

1. GENERAL INFORMATION

1.1 Scope of this leaflet

Congratulations on your purchase of a Sturmey-Archer internal gear hub. For the best performance, please follow the instructions in this manual. Please contact your dealer if any problems are experienced with these products.

Riding the gear hub out of correct adjustment may cause damage to the internal parts and possible malfunction !

This leaflet refers to the following 5-speed gear hub types :

Gear Hubs with Drum Brake : AB5, X-RD5, X-RD5(W), XL-RD5(W)

Gear Hubs : X-RF5, S5, X-RF5(W), SRF5(W)

Gear Hubs with Coaster Brake : S5C(W), S-RC5(W), X-RC5(W)

Gear Hubs for Disk Brake : X-RK5

1.2 Lubrication

No routine lubrication is required. During a major service, the hub greases should be replenished or replaced, especially for internal hub transmission parts. Please contact your Sturmey-Archer dealer who is equipped to carry this out.

Under no circumstances should any lubricant be applied to the hub drum brake and brake shoes, as this may prevent the brake from functioning!

1.3 Gear Changing

Continue pedaling but ease pressure on the pedals and select the gear required. If the bicycle is stationary simply select the gear required.

1.4 Gear Ratio

X-RD5, X-RF5, X-RK5, AB5, S5

1 st . Gear	0.67
2 nd . Gear	0.79
3 rd . Gear	1.0
4 th . Gear	1.27
5 th . Gear	1.5

X-RC5(W), S-RC5(W), S5C(W), SRF5(W), X-RF5(W), XL-RD5(W), X-RD5(W)

1 st . Gear	0.625
2 nd . Gear	0.75
3 rd . Gear	1.0
4 th . Gear	1.33
5 th . Gear	1.6

1.5 Brake Operation

1.5.1 AB5, XRD5, X-RF5(W), SRF5(W)

To activate the brake, pull the appropriate brake lever on the handlebar. If the wheel does not run free or cannot be locked by a full application of the brake, re-adjustment could be necessary.

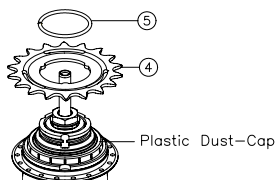
1.5.2 X-RC5(W), S-RC5(W), S5C(W)

The coaster brake is activated by back-pedaling. To apply maximum braking effort, begin brake application when the pedals are horizontal. When descending a long steep slope it is advisable to apply front and rear brakes alternately to prevent the coaster brake from overheating.

2. INSTALLATION

2.1 AB5, X-RD5, X-RD5(W), XL-RD5(W)

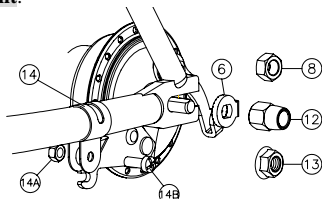
1. Build hub into complete wheel.
2. Fit the sprocket (4), circlip (5) onto the driver.



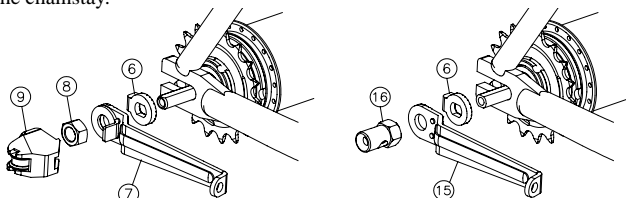
3. Put the hub axle into the rear fork end and place the chain around the sprocket (4).

