19.19. A crease in the brake arm acts as a cam. At rest, the ends of the two pins ride in the peak of the crease: See Figure 19.19.

Figure 19.19

- The brake arm pivots on a square-headed stud.
- The two pins are forced against the backing plate when force is applied to the arm.
- The backing plate rides between the pins and the pad, to prevent the pins from damaging the brake pad.

19.20. Replace the pads if they are worn. They frequently last many years unless the brakes have been dragging.

19.21. Be sure the pin bores are clear of dirt and corrosion: either may cause the pins to bind and the brakes to drag.

19.22. On assembly, apply a small amount of dry graphite lubricant to the pins and the spots on the brake arm that they contact. Do not allow any lubricant to get on the brake pad.

19.23. Install the brake caliper, tightening the two nuts to 7 to 10 ft.-lbs., then check and adjust the pad-to-rotor clearance.

19.24. Install the rear wheel, tightening the lug nuts to a torque of 350 to 500 In.-lbs. Lower the tractor to the ground.

19.25. After any brake service is performed, test the brakes as described in steps 24.2 through 24.4, then test-drive the tractor in a safe area that is free of hazards, obstacles, and by-standers before returning the tractor to service.

20. SERVICING THE BRAKE PEDAL SHAFT BUSHINGS:

- If there is insufficient travel in the linkage to fully apply the brakes, a simple visual inspection should identify the cause.

20.1. Confirm that the brake pedal is firmly attached to the pedal shaft. See Figure 20.1.

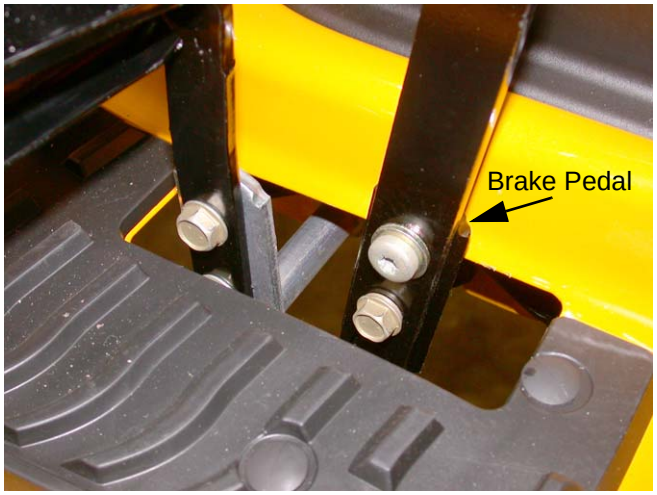

Figure 20.1

20.2. Remove the cutting deck to reach the brake pedal shaft, bushings, and bracket.

20.3. Check for excessive play in the bushings. Replace them if they are worn.

NOTE: It is suggested that if any of these bushings need to be replaced, replace all of the pedal shaft bushings at this time. The speed control pedal shaft bushings are replaced in a similar manner.

20.4. The inboard brake pedal shaft bushing can be removed by removing the cotter pin and washer that secure it. See Figure 20.4.

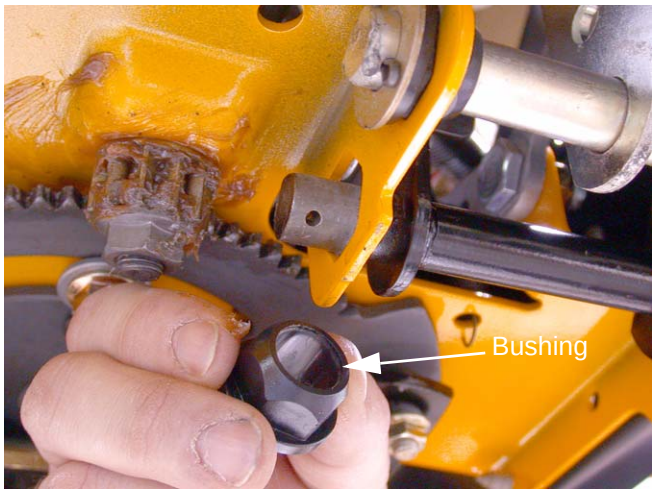

Figure 20.4

20.5. The brake rod must be disconnected to remove the outboard brake pedal shaft bushing. Remove and discard the cotter pin that holds the brake rod to the brake pedal shaft. See Figure 20.5.

