

Yamaha Enduros

6. Disconnect the magneto wiring at the back of the engine.

7. To remove the magneto base plate complete with coils and points, remove the three or four securing screws at the perimeter of the plate and lift the plate from the engine.

Inspection

1. Check the rotor for loose hub rivets or cracks. Check the inside of the rotor and note any scoring which may have been caused by contact with the stator coil cores. If such scoring exists, the cause must be determined and remedied.

2. Check the stator assembly for any damage visible to the eye such as scored coil core ends, broken or frayed wiring, loose coils, etc.

3. The tapered portion of the crankshaft should be smooth and free of corrosion, rust, etc. Finish off any scratches or scores with fine emery cloth. Clean the area thoroughly.

4. Check the end of the crankshaft for play which would indicate a bad crank bearing. This is one thing which would cause the rotor to strike the coil cores.

Installation

1. Installation is the reverse of removal. On some models, the magneto plate has slotted mounting holes. Install the plate so that the mounting screws are centered in the slots.

2. Do not forget to install the woodruff key. Apply some oil or grease to the crankshaft taper to facilitate removal next time.

3. Push the rotor on by hand after lining up the rotor slot with the key.

4. Use the rotor nut to drive the rotor home. Do not strike the rotor. Torque the rotor nut to the proper specification.

5. Set the ignition timing.

GENERATOR

Removal and Installation

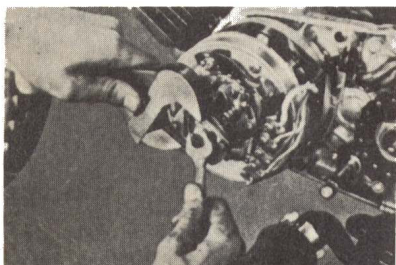
1. Remove the left-side crankcase cover. On models so equipped, remove only the front half of the cover.

2. Label and disconnect all generator wiring at the stator terminals.

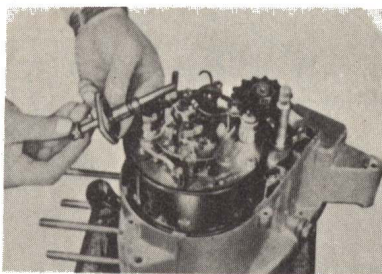
3. Remove the slotted armature bolt securing the points cam and advance mechanism to the crankshaft.

4. Remove the stator securing screws at the edge of the stator assembly and remove the assembly complete with the points and brushes.

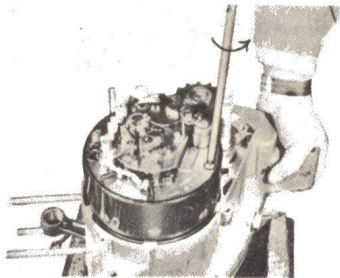
5. Using an armature puller or slide hammer, remove the armature from its keyed tapered shaft.



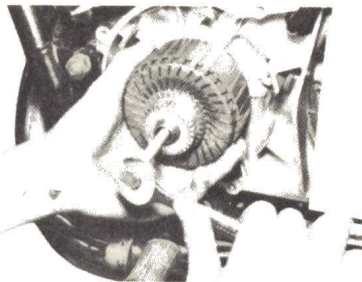
Secure the timing advance weights to remove the armature bolt (Courtesy Yamaha Int. Corp.)



Removing the armature bolt and timing advance weights (Courtesy Yamaha Int. Corp.)



Removing the stator screws (Courtesy Yamaha Int. Corp.)



Removing the armature (Courtesy Yamaha Int. Corp.)

6. Remove the woodruff key to prevent loss.

7. Installation is the reverse of removal. The tapered shaft may be lubricated with a very light coat of grease to ease future removal. The point gap and engine timing will have to be reset. When reinstalling the stator assembly, be careful not to damage the brushes.

Inspection

1. Check the brush length and condition.

2. There is a mark on the brush indicating minimum length. Replace the brushes if worn too short. Three-quarters of the brush contact surface area must contact the commutator.

3. When replacing the brushes, make sure that the lead to the positive brush does not ground out on the breaker plate



Minimum length mark

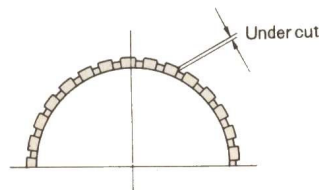
Check the carbon brushes for wear. Minimum length is usually marked (Courtesy Yamaha Int. Corp.)

or the brush holder.

4. Clean the commutator of carbon, oil and dirt. The commutator may be polished with 400 sandpaper or crocus cloth. The commutator must be completely round and devoid of flat spots. Do not remove excess metal with the sandpaper. Flat spots may be identified by irregularly shaped darkened areas spanning several commutator bars.

5. Inspect the generator armature for wear or scoring of the commutator segments. If the armature has been rubbing against the stator, the cause must be determined. This may be caused by an improperly mounted stator, a bent crankshaft, damaged crank bearing, etc. When the armature rotates it must not touch the stator at any point. The commutator may be turned on a lathe to remove any out of roundness or flat spots. A maximum of 2 mm may be removed from the standard 40 mm commutator diameter.

6. After the commutator is turned or cleaned, it will be necessary to remove metal and carbon deposits between the metal commutator bars. Clean the grooves with the broken end of a hacksaw blade. The groove must be kept square shaped.



Commutator undercut (Courtesy Yamaha Int. Corp.)

CAUTION: Never clean a commutator groove with a pointed instrument. Be sure that the groove does not have a thin sliver of insulator against one of the commutator bars.

Commutator undercut should be 0.5–1.0 mm (0.02–0.04 in.).

CLUTCH RELEASE MECHANISM

The clutch release mechanism is located in the left crankcase cover. This mechanism, although seemingly out of the way, is subject to a great deal of grit and corrosion carried in by the chain. If excessive effort is necessary to operate the clutch, it may be necessary to remove and clean the mechanism.

1. Remove the small mechanism cover and then remove the crankcase cover. When removing the crankcase cover, be careful not to lose the small ball bearing in the mechanism.

2. Disconnect the clutch cable.

3. Loosen the adjuster locknut and turn the adjuster screw out of the cover.

4. Turn the release mechanism out of the crankcase cover.

5. Clean the mechanism in a solvent and reinstall it in the cover. Upon reinstallation, lightly lubricate the mechanism with grease. Excessive amounts of grease will cause rapid build-up of dirt.

6. Readjust the clutch.

COUNTERSHAFT SPROCKET

Removal and Installation

1. Remove the left crankcase cover, or