Honda
V-Twin Engines
Welcome to the Next Generation of Honda V-Twin Technology

Like the rest of the models in Honda’s extensive lineup of GX general purpose engines, these newly redesigned Honda V-twins offer the kind of high power, easy usability, and all-around hardworking toughness the world has come to expect from Honda. Their 4-stroke OHV combustion ensures reliable, easy starting and smooth, stable power output, not to mention cleaner emissions and reduced noise and vibration. Designed for versatility, including PTO shaft variations and mounting flanges conforming to all SAE standards, their user-friendly high reliability, functionality, and flexibility make them the perfect choice for a vast range of applications.

Reliable and Easy To Use

Improved Starting and Reliability

- Highly reliable shift-type electric starter ensures easy starting even in extreme cold down to -30°C.
- Transistorized magneto ignition equipped with a 12V-20A AC generator provides dependable battery charging capacity even during idling.
- Optional recoil starter available for GX/GXV610K1 and GX/GXV620K1.
- Centrifugal mechanical decompression ensures smooth, easy starts.
- Automotive-style lubrication system featuring a high-pressure trochoid pump and cartridge-style air filter ensures high durability.
- Optional Auto Throttle™—Electronic solenoid-activated system for quick throttle response in generator applications.

Highly Efficient 90° V-Twin OHV Format

- The 90° V-twin OHV format featuring an advanced combustion chamber design and superior intake and exhaust efficiency combines the ordinarily opposed elements of good fuel economy and high power output at the highest possible levels. An advanced breather design and 3-piece oil ring improve oil circulation efficiency for lower oil consumption. The result is excellent reliability plus reduced running and maintenance costs.
Stable Governor Performance
• Separate-shaft governor optimized by a needle-bearing-supported output shaft helps smooth out engine speed fluctuations caused by varying loads.

Large-Capacity Air Cleaner
• Compact, large-capacity, Honda automotive-style air cleaner ensures efficient intake of cooler, denser air to suppress potential power degradation caused by the intake of hot air.
• Generous 3,100cm² cleaning element surface area and low-positioned air intake port help reduce aircleaner dust build-up.

Low Noise
• Cam and oil pump gears made of lightweight, durable, heat-resistant resin minimize gear-meshing noise.
• Plastic resin fan cover helps screen out engine noise.
• All-resin Scirocco cooling fan features irregular-pitch blades to minimize fan noise.
• Improved crankcase rigidity, extra-durable crankshaft, and optimized cam shape reduce mechanical noise and contribute to quieter, smoother continuous operation.

Low Vibration
• Honda-developed high-strength sintered aluminum connecting rods reduce weight in overlap areas to minimize vibration caused by the cylinder offset.
• Compact 90° V-twin configuration contributes to overall compactness and extremely low-vibration operation.

Clean Running
Clears Strict CARB and EPA Emissions Regulations
• V-twin series Honda engines featuring high-efficiency OHV combustion and a compact semi-hemispherical combustion chamber design already clear the CARB emissions regulations that are currently the strictest in the world, and will also clear the even tougher EPA regulations that will take effect in 2001.

EPA = U.S. Environmental Protection Agency
CARB = California Air Resources Board

Honda — Power With a Clear Advantage.
GX Horizontal Shaft V-Twins

**GX610/GX620 Dimensions** (Q-type) (unit: mm)

<table>
<thead>
<tr>
<th>Engine Speed (rpm)</th>
<th>Output</th>
<th>Torque</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,000</td>
<td>150</td>
<td>45</td>
</tr>
<tr>
<td>2,500</td>
<td>180</td>
<td>40</td>
</tr>
<tr>
<td>3,000</td>
<td>220</td>
<td>35</td>
</tr>
<tr>
<td>3,600</td>
<td>250</td>
<td>30</td>
</tr>
</tbody>
</table>

