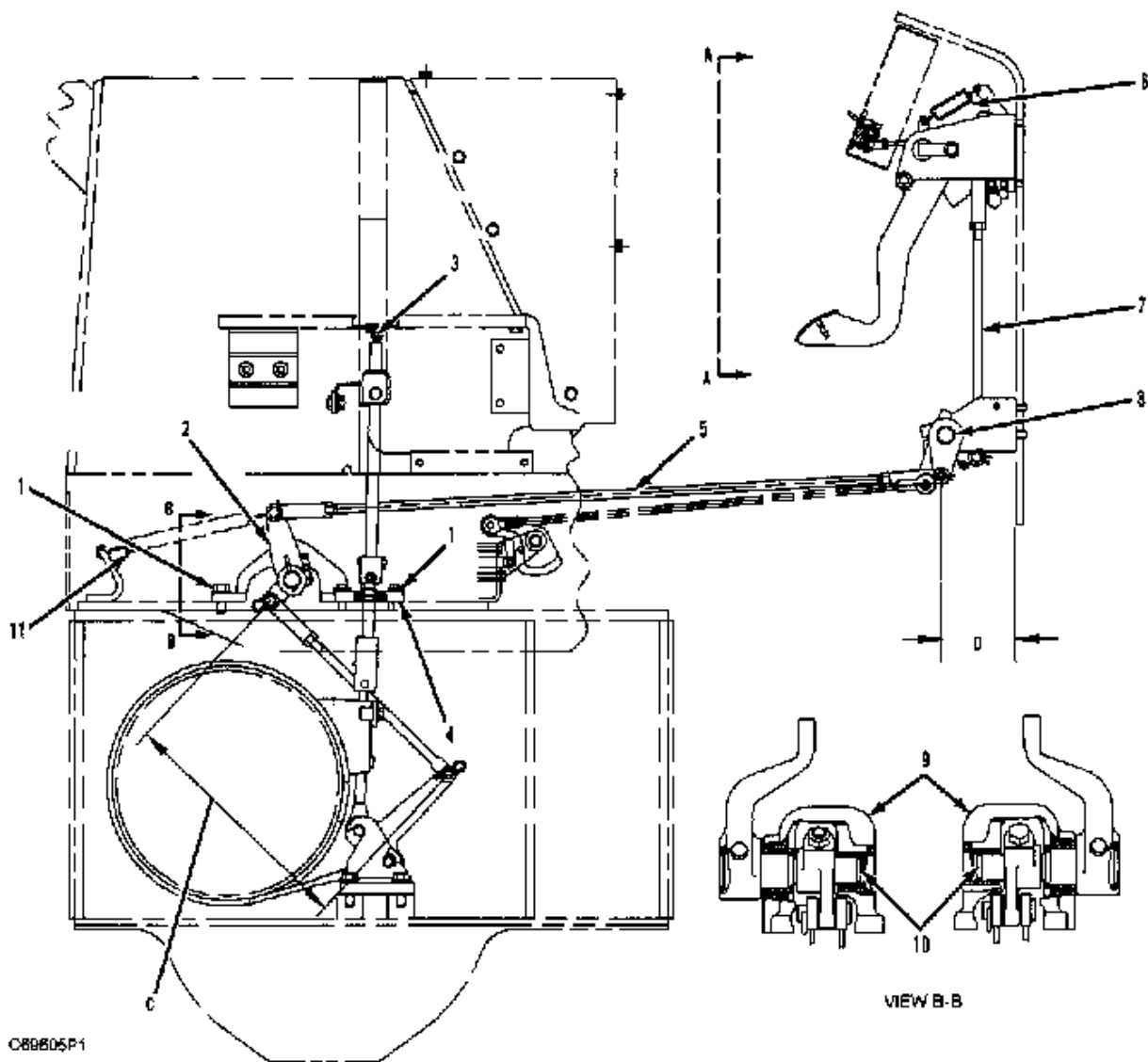


**Specifications**

