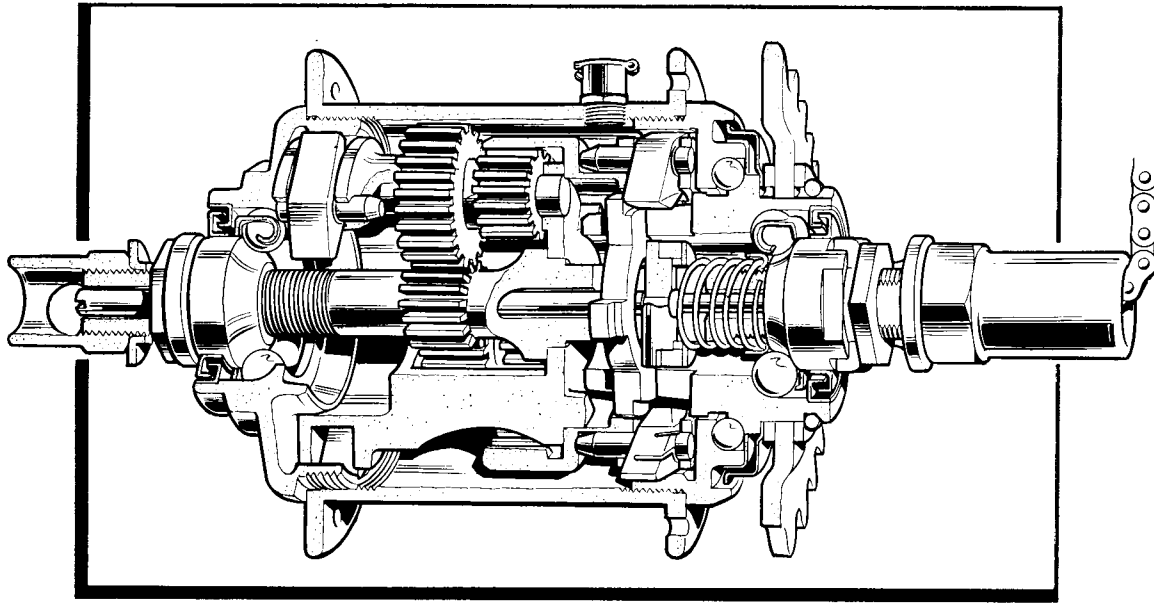


CODE No.

CODE No.	DESCRIPTION
K671	Axle, 5 $\frac{1}{4}$ " long
K653	Planet Cage
K527	Clutch Sleeve
K505A	Sliding Clutch
K526A	Axle Key
K528A	Thrust Ring
K654	Planet Pinion
K206	Pinion Pin
K658A	Gear Ring
K512	Gear Ring Pawl
K64	Pawl Spring
K58	Pawl Pin
K60	R.H. Ball Ring
329	Ball Bearings $\frac{3}{16}$ " diam. (per set of 24)
K63	Inner Dust Cap
K411	Thrust Washer
K530A	Clutch Spring
K529	Clutch Spring Cap
K462	Driver
K67Z	Ball Cage with 8 $\frac{1}{4}$ " diam. balls
LB405	Outer Dust Cap
K506Z	Axle Cone with Dust Cap
K516	R.H. Cone Locking Washer
K513	Low Gear Pawl
K652	Shell, 40 holes
K652A	Shell, 36 holes

CODE No.

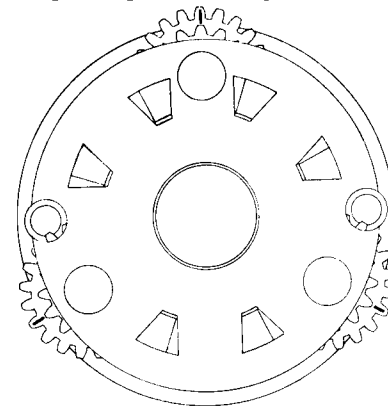
CODE No.	DESCRIPTION
S545	Lubricator
K517	L.H. Ball Cup
K712	Indicator
K713ZA	Coupling complete
K713Z	Coupling complete, quick-release type. <i>Not illustrated</i>
K740AZ	Quick-release Connection. <i>Not illustrated</i>
K714	Indicator Collar
K228	Ball Ring—alternative to K60 for 14T or 15T sprockets
K230Z	Ball Cage with $\frac{3}{16}$ " diam. balls (only used with K228)
K227	Connection Locknut
X42A	Axle Spacing Washer
K47A	Cone Locknut
K521	Axle Locking Washer
N190	L.H. Axle Nut
N200	R.H. Axle Nut
K62	Sprocket Dust Cap
K229	Sprocket Dust Cap (used with K228 Ball Ring only)
K464	Sprocket, 14 teeth
K465	Sprocket, 15 teeth
K466	Sprocket, 16 teeth
K467	Sprocket, 17 teeth
K468	Sprocket, 18 teeth
K469	Sprocket, 19 teeth
K470	Sprocket, 20 teeth
X49	Sprocket Spacing Washer
K463	Circlip



