

INSTRUCTION SHEET FOR IMPELLER HOUSING & PLATE ASSEMBLY

The impeller housing and plate supplied in this kit use four attaching bolts. Original gearcases on 1976 models which have the model suffix letter "S" (as in 35R76S or 35602S) have only three mounting holes, thus one additional hole must be drilled and tapped in the gearcase.

1. Remove gearcase and mount in a fixture.
2. Remove impeller housing, impeller and impeller plate.
3. Position new impeller housing and plate on gearcase. Attach with three original screws.
4. Determine the center point for fourth mounting hole. Use a punch to mark this location. See Figure 1.

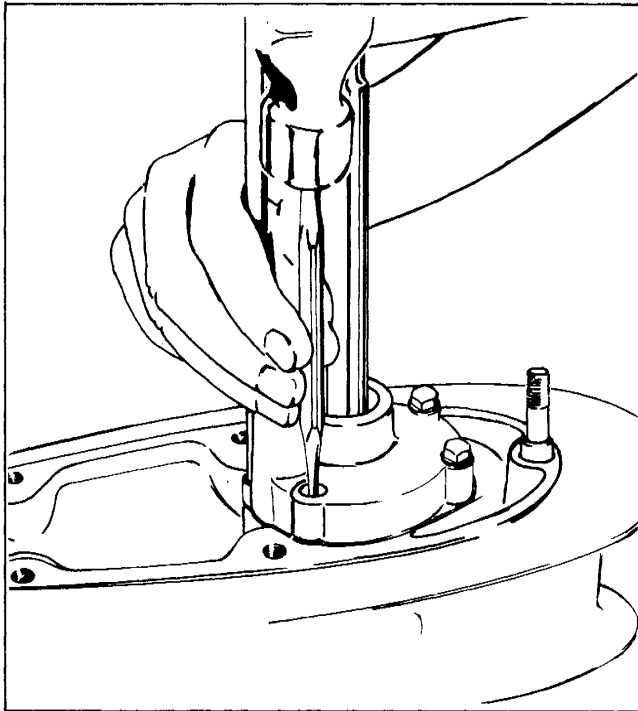


FIGURE 1

5. Wrap a piece of masking tape around a #7 (.201" diameter) or 13/64" (.203" diameter) drill bit at a point 1-5/32" above the tip of the bit. See Figure 2.
6. Drill the gearcase until tape is even with top of impeller housing. See Figure 3.
7. Remove impeller housing and plate from gearcase and tap the drilled hole 1/4-20. See Figure 4.
8. Remove all metal chips from gearcase.