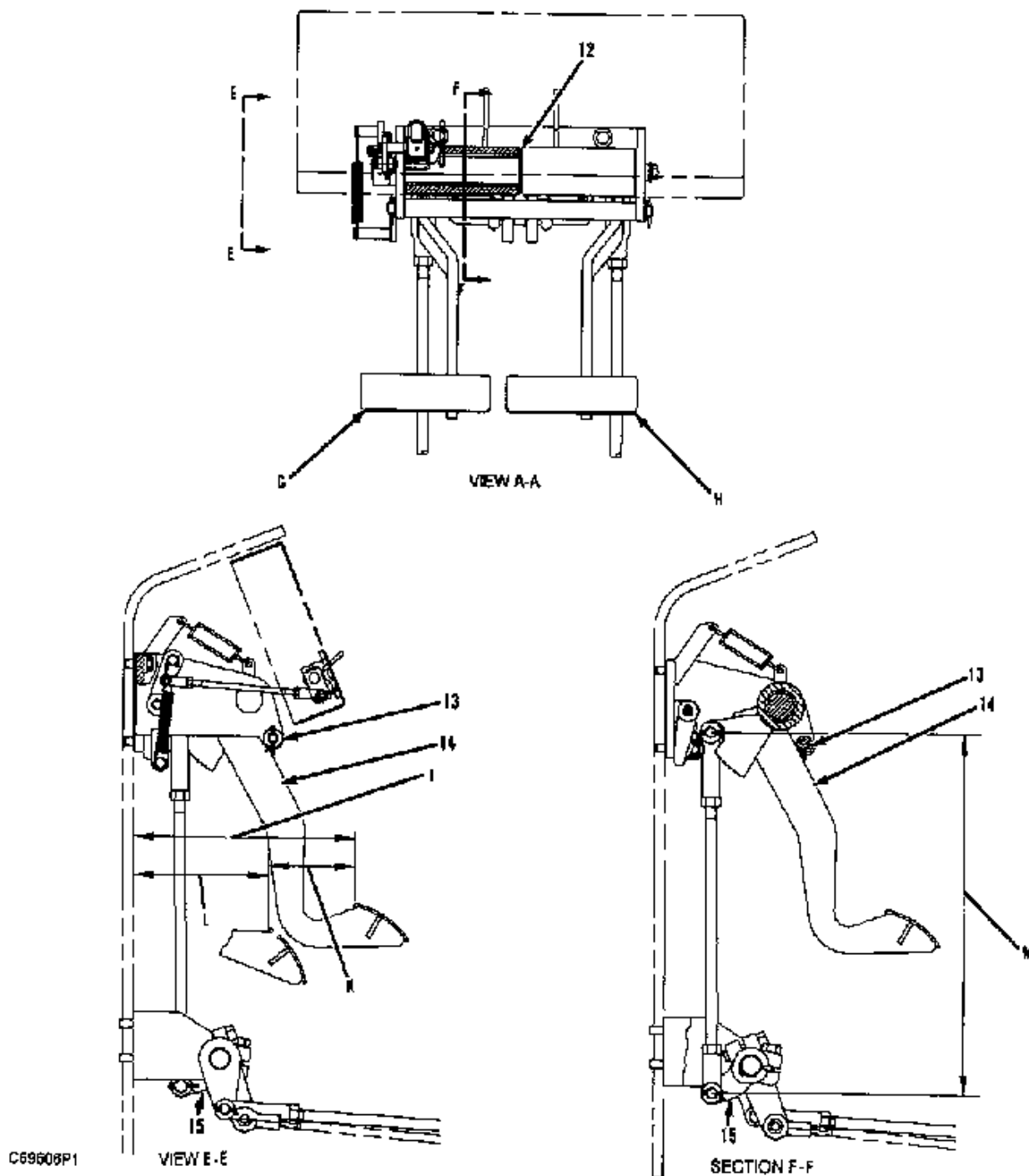
**D3C, D4C AND D5C SERIES III TRACTORS POWER TRAIN**

