SECTION BR

CONTENTS

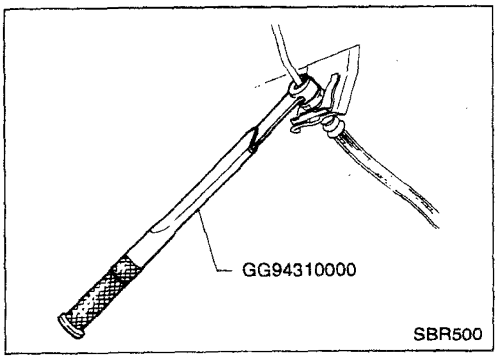
B

Precautions

- Use brake fluid "DOT 4".
- Never reuse drained brake fluid.
- Be careful not to splash brake fluid on painted areas; it may cause paint damage. If brake fluid is splashed on painted areas, wash it away with water immediately. DO NOT RUB IT OFF.
- To clean or wash all parts of master cylinder, disc brake caliper and wheel cylinder, use clean brake fluid.
- Never use mineral oils such as gasoline or kerosene. They will damage rubber parts of hydraulic system.
- Use Tool when removing and installing brake tube.

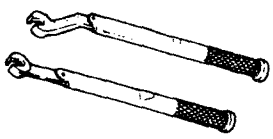
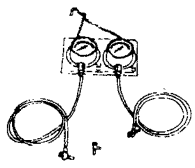
WARNING:

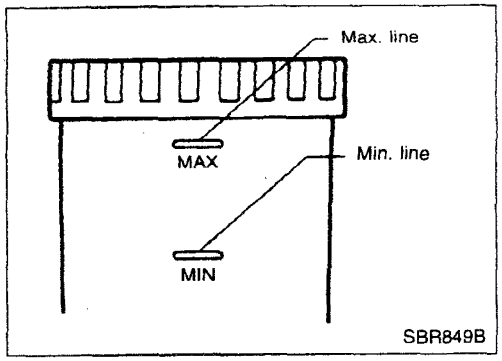
- Clean brake pads and shoes with a vacuum dust collector.



Preparation

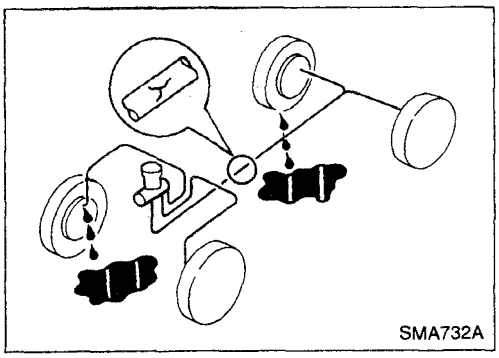
SPECIAL SERVICE TOOLS

Tool number Tool name	Description	
GG94310000 Flare nut torque wrench		Removing and installing each brake piping
KV991V0010 Brake fluid pressure gauge		Measuring brake fluid pressure



Checking Brake Fluid Level

- Check fluid level in reservoir tank. It should be between Max. and Min. lines on reservoir tank.
- If fluid level is extremely low, check brake system for leaks.
- When brake warning lamp comes on even when parking brake lever is released, check brake system for leaks.

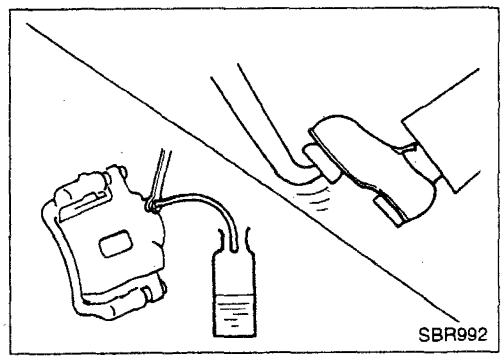


Checking Brake Line

CAUTION:

If leakage occurs around joints, retighten or, if necessary, replace damaged parts.

1. Check brake lines (tubes and hoses) for cracks, deterioration or other damage. Replace any damaged parts.
2. Check for oil leakage by fully depressing brake pedal while engine is running.

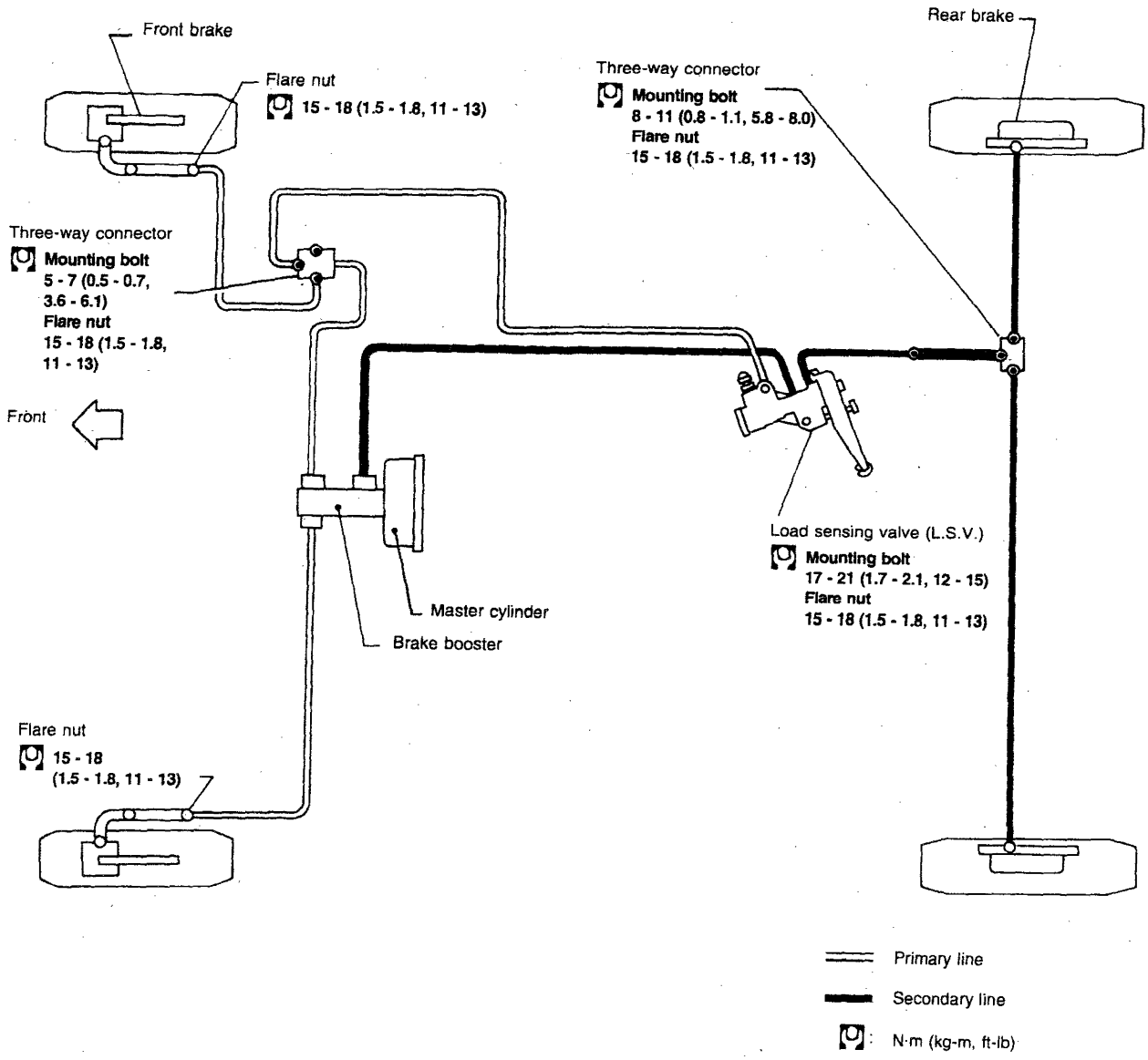


Changing Brake Fluid

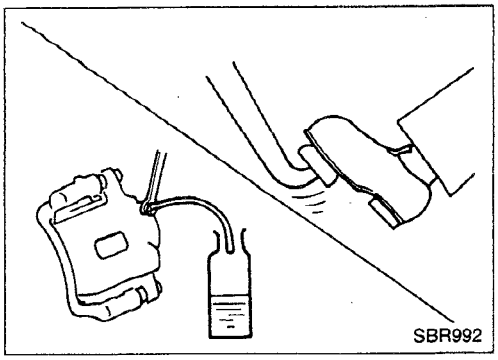
CAUTION:

- **Refill with new brake fluid "DOT 4".**
- **Never reuse drained brake fluid.**
- **Be careful not to splash brake fluid on painted areas; it may cause paint damage. If brake fluid is splashed on painted areas, wash it away with water immediately. DO NOT RUB IT OFF.**

1. Connect a vinyl tube to each air bleeder valve.
2. Drain brake fluid from each air bleeder valve by depressing brake pedal.
3. Refill until new brake fluid comes out of each air bleeder valve.
   Use same procedure as in bleeding hydraulic system to refill brake fluid. Refer to "Bleeding Procedure" in "BRAKE HYDRAULIC LINE".


Front brake
Flare nut
15 - 18 (1.5 - 1.8, 11 - 13)
Three-way connector
Mounting bolt
8 - 11 (0.8 - 1.1, 5.8 - 8.0)
Flare nut
15 - 18 (1.5 - 1.8, 11 - 13)
Rear brake
Three-way connector
Mounting bolt
5 - 7 (0.5 - 0.7, 3.6 - 6.1)
Flare nut
15 - 18 (1.5 - 1.8, 11 - 13)
Front
Load sensing valve (L.S.V.)
Mounting bolt
17 - 21 (1.7 - 2.1, 12 - 15)
Flare nut
15 - 18 (1.5 - 1.8, 11 - 13)
Master cylinder
Brake booster
Flare nut
15 - 18
(1.5 - 1.8, 11 - 13)
Primary line
Secondary line
N·m (kg-m, ft-lb)

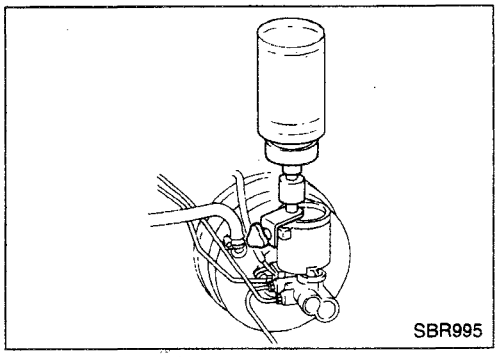
EBR093



Bleeding Procedure

CAUTION:

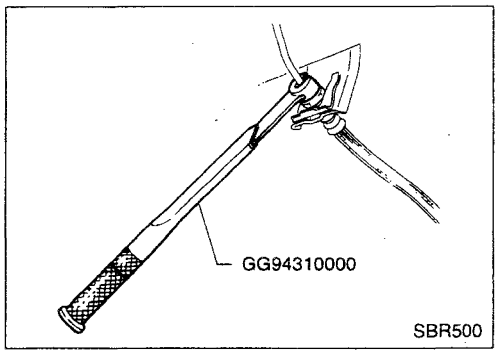
- **Carefully monitor brake fluid level at master cylinder during bleeding operation.**
- **Fill reservoir with recammended brake fluid "DOT 4". Make sure it is full at all times while bleeding air out of system.**
- **Be careful not to splash brake fluid on painted areas; it may cause paint damage. If brake fluid is splashed on painted areas, wash it away with water immediately. DO NOT RUB IT OFF.**



1. Connect a transparent vinyl tube to air bleeder valve.
2. Fully depress brake pedal several times.
3. With brake pedal depressed, open air bleeder valve to release air.
4. Close air bleeder valve.
5. Release brake pedal slowly.
6. Repeat steps 2. through 5. until clear brake fluid comes out of air bleeder valve.

- Bleed air in the following order.

