



Service Bulletin

Bulletin No. 2006-14
OEM No. 2006-04

Circulate to: Sales Manager Accounting Service Manager Technician Parts Manager

Official Recall Notification U.S. Federal Boat Safety Act - Throttle Sticking on 25/30 EFI FourStroke Outboard Product

Models Affected

Models Covered	Serial Number Or Year
Mercury/Mariner 25/30 EFI FourStroke Outboard Tiller Handle Models	0R125005 through 0R145228

NOTE: This product recall only pertains to Tiller Handle model engines. Remote control versions are not affected.

Situation

The throttle on these engines may not return to idle when the tiller handle control is returned to the idle position after running at an elevated RPM in either forward or reverse. Instead, the engine may continue to run at engine speeds between 2500 and 3500 RPM. Engines operating in this speed range will not allow the operator to shift into neutral from either forward or reverse gear. Mercury Marine has determined that the throttle arm, throttle opener bushings, and associated parts require replacement.

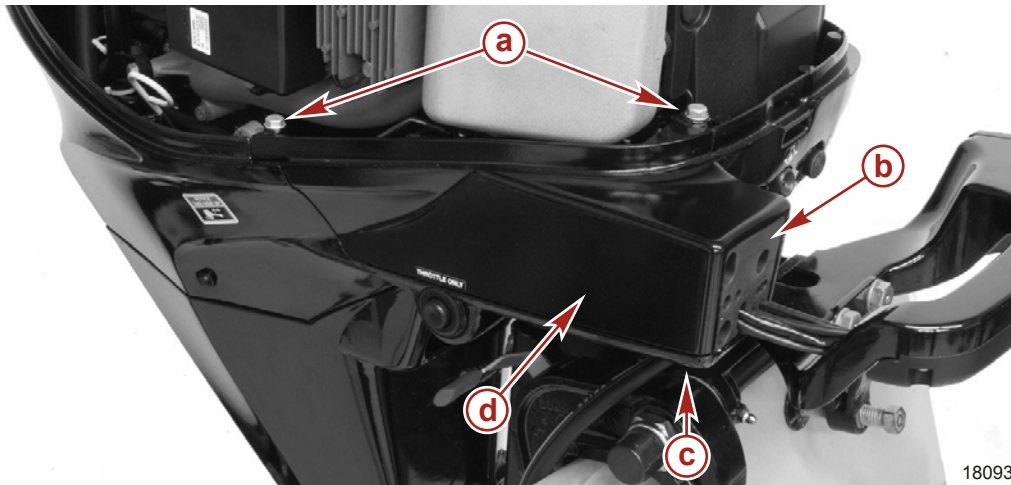
Correction

1. Remove the top cowl.
2. Ensure the outboard is shifted into the neutral position.

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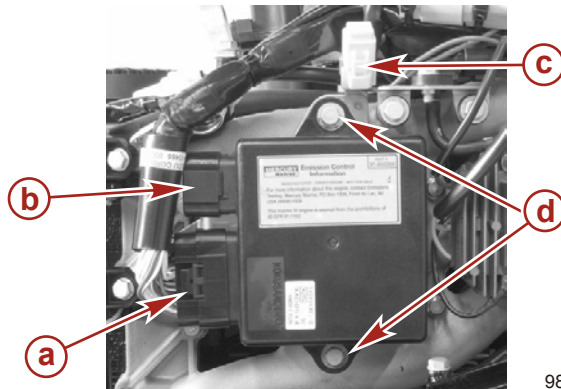
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3. Remove the three screws securing the lower cowl cover and remove the cover.



- a** - Lower cowl cover screw (2) **c** - Lower cowl cover screw (1)
b - Grommet **d** - Lower cowl cover

4. Disconnect the engine harness plug from the ECM.
5. Remove the two bolts securing the ECM to the mounting bracket.
6. Set the ECM aside. Removing the ECM provides access to the throttle arm retaining bolt.