**Steering Brake Group**

**Pedal Steer (Standard)**



C88805P1



Torque for all 1/2 in. locknuts that hold rod ends in place on the rods ...  $55 \pm 10 \text{ N}\cdot\text{m}$  ( $41 \pm 7 \text{ lb ft}$ )

**NOTE:** All rod assembly measurements must be made in a straight line between the centerlines of the rod end mounting holes.

(C) Assembled length of rod assembly ...  $367.0 \pm 1.5 \text{ mm}$  ( $14.45 \pm .06 \text{ in}$ )

(D) Dimension of shaft assembly (8) from firewall ...  $109.0 \pm 1.5 \text{ mm}$  ( $4.29 \pm .06 \text{ in}$ )

(G), (H) Pedal force ...  $182 \pm 10 \text{ N}$  ( $41 \pm 2 \text{ lb}$ )

(K) Pedal travel ...  $80 \pm 5 \text{ mm}$  ( $3.1 \pm .2 \text{ in}$ )

(M) Assembled length of rod assembly (7) ...  $422 \text{ mm}$  ( $16.6 \text{ in}$ )

**(6) 8Y4581 Spring:**

Length under test force ... 93.2 mm (3.67 in)

Test force ... 48.2 N (1.90 lb)

Free length after test ... 81.5 mm (3.21 in)

Outside diameter ...  $20.0 \pm 0.5$  mm (.79  $\pm$  .02 in)

**(11) 9H6700 Spring:**

Length under test force ... 254 mm (10.0 in)

Test force ... 24.2 (5.45 lb)

Free length after test ... 222.3 mm (8.75 in)

Outside diameter ... 26.98 mm (1.062 in)

**NOTE:** Apply 3S6252 RTV Silicone Sealant to housing assembly (9) and adjuster cover (4) before assembling to the steering clutch cover.

Adjuster cover (4) must be installed with the notch facing away from the machine centerline.

**NOTE:** Apply 5P3413 Pipe Sealant to bolts (1) that fasten housing assembly (9) and adjuster cover (4) to the steering clutch cover.

**NOTE:** Lubricate shafts (10) with 5P0960 lubricant at assembly.

## Brake Adjustment Procedure



**When adjusting the brakes, the brakes must be released. Put blocks in front of and behind both tracks to prevent machine movement during brake adjustment.**

## Field Procedure To Adjust Brakes

1. Measure brake pedal travel:

a. Measure length (J) with the brake pedal at rest.

b. Measure length (L) with the brake pedal depressed with a force of  $182 \pm 10$  N ( $41 \pm 2$  lb).

c. Subtract length (L) from length (J) to determine pedal travel (K).

2. Pedal travel (K) must be  $80 \pm 5$  mm ( $3.1 \pm .2$  in) when pushed with a force of  $182 \pm 10$  N ( $41 \pm 2$  lb).

For each 5 mm (.2 in) of pedal travel exceeding 80 mm (3.1 in), tighten adjusting screw (3) clockwise  $60^\circ$  ( $1/6$  turn) until 80 mm (3.1 in) of pedal travel (K) is obtained.

**NOTE:**  $60^\circ$  ( $1/6$  turn) is equal to one flat on the adjusting screw hex.

## Shop Procedure To Adjust Brakes

1. Tighten adjusting screw (3) to a torque of  $45 \pm 7 \text{ N}\cdot\text{m}$  ( $33 \pm 5 \text{ lb ft}$ ).

2. Loosen adjusting screw (3) two and one half turns (fifteen flats on the hex).

**NOTE:** Installation of pedal assemblies (14) requires a minimum of two washers between pedal assemblies and one washer at each end. If required end play is not attained add washers at ends only.

