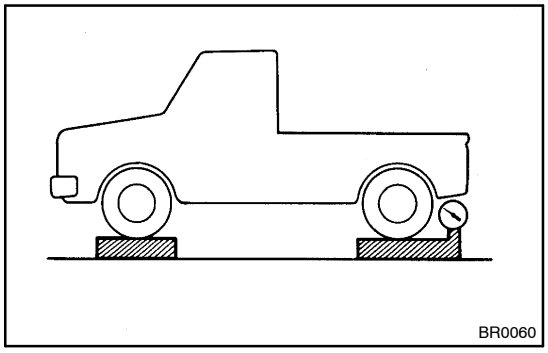

BR0060

LOAD SENSING PROPORTIONING AND BY–PASS VALVE (LSP & BV)

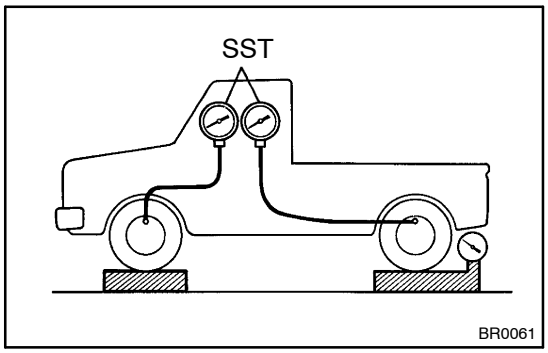
BR05I–04

ON–VEHICLE INSPECTION

1. SET REAR AXLE LOAD

Rear axle load (includes vehicle weight):

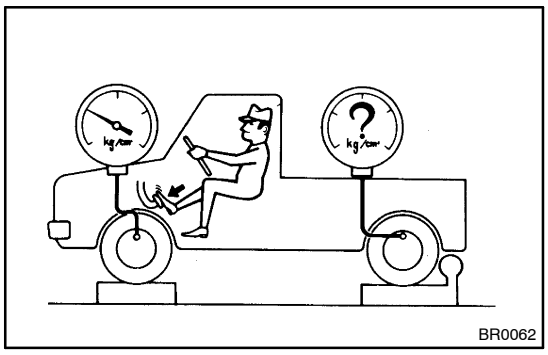
Model	Rear brake	Rear axle load
FZJ71 FZJ74 HZJ71 HZJ74	Drum	1,250 kg (2,756 lb)
	Disc	1,100 kg (2,425 lb)
HZJ76	Drum	1,250 kg (2,756 lb)
	Disc	1,150 kg (2,535 lb)
FZJ78 FZJ79 HZJ78 HZJ79	Drum Disc	1,500 kg (3,307 lb)



BR0061

2. INSTALL LSP & BV GAUGE (SST) AND BLEED AIR

SST 09709–29018


BR0062

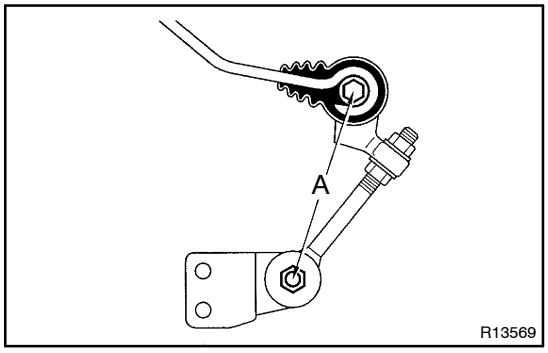
3. RAISE FRONT BRAKE PRESSURE TO 9,000 kPa (92 kgf/cm^2, 1,305 psi) AND CHECK REAR BRAKE PRESSURE

Rear brake pressure:

Rear drum brake	5,082 – 6,258 kPa (51.8 – 63.8 kgf/cm^2, 737 – 907 psi)
Rear disc brake	7,502 – 8,678 kPa (76.5 – 88.5 kgf/cm^2, 1,088 – 1,259 psi)

HINT:

The brake pedal should not be depressed twice and/or returned while setting to the specified pressure. Read the value of rear brake pressure 2 seconds after adjusting the specified fluid pressure. If the brake pressure is incorrect, adjust the fluid pressure.



