



TROUBLESHOOT

ZONE

USEFUL INFORMATION

Recommended fuel

Lead-free petrol

USA: Pump octane number of 86 or higher.

Non-USA: Research octane number of 91 or higher

Pump octane number of 86 or higher.

We recommend using petrol with an octane number of 91 or higher.

Recommended engine oil

SAE 10W30

Gearbox oil

SAE 80W90

Engine's fuel and oil capacity

ENGINE	FUEL CAPACITY	OIL CAPACITY
GX-35	0.63 l	100 ml
GXH-50	0.77 l	250 ml

Fuel consumption

When operating at maximum power, the GX35 engine consumes 0.71 l/h while the GXH50 consumes 0.91 l/h at its maximum power.

The fuel tanks are different sizes, but both allow a little less than an hour of continuous operation at maximum power.

However, in practice, it is practically impossible to use a winch continuously at its maximum power. As a result, the duration of full tank of petrol varies according to application and it is rare to use two full tanks of fuel in one working day.



ENGINE AND WINCH: CAUSES AND SOLUTIONS TO PROBLEMS

A. ENGINE PROBLEM: THE ENGINE WON'T START OR STALLS WITHOUT A LOAD		
	POSSIBLE CAUSE	SOLUTION
1. CHECK THE POSITION OF THE CONTROLS	Fuel tap in the CLOSED position.	Place the lever in the OPEN position.
	Starter open. (see Honda manual)	Place the lever in the CLOSED position, unless the engine is hot.
	Engine switch set to OFF. O = OFF / I = ON	Turn the main switch to the ON position.
	PCW3000, no fuel in the fuel system.	Pump until the fuel system is force-fed.
2. CHECK THE LEVEL OF THE ENGINE OIL	Oil level low. Note: The oil alert sensor only stops the GXH-50 engine. Important: Do not overfill the oil sump.	Fill with recommended oil to the level required (see Honda manual).
	Oil level is too high.	Remove the excess. (see Honda manual)
3. CHECK THE FUEL LEVEL	The fuel tank may be too full OR empty.	Empty the tank AND/OR fill it.
	Unsuitable fuel: Engine stored without treatment or emptying of the fuel or filled with unsuitable fuel.	Empty the fuel tank. Fill with new fuel (see Honda manual).
4. CHECK THE SPARK PLUG	Spark plug defective, clogged or the distance of the electrodes is incorrect.	Adjust the distance of the electrodes or replace the plug (see Honda manual).
	Spark plug wet with fuel (engine flooded).	Dry and reinstall the spark plug. Start the engine with the power command set to MAX.

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5. NO SPARK FROM THE SPARK PLUG	Switch wire is grounded.	Check that the wire between the on/off switch is not damaged.
	Of/Off switch defective.	Remove the wire between the switch and the ignition coil and try to start the engine.
6. CHECK THE INCLINE	Oil level low.	Check the engine's oil level. Fill with recommended oil to the level required (see Honda manual). Fill the oil to level with the filling hole.
	The winch is operated with an incline which triggers the oil alert system and triggers a stoppage. (GXH-50 only)	Reorganise the work area to reduce the include using a pulley or wedges placed under the winch.
7. THE WINCH HAS BEEN ACCIDENTALLY OVERTURNED DURING STORAGE, HANDLING OR TRANSPORT	The engine oil may have entered the cylinder. (GXH-50 only)	Position the winch on a flat surface for approx. 24-48 hrs. so that the oil can drain along the pistons. The engine will start easily (perhaps with black smoke).



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8. THE OIL ALERT SWITCH IS DEFECTIVE	It is possible that the coil is stuck and grounded. (GXH-50 only)	<p>a) A quick test involves disconnecting the cable between the on-off ignition switch and the engine base.</p> <p>b) It is possible to disable the oil sensor by disconnecting the connector. The oil level in the sump should then be checked.</p> <p>c) If the engine still doesn't start, check that there is a spark from the ignition. (see the Honda manual)</p> <p>Note: In no case should the winch be used with the oil alert system disconnected.</p>

