SERVICE REPAIR

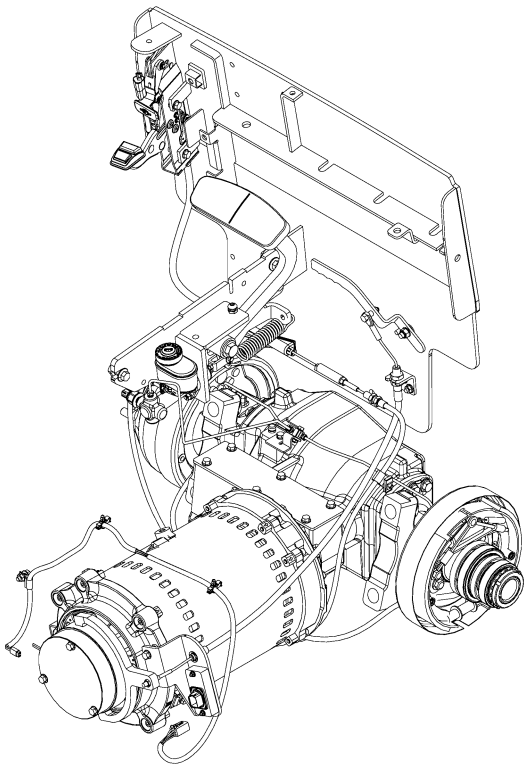
MANUAL

Hyster A269 (E30XN, E35XN, E40XN) Forklift

HYSTER

BRAKE SYSTEM

E1.6-2.0XN (E30-40XN) [A269]



HYSTER

PART NO. 4025374

1800 SRM 1438

SAFETY PRECAUTIONS
MAINTENANCE AND REPAIR

- When lifting parts or assemblies, make sure all slings, chains, or cables are correctly fastened, and that the load being lifted is balanced. Make sure the crane, cables, and chains have the capacity to support the weight of the load.
- Do not lift heavy parts by hand, use a lifting mechanism.
- Wear safety glasses.
- DISCONNECT THE BATTERY CONNECTOR before doing any maintenance or repair on electric lift trucks. Disconnect the battery ground cable on internal combustion lift trucks.
- Always use correct blocks to prevent the unit from rolling or falling. See HOW TO PUT THE LIFT TRUCK ON BLOCKS in the **Operating Manual** or the **Periodic Maintenance** section.
- Keep the unit clean and the working area clean and orderly.
- Use the correct tools for the job.
- Keep the tools clean and in good condition.
- Always use **HYSTER APPROVED** parts when making repairs. Replacement parts must meet or exceed the specifications of the original equipment manufacturer.
- Make sure all nuts, bolts, snap rings, and other fastening devices are removed before using force to remove parts.
- Always fasten a DO NOT OPERATE tag to the controls of the unit when making repairs, or if the unit needs repairs.
- Be sure to follow the **WARNING** and **CAUTION** notes in the instructions.
- Gasoline, Liquid Petroleum Gas (LPG), Compressed Natural Gas (CNG), and Diesel fuel are flammable. Be sure to follow the necessary safety precautions when handling these fuels and when working on these fuel systems.
- Batteries generate flammable gas when they are being charged. Keep fire and sparks away from the area. Make sure the area is well ventilated.

NOTE: The following symbols and words indicate safety information in this manual:

WARNING

Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury and property damage.

On the lift truck, the WARNING symbol and word are on orange background. The CAUTION symbol and word are on yellow background.

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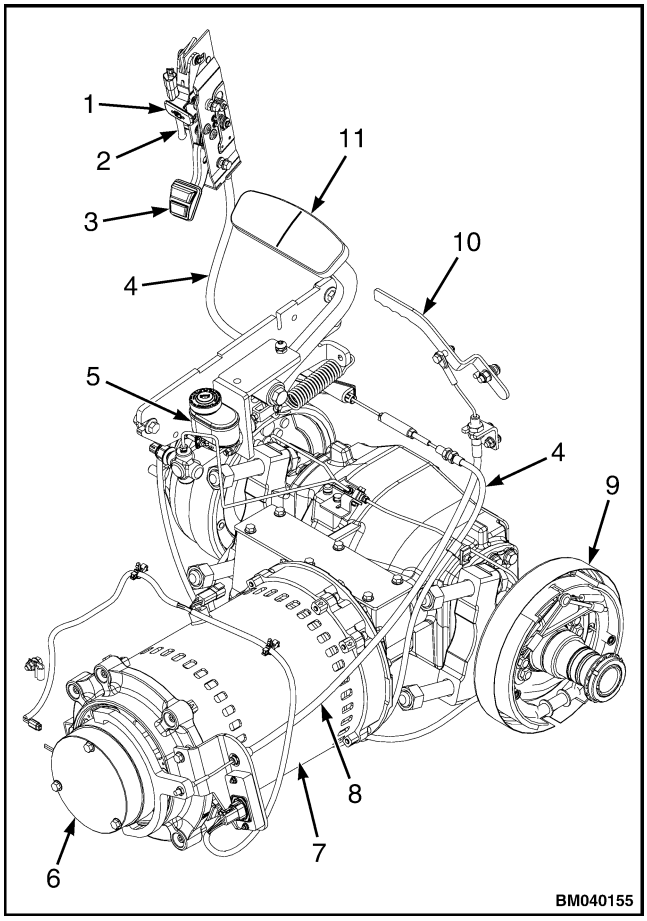
This section is for the following models:

E1.6-2.0XN (E30-40XN) [A269]

General

BRAKE SYSTEM

This section has service procedures for the dry brake system which system includes the following: parking brake, service brakes, master cylinder, and automatic park brake. The parking brake assembly contains a release handle, pedal, position sensor, and cable. The service brake assembly contains the brake pedal, master cylinder, brake assembly (attached to drive axle), and park brake cables. The automatic park brake assembly contains the brake (attached to the traction motor), cable, and release handle. See Figure 1.



1. PARK BRAKE RELEASE HANDLE
2. BRAKE POSITION SENSOR (RIGHT-HAND SIDE)
3. PARK BRAKE PEDAL
4. PARK BRAKE CABLES
5. MASTER CYLINDER
6. AUTOMATIC PARK BRAKE ASSEMBLY
7. TRACTION MOTOR
8. AUTOMATIC PARK BRAKE CABLE
9. BRAKE ASSEMBLY
10. AUTOMATIC PARK BRAKE RELEASE HANDLE
11. BRAKE PEDAL

Figure 1. Brake System

Service Brakes Repair

REMOVE AND DISASSEMBLE

WARNING

Brake linings can contain dangerous fibers. Breathing the dust from these brake linings is a cancer or lung disease hazard. DO NOT create dust! DO NOT clean brake parts with compressed air or by brushing. Use vacuum equipment approved for brake dust or follow the cleaning procedure in this section. When the brake drums are removed, do not create dust.

DO NOT sand, grind, chisel, hammer, or change linings in any way that will create dust. Any changes to brake linings must be done in a restricted area with special ventilation. Protective clothing and a respirator must be used.

WARNING

PUTTING THE LIFT TRUCK ON BLOCKS

The lift truck must be put on blocks for some types of maintenance and repair. The removal of the mast, drive axle, battery, or counterweight assemblies will cause large changes in the center of gravity. When the lift truck is put on blocks, put additional blocks in the following positions:

- **If the mast and drive axle are removed, put blocks under the counterweight so the lift truck cannot fall backward.**
- **If the counterweight is removed, put blocks under the mast so that the lift truck cannot fall forward.**

Put the lift truck on blocks on a solid, even, and level surface. Verify the blocks or stands have enough capacity to hold the lift truck. Use additional blocks next to the tires as necessary to prevent movement of the lift truck. Verify the lifting devices used during repairs can lift the weight of the parts and assemblies.

See the Operating Manual or Periodic Maintenance section for your lift truck model, for the procedures to put the lift truck on blocks.

