



Beaver Dam, Wis.  
U. S. A.

# MERCUISER SERVICE BULLETIN

Section: 2 (Installation)

Number: X 64-13

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## A. ENGINE COUPLING ASSEMBLY LUBRICATION

*NOTE: This information is located on Page 11 and Page 38 of Installation Section 2. This reprint is meant to serve as a reminder.*

On initial installation, and whenever a stern drive unit is removed, it is essential that the engine coupling splines and drive shaft splines be lubricated with MULTIPURPOSE Lubricant (C-92-35226). The spline mating surfaces will wear very rapidly if installed dry.

## B. SHIFT EFFORT REDUCTION - MERCUISER I & IA-IB-IC

*(For P. 22 of Installation Section 2)*

A new shift cam follower spring assembly (B-24-37610A1) has been incorporated in MerCruiser IA-IB-IC Stern Drive Units. It also is adaptable to earlier MerCruiser I Stern Drive Units. Purpose of the new spring assembly is to reduce the shifting effort.

Before checking the spring, be certain that cables are proper length and that sharp bends and kinks be avoided. Cables of excessive length cause loops and dips which result in stiffness in remote controls and steering. Cables which are too short restrict movement of components.

The new spring assembly has been incorporated in production as follows:

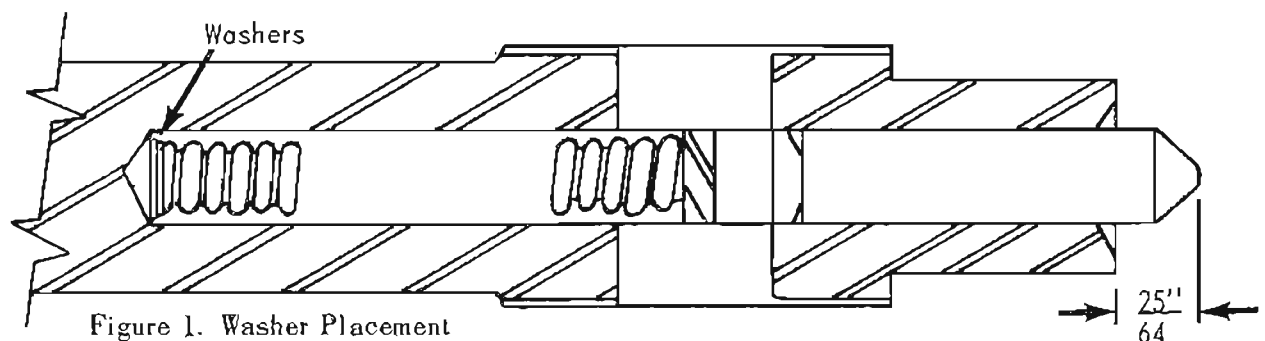
MerCruiser IA - Serial No. 1748019 and above

MerCruiser IB - Serial No. 1748718 and above

MerCruiser IC - Serial No. 1750148 and above

### INSTALLING SHIFT CAM FOLLOWER SPRING ASSEMBLY (B-24-37610A1)

1. Remove propeller shaft from gear housing, as outlined on P. 1 of Section 9.
2. Remove cross pin retaining spring from sliding clutch and remove cross pin from clutch.
3. Remove cam follower, cross pin slide and cam follower spring from propeller shaft.
4. Hold propeller shaft in vertical position with splined end of shaft down.
5. Place 3 washers, new spring, cross pin slide and follower inside propeller shaft.
6. Measure distance from tip of cam follower to end of propeller shaft. Distance must be  $25\frac{1}{64}$ " , plus-or-minus  $1\frac{1}{64}$ ". If measurement taken is not within tolerance, add or subtract washers under follower spring as required. Each washer is  $1\frac{1}{32}$ " thick. (Figure 1)



(Continued, Over)

7. Continue to assemble gear housing as outlined in Section 9.

#### NEW CORE WIRE

A new stranded core wire (B-37611A1), used in the shift cable, supersedes the earlier (B-34086A1) solid core wire. The new strand-type core wire also aids in reducing shifting effort. The new shift cam follower spring assembly (B-24-37610A1) and stranded core wire (B-37611A1) should be installed in drive units on a no-charge basis when customers complain of hard shifting.

#### C. DRIVE UNIT UNLOCKS IN REVERSE - MERCUISER I & IA-IB-IC

*(For P. 22 of Installation Section 2)*

Occasionally, a MerCruiser I or IA-IB-IC Stern Drive Unit will tilt up when shifted into reverse gear. This usually is caused by a slightly worn reverse hook arm stop assembly (B-32588A1) which prevents the hooks from locking.

A change has been made on the reverse hook (B-32520), a revision on the spring end to make a sharp corner. This improves the consistency of the hook to lock in reverse, particularly after many shifting cycles.

If the reverse hook arm stop assembly is not worn, the installation of the reverse hook alone will correct this condition. If the reverse hook arm stop assembly is worn, it also will necessitate replacement of that part. See Figure 2 for drawing of new reverse hook.

The new reverse hook (B-37829A1) has been incorporated in production on the following units:

MerCruiser IA - Serial No. 1748072 and above  
MerCruiser IB - Serial No. 1748926 and above  
MerCruiser IC - Serial No. 1750401 and above

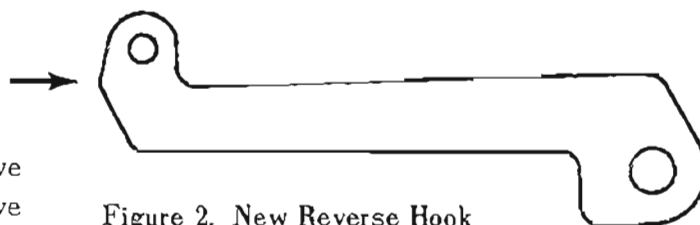


Figure 2. New Reverse Hook

#### D. DRIVE UNIT WILL NOT UNLOCK IN REVERSE - MERCUISER I & IA-IB-IC

*(For P. 22 of Installation Section 2)*

If a problem exists on earlier MerCruiser I & IA-IB-IC units, whereby the unit will not unlock to tilt up, the reverse hook arm assembly (B-32589A1) should be replaced with the new B-37829A1 assembly. The new assembly now is made of stainless steel components and new reverse hooks.

#### E. MERCUISER II DRIVE UNIT NEEDLE BEARINGS

*(From PP 44 & 46 of Drive Unit Section IX)*

The needle bearing is no longer required in the upper gear, right hand rotation, or in the lower gear, left hand rotation, or in the top cover assembly of the MerCruiser II drive unit. This information is taken from PP 44 and 46 of Drive Unit Section IX and is meant as a reminder.

#### F. ORDERING PARTS AND SERVICE MANUALS

For simplicity of ordering, hereafter order the MerCruiser Parts and Service Manual from the following descriptions:

C-90-34600A3	Parts & Service Manual in Hard Cover	\$12.00 U.S. Net Ea.
C-90-34600A4	Parts & Service Manual in Easel	16.00 U.S. Net Ea.