# Table of Contents

Service Notes .......................................................... ii  
Asbestos and Non-Asbestos Fibers Warning ........ iii  
Exploded Views.............................................................. 1  
   Models - SAHR90 .................................................... 1  
   Models - 1270, 1286, 1287 ..................................... 2  
Introduction .................................................................... 3  
   Brake Operation ....................................................... 3  
Adjustment ...................................................................... 4  
   Brake Adjustment ..................................................... 4  
   Parking Brake Emergency Release ......................... 5  
   Bleed Brake .............................................................. 5  
Inspection ....................................................................... 6  
Component Replacement ................................................ 7  
   Brake Pad Replacement ........................................... 7  
   Seal Replacement ..................................................... 8  
   Caliper Assembly Installation ................................. 8  
Specifications .................................................................. 9  
   Hydraulic Pressure .................................................... 9  
   Fluid Volume ............................................................ 9  
   Service Kits ............................................................. 9  
Notes ........................................................................... 10
This service manual describes the service and repair procedures for the SAHR90, 1270, 1286, & 1287 Dry Disc Park Brake. The information contained in this manual is current at the time of publication and is subject to change without notice or liability.

Follow all company procedures when you service or repair equipment or components. Understand all instructions before performing any product service. Some procedures require the use of special tools for safe and correct service. Failure to use special tools when required can cause serious personal injury to service personnel, as well as, damage to equipment and components.

The instructions contained in this service manual are intended for use by skilled and experienced mechanics knowledgeable in the installation, repair, and replacement of the AxleTech product described herein.

**DANGER**

Installation, maintenance, and replacement of such products requires a high degree of skill and experience. The consequences of improper installation, maintenance, or replacement (including the use of inferior or substandard components) are grave and can result in product failure and resulting loss of control of the vehicle, possible injury or death of persons, and/or possible future or additional product damage.

AxleTech does not authorize anyone, other than highly skilled and experienced individuals, to attempt to utilize the instructions contained in this manual for the installation, maintenance, or replacement of the product described herein, and AxleTech shall have no liability of any kind for damages arising out of (or in connection with) any other use of the information contained in this manual.

For the latest version of this manual, please visit AxleTech International’s web site at [www.axletech.com](http://www.axletech.com).

AxleTech International uses the following notation to warn the user of possible safety problems and to provide information that will prevent damage to equipment and components:

**DANGER**

A DANGER indicates a procedure that you must follow exactly or it will cause death or serious injury.

**WARNING**

A WARNING indicates a procedure that you must follow exactly or it may cause death or serious injury.

**CAUTION**

A CAUTION indicates a procedure that you must follow exactly to avoid damaging equipment or components.

**NOTE**

A NOTE indicates an operation, procedure, or instruction that is important for proper service. A NOTE can also supply information that will help to make service quicker and easier.
Asbestos and Non-Asbestos Fibers Warning

OSHA* Toxic and Hazardous Substances 29 CFR 1910.1001

Work practices and engineering controls for automotive brake and clutch inspection, disassembly, repair and assembly -- Mandatory

This mandatory appendix specifies engineering controls and work practices that must be implemented by the employer during automotive brake and clutch inspection, disassembly, repair, and assembly operations.

Proper use of these engineering controls and work practices by trained employees will reduce employees’ asbestos exposure below the permissible exposure level during clutch and brake inspection, disassembly, repair, and assembly operations. The employer shall institute engineering controls and work practices using either the method set forth in paragraph [A] or paragraph [B] of this appendix, or any other method which the employer can demonstrate to be equivalent in terms of reducing employees’ exposure to asbestos as defined and which meets the requirements described in paragraph [C] of this appendix, for those facilities in which no more than 5 pairs of brakes or 5 clutches are inspected, disassembled, reassembled and/or repaired per week, the method set forth in paragraph [D] of this appendix may be used:

[A] Negative Pressure Enclosure/HEPA Vacuum System Method

(1) The brake and clutch inspection, disassembly, repair, and assembly operations shall be enclosed to cover and contain the clutch or brake assembly and to prevent the release of asbestos fibers into the worker’s breathing zone.