NOTE: PERFORM ONLY THOSE STEPS NECESSARY FOR REPAIR OR REPLACEMENT.

1. Remove battery from lift truck. The procedure for removing battery may be found in **Operating Manual** or **Periodic Maintenance** 8000 SRM 1442.
2. Remove capscrews that hold axle shaft to hub. Remove axle shaft.
3. Bend lock plate tabs to release nut.
4. Remove nut, lock plate, wheel bearing washer, and bearing cone from wheel.

WARNING

When the brake shoes are removed, DO NOT create dust in the air. See the Clean procedure in this section.

5. Pull wheel assembly from lift truck. If wheel assembly cannot be removed easily, use a small screwdriver to push adjuster actuator away from adjuster wheel. Use a brake adjustment tool or a screwdriver to turn adjuster wheel to loosen brake shoes. Remove hub and drum assembly. DO NOT damage grease seal when removing hub.

NOTE: Note arrangement of brake parts during disassembly to aid in assembly.

6. Remove return springs with spring pliers from anchor. See Figure 2 and Figure 3.
7. Remove retainers, springs, and anchor pins that hold brake shoes to backing plate. See Figure 2 and Figure 3.
8. Move brake shoes away from each other to disengage brake shoes from wheel cylinder. Disconnect parking brake lever from parking brake cable as brake assembly is removed from backing plate. Parking brake lever has a hook that engages parking brake cable.

NOTE: The adjuster wheel for the left brake is not the same as the adjuster wheel for the right brake. The adjuster wheel for the left brake has left-hand threads.

NOTE: Parking brake link and spring will often fall from brake assembly then brake assembly is removed from backing plate. Adjuster wheel will also disengage from brake shoes after brake assembly is removed.

9. Remove parking brake link and spring if they are still engaged with brake shoes.

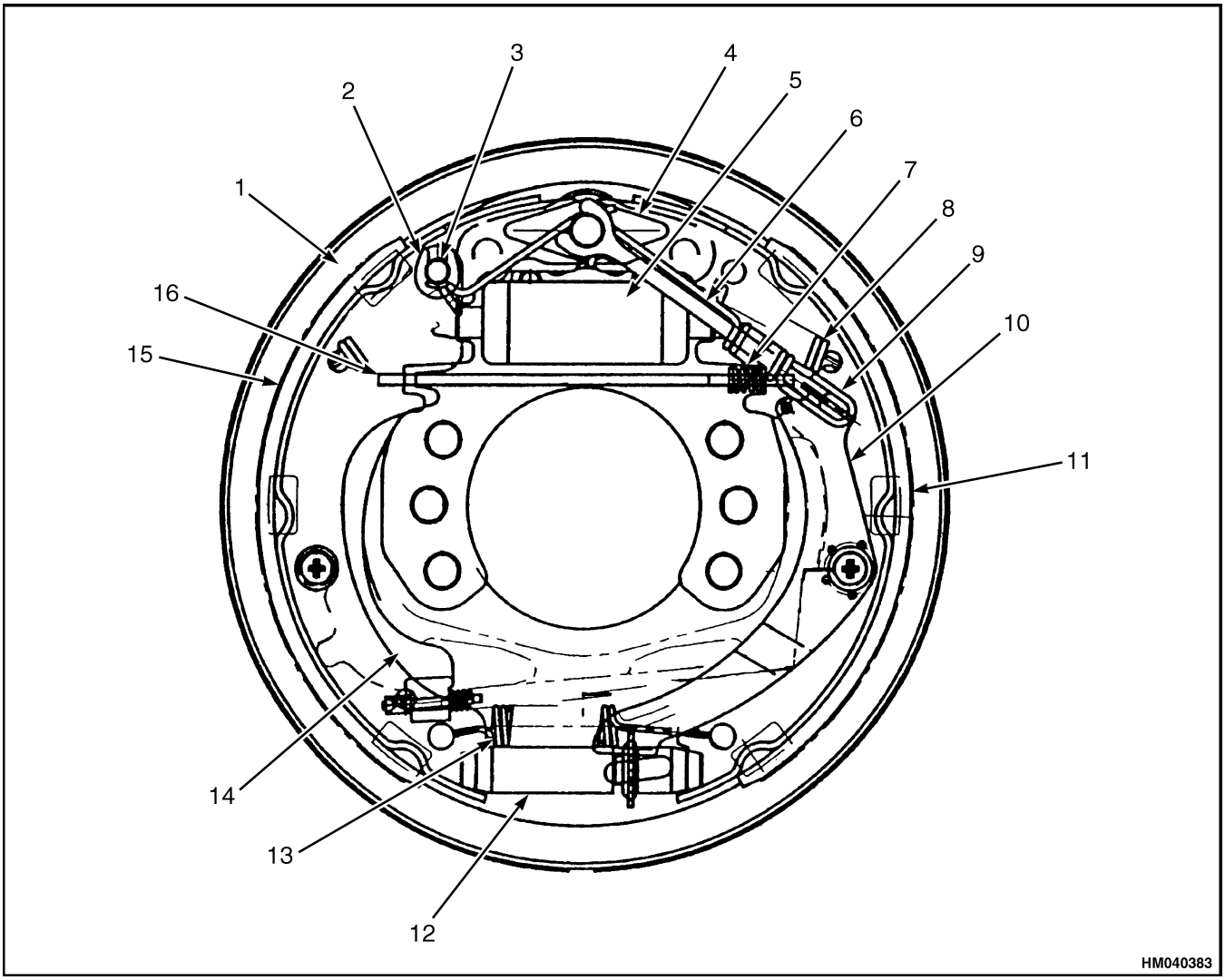
10. Remove spring for adjuster wheel actuator. Remove adjuster wheel actuator from brake shoe.

11. Use a screwdriver or small pry bar to move apart the ends of retainer. Remove spring washer and pivot pin to remove parking brake lever from brake shoe.

