Parking Brake System: Service and Repair
PARKING BRAKE ASSEMBLY

COMPONENTS

DISASSEMBLY
1. REMOVE REAR WHEEL
2. SEPARATE REAR DISC BRAKE CALIPER ASSEMBLY LH
   (a) Remove the 2 bolts and separate the rear disc brake caliper assembly LH.
HINT: Do not disconnect the flexible hose from the brake caliper.

3. REMOVE REAR DISC
   (a) Release the parking brake, and remove rear disc.

   HINT:
   ^ Put matchmarks on the disc and remove the axle shaft.
   ^ If the disc cannot be removed easily, turn the shoe adjuster until the wheel turns freely.

4. INSPECT BRAKE DISC INSIDE DIAMETER
   (a) Using a brake drum gauge or equivalent, measure the inside diameter of the disc.
   Standard inside diameter: 210 mm (8.27 in.)
   Maximum inside diameter: 211 mm (8.30 in.)

5. REMOVE PARKING BRAKE SHOE RETURN TENSION SPRING
   (a) Using a needle-nose pliers, remove the 2 return tension springs.

6. REMOVE PARKING BRAKE SHOE STRUT COMPRESSION SPRING
   (a) Slide out the front shoe and remove the compression spring.

7. REMOVE PARKING BRAKE SHOE STRUT LH

8. REMOVE PARKING BRAKE SHOE
   (a) Release the cup claw and remove the front and rear parking brake shoe.
   (b) Disconnect the parking brake cable from the shoe lever.
   (c) Remove the tension spring and shoe adjuster screw set from the front rear shoe.
   (d) Remove the 2 shoe hold-down springs, 4 cups and 2 pins.
   (e) Using a screwdriver, remove the C-washer.
   (f) Remove the shim and shoe lever from the parking brake shoe.

REASSEMBLY
1. **INSPECT PARKING BRAKE SHOE LINING THICKNESS**
   
   (a) Using a ruler, measure the thickness of the shoe lining.
   
   **Standard thickness:** 4.0 mm (0.158 in.)
   
   **Minimum thickness:** 1.0 mm (0.039 in.)
   
   If the lining thickness is at the minimum thickness or less, or if there is severe or uneven wear, replace the brake shoe.

2. **INSPECT BRAKE DISC AND PARKING BRAKE SHOE LINING FOR PROPER CONTACT**
   
   (a) Apply chalk to the inside surface of the disc, then grind down the brake shoe lining to fit.
   
   If the contact between the brake disc and the shoe lining is improper, repair it using a brake shoe grinder or replace the brake shoe assembly.

3. **APPLY HIGH TEMPERATURE GREASE**
   
   (a) Apply the high temperature grease to the shoe attached surface of backing plate.

4. **INSTALL PARKING BRAKE SHOE**
   
   (a) Install the shoe lever and the shim to the rear shoe with a new C-washer.

   (b) Using a feeler gauge, measure the clearance.
   
   **Standard clearance:** Less than 0.25 mm (0.0098 in.)
   
   If the clearance is not within the specification, replace the shim with one of the correct size.

<table>
<thead>
<tr>
<th>Shim Thickness</th>
<th>Shim Thickness</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.3 mm (0.012 in.)</td>
<td>0.6 mm (0.024 in.)</td>
</tr>
<tr>
<td>0.4 mm (0.016 in.)</td>
<td>0.9 mm (0.035 in.)</td>
</tr>
<tr>
<td>0.5 mm (0.020 in.)</td>
<td>-</td>
</tr>
</tbody>
</table>
(c) Apply the high temperature grease to the adjusting bolt and piece.
(d) Install the shoe adjusting screw set and the tension spring to the front and rear shoe.
(e) Install the 2 pins, 4 cups and 2 shoe hold-down springs.
(f) Connect the parking brake cable to the shoe lever.
(g) Install the front and rear parking brake shoe.

5. INSTALL PARKING BRAKE SHOE STRUT LH
6. INSTALL PARKING BRAKE SHOE STRUT COMPRESSION SPRING
7. INSTALL PARKING BRAKE SHOE RETURN TENSION SPRING
   (a) Using a needle nose pliers, install the 2 return tension springs.

   **HINT:** Install front side spring first, rear side spring next.

8. CHECK PARKING BRAKE INSTALLATION
   (a) Check that each part is installed properly.

   **NOTICE:** There should be no oil or grease adhering to the friction surface of the shoe lining and disk.

9. INSTALL REAR DISC
10. **ADJUST PARKING BRAKE SHOE CLEARANCE**
   (a) Temporarily install the hub nuts.
   (b) Remove the hole plug, and turn the adjuster and expand the shoes until the disc locks.
   (c) Contract the shoe adjuster until the disc rotates smoothly.
      
