

Although Dexter Axle supplies non-asbestos brake linings as standard equipment, asbestos linings may still be found on axles in service.

## CAUTION

### POTENTIAL ASBESTOS DUST HAZARD!

Some older brake linings may contain asbestos dust, which has been linked to serious or fatal illnesses. Certain precautions need to be taken when servicing brakes:

1. Avoid creating or breathing dust.
2. Avoid machining, filing or grinding the brake linings.
3. Do not use compressed air or dry brushing for cleaning (dust can be removed with a damp brush).

## 16½" x 7" Brakes

### Disassembly

1. Block and secure trailer on adequate capacity jack stands. Follow trailer manufacturers recommendations for lifting and supporting the unit. Check that the wheel and drum rotate freely.
2. Release brake and back off slack adjuster.
3. Remove wheel equipment.
4. Remove slack adjuster lock ring and slack adjuster.
5. Remove brake drum (if outboard mount). Remove hub and drum assembly (if inboard mount).
6. Disengage the roller retainers from the rollers.
7. Press down on the bottom brake shoe and remove the lower cam roller. Lift the top shoe and take out the top cam roller.
8. Lift out the shoe retractor spring, which is now free of tension.
9. Swing the lower shoe back approximately 180° to relieve the tension on the shoe keeper springs. Remove the springs and slip the shoes off the anchor pins.
10. Remove camshaft lock ring, spacer washer(s) and camshaft.
11. After removing the shoes, completely inspect all brake components, servicing as necessary.

### Reassembly

1. Install new anchor pin bushings, camshaft bushing and camshaft seals into the spider.
2. Install cam roller, retainer clip and retractor spring retainers onto the brake shoes.
3. Install ⅛" thick camshaft washer onto the camshaft.
4. Install the cam shaft into the spider. Install spacer washer and lock ring retainer on camshaft before sliding the camshaft through the camshaft support bracket. Install the slack adjuster, washer and lock ring retainer.
5. Install the brake keeper springs onto the shoes. Install shoes onto the spider by placing shoes in place on the anchor pins, then "wrap" the two shoes into place about the spider.
6. Install the shoe retractor spring onto the shoes.
7. Connect slack adjuster to brake chamber push rod.
8. Reinstall wheel equipment per manufacturers instructions.
9. Adjust brakes as outlined in brake adjustment procedures.

**Note:** Always use new springs when servicing brakes. Always use Dexter shoes when replacing shoes.

## 12¼" x 7½" Brakes - P Style

### Disassembly

1. Block and secure trailer on adequate capacity jack stands. Follow trailer manufacturers recommendations for lifting and supporting the unit. Check that the wheel and drum rotate freely.
2. Release brake and back off slack adjuster.
3. Remove wheel equipment.
4. Remove slack adjuster lock ring and slack adjuster.
5. Remove hub and drum assembly.
6. Remove anchor pin anti-rotation bolt (if applicable).
7. Remove anchor pin retainers and washers.
8. Remove anchor pins and brake shoes.
9. Remove brake return springs.
10. Remove camshaft lock ring, spacer washers(s) and

# Brake Assembly/Disassembly

cam shaft.

11. Remove roller pin retainers.
12. Remove roller pins, rollers from shoes.
13. Remove camshaft bushings and seals from spider.
14. After removing the shoes, completely inspect all brake components, servicing as necessary.

## Reassembly

1. Install new camshaft bushing and camshaft seals into the spider.
2. Install cam roller assemblies onto the brake shoes.
3. Install "D" shaped camshaft washer onto the camshaft.
4. Install the camshaft into the spider. Install spacer washer and lock ring retainer on camshaft before sliding the camshaft through the camshaft support bracket. Install the slack adjuster, washer and lock ring retainer.
5. Install shoes, anchor pins and spacers onto spider. Install anchor lock rings.
6. Install retractor spring.
7. Tighten anchor pin anti-rotation screw (if applicable).
8. Connect slack adjuster to brake chamber push rod.
9. Reinstall wheel equipment per manufacturers instructions.
10. Adjust brakes as outlined in brake adjustment procedures.

**Note:** Always use new springs when servicing brakes. Always use Dexter shoes when replacing shoes.

## 12¼" x 7½" Brakes - PQ Style

### Disassembly

1. Block and secure trailer on adequate capacity jack stands. Follow trailer manufacturers recommendations for lifting and supporting the unit. Check that the wheel and drum rotate freely.
2. Release brake and back off slack adjuster.
3. Remove wheel equipment.
4. Lift top shoe upward to disengage the shoe webs

from the anchor pin. Remove anchor pin.

5. Repeat procedure 4 for the bottom shoe.
6. Remove brake keeper springs.
7. Unwrap bottom shoe by pivoting the shoe on the camshaft head and twisting the shoe 90° under the spindle. Remove shoe assemblies from spider.
8. Remove slack adjuster lock ring, disconnect slack clevis, and then remove slack adjuster.
9. Remove camshaft lock ring, spacer washer(s) and camshaft.
10. Completely inspect all brake components, servicing as necessary.

### Reassembly

1. Install new camshaft bushing. Ream bushing to 1.505/1.515 if required. Install camshaft seals into the spider.
2. Lubricate roller bore with anti-seize and install new cam roller assemblies onto the brake shoes.  
**Note:** The head of roller pin should face the camshaft "D" washer once shoes are installed on spider.
3. Install "D" shaped camshaft washer onto the camshaft.
4. Install the camshaft into the spider. Install 005-075-00 washer and lock ring retainer on the camshaft before sliding the camshaft through the camshaft support bracket.
5. Install the slack adjuster and 005-134-00 washer and 069-078-00 lock ring retainer for 28 spline camshafts or 005-075-00 washer and 069-020-00 lock ring retainer for 10 spline camshafts.
6. Lubricate anchor pin notches with anti-seize lubricant.
7. Install "W" shaped retractor spring retainer pin into the 0.50" diameter shoe web holes near the camshaft roller end of the shoe.
8. Install retractor spring between shoes. Place top shoe onto spider as in service. Pivot bottom shoe on the camshaft head and twist the shoe 90° under the spindle, properly placing shoe on the spider as in service.

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9. Install two (2) keeper springs on the anchor end of the shoes.
10. Lubricate anchor pin bores and shoe anchor pins with anti-seize lubricant.
11. Repeat procedure 10 for the bottom shoe.
12. Lift top shoe upwards to clear anchor pin hole. Install anchor pin.
13. Connect slack adjuster to brake chamber push rod.
14. Lubricate cam bushings and slack adjuster.
15. Reinstall wheel equipment per manufacturers instructions.
16. Adjust brakes as outlined in brake adjustment procedures.

**Note:** Always use new springs when servicing brakes.  
Always use Dexter shoes when replacing shoes.