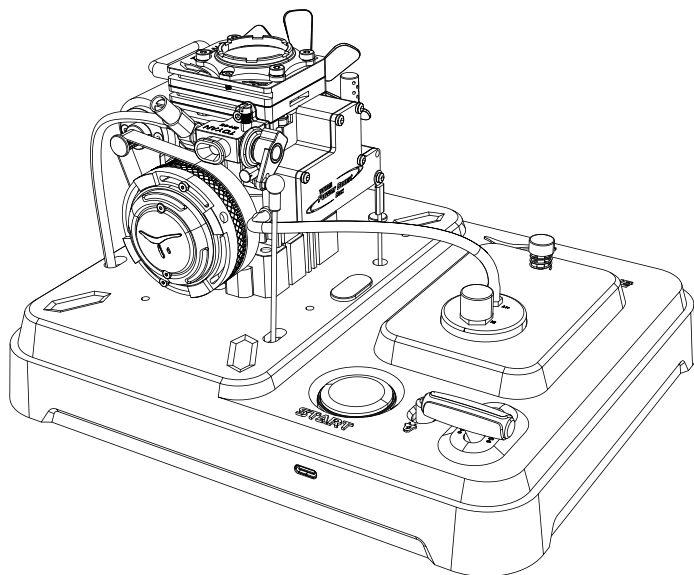

TOYAN *ENGINE*

Micro single-cylinder engine
L100 gift box version

Operating instructions



Catalog

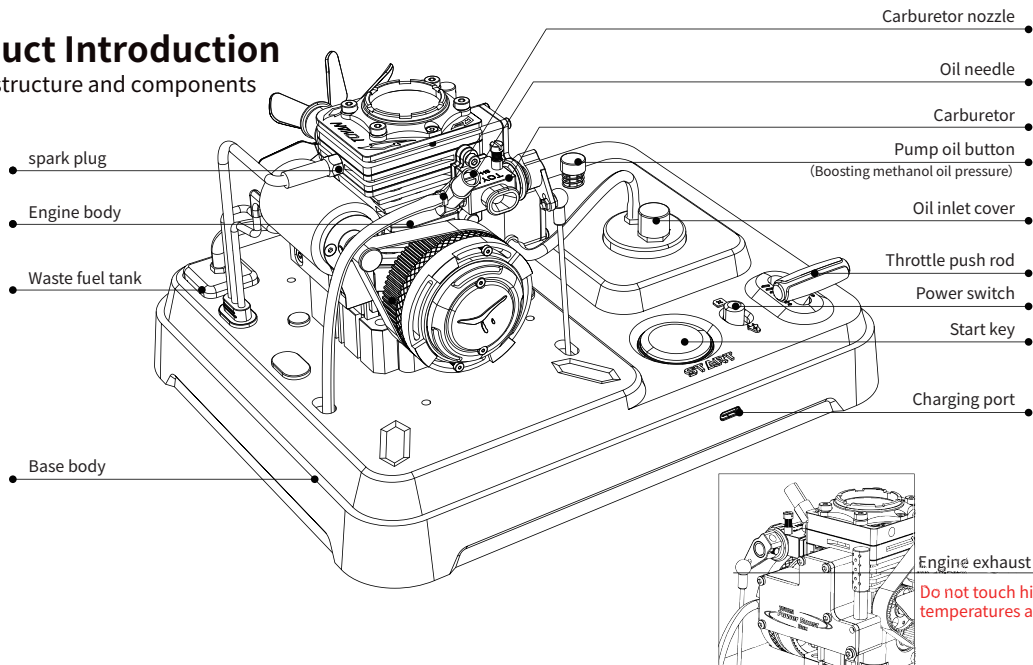
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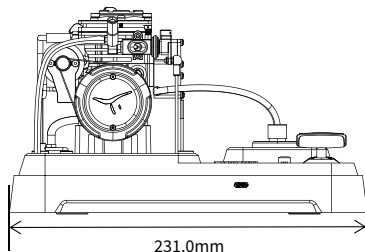
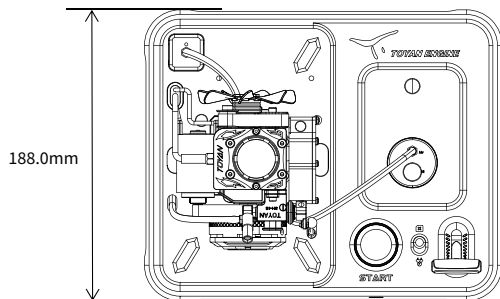
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Product Introduction

Engine structure and components

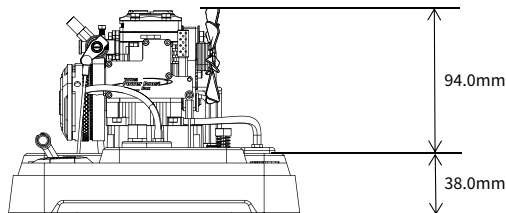


Product Introduction



Product parameters

- Displacement: 3.5cc
- Cylinder diameter: 16.60mm
- Piston stroke: 17.00mm
- Speed range: 2500-10500 rpm
- output: 0.35ps(30%Nitro)
- Weight: 1340g
- Material: Aluminum alloy



