

Fig.9.21. Dual-line servo braking system, early 4.2 litre cars

- |                                              |                                    |                         |                    |
|----------------------------------------------|------------------------------------|-------------------------|--------------------|
| 1 Fluid at feed pressure                     | A Primary chamber - slave cylinder | G Diaphragm             | O Fluid reservoirs |
| 2 Fluid at master cylinder delivery pressure | B Outlet port-rear brakes          | H Filter                | P To manifold      |
| 3 Fluid at system delivery pressure          | C Inlet port - secondary piston    | I Air control           | Q To reservac      |
| 4 Vacuum                                     | D Outlet port-front brakes         | J To rear brakes        | R Reaction valve   |
| 5 Air at atmospheric pressure                | E Vacuum                           | K To front brakes       |                    |
|                                              | F Air pressure                     | L Tandem slave cylinder |                    |
|                                              |                                    | M Vacuum cylinder       |                    |
|                                              |                                    | N Master cylinder       |                    |

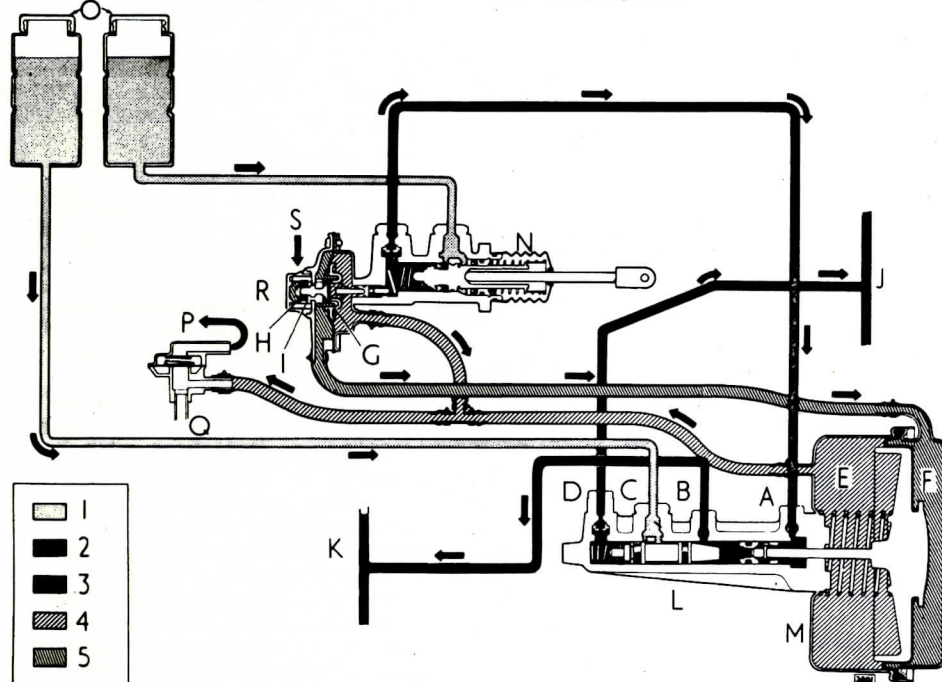


Fig.9.22. Dual-line servo braking system, later 4.2 litre cars

- |                     |                          |                   |                        |
|---------------------|--------------------------|-------------------|------------------------|
| 1 Outlet connection | 9 Pushrod                | 17 Abutment plate | 25 Seal                |
| 2 Gasket            | 10 Diaphragm support     | 18 Bearing        | 26 Retainer            |
| 3 Inlet connection  | 11 Diaphragm             | 19 Seal           | 27 Slave cylinder body |
| 4 Piston            | 12 Key                   | 20 Spacer         | 28 Spring              |
| 5 Pin               | 13 Cover                 | 21 Cup            | 29 Trap valve          |
| 6 Retaining clip    | 14 Vacuum cylinder shell | 22 Piston         | 30 Stop pin            |
| 7 Gasket            | 15 Screw                 | 23 Cup            | 31 Gasket              |
| 8 Spring            | 16 Locking plate         | 24 Piston washer  |                        |

The booster assembly, Fig.9.20, is a moulded phenolic push rod, secured to the face of the tank by a nut. The motive force for the tandem master cylinder is provided by the booster which houses two pistons, one for the inlet and outlet ports. In the event of a failure of the booster, the primary piston moves the piston in the tandem slave cylinder (A). At the same time, the master cylinder piston is isolated from the slave valve and so isolated from the slave piston (F) of the booster. The piston moves along its reaction valve and the rear of the booster through a small orifice. A pressure imbalance in the cylinder transmits the primary piston to the tandem slave cylinder, transmitting the fluid under pressure to the output ports (B and C). This system has a fail-safe feature: a failure in the primary cylinder or in the tandem slave cylinder, the reaction valve, the master cylinder, the front and rear brake lines, or a failure in the front brakes will not prevent the car from travelling to its full stop. The effect of isolating the front and rear brake system and will prevent the front brake line.

If there is a failure in the primary piston, the piston will travel to the rear of the two pistons within the tandem slave cylinder. This is shown from Fig.9.22.

In the case of a failure in the front and rear brake lines, the fluid at master cylinder

The Lockheed dual-line servo braking system. The precaution is to clean the system (with a maintenance, clean the system with a spray of rubber grease) or grease) of rubber grease. Before starting the car, check the appropriate repairs, required during the service, namely: Remote servo reaction valve