

# Front Fork

The telescopic fork consists of steering head and fork crown pressings to which are welded two stanchion tubes with fixed external phosphor bronze bushes, providing bearing surfaces for the sliding members.

Movement of each slider is controlled by a short tension spring encircling a  $\frac{3}{8}$ " dia. rod positioned in the centre of the slider. The lower end of the rod locates in a hole in the centre of the fork end where it is secured by a transverse anchor bolt engaging in a slot on the rod.

The top end of the spring is tapered and is retained on the rod shoulder by a washer and locknut. The lower coils of the spring are opened out to accept a slotted washer which bears against a shoulder in the stanchion tube and is held in position by a washer and circlip. Hence when the wheel and slider move upwards, the spring is extended in tension. Oil carried in the slider tube provides hydraulic damping on the compression stroke and also lubricates the sliding parts. As the fork is compressed, the slider moves up and oil cannot pass beyond the lower bushes. It is therefore forced through the annulus between the spring retaining washer and the rod, into the stanchion tube. A degree of rebound damping is obtained as a result of the partial vacuum which occurs as the fork re-assumes its static position. The capacity of each fork leg is 82.5 cc. of SAE 20 oil. Grub screws at the mudguard bridge brackets enable the oil level to be checked.

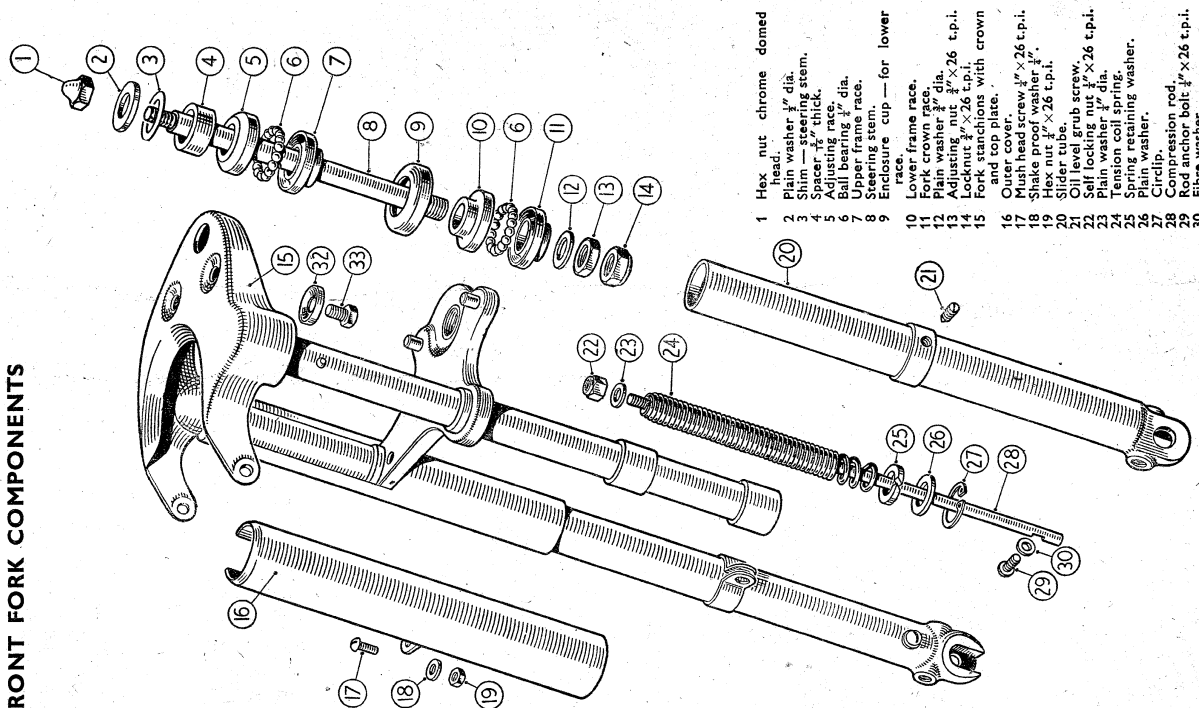
**FRONT FORK MAINTENANCE.** New machines are supplied with the correct grade and quantity of oil. If a leak is suspected, the oil level grub screws (retaining mudguard bridge clips) must be removed. If oil level has dropped, top up with a few squirts from an oil can. In normal use we recommend checking the oil level every 5,000 miles.

**REMOVING FORK SLIDERS.** Raise the machine on the centre stand and place a wooden box or similar means of support under the front of the engine loop tube. Disconnect front brake cable at brake cam lever. Remove brake cable abutment bolt (complete with adjuster and cable) and R.H. mudguard bridge clip bolt. Next slacken wheel spindle cotter bolts, tapping the heads to release cotteners. Unscrew spindle nuts and remove front wheel. Unscrew cotter bolts and remove mudguard complete with stays and bridge. Slacken oil level grub screws two or three turns, then slacken the two rod anchor bolts at the bottom of the sliders, allowing the sliders to be pulled off the stanchion tubes and exposing the two rods.

**DISMANTLING FORK RODS AND SPRINGS.** Removal of the sliders will reveal the circlips inside the stanchion tube extremities. The circlips should be carefully detached with thin nosed pliers and the complete rod and spring unit withdrawn.

Drawing by "The Motorcycle," London

## FRONT FORK COMPONENTS



- 1 Hex nut chrome domed head.
- 2 Plain washer  $\frac{1}{2}$ " dia.
- 3 Shim — steering stem.
- 4 Spacer  $\frac{1}{2}$ " thick.
- 5 Adjusting race.
- 6 Race  $\frac{1}{2}$ " dia.
- 7 Upper frame race.
- 8 Steering stem.
- 9 Enclosure cup — for lower race.
- 10 Lower frame race.
- 11 Fork crown race.
- 12 Plain washer  $\frac{1}{2}$ " dia.
- 13 Adjusting nut  $\frac{3}{8}$ " x 26 t.p.i.
- 14 Locknut  $\frac{3}{8}$ " x 26 t.p.i.
- 15 Fork stanchions with crown and top plate.
- 16 Outer cover.
- 17 Flush head screw  $\frac{1}{2}$ " x 26 t.p.i.
- 18 Spring retaining washer.
- 19 Hex nut  $\frac{3}{8}$ " x 26 t.p.i.
- 20 Oil level grub screw.
- 21 Self locking nut  $\frac{3}{8}$ " x 26 t.p.i.
- 22 Plain washer  $\frac{1}{2}$ " dia.
- 23 Tension coil spring.
- 24 Spring retaining washer.
- 25 Plain washer.
- 26 Circlip.
- 27 Compression rod.
- 28 Rod anchor bolt  $\frac{3}{8}$ " x 26 t.p.i.
- 29 Fibre washer.
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