Load Sensing Valve
↓
Left rear brake
↓
Right rear brake
↓
Left front brake
↓
Right front brake



Removal

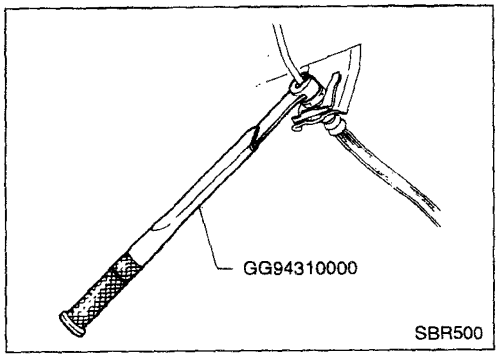
CAUTION:

- **Use suitable tool for assembly and disassembly of brake lines and hoses.**
- **Be careful not to splash brake fluid on painted areas; it may cause paint damage. If brake fluid is splashed on painted areas, wash it away with water immediately. DO NOT RUB IT OFF.**
- **All hoses must be free from excessive bending, twisting and pulling.**

1. Connect a vinyl tube to air bleeder valve.
2. Drain brake fluid from each air bleeder valve by depressing brake pedal.
3. Remove flare nut securing brake tube to hose, then withdraw lock spring.
4. Cover openings to prevent entrance of dirt whenever disconnecting hydraulic line.

Inspection

Check brake lines (tubes and hoses) for cracks, deterioration or other damage. Replace any damaged parts.



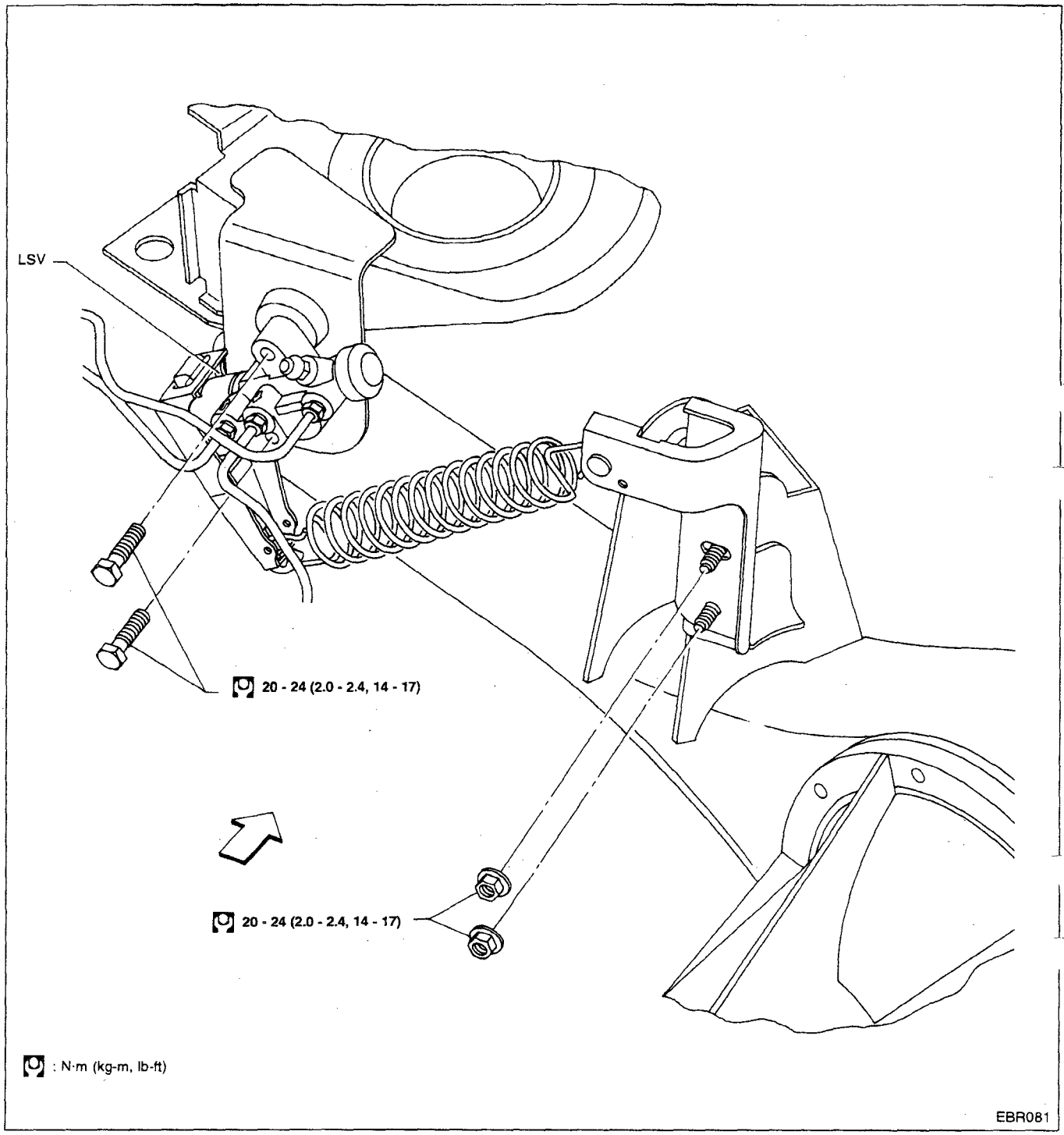
Installation

CAUTION:

- **Refill with new brake fluid "DOT 4".**
- **Never reuse drained brake fluid.**

1. Tighten all flare nuts and connecting bolts.
   Flare nut:
   : 9 - 11 N·m (0.9 - 1.1 kg-m, 6.5 - 8.0 ft-lb)
   Connecting bolt:
   : 17 - 20 N·m (1.7 - 2.0 kg-m, 12 - 14 ft-lb)
2. Refill until new brake fluid comes out of each air bleeder valve.
3. Bleed air. Refer to "Bleeding Procedure".

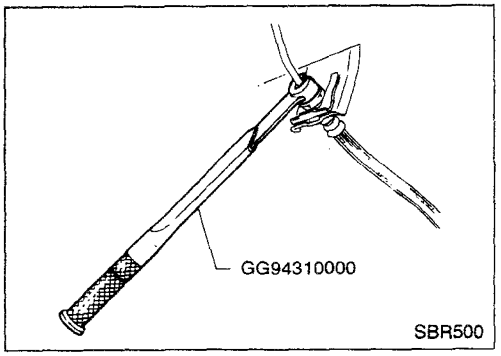
Removal and Installation



Removal

CAUTION

- **Be careful not to splash brake fluid on painted areas; it may cause paint damage. If brake fluid is splashed on painted areas wash it away with water immediately. DO NOT RUB IT OFF.**
- Remove flare nuts and LSV bolts.



Installation

CAUTION:

- **Refill with new brake fluid "DOT 4".**
- **Never reuse drained brake fluid.**
- **Check level in brake fluid reservoir.**

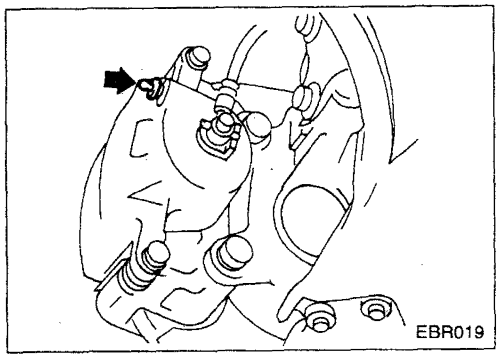
1. Tighten provisionaly flare nuts.
2. Tighten LSV bolts.
   : 20 - 24 N·m (2.0 - 2.4 kg-m, 14 - 17 ft-lb)
3. Tighten flare nuts.
   : 15 - 18 N·m (1.5 - 1.8 kg-m, 11 - 13 ft-lb)
4. Bleed air. Refer to "Bleeding Procedure" in "BRAKE HYDRAULIC LINE".
5. Adjust load sensing valve (LSV). Refer to "Inspection and Adjustment" in "LOAD SENSING VALVE".

Inspection and Adjustment

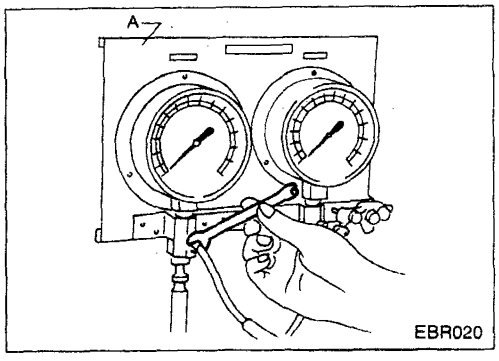
CAUTION:

- **Check level in brake fluid reservoir.**
- **Refill with recommended brake fluid "DOT 4".**
- **Never reuse drained brake fluid.**
- **Be careful not to splash brake fluid on painted areas; it may cause paint damage. If brake fluid is splashed on painted areas wash it away with water immediately. DO NOT RUB IT OFF.**

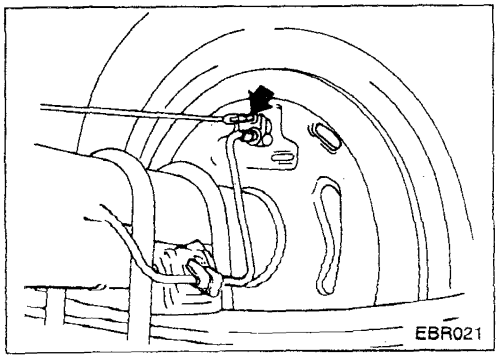
1. Before adjusting load sensing valve spring length, check for proper installation and abnormal wear of brake pads and shoes.



2. Remove the air bleeder from the wheel caliper, and install a pressure gauge (A) to the bleed valve hole.

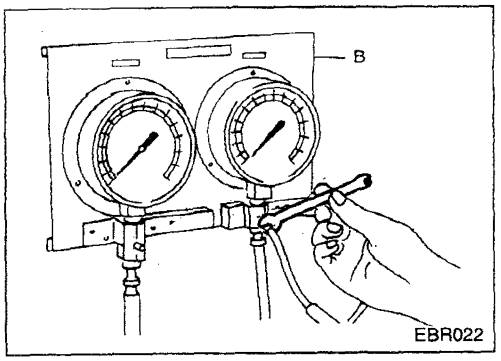


3. Bleed the air from the front brake piping.

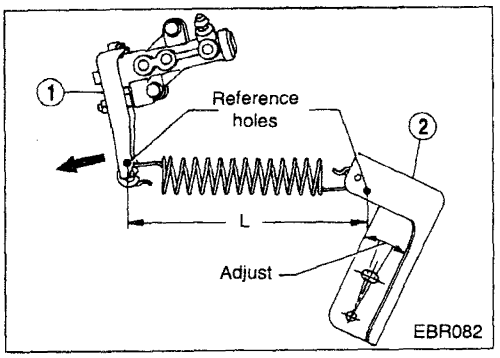


4. Remove the air bleed valve from the rear wheel cylinder, and install a pressure gauge (B) to the bleed valve hole.

Inspection and Adjustment (Cont'd)



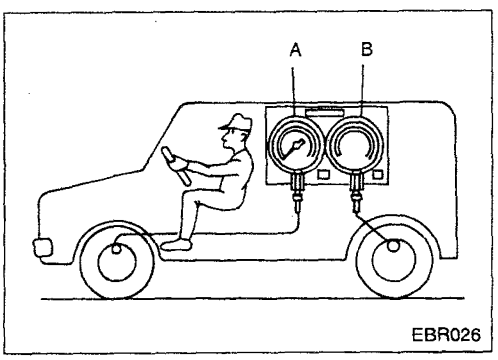
5. Bleed the air from the rear brake piping.



6. To adjust the LSV correctly, proceed as follows:
a. With unladen vehicle (Fuel, radiator coolant and engine oil full. Spare tire, jack, hand tools and mats in designated positions) check the length of LSV spring "L".
b. If the spring length is different from that specified, move the regulation lever (2) until the specified value is obtained. Move the LSV lever (1) until it contacts the stopper bolt and recheck the spring length.

