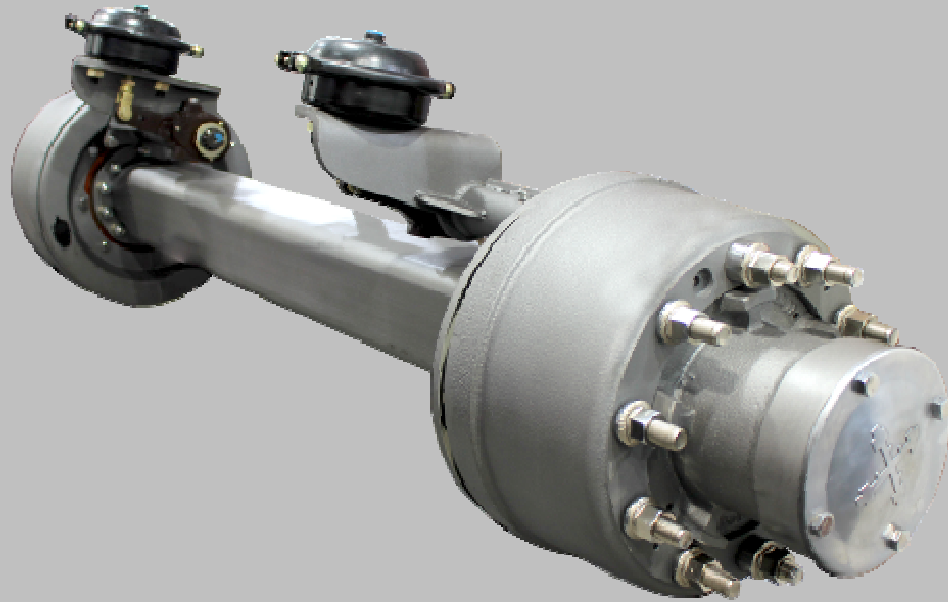


TRAILER AXLE SERVICE MANUAL



Meritor Trailer Axle Service Manual



Issued: 07/2012



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About This Manual

This manual provides maintenance and service information for Meritor trailer axles.

The procedures for removal, disassembly, assembly and installation in this manual are for current production Meritor trailer axles equipped with the following components.

- Wheel-end equipment
- Q Series cam brakes
- Meritor automatic slack adjusters
- Axle spindles with standard retention hardware
- Oil-lubricated wheel ends

Before You Begin

1. Read and understand all instructions and procedures before you begin to service components.
2. Read and observe all Warning and Caution hazard alert messages in this publication. They provide information that can help prevent serious personal injury, damage to components, or both.
3. Follow your company's maintenance and service, installation, and diagnostics guidelines.
4. Use special tools when required to help avoid serious personal injury and damage to components.

Hazard Alert Messages and Torque Symbols



WARNING

A Warning alerts you to an instruction or procedure that you must follow exactly to avoid serious personal injury and damage to components.



CAUTION

A Caution alerts you to an instruction or procedure that you must follow exactly to avoid damage to components. @ This symbol alerts you to tighten fasteners to a specified torque value.

2 .Exploded View

Trailer Axle Exploded View

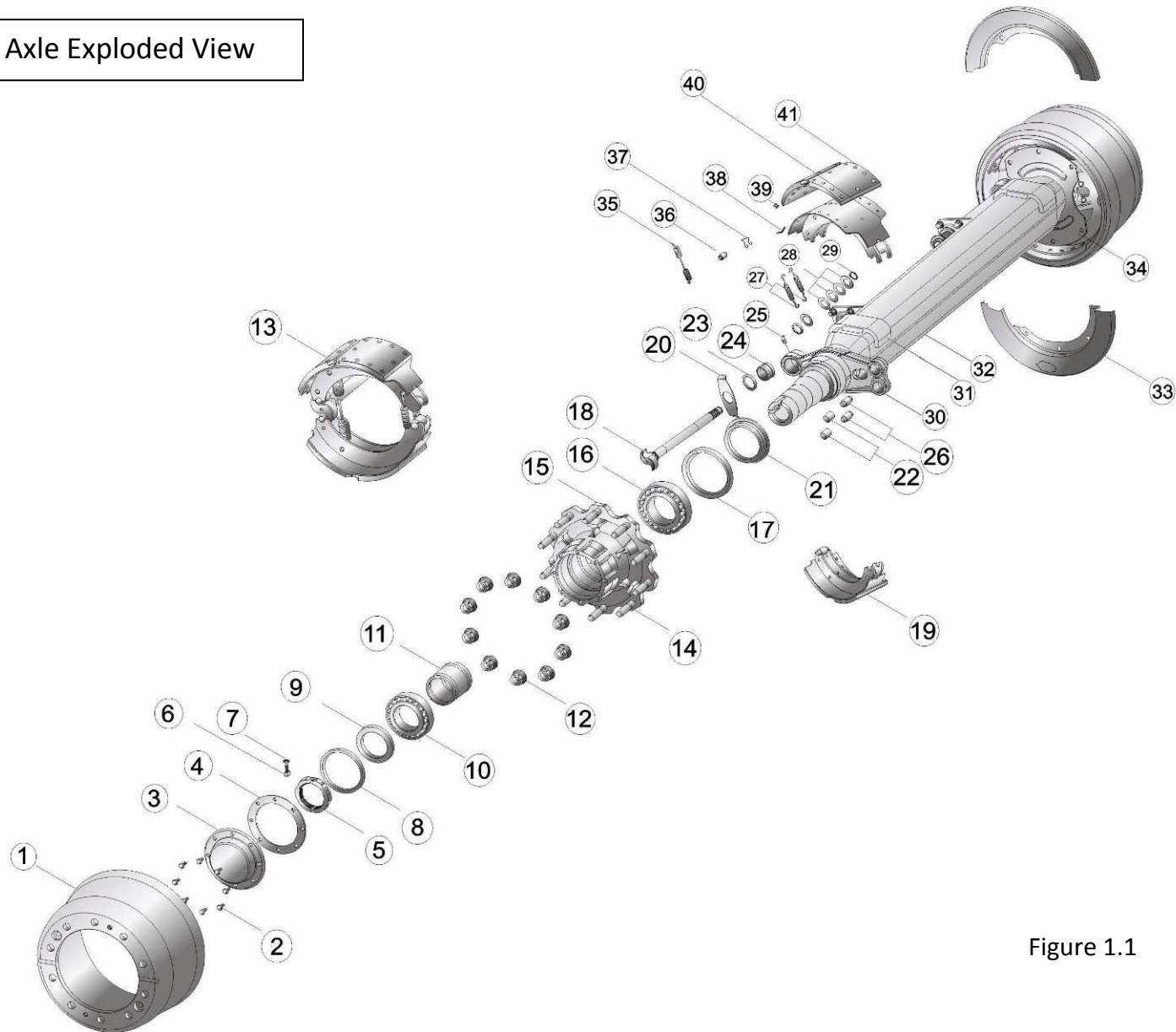


Figure 1.1

2. Exploded View



Description:

ITEM	Description
1	Brake Drum
2	Cap Screw
3	Hub Cap
4	Gasket
5	Hub Lock Nut
6	T - Bolt
7	Nut
8	Outer Oil Seal
9	Outer Oil Seed Ring
10	Outer Bearing
11	Distance Piece
12	Wheel Nut
13	Brake Assy
14	Wheel Stud
15	Hub
16	Inner Bearing
17	Inner Oil Seal
18	Cam Shaft
19	Brake Shoe Assy (Lining, Roller, Pin Return Spring, Retainer Shoe Roller, Rivets)
20	Washer Cam Head
21	Inner Oil Ring

ITEM	Description
22	Bushing Anchor Pin
23	Oil Seal
24	Bushing Cam
25	Grease Nipple
26	Anchor Pin Brake Shoe
27	Spring Brake Shoe Retaining
28	Washer
29	Circlip Cam Shaft
30	Brake Spider
31	Spring Seat
32	Trailer Housing
33	Dust Shield
34	Dust Shield Anchor Bracket
35	Return Spring Brake Shoe
36	Roller Brake Shoe
37	Retainer Shoe Roller
38	Pin Return Spring
39	Rivet
40	Brake Shoe Assy (Without Lining, Roller, Pin Return Spring, Retainer Shoe Roller, Rivets)
41	Brake Lining

Hazard Alert Messages

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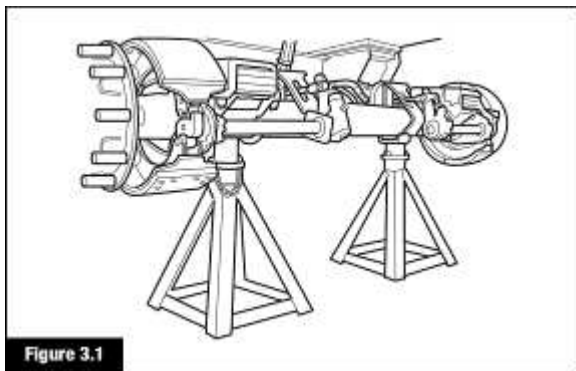
WARNING

To prevent serious eye injury, always wear safe eye protection when you perform vehicle maintenance or service. Park the vehicle on a level surface. Block the wheels to prevent the vehicle from moving. Support the vehicle with safety stands. Do not work under a vehicle supported only by jacks. Jacks can slip and fall over. Serious personal injury and damage to components can result.

Removal

Wheel Ends

1. Park the vehicle on a level surface. Block the wheels to prevent the vehicle from moving. Set the parking brake.
2. Raise the trailer until the tires are off the floor.
3. Place safety stands under the trailer frame or under each axle spring seat. Figure 3.1.



