Servicing Left-Side Components

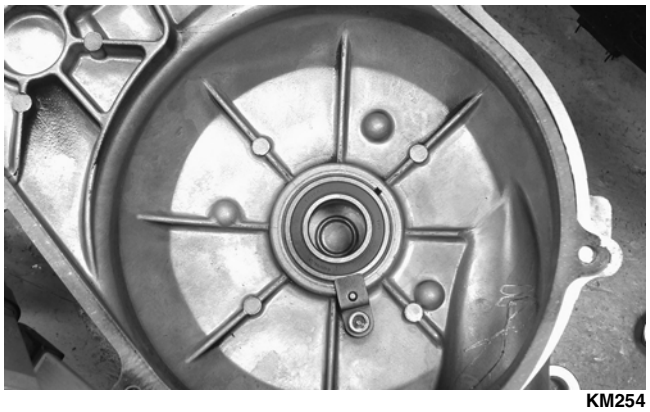
KICK STARTER

■NOTE: The kick starter is a non-serviceable component. If parts are worn excessively, the CVT cover assembly must be replaced.

V-BELT COVER

1. Inspect the bearing for excessive wear, rough or binding when turning, seal condition, and secure mounting in the V-belt cover.

■NOTE: If the bearing is worn excessively, turns roughly, or bearing seals are loose, the bearings must be replaced.



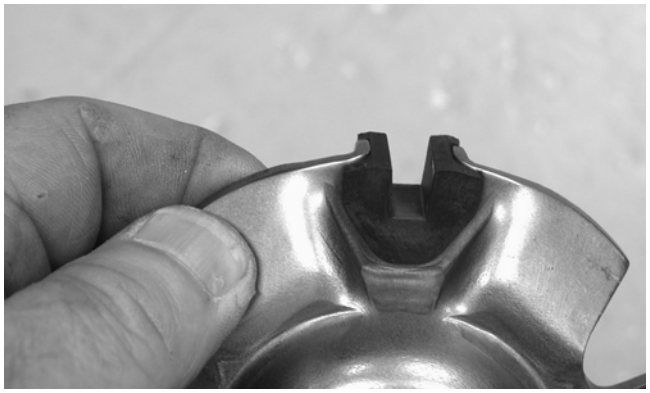
KM254

2. Inspect the V-belt cover for cracks, distortion, and loose alignment pins.

■NOTE: If the V-belt cover is cracked or distorted or if the bearing is loose in the cover, the cover must be replaced.

DRIVE PULLEY

1. Remove the ramp plate from the movable drive face; then inspect the ramp plate guides and weight roller for damage or excessive wear.



KM256

2. Inspect the face surfaces of the fixed and movable drive faces for grooving, nicks, or discoloration.

KM394A

3. Inspect the drive pulley collar for wear or damage. Measure the outside diameter of the drive pulley collar sliding surface. The minimum service limit is 26.94 mm.

KM389

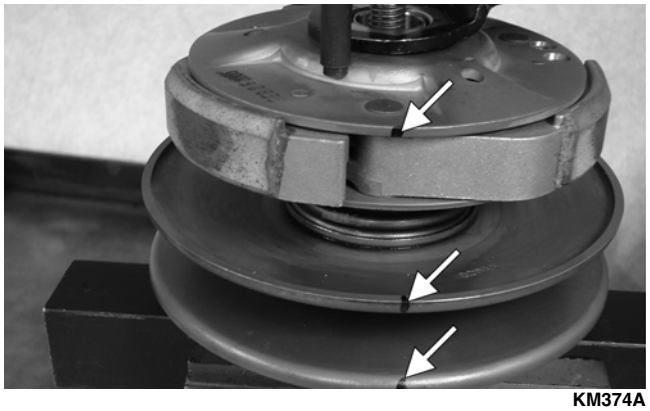
DRIVEN PULLEY/CENTRIFUGAL CLUTCH ASSEMBLY

Disassembling

⚠ WARNING

This procedure involves relaxing a compressed spring assembly. DO NOT attempt disassembling without the proper tools.

1. Place the driven pulley on a suitable spring compressor; then mark the pulley faces and centrifugal clutch for alignment during assembling.



KM374A

2. Secure the centrifugal clutch with the spring compressor; then remove the drive plate nut.

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 77 Multimeter	0644-559
MaxiClips	0744-041
Peak Voltage Reading Adapter	0644-307
Tachometer	0644-275
Timing Light	0644-296

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

Specifications

IGNITION	
Ignition Timing	15° BTDC (“F” mark) @1700 RPM
Spark Plug Type	NGK DR8EA
Spark Plug Gap	0.6 mm (0.024 in.)
Spark Plug Cap	4200-5200 ohms
Ignition Coil Resistance(primary) (secondary)	0.2-0.3 ohms (terminal to ground) 3200-4800 ohms (high tension to ground)
Ignition Coil Peak(primary/CDI) Voltage	85 DC volts (black/yellow to ground)
MAGNETO	
Magneto Coil Resistance(trigger) (charging) (signal)	105-110 ohms (blue to green) Less than 1 ohm (yellow to yellow) 720 ohms (black to ground)
Peak Voltage(trigger) (signal)	1.1-1.4 DC volts (blue to green) 220 DC volts (black to ground)
Magneto Output (approx)	220W @ 5000 RPM
Charging Coil Output(no load)	40-60 AC volts@3500 RPM (yellow to yellow)

RPM Limiter

■NOTE: The ATV is equipped with a CDI unit that retards ignition timing when maximum RPM is approached. When the RPM limiter is activated, it could be misinterpreted as a high-speed misfire.

Testing Electrical Components

All of the electrical tests should be made using the Fluke Model 77 Multimeter and when testing peak voltage, the Peak Voltage Reading Adapter must be used. If any other type of meter is used, readings may vary due to internal circuitry. When troubleshooting a specific component, always verify first that the fuse(s) are good, that the bulb(s) are good, that the connections are clean and tight, that the battery is fully charged, and that all appropriate switches are activated.

■NOTE: For absolute accuracy, all tests should be made at room temperature of approximately 68° F.

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.

Switches

Each time the ATV is used, switches should be checked for proper operation. Use the following list for reference.

A. Ignition switch — engine will start.

B. Emergency stop switch — engine will stop.

C. Reverse switch — reverse indicator light will illuminate.

D. Hi/Lo switch — headlight high beam or low beam will illuminate.

E. Brake switches — rear brakelight will illuminate.

Battery

The battery is located under the seat.

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 a sealed battery. 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-