

AlphaWorks GUT049-FBA

AlphaWorks 4HP Vertical Gas Engine (Model GUT049-FBA) Instruction Manual

Model: GUT049-FBA

1. SAFETY INFORMATION

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

- Always operate the engine according to the directions provided in this user manual.
- Wear appropriate ANSI standard hand and eye protection during operation and maintenance.
- Ensure the engine is used only for approved applications.
- Engine oil is not included and must be added upon un-boxing before initial start-up.
- Fuel is not included. Use a minimum of 90+ unleaded gasoline (10% or less ethanol recommended).

2. SETUP AND INSTALLATION

2.1 Unpacking and Inspection

Carefully remove the engine from its packaging. Inspect for any signs of damage during transit. Report any damage to your supplier immediately.

2.2 Mounting the Engine

The engine features a universal 4-bolt mounting pattern for secure installation. Ensure the mounting surface is stable and level.

- Mounting Pattern: 2-9/16" / 65.1mm x 2-9/16" / 65.1mm.

2.3 Adding Engine Oil

The engine is shipped without oil. It is critical to add the correct type and amount of engine oil before the first start-up. Refer to the specifications for recommended oil type.



Image: Checking the engine oil level using the dipstick. Ensure oil is at the recommended level before operation.

2.4 Adding Fuel

Fill the fuel tank with a minimum of 90+ unleaded gasoline. Ethanol content should not exceed 10%.

- Maximum Fuel Capacity: 0.8 gallons.



Image: Opening the fuel cap to add gasoline. Always ensure the engine is off and cool before refueling.

3. OPERATING INSTRUCTIONS

3.1 Starting the Engine

This engine utilizes a recoil starting system. Follow these steps for a successful start:

1. Ensure the engine is properly mounted and all fluid levels (oil, fuel) are correct.
2. Locate the fuel primer bulb and press it several times until fuel is visible in the line.
3. Engage the choke lever if starting a cold engine.
4. Firmly grasp the Easy Grip T-Handle Starter Pulley.
5. Pull the starter rope slowly until resistance is felt, then pull quickly and smoothly to start the engine.
6. Once the engine starts, gradually disengage the choke.



Image: Operating the recoil starter. Pull the handle firmly and smoothly to initiate engine start-up.

3.2 Stopping the Engine

To stop the engine, move the engine switch to the 'OFF' position.

4. MAINTENANCE

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

4.1 Engine Oil

The engine uses a Forced Splash Lubrication System. Check the oil level before each use and change the oil according to the maintenance schedule in the full manual.



Image: The engine features a Forced Splash Lubrication System, ensuring critical components are lubricated during operation.

4.2 Air Cleaner

Regularly inspect and clean the air cleaner element. A dirty air cleaner can reduce engine performance and increase wear.



Image: Side view of the engine, highlighting the air cleaner housing. Regular maintenance of the air cleaner is essential.

4.3 Spark Plug

Inspect the spark plug periodically. Clean or replace it as needed to ensure reliable starting and efficient combustion.

- Compatible Spark Plugs: Torch F6TC/F6RTC/F7TC/F7RTC.
- Spark Plug Clearance: 0.7-0.8mm.

5. TROUBLESHOOTING

This section provides solutions to common operational issues. For problems not listed here, contact customer support.

Problem	Possible Cause	Solution
Engine does not start	No fuel, incorrect choke position, old fuel, fouled spark plug, low oil level.	Check fuel level, adjust choke, use fresh fuel, inspect/clean/replace spark plug, add oil.
Engine runs poorly	Dirty air filter, incorrect spark plug gap, old fuel, carburetor issues.	Clean/replace air filter, adjust spark plug gap, use fresh fuel, clean carburetor.
Excessive vibration	Loose mounting bolts, unbalanced load.	Tighten all mounting bolts, ensure the connected equipment is balanced.

6. SPECIFICATIONS

Detailed technical specifications for the AlphaWorks 4HP Vertical Gas Engine.

