

BRAKES SPECIFICATIONS

Specifications

General Specifications

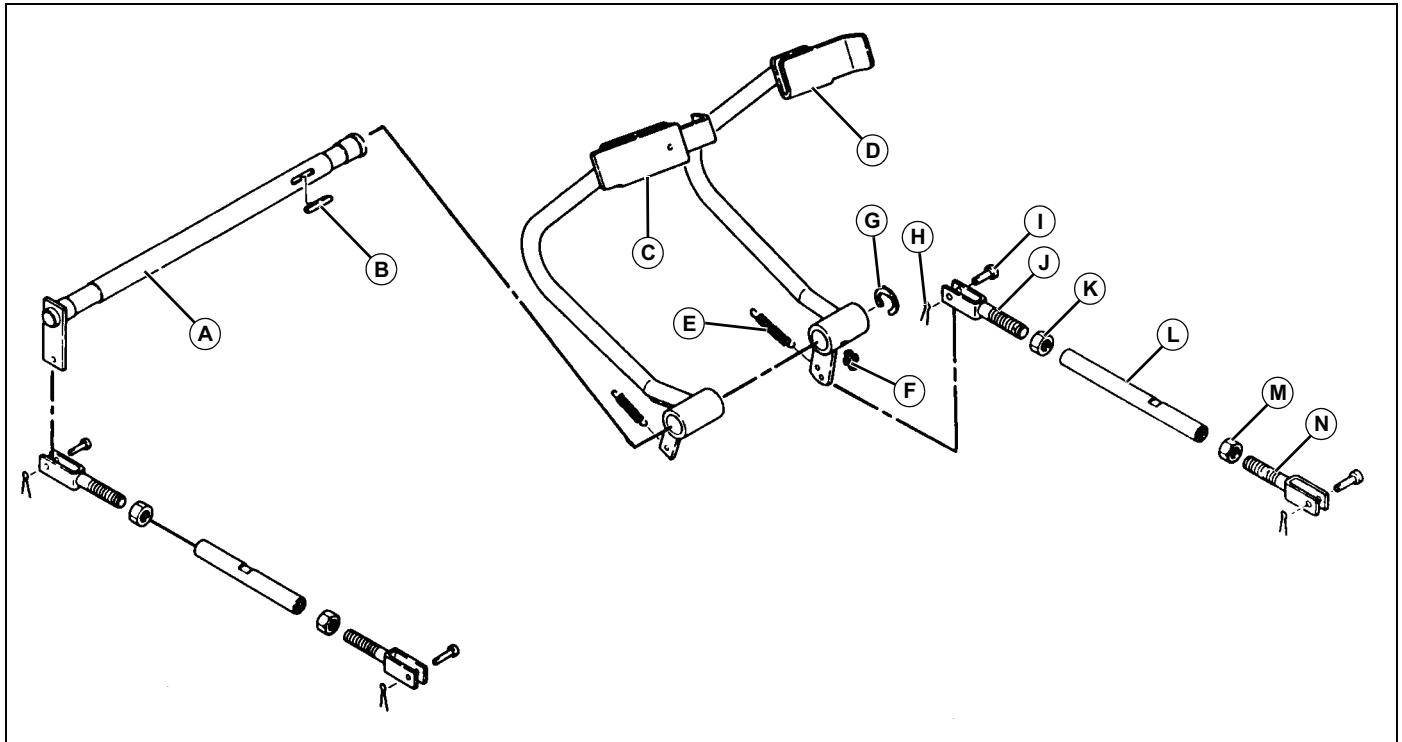
Type	Dry
Parking Brake	Dry
Brake Location	Right and Left Side
Rear Wheel Bolts	190 N•m (140 lb-ft)