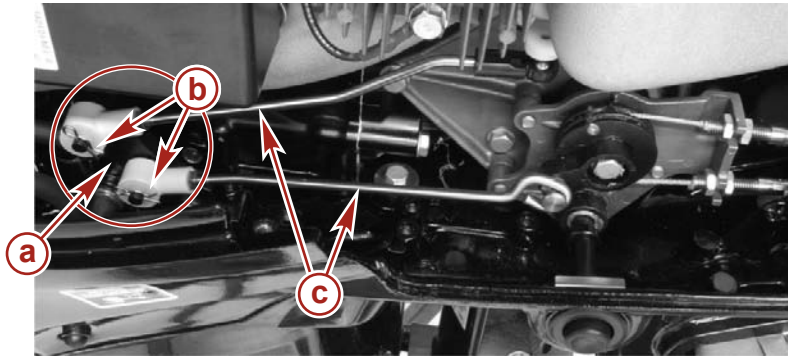
- a** - Engine harness plug **c** - Fuse holder
b - ECM diagnostic access **d** - Bolt securing ECM (2)

7. Remove the cotter pins and washers on the two throttle rods. Retain the washers for future use. Discard the cotter pin.

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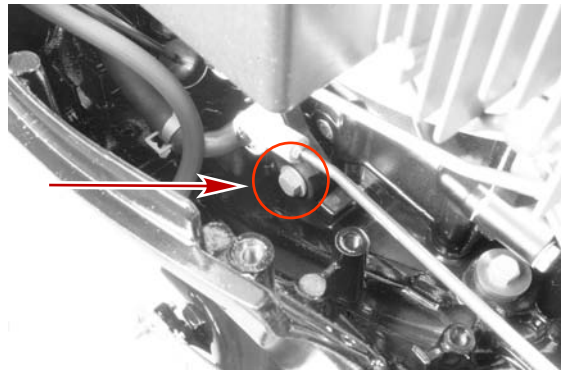
8. Remove the throttle rods from the throttle arm.



24725

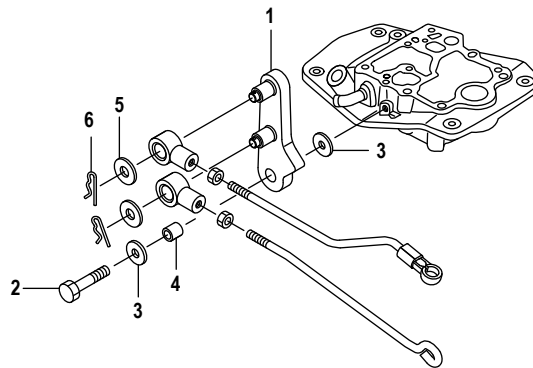
- a** - Throttle arm
- b** - Cotter pin and washer
- c** - Throttle rods

9. Remove the bolt securing the throttle arm to the engine block.



24722

10. Remove the bolt, bushing, and washers from the throttle arm. Retain the throttle arm and bolt. Discard the bushing and throttle arm mounting washers.



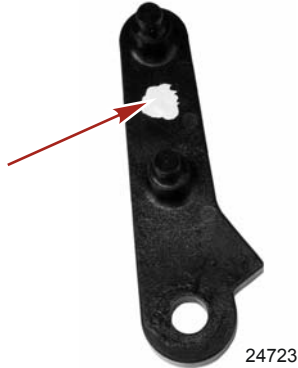
24728

- 1** - Throttle arm
- 2** - Bolt
- 3** - Washer (2) (discard)
- 4** - Bushing (discard)
- 5** - Washer
- 6** - Cotter pin (discard)

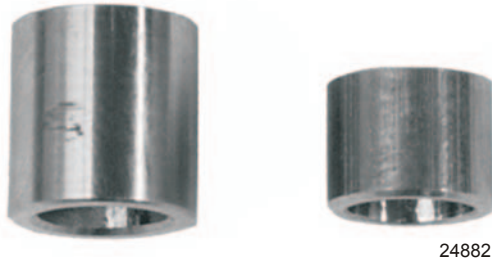
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11. Place a white paint mark on the throttle arm to identify this engine as having the repair performed.

