

Manuals+

[Q & A](#) | [Deep Search](#) | [Upload](#)

manuals.plus /

- › [Sturmey Archer](#) /
- › [Sturmey Archer XL-FDD 36h 90mm Dynamo Drum Brake Hub User Manual](#)

Sturmey Archer XL-FDD 36h 90mm

Sturmey Archer XL-FDD 36h 90mm Dynamo Drum Brake Hub User Manual

Model: XL-FDD 36h 90mm | Part Number: HDS93TBSSHA2

[Introduction](#) [Setup & Installation](#) [Operation](#) [Maintenance & Support](#) [Troubleshooting](#) [Specifications](#) [Warranty](#)

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your Sturmey Archer XL-FDD 36h 90mm Dynamo Drum Brake Hub. This integrated front hub combines a powerful dynamo for lighting systems with a reliable 90mm drum brake, designed for enhanced performance and durability, particularly suitable for utility and cargo bicycles.

Please read this manual thoroughly before installation and use to ensure proper function and safety.



Image 1.1: The Sturmey Archer XL-FDD 36h 90mm Dynamo Drum Brake Hub. This image shows the complete hub assembly, highlighting its robust construction and integrated components.

2. SETUP & INSTALLATION

2.1 Unpacking and Inspection

Carefully unpack all components. Verify that the following items are included:

- Sturmey Archer XL-FDD Dynamo Drum Brake Hub
- Mounting hardware (nuts, washers)
- Brake cable with housing
- Brake adjusting barrel

Inspect all parts for any signs of damage during shipping. Contact your dealer immediately if any parts are missing or damaged.

2.2 Wheel Building

The XL-FDD hub is designed for a 36-hole rim. Professional wheel building is recommended to ensure proper spoke tension and wheel integrity. The hub features a high-flange shell for increased wheel strength.

2.3 Hub Installation on Fork

1. Ensure your bicycle fork has a 100mm front hub spacing.
2. Insert the hub into the fork dropouts.
3. Secure the hub using the provided mounting hardware (nuts and washers). Tighten securely to the manufacturer's recommended torque specifications for your fork.
4. Attach the reaction arm of the drum brake to the fork. This typically requires a dedicated mounting point or a clamp. Ensure the reaction arm is securely fastened to prevent brake rotation.

2.4 Brake Cable Installation

1. Route the brake cable housing from your brake lever to the drum brake mechanism on the hub.
2. Insert the brake cable through the housing and attach it to the brake arm on the hub.
3. Use the adjusting barrel to set the initial cable tension.
4. Ensure the brake lever has sufficient pull for drum brakes. **Note:** This hub requires brake levers intended for rim calipers or cantilever brakes, not direct pull/V-brake levers, for optimal performance.

2.5 Dynamo Wiring

The integrated dynamo provides 6V, 3.0W output. Connect your bicycle lights (not included) to the dynamo terminals. Ensure correct polarity and secure connections to prevent shorts and ensure reliable power supply.

3. OPERATION

3.1 Drum Brake Operation

The 90mm drum brake provides consistent all-weather braking performance. Apply the brake lever smoothly and progressively. The braking power will increase as the brake shoes wear in. Expect a break-in period for optimal stopping power.

Important: Always test your brakes before riding, especially after installation or maintenance.

3.2 Dynamo Operation

The dynamo generates electricity as the wheel rotates, powering connected lights. There is minimal noticeable drag during operation. Ensure your lights are properly connected and functioning before riding in low-light conditions.

4. MAINTENANCE

4.1 Regular Checks

- **Brake Cable:** Check for fraying, corrosion, or stiffness. Replace if necessary.
- **Brake Adjustment:** Periodically check brake lever travel and adjust cable tension using the adjusting barrel to maintain effective braking.
- **Hub Bearings:** The hub uses sealed cartridge bearings, which generally require minimal maintenance. If you notice excessive play or roughness, professional service may be required.
- **Spoke Tension:** Ensure spokes are properly tensioned. Uneven tension can lead to wheel damage.
- **Dynamo Connections:** Verify that all electrical connections to your lights are secure and free from corrosion.

4.2 Cleaning

Clean the hub and brake mechanism with a damp cloth. Avoid using high-pressure washers directly on the hub, as this can force water into the bearings and internal components.

4.3 Brake Shoe Replacement

The internal brake shoes will wear over time. If braking performance significantly diminishes despite cable adjustment, the brake shoes may need replacement. This is an internal component and typically requires specialized tools and knowledge. Professional service is recommended for brake shoe replacement.

5. TROUBLESHOOTING

Problem	Possible Cause	Solution
Weak braking performance	<ul style="list-style-type: none">◦ New brake shoes not broken in◦ Incorrect brake lever type◦ Loose brake cable◦ Worn brake shoes◦ Improperly secured reaction arm	<ul style="list-style-type: none">◦ Allow break-in period (several rides)◦ Ensure use of cantilever/rim caliper compatible levers◦ Adjust cable tension◦ Replace brake shoes (professional service recommended)◦ Secure reaction arm firmly
No power from dynamo / Lights not working	<ul style="list-style-type: none">◦ Loose or corroded electrical connections◦ Damaged wiring◦ Faulty light unit	<ul style="list-style-type: none">◦ Check and secure all connections◦ Inspect wiring for damage; replace if necessary◦ Test light unit separately or replace
Excessive wheel play or noise	<ul style="list-style-type: none">◦ Loose axle nuts◦ Worn hub bearings	<ul style="list-style-type: none">◦ Tighten axle nuts to specified torque◦ Professional service for bearing inspection/replacement

6. SPECIFICATIONS

Feature	Detail
Model	XL-FDD

Feature	Detail
Part Number	HDS93TBSSHA2
Hub Drilling	36 spokes
Brake Type	90mm Drum Brake
Dynamo Output	6V, 3.0W
Hub Spacing	100mm
Axle Type	Bolt-On (9x1)
Bearing Type	Sealed Cartridge Bearings
Shell Material	Aluminum Alloy
Color	Silver
Weight	Approximately 1350g (2.98 lbs)

7. WARRANTY & SUPPORT

7.1 Warranty Information

Sturmey Archer products are manufactured to high standards and are typically covered by a manufacturer's warranty against defects in materials and workmanship. The specific warranty period and terms may vary by region and retailer. Please retain your proof of purchase for warranty claims.

For detailed warranty information, please refer to the documentation provided with your purchase or visit the official Sturmey Archer website.

7.2 Customer Support

If you encounter any issues not covered in this manual or require technical assistance, please contact your authorized Sturmey Archer dealer or the Sturmey Archer customer support directly. Contact information can usually be found on the official website or product packaging.