Sensor spring length "L":
Hardtop: 211.5 mm (8.327 in)
Wagon: 213.3 mm (8.398 in)

NOTE: Do not disturb stopper bolt.



c. Start the engine and run it at idling speed.
d. Slowly depress the brake pedal until an input pressure of 5,000 kPa (50 bar, 49 kg/cm^2, 725 psi) is obtained (at the front axle pressure gauge) and an output pressure of 1,736 - 2,501 kPa (18 - 26 bar, 17.7 - 25.5 kg/cm^2, 252 - 363 psi) is obtained (at the rear axle pressure gauge).

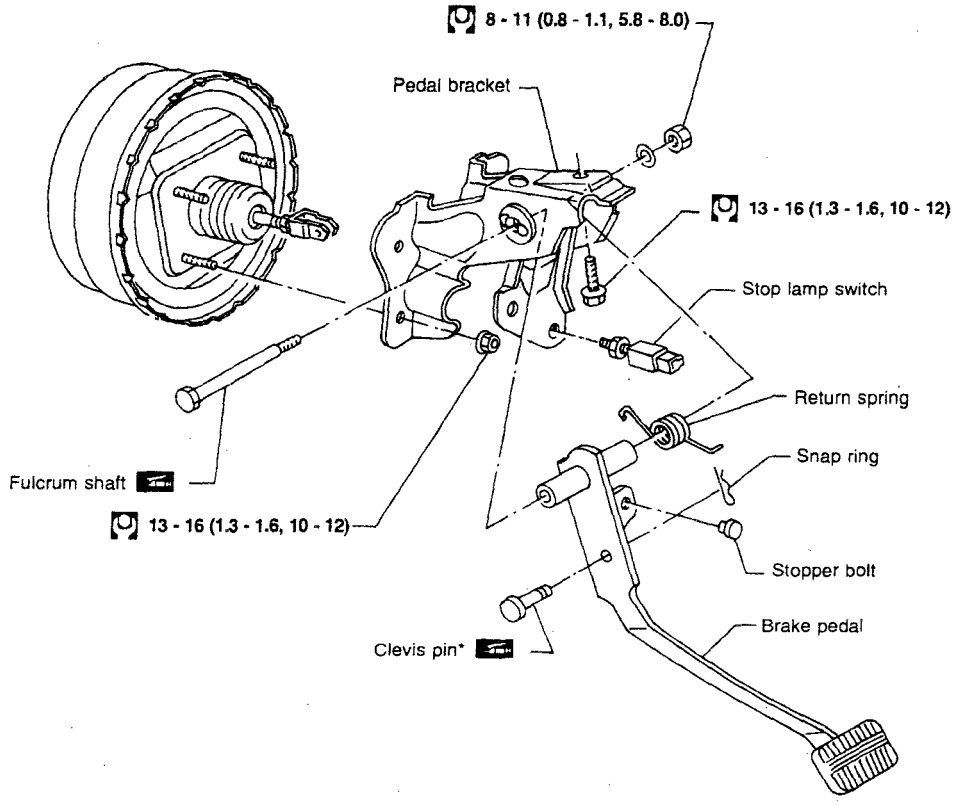
If the output pressure at the rear axle pressure gauge is not within the specified values, adjust LSV spring length as described under b) until the output pressure measured is within the specified range.

Unit: kPa (bar, kg/cm^2, psi)

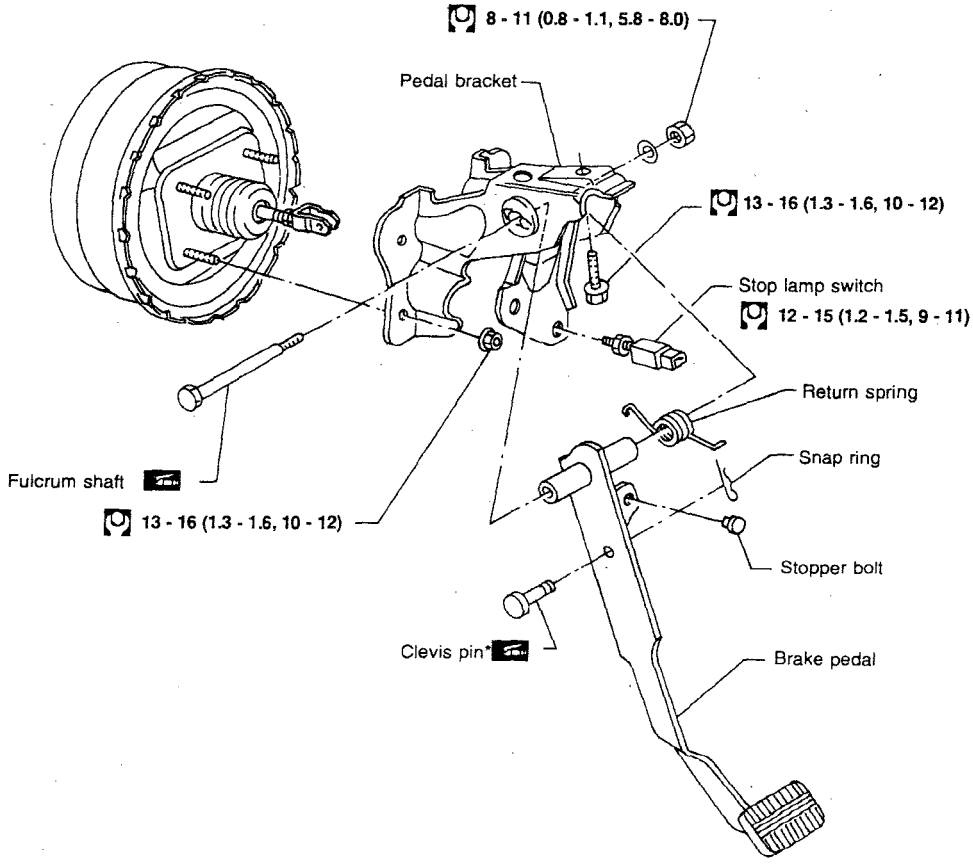
Front axle *	5,000 (50.0, 49.0, 725)
Rear axle *	1,736 - 2,501 (18 - 26, 17.7 - 25.5, 252 - 363)

* Load conditions as indicated under 6.a, driver seat occupied.

Removal and Installation



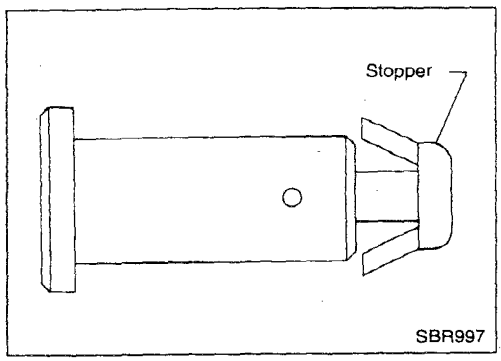
L.H.D.



R.H.D.

: N·m (kg-m, ft-lb)

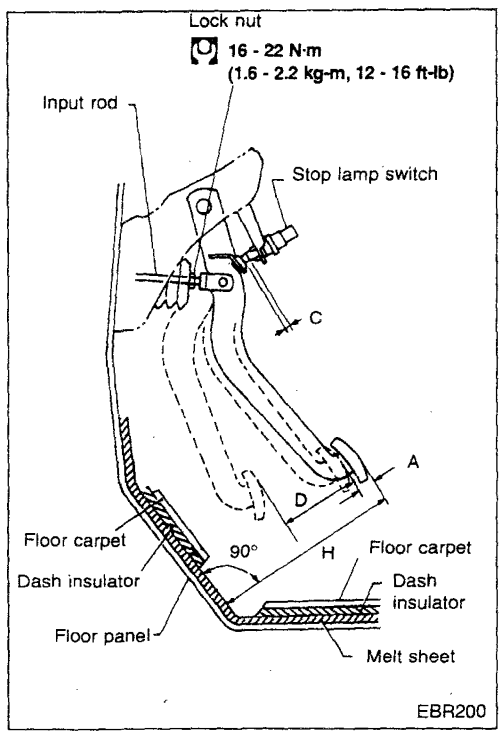
NBR003



Inspection

Check brake pedal for following items:

- Brake pedal bend
- Clevis pin deformation
- Crack of any welded portion
- Crack or deformation of clevis pin stopper



Adjustment

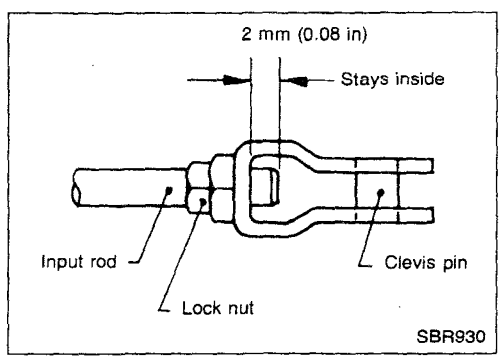
Check brake pedal free height from dash reinforcement panel.

H: Free height
Refer to S.D.S.

D: Full stroke
Refer to S.D.S.

C: Clearance between pedal stopper and threaded end of stop lamp switch
0.3 - 1.0 mm (0.012 - 0.039 in)

A: Pedal free play
1.0 - 3.0 mm (0.039 - 0.118 in)



If necessary, adjust brake pedal free height.

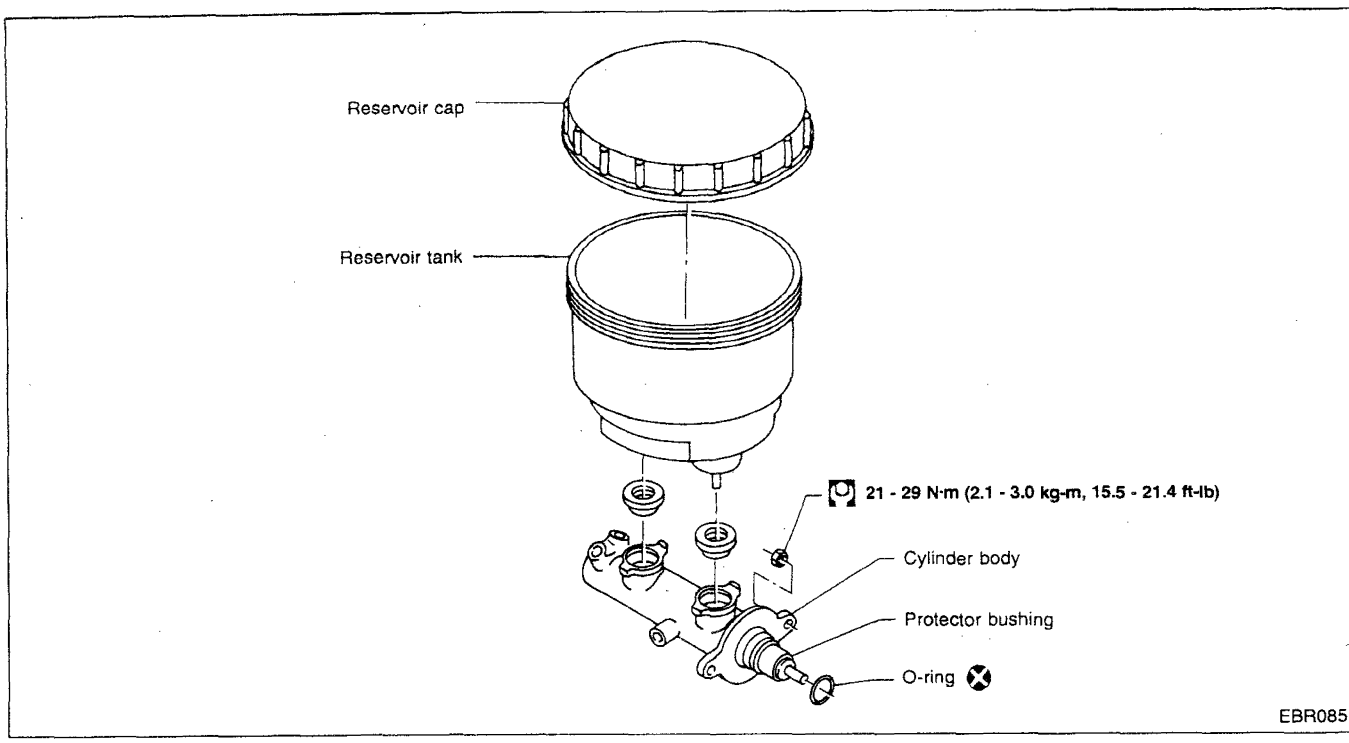
1. Loosen lock nut and adjust pedal free height by turning brake booster input rod. Then tighten lock nut.