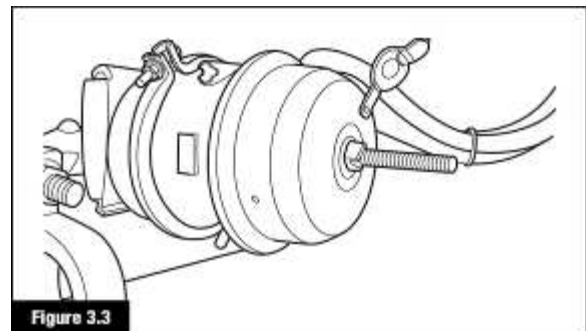
WARNING

Before you service a spring chamber, carefully follow the manufacturer's instructions to compress and lock the spring to completely release the brake. Verify that no air pressure remains in the service chamber before you proceed. Sudden release of compressed air can cause serious personal injury and damage to components.

4. Remove the tire and wheel assembly, using procedures specified by the wheel manufacturer. Figure 3.2.



5. If the axle is equipped with spring brake chambers, carefully compress and lock the springs so that they cannot actuate. Figure 3.3.



6. Rotate the manual adjusting nut CLOCKWISE until the linings clear the drums. Disengage the pin.

NOTE: Do not reuse either the hubcap gasket or the oil.

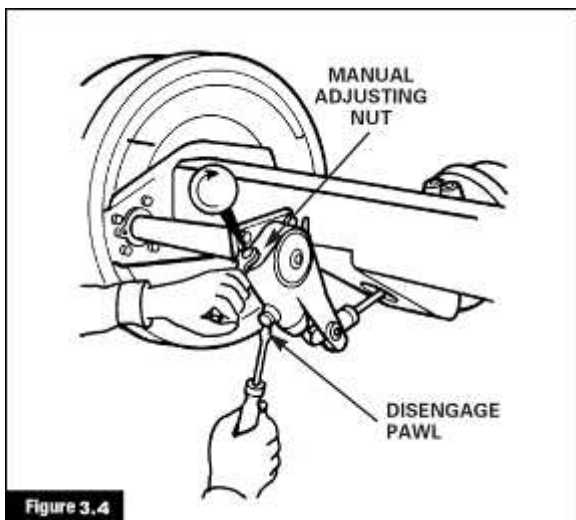


Figure 3.4

- Place a container under the hubcap to receive the draining oil then remove the hubcap and hubcap gasket. Figure 3.5

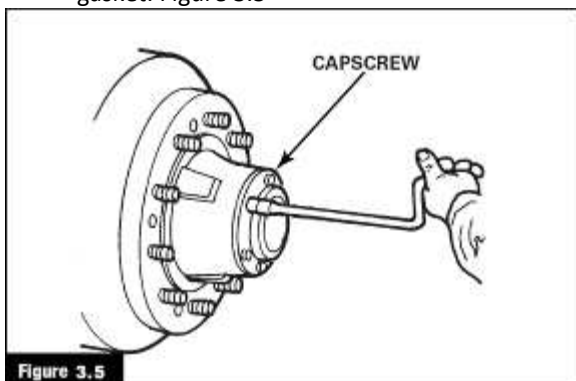


Figure 3.5

WARNING

Do not loosen the axle spindle nuts by either striking them directly with a hammer, or striking a drift or chisel placed against them. Damage to the parts will occur causing possible loss of axle wheel-end components and serious personal injury.

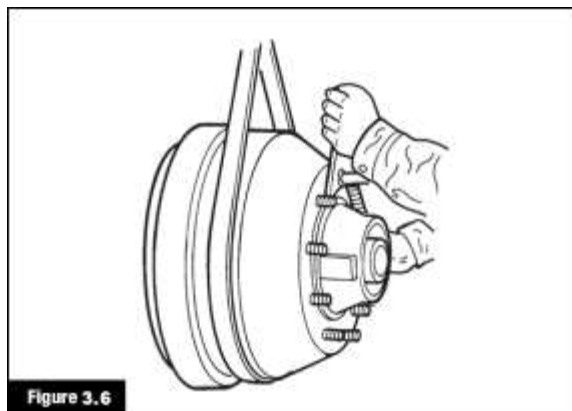


Figure 3.6

- Remove the T-Bolt from the Spindle lock nut. Then remove the jam nut, lock washer and adjusting nut. Figure 3.6

CAUTION

Be careful when you remove the hub and drum assembly that you do not damage the outer bearing by dropping it on the floor.

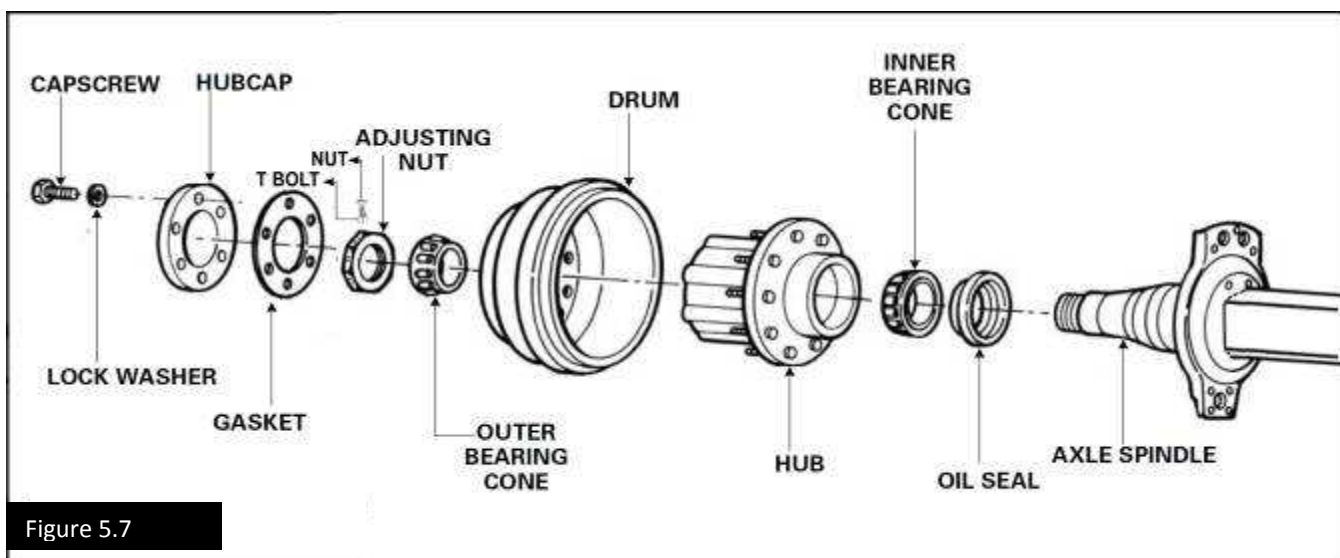


Figure 5.7

9. Remove the outer bearing cone, then the hub and drum assembly from the axle spindle. Support the hub and drum assembly during the entire removal process, as failure to do so may result in damage to the axle spindle threads. Figure 5.7
10. Remove the inner bearing cone and seal from either the spindle or hub. Discard the seal.



CAUTION

Never remove a Inner Oil Seal Ring with a hammer and chisel or other sharp tool. Damage to the axle oil seal collar will occur.

11. If the seal incorporates a separate Oil Seal Ring on the oil seal collar, loosen it by lightly striking with the round end of a ball-peen hammer, then remove it and discard. Figure 3.8.

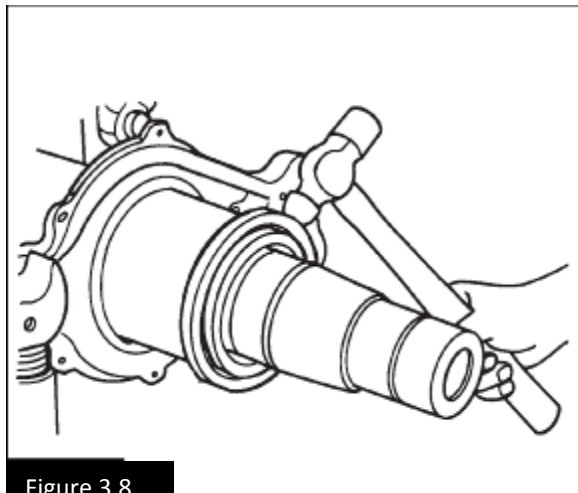


Figure 3.8

12. An alternate method is to use a slide hammer with a hook on the end of the tool. Figure 3.9.

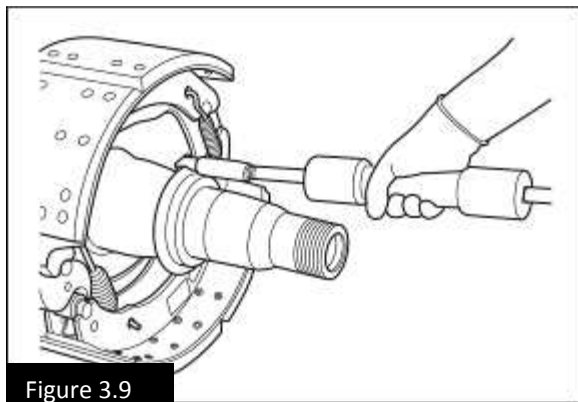


Figure 3.9

Brakes



ASBESTOS AND NON-ASBESTOS FIBERS

WARNING Some brake linings contain asbestos fibers, a cancer and lung disease hazard. Some brake linings contain non-asbestos fibers, whose long-term effects to health are unknown. You must use caution when you handle both asbestos and non-asbestos materials.

