

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.

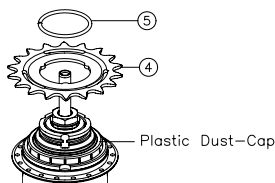
1.5.2 X-RC5(W), S-RC5(W), S5C(W)

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.

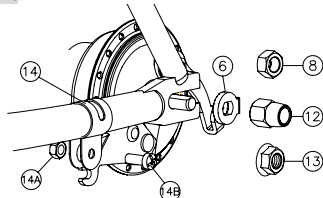
2. INSTALLATION

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

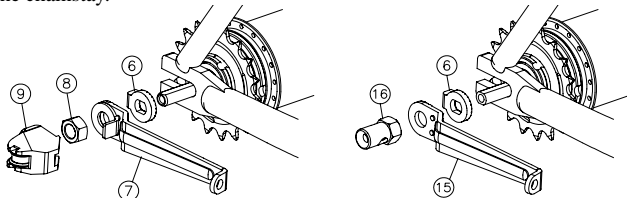
- Build hub into complete wheel.
- Fit the sprocket (4), circlip (5) onto the driver.



- 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.**

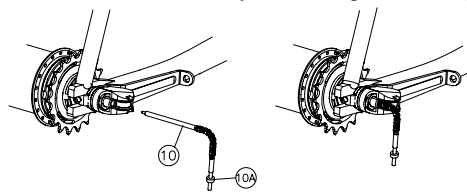


- Locate the lock-washer (6), fulcrum lever (7)/(15) and guide nut (16) or hex nut (8) and guide pulley set (9). **Do not tighten nuts at this point.** Align the wheel, tension the chain and ensure the fulcrum lever (7)/(15) is parallel with the chainstay.

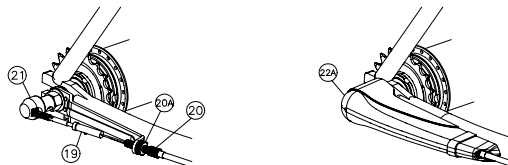


- Tighten both axle nuts to **28Nm** and the brake arm clip (14) nut to **7Nm**.

- 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).

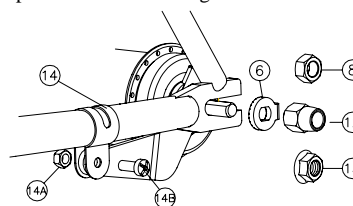


2.2 X-RF5, S5, X-RF5(W), SRF5(W)

See section 2.1. Step 5 does not apply.

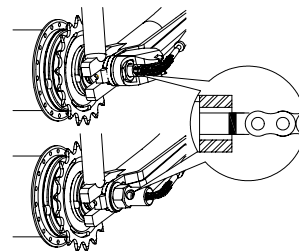
2.3 X-RC5(W), S-RC5(W), S5C(W)

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



3. GEAR ADJUSTMENT

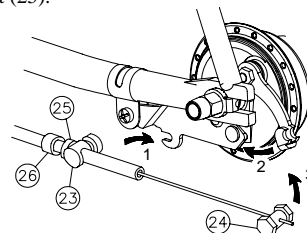
- Move the indicator protection cover (21)/(22A) for easier gear adjustment.
- Make sure that no more than **2.5mm** of axle protrudes from the axle hex nut.
- Select **2nd** gear and turn the pedal crank forward to ensure the gear is engaged. Turn the cable adjuster (20) or cable connector (19) until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



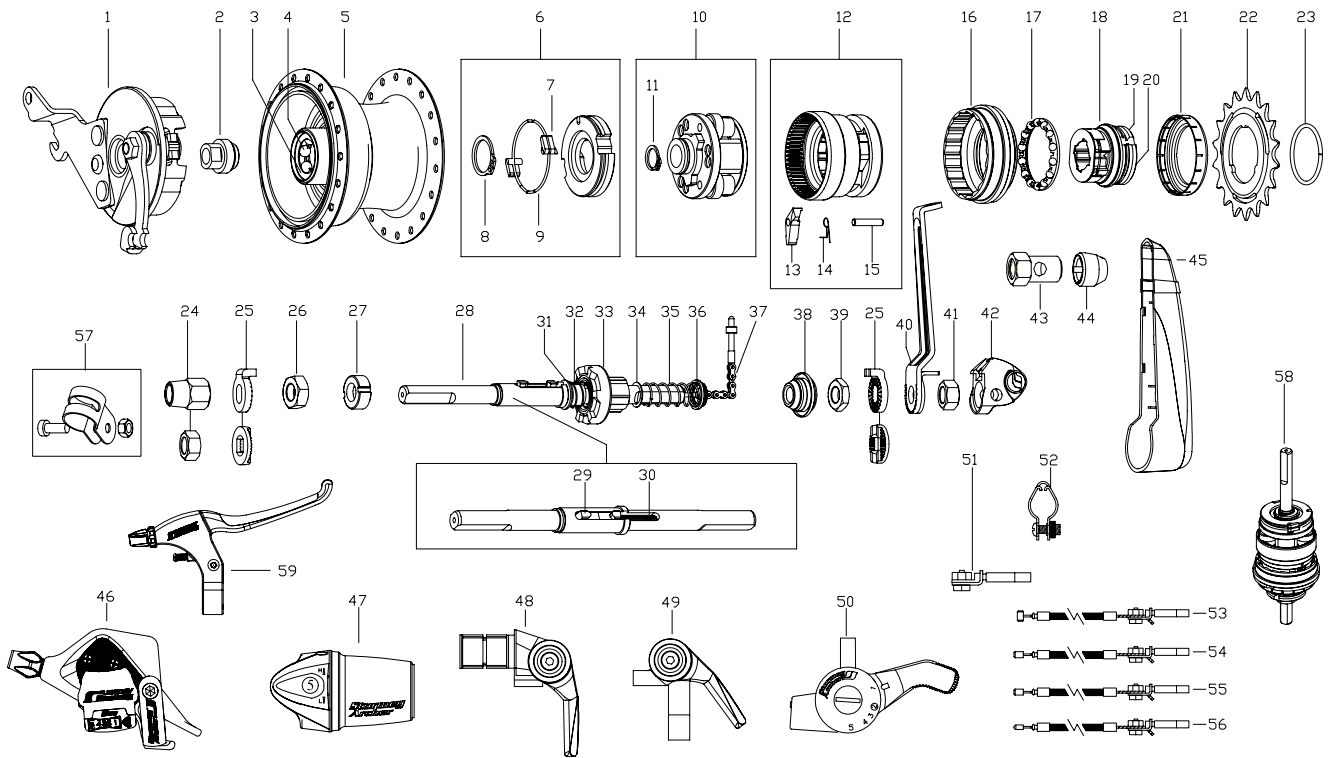
! The brake adjustment should be checked and corrected if necessary before first using the bicycle and after removing or replacing the wheel.