Startup operation instructions

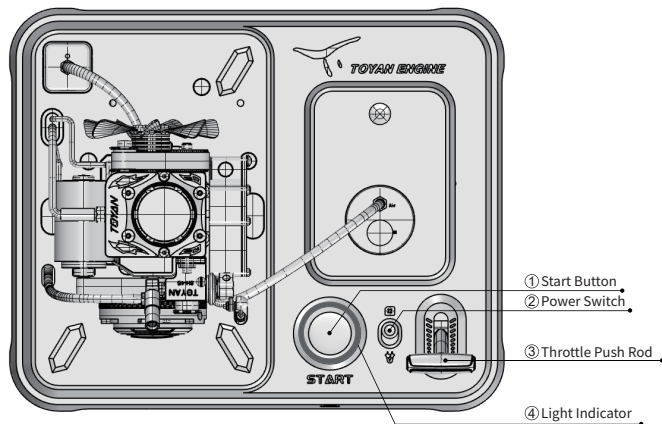
Step 1: Move the power switch ② downwards

Step 2: Press and hold the start button ① for two seconds to start the engine

Step 3: Push the throttle push rod ③ to control the engine speed

Attention:

*Press the start button ① for a long time without fuel or lubricating oil, will cause irreversible mechanical damage such as cylinder pulling, affecting engine life



*Base indicator light ring status



Charging status: The blue light ring remains on, and when fully charged, the light ring goes out



Power on status: The light ring is red and always on

Matters needing attention

Please remember that your engine is not a toy, but a highly efficient internal combustion engine. Its output power may cause harm or other impacts to you. Please do not modify or disassemble it without authorization.

As a professional user, please take responsibility to ensure the safe operation of the engine and be cautious at all times.

If one day in the future, your engine is acquired by another enthusiast, we respectfully request that you also hand over this operation manual to its new owner.

■ The following suggestions are generally applicable to all production engines. If incorrect operation occurs or safety is ignored, it may cause engine damage or danger.

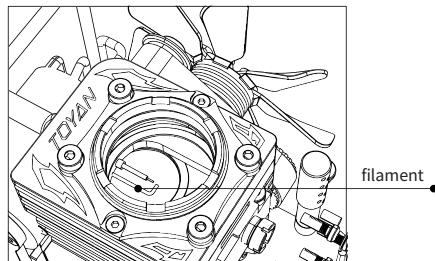
Warning: These events may involve serious (extreme, or even fatal) injuries.

- Engine fuel is toxic. Please do not let it come into contact with your eyes or mouth, always store it in a clearly marked container and keep it out of reach of children.
- Engine fuel is highly flammable. Please stay away from open flames, overheating, or any potential sources of ignition. Do not smoke, and do not let anyone smoke nearby.
- Do not start the engine in a closed space. During the operation of a model engine, like a car engine, it produces deadly carbon monoxide. Only by running your engine in an open area can your safety be protected.
- When the model engine is running, it will generate a considerable amount of heat. Do not touch any components of the engine immediately after it has stopped. Especially for **exhaust pipes or cylinder heads**, improper contact may cause serious burns.

Maintenance and upkeep

This product is a very precise machine, and you need to clean it regularly; Mainly due to the influence of the environment and fuel during use, there is certain wear and corrosion on various parts of the engine. Therefore, TOYAN will also provide you with long-term maintenance services. You can also complete basic cleaning and maintenance on your own.

- Carefully clean the carburetor to remove any remaining dust and oil stains outside the intake port.
- Do not disassemble the timing synchronous belt. Alcohol can be used as a cleaning agent to wipe the belt. Do not use corrosive cleaning agents to clean the synchronous belt to avoid damage.
- Spark plugs must be considered consumables. Spark plugs that have been running for a long time cannot guarantee the normal operation of the engine. However, careful use can extend their lifespan and maintain engine performance, namely:
 - ◆ Rotate the M6 socket wrench counterclockwise to unscrew the spark plug (replace the spark plug);
 - ◆ Use fuel containing a moderate percentage of nitromethane;
 - ◆ Do not tilt the engine excessively and do not connect the battery during adjustment;
 - ◆ When to replace spark plugs? In addition to being burnt out, these situations also require replacement, Because it no longer provides optimal performance, such as:
 - ◆ a. The surface of the filament becomes rough and white.



- ◆ b. The filament is curled and deformed.
- ◆ c. Corrosion caused by external objects adhering to the filament or plug body
- ◆ d. The engine will shut down when idling.
- ◆ e. Turn off the power and turn off the engine after starting.

At the end of each operation, drain the fuel tank, then power on the spark plug and attempt to restart the engine, burning off any remaining fuel in the fuel tank. Repeat this process until the fuel inside the engine is cleared.

Diagnosis and handling of common faults

If the engine fails to start, please carefully check the following:

- Is the battery voltage normal and the battery level full
- Has the spark plug failed
- Can the fuel reach the carburetor smoothly
- Do not forcefully start the engine when the cylinder is flooded. Remove the spark plug, close the oil needle, and press the start button to drain excess fuel. Cover the plug hole with a piece of cloth so that fuel won't splash onto you. If the engine is forcibly started without excluding excess fuel, it may cause irreparable damage to the starting system, as well as strain and deformation to the connecting rod and crankshaft.
- Timing synchronization belt adjustment

All TOYAN engines have their timing belt position checked before leaving the factory. If, after several hours of execution, a loss of operating power or unstable engine operation is found, the timing belt needs to be checked and debugged to obtain the correct ignition data for the engine.

When low-speed stalling occurs, do not keep it for too long at a low speed. Methanol engines need to maintain the spark plug filament temperature to achieve ignition. When the engine is in a rich state for a long time at low speed, the filament temperature will gradually decrease, leading to stalling. Therefore, it is necessary to clean the oil at high speed for a period of time and maintain the filament temperature.

after-sale service of common faults

● If there are any product abnormalities, please contact the designated after-sales service center of our company, and we will warmly serve you. Thank you for your cooperation!