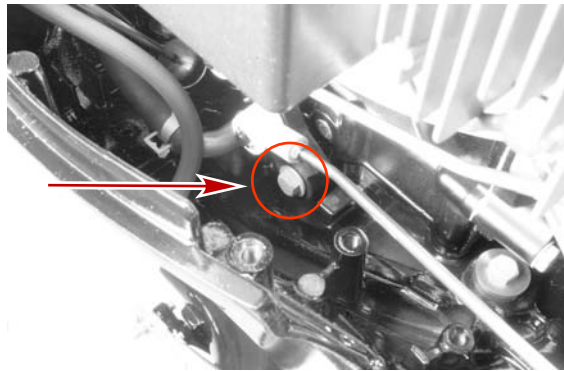


12. Install the larger bushing and washers supplied with this kit onto the throttle arm.
NOTE: The larger bushing is for the throttle arm and the smaller bushing is for the throttle opener.



Throttle arm bushing Throttle opener bushing

13. Install the throttle arm, mounting bolt, and two washers onto the block. Torque the bolt to specification.



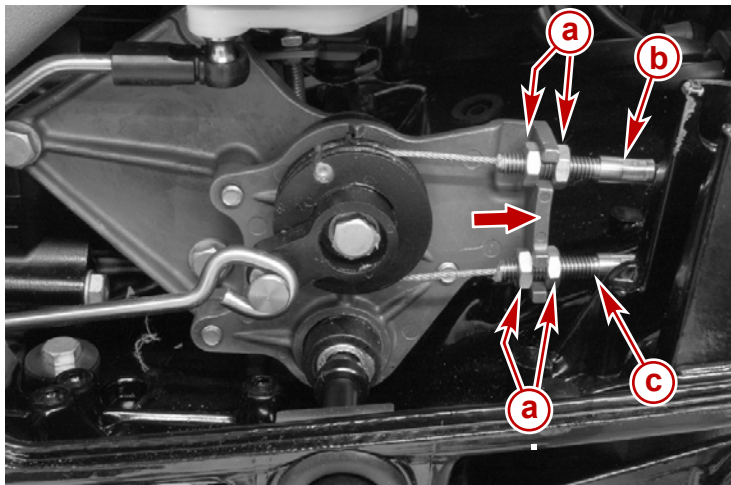
Description	Nm	lb. in.	lb. ft.
Throttle arm mounting bolt	6	53	

14. Mark the upper shift/throttle cable for proper identification during reassembly.

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15. Remove the two shift/throttle cables from the throttle drum by loosening the jam nuts.

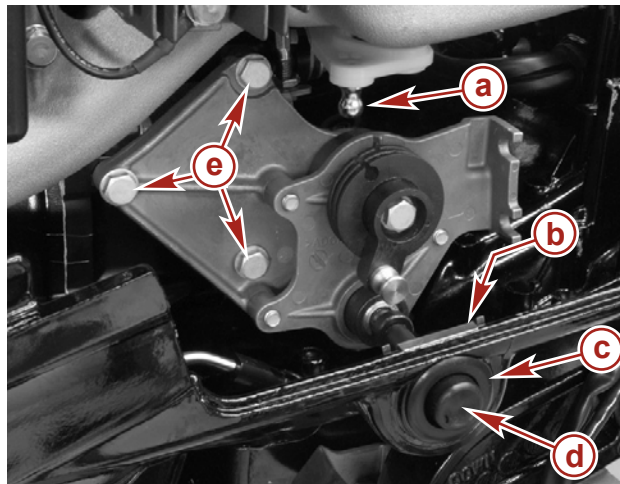


24908

- a** - Jam nuts
- b** - Upper shift/throttle cable (reverse when pulled in direction of arrow)
- c** - Lower shift/throttle cable (forward when pulled in direction of arrow)

