mercruiser
STERN DRIVES/INBOARD ENGINES

service bulletin

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CIRCULATE TO:
SERVICE MANAGER
PARTS MANAGER
MECHANICS

A. Thunderbolt IV Distributor Cap Gasket Installation - MIE 230/260/340 Models
B. Inspection of Locating Key Inside Thunderbolt IV Distributor Rotor - MIE 230/260/340 Models
C. Installation of Thunderbolt IV Rotor with Loctite - MIE 230/260/340 Models
D. Removal of Rotor After It Has Been Loctited to Distributor Shaft

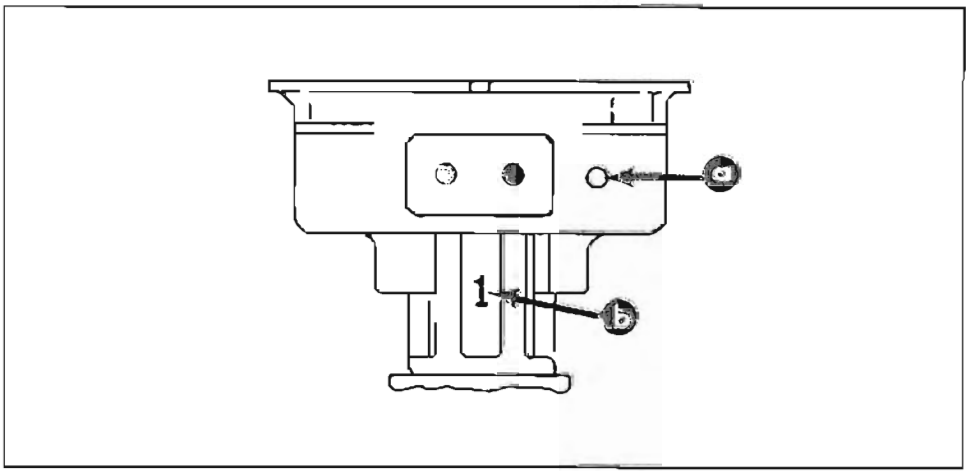
In order to prevent the possibility of an air gap existing between the distributor cap and the distributor housing, a gasket (B-27-98242) is being installed on the distributor cap of all MIE 230/260/340 Inboard engines with the new Thunderbolt IV Ignition System according to the instructions in article "A", following.

In addition, there have been some instances where the distributor rotor is loose on the distributor shaft. This is caused by the rotor key either being undersize or from the rotor key being shaved off when installed. The result of either is a potential change in timing of the engine. Follow instructions in articles "B" and "C" for correcting condition.

A. THUNDERBOLT IV DISTRIBUTOR CAP GASKET INSTALLATION - MIE 230/260/340 MODELS

NOTE: DO NOT proceed if distributor has either identification mark as shown in Figure 1. Starting serial numbers of engines that have distributor cap gaskets and Loctited rotors are:

MIE 230 All engines built
MIE 260 5941060 and up
MIE 340 5988721 and up



a - Dot of White Paint b - Number "1" Stamped into Distributor Body

Figure 1. Distributor Identification Marks

1. Remove 4 distributor cap attaching screws and remove cap.
2. Clean surface on distributor cap (where distributor body comes in contact). Use a suitable solvent to remove all dirt or grease from this surface.
3. Remove adhesive backing paper from gasket.

4. Align the square notch (in gasket) with key in distributor cap. Place gasket (adhesive side toward cap) into cap and press firmly against the distributor cap shoulder.
5. Cap is ready for installation AFTER completing 'B' and 'C' following.