BRAKES COMPONENT LOCATION

Component Location

Brake Pedals and Linkage

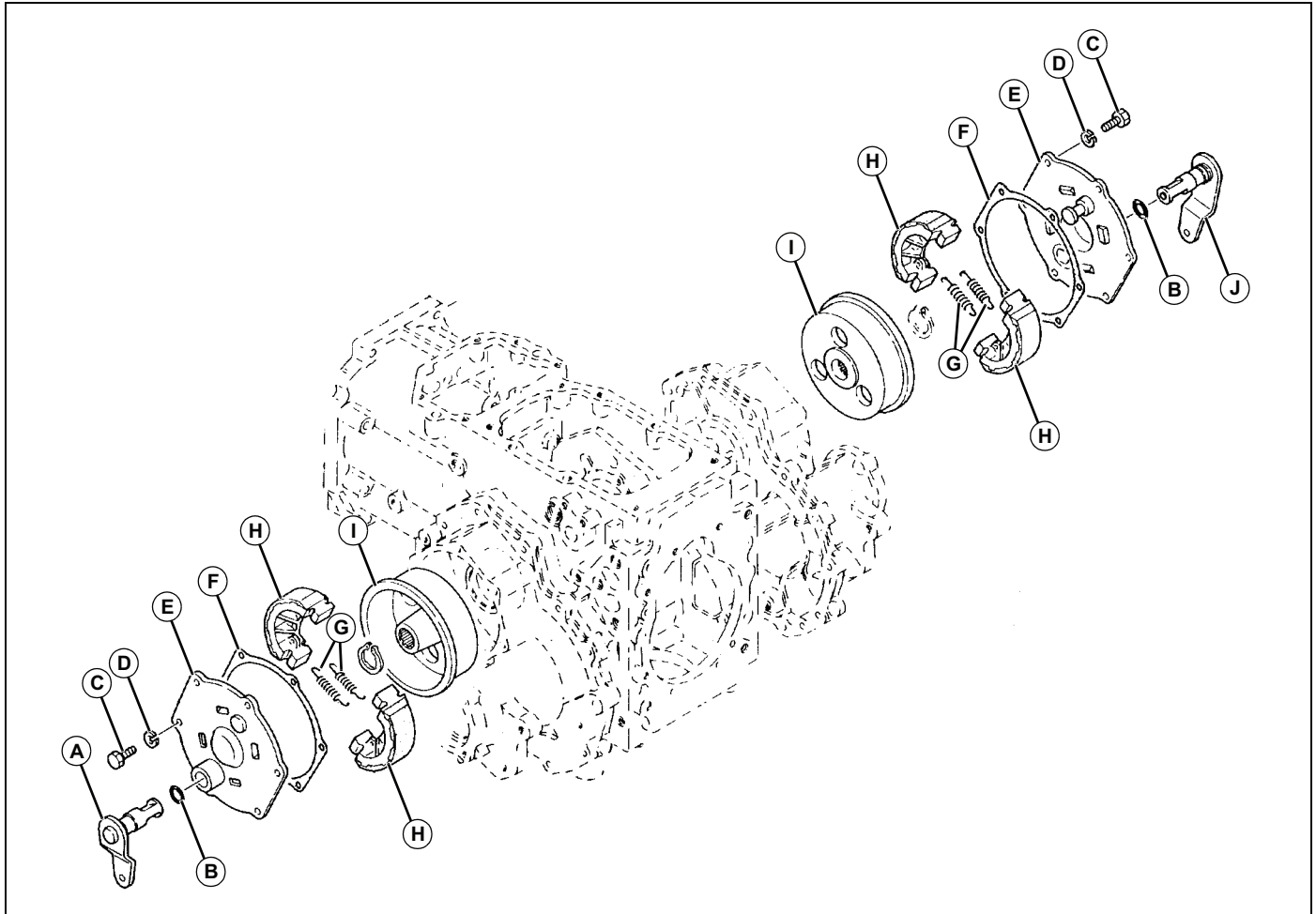


MX19500

- A - Shaft
- B - Key
- C - Left-Hand Pedal
- D - Right-Hand Pedal
- E - Spring
- F - Lubrication Fitting
- G - E-Clip
- H - Pin
- I - Pin
- J - Yoke
- K - Nut
- L - Turnbuckle
- M - Nut
- N - Yoke