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-RD5(W) Five Speed Hub with Drum Brake



Item Sales			Item Sales			Item Sales		
No.	No.	Description	No.	No.	Description	No.	No.	Description
1	HSB429	70mm Alloy Rear Brake Plate Assy.	23	HSL721	Sprocket Circlip	43	HMN129	Guide Nut
2	HSA379	L/H Cone	24	HMN388	Dome Nut 13/32"	44	HSL711	Indicator Guard
3	HSA241	Cone Dustcap	25	HMW518	Lockwasher 4.0t - 9.5mm Slot	45	HSA620	Gear Selector Guide Full Cover
4	HSA284	L.H. Ball Cage Assy.-6.4mm Ball	26	HMN407	Cone Locknut – 6.4t	46	HSJ958	DLS52 Shifter w/Cable
5	HSA670	X-RD5(W) Hub Shell Assy.	27	HSA371	Cone Adjuster	47	HSJ952	TSS55 Shifter w/Cable
6	HSA676	Planet Cage Pawl Base Assy.	28	HSA674	Axle Assembly (includes 1 off items 29 and 30)	48	HSJ960	SLS50(B-type) Shifter w/Cable
7	HSA573	Pawl for Planet Cage	29	HSA663	Gear Selector Key Assembly	49	HSJ959	SLS50(T-type) Shifter w/Cable
8	HSL990	C-clip No.20	30	HSA664	Indicator Spring	50	HSJ968	SLW5N Thumb Shifter w/Cable
9	HSA450	Pawl Spring	31	HSA665	Clutch Sleeve	51	HSL759	Cable Anchorage
10	HSA675	Planet Cage/Pinion/Sun Gear Assy.	32	HSA666	Clutch Sleeve Spring	52	HSJ553	Chainstay Fulcrum Clip ϕ 15.9mm
11	HSL899	C-clip No.12	33	HSA673	Clutch	53	HSJ548	Chainstay Fulcrum Clip ϕ 17.9mm
12	HSA677	Gear Ring Assembly. (includes 2 off items 13, 14, 15)	34	HMW327	Clutch Washer	54	HSJ753	Chainstay Fulcrum Clip ϕ 19.1mm
13	HSA119	Gear Ring Pawl	35	HSA128	Clutch Spring	55	HSJ802	Thumb Shifter Cable with Anchorage 1420 x 1550mm Black
14	HSA120	Pawl Spring	36	HSA129	Spring Cap	56	HSJ969	DLS52 and SLS50(T-type) Cable w/Anchorage 1420 x 1550 mm Black
15	HSA415	Pawl Pin	37	HSA585	Indicator - Mark Yellow	57	HSJ971	SLS50(B-TYPE) shifter cable w/Anchorage 1850 x 2500 mm Black
16	HSA437	Ball Ring	38	HSA101	R.H. Cone	58	HSJ970	TSS55 Shifter Cable w/Anchorage 1420 x 1550mm Black
17	HSA438	Ball Cage Assembly	39	HMN405	Cone Locknut – 4.8t	59	HSL767	Brake Arm Clip Assembly - 15.5mm
18	HSA439	Driver Assembly	40	HSJ905	Fulcrum Lever w/Locating Washer		HCB101	Brake Arm Clip Assembly - 15.9mm
19	HSA284	Ball Cage Assembly R.H.	41	HMN128	Axle Nut		HSX152	Gear Internal Assembly Complete
20	HSA102	Outer Dustcap	42	HSA650	Gear Selector Guide (Window)		HSK742	Brake Lever BLS80 RH
21	HSL871	Plastic Sprocket Dust Cap					HSK743	Brake Lever BLS80 LH
22	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)						

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