

## REDUCED WIDE OPEN THROTTLE RPM 225 HP, (3 LITRE) EFI

### Models Affected

#### MARINER AND MERCURY

1995 and 1996 225 HP, (3 Litre) EFI

S/N 0G129222 thru end of 1996 Model Year

There have been some reports of a lack of performance at wide open throttle on the 225 HP, 3 Litre EFI outboards. This loss of performance has mainly been experienced on light fast boats.

This condition is described by the operator as an RPM loss, when they advance the throttle to the wide open throttle position. When the throttle is advanced to wide open throttle from a previous 3/4 to 7/8 throttle position the engine will experience a 200 to 500 RPM loss. When the throttle is returned to the 3/4 to 7/8 position the engine RPM will then return to normal. Example: Throttle at the 7/8 position engine is turning 5500 RPM, when advanced to wide open, engine RPM drops back to 5200 RPM. When throttle is returned to 7/8 position RPM return to 5500. This condition is more likely to occur in hot humid weather or at high altitudes.

This loss of power has been attributed to (2) possible conditions.

- A. The throttle position sensor set too high (rich) for these running conditions.
- B. Restricted exhaust with some propellers.

*NOTE: Before continuing to the corrections part of this Service Bulletin, make sure that basic engine functions are operating properly (Fuel supply, Ignition, Timing, etc.).*

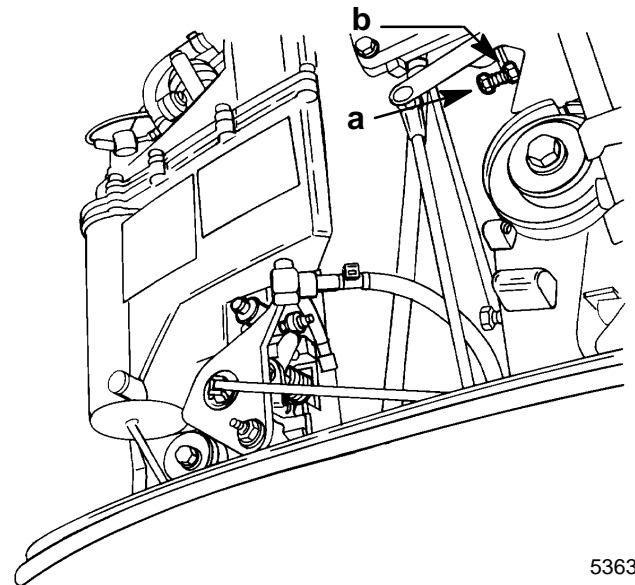
### CORRECTION:

#### A. THROTTLE POSITION SENSOR ADJUSTMENT

1. Disconnect TPS from ignition harness.
2. Connect digital voltmeter using TPS/CDM test lead assembly p/n (84-825207A1) between TPS connector and ignition harness connector.

*NOTE: Quicksilver Digital Diagnostic Terminal (DDT) p/n 91-823686A2 can also be used to set TPS. See DDT Technician Reference Manual (supplied with Quicksilver DDT).*

3. Connect RED voltmeter lead to Red lead of test harness assembly and BLACK voltmeter lead to WHITE lead of test harness assembly for a TPS measurement. Set voltmeter to 20 VDC.
4. Turn ignition key to "ON" position.
5. Disconnect the throttle cable from the throttle arm.
6. Loosen the full throttle stop screw jam nut.
7. Hold throttle arm against full throttle stop screw.



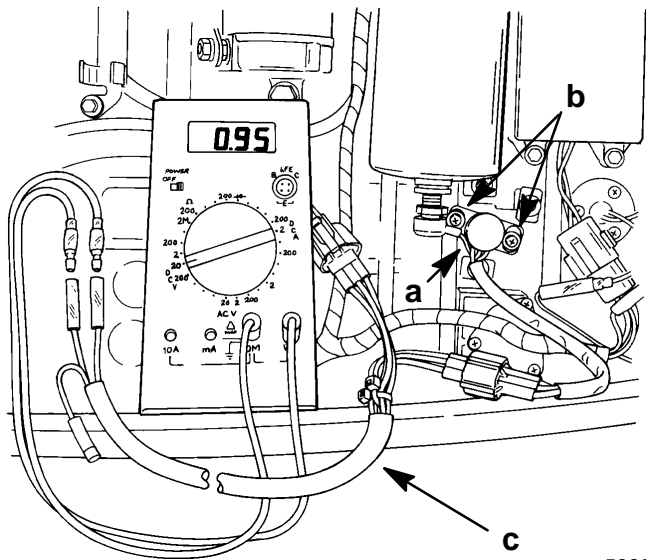
a - Full throttle stop screw  
b - Jam nut

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8. While holding the throttle arm at wide open throttle, adjust the throttle stop screw to attain a voltmeter reading of  $2.94 \pm .04$ .

9. Tighten jam nut.

*NOTE: Do not adjust TPS to attain this reading. TPS reading must remain at .95 at idle.*



- a - Throttle position sensor
- b - TPS set screws
- c - TPS/CDM test harness p/n (84-825207A1)

## B. TUNED EXHAUST SYSTEM RESTRICTION (EFI AND CARBURETOR MODELS)

Use a small hub Trophy propeller to help overcome exhaust system restrictions on light fast single engine boats. This style propeller will allow the exhaust system to operate with better efficiency.