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## Honda GX390

# Honda GX390 Engine Instruction Manual

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Brand: Honda

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## 1. INTRODUCTION

This instruction manual provides essential information for the safe and efficient operation, maintenance, and troubleshooting of your new Honda GX390 engine. The Honda GX390 is a powerful and reliable 13HP engine with electric start, designed for a wide range of commercial applications. Please read this manual thoroughly before operating the engine to ensure proper use and to prevent damage or injury.



Figure 1.1: Overview of the Honda GX390 Engine. This image displays the complete engine unit, highlighting its compact design and key components such as the fuel tank, air filter housing, and recoil starter.

## 2. SAFETY INFORMATION

Your safety and the safety of others are very important. To help you make informed decisions about safety, we have provided operating procedures and other information on labels and in this manual. This information alerts you to potential hazards that could hurt you or others. It is not practical or possible to warn you about all hazards associated with operating or maintaining this engine.

### 2.1 Important Safety Precautions

- **Carbon Monoxide Hazard:** Engine exhaust contains carbon monoxide, a colorless, odorless, poisonous gas. Breathing carbon monoxide can cause loss of consciousness and may lead to death. Operate the engine only in well-ventilated areas.
- **Fuel Safety:** Gasoline is extremely flammable and its vapors are explosive. Refuel in a well-ventilated area with the engine off. Do not smoke or allow flames or sparks where gasoline is stored or where the fuel tank is being filled.
- **Hot Engine Parts:** The engine and exhaust system become very hot during operation and remain hot for a while after the engine stops. To prevent burns, avoid touching hot engine parts.
- **Moving Parts:** Keep hands, feet, hair, and clothing away from moving parts to prevent injury.

- **Proposition 65 Warning:** This product can expose you to chemicals including carbon monoxide, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

## 3. SETUP

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### 3.1 Unpacking and Inspection

Carefully remove the engine from its packaging. Inspect the engine for any signs of shipping damage. If any damage is found, contact your dealer immediately.

### 3.2 Engine Placement

Mount the engine on a stable, level surface. Ensure adequate ventilation around the engine for proper cooling and exhaust dispersion.

### 3.3 Adding Engine Oil

The engine is shipped without oil. Before starting, fill the crankcase with the recommended engine oil to the upper level mark on the dipstick. Refer to the specifications section for oil type and capacity.



*Figure 3.1: Checking and filling engine oil. This image shows hands manipulating the oil drain and fill plugs on the engine's crankcase, illustrating the process of managing engine oil.*

### 3.4 Adding Fuel

Use fresh, unleaded gasoline with an octane rating of 86 or higher. Do not use stale or contaminated gasoline, or an oil/gasoline mixture. Fill the fuel tank carefully, avoiding spills.

### 3.5 Connecting Battery (Electric Start Models)

For electric start models, connect a fully charged 12-volt battery to the engine's electrical system. Ensure correct polarity: positive (+) to positive, negative (-) to negative. Secure all connections.

## 4. OPERATING THE ENGINE

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## 4.1 Pre-Operation Check

- Check engine oil level.
- Check fuel level.
- Inspect air filter.
- Check for loose fasteners or damaged parts.

## 4.2 Starting the Engine (Electric Start)

1. Turn the fuel valve to the ON position.
2. Move the choke lever to the CLOSED position (if engine is cold).
3. Turn the engine switch to the START position. Release the switch when the engine starts.
4. Once the engine warms up, gradually move the choke lever to the OPEN position.

## 4.3 Stopping the Engine

1. Turn the engine switch to the OFF position.
2. Turn the fuel valve to the OFF position.

## 4.4 Oil Alert System

The Oil Alert system is designed to prevent engine damage caused by an insufficient amount of oil in the crankcase. If the oil level falls below a safe limit, the Oil Alert system will automatically stop the engine or prevent it from starting. Always ensure the oil level is at the proper mark before operation.

# 5. MAINTENANCE

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Regular maintenance is crucial for the longevity and optimal performance of your Honda GX390 engine. Perform maintenance according to the schedule provided in the full service manual.

## 5.1 Engine Oil Change

Change the engine oil after the first 20 hours of operation, and every 100 hours or 6 months thereafter. Drain the oil when the engine is warm to ensure complete drainage.

## 5.2 Air Filter Maintenance

Inspect the air filter regularly, especially when operating in dusty conditions. Clean or replace the air filter element as needed to ensure proper engine breathing and prevent dirt from entering the engine.

