SERVICE BULLETIN

NO. 1709

MODEL: Power Mac 300 Series (Serial number prefix 11-) DATE: December 1, 1980

SUBJECT: Cylinder/Crankcase Modification (5mm to 6mm fasteners)

As noted in Service Bulletin 1704 (sent to you in this mailing), the muffler, top and bottom shroud-to-cylinder fastener diameter was increased from 5mm to 6mm for improved retention.

The change from 5mm to 6mm fasteners has greatly improved component retention, therefore, we have developed a service procedure to modify PM 300 series units (serial number prefix 11-) to accept the 6mm fasteners. This procedure should be used to repair units on which loose fasteners have been a problem that has not been solved by the use of normal service procedures(e.g. the use of Locquic, Loctite and/or retorquing the fasteners.)

The service procedure explained in S.I. 183 (also sent to you in this mailing) is a fast and effective method of converting PM 300 series cylinder fastener holes (for muffler, top and bottom shrouds) from 5mm to 6mm. Please note that the components required for this procedure are also listed in S.I. 183.

If this modification procedure is used to repair a unit under warranty, a special flat rate time of .8 of an hour will be allowed and no additional time unless a separate repair to another component is involved.

MCCULLOCH CORPORATION
Product Service Department

Power Mac 300 Series Cylinder Modification (5mm to 6mm)

New 6mm screws are presently being used to secure the top and bottom shroud assemblies on Power Mac 300 series saws with serial number prefix 12-.

The increase in thread diameter (5mm to 6mm) and the self-tapping feature provides considerably improved retention. The larger 6mm screws are also used on the muffler assembly. Although not self-tapping, the enlarged thread will improve retention.

Power Mac 300 units with serial number prefix 11- were manufactured with 5mm retaining screws. If better retention is required, these units can be modified to accept the new 6mm screws. The following parts will be needed to convert to 6mm screws:

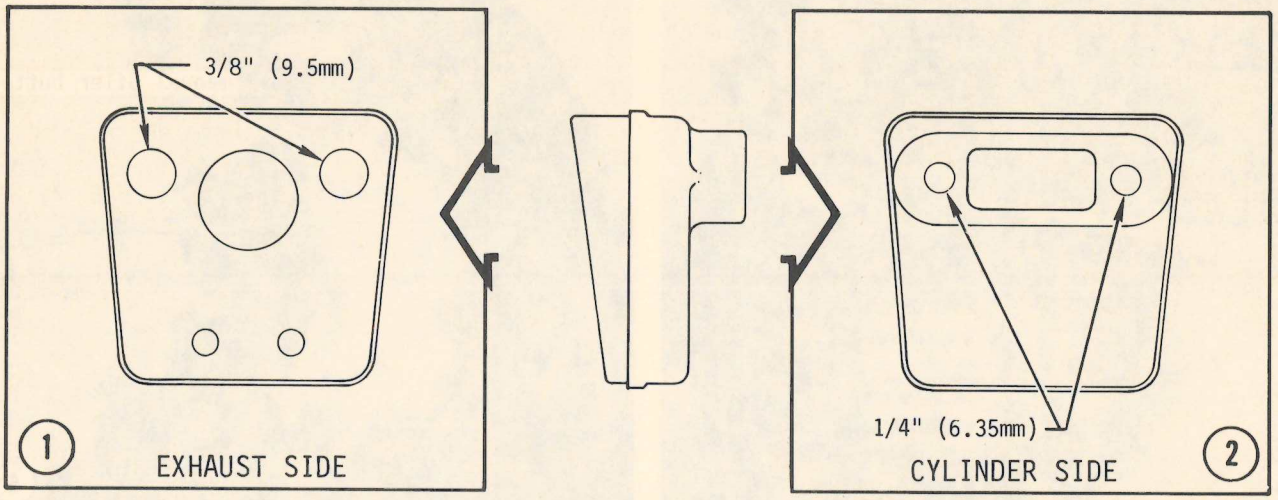
PART NO.	DESCRIPTION	QTY.
213369	Top & Bottom Shroud Screw	4
213370	Washer - Insulating	4
213327	Screw - Special muffler	2
214350	Insulator	2

MUFFLER ASSEMBLY

To enlarge the muffler holes, the following modifications must be made:

CAUTION: When enlarging the muffler retaining holes, secure the muffler body in a vise, being certain not to collapse the body with too much pressure. Drill all holes from the exhaust side of the muffler assembly only.