16. Remove the throttle only button retainer clip, grommet, and throttle only button.

17. Remove the three bolts securing the throttle only assembly to the powerhead.



18319

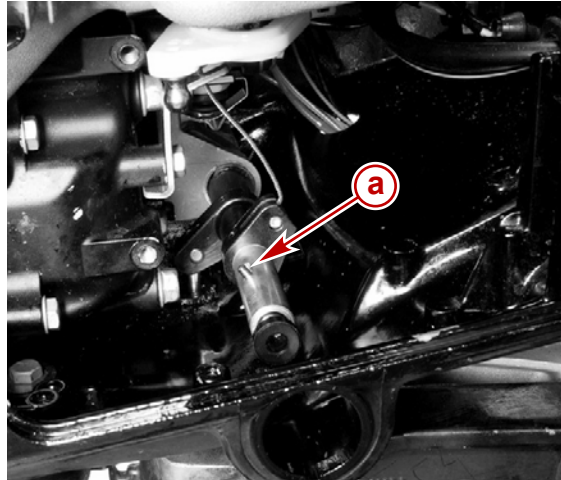
- a** - Throttle lever
- b** - Throttle only button retainer clip
- c** - Grommet and throttle only button retainer
- d** - Throttle only button
- e** - Bolt (3)

18. Remove the throttle only assembly from the engine.

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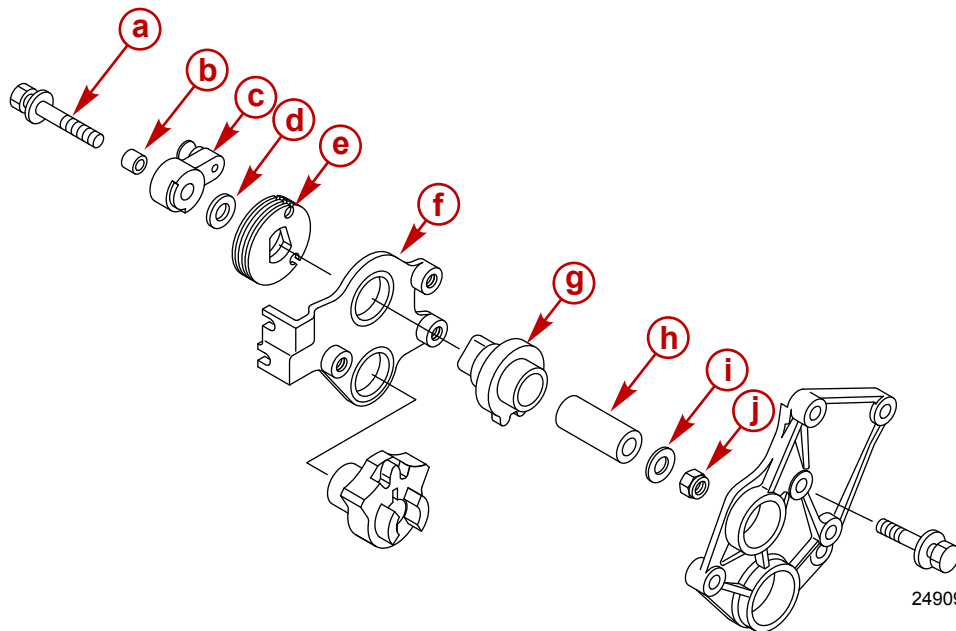
NOTE: Use caution when removing the throttle only assembly. The shift actuator pin will fall out.



24895

a - Shift actuator pin

19. Remove the bolt and nut securing the throttle opener to the throttle only assembly.
20. Remove the throttle opener. Retain the washers, bolt, and nut. Discard the throttle opener bushing.
21. Install the new bushing provided in the bushing kit using the old bolt, nut, and washers. Torque the nut to specification.



