

Service Bulletin

19-038

April 5, 2019 Version 1

Warranty Extension: 2016-18 Civic 1.5L: DTC P0300, P0301, P0302, P0303, P0304, or P0172; Whirling Noise from Engine

AFFECTED VEHICLES

Year	Model	Trim	VIN Range
2016-18	Civic	ALL with 1.5L Engine	Check the iN VIN status for eligibility.

BACKGROUND

Under certain circumstances, the vehicle may experience driveability issues, which may result in DTCs P0300 (random misfire detected), P0301 (No. 1 cylinder misfire detected), P0302 (No. 2 cylinder misfire detected), P0303 (No. 3 cylinder misfire detected), P0304 (No. 4 cylinder misfire detected), or P0172 (fuel system too rich) or a whirling noise coming from the engine compartment.

NOTE

Check the VIN of the vehicle to see if S/B 18-137 applies. If it applies and the repair has not been completed, complete the appropriate repair under S/B 18-137 before continuing.

To increase customer confidence, American Honda is extending the powertrain warranty on the camshafts, rocker arm assemblies, and spark plugs from the original 5 years or 60,000 miles to 6 years with unlimited mileage from the original sale date.

This warranty extension will not apply to any vehicle that has ever been declared a total loss or sold for salvage by a financial institution or insurer, or has a branded or similar title under any state's law. This does not affect emission warranties.

POSSIBLE CAUSE

Based on certain driving patterns and environmental factors, the DTC's stated above may set or whirling noise may occur.

CORRECTIVE ACTION

If S/B 18-137 applies to this vehicle, complete the repairs under that bulletin first. If S/B 18-137 applies, the applicable repair was completed, and misfire (P0300, P0301, P0302, P0303, P0304) or fuel system too rich (P0172) DTCs were set after the earlier repair was completed, do REPAIR PROCEDURE A. If there is a whirling noise coming from the engine compartment, do REPAIR PROCEDURE B.

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

WARRANTY CLAIM INFORMATION

NOTE

• DTC is required with claim submission.

NOTE

Use the following template if the **spark plugs** were replaced.

Operation Number	Description	Flat Rate Time	Defect Code	Symptom Code	Template ID	Failed Part Number
1175A3	Spark plugs (All except Si). (Inspection only) (Admin Included)	0.3 hr	6D800	E4C00	A19038A	12290-5PA-A01
Operation Number	Description	Flat Rate Time	Defect Code	Symptom Code	Template ID	Failed Part Number
1175A3	Spark plugs (Si only). (Inspection only) (Admin Included)	0.3 hr	6D800	E4C00	A19038B	12290-5PA-A01
Operation Number	Description	Flat Rate Time	Defect Code	Symptom Code	Template ID	Failed Part Number
1175A3	Spark plugs (All except Si). (Inspect and replace) (Admin Included)	0.3 hr	6D800	E4C00	A19038C	12290-5PA-A01
Operation Number	Description	Flat Rate Time	Defect Code	Symptom Code	Template ID	Failed Part Number
1175A3	Spark plugs (Si only). (Inspect and replace) (Admin Included)	0.3 hr	6D800	E4C00	A19038D	12290-5PA-A01

NOTE

Use the following template if the **camshafts** were only inspected.

Operation Number	Description	Flat Rate Time	Defect Code	Symptom Code	Template ID	Failed Part Number
1105C1	Remove valve cover and inspect camshafts. (No replacement required.)	0.7 hr	6D800	E4C00	A19038E	37805-5PA-A85

NOTE

Use the following template if the **camshafts** and **rocker arm assembly** were replaced.

Civic (2-Door, 4-Door) (All Except Si)

Operation Number	Description	Flat Rate Time	Defect Code	Symptom Code	Template ID	Failed Part Number
1105C1	Remove valve cover and inspect camshafts.	0.7 hr	6D800	E4C00	A19038F	37805-5PA-A85
A	Replace camshafts and rocker arm assembly. (Pre-approval needed, see iN parts catalog for ordering.)	4.9 hr				

Civic Si (2-Door, 4-Door)

Operation Number	Description	Flat Rate Time	Defect Code	Symptom Code	Template ID	Failed Part Number
1105C1	Remove valve cover and inspect camshafts.	0.7 hr	6D800	E4C00	A19038H	37805-5PA-A85
A	Replace camshafts and rocker arm assembly. (Pre-approval needed, see iN parts catalog for ordering.)	4.9 hr				

