Additional Information

The following information supersedes that contained in the handbook or supplement under the heading Bleeding the power brake circuits.

When carrying out the following operations reference should be made to the illustrations in Chapter 10 of the handbook and if applicable also the supplement.

It should be noted that Figure 1 supersedes the illustration in the handbook or supplement titled Bleed Points in the Hydraulic Systems.

Bleeding the power brake circuits

To bleed either of the power brake systems, they should be depressurised as described in the handbook or supplement under the heading Bleeding the hydraulic circuits. Ensure that the level of fluid in the reservoir of the systems concerned is up to the maximum level mark.

The front compartment of the hydraulic reservoir supplies fluid for the number one braking system. From the reservoir fluid is supplied to the front brake pump which in turn supplies hydraulic fluid under pressure to the right-hand accumulator, the upper distribution valve, the deceleration conscious pressure limiting valve, the front calipers of the front brakes and the upper cylinders of the rear brake calipers.

The rear compartment of the hydraulic reservoir supplies fluid for the number two braking system. From the reservoir fluid is supplied to the rear brake pump which in turn supplies fluid under pressure to the left-hand accumulator, the lower distribution valve, the rear calipers of the front brakes, the lower cylinders of the rear brakes and the height control rams.

If a rectification has been carried out between the brake pumps and the distribution valves, it will be necessary to bleed at all the bleed points in that particular circuit.

If a rectification has been carried out between the distribution valves and the brake calipers, it should only be necessary to bleed at the bleed points between the distribution valve and the brake calipers in the faulty circuit. However if in any doubt it is advisable to bleed the complete system.

Bleed screws are provided on the side of the accumulators, on the left-hand pressure switch, on each pair of brake calipers, on each height control ram and on the deceleration conscious pressure limiting valve *(see Fig. 1)*. The bleed screws for the height control rams are positioned on the inner side of the right-hand body sill just forward of the wheel arch.

The accumulators are situated on each side of the engine. The accumulator for the number one system is situated on the 'A' bank side of the engine; the accumulator for the number two system is situated on the 'B' bank side of the engine. The pressure switches are mounted on each valance adjacent to its respective accumulator.

Care must be taken when bleeding at the brake pressure switch not to allow brake fluid to come into contact with the paintwork, as serious damage would result. As the pressure switch is located in close proximity to the engine cooling fan and various driven belts, bleeding of the switch should only be carried out with the engine switched off.

The power brake circuits should be bled at low pressure ensuring that the system is depressurised and the fluid levels in the reservoirs are kept above the minimum marks at all stages of the bleeding operation.

To obtain low pressure bleeding the system(s) must remain open at all times. Also throughout the bleeding operation, the brake pressure warning panel(s) marked '1 BRAKE PRESSURE' and/or '2 BRAKE PRESSURE' should be illuminated. Only when bleeding the height control rams and the pressure switch should the system(s) be fully pressurised and the warning panel lamp(s) extinguished.

When bleeding the height control rams the interior of the car should be weighted to compress the suspension sufficiently for the height control valves to actuate and allow pressurised fluid through to the rams and bleed screws. The engine should be allowed to run for two minutes to ensure that the system is fully charged. Bleed both of the rams until all the air bubbles cease then allow fifteen seconds to elapse before fully tightening each bleed screw.

When bleeding the hydraulic systems attach a length of rubber tube to each bleedscrew prior to the bleedscrew being opened, immerse the free end of the tube in approximately 2,5 cm. (1 in.) of brake fluid contained in a clean bottle.

Bleed the complete systems in the following sequence *(refer to Fig. 1).*

Depressurise the hydraulic systems.
Open bleed screws at points A, B and C.
Depress brake pedal. Start and run engine at between 750 r.p.m. and 800 r.p.m.
Ensure facia warning panels '1 BRAKE PRESSURE' and '2 BRAKE PRESSURE' are illuminated.
Allow points A, B and C to bleed until air free.
Open bleed screws at points D and E; allow bleeding to start.
Close bleed screws at points A, B and C.
Bleed at points D and E until air free.
Open bleed screws at points F and G; allow bleeding to start.
Close bleed screws at points D and E.
Bleed at points F and G until air free.
Open bleed screws at points H and I; allow bleeding to start.
Close bleed screws at points F and G.
Bleed at points H and I until air free.
Open bleed screws J and K; allow bleeding to start.