12. Disconnect brake line from wheel cylinder. Remove capscrew and wheel cylinder from backing plate.

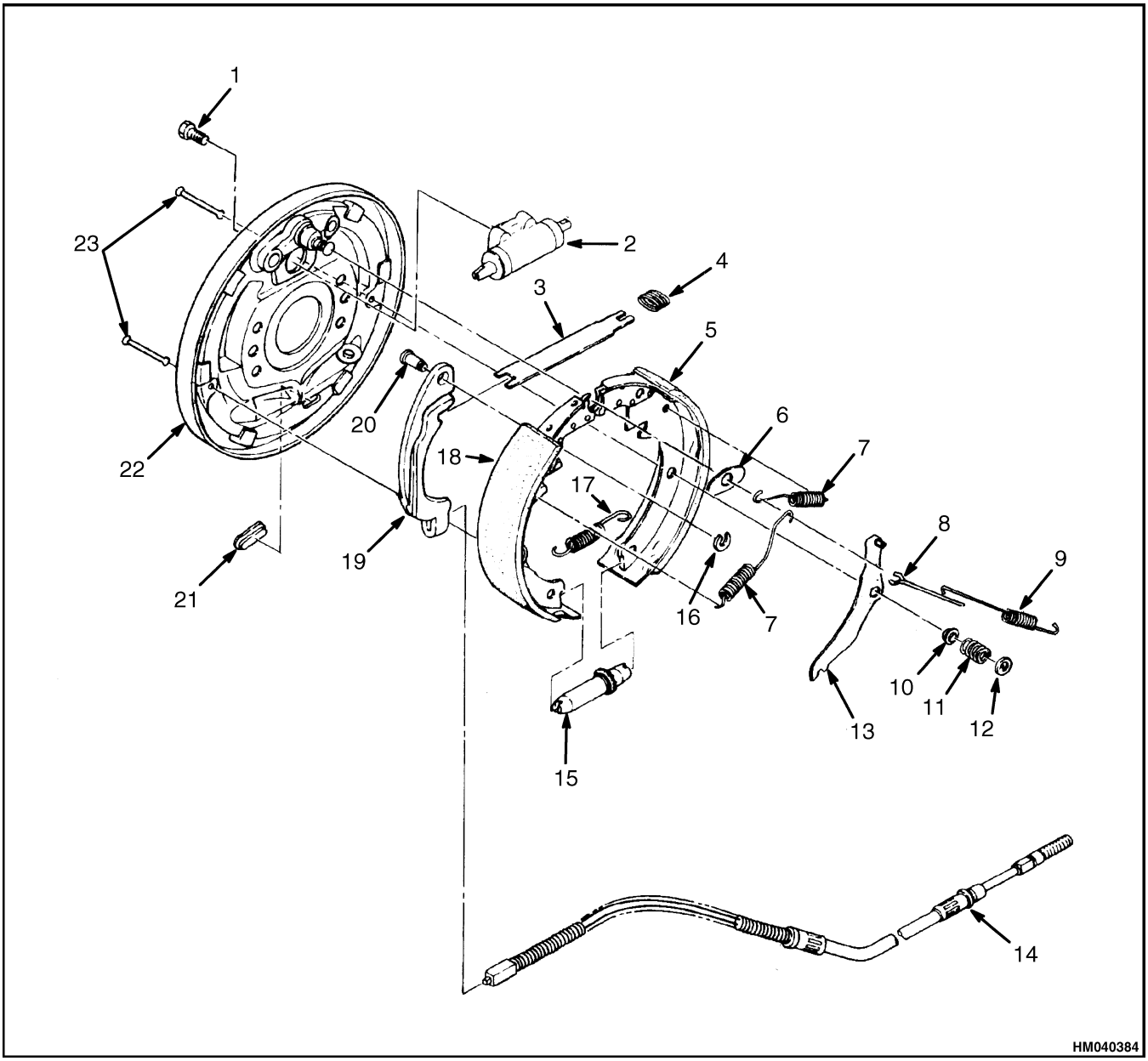
NOTE: The backing plate is not normally removed from axle housing for brake repairs. Special capscrews are used to fasten backing plate to axle mount, and the locking function of special capscrews is reduced if they are removed.

13. Remove special capscrews, if necessary.



1. BACKING PLATE
2. RETAINING PIN
3. LEVER PIN
4. GUIDE PLATE
5. WHEEL CYLINDER
6. PAWL LEVER STOPPER
7. SPRING (ANTI-RATTLE)
8. RETURN SPRING
9. SPRING (ACTUATOR)
10. PAWL LEVER
11. SECONDARY BRAKE SHOE
12. ADJUSTER ASSEMBLY
13. ADJUSTER SPRING
14. PARK BRAKE LEVER
15. PRIMARY BRAKE SHOE
16. PARKING BRAKE LINK

Figure 2. Brake Assembly



1. BOLT
2. WHEEL CYLINDER
3. PARKING BRAKE LINK
4. SPRING (ANIT-RATTLE)
5. SECONDARY BRAKE SHOE
6. PLATE
7. SPRING
8. LEVER (STOP)
9. SPRING
10. WASHER
11. SPRING (SHOE HOLD DOWN)
12. WASHER
13. PAWL LEVER
14. PARK BRAKE CABLE
15. ADJUSTER ASSEMBLY
16. RETAINING RING
17. ADJUSTER SPRING
18. PRIMARY BRAKE SHOE
19. PARK BRAKE LEVER
20. PIVOT PIN
21. PLUG
22. BACKING PLATE
23. PIN

Figure 3. Service Brake Components

14. Remove the push rods, dust covers, pistons, cups, and spring from the wheel cylinder body. See Figure 4.

15. If damaged, remove pressure bleeder from wheel cylinder body.

CLEAN

WARNING

DO NOT use an oil solvent to clean the master cylinder, wheel cylinder, or brake linings. Use a solvent approved for cleaning of brake parts. Do not permit oil or grease in the brake fluid or on the brake linings. Oil and grease will cause damage and leaks in the seals of a brake system. The brakes will not operate correctly if oil, grease, or brake fluid is on the brake linings.

Cleaning solvents can be flammable and toxic and can cause skin irritation. When using cleaning solvents, always follow the safety instructions of the solvent manufacturer.

1. DO NOT release dust from brake linings into the air when brake drum is removed.

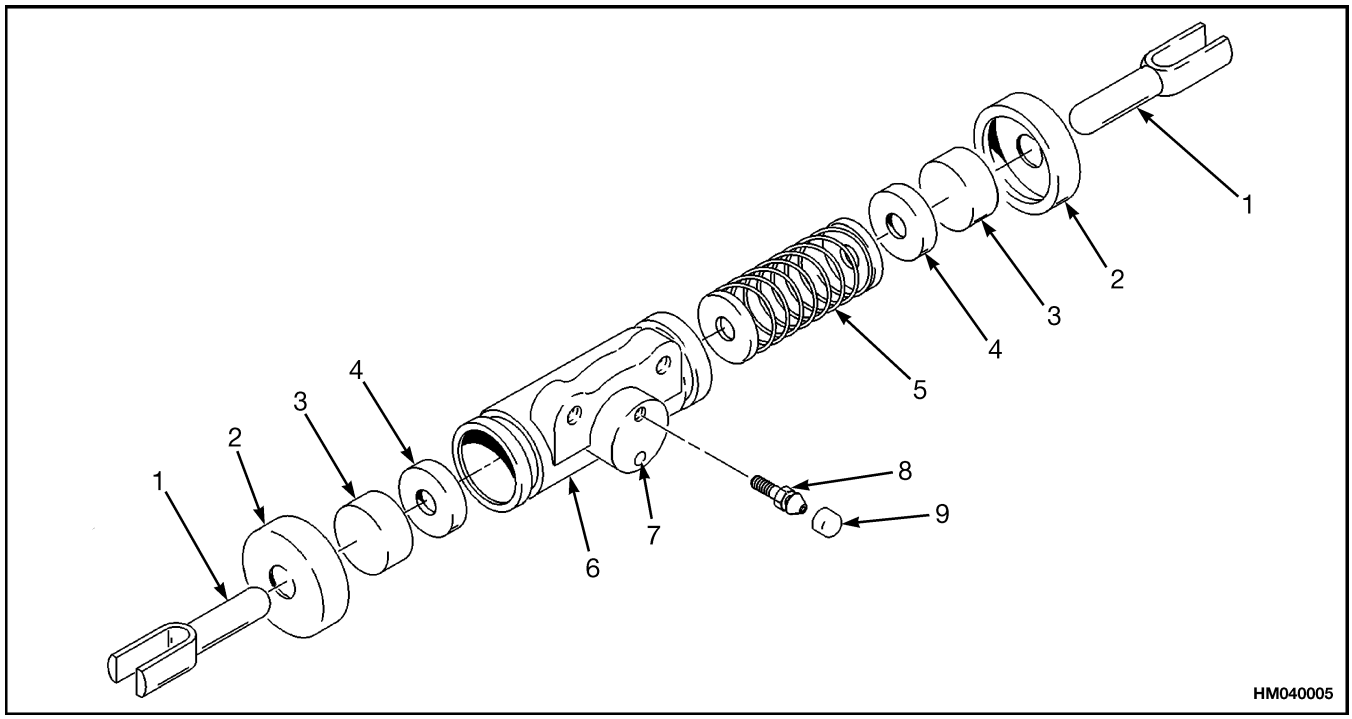
2. Use a solvent approved for cleaning of brake parts to wet the brake lining dust. Follow instructions and cautions of manufacturer for use of solvent. If a solvent spray is used, spray at a distance so that dust is not released into the air.

3. When brake lining dust is wet, clean parts. Put any cloth or towels in a plastic bag or an airtight container while they are still wet. Put a DANGEROUS FIBERS warning label on plastic bag or airtight container.

CAUTION

DO NOT permit oil or grease on the brake linings. Use a brake cleaning fluid as necessary to clean linings that will not be replaced.