BRAKES COMPONENT LOCATION

Brakes



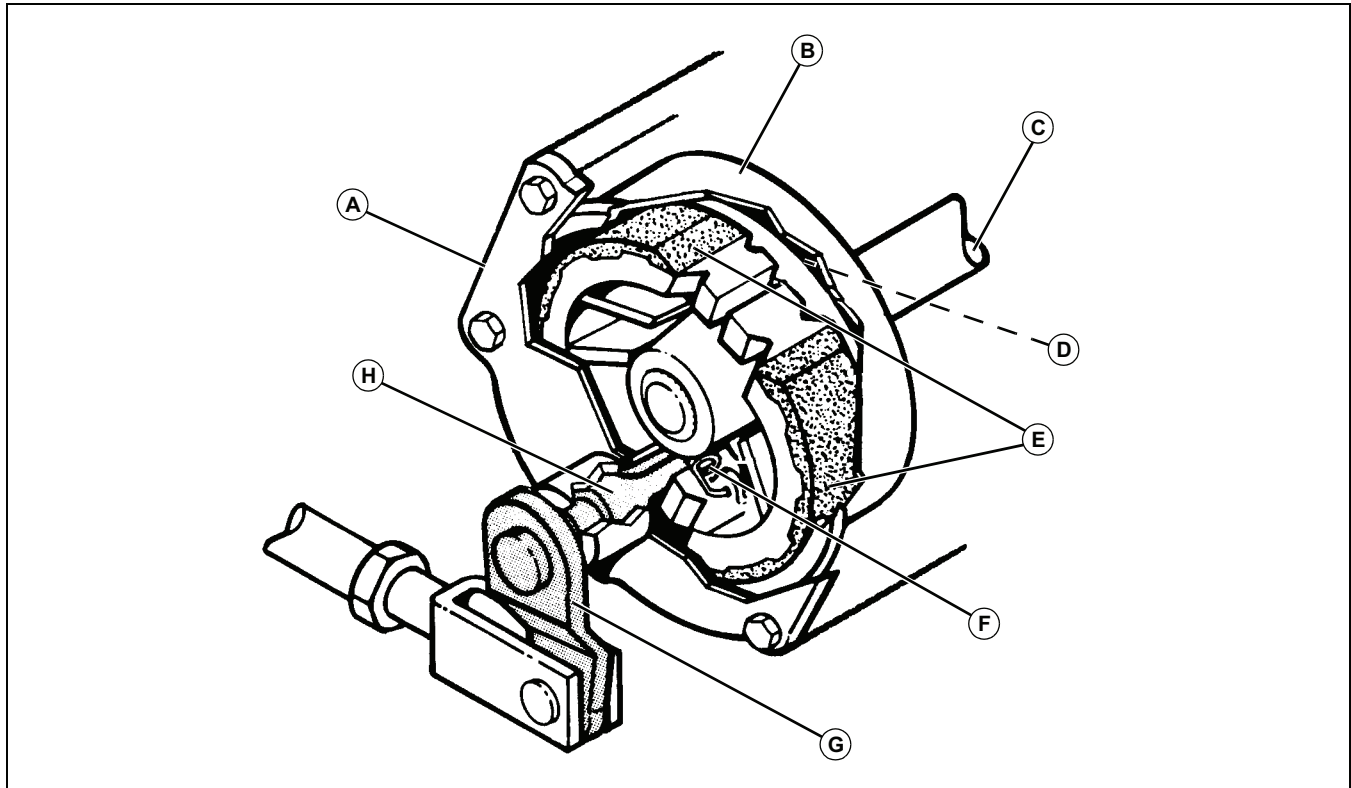
MX19503

- A - Cam
- B - Packing
- C - Cap Screw
- D - Lockwasher
- E - Cover
- F - Gasket
- G - Extension Spring
- H - Brake Shoe
- I - Brake Drum
- J - Cam

BRAKES THEORY OF OPERATION

Theory of Operation

Drum Brake Operation



MX19733

- A - Brake Cover
- B - Brake Drum
- C - Differential Output Shaft
- D - Anchor Pin
- E - Brake Shoes
- F - Return Springs
- G - Brake Lever
- H - Operating Cam

The brakes on the 790 are mechanical internal expansion type. The brake drums (B) are splined to fit the differential output shafts (C) on each side.

When a brake pedal is applied, a brake rod rotates an operating cam (H). Rotation of the cam causes the brake shoes (E) to separate or expand against the drum. The result is that braking effect is applied to the differential output shaft.

When the brake is released, the return springs (F) pull the shoes back together.

The braking force is equal whether the brakes are applied for forward or reverse motion. The left and right side brakes operate independently since there is linkage on both sides.

The park brake mechanism is a locking device to hold the brake linkage in the applied position.

Park Brake Lock Operation

The park brake linkage locks against a catch on the left brake pedal.

NOTE: For park brake operation, the two brake pedals should be locked together so that both brakes are applied.

To engage the park brake, the brake pedals must first be depressed to apply the brakes. When the park brake lever is lifted, the park brake lock pivots down against the left brake pedal. A series of pawls on the park lock allow the park lock to catch on the pedal in several positions. This allows park brake operation within a wider range of pedal pressure and freeplay adjustment.

