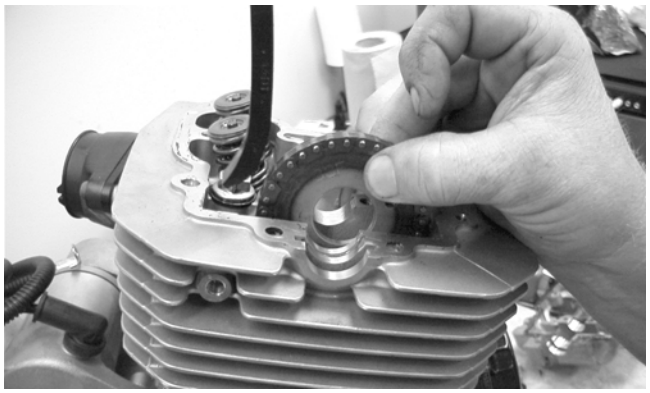
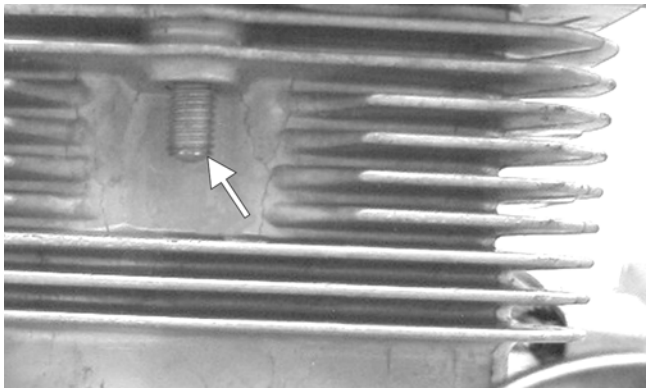


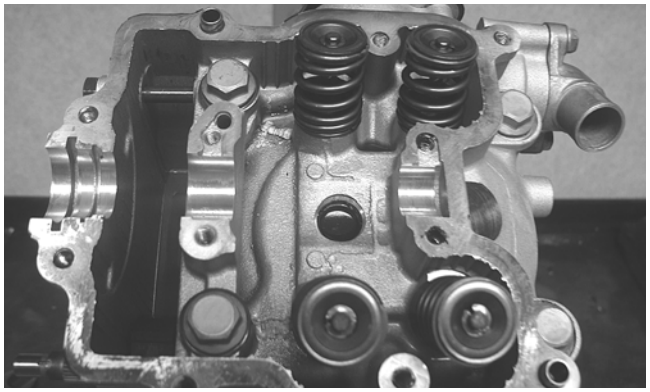
MD1132

8. Remove the cam chain tensioner by lifting it from the chain cavity; then remove the two lower nuts securing the cylinder head to the cylinder, one in front and one in rear.



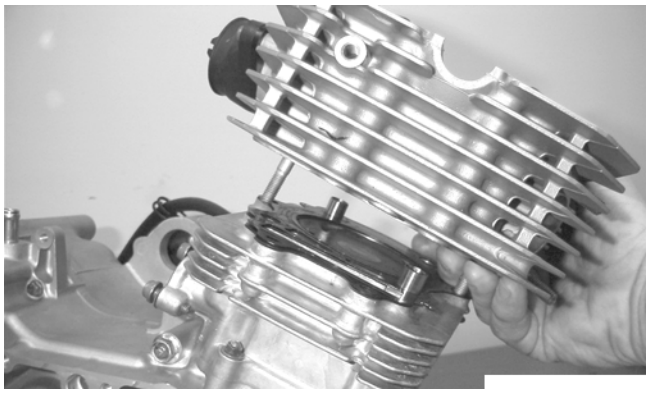
MD1192

9. Remove the four cylinder head cap screws and washers. Note that the two cap screws on the right side of the cylinder head nearest the cam sprocket are longer than the two cap screws on the left (spark plug) side.



CD211

10. Remove the cylinder head from the cylinder, remove the gasket, and account for two alignment pins.



MD1163

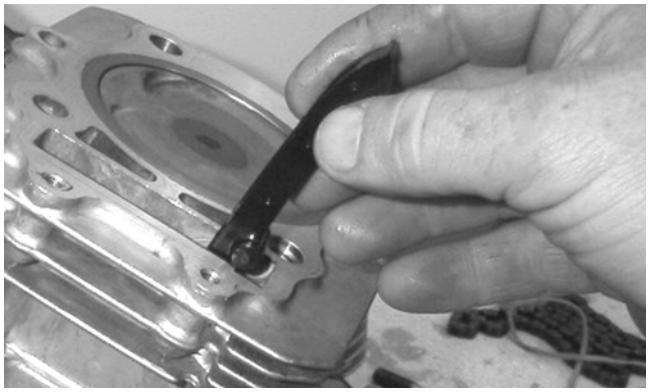
☞AT THIS POINT

To service valves and cylinder head, see Servicing Top-Side Components sub-section.

