TOYOTA SERVICE BULLETIN

Group: 06 No.: 05 Date: Sept 14

LandCruiser 70

Corrections to Repair Manual RM0580E

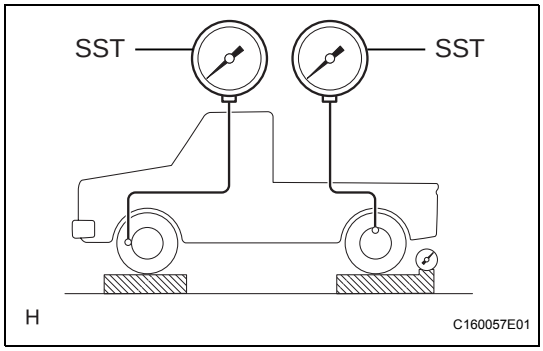
Please ensure these pages are distributed to all relevant staff for their information; and a copy made available for future reference, with the above repair manual.

Section	Title	Paragraph
BRAKE	LOAD SENSING PROPORTIONING VALVE	ON-VEHICLE INSPECTION (2007/01 - 2012/08)
BRAKE	LOAD SENSING PROPORTIONING VALVE	ON-VEHICLE INSPECTION (2012/08 -)

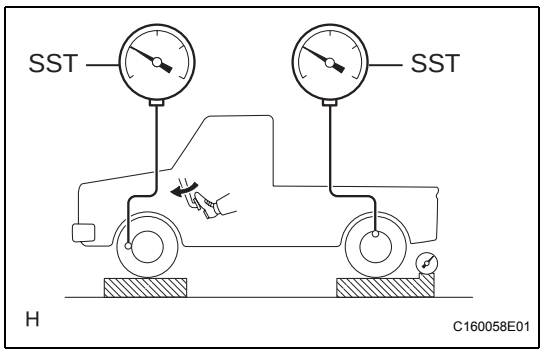
The revised pages listed above are attached.
(The corrected parts are indicated by arrows.)

This Bulletin does not cause the Flat Rate Manual to be changed.

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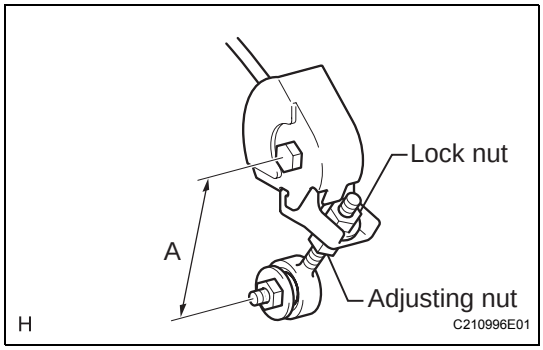
(c) Set SST, and bleed air from the brake system.
SST 09709-29018



(d) Raise the front brake fluid pressure to 9000 kPa (91.8 kgf/cm^2, 1305 psi) when the brake pedal is depressed, and measure the rear brake fluid pressure.
Standard rear brake fluid pressure

Rear Brake	Specified Condition
Drum	5082 to 6258 kPa (51.9 to 63.8 kgf/cm^2, 737 to 907 psi)
Disc	7502 to 8678 kPa (76.5 to 88.4 kgf/cm^2, 1088 to 1258 psi)

HINT:
The pedal should not be depressed twice or released while the specified pressure is being set.
Read the value of the rear pressure after adjusting and holding the specified fluid pressure for 2 seconds.
If necessary, adjust the load sensing proportioning valve.



2. ADJUST LOAD SENSING PROPORTIONING VALVE ASSEMBLY

(a) Loosen the lock nut, and then adjust the length of the No. 2 shackle.

When the rear brake fluid pressure is below the standard pressure, lengthen length A.
When the rear brake fluid pressure is higher than the standard pressure, shorten length A.
Standard Initial Length (A):
78 mm (3.07 in.)

[Corrected]

Standard Length (A) after Adjustment:
72 to 84 mm (2.84 to 3.30 in.)