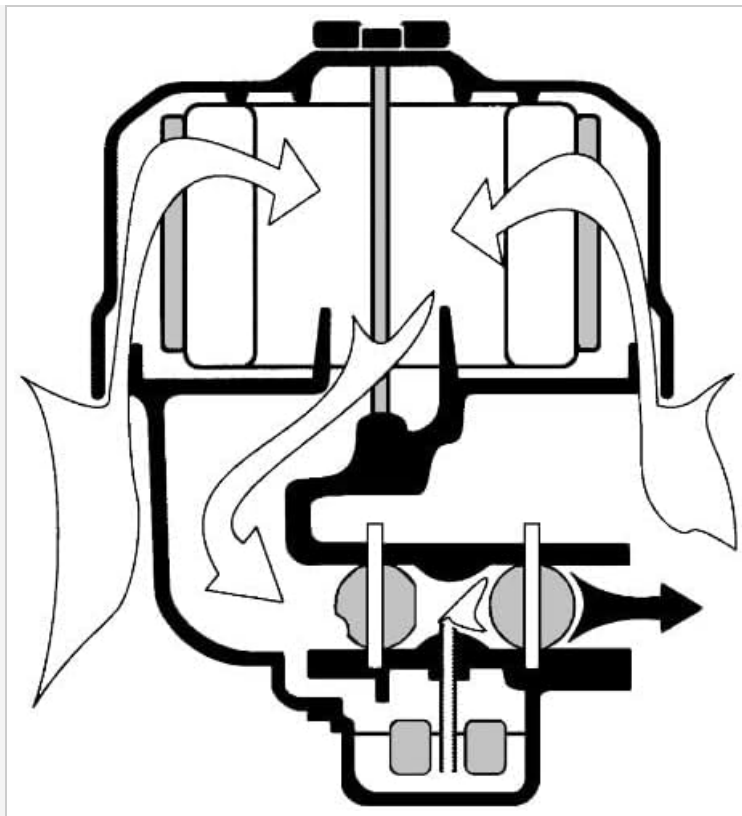


Figure 5.1: Diagram illustrating airflow through an engine component, likely related to the air intake or cooling system. This visual aids in understanding the path of air for combustion or cooling.

### 5.3 Spark Plug Inspection

Inspect the spark plug annually or every 100 hours. Clean or replace if necessary. Ensure the gap is set to the specified clearance.

### 5.4 Fuel System Care

To prevent fuel system problems, especially during storage, use a fuel stabilizer or drain the fuel tank and carburetor. Stale fuel can cause deposits that clog the fuel system.

## 6. TROUBLESHOOTING

This section provides basic troubleshooting steps for common issues. For more complex problems, consult an authorized service dealer.

Problem	Possible Cause	Solution
Engine will not start	No fuel; Fuel valve OFF; Engine switch OFF; Low oil level; Faulty spark plug; Dead battery (electric start)	Add fuel; Turn fuel valve ON; Turn engine switch ON; Add oil; Inspect/replace spark plug; Charge/replace battery
Engine runs rough	Stale fuel; Clogged air filter; Incorrect spark plug gap	Drain and refill with fresh fuel; Clean/replace air filter; Adjust spark plug gap
Engine lacks power	Clogged air filter; Incorrect engine speed; Overload	Clean/replace air filter; Adjust throttle; Reduce load

## 7. SPECIFICATIONS

Attribute	Value
Brand	Honda
Model Number	GX390
Engine Type	4 Stroke
Engine Displacement	418 Cubic Centimeters
Engine Power Maximum	11.7 Horsepower (13HP stated in feature bullets)
Fuel Type	Gasoline
Tank Volume	6.1 Liters
Ignition System Type	Electronic
Special Features	Electric Start, Fuel Efficient, Super Quiet, Oil Alert
Item Weight	90 Pounds
Color	Red
UPC	795525333039



*Figure 7.1: The crankshaft component of the Honda GX390 engine. This image highlights the robust construction of a critical internal moving part responsible for converting linear piston motion into rotational motion.*

## 8. WARRANTY & SUPPORT

### 8.1 Warranty Information

Honda engines typically come with a limited warranty covering defects in material and workmanship. For specific warranty terms, duration, and conditions, please refer to the warranty card included with your engine or visit the official Honda Power Equipment website. Keep your purchase receipt as proof of purchase.

### 8.2 Customer Support

For technical assistance, parts, or service, please contact an authorized Honda Power Equipment dealer. You can find a dealer near you by visiting the official Honda website. For any shipping-related inquiries or issues with your order, please contact the seller, equipatron, directly.