**PTO Shaft Dimensions** (unit: mm)

<table>
<thead>
<tr>
<th>Model</th>
<th>GX610K1</th>
<th>GX620K1</th>
<th>GX670</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine Type</td>
<td>Air-cooled 4-stroke OHV 90° V-twin; Horizontal Shaft</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bore x Stroke</td>
<td>3.0 x 2.6 in (77 x 66 mm)</td>
<td>3.0 x 2.8 in (77 x 72 mm)</td>
<td></td>
</tr>
<tr>
<td>Displacement</td>
<td>37.5 cu in (614 cc)</td>
<td>40.9 cu in (670 cc)</td>
<td></td>
</tr>
<tr>
<td>Compression Ratio</td>
<td>8.3:1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum Power Output</td>
<td>18 HP/3,600 rpm (13.2 kW)</td>
<td>20 HP/3,600 rpm (14.9 kW)</td>
<td>24 HP/3,600 rpm (17.9 kW)</td>
</tr>
<tr>
<td>Recommended Maximum Power Output</td>
<td>16.2 HP/3,600 rpm (12.1 kW)</td>
<td>17.9 HP/3,600 rpm (13.3 kW)</td>
<td>21.5 HP/3,600 rpm (16 kW)</td>
</tr>
<tr>
<td>Maximum Torque</td>
<td>31.7 lbf ft (43.1 Nm)/2,500 rpm</td>
<td>32.5 lbf ft (44.1 Nm)/2,500 rpm</td>
<td>37.5 lbf ft (50.8 Nm)/2,500 rpm</td>
</tr>
<tr>
<td>Ignition System</td>
<td>Transistorized magneto</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Starting System</td>
<td>Electric or Electric/Recoil</td>
<td>Electric</td>
<td></td>
</tr>
<tr>
<td>ACG Output</td>
<td>12V-3A or 12V-20A</td>
<td>12V-20A</td>
<td></td>
</tr>
<tr>
<td>Decompression</td>
<td>Centrifugal</td>
<td>Heavy Duty Dual Element</td>
<td></td>
</tr>
<tr>
<td>Air Cleaner</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oil Capacity</td>
<td>1.9 U.S. Qts (1.8 liters) w/oil filter replacement</td>
<td>2.01 U.S. Qts (1.9 Liter) w/oil filter</td>
<td></td>
</tr>
<tr>
<td>Fuel Consumption</td>
<td>0.51 lb/HPh (230 g/HPh, 313 g/kWh)</td>
<td>0.59 lb/HPh (269 g/HPh, 360 g/kWh)</td>
<td></td>
</tr>
<tr>
<td>Dimensions (LxWxH)</td>
<td>15.3 x 18 x 17.8 in (388 x 457 x 452 mm)</td>
<td>16.2 x 18.5 x 18 in (412 x 471 x 457 mm)</td>
<td></td>
</tr>
<tr>
<td>Dry Weight</td>
<td>92.6 lbs (42 kg)</td>
<td>94.8 lbs (43 kg)</td>
<td></td>
</tr>
</tbody>
</table>

Specifications are subject to change without notice.
GX Horizontal Shaft V-Twins

GX670 Dimensions (Q-type) (unit: mm)

PTO Shaft Dimensions (unit: mm)

Performance Curves

New Features Improve Power and Reliability for the GX670!

Oil Cooler
In addition to their high-pressure automotive-style lubrication system and cartridge-type air filter, the new V-twin GX’s come equipped with a forced-air oil cooler that constantly maintains optimum oil temperature to ensure consistently smooth, powerful performance even during extended operation.

Twin-Barrel Carburetor
In addition to a diaphragm fuel pump that automatically supplies exactly the right amount of fuel, the carburetor itself features twin valves that reduce air-intake resistance to ensure consistently high power output and stable operation.
Vertical Shaft V-Twins

GXV610/GXV620 Dimensions (Q-type) (unit: mm)

PTO Shaft Dimensions (unit: mm)

Performance Curves

Maximum Power Output
Recommended Power Output
Maximum Torque

Model | GXV610K1 | GXV620K1
--- | --- | ---
Engine Type | Air-cooled 4-stroke OHV 90° V-twin; Vertical Shaft | Air-cooled 4-stroke OHV 90° V-twin; Vertical Shaft
Bore x Stroke | 3.0 x 2.6 in (77 x 66 mm) | 3.0 x 2.6 in (77 x 66 mm)
Displacement | 37.5 cu in (614 cc) | 37.5 cu in (614 cc)
Compression Ratio | 8:3:1 | 8:3:1
Maximum Power Output | 18 HP/3,600 rpm (13.4 kW) | 20 HP/3,600 rpm (14.9 kW)
Recommended Maximum Power Output | 16.2 HP/3,600 rpm (12.1 kW) | 17.9 HP/3,600 rpm (13.3 kW)
Maximum Torque | 31.7 lbf ft (43.1 Nm)/2,500 rpm | 32.5 lbf ft (44.1 Nm)/2,500 rpm
Ignition System | Transistorized magneto | Transistorized magneto
Starting System | Electric or Electric/Recoil | Electric or Electric/Recoil
ACG Output | 12V-3A or 12V-20A | 12V-3A or 12V-20A
Decompression | Centrifugal | Centrifugal
Aircleaner | Heavy Duty Dual Element | Heavy Duty Dual Element
Oil Capacity | 2.3 U.S. Qts (2.2 liters) w/oil filter replacement | 2.3 U.S. Qts (2.2 liters) w/oil filter replacement
Fuel Consumption | 0.51 lb/HPh (230 g/HPh, 313 g/kWh) | 0.51 lb/HPh (230 g/HPh, 313 g/kWh)
Dimensions (LxWxH) | 18.1 x 18 x 17 in (459 x 457 x 431 mm) | 18.1 x 18 x 17 in (459 x 457 x 431 mm)
Dry Weight | 94.8 lbs (43 kg) | 94.8 lbs (43 kg)

