

8.13 Loosen the locknuts (left and right arrows) and turn the rod with the flat (center arrow) to adjust the shifter

(see illustration), reposition the cable until the holes align exactly, then tighten the locknuts.

- 5 Slip the clevis pin through the holes. It should go easily. If it does, pull it back out, lubricate it lightly with silicone grease and reinstall it.
- 6 Secure the clevis pin with the washer and a new cotter pin.
- 7 Pull back the ends of the cable boot and lubricate the exposed areas of the cable with grease.

All other models

Refer to illustration 8.13

- 8 The linkage includes a safety lockout that prevents the transmission from being shifted into Reverse unless the rear brake is engaged. Since the rear brake pedal must be pressed before the transmission can be shifted into Reverse, adjust the rear brakes before adjusting the shift linkage (see Section 6).
- 9 Make sure the vehicle is stopped and the throttle lever is in the closed position. Place the select lever in Neutral.
- 10 Check the adjustment of the lockout cable (see illustration 6.21). There should be no slack in the return spring, and there should be no freeplay in the cable. If necessary, loosen the locknut and turn the adjuster to reposition the cable. **Note:** If you can't achieve the correct adjustment with the adjuster, try repositioning the cable-to-bracket locknuts.
- 11 Try to shift into Reverse while pressing the brake pedal. With the rear brake not engaged (pedal pressed less than 1 to 1-1/4 inch), it should not be possible to shift into Reverse. With the rear brake engaged (pedal pressed to 1-1/4 inch or more), it should be possible to shift into Reverse.
 - a) If the select lever and brake pedal work as described, go on to Step 12.
 - b) If the select lever and brake pedal don't work as described, repeat the lockout cable adjustment.
- 12 Once the brake pedal and select lever are working properly together, check to make sure the cable locknuts are tight.
- 13 Check the shifting action of the selector lever. If it's smooth and places the transmission in the correct range, no adjustment is needed. If not, place the lever in Neutral. Loosen the locknuts at the ends of the shift rod (see illustration) and rotate it to change its length. Once smooth shifting is obtained, tighten the locknuts.

9 Clutch - check and freeplay adjustment

Refer to illustration 9.2

- 1 The clutch release mechanism on 1993 through 1999 Kodiak models disengages the secondary clutch automatically when the shift lever is operated, so there is no clutch lever. If shifting gears becomes



9.2 Loosen the locknut, then hold it with a wrench while you turn the adjusting screw

difficult, the clutch may be in need of adjustment.

- 2 Loosen the locknut on the right side of the engine. Carefully turn the adjusting screw counterclockwise until you feel resistance, then turn it back in 1/8 turn while holding the locknut with a wrench (see illustration). Hold the screw in this position and tighten the locknut to the torque listed in this Chapter's Specifications.

10 Throttle freeplay and speed limiter - check and adjustment

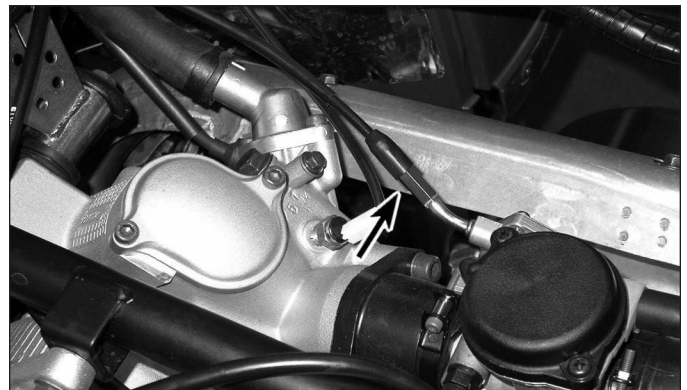
Throttle check

- 1 Make sure the throttle lever moves easily from fully closed to fully open with the front wheel turned at various angles. The grip should return automatically from fully open to fully closed when released. If the throttle sticks, check the throttle cable for cracks or kinks in the housings. Also, make sure the inner cable is clean and well-lubricated.
- 2 Check for a small amount of freeplay at the lever and compare the freeplay to the value listed in this Chapter's Specifications.

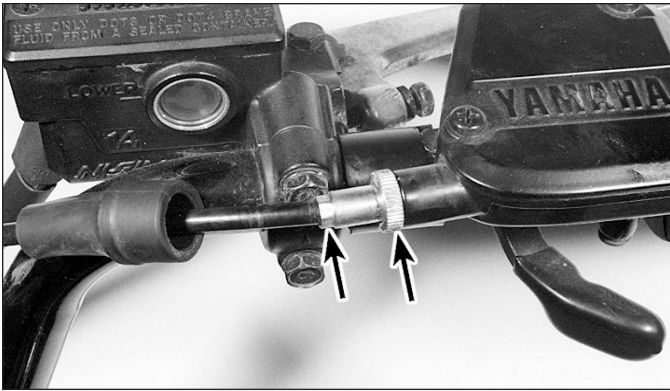
Throttle adjustment

Refer to illustrations 10.4 and 10.5

- 3 Before making adjustments, check and adjust idle speed (see Section 20).
- 4 Make the initial adjustment at the carburetor end of the cable (see illustration). Slide back the rubber boot, loosen the adjuster locknut and turn the adjuster. Once correct freeplay is obtained, tighten the locknut.
- 5 If correct freeplay can't be obtained at the carburetor end of the



10.4 Here's the 400/450 throttle cable adjuster (arrow) (600/660 similar); slide back the rubber boot to expose the locknut



10.5 Loosen the lockwheel (right arrow) and turn the adjuster (left arrow) to adjust throttle freeplay

cable, make the adjustment at the handlebar end. Pull back the boot from the adjuster (see illustration). Loosen the lockwheel, turn the adjuster as needed to obtain correct freeplay, then tighten the lockwheel.

