

ZXTDR 1P54FMI

ZXTDR Lifan 1P54FMI 125cc Semi-Automatic 4-Stroke Engine Instruction Manual

Model: 1P54FMI

1. PRODUCT OVERVIEW

This manual provides essential information for the installation, operation, and maintenance of the ZXTDR Lifan 1P54FMI 125cc semi-automatic 4-stroke engine. This engine is designed as a replacement or upgrade for various dirt bikes and trail bikes, including models like XR50, CRF50, CT70, 90, 110, and 125.

Key Features:

- Lifan 1P54FMI 125cc engine with N-1-2-3-4 gear pattern.
- Automatic clutch with 15T 428 chain sprocket.
- 20mm shaft size.
- Standard mounting points for compatibility with many monkey/dax/supercub/pitbike frames.
- Includes engine, intake manifold, kick starter, and manifold kit.

2. TECHNICAL SPECIFICATIONS

Specification:

Model No.: 1P54FMI

Type: 1-cylinder, horizontal, 4-stroke

Clutch Type: Automatic

Starting: Electric/Kick start

Transmission: N-1-2-3-4

Sprocket: 428# 15T

Shaft size: 20mm

Horsepower: 11 HP

Max.driving speed: Around 50mph (80km/h)

Idling Speed: 1500r/min

Rated Power & rotate speed: 5.8kw/7500rpm

Max. torque & rotate speed: 8.5N.m/5000rpm

Oil: 4T oil

Carburetor size: 22mm or 19mm

Battery: 12v 4.5Ah-7Ah (not included)

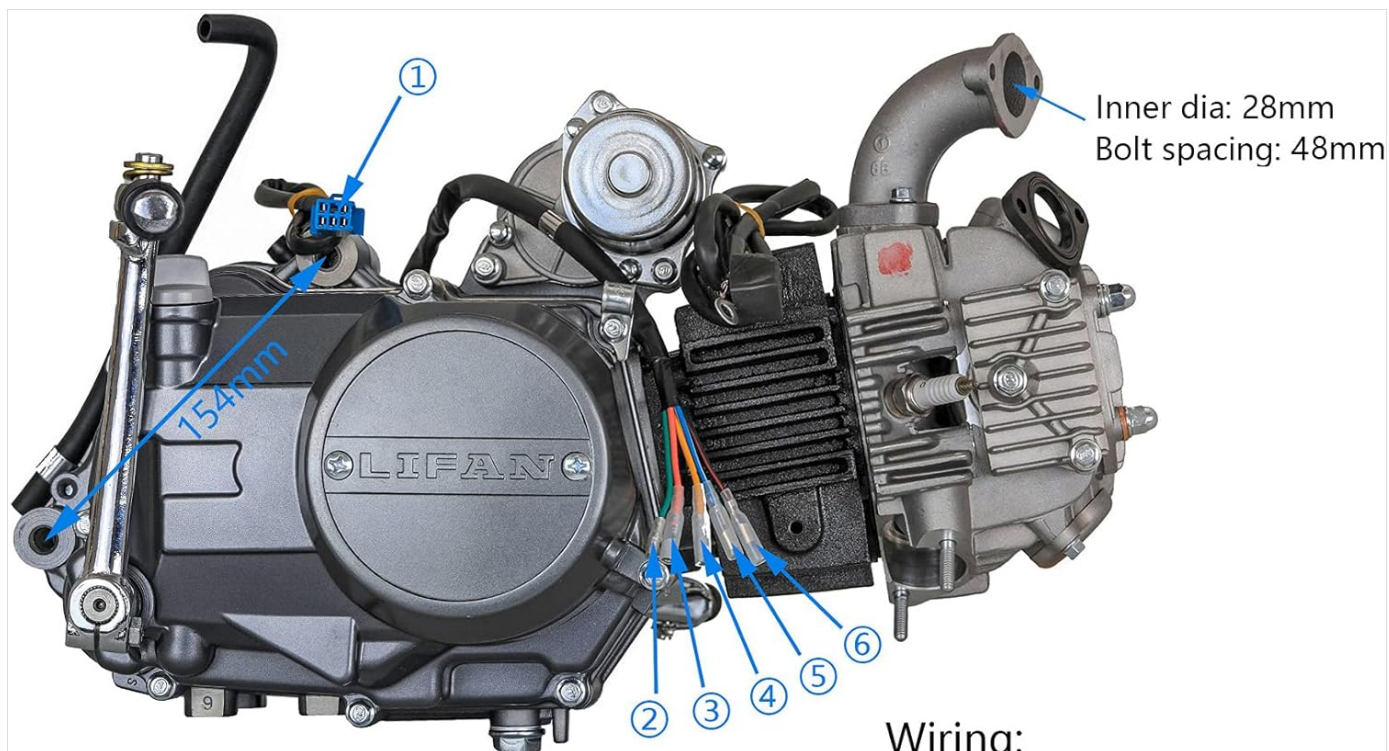
Net weight: 50.6 lbs (23kg)

Overall size (LxHxW): 470 x 275 x 280mm

Image: Detailed specification sheet for the Lifan 1P54FMI 125cc engine.

