

SECTION 4 BRAKE SYSTEM

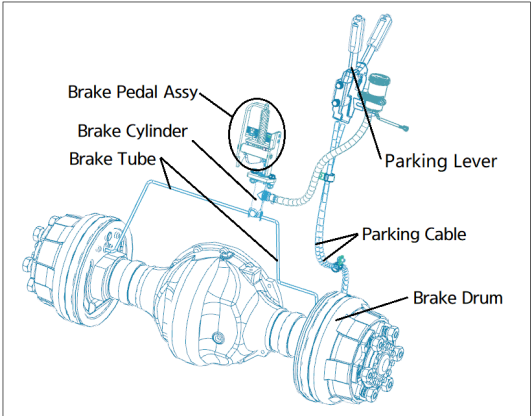
GROUP 1 STRUCTURE AND FUNCTIONS

1. INTRODUCTION

There are two types of brake systems: Service brake and parking brake.

Pressing the service brake pedal generates hydraulic pressure in the master cylinder. This pressure lets the brake lever press the pressure pin to apply braking pressure on the disk carrier.

The parking brake lever operates with cable to make the pressure pin apply braking pressure on the disk carrier



2. SPECIFICATIONS

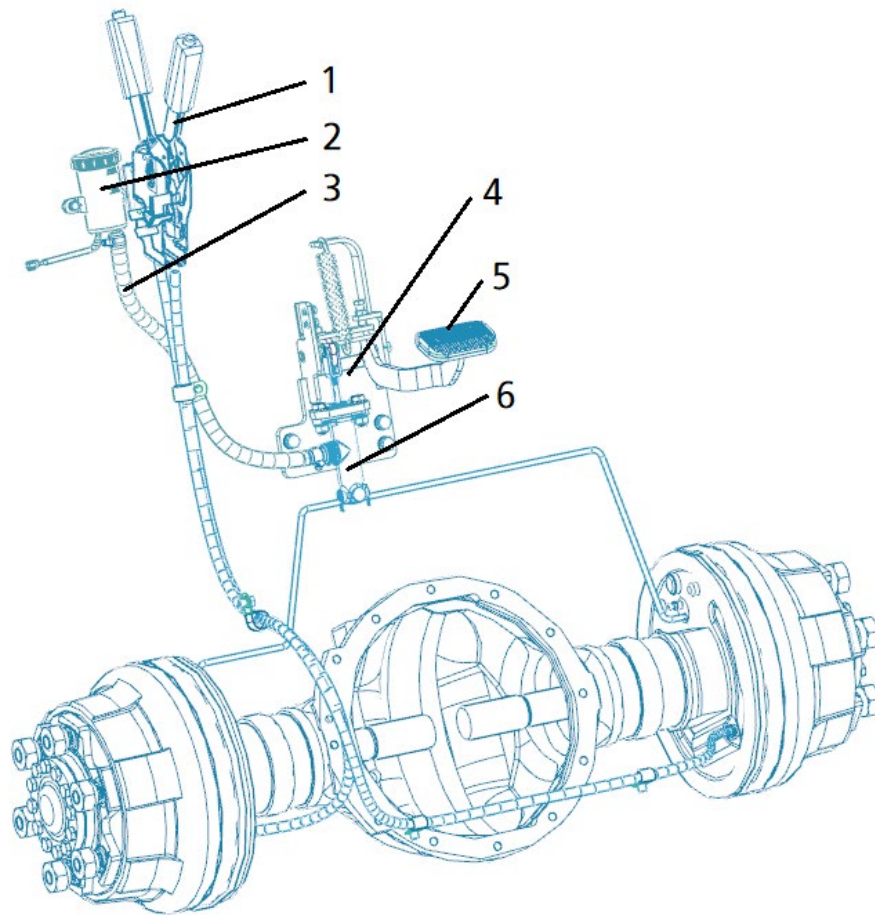
1) SERVICE BRAKE

Item	Specifications
Type	Front-wheel mounted, dry disk mode
Brake Oil	Dot 3

2) PARKING BRAKE

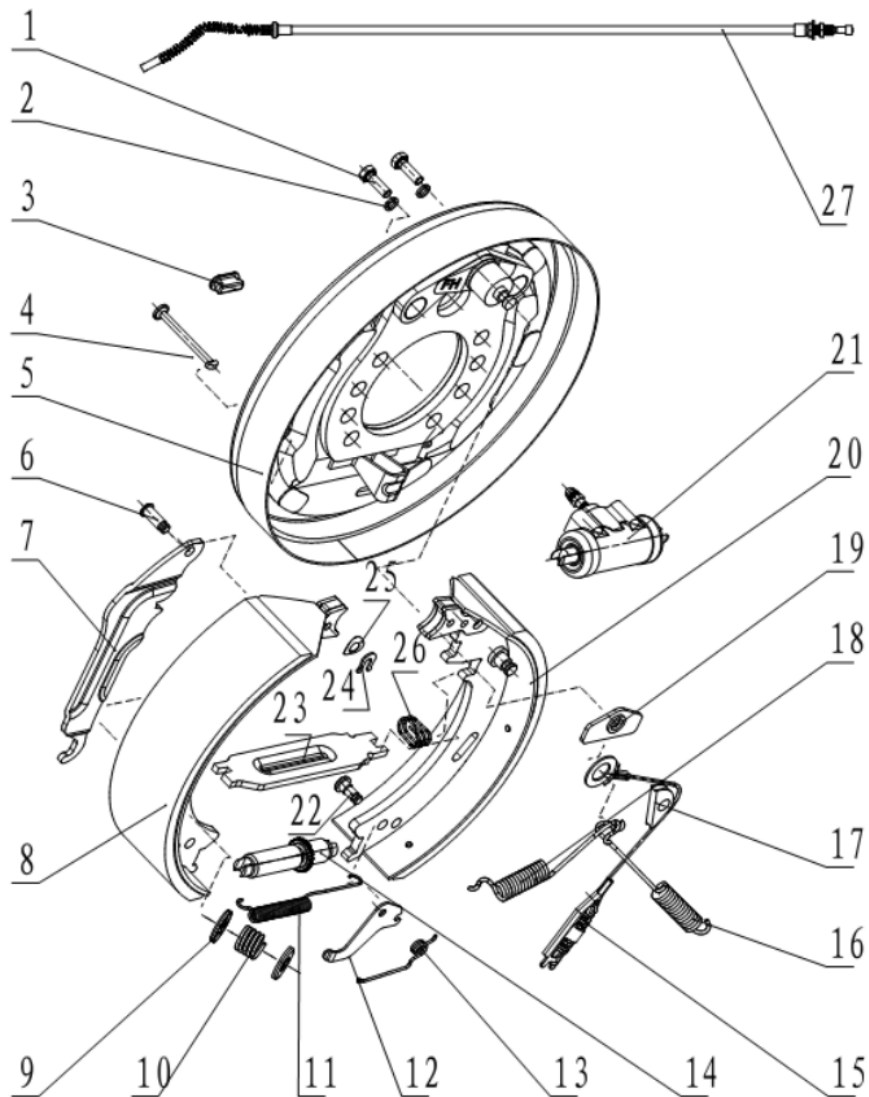
Item	Dimensions
Type	Mechanical
Parking lever stroke	11.7 deg.

3. BRAKE PEDAL AND PIPING



- | | | | |
|---|---------------------|---|----------------|
| 1 | Parking Brake Lever | 4 | Bracket |
| 2 | Reserve Tank | 5 | Brake Pedal |
| 3 | Hose | 6 | Brake Cylinder |

4. BRAKE DRUM



1 Bolt	10 Spring-Compress	19 Plate-Guide
2 Washer-Spring	11 Spring-Tension	20 Brake Pad & Pin Assy
3 Plug	12 Pawl	21 Slave Pump
