

DUCELLIER & PARIS RHONE

Peugeot (1972-73)
Renault (1972-73)

OVERHAUL

DESCRIPTION

Starter is a 12-volt, four-pole unit of conventional design. Solenoid assembly is mounted on starter case. Starters have a overrunning clutch (pinion-free wheel assembly) connected by a shift lever to the solenoid plunger.

APPLICATION

Car Model	Ducellier No.	Paris Rhone No.
Renault		
R-12		D 10 E54
R-15, 16 & 17	6183	D 8 E71 ①
Peugeot		
304	6155	D 8 E50
504	6189A	D 8 E76

① - Optional on R-16 is D 10 E48

TESTING

PERFORMANCE TEST

Lock Test - To perform lock test, follow instructions and procedures outlined in instruction manual furnished with tester. Use a fully charged battery and carry out the test at a temperature of 77°F. Ammeter reading and starter torque should be within limits (see specifications). **NOTE** - No specifications available at this time for Peugeot starters.

LOCK TEST SPECIFICATIONS

Starter No.	Amps.	Torque (Ft. Lbs.)
D 8 E71	below 355	over 8
D 10 E48	below 400	over 13
D 10 E54	below 400	over 13
6183	below 375	over 9

DISASSEMBLY

- 1) Remove two nuts on through bolts and bolt on armature nose (starter 6183 only). Remove the rear shield.
- 2) Lift out brushes and retaining shaft for connecting fork between the solenoid and pinion. Remove bolts securing solenoid and remove solenoid.
- 3) Remove the body and armature.

PARTS REPLACEMENT & TESTING

Brushes - Inspect brush length and if less than $\frac{5}{16}$ " on Paris Rhone models or $\frac{1}{4}$ " on Ducellier models, replace the brushes.

Commutator - If commutator surface is scored, rough or burnt, dress with a lathe just enough to remove defective area and polish with a strip of fine emery paper. Check insulation undercut depth and it must be .02" deep.

Armature - Check armature for open, shorted or grounded circuits. Inspect armature shaft for bend; if bend is excessive replace armature. **NOTE** - Do not attempt to straighten a bent shaft.

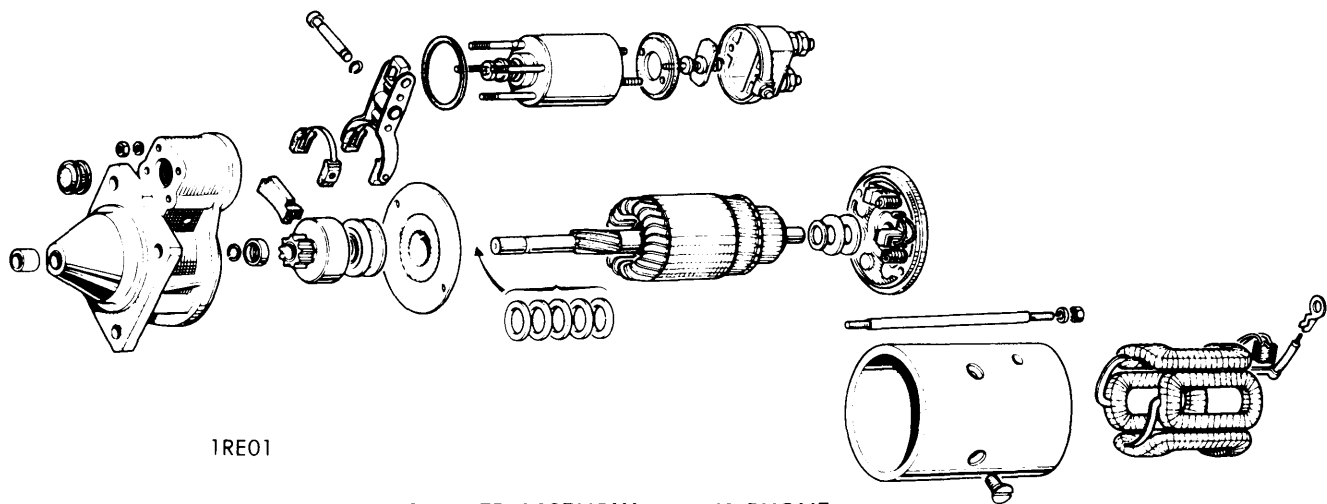
Bearings - Inspect bearings for excessive wear and clearance between armature shaft and bearing. Replace as necessary.

Pinion-Free Wheel Assembly - If it is necessary to change the pinion assembly, remove the stop collar, slide assembly off and replace with a new pinion assembly. Reinstall stop collar and snap ring. On Ducellier 6183 starters, the armature and pinion assembly is a matched set and must be replaced as a unit.

REASSEMBLY

Clean all parts and coat the sliding surface of armature shaft, splines, and bushings with multipurpose grease. Reassemble in the reverse order of disassembly while noting the following:

- 1) After completing reassembly, disconnect the field terminal from solenoid. Connect solenoid to battery and measure clearance of pinion gear to stop collar. Clearance should be .02-.099".
- 2) If clearance is not within limits, adjust by screwing the plunger fork or adjusting screw in or out to change clearance. Solenoid must be removed to adjust plunger fork (if equipped).



STARTER ASSEMBLY (PARIS RHONE SHOWN)