

# POWER TRAIN - HYDROSTATIC TESTS AND ADJUSTMENTS

9. Loosen locknut (A) and turn the eccentric shaft (B) clockwise until the axle shaft(s) rotates in reverse. Mark (C) the top of the eccentric shaft for position.

10. Turn the eccentric shaft slowly counterclockwise until the axle shaft(s) stops rotating. Mark the transaxle case as the reverse stop position (F).

11. Turn the eccentric shaft slowly counterclockwise until the axle shaft(s) rotates forward.

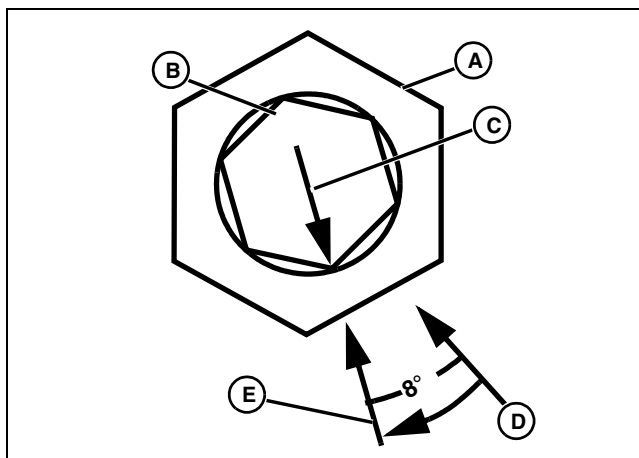
12. Turn the eccentric shaft clockwise until the axle shaft(s) stops rotating. Mark the transaxle case as the forward stop position (D).

13. Turn the eccentric shaft slowly clockwise until the mark is approximately 1/3 the distance between the forward and reverse stop positions. This is neutral position (E).

14. Hold eccentric shaft with wrench and tighten locknut.

**NOTE: If the axle shafts do not rotate in reverse although the eccentric shaft has been turned one full turn, adjust neutral as follows:**

15. Turn eccentric shaft counterclockwise until axle shaft(s) rotate forward.



MIF

16. Turn eccentric shaft (B) clockwise until the axle shaft stops. Mark (C) the top of the eccentric shaft and transaxle case.

17. Turn the eccentric shaft clockwise approximately 8x from forward stop position (D).

18. Hold eccentric shaft with wrench and tighten locknut (A).

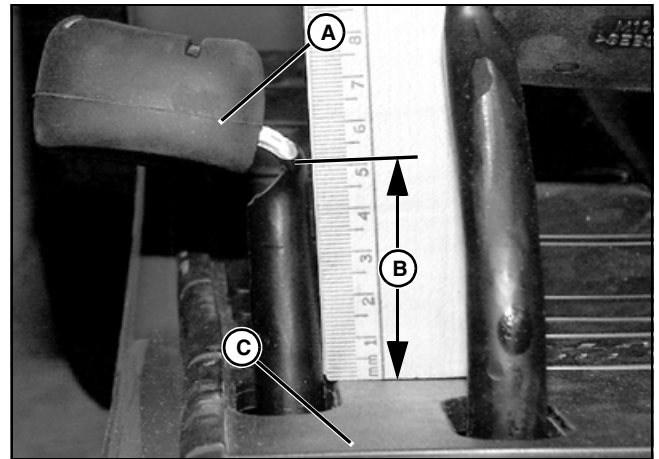
## Forward and Reverse Pedal Height Adjustment

### Reason:

To ensure full travel speeds can be reached in forward and reverse directions. This also ensures that the transaxle swash plate and control arm will not act as a mechanical stop for the pedal linkage.

### Procedure:

1. Press reverse pedal (A) twice and allow pedal to return to neutral position.

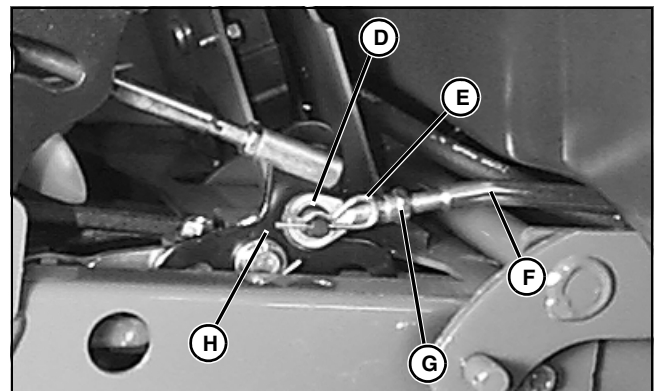


M99617

2. Measure reverse pedal height (B) from top of foot mat (C) to tooling mark on front edge of pedal bracket as shown. Correct reverse pedal height is 50 mm ± 2 mm (1.97 in. ± 0.08 in.).