1. Push down on the bottom brake shoe and pull on the roller retaining clip to remove the bottom cam roller. Figure 3.10

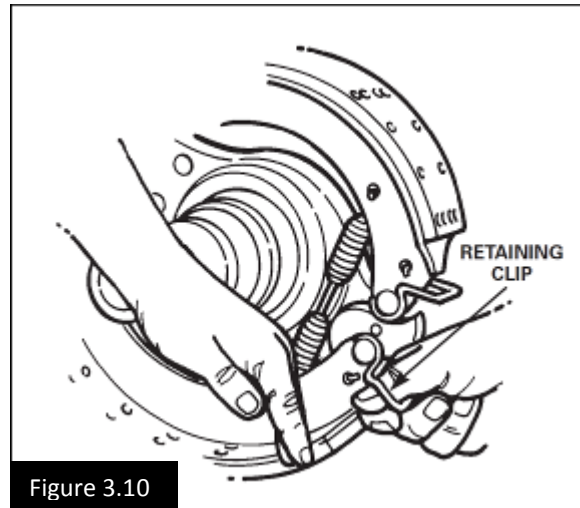


Figure 3.10

2. Lift the top brake shoe and pull on the roller retaining clip to remove the top cam roller.

NOTE: You can remove a standard return spring by hand, if one is installed. If a heavy-duty spring is installed, you will need a tool to remove the spring.

3. Lift the bottom shoe to release tension on the brake return spring. Remove the spring. Figure
4. Rotate the bottom shoe to release tension on the two retaining springs. Remove the springs and brake shoes. Figure 3.11
5. Disengage the slack adjuster from the air chamber push rod by removing the two slack adjuster clevis pins. Discard the two cotter pins that secure the clevis pins.

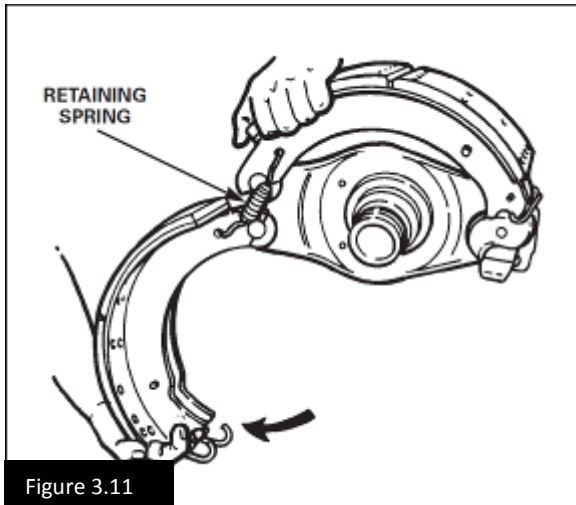


Figure 3.11

CAUTION

You must disengage a pull Pin or remove a conventional Pin before rotating the manual adjusting nut, or you will damage the Pin teeth. A damaged Pin will not allow the slack adjuster to automatically adjust brake clearance. Replace damaged Pins before putting the vehicle in service.

- Remove a conventional Pin or pry a pull Pin at least 1/32-inch (0.794 mm) to disengage the teeth. Rotate the manual adjusting nut **CLOCKWISE** to move the slack adjuster away from the clevis. Figure 3.12.

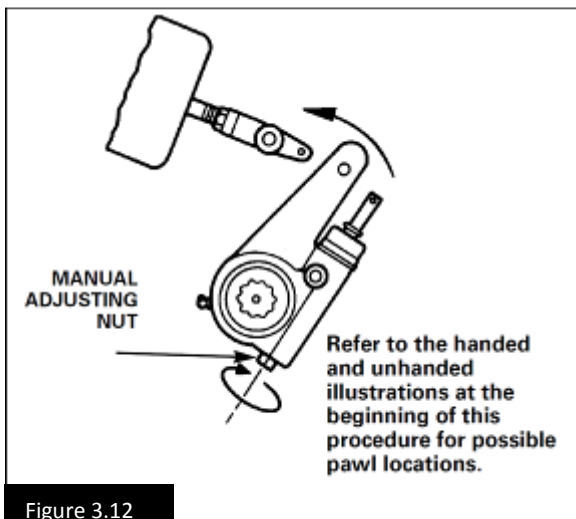


Figure 3.12

- Remove the snap ring, slack adjuster and spacer washers from the camshaft spline. Remove the camshaft and camshaft bushings.

- Remove the Circlip retaining the slack adjuster to the camshaft. Figure 3.13

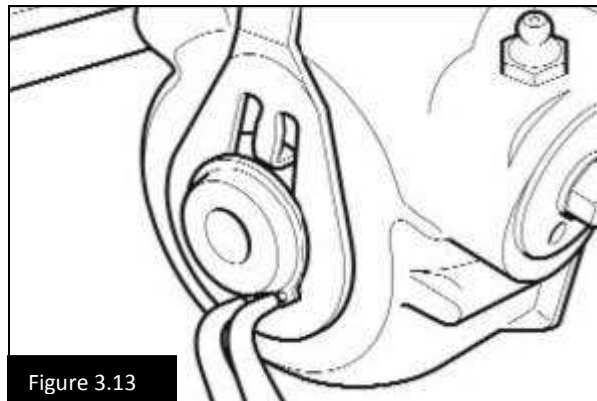


Figure 3.13

- Remove the Cam shaft supporting bracket mounted to the housing. Figure 3.14

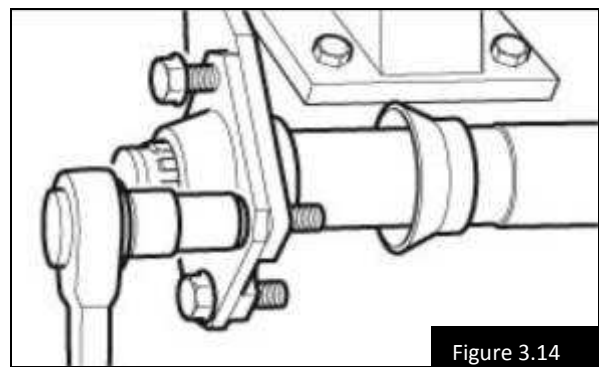


Figure 3.14

- Remove the dust cover . Figure 5.15

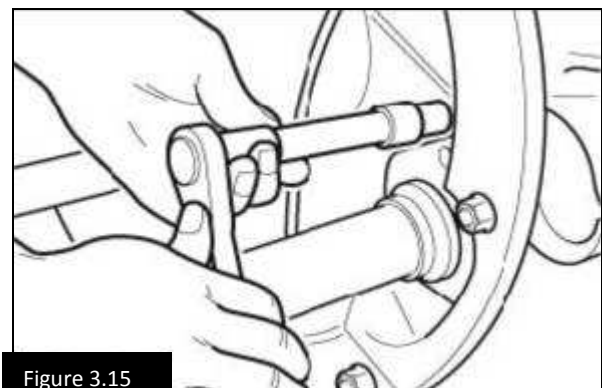
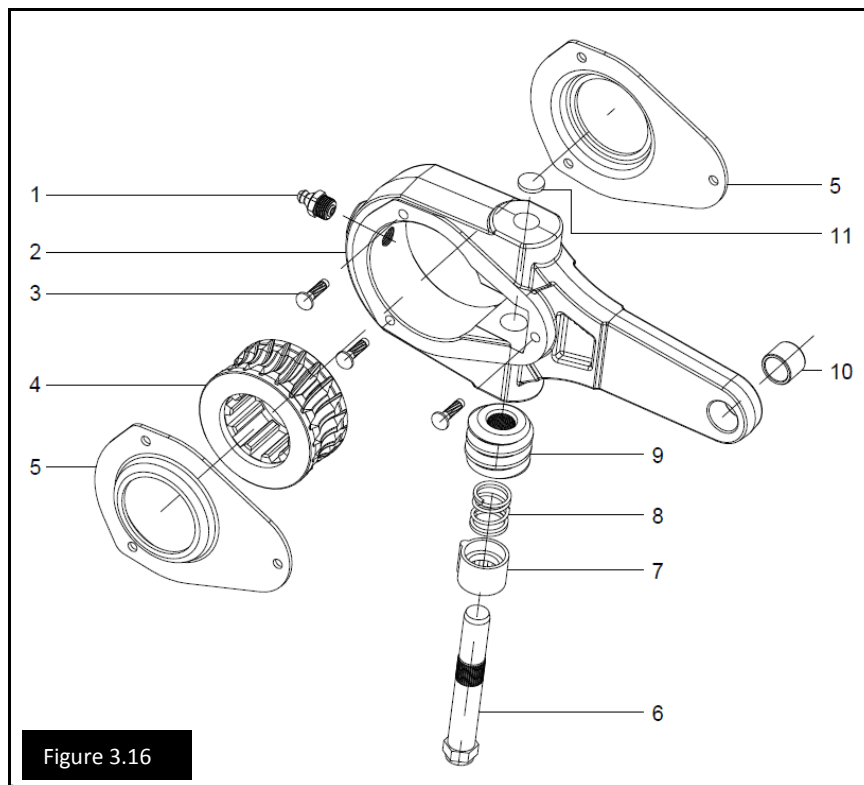


Figure 3.15

MANUAL SLACK ADJUSTER EXPLODED VIEW



SI No	Description	Part Number	Remarks
1	Manual slack adjuster Assy	180M3A	Slack length : 150 mm Spline : M38 X 24 X 1.5 DIN
2	Manual slack adjuster Assy	191L1A	Slack length : 160 mm Spline : 38 X 10- SAE

SL NO	DESCRIPTION	PART NUMBER		QUANTITY / SLACK ADJUSTER
		180 M3 A (38 x 24 spline)	191 L1 A (38 x10 spline)	
1	Grease Nipple	187 M1 0	187 M10	1
2	Housing Slack Adjuster	180M11	180M11	1
3	Rivet	185M1 0	185M10	6
4	Worm Wheel	181 M3 0	181 L10	1
5	Cover Plate	732M10P	732M10P	2
6	Pin	184M10P	184M10P	1
7	Lock Bush	183 M1 0	183 M10	1
8	Spring	811 M1 0	811 M10	1
9	Worm	182 L1 0	182 L10	1
10	Sintered Bush	758 N1 0	758 N10	1
11	Welsh Plug	186 M1 0	186 M10	1

Hazard Alert Messages

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WARNING

To prevent serious eye injury, always wear safe eye protection when you perform vehicle maintenance or service.

