

## 12. Brake Fluid

| MAINTENANCE INTERVAL<br>[Number of months or km (miles), whichever occurs first] |     |     |    |      |    |      |    |      |    |      |     |      |     |      |     |       |     |
|----------------------------------------------------------------------------------|-----|-----|----|------|----|------|----|------|----|------|-----|------|-----|------|-----|-------|-----|
| Months                                                                           | 3   | 7.5 | 15 | 22.5 | 30 | 37.5 | 45 | 52.5 | 60 | 67.5 | 75  | 82.5 | 90  | 97.5 | 105 | 112.5 | 120 |
| ×1,000<br>km                                                                     | 4.8 | 12  | 24 | 36   | 48 | 60   | 72 | 84   | 96 | 108  | 120 | 132  | 144 | 156  | 168 | 180   | 192 |
| ×1,000<br>miles                                                                  | 3   | 7.5 | 15 | 22.5 | 30 | 37.5 | 45 | 52.5 | 60 | 67.5 | 75  | 82.5 | 90  | 97.5 | 105 | 112.5 | 120 |
|                                                                                  |     |     |    |      | R  |      |    |      | R  |      |     |      | R   |      |     |       | R   |

### A: REPLACEMENT

- 1) Either jack up vehicle and place a safety stand under it, or lift up vehicle.
- 2) Remove both front and rear wheels.
- 3) Draw out the brake fluid from master cylinder with syringe.
- 4) Refill reservoir tank with recommended brake fluid.

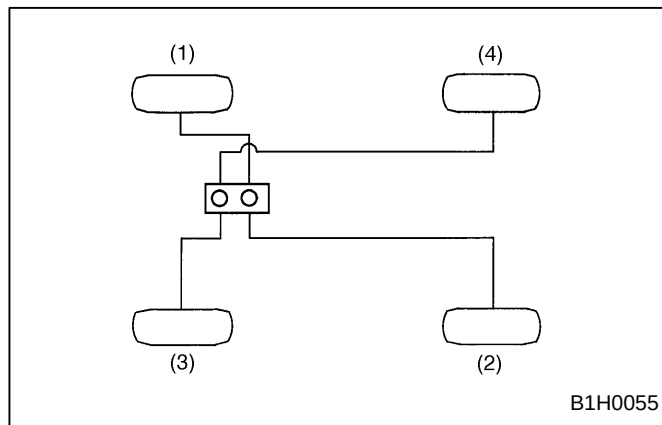
#### Recommended brake fluid:

**FMVSS No. 116, fresh DOT3 or 4 brake fluid**

#### CAUTION:

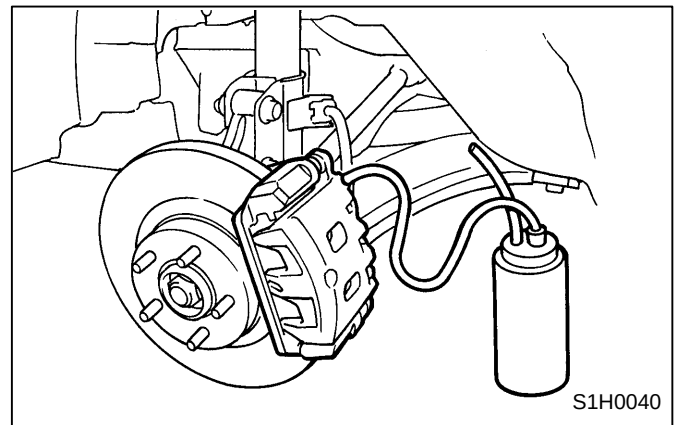
- Avoid mixing different brands of brake fluid to prevent degrading the quality of the fluid.
- Be careful not to allow dirt or dust to get into the reservoir tank.

Bleeding sequence (1) → (2) → (3) → (4)



- (1) Front right
- (2) Front left
- (3) Rear left
- (4) Rear right

- 5) Install one end of a vinyl tube onto the air bleeder and insert the other end of the tube into a container to collect the brake fluid.



#### NOTE:

- Cover bleeder with waste cloth, when loosening it, to prevent brake fluid from being splashed over surrounding parts.
- During bleeding operation, keep the brake reserve tank filled with brake fluid to eliminate entry of air.
- Brake pedal operation must be very slow.
- For convenience and safety, it is advisable to have two men working.
- The amount of brake fluid required is approximately 500 ml (16.9 US fl oz, 17.6 Imp fl oz) for total brake system.

- 6) Instruct your co-worker to depress the brake pedal slowly two or three times and then hold it depressed.

- 7) Loosen bleeder screw approximately 1/4 turn until a small amount of brake fluid drains into container, and then quickly tighten screw.
- 8) Repeat the immediately preceding two steps until there are no air bubbles in drained brake fluid and new fluid flows through vinyl tube.

**CAUTION:**

**Add brake fluid as necessary while performing the air bleed operation, in order to prevent the tank from running short of brake fluid.**

9) After completing the bleeding operation, hold brake pedal depressed and tighten screw and install bleeder cap.

***Tightening torque:***

***8 ± 1 N.m (0.8 ± 0.1 kg-m, 5.8 ± 0.7 ft-lb)***

10) Bleed air from each wheel cylinder using the same procedures.

11) Depress brake pedal with a force of approximately 294 N (30 kg, 66 lb) and hold it there for approximately 20 seconds. At this time check pedal to see if it makes any unusual movement.

12) Install wheels, and drive car for a short distance between 2 to 3 km (1 to 2 miles) to make sure that brakes are operating properly.