[Corrected]

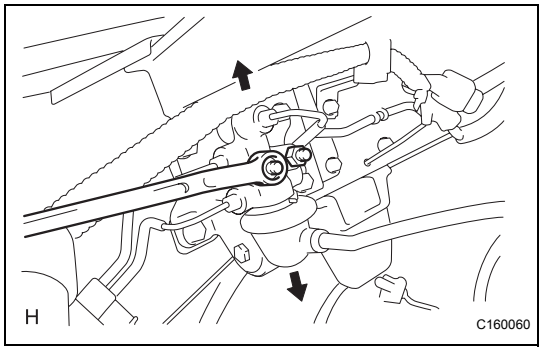
HINT:
The rear fluid pressure changes according to the table below by turning the adjusting nut.
Standard rear brake fluid pressure

Model	Rear Brake	For 1 turn of lock nut
GRJ71	Drum	187 kPa (1.9 kgf/cm^2, 27 psi)
FZJ71		
HZJ71		
HZJ76		

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Model	Rear Brake	For 1 turn of lock nut
FZJ71	Disc	239 kPa (2.4 kgf/cm^2, 35 psi)
HZJ71		
HZJ76		
GRJ76	Drum	187 kPa (1.9 kgf/cm^2, 27 psi)
	Disc	239 kPa (2.4 kgf/cm^2, 35 psi)
GRJ79	Drum	187 kPa (1.9 kgf/cm^2, 27 psi)
	Disc	239 kPa (2.4 kgf/cm^2, 35 psi)
FZJ76	Drum	187 kPa (1.9 kgf/cm^2, 27 psi)
	Disc	239 kPa (2.4 kgf/cm^2, 35 psi)
VDJ76	Drum	187 kPa (1.9 kgf/cm^2, 27 psi)
	Disc	239 kPa (2.4 kgf/cm^2, 35 psi)
GRJ78	Drum	187 kPa (1.9 kgf/cm^2, 27 psi)
FZJ78		
FZJ79		
HZJ78		
HZJ79		
FZJ78	Disc	239 kPa (2.4 kgf/cm^2, 35 psi)
FZJ79		
HZJ78		
HZJ79		
VDJ78	Drum	187 kPa (1.9 kgf/cm^2, 27 psi)
	Disc	239 kPa (2.4 kgf/cm^2, 35 psi)
VDJ79	Drum	187 kPa (1.9 kgf/cm^2, 27 psi)
	Disc	239 kPa (2.4 kgf/cm^2, 35 psi)



[Corrected]

(b) Tighten the adjusting nut and lock nut.
Torque: 25 N*m (250 kgf*cm, 18 ft.*lbf)

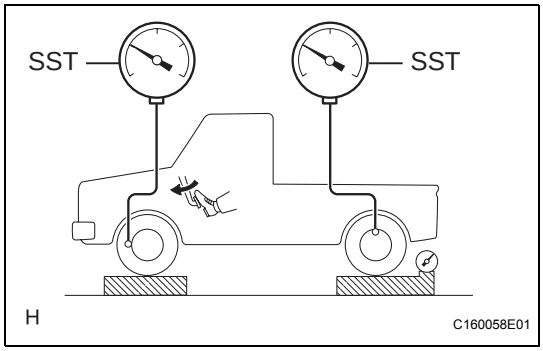
(c) If the pressure cannot be adjusted by the No. 2 shackle, raise or lower the valve body.
When the pressure is below the standard pressure, lower the load sensing valve assembly.
When the pressure is higher than the standard pressure, raise the load sensing valve assembly.

(d) Tighten the 2 nuts.
Torque: 13 N*m (130 kgf*cm, 9 ft.*lbf)

(e) Adjust the length of the No. 2 shackle again.
If the rear fluid pressure cannot be adjusted, check the valve body.

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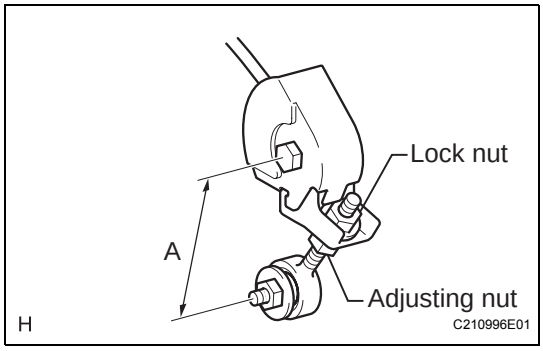


(d) Raise the front brake fluid pressure to 9000 kPa (91.8 kgf/cm^2, 1305 psi) when the brake pedal is depressed, and measure the rear brake fluid pressure.

Standard Rear Brake Fluid Pressure

Rear Brake	Specified Condition
Drum	5082 to 6258 kPa (51.9 to 63.8 kgf/cm^2, 737 to 907 psi)
Disc	7502 to 8678 kPa (76.5 to 88.4 kgf/cm^2, 1088 to 1258 psi)

HINT:
The pedal should not be depressed twice or released while the specified pressure is being set.
Read the value of the rear pressure after adjusting and holding the specified fluid pressure for 2 seconds.
If necessary, adjust the load sensing proportioning valve.