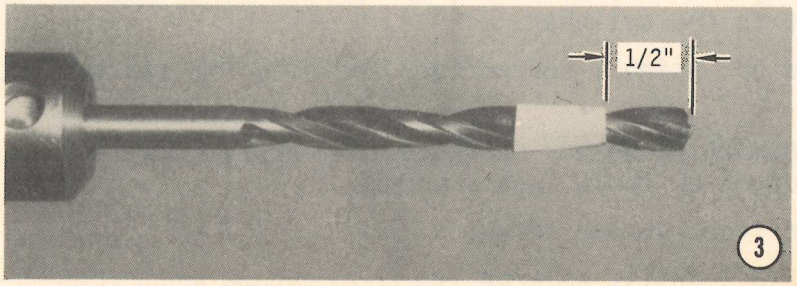
1. Using a 3/8" (9.5mm) drill, enlarge the retainer holes on the exhause side of the muffler body (Figure 1).



2. Using a letter "D" or 1/4" (6.35mm) drill, enlarge the retainer holes on the cylinder side of the muffler body (Figure 2).

3. Using a #3 (.213") drill, enlarge the cylinder muffler retaining holes. These cylinder holes should be drilled to a depth of 1/2".

   NOTE: Mark the drill bit at 1/2" from the tip (Figure 3). This will act as a guide line to ensure the proper depth when drilling. Do not exceed the 1/2" depth, or cylinder damage could result.



4. The muffler screws are not self-tapping. To cut threads into the cylinder hole, use the self-tapping shroud retaining screw, P/N 213369. Be certain the screws are installed square to muffler mounting surface to ensure a proper holding angle.

5. Remove the self-tapping screw. Install the muffler assembly using the special muffler screws, P/N 213327. Apply Locquic* then Loctite* and torque 60 to 70 inch x pounds.

   NOTE: Before reinstalling a self-tapping screw, clean the screw threads with a wire brush to remove any shavings. Installing an uncleaned screw can damage cylinder threads, resulting in poor retention.

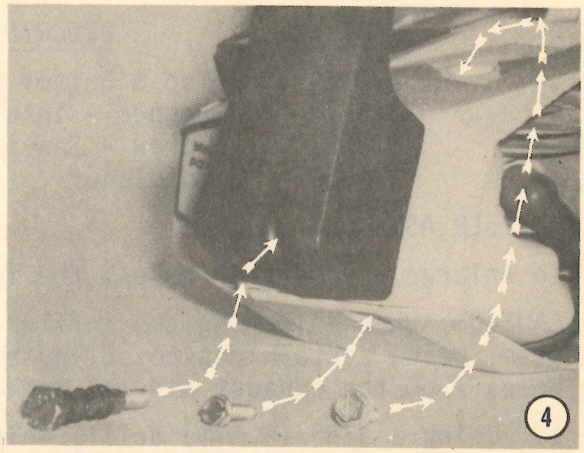
TOP SHROUD

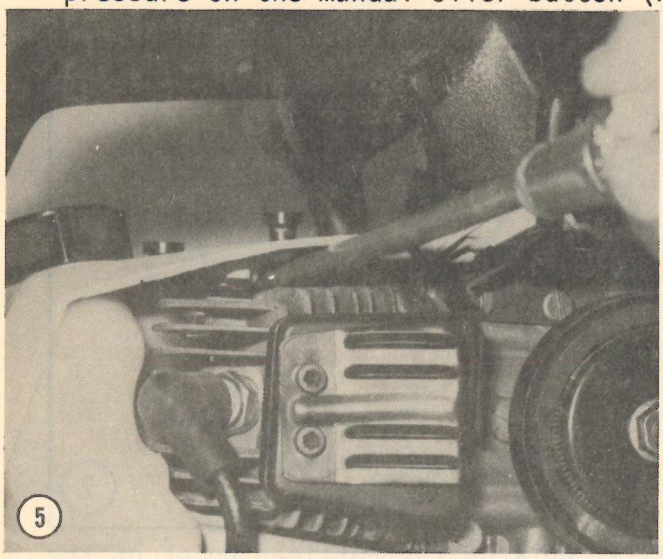
NOTE: Remove fan housing before starting this procedure.