End play required ...  $1.0 \pm 0.5 \text{ mm}$  ( $.04 \pm .02 \text{ in}$ )

3. Assemble shaft assemblies (8) to dimension (D) from the firewall.

4. Assemble rod (7) to lever on pedal (13).

5. Pull rod (7) downward [with enough force to ensure that brake pedal assembly (14) is against upper stop (13)]. Adjust the length of rod (7) to obtain dimension (M).

6. Attach rod (7) to lever (15) on shaft assembly (8).

7. Pull lever (2) to its rear most position and hold.

8. Assemble rod (5) to lever at shaft assembly (8).

9. Pull rod (5) toward the rear [with enough force to ensure that the brake pedal assembly (14) is against the upper stop (13)], adjust the length of rod (5) to freely connect to lever (2).

10. Pedal travel (K) must be  $80 \pm 5 \text{ mm}$  ( $3.1 \pm .2 \text{ in}$ ) when pushed with a force of  $182 \pm 10 \text{ N}$  ( $41 \pm 2 \text{ lb}$ ).

The difference in pedal travel (K) between left pedal (G) and right pedal (H) must not exceed  $5 \text{ mm}$  ( $.2 \text{ in}$ ) at a pedal force of  $182 \pm 10 \text{ N}$  ( $41 \pm 2 \text{ lb}$ ).

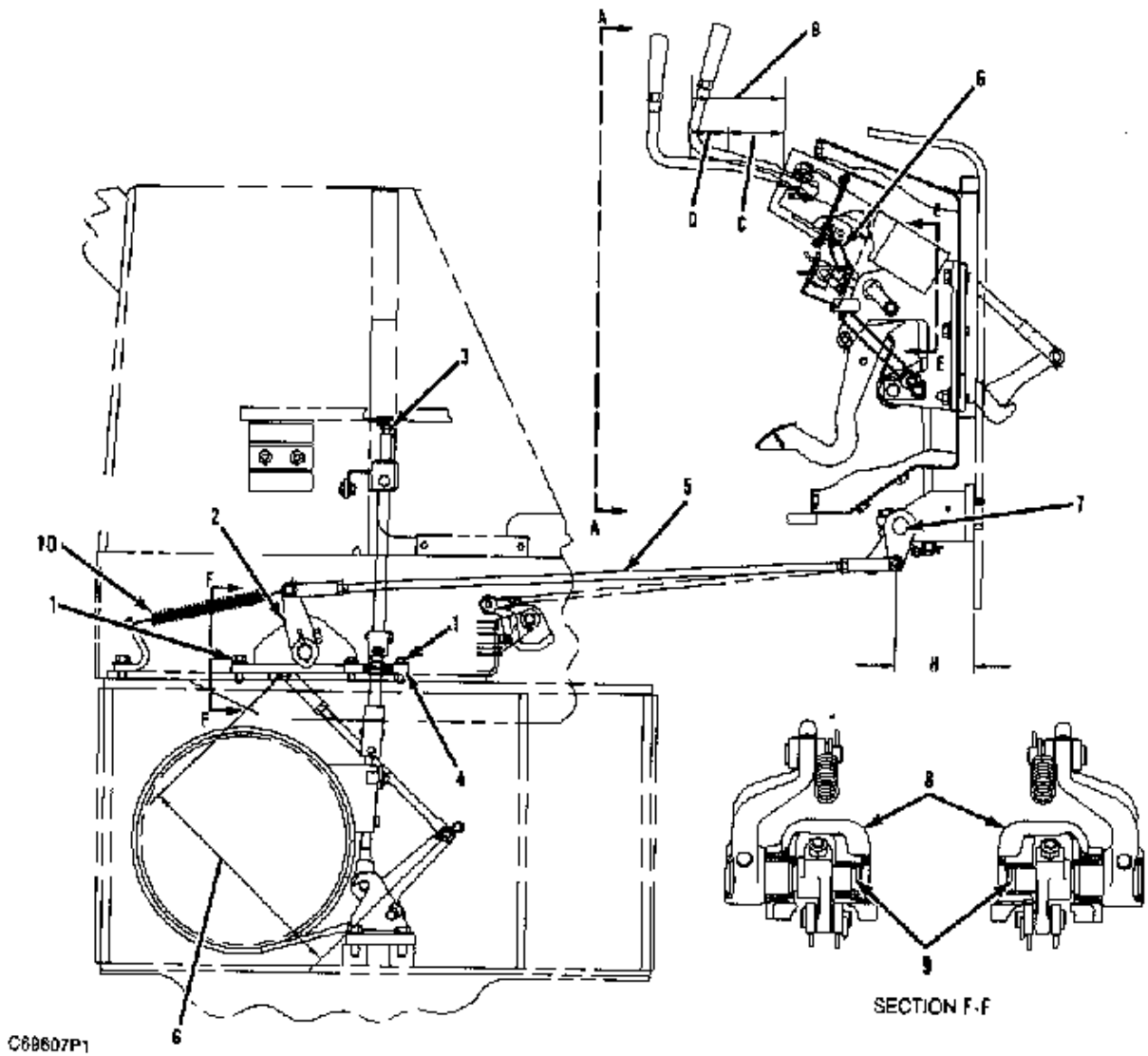
**NOTE:** (J) - (L) = (K)