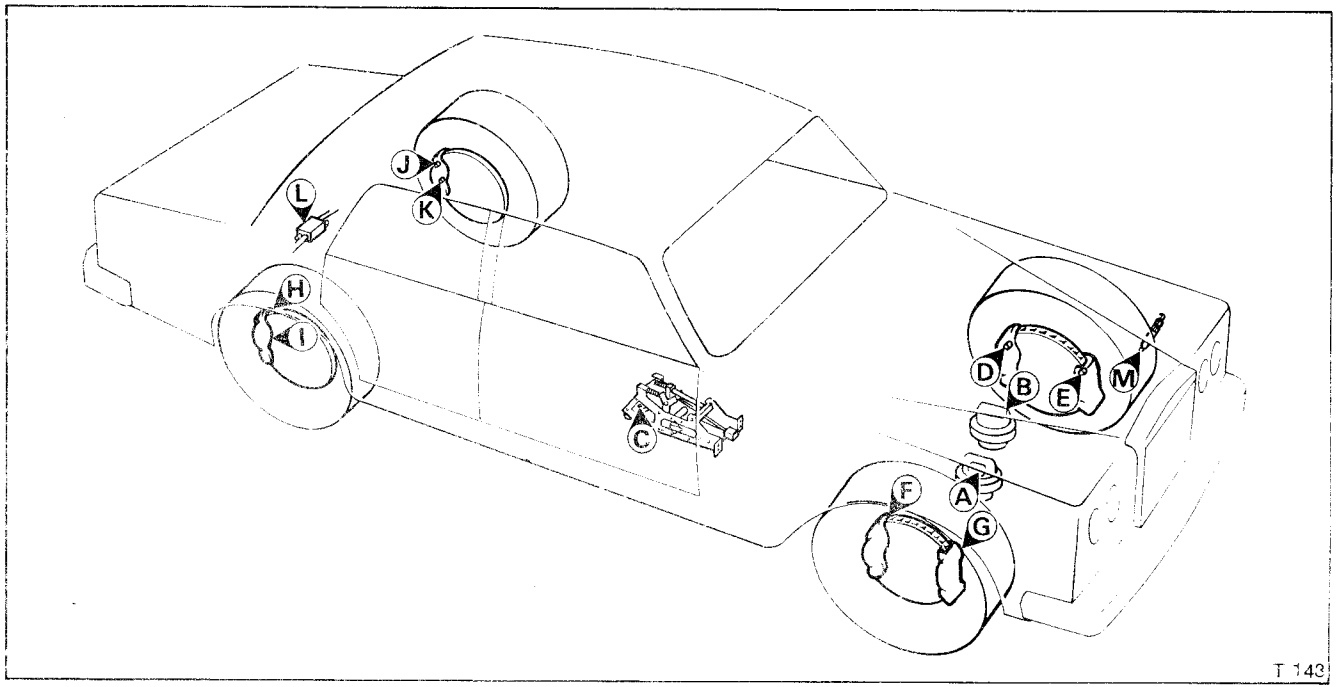

Fig 1 **Hydraulic System Bleed Point Locations**

A 'A' Bank accumulator
B 'B' Bank accumulator
C Pressure limiting valve
D Rear caliper left-hand front wheel
E Front caliper left-hand front wheel
F Rear caliper right-hand front wheel
G Front caliper right-hand front wheel
H Right-hand rear caliper (upper cylinder)
I Right-hand rear caliper (lower cylinder)
J Left-hand rear caliper (upper cylinder)
K Left-hand rear caliper (lower cylinder)
L Height control rams (underside rear floor)
M Pressure switch (left-hand valance)

Close bleed screws at points H and I.
Bleed at points J and K until air free.
Close bleed screws at points J and K.
Release brake pedal.
Add weight to rear of car to actuate levelling valves.
Allow systems to pressurise (facia warning panels extinguished).
Open bleed screws at point L; bleed until air free.
Close bleed screws at point L.
Switch off engine.
Open bleed screw at point M; bleed until air free.
Close bleed screw at point M.
Check fluid levels in reservoir, top up as necessary.
Fit rubber dust covers to each bleed screw.

Note:
System '1 BRAKE PRESSURE' Bleed points A, C, E, G, H and J.
System '2 BRAKE PRESSURE' Bleed points B, D, F, I, K, L and M.

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