3. Proper tool mark location is where sheared steel edge intersects with round portion of pedal bracket.

If not within specification, adjust foot pedal rod length:



M95315

1. In front of right rear wheel, locate jam nut (G) on forward/reverse control rod (F). Loosen jam nut.

2. Remove spring clip pin (E) and disconnect forward/reverse control rod from intermediate shaft plate (H).

3. Turn ball joint rod end (D) on end of control rod:

- Lengthen the rod to raise the reverse pedal.
- Shorten the rod to lower the reverse pedal.

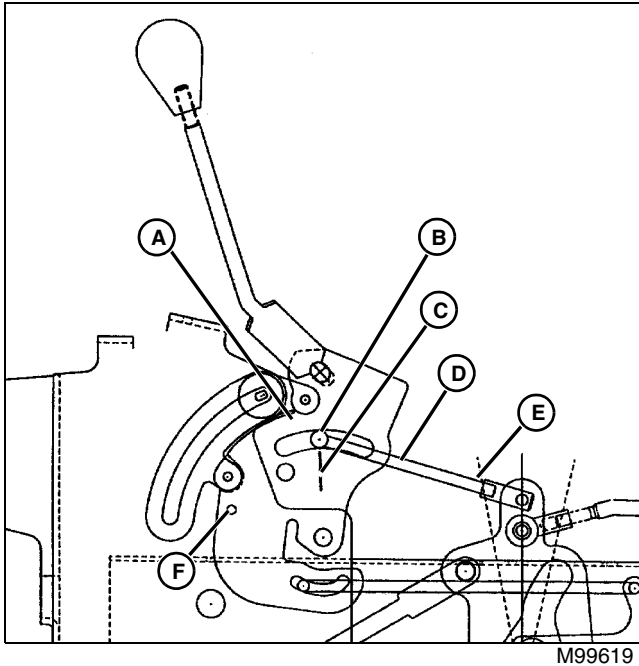
4. Reconnect control rod to control lever and retain with spring clip pin.

5. Press reverse pedal twice and allow to return to neutral. Check measurement. Repeat adjustment procedure until within specification.

# POWER TRAIN - HYDROSTATIC TESTS AND ADJUSTMENTS

## Hand Lever Rod Adjustment

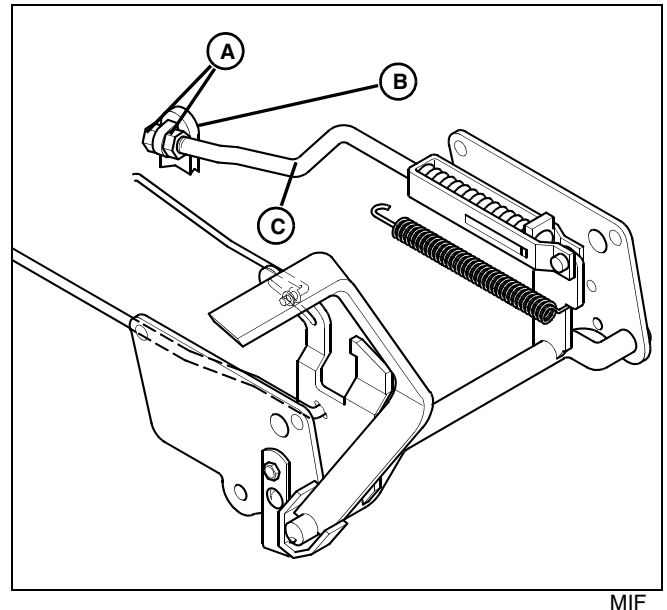
1. Park machine on level surface.
2. Turn key switch to STOP position.
3. Unlock park brake.
4. Press reverse pedal twice and allow pedals to return to NEUTRAL.
5. Pull hand control lever (A) to rear most position.



6. Align 6 mm alignment hole (F) in hand lever plate with 6 mm hole in frame side. Insert a 6 mm drill bit through holes.
7. Loosen jam nut (E) on hand lever rod (D).
8. Remove cotter pin and bushing (B) and disconnect hand lever rod from hand lever.
9. Turn rod to adjust length so that centerline of rod end and is aligned with alignment mark (C) as shown.
10. Reconnect rod to hand lever. Retain with bushing and cotter pin.

## Brake Linkage Adjustment

1. Park machine on level surface.
2. Turn key switch to STOP position.
3. Remove mower deck. See "Mower Deck Removal and Installation" for the appropriate mower deck in the Attachments section.
4. Remove cotter pin and washer attaching brake rod to transmission brake arm. Disconnect brake rod from transmission brake arm.
5. Inspect transmission brake arm and brake pedal and linkage. Be sure that both transmission brake arm and brake pedal are in full rearward (OFF) positions.



