

BRAKE SHOE REPLACEMENT AND ADJUSTMENT GUIDE

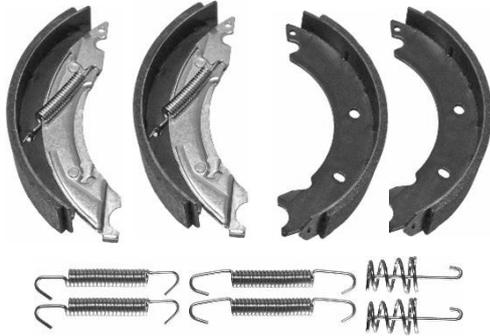
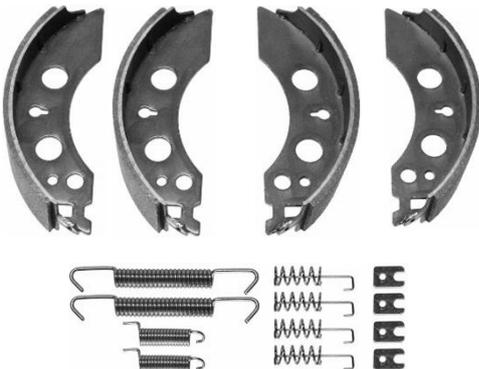
WARNING !

The information in this document is for guidance only. All work on a trailer braking system requires specialist training and should only be carried out by appropriately trained technicians. If in doubt, contact your local trailer service centre for advice.

- Always change the brake shoes & springs on both sides of the same axle and on all axles of a trailer.
- Wear suitable protective clothing at all times, such as safety glasses, gloves, face mask etc.
- All images show the left brake.

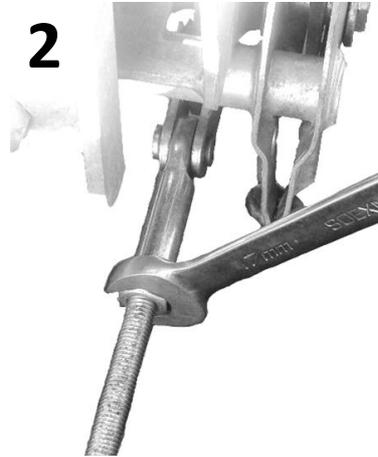
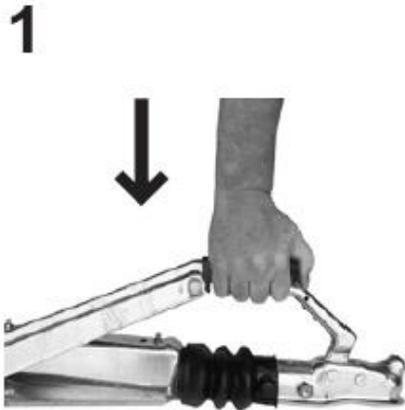
NOTE : It is recommended that all springs are replaced along with the brake shoes.

CONTENTS :

<p>Kits for KNOTT style brakes</p> <p>MP1761B (4010001AE) For Knott 160 x 35</p> <p>MP1762B SQB002 (4010002) For Knott 200 x 50</p> <p>MP1763B SQB218 (4010218) For Knott 203 x 40</p> <p>MP1764B SQB219 (4010219A) For Knott 250 x 40</p>		<p>2 fixed brake shoes 2 sliding brake shoes 4 tensioning springs (2 long, 2 short) 2 retaining springs</p>
<p>Kits for ALKO style brakes</p> <p>MP1767B SQB003 (4010003) For ALKO 200 x 50</p> <p>MP1768B SQB206 (4010206A) For ALKO 230 x 60</p>		<p>4 brake shoes 2 long tensioning springs 2 short auto reverse lever springs 4 retaining springs & cover plates</p>
<p>MP1766B (4010201) For ALKO 160 x 35</p>		<p>2 pairs brake shoes 2 long tensioning springs 2 short auto reverse lever springs 4 retaining springs & cover plates</p>

INSTRUCTIONS FOR USE – general:

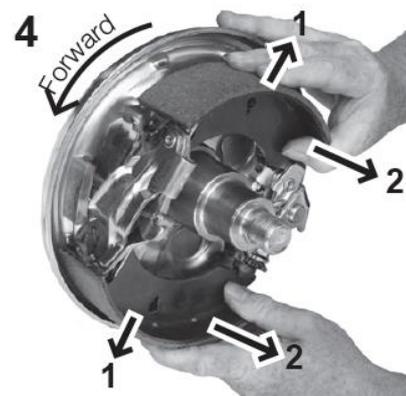
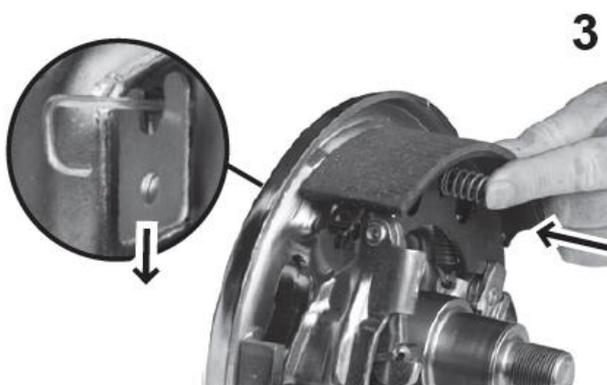
1. Jack up the trailer on a level surface and secure in position so it cannot move unintentionally while it is being worked on.
2. Remove the road wheels on the axle to be serviced
3. Release the handbrake (1) and secure in the off position to prevent injury
4. Slacken off all tension in the brake rod by loosening the adjuster (2)



5. Slacken off the brake shoe adjuster on the rear brake back plate
 - a. ALKO: Rotate the starwheel adjuster counter to the direction of the arrow.
 - b. KNOTT: Loosen off the adjuster bolt by turning anti-clockwise.
6. Pull back the brake cable and remove the cable cover plate from the brake back plate.
7. Unhook the end of the brake cable from the cable eyelet.
8. Remove the hub cap and flange / stake nut (or castle nut & split pin).
9. Pull off the brake drum.
10. Proceed according to the style of brake drum on the trailer :

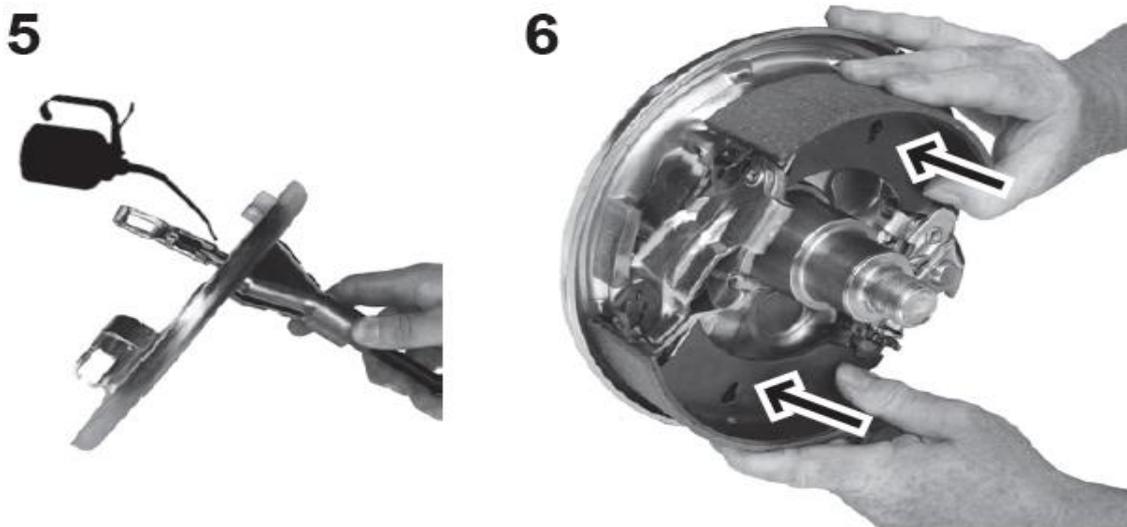
ALKO style brake drums:

11. Depress and remove the 2 hooked retaining springs and cover plates attaching the shoes to the backplate (3).
12. Take careful note of how the tensioning springs are attached to the brake shoes, take photographs if necessary. This will aid re-assembly.
13. Spread the brake shoes at the adjuster end and remove the brake shoes, expander & long tensioning springs from the adjuster & backplate in the 2 steps shown (4)
14. Remove the adjuster and check it functions correctly, replace if necessary. Lubricate before re-fitting.
15. Disconnect the short tensioning spring from the auto reverse lever, remove split pin, clevis pin and auto reverse lever.