- **Engine Type:** 4HP 170cc Vertical Cylinder 4-Stroke OHV
- **Max Output Power/Speed:** 2.8kW / 3600 RPMs
- **Max Torque:** 6.5 Ft-Lbs / 8.8Nm @ 2500 RPMs
- **PTO Shaft:** Counterclockwise Rotating, Ball Bearing Support
- **Shaft Diameter:** 7/8" x 2.43"
- **Keyway:** 3/16" Straight Keyway
- **End Taper:** 3/8"-24 UNF-2B
- **Bore x Stroke:** 70mm x 44.2mm
- **Valve Clearance (Cold):** Intake: 0.05-0.1mm, Exhaust: 0.05-0.1mm
- **Mounting Pattern:** Universal 4 Bolt (2-9/16" / 65.1mm x 2-9/16" / 65.1mm)
- **Ignition System:** Capacitance Discharge Ignition (CDI)
- **Cooling System:** Forced Air-Cooled
- **Lubrication System:** Forced Splash
- **Spark Plugs:** Torch F6TC/F6RTC/F7TC/F7RTC
- **Spark Plug Clearance:** 0.7-0.8mm
- **Fuel Type:** Minimum 90+ Unleaded Gasoline (10% or less Ethanol recommended)
- **Fuel Tank Capacity:** 0.8 gallons
- **Certifications:** EPA3 LCRPS.2121GC-010 / CARB U-U-169-0327 Certified & Approved



Image: Key performance specifications: Maximum Speed of 3,600 RPM and Maximum Torque of 6.5 Ft-Lbs.

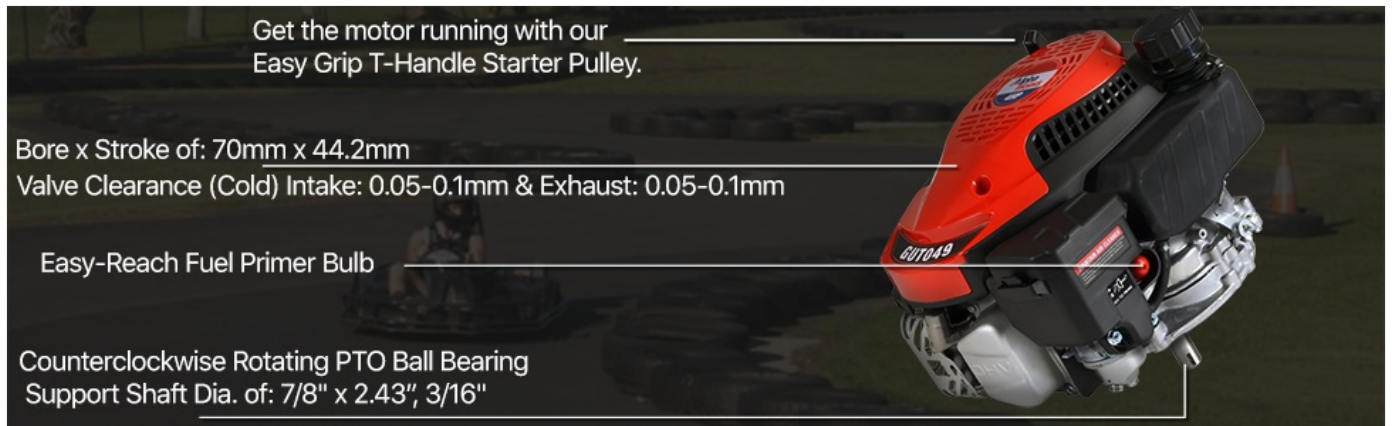


Image: Detailed engine specifications including Bore x Stroke, Valve Clearance, and PTO Shaft dimensions.

7. WARRANTY AND SUPPORT

7.1 Warranty Information

Please refer to your purchase documentation or contact AlphaWorks customer support for specific warranty details regarding this product.

7.2 Customer Support

For any issues, questions, or technical assistance, please contact AlphaWorks customer support:

- **Phone:** 866-493-0524
- **Email:** ALPHAWORKS@GREATORCLEUS.COM

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