May 19, 2018

2017 Ridgeline: Judder from the Torque Converter Lock-Up Clutch After Software Update (Snapshot Required)

Supersedes 17-026, dated April 13, 2017, to revise the information highlighted in yellow

AFFECTED VEHICLES

Year Model		Trim	VIN Range	
2017	Ridgeline	ALL	ALL	

REVISION SUMMARY

(Snapshot Required) was added to the title.

HONDA

BACKGROUND

A judder from the torque converter lock-up clutch may be felt while driving between 20 and 60 mph. The problem is typically diagnosed as a bad torque converter. American Honda investigated the judder and found that the torque converter was not causing the judder and the transmission is not damaged by this judder.

The judder is caused by deteriorated transmission fluid. The transmission fluid deteriorates quicker than expected when it is exposed to intermittent high heat loads under specific driving conditions. A software update is available to maintain the transmission fluid temperature within the desirable range under all driving conditions and eliminate the potential for this judder.

There are two bulletins referring to this subject:

- 17-025 2017 Ridgeline: Judder from the Torque Converter Lock-Up Clutch. Do this bulletin first to apply the software and flush the transmission as indicated in the REPAIR PROCEDURE.
- 17-026 2017 Ridgeline: Judder from the Torque Converter Lock-Up Clutch After Software Update. Some vehicles based on how they are driven may still experience ATF deterioration after updating the PGM-FI or A/T system. In these cases, do the inspection and, if necessary, flush the transmission as indicated in the REPAIR PROCEDURE.

CORRECTIVE ACTION

Do the INSPECTION PROCEDURE, and check if the software has been updated. If the software is updated, take an automatic transmission snapshot, review the data and confirm that the judder is coming from the torque converter. Then, forward the snap shot to Tech Line. If the snapshot indicates the judder is coming from the torque converter, flush the transmission three times as indicated in the REPAIR PROCEDURE.

PARTS INFORMATION

Part Name	Part Number	Quantity
Drain Plug Washer (18 mm)	90471-PX4-000	1
ATF Fill Sealing Washer (24 mm)	11107-PWA-300	1

REQUIRED MATERIALS

Part Name	Part Number	Quantity
Honda ATF DW-1	08200-9008	10

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

The warranty is 8 years or 80,000 miles, whichever comes first.

Operation Number	Description	Flat Rate Time	Defect Code	Symptom Code	Template ID	Failed Part Number	
2180A5	Flush the ATF three times. Includes the test drives.	1.4 hrs	01102	03505	17-026A	37805-5MJ-A550	

INSPECTION PROCEDURE

1. Connect the i-HDS, and go to the A/T Data List. Check to see if the software has been updated by comparing the program P/N against the table below.

Signal							
	Value	Unit		4R CANEAT VSP	- 1		
/ehicle Speed					8		
Output Shaft (Counte		MPH		PARAMETER SPECIFICATION			
nput Shaft (Mainsha	-	MPH					
ingine Speed	-	RPM					
Output Shaft (Counte	*	RPM		Vehicle Speed			
nput Shaft (Mainsha	-	RPM		(km/h) (MPH)			
Relative TP Sensor		96		Value Count information for some union on the Output Chaft (Countershell) around			
P Sensor 1	-	V		Vehicle Speed indicates the same value as the Output Shaft (Countershaft) speed.			
P Sensor 2	-	V					
APP Sensor (%)	-	%					
APP Sensor A (V)	-	v					
APP Sensor B (V)	-	V					
CT Sensor (V)	-	V			18		
ingine Coolant Temp	-	°F			1.8		
AP Sensor (V)		v					
fanifold Absolute Pr	-	kPa					
ARO Sensor (V)	-	v					
Atmospheric Pressure	-	kPa					
TF Temp Sensor (V)	-	V					
ATF Temperature		٥F					
attery Voltage		V	. *				

• If the program P/N is listed below (or later), the vehicle has been updated. Go to step 2.

37805-5MJ-A050	37805-5MJ-A550	37805-5MJ-A750
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- If the program P/N is not listed, the vehicle has not been updated. Go to service bulletin 17-025 2017 Ridgeline: Judder from the Torque Converter Lock-Up Clutch After Software Update.
- 2. Take an automatic transmission snapshot and forward it to Tech Line using the RO number. For more information about capturing and interpreting the data, refer to the job aid *Torque Converter Clutch Shudder and Vibration* and the *Tech2Tech*® video "Interpreting Torque Converter Judder Snapshot Data".
 - If the snapshot indicates there is a judder, go to REPAIR PROCEDURE.
 - If the snapshot does not indicate a judder, this bulletin does not apply. Continue with normal troubleshooting. NOTE: You do not need to contact Tech Line after sending the snapshot. However, if you do not send a snapshot, your claim may be subject to debit.

REPAIR PROCEDURE

NOTE: The term "flushing" refers to repeatedly draining and filling the transmission with Honda Genuine ATF-DW1. Other aftermarket flush systems are available, but American Honda strongly recommends that you avoid using them on any Honda vehicles.

- 1. Start the engine. Hold the engine speed at 3,000 rpm without load (in Park or Neutral) until the radiator fan comes on, then let it idle.
- 2. Position the vehicle on a lift and turn off the engine.
- 3. Remove the ATF filler bolt and sealing washer.
- 4. Raise the vehicle and make sure it is securely supported.
- 5. Remove the drain plug and drain the ATF.
- 6. Install the drain plug and original washer and torque it to 49 N·m (36 lb-ft).
- 7. Lower the vehicle and fill the transmission with **3.3 US qts (3.1 L)** of ATF-DW1 through the filler hole. NOTE: Do not use non-Honda ATF because it can affect shift quality.
- 8. Install the ATF filler bolt and original sealing washer and torque it to 44 N·m (32 lb-ft).
- 9. Check that the fluid is filled to the proper level.
- 10. Raise the vehicle and make sure it is securely supported.
- 11. Start the engine.
- 12. Press the VSA Off button.
- 13. Press the brake pedal and shift to Drive.
- 14. Release the brake pedal. Press the accelerator pedal and bring the speedometer up to 50 mph. Make sure the transmission shifts through the first three lower gears and into fourth gear and the torque converter is locking up.
- 15. Apply the brakes to stop the wheels.
- 16. Shift to Reverse, then Neutral.
- 17. Repeat the shifting procedure (steps 13 through 16) four more times.
- 18. Turn off the engine.
- 19. Repeat the above drain, fill, and shifting procedure (steps 3 through 18) one more time.
- 20. After the second refill and drive cycle, drain the transmission.
- 21. Install the drain bolt with a new washer and torque to 49 N·m (36 lb-ft).
- 22. Fill the transmission with 3.3 US qts (3.1 L) of ATF-DW1.

Automatic Transmission Fluid Capacity

AWD: 3.3 US qts (3.1 L) at change

2WD: 3.3 US qts (3.1 L) at change

NOTE: Do not use non-Honda ATF because it can affect shift quality.

- 23. Install the ATF filler bolt with a new sealing washer and torque the bolt to 44 N·m (32 lb-ft).
- 24. Confirm the judder is gone and clear any DTCs that were set while driving on the lift.
- 25. If the Maintenance Minder did not indicate the ATF needed replacement, reset the Maintenance Minder with the i-HDS. For more information about resetting individual maintenance items, refer to the service information. If the Maintenance Minder indicated the ATF needed replacement and a full service was done, reset the maintenance minder with the multi-information display.