4. Fit the lock-washers (6), domed nuts (12) or hex nuts (8) or flange nuts (13) on the axle. **Screw the nuts finger tight.**

5. Fit brake arm into brake arm clip (14) with nut (14A) and bolt (14B). **Do not tighten at this point.**

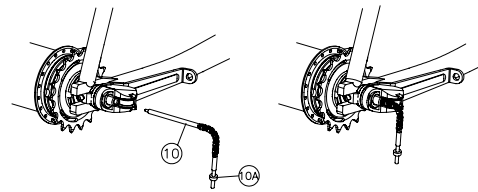


6. Locate the lock-washer (6), fulcrum lever (7)/(15) and guide nut (16) or hex nut (8) and guide pulley set (9). **Do not tighten nuts at this point.** Align the wheel, tension the chain and ensure the fulcrum lever (7)/(15) is parallel with the chainstay.

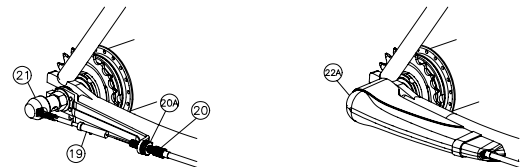


7. Tighten both axle nuts to **28Nm** and the brake arm clip (14) nut to **7Nm**.

8. Fit the indicator rod (10) into the axle and screw it finger tight. Fit the indicator cover (21)/(22A) if necessary, but do not push on firmly at this point.



9. Ensure all components are fitted to the right side of axle. Unscrew the indicator rod by up to half a turn if necessary to ensure easy fitment over the guide unit. Connect the indicator (10) to the cable connector (19).

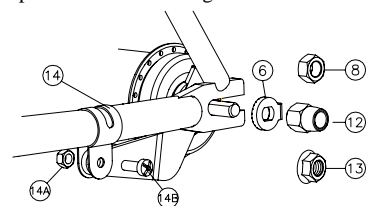


2.2 X-RF5, S5, X-RF5(W), SRF5(W)

See section 2.1. Step 5 does not apply.

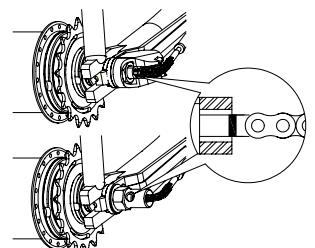
2.3 X-RC5(W), S-RC5(W), S5C(W)

See section 2.1. Step 5 is as shown in diagram.



3. GEAR ADJUSTMENT

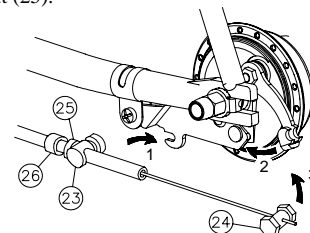
1. Move the indicator protection cover (21)/(22A) for easier gear adjustment.
2. Make sure that no more than **2.5mm** of axle protrudes from the axle hex nut.
3. Select **2nd** gear and turn the pedal crank forward to ensure the gear is engaged. Turn the cable adjuster (20) or cable connector (19) until the coloured mark of the indicator rod is level with the end of the axle, as show in diagram.
4. Tighten the cable-adjusting locknut (20-A) and indicator locknut (10-A), to lock in adjustment.
5. Select **5th** gear position, rotate the pedal cranks, change back to **2nd** gear and check adjustment. Repeat the stages described above when gear changing is incorrect.
6. If there is an indicator cover (21)/(22A), fit it now firmly onto the guide nut (16) or the guide pulley set (9).



4. BRAKE ADJUSTMENT

4.1 AB5, X-RD5, X-RD5(W), XL-RD5(W)

1. Fit the brake cable adjuster bolt (23) into brake arm. Depress the brake lever and then put the brake cable nipple (24) into the brake lever.
2. Slacken the brake adjuster locknut (25).
3. Turn the adjuster (26) counterclockwise until the brake is applied.
4. Rotate the adjuster (26) clockwise (about four revolutions) until the wheel just spins freely.
5. Tighten the locknut (25).