4 Rod-Spring	13 Spring-Torsional	22 Pin
5 Plate Assy	14 Gap Adjustment	23 Rod-Parking
6 Pin	15 Spring Assy	24 Ring-Retainer
7 Rod-Parking	16 Spring-Return	25 Washer-Spring
8 Brake Pad Assy	17 Block-Guide	26 Spring
9 Boss-Spring	18 Spring-Return	27 Cable Assy RH/1790mm Cable Assy LH/1270mm

GROUP 2 OPERATIONAL CHECKS AND TROUBLESHOOTING

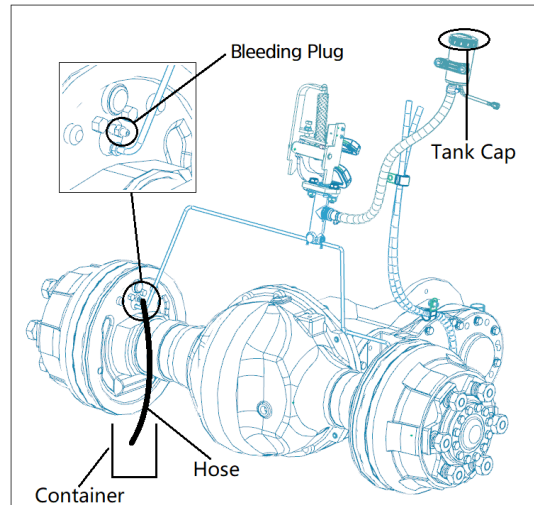
Trouble		Cause	Corrective action
Brake perform bad	Brake drum	· Space between brake pad assy and brake drum is too big	· Adjust
	Oil leak	· Connector loose	· Tighten the connector, replace parts if required
	Air in system	· Air in system · Connector loose	· Fully bleed the system. · Tighten the connector, replace parts if required
No brake	Brake drum	· Brake pad assy reach the limit of life	· Replace
	Hub oil seal	· Oil seal broken, oil flow into brake drum.	· Replace the oil seal and clean brake drum, replace parts if they cannot be cleaned.
	Slave Pump	· Oil leak, oil flow into brake drum	· Replace slave pump assy and clean brake drum, replace parts if they cannot be cleaned.
Always brake	Brake drum	· Space between brake pad assy and brake drum is too small	· Adjust

