





### **TO DISMANTLE THE K HUB.** (It is an advantage if the hub is mounted in a wheel.)

1. Remove left-hand Locknut and Cone. Drop out the Ball Cage and the Pressure Plate Spring.
2. Unscrew the right-hand Ball Ring using a flat ended punch. It has a two-start right-hand thread.
3. All the internals can now be withdrawn.
4. Grip the axle in a vice and remove the Locknut, Lock Washer and Cone.
5. Holding the Axle vertically, lift off the Driver, the Ball Ring and the Gear Ring.
6. The Clutch is removed by unscrewing the collar of the Clutch Sleeve. This is a normal right-hand thread.
7. Now unscrew the Indicator Rod protruding from the left-hand end of the axle. The right-hand coupling and chain can then be withdrawn from the axle. The Indicator Spring will probably come out of the axle on the Indicator when it is removed. If not, a jar will shake it out.
8. The Main Spring is removed by unscrewing the Grub Screw in the right-hand end of the axle. These grub screws can be very difficult to remove. The screwdriver blade should be 9/64" wide if possible.
9. The Axle Key will now drop out allowing the Clutch Sleeve and the Planet Cage to be removed.
10. From 1933 the Pinion Pins were fitted into blind holes. A sharp jar is sometimes needed to remove them.
11. Early hubs had split pins in the Gear Ring Pawl Pins, later they had circlips and then nothing.
12. Gear Ring Pawls in early hubs had coil springs but from 1933 "R" springs were used.
13. The left-hand Ball Cup has a left-hand thread and can be removed by gripping the two flats in a vice and turning the wheel clockwise. The Pawls have coil springs and the pins are riveted into the ball cup.

### **TO RE-ASSEMBLE THE K HUB.**

1. Screw the left-hand Ball Cup into the shell. It has a left-hand thread.
2. Holding the Axle by the left-hand end, fit the Planet Cage with its Pinions over the Sun Pinion.
3. Fit the Clutch Sleeve and insert the Key after lining up the hole to take the Indicator Rod.
4. Insert the Axle Spring with its Collar from the right-hand end and screw in the Grub Screw. Insert the Coupling Rod and chain at the same end.
5. Screw in the Indicator Rod with its Spring at the left-hand end of the Axle.
6. Fit the Clutch to the Sleeve and screw on its Collar.
7. Refit the Pawls and Springs in the Gear Ring. Fit the Gear Ring over the Planet Cage.
8. Check that the 24 balls in the Ball Ring are free, then fit over the Gear Ring.
9. Fit the Driver and Sprocket, drop in the Ball Cage with the ring of the cage facing outwards.
10. Fit the Castellated Cone, screw up finger tight then back off half a turn.
11. Fit the three armed Lock Washer and tighten up the Locknut.
12. Fit the Pressure Plate and slide the complete assembly into the shell, screw in the right-hand Ball Ring.
13. From the left-hand end, drop in the Pressure Plate Spring, the Ball Cage and screw up the Cone.
14. Finally fit the Cone Locknut. All subsequent adjustments are carried out with this left-hand Cone.