

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.

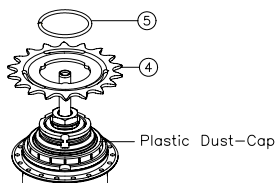
1.5.2 X-RC5(W), S-RC5(W), S5C(W)

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)

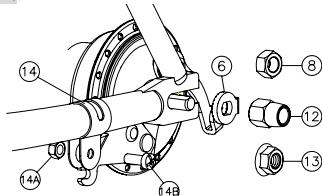
- Build hub into complete wheel.
- Fit the sprocket (4), circlip (5) onto the driver.



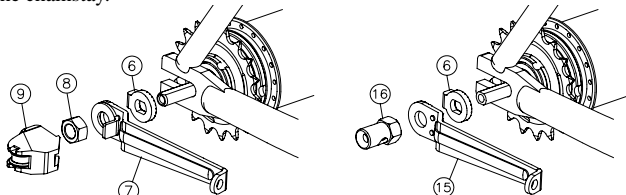
- Put the hub axle into the rear fork end and place the chain around the sprocket (4).

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

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

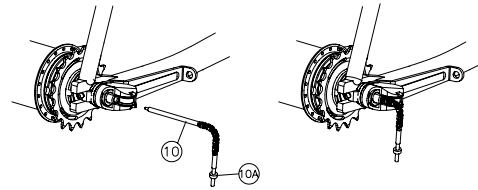


- Locate the lock-washer (6), fulcrum lever (7)/(15) and guide nut (16) or hex nut (8) and guide pulley set (9). **Do not tighten nuts at this point.** Align the wheel, tension the chain and ensure the fulcrum lever (7)/(15) is parallel with the chainstay.

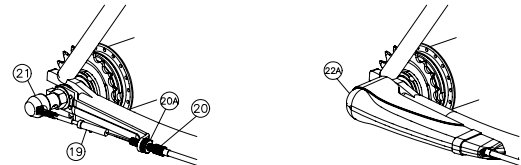


- Tighten both axle nuts to **28Nm** and the brake arm clip (14) nut to **7Nm**.

- 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.



- 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).

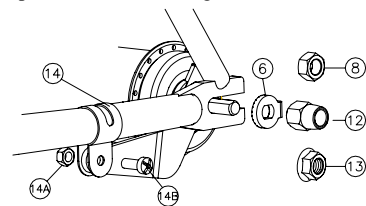


2.2 X-RF5, S5, X-RF5(W), SRF5(W)

See section 2.1. Step 5 does not apply.

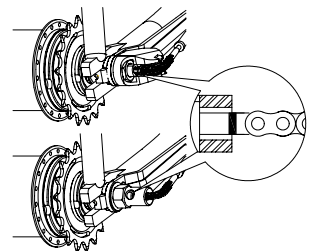
2.3 X-RC5(W), S-RC5(W), S5C(W)

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



3. GEAR ADJUSTMENT

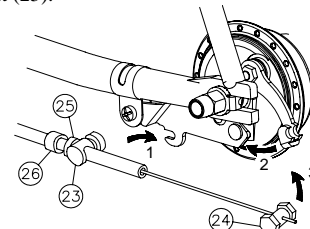
- Move the indicator protection cover (21)/(22A) for easier gear adjustment.
- Make sure that no more than **2.5mm** of axle protrudes from the axle hex nut.
- Select **2nd** gear and turn the pedal crank forward to ensure the gear is engaged. Turn the cable adjuster (20) or cable connector (19) until the coloured mark of the indicator rod is level with the end of the axle, as shown in diagram.
- Tighten the cable-adjusting locknut (20-A) and indicator locknut (10-A), to lock in adjustment.
- 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.
- 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)

- 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.
- Slacken the brake adjuster locknut (25).
- Turn the adjuster (26) counterclockwise until the brake is applied.
- Rotate the adjuster (26) clockwise (about four revolutions) until the wheel just spins freely.
- Tighten the locknut (25).