(2) The enclosure shall be sealed tightly and thoroughly inspected for leaks before work begins on brake and clutch inspection, disassembly, repair, and assembly.

(3) The enclosure shall be such that the worker can clearly see the operation and shall provide impermeable sleeves through which the worker can handle the brake and clutch inspection, disassembly, repair and assembly. The integrity of the sleeves and ports shall be examined before work begins.

(4) A HEPA-filtered vacuum shall be employed to maintain the enclosure under negative pressure throughout the operation. Compressed-air may be used to remove asbestos fibers or particles from the enclosure.

(5) The HEPA vacuum shall be used first to loosen the asbestos containing residue from the brake and clutch parts and then to evacuate the loosened asbestos containing material from the enclosure and capture the material in the vacuum filter.

(6) The vacuum’s filter, when full, shall be first wetted with a fine mist of water, then removed and placed immediately in an impermeable container, labeled according to paragraph (j)(5) of this section and disposed of according to paragraph (k) of this section.

(7) Any spills or releases of asbestos containing waste material from inside of the enclosure or vacuum hose or vacuum filter shall be immediately cleaned up and disposed of according to paragraph (k) of this section.

[B] Low Pressure/Wet Cleaning Method

(1) A catch basin shall be placed under the brake assembly, positioned to avoid splashes and spills.

(2) The reservoir shall contain water containing an organic solvent or wetting agent. The flow of liquid shall be controlled such that the brake assembly is gently flooded to prevent the asbestos-containing brake dust from becoming airborne.

(3) The aqueous solution shall be allowed to flow between the brake drum and brake support before the drum is removed.

(4) After removing the brake drum, the wheel hub and back of the brake assembly shall be thoroughly wetted to suppress dust.
(5) The brake support plate, brake shoes and brake components used to attach the brake shoes shall be thoroughly washed before removing the old shoes.

(6) In systems using filters, the filters, when full, shall be first wetted with a fine mist of water, then removed and placed immediately in an impermeable container, labeled according to paragraph (j)(4) of this section and disposed of according to paragraph (k) of this section.

(7) Any spills of asbestos-containing aqueous solution or any asbestos-containing waste material shall be cleaned up immediately and disposed of according to paragraph (k) of this section.

(8) The use of dry brushing during low pressure/wet cleaning operations is prohibited.

[C] Equivalent Methods

An equivalent method is one which has sufficient written detail so that it can be reproduced and has been demonstrated that the exposures resulting from the equivalent method are equal to or less than the exposures which would result from the use of the method described in paragraph [A] of CFR 1910.1001. For purposes of making this comparison, the employer shall assume that exposures resulting from the use of the method described in paragraph [A] of this appendix shall not exceed 0.016 f/cc, as measured by the OSHA reference method and as averaged over at least 18 personal samples.

[D] Wet Method

(1) A spray bottle, hose nozzle, or other implement capable of delivering a fine mist of water or amended water or other delivery system capable of delivering water at low pressure, shall be used to first thoroughly wet the brake and clutch parts. Brake and clutch components shall then be wiped clean with a cloth. Any wastewater generated must be captured and properly disposed of without allowing it to dry on any surfaces.

(2) The cloth shall be placed in an impermeable container, labeled according to paragraph (j)(4) of the standard and then properly disposed of as an asbestos waste, or the cloth shall be laundered in a way to prevent the release of asbestos fibers in excess of 0.1 fiber per cubic centimeter of air.

(3) Any spills of solvent or any asbestos containing waste material shall be cleaned up immediately according to paragraph (k) of this section.

(4) The use of dry brushing during the wet method operations is prohibited.

[59 FR 40964, Aug. 10, 1994; 60 FR 33972, June 29, 1995; 77 FR 17778, March 26, 2012]

For more information, visit www.osha.gov, or call OSHA at 1-800-321-OSHA(6742), TTY 1-877-889-5627.

