American Honda Motor Co., Inc.

SAFETY RECALL NOTICE

GCV170 • GCV200 General Purpose Engines HRN216 • HRX217 Lawn Mowers

DECOMPRESSOR SYSTEM MALFUNCTION

Check below to see if your Honda product is affected by this recall.



Locate the serial number on your product. General purpose engine serial numbers are located below the fuel valve. Lawn mower serial numbers are located on the cutting deck behind the engine.

Refer to the serial number lists shown to the right for the units affected by this recall.

If you are unsure if your product is affected by this recall, contact your local authorized Honda servicing dealer, or call the toll free Honda recall line at (888) 888-3139 for assistance.

Units previously repaired are no longer part of this recall.



They can be identified as follows:

A punch mark on the engine serial number plate to the left of the "G"

A colored round dot located on the information tag on the carton



What is the problem?

Due to a manufacturing defect, the camshaft decompressor mechanism in the engine can malfunction, resulting in excessive force required to pull the recoil starter rope during engine starting.

Due to the resulting high compression within the engine, some users may experience a kickback of the recoil starter grip, increasing the risk of injury. For units equipped with an electric starter, the starter motor may not be able to successfully start the engine.

What should you do?

If you own a GCV170 or GCV200 general purpose engine or an HRN216 or HRX217 lawn mower, you will need to check to see if the serial number is within the affected serial number range and has not been previously repaired. If it is within the affected range and has not been previously repaired, stop using your product until it has been repaired by an authorized Honda dealer. Also:

- If your product was registered with American Honda and is affected, you will receive a letter.
- If your product was not registered with American Honda, contact your Honda Power Equipment servicing dealer.

If you need assistance locating a servicing dealer, please visit our website: *www.PowerEquipment.Honda.com*, or call us at our recall line (888) 888-3139.

This recall is being conducted in cooperation with the U.S. Consumer Product Safety Commission

Affected HRN216 and HRX217 Lawn Mowers

Many lawn mowers within the serial number ranges below are NOT affected.

You **must** confirm your mower is affected by either visiting powerequipment.honda.com/lawnmower-recall and then entering your unit's frame serial number, contacting your local authorized Honda servicing dealer, or calling the toll free Honda recall line at (888) 888-3139.

Model	Serial Number Range
HRN216	MANA-2084904 ~ 2548569
HRX217	MAMA-1484182 ~ 1734418

Affected GCV170 and GCV200 General Purpose Engines

The following GCV170 and GCV200 engine serial numbers or serial numbers within the specified ranges are affected by this recall.

Model	Serial Nu
GCV170	
	GJAUA
	GJAUA
	GJAUA
	GJAUA
	GJAUA
GCV200	GJAVA
	GJAVA
	GJAVA
	GJAVA

mber or Serial Number Range
GJAUA-2204245
GJAUA-2205384
GJAUA-2224541
GJAUA-2225976
GJAUA-2225991
-2230290 ~ GJAUA-2230292
-2230295 ~ GJAUA-2230306
GJAUA-2230309
GJAUA-2230322
-2230325 ~ GJAUA-2232155
-2283472 ~ GJAUA-2295191
-2303265 ~ GJAUA-2311796
-1649726 ~ GJAVA-1649727
GJAVA-1651285
GJAVA-1652575
-1652728 ~ GJAVA-1653140
-1703049 ~ GJAVA-1729184
-1732113 ~ GJAVA-1732122



SERVICE BULLETIN



This Recall applies only to units shown in the affected serial number list. A Recall requires all affected units in dealer inventory to be repaired prior to sale or being placed into service. ENGINE #56 LAWN MOWER #115 SEPTEMBER 2023

SAFETY RECALL

GCV170 • GCV200 • HRN216 • HRX217 DECOMPRESSOR SYSTEM MALFUNCTION

With notification to the U.S. Consumer Product Safety Commission, American Honda Motor Co., Inc., is conducting a voluntary safety recall of certain Honda GCV170 and GCV200 general purpose engines and HRN216 and HRX217 lawn mowers.

SYMPTOM

In some units, the camshaft decompressor mechanism can malfunction, resulting in excessive force required to pull the recoil starter rope during engine starting.

