



Beaver Dam, Wis.
U.S.A.

MERCUISER SERVICE BULLETIN

Section: XII (Service
Bulletins)
Number: #63-07
Date : 7/3/63

- A. MerCruiser Service Tools
 - Slide Hammer Puller Assembly
 - Bearing Cone Puller
 - Power Timing Light
- B. MerCruiser II Clamp Nut Cover
- C. MerCruiser II Transom Cutout & Drilling Kit
- J. MerCruiser I "110" & "140" Manifolds
- D. New MerCruiser Ride-Guide Cable
- E. Adjustable "Trim-Tab"
- F. Key Switch Lubrication
- G. MerCruiser Warranty Supplement
- H. MerCruiser I Alternator Belt Change
- I. Water Hose Replacement on Marine Engines

A. MERCUISER SERVICE TOOLS

Slide Hammer Puller Assembly

(For P.2 of Tool Section XI)

A universal-type Slide Hammer Puller Assembly now is available as a service tool for repair of both MerCruiser Stern Drive Units and Mercury Outboard Motors. (Figure 1)

Some outstanding features of the new tool are:

1. Heavy duty construction.
2. Both 2-jaw and 3-jaw adaptors included.
3. Reversible jaws -- permit pulling on either inner or outer diameters.
4. Threaded adaptors will be available extra -- permit pulling from tapped holes.
5. Highly versatile -- adaptable to a variety of pulling jobs.

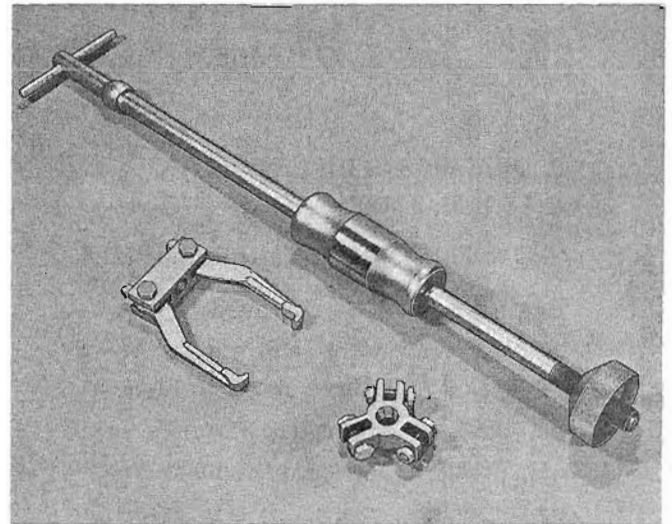


Figure 1. Slide Hammer Puller Assembly

The Slide Hammer Puller is used for:

1. Removing all tapered roller bearing cups from all MerCruiser Stern Drive Units and Mercury Outboards.
2. Removing reverse gear assembly from bearing carrier on MerCruiser I and Mercury Outboards.
3. Will fit other applications as well.

91-34569A1

Slide Hammer Puller Assembly

\$14.95 Net

(Sent to All MerCruiser Dealers on Perpetual Tool Order Card.)

Bearing Cone Puller (91-35427A1)

(For Page 6 of Tool Section XI)

Removes tapered roller bearing cone from spiral bevel gears in forward gear assembly of MerCruiser I lower units, Serial No. 1536618 and above.

(91-35427A1)

Bearing Cone Puller

\$3.80 Net

Power Timing Light

(For P. 2 of Tool Section XI)

Accurately "times" any 2 or 4-cycle engine with 6 or 12-volt DC system. Molded plastic case virtually unbreakable, lightweight, modern design. Operates without "spark lag" throughout entire RPM range, from idle position to wide-open throttle. Shock-proof. 1-year warranty. (Figure 2.)



Figure 2. Power Timing Light

91-35507

Power Timing Light

\$28.00 Net

(Not Sent to MerCruiser Dealers on Perpetual Tool Order Card.)

B. MERCUISER II CLAMP NUT COVER (32300)

(Add to P. 21 of Drive Units Section IX.)

Engineering has approved a new method for faster and easier replacement of MerCruiser II clamp nut cover in situations where it is not practical or convenient to remove the boat from water. To install, remove screws which fasten broken clamp nut cover to inner transom plate and saw clamp nut cover in half to remove. Cut $1\frac{1}{4}$ " section from new clamp nut cover, as illustrated in Figure 3. This will permit installation of the replacement clamp nut cover without removing the stern drive unit from the transom plates.