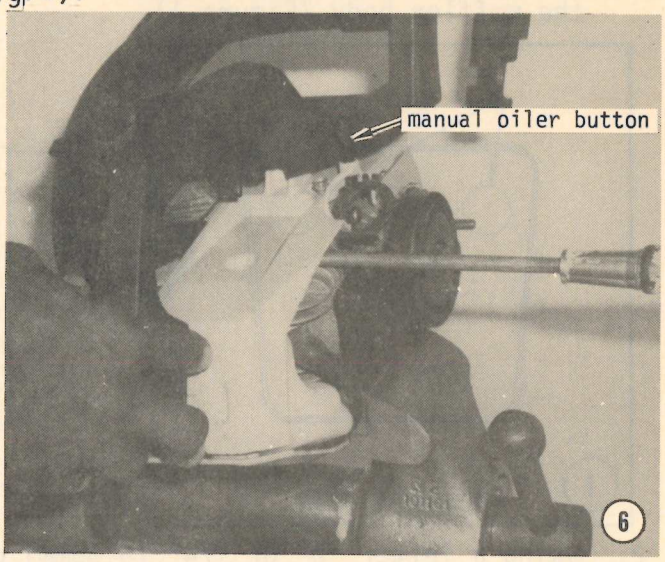
1. Remove the top rear shroud retaining screw, the bottom rear screw, and the rear handle mount screw (Figure 4).

2. Loosen the top front shroud screw and with a large screwdriver, pry the shroud up and remove the insulator (Figure 5).

3. Secure the unit in vise or table top clamp. Pull the handle assembly up and to the side, being careful not to put extreme pressure on the manual oiler button (Fig. 6).


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4. Using a 3/8" (6.35mm) drill, enlarge the rear shroud hole.

5. With the shroud in line, enlarge the cylinder hole using a #3 (.213") drill. Drill the cylinder holes to the original depth of 5/8".

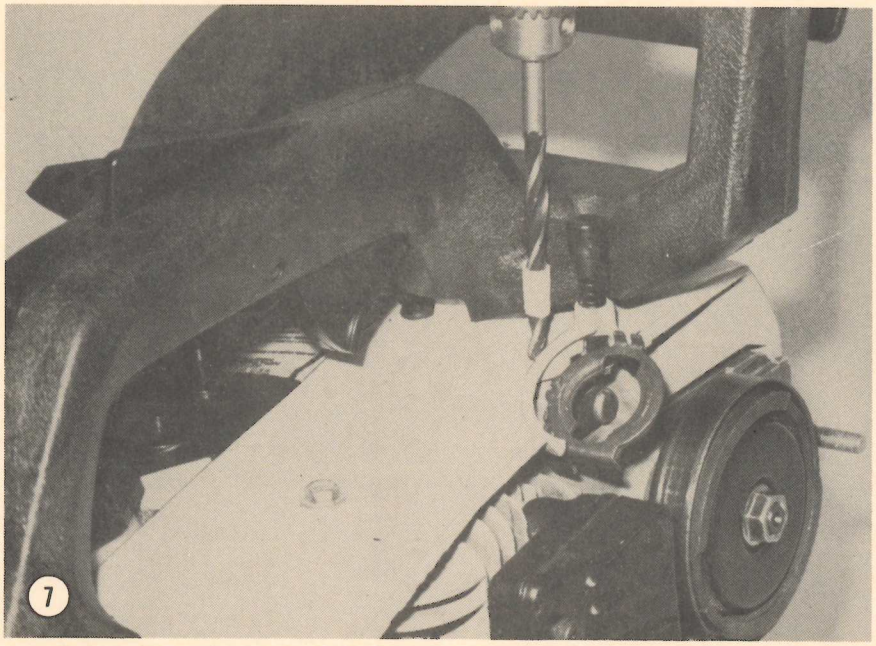
   NOTE: When drilling out threads, very little resistance will be felt. To protect against drilling too deep, mark the drill bit at 5/8" from the tip. Use this mark as a guide line to ensure the proper depth when drilling, and to prevent damage to the cylinder.

6. Pry the shroud up, using a screwdriver and slip the new insulator into position.

7. Install the insulating washer on the screw. Apply Locquic* then Loctite* to the screw, then torque 60 to 70 inch x pounds.

8. Remove the top front shroud screw.

9. Using a #3 (.213") drill, enlarge the front shroud and cylinder hole at the same time. Hole depth should not exceed 5/8" (Figure 7).



10. Install the insulating washer and apply Locquic* then Loctite*, then torque 60 to 70 inch x pounds.

BOTTOM SHROUD

If the bottom shroud is equipped with an insulator, use the same procedures used to modify the top shroud and cylinder retainer holes.

If bottom shroud is not equipped with an insulator:

1. Enlarge the bottom shroud holes and cylinder holes at the same time, using a #3 (.213") drill to a depth of 5/8".

* Loctite, P/N 67537, is a highly recommended liquid locking compound for use on most metal fasteners. Locquic, P/N 69794, causes Loctite to set within 5 to 10 minutes, and to reach ful cure within 30 minutes to 3 hours. Without Locquic, Loctite curing time is 24 hours.