Kerosene can be flammable, poisonous and cause burns. Also follow the procedures below.

- _ Wear safe eye protection.
- _ Wear clothing that protects your skin.
- _ Work in a well-ventilated area.
- _ do not use gasoline or solvents that contain gasoline. Gasoline can explode.

Clean, Dry and Inspect Parts

Steam Clean the Axle Assembly

Steam clean a complete axle assembly to remove heavy dirt.

- **Before steam cleaning the assembly:** Cover all axle assembly openings, such as vents in the hubcaps and air chambers, to help keep water out of these openings during high-pressure steam cleaning.
- **After steam cleaning the assembly:** Grease camshaft bushings and automatic slack adjusters until new grease flows from these parts. The grease will help to remove water that may have entered the parts during steam cleaning.

Clean Smooth Parts



CAUTION

Do not use hot solution tanks or water and alkaline solutions to clean ground or polished parts. Damage to parts can result.

1. Use a solvent cleaner to clean machined parts and surfaces, such as axle spindles and camshaft journals. Do not use a hot solution tank with water, steam or alkaline solutions. This will cause corrosion. Figure 4.1.

2. Remove gasket material from parts such as the hubcap gasket mounting face. Be careful not to damage machined surfaces.

Clean Rough Parts

1. Clean rough parts with either solvents or in hot solution tanks with a weak alkaline solution.

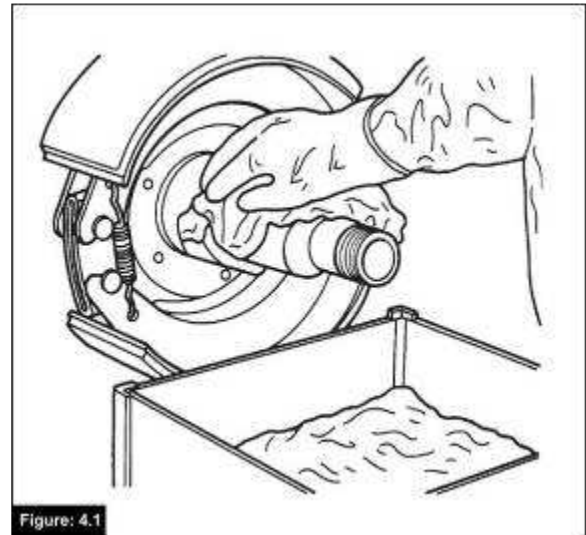


Figure: 4.1

2. Leave parts in the tank until they are completely cleaned and heated. When the parts are clean, remove them from the tank and wash them with water until the hot solution is removed.

Dry Cleaned Parts

1. Dry parts immediately after cleaning using clean paper, rags or compressed air.
2. Do not use compressed air to dry bearings. This may cause small abrasive particles to contaminate the bearings and may result in reduced bearing life.

Prevent Corrosion

1. If parts are to be immediately assembled, apply lubricant to all machined surfaces.
2. If parts are to be stored, apply a coating that prevents corrosion to all machined surfaces.

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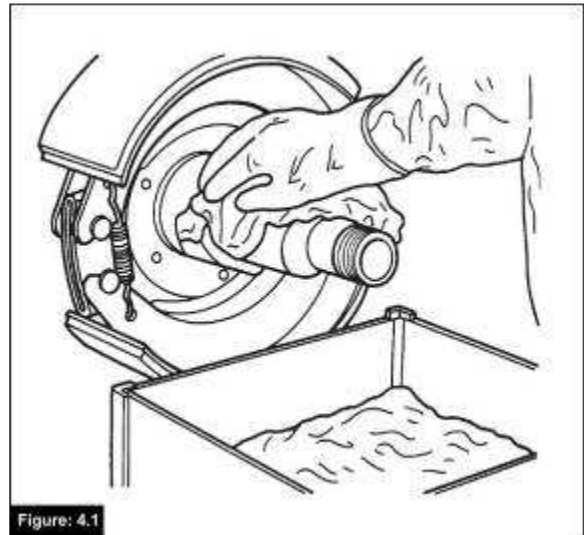


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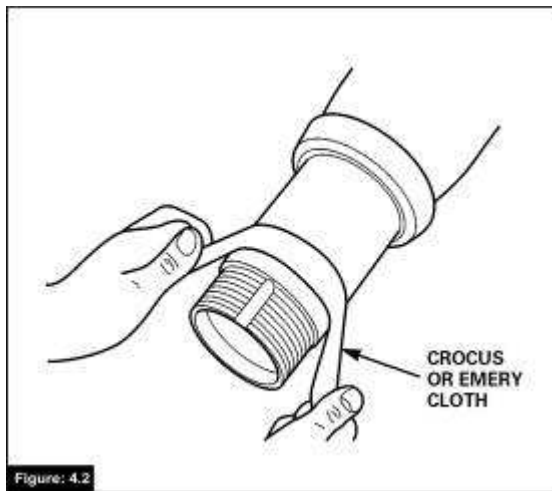
1. If parts are to be immediately assembled, apply lubricant to all machined surfaces.
2. If parts are to be stored, apply a coating that prevents corrosion to all machined surfaces.

Inspect Parts

It is important to inspect all axle components for damage or wear, and to repair or replace them as required before assembly.

Performing these procedures now can help prevent future problems.

1. Inspect all machined surfaces of the axle assembly. Repair any scratches, nicks or mars with a crocus or emery cloth. Figure 4.2.



2. Inspect the axle spindle threads. Repair the damaged threads with a correct sized die.
3. Inspect the wheel-end retention hardware including nuts, washers and set screws. Replace them if any of this equipment is worn or damaged.
4. Inspect all fasteners and tapped holes. Replace damaged fasteners and repair damaged tapped hole threads with a correct sized die.
5. Inspect the entire axle assembly for cracks.
 - If a crack is found in the axle tube, brake spider or axle spindle: Replace the axle.
 - If a crack is found in a weld attaching any component to the axle, and if this crack extends into the axle tube: **Replace the axle.**
 - Note that judgment must be used in this repair. These components are precisely located. If any question exists regarding whether these components can be correctly located, replace the axle.

6. Periodic removal of the wheel-end equipment either for maintenance or repair presents the opportunity for axle spindle inspection.

Visually inspect the spindle for cracks.

Surface rust, scratches, or slight pitting on the wheel spindle bearing or seal journals may be polished or sanded out with an emery or crocus cloth. Do not reduce the diameters of the journals beyond the axle manufacturer's specifications.

Excessive pitting, scratches or fretting on the spindle bearing or seal journals covering more than 50 percent of the surface require axle replacement.

Spindle threads may be cleaned with a wire brush or chased with a die. Repair welding of the spindle threads is not permitted. Consult the trailer axle manufacturer if any wear is questionable.

- **If any crack is found in the spindle:** Immediate axle replacement is necessary. Neither in-house repair, nor repair by an outside contractor specializing in spindle welding repairs, is allowed.

7. Inspect the hubs or spoke wheels. If damaged or worn, repair or replace as outlined in the appropriate component manufacturer's maintenance manual.
8. Inspect the dust shields if installed. Repair or replace damaged shields as necessary.
9. Inspect the brake equipment. Repair or replace damaged components. Refer to the Service Notes page on the front inside cover of this manual for instructions on how to obtain the correct Meritor maintenance manual for the brake you are servicing. Follow the manufacturer's instructions for components that are not supplied by Meritor.
10. Check the roller for flat spotting and brinelling. If found replace the rollers.
11. Check and replace the camhead washer if found worn-out and distorted
12. Replace return spring, anchor springs and roller retainers if found elongated and damaged. It is recommended to replace all the springs at the same time.

4. Prepare Parts for Assembly

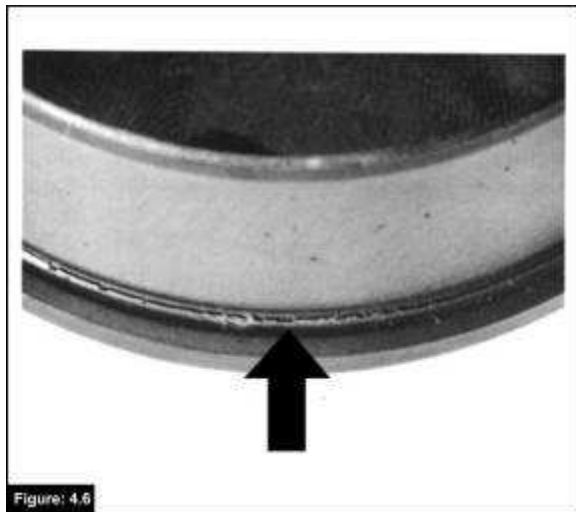


13. Check camshaft seals for wear and damages. It is recommended to replace all the camshafts seals during overhauling
14. Inspect the bearings using the guidelines detailed below or literature published by the bearing manufacturer.
 - If any of the conditions shown exist: Replace the bearings.
 - If there is a question as to whether any of these conditions exist: It makes sense to replace bearings, since bearing costs are small compared to the potential cost of a breakdown.
 - In many instances, the conditions shown are caused by problems such as debris or water contaminating the lubricant, incorrect bearing adjustment, or inadequate lubricant. If these problems are not corrected, the conditions will persist.