Speed limiter adjustment

6 The speed limiter can be used to restrict maximum throttle opening (see illustration 6.1a). Turning the screw all the way in reduces the maximum throttle opening; turning it out to the maximum length listed in this Chapter's Specifications allows maximum throttle opening.

7 To make adjustments, loosen the locknut, turn the screw in or out as necessary and tighten the locknut. Screw length is measured from the underside of the screw head to the throttle housing. Never turn the screw out farther than the maximum specified length.

11 Choke - operation check

Refer to illustration 11.1

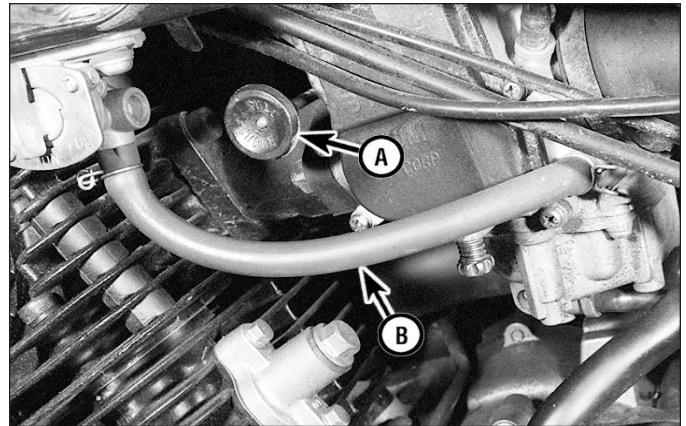
1 Operate the choke knob or lever while you feel for smooth operation (see illustration).

2 If the knob doesn't move smoothly, refer to Chapter 4 and remove the choke mechanism for inspection.

12 Lubrication - general

Refer to illustrations 12.3, 12.7a and 12.7b

1 Since the controls, cables and various other components of a vehicle are exposed to the elements, they should be lubricated periodically



11.1 Early models have a choke knob; later models have a choke lever on the left handlebar

A Choke knob

B Fuel line

to ensure safe and trouble-free operation.

2 The throttle and brake levers and brake pedal, should be lubricated frequently. In order for the lubricant to be applied where it will do the most good, the component should be disassembled. However, if chain and cable lubricant is being used, it can be applied to the pivot joint gaps and will usually work its way into the areas where friction occurs. If motor oil or light grease is being used, apply it sparingly as it may attract dirt (which could cause the controls to bind or wear at an accelerated rate). **Note:** One of the best lubricants for the control lever pivots is a dry-film lubricant (available from many sources by different names).

3 The throttle, brake and shift select cables should be removed and treated with a commercially available cable lubricant which is specially formulated for use on ATV control cables. Small adapters for pressure lubricating the cables with spray can lubricants are available and ensure that the cable is lubricated along its entire length (see illustration). When attaching the cable to the lever, be sure to lubricate the barrel-shaped fitting at the end with multi-purpose grease.

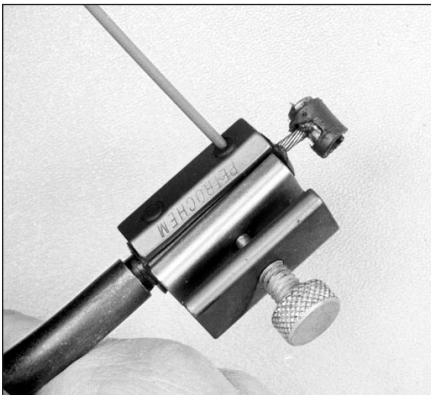
4 To lubricate the cables, disconnect them at the lower end, then lubricate the cable with a pressure lube adapter (see illustration 12.3). See Section 8 (drive select cables), Chapter 4 (throttle cable) or Chapter 7 (brake cables).

5 Refer to Chapter 6 for the following lubrication procedures:

- a) Swingarm bearing and dust seals
- b) Front driveaxle splines (4WD models)
- c) Rear driveshaft coupling spline
- d) Rear axle shaft splines

6 Refer to Chapter 7 for brake pedal removal procedures.

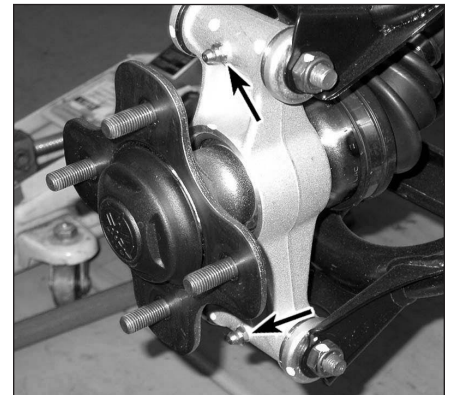
7 On models so equipped, apply multi-purpose grease to the



12.3 Lubricating a cable with a pressure lube adapter (make sure the tool seats around the inner cable)



12.7a Driveshafts on some models have a grease fitting at each end



12.7b Rear knuckles on independent rear suspension vehicles have upper and lower grease fittings (arrows)