16. Disconnect the brake cable eyelet from the expander hook.
17. Check all parts for wear, corrosion or damage and replace as necessary. Clean any parts to be re-fitted and ensure they function correctly.
18. Check brake cables are functioning correctly, replace if necessary, then lubricate (5).

NOTE: Brake cables with a PVC or nylon interior lining should not be lubricated.



19. **See Fig A.** Fit the auto reverse lever (01) into the adjuster housing on the back plate, insert the clevis pin and secure with the split pin, bending over the ends to secure. Grease the bearing of the auto reverse lever and check for ease of movement. **Note:** The auto reverse lever and brake back plate layout differ for left and right hand sides.
20. Insert the right-angled end of the new tension spring (02) into the brake back plate. Hook the eye of the spring into the auto reverse lever (01). The auto reverse-lever should be under spring tension against the adjuster housing.
21. Grease the thread of the adjuster screw (03) and fit the adjuster assembly into the housing on the back plate.
22. Connect the brake cable eyelet to the expander hook.
23. **See Fig D.** Assemble the new brake shoes, long tensioning springs and expander with the eyes of the springs facing outwards.
24. Spread the brake shoes at the adjuster end and fit the assembly to the backplate as shown (image 6 above).
25. Secure the assembly in place to the backplate with the 2 new hooked retaining springs and cover plates (image 3 above).
26. Ensure the assembly engages correctly with the adjuster.
27. Attach the brake cable to the eyelet on the expander hook and refit the cable cover plate.

See Fig C. NOTE : To ensure the correct operation of the brakes the pivot point of the expander lever (06) **must** be mounted on the same side of the brake plate as the auto reverse lever (07).

Additional information for ALKO style 160 x 35 brake drums :

Follow steps 11 to 27 above, but note the following during assembly of the brake shoes and expander:

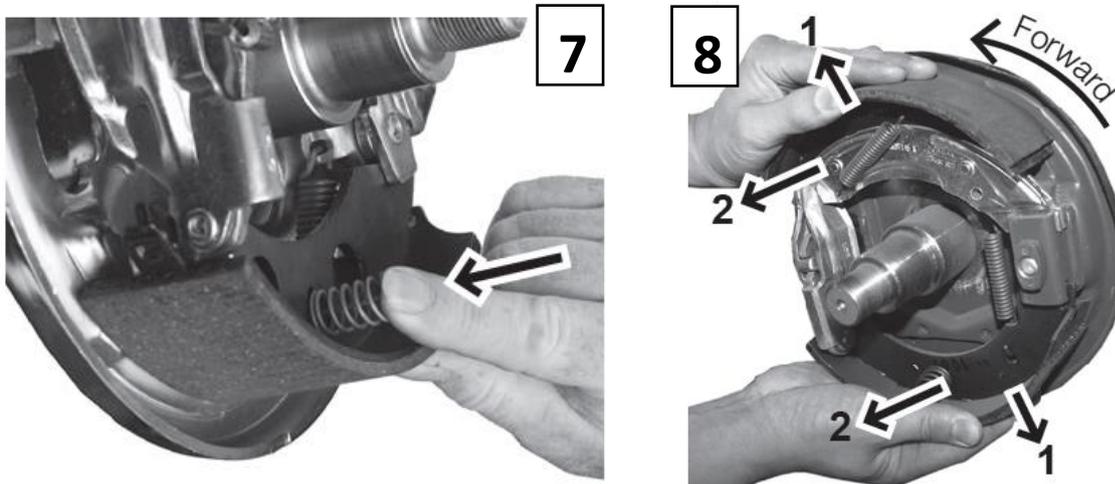
- **See Fig B.** MP1766B 160 x 35 brake shoe set includes two pairs of brake shoes instead of the 4 identical shoes included in the other Maypole ALKO brake shoe sets.
- Differences can be seen in the markings on the shoes and one has a semi-circular cut out (next to 05) while the other does not.
- **See Figs A & B.** The large area stamped into the shoe (04) with no semi-circular cut-out must be located onto the auto-reverse lever (01). The small area (05) stamped into the shoe with the semi-circular cut-out must be located in the adjuster screw (03).