A. The roller ends are worn. Figure 4.5.



B. The rib is worn. Figure 4.6.



C. The roller cage is damaged. Figure 4.7 and Figure 4.8.



D. The roller ends and the ribs are scored. Figure 4.9 and Figure 4.10.

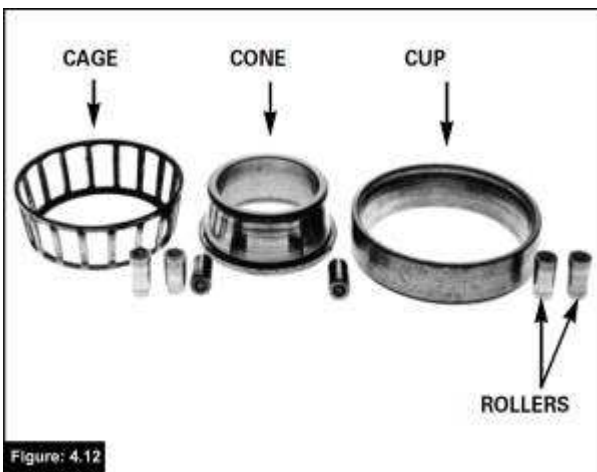


4. Prepare Parts for Assembly

E. The bearing is discolored. Figure 4.11.



F. The cage, cup, cone or rollers are grooved. Figure 4.12.



G. The races or rollers are bruised with deep indentations. Figure 4.13



H. The races or rollers are etched. Figure 4.14

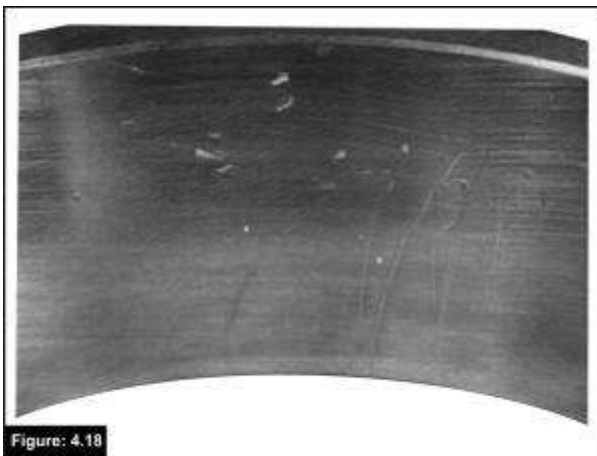


I. The races or rollers are spalled. Figure 4.15 and Figure 4



4. Prepare Parts for Assembly

- J. The races or rollers are gouged or nicked. Figure 4.17 and Figure 4.18.



- K. The races or rollers are brinelled. Figure 4.19.



Hazard Alert Messages

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ASBESTOS AND NON-ASBESTOS FIBERS WARNING

Some brake linings contain asbestos fibers, a cancer and lung disease hazard. Some brake linings contain non-asbestos fibers, whose long-term effects to health are unknown. You must use caution when you handle both asbestos and non-asbestos materials.

Assembly of Brakes

Most Meritor trailer axles are equipped with Q Series cam brakes.

This section details procedures for installing this brake. For information on lubricants specified, refer to Section 14.

1. Install the camshaft and camshaft bushings as detailed in Section 12.
2. Lubricate the camshaft and slack adjuster spline with Multi purpose chassis grease. Install the slack adjuster, washers and snap ring. Figure 5.1.
3. Check the radial play of the cam shaft bushing. If it exceeds 0.80 mm replaces the bushes. Figure 5.1

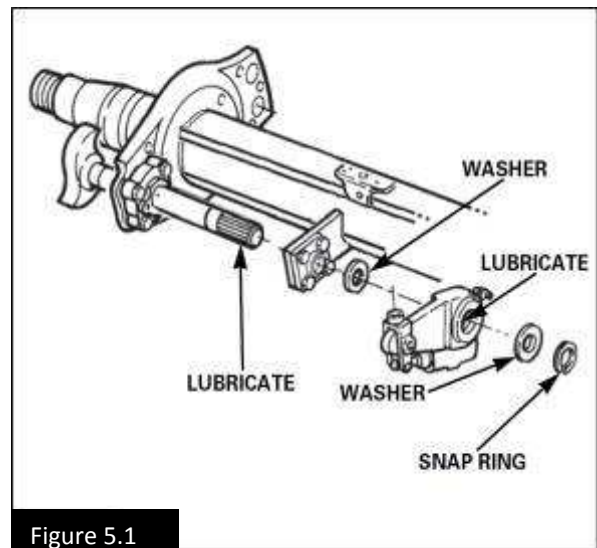


Figure 5.1



CAUTION

You must disengage a pull pin before rotating the manual adjusting nut, or you will damage the Pin teeth. A damaged Pin will not allow the slack adjuster to automatically adjust brake clearance. Replace damaged Pins before putting the vehicle in service.

4. Rotate the slack adjuster manual adjusting nut to align the holes in the slack with the holes in the push rod clevis.

CAUTION

Always replace used clevis pin retainer clips with new ones when you service an automatic slack adjuster or air chamber. Do not reuse retainer clips. When you remove a retainer clip, it can bend out of shape and lose retention. Damage to components can result.

5. Lubricate both slack adjuster clevis pins with Multi purpose chassis grease, then install through the holes in the clevis and slack. Secure in place with clevis pin retainer clips. Replace used cotter pins with clevis pin retainer clips. Do not reuse cotter pins.
6. Apply a small amount of Meritor Brake Lubricant to the bores of the anchor pin bushes and a light covering to both sides of the Brake Spider around the anchor pin bushes. Push the anchor pins into position in the anchor bracket. (Figure 5.2) Where applicable, fit new O rings to the anchor pins (Fig 5.3)

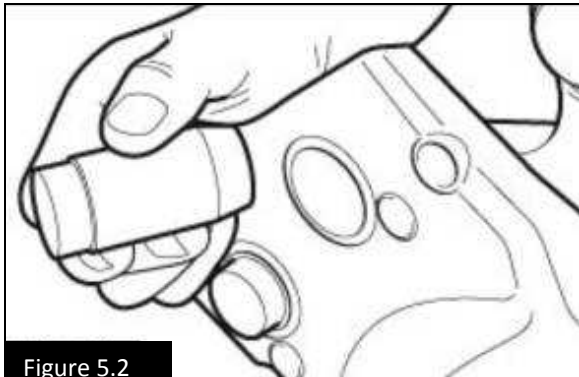


Figure 5.2

7. Lubricate anchor pins with Multi purpose chassis grease, where the brake shoes touch them.

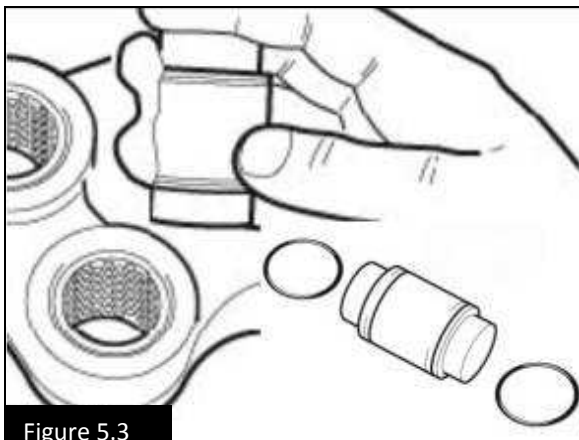


Figure 5.3

8. Install the Cam head washer and the Cam shaft into the brake Spider.
9. Check the up-and-down and side-to-side end play of the camshaft. If total movement is more than 0.030-inch (0.76 mm) in either direction, replace the bushings or camshaft as detailed in Section 12. Figure 5.4.