4. Any cleaning cloths that will be washed must be cleaned so that fibers are not released into the air.



1. PUSH ROD (2)
2. DUST COVER (2)
3. PISTON (2)
4. CUP (2)
5. SPRING
6. WHEEL CYLINDER BODY
7. INLET PORT
8. PRESSURE BLEEDER
9. DUST COVER

Figure 4. Wheel Cylinder

INSPECT

1. Inspect bore of wheel cylinder for holes or scratches. Replace wheel cylinder assembly if there is any damage.

2. Inspect return springs for wear and damage. Inspect backing plate for wear where brake shoes touch back plate. Remove any grooves or replace a worn or damaged back plate.

WARNING

The brake shoes on both wheels must be replaced if any shoe is damaged. The brake performance on both ends of an axle must be equal, or the lift truck can be difficult to steer when the brakes are applied.

3. Inspect the brake shoes for cracks or damage. If the linings or shoes are worn or damaged, replace the brake shoes. Maximum wear is to within 1 mm (0.039 in.) of contact with the rivets, or the metal shoe on bonded linings. Brake shoes must be replaced in complete sets. Inspect the brake drums for cracks or damage. Replace any damaged parts.

4. Inspect the brake drum for deep grooves or other damage.

NOTE: If grooves must be removed from brake drums, do not grind more than 1.5 mm (0.060 in.) from internal diameter of brake drum.

The maximum limit of internal diameter of brake drum is 312 mm (12.28 in.). If internal diameter is larger than limit, replace brake drum.

5. The teeth of the adjuster actuator wheel must not be worn. The adjuster actuator wheel must turn freely. Check the adjuster links for damage.

6. Make sure the parking brake cables are in good condition.

7. Check the grease seals and the surfaces of the seals for wear or damage.

ASSEMBLE AND INSTALL

1. If removed, install backing plate and six lock bolts onto drive axle. Tighten lock bolts to 152 to 167 N•m (112 to 123 lbf ft) and in the sequence shown in Figure 5.

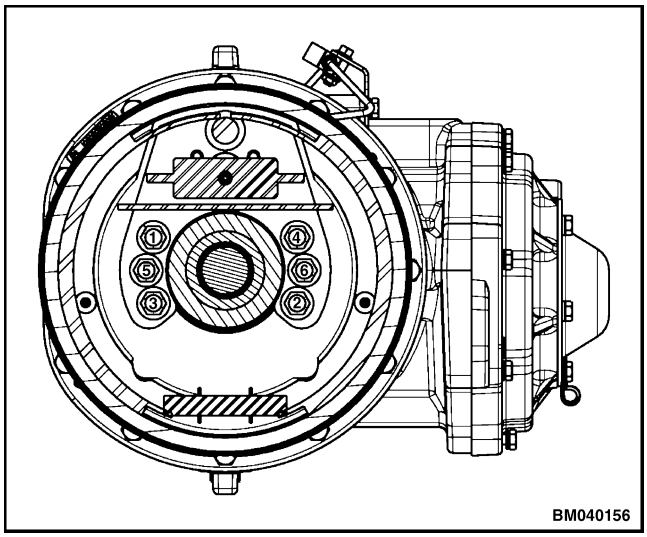


Figure 5. Back Plate Installation

2. If wheel cylinder is disassembled for repair, assemble wheel cylinder. See Figure 4. Use only **HYSTER APPROVED** parts.

3. Install wheel cylinder onto backing plate and tighten two capscrews to 18 to 27 N•m (115 to 117 lbf in). Connect brake line to wheel cylinder.

4. Install parking brake lever, pivot pin, spring washer, and retaining ring onto primary brake shoe. Close the ends of retaining ring to fasten pivot pin in position. See Figure 3.

5. Fasten adjuster spring to adjuster assembly and brake shoe. See Figure 3.

6. Put antiseize compound on adjuster wheel threads. Turn adjuster wheel into adjuster nut so that adjuster assembly is in its shortest position. This action permits brake drum to be easily installed over brake shoes. See Figure 2 and Figure 3.

WARNING

The threads of the adjuster wheel are not the same for each side. If the adjuster assemblies are installed on the wrong side, the brake shoe clearance will increase each time the brakes are applied. The adjuster wheel for the right brake has right-hand threads. The adjuster wheel for the left brake has left-hand threads.

7. Install adjuster assembly between the two brake shoes. Make sure adjuster actuator wheel is toward rear of lift truck. Move brake shoes apart

so that the adjuster assembly is held in position and the adjuster spring is in tension.

8. Lubricate backing plate with a small amount of lithium grease where brake shoes touch. Install brake shoes onto anchor pins and engage push rods of the wheel cylinder. Engage parking brake lever in slot in parking brake cable as brake shoes are installed onto backing plate.

9. Install one anchor pin, that holds the brake shoes, through backing plate. Install one spring seat, spring and retainer onto anchor pin.

- **a.** Push retainer onto anchor pin.
- **b.** Rotate retainer 90 degrees.
- **c.** Make sure retainer is in position noted during disassembly.

10. Install link, parking brake, and spring between parking brake lever and secondary brake shoe. See Figure 3.

11. Install other spring retainer that holds brake shoes. Make sure parking brake link and spring are correctly engaged after spring retainers are installed.

12. Install second anchor pin, that holds the brake shoes, through backing plate. Install two retaining washers, and spring onto anchor pin.

- **a.** Push one retaining washer onto anchor pin.
- **b.** Install spring onto anchor pin.
- **c.** Install other retaining washer onto anchor pin
- **d.** Make sure parking brake link and spring are correctly engaged after both retainers are installed.

13. Install the anchor guide on the anchor.

14. Install the pivot plate on its anchor.

15. Lubricate adjuster cable where it slides in pivot plate groove.

16. Fasten link to adjuster wheel actuator and install cable around pivot plate. Raise adjuster wheel actuator against spring tension and connect link to anchor pin.

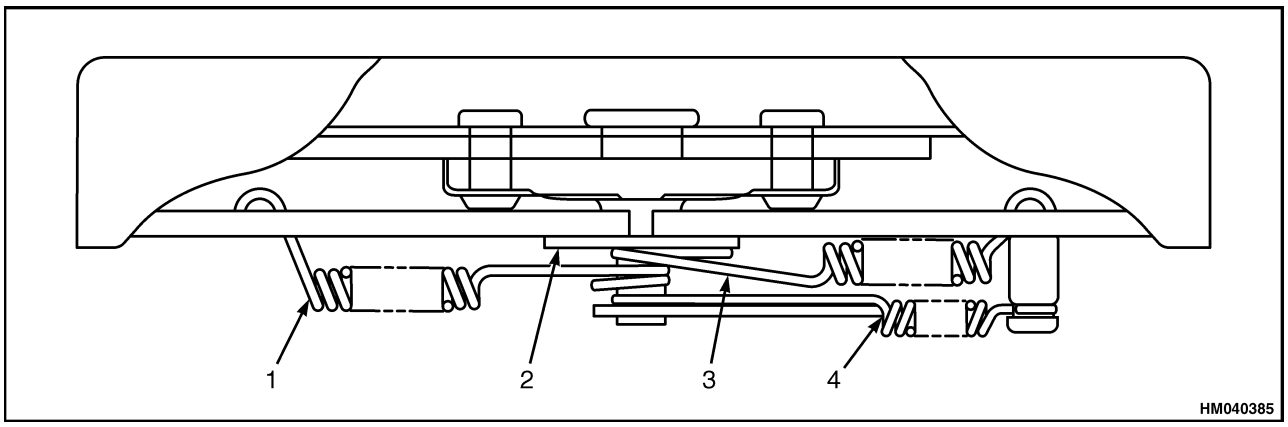
CAUTION

Be sure to install the white return spring first and then the black return spring. See Figure 6. Improper assembly can result in brake failure and/or component damage.

NOTE: The shape of the return springs permits them to be installed correctly in only one position. The arrangement of the return springs on the anchors is shown in Figure 6.

