GEK 64462 A

Replacement
Instructions

Rachet Assembly

AKR 30/50

GENERAL ELECTRIC

GENERAL

Tools Required for AKR-30/50 Ratchet Assembly Replacement

TOOLS SUPPLIED WITH KIT

1. Drift Pin, Part No. 192A7573P295.
2. Eleven inch magnetic screwdriver, Part No. 193A184P1, with detachable bit, for lower motor mounting bolt removal (Allen head bolt). On new model breakers, screw driver not needed because of hex head bolt in place of Allen head bolt.
3. Detachable Bit, Part No. 193A1848P2

TOOLS NOT SUPPLIED

1. Maintenance Handle, Part No. 568B386G1.
2. Racking Handle, Part No. 673D500SH636G5.
3. ½ inch wrench, or ratchet and ½ inch socket, for removal of upper motor mounting bolts.
4. Large Phillips screwdriver for removal of escutcheon.
5. ½ inch and 9/16 inch open end wrenches.

APPLICATION INFORMATION

Replacing the Ratchet Assembly

1. Prior to removal of the escutcheon, support the breaker by placing a 2″×4″×6″ piece of wood under each of the two front rail stud supports. See figure 1. Do not rest the breaker on an overcurrent programmer unit at any time.
2. Unscrew the escutcheon and set aside.
3. If the breaker is electrically operated, close the breaker by using the maintenance handle.

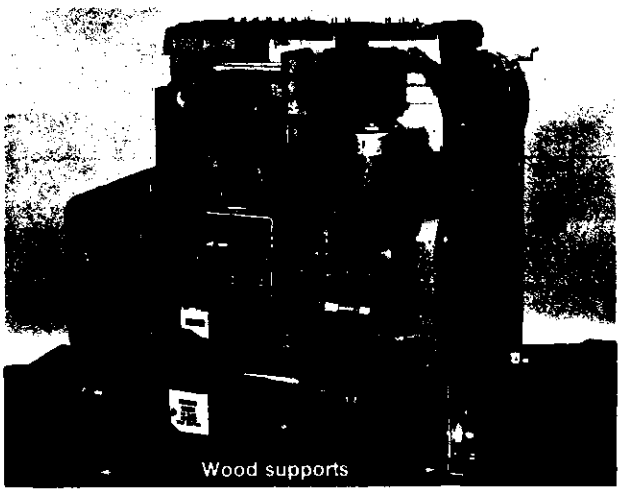

FIG. 1

4. Block the breaker from opening by using maintenance handle under the left flywheel and the top of the buffer nut. See figure 2.

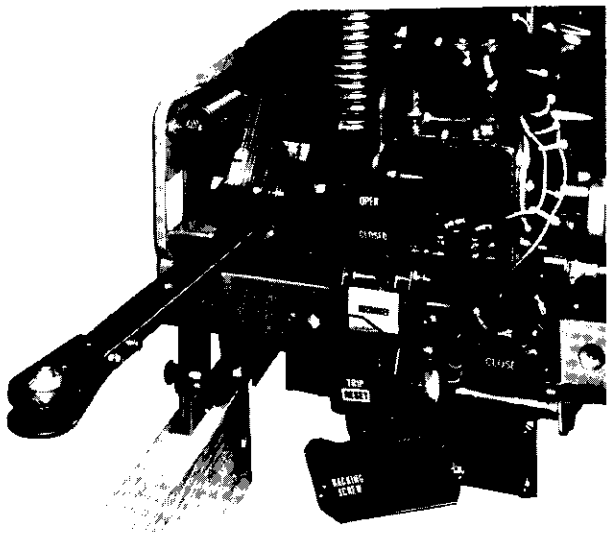

FIG. 2

To remove or assemble bottom mounting hardware of the motor, see figures 2A and 2B.

