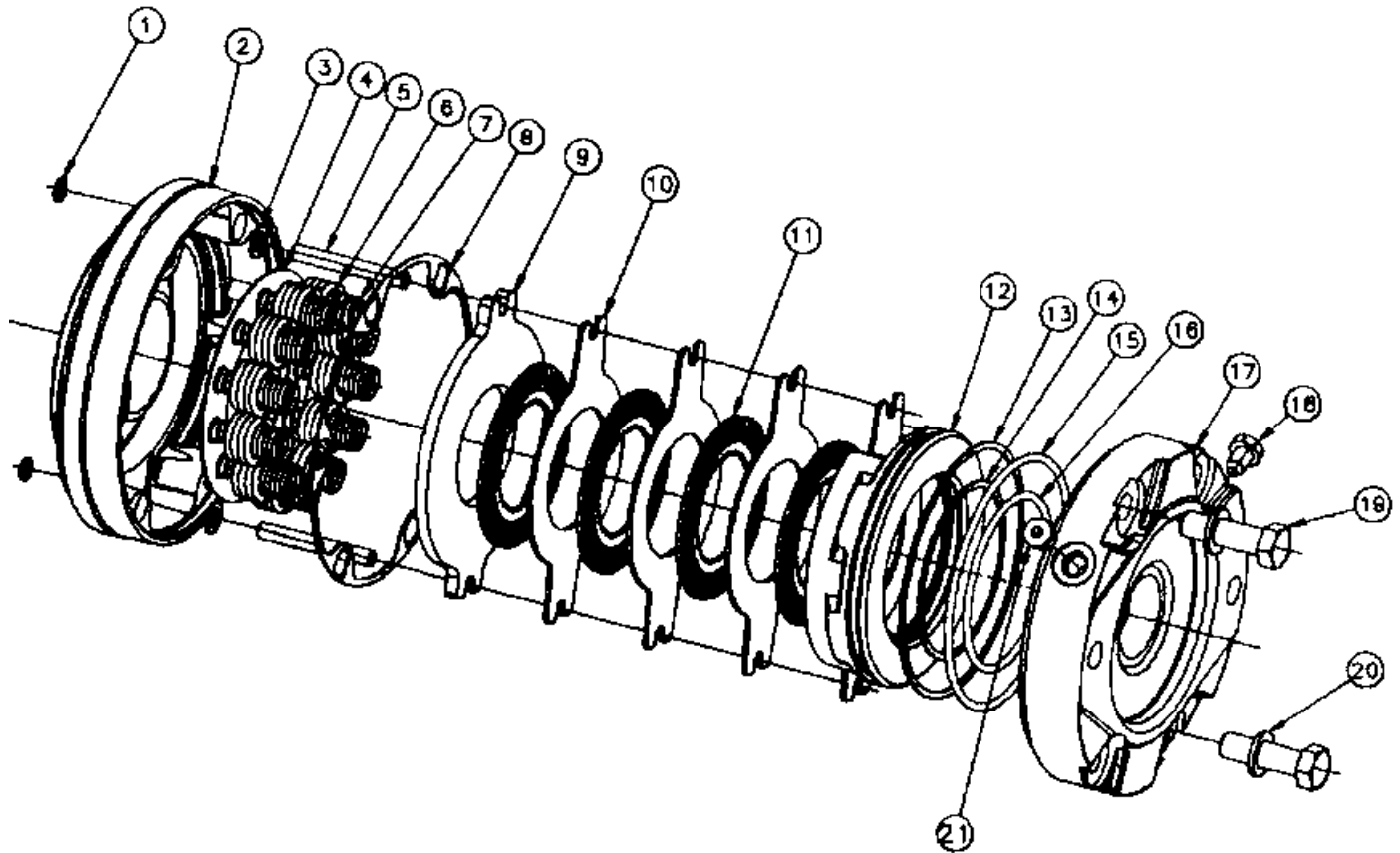


**Power Wheel® Service Manual**  
**A2 Series™ Parking Brakes**  
**SAE "A" and "B" Mounting**



**NOTE:** Common mounting surfaces of the brake, motor, and gear drive are machined to close tolerances and should be protected during installation and removal.

## DISASSEMBLY OF A2 SERIES™ PARKING BRAKES - SAE "A" and "B" MOUNT

### STEP 1

Remove motor from planetary drive.

### STEP 2

With the drive in the horizontal position, unscrew the pipe plug (18 & 21) and drain the brake.

### STEP 3

With the drive in the vertical position, disassemble the brake in the following order:

#### A. Bolts (19)

Carefully remove a quarter turn at a time in a diagonal pattern.