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A. ENGINE PROBLEM: THE ENGINE WON'T START OR STALLS WITHOUT A LOAD		
	POSSIBLE CAUSE	SOLUTION
9. THE STARTER ROPE IS VERY EASY TO PULL AND THERE IS NO EXPLOSION	<p>The engine has no compression.</p> <p>If the engine has been stored for a long period of time and it contains fuel with no stabilising additive, it is possible that one of the valves is stuck in the open position and prevents the engine from compressing the air/fuel mixture.</p> <p>Adjusting the valves should resolve the problem.</p>	<p>The valves must be adjusted.</p> <p>Option A: If you have some mechanical knowledge and a set of feeler gauges, the operation is fairly easy (you just need to use a silicone tube to seal the cylinder head cover after the operation).</p> <p><i>Adjustment specifications:</i> Valve tolerance (cold):</p> <ul style="list-style-type: none"> ▪ Intake: 0.08 +/- 0.02 mm ▪ Exhaust: 0.011 +/- 0.02 mm <p>Option B : Contact an approved Honda dealer. Otherwise, a competent mechanic can perform this work.</p>
10. THE ENGINE STILL WON'T START AFTER COMPLETING POINTS 1 TO 8	<p>Fuel filter blocked, carburetor faulty, ignition anomaly, valves stuck, etc.</p>	<p>Take the engine to an approved Honda dealer or consult the workshop manual. Replace or repair the defective parts if necessary.</p>
11. THE WINCH SUDDENLY STOPS (IMPOSSIBLE TO PULL THE LAUNCHER AGAIN)	<p>The engine is seized.</p>	<p>In North America, contact Portable Winch Co. on 1-888-388-7855. From anywhere else in the world, contact your authorized Portable Winch Co. dealer.</p>



ENGINE AND WINCH: CAUSES AND SOLUTIONS TO PROBLEMS

B. THE ENGINE STALLS UNDER A LOAD		
	POSSIBLE CAUSE	SOLUTION
1. CHECK THE POSITION OF THE CONTROLS	Fuel tap in the CLOSED position.	Place the lever in the OPEN position.
	Choke lever. (See the Honda manual)	Place the lever in the OPEN position, except for cold starting.
	Engine switch set to OFF. O = OFF / I = ON	Turn the main switch to the ON position. I = ON
	PCW3000, no fuel in the fuel system.	Pump until the fuel system is force-fed.
2. CHECK THE LEVEL OF THE ENGINE OIL	Oil level low. Note: The oil warning sensor only stops the GXH-50 engine. Important: Do not overfill the oil sump.	Fill with recommended oil to the level required (see Honda manual).
3. CHECK THE FUEL LEVEL	The fuel tank may be too full OR empty.	Empty the tank AND/OR fill it.
	Unsuitable fuel: engine stored without fuel treatment or emptying of the fuel or filled with unsuitable fuel.	Empty the fuel tank. Fill with new fuel (see Honda manual).

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B. THE ENGINE STALLS UNDER A LOAD		
	POSSIBLE CAUSE	SOLUTION
4. MAXIMUM POWER CHECK	The winch's maximum power is achieved with four (4) wraps of rope on the capstan drum. You have reached the maximum load.	Release the tension from the rope. Attach a pulley to the load to double the traction capacity. Start the engine normally.
C. THE WINCH IS DAMAGED		
1. IN THE CASE THAT THE WINCH HAS BEEN ACCIDENTALLY DAMAGED AND REQUIRES REPAIR	Replace or repair the defective parts if necessary.	If the damage exceeds your technical skills: In North America, contact Portable Winch Co. on 1-888-388-7855. From anywhere else in the world, contact your authorized Portable Winch Co. dealer.
2. TAKE THE WINCH TO ANY AUTHORIZED PORTABLE WINCH CO. DEALER	Replace or repair the defective parts if necessary. In North America, contact Portable Winch Co. on 1-888-388-7855. From anywhere else in the world, contact your authorized Portable Winch Co. dealer.	



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D. THE WINCH LACKS POWER		
	POSSIBLE CAUSE	SOLUTION
1. CHECK THE AIR FILTER	The filter is blocked.	Clean or replace the filter (see the Honda manual).
2. CHECK THE FUEL LEVEL	The fuel tank may be too full OR empty.	Empty the tank AND/OR fill it.
	Unsuitable fuel: engine stored without treatment or emptying of the fuel or filled with unsuitable fuel.	Empty the fuel tank. Fill with new fuel (see Honda manual).
3. CHECK THE LEVEL OF THE ENGINE OIL	There may be too much oil.	Remove the excess oil to the level required (see Honda manual).
4. THERE IS FRICTION BETWEEN THE ROPE GUIDE AND THE CAPSTAN DRUM GENERATING RESISTANCE	The capstan drum moves outwards once loaded.	The capstan drum's retaining washer may be twisted or the bolt may be loose. The washer can be turned and the bolt tightened with the hex wrench supplied with the winch.
	The rope guide's bolts are loose or the rope guide has been moved.	The screws holding the rope guide may be loose and/or the guide rope has moved. Replace the rope guide and tighten the screws. A 0.005" feeler gauge (0.13 mm) or a sheet of paper folded in two can be slid between the rope guide and the capstan drum to guarantee that there is no contact.

