SEV MARCHAL ALTERNATORS

Renault
Saab
Volvo

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	Part No.
Renault 5	①
Saab 99	S.E.V. 71212002
Volvo 260 Series	
Original Equipment	S.E.V. 7160410
Replacement Alternator	②71655302

① — See number stamped on housing or tag attached to housing.
② — Uses molded wiring harness and black plastic diode guard.

SPECIFICATIONS

Application	Data
Output @ 3000 Alternator RPM	48 amps.
Output @ 5000 Alternator RPM	55 amps.
Rotor Resistance between Slip Rings	3.7-4.3 ohms
Stator Windings Resistance	.18 ohms±10%
Minimum Brush Protrusion from Holder	.16"(4 mm)

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 which way spacer faces for reassembly 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

Rotor — Check rotor winding resistance across slip rings with ohmmeter and insulation between slip rings and rotor with test lamp. Replace rotor if resistance not within specifications or windings grounded.

Stator — Check stator for resistance with leads disconnected using ohmmeter. Check for shorts between core and leads with test lamp. Replace stator if grounded or resistance not within specifications.

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.

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.

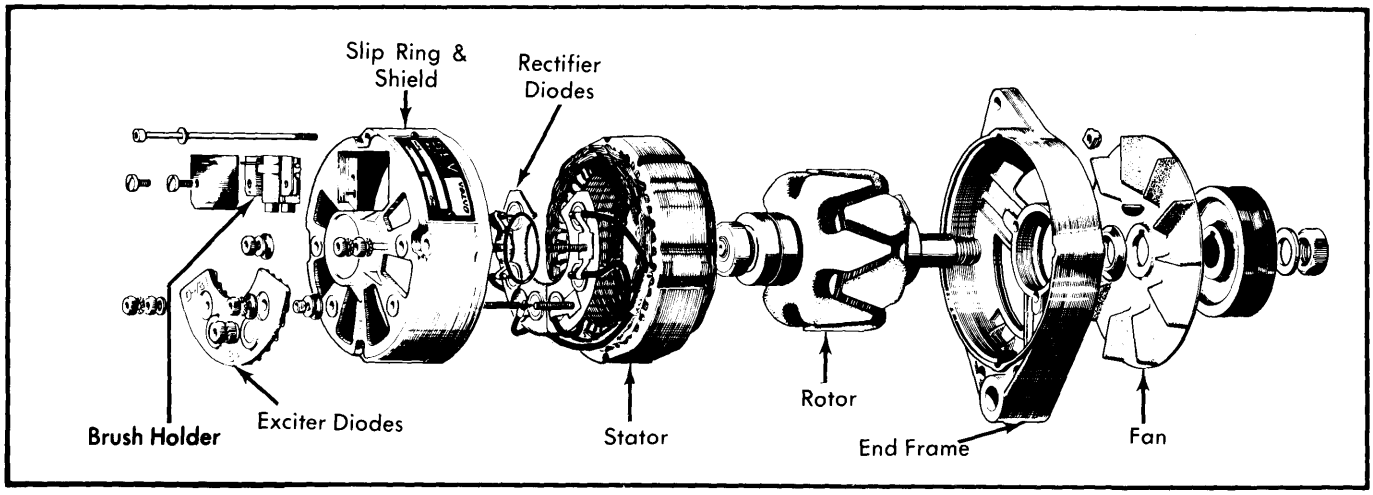

Fig. 1 Exploded View of Alternator