To disengage the park brake, the brake pedals must first be depressed to remove tension from the locking pawl. This allows the locking pawl to lift freely and release when the park brake lever is pushed down to the off position.

The spring for the park brake indicator switch is connected to the hole in the park lock. The indicator warns the operator that the brakes are locked. The switch is adjustable.

BRAKES TESTS AND ADJUSTMENTS

Tests and Adjustments

Brake Pedal Freeplay Adjustment

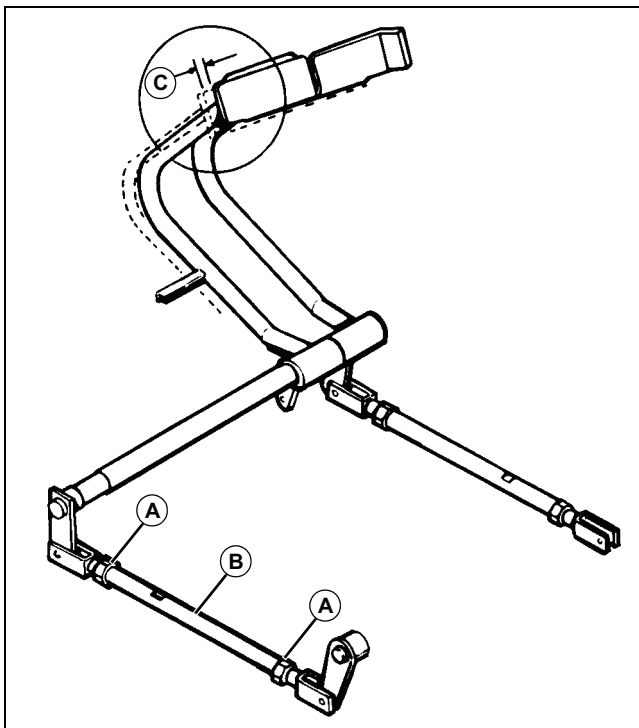
Purpose

To ensure that neither set of brakes are dragging and that both brakes are similarly adjusted for best normal and park brake operation.

Check Adjustment

Depress each pedal separately to check freeplay. The pedals should travel 25 - 35 mm (0.98 - 1.38 in.) before you feel resistance.

Adjustment Procedure



MX15902

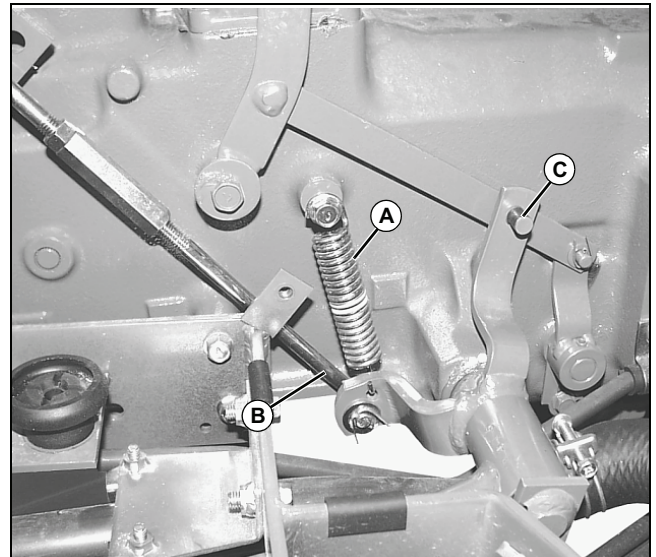
1. Loosen locknuts (A) on brake rod.
2. Use the turnbuckle (B) to lengthen or shorten the brake rod until pedal travel (C) is correct.
3. Tighten locknuts (A).

