SHIMANO FC-M770

SHIMANO Deore XT FC-M770 Crankset Instruction Manual

Model: FC-M770 | Brand: SHIMANO

1. Introduction

This manual provides essential information for the proper installation, operation, and maintenance of your SHIMANO Deore XT FC-M770 mountain bike crankset. The FC-M770 crankset is engineered for stiffness, reduced weight, and efficient power transfer, enhancing your cycling experience. Please read this manual thoroughly before attempting any procedures to ensure safe and correct usage.



Image: SHIMANO Deore XT FC-M770 Crankset, showcasing its design and components.

2. Safety Information

Always prioritize safety when working with bicycle components. Improper installation or maintenance can lead to serious injury or product damage.

- **Professional Installation Recommended:** If you are unsure about any installation steps, consult a qualified bicycle mechanic.
- **Use Correct Tools:** Always use the appropriate tools for installation and adjustments. Incorrect tools can damage components.
- **Torque Specifications:** Adhere strictly to all torque specifications provided by SHIMANO for fasteners. Over-tightening or under-tightening can cause component failure.
- **Regular Inspection:** Periodically inspect the crankset for any signs of wear, damage, or loose components.
- **Cleanliness:** Keep components clean and free of dirt and debris to ensure optimal performance and longevity.

3. Package Contents

The SHIMANO Deore XT FC-M770 Crankset package typically includes the following components:

- SHIMANO Deore XT FC-M770 175mm 4-arm Crankset (22-32-44 tooth chainrings)
- Bottom Bracket (BB)

Note: Specific contents may vary slightly depending on the retailer or package version.

4. Setup and Installation

Proper installation is critical for the performance and safety of your crankset. Refer to the detailed instructions provided by SHIMANO with the product or on their official website for specific torque values and procedures.

4.1 Required Tools

You will need specialized tools for crankset and bottom bracket installation. These typically include:

- Bottom Bracket Tool (e.g., SHIMANO TL-FC32 or Park Tool BBT-9)
- Crank Arm Installation Tool (e.g., SHIMANO TL-FC16)
- Torque Wrench
- Hex Keys (Allen wrenches)
- Grease

4.2 Installation Steps (General Overview)

1. **Prepare Frame:** Ensure the bottom bracket shell threads are clean, faced, and chased if necessary. Apply a thin layer of grease to the threads.
2. **Install Bottom Bracket:** Thread the bottom bracket cups into the frame according to SHIMANO's instructions, ensuring correct orientation (left/right). Tighten to the specified torque using the appropriate tool.
3. **Install Drive-Side Crank Arm:** Insert the drive-side crank arm (with chainrings) through the bottom bracket.
4. **Install Non-Drive Side Crank Arm:** Slide the non-drive side crank arm onto the spindle. Ensure the splines are correctly aligned.
5. **Secure Crank Arms:** Use the crank arm fixing bolt and/or pinch bolts to secure the non-drive side crank arm. Follow SHIMANO's specific tightening sequence and torque specifications carefully. *Note: The alloy nuts on the non-drive crank can be prone to stripping if over-tightened or improperly handled. Consider having spare nuts for future servicing.*
6. **Final Check:** Verify that the crankset spins freely without play and that all bolts are tightened to specification.

5. Operating Instructions

The SHIMANO Deore XT FC-M770 crankset is designed for smooth and efficient pedaling and shifting. Proper operation involves understanding your bicycle's gearing system.

- **Shifting:** Shift gears smoothly and avoid shifting under heavy load to prevent excessive wear on chainrings and chain.
- **Cadence:** Maintain a consistent and comfortable pedaling cadence. The 22-32-44 tooth chainring combination provides a wide range of gears suitable for various terrains.
- **Cross-Chaining:** Avoid extreme cross-chaining (e.g., largest chainring with largest rear cog, or smallest chainring with smallest rear cog) as this can increase wear and reduce shifting efficiency.

6. Maintenance

Regular maintenance will extend the life and ensure the optimal performance of your crankset.

- **Cleaning:** After each ride, especially in wet or muddy conditions, clean the chainrings and crank arms with a mild detergent and water. Rinse thoroughly and dry.
- **Lubrication:** Keep your chain properly lubricated. A well-lubricated chain reduces wear on the chainrings.
- **Bolt Checks:** Periodically check all crankset bolts, including chainring bolts and crank arm fixing bolts, for proper tightness. Re-torque to specifications if necessary.
- **Inspection:** Inspect chainrings for excessive wear (e.g., shark-finning of teeth). Worn chainrings can lead to poor shifting and chain skipping. Inspect crank arms for cracks or damage.
- **Bottom Bracket Service:** The bottom bracket should be serviced or replaced as needed, typically when it develops play or roughness.

7. Troubleshooting

Here are some common issues and potential solutions for your crankset.

Problem	Possible Cause	Solution
Crankset feels loose or has play	Loose crank arm fixing bolts or worn bottom bracket.	Check and re-torque crank arm bolts to specification. Inspect and replace bottom bracket if worn.
Clicking or creaking noise from crank area	Loose bottom bracket, dry threads, loose chainring bolts, or worn bottom bracket bearings.	Re-torque bottom bracket cups. Remove, clean, grease, and re-install chainring bolts. Inspect and replace bottom bracket if bearings are rough.
Poor or inconsistent shifting	Worn chainrings, worn chain, misaligned front derailleur, or bent chainring.	Inspect chainrings and chain for wear and replace if necessary. Adjust front derailleur. Check chainrings for straightness.
Chain drops off chainrings	Misaligned front derailleur, worn chainrings, or bent chainring.	Adjust front derailleur limits. Inspect and replace worn or bent chainrings.

8. Specifications

Key specifications for the SHIMANO Deore XT FC-M770 Crankset:

- **Model Number:** FC-M770

- **Part Number:** CR4426
- **Brand:** SHIMANO
- **Crank Arm Length:** 175mm
- **Chainring Configuration:** 22-32-44T (Triple)
- **Arm Design:** 4-arm
- **Bottom Bracket:** Included
- **Item Weight:** Approximately 3.2 Pounds (1.45 kg)
- **Package Weight:** Approximately 3.3 Pounds (1.5 kg)
- **Item Dimensions (LxWxH):** 11 x 9.25 x 7.25 inches (27.9 x 23.5 x 18.4 cm)
- **Sport Type:** Cycling
- **ASIN:** B0011ZIN16
- **Date First Available:** December 27, 2007

9. Warranty and Support

SHIMANO products are covered by a manufacturer's warranty against defects in materials and workmanship. For specific warranty terms, duration, and claim procedures, please refer to the warranty information included with your product or visit the official SHIMANO website. For technical support or service inquiries, contact SHIMANO customer service or your authorized SHIMANO dealer.

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