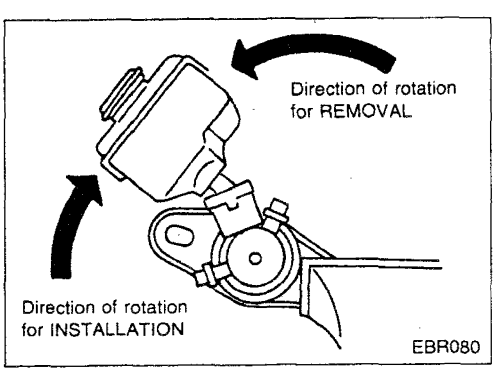
Make sure that tip of input rod stays inside of clevis as shown.

2. Loosen lock nut and adjust clearance "C" with stop lamp switch. Then tighten lock nuts.
3. Check pedal free play.

Make sure that stop lamps go off when pedal is released.

4. Check brake system for leaks, accumulation of air or any damage to components (master cylinder, etc.); then make necessary repairs.





Removal

CAUTION:

Be careful not to splash brake fluid on painted areas; it may cause paint damage. If brake fluid is splashed on painted areas, wash it away with water immediately. DO NOT RUB.

1. Connect a vinyl tube to air bleeder valve.
2. Drain brake fluid from each air bleeder valve, depressing brake pedal to empty fluid from master cylinder.
3. Remove brake pipe flare nuts.
4. Remove master cylinder mounting nuts.
5. Remove protector of master cylinder, and avoid scratching the surface of master cylinder during removal.

CAUTION:

Do not disassemble master cylinder.

NOTE:

If it is necessary to change the brake fluid reservoir, remove as shown in the illustration on the left, while holding the seals with one hand.

It is not necessary to replace the seals if they are in a good condition.

Installation

CAUTION:

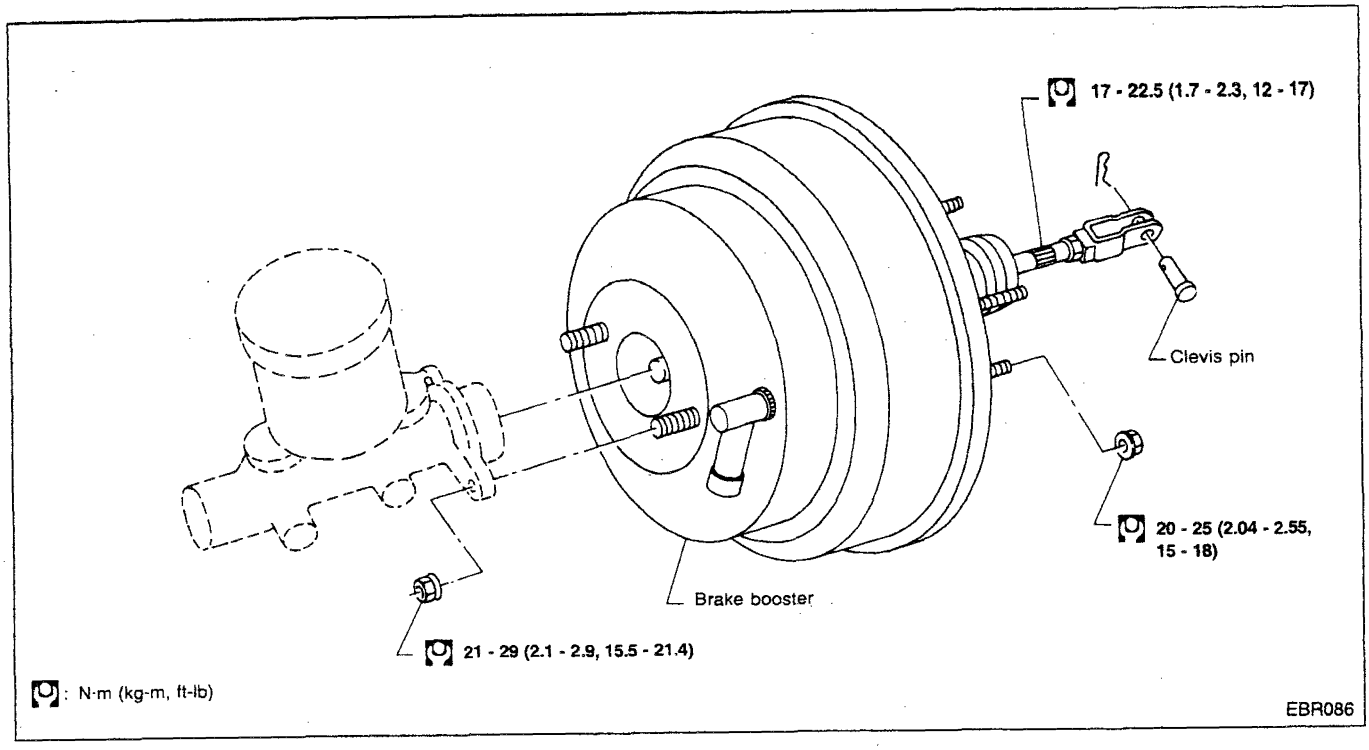
- **Refill with new brake fluid "DOT 4".**
- **Never reuse drained brake fluid.**

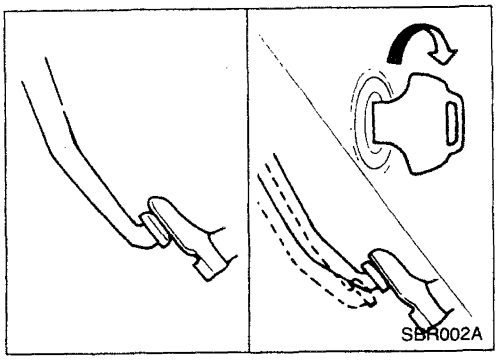
1. Place master cylinder onto brake booster and secure mounting nuts lightly.
2. Fit flare nuts to master cylinder.
3. Tighten mounting nuts.

   : 21 - 29 N·m (2.1 - 3.0 kg-m, 15.5 - 21.4 ft-lb)
4. Tighten flare nuts.

   : 15 - 18 N·m (1.5 - 1.8 kg-m, 11 - 13 ft-lb)
5. Bleed air. Refer to "Bleeding Procedure" in "BRAKE HYDRAULIC LINE".

Removal and Installation

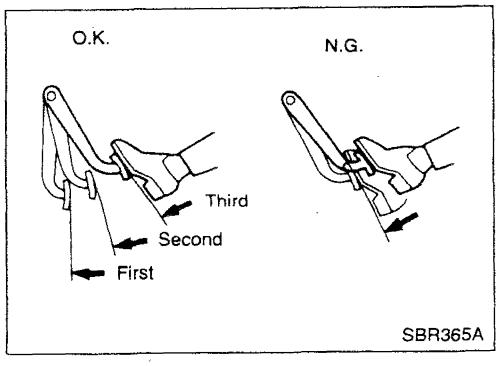




Inspection

OPERATING CHECK

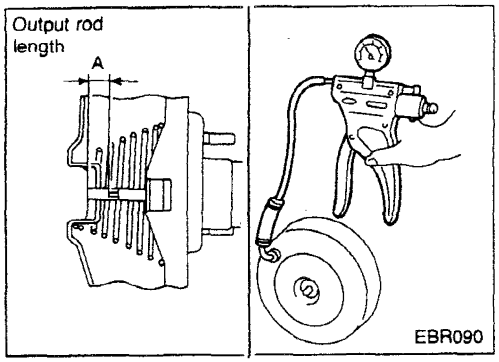
- Depress brake pedal several times with engine off, and check that there is no change in pedal stroke.
- Depress brake pedal, then start engine. If pedal goes down slightly, operation is normal.



AIRTIGHT CHECK

- Start engine, and stop it after one or two minutes. Depress brake pedal several times slowly. If pedal goes further down the first time and gradually rises after second or third time, booster is airtight.
- Depress brake pedal while engine is running, and stop engine with pedal depressed. If there is no change in pedal stroke after holding pedal down **30 seconds**, brake booster is airtight.

Inspection (Cont'd)

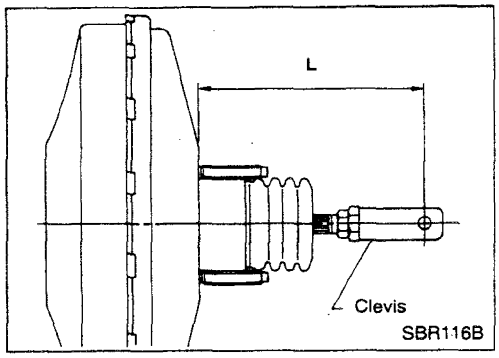


OUTPUT ROD LENGTH CHECK

1. Apply vacuum of − 66.7 kPa (− 667 mbar, − 500 mmHg, − 19.69 inHg) to brake booster with a manual vacuum pump and check output rod length "A".

   Specified length "A":
   22.15 - 22.45 mm (0.872 - 0.884 in)

   (The length "A" in this case is the distance from end of output rod to outside of brake booster, when the specified vacuum is applied.)



2. Check output rod length "L" when brake booster doesn't work.

   Specified length "L":
   129.2 - 130.2 mm (5.087 - 5.126 in)

Installation

CAUTION:

- **Be careful not to deform or bend brake pipes, during installation of booster.**
- **Replace clevis pin if damaged.**
- **Refill with new brake fluid "DOT 4".**
- **Never reuse drained brake fluid.**
- **Take care not to damage brake booster mounting bolt thread when installing. Due to the acute angle of installation, the threads can be damaged on the metal surrounding the dash panel holes.**

1. Before fitting booster, temporarily adjust clevis to dimension shown.
2. Fit booster, then secure mounting nuts (brake pedal bracket to brake booster) lightly. (Join brake booster and brake pedal bracket to the front end of the vehicle interior).
3. Connect brake pedal and booster input rod with clevis pin.
4. Secure mounting nuts.