17. Using the correct tools, install the return springs as follows: see Figure 6.

- **a.** Install return spring.
- **b.** Install washer.
- **c.** Install return spring.
- **d.** Verify that return springs are properly installed as shown in Figure 6.



1. RETURN SPRING 2. GUIDE PLATE 3. RETURN SPRING 4. SPRING ACTUATOR

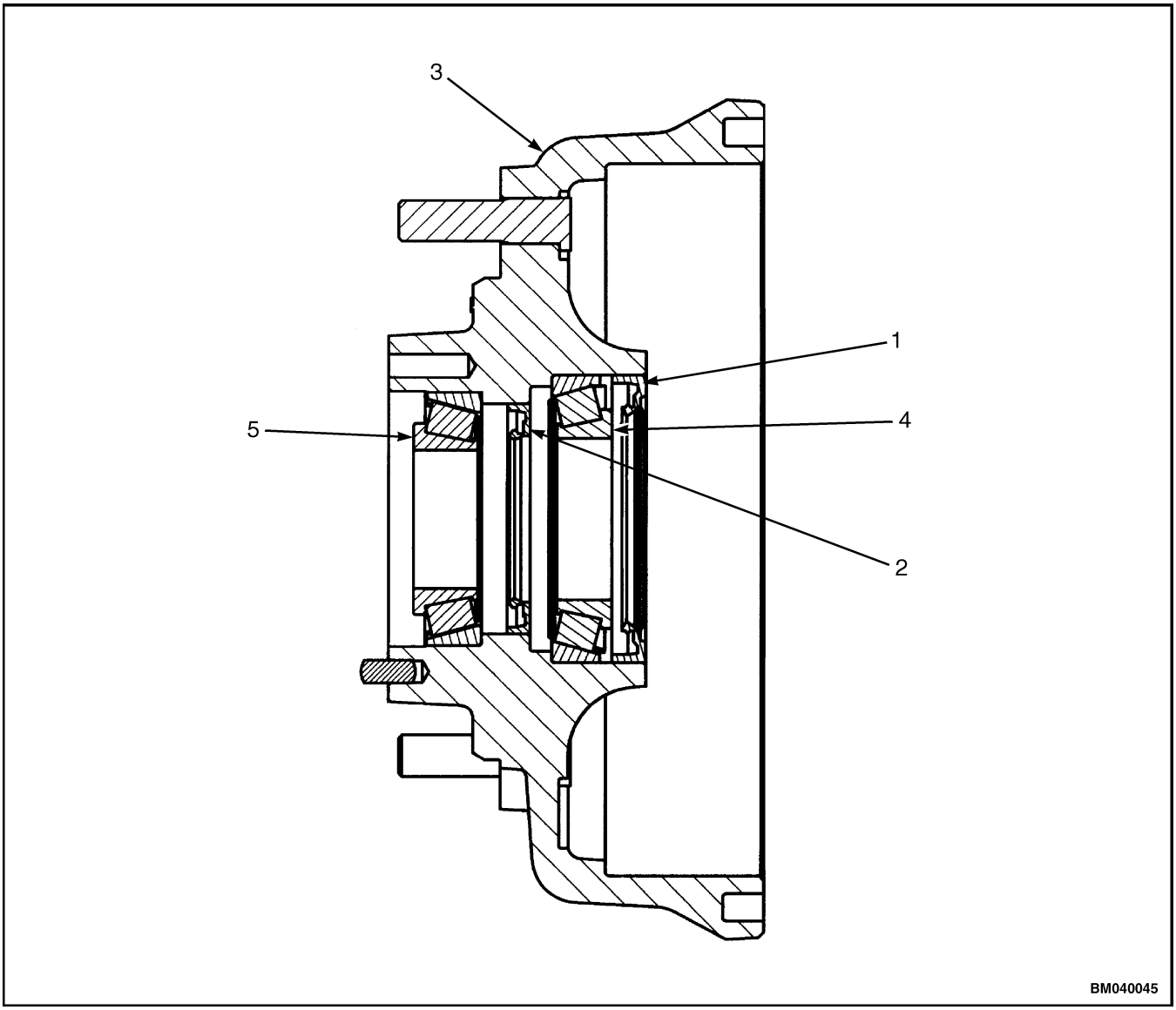
Figure 6. Return Springs

NOTE: Seal and bearings are to be installed flush with hub. Seal is to be installed with no grease or oil on outside surface.

18. Clean bearings and lubricate them with wheel bearing grease. Install bearings and seals in brake drum. Install assembly on axle housing. See Figure 7 and Figure 8.

NOTE: To prevent damage to the inner grease seal when installing hub, the hub and drum assembly can be temporarily fastened to the wheel. Align height of axle housing with hub bearings. Slide wheel toward axle housing.

19. Install outer bearing and nut.



1. INNER SEAL
2. OUTER SEAL
3. BRAKE DRUM
4. INNER BEARING
5. OUTER BEARING

Figure 7. Grease Seals and Bearing Locations

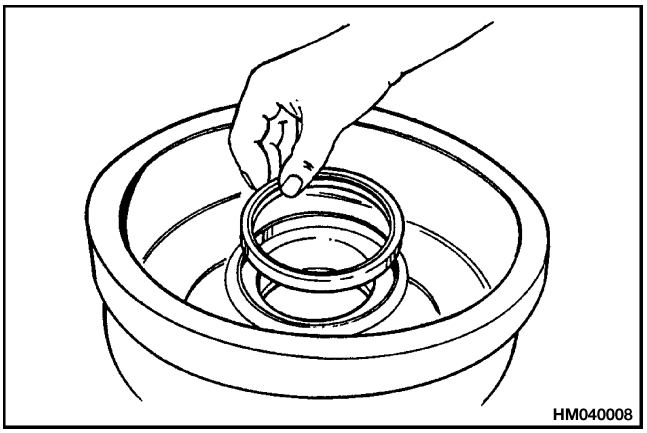


Figure 8. Inner Grease Seal Installation

20. Install washer, lock plate, and wheel adjustment nut.

21. Perform the following procedure to align, seat, and preload bearings.

a. To align bearing rollers, tighten wheel adjustment nut to 14 to 18 N•m (124 to 159 lbf in).

b. Rotate hub two revolutions in both directions.

c. To seat wheel bearing, tighten wheel adjustment nut to 175 to 215 N•m (129 to 159 lbf ft).

d. Back off wheel adjustment nut to zero end play.

e. Preload wheel bearings by tightening wheel adjustment nut to 14 to 18 N•m (124 to 159 lbf in).

f. Rotate hub three complete revolutions in both directions.

g. Verify wheel adjustment nut torque is 14 to 18 N•m (124 to 159 lbf in) and that torque stabilizes at that specification.

22. Bend lock plate tabs over lock nut. See Figure 9.

CAUTION

If there is too much clearance, the automatic adjusters will not operate. If the clearance is too small, the automatic adjuster cannot turn the adjuster wheel to increase the clearance, and the adjuster wheel will not turn until the brake shoes wear. If the adjuster wheel does not move for a long operating period, the adjuster link can wear a spot on the adjuster wheel so that it will not turn correctly.

NOTE: If the brake shoes were not replaced, loosen the adjuster wheel approximately 20 teeth.