2. ADJUST LOAD SENSING PROPORTIONING VALVE ASSEMBLY

(a) Loosen the lock nut, and then adjust the length of the No. 2 shackle.

When the rear brake fluid pressure is below the standard pressure, lengthen length A.
When the rear brake fluid pressure is higher than the standard pressure, shorten length A.

Standard Initial Length (A):

78 mm (3.07 in.)

[Corrected]

Standard Length (A) after Adjustment:

72 to 84 mm (2.84 to 3.30 in.)

[Corrected]

HINT:
The rear fluid pressure changes according to the table below by turning the adjusting nut.

Standard Rear Brake Fluid Pressure

Model	Rear Brake	For 1 Turn of Lock Nut
GRJ71	Drum	187 kPa (1.9 kgf/cm^2, 27 psi)
FZJ71		
HZJ71		
HZJ76		
FZJ71	Disc	239 kPa (2.4 kgf/cm^2, 35 psi)
HZJ71		
HZJ76		
GRJ76	Drum	187 kPa (1.9 kgf/cm^2, 27 psi)
	Disc	239 kPa (2.4 kgf/cm^2, 35 psi)
GRJ79	Drum	187 kPa (1.9 kgf/cm^2, 27 psi)
	Disc	239 kPa (2.4 kgf/cm^2, 35 psi)

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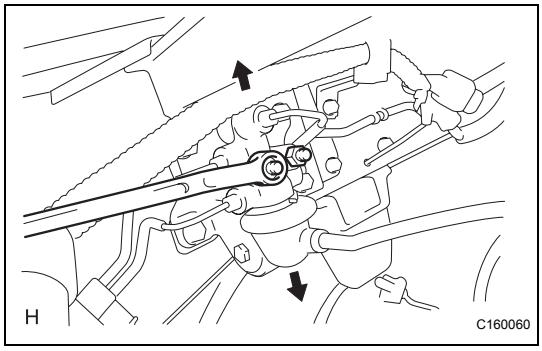
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Model	Rear Brake	For 1 Turn of Lock Nut
FZJ76	Drum	187 kPa (1.9 kgf/cm^2, 27 psi)
	Disc	239 kPa (2.4 kgf/cm^2, 35 psi)
VDJ76	Drum	187 kPa (1.9 kgf/cm^2, 27 psi)
	Disc	239 kPa (2.4 kgf/cm^2, 35 psi)
GRJ78	Drum	187 kPa (1.9 kgf/cm^2, 27 psi)
FZJ78		
FZJ79		
HZJ78		
HZJ79		
FZJ78	Disc	239 kPa (2.4 kgf/cm^2, 35 psi)
FZJ79		
HZJ78		
HZJ79		
VDJ78	Drum	187 kPa (1.9 kgf/cm^2, 27 psi)
	Disc	239 kPa (2.4 kgf/cm^2, 35 psi)
VDJ79	Drum	187 kPa (1.9 kgf/cm^2, 27 psi)
	Disc	239 kPa (2.4 kgf/cm^2, 35 psi)

(b) Tighten the adjusting nut and lock nut.
Torque: 25 N*m (250 kgf*cm, 18 ft.*lbf)

[Corrected]

(c) If the pressure cannot be adjusted by the No. 2 shackle, raise or lower the valve body.
When the pressure is below the standard pressure, lower the load sensing valve assembly.
When the pressure is higher than the standard pressure, raise the load sensing valve assembly.

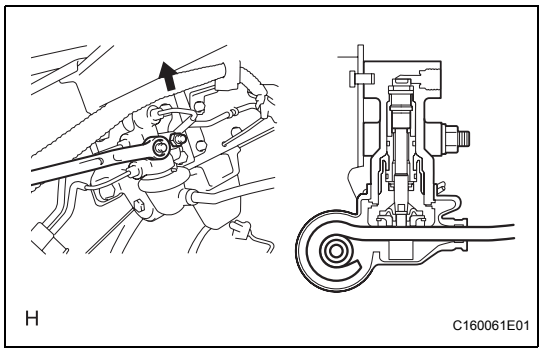


(d) Tighten the 2 nuts.
Torque: 13 N*m (130 kgf*cm, 9 ft.*lbf)

(e) Adjust the length of the No. 2 shackle again.
If the rear fluid pressure cannot be adjusted, check the valve body.

3. CHECK VALVE BODY

(a) Install the valve body in the uppermost position.
HINT:
When the brakes are applied, the position will move down by approximately 0.8 mm (0.0315 in.). Even at this time, the piston should not make contact with or move the load sensing spring.



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