24909

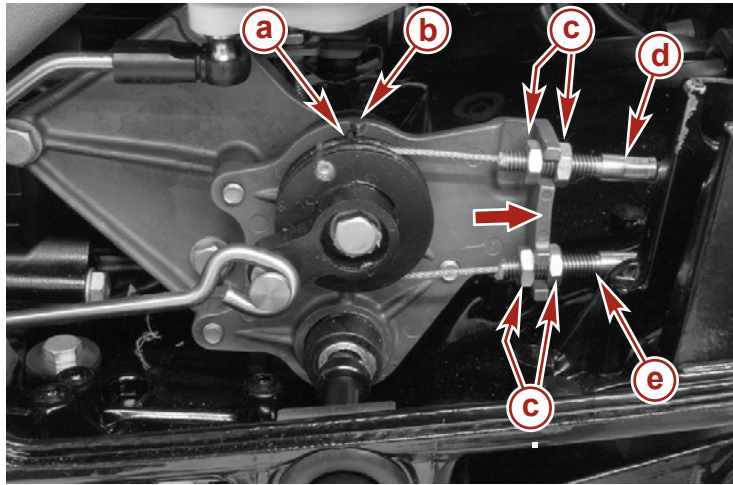
- | | |
|--|-----------------------|
| a - Drive gear bolt | f - Gear plate |
| b - Bushing (provided with kit) | g - Drive gear |
| c - Throttle opener | h - Bushing |
| d - Washer | i - Washer |
| e - Drive gear pulley | j - Nut |

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Description	Nm	lb. in.	lb. ft.
Drive gear nut	6	53	

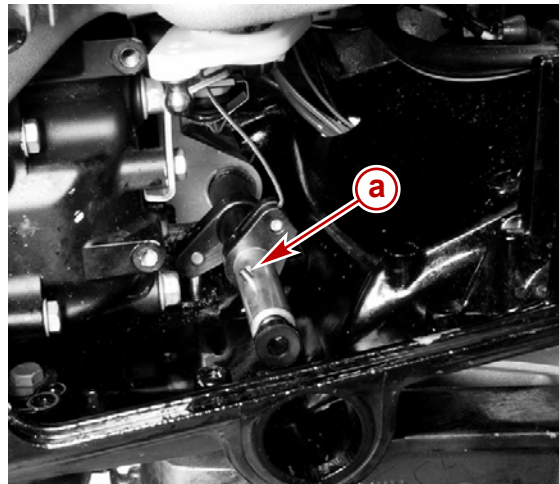
NOTE: The throttle drum assembly must have the alignment marks lined up during the installation of the throttle only assembly onto the engine. This ensures the linkage is in the correct orientation for the engine when in the neutral position.



18091

- a** - Match mark on shift/throttle pulley
- b** - Match mark on gear plate
- c** - Jam nuts
- d** - Upper shift/throttle cable (reverse when pulled in direction of arrow)
- e** - Lower shift/throttle cable (forward when pulled in direction of arrow)

22. Verify that the shift actuator pin is installed and held in place during the installation of the throttle only assembly.



24895

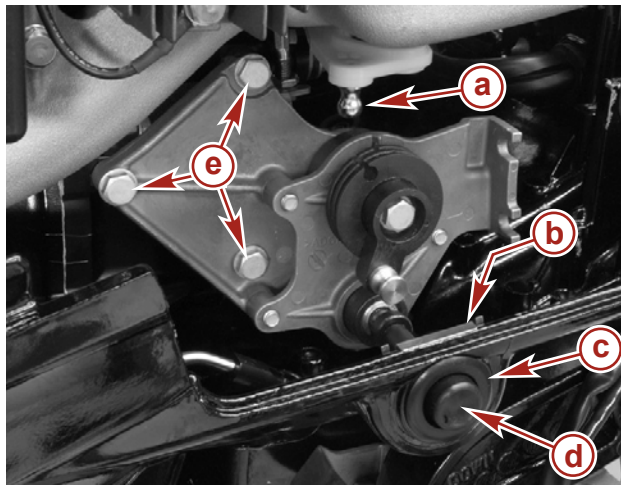
- a** - Shift actuator pin

23. Install the three bolts securing the throttle only assembly to the block. Torque the bolts to specification.

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24. Install the grommet, throttle only button, and retainer.