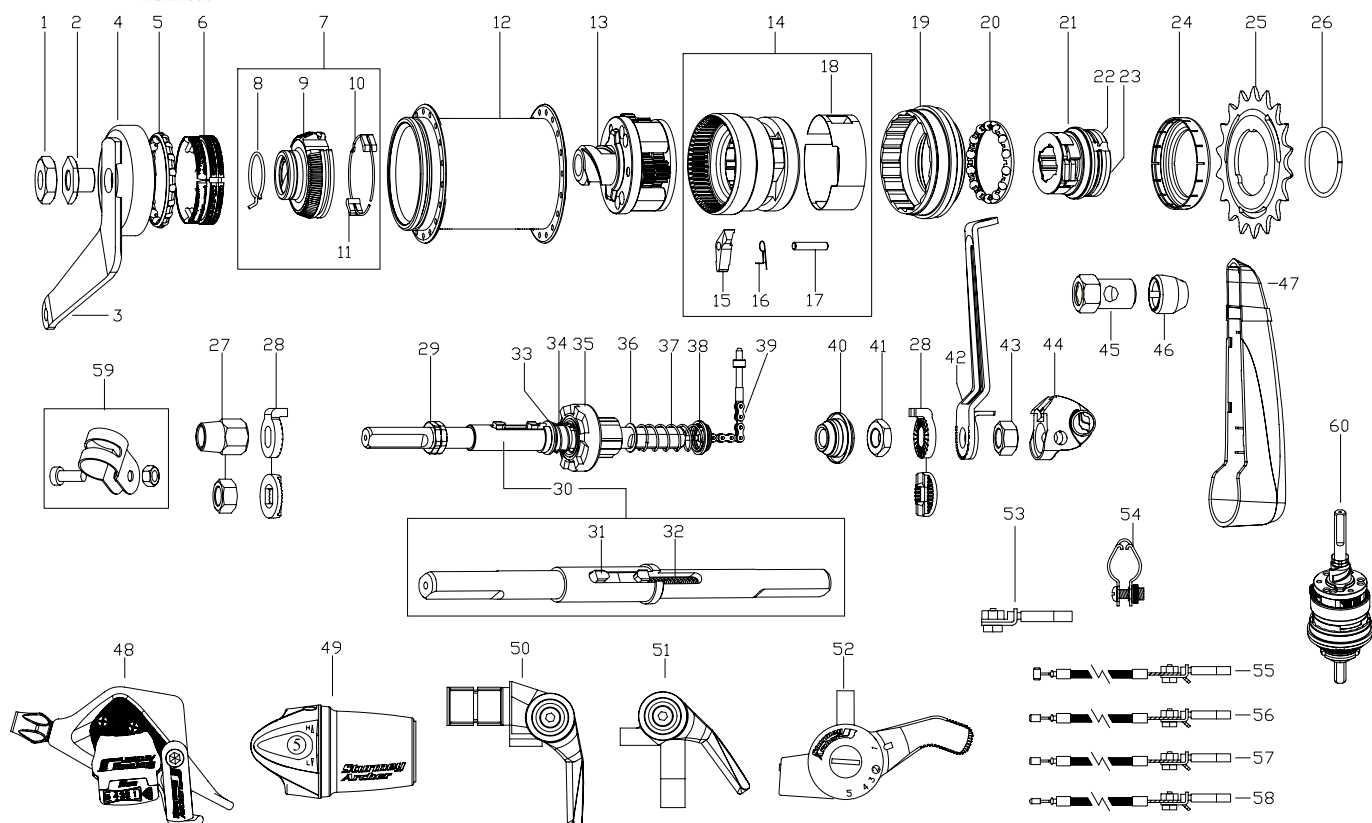
! The brake adjustment should be checked and corrected if necessary before first using the bicycle and after removing or replacing the wheel.

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.

