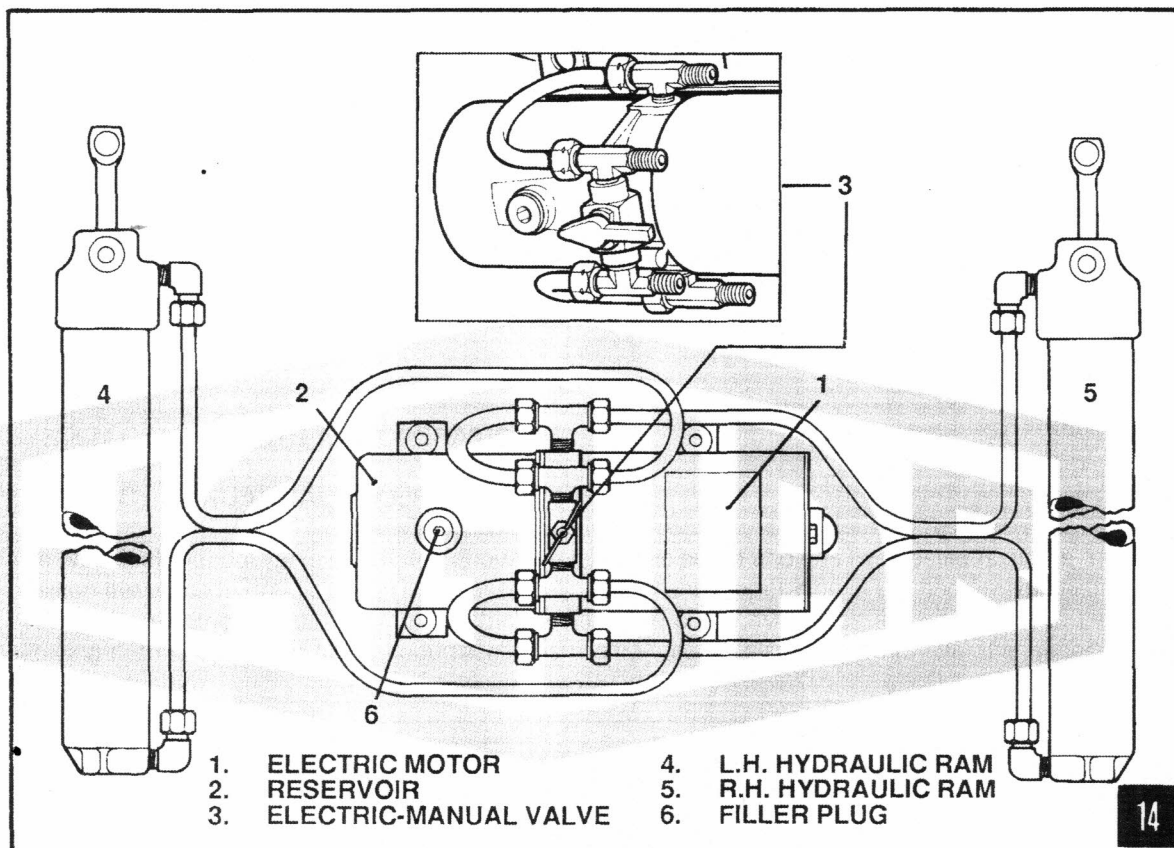


## HYDRAULICS

### SYSTEM COMPONENTS AND OPERATION

#### ELECTRIC - MANUAL VALVE (3, Fig. 14)

The electrical-manual valve is situated above the hydraulic pump and has two positions. In the "manual" position the pump hydraulic circuit is bypassed allowing manual operation of the hood mechanism in the event of an electrical failure. In the "electric" position the pump hydraulics are connected to the rams allowing normal operation of the hood mechanism. The valve is also used whenever it is necessary, to bleed the system.



An electric motor (1, Fig. 14) is connected directly to the oil pump (Fig. 15). The motor can be driven in either direction depending on the signal for opening or closing the power hood.

The crescent type pump houses a changeover valve (1, Fig. 15) which, depending on the driven direction of the motor, will re-direct the hydraulic oil accordingly.

The normal operating pressure within the system is 13 Bar (190 p.s.i.). Two relief valves are fitted, one to each pump outlet and are set to a nominal 18 Bar (260 p.s.i.) (2, Fig. 15).

The twin outlet and inlet connections of the hydraulic pump are connected to the two rams by flexible nylon pipes. Inside each ram is a piston, when the system is in operation, applying hydraulic pressure below each piston causes each ram to extend. As the ram extends the displaced oil above the piston is passed to the inlet side of the pump and any excess oil is held in the reservoir.

On reversing the direction of the pump the changeover valve allows oil to be applied under pressure to the top of each piston and the ram will now contract, any oil underneath the piston is passed to the inlet side of pump and any excess is fed back to the reservoir.

Air in the system could affect the operation of the hydraulic rams; it is important that the system is free of air. Should the need arise to carry out repairs to the power hood hydraulics then only use Univis J13 hydraulic oil. The total oil quantity within the power hood hydraulic system is 800 cc.