SAE 'A' - 6 Bolts (4-Grade 8, 2-Grade 2)

SAE 'B' - 4 Bolts (2-Grade 8, 2-Grade 2)

#### B. Washers (20) - SAE 'A' - 6 Washers; SAE 'B' - 4 Washers.

#### C. Power Plate (17).

#### D. Gasket (8).

#### E. Stationary Discs (10) and Rotating Discs (11)

### STEP 3 Continued:

**2 Discs (Each):** A-15-190, B-15-190, SB-15-190, A-18-220, B-18-220, A-24-290, B-24-290, VB-21-220, VA-17-190

**4 Discs (Each):** A-32-220, B-32-220, A-36-230, B-36-230, A-42-260, B-42-260, TA-42-260, B-24-160, VA-46-260.

#### F. Primary Disc (9).

#### G. Torque Pins (5).

#### H. Springs (6 & 7).

#### I. Spring Retainer (4).

#### J. Piston Assembly

In order to remove the piston (12) from the power plate (17) introduce low-pressure air (15 psi) into the hydraulic inlet. Make sure the piston is directed away from the operator. Remove the o-rings (15 & 16) and back up rings (13 & 14) from the I.D. and O.D. grooves of the piston. Back-up rings will be damaged by removal and should not be removed if replacement is not planned.

## REASSEMBLY OF A2 SERIES™ PARKING BRAKES - SAE "A" and "B" MOUNT

### STEP 1

Obtain new gaskets (8) and 904507 (gasket between brake and spindle or cover) and any additional parts to be replaced.

### STEP 2

Make sure all parts are thoroughly cleaned prior to reassembly.

### STEP 3

Worn o-rings (15 & 16) and damaged or worn teflon back-up rings (13 & 14) must be replaced prior to reassembly.

### STEP 4

The cylinder of the power plate (17), the piston (12), and o-rings (15 & 16) must be clean prior to reassembly and prelubed with hydraulic system fluid.

### STEP 5

Assemble the piston (12) into the power plate (17) using a shop press, being careful not to damage the o-rings or teflon back-up rings. Visually align the center of the cutouts in the position with the torque pin holes in the power plate. **CAUTION:** the depth the piston is installed into the power plate is critical. The surface of the piston at the cutouts must be flush to 0.120" below the surface of the power plate. **DO NOT** exceed the 0.120" depth or the piston will cock resulting in complete loss of braking.

### STEP 6

Rotating discs (11) must be clean. The lining material and mating surfaces of the stationary discs (10) must be thoroughly clean. Worn or scored discs must be replaced.

### STEP 7

Position the housing (2) on a workbench with the inside facing up.

### STEP 8

Place the spring retainer (4) in the spring pocket of the housing.

### STEP 9

Add springs (6 & 7). See figures 1A-1D for proper spring orientation.

### STEP 10

Install primary plate (9) - be sure to line up locating slots with the torque pin holes of the housing; torque pins to be installed later.

### STEP 11

Set the push retainer (3) on the torque pins (5). Reference figure 2A-Torque Pin Pre-Installation View.

### STEP 12

Now add the torque pins (5) and retaining rings (3) keeping the flat side of the retainer touching the primary disc. These should just pass through the torque pin holes in the housing.

### STEP 13

Add a rotating disc (11), followed by a stationary disc (10). Repeat this until all discs are installed.

### STEP 14

Install power plate/piston sub-assembly to housing, being careful to align the torque pins with the torque pin holes in the power plate. Do not add washers and bolts yet.

### STEP 15

Bolting installation procedure: It is necessary to use a shop press for this step.

**A.** Install bolts (19) and washers (20) to power plate and thumb tighten.

**B.** Tighten bolts a quarter turn at a time.

**C. Bolt Torque:**

Grade 2 assembly bolts (Zinc plated and no head markings)  
25 lb-ft (lubricated)

All other bolts – 80 lb-ft (lubricated).

**Continued on next page →**

# REASSEMBLY OF A2 SERIES™ PARKING BRAKES - SAE "A" and "B" MOUNT (CONTINUED)

## STEP 16

Install pipe plugs (18 & 21) if not previously installed.

## STEP 17

Flip brake over with torque pins up. Lightly tap torque pins down to depth shown. Reference figure 2-B: Torque Pin Post Installation View.

## STEP 18

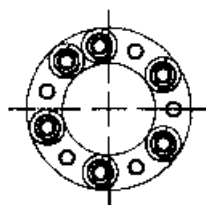
Install torque pin o-rings (1) over the torque pins and in the face groove.

## STEP 19

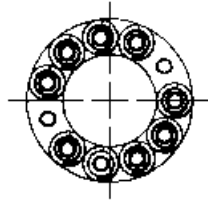
Set gasket, 904507, in cover or spindle.