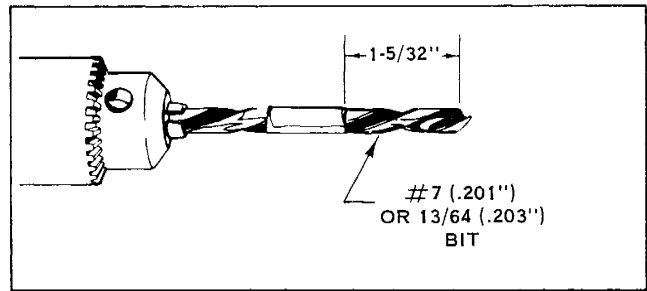


FIGURE 2

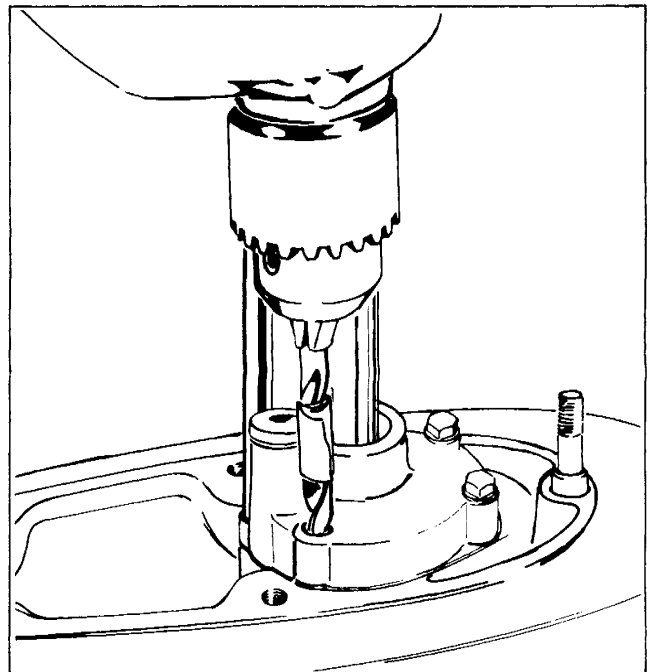


FIGURE 3

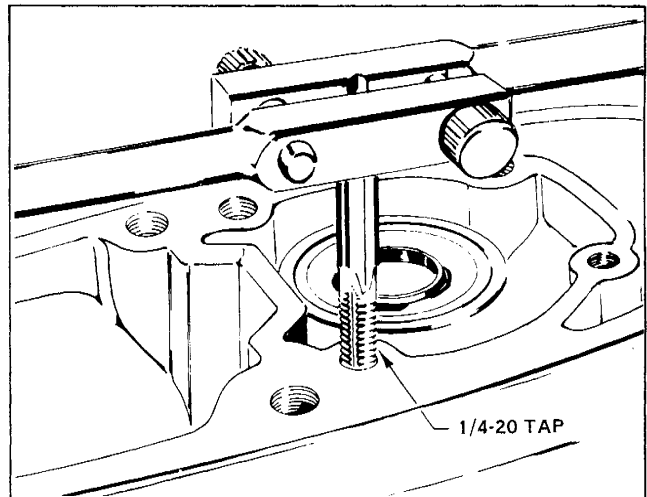


FIGURE 4

9. Visually inspect driveshaft seal in gearcase to make sure spring is in place on seal. See Figure 5.

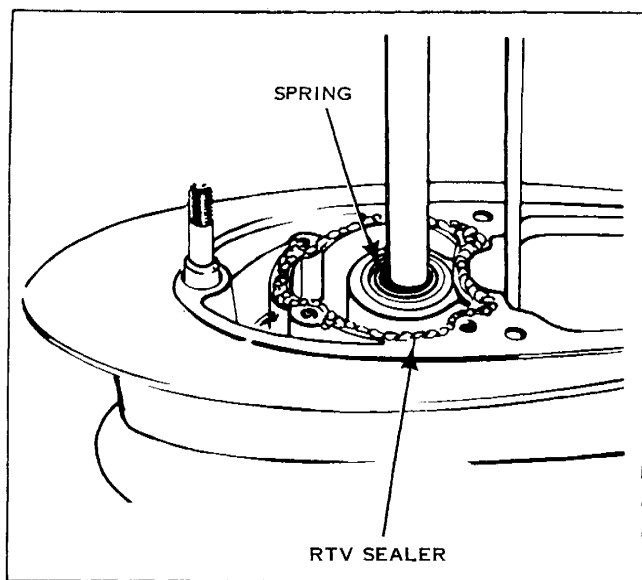


FIGURE 5

10. Inspect gearcase casting below cavitation plate for two $5/32$ " diameter holes. See Figure 6. If no holes are found, proceed as follows:

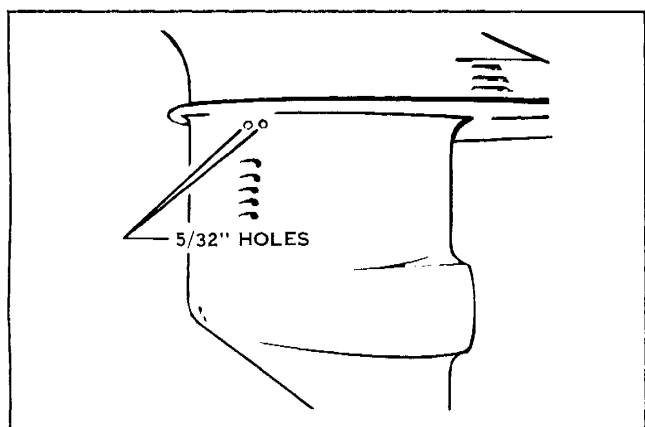


FIGURE 6

- a. Place a straight edge parallel with leading edge of water intake holes. Mark gearcase where straight edge meets curved radius below cavitation plate. See Figure 7.
- b. Repeat operation after aligning straight edge with trailing edge of water intake holes. See Figure 8.
- c. Center punch gearcase at two points marked and repeat operation on opposite side of gearcase.

