

must then be carried out again.

11. After a successful submerged test, the sphere should be thoroughly dried with dry compressed air, particular attention should be paid to the fluid ports which should be blanked off while awaiting fitting to the valve assembly.

12. A check of the accumulator pressure may be taken when the accumulator is fitted to the engine by using the hydraulic system pressure gauge rig (RH 7938) as described under the heading, Hydraulic accumulator - To test.

Hydraulic accumulator valve housing - To dismantle

1. Separate the hydraulic accumulator sphere from the valve housing as described earlier.

2. Remove the end plug from the valve housing, by using a 25,4 mm. A/F (1.00 in. A/F) Allen key or a length of hexagon bar inserted into the plug, then slacken with a suitable spanner.

3. Using a 0.250 in. U.N.F. setscrew screwed into the threaded hole of the valve sealing plug, withdraw the plug from the valve housing and discard the sealing ring.

4. Remove the sealing disc, non-return valve and the return spring from the smaller bore of the bobbin (see Fig. G12).

5. Remove the valve bobbin by gently tapping the valve housing on a piece of wood. Remove and discard the three sealing rings leaving the P.T.F.E. seal in position.

6. Remove the piston from the centre bore of the bobbin, remove and discard the combined Fluon and rubber sealing ring.

7. Remove the regulator valve, spring and adjusting washers from the valve housing.

Hydraulic accumulator valve - To inspect

1. Thoroughly wash all the components, including the valve housing in methylated spirits. Dry, using clean compressed air. Never use cloths to dry components.

2. Inspect the ball seat in the bobbin and the ball of the regulator valve for wear and ingrained dirt. Any dirt should be removed and the parts washed again in methylated spirits. Worn parts should be renewed.

3. Burnish the ball seat of the bobbin, by holding the ball on to the seat and rotating the regulator valve by hand or lightly tap a 3,96 mm. (0.156 in.) diameter ball onto the ball seat, to form a leakproof spherical seat on the bobbin.

4. Inspect all parts, renewing those which may be worn or damaged.

Hydraulic accumulator valve housing - To assemble
Assemble the valve by reversing the procedure for dismantling noting the following points.

1. Lubricate all internal parts with clean brake fluid of the approved type (see Chapter D).

2. Fit new sealing rings to the bobbin, piston and sealing plug.

The anti-extrusion washer must be fitted to the

flanged side of the end 'O' ring groove on the bobbin (see Fig. G12).

3. It may be necessary to lightly tap the piston into the bore of the bobbin due to the interference fit of the new seal. This trims the seal and any particles produced must be removed. The piston must then be extracted from the bore, cleaned and fitted again using only finger pressure.

4. After assembling the non-return valve, spring, sealing disc and end plug into the bobbin, check that the non-return valve operates freely in its bore and is returned to its seat by the spring load.

5. Torque tighten the end plug and pipe adapters in accordance with the torque figures quoted in Chapter P.

Hydraulic accumulator sphere and valve housing - To fit

1. Fit a new 'O' ring to the top of the accumulator sphere and screw the sphere into the valve housing. Using the hexagon at the top of the sphere, torque tighten the sphere to the valve housing to the torque figure quoted in Chapter P.

Note

Do not use the charging valve cap as a spanning point.

2. Fit the accumulator to the engine reversing the procedure given for removal. Blanks should only be removed immediately prior to connecting the pipes.

3. All setscrews and pipe connections must be torque tightened in accordance with the figures quoted in Chapter P.

4. After fitting, top-up the fluid reservoir and test the accumulator(s) as described in Hydraulic accumulator - To test. With the engine running all joints and unions which have been disturbed must be leak free prior to tests being carried out.

5. Bleed the system(s) as described in Section G4.

Hydraulic accumulators - To test

1. Depressurise the systems as described in Section G2.

2. Remove the bleed screw from the accumulator. Connect a length of high pressure pipe, fitted with a bleed screw connection and a zero kg/sq.cm. to 210 kg/sq.cm. (zero lb/sq.in. to 3 000 lb/sq.in.) pressure gauge (RH 7938) to the bleed screw outlet of the accumulator.

3. Start the engine. The gauge needle should immediately jump to 70,31 kg/sq.cm. (1 000 lb/sq.in.) which is the nitrogen pressure in the accumulator sphere; then rise slowly to between 168 kg/sq.cm. and 182 kg/sq.cm. (2 400 lb/sq.in. and 2 600 lb/sq.in.). At this pressure the accumulator control valve should operate and the pump should cease to charge the accumulator.

4. After the cut off pressure has been reached note the pressure to which the gauge settles. This settling takes up to one minute and the pressure should not be more than 10,5 kg/sq.cm. (150 lb/sq.in.) below the cut off pressure. The pressure should then remain steady unless the brake pedal