

# INSPECTION

Whenever a Sturmey-Archer hub is dismantled the component parts should be inspected as follows:

## Variable Gear Hubs

1. Slide the clutch up and down the driver prongs to see that the movement is free.
2. See that there are exactly 24 balls ( $\frac{3}{16}$ " diameter) in the right-hand ball ring.
3. Examine the gear ring for cracks, chipping, or signs of wear on the internal splines and teeth.
4. Check the truth of the axle between centres.
5. Examine all ball races for pitting or signs of wear.
6. Examine the sliding clutch for signs of wear (rounding off at the points of engagement).
7. Examine all pinion teeth for signs of wear or chipping.
8. Examine the pinion pin ends or planet cage dogs for wear.
9. Examine the pawl ring dogs and their engagement with the gear ring (SW, SB, SG) for signs of wear.
10. Examine the pawls and pawl ratchets for signs of wear.
11. *FW, FG, FM, FC and ASC hubs only.*—See that compensator spring drops freely through the axle.
12. *FW, FG, FM, FC and ASC hubs only.*—See that the compensator spring is at least  $1\frac{9}{16}$ " long (without the collar).

13. *FM, FC and ASC hubs only.*—Examine the low-gear dog splines for signs of wear.
14. *FW, FG, FM, FC and ASC hubs only.*—Examine the axle dogs for signs of wear (rounding off).
15. *FW, FG, FM, FC and ASC hubs only.*—Fix an (X8) collar on to the indicator rod and screw the rod and chain together, to make sure that the parts are mating correctly. This should be done inside the axle because the slender threaded portion is easily bent. The two parts should not be screwed together without the collar. After this test, it is important to refit the (X8) collar into the end of the compensator spring. It must be a tight fit.

## Brake Hubs

16. See that the leading edge of each brake lining is tapered off for the first quarter of an inch. (If they are not, the ends may lift and cause a squeal.)
17. See that all rivets are below the lining surface and cannot touch the hub drum.
18. Examine the linings for signs of wear or oil.

## 'Dynohubs'

19. Test the armature for continuity of winding.