6. Loosen two jam nuts (A) and adjust length of brake rod (C) so that rod end fits into hole in transaxle brake arm (B).
7. Tighten jam nuts.
8. Install washer and cotter pin.

# POWER TRAIN - HYDROSTATIC TESTS AND ADJUSTMENTS

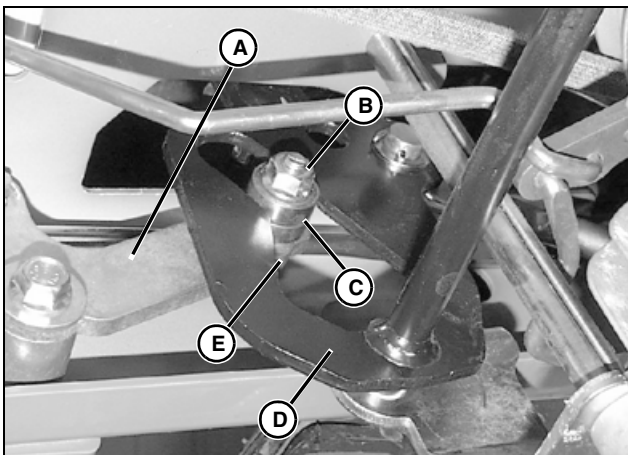
## Neutral Return Arm Bearing Adjustment

### Reason:

To ensure that brake pedal and neutral shaft do not engage forward or reverse when brake pedal is depressed. This also ensures that the transaxle is not in forward or reverse when park brake is locked, causing transaxle to whine.

### Procedure:

1. Park machine on level surface.
2. Turn key switch to STOP position.
3. Move forward/reverse pedals or hand control to NEUTRAL position. Lock park brake.
4. Remove mower deck. See Mower Deck Removal and Installation for the appropriate mower deck in the Attachments section.



5. Underneath machine, locate and loosen nut (B) on bearing end of neutral return arm (A).
6. Adjust ball bearings (C) back and forth by sliding carriage bolt in slot in neutral return arm. Position bearings so that they are centered in cam profile slot (E) in the intermediate shaft plate (D).
7. Release park brake and have an assistant depress the brake pedal several times. Ball bearings should not move intermediate shaft. If ball bearings move intermediate shaft, repeat steps 5 and 6.

## Cruise/Hand Control Lever Tension Adjustment

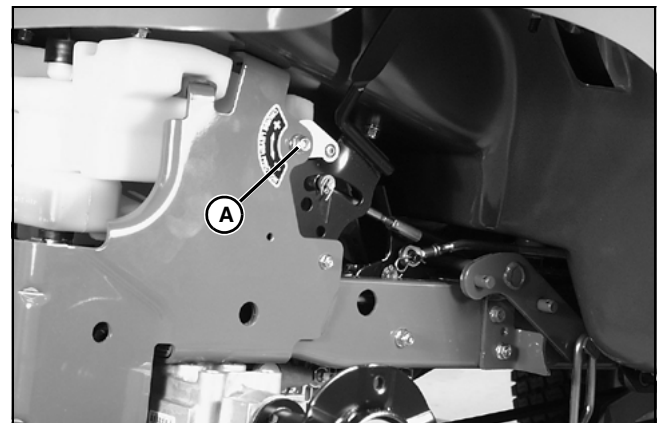
### Purpose:

To adjust friction mechanism that holds the cruise/hand control lever in position. Mechanism may require adjustment due to wear or operator preference.

### Procedure:

1. Locate adjusting nut in right rear wheel well.

**NOTE: Rear wheel removed for clarity. Adjustments can be made without removing wheel.**



2. Turn adjustment nut (A) to change cruise control lever tension:

- Increase tension - turn nut clockwise
- Decrease tension - turn nut counterclockwise

Adjust tension so that lever can be easily moved in both forward and rearward direction.

Lever should hold transmission linkage in any position set.

# POWER TRAIN - HYDROSTATIC REPAIR

## Repair

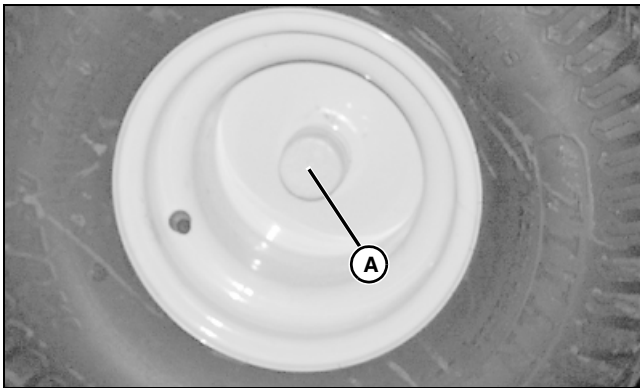
### Transaxle Removal and Installation - 2WS Models

#### Removal:

1. Remove mower deck. See Mower Deck Removal and Installation for the appropriate mower deck in the Attachments section.
2. Remove fender deck. See "Fender Deck Removal and Installation" on page 594 in the Miscellaneous section.