Due to the resulting high compression within the engine, some users may experience a kickback of the recoil starter grip, increasing the risk of injury. For units equipped with an electric starter, the starter motor may not be able to successfully start the engine.

CAUSE

The decompressor pin in the camshaft can stick in the deactivated position due to the pin hole in the plastic camshaft being undersized and not allowing the pin to move freely.

AFFECTED UNITS

Many lawn mowers within the serial number ranges are NOT affected. You must use the *Unit Information* on the Interactive Network (iN) or visit powerequipment.honda.com/ lawnmower-recall and then enter the unit's frame serial number to confirm that an individual lawn mower is affected by this recall.

For GCV170 and GCV200 engines, refer to page 2.

Model	Serial Number Range
GCV170	Refer to page 2.
GCV200	Refer to page 2.
HRN216	MANA-2084904 ~ 2548569
HRX217	MAMA-1484182 ~ 1734418



CONSUMER INFORMATION: The information in this service bulletin is intended for use only by skilled technicians who have the proper tools, equipment, and training to correctly and safely service and repair your Honda power equipment. These procedures should not be attempted by "do-it-yourselfers," and you should not assume that this bulletin applies to your equipment, or that your equipment has the condition described. To determine whether this information applies, contact an authorized Honda Power Equipment dealer.

ENGINE #56 LAWN MOWER #115 SEPTEMBER 2023 Affected GCV170 and GCV200 Engines

The following GCV170 and GCV200 engine serial numbers or serial numbers within the specified ranges are affected by this recall.

Model	Serial Number or Serial Number Range
GCV170	GJAUA-2204245
	GJAUA-2205384
	GJAUA-2224541
	GJAUA-2225976
	GJAUA-2225991
	GJAUA-2230290 ~ GJAUA-2230292
	GJAUA-2230295 ~ GJAUA-2230306
	GJAUA-2230309
	GJAUA-2230322
	GJAUA-2230325 ~ GJAUA-2232155
	GJAUA-2283472 ~ GJAUA-2295191
	GJAUA-2303265 ~ GJAUA-2311796
GCV200	GJAVA-1649726 ~ GJAVA-1649727
	GJAVA-1651285
	GJAVA-1652575
	GJAVA-1652728 ~ GJAVA-1653140
	GJAVA-1703049 ~ GJAVA-1729184
	GJAVA-1732113 ~ GJAVA-1732122

CORRECTIVE ACTION

Units within the serial number ranges confirmed as affected must have the camshaft assembly replaced following the "PROCEDURE" shown on page 4.

For dealers who have camshafts in their service parts inventory, all camshafts must be inspected using the information below. If any camshaft assemblies in your parts inventory were produced before July 2022, you must return them to American Honda using the standard parts return (OAR) form. You must submit a new parts order for replacement camshaft assemblies.

Camshaft Production Date Inspection

The two date code wheels on the back of the camshaft assembly represent the manufacturing date of the camshaft gear. The arrows located in the center of each wheel point to the representative month and year of the cam gear production. In this example, the production month is 7 (July) and the production year is 22 (2022).



BACK OF CAMSHAFT

Retailed Units:

American Honda will notify all registered owners of affected units by letter. A copy of the letter is included on page 17 of this bulletin.

If you sold a general purpose engine or lawn mower affected by this recall and have **not** registered it, please do so immediately or complete the Honda Dealer Inventory Responsibility Report (if applicable) and return it to Honda Power Sports and Products.



Units in American Honda Inventory:

Affected units in American Honda inventory will be repaired prior to release. Repaired units can be identified by a colored round dot on the carton and a punch mark on the engine's serial number plate to the left of the "G" in the serial number prefix.

Units in Dealer Inventory:

Affected units in dealer inventory must not be sold until they have been repaired using the information and procedures provided in this service bulletin.

Federal law prohibits affected units in your inventory from being sold until the camshaft has been inspected and replaced.

Begin by following the "PROCEDURE" shown on page 4.



ENGINE #56 LAWN MOWER #115 SEPTEMBER 2023 PROCEDURE

A copy of the appropriate GCV170/GCV200, HRN216, or HRX217K6 Shop Manual is required for this repair and may be referred to occasionally throughout this procedure.