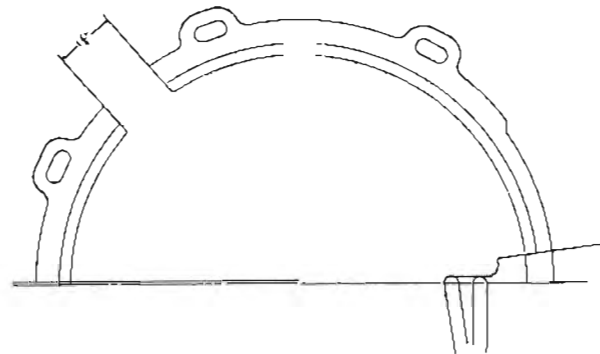


Figure 3. Cut Out Section

C. MERCUISER II TRANSCOM CUTOUT & DRILLING KIT (8° to 20° Transoms Only)

(For P. 30 of Installation Section II.)

Because of many requests from dealers and boat manufacturers, we have made available a Transom Cutout and Drilling Kit (91-35449A2) for the MerCruiser II (on boats with 8° and 20° transoms). The transom can be cut and drilled quickly and accurately with this new fixture. It reduces installation time to a minimum and eliminates misalignment of holes between inner and outer transom plates.

91-35449A2

Transom Cutout & Drilling Kit (MerCr. II)

D. NEW MERCUISER RIDE-GUIDE CABLE*(For PP. 6 & 34B of Installation Section II.)*

If the new MerCruiser Ride-Guide cable (34451A) cannot be inserted into the Ride-Guide steering tube on the drive units, the cable end may be slightly bent. (Figure 4) This condition can be corrected easily by inserting the end of the stainless steel cable into the end of the Ride-Guide tube and bending the end straight. There is not enough force here to cause any damage to the cable tube.

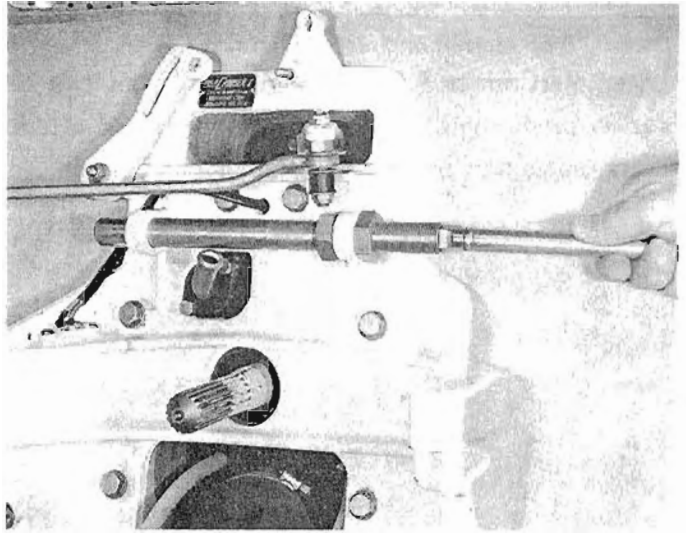


Figure 4. Straightening Cable

E. ADJUSTABLE "TRIM-TAB"*(For P. 1 of General Information Section I)*

To simplify trim-tab adjustment, remember that adjustable trim-tab balances "steering torque" so that steering wheel will turn with equal ease in each direction at cruising speed. If boat turns more easily to right than to left, remove plug on top of drive shaft housing. Loosen socket head screw and move trim-tab trailing edge to right. Tighten cap screw and replace plug. Reverse procedure if boat turns more easily to left than right.

This special alloy trim tab and another special alloy galvanic corrosion inhibitor, located at base of gimbal housing, have been developed to aid in protecting surfaces of drive shaft housing and gear housing from electrolytic action (corrosion and pitting of metal surfaces) on units operated in salt water areas.

Because of this special trim tab, it is recommended that stern drive unit be left in operating position when moored. If trim tab is out of water, e. g. when tilted up, it cannot function as a galvanic corrosion inhibitor.

NOTE: Do not paint or place protective coating on trim-tab, or its protective value is lost.

F. KEY SWITCH LUBRICATION (ELECTRIC STARTING MODELS)*(Add to P. 4 of Ignition System Section V.)*

If a key switch tends to stick or react slowly, lubricate with Lock Ease, a lubricant mixture which does not harm the switch. Occasional use is recommended where sticking is experienced. Lock Ease is available thru local hardware stores.

G. MERCUISER WARRANTY SUPPLEMENT

Some of the instruments are being removed from the MerCruiser instrument panel and installed in custom panels. In some cases, the nuts which hold the tachometer have been tightened excessively, thus pull the instrument case out-of-shape and disturb the mechanism within to give false readings. Where the above alteration has been made, warranty will not apply to the tachometer or other instruments.