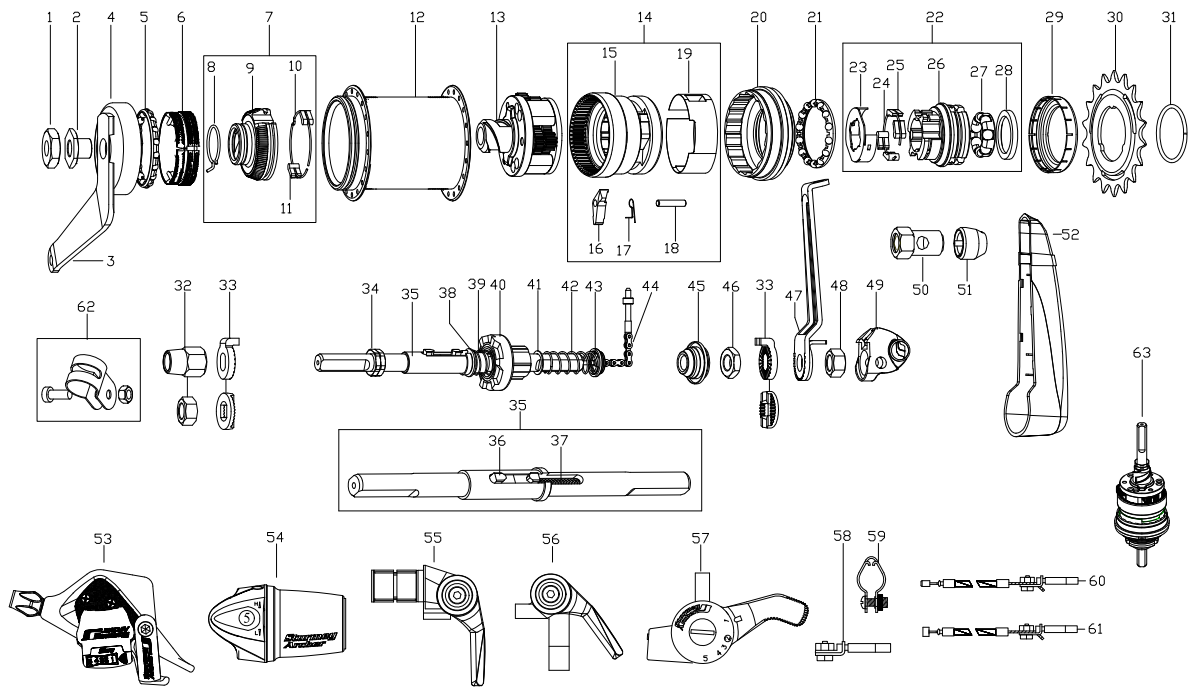


! The brake adjustment should be checked and corrected if necessary before first using the bicycle and after removing or replacing the wheel.

Note: During the first few miles brake linings and cables "bed-in" and may require re-adjustment. Should braking efficiency become impaired beyond adjustment, the brake may need replacement. Contact your Sturmey-Archer dealer who is equipped to replace these.

4.2 X-RF5, S5, X-RK5, X-RF5(W), SRF5(W)

Check and adjust according to brake manufacturers manual.