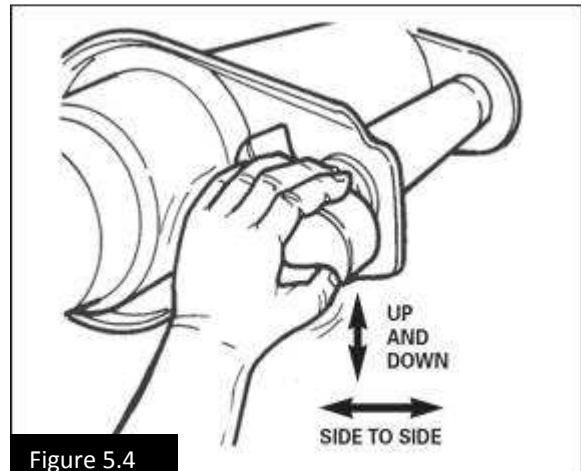


Figure 5.4

10. Check the axial end play of the camshaft. If total movement is more than 0.060-inch (1.52 mm), replace the bushings, camshaft or both as specified in Section 12. Figure 5.5

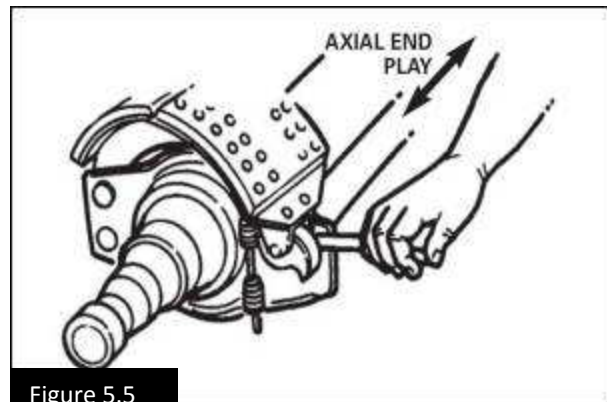


Figure 5.5

11. Check the shoes for elongated rivets holes. Weld damages and for the wear.
12. Replace the shoes if any one of the readings exceed the specified limits figure 5.6

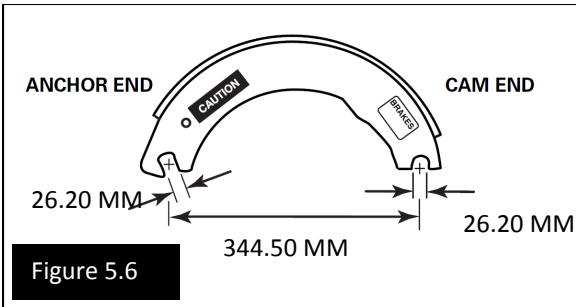


Figure 5.6

13. Check the brake linings. Replace the lining when found worn to the level of wear indicator (built in the side wall of the linings at 4.5 mm thickness).
14. During relining, make sure the contact surfaces of shoe and lining are clean. Install the rivets in the sequence shown in the fig 5.7.

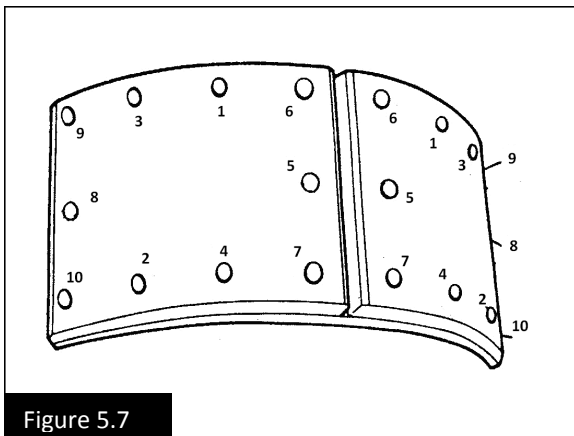


Figure 5.7

15. Check the gap between the shoe and lining along the sides and the ends. This should not exceed 0.25 mm but between webs 0.60 mm gap is acceptable. Figure 5.8

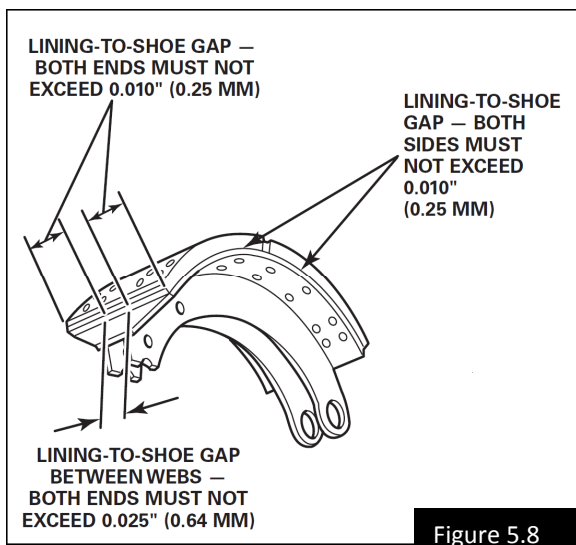


Figure 5.8

16. Place the upper shoe in position on the top anchor pin. Hold the lower brake shoe on the bottom anchor pin and install two new brake shoe retaining springs. Figure 5.9.

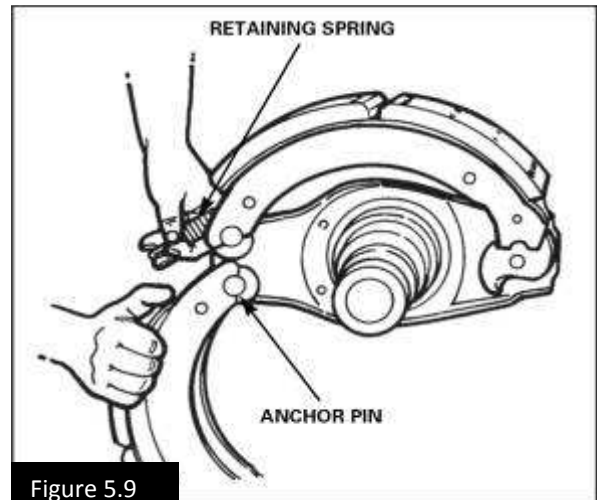


Figure 5.9

17. Rotate the lower brake shoe FORWARD to place tension on the retaining springs and install a new return spring. Figure 5.10.

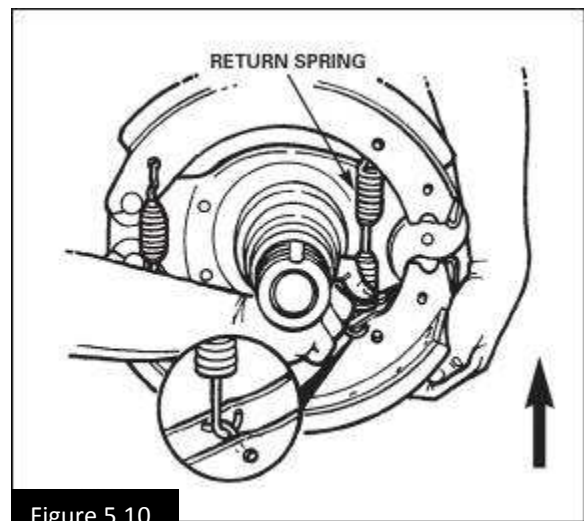


Figure 5.10

18. Lubricate the cam rollers with grease where they touch the brake shoe webs, making sure not to get lubricant on the outer diameter of the roller that touches the camshaft head.
19. Pull each brake shoe away from the cam permitting enough space to install the cam rollers. Press the ears of the roller retainer clip together to fit the retainer between the brake shoe webs. Figure 5.11.

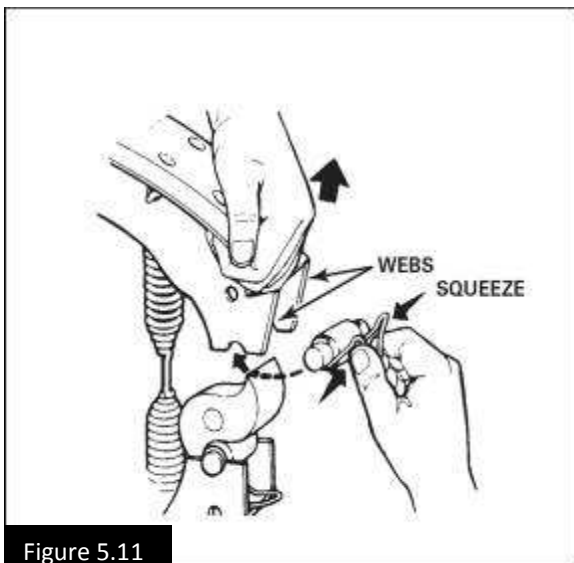


Figure 5.11

- Grease the slack adjuster until new grease flows from around the inboard splines and from the Pin assembly.
- Wipe away excess grease that purges from the joints. This helps ensure that road dirt is not attracted to the lube point and that grease does not drop onto either the brake linings or road surface.

20. Push each roller retainer clip into the brake shoe until its ears lock in the holes in the shoe webs. Figure 5.12.

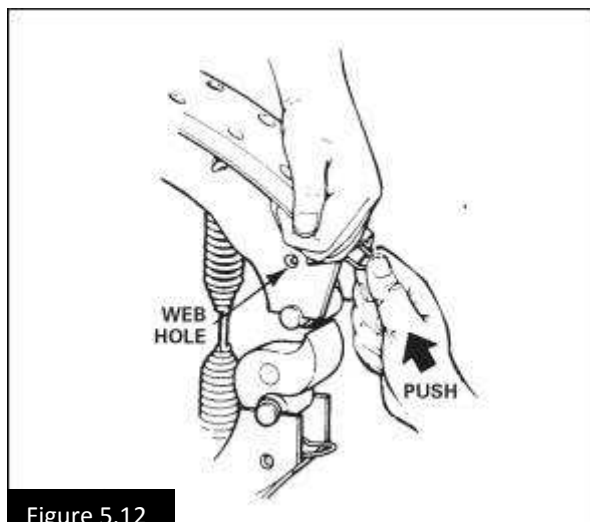


Figure 5.12

21. Lubricate the camshaft bushings and slack adjusters as follows.
- Wipe off the grease fittings to prevent contamination from being injected into the joints along with grease.
 - Grease the camshaft bushings until new grease flows from the seals. If the cam bushing seals at the spider end of the cam are installed correctly, grease will flow out toward the slack adjuster.

Assembly of Wheel Ends

1. If the seal incorporates a separate Oil seal ring, apply a thin coat of sealant around the axle oil seal collar. Then using an installation tool, drive the wiper onto the oil seal collar until its edge is flush with the bearing shoulder. Figure 5.13.

