

Loncin ST7750

LONCIN 16.5 HP ST7750 Engine Instruction Manual

Model: ST7750 | Brand: Loncin

1. SAFETY INFORMATION

Read and understand all safety warnings and instructions before operating this engine. Failure to follow these instructions may result in serious injury or property damage.

- **Engine Exhaust:** Engine exhaust contains carbon monoxide, a colorless, odorless, poisonous gas. Do not operate the engine in an enclosed area.
- **Fuel Safety:** Gasoline is highly flammable. Store fuel in an approved container in a well-ventilated area. Do not refuel while the engine is running or hot.
- **Hot Surfaces:** The engine and exhaust system become very hot during operation and remain hot for a period after shutdown. Avoid contact to prevent burns.
- **Moving Parts:** Keep hands, feet, and clothing away from moving parts such as the flywheel, fan, and drive shaft.
- **Electrical Safety:** Ensure all electrical connections are secure and insulated. Disconnect the spark plug wire before performing any maintenance.
- **Personal Protective Equipment (PPE):** Always wear appropriate PPE, including safety glasses, gloves, and hearing protection, when operating or servicing the engine.

2. PRODUCT OVERVIEW

The Loncin ST7750 is a powerful 16.5 HP, 452 CC complete engine designed for use in lawn tractors and other outdoor power equipment. This engine features a robust design for reliable performance and durability.



Figure 2.1: Side view of the Loncin 16.5 HP ST7750 engine, showing the carburetor and air filter housing.

Key features include a single-cylinder, 4-stroke design, forced air cooling, and an electric start system. This manual provides essential information for safe installation, operation, and maintenance.

3. SETUP AND INSTALLATION

3.1 Engine Mounting

Mount the engine securely to a stable and level surface using appropriate hardware. Refer to the mounting diagram for precise dimensions and bolt patterns.

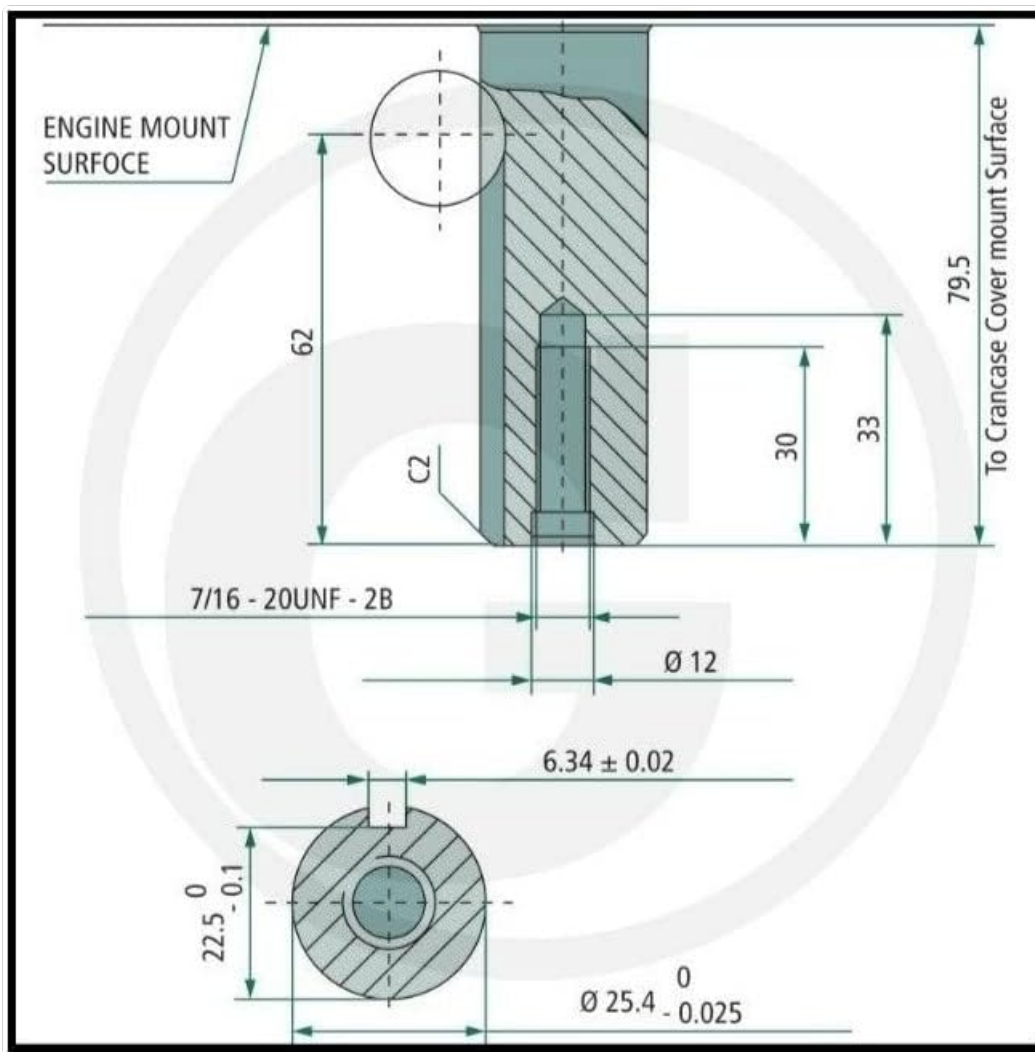


Figure 3.1: Technical diagram illustrating the engine mount surface and shaft dimensions. Ensure compatibility with your equipment's mounting plate.