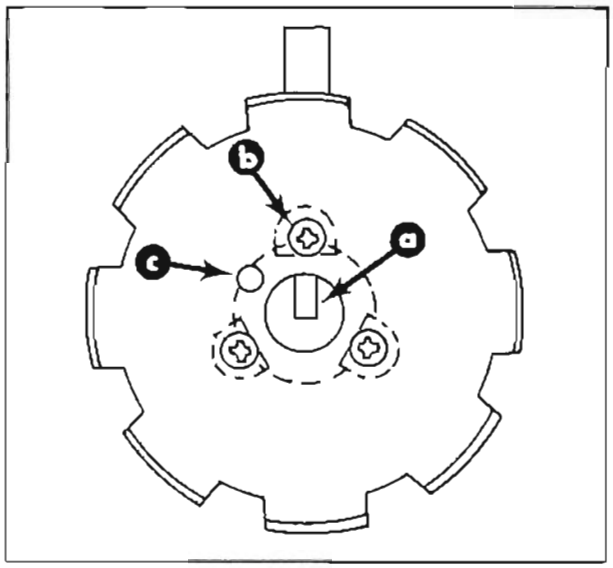
B. INSPECTION OF INDEX KEY INSIDE THUNDERBOLT IV DISTRIBUTOR ROTOR - MIE 230/260/340 MODELS

Inspect for possible damage to distributor rotor key as follows:

1. Remove distributor rotor (Part No. B-90576A2) and sensor wheel (Part No. B-90574) assembly from distributor shaft.

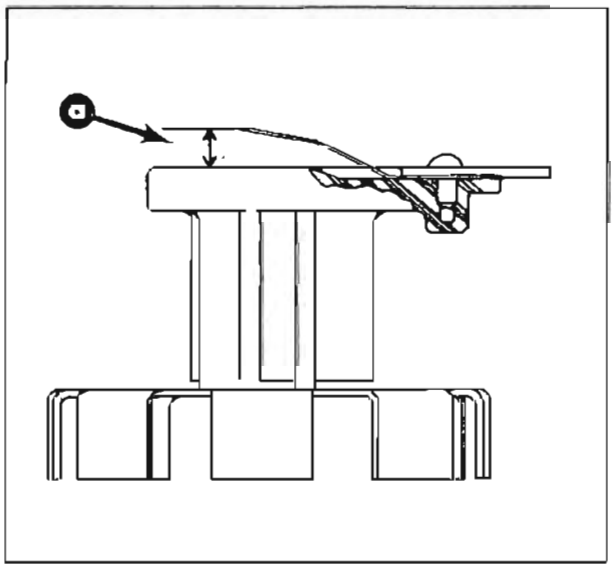
   NOTE: If rotor and sensor wheel assembly cannot be removed by hand, remove as follows: Use two 3/8" (9.5mm) wide flat blade screwdrivers approximately 8" (20.3cm) to 10" (25.4cm) long. The screwdrivers are positioned opposite each other with the blade tips on the underside of the rotor and sensor wheel assembly. Make sure blade tips are toward distributor shaft until they come in contact with shaft. A downward push on both screwdriver handles at the same time will pry rotor and sensor wheel assembly off.

2. With the rotor and sensor wheel assembly removed, inspect the locating key inside the rotor. (Use a penlight or suitable light to inspect.) (Figure 2)
3. The locating key will appear as a clean edged, 1/8" (3.2mm) wide, sloped ramp at the bottom of the splined hole.
4. If there are pieces of material shaved off of key or if it appears to have been damaged by being forced down while misaligned with slot in distributor shaft, the rotor must be replaced.
5. If rotor key is damaged, replace rotor by removing 3 phillips screws and separating sensor wheel from rotor. Reinstall sensor wheel to new rotor making sure locating pin on rotor is installed in locating hole in sensor wheel. Tighten 3 phillips screws securely. (Figure 2)
6. Bend carbon brush tang upward slightly until a distance of 1/4" (6.4mm) is obtained between rotor and tang. (Figure 3)
7. Reinstall rotor and sensor wheel assembly to distributor shaft as outlined in 'C' following.



