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## Additional Gear Lube Required During the Break-In of Bravo Sterndrives

### Models Affected

All Bravo Sterndrives

### Situation

MerCruiser has received reports of a drop in the level of gear lube after an engine is first put into service.

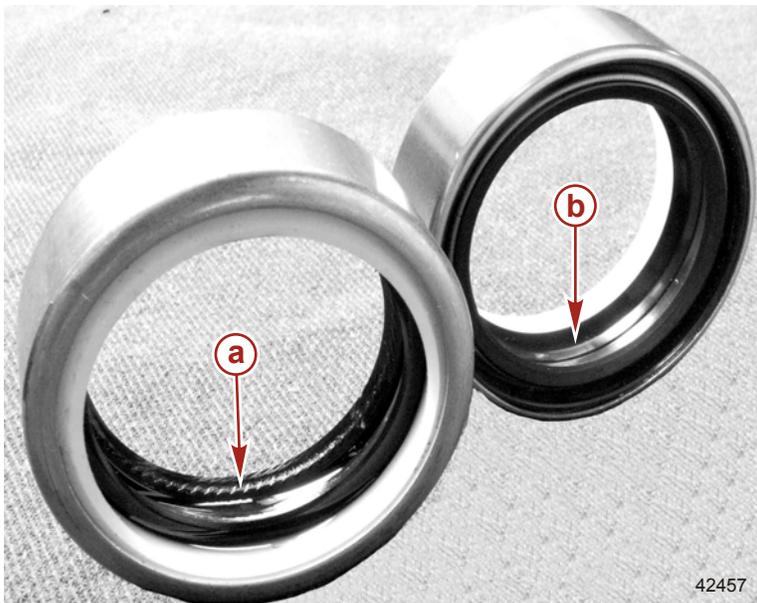
During the initial drive installation, air is trapped in the top of the driveshaft housing. This void is filled from the gear lube monitor during the sterndrive break-in period. As the air is purged from the sterndrive through the monitor bottle, the lube level in the bottle will drop.

New installations may require as much as 470 mL (16 fl oz) of gear lube added to the monitor bottle during the break-in period (20 hours of running time). It is important to monitor and maintain the gear lube level during the break-in period.

**IMPORTANT:** The gear lube monitor must be checked and filled if necessary at the beginning of each day when the engine is cold. If the gear lube alarm sounds during the day's activity, add the appropriate amount of gear lube to the monitor bottle.

### Correction

If the gear lube level continues to drop after the drive has gone through the break-in period or 470 mL (16 fl oz) has been added to the monitor bottle, a leak is indicated. On Bravo Three models, if the source of the leak cannot be specifically determined, replace the inner propeller shaft seal. A new inner propeller shaft seal with improved sealing characteristics has been developed. MerCruiser has also developed a new seal removal tool, which makes it easier to remove the seal without damaging the needle bearings behind the seal. Refer to **MerCruiser Service Bulletin 2009-16**.



- a - Original design Bravo Three inner propeller shaft oil seal with helix on seal face.
- b - New design Bravo Three inner propeller shaft oil seal with helix removed from seal face.

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**Additional Gear Lube Required During the Break-In of Bravo Sterndrives**

Original Bravo Three inner propeller shaft seal	-	New Bravo Three inner propeller shaft seal
26-861695	Supersedes to	26-8M0033407