Item No.	Sales No.	Description	Item No.	Sales No.	Description	Item No.	Sales No.	Description
1	HMN404	Cone Locknut	25	HSA410	Driver Pawl	43	HSA668	Cap for Clutch Spring
2	HMN403	Brake Arm Nut	26	HSA670	Driver	44	HSA585	Yellow indicator
3	HSH487	Brake Arm	27	HSA284	Ball Cage Assembly R.H.	45	HSA101	R.H. Cone
4	HSH491	Brake Arm Assembly	28	HSA102	Outer Dustcap	46	HMN405	Cone Locknut
5	HSA164	L.H. Ball Cage Assembly	29	HSL871	Plastic Sprocket Dustcap	47	HSJ905	Fulcrum Lever w/ Locating Washer
6	HSH490	Brake Shoes	30	HSL854	13T(Chrome) / HSL713 13T(Black)	48	HMN128	L.H. Axle Nut
7	HSH473	Brake Actuator Assembly (includes 2 off item 11 and 1 off items 8,9,10)		HSL852	14T(Chrome) / HSL714 14T(Black)	49	HSA650	Gear Selector Guide (window)
8	HSH407	Brake Actuator Drag Spring		HSL850	15T(Chrome) / HSL715 15T(Black)	50	HMN129	R.H. Axle Nut
9	HSH476	Brake Actuator		HSL848	16T(Chrome) / HSL716 16T(Black)	51	HSL711	Indicator Guide
10	HSH494	Brake Actuator Pawl Spring		HSL846	17T(Chrome) / HSL772 17T(Black)	52	HSA620	Gear Selector Guide Full Cover
11	HSH493	Brake Actuator Pawl		HSL844	18T(Chrome) / HSL818 18T(Black)	53	HSJ958	DLS52 shifter w/2000 cable
12	HSA669	S5C(W) Hub Shell Assembly 36 Holes		HSL836	19T(Chrome) / HSL719 19T(Black)	54	HSJ952	TSS55 shifter w/2000 cable
	HSA656	S-RC5(W) Hub Shell Assembly 36 Holes		HSL834	20T(Chrome) / HSL720 20T(Black)	55	HSJ960	SLS50(B-TYPE) shifter w/2000 cable
	HSA657	X-RC5(W) Hub Shell Assembly 36 Holes		HSL832	21T(Chrome) / HSL747 21T(Black)	56	HSJ959	SLS50(T-TYPE) shifter w/2000 cable
13	HSA658	Planet Cage-Pinion Assembly		HSL830	22T(Chrome) / HSL722 22T(Black)	57	HSJ968	SLW5N shifter+2000 cable
14	HSA659	Gear Ring Assembly (includes 1 off items 15&19 and 2 off items 16,17,18)	31	HSL721	Sprocket Circclip	58	HSL759	Cable Anchorage
15	HSA660	Gear Ring	32	HMN388	Dome Nut New - SA logo	59	HSJ553	Chainstay Fulcrum Clip φ15.9mm
16	HSA119	Pawl for Gear Ring		HMN128	Axle Nut L.H.		HSJ548	Chainstay Fulcrum Clip φ17.9mm
17	HSA120	Pawl Spring	33	HMW518	Lockwasher 4.0t - 9.5mm Slot		HSJ753	Chainstay Fulcrum Clip φ19.1mm
18	HSA415	Pawl Pin		HMW515	Lockwasher 1.8t - 9.5mm Slot	60	HSJ802	Nimbus Cable with Anchorage 1420 x 1550mm Black
19	HSA542	Drag Spring		HMW494	Serrated Lockwasher – 9.5mm Slot	61	HSJ802	TSS55 Cable with Anchorage 1400 x 1550mm Black
20	HSA661	Ball Ring (S5C(W))	34	HMN382	Axle Nut	62	HSL767	Brake Arm Clip Assembly – 15.5mm
	HSA437	Ball Ring (for S-RC5(W),X-RC5(W))	35	HSA662	Axle Assembly (includes 1 off items 36&37)		HCB101	Brake Arm Clip Assembly – 15.9mm
21	HSA438	Ball Cage Assembly	36	HSA663	Gear Selector Key Assembly		HCB103	Brake Arm Clip Assembly – 18.3mm
22	HSA407	Driver Assembly (includes 1 off items 23, 24, 26, 27, 28 and 4 off item 25)	37	HSA664	Indicator Spring	63	HSX148	S5C(W) Gear Internal Assembly Complete
23	HSA557	Driver Pawl Actuator	38	HSA665	Clutch Sleeve		HSX149	S-RC5(W)/X-RC5(W) Gear Internal Assembly Complete
24	HSA509	Pawl Spring	39	HSA666	Sleeve Spring			
			40	HSA667	Clutch			
			41	HMW327	Clutch Washer			
			42	HSA128	Clutch Spring			

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