

2012 - Mazda6 - Transmission/ Transaxle

NO.23 TRANSAXLE OVERHEATS [FS5A-EL]

23	Transaxle overheats
DESCRIPTION	- Burnt smell emitted from transaxle. - Smoke emitted from transaxle.
POSSIBLE CAUSE	- The malfunction is restricted to the hindrance of coolant at the oil cooler. In addition, overheating of the transaxle may be caused by a malfunction of the TFT sensor. - Burnt (TCC) - Line pressure low - Control valve body malfunction - Oil cooler malfunction (Foreign material mixed in ATF) - TFT sensor malfunction - Excessive amount of ATF - Torque converter malfunction NOTE: - 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 OIL COOLER PIPE FOR MALFUNCTION - Inspect for bending, damage, corrosion or kinks of the oil cooler pipes. - Are oil cooler pipes normal?	YesGo to the next step.
		No Replace any malfunctioning parts.
2	INSPECT FOR TRANSAXLE SLIPPAGE MALFUNCTION Perform the stall test.	YesGo to the next step.

	(See MECHANICAL SYSTEM TEST [FS5A-EL].) Is the stall speed normal?	No	Repair or replace any malfunctioning parts.
3	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.
4	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.
5	- 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.		

2012 - Mazda6 - Transmission/ Transaxle

NO.23 TRANSAXLE OVERHEATS [FS5A-EL]

23	Transaxle overheats
DESCRIPTION	- Burnt smell emitted from transaxle. - Smoke emitted from transaxle.
POSSIBLE CAUSE	- The malfunction is restricted to the hindrance of coolant at the oil cooler. In addition, overheating of the transaxle may be caused by a malfunction of the TFT sensor. - Burnt (TCC) - Line pressure low - Control valve body malfunction - Oil cooler malfunction (Foreign material mixed in ATF) - TFT sensor malfunction - Excessive amount of ATF - Torque converter malfunction NOTE: - 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 OIL COOLER PIPE FOR MALFUNCTION - Inspect for bending, damage, corrosion or kinks of the oil cooler pipes. - Are oil cooler pipes normal?	YesGo to the next step.
		No Replace any malfunctioning parts.
2	INSPECT FOR TRANSAXLE SLIPPAGE MALFUNCTION Perform the stall test.	YesGo to the next step.

	(See MECHANICAL SYSTEM TEST [FS5A-EL].) Is the stall speed normal?	No	Repair or replace any malfunctioning parts.
3	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.
4	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.
5	- 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.		