*References to OSHA, NIOSH, MSHA, and EPA, which are regulatory agencies in the United States, are made to provide further guidance to employers and workers employed within the United States. Employers and workers employed outside of the United States should consult the regulations that apply to them for further guidance.
Exploded Views

Models - SAHR90

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cotter Pin</td>
</tr>
<tr>
<td>2</td>
<td>Castle Nut</td>
</tr>
<tr>
<td>3</td>
<td>Caliper Housing</td>
</tr>
<tr>
<td>4</td>
<td>Bleeder Screw</td>
</tr>
<tr>
<td>5</td>
<td>Bleeder Screw Cap</td>
</tr>
<tr>
<td>6</td>
<td>Brake Pad</td>
</tr>
<tr>
<td>7</td>
<td>Slide Pin</td>
</tr>
<tr>
<td>8</td>
<td>Plunger</td>
</tr>
<tr>
<td>9</td>
<td>O-ring</td>
</tr>
<tr>
<td>10</td>
<td>O-ring</td>
</tr>
<tr>
<td>11</td>
<td>Piston</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>Belleville Washer</td>
</tr>
<tr>
<td>13</td>
<td>Thrust Pad</td>
</tr>
<tr>
<td>14</td>
<td>Retaining Ring</td>
</tr>
<tr>
<td>15</td>
<td>Adjusting Screw</td>
</tr>
<tr>
<td>16</td>
<td>Jam Nut</td>
</tr>
<tr>
<td>17</td>
<td>Cup Seal</td>
</tr>
<tr>
<td>18</td>
<td>Cup Seal</td>
</tr>
<tr>
<td>19</td>
<td>Dust Boot</td>
</tr>
<tr>
<td>20</td>
<td>Screw</td>
</tr>
<tr>
<td>21</td>
<td>Magnet</td>
</tr>
<tr>
<td>22</td>
<td>Plug</td>
</tr>
</tbody>
</table>
Exploded Views

Models - 1270, 1286, 1287

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cotter Pin</td>
</tr>
<tr>
<td>2</td>
<td>Castle Nut</td>
</tr>
<tr>
<td>3</td>
<td>Bleeder Screw</td>
</tr>
<tr>
<td>4</td>
<td>Brake Pad</td>
</tr>
<tr>
<td>5</td>
<td>Slide Pin</td>
</tr>
<tr>
<td>6</td>
<td>Plunger</td>
</tr>
<tr>
<td>7</td>
<td>O-ring</td>
</tr>
<tr>
<td>8</td>
<td>Piston</td>
</tr>
<tr>
<td>9</td>
<td>Belleville Washer</td>
</tr>
<tr>
<td>10</td>
<td>O-ring</td>
</tr>
<tr>
<td>11</td>
<td>O-ring</td>
</tr>
<tr>
<td>12</td>
<td>Retaining Ring</td>
</tr>
<tr>
<td>13</td>
<td>Adjusting Screw</td>
</tr>
<tr>
<td>14</td>
<td>Cap</td>
</tr>
<tr>
<td>15</td>
<td>Jam Nut</td>
</tr>
<tr>
<td>16</td>
<td>Thrust Pad</td>
</tr>
<tr>
<td>17</td>
<td>Cup Seal</td>
</tr>
<tr>
<td>18</td>
<td>Cup Seal</td>
</tr>
<tr>
<td>19</td>
<td>Dust Boot</td>
</tr>
<tr>
<td>20</td>
<td>Magnet</td>
</tr>
<tr>
<td>21</td>
<td>Friction Sleeve</td>
</tr>
<tr>
<td>22</td>
<td>Inlet Adapter</td>
</tr>
<tr>
<td>23</td>
<td>Washer</td>
</tr>
<tr>
<td>24</td>
<td>Caliper Housing</td>
</tr>
</tbody>
</table>
Introduction

Brake Operation

The two brake pads slide on the slide pins in the housing. When the brake is actuated, the cup springs move the piston, adjusting screw, plunger, and inner brake pad toward the brake disc. When the inner brake pad contacts the brake disc, the housing shifts onto the slide pins, and the outer brake pad is also pressed against the brake disc.