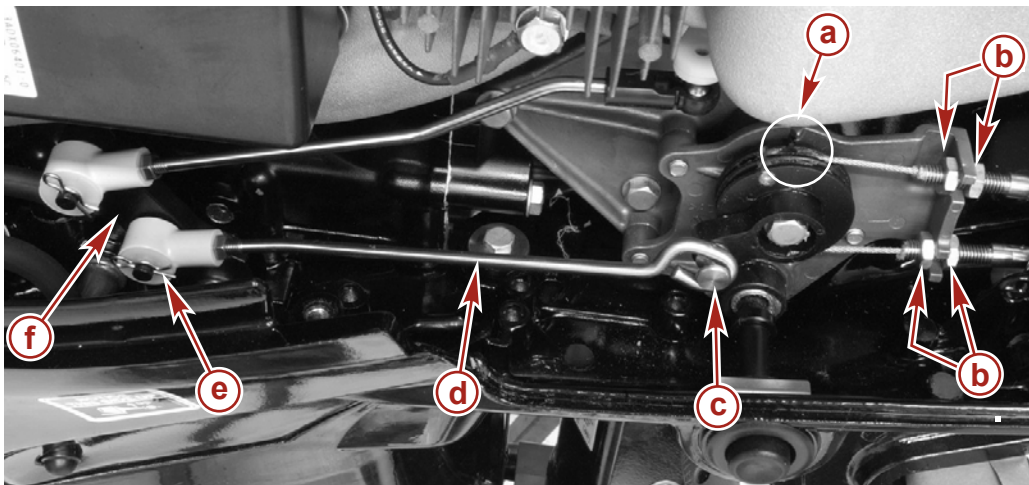
18319

- a** - Throttle lever
- b** - Throttle only button retainer clip
- c** - Grommet and throttle only button retainer
- d** - Throttle only button
- e** - Bolt (3)

Description	Nm	lb. in.	lb. ft.
Throttle only assembly mounting bolts (3)	6	53	

25. Install the shift/throttle cables onto the throttle drum. Adjustment of these cables will take place later in the bulletin.

26. Install throttle rods onto throttle arm using the old washers and the new cotter keys provided.



18095

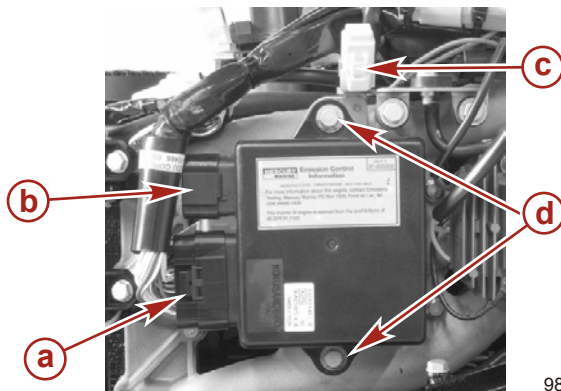
- a** - Marks aligned in neutral position
- b** - Control cable jam nuts
- c** - Throttle opener
- d** - Throttle rod
- e** - Cotter pin and washer
- f** - Throttle arm

27. Install and secure the ECM onto the engine with two bolts. Torque the bolts to specification.

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28. Connect the engine harness plug to the ECM.