## STEP 20

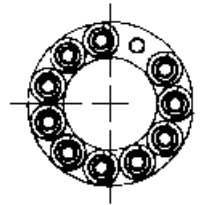
Bolt brake to planetary drive  
 SAE 'A' – 4 bolts (80-90 lb-ft)  
 SAE 'B' – 2 bolts (80-90 lb-ft)



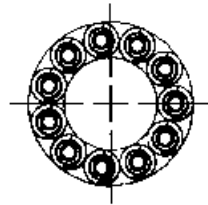
**NESTED SPRING ORIENTATION**  
 6 SPRINGS  
 6 SPRINGS  
**FIG. 1-A**



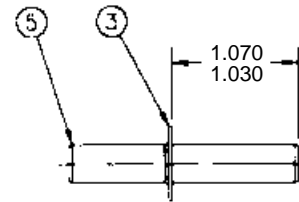
**NESTED SPRING ORIENTATION**  
 8 SPRINGS  
 9 SPRINGS  
**FIG. 1-B**



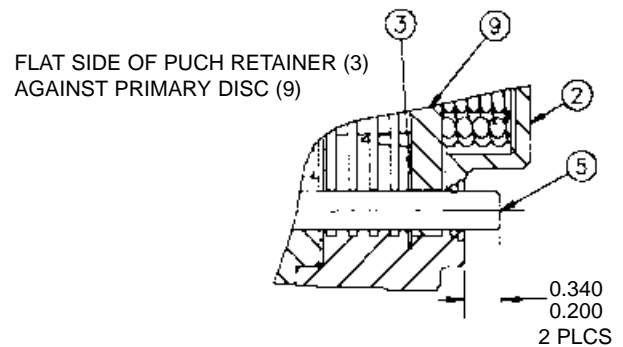
**NESTED SPRING ORIENTATION**  
 10 SPRINGS  
 10 SPRINGS  
**FIG. 1-C**



**NESTED SPRING ORIENTATION**  
 11 SPRINGS  
 11 SPRINGS  
**FIG. 1-D**



**TORQUE PIN PRE-INSTALLATION VIEW**  
**FIG. 2-A**



**TORQUE PIN POST-INSTALLATION VIEW**  
**FIG. 2-B**

**Figure 1-A:** B-24-160

**Figure 1-B:** A-15-190, B-15-190, SB-15-190, A-18-220, B-18-220, VA-17-190, VB-21-220

**Figure 1-C:** A-32-220, B-32-220, A-42-260, B-42-260, TA-42-260, VA-46-260

**Figure 1-D:** A-24-290, B-24-290, A-36-230, B-36-230

Description	P/N	Brake Model Serviced	Contents
O-ring/Gasket Kit	941058	All models	2-#1, 1-#8, 1-#13&14, 1-#15&16, 1-904507
Disc Kit-2 Rotor	941054	A-15-190, B-15-190, SB-15-190	2-#1, 2-#3, 2-#5, 11-#6&7, 1-#9, 2-#10, 2-#11
Disc Kit-2 Rotor	941055	A-18-220, B-18-220, A-24-290, B-24-290	2-#1, 2-#3, 2-#5, 11-#6&7, 1-#9, 2-#10, 2-#11
Disc Kit-4 Rotor	941056	A-32-220, B-32-220, A-36-230, B-36-230	2-#1, 2-#3, 2-#5, 11-#6&7, 1-#9, 4-#10, 4-#11
Disc Kit-4 Rotor	941057	A-42-260, B-42-260, TA-42-260, B-24-160	2-#1, 2-#3, 2-#5, 11-#6&7, 1-#9, 4-#10, 4-#11
Disc Kit-2 Rotor	941059	VB-21-220	2-#1, 2-#3, 2-#5, 11-#6&7, 1-#9, 2-#10, 2-#11
Disc Kit-4 Rotor	941060	VA-46-260	2-#1, 2-#3, 2-#5, 11-#6&7, 1-#9, 4-#10, 4-#11
Disc Kit-2 Rotor	941061	VA-17-190	2-#1, 2-#3, 2-#5, 11-#6&7, 1-#9, 2-#10, 2-#11

ITEM NO.	DESCRIPTION*	NO. USED IN ASS'Y.	ITEM NO.	DESCRIPTION*	NO. USED IN ASS'Y.
1	Torque Pin O-ring	2	12	Piston	1
2	Housing	1	13	Back-up Ring	1
3	Torque Pin Push Retainer	2	14	Back-up Ring	1
4	Spring Retainer	1	15	O-ring	1
5	Torque Pin	2	16	O-ring	1
6	Springs	6-11	17	Power Plate	1
7	Springs	6-11	18	Pipe Plug	1
8	Gasket	1	19	Bolts	2 or 4
9	Primary Disc	1	20	Washers	2 or 4
10	Stationary Discs	2 or 4	21	Pipe Plug	1
11	Rotating Discs	2 or 4			

\* Contact Auburn Gear with part number and order code of drive to obtain the appropriate parts list. Refer to parts list for the specific part numbers and quantities.