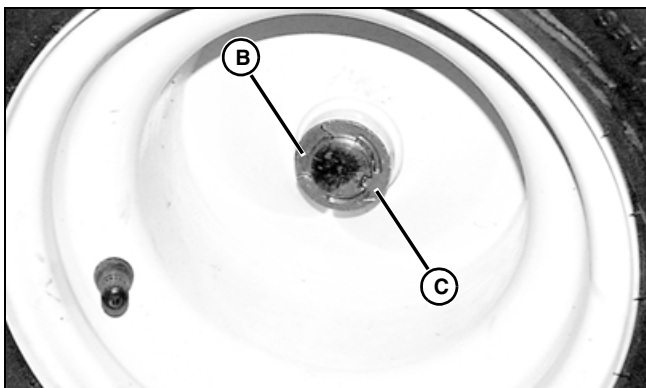
**IMPORTANT: Avoid damage! During transaxle removal, rear of machine must be supported by the frame.**

3. Raise rear of machine and support on suitable stands.



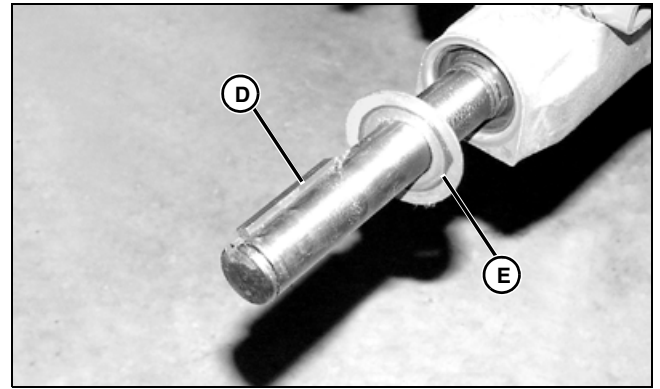
M99621

4. Remove wheel center caps (A).



M99622

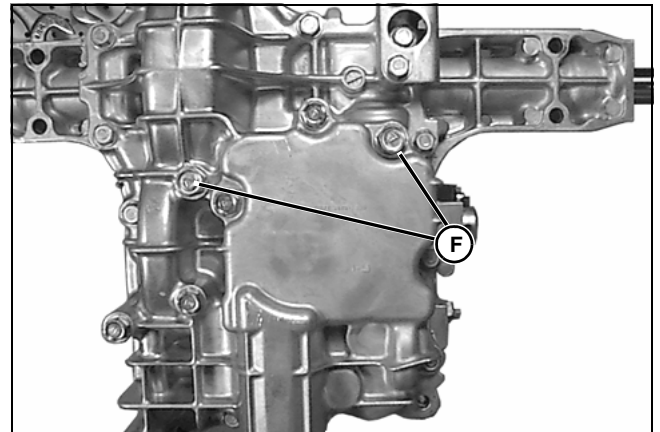
5. Remove E-clips (C) and washers (B).
6. Remove wheel and tire assemblies.



M99621

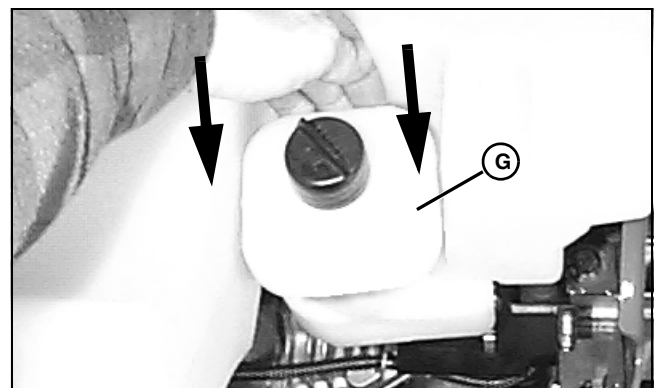
7. Remove keys (D) and thrust washers (E) from axle shafts.

**NOTE: Capacity of the transaxle is approximately 2.5 L (2.7 qt). Have a suitable container ready before removing drain plug.**



M94895

8. Remove drain bolts (F). Drain transaxle oil into a suitable container.



M95320

9. Push hydrostatic transaxle oil reservoir (G) rearward, and disconnect it from the fuel tank.



**Suggest:**

**If the above button click is invalid.**

**Please download this document**

**first, and then click the above link**

**to download the complete manual.**

**Thank you so much for reading**