ENGINE AND WINCH: CAUSES AND SOLUTIONS TO PROBLEMS

D. THE WINCH LACKS POWER		
	POSSIBLE CAUSE	SOLUTION
5. THERE IS FRICTION BETWEEN THE ROPE GUIDE AND THE CAPSTAN DRUM GENERATING RESISTANCE	The outlet axis moves longitudinally.	<p>Likely cause: the bearing is worn. A loud noise can be heard.</p> <p>In North America, contact Portable Winch Co. on 1-888-388-7855. From anywhere else in the world, contact your authorized Portable Winch Co. dealer.</p>
	The capstan drum and/or the rope guide are damaged.	<p>Replace them.</p> <p>Contact your Portable Winch Co. dealer to obtain spare parts.</p> <ul style="list-style-type: none"> ▪ PCA-1110, standard 57 mm drum, rope guide and screws ▪ PCA-1100, 85 mm drum, rope guide and screws ▪ PCA-1120, PCW3000 only, drum, rope guide and screw. ▪ PCA-1130, PCH2000 only, drum, rope guide and screws.
6. DAMAGE BEYOND YOUR TECHNICAL SKILLS	<p>In North America, contact Portable Winch Co. on 1-888-388-7855. From anywhere else in the world, contact your authorized Portable Winch Co. dealer.</p>	



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E. THE WINCH WON'T STOP		
1. CHECK THE POWER CABLE'S CONNECTION	The wire connecting the coil and the switch is disconnected or cut.	Check the electrical wire between the switch and the coil. Repair the electrical wire if necessary.
2. THE ON/OFF SWITCH ISN'T WORKING	Defective switch.	Make sure that the bronze end of the switch is in contact with the switch's metal plate. If this is the case, the switch is defective. This must be replaced. Replacement switch GX-35 (70-0031) / Replacement switch GXH-50 (70-0023).

ENGINE AND WINCH: CAUSES AND SOLUTIONS TO PROBLEMS

F. THE ENGINE STARTS WITH THE ON/OFF SWITCH IN THE "OFF" POSITION		
	POSSIBLE CAUSE	SOLUTION
1. CHECK THE ELECTRICAL WIRE'S CONNECTION	The connection of the electrical wire between the ON/OFF switch and the ignition coil presents a problem.	Check the electrical wire between the switch and the coil. Repair the electrical cable if necessary.
2. THE ON/OFF SWITCH ISN'T WORKING	Defective switch.	Make sure that the bronze end of the switch is in contact with the switch's metal plate. If this is not the case, the switch is defective. This must be replaced. Replacement switch GX-35 (70-0031) / Replacement switch GXH-50 (70-0023).
G. AT HIGH ALTITUDES: THE ENGINE LACKS OXYGEN		
1. PRESENCE OF SPUTTERING BLACK SMOKE	The fuel-oxygen ratio is not optimal at high altitudes due to the lack of oxygen.	Check the spark plug and the spark arrestor. Replace the spark plug more frequently and clean the spark arrestor with a small metal brush.
<p>Replacing the main jet contributes to the less frequent replacement of the spark plug. In North America, contact Portable Winch Co. on 1-888-388-7855. From anywhere else in the world, contact your authorized Portable Winch Co. dealer.</p>		
<p>IMPORTANT NOTE: In all cases, the engine is less powerful at high altitudes, the power loss is 3% per 300 m.</p>		

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H. THE ENGINE REMAINS SLUGGISH EVEN WHEN THE ENGINE THROTTLE IS AT FULL POWER	
POSSIBLE CAUSE	SOLUTION
1. THE ENGINE THROTTLE IS STAGGERED	<p>GXH-50: Check that the two engine throttle springs are in place and working properly.</p> <p>GX-35: Check that the cable is in the correct position.</p>
2. THE VALVES MUST BE ADJUSTED	<p>Option A: If you have some mechanical knowledge and a set of feeler gauges, the operation is fairly easy (you just need to use a silicone tube to seal the cylinder head cover after the operation).</p> <p><i>Adjustment specifications</i> Valve tolerance (when cold):</p> <ul style="list-style-type: none"> ▪ Intake: 0.08 +/- 0.02 mm ▪ Exhaust: 0.011 +/- 0.02 mm <p>Option B : Contact an approved Honda dealer. Otherwise, mechanic for small engines can perform this adjustment.</p>
I. THE ROPE SLIPS OVER THE CAPSTAN DRUM	
NO FRICTION PROBABLY DUE TO A NEW ROPE OR A NEW CAPSTAN DRUM OR EVEN BOTH	<p>1. Start with smaller loads to familiarise yourself with the winch's behaviour and to start the running-in of the capstan drum with the rope. This will increase the friction coefficient.</p>
	<p>2. You can also dirty the rope by dragging it along the ground. This will cause dirt and sand particles to collect on the rope. This improves the rope's friction coefficient on the capstan drum. A dirty rope is more effective.</p>
	<p>3. In addition, the engine can be started and sandpaper used on the capstan drum.</p>

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J. NOISE FROM THE GEARBOX

The concept of noise is not easy to define. What counts as noisy for one person doesn't for another. Noise may be slightly different from one winch to another. It is possible for a noise to be heard which is not easy to identify. If the winch is working correctly, then there is no need to worry.