The steps and illustrations are based on Honda lawn mower applications. The procedure for GCV170 and GCV200 engines is the same with only minor variations as explained where necessary.

REMOVAL

- **1.** For units in service, disconnect the spark plug cap, turn the fuel valve to the OFF position, and then drain the engine oil from the engine.
- **2.** *HRN216, HRX217 lawn mowers:* Place a suitable container next to the mower to catch the used oil, and then tilt the mower on its right side.







3. *HRN216, HRX217 lawn mowers:* Remove the recoil starter rope from the eyelet on the handlebar.



- **4.** Lawn mower types:
 - **a.** Tip the lawn mower on its right-hand side so the carburetor is facing up.
 - **b.** Remove the blades, blade holder (PKA/VKA/VLA) or Roto-Stop (VYA/HYA/HZA), belt guide, and drive pulley (VKA/VLA/VYA). Remove the woodruff key from the crankshaft. You must refer to the appropriate lawn mower shop manual for the detailed removal and installation procedures.
- 5. GCV170, GCV200 engines:

Removal of the pressure washer pump is not required, but may be necessary depending on application. Be sure the lower crankshaft Woodruff key does not fall down into the pump. If that happens, removal of the pump and retrieval of the key will be necessary.

- **6.** Remove the top cover from the engine.
 - a. Completely remove the 5x8 mm screw and spring nut.
 - **b.** Remove the fuel cap.
 - c. Pull outward on the two tabs on each side of the top cover to unlatch the top cover from the fan cover.
 - **d.** Route the starter grip through the hole in the top cover when removing the cover.



- 7. Reinstall the fuel cap or cover the fuel tank filler opening with a rag or latex glove to prevent objects or debris from falling into the fuel tank.
- **8.** Remove the (5) M6x23mm bolts from the fan cover, and the rear most M6x23mm bolt from the muffler cover, then remove the fan cover.
- 9. Disconnect the spark plug cap, and then remove the spark plug.



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10. Disconnect the primary and charge coil (if applicable) wires from the ignition coil, and then disconnect the wire bands from the brake plate or side plate attached to the crankcase cover. Remove the ignition coil by loosening the two 6 x 23 mm flange bolts.



11. For VK, VL, and PK lawn mowers:

Remove the flywheel brake cable from the cable lock and remove the z-fitting. Manually engage the flywheel brake arm and secure it to the cable lock slot using a zip-tie or strap so that the crankcase cover bolt beneath the brake arm remains accessible.



12. For VL lawn mower:

Remove the starter motor and set it aside. You do not need to unplug the wiring from starter motor.



13. Holding the flywheel with the flywheel holder special tool or a commercially available strap wrench, remove the 14mm special nut.



14. Position a commercially available 6-inch flywheel puller on the flywheel with one of the puller jaws under the magnets (at the PULLER marks). Place a shop towel or equivalent cloth between the flywheel and puller. Hand-tighten the flywheel puller and then tap the end of the puller with a heavy brass hammer to remove the flywheel.

NOTICE:

• Do not overtighten the flywheel puller or the flywheel can become warped and damaged.

• Do not use an impact wrench when removing the flywheel. The flywheel may break if too much force is applied.

15. Remove the woodruff key from the crankshaft.



16. Remove the (6) M8 x 25 mm bolts securing the crankcase cover to the crankcase. Insert a screwdriver or equivalent pry-tool into the recesses as shown and remove the crankcase cover. The brake plate (side plate) can remain bolted to the crankcase cover.

NOTICE:

Be careful to avoid contacting the crankshaft threads when removing the crankcase cover as it could damage the inner lip of the oil seal.



- **17.** Remove the carburetor assembly from the cylinder head. Refer to the appropriate shop manual as necessary. *Note:* Be careful to maintain the integrity of the air cleaner and carburetor gaskets, and replace them as necessary.
 - **a.** Remove the air cleaner cover and air cleaner element. Loosen the (2) 6mm nuts and remove the air cleaner case.
 - **b.** Loosen the carburetor set bolt and drain the carburetor bowl completely into an approved container.
 - **c.** Disengage the fuel tube clip from the carburetor inlet nipple and disconnect the fuel tube. *Wipe up any fuel spills immediately.*
 - d. Remove the governor rod and throttle return spring from the carburetor throttle arm.