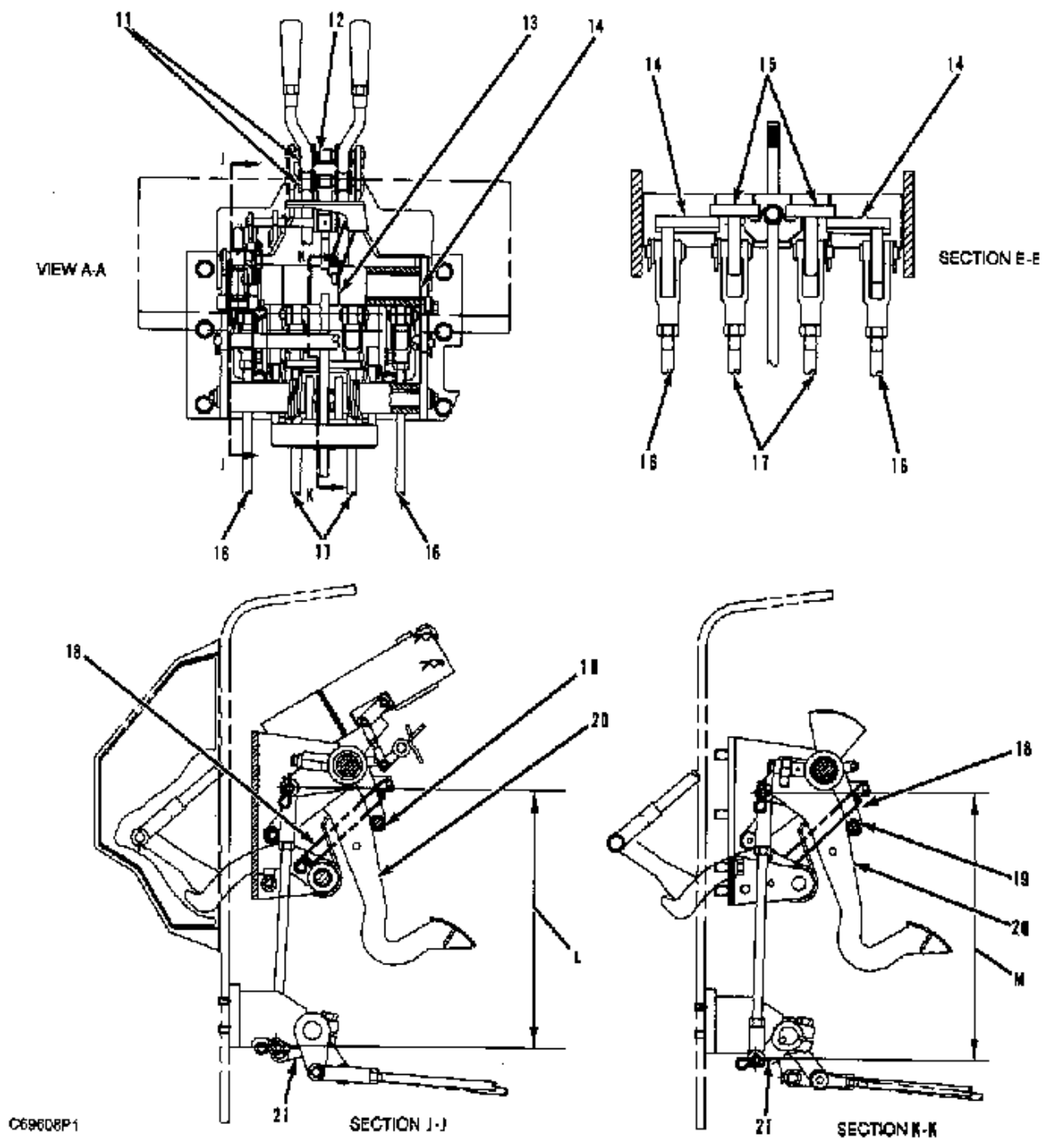
11. Check steering control valve cam to roller clearance and adjust if necessary.