Specifications are subject to change without notice.
**Model GXV670**

**Engine Type**
Air-cooled 4-stroke OHV 90° V-twin; Vertical Shaft

**Bore x Stroke**
3.0 x 2.8 in (77 x 72 mm)

**Displacement**
40.9 cu in (670 cc)

**Compression Ratio**
8.3:1

**Maximum Power Output**
24 HP/3600 rpm (17.9 kW)

**Recommended Maximum Power Output**
21.5 HP/3600 rpm (16 kW)

**Maximum Torque**
37.5 lbf ft (50.8 Nm)/2500 rpm

**Ignition System**
Transistorized magneto

**Starting System**
Electric

**ACG Output**
12V-20A

**Decompression**
Centrifugal

**Aircleaner**
Heavy Duty Dual Element

**Oil Capacity**
2.6 U.S. Qts w/oil filter replacement (2.5 liters)

**Fuel Consumption**
0.59 lb/HPh (269 g/HPh, 360 g/kWh)

**Dimensions (LxWxH)**
18.3 x 18.6 x 17.7 in (464 x 473 x 449 mm)

**Dry Weight**
99.2 lbs (55 kg)

Specifications are subject to change without notice.
Powerful Performance
Extra-large 530cc displacement assures big power output and easy-to-use flat torque performance across the power band.

User-Friendly Low Vibration
A primary vibration-cancelling 90° V-twin cylinder layout and specially developed high-strength sintered-aluminum connecting rods that minimize cylinder offset and eliminate excess weight combine to reduce overall vibration to some of the lowest in the class.

Lower Exhaust Emissions
Four-stroke combustion, air resistance-reducing twin-barrel carburetors, and extra compact combustion chambers with center-positioned spark plugs all combine to promote more efficient, more complete fuel combustion providing low emission levels that clear CARB standards and are even below EPA 2006 levels.

EPA = U.S. Environmental Protection Agency
CARB = California Air Resources Board
Advanced Lubrication Technology
The GXV530 features Honda’s latest and most advanced lubrication system. QuadraLube™ Plus delivers oil to critical engine components through both pressure and splash lubrication. First, governor slinger paddles splash oil on the connecting rods, pistons, cylinders and upper ball bearing. Second, two timing belts carry oil to the cylinder heads lubricating the valve area. Plus, oil is pressure-fed to both connecting rod big ends and the crankshaft lower bearing. Finally, the oil pump forces lubrication through the Honda automotive-type oil filter to ensure a consistent supply of clean oil. This advanced oil delivery system allows the GXV530 to offer superior lubrication, reduced engine weight, quiet operation and a more compact design.

Pleasant Low-Noise Operation
Honda-developed built-in OHC timing belts, lightweight resin cams, and an extra-quiet turbo cooling fan reduce engine noise to an absolute minimum, enhancing the smoother operating sound already inherent in the 2-cylinder V-twin layout.

Compact OHC Design
Cams positioned to the side of the valves (instead of above) makes GXV530 considerably more compact than conventional OHC models.

GXV530 Dimensions
(unit: mm)

PTO Shaft Dimensions
(unit: mm)
OHC V-Twin Engines

PERFORMANCE CURVES

Maximum Power Output
Recommended Power Output
Maximum Torque

Model | GXV530 (vertical shaft)
--- | ---
Engine Type | Air-cooled 4-stroke OHC 90° V-twin
Bore x Stroke | 3.03 x 2.24 in (77 x 57 mm)
Displacement | 32.3 cu in (530 cm³)
Compression Ratio | 8:1
Maximum Power Output | 16 HP (11.8 kW - 16 PS)/3600 rpm
Maximum Torque | 26.9 lbf ft (36.5 Nm - 3.72 kg-m)/2500 rpm
Ignition System | Transistorized magneto
Aircleaner | Dual Element
Oil Capacity | 1.38 qt with oil filter (1.3 liters)
Fuel Consumption | 313 g/kWh (230 g/HPh, 0.51 lb/HPh)
Dimensions (LxWxH) | 18 x 16.8 x 13 in (456 x 427 x 331 mm)
Dry Weight | 67.2 lbs (30.5 kg)

Features

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cylinder</td>
<td>Cast Iron Sleeve</td>
</tr>
<tr>
<td>Oil Filter</td>
<td>Standard</td>
</tr>
<tr>
<td>Fuel Pump</td>
<td>Optional</td>
</tr>
<tr>
<td>Control</td>
<td>1-lever or 2-lever</td>
</tr>
<tr>
<td>Starter</td>
<td>Electric or Electric+Recoil</td>
</tr>
<tr>
<td>Charge Coil</td>
<td>3A or 12A or 18A</td>
</tr>
<tr>
<td>Regulator/Rectifier</td>
<td>3A or 12A or 18A</td>
</tr>
<tr>
<td>Exhaust Pipe</td>
<td>Optional</td>
</tr>
<tr>
<td>Oil Drain Bolt</td>
<td>M20 x 1.5 or %-1.8NPTF*</td>
</tr>
</tbody>
</table>

*%-1.8NPTF thread size is for temporary drain bolt provided assuming later installation of extension pipe.