a - Locating Key
b - Phillips Screws
c - Sensor Wheel Locating Pin

Figure 2. Locating Key Location



a - 1/4" (6.4mm)

Figure 3. Rotor Assembly

C. INSTALLATION OF THUNDERBOLT IV ROTOR WITH LOCTITE - MIE 230/260/340 MODELS

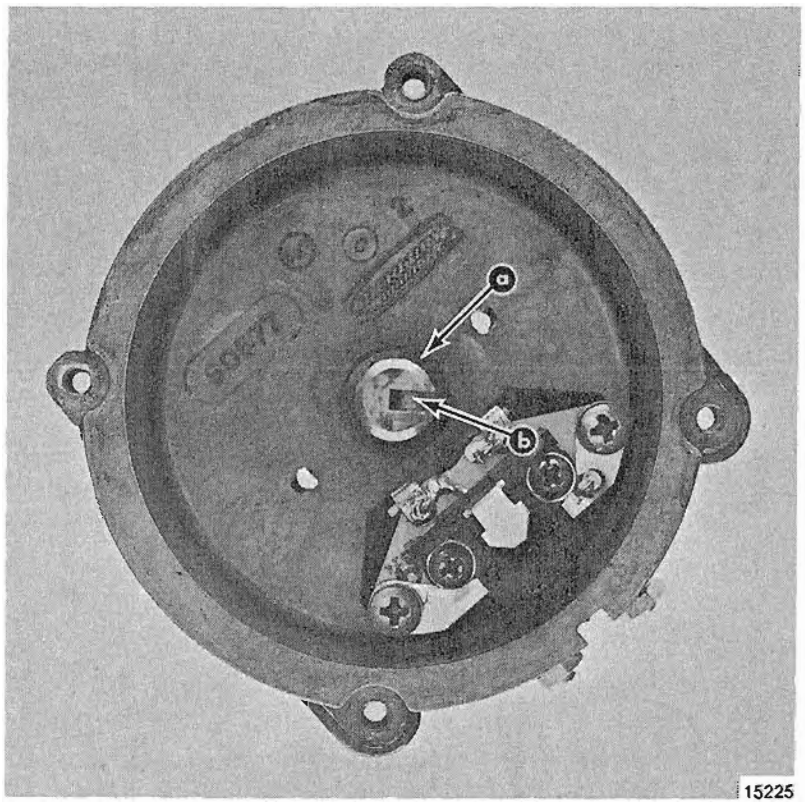
1. Place a small amount of Quicksilver 2-4-C Lubricant (C-92-86154A1) around distributor shaft where it enters the bronze bushing (Figure 4).

   NOTE: This will prevent any of the Loctite used in the next step from getting into bronze bearing.

2. Put 2 drops of Loctite 271 or Loctite Type 'A' into the rotor so it lands on the locating key. (Figure 2)
3. Put 2 drops of Loctite in keyway on upper portion of distributor shaft. (Figure 4)
4. Immediately install rotor assembly onto distributor shaft. MAKE SURE rotor locating key is aligned with keyway in distributor shaft BEFORE pressing rotor all the way down on shaft until it stops with the palm of your hand.

   NOTE: The rotor should fit very tight. It may be necessary to heat rotor with Torch Lamp (C-91-63209) to properly install.

5. Place distributor cap on distributor.
6. Place a dab of white paint (on distributor housing) just to the right of the two terminals to indicate that rotor has been inspected and gasket placed in distributor cap. (Figure 1)
7. Retime engine to 8° BTDC.



a - Bronze Bushing b - Keyway

Figure 4. Distributor Housing

D. REMOVAL OF ROTOR AFTER IT HAS BEEN LOCTITED TO DISTRIBUTOR SHAFT

Use 2 screwdrivers (as outlined in Step 1, item 'B' preceding) to remove rotor assembly that has been Loctited to distributor shaft. The use of Torch Lamp (C-91-63209) will also aid in the removal of the rotor.