**NOTE:** Proper adjustment of the steering clutch control valve cam to roller clearance is important to assure proper operation of steering clutches and brakes. See Steering Clutch Adjustment under topic Steering Clutch Control Group.

12. Follow Steps 1 through 11 for the other side.

# Combined Hand Steering (Attachment)





Torque for all 1/2 in. locknuts that hold rod ends in place on the rods ...  $55 \pm 10$  N·m ( $41 \pm 7$  lb ft)

**NOTE:** All rod assembly measurements must be made in a straight line between the centerlines of the rod end mounting holes.

(G) Assembled length of rod assembly ...  $367.0 \pm 1.5$  mm ( $14.45 \pm .06$  in)

(D) Lever travel ...  $155 \pm 7$  mm ( $6.1 \pm .3$  in)

(H) Dimension of shaft assembly (7) from firewall:

O-ROPS ...  $109.0 \pm 1.5$  mm ( $4.29 \pm .06$  in)

E-ROPS ...  $124.0 \pm 1.5$  mm ( $4.88 \pm .06$  in)

(L) Assembled length of rod assemblies (16):

O-ROPS ... 411 ± 1.5 mm (16.2 ± .06 in)

E-ROPS ... 366 ± 1.5 mm (14.4 ± .06 in)

(M) Assembled length of rod assemblies (17):

O-ROPS ... 422 mm (16.6 in)

E-ROPS ... 377 mm (14.8 in)

(6) 8Y4581 Spring:

Length under test force ... 93.2 mm (3.67 in)

Test force ... 48.2 N (1.90 lb)

Free length after test ... 81.5 mm (3.21 in)

Outside diameter ... 20.0 ± 0.5 mm (.79 ± .02 in)

(10) 9H6700 Spring:

Length under test force ... 254 mm (10.0 in)

Test force ... 24.2 (5.45 lb)

Free length after test ... 222.3 mm (8.75 in)

Outside diameter ... 26.98 mm (1.0625 in)

(17) 8Y3231 Spring:

Length under test force ... 178 mm (7.0 in)

Test force ... 160 ± 15 N (36.0 ± 3.4 lb)

Free length after test ... 119.5 ± 3 mm (4.70 ± .12 in)

Outside diameter ... 20.0 mm (.79 in)

**NOTE:** Apply 3S6252 RTV Silicone Sealant to housing assembly (8) and adjuster cover (4) before assembling to the steering clutch cover.