The brake is released by hydraulic pressure. When the brake is released, the piston compresses the cup springs, pulling the inner brake pad away from the brake disc.

Brake lining and brake disc wear reduces braking force. The brake must be adjusted to maintain braking force. See “Brake Adjustment” on page 4.

When replacing parts, only use factory original parts and parts sets. Parts must be ordered from AxleTech International. Any damage to parts not described in this manual must be repaired or replaced using original parts.

CAUTION

MOUNT THE PISTON CUP SEALS AND BELLEVILLE SPRINGS IN THE DIRECTION SHOWN BELOW. INCORRECT MOUNTING CAN RESULT IN LEAKAGE, LOSS OF PRESSURE, AND LOSS OF CLAMPING FORCE.

SAHR90 MODELS
9 - O-ring
10 - O-ring
12 - Belleville Washer
13 - Thrust Pad
17 - Cup Seal
18 - Cup Seal
19 - Dust Boot

1270, 1286, 1287 MODELS
7 - O-ring
9 - Belleville Washer
10 - O-ring
11 - O-ring
16 - Thrust Pad
17 - Cup Seal
18 - Cup Seal
19 - Dust Boot
Adjustment

DANGER

TO PREVENT SERIOUS EYE INJURY, ALWAYS WEAR EYE PROTECTION WHEN PERFORMING 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.

WHEN THE PARKING BRAKE IS RELEASED, THE VEHICLE DOES NOT HAVE ANY PARK BRAKE FUNCTION. THE WHEELS MUST BE BLOCKED TO PREVENT THE VEHICLE FROM MOVING. SERIOUS PERSONAL INJURY AND DAMAGE TO COMPONENTS CAN RESULT.

Brake Adjustment

Brake adjustment is required after repairing brakes or installing new brake pads or discs to ensure brake performance. Adjust the brakes when the brake is cold. The parking brake must be released during the adjustment procedure.

1. Park the vehicle on a level surface. Block the wheels to prevent the vehicle from moving. If it is necessary to raise the vehicle to service the brake, use a jack to raise the vehicle. Support the vehicle with safety stands.

2. Apply 100 to 180 bar (1450 to 2610 psi) of hydraulic pressure to release the parking brake.

3. Remove the cap on models 1270, 1286, and 1287.

4. Loosen the lock nut. Use an Allen wrench, 8 mm for model 1270 brake, 10 mm for models 1286 and 1287 brakes, or 24 mm wrench for SAHR90, to turn the adjusting screw clockwise until both brake pads contact the brake disc.

5. Turn the adjusting screw counterclockwise to set the TOTAL clearance specified in the following table.

<table>
<thead>
<tr>
<th>Total Lining-to-Disc Clearance</th>
<th>Adjusting Screw Revolutions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>inch</td>
</tr>
<tr>
<td>Min.</td>
<td>0.020</td>
</tr>
<tr>
<td>Rated</td>
<td>0.040</td>
</tr>
<tr>
<td>Max.</td>
<td>0.060</td>
</tr>
</tbody>
</table>

6. Hold the adjusting screw in position. Tighten the lock nut securely.

7. Install and hand-tighten the cap.

8. Actuate the brake several times.

9. Check the parking brake on a slope.
Parking Brake Emergency Release

⚠️ DANGER

WHEN THE PARKING BRAKE IS RELEASED, THE VEHICLE DOES NOT HAVE ANY PARK BRAKE FUNCTION. THE WHEELS MUST BE BLOCKED TO PREVENT THE VEHICLE FROM MOVING. SERIOUS PERSONAL INJURY AND DAMAGE TO COMPONENTS CAN RESULT.

If hydraulic pressure is not available, the parking brake can be manually released using the following procedure.