H. MERCUISER I ALTERNATOR BELT CHANGE

(For P. 3 of Alternator System Section VI.)

Later MerCruiser I "110" and "140" engines use a $\frac{1}{4}$ " shorter alternator belt (32850) than earlier production. If it is difficult to tighten alternator belt sufficiently, install one of the newer belts, same part number. Look for identification No. 462-H marked on new belt. (Figure 5)

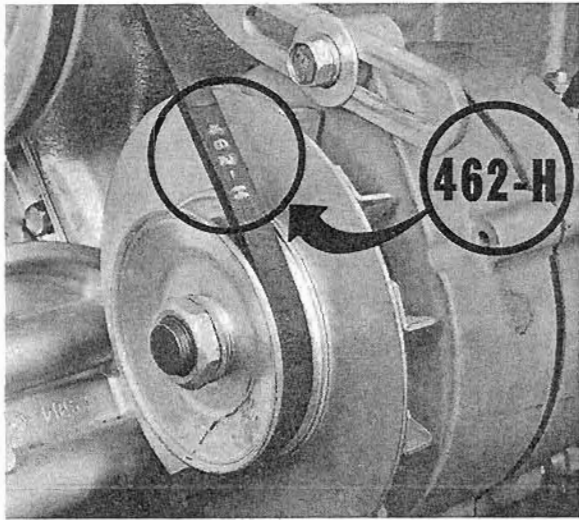


Figure 5. New 32850 Alternator Belt

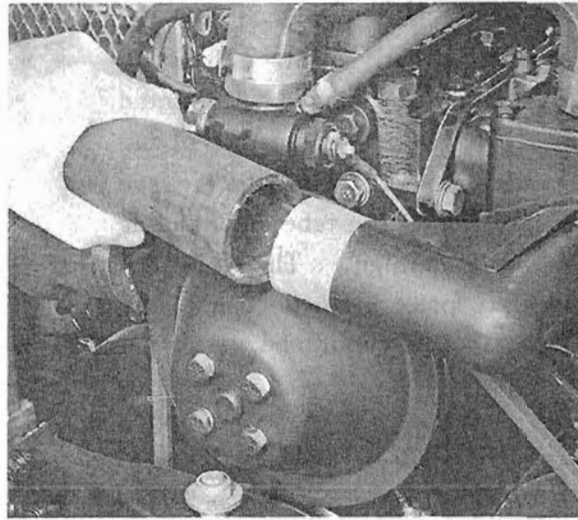


Figure 6. Sanded Area

I. WATER HOSE REPLACEMENT ON MARINE ENGINES

(Add to P. 14 in Engine Tuneup Section III.)

It has been found that the black paint which is used on later MerCruiser marine engines is very slippery and tends to allow water hoses to slip off the engine, unless hose clamps are very tight. Production now leaves the metal surface unpainted wherever a hose is slipped on. It is recommended that, if a hose slips off or is removed for other reasons, the black paint be sanded off where the hose covers (Figure 6), that the inside of the hose be roughened slightly with sand paper and that the hose be reinstalled with the hose clamps tightened snugly to 25 in. lbs. At the same time, install a new style Water Pressure Regulating Valve Assembly (24-35087A1) on the relief valve body assembly. (Figure 7)

J. MERCUISER I "110" & "140" MANIFOLDS

(For PP. 3-4-5 of Miscellaneous Section X.)

We have received a number of inquiries concerning service procedures for MerCruiser I "110" and "140" manifolds. All repair procedures and information which cover these manifolds are included in Miscellaneous Section X, Pages 3-4-5 (mailed to all MerCruiser dealers in early May 1963).

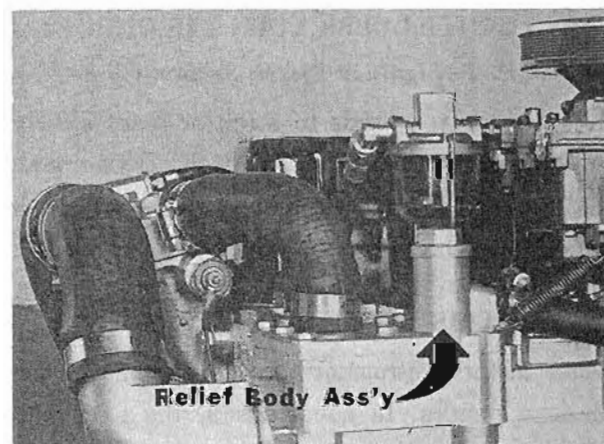


Figure 7. Relief Valve Body Ass'y