

2012 - Mazda6 - Transmission/ Transaxle

NO.20 NOISE OCCURS AT IDLE WHEN VEHICLE IS STOPPED IN ALL POSITIONS [FS5A-EL]

20	Noise occurs at idle when vehicle is stopped in all positions
DESCRIPTION	Transaxle is noisy in all positions when the vehicle is idling.
POSSIBLE CAUSE	NOTE: - The malfunction is in the oil pump which causes a high-pitched noise to be emitted from the transaxle at idle. - If a noise is emitted during shifting only, the malfunction is in shift solenoid D, E or shift solenoid A, B, C. If a noise is emitted during shifting at certain gears only or during deceleration only, it is gear noise. - Before following the troubleshooting steps, make sure that the Automatic Transaxle On-Board Diagnostic and Automatic Transaxle Basic Inspection are conducted.

Diagnostic procedure

STEP	INSPECTION	ACTION
1	INSPECT ENGINE CONTROL SYSTEM FOR MALFUNCTION - Inspect engine condition. - Is there any engine concern (i. e. rough idle)?	Yes Go to appropriate symptom troubleshooting. (See SYMPTOM DIAGNOSTIC INDEX [MZR 2.5] .)
		No Go to the next step.
2	INSPECT TRANSAXLE INTERNAL FOR MALFUNCTION Does the noise stop when the solenoid connector is disconnected?	Yes Go to the next step.
		No Overhaul the control valve body and repair or replace any malfunctioning parts. (See Automatic Transaxle Workshop Manual FS5A-EL.) If any problem remains, overhaul the transaxle and repair or replace any

		malfunctioning parts. (See Automatic Transaxle Workshop Manual FS5A-EL.)
3	INSPECT INPUT SIGNAL FOR MALFUNCTION - Inspect the value at the following PCM and TCM PIDs using the M-MDS. (See PCM INSPECTION [MZR 2.5].) (See ON-BOARD DIAGNOSTIC SYSTEM PID/ DATA MONITOR INSPECTION [FS5A-EL].) PCM PID: ▪ APP TCM PIDs: ▪ THOP ▪ OSS ▪ TSS - Are the PID values normal?	Yes Go to the next step. No Repair or replace any malfunctioning parts.
4	INSPECT TCM FOR POOR GND - Disconnect the TCM connector. - Is the resistance between the ground terminal at the TCM connector and the body ground less than 5.0 ohms?	Yes Go to the next step. No Repair the open ground circuit. Reconnect the TCM connector.
5	VERIFY IF MALFUNCTION CAUSE IS LINE PRESSURE CONTROL SIGNAL OR TRANSAXLE (INCLUDING CONTROL VALVE BODY) - Inspect the value at the following TCM PID using the M-MDS. (See ON-BOARD DIAGNOSTIC SYSTEM PID/ DATA MONITOR INSPECTION [FS5A-EL].) ▪ LPS - Is the LPS PID value normal?	Yes Overhaul the control valve body and repair or replace any malfunctioning parts. (See Automatic Transaxle Workshop Manual FS5A-EL.) If any problem remains, overhaul the transaxle and repair or replace any malfunctioning parts. (See Automatic Transaxle Workshop Manual FS5A-EL.) No Repair or replace any malfunctioning parts.
6	- Verify the test results. - If normal, return to the diagnostic index to service any additional symptoms.	

- If the malfunction remains, inspect the related Service Bulletins and/or On-line Repair Information and perform repair or diagnosis.
 - If the vehicle is repaired, troubleshooting is completed.
 - If the vehicle is not repaired or additional diagnostic information is not available, replace the TCM.

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