Repair

Brake Pedal and Linkage Inspection and Repair

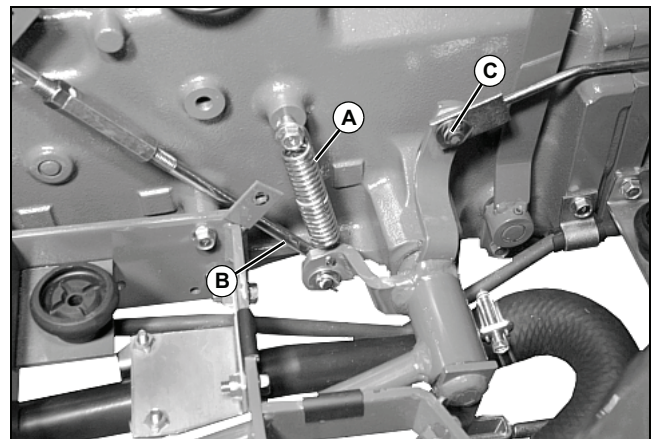
Removal and Inspection

1. Park machine safely.
2. Block wheels to prevent movement and release brake.
3. Remove step plates.



MX19761

Picture Note: (SN -790000) Without Mid PTO.

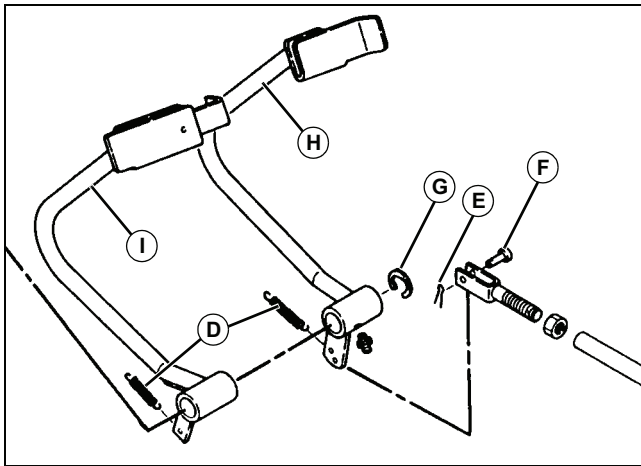


MX32284

Picture Note: (SN 790001-) With Mid PTO

4. Disconnect clutch pedal spring (A) and link rod (B). An additional link rod will have to be disconnected at (C) if machine is equipped with mid PTO option.

BRAKES REPAIR



MX19500

5. Disconnect springs (D).
6. Remove pins (E) and (F) to disconnect brake linkage. Repeat on other side of machine.
7. Remove e-clip (G) and pedals (H) and (I).
8. Remove brake cross shaft from machine.
9. Inspect all parts for wear or damage. Replace as necessary.

Assembly

1. Install all parts.
2. Connect linkages and springs.
3. Apply multipurpose grease to all lubrication fittings.
4. Check clutch pedal free-play. Adjust as necessary.
5. Check brake pedal free-play. Adjust as necessary. See "Brake Pedal Freeplay Adjustment" on page 385.

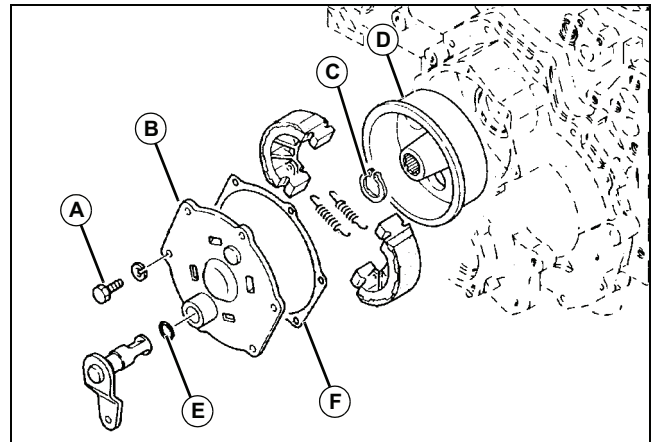
Brakes Removal and Installation



CAUTION: Avoid injury! Avoid breathing dust that may be generated. Never use compressed air for cleaning.

Keep bystanders away from the area.

1. Park machine safely.
2. Support rear axle on stands.
3. Remove rear wheel.



MX19503

4. Remove cap screws (A) and lock washers, then remove cover (B) and brake shoe assembly.
5. Remove snap ring (C) and drum (D).
6. Disassemble all other parts.
7. Inspect all parts for wear or damage. Replace as necessary.
8. Install new O-ring (E) and gasket (F).
9. Apply multipurpose grease to splined ID of brake drum.
10. Assemble all parts.
11. Install gasket, cover and brake shoe assembly.
12. Connect linkage.
13. Install rear wheel. Tighten wheel bolts to 190 N•m (140 lb-ft).
14. Adjust brakes. See "Brake Pedal Freeplay Adjustment" on page 385.