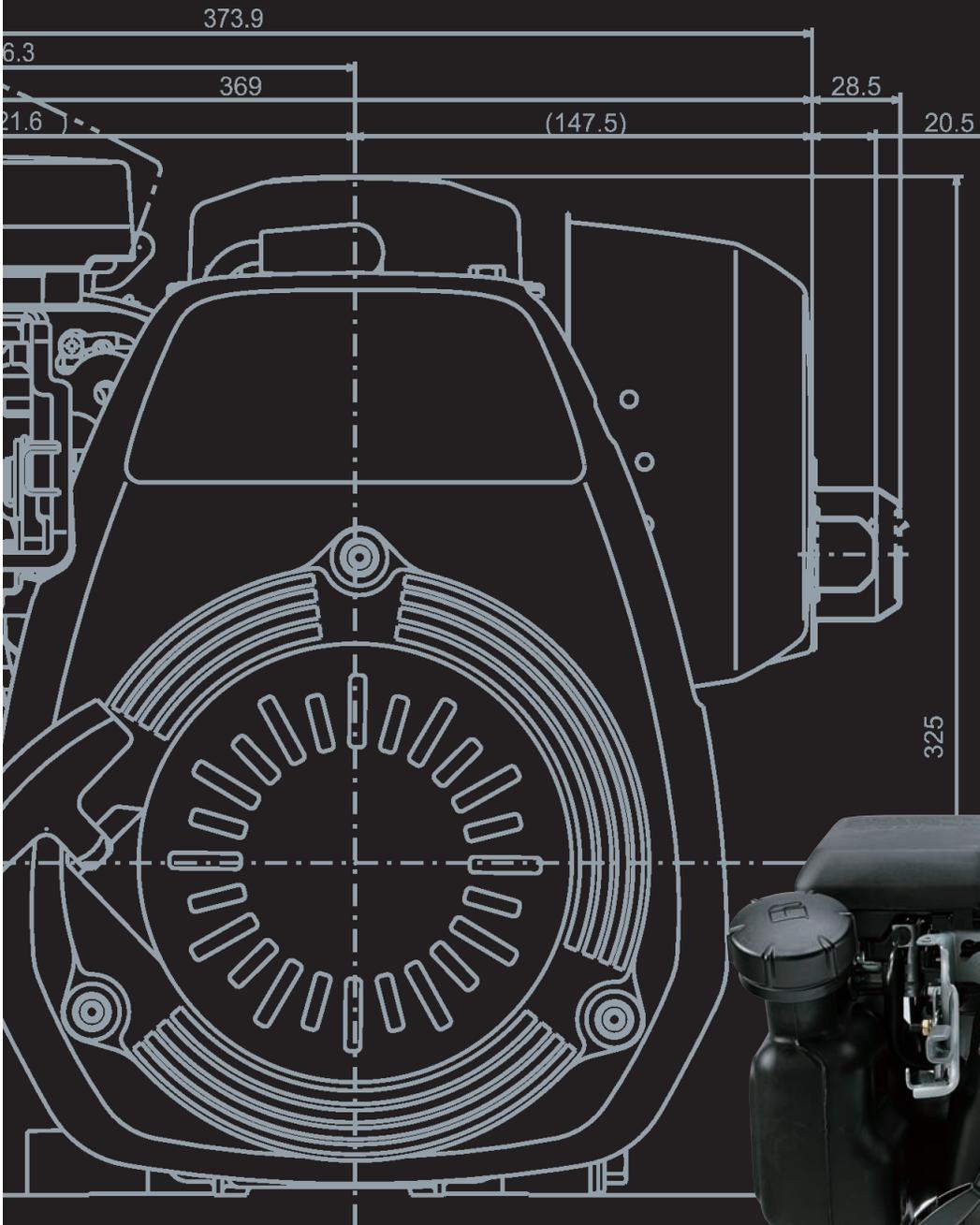


HONDA

GC Series Engines





GENUINE HONDA



There are many reasons to insist on genuine Honda engines. As the world's largest engine manufacturer, Honda offers more engine experience than anyone. Experience born on racetracks and roadways around the globe. Experience that keeps us on the cutting edge of engine performance technology and crosses our entire product line. From automobiles, race cars, motorcycles and all-terrain vehicles to marine engines, power equipment products and general-purpose engines, Honda is committed to designing products that meet or exceed the demands of our customers across the board. Based on the wide variety of products we offer with our Honda engines, we're experts at matching the right engine for the right job and producing engines that will "get the job done".



Throughout our history, Honda has been dedicated to technological and environmental innovation, and today is no different. After all, we have a legendary reputation to live up to. A reputation for unsurpassed quality, performance and reliability. A reputation worth considering the next time you're in the market for an engine.