23. Adjust clearance of brake shoes.

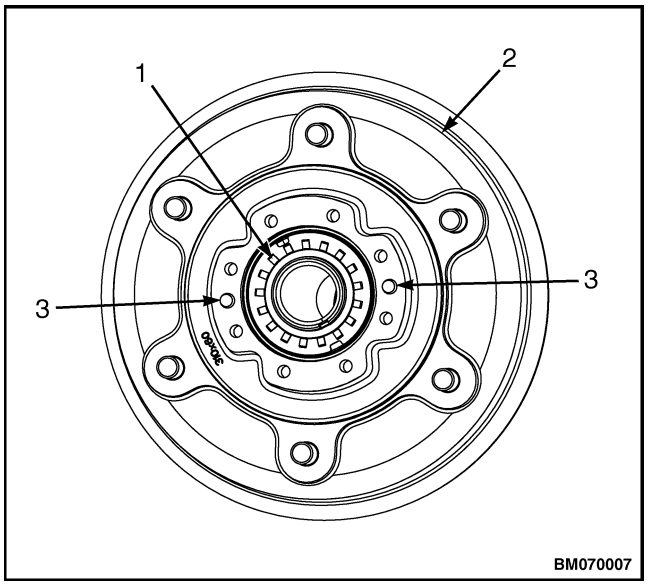
a. Put a brake adjustment tool or a screwdriver through slot in backing plate.

b. Use tool to rotate adjuster wheel. Actuator for adjuster wheel will only permit rotation in one direction.

c. Turn adjuster wheel until brake shoes have expanded against brake drum and hub will not turn.

d. Use a small screwdriver to lift actuator away from adjuster wheel and turn adjuster wheel approximately 20 teeth in opposite direction.

e. Brakes will adjust to correct clearance when they are applied while lift truck is traveling in the reverse direction.



1. LOCK PLATE
2. HUB/BRAKE DRUM ASSEMBLY
3. DOWEL PIN

Figure 9. Lock Plate

24. Put liquid sealant, Hyster Part Number 264159, on the flange of the axle shaft. Install the axle shaft and capscrews. Tighten the capscrews, in cross pattern shown in Figure 10, to 52 to 62 N•m (39 to 46 lbf ft).

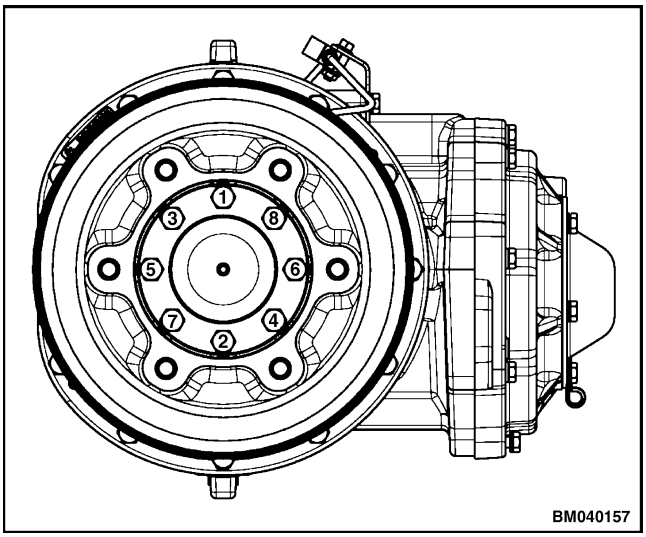


Figure 10. Axle Shaft Tightening Sequence

ADJUST

NOTE: The service brakes must be adjusted before the parking brake can be adjusted. See section Parking Brake Repair for the correct adjustment of parking brake.

1. Remove the air from the brake hydraulic system. See section Brake System Air Removal for procedure.

2. Install wheel on hub. Tighten the wheel nuts to 155 to 175 N•m (114 to 129 lbf ft).

3. Install battery.

4. Turn lift truck power **ON** and tilt mast backward to remove blocks. Push on brake pedal. The pedal must NOT touch floor plate. Move lift truck in **REVERSE** and push on brake pedal to permit adjusting mechanism to operate. Repeat this operation several times.

Parking Brake Repair

REMOVE AND DISASSEMBLE

1. Block front and rear sides of wheels to make sure lift truck cannot move.

2. Remove battery from the lift truck. The procedure for removing the battery may be found in the **Operating Manual** or **Periodic Maintenance** 8000 SRM 1442.

3. Park brake to be released.

NOTE: Perform only those steps below necessary for required repair or replacement.

4. Remove three capscrews and dash panel. See Figure 11.

5. Remove three capscrews and park brake cover from cowl. See Figure 11.

NOTE: Tag electrical wiring during removal to aid in installation.

6. Disconnect brake position sensor cable from cowl harness. See Figure 12.

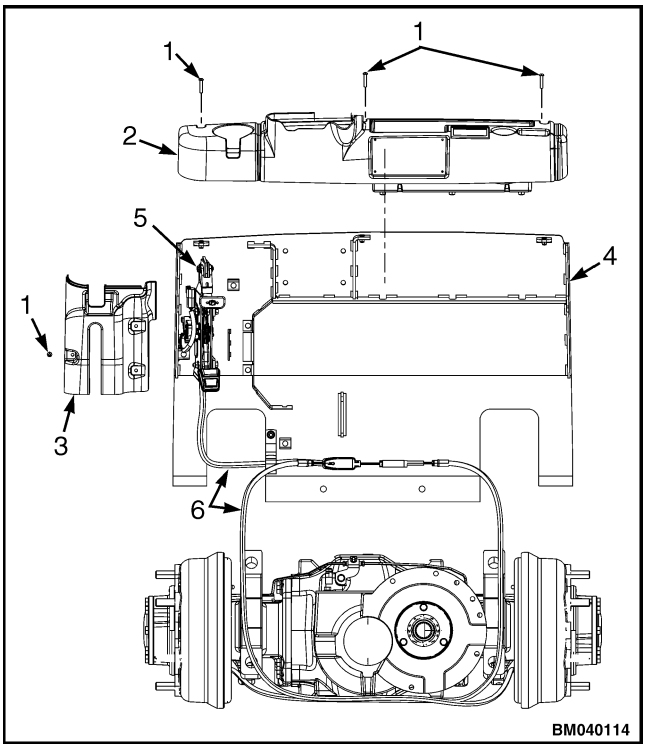
7. Remove two capscrews, two lockwashers, and brake position sensor from park brake assembly; discard lockwashers. See Figure 12.

8. Remove two nuts, two capscrews, two washers, and park brake assembly from mounting plate attached to cowl. See Figure 12.

9. Remove front cable from park brake assembly and clevis. See Figure 13.

10. Remove front cable from clip. See Figure 13.

NOTE: Cables are routed left to right for right-hand park brake cable and right to left for left-hand park brake cable facing the front of lift truck as shown in Figure 13.



1. CAPSCREW
2. DASH PANEL
3. PARK BRAKE COVER
4. COWL
5. PARK BRAKE ASSEMBLY
6. PARK BRAKE CABLES

Figure 11. Brakes - Covers and Cables

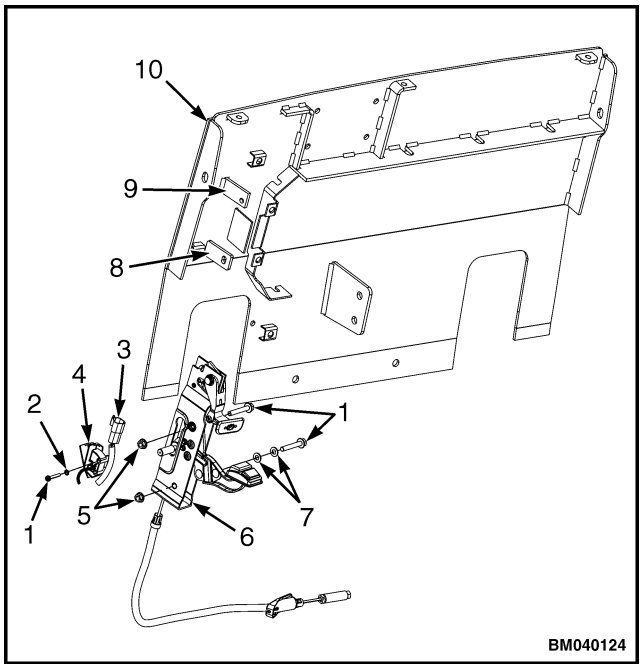
11. Disconnect the left-hand brake cable from front cable by loosening nut and removing cable tension adjust fitting. See Figure 13.