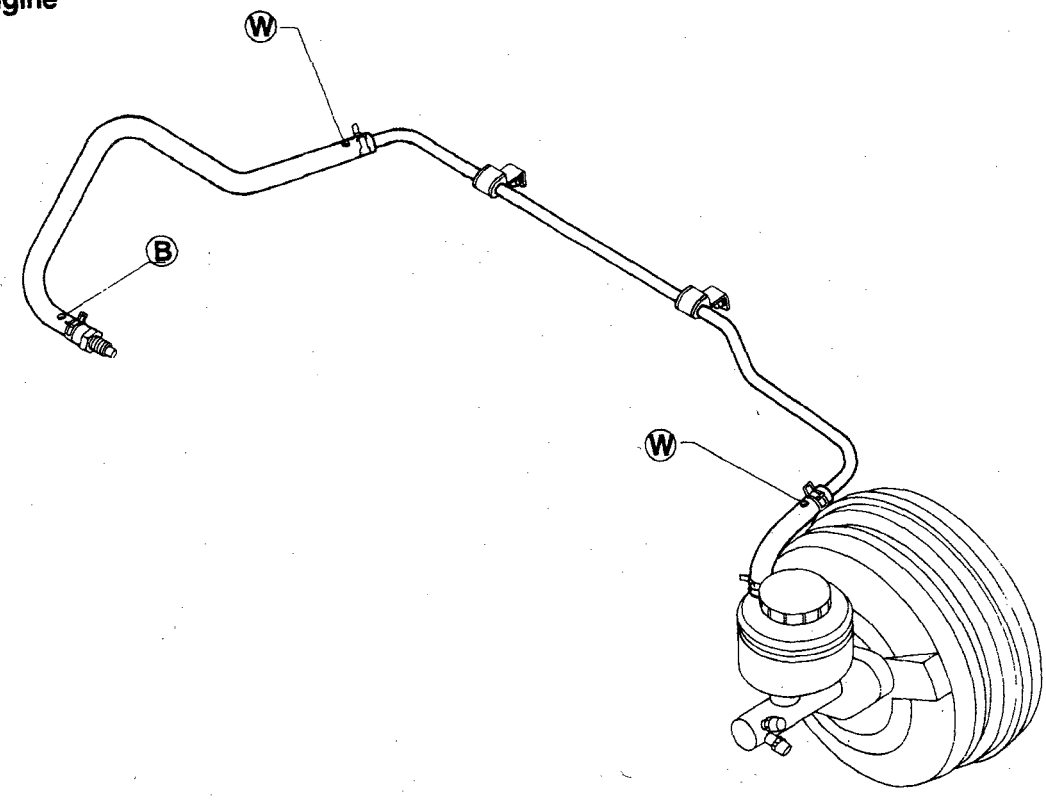
   : 21 - 29 N·m (2.1 - 3.0 kg-m, 15.5 - 21.4 ft-lb)

5. Install master cylinder. Refer to "Installation" in "MASTER CYLINDER".
6. Bleed air. Refer to "Bleeding Procedure" in "BRAKE HYDRAULIC LINE".

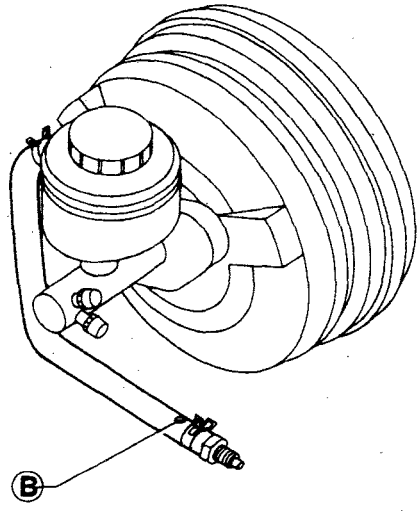
Removal and Installation

KA24E Engine

L.H.D.



R.H.D.



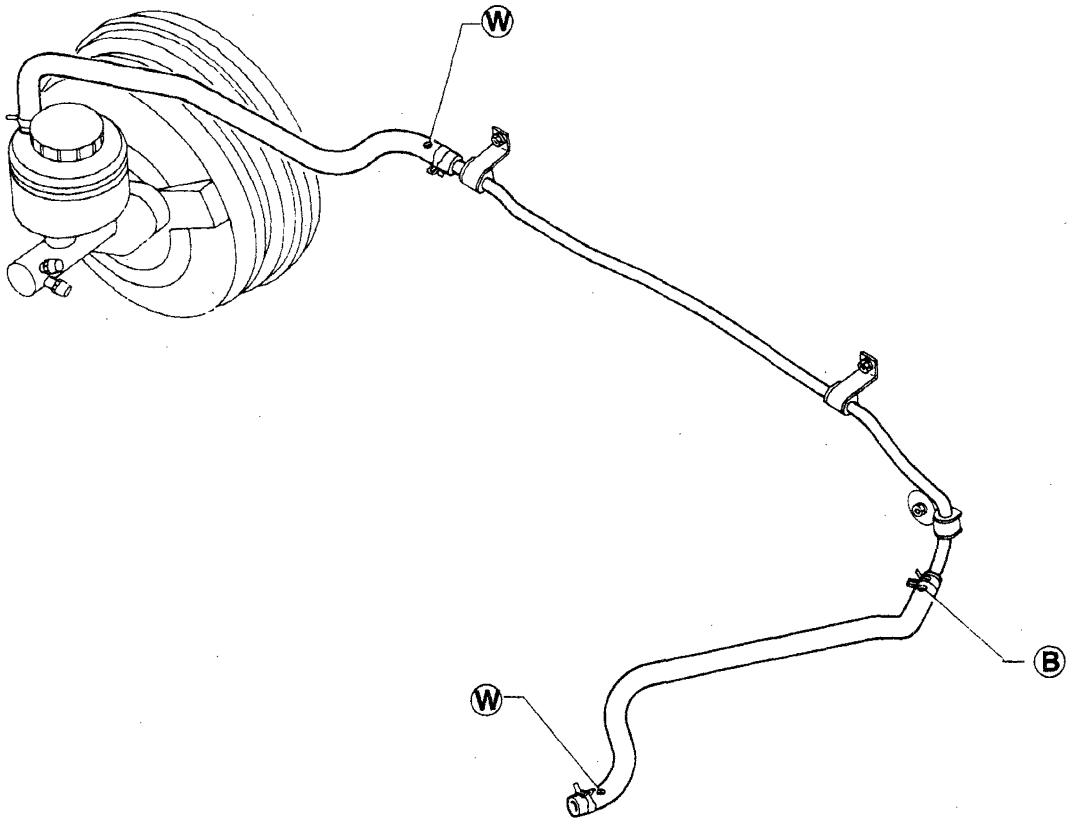
B – Blue color mark

W – White color mark

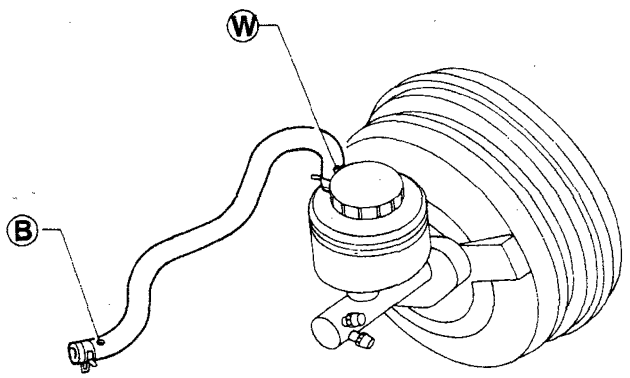
EBR087

TD27T Engine

R.H.D.

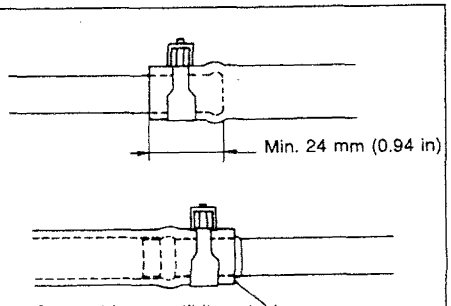


L.H.D.



B — Blue color mark
W — White color mark

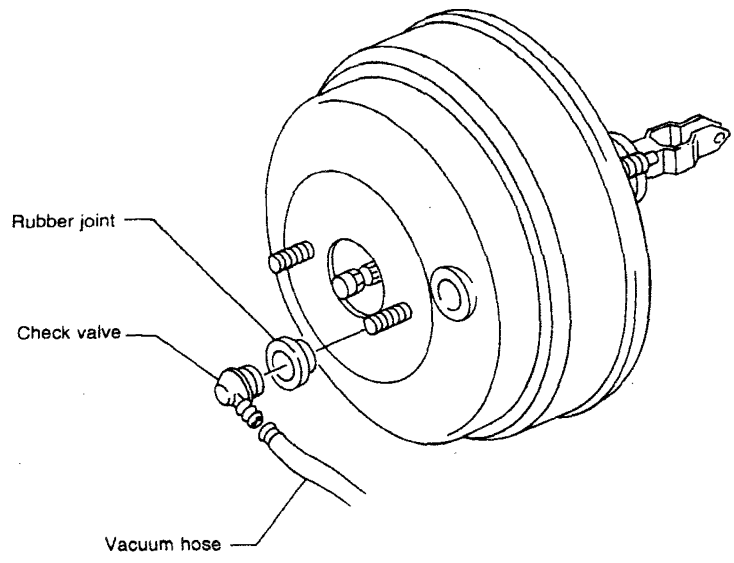
EBR091



CAUTION:
When installing vacuum hoses, pay attention to the following points.

- **Do not apply any oil or lubricants to vacuum hose and check valve.**
- **Insert vacuum tube into vacuum hose over a length of min. 24 mm (0.94 in) as shown.**

Take care to maint vacuum hoses in their original direction and position.

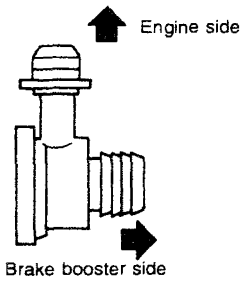


EBR008

Inspection

HOSES AND CONNECTORS

- Check condition of vacuum hoses and connectors.
- Check vacuum hoses and check valve for air tightness.

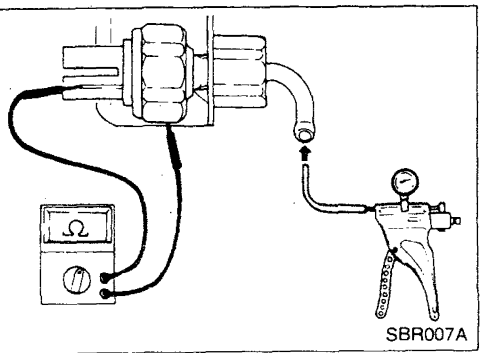


EBR009

CHECK VALVE

- Check vacuum with a manual vacuum pump.

Connect to booster side	Vacuum should exist.
Connect to engine side	Vacuum should not exist.



SBR007A

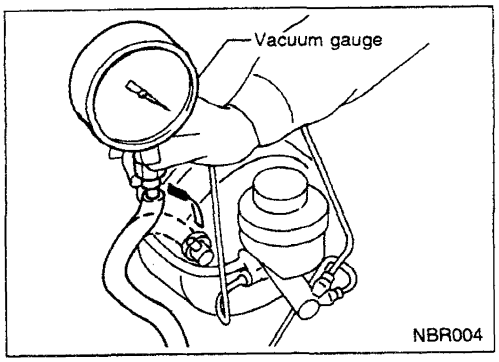
VACUUM WARNING SWITCH*

Test continuity though vacuum warning switch with an ohmmeter and vacuum pump.

Vacuum	Less than 26.7 kPa (267 mbar, 200 mmHg, 7.87 inHg)	0Ω
	33.3 kPa (333 mbar, 250 mmHg, 9.84 inHg) or more	∞ Ω

* TD27T Engine models.