Net Power - SAE J1349

The SAE J1349 standard measures net horsepower with the manufacturer's production muffler and air cleaner in place and therefore more closely correlates with the power the operator will experience when using a Honda engine powered product. The power ratings of the engines indicated in this document are the net power output tested on a production engine for the engine model and measured in accordance with SAE J1349 at the specified rpm. Mass production engines may vary from this value. Actual power output for the engine installed in the final machine will vary depending on numerous factors, including the operation speed of the engine in the application, environmental conditions, maintenance and other variables.

Pictured counter-clockwise from above: Honda FCX Hydrogen Fuel Cell Vehicle, Honda CBR, Honda Advanced Robotics - Asimo, MCHP (Micro-sized Combined Heat and Power System), Honda Aquatrax, Honda BF50 outboard, Honda Jet

With a GC Series engine at the heart of your home-use power equipment, you'll be in business.

The Honda GC Series offers powerful, versatile functionality that will add great competitive value to any engine-powered product. These compact, lightweight 4-Stroke engines were specifically designed for home-use power equipment applications. Featured innovations include the world's first internal timing belt, the superior efficiency and performance of an overhead cam layout and the durability and light weight of uniblock construction. Not to mention the same legendary reliability you've come to expect from the leader in 4-Stroke engine technology. Put a Honda GC Series engine to work for you and you'll quickly see why – when it comes to power, we mean business.

The lightest engines in their class

A revolutionary combination of the world's first internal timing belt, a tough nylon overhead cam and uniblock construction has made the GC Series lighter and more compact than any engine in its class. Plus, simple construction has minimized the number of parts, making the engine reliable and easier to operate.



Dramatically improved sound quality

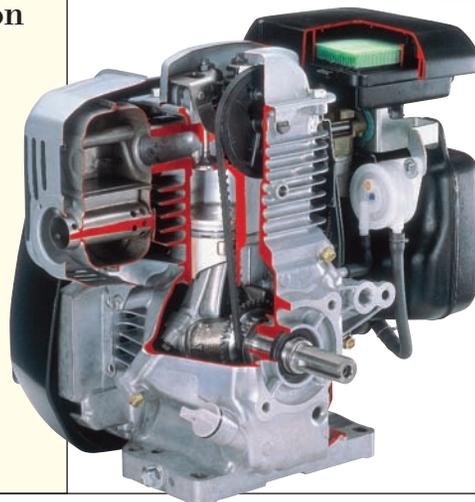
Power equipment users and their neighbors will prefer the quiet operation offered by the GC Series' built-in timing belt. Valvetrain and gear noise have also been minimized for a better quality engine sound that is distinctly easier on the ears – a feature sure to be appreciated by users and bystanders alike.

Consistent, dependable power

The wide, flat, powerful torque offered by Honda's GC Series engines helps reduce engine speed drop associated with sudden load increases for smoother, less-troublesome, all-around performance.

Fast, easy, reliable starting

GC Series engines feature a horizontal cross-flow intake port that smoothes the flow of fuel into the combustion chamber for quick, reliable starts that require no special skills. Automatic mechanical decompression further ensures easy starting.



Honda Auto Choke System

This system has been developed for use on GVC160 and GVC190 engines in fixed-throttle lawnmower applications. This user-friendly system is truly automatic, eliminating levers and cables. The engine starts easily whether cold or hot and is ready to use immediately. Once the engine is up and running, the Auto Choke automatically returns to an optimal operating position.



Reduced maintenance and fuel consumption

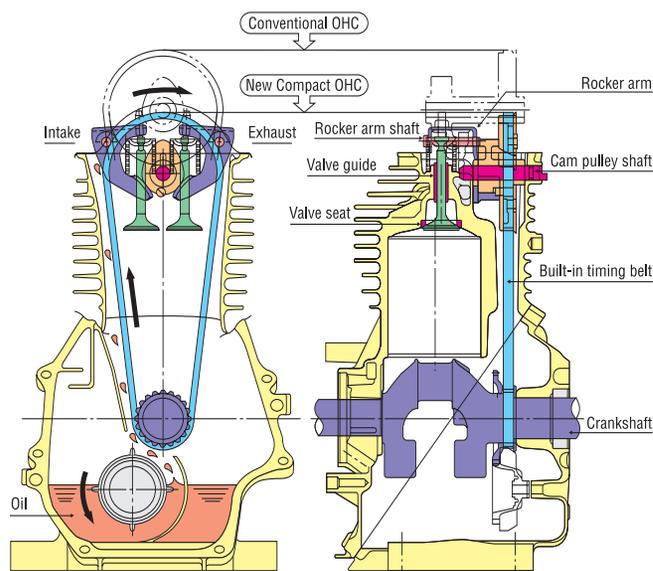
A truly innovative combination of a compact combustion chamber, overhead cam configuration and uniblock construction significantly reduces fuel and oil consumption as compared to conventional side-valve engines. Honda's DuaLube™ System achieves full engine lubrication by combining governor slinger paddles and an oil-delivering timing belt. Also, simple construction reduces many potential maintenance needs, making Honda's GC engine one of the most efficient and cost-effective engines available.

