

TO: SERVICE MANAGER  MECHANICS   
PARTS MANAGER

No. 90-19

Revised 1-18-91

## A. POSSIBLE DIFFICULTY SHIFTING OUT OF GEAR ON BRAVO DRIVE 1.36:1 AND 1.81:1

### Model

Bravo Drive Units 1.36:1 and 1.81:1 Gear Ratios Used on the Following Models: 502 Magnum, HP 465, D254 Diesel  
Serial Number: OD498555 and below

### Problem

Bronze ring pressed onto upper and lower gears may come loose resulting in improper shifting, and difficulty in returning shift control to neutral may result.

### Correction

Order and install gear kit 43-815662A4

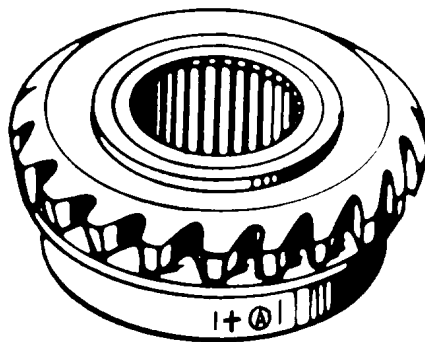
### Parts Required

(1) Gear Kit: 43-815662A4

NOTE: 1.81:1 Bravo Two drives require 3.2 qts./3.03L; 1.36:1 Bravo One drive requires 2.8 qts./2.65L of High Performance Gear Lube (P/N 92-816026A4).

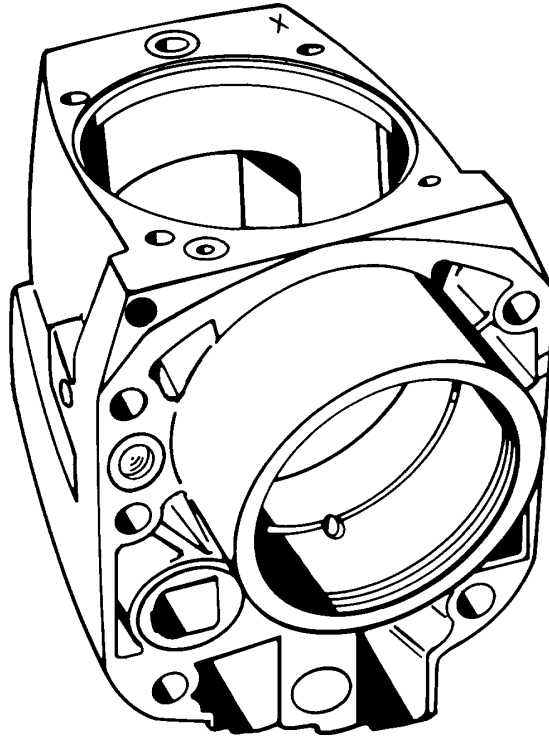
### Repair

Remove and replace both driven gears with new ones from service kit 43-815662A4. The new gears will be identified as shown in Figure 1 with an "A" next to the "+" (plus sign) on the bronze ring.



Procedures can be found in Service Manual 11, Section 3A

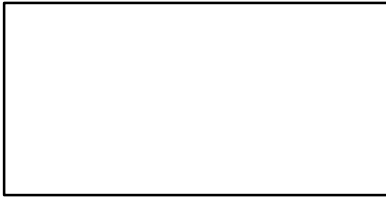
The drive shaft housing must be marked at two locations: on the left rear top corner under the top cover (A) with an "X", and on the right front surface (B) with a white paint dot 1/2" in diameter as shown in figure 2.



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### **Warranty**

Fill out warranty claim and send to your normal processing center.



November 6, 1990

Dear Owner of a MerCruiser Powered Boat:

Our records indicate that you are the owner of a boat equipped with a MerCruiser Bravo drive (1.36:1 or 1.81:1 gear ratio).

Your drive unit falls within a serial number grouping of drives that may experience difficulty in shifting out of gear into neutral.

Your dealer has been made aware of this potential problem by way of a service bulletin. Please contact your dealer to make arrangements for the necessary repair.

MerCruiser is sorry for any inconvenience that may result from this problem.

If you no longer own the boat, please pass this letter on to the new owner.

Sincerely,

MERCUISER SERVICE