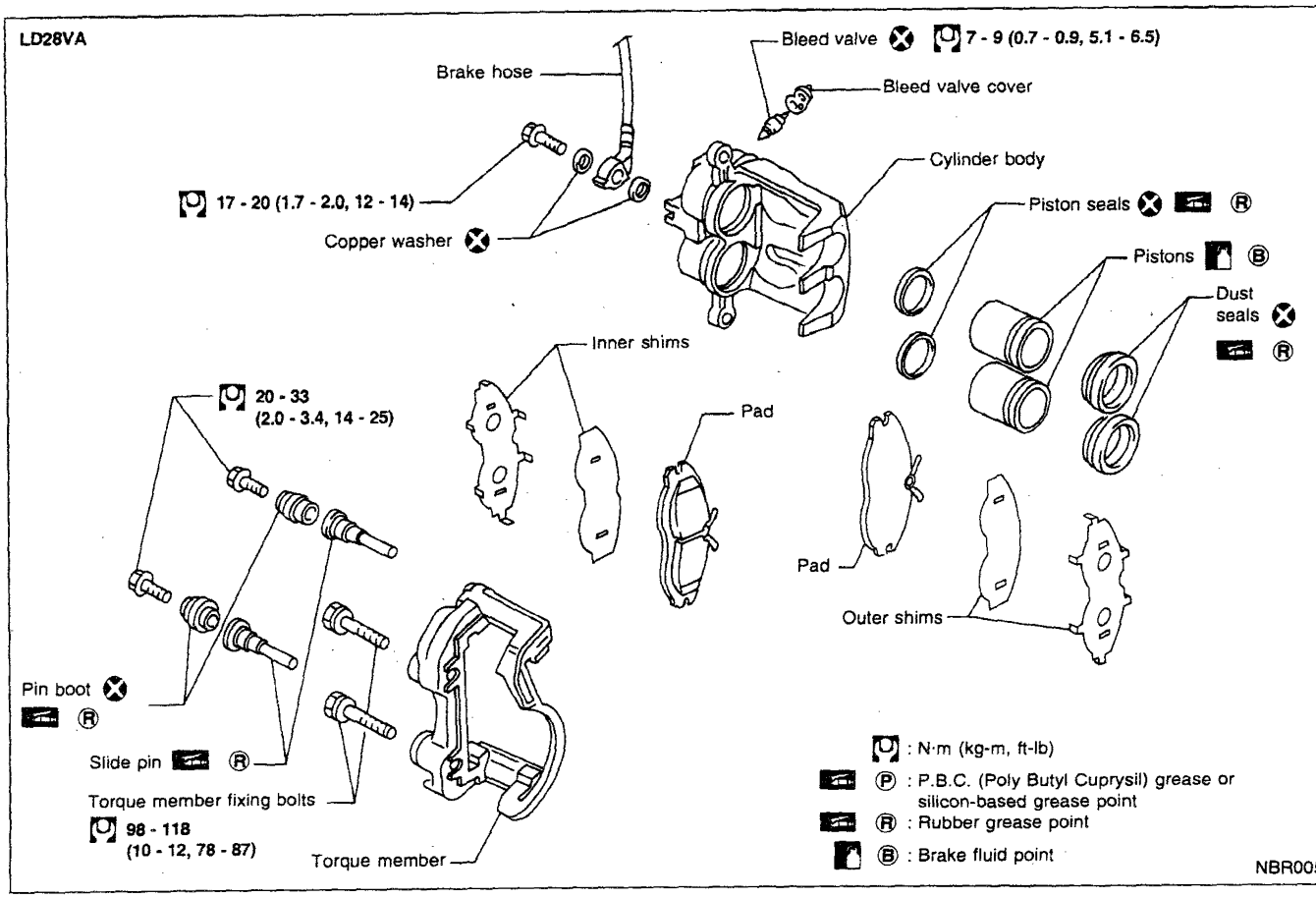
Inspection (Cont'd)



VACUUM POMP

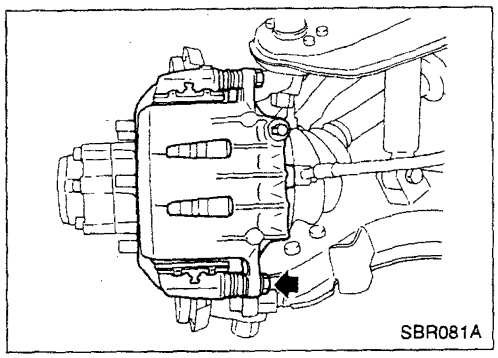
1. Install vacuum gauge.
2. Run engine at 1,000 rpm or more.
3. Check vacuum.

Specified vacuum:
93.3 kPa
(933 mbar, 700 mmHg, 27.56 inHg) or more



PRECAUTION:

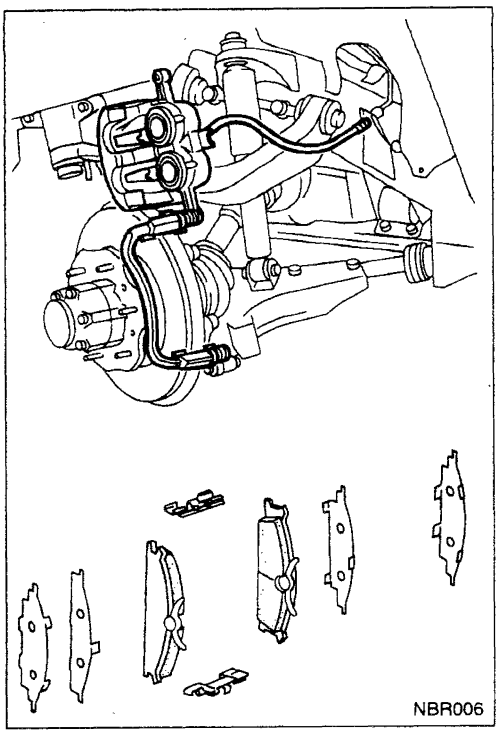
Clean all brake assembly parts with a vacuum dust collector to prevent particles from spreading through work area.



Pad Replacement

1. Loosen brake fluid reservoir cap.
2. Remove lower pin bolt.

Pad Replacement (Cont'd)

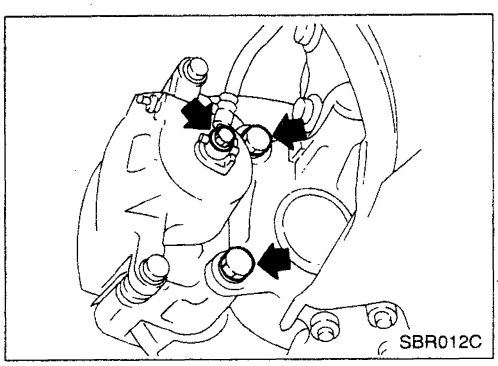

NBR006

3. Swing cylinder body upward. Then remove pad retainers, and inner and outer shims.

CAUTION:

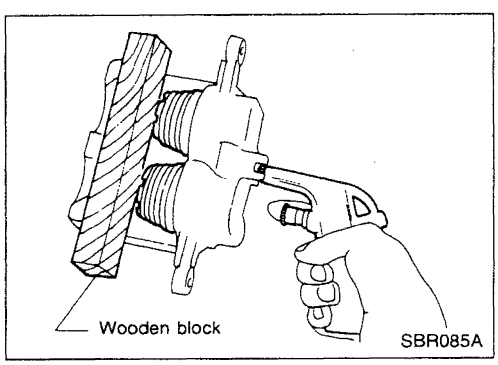
- **When cylinder body is swung up, do not depress brake pedal because piston will pop out.**
- **Be careful not to damage dust cover or soil rotor with brake fluid.**
- **Be careful not to twist brake hoses.**

  Brake pad thickness (new):
  10 mm (0.39 in)
  Wear limit (min. thickness):
  2 mm (0.08 in)
- **After installing new brake pads, check brake fluid level at brake fluid reservoir.**


SBR012C

Removal

- Remove torque member fixing bolts and union bolt.



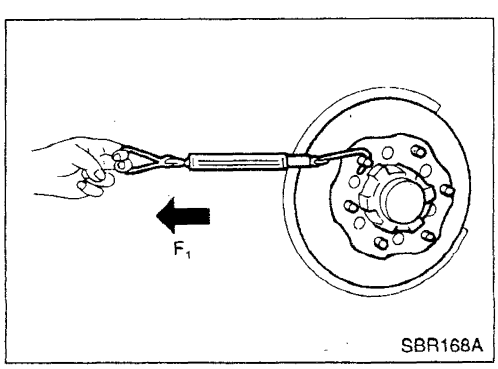
SBR085A

Disassembly

Push out piston with dust cover with compressed air.
Use a wooden block so that the 2 pistons come out evenly.

CAUTION:

- **Wear protecting clothes and safety goggles.**
- **Do not hold your fingers in front of the pistons.**
- **Be careful not to scratch piston and/or cylinder faces.**



SBR168A

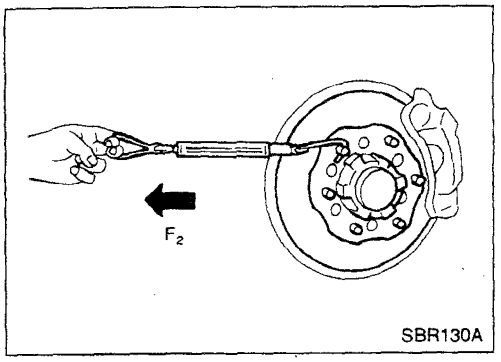
Inspection

INSPECTION OF BRAKE DRAG FORCE

"Residual pair" describes the friction pressure of the disc brake shoes against the disk when the brake pedal is not applied.

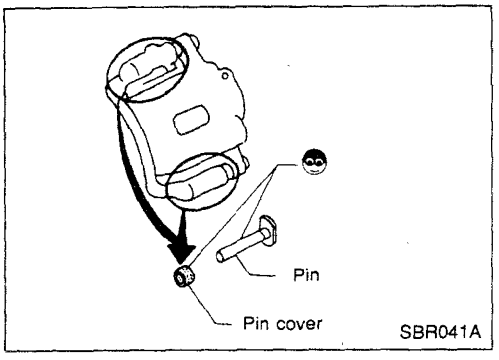
1. Swing cylinder body upward.
2. Make sure that wheel bearing is adjusted properly. Refer to section FA.
3. Measure rotating force (F_1).

Inspection (Cont'd)



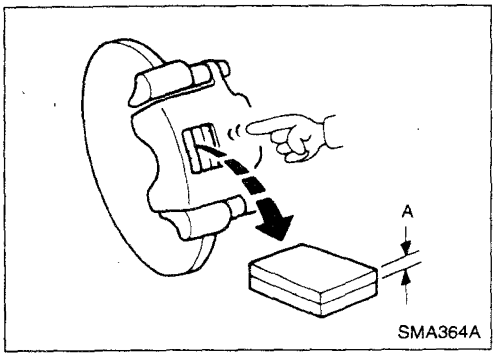
4. Install caliper with pads to the original position.
5. Depress brake pedal for 5 seconds.
6. Release brake pedal, rotate disc rotor 10 revolutions.
7. Measure rotating force (F_2).
8. Calculate brake drag force by subtracting F_1 from F_2.

Maximum brake drag force (F_2 — F_1):
103.0 N (10.5 kg, 23.2 lb)



If it is not within specification, check pins and pin boots in caliper.

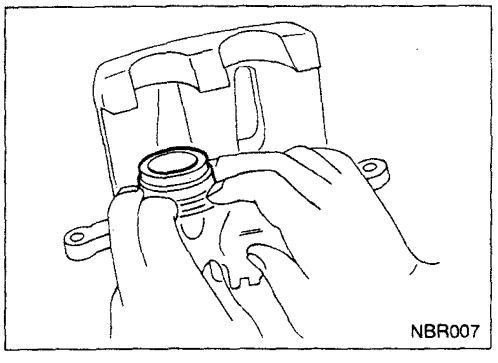
- **Make sure that wheel bearing is adjusted properly.**
- **Disc pads and disc rotor must be dry.**



DISC PAD

Check disc pad for wear or damage.

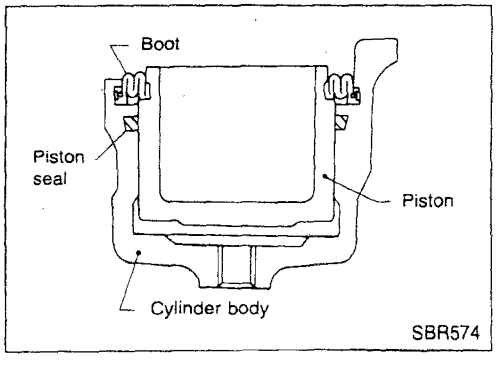
Pad wear limit (A):
2.0 mm (0.079 in)



Assembly

Fit new piston seals.
Lightly appley clean brake fluid "DOT 4" to piston outer face

1. Insert piston seal into groove on cylinder body.
2. Install piston into cylinder body.
3. Install piston boot and secure properly.



Inspection

CYLINDER BODY

- Check inside surface of cylinder for score, rust, wear, damage or presence of foreign materials. If any of the above conditions are observed, replace cylinder body.
- Minor damage from rust or foreign materials may be eliminated by polishing the surface with a fine emery paper. Replace cylinder body if necessary.

CAUTION:
Use brake fluid to clean. Never use mineral oil.