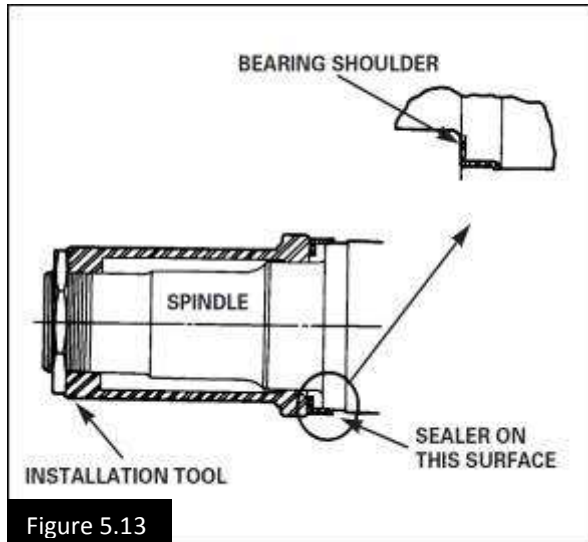


Figure 5.13

2. Coat the bearing cones with oil. Apply a light film of grease to the axle spindle bearing journals to help protect them from fretting corrosion. Do not use oil on the spindle bearing journals.



WARNING

Use a brass or synthetic mallet for assembly and disassembly procedures. Do not hit steel parts with a steel hammer. Pieces of a part can break off. Serious personal injury and damage to components can result.

3. Install the inner bearing cone inside the hub. Lubricate the seal according to the seal manufacturer's recommendations, and then place it onto the installation tool.
4. Align the tool with the hub seal bore and drive the seal until it bottoms out in the hub seal bore. Rotate the tool and apply several light blows to ensure the seal is correctly seated. Check the bearing to verify it rotates freely. Figure 5.14.

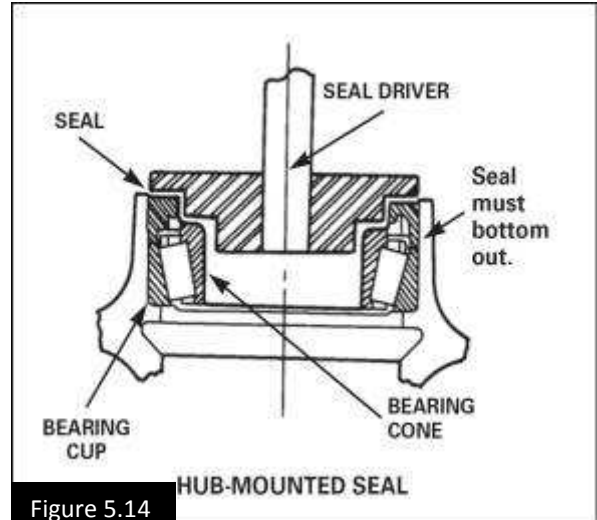


Figure 5.14

5. Spread the grease evenly around the spindle's circumference using a suitable soft brush. Using the excess grease on the brush, apply an even film around the circumference of the bearing journal shoulder, area 'B' (Fig 4.15). This will reduce spindle wear and assist future removal of the hub assembly.

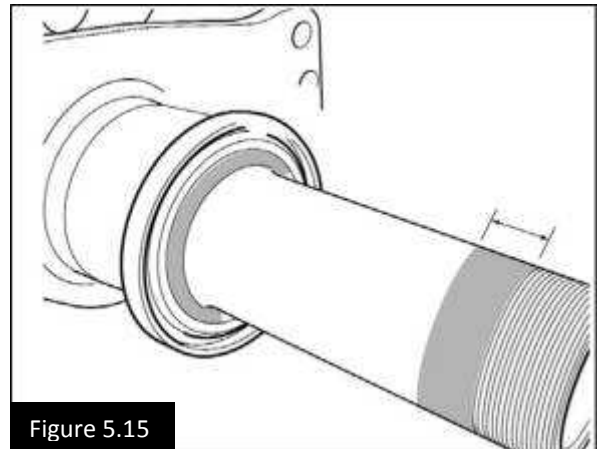


Figure 5.15

NOTE: The grease must be distributed evenly within the cavity between the inner and outer bearings. Ensure the bearing bore/s is clean and free from any excess grease.

6. Push the hub assembly onto the axle spindle. Push the assembly fully onto the spindle taking care not to damage the oil seal or spindle threads. Install the Outer Bearing to the Hub assembly. Figure 5.16.
7. Install the Shims, Distance piece and the outer Bearing into the Hub Assy. 1.5 Kgs of Multi purpose chasses grease.

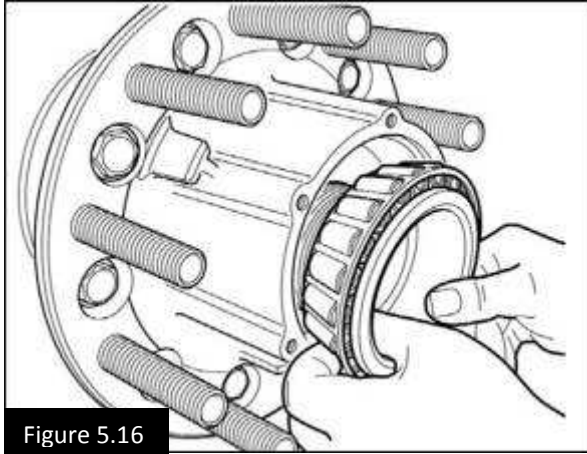


Figure 5.16

8. Fit the hub lock nut, and tighten using a suitable size socket (3/4" drive recommended), until the nut abuts the bearing cone. Figure 5.17.

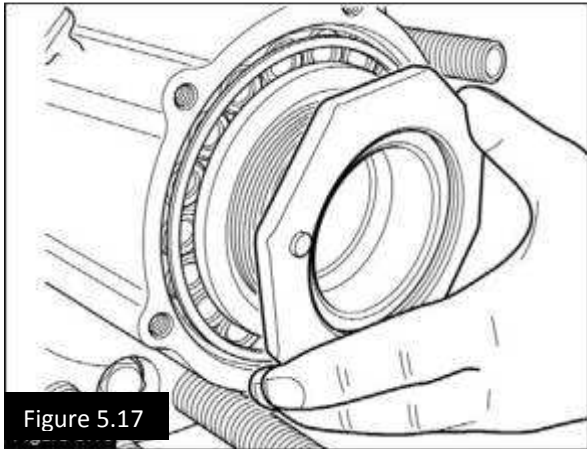


Figure 5.17

9. Tighten the nut to 36 Lb. Ft. (50 Nm). While rotating the wheel end in both directions (Fig. 5.18).

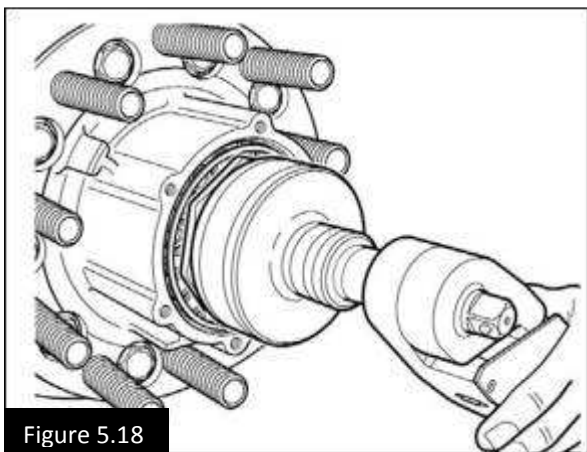


Figure 5.18

⚠ CAUTION: Too loose an adjustment will reduce bearing life, increase spindle wear and cause seal leaks. Too tight an adjustment will reduce bearing life and increase spindle wear. Extremely tight adjustments can cause complete bearing failure and possible loss of wheel end equipment.

10. Check the wheel bearing end play as follows.
 - A. Attach the magnetic base of a dial indicator to the spindle.
 - B. Touch the dial indicator stem to the hubcap gasket face. (Fig. 5.19).

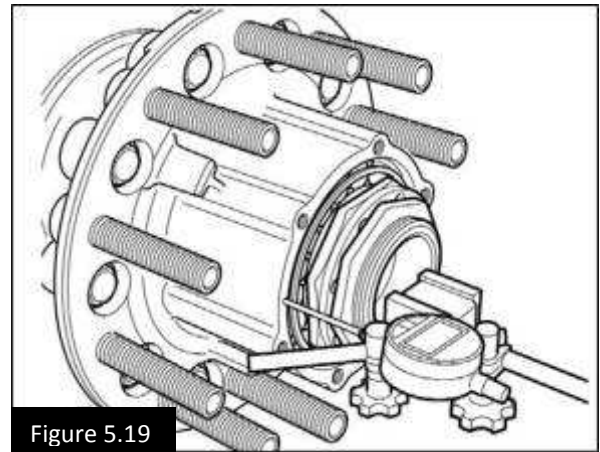


Figure 5.19

- C. Push the hub inward until the dial indicator does not change. Set the dial indicator to ZERO.
- D. Pulling back the hub outward will show the hub End play.

⚠ WARNING: You must adjust wheel bearing end play to within 0.001-0.005-inch (0.025-0.127 mm). An adjustment that is too loose will reduce wheel-end bearing life, increase spindle wear and cause seal leakage. An adjustment that is too tight can affect wheel-end bearing performance. Loss of wheel-end components, serious personal injury and damage to components can result.

- If end play falls within 0.001-0.005-inch (0.025-0.127 mm), the bearing setting is correct. If end play does not meet this requirement carry out the following procedure.
- Remove the hub locknut.