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Mounting hole spacing: 154mm

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Wiring:

- ① Gear indicator
- ② Grounding
- ③ Charging
- ④ Charging
- ⑤ Starting coil triggering
- ⑥ Ignition coil triggering

Image: Top view of the Lifan 125cc engine showing wiring connections and key dimensions.

Mounting hole spacing: 154mm

Intake manifold inner diameter: 28mm

Intake manifold bolt spacing: 48mm

Wiring connections:

1. Gear indicator
2. Grounding
3. Charging
4. Charging
5. Starting coil triggering
6. Ignition coil triggering



Image: Close-up view of the engine casing highlighting mounting hole dimensions (44mm and 87mm).

3. INSTALLATION AND INITIAL SETUP

3.1 Pre-Installation Checks

- Verify that the mounting hole spacing on your vehicle frame matches the engine's 154mm spacing. Refer to the "Engine mounting hole dimensions" image in Section 2.
- Ensure all included components (engine, intake manifold, kick starter, manifold kit) are present and undamaged.
- Prepare necessary tools for engine removal and installation.

3.2 Engine Installation

1. Carefully position the engine into the vehicle frame, aligning the mounting points.
2. Secure the engine using appropriate bolts and fasteners. Do not overtighten.
3. Install the intake manifold, ensuring a proper seal.
4. Connect the kick starter and gear shift lever.
5. Refer to the wiring diagram in Section 2 for correct electrical connections: gear indicator, grounding, charging, starting coil triggering, and ignition coil triggering.

6. Install a compatible 12V 4.5Ah-7Ah battery (not included) and connect it to the charging system.
7. Connect the carburetor (22mm or 19mm, not included) to the intake manifold.
8. Fill the engine with 4T oil to the recommended level.

3.3 Engine Break-in Procedure

Proper break-in is crucial for engine longevity and performance. Follow these steps:

1. **First Run:** Start the engine and allow it to run until it reaches normal operating temperature. Then, shut it off and let it cool completely. Do not ride during this initial run.
2. **Second Run:** Start the engine again. Ride at half throttle only. Allow the engine to cool completely after this run.
3. **Subsequent Runs:** Continue with similar runs, gradually increasing the duration and throttle usage over time. Avoid sustained high RPMs or heavy loads during the entire break-in period.
4. Always use 4T oil as specified.

4. OPERATION

4.1 Starting the Engine

- Ensure the fuel supply is open and the ignition is on.
- For cold starts, engage the choke if your carburetor is equipped with one.
- Use either the electric starter button or the kick starter to crank the engine.
- Once started, gradually disengage the choke as the engine warms up.

4.2 Gear Shifting (Semi-Automatic)

This engine features a semi-automatic clutch with a N-1-2-3-4 gear pattern. This means you do not need to operate a clutch lever manually.

- To shift gears, simply operate the gear shift lever with your foot.
- The gear indicator (if connected) will display the current gear.
- Shift down to Neutral (N) when stopping or idling for extended periods.

4.3 Engine Shut-down

- Bring the vehicle to a complete stop.
- Turn off the ignition switch.
- Close the fuel supply valve if applicable.

5. MAINTENANCE

Regular maintenance is essential for the optimal performance and longevity of your engine.

5.1 Oil Changes

- Change engine oil after the initial break-in period.
- Subsequently, change the oil every 10-20 hours of operation or as recommended by your vehicle's manual.
- Always use a high-quality 4T engine oil.

5.2 Air Filter Cleaning/Replacement

- Inspect the air filter regularly, especially when operating in dusty conditions.
- Clean or replace the air filter as needed to ensure proper air intake and prevent engine damage.

5.3 Spark Plug Inspection

- Check the spark plug for wear and proper gap periodically.
- Replace the spark plug if it is fouled or worn.

5.4 Chain and Sprocket Maintenance

- Regularly inspect the drive chain and sprockets for wear and proper tension.
- Lubricate the chain as recommended by your vehicle's manual.

6. TROUBLESHOOTING

Problem	Possible Cause	Solution
Engine does not start	No fuel, weak battery, fouled spark plug, incorrect wiring, clogged carburetor.	Check fuel level, charge/replace battery, inspect/replace spark plug, verify wiring connections, clean carburetor.
Loss of power	Clogged air filter, improper fuel mixture, worn spark plug, low oil level.	Clean/replace air filter, adjust carburetor, replace spark plug, check/add oil.
Excessive smoke	Incorrect oil type, overfilled oil, engine wear.	Ensure correct 4T oil, check oil level, consult a mechanic for engine wear.
Engine overheating	Low oil level, restricted airflow, prolonged high load.	Check oil level, ensure cooling fins are clean, reduce load/allow cooling.

If problems persist after attempting these solutions, it is recommended to consult a qualified mechanic or contact customer support.

7. WARRANTY AND SUPPORT

7.1 Return Policy

This product is subject to a return policy allowing for refund or replacement within 30 days of purchase. Please refer to your purchase documentation for specific terms and conditions.

7.2 Customer Support

For technical assistance, parts inquiries, or warranty claims, please contact ZXTDR customer support. You can find more information and contact details by visiting the official ZXTDR store on Amazon: [ZXTDR Store](#).

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question