



Subject: Engine Flywheel Housing Requirements and Fault Code 250 – Endurant HD and PACCAR Transmission

Document Number: TAIB-0878

Date: May 17, 2021

Updated: July 7, 2022

Issue Description:

Customers may experience Transmission Control Module (TCM) fault codes and transmission performance complaints after replacing the engine, engine flywheel housing, clutch, or transmission.

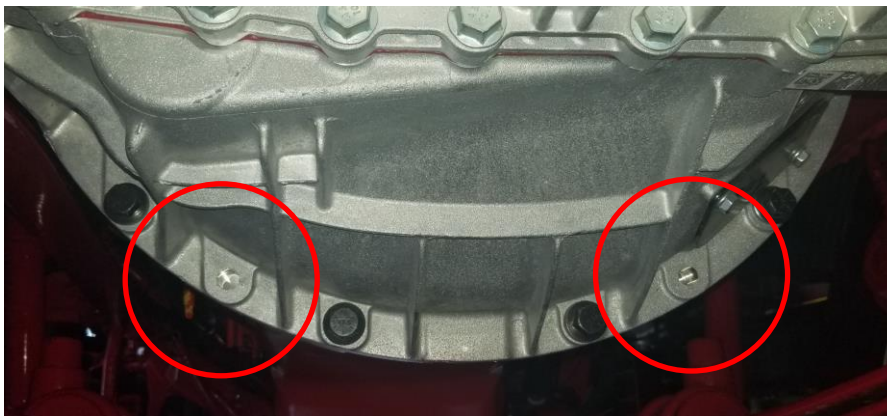
TCM may report fault codes:

Fault Code	SPN	FMI	Description
250	33	7	Linear Clutch Actuator Position
250	33	9	Linear Clutch Actuator Position

The Endurant Transmission requires a specific engine flywheel housing to ensure the correct Split Dimension. The Split Dimension is the distance from the engine flywheel machined surface to the engine flywheel housing where the transmission clutch housing attaches. See Cummins TSB190160

SAE J617 #1 flywheel housing minimum requirement (Transmission to Engine Flywheel Housing) is 12 fasteners. Endurant was launched with 16 fasteners (PACCAR Required 4 additional fasteners). Some customers (DTNA / VOLVO) may notice “Missing” fasteners. Cummins released an SAE Split difference flywheel housing (12 holes) while the Endurant clutch housing remained at 16 fastener hole capacity. The SAE for a #1 flywheel housing minimum requirement is 12 fasteners.

Not Required (Transmission housing has additional holes at 1, 5, 7, and 11 o'clock)

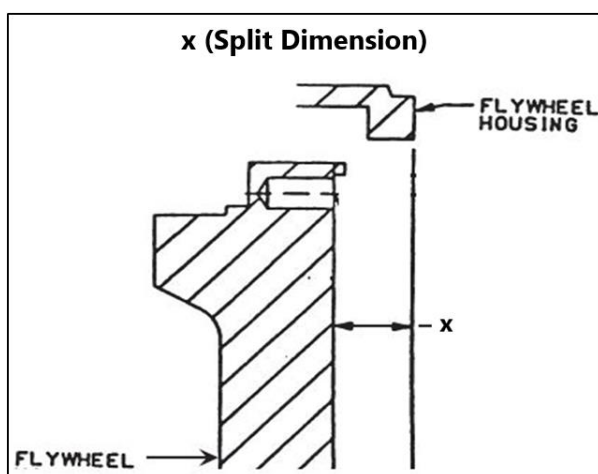


Affected Models/Population:

- Endurant HD Transmissions
- PACCAR Transmissions

Field Strategy:

1. If the engine or engine flywheel housing requires replacement, contact the OEM and/or engine manufacturer to identify the engine flywheel housing part number based on the transmission model.
2. To verify the correct engine flywheel housing is installed, measure the Split Dimension, and reference the chart below. See Cummins TSB190160.
3. Fault Code 250 may also be set if the incorrect clutch release bearing is installed. Reference TRSM0950 for release bearing dimensions.
4. Fault Code 250 may also be set if a replacement transmission has the incorrect input shaft dimension. Reference TRSM0950 for input shaft dimensions and service transmission identification.



Endurant and PACCAR Transmissions				
OEM	Engine	x (Split Dimension)		Details
		mm	in	
Navistar	A26	65.70-67.59	2.59-2.66	66.645mm (+/-0.9445)
Navistar	X15	65.70-67.59	2.59-2.66	
PACCAR*	MX13/15	65.70-67.59	2.59-2.66	
PACCAR	X15	65.70-67.59	2.59-2.66	
Volvo	X15	59.8	2.35	
DTNA	X15	59.8	2.35	
DTNA	DD13/15	56.63-59.17	2.23-2.33	57.9mm (+/-1.27)
UltraShift PLUS/Fuller Advantage Automated				
All	All	63.50	2.50	

Note: *PACCAR Transmission

Note: Reference TRSM0950 Endurant Service Manual for the latest Endurant HD Service Manual link and OEM specific service parts.

Warranty Information:

Informational only.

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