Part List –X-RC5(W)/SRC5(W)/S5C(W) Five Speed Hub



Item No.	Sales No.	Description
1	HMN404	Cone Locknut
2	HMN403	Brake Arm Nut
3	HSH487	Brake Arm
4	HSH491	Brake Arm Assembly
5	HSA164	L.H. Ball Cage Assembly
6	HSH490	Brake Shoes
7	HSH473	Brake Actuator Assembly (includes 2 off item 11 and 1 off items 8,9,10)
8	HSH407	Brake Actuator Drag Spring
9	HSH476	Brake Actuator
10	HSH494	Brake Actuator Pawl Spring
11	HSH493	Brake Actuator Pawl
12	HSA669	S5C(W) Hub Shell Assembly 36 Holes
	HSA656	S-RC5(W) Hub Shell Assy. 36 Holes
	HSA657	X-RC5(W) Hub Shell Assy. 36 Holes
13	HSA658	Planet Cage-Pinion Assembly
14	HSA659	Gear Ring Assembly (includes 1 off items 18 and 1 off items 15,16,17)
15	HSA119	Pawl for Gear Ring
16	HSA120	Pawl Spring
17	HSA415	Pawl Pin
18	HSA542	Drag Spring
19	HSA661	Ball Ring (for S5C(W)) Ball Ring (for S-RC5(W),X-RC5(W))
20	HSA437	Ball Cage Assembly
21	HSA407	Driver Assembly (includes 1 off items 22 and 23)
22	HSA284	Ball Cage Assembly R.H.
23	HSA102	Outer Dustcap
24	HSL 871	Plastic Sprocket Dustcap

Item No.	Sales No.	Description
25	HSL854	13T(Chrome) / HSL713 13T(Black)
	HSL852	14T(Chrome) / HSL714 14T(Black)
	HSL850	15T(Chrome) / HSL715 15T(Black)
	HSL848	16T(Chrome) / HSL716 16T(Black)
	HSL846	17T(Chrome) / HSL772 17T(Black)
	HSL844	18T(Chrome) / HSL818 18T(Black)
	HSL836	19T(Chrome) / HSL719 19T(Black)
	HSL834	20T(Chrome) / HSL720 20T(Black)
	HSL832	21T(Chrome) / HSL747 21T(Black)
	HSL830	22T(Chrome) / HSL722 22T(Black)
26	HSL721	Sprocket Circlip
27	HMN388	Dome Nut 13/32"
	HMN128	Axle Nut L.H.
28	HMW518	Lockwasher 4.0t - 9.5mm Slot
	HMW515	Lockwasher 1.8t - 9.5mm Slot
	HMW526	Lockwasher 2.0t - 9.5mm Slot, SA logo
29	HMN382	Axle Nut
30	HSA662	Axle Assembly (includes 1 off items 31 & 32)
31	HSA663	Gear Selector Key Assembly
32	HSA664	Indicator Spring
33	HSA665	Clutch Sleeve
34	HSA666	Sleeve Spring
35	HSA667	Clutch
36	HMW327	Clutch Washer
37	HSA128	Clutch Spring
38	HSA668	Cap for Clutch Spring
39	HSA585	Yellow indicator
40	HSA101	R.H. Cone
41	HMN405	Cone Locknut

Item No.	Sales No.	Description
42	HSJ905	Fulcrum Lever w/ Locating Washer
43	HMN128	L.H. Axle Nut
44	HSA650	Gear Selector Guide (window)
45	HMN129	R.H. Axle Nut
46	HSL711	Indicator Guide
47	HSA620	Gear Selector Guide Full Cover
48	HSJ958	DLS52 shifter w/2000 cable
49	HSJ952	TSS55 shifter w/2000 cable
50	HSJ960	SLS50(B-type) shifter w/2000 cable
51	HSJ959	SLS50(T-type) shifter w/2000 cable
52	HSJ968	SLW5N shifter+2000 cable
53	HSL759	Cable Anchorage
54	HSJ553	Chainstay Fulcrum Clip φ15.9mm
	HSJ548	Chainstay Fulcrum Clip φ17.9mm
	HSJ753	Chainstay Fulcrum Clip φ19.1mm
55	HSJ802	Thumb Shifter Cable with Anchorage 1420 x 1550mm Black
56	HSJ969	DLS52 and SLS50(T-type) Cable w/Anchorage 1420 x 1550 mm Black
57	HSJ971	SLS50(B-type) Shifter Cable w/Anchorage 1850 x 2500 mm Black
58	HSJ970	TSS55 Shifter Cable w/Anchorage 1420 x 1550mm Black
59	HSL767	Brake Arm Clip Assembly – 15.5mm
	HCB101	Brake Arm Clip Assembly – 15.9mm
60	HSX148	S5C(W) Gear Internal Assembly Complete
	HSX149	X-RC5(W) Gear Internal Assembly Complete

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