18. Disconnect the connecting rod from the crankshaft by removing two connecting rod bolts and end cap, and then push the piston and connecting rod fully into the cylinder.



19. Remove the head cover, rocker arm shafts (2), rocker arms (2), and push rods (2) from the cylinder.

Remove the cylinder head by removing the two 8 x 40 mm and two 8 x 25 mm flange bolts. Pry the cylinder head off of the crankcase, as shown.



20. Remove the camshaft following the information below.

NOTICE:

To prevent damaging the lower crankcase oil seal with the crankshaft or Woodruff key, it is important to **not** remove the crankshaft completely by following these steps.

- a. Lift and hold the crankshaft and timing gear up enough to be able to remove the camshaft (approximately 40 mm, just enough to clear the camshaft). **Do not completely lift the crankshaft out of the crank case.**
- b. Remove the original camshaft from the crankcase, and then install the new, replacement camshaft.
- c. Lower the crankshaft and timing gear back down until it properly seats on the crankcase and the timing marks on the crankshaft and camshaft align (see page 13). Be sure the thrust washer remains in the correct position, the timing gear projection is completely inserted into the crankshaft keyway, and the timing gear teeth engage with the camshaft and governor weight holder.
- d. Continue to the INSTALLATION procedure on the next page.



INSTALLATION

Installation is the reverse of removal and not all steps are shown in this *Installation* section. Be sure all parts are properly cleaned before reassembly and there is no debris in the crankcase.

Refer to the following inspections and adjustments during reassembly. Due to the differences between general purpose engines and different lawn mower types, refer to the appropriate shop manual during installation for any specific component reassembly information not mentioned in the *REMOVAL* procedure in this bulletin.

CRANKSHAFT INSTALLATION

If the cylinder and piston/connecting rod are already installed, remove the spark plug, and then set the piston at top dead center.

Rotate the camshaft until the two alignment dots face the crankshaft bore hole in the crankcase.

Apply engine oil to the keyway in the crankshaft and timing gear projection, as well as the thrust washer.

Install the timing gear onto the crankshaft and ensure the projection on the timing gear is fully seated into the keyway in the crankshaft.

Place the thrust washer into position in the crankcase.

Carefully install the crankshaft and timing gear into the crankcase while aligning the two dots on the timing gear and the two dots on the camshaft.

Be sure that the crankshaft is fully seated against the timing gear, and that the two dots on the camshaft still line up with the two dots on the timing gear.

Rotate the crankshaft two revolutions and confirm the alignment dots on the camshaft and timing gear are still aligned.

CAM TIMING INSPECTION

Be sure the camshaft projection is completely inserted into the crankshaft keyway and fully seated.

With the spark plug removed, rotate the crankshaft until the two dots on the timing gear and the two dots on the camshaft align with each other.

If the dots align, the cam timing is set properly.

If the dots never align, the cam timing is incorrectly set.

To correct the cam timing, remove the crankshaft and timing gear from the crankcase, and then follow the *CRANKSHAFT INSTALLATION* procedure shown above.

IGNITION COIL AIR GAP ADJUSTMENT

Attach the ignition coil and leave the bolts slightly loose.

Insert a long 0.3 mm thick feeler gauge between the ignition coil and the flywheel and push the coil firmly against the gauge while tightening the bolts. Confirm the gap is within spec.

- Avoid the magnet
- Both gaps should be adjusted simultaneously

IGNITION COIL	0.30 ~ 0.50 mm
AIR GAP	(0.012 ~ 0.020 in)







VALVE CLEARANCE

Valve clearance inspection and adjustment must be performed with the engine cold.

CHECK

- Set the engine to top dead center (TDC) of the compression stroke (both valves fully closed). Rotate the flywheel clockwise until the magnet inside the flywheel faces the direction of the cylinder head. This will position the engine at TDC of either the compression or exhaust stroke. Rotate 360 degrees if necessary. If it is hard to rotate the flywheel, remove the spark plug.
- Insert a feeler gauge between the valve adjusting screw and valve stem to measure the valve clearance.
 VALVE CLEARANCE:
 IN: 0.10 ± 0.02 mm (0.004 ± 0.001 in)
 EX: 0.10 ± 0.02 mm (0.004 ± 0.001 in)

If adjustment is necessary, proceed as follows.