Inspection (Cont'd)

PISTON

Check outside surface of piston for score, rust, wear, damage or presence of foreign materials. Replace if any of the above conditions are observed.

CAUTION:

Piston sliding surface is plated. Do not polish with emery paper even if rust or foreign materials are stuck to sliding surface.

PIN, PIN BOLT AND PIN BOOT

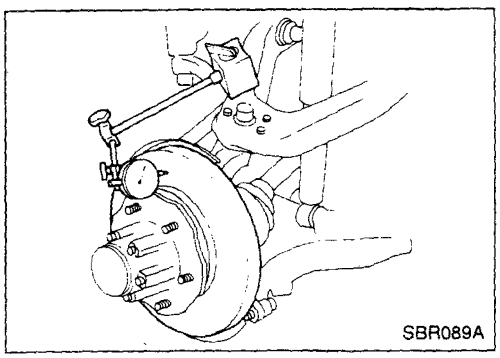
Check for wear, cracks or other damage. Replace if any of the above conditions are observed.

Inspection (Cont'd)

ROTOR

Rubbing surface

Check rotor for roughness, cracks or chips.



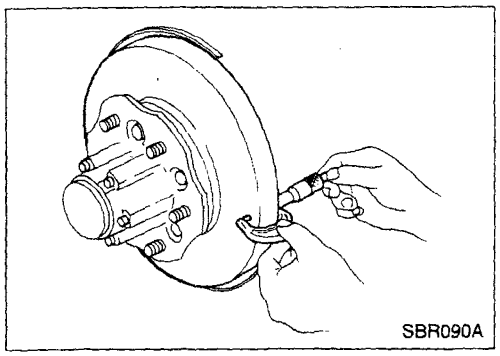
Runout

1. Secure rotor to wheel hub with at least two nuts.
2. Check runout using a dial indicator.

Make sure that wheel bearing axial end play is within the specifications before measuring. Refer to section FA.

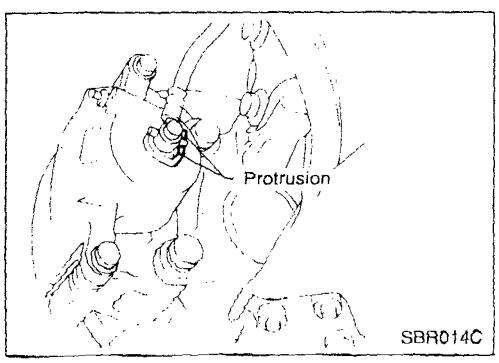
Maximum runout:
0.07 mm (0.0027 in)

3. If the runout is out of specification, find minimum runout position as follows:
   a. Remove nuts and rotor from wheel hub.
   b. Shift the rotor one hole and secure rotor to wheel hub with nuts.
   c. Measure runout.
   d. Repeat steps a. to c. so that minimum runout position can be found.
4. If the runout is still out of specification, turn rotor with on-car brake lathe.



Thickness

Standard thickness:
26.0 mm (1.02 in)
Minimum thickness:
24.0 mm (0.94 in)

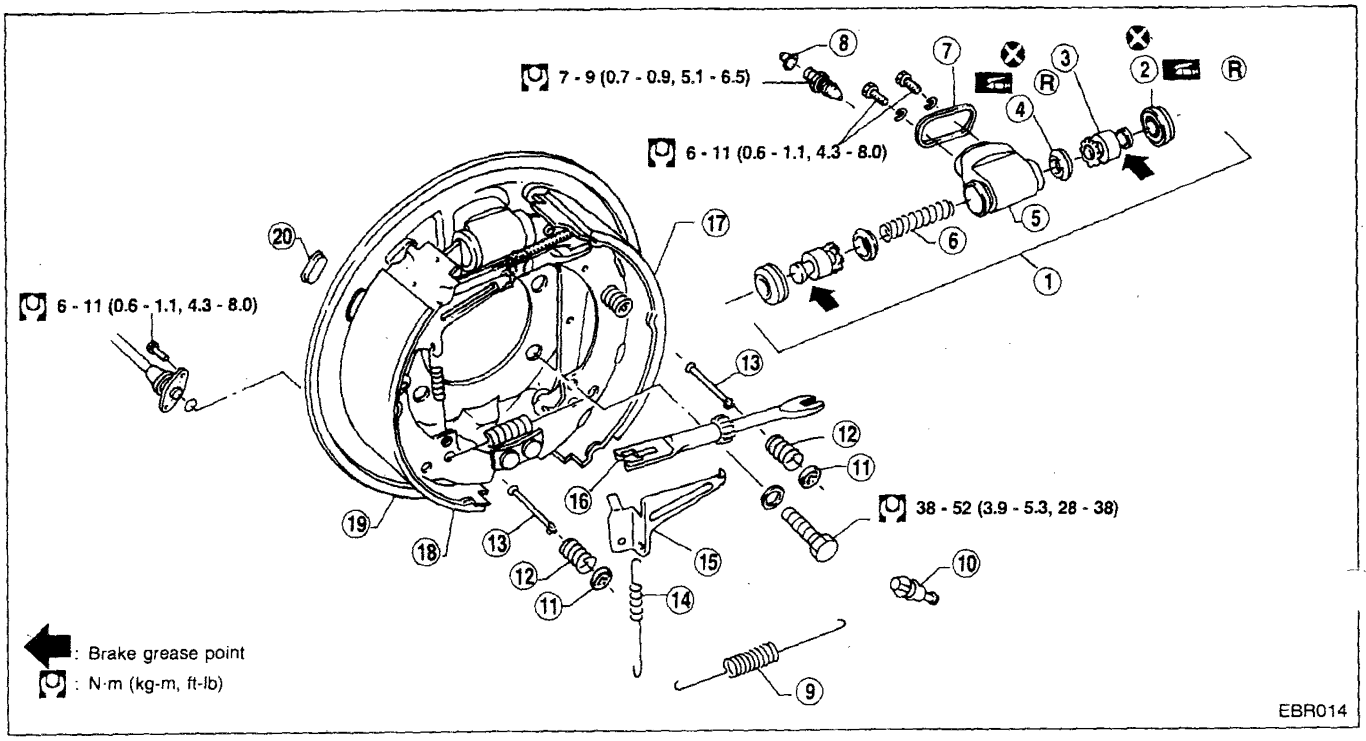


Installation

CAUTION:

- **Refill with new brake fluid "DOT 4".**
- **Never reuse drained brake fluid.**

1. Install caliper assembly.
2. Install brake hose to caliper securely taking care that brake hose is not trapped between any suspension part and that hoses are not twisted.
3. Bleed air. Refer to "Bleeding Procedure" in "BRAKE HYDRAULIC LINE".



① Wheel cylinder assembly
② Boot
③ Piston
④ Piston cup
⑤ Cylinder body
⑥ Spring
⑦ Gasket
⑧ Dust cap
⑨ Return spring
⑩ Handbrake lever stop
⑪ Retainer
⑫ Shoe hold-down spring
⑬ Shoe hold-down pin
⑭ Pawl return spring
⑮ Pawl
⑯ Adjuster assembly
⑰ Trailing shoe
⑱ Leading shoe
⑲ Backplate
⑳ Plug

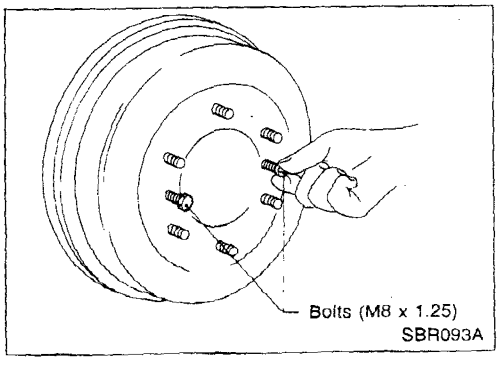
Removal

WARNING:

Clean brake lining with a vacuum dust collector.

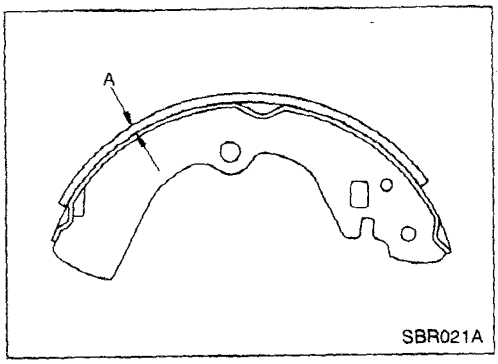
CAUTION:

Make sure parking brake lever is released completely.



1. Release parking brake lever fully, then remove drum.

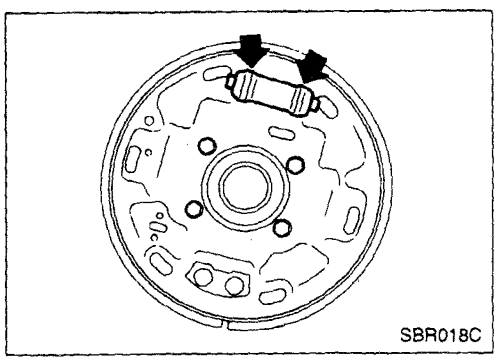
If drum is hard to remove, screw two bolts in the provided holes of the drum and tighten them gradually.
If the drum cannot be removed after carrying out this operation, refer to "Inspection" in "PARKING BRAKE CONTROL".



Shoe Replacement

When installing new shoes, springs should be changed as well. Check lining thickness.

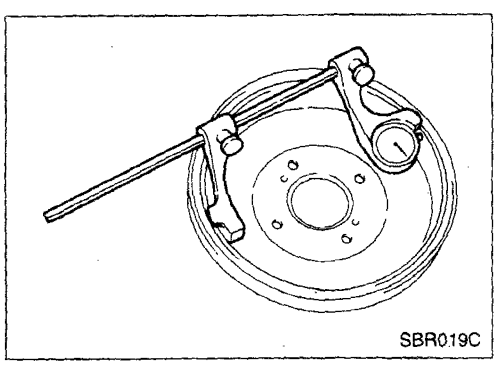
Standard lining thickness:
Trailing: 5.8 mm (0.228 in)
Leading: 4.3 mm (0.169 in)
Lining wear limit (A):
1.52 mm (0.060 in)



Inspection

WHEEL CYLINDER

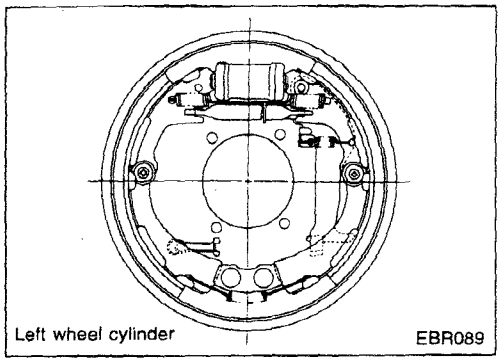
- Check wheel cylinder for leakage.
- Check for wear, damage and loose conditions. Replace if any such condition exists.



DRUM

Maximum inner diameter:
255.5 mm (10.05 in)
Out-of-roundness:
0.05 mm (0.0019 in) or less

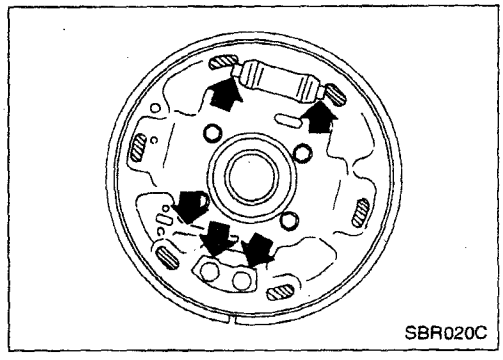
- Contact surface should be fine finished with No. 120 to 150 emery paper.
- If any scratches or wear are detected, adjust the alignment of the drum.
- After brake drum has been completely reconditioned or replaced, check drum and shoes for proper contact pattern.



