

### Filling up the brake

Brake fluid must be filled up from bottom to top in order to avoid air bubbles. For a simple fill up device you need instrument flexible tubing of about 2 m length (=6.56 ft) and a funnel filled with approx. 1/4 l of brake fluid at the upper end. The brake cylinder uses a fill up nipple at its bottom. The lower end of the hose must be slipped onto the nipple. When loosening the hexagonal head screw by one turn, a valve opens the nipple.

Disassemble the reservoir (expansion tank) from its mounting and hold it upright. Open the filler cap and remove the diaphragm.

Hold up the funnel as high as possible so that the brake fluid may run in with pressure. You absolutely have to take care that no air bubbles get into the system. Therefore, always sufficient fluid must be also in the funnel.

Fill the expansion tank nearly to full capacity. Then the bleeder screw should be closed tight and the hose removed. Do not forget to replace the dust cap! Insert the diaphragm in the expansion tank in a way that no air remains underneath it. Collect the waste brake fluid with a wipe. Finally close the filler cap and remount the expansion tank.

For the refilling of brake fluid the small plastic tank is taken out of its support. Open it and refill brake fluid!

If the brake system has been emptied already to such an extent that air has penetrated between master cylinder and operating cylinder, filling up must be done again from bottom to top.

Air in the brake system will cause an extension of the actuating travel at the airbrake lever. In consideration of the flexibility of the flexible pipes etc. one may assume that there is no air in the system, if the flexible travel does not exceed 50 mm = 1.97 in for an actuating force of 20 kg = 44 lbs at the airbrake lever.