Failure to mount the shoes in this way will result in the brakes not working!



KNOTT style brakes:

11. Depress and remove the hooked retaining spring that attaches the fixed brake shoe to the back plate (Fig 7).
12. Take careful note of how the tensioning springs are attached to the brake shoes, take photographs if necessary. This will aid re-assembly.
13. Disengage the fixed brake shoe from the adjuster bolt, then repeat with the sliding shoe. Disconnect the long tensioning spring nearest the adjuster bolt if possible.
14. Spread the brake shoes and pull away from the backplate, as shown in steps 1 & 2 (Fig 8)

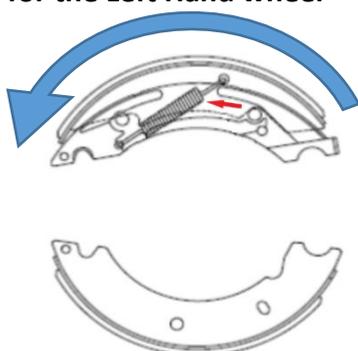


15. Disconnect the brake cable eyelet from the expander hook.
16. Check all parts for wear, corrosion or damage and replace as necessary, clean any parts to be re-fitted and ensure they function correctly.
17. Check the adjuster functions correctly, replace it if necessary. Lubricate before re-fitting.
18. Check brake cables are functioning correctly, replace if necessary, then lubricate (9).

NOTE: Brake cables with a PVC or nylon interior lining should not be lubricated.

19. Connect the brake cable eyelet to the expander hook.
20. Assemble the new brake shoes, tensioning springs and expander.
21. Fit the short spring at the expander end first, then insert the expander, then the longer spring at the adjuster end. Make sure that :
 - i. The springs are attached from the correct side.
 - ii. The pivot point of the expander is located in the fixed shoe
 - iii. The open side of the expander brake cable hook is facing away from the brake drum when fitted
22. Ensure the sliding shoe direction indicator arrow is pointing in the direction of forward rotation.

**Direction of forward rotation
for the Left Hand wheel**

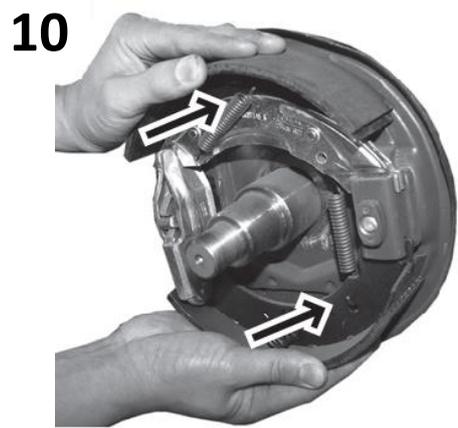


Direction of forward wheel rotation arrow is stamped into the plated shoe carrier adjacent to the spring.

The letter "L" will be visible next to the arrow when fitted to the Left hand brake assembly.

The letter "R" will be visible next to the arrow when fitted to the Right hand brake assembly.