ADJUSTMENT

1. Hold the valve adjusting screw using the special tool and loosen the valve adjusting screw lock nut.

TOOL: Valve adjusting wrench, 3 mm 07908-KE90200

- 2. Turn the adjusting screw to obtain the specified clearance.
- **3.** Hold the valve adjusting screw and retighten the valve adjusting lock nut to the specified torque.

TORQUE:

Valve adjusting lock nut: 8 N•m (5.9 ft-lb)

- **4.** Recheck the valve clearance, and if necessary, readjust the clearance.
- **5.** Inspect the cylinder head cover for flatness, and replace it if it is warped. Refer to the *WARRANTY INFORMATION* section for instructions to file a separate *parts only* claim for the head cover and any other parts not shown in the *PARTS INFORMATION* section (P. 16).

Apply Hondabond HT (or equivalent) to the cylinder head cover installation surface.

TORQUE:

Cylinder head cover bolt: 12 N•m (9 ft-lb)



FLYWHEEL INSTALLATION

Make sure the flywheel taper is free of dirt, oil, grease and other foreign material before installation.

Also, make sure there is no foreign material on the magnets.

- **1.** Be sure the woodruff key is set in the keyway properly.
- 2. Install the flywheel.
- **3.** Apply engine oil to the flywheel nut threads.
- **4.** Holding the flywheel with the flywheel holder special tool or a commercially available strap wrench, tighten the 14 mm special nut to the specified torque.

TOOLS: FLYWHEEL HOLDER	07APB-Z28A101
TORQUE:	
PK/VK/VL types:	55 N•m (41 ft-lb)
VY/GCV170/GCV200 type:	75 N•m (55 ft-lb)



- **5.** *PK/VK/VL types only:* Remove the strap or equivalent material used to hold the flywheel brake lever.
- 6. Install the ignition coil.
- 7. Install the fan cover and top cover.
- **8.** *PK/VK/VL types only:* Check the operation of the flywheel brake.

FINAL CHECK

1. Refill the engine with SAE 10W-30 oil to the upper limit mark on the dipstick. Check the oil level with the engine on a level surface, and the dipstick fully inserted but not screwed in.

Engine oil	0.40 L (13.5 oz)
capacity	0.40 E (13.3 02)

- 2. Be sure the fuel cap is installed and tightened until it clicks.
- **3.** Check for proper operation.
 - **a.** Pull the recoil starter grip and check for abnormal recoil resistance.
 - **b.** Start the engine and check for proper operation.
 - **c.** For lawn mower applications, make sure the blade control system works properly.
- **4.** After the unit is completely repaired and proper operation has been confirmed, make a punch mark on the serial number plate on the aluminum crankcase. Place the punch mark in the metal to the left of the "G" in the engine's serial number prefix, as shown.





ENGINE #56 LAWN MOWER #115 SEPTEMBER 2023 PARTS INFORMATION

Order parts using your normal parts ordering procedures.

Description	Qty.	Part Number
Camshaft Assy., GCV170, HRN216	1	14100-Z9L-000
Camshaft Assy., GCV200, HRX217	1	14100-Z9M-000

WARRANTY INFORMATION

Duration

This Safety and Emissions Recall will be in effect until all affected units have been repaired according to this Service Bulletin.

Serial Number Information

Refer to the frame or engine serial number lists beginning on page 1 for the individual units affected by this recall.

Processing

Template warranty claim submission requirements apply. After completing the Service Bulletin repair procedure, submit one warranty claim per unit with the following information:

in Users:				
Template Number:	KP4A	KP4B	KP4C	KP4D
	(HRX217)	(HRN216)	(GCV170)	(GCV200)

A Template Number includes only those parts shown in the *Parts Information* section of this bulletin for that repair. If any additional parts are required, such as the cylinder head cover, submit a normal warranty claim for *Parts Only* using Labor Operations Number "000001."