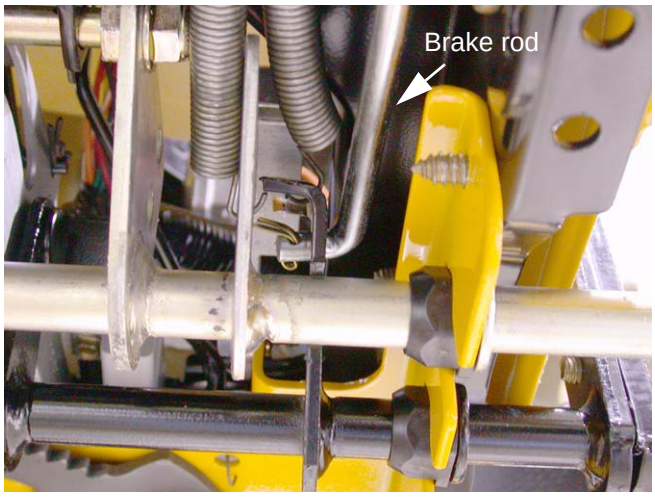

Figure 20.5

20.6. Press the brake pedal shaft as far outward as possible, and pry the worn bushing out of the bracket. See Figure 20.6.

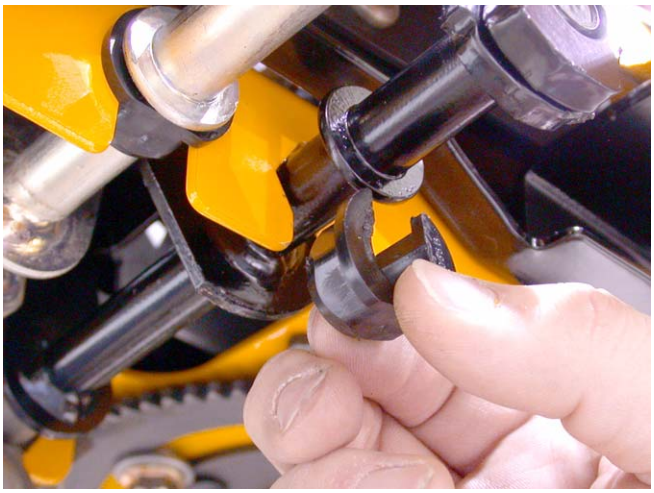

Figure 20.6

NOTE: A pair of vice-grips and a plate can be used to press the end of the shaft flush with the edge of the bracket

NOTE: The inner bushing is a hex flange bushing. The outer bushing is similar, but has one open side. The “tooth” in the top facet of the bracket that supports the bushing registers in open side of the bushing.

20.7. Clean any corrosion or dirt from the surfaces where the pedal shaft contacts the bushing, and slip the new bushings into place. See Figure 20.7.

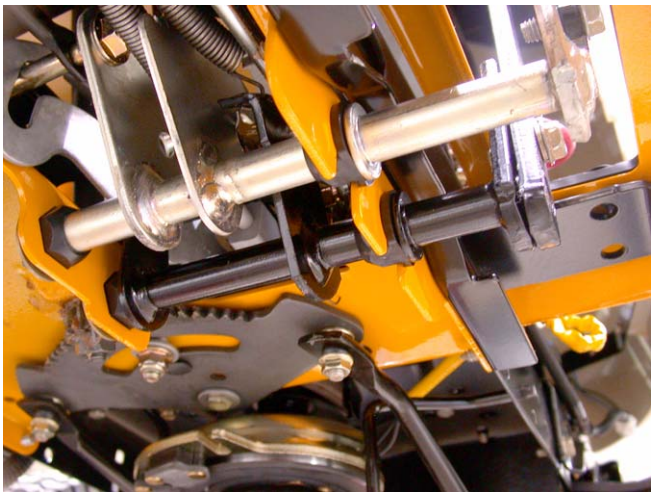

Figure 20.7

NOTE: Lubrication with grease may accelerate bushing wear. If lubrication is applied it should be in dry form such as graphite or PTFE (Teflon).