1. Park the vehicle on a level surface. Block the wheels to prevent the vehicle from moving.
2. Remove the cap on models 1270, 1286, and 1287.
3. Loosen the lock nut.
4. Use an Allen wrench, 8 mm for model 1270 brake, 10 mm for models 1286 and 1287 brakes, or 24 mm for SAHR90, to turn the adjusting screw counterclockwise until the brake is released. Emergency release requires approximately 40 N·m (30 lbs. ft.) torque on the adjusting screw.
5. Tighten the lock nut. Install and hand-tighten the cap on models 1270, 1286, and 1287.
6. Before returning the vehicle to service, adjust the brake. See “Brake Adjustment” on page 4.

Bleed Brake

⚠️ DANGER

AFTER LOOSENING ANY BRAKE SYSTEM HYDRAULIC CONNECTION, ALWAYS BLEED THE BRAKE TO REMOVE ALL AIR FROM THE SYSTEM.

1. Ensure the master cylinder is filled to the specified level with hydraulic fluid recommended by the equipment manufacturer.
2. Keep the master cylinder filled during bleeding so air is not drawn into the system through the master cylinder.
3. Put a clear tube on the bleeder screw. Submerge the other end of the tube in a clear container of the specified fluid.
   • Slowly apply low hydraulic pressure to the brake.
   • Loosen the bleeder screw.
   • Continue to apply pressure until no air bubbles appear in the container of fluid.
   • Tighten the bleeder screw 12-16 N·m (9-12 lbs. ft.), then release the pressure to the brake.
5. Ensure the master cylinder is full when brake bleeding is completed.
**Inspection**

⚠️ **WARNING**

TO PREVENT SERIOUS EYE INJURY, ALWAYS WEAR EYE PROTECTION WHEN PERFORMING VEHICLE MAINTENANCE OR SERVICE.

**Linings**

⚠️ **CAUTION**

ALWAYS REPLACE BOTH LININGS WITH SPECIFIED PARTS. IF ONLY ONE LINING IS REPLACED, DAMAGE TO THE DISC CAN OCCUR. IF NON-AXLETECH PARTS ARE USED, INCORRECT BRAKE OPERATION CAN OCCUR. DAMAGE TO COMPONENTS CAN RESULT.

Brake lining thickness must be visually inspected at regular intervals, depending on vehicle usage. Inspect the lining thickness every six months minimum.

1. Remove the linings and inspect for wear and damage.
2. Replace damaged linings:
   - If the lining thickness reaches 0.04” (1.0 mm) or less for model 1270 and SAHR90 brakes.
   - If the lining thickness reaches 0.08” (2.0 mm) or less for models 1286 and 1287 brakes.
   - Each lining has a different thickness.
   - The linings are contaminated with oil or grease.
   - The linings have large or deep cracks. Small, tight cracks or heat checks on the lining’s surface, which are caused by high temperatures, are normal.

**Caliper**

1. Inspect for fluid leaks.
2. Disassemble the caliper if there is a leak.
3. Inspect the piston, piston bore, and seals.
4. Replace parts, as necessary.
Component Replacement

DANGER

TO PREVENT SERIOUS EYE INJURY, ALWAYS WEAR EYE PROTECTION WHEN PERFORMING 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.

WHEN THE PARKING BRAKE IS RELEASED, THE VEHICLE DOES NOT HAVE ANY PARK BRAKE FUNCTION. BLOCK THE WHEELS TO PREVENT THE VEHICLE FROM MOVING. SERIOUS PERSONAL INJURY AND DAMAGE TO COMPONENTS CAN RESULT.

Brake Pad Replacement

DANGER

ALWAYS REPLACE BOTH LININGS WITH SPECIFIED PARTS. IF ONLY ONE LINING IS REPLACED, DAMAGE TO THE DISC CAN OCCUR. IF NON-AXLETECH PARTS ARE USED, INCORRECT BRAKE OPERATION CAN OCCUR. DAMAGE TO COMPONENTS CAN RESULT.

NEVER APPLY GREASE OR OIL ON BRAKE LININGS OR ROTOR.

1. Park the vehicle on a level surface. Block the wheels to prevent the vehicle from moving. If it is necessary to raise the vehicle to service the parking brake, use a jack to raise the vehicle. Support the vehicle with safety stands.