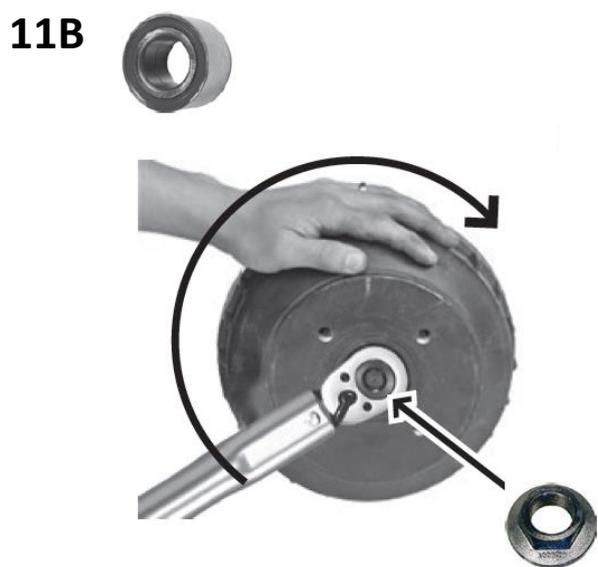
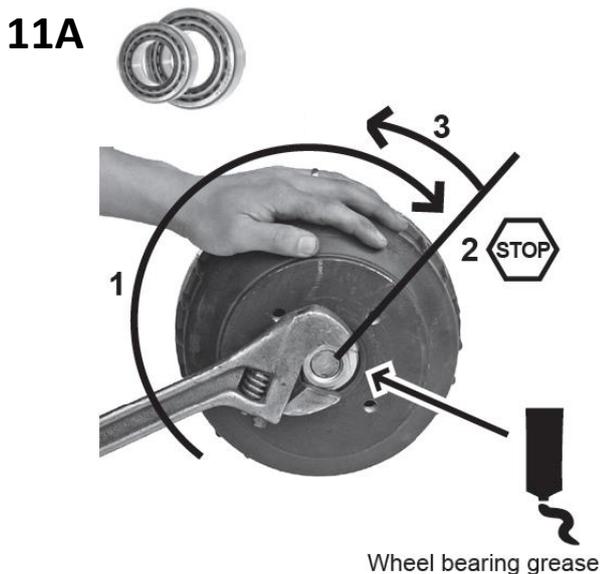
23. Spread the brake shoes and fit to the back plate, as shown in (10)



24. Engage the sliding shoe with the adjuster bolt, then repeat with the fixed shoe.
25. Secure the assembly in place to the back plate with the 2 new hooked retaining springs & cover plates (7).
26. Attach the brake cable to the eyelet on the expander hook and refit the cable cover plate.
27. Lubricate the expander

ALL (ALKO & Knott)

28. Re-fit the brake drum (**NOTE** : It is essential that flange or stake style hub nuts should be replaced every time)
 - For brake drums using taper roller bearings, suitably lubricate the bearings before fitting the hub nut. Tighten the nut until rotation of the drum is prevented, then slacken it off slightly, as appropriate (11A).
 - For brake drums using sealed for life bearings, tighten the hub nut with a torque wrench, according to the trailer manufacturer's instructions (11B)
29. Re-fit the hub cap & road wheels, re-tension the brake rod as appropriate (2) and adjust the brakes in accordance with the trailer manufacturer's instructions.



When replacing brake shoes and spring, it will be necessary to inspect the other associated brake components included within the brake mechanism. If these are found to be worn, damaged, corroded or not functioning correctly they must be replaced. The table below provides details of the common service components that may be required.

Associated Brake Service Parts

		
MP4664B EXPANDER FOR ALKO 2051 & 2361 BRAKES	MP4663B EXPANDER FOR ALKO 1637 BRAKES	MP4671B BRAKE COVER PLATE FOR ALKO
		
MP4654B ADJUSTER KIT FOR ALKO 200X50, 230X60	MP4653B ADJUSTER KIT FOR ALKO 160X37	MP4675B BRAKE CABLE EYELET FOR ALKO
		
MP4662B EXPANDER FOR KNOTT/IWT 200/203/250 BRAKES	MP4672B BRAKE COVER PLATE FOR KNOTT / IWT	MP4676B BRAKE CABLE EYELET FOR KNOTT / IWT
		
MP4652B ADJUSTER KIT FOR KNOTT / IWT 250X40	MP4651B ADJUSTER KIT FOR KNOTT / IWT 160/200/203	MP1891B NEUTRAL FLANGE NUT M24x1.5MM, FITS ALKO, KNOTT, BPW
		
MP1892B NEUTRAL FLANGE NUT M27x2MM, FITS ALKO, KNOTT, BPW	MP1895B M30 STAKE NUT WITH FLANGE FOR IWT POST 1997	