Honda's Compact OHC Layout

Superior efficiency and performance in a smaller package

As the name implies, overhead cam (OHC) engines have their camshafts positioned in the cylinder head above the combustion chamber. Valves are located in the roof of the combustion chamber (instead of at the side) to offer the same combustion-related advantages as OHV engines. The OHC layout builds on these advantages by reducing the number of valvetrain components and allowing them to be lighter and stronger, thereby making the engine more compact and lightweight overall.

Overhead Cam, Internal Timing Belt



- Cam pulley
- Valves
- { Cam pulley shaft
Valve guide
Valve seat
- { Crankshaft
Rocker arms
- { Cylinder block
Crankcase cover
- Built-in timing belt
- Rocker arm shafts
- Conventional OHC construction



The high-efficiency combustion delivered by the OHC configuration helps Honda GC engines certify to all existing CARB and EPA emission standards.

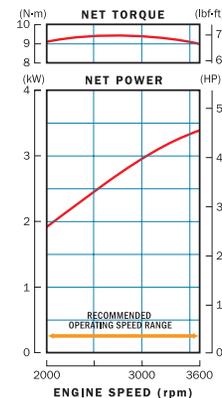
Horizontal Shaft

Honda GC Engines provide an ideal source of reliable, lightweight power for a variety of consumer products including pressure washers, pumps, compressors and portable generators.

GC160



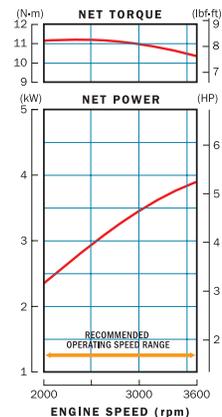
Engine Type	Air-cooled, 4-Stroke, OHC, single cylinder
Bore x Stroke	2.5" x 2.0" (64 x 50 mm)
Displacement	9.8 cu in (160 cm ³)
Compression Ratio	8.5 : 1
Net Horsepower*	4.6HP (3.4kW) at 3,600 rpm
Net Torque*	6.9 lbs ft (9.4 Nm) at 2,500 rpm
PTO Shaft Rotation	Counterclockwise (from PTO shaft side)
Ignition System	Transistorized Magneto
Starting System	Recoil or Electric Starter
Carburetor	Horizontal type butterfly valve
Lubrication System	Forced Splash
Governor System	Centrifugal Mechanical
Air Cleaner	Dry (paper) type
Oil Capacity	0.61 US qt (0.58 l)
Fuel Tank Capacity (liter)	1.9 US qt (1.8l)
Dimensions (L x W x H)	13.3" (337mm) x 14.5" (369mm) x 13.0" (331mm)
Dry Weight	25.4 lbs (11.5 kg)



GC190

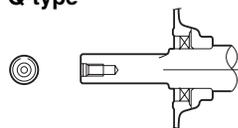


Engine Type	Air-cooled, 4-Stroke, OHC, single cylinder
Bore x Stroke	2.7 x 2.0 in (69 x 50 mm)
Displacement	11.4 cu in (187 cm ³)
Compression Ratio	8.5 : 1
Net Horsepower*	5.2HP (3.9kW) at 3,600 rpm
Net Torque*	8.3 lbs ft (11.2 Nm) at 2,500 rpm
PTO Shaft Rotation	Counterclockwise (from PTO shaft side)
Ignition System	Transistorized Magneto
Starting System	Recoil or Electric Starter
Carburetor	Horizontal type butterfly valve
Lubrication System	Forced Splash
Governor System	Centrifugal Mechanical
Air Cleaner	Dry (paper) type
Oil Capacity	0.61 US qt (0.58 l)
Fuel Tank Capacity (liter)	1.9 US qt (1.8l)
Dimensions (L x W x H)	13.6" (345mm) x 14.5" (369mm) x 13.0" (331mm)
Dry Weight	29.1 lbs (13.2 kg)

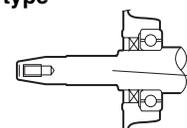


Shaft Types

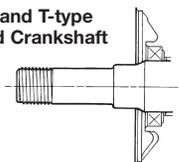
Q-type



V-type



P-type and T-type
Threaded Crankshaft



D-type
Stepped & Keyed



* The power rating of the engine indicated in this document is the net power output tested on a production engine for the engine model and measured in accordance with SAE J1349 at 3600 rpm (7000 rpm for model GHX50, GXV50, GX25 and GX35). Mass production engines may vary from this value. Actual power output for the engine installed in the final machine will vary depending on numerous factors, including the operating speed of the engine in application, environmental conditions, maintenance and other variables.

