.44 Inch Gearcase Offering – Verado L6				
Part Number	Description			
1600-8M0049863	Gearcase assembly (1.85:1) L			
1600-8M0049864	Gearcase assembly (1.85:1) XL			
1600-8M0049866	Gearcase assembly (1.85:1) XXL			
1600-8M0049868	Gearcase assembly (1.85:1) CL			
1600-8M0049865	Gearcase assembly (1.85:1) CXL			
1600-8M0049867	Gearcase assembly (1.85:1) CXXL			

#### **Owner Notification**

Dealers are advised to inform qualifying customers of this service bulletin upgrade prior to the warranty replacement of a Verado gearcase. With the acceptance of this offered gearcase upgrade, the customer/dealer must accept the cost of any required propeller/propeller hardware changes necessary to bring the boat/outboard package into factory specifications.

If covered, the dealer will install new gearcases and **must** verify the engine is in the proper WOT RPM range of 5800-6400 RPMs. If the boat is out of that range, the engines must be repropped to get the engines in the proper operating range. **Incorrect propping will lead to premature failure with the new gearcase.** 

**NOTE:** Propellers and propeller hardware requirements are not covered under this upgrade and are the responsibility of the customer.

**Product failures due to incorrect propping are not covered by warranty.** There is no labor allowance for water testing. If the dealer does not run the boat, they can inform the customer of the WOT range and to report back to the dealer if out of range.

## Warranty

Mercury Marine will credit the dealer for the cost of the gearcase and labor. Complete a warranty claim for the failed unit listing:

- · Outboard serial number
- · Engine run hours
- Qty.1 1600-8M0049 Gearcase assembly from the 5.44 inch gearcase offering Verado L6 table
- Normal flat rate labor applies Single or first (failed) gearcase

When replacing the remaining serviceable gearcases on a multiple outboard Verado boat package, it will be required that the dealer contact Mercury Marine for a claim preauthorization. Please have the following information available when requesting the preauthorization:

- · Outboard serial number for the failed gearcase
- Serial numbers of the additional outboards from the same boat that have serviceable gearcases that you are requesting to be upgraded
- Engine run hours for each outboard receiving the gearcase upgrade

#### **US AND CANADA**

Complete and process the claim via MercNET or return a warranty claim form. Return gearcase using the packaging from the new replacement gearcase. Attach a copy of the claim to the package and mark the package with the engine serial number using a permanent marker.

#### INTERNATIONAL

Follow instructions issued by the Marine Power International office or by an authorized Marine Power Distributor.

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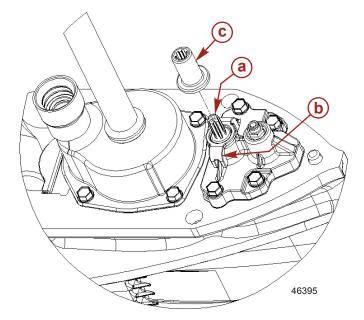
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## Shift Shaft Alignment for 5.44 Inch Verado Gearcase Installation

IMPORTANT: The 5.44 inch Verado gearcase is not equipped with a neutral detent. Use this information to supplement the current Verado service manual for gearcase installation.

- While rotating the propeller shaft in either direction, turn the shift shaft counterclockwise to engage the sliding clutch fully into the gear. Note the position of the shift shaft.
- 2. Turn the shift shaft clockwise to allow the propeller shaft to turn freely. While rotating the propeller shaft, turn the shift shaft clockwise fully into gear. Note the position of the shift shaft.
- 3. Rotate the shift shaft counterclockwise to the center location of the noted gear engagements. This is the neutral position.
- 4. Rotate the propeller shaft to verify the neutral position. The propeller shaft will rotate freely in either direction.
- 5. Install the shift shaft retainer assembly.
- Install the coupling onto the shift shaft.



- a Shift shaft
- **b** Retainer assembly
- c Coupling



## **MAINTENANCE**

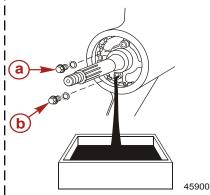
#### **Gearcase Lubrication**

IMPORTANT: The attached owner's manual page should be printed out and given to customers receiving the Verado 5.44 inch gearcase upgrade.

#### 137 MM (5.4 IN.) DIAMETER GEARCASE

#### **Draining Gearcase**

- 1. Place outboard in a vertical operating position.
- 2. Remove propeller. Refer to Propeller Replacement.
- 3. Place drain pan below outboard.
- 4. Remove vent plug and fill/drain plug and drain lubricant.



a -Vent plug

**b** -Fill/drain plug

#### Gearcase Lubricant Capacity

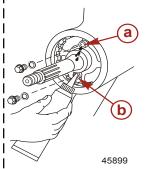
Gearcase lubricant capacity is approximately 850 ml (28.7 fl oz).

#### | Gearcase Lubricant Recommendation

Mercury or Quicksilver High Performance Gear Lubricant.

#### Checking Lubricant Level and Refilling Gearcase

- 1. Place outboard in a vertical operating position.
- Remove vent plug/sealing washer.
- 3. Remove fill/drain plug. Place lubricant tube into the fill hole and add lubricant until it appears at the vent hole.



- a -Vent hole
- **b** -Fill hole

#### IMPORTANT: Replace sealing washers if damaged.

- Stop adding lubricant. Install the vent plug and sealing washer before removing the lubricant tube.
- Remove lubricant tube and reinstall cleaned fill/drain plug and sealing washer.

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