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Official Recall Notification U.S. Federal Boat Safety Act - Joystick Piloting Steering Cylinder Inspection

Models Affected

Models	Engine Serial Numbers	Actuator Serial Numbers
Verado 200–400R with Joystick Piloting for Outboards	2B022645–2B174772	000716–000924

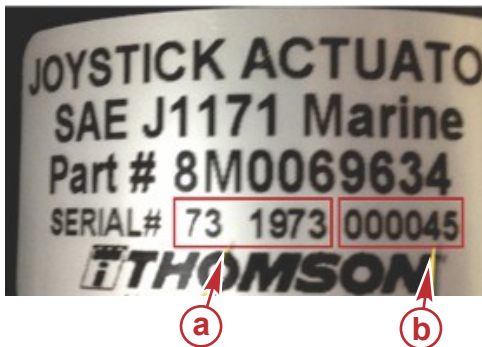
Scope

Worldwide

Situation

Some steering actuators in the affected range may be missing the two screws intended to retain the internal sensor magnet. The absence of those screws permits the magnet to move unintentionally. This can result in a false position value being reported, and may lead to loss of steering control for that engine.

Correction



58184

Units with 000716 to 000924 in the serial number location (b) must be examined on the engines listed above

- a - Date code
- b - Serial number

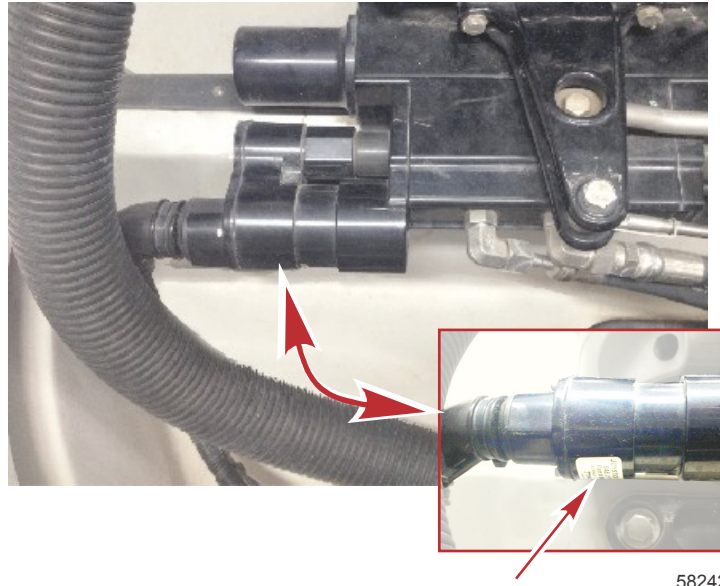
Actuators in the affected serial number range must be examined for this situation. The testing procedure involves using a strong magnet to determine if internal screws are retaining the internal magnet or if the magnet can be moved freely. The testing procedure is listed following.

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Serial Number Location

The serial number is located on the bottom side of the steering actuator.



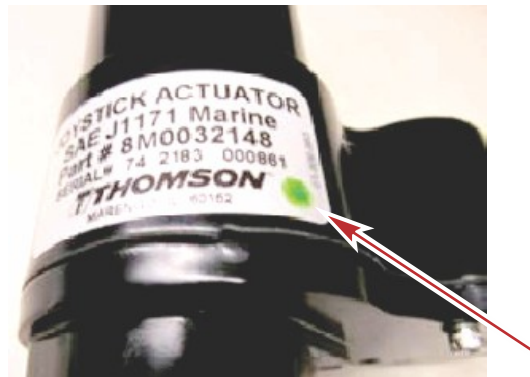
58242

Serial number location (looking aft from inside the boat)

Identification Dots

Mercury has inspected some actuators before shipping. Actuators and boxed actuators that have passed X-ray inspection are labeled with a green dot. Actuators that have passed a weight-certified inspection are labeled with a blue dot. Actuators that have previously been examined in the field are labeled with a red dot.

Units identified with one of these dots do not require further testing or replacement. Submit a warranty claim for the serial number inspection time.



58185

A green, red, or blue dot indicate the unit has passed inspection

Boxed actuators not marked with a blue or green dot must be opened to see if their serial numbers are in the affected range. If they are, they must be returned to Mercury.

Tools Required

Required Tool	Part Number
Neodymium Block Magnet	8M6003498
CDS G3 Diagnostic Tool Kit	8M0098656

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Inspection

Connect a CDS G3 computer to the vessel, and perform the following steps for each steering actuator. Note that this test will need to be performed three times for each steering actuator to ensure accuracy.