Ensure adequate clearance around the engine for ventilation and access to maintenance points. The crankshaft (output shaft) should be properly aligned with the driven component.



Figure 3.2: Bottom view of the engine, highlighting the crankshaft for connection to the drive system.

3.2 Electrical Connections

Connect the engine's wiring harness to the vehicle's electrical system. Pay close attention to polarity and ensure all connections are secure to prevent electrical shorts or malfunctions.



Figure 3.3: Electrical connector showing wire assignments: **Red wire** for battery charging, **Red wire** for lights, and **Black wire** for engine shutdown.

- Connect the **Red wire** (Battery Charge) to the battery charging circuit.
- Connect the second **Red wire** (Lights) to the lighting circuit, if applicable.
- Connect the **Black wire** (Shutdown) to the engine shutdown switch.
- Ensure the battery is fully charged and properly connected before attempting to start the engine.

3.3 Fuel and Oil

- **Fuel:** Fill the fuel tank with fresh, unleaded gasoline (minimum 87 octane). Do not use E85 or gasoline containing more than 10% ethanol.
- **Engine Oil:** Before first start-up, fill the engine crankcase with the recommended engine oil. Refer to the specifications section for oil type and capacity. Check oil level regularly.

4. OPERATION

4.1 Pre-Start Checklist

- Check engine oil level.
- Check fuel level.
- Ensure air filter is clean and properly installed.

- Verify all connections (fuel lines, electrical, throttle) are secure.
- Clear the area around the equipment of any obstructions.

4.2 Starting the Engine

1. Ensure the equipment's parking brake is engaged and attachments are disengaged.
2. Turn the fuel valve to the "ON" position.
3. If the engine is cold, apply choke as needed.
4. Turn the ignition key to the "START" position. Release the key once the engine starts.
5. Gradually open the choke as the engine warms up.

4.3 Stopping the Engine

1. Reduce engine speed to idle.
2. Turn the ignition key to the "OFF" position.
3. Turn the fuel valve to the "OFF" position for storage or extended periods of non-use.

5. MAINTENANCE

Regular maintenance is crucial for the longevity and optimal performance of your Loncin engine. Always perform maintenance with the engine off and cool, and the spark plug wire disconnected.

5.1 Engine Oil Change

- Change engine oil after the first 5 hours of operation, then every 50 hours or annually, whichever comes first.
- Drain warm oil completely and refill with the recommended type and amount of new oil.

5.2 Air Filter Service

A clean air filter is essential for engine performance and life. Check and clean the air filter regularly, especially in dusty conditions.



Figure 5.1: Top view of the engine, indicating the location of the air filter housing for maintenance access.

- Remove the air filter cover and element.
- Clean foam elements with warm, soapy water, rinse, and allow to air dry. Lightly oil foam elements before reinstallation.
- Replace paper elements if dirty or damaged. Do not wash paper elements.

5.3 Spark Plug Inspection

- Inspect the spark plug every 100 hours or annually.
- Clean carbon deposits and adjust the gap to the specified setting. Replace if electrodes are worn or insulation is cracked.

6. TROUBLESHOOTING

Problem	Possible Cause	Solution
Engine will not start	No fuel; old fuel; spark plug issue; no spark; low oil; battery dead (electric start)	Check fuel level; drain old fuel and refill; clean/replace spark plug; check ignition system; add oil; charge/replace battery
Engine runs poorly	Dirty air filter; clogged fuel filter; carburetor issues; incorrect spark plug gap	Clean/replace air filter; replace fuel filter; clean carburetor; adjust spark plug gap
Engine overheats	Low oil level; cooling fins clogged; excessive load	Check/add oil; clean cooling fins; reduce load
Excessive smoke	Too much oil; wrong oil type; worn engine components	Drain excess oil; use correct oil; consult service center

For issues not listed or if solutions do not resolve the problem, contact a qualified service technician.

7. SPECIFICATIONS

- Model:** ST7750
- Manufacturer:** Loncin
- Engine Type:** Single-cylinder, 4-stroke, forced air-cooled, OHV (Overhead Valve)
- Displacement:** 452 CC
- Horsepower:** 16.5 HP
- Start System:** Electric Start
- Fuel Type:** Unleaded Gasoline (min. 87 octane)
- Oil Type:** SAE 10W-30 (or as recommended for ambient temperature)
- ASIN:** B0B7SCHTRW

8. WARRANTY AND SUPPORT

This Loncin engine is covered by a manufacturer's warranty. Please refer to the warranty card included with your purchase for specific terms and conditions. For technical support, replacement parts, or warranty claims, please contact your authorized Loncin dealer or the point of purchase.

Keep your purchase receipt and engine serial number readily available when contacting support.

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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.

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