12. Disconnect the right-hand brake cable from front cable by removing strand end fitting from conduit reaction bracket. See Figure 13.

NOTE: Perform Step 13 through Step 18 only if inspection reveals left-hand park brake cable must be replaced.

NOTE: Perform Step 13 through Step 20 only if inspection reveals right-hand park brake cable must be replaced.

NOTE: The service brake assembly must be removed from the axle tube before the parking brake cable can be removed from the back plate of the service brake.



1. CAPSCREW
2. LOCKWASHER
3. BRAKE POSITION SENSOR CABLE
4. BRAKE POSITION SENSOR
5. NUT
6. PARK BRAKE ASSEMBLY
7. WASHER
8. MOUNTING PLATE
9. PLATE
10. COWL

Figure 12. Park Brake Assembly

13. Remove capscrews that hold axle shaft to hub. Remove axle shaft.

14. Bend lock plate tabs to release nut. See Figure 14.

15. Remove nut, lock plate, wheel bearing washer, and bearing cone from wheel.

16. Pull wheel assembly from lift truck. If wheel assembly cannot be removed easily, use a small screwdriver to move adjuster assembly away from wheel. Use a brake adjustment tool or small screwdriver to turn adjuster actuator wheel to loosen brake shoes. Remove hub and drum assembly. Do not damage grease seal when removing hub.

17. Remove snap ring and park brake cable from back plate.

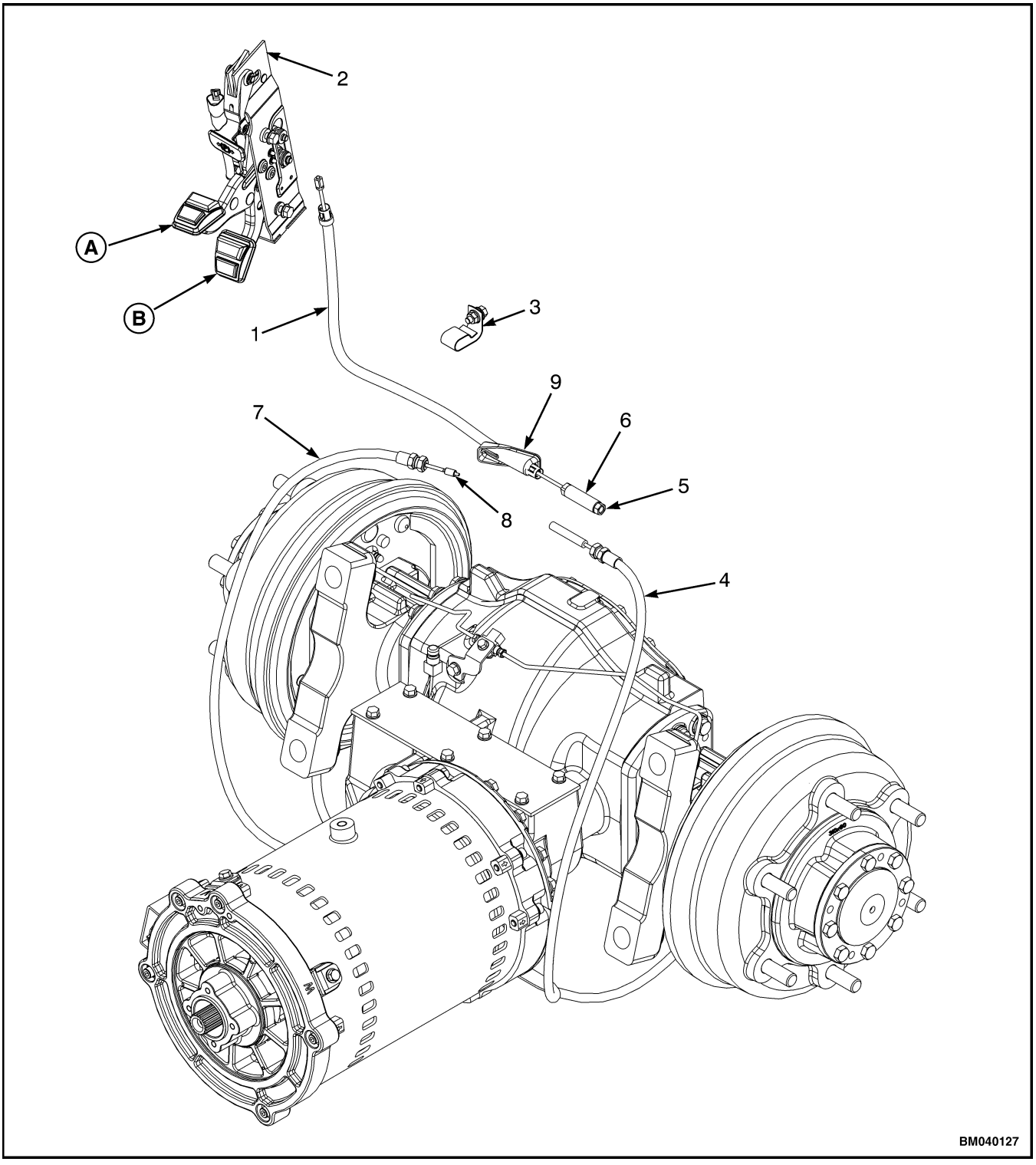


Figure 13. Park Brake Cables

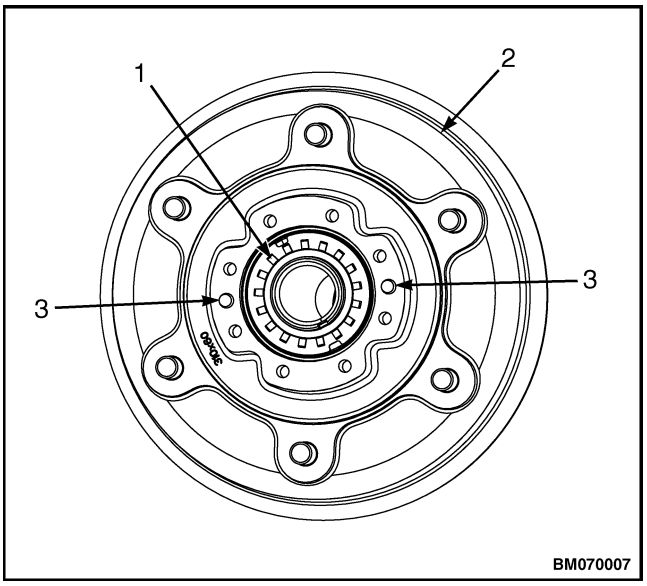
Legend for Figure 13

A. RELEASED POSITION

1. FRONT CABLE
2. PARK BRAKE ASSEMBLY
3. CLIP
4. LEFT-HAND PARK BRAKE CABLE
5. NUT

B. APPLIED POSITION

6. TENSION ADJUST FITTING
7. RIGHT-HAND PARK BRAKE CABLE
8. STRAND END FITTING
9. CONDUIT REACTION BRACKET



1. LOCK PLATE
2. HUB/BRAKE DRUM ASSEMBLY
3. DOWEL PIN

Figure 14. Lock Plate

18. Remove park brake cable, from front end of frame, by loosening two jam-nuts and removing end cable fitting from bracket.

19. Disconnect end fitting connected to front cable.

20. Remove right-hand cable from clip attached to drive axle housing.

INSPECT

1. Check park brake assembly for damage to ratchet teeth, pawl, and sliding components. Replace park brake assembly if there is damage.

2. Check brake position sensor, brake position sensor cable, and front cable for damage. Replace items if damaged.

3. Inspect park brake cables for damage. Replace cable if damage is found.

ASSEMBLE AND INSTALL

NOTE: Perform Step 1 through Step 3 below only if park brake cables are replaced.

1. Install end cable fittings onto brackets attached to lower end of frame for both park brake cables and tighten four jam-nuts. See Figure 13.