- Change the Thickness of the Shims to achieve the desired end play.
 - Increase the Shims thickness to reduce the End play.
 - Decrease the spacer thickness to increase the End play.
 - Refit the hub locknut and tighten to 36 Lb. Ft. (50 Nm).
 - Check end play again.
11. Once the desired end play is achieved, install the T-Bolt into the hub lock nut using a suitable socket. The T Bolt prevents the hub lock nut from loosening
 12. Press the Hub outer oil seal into the hub assembly using a suitable oil seal pressing tool.
 13. Check the gasket location area on the hub face is clean and fit the hub cap gasket and hub cap, align the hub cap retaining screw holes and fit the hub cap retaining screws (Fig. 4.20).

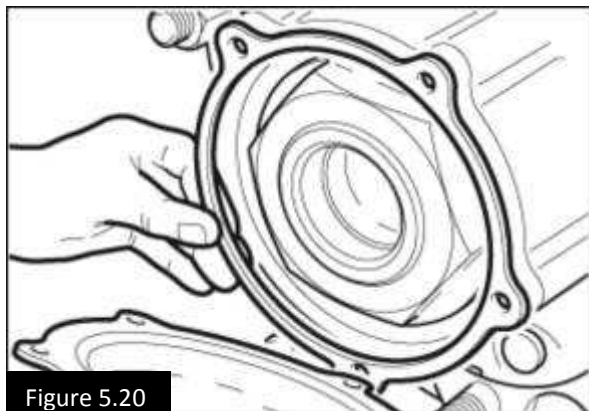


Figure 5.20

12. Tighten the hub cap retaining screws evenly. Finally tighten the hub cap retaining screws to the torque. 36 Lb. Ft. (50 Nm). Ensure the gasket is compressed evenly and not damaged (Fig 4.21).

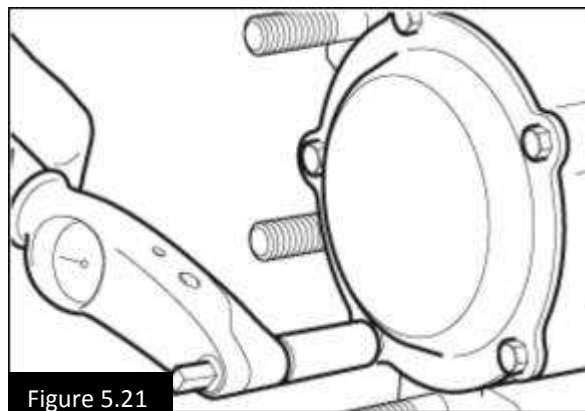


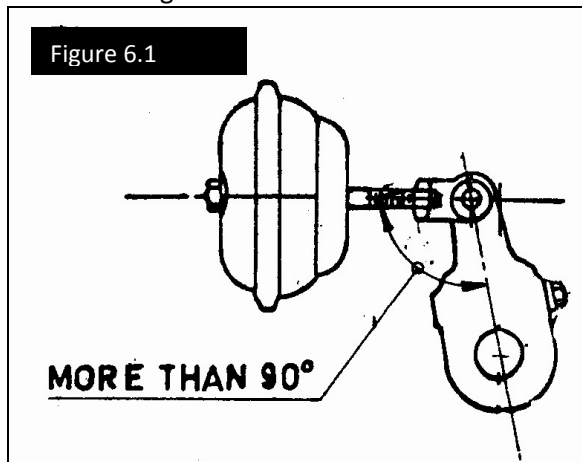
Figure 5.21

13. Support the brake drum using a sling or other appropriate method and Install the Brake drum into the Hub Assembly.

Brake adjustment

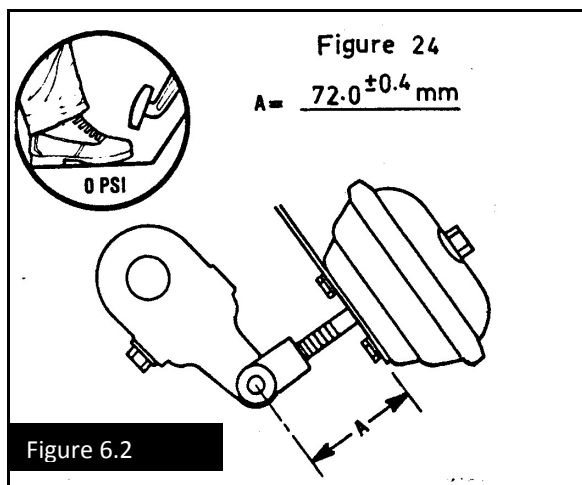
1. Re fix the drum and mounts the wheels.

- turn the adjusting nut of the slack adjuster till the lining touches the drum
- Turning the adjusting nut in the opposite direction for one or two clicks so that the lining just clears the drum.
- Rotate the drum and check the running clearance. It will be around 0.25 to 0.40 mm. Figure 6.1



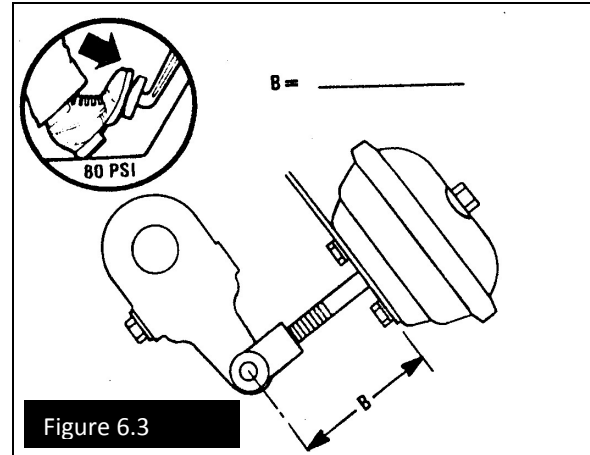
2. While the brakes are not applied check the distance between the air chamber mounting face and the center of the slack adjuster clevis pin. Figure 6.2.

- If the reading is not 72 +/- 0.40 mm, disconnect the yoke from slack adjuster. Slacken the lock nut rotate the yoke as necessary and re fit.



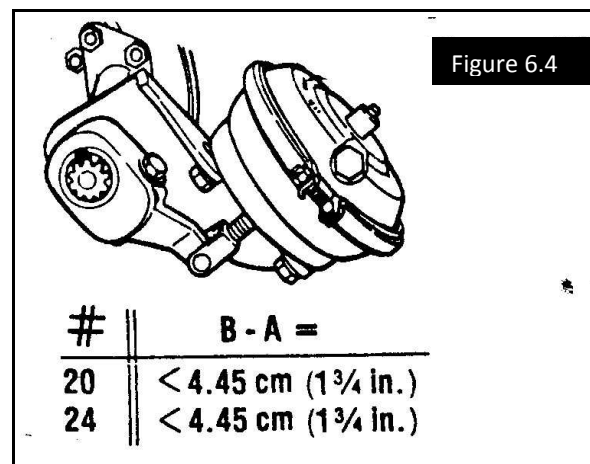
- Brakes are to be adjusted whenever the stroke length exceeds 44.50 mm

3. While the brakes are applied, measure the distance again. Figure 6.3



4. The difference between the above two readings is the stroke of the air chamber. This should not exceed the prescribed limit. Figure 6.4

5. Keep the stroke as minimum as possible



Maintenance Schedules

Check Brake Adjustment & Wheel Nut Torques:

- Before entering service.
- After 150 Km.
- After 1500 Km.
- Every 3 months.
- After any wheel fixing removal.
- After any brake service.

Hub and Bearing Inspection, Including Oil Seal Replacement:

- Whenever hubs are removed from axle.
- Annually after 1st major hub overhaul.

Minor inspection (during every lubrication schedule)

- Spider mounting and Plummer block mounting bolts.
- complete retraction of return springs
- left over lining thickness

Major inspection (during every relining)

- Brakes spider for distortion and loose mounting bolts
- Anchor pins and rollers for wear
- Brake shoes for wear and cracks
- Camshaft seals for leak and damage.
- Brake Drums for cracks, scratches and scoring.
- Ensure same type air chamber and slack adjuster is used on both sides of the axle. Ensure equal stroke length on all wheels.

Torque Values

Hub / Spindle lock nut.	50 Nm
T – Bolt	55 – 65 Nm
Hub cap retaining screws. (M8).	45 – 55 Nm
Wheel nuts	680 – 750 Nm
Plumber Block Mounting bolts (M10).	55 – 65 Nm
Dust shield mounting bolts (M10)	55 – 65 Nm
Air chamber mounting nuts	180 - 210 Nm

Hub Bearings:

Multipurpose chassis grease – NLG1-3.

Hub & Bearing Grease Fill Volumes

Hub Cavity	1 Kg / Hub
Inner Bearing.	35 – 40 gm
Outer Bearing	35 - 40gm
Hub Cap	Nil



CAUTION: Only use the grease that is specified. Under no circumstance should any other type of grease be used.

Recommended Lubricants

FOR FURTHER INFORMATION CONTACT

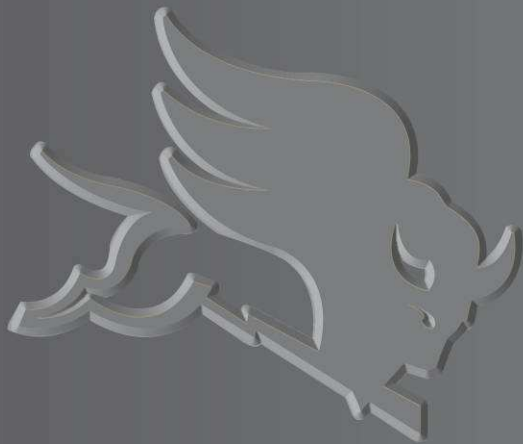
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