Civic Hatchback (5-Door)

Operation Number	Description	Flat Rate Time	Defect Code	Symptom Code	Template ID	Failed Part Number
1105C1	Remove valve cover and inspect camshafts.	0.7 hr	6D800	E4C00	A19038J	37805-5PA-A85
A	Replace camshafts and rocker arm assembly. (Pre-approval needed, see iN parts catalog for ordering.)	4.9 hr				

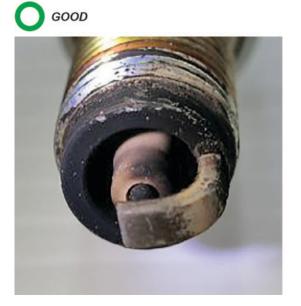
Skill Level: Repair Technician

PARTS INFORMATION

Part Name	Part Number	Quantity
Spark Plug (All except Si)	12290-59B-003	4
Spark Plug (Si only)	12290-5PA-A01	4

REPAIR PROCEDURE A

1. In some cases, the misfire DTCs may return. If this happens, inspect the spark plugs.





- If the spark plugs are OK, the procedure is complete. Continue with normal troubleshooting.
- If the spark plugs are fouled, go to step 2.
- 2. Replace the spark plugs per service information and check for stored DTCs.

NOTE

Make sure to write down the stored DTCs on the R.O.

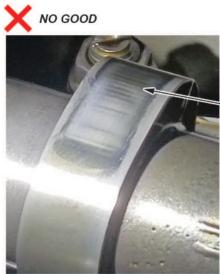
- If the applicable DTCs do not return, the procedure is complete.
- If the applicable DTCs return, this bulletin does not apply. Continue with normal troubleshooting.

REPAIR PROCEDURE B

If there is a whirling noise coming from the engine, follow the procedure below.

- 1. Warm up the engine by increasing the engine speed to **3,000 rpm** for two fan cycles.
- 2. After the warm-up procedure is completed, let the car return to idle for **10 seconds**.
- 3. After 10 seconds, slowly increase the engine speed up to 3500 rpm (this should take at least 20 seconds).
- 4. Once the engine speed reaches 3500 rpm, release the accelerator pedal and let the engine speed return to idle.
- 5. With the hood closed and inside the cabin, compare the audio file here to the noise heard.
 - If the noise is similar, continue to step 6.
 - If the noise is not similar, this bulletin does not apply. Continue with normal system troubleshooting.
- 6. Remove the cylinder head cover. See service information for additional instructions.
- 7. Compare the appearance of the camshaft lobes to the photo below.





The cam surface has ridges and a "cloudy" appearance.

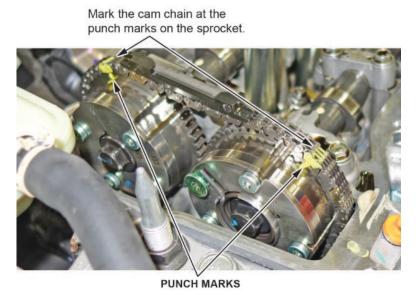
- If the camshafts appear similar to the no good photo, go to step 8.
- If the camshafts appear similar to the good photo, this bulletin does not apply. Continue with normal system troubleshooting.
- 8. Take a photo of the cam lobe, then follow the directions in the parts catalog when ordering the necessary parts.

NOTE

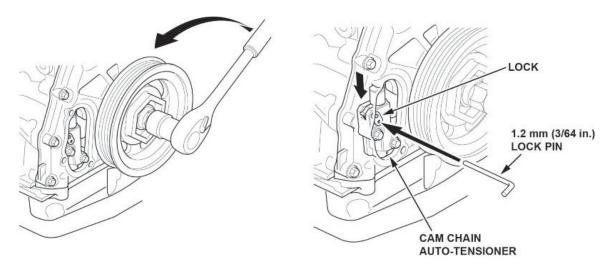
Please send photos of failed camshafts to PART_RELEASE@AHM.HONDA.COM to receive approval and release parts.

The following instructions are for replacement of the intake and exhaust camshafts and all rocker arm assemblies. This is only if you have been approved by following the instructions in the parts catalog.

- 1. Relieve the fuel pressure and remove the high pressure fuel pump. Refer to the service information for additional instructions.
- 2. Set the crankshaft to top dead center (TDC) for No. 1 cylinder. Refer to step 4 of the Camshaft Timing Inspection in the service information.
- 3. Mark the timing chain at the punch marks on the exhaust and intake camshaft sprocket and VTC actuator as seen below.

