



9-2.7. Contact Assembly Installation

NOTE: The presence of oil on contact points will tend to attract and hold contaminating metallic particles. This will adversely affect contact assembly performance. Do not remove the new contact assemblies from the shipping containers until ready for installation. At installation, carefully blot any oil on contact point surfaces with a piece of clean hard cardboard, such as a business card. Ensure no paper particles are left between the contact surfaces.

Current design stacked contact assemblies include a relief in the steel support which allows them to be used with current replacement coil lead flag terminals as used only on reworked coils, as well as with flag terminals used on new production coils. Older design stacked contact assemblies cannot be used with reworked coils as the terminal will short to ground through the contact support.

1. Before installing new contact assemblies (Figure 1) (11, 12 & 13), check follower felt for adequate lubrication by squeezing felt tightly between thumb and forefinger. If fingers are moistened with oil, felt is adequately lubricated and no more oil is needed. If not, apply three drops of Breaker Felt Lubricant 10-86527 to the felt pad. Allow 30 minutes for the oil to penetrate the felt and for the thinner to evaporate. Avoid getting oil on contact points; blot excess oil with a clean cloth.
2. Install connector strip (20), new distributor block screws (18), and 0.396 in. O. D. flat washer (31) at each side of the distributor block. For D-2000 Series Magnetos, these are the only screws to secure the distributor block. Tighten, but do not torque the screws (18) at this time.
3. Install new contact assemblies (11, 12 & 13) on top of connector strips (20). Loosely secure contact assemblies in position with new screws (18), lock washers (9) and flat washers (10). The flat washer (10) is used only at the elongated hole side of the contact assemblies.
4. On magnetos using main contact assemblies only, the contact assemblies and their positions on the distributor block are interchangeable. On magnetos using a stacked main and retard contact assembly (13), install the assembly on the side of the magneto opposite the identification plate (Figure 9-10). On magnetos using a stacked main and tachometer contact assembly (Figure 1) (12), install the assembly on the side of the distributor block near the identification plate. The silver-cadmium tachometer contacts may be readily identified by their obviously smaller diameter than the main contacts.
5. After assembling the appropriate contact assemblies, center distributor block and tighten all four distributor block securing screws. (D-2000 block securing screws should already be tight. See Figure 9-2.6, step 7, sub- step i) Tighten in a crisscross pattern to seat the block evenly. Apply final torque of 25-30 in.-lbs. to each of the four screws.
6. Remove all surface oil from the main contact cam (16) and retard/tachometer cam using a clean, dry, lint-free cloth. Install the main contact cam (16) on the rotating

magnet shaft. Using No. 2 lock ring pliers in the small cam holes, position the cam (16) so the lobes are centered on the contact assembly cam followers.

7. Loosely secure the cam(s) to the magnet shaft with a screw and a new lock washer (14), and with flat washer (15) next to the cam. Use the short screw for one cam; use the long screw for two cams.

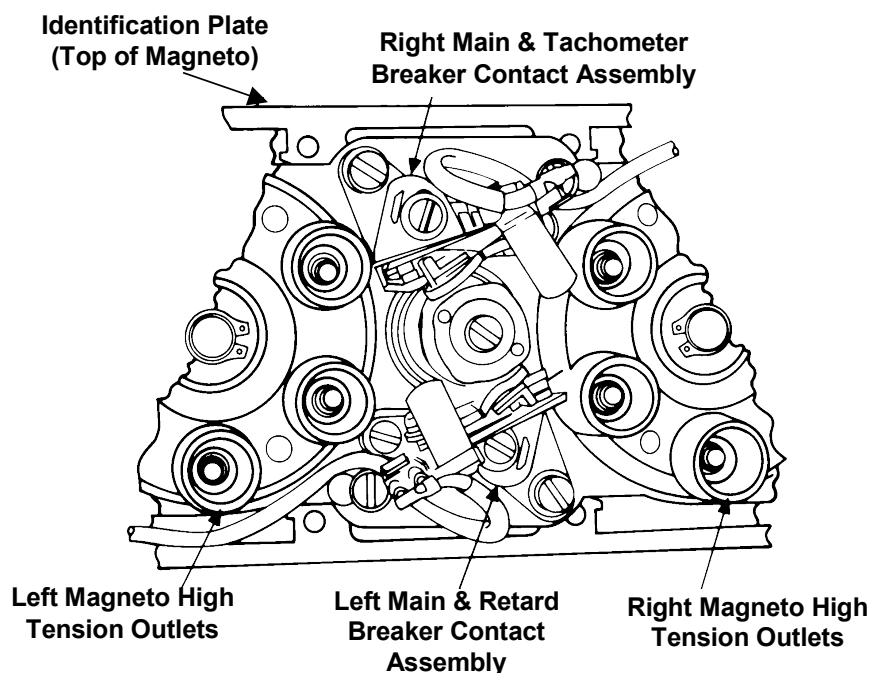


Figure 9-10. Cam End View of Magneto

8. Rotate the cam(s) so the high lobe(s) is (are) under the cam followers of the contact assemblies. Adjust the left main contact to obtain 0.016 ± 0.002 inch opening. Check the retard contacts for 0.016 ± 0.004 inch clearance.

CAUTION: Bend the contact assembly frame carefully. It requires very little movement of the bracket to change the contact opening clearance. If the bracket is bent too much, do not attempt to bend it back, as this will weaken the bracket. Use another new contact assembly.

9. If proper retard contact clearance cannot be obtained, loosen the contact assembly securing screws (9), move the contact assembly away from the cams, and retighten the screws. If the clearance was over 0.020 inch, bend the steel upright frame of the contact assembly away from the cam. If the clearance was under 0.012 inch, bend the frame toward the cam. Readjust the left main contact assembly for the 0.016 ± 0.002 inch clearance, and recheck the retard clearance.
10. Support the drive end of the rotating magnet (48) shaft on a non-metallic surface, and install woodruff key(s) (35).
11. Apply a thin film of P/N 646943 anti-seize lubricant to the taper on the rotating magnet (48) and install a drive plate (37 & 38) or cam assembly (42) over the taper. Install bushing (34) and nut (32); do not tighten the nut at this time.