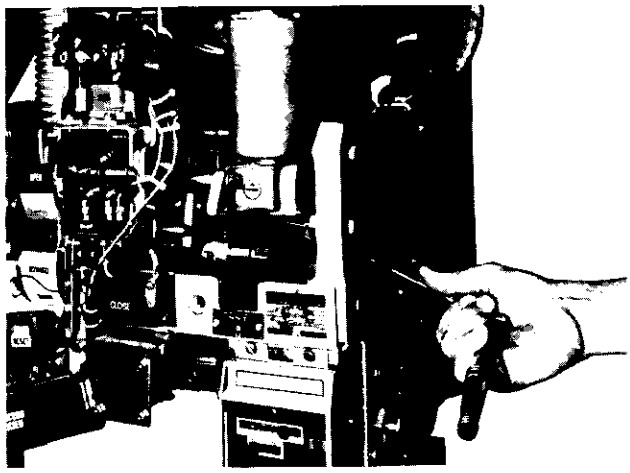

FIG. 2A

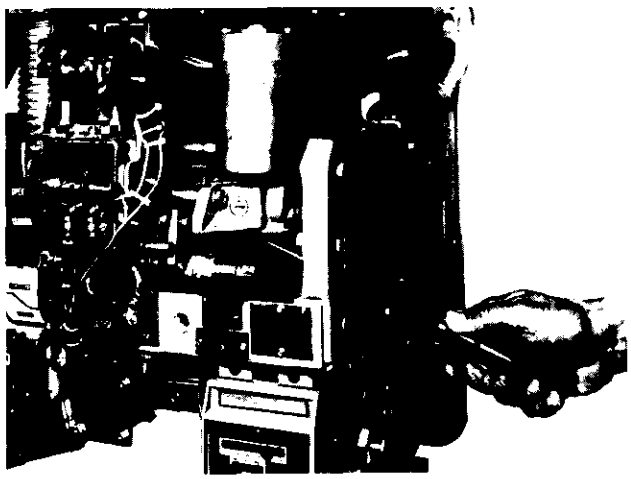

FIG. 2B

GENERAL

Tools Required for AKR-30/50 Ratchet Assembly Replacement

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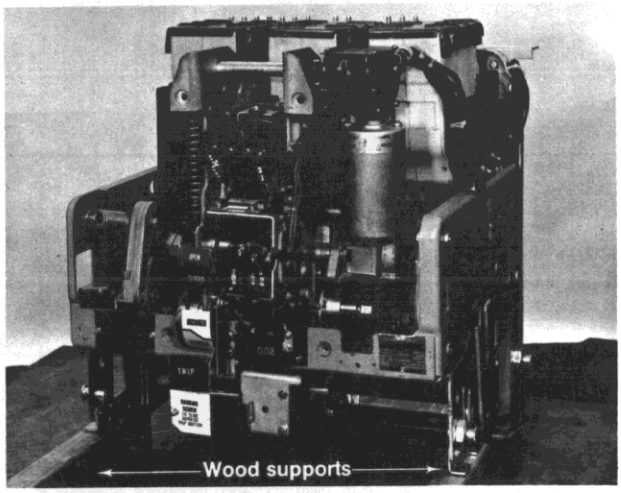

FIG. 1

4. Block the breaker from opening by using maintenance handle under the left flywheel and the top of the buffer nut. See figure 2.

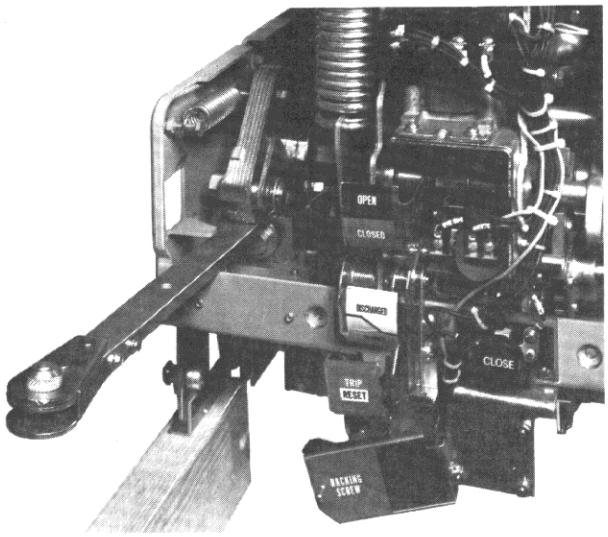

FIG. 2

To remove or assemble bottom mounting hardware of the motor, see figures 2A and 2B.