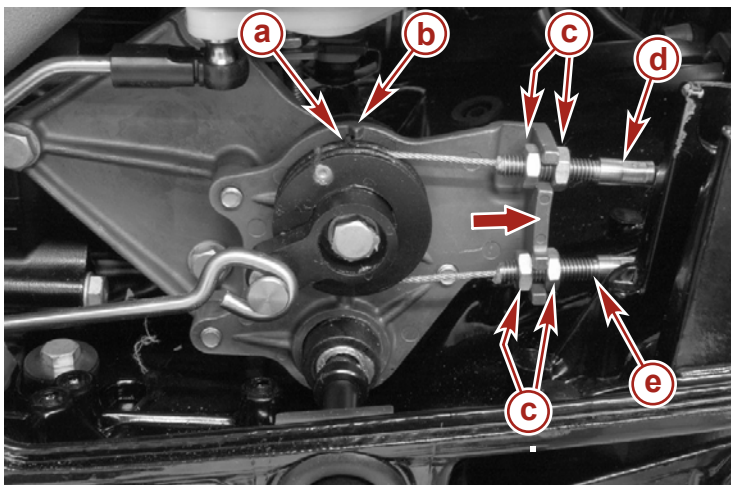
9899

- a** - Engine harness plug
- b** - ECM diagnostic access
- c** - Fuse holder
- d** - Bolt securing ECM (2)

Description	Nm	lb. in.	lb. ft.
Bolts	6	53	

29. Shift/throttle cable adjustment:

- a. Rotate the tiller handle to the neutral position.
- b. Adjust the cable lengths using jam nuts to bring the match marks into alignment.
 - i. Make adjustment to the lower cable first.
 - ii. Remove the slack in the upper cable by adjusting the upper jam nuts. Do not overtighten the jam nuts.



18091

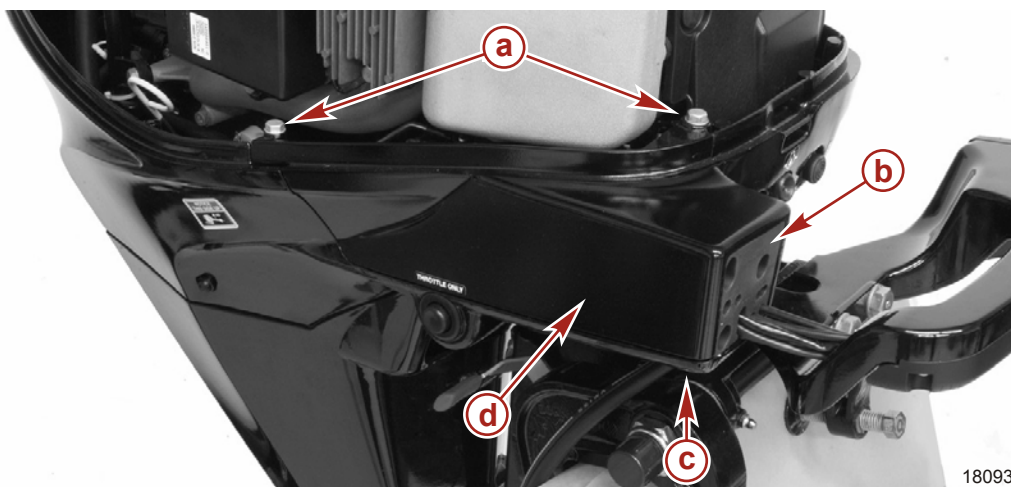
- a** - Match mark on shift/throttle pulley
- b** - Match mark on gear plate
- c** - Jam nuts
- d** - Upper shift/throttle cable (reverse when pulled in direction of arrow)
- e** - Lower shift/throttle cable (forward when pulled in direction of arrow)

- c. Rotate the tiller throttle handle from forward wide open throttle to reverse wide open throttle. Verify that the match marks are in alignment. Readjust if necessary.

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- d. Rotate the handle to the neutral position. Ensure that the following conditions are met:
 - i. Gearcase is in neutral (propeller rotates in both directions)
 - ii. Neutral start interlock lever is centered, allowing the starter sheave to rotate or the electric starter to engage
 - iii. Reverse tilt lock is engaged (if so equipped)
 - e. Rotate the handle to the forward position. Ensure the following conditions are met:
 - i. Gearcase is in forward gear
 - ii. Neutral start interlock is engaged
 - iii. Reverse lock is disengaged (if so equipped)
 - f. Rotate the handle to the reverse position. Ensure the following conditions are met:
 - i. Gearcase is in reverse gear
- NOTE:** It may be necessary to rotate the propeller when shifting into reverse gear.
- ii. Neutral start interlock is engaged
 - iii. Reverse tilt lock is engaged (if so equipped)
30. Verify proper operation of throttle system by rotating the tiller handle back and forth while inspecting for binding or improper adjustment. If adjustment is required, reference **Section 7B** of the service manual.
31. Reinstall the lower cowl cover and screws. Torque the lower cowl cover screws to specification.