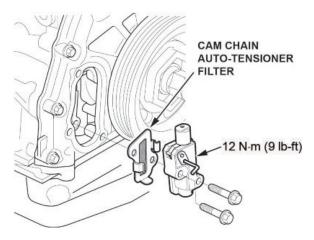


- 4. Raise the vehicle on a lift.
- 5. Remove the right front wheel and the engine undercover.
- 6. Remove the cam chain auto-tensioner (chain case) cover.
- 7. Slightly rotate the crankshaft counterclockwise to compress the auto-tensioner. Line up the hole in the lock and auto-tensioner, then insert a 1.2 mm diameter lock pin.

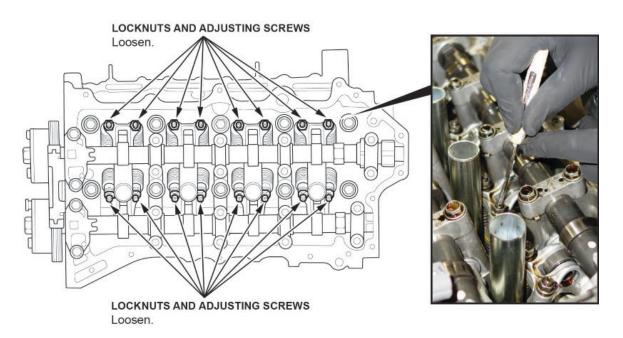


8. Rotate the crankshaft clockwise back to TDC on the No. 1 cylinder to secure the lock pin in place.

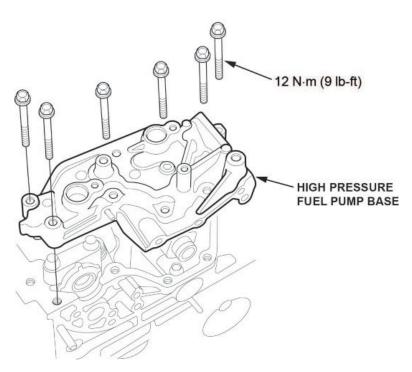
9. Remove the camshaft chain auto-tensioner with the lock pin inserted.



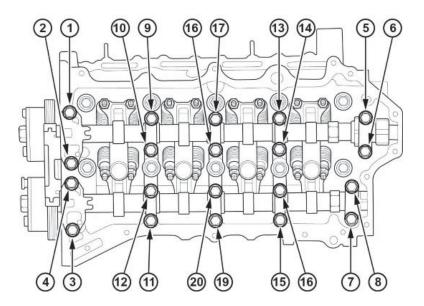
- 10. Lower the vehicle.
- 11. Loosen the locknuts and adjusting screws.



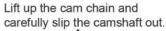
12. Remove the high pressure fuel pump base.



13. Remove the camshaft holder bolts, then remove the camshaft holders. To prevent damaging the camshafts, loosen the bolts in sequence, two turns at a time.

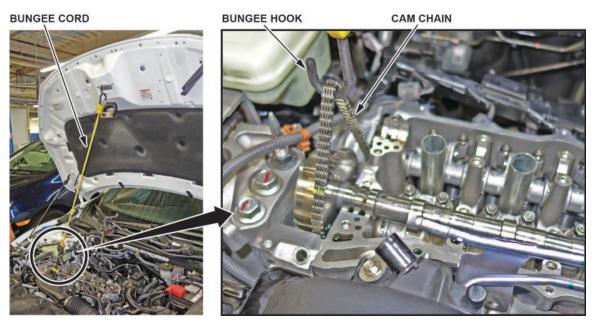


14. Lift up the cam chain, then carefully remove the intake camshaft followed by the exhaust camshaft. You must maintain tension on the cam chain while you do this.