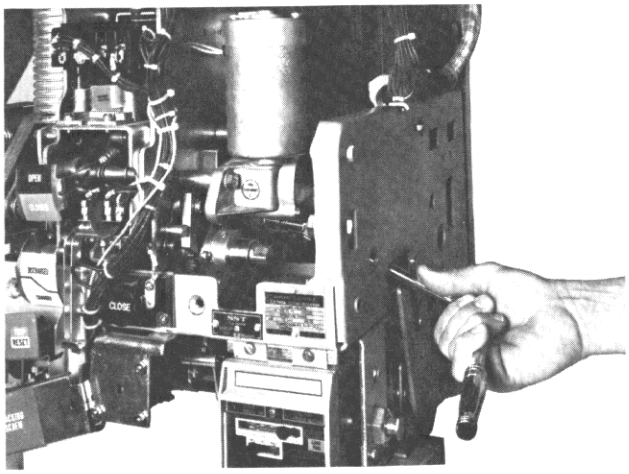

FIG. 2A

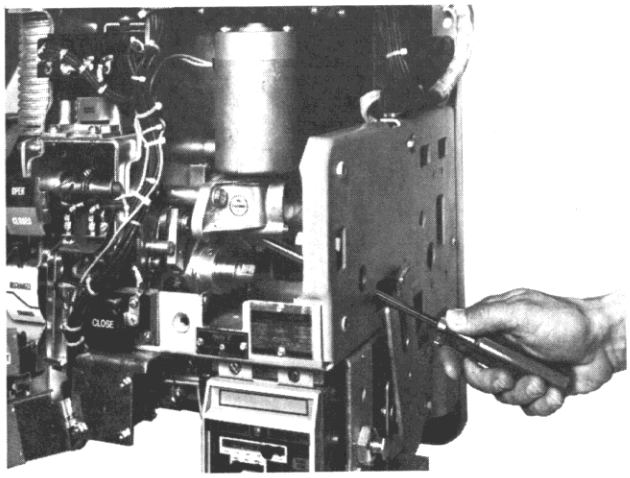

FIG. 2B

5. Remove the remaining two mounting bolts of the motor and all spacers. Lift and place the motor aside, see figure 3. Do not disconnect any wires.

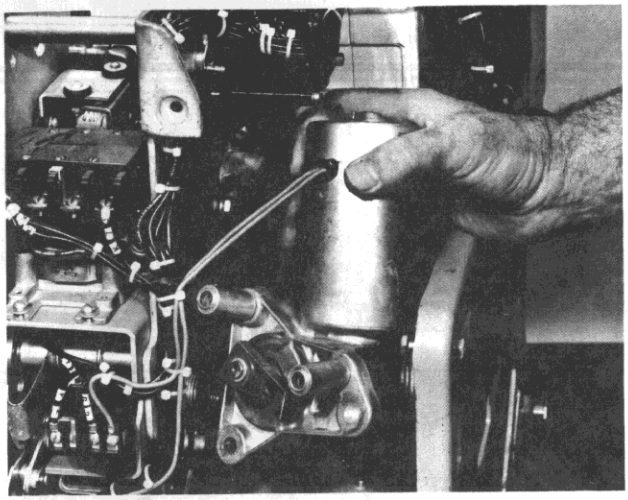

FIG. 3

6. For ease of roll pin removal, crank the crankshaft with the maintenance handle and advance the ratchet assembly two teeth. This will sound like two clicks. Use a 5″ to 8″ long, .228″ diameter drill rod and a hammer to drive the roll pin out of the ratchet and crankshaft assembly, see figure 4.

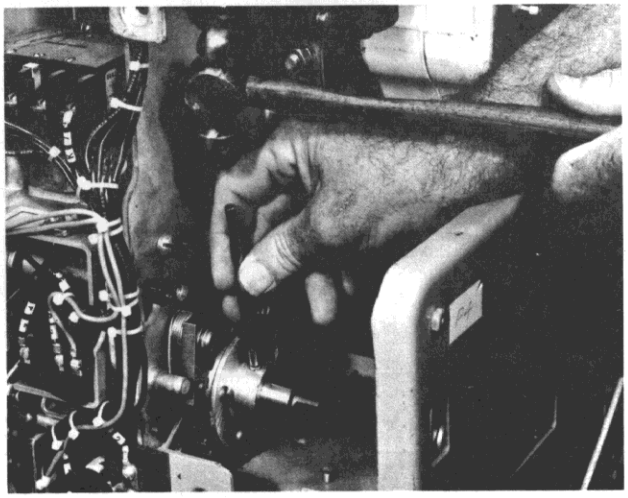

FIG. 4

7. Remove the ratchet assembly from the crankshaft.

8. Slide the new ratchet assembly onto the crankshaft. **Note** that the position of the cam-follower must be behind the centerline of the crankshaft, and on the side of the ratchet assembly nearest the mechanism, see figure 5.

