DTC P253F:00 [SKYACTIV-D 2.2]

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DTC P253F: 00	Engine oil deteriorated
DETECTION CONDITION	• The amount of engine oil dilution **exceeds 2,236 g {78.87 oz}** during the diesel particulate filter regeneration control. • The amount of engine oil dilution exceeds the specified value (fluctuates by ambient temperature). • With the following driving conditions met, the engine oil pressure decreases **50 kPa {0.51 kgf/cm^2, 7.3 psi} or more** compared to when the engine oil was replaced: **MONITORING CONDITIONS** — Engine speed: **1,825—1,875 rpm** — Engine oil temperature: **88—92 °C {191—197 °F}** **Diagnostic support note** • This is a continuous monitor (other). • The check engine light does not illuminate. • FREEZE FRAME DATA (Mode 2)/Snapshot data is not available. • DTC is stored in the PCM memory.
FAIL-SAFE FUNCTION	Not applicable
POSSIBLE CAUSE	• Engine oil pressure sensor malfunction • Engine oil temperature sensor malfunction • Engine oil attenuation by frequently diesel particulate filter regeneration • Engine oil data reset procedure does not perform in each engine oil replacements. • Oil viscosity lowered due to engine oil deterioration • PCM malfunction
SYSTEM WIRING DIAGRAM	Not applicable

Diagnostic Procedure

STEP	INSPECTION		ACTION
1	**VERIFY FREEZE FRAME DATA (MODE 2)/ SNAPSHOT DATA HAS BEEN RECORDED** • Has the FREEZE FRAME DATA (Mode 2)/ snapshot data been recorded?	Yes	Go to the next step.
		No	Record the FREEZE FRAME DATA (Mode 2)/snapshot data on the repair order, then go to the next step.
2	**VERIFY RELATED SERVICE INFORMATION AVAILABILITY** • Verify related Service Information availability. • Is any related Service Information available?	Yes	Perform repair or diagnosis according to the available Service Information. • If the vehicle is not repaired, go to the next step.
		No	Go to the next step.
3	**INSPECT ENGINE OIL PRESSURE SENSOR** • Inspect the engine oil pressure sensor. (See ENGINE OIL PRESSURE SENSOR INSPECTION [SKYACTIV-D 2.2].) • Is there any malfunction?	Yes	Replace the engine oil temperature sensor/engine oil pressure sensor, then go to Step 6. (See ENGINE OIL TEMPERATURE SENSOR/ENGINE OIL PRESSURE SENSOR REMOVAL/INSTALLATION [SKYACTIV-D 2.2].)
		No	Go to the next step.
4	**INSPECT ENGINE OIL TEMPERATURE SENSOR** • Inspect the engine oil temperature sensor. (See ENGINE OIL TEMPERATURE SENSOR INSPECTION [SKYACTIV-D 2.2].) • Is there any malfunction?	Yes	Replace the engine oil temperature sensor/engine oil pressure sensor, then go to Step 6. (See ENGINE OIL TEMPERATURE SENSOR/ENGINE OIL PRESSURE SENSOR REMOVAL/INSTALLATION [SKYACTIV-D 2.2].)
		No	Go to the next step.
5	**REPLACE ENGINE OIL** • Replace the specified engine oil. (See ENGINE OIL REPLACEMENT [SKYACTIV-D 2.2].)	—	Perform the “ENGINE OIL DATA RESET”, then go to the next step. (See ENGINE OIL DATA RESET [SKYACTIV-D 2.2].)

STEP	INSPECTION		ACTION
6	**VERIFY DTC TROUBLESHOOTING COMPLETED** • Always reconnect all disconnected connectors. • Clear the DTC from the PCM memory using the M-MDS. (See AFTER REPAIR PROCEDURE [SKYACTIV-D 2.2].) • Start the engine and warm it up completely. **Caution** **• While performing this step, always operate the vehicle in a safe and lawful manner.** **• When the M-MDS is used to observe monitor system status while driving, be sure to have another technician with you, or record the data in the M-MDS using the PID/DATA MONITOR AND RECORD capturing function and inspect later.** • Drive the vehicle under the FREEZE FRAME DATA (Mode 2)/snapshot data condition. • Perform the DTC Reading Procedure. (See ON-BOARD DIAGNOSTIC TEST [SKYACTIV-D 2.2].) • Is the same DTC present?	Yes	Repeat the inspection from Step 1. • If the malfunction recurs, replace the PCM. (See PCM REMOVAL/INSTALLATION [SKYACTIV-D 2.2].) Go to the next step.
		No	Go to the next step.
7	**VERIFY AFTER REPAIR PROCEDURE** • Perform the “AFTER REPAIR PROCEDURE”. (See AFTER REPAIR PROCEDURE [SKYACTIV-D 2.2].) • Are any DTCs present?	Yes	Go to the applicable DTC inspection. (See DTC TABLE [SKYACTIV-D 2.2].)
		No	DTC troubleshooting completed.