2. Route right-hand park brake cable through clip attached below drive axle housing.

NOTE: The parking brake cables must be installed in the back plate before the service brake is installed. A snap ring holds the sheath of the parking brake cable in the back plate of the service brake.

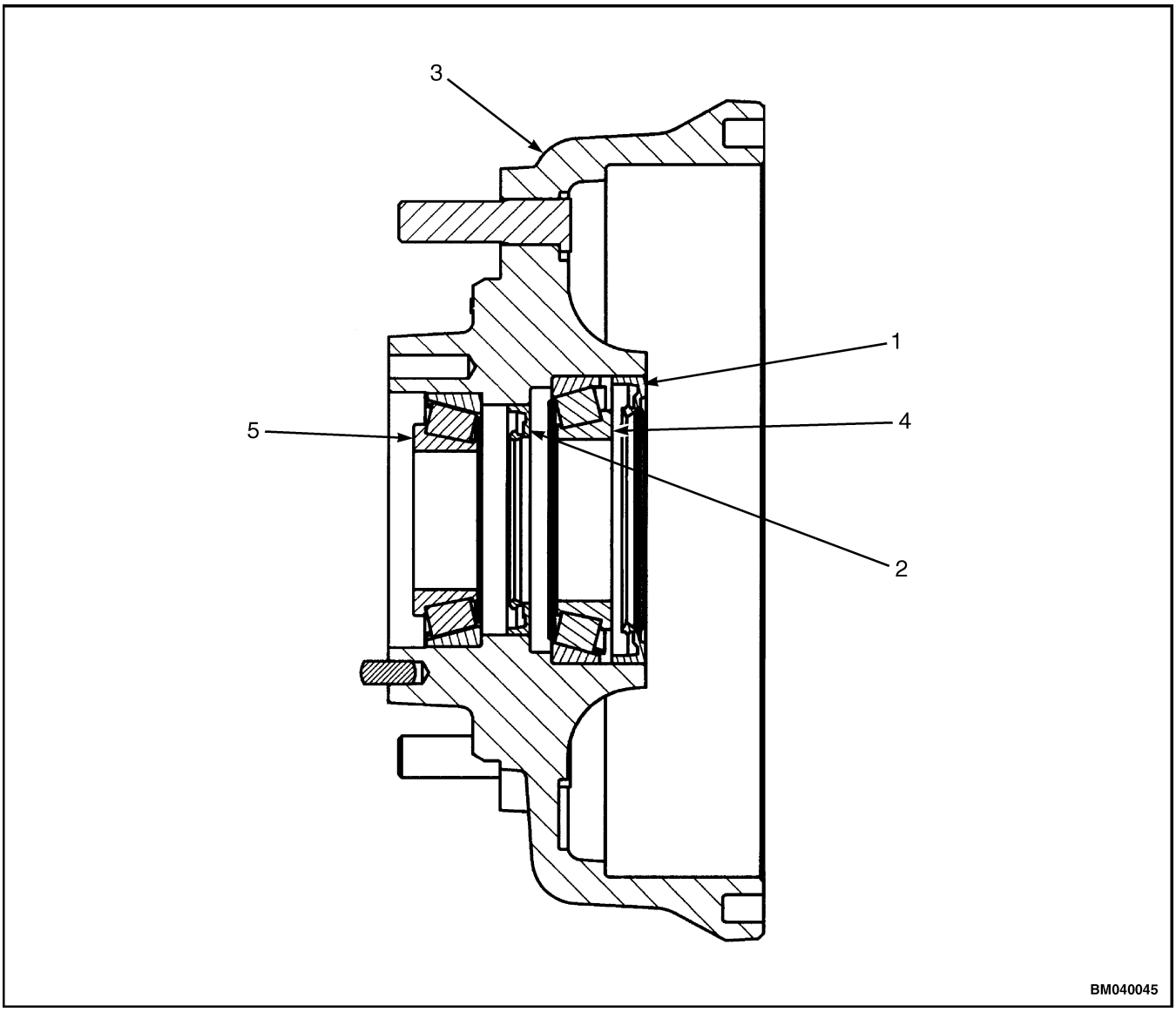
3. Install parking brake cable in back plate and install snap ring that holds the sheath of parking brake cable in the back plate.

NOTE: Seal and bearings are to be installed flush with the hub. Seal is to be installed with no grease or oil on outside surface.

4. Clean bearings and lubricate them with wheel bearing grease. Install bearings and seals into brake drum. Install assembly on axle housing. See Figure 15 and Figure 16.

NOTE: To prevent damage to the inner grease seal when installing the hub, the hub and drum assembly can be temporarily fastened to the wheel. Align the height of the axle housing with hub bearings. Put grease under the wheel and slide the wheel toward the axle housing. Install the outer bearing and nut.

5. Install washer, lock plate, and wheel adjustment nut.



1. INNER SEAL
2. OUTER SEAL
3. BRAKE DRUM
4. INNER BEARING
5. OUTER BEARING

Figure 15. Grease Seals and Bearing Locations

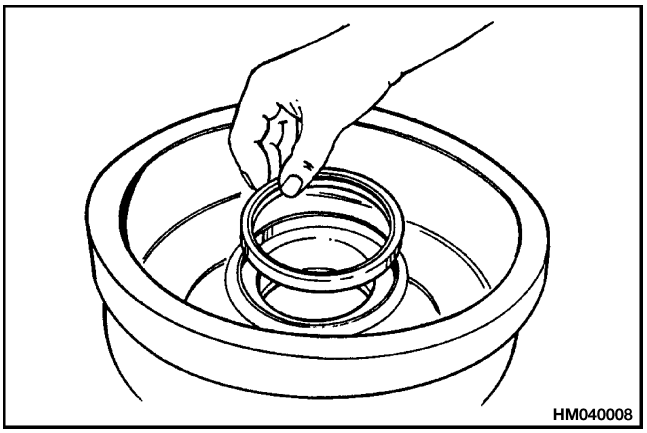


Figure 16. Inner Grease Seal Installation

6. Perform the following procedure to align, seat, and preload bearings.

   a. To align bearing rollers, tighten wheel adjustment nut to 14 to 18 N•m (124 to 159 lbf in).

   b. Rotate hub two revolutions in both directions.

   c. To seat wheel bearing, tighten wheel adjustment nut to 175 to 215 N•m (129 to 159 lbf ft).

   d. Back off wheel adjustment nut to zero end play.

   e. Preload wheel bearings by tightening wheel adjustment nut to 14 to 18 N•m (124 to 159 lbf in).

   f. Rotate hub three complete revolutions in both directions.

   g. Verify wheel adjustment nut torque is 14 to 18 N•m (124 to 159 lbf in) and that torque stabilizes at that specification.

7. Connect cable tension fitting to threaded end fitting on left-hand cable. Tighten nut against cable tension fitting. See Figure 13.

8. Connect strand end fitting of right-hand cable to conduit reaction bracket. See Figure 13.

9. Route front cable through clip. See Figure 13.

10. Assemble front brake cable and clevis. See Figure 13.

11. Install front brake cable end fitting through clevis slot and snap this cable fitting onto park brake assembly. See Figure 13.

12. Install park brake assembly, two washers, two capscrews, and two nuts to mounting plate and plate attached to cowl. See Figure 12.

13. Connect brake position sensor cable to cowl harness.

14. Install park brake cover and three capscrews to the cowl plate. See Figure 11.

15. Install dash panel and three capscrews to cowl plate. See Figure 11.

NOTE: The park brake release handle should be able to return freely to its original position after brake release actuation without any binding.

16. Engage parking brake.

17. Remove blocks from front and rear sides of wheels.

ADJUST

1. With part brake cables assembled and park brake assembly in release position (see Figure 13), apply an initial load of 382.5 N (86 lbf) to park brake pedal. Adjust cable tension adjuster fitting and secure with jam-nut to take up slack.

2. Check park brake tension while lift truck is on 15% grade with rated load. Make adjustment to park brake cable tension if required, tighten adjuster fitting and jam-nut to secure adjustments.