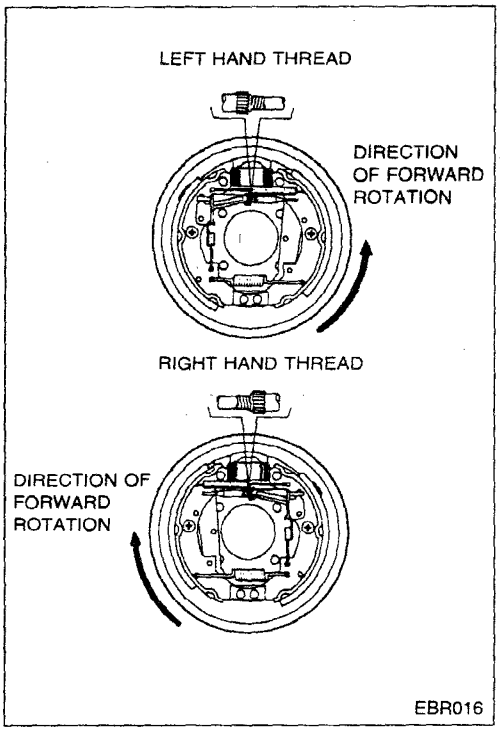
Installation

Always perform shoe clearance adjustment. Refer to "Adjustment" in "PARKING BRAKE CONTROL".

1. Fit adjuster assembly.

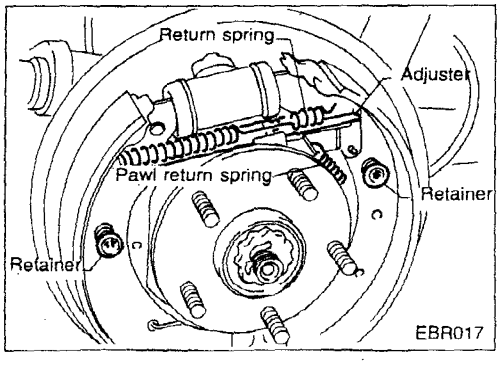


2. Apply brake grease to the contact areas shown at left.



3. Shorten adjuster by rotating it, so that shoe outer diameter is 253 - 253.5 mm (9.96 - 9.98 in)

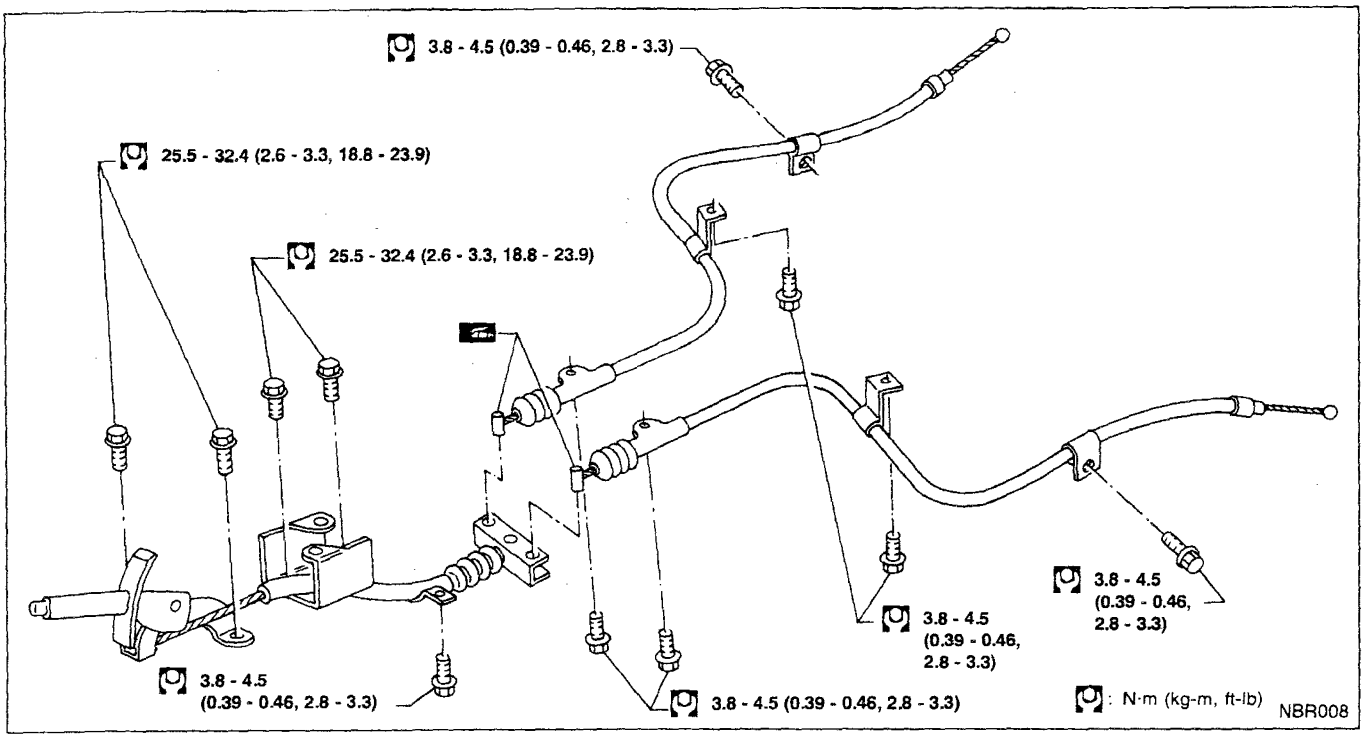
- **Pay attention to direction of adjuster.**

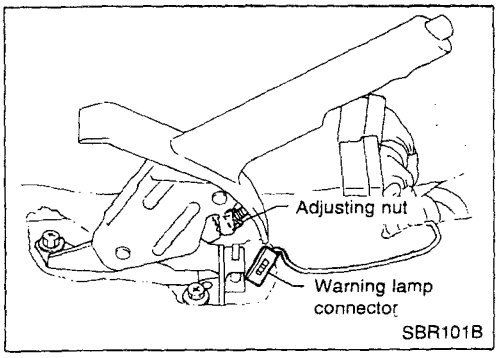


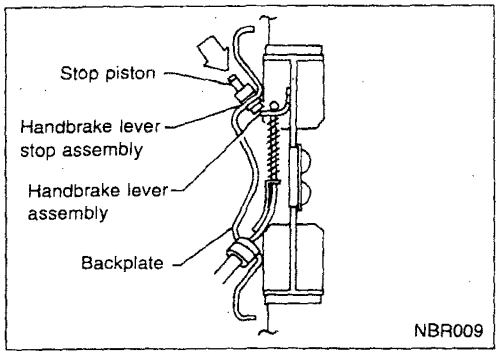
4. Connect parking brake cable to toggle lever.
5. Install all parts.
6. Check all parts are installed properly.

Pay attention to direction of adjuster.

7. Install brake drum.
8. When installing new wheel cylinder or overhauling wheel cylinder, bleed air. Refer to "Bleeding procedure" in "BRAKE HYDRAULIC LINE".







Removal and Installation

1. To remove parking brake cable, first remove center console.
2. Disconnect warning lamp connector.
3. Remove bolts, slacken off and remove adjusting nut.

Inspection

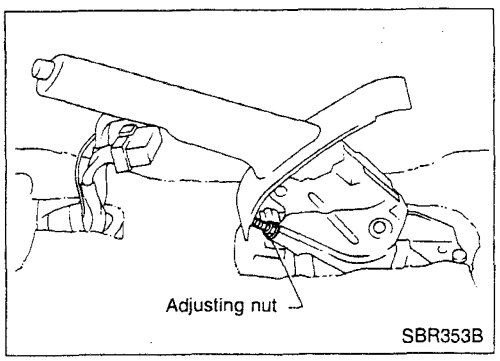
1. Check control lever for wear or other damage. Replace if necessary.
2. Check wires for discontinuity or deterioration. Replace if necessary.
3. Check warning lamp and switch. Replace if necessary.
4. Check parts at each connecting portion and, if deformed or damaged, replace.
5. Without the parking brake being applied, check that the parking brake lever stop is not moved fowards the interior of the back plate.

NOTE:

When the brake drum has been worn excessively, it can be hard to remove it. In this case break the parking brake lever stop by forcing it inside the brake drum, so the brake shoes will move to the center at minimum stroke. After the drum has been removed install new parking brake lever stop.

Adjustment

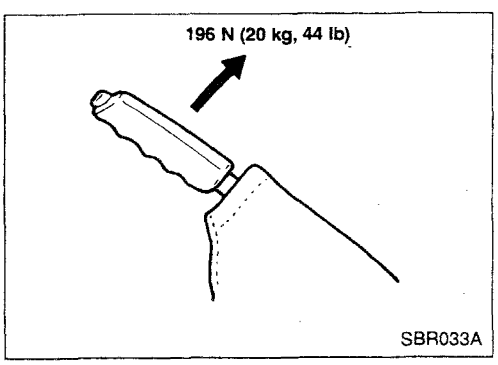
1. Adjust clearance between shoe and drum as follows:
a. Release parking brake lever and loosen adjusting nut.
b. Depress brake pedal fully at least 10 times with engine running.



2. Apply the handbrake, allowing the handbrake grip to move six notches. You can adjust the handbrake travel by using the adjustment spanner. To complete this adjustment, you will need a dynamometer to check the amount of pressure required to move from 6 to 8 notches. If the pressure exceeds 20 kg, the cable will have to be loosened with the help of the adjustment spanner.

   Number of notches:
   6 – 8

   If the pressure is less then 20 kg, the cable should be tightened.



3. Apply the handbrake, using the specified pressure. Check the travel to see that the handbrake is working smoothly.

4. Bend parking brake warning lamp switchplate so that brake warning lamp comes on when parking brake lever is pulled "A" notches.

   Number of "A" notches: 1 or less

General Specifications

Unit: mm (in)

Front brake	
Brake model	LD28VA
Cylinder bore diameter	43 x 2 (1.69 x 2)
Pad Length x width x thickness	144.85 x 48.5 x 15.5 (5.7027 x 1.90 x 0.61)
Rotor Outer diameter x thickness	277 x 26 (10.91 x 1.02)
Rear brake	
Brake model	LT25LD – H/T LT25LE – WAGON
Cylinder bore diameter	23.8 (0.93)
Lining Length x width x thickness	
Leading	244 x 55 x 5.8 (9.61 x 2.16 x 0.228)
Trailing	244 x 55 x 4.3 (9.61 x 2.16 x 0.169)
Drum inner diameter	254 (10.00)

Unit: mm (in)

Master cylinder	
Cylinder bore diameter	23.81 (0.93)
Control valve	
Valve model	Load Sensing Valve
Split point kPa (bar, kg/cm^2, psi) x reducing ratio	Variable
Brake booster	
Booster model	LUCAS LSC 115 (8 " + 9 ")
Diaphragm diameter	
Primary	203.2 (8)
Secondary	228.6 (9)
Recommended brake fluid	DOT 4

Inspection and Adjustment

DISC BRAKE

Unit: mm (in)

Brake model	LD28VA
Pad wear limit	
Minimum thickness	2.0 (0.079)
Rotor repair limit	
Minimum thickness	24.0 (0.94)

DRUM BRAKE

Unit: mm (in)

Lining wear limit	
Minimum thickness	1.52 (0.0598)
Drum repair limit	
Maximum inner diameter	255.5 (10.05)
Out-of-roundness	0.05 (0.0019) or less

BRAKE PEDAL

Unit: mm (in)

	RHD	LHD
Free pedal height (H)	196 $^{+10}_{-0}$	210 $^{+10}_{-0}$
Full stroke (D)	137.7	142.5
Clearance between pedal stopper and threaded end of stop lamp switch (C)	0.3 - 1.0 (0.012 - 0.039)	
Pedal free play at clevis (A)	1 - 3 (0.039 - 0.118)	

PARKING BRAKE

Item \ Control type	Center lever
Number of notches [under force of 196 N (20 kg, 44 lb)]	6 - 8
Number of notches (when warning switch comes on)	1