All others:	Repair
Defect Code:	7FE
Labor Operation Number:	1111DQ: HRX mower, GCV200 engine 1111DS: HRN mower, GCV170 engine
Flat Rate Time:	2.2 hr: HRX217, GCV200 2.4 hr: HRN216, GCV170
Failed Part:	14100-Z9M-000 (HRX217, GCV200) 14100-Z9L-000 (HRN216, GCV170)

October 2023

SAFETY RECALL NOTICE GCV170 • GCV200 General Purpose Engines HRN216 • HRX217 Lawn Mowers

Dear Honda Power Equipment Customer,

With notification to the U.S. Consumer Product Safety Commission, American Honda Motor Co., Inc. is conducting a voluntary safety recall of certain Honda GCV170 and GCV200 general purpose engines and HRN216 and HRX217 lawn mowers.

What is the problem?

Due to a manufacturing defect, the camshaft decompressor mechanism in the engine can malfunction, resulting in excessive force required to pull the recoil starter rope during engine starting.

Due to the resulting high compression within the engine, some users may experience a kickback of the recoil starter grip, increasing the risk of injury. For units equipped with an electric starter, the starter motor may not be able to successfully start the engine.

Affected Units

Refer to the frame or engine serial number lists on page 2 for the individual units affected by this recall.

What should you do?

You will need to check your Honda product's serial number to determine if it is within the affected serial number range. If the serial number on your product is within the affected ranges, stop using your product until it has been repaired by an authorized Honda dealer. Please contact a Honda Power Equipment service dealer to make an appointment to have it repaired. Replacement of the camshaft will be performed free of charge. Transportation of your product to the dealer is the responsibility of the owner. Refer to your Owner's Manual for safe loading, unloading, and transporting of your product.

Who to contact if you have questions or experience problems.

If you need assistance locating a Honda Power Equipment service dealer, please visit our website: *PowerEquipment.Honda.com* or call our toll free recall line (888) 888-3139. If you have any questions on this recall or are not satisfied with the service you receive from your Honda dealer, you may call or write to:

For your convenience, this information is also posted on our website: *powerequipment.honda.com*, under Recalls and Updates.

What to do if you feel this notice is in error.

This notice was mailed to you according to the most current information available. If you no longer own this Honda product or some information in this notice is incorrect, please contact us at (888) 888-3139. Please have your serial number available and the complete address of the person who purchased your product, if the unit was sold. This will allow us to update our records.

It is our goal to provide you with the highest quality products and the best after-sale service. We thank you for your purchase of a Honda product and apologize for any inconvenience this situation may cause.

Sincerely, American Honda Motor Co., Inc. Power Sports and Products Division

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American Honda Motor Co., Inc. Customer Relations Department 4900 Marconi Drive Alpharetta, GA 30005 (888) 888-3139 (9:00 am to 7:30 pm EST)



Page 2

Affected HRN216 and HRX217 Lawn Mowers

Many lawn mowers within the serial number ranges below are NOT affected.

You **must** confirm your mower is affected by either visiting powerequipment.honda.com/lawnmower-recall and then entering your unit's frame serial number, contacting your local authorized Honda servicing dealer, or calling the toll free Honda recall line at (888) 888-3139.

Model	Serial Number Range
HRN216	MANA-2084904 ~ 2548569
HRX217	MAMA-1484182 ~ 1734418

Affected GCV170 and GCV200 Engines

The following GCV170 and GCV200 engine serial numbers or serial numbers within the specified ranges are affected by this recall.

Model	Serial Number or Serial Number Range
GCV170	GJAUA-2204245
	GJAUA-2205384
	GJAUA-2224541
	GJAUA-2225976
	GJAUA-2225991
	GJAUA-2230290 ~ GJAUA-2230292
	GJAUA-2230295 ~ GJAUA-2230306
	GJAUA-2230309
	GJAUA-2230322
	GJAUA-2230325 ~ GJAUA-2232155
	GJAUA-2283472 ~ GJAUA-2295191
	GJAUA-2303265 ~ GJAUA-2311796
GCV200	GJAVA-1649726 ~ GJAVA-1649727
	GJAVA-1651285
	GJAVA-1652575
	GJAVA-1652728 ~ GJAVA-1653140
	GJAVA-1703049 ~ GJAVA-1729184
	GJAVA-1732113 ~ GJAVA-1732122

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