

HONDA FIT CVT TRANSMISSION

NOISY OPERATION

COMPLAINT: The transmission is noisy during forward or reverse operation at 5 mph and above.

CAUSE: The tapered bearings on the pinion gear shaft have severe fatigue spalling from too much preload. This is not a lubrication related failure. See figure 1 and 2.

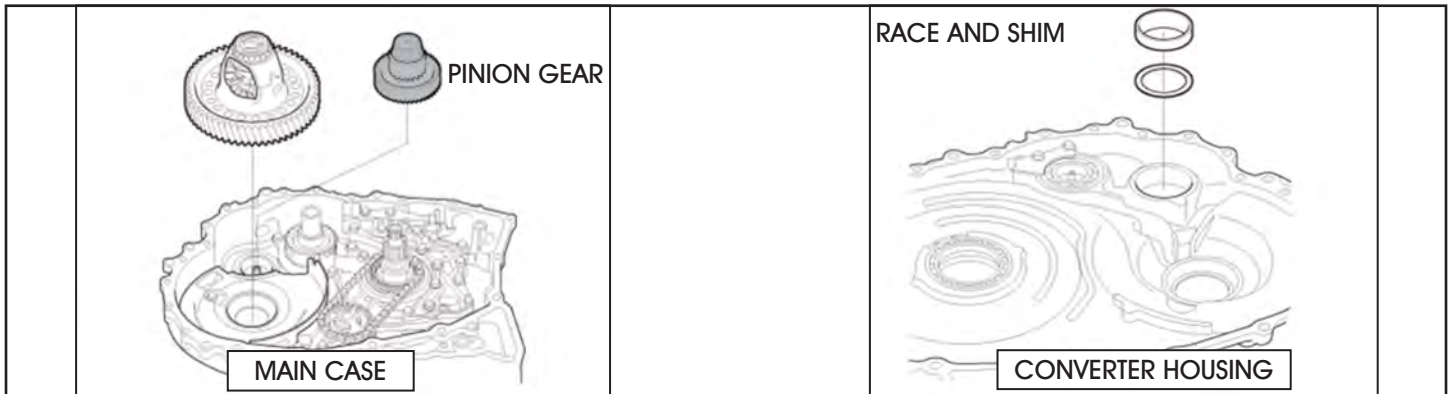
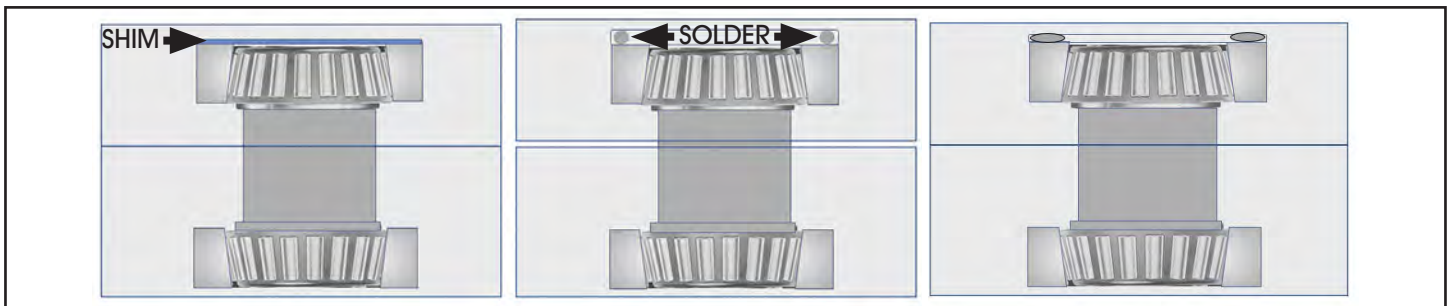
CORRECTION: This particular vehicle had 62K miles on the odometer on the first visit to the repair shop. The pinion shaft bearings were replaced and the car was delivered. The car returned within 2 months with the identical failure. It was clear that something was overlooked during the first repair. During the 2nd repair the preload on the pinion shaft tapered bearings was carefully inspected. It was determined that there was excessive preload or crush on the tapered bearings. Honda does not offer any set up specifications or tools for measuring the bearing preload or checking the rotational torque drag on the bearings. An alternate method was utilized to obtain the correct preload.

1. Remove the bearing race and shim. See figure 3. In place of the original shim insert a ring of solder that has the same outside diameter of the OE shim and choose a solder that slightly thicker than the original shim, then reinsert the race on top of the ring of solder. See examples in figure 4.
3. Bolt the two halves of the cases together and torque the bolts to the proper torque. Bolt torque is 21lb-ft or 29nm, this will crush the solder.
4. Unbolt the case halves, remove the race and the newly formed solder shim and measure the thickness of the crushed solder. The permanent shim that will be installed should be .002"-.004" or .050mm to .100mm thicker than the formed solder shim. This will establish the correct amount of preload on the tapered bearings. Honda offers several selective shims for this shaft assembly. See shim list in figure 5.



Figure 1

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Figure 2
Figure 3

Figure 4

90561-5T0-000	SHIM A 51MM X 1.375	90573-5T0-000	SHIM A 51MM X 1.675
90562-5T0-000	SHIM A 51MM X 1.400	90574-5T0-000	SHIM A 51MM X 1.700
90563-5T0-000	SHIM A 51MM X 1.425	90575-5T0-000	SHIM A 51MM X 1.725
90564-5T0-000	SHIM A 51MM X 1.450	90576-5T0-000	SHIM A 51MM X 1.750
90565-5T0-000	SHIM A 51MM X 1.475	90577-5T0-000	SHIM A 51MM X 1.775
90566-5T0-000	SHIM A 51MM X 1.500	90578-5T0-000	SHIM A 51MM X 1.800
90567-5T0-000	SHIM A 51MM X 1.525	90579-5T0-000	SHIM A 51MM X 1.825
90568-5T0-000	SHIM A 51MM X 1.550	90580-5T0-000	SHIM A 51MM X 1.850
90569-5T0-000	SHIM A 51MM X 1.575	90581-5T0-000	SHIM A 51MM X 1.875
90570-5T0-000	SHIM A 51MM X 1.600	90582-5T0-000	SHIM A 51MM X 1.900
90571-5T0-000	SHIM A 51MM X 1.625	90583-5T0-000	SHIM A 51MM X 1.925
90572-5T0-000	SHIM A 51MM X 1.650	90584-5T0-000	SHIM A 51MM X 1.950

Figure 5