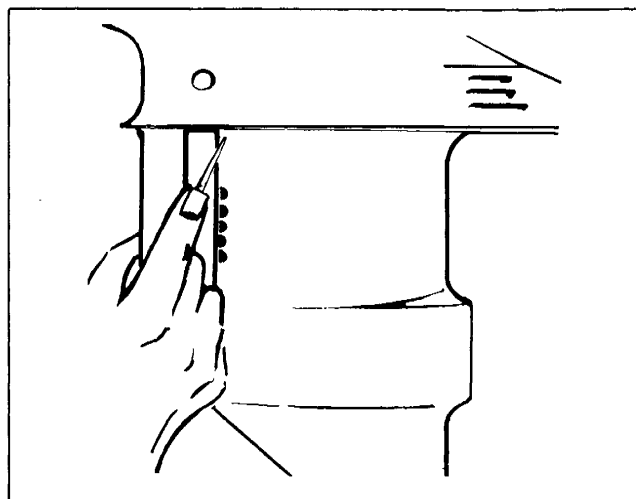


FIGURE 7

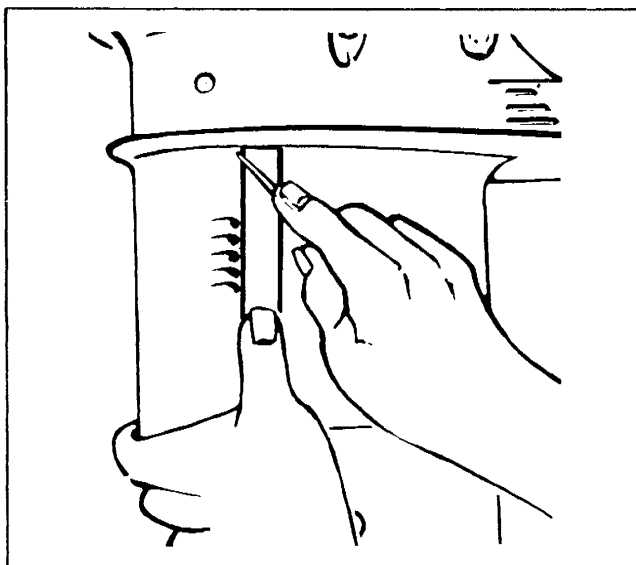


FIGURE 8

NOTE

Accuracy is important. If punch marks are too far aft, the drilling operation following may enter an oil passage rather than the water passage.

- d. Drill two $5/32$ " diameter holes in each side of gearcase at points marked. Holes should angle upward at approximately a 45° angle. See Figure 9. Remove metal chips from inside gearcase.
11. Clean gearcase flange and impeller plate of any old adhesives.
12. Apply a thin bead of RTV silastic sealer to gearcase where impeller plate will be mounted. See Figure 1. RTV is available from your parts distributor under part number 263753. RTV is also sold through local hardware stores as General Electric silicone bathtub caulk.