20.8. Secure the inner bushing with a new cotter pin and the flat washer that was previously removed.

20.9. Move the pedal through it's range of travel to check for binding. If binding is encountered:

- Bind in just a portion of the travel may be caused by a bent pedal shaft.
- Constant bind is likely to be caused by a bent bracket.
- Also check for interference between the parking brake and cruise control interlocks.

20.10. Correct any binding condition.

20.11. Connect the brake rod to the brake pedal shaft, and secure it with a new cotter pin.

20.12. After any brake service is performed, test the brakes as described in steps 14.2 through 14.4, then test-drive the tractor in a safe area that is free of hazards, obstacles, and by-standers before returning the tractor to service.

21. TRANSAXLE REPLACEMENT: CVT

- The single speed transaxles used in our CVT riders has evolved over the years. Internals have changed. Some have had the Variable Speed Pulley integrated into the transaxle. If you are replacing a transaxle it is very important to carefully match the transmission part numbers between the old and new. A part number on the transmission case might be the number of the case half. Visually compare the IPL drawing with the actual transaxle to assure a match.
- Before condemning a transaxle, check to make sure the brake is not locking up the transaxle.
- Check the drive belts for damage or wear and make sure they are the correct belts and are not the cause of drive problems.
- When replacing a transaxle within the warranty period, we have a like-kind exchange program.
- Out of warranty transaxles can be serviced.

21.1. Disconnect the battery cables (negative first and then positive).

21.2. Remove the battery hold down, battery and battery tray from the unit. See Figure 21.2.

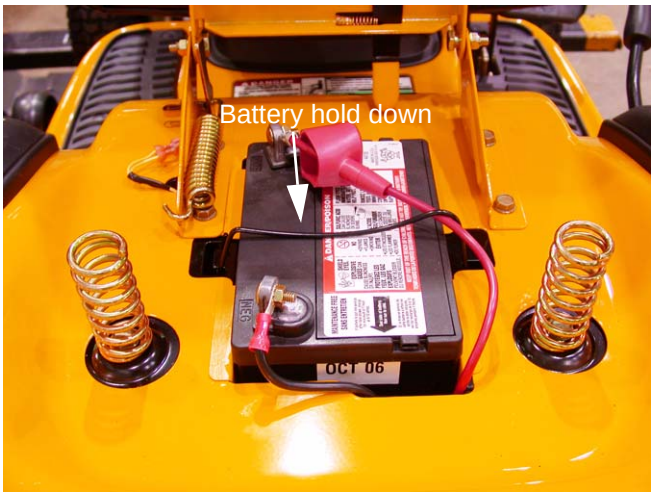

Figure 21.2

21.3. Take tension off of the transmission belt idler and remove the belt from around the idler pulley. See Figure 21.3.

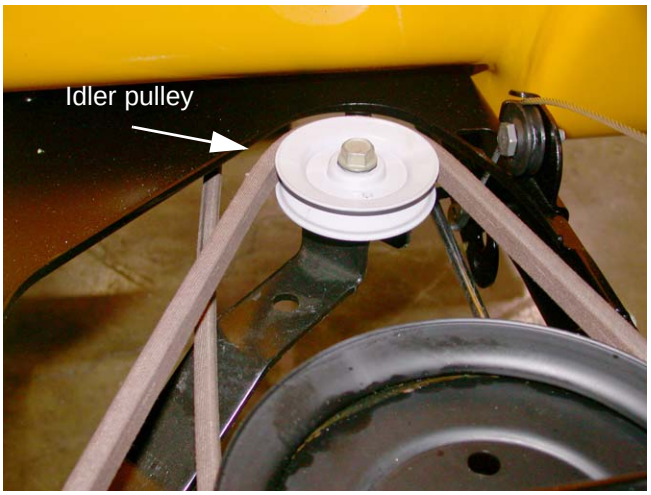

Figure 21.3