11. Remove the cam chain guide.

☞AT THIS POINT

To inspect cam chain guide, see Servicing Top-Side Components sub-section.

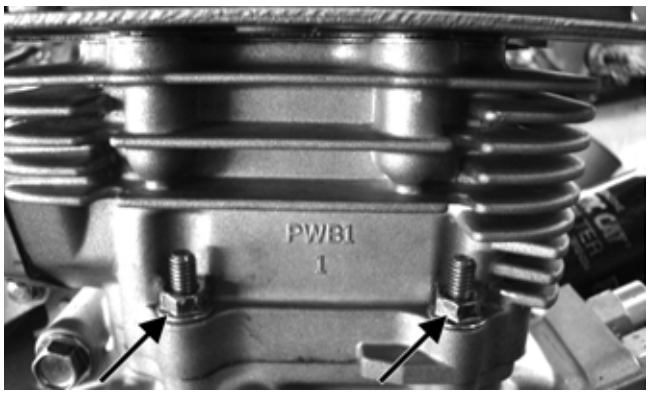


MD1173

C. Cylinder
D. Piston

■NOTE: Steps 1-11 in the preceding sub-section must precede this procedure.

12. Remove the two nuts securing the right side of the cylinder to the right-side crankcase half.



KC337A

Electrical System

This section has been organized into sub-sections which show procedures for the complete servicing of the Arctic Cat ATV electrical system.

SPECIAL TOOLS

A number of special tools must be available to the technician when performing service procedures in this section. Refer to the current Special Tools Catalog for the appropriate tool description.

Description	p/n
Fluke Model 73 Multimeter	0644-191
Fluke Model 77 Multimeter	0644-559
MaxiClips	0744-041
Peak Voltage Reading Adapter	0644-307

■NOTE: Special tools are available from the Arctic Cat Service Parts Department.

Specifications

Ignition Timing		10° BTDC @ 1500 RPM
Spark Plug Type		NGK CR8E
Spark Plug Gap		0.7-0.8 mm (0.028-0.032 in.)
Spark Plug Cap		4000-6000 ohms
Ignition Coil Resistance	(primary) (secondary)	Less than 1 ohm (terminal to terminal) 2900-3400 ohms (high tension - plug cap removed - to ground)
Ignition Coil Peak Voltage	(primary/CDI)	250-375 DC volts (black/yellow to black)
Stator Coil Resistance	(trigger) (charging)	90-110 ohms (green to blue) Less than 1 ohm (black to black)
Peak Voltage	(trigger)	7.8-9.3 volts (green to blue)
AC Generator Output	(no load)	60 AC volts @ 3000 RPM (black to black)
Generator Output (approx)		220W @ 5000 RPM

Electrical Connections

The electrical connections should be checked periodically for proper function. In case of an electrical failure, check fuses, connections (for tightness, corrosion, damage), and/or bulbs.

Battery

After being in service, batteries require regular cleaning and recharging in order to deliver peak performance and maximum service life. The following procedure is recommended for cleaning and maintaining lead-acid batteries. Always read and follow instructions provided with battery chargers and battery products.

⚠ WARNING

Any time service is performed on a battery, the following must be observed: keep sparks, open flame, cigarettes, or any other flame away. Always wear safety glasses. Protect skin and clothing when handling a battery. When servicing battery in enclosed space, keep the area well-ventilated. Make sure battery venting is not obstructed.

1. Remove the battery hold-down; then disconnect the battery cables (negative cable first).
2. Disconnect the vent hose.
3. Remove the battery from the battery compartment; then thoroughly wash the battery and battery compartment with soap and water.

■NOTE: If battery posts, cable ends, or the battery case has a build-up of white/green powder residue, apply water and baking soda to neutralize acid; then flush off with warm soapy water.

4. Using a wire brush, clean the battery posts and cable ends removing all corrosive buildup. Replace damaged cables or cable ends.
5. Add clean distilled water to bring fluid level to the UPPER level line.

⚠ WARNING

Battery acid is harmful if it contacts eyes, skin, or clothing. Care must be taken whenever handling a battery.

CAUTION

Never use electrolyte (sulfuric acid) to "top off" the battery. Use only distilled water or severe battery damage may occur.

6. Using a multimeter, test the battery voltage. The meter must read 12.5 or more DC Volts for a fully charged battery.

■NOTE: At this point, if the meter reads as specified, the battery may be returned to service (see step 10).

7. If the meter reads less than specified voltage, charge the battery using the following guidelines.
   A. When using an automatic battery charger, always follow the charger manufacturer's instructions.
   B. When using a constant-current battery charger, use the following Battery Charging Chart.

CAUTION

Never exceed the standard charging rate.

⚠ WARNING

An overheated battery could explode causing severe injury or death. Always monitor charging times and charge rates carefully. Stop charging if the battery becomes very warm to the touch. Allow it to cool before resuming charging.