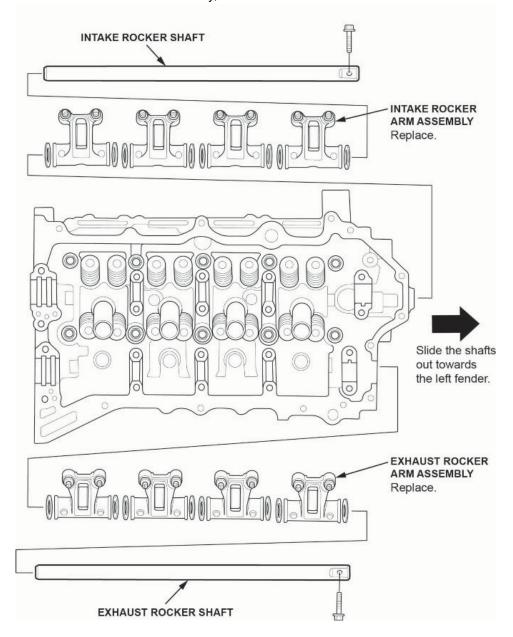


15. Use a bungee cord to hold tension on the cam chain while you are replacing the camshafts.



16. When removing the camshaft holders, cam chain guide, and intake and exhaust camshaft, make sure to place them in order of installation on a clean, padded workbench.

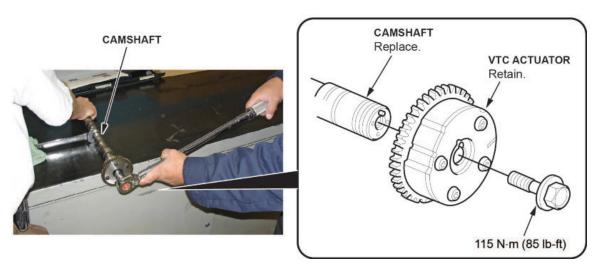
17. Remove the rocker arm assembly, and install the new set. Refer to the service information for additional instructions.



- 18. With the camshafts out of the engine, hold them with an open-end wrench and loosen the VTC actuator mounting bolts on both camshafts.
- 19. Install the VTC actuators on the new camshafts.

NOTE

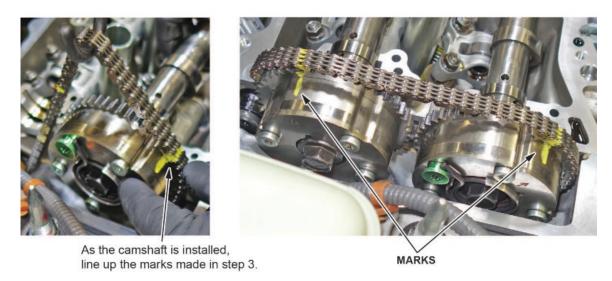
You may need an assistant to help you with this procedure.



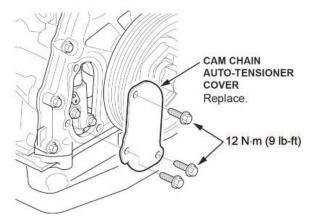
20. Apply fresh engine oil to the new camshafts, and install.



21. When installing the new camshafts, ensure the previously made marks on the VTC actuator and cam chain line up.

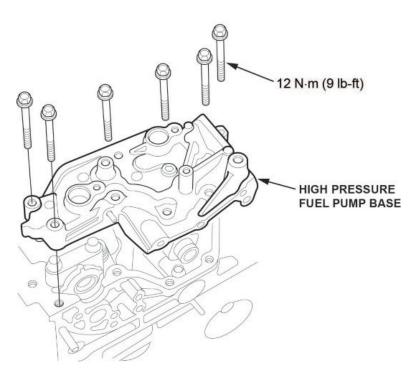


- 22. Install the camshaft holders and the cam chain guide, then torque them to specification.
- 23. Install the camshaft chain tensioner and release the lock pin.
- 24. Install the new cam chain auto-tensioner (chain case) cover.



- 25. To check the camshaft timing, rotate the crankshaft in the direction of engine rotation (clockwise) two full turns, then stop at the TDC mark. Refer to step 4 of the Camshaft Timing Inspection in the service information.
- 26. Do a valve adjustment.

27. Install the high pressure fuel pump base and new camshaft holder cover. Refer to step 6 of the installation section of the Camshaft and VTC Actuator Removal, Installation, and Inspection (1.5L Engine) in the service information.



- 28. Install the cylinder head cover. Refer to the service information for additional instructions.
- 29. Install the high pressure fuel pump with the new o-ring and fuel joint pipe. Refer to the service information for additional information.
- 30. Install the engine undercover and any other remaining parts.
- 31. During the first start up, check for DTCs set or abnormal noises. Refer to service information for additional instructions.
- 32. Reset the throttle position learned values by referencing the throttle body removal and installation in the service information, then do the PCM idle learn procedure. Refer to service information for additional instructions.

NOTE

For more information on the PCM idle learn procedure, see the Tech2Tech® video, "A Look at PCM Idle Learn".

END