

# MIL "ON" DTC P030# and/or Intermittently Runs Rough

Service

Category Engine/Hybrid System

Section Engine Control Market USA



## **Applicability**

| YEAR(S)     | MODEL(S) | ADDITIONAL INFORMATION |
|-------------|----------|------------------------|
| 2006 – 2010 | IS250    |                        |

### Introduction

Some 2006 – 2010 model year IS 250 vehicles may exhibit one or more of the following conditions:

- MIL "ON" DTC P0300, P0301, P0302, P0303, P0304, P0305, and/or P0306.
- Runs rough after coming to a stop with the engine at operating temperature.
- Runs rough with engine misfires present after a cold soak startup.

Follow the procedures in this bulletin to address these conditions.

### **Production Change Information**

This TSIB applies to vehicles produced **BEFORE** the Production Change Effective VINs shown below.

| MODEL  | PLANT  | DRIVETRAIN | PRODUCTION CHANGE EFFECTIVE VIN |
|--------|--------|------------|---------------------------------|
| IS 250 | Tahara | 2WD        | JTHBF5C2#A5111618               |
|        | lanaia | 4WD        | JTHCF5C2#A5038287               |
|        | ТМК    | 2WD        | JTHBF5C2#A2095102               |
|        |        | 4WD        | JTHCF5C2#A2032832               |

### **Warranty Information**

| OP CODE | DESCRIPTION              | TIME | OFP         | T1 | T2 |
|---------|--------------------------|------|-------------|----|----|
| EG1007  | Perform Top Engine Clean | 3.5  | 13301-310## | 8A | 99 |

### APPLICABLE WARRANTY

- This repair is covered under the Lexus Powertrain Warranty. This warranty is in effect for 72 months or 70,000 miles, whichever occurs first, from the vehicle's in-service date.
- Warranty application is limited to occurrence of the specified condition described in this bulletin.



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### **Parts Information**

| DRIVETRAIN | PREVIOUS<br>PART NUMBER | CURRENT<br>PART NUMBER | PART NAME                                    | QTY |
|------------|-------------------------|------------------------|--|-----|
| -          | 17176-31050             | Same                   | Gasket, Air Surge Tank to Intake<br>Manifold | 3   |
| 2WD        | 04152-YZZA3             | Same                   | Element Kit, Oil Filter                      | 1   |
| 4WD        | 04152-YZZA2             | 04152-YZZA5            | Element Kit, Oli Filler                      | 1   |

# **Required Tools & Equipment**

| REQUIRED EQUIPMENT   | SUPPLIER | PART NUMBER                 | QTY |
|--|----------|-----------------------------|-----|
| TIS Techstream* or Techstream Lite NOTE: Software version 5.00.028 or later is required. | ADE      | TSPKG1<br>or<br>TSLITEDLR01 | 1   |

## **NOTE**

Additional TIS Techstream or Techstream Lite units may be ordered by calling Approved Dealer Equipment (ADE) at 1-800-368-6787.

| SPECIAL SERVICE TOOLS (SST'S) | PART NUMBER    | QTY |
|-------------------------------|----------------|-----|
| Oil Filter Wrench*            | 09228-06500-02 | 1   |

### **NOTE**

Additional SSTs may be ordered by calling 1-800-933-8335.

<sup>\*</sup> Essential SST.

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# **Required Tools & Equipment (Continued)**

| TOOLS & MATERIAL  | PART NUMBER                           | DRIVETRAIN | QUANTITY  |
|---|---------------------------------------|------------|---|
|   | ILSAC GF-4<br>Multigrade<br>SAE 5W-30 | 2WD        | With Oil Filter Change: 6.7 U.S. quarts (6.3 liters)    |
| Engine Oil  |                                       |            | Without Oil Filter Change: 6.2 U.S. quarts (5.9 liters) |
| Engine Oil  |                                       | 4WD        | With Oil Filter Change: 6.8 U.S. quarts (6.4 liters)    |
|   |                                       |            | Without Oil Filter Change: 6.3 U.S. quarts (6.0 liters) |
| GM - General Motors Vehicle<br>Care Upper Engine and Fuel<br>Injector Cleaner GM# 88861802* |                                       | -          | 1   |

<sup>\*</sup> This can be acquired from a GM dealer.

## **NOTE**

Engine oil is changed twice per the Repair Procedure.