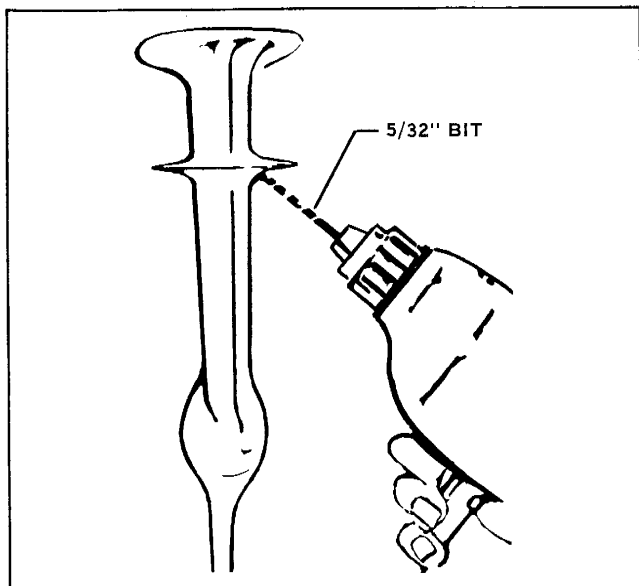


FIGURE 9

13. Install impeller plate, impeller and impeller housing. Torque impeller housing screws to 5 - 7 foot pounds. (7-9Nm)
14. Measure diameter of two holes on forward edge of exhaust housing. See Figure 10. If holes measure 13/32" (13.3mm) diameter, proceed as follows:

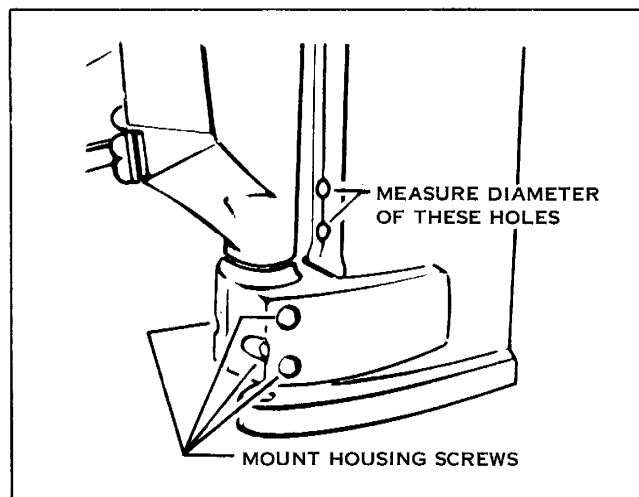


FIGURE 10

- a. Remove four screws from lower mount housings. See Figure 10. Remove housings.
- b. Tilt engine and position exhaust housing as shown. See Figure 11. Take care not to damage pilot shaft.
- c. Drill the two 13/32" diameter holes to 5/8" (15.5mm) diameter.
- d. Reinstall lower mount housings.

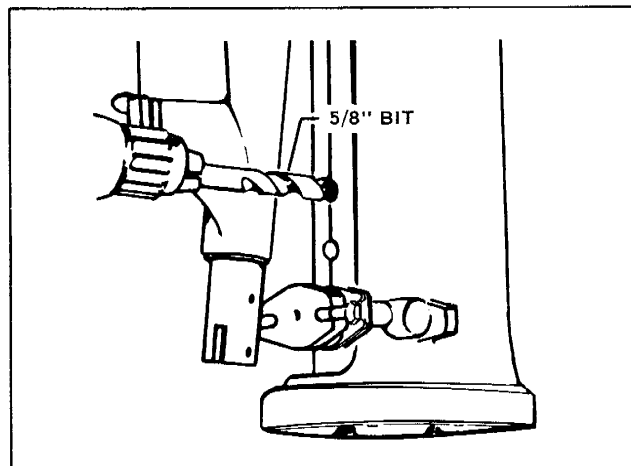


FIGURE 11

15. If driveshaft spacer came off when gearcase was removed, apply Permatex No. 2 to upper o-ring on spacer and reinstall in exhaust housing.
16. Lubricate impeller housing grommet with liquid hand soap. Lubricate upper driveshaft spline with Sea-Lube* Multi-purpose grease.
17. Re-install gearcase making sure water tube starts into impeller housing grommet, shift rod is in connector and driveshaft spacer is in pump housing.
18. Torque gearcase screws to 5 - 7 foot pounds (7-9Nm) and nut on gearcase stud to 10 - 12 foot pounds (14-16Nm).
19. Install shift rod connector screw and torque to 24 - 36 inch pounds (3-4Nm).



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