SEV MARCHAL ALTERNATORS

Renault
Le Car
Volvo
DL
GL
GT

DESCRIPTION

Alternator is a conventional three-phase, self-rectifying type. Six silicon rectifier diodes are connected to form a full-wave, three-phase rectifying bridge. Three exciter diodes are connected to stator windings and have a common junction point.

APPLICATION

Model	Rating	Part No.
Renault	50	7701 389 063
Volvo	70	1258 995

OVERHAUL

DISASSEMBLY

1) Remove brush holder attaching screws and carefully remove brush holder. Scribe a mark on end frames for reassembly reference, then remove four through bolts. Separate end frames by inserting two screwdrivers into notches on sides of alternator.

CAUTION – *Do not insert screwdrivers deeper than .08" (2 mm) or damage may occur to stator windings.*

2) Remove nuts and washers for positive and negative diode holders from end frame. Carefully remove stator from end frame. Hold rotor in a vise using special wood blocks so no damage will occur to rotor. Remove nut, washer, pulley, fan, key and spacer.

NOTE – *Check direction spacer under pulley fan faces for assembly reference.*

3) Remove three attaching screws for bearing cap, then push rotor shaft from end frame. Press bearing from end frame. Use a puller to remove bearing from slip ring end of rotor.

BENCH TESTING

NOTE – *Use 40V AC for testing rotor and stator only.*

Rotor – Check rotor winding resistance across slip rings with ohmmeter and insulation between slip rings and rotor with test lamp. Replace rotor if grounded or if resistance is greater than 4.4 ohms.

Stator – Check stator coils for resistance with leads disconnected using an ohmmeter. Check for shorts between core and leads with test lamp. Replace stator if grounded or if resistance is greater than .15 ohm.

Diodes – Use ohmmeter to perform conduction test on diodes. Observe current flow in one direction only from terminal to plate for positive diodes and from plate to terminal for negative diodes. If open or shorted, replace entire diode assembly.

NOTE – *Diodes may be either cylindrical or spherical in construction. Terminals must be disconnected during testing.*

REASSEMBLY

1) Press on inner race of bearing to position bearing on slip ring end of rotor shaft. Press on outer race to press bearing into end frame. Install bearing cap and three attaching screws. Press end frame with bearing assembly firmly onto rotor shaft. Install spacer, key, fan, pulley, washer and nut onto rotor shaft. Tighten nut to 29 ft.lbs. (4 mkg).

2) Install insulating washers and sleeves onto positive diode holder, then install stator to end frame while inserting brush holder through opening in end frame. Install nuts and washers to secure diode holders. Check that "O" ring in end frame bearing seat does not block vent hole.

3) Assemble two end frames along with stator and rotor assemblies together, then secure with four through bolts. Install brush holder attaching screws and tighten.

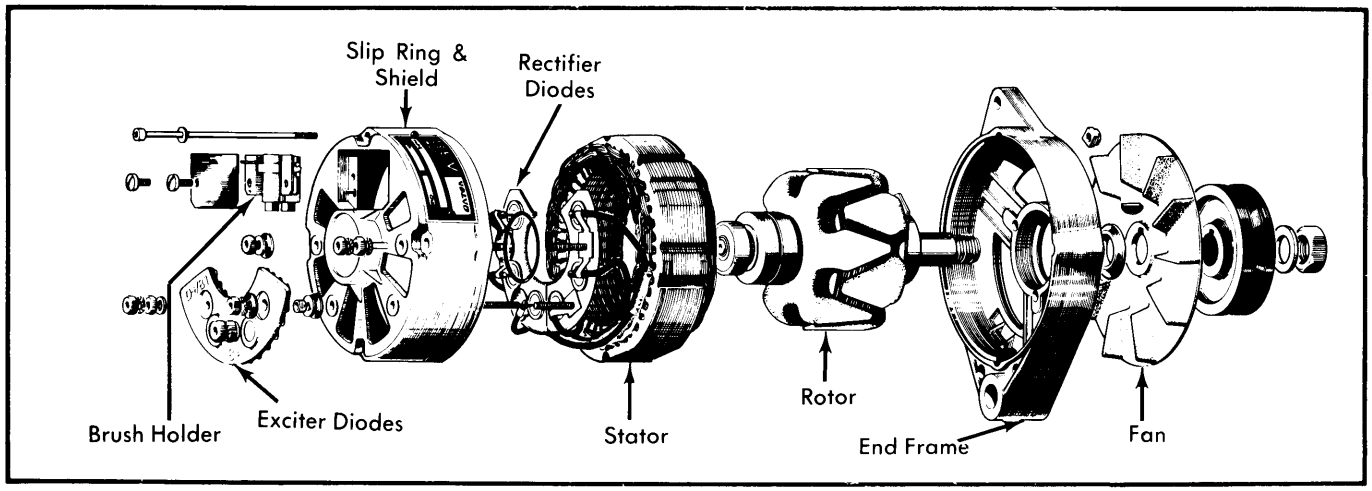

Fig. 1 Exploded View of Alternator