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### **Inspection Procedure**

- 1. Confirm that the condition is applicable per the Introduction.
- 2. Perform misfire diagnosis.

Refer to the Technical Information System (TIS), applicable model year IS 250 Repair Manual:

 2006 / 2007 / 2008 / 2009 / 2010 IS 250: Engine/Hybrid System – Engine Control – "4GR-FSE Engine Control System: SFI System: P0300-P0306: Random / Multiple Cylinder Misfire Detected"

#### **NOTE**

Normal mechanical engine condition, engine control system, fuel supply/injection systems, and ignition system operation must be present or this TSIB does NOT apply.

3. If the concern is NOT resolved after following the Repair Manual misfire diagnosis, proceed with the repair procedure below.

### NOTE FOR 2006 MY IS 250 ONLY:

BEFORE starting the repair procedure, the following MUST be confirmed:

Is the VIN applicable to TSIB No. <u>L-SB-0088-08</u>, "M.I.L. 'ON' DTC P0300, P0301, P0302, P0303, P0304, P0305, or P0306"? (Was the vehicle produced BEFORE the Production Change Effective VINs shown below?)

| MODEL       | DRIVETRAIN | PLANT    | PRODUCTION CHANGE EFFECTIVE VIN |  |
|-------------|------------|----------|---------------------------------|--|
|             | 2WD        |          | JTHBK262#62017120               |  |
| 2006 IS 250 | 4WD        | Kyushu   | JTHCK262#62007184               |  |
|             | 2WD        | Tahara - | JTHBK262#65020537               |  |
|             | 4WD        |          | JTHCK262#65006155               |  |

- YES Perform the repair outlined in TSIB No. <u>L-SB-0088-08</u> BEFORE performing the repair noted in this Service Bulletin.
- NO The VIN is NOT applicable or TSIB No. <u>L-SB-0088-08</u> was already performed prior to this occurrence. Proceed to step 1 of the Repair Procedure in this bulletin.

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### **Repair Procedure**

#### HINT

For 2006 model year repair tips and specifications regarding assembly and disassembly, refer to TSIB No. L-SB-0088-08, "M.I.L. 'ON' DTC P0300, P0301, P0302, P0303, P0304, P0305, or P0306".

### **NOTE**

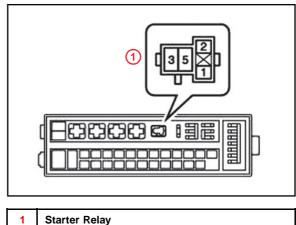
Each step must be carefully followed — Deviating from this procedure will compromise overall effectiveness.

- 1. Run the engine and bring to operating temperature.
- 2. Remove the intake air surge tank assembly.
- 3. Remove all ignition coils and spark plugs.
- 4. Remove the starter relay.
- 5. Using a funnel as necessary, pour 1.0 oz of GM Upper Engine and Fuel Injector Cleaner (GM P/N 88861802) into each of the 6 cylinders via the spark plug holes.
- 6. Place and secure shop towels over all the spark plug tubes.
- 7. Crank the engine for 5 seconds using a jumper wire at the starter relay terminals 3 and 5.

### NOTE

Cranking will assure even dispersal of top engine cleaner on the piston domes.

Figure 1. Engine Room No. 1 Relay Block



- 8. Let the engine soak for 60 minutes.
- 9. Spray a generic lubricant into each bore.
- 10. Rotate the crank pulley clockwise 2 rotations by hand to disperse the bore lubricate.
- 11. Crank the engine 5 seconds to redistribute the top engine cleaner.
- 12. Allow 1 additional hour of soak time prior to starting the engine; proceed with reassembly during the remainder of the soak period.

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### **Repair Procedure (Continued)**

- 13. Remove any remaining top engine clean from the combustion chamber and spark plug tubes.
- 14. Reinstall the spark plugs and ignition coils.
- 15. Reinstall the intake air surge tank assembly.
- 16. Drain and refill the engine oil.
- 17. Start the engine and immediately test drive the vehicle for 15 minutes minimum.

#### **NOTE**

During the test drive, it is recommended to use lower gears and moderate throttle to operate the engine at an increased RPM. It is normal for smoke to be emitted from the exhaust during the first few minutes of operation.

- 18. Change the engine oil and oil filter.
- 19. Using TIS Techstream, clear any DTCs that may have set.
- 20. Confirm normal vehicle operation.