

HYDRAULIC SYSTEM

BLEEDING THE HYDRAULIC SYSTEM

Bleeding or expelling air from the hydraulic system is not a maintenance operation and should only be necessary when a portion of the hydraulic system has been disconnected or when the fluid level in the reservoir has fallen so low that air has entered the system.

Always keep a careful check on the fluid level during bleeding since it is most important that a high level is maintained. Should air enter the master cylinder from the reservoir the complete operation must be repeated.

1. When fitted, destroy all vacuum in the servo unit by repeated operation of the brake pedal, NEVER start the engine before bleeding of the system has been completed.
2. Ensure that all hydraulic connections are secure and the master cylinder reservoir is filled to a high level; this level must be maintained during the complete operation.
3. Slacken off the four front brake shoe adjusters and fully tighten the two rear brake shoe adjusters; this will reduce the fluid space in the wheel cylinder bodies.
4. Remove the rubber cap from the bleed screw of the left hand rear wheel cylinder, fit the bleed tube and immerse the free end of the tube in a glass vessel containing a small quantity of brake fluid.
5. Remove any floor covering that prevents a full stroke of the brake pedal; with the assistance of another person slacken off the bleed screw $\frac{1}{2}$ to $\frac{3}{4}$ of a turn and depress the brake pedal a succession of long and short rapid strokes and then allow the brake pedal to fly back to its stop with the foot removed. Actuate the brake pedal in this manner until the brake fluid entering the glass vessel is free from air bubbles and then tighten the bleed screw on the next downward stroke to the torque given in "General Data".
6. Remove the bleed tube and glass vessel from the bleed screw and refit the rubber cap.
7. Repeat the three previous operations with the right hand rear bleed screw followed by the left and right hand front bleed screws respectively.
8. Readjust the front and rear brake shoes, see under their respective headings earlier in this Section.
9. Top up the master cylinder reservoir to the correct level and refit the filler cap, ensuring its seal is in good condition and the air vent is unobstructed, as any blockage will cause the brakes to bind.

Bleed screws

The front and rear wheel cylinders have conical ended bleed screws which bed onto a seat formed in the bottom of the bleed screw tapping.

The bleed screws must never be overtightened since their threads may become stripped. Use only short spanners and tighten the bleed screws to the torque given in "General Data".

BRAKE PIPE RUN

The fluid reservoir is connected by a short length of rubber hose and a metal pipe to the feed port at the front end of the brake master cylinder mounted in the floor of the luggage compartment.

The master cylinder pressure pipe from the side of the cylinder passes through the floor of the luggage compartment to the front connection of a four-way connector attached to the underside of the floor adjacent to the right-hand front wheel arch.

The left- and right-hand side connections are connected by rigid pipes and flexible hoses to the rear-most wheel cylinders mounted in the back plate of the two front brakes. The junctions of the flexible hoses and metal pipes are supported in brackets welded to the bottom and rearward extremities of both wheel arches.

The rear connection of the four-way connector is connected to the front of a second four-way connector at the rear of the car by a metal pipe which is attached to the centre swaging of the floor assembly.

The left- and right-hand side connections are connected by metal pipes and flexible hoses to the wheel cylinders mounted low in the back plate of the two rear brakes. The flexible hoses are positioned between two metal pipes to accommodate the rise and fall of the rear suspension arms, the ends of the flexible hoses are mounted in brackets, one on the rear main crossmember and a second on the swinging arms of the rear suspension.