3. Remove the front spring and shock absorber complete from the wishbone bracket by removing the nut, bolt and washer, then lowering the jack to control the expansion of the spring.

4. Lift the front spring and upper spring seat upward off the top of the shock absorber body. Raise the lower spring seat. Remove the two split collets and withdraw the lower spring seat from the lower end of the shock absorber.

5. Refitting is the reverse of the removal sequence but particular attention should be given to the following:

i. The lower spring seat is fed on the lower end of the shock absorber, lip side first.

ii. The split collets are fitted in the circular groove of the shock absorber body so the shallower taper is towards the spring seat. A smear of grease will facilitate assembly.

iii. The upper spring seat is fitted so the metal face is towards the spring.

iv. The lower shock absorber bolt is fed in from the rear and not fully tightened until the weight of the car is on the road wheels.

Testing shock absorber by hand

When there is any question of the suspension not being adequately damped, other factors together with the shock absorbers should be considered, these are: front springs and tyre pressures.

If a shock absorber does not function satisfactory, an indication of its condition can be obtained by carrying out the following check:—

1. Remove the shock absorber from the car, see under "FRONT SPRING AND SHOCK ABSORBER—To remove and refit". Position vertically in a vice by gripping the eye end between two pieces of wood.

2. Grip the piston rod at the upper end of the shock absorber firmly with the hands and move the rod up and down. The presence of air is usually indicated by a lack of resistance or a "springy" feel at the beginning of the stroke. If this is apparent, the shock absorber should be left in the vertical position for a few minutes to allow the air bubbles to collect at the top of the pressure chamber.

3. A few short strokes from the fully compressed position followed by a few slow full strokes should remove all air from the pressure chamber.

Moderate and even resistance throughout the outward and inward strokes should be felt after expelling the air. If, the resistance is slight or erratic and free movement cannot be eliminated, then the shock absorber should be renewed.

It is difficult to form an adequate opinion of the true operational condition of a shock absorber by hand testing. The slow speed of the hand test only partially operates the "bleed" setting within the shock absorber and as a large part of the front spring control depends on the high pressure or high speed setting which can only operate while the shock absorber is in service. A new shock absorber may appear to be weak when operated by hand, but this should not always be taken as evidence of a fault.