TO RE-ASSEMBLE THE AM HUB

Proceed as follows:

1. If the left-hand ball cup has been removed from the hub shell, replace it by screwing anti-clockwise because it has a *left-hand thread*.
2. Prepare the following preliminary sub-assemblies:
 - a. Fit the ball cage into the left-hand ball cup, with the ring of the ball-retainer facing outwards and the recess in the dust cap also facing outwards. If a new ball-retainer is being fitted, the dust cap also should be new.
 - b. Fit the ball cage into the driver, with the ring of the ball-retainer facing outwards and the recess in the dust cap also facing outwards. If a new ball-retainer is being fitted, the dust cap also should be new. If the sprocket has been removed, see No. 15 below.
 - c. Fit the balls (only 24) and the inner dust cap to the right-hand ball ring, making sure that the balls can revolve freely with the dust cap in place.
 - d. Fit the pawls, pins and springs into the gear ring as described in the general instructions to 'The Re-assembling of Sturmev-Archer Hubs.'
 - e. Smear grease in the channels of the dust caps of the left-hand ball cup and the driver and in the recess of the right-hand ball ring. *Do not use grease anywhere else.*
3. Hold the axle vertically in a vice by the flats on the left-hand end and put the planet cage in place.
4. Add the double planet pinions and pins, so that they engage with



- the two sun pinions. The marked teeth must in each case point radially outwards, as shown in the drawing, or the hub will not be correctly timed. (Notice also that three teeth on the small end of each planet pinion are visible over the end of the planet cage). To check the timing, engage the gear ring with the pinions and rotate several times. It should rotate quite freely. Remove gear ring after testing.
5. Fit the clutch sleeve (flange first), the sliding clutch with the recess over the flange of the sleeve, the key and the thrust ring and thrust washer. The notches on the thrust ring must engage with the flats on the key.
 6. Remove the axle from the vice, and insert the indicator and coupling into the right-hand end, threading it through the axle key.
 7. Fit the gear ring, the right-hand ball ring, the driver, the clutch spring, and the clutch-spring cap, in that order.
 8. Fit the right-hand cone and screw it up *finger-tight*. Then slacken it back half a turn and lock it in that position with the special locking washer and locknut. On no account must the cone be unscrewed more than half a turn, as that would throw the gear mechanism out of adjustment.
 9. Fit the planet-cage pawls as described in the general instructions to 'The Re-assembling of Sturmey-Archer Hubs.'
 10. Hold the assembled mechanism with the planet cage uppermost and pour about two teaspoonfuls of a good quality thin oil into the cage.
 11. Insert the assembled mechanism into the hub shell and screw up the right-hand ball ring finger-tight only.
 12. Make sure that the marks put on the ball ring and the hub flange before dismantling will register properly, and then screw up tightly.
 13. Fit the left-hand cone, washer and locknut in the arrangement noted when dismantling, and adjust the hub bearings as described in 'The Fitting and Adjustment of Sturmey-Archer Hubs.'
 14. Fit any special washers noted when dismantling the hub.
 15. If the sprocket has been removed from the driver, fit the outer dust cap over the driver before replacing the sprocket, and see that the dust cap is properly centred on the flange of the driver. Fit the sprocket and spacing washers in the arrangement noted when dismantling and add the circlip.
 16. Replace the wheel in the cycle frame and adjust the gear as described in 'The Fitting and Adjustment of Sturmey-Archer Hubs'.

STURMEY
ARCHER