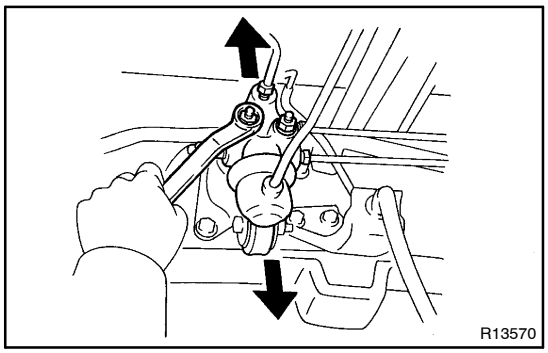
4. IF NECESSARY, ADJUST FLUID PRESSURE

(a) Adjust the length of the No. 2 shackle.
Low pressure – Lengthen A
High pressure – Shorten A
Initial set: 78 mm (3.07 in.)
Adjustment range: 72 – 84 mm (2.83 – 3.31 in.)

HINT:
One turn of the nut changes the fluid pressure as shown in the following table.

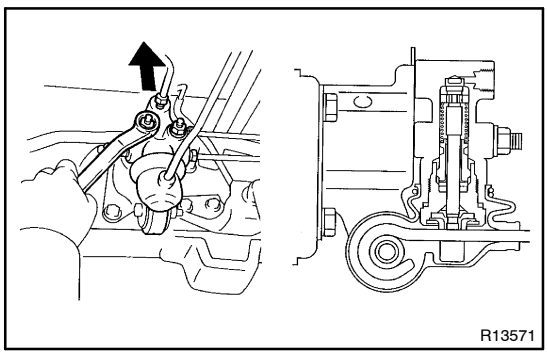
Rear brake pressure:

Rear drum brake	186.5 kPa (1.90 kgf/cm^2, 27.0 psi)
Rear disc brake	238.7 kPa (2.43 kgf/cm^2, 34.6 psi)



(b) If the pressure cannot be adjusted by the No. 2 shackle, raise or lower the valve body.
Low pressure – Lower body
High pressure – Raise body
(c) Torque the nuts.
Torque: 13 N·m (130 kgf·cm, 9 ft·lbf)
(d) Adjust the length of the No. 1 shackle again.

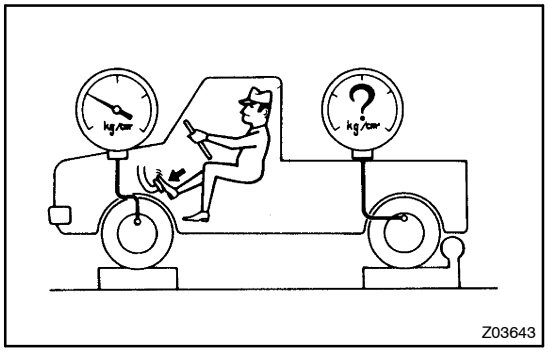
If it cannot be adjusted, inspect the valve housing.



5. IF NECESSARY, CHECK VALVE BODY

(a) Assemble the valve body in the uppermost position.

HINT:
When the brakes are applied, the position will move down about 0.8 mm (0.03 in.). Even at this time, the piston should not make contact with or move the load sensing spring.



(b) In this position, check the rear brake pressure.

Rear drum brake:

Front brake pressure kPa (kgf/cm^2, psi)	Rear brake pressure kPa (kgf/cm^2, psi)
981 (10, 142)	981 (10, 142)
4,903 (50, 711)	1,569 – 2,353 (16 – 24, 228 – 341)
9,807 (100, 1,422)	2,697 – 3,677 (27.5 – 37.5, 391 – 533)

Rear disc brake:

Front brake pressure kPa (kgf/cm^2, psi)	Rear brake pressure kPa (kgf/cm^2, psi)
1,961 (20, 284)	1,961 (20, 284)
4,903 (50, 711)	2,451 – 3,236 (25 – 33, 356 – 469)
9,807 (100, 1,422)	3,825 – 4,805 (39 – 49, 555 – 697)

If the measured value is not within the standard, replace the valve body.