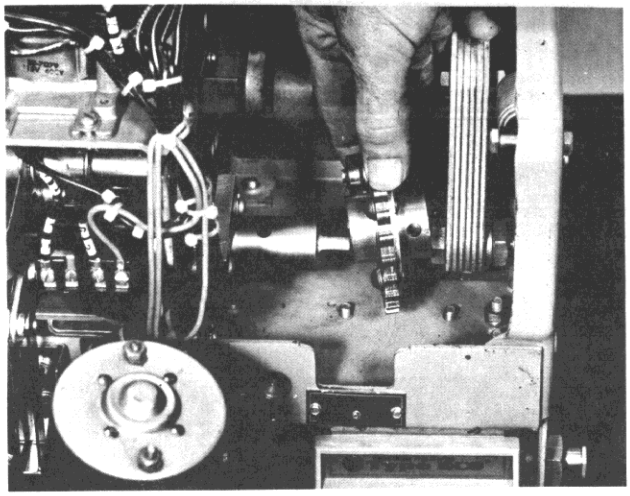

FIG. 5

9. In assembling the new ratchet assembly be sure to orient the holding pawl so that its torsion spring loads it against the ratchet, see figure 6.

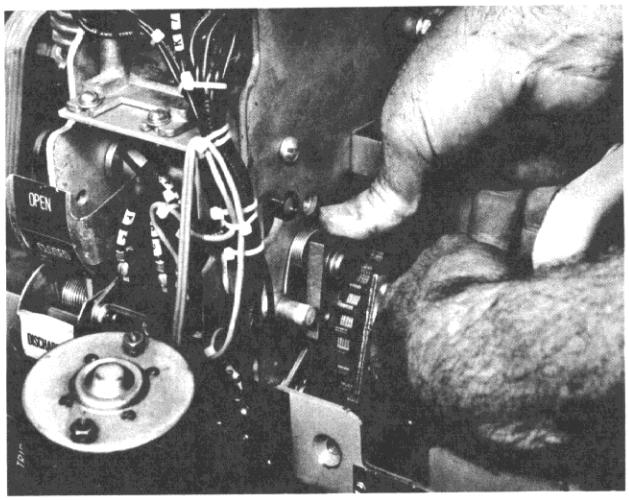

FIG. 6

10. To reinstall the ¼″ roll pin, drive the roll pin into the ratchet hub until it bottoms against the crankshaft. Then rotate the ratchet assembly relative to the shaft until the roll pin can be driven all the way.

11. Place the motor in the breaker with its driving pawl facing the front of the breaker (between the ratchet assembly and the pawl stop) see figure 7. Mount the motor by hand tightening the bottom allen head screw with the short spacer in position. Tighten the top two mounting bolts and spacers with the smaller diameter shoulders of the spacers properly seated in the countersunk sections of their mounting holes.

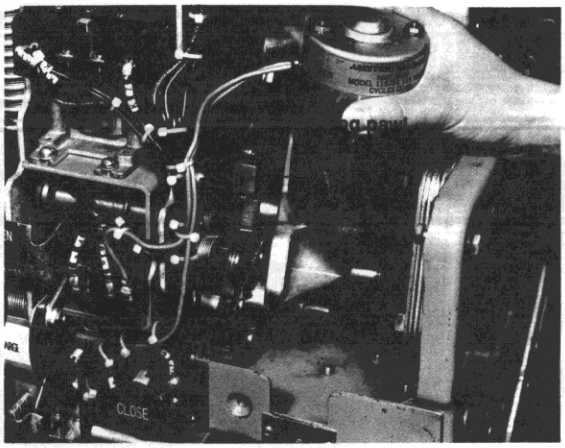

FIG. 7

12. Close the breaker. Reassemble motor, see figures 3 and 4. See figure 3. Verify that the screwdriver bit is not left in the breaker with Allen screw. Trip the breaker so that it is open and discharged.

13. Reassemble the escutcheon to the breaker. Should the racking screw cover dislocate, line up the labels, push forward, and release gently. See figure 8. Screw the escutcheon to the breaker.

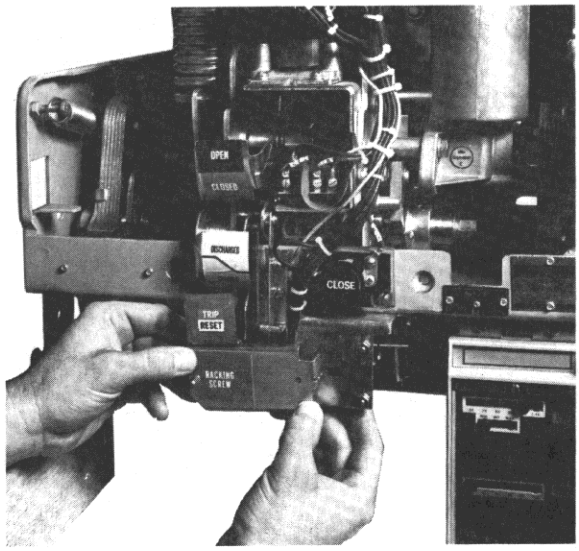

FIG. 8

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