**NOTE:** Adjuster cover (4) must be installed with the notch facing away from the machine centerline.

**NOTE:** Apply 5P3413 Pipe Sealant to bolts (1) that fasten housing assembly (8) and adjuster cover (4) to the steering clutch cover.

**NOTE:** Lubricate shafts (9) with 5P0960 lubricant at assembly.

## Brake Adjustment Procedure



**When adjusting the brakes, the brakes must be released. Put blocks in front of and behind both tracks to prevent machine movement during brake adjustment.**

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## Field Procedure To Adjust Brakes

1. Measure brake steering lever travel:
  - a. Measure length (C) with the steering lever at rest.
  - b. Measure length (B) with the steering lever pulled with a force of  $88 \pm 10$  N ( $20 \pm 2$  lb).
  - c. Subtract length (C) from length (B) to determine steering lever travel (D).
2. Steering lever travel (D) must be  $155 \pm 7$  mm ( $6 \pm 2$  in) when pushed with a force of  $88 \pm 10$  N ( $20 \pm 2$  lb).

For each 7 mm (.3 in) of steering lever travel exceeding  $155 \pm 7$  mm ( $6 \pm 2$  in), tighten adjusting screw (3) clockwise  $60^\circ$  (1/6 turn) until  $155 \pm 7$  mm ( $6 \pm 2$  in) of lever travel is obtained.

**NOTE:**  $60^\circ$  (1/6 turn) is equal to one flat on the adjusting screw hex.

## Shop Procedure To Adjust Brakes

1. Tighten adjusting screw (3) to a torque of  $45 \pm 7$  N·m ( $33 \pm 5$  lb ft).
2. Loosen adjusting screw (3) two and one half turns (fifteen flats on the hex).

**NOTE:** Use washers (12) as required for installation of rollers (11). If required end play is not attained add washers at ends only.

End play required ... 1.5 mm (.06 in)

**NOTE:** Use washers (13) as required for installation of lever assemblies (14). A minimum of one washer is required at each of the six spaces. If required end play is not attained add washers at ends only.

End play required ...  $1.0 \pm 0.5$  mm ( $.04 \pm .02$  in)

3. Assemble shaft assembly (7) to dimension (H) from the firewall.
4. Assemble rods (16) to dimension (L) and rods (17) to dimension (M) on levers (14) and lever assemblies (15).
5. Install rods (16) and (17) to levers (21), pulling rods down with levers (15) resting on the plate of lever assemblies (14).
6. Pull lever (2) to its rear most position and hold.
7. Assemble rod (5) to lever at shaft assembly (7).
8. Pull rod (5) toward the rear [with enough force to ensure that the brake pedal (20) is against the upper stop (19)], adjust the length of rod (5) to freely connect to lever (2).
9. Steering lever travel (D) must be  $155 \pm 7$  mm ( $6 \pm 2$  in) when pushed with a force of  $88 \pm 10$  N ( $20 \pm 2$  lb).

**NOTE:** (B) - (C) = (D)

For each 7 mm (.3 in) of steering lever travel exceeding  $155 \pm 7$  mm ( $6 \pm 2$  in), tighten adjusting screw (3) clockwise  $60^\circ$  (1/6 turn) until  $155 \pm 7$  mm ( $6 \pm 2$  in) of lever travel is obtained.

**NOTE:**  $60^\circ$  (1/6 turn) is equal to one flat on the adjusting screw hex.

10. Check steering control valve cam to roller clearance and adjust if necessary.



**NOTE:** Proper adjustment of the steering clutch control valve cam to roller clearance is important to assure proper operation of steering clutches and brakes. See Steering Clutch Adjustment under topic Steering Clutch Control Group.

**11.** Follow Steps 1 through 10 for the other side.

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