a - Lower cowl cover screw (2) **c** - Lower cowl cover screw (1)
b - Grommet **d** - Lower cowl cover

Description	Nm	lb. in.	lb. ft.
Lower cowl cover screw	6	53	

32. Reinstall the top cowl.

Parts Required

Bushing kit part number 889246A36 consisting of:

- Qty. - 2 Bushing

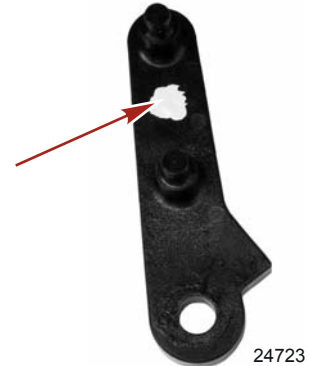
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- Qty. - 2 Washers
- Qty. - 2 Cotter keys

Repair Identification

Engines reworked at the factory will have a blue dot on the serial matte, and a white dot on the throttle arm. Engines reworked in the field will have a white paint mark on the throttle arm.



Owner Notification

All registered owners within the affected serial number range will receive a letter from Mercury Marine. This letter will explain the situation and request that they contact their local dealer to set-up a time to have this repair performed.

Warranty

Mercury Marine will credit the dealer for the cost of parts and labor as outlined in this bulletin.

Complete the warranty claim listing:

- Outboard serial number
- Qty. 1 Bushing kit (P/N 889246A36)
- 1.2 hour labor
- Warranty flat rate code SB10 and SB02
- Part code 726
- Fail code 40

US AND CANADA

Complete/process the claim via MercNET or return a warranty claim form.

INTERNATIONAL

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

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Dear Mercury Outboard Owner

Thank you for your purchase of a Mercury FourStroke 25 or 30 hp Outboard engine. Mercury Marine is dedicated to providing superior reliability and customer satisfaction. As part of our commitment to superior customer satisfaction, we have determined that it is necessary to install a throttle lever bushing kit on your engine to correct a throttle sticking condition that may occur due to thermal expansion of throttle linkage components. This modification is required under a Federal Boat Safety Recall that we have voluntarily launched in an effort to insure the reliability of your Mercury Outboard engine.

What is the condition?

It is possible that the throttle arm on your engine could stick at an elevated engine RPM (2500-3500RPM) resulting in the loss of throttle control. Due to the elevated engine speed, the outboard will be unable to be shifted out of either forward or reverse gear. Should this event occur, your only course of action to stop the engine would be to activate the lanyard stop switch or the engine stop switch. To eliminate the possibility of this occurring, Mercury Marine will install a throttle lever bushing kit at no charge to you.

What will Mercury Marine do?

Any authorized Mercury Marine dealer will perform the repair at no charge to you.

What should you do?

Due to the severity of this condition, Mercury Marine recommends that you cease using your outboard until the necessary corrective action has been completed. Please contact your Mercury Outboard dealer regarding Mercury Outboard Service Bulletin 2006-14 to schedule an appointment to have the throttle lever bushing kit installed. Your dealer will be able to determine how long the repair will take on your engine.

Please present this notice to your dealer when you bring your boat in for your service appointment.

What if you have other questions or if you no longer own this engine?

Please contact your Mercury Outboard dealer or call Mercury Outboard Customer Service at 1-920-929-5040 between 7:30 AM and 5:30 PM CST.

We have sent this notice in the interest of your continued satisfaction with our product, and we sincerely regret any inconvenience this may cause you.

Thank you for boating with Mercury Marine

Mercury Marine Service