Description	Part number
Seal removal tool	91-8M2013914

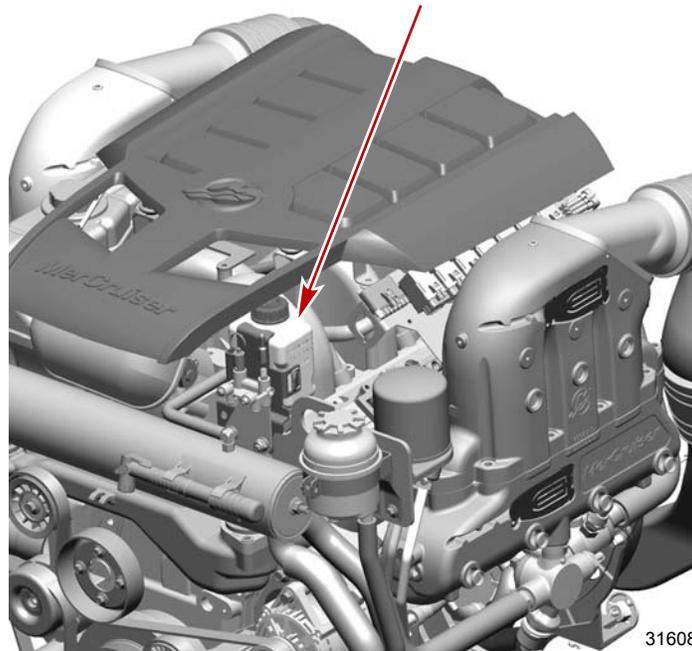
**Checking**

**NOTICE**

Discharge of oil, coolant, or other engine/drive fluids into the environment is restricted by law. Use caution not to spill oil, coolant, or other fluids into the environment when using or servicing your boat. Be aware of the local restrictions governing the disposal or recycling of waste, and contain and dispose of fluids as required.

**IMPORTANT:** The gear lube level fluctuates during operation. Check before starting, when the engine is cold.

1. Check the gear lube level in the monitor bottle. Keep the gear lube level within the recommended operating range.
2. Inspect the gear lube condition. If any water is visible in the bottom of the gear lube monitor, if water appears at the fill and drain plug hole, or if the gear lube appears discolored, these conditions can indicate a water leak in the sterndrive.



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**Gear lube monitor**

**Filling**

**IMPORTANT:** If the monitor requires adding more than 59 mL (2 fl oz) of gear lube (after the initial 20-hour break-in period) a seal may be leaking, which can damage the sterndrive.

**NOTE:** If filling the entire sterndrive, see *Changing*.

1. Remove the gear lube monitor cap.
2. Fill the monitor with the specified fluid until the gear lube level is in the operating range. Do not overfill.

Tube Ref No.	Description	Where Used	Part No.
 87	High Performance Gear Lube	Gear lube monitor	92-858064K01

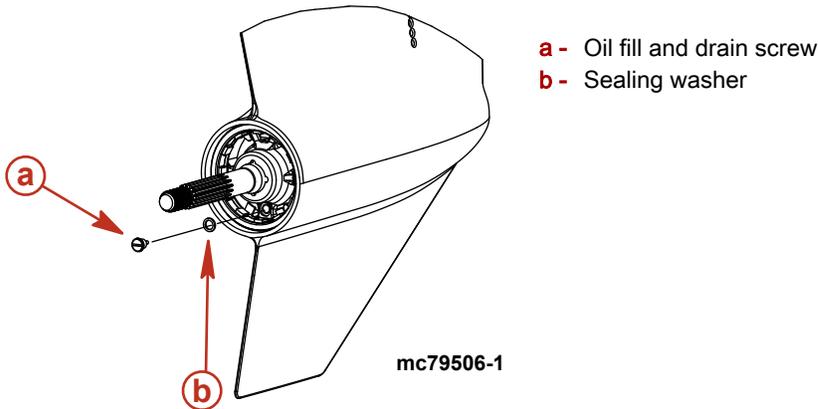
3. Replace the cap.

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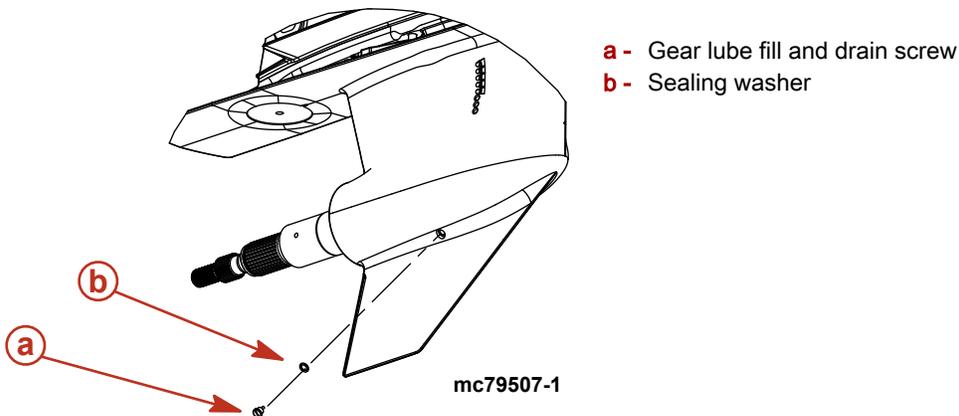
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## Changing