GROUP 3 TESTING AND ADJUSTMENT

1. BRAKE BLEEDING

Bleeding should be performed on brake system after filling brake oil.

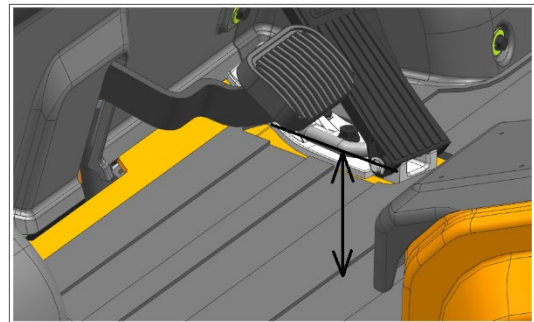
- 1) Unscrew (not remove) the nut in the plug, and connect a hose to put discharging fluid into a container.
 - 2) Press brake pedal to apply pressure.
 - 3) Continue to loosen the nut until oil flows out while pressing brake pedal to bleed the brake oil.
- ※ Put discharged brake fluid into a container.
 - ※ Do not spill brake fluid on the floor, or discharge it into drain.
 - ※ Repeat this process until brake fluid shows no bubble.
 - ※ Check the level of brake oil in the tank, and fill the brake oil, if required.
- 4) Once brake oil is discharged without indication of bubble, remove hose, fasten the plug, and install dust prevention cap on the plug.



2. BRAKE PEDAL

Adjust the height of pedal from the floor plate with a stopper bolt.

- Pedal height: 80 mm



3. BRAKE SYSTEM

The brake system does not need maintenance, except after replacing the friction plate. Please adjust the braking system in the following order.

1) Brake Drum

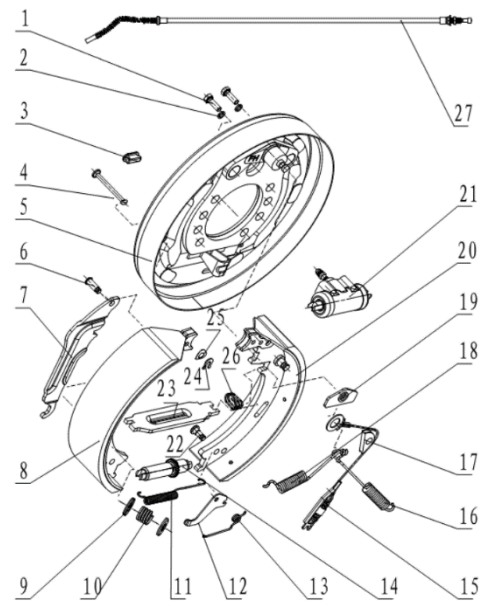
Brake drum does not need to be adjusted unless the brake pad assy (8#) has been replaced. The distance between pad assy (8#) and plate assy (5#) should be 0.25-0.4mm.

Distance is too big:

- ① Remove the rubber plug.
- ② Pull down the gap adjustment gear (14#) until the pawl (12#) slip.
- ③ Mount the rubber plug.

Distance is too small:

- ① Remove the rubber plug.
- ② Push the pawl (12#) away by a screwdriver
- ③ Pull up the gap adjustment gear (14#) until the distance is in range.
- ④ Mount the rubber plug.



2) Running-in

After changing the friction plate, it is necessary to run 500-800 circles in order to increase the contact area between the friction plate and brake drum.

There are two ways to run-in:

- ① When the front wheels are off the ground, press accelerator pedal and brake pedal at the same time. Repeat the process for a total of 2-3 minutes for one side.
- ② Repeat going frontward and backward. When the speed is at 15Km/h, press the brake pedal to slow down to 10~12Km/h and drive for 1-2 seconds. Then change the direction. Repeat the process for a total of 2-3 minutes.

※ When there is only one brake drum is well-adjusted, jack this side and press accelerator pedal and brake pedal at the same.

▲ When running-in, pay attention to prevent accidental intrusion.

3) Parking Brake

There are two parking cables that control LH/RH.

Move the parking cable up or down to adjust parking brake force by adjusting two nuts at the same time.

- ⚠ **Make sure the brake system work properly before the truck is operated.**