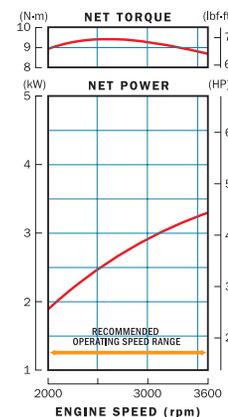
Vertical Shaft

Honda GCV Engines offer lawnmower users (and their neighbors!) a quiet, yet powerful and lightweight combination for a variety of demanding mowing applications. The GCV is also an excellent choice for residential-use pressure washers.

GCV160



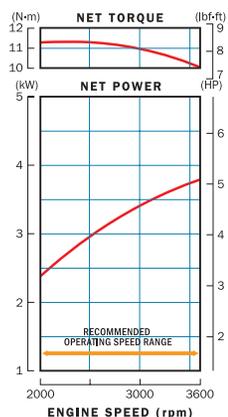
Engine Type	Air-cooled, 4-Stroke, OHC, single cylinder
Bore x Stroke	2.5" x 2.0" (64 x 50 mm)
Displacement	9.8 cu in (160 cm ³)
Compression Ratio	8.5 : 1
Net Horsepower*	4.4HP (3.3kW) at 3,600 rpm
Net Torque*	6.9 lbs ft (9.4 Nm) at 2,500 rpm
PTO Shaft Rotation	Counterclockwise (from PTO shaft side)
Ignition System	Transistorized Magneto
Starting System	Recoil or Electric Starter
Carburetor	Horizontal type butterfly valve
Lubrication System	Forced Splash
Governor System	Centrifugal Mechanical
Air Cleaner	Dry (paper) type
Oil Capacity	0.58 US qt (0.55 l)
Fuel Tank Capacity (liter)	0.98 US qt (0.93l)
Dimensions (L x W x H)	14.4" (367mm) x 13.0" (331mm) x 13.7" (347mm)
Dry Weight	21.6 lbs (9.8 kg)



GCV190

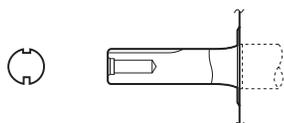


Engine Type	Air-cooled, 4-Stroke, OHC, single cylinder
Bore x Stroke	2.7" x 2.0" (69 x 50 mm)
Displacement	11.4 cu in (187 cm ³)
Compression Ratio	8.5 : 1
Net Horsepower*	5.1HP (3.8kW) at 3,600 rpm
Net Torque*	8.3 lbs ft (11.3 Nm) at 2,500 rpm
PTO Shaft Rotation	Counterclockwise (from PTO shaft side)
Ignition System	Transistorized Magneto
Starting System	Recoil or Electric Starter
Carburetor	Horizontal type butterfly valve
Lubrication System	Forced Splash
Governor System	Centrifugal Mechanical
Air Cleaner	Dry (paper filter)
Oil Capacity	0.58 US qt (0.55 l)
Fuel Tank Capacity (liter)	0.98 US qt (0.93l)
Dimensions (L x W x H)	14.4" (367mm) x 13.0" (331mm) x 13.8" (349mm)
Dry Weight	27.6 lbs (12.5 kg)

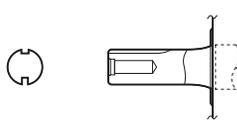


Shaft Types

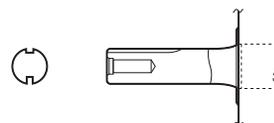
N1-type



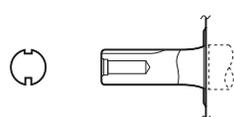
N2-type



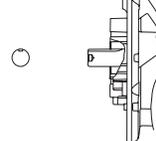
N3-type



N4-type



N5-type



* The power rating of the engine indicated in this document is the net power output tested on a production engine for the engine model and measured in accordance with SAE J1349 at 3600 rpm (7000 rpm for model GHX50, GXV50, GX25 and GX35). Mass production engines may vary from this value. Actual power output for the engine installed in the final machine will vary depending on numerous factors, including the operating speed of the engine in application, environmental conditions, maintenance and other variables.

Unique Honda blade brake clutch assembly is available as an option for use only on Honda GCV Series engines for lawnmower applications.