2. Apply 100 to 180 bar (1450 to 2610 psi) of hydraulic pressure to release the parking brake.

3. Remove the cap on brake models 1270, 1286, and 1287.

4. Loosen the lock nut. Use an Allen wrench, 8 mm for model 1270 brake, 10 mm for models 1286 and 1287 brakes, or 24 mm wrench for SAHR90 to turn the adjusting screw counterclockwise.

5. Use a screwdriver to push the inner pad away from the brake disc to create clearance for the new brake pads.

NOTE: It is necessary to remove only one of the two slide pins to remove the brake pads from the housing.

6. Remove a slide pin cotter pin. Unscrew the castle nut. Pull the slide pin out of the brake housing.

7. Remove the brake pads from the brake housing in the direction of the removed slide pin.

8. If there is not enough clearance to replace the brake pads, the brake housing must be completely removed.

   a. If the hydraulic pressure hose is too short to remove the brake, release the pressure and disconnect the hose. Perform the parking brake emergency release procedure before removing the brake. See “Parking Brake Emergency Release” on page 5.

   b. Pull both slide pins out of the brake housing to remove the housing.

9. Install new brake pads. Insert the slide pins into the brake housing. Check the permanent magnets to verify they have enough magnetic force to hold the brake pads.

NOTE: If the permanent magnets do not have enough magnetic force to hold the brake pads, replace the magnets. Use a screwdriver to pry the magnets from the outer end of the plunger and caliper boss on models 1270, 1286, and 1287. Remove the magnet screw using a 2.5 mm Allen wrench on SAHR90.

10. Secure the slide pins with the castle nut and cotter pin.

11. If the brake was completely removed, connect the pressure hose and bleed the brake.

12. Before returning the vehicle to service, adjust the brake. See “Brake Adjustment” on page 4.
Seal Replacement

NOTE: See page 9 for Seal Kit contents.

1. Park the vehicle on a level surface.
2. Block the wheels to prevent the vehicle from moving.
3. Apply 100 to 180 bar (1450 to 2610 psi) of hydraulic pressure to release the parking brake.
4. Remove the cap on brake models 1270, 1286, and 1287.
5. Loosen the lock nut. Use an Allen wrench, 8 mm for model 1270 brake, 10 mm for models 1286 and 1287 brakes, or 24 mm wrench for SAHR90, to turn the adjusting screw counterclockwise until the adjusting screw extends 27 to 30 mm (1.1 to 1.2 inches) outside of the piston.
6. Release hydraulic pressure.
7. Remove the pressure hose and completely remove the brake.
8. Remove the large snap ring.
9. Remove the thrust pad from the housing.
10. Remove the cup springs, piston, and plunger. Make sure to maintain cup spring orientation.
11. Remove the piston seals.
12. Use a suitable tool to pry out the dust boot.
13. Use a suitable tool with rounded edges to install the new piston cup seals in the original orientation shown on page 3. Take care to avoid damage to the sealing lips.
14. Use a suitable seal driver and a screw-type clamp to press a new dust boot into the housing.
15. Use correct actuating fluid to lubricate the sliding and sealing surfaces of the piston.
16. Install the piston and plunger assembly.
17. Install the dust boot lip into the plunger groove.
18. Apply a coating of silicone grease on the Belleville springs.
19. Install the cup springs in the original orientation shown on page 3.
20. Install the thrust pad into the housing.
21. Install the large snap ring. Ensure the snap ring is correctly seated in the groove.
22. Mount the caliper on the axle adapter. See “Caliper Assembly Installation” on page 8.

Caliper Assembly Installation

NOTE: Install the caliper assembly when the brake is cold.