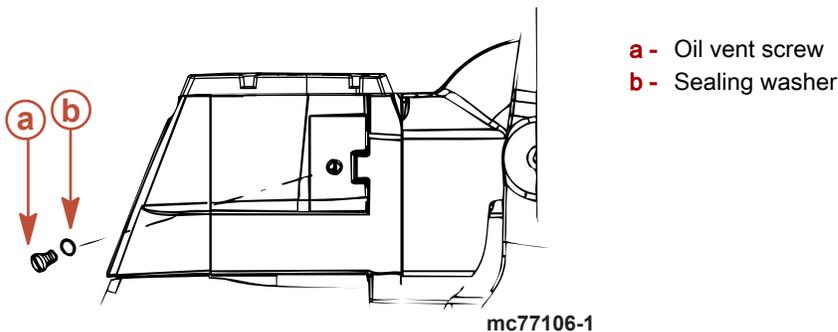
1. Remove the gear lube monitor from the bracket.
2. Empty the contents into a suitable container.
3. Install the gear lube monitor in the bracket.
4. Bravo One Models:
  - a. Remove the propeller.
  - b. Position the sterndrive unit to the full down position.
  - c. Remove the oil fill and drain screw and sealing washer.
  - d. Drain the gear lube into a suitable container.



5. All Other Models:
  - a. Place the sterndrive unit in full trim out position.
  - b. Remove the gear lube fill and drain screw and sealing washer.
  - c. Drain the gear lube into a suitable container.



6. Remove the oil vent screw and sealing washer. Allow the gear lube to drain completely.



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**Additional Gear Lube Required During the Break-In of Bravo Sterndrives**

**IMPORTANT:** If any water drains from the unit, or if the gear lube appears milky, the sterndrive unit is leaking.

- Lower the sterndrive unit so the propeller shaft is level.

**IMPORTANT:** Use only Mercury/Quicksilver High Performance Gear Lube in the sterndrive unit.

- Fill the sterndrive unit through the gear lube fill and drain hole with specified gear lube until an air-free stream of gear lube flows from the vent hole.

Tube Ref No.	Description	Where Used	Part No.
 87	High Performance Gear Lube	Sterndrive unit	92-858064K01

- Install the gear lube vent screw and sealing washer.
- Continue to pump gear lube into the drive through the gear lube fill and drain hole until gear lube appears in the gear lube monitor.
- Fill the monitor so that the gear lube level is in the operating range. Do not overfill.
- Ensure that the rubber gasket is inside the cap and install. Do not overtighten.

**NOTE:** Capacities include the amount of gear lube in the gear lube monitor bottle.

Model	Capacity	Fluid Type
Bravo One	2736 ml (92-½ oz.)	High Performance Gear Lube
Bravo Two	3209 ml (108-½ oz.)	
Bravo Three (Single seawater pickup)	2972 ml (100-½ oz.)	
Bravo Three (Dual seawater pickup)	2736 ml (92-½ oz.)	

- Remove the pump from the gear lube fill and drain hole. Quickly install the sealing washer and screw. Tighten securely.
- Reinstall the propeller.

**NOTE:** Refer to the appropriate MerCruiser sterndrive service manual for propeller installation procedure.

- Check the gear lube level after the first use.

**IMPORTANT:** Gear lube level in the gear lube monitor rises and falls during operation. Always check the gear lube level when the sterndrive is cool and the engine is off.

**Warranty**

This Service Bulletin provides information and is not a recall or requirement to replace the oil seal on any Bravo Three.

If replacement of the Bravo Three oil seals is indicated, observe standard warranty limits. Submit the claim through your normal channel for processing warranty claims.

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