IMPORTANT: Use only the specified magnet. It has sufficient strength to conclusively perform the test.

A video of the complete test procedure is available at <https://youtu.be/r4oRkKgD9IQ>.

1. Turn the key switch on for the engine with the actuator to be tested.
2. Navigate to the appropriate TVM in CDS G3.
3. Record the ActualDrivePosition value.

NAME	VALUE	DESCRIPTION
ActiveFaultMarquee	None	
ActualDrivePosition	0.26 °	
Drive_Offset	0.00 °	
Drive_Pos_Pri	0.26 °	
Drive_Pos_Sec	0.70 °	
EngineRPM	0 RPM	
Installed_Position	Starboard	
MechanicalDriveOffset	-0.40 °	
ModelNumber	GCM480801	
MPRD	Enabled	
OccuredFaultMarquee	Drive_Pos_Sec_RangeHigh	
Position_set_Final	0.26 °	

58177

Record the ActualDrivePosition value

4. With the magnet touching the housing, perform the following movements:
 - NOTE:** *The magnet must remain in contact with the housing during the following steps.*
 - a. Start with the magnet held at the 9 o'clock position, firmly against the housing.

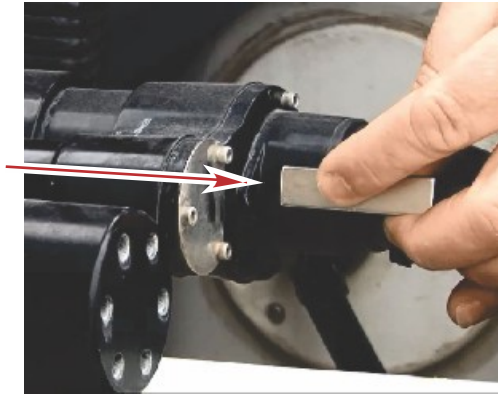


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- b. Slide the magnet starboard, about halfway along the housing.



58179

- c. Slide the magnet along the housing to the 12 o'clock position.



58181

- d. Slide the magnet to the 6 o'clock position.



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- e. Move the magnet away from the housing by pulling it down.
5. Record the ActualDrivePosition value shown on CDS G3.
 6. Repeat steps 4 and 5 three times.
 7. Review the three recorded values:
 - a. If the ActualDrivePosition value has not changed by more than 1 degree during any of the three tests, mark the unit and/or its carton with a red dot to identify it as good (refer to **Identification Dots** in this bulletin), and file a warranty claim for the test time.
 - b. If the ActualDrivePosition value has changed by more than 1 degree during any of the tests, replace the unit and file a claim for testing and replacement.

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Warranty

Complete a warranty claim, listing:

- Outboard serial number
- Steering actuator serial number
- For the serial number inspection: SB02
- Magnet: 8M6003498 (one per dealership)
- Test time, including CDS G3 connection: SB05
- For actuator removal and replacement:
 - SB04
 - Actuator part number:
 - 8M0086497 for standard (26-in. on-center or greater) applications
 - 8M0086509 for inner engines only on 25-in. center quad applications

Owner Notification

A letter will be sent to every registered owner of an affected outboard. The letter will advise the owner to return the outboard to their selling dealer or a Mercury Outboard authorized dealer for repair. As a selling or servicing dealer, you should also contact your customers to make them aware of this recall and to schedule an appointment for this repair. A copy of the customer letter is included with this service bulletin for your reference.

United States and Canada: Complete and process the claim via MercNET or return a warranty claim form.

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

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Federal Boat Safety Act Recall

Dear Mercury Outboard Owner:

Thank you for your purchase of a Mercury Joystick Piloting Verado outboard engine. Mercury Marine is dedicated to providing superior product reliability and customer satisfaction. As part of our commitment to superior customer satisfaction, we have determined that your outboard must be recalled so that we can perform an inspection of the steering cylinder assembly.

What is the condition?

Mercury Marine has identified a potential issue with the engine's steering cylinder sensor. The sensor may have been manufactured incorrectly, which could lead to loss of steering.

What will Mercury Marine do?

Mercury will inspect and replace the steering cylinder assembly on your engine if it fails inspection. We have provided instructions to our dealers on the proper method to inspect and replace these steering cylinders if needed.

What should you do?

Please contact your Mercury Outboard dealer and mention Outboard Service Bulletin 2015-09 to schedule an appointment to have this inspection and repair performed. Your dealer will be able to determine how long this repair will take.

Please present this notice to your dealer when you bring your engine 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