1. Park the vehicle on a level surface.
2. Block the wheels to prevent the vehicle from moving.
3. Remove the cap on brake models 1270, 1286, and 1287.
4. Loosen the lock nut. Use an Allen wrench, 8 mm for model 1270 brake, 10 mm for models 1286 and 1287 brakes, or 24 mm wrench for SAHR90, to turn the adjusting screw counterclockwise.
5. Push the inner brake pad and pressure bolt assembly toward the caliper head to create a larger opening between the brake pads.
6. Install the caliper assembly onto the brake disc and fasten it to the axle adapter.
7. Install a hydraulic pressure line to the caliper inlet fitting. Apply 100 bar (1450 psi) of pressure. The piston will retract and the cup springs will be pre-tensioned.
8. Before returning the vehicle to service, adjust the brake. See “Brake Adjustment” on page 4.
9. Bleed all air from the piston chamber. See “Bleed Brake” on page 5.
Specifications

DANGER

USE ONLY THE TYPE OF HYDRAULIC FLUID SPECIFIED BY THE EQUIPMENT MANUFACTURER. DO NOT USE OR MIX DIFFERENT TYPES OF HYDRAULIC FLUID. USING INCORRECT HYDRAULIC FLUID WILL DAMAGE THE RUBBER PARTS OF THE CALIPER. LOSS OF BRAKING CONTROL, SERIOUS PERSONAL INJURY, AND DAMAGE TO COMPONENTS CAN RESULT.

DO NOT REUSE HYDRAULIC FLUID. USED FLUID CAN BE CONTAMINATED AND CAUSE INCORRECT OPERATION. SERIOUS PERSONAL INJURY AND DAMAGE TO COMPONENTS CAN RESULT.

Hydraulic Pressure

- Brake releases completely at minimum 100 bar (1450 psi). Maximum release pressure is 180 bar (2610 psi).

Fluid Volume

- Volume to release brake: Approximately 33 cm³ (2.0 in³), plus allowance for brake line.

NOTE: ALWAYS verify brake is fully released when pressure is applied.

Service Kits

BRAKE PAD KIT 940002525A02 FOR MODEL 1270 & SAHR90

<table>
<thead>
<tr>
<th>Part Name</th>
<th>Qty</th>
<th>Exploded View Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brake Pad</td>
<td>2</td>
<td>4 / 6</td>
</tr>
</tbody>
</table>

BRAKE PAD KIT MPS4730 FOR MODEL 1286 & 1287

<table>
<thead>
<tr>
<th>Part Name</th>
<th>Qty</th>
<th>Exploded View Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brake Pad</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

SEAL KIT 940002525A02 SAHR90 - MINERAL OIL
SEAL KIT 940002525A04 DOT 3, 4, 5.1 - BRAKE FLUID

<table>
<thead>
<tr>
<th>Part Name</th>
<th>Qty</th>
<th>Exploded View Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>O-ring</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>O-ring</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Cup Seal</td>
<td>1</td>
<td>17</td>
</tr>
<tr>
<td>Cup Seal</td>
<td>1</td>
<td>18</td>
</tr>
<tr>
<td>Dust Boot</td>
<td>2</td>
<td>19</td>
</tr>
</tbody>
</table>

SEAL KIT MPS4646 FOR MODEL 1270
SEAL KIT MPS4731 FOR MODEL 1286 AND 1287

<table>
<thead>
<tr>
<th>Part Name</th>
<th>Qty</th>
<th>Exploded View Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>O-ring</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>O-ring</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Cup Seal</td>
<td>1</td>
<td>17</td>
</tr>
<tr>
<td>Cup Seal</td>
<td>1</td>
<td>18</td>
</tr>
<tr>
<td>O-ring</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>Dust Boot</td>
<td>1</td>
<td>19</td>
</tr>
</tbody>
</table>

BRAKE PADS, SLIDE PINS, AND BLEEDER KIT 940002525A01 FOR MODEL SAHR90

<table>
<thead>
<tr>
<th>Part Name</th>
<th>Qty</th>
<th>Exploded View Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brake Pad</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Slide Pin</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Castle Nut M16x1.5</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Cotter Pin</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Bleeder Screw</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Bleeder Screw Cap</td>
<td>1</td>
<td>5</td>
</tr>
</tbody>
</table>