      **Standard:** Return 8 notches
   
   (d) Check the shoe has no brake drag.
   (e) Install the hole plug.

11. **INSTALL REAR DISC BRAKE CALIPER ASSEMBLY LH**
    (a) Install the rear disc brake caliper with the 2 bolts.
        
        **Torque:** 105 Nm (1,071 kgf/cm, 77 ft. lbs.)

12. **INSTALL REAR WHEEL**
    
    **Torque:** 112 Nm (1,137 kgf/cm, 83 ft. lbs.)

13. **INSPECT PARKING BRAKE PEDAL TRAVEL**

14. **ADJUST PARKING BRAKE PEDAL TRAVEL**
Parking Brake System: Adjustments

ADJUSTMENT

1. REMOVE REAR WHEEL
2. ADJUST PARKING BRAKE SHOE CLEARANCE
3. INSTALL REAR WHEEL
   Torque: **103 Nm (1,050 kgf/cm, 76 ft. lbs.)**
4. INSPECT PARKING BRAKE PEDAL TRAVEL
   (a) Slowly depress the parking brake pedal all the way, and count the number of clicks.
       Parking brake pedal travel at **294 N (30 kgf, 66 lbf): 5 to 7 clicks**
5. ADJUST PARKING BRAKE PEDAL TRAVEL
   (a) Remove the console rear panel upper.
   (b) Remove the console panel upper.
   (c) Remove the rear console box.
   (d) Confirm that the parking brake pedal is released.
   (e) Loosen the lock nut and turn the adjusting nut until the parking brake pedal travel is corrected to the specification.
   (f) Tighten the lock nut.
      Torque: **13 Nm (127 kgf/cm, 9 ft. lbs.)**
   (g) Check whether parking brake drags or not.
   (h) When operating the parking brake pedal, check that the parking brake pedal indicator light comes on.
   (i) Install the rear console box.
   (j) Install the console panel upper.
   (k) Install the console rear panel upper.
Parking Brake System: Specifications

**SERVICE DATA**

<table>
<thead>
<tr>
<th>Part</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parking brake lever travel at 196 N (20 kgr, 44.1 lbf):</td>
<td>5 to 7 clicks</td>
</tr>
<tr>
<td>Rear brake disc inside diameter (Standard)</td>
<td>210 mm (8.27 in.)</td>
</tr>
<tr>
<td>Rear brake disc inside diameter (Maximum)</td>
<td>211 mm (8.30 in.)</td>
</tr>
<tr>
<td>Parking brake shoe lining thickness (Standard)</td>
<td>4.0 mm (0.158 in.)</td>
</tr>
<tr>
<td>Parking brake shoe lining thickness (Maximum)</td>
<td>1.0 mm (0.039 in.)</td>
</tr>
</tbody>
</table>

**Parking Brake - Service Data**

**TORQUE SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Part Tightened</th>
<th>N·m</th>
<th>kgf·cm</th>
<th>ft·lbf</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheel nut</td>
<td>112</td>
<td>1,137</td>
<td>83</td>
</tr>
<tr>
<td>Parking brake lock nut (Front side)</td>
<td>13</td>
<td>127</td>
<td>9</td>
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<tr>
<td>Parking brake lock nut (Rear side)</td>
<td>5.4</td>
<td>55</td>
<td>48 in.*lbf</td>
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<tr>
<td>Parking brake pedal x Body</td>
<td>13</td>
<td>127</td>
<td>9</td>
</tr>
<tr>
<td>Floor heat insulator x Body</td>
<td>13</td>
<td>127</td>
<td>9</td>
</tr>
<tr>
<td>Parking brake cable assembly No. 1 x Body (Bolt)</td>
<td>13</td>
<td>127</td>
<td>9</td>
</tr>
<tr>
<td>Parking brake cable assembly No. 1 x Body (Nut)</td>
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<td>61</td>
<td>53 in.*lbf</td>
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<tr>
<td>Parking brake cable assembly No. 3 x Fram</td>
<td>13</td>
<td>127</td>
<td>9</td>
</tr>
<tr>
<td>Parking brake cable assembly No. 3 x Backing plate</td>
<td>8.0</td>
<td>82</td>
<td>71 in.*lbf</td>
</tr>
</tbody>
</table>

**Parking Brake - Torque Specifications**