

 Service Category
 Engine/Hybrid System

 Section
 Engine Control
 Market
 USA

Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2006	GS300	

Introduction

Some 2006 model year GS 300 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.

Warranty Information

OP CODE	DESCRIPTION	TIME	OFP	T1	T2
EG1007	Perform Top Engine Clean	3.5	13301-310## 13101-310##	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.

Parts Information

DRIVETRAIN	PREVIOUS PART NUMBER	CURRENT PART NUMBER	PART NAME	QTY
_	17176-31020	Same	Gasket, Air Surge Tank to Intake Manifold	1
2WD	04152-31080	04152-YZZA3		1
	04152-YZZA2	04450 V7745	Element Kit, Oil Filter	1
4WD	04152-38010	04152-YZZA5		I

NOTE

Engine oil is changed twice per the Repair Procedure.

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 or 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*	<u>09228-06500-02</u>	1

NOTE

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

* Essential SST.

Required Tools & Equipment (Continued)

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

* This can be acquired from a GM dealer.

NOTE

Engine oil is changed twice per the Repair Procedure.

Inspection Procedure

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

Refer to the Technical Information System (TIS), 2006 model year GS 300 Repair Manual: <u>Engine/Hybrid System – Engine Control – "3GR-FSE Engine Control System: SFI System:</u> 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

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

Is the VIN applicable to TSIB No. <u>L-SB-0087-08</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	PRODUCTION CHANGE EFFECTIVE VIN
2006 GS 300	2WD	JTHBH96S#65027366
	4WD	JTHCH96S#60014171

• YES — Perform the repair outlined in TSIB No. <u>L-SB-0087-08</u> BEFORE performing the repair noted in this Service Bulletin.

 NO — The VIN is NOT applicable or TSIB No. <u>L-SB-0087-08</u> was already performed prior to this occurrence. Proceed to step 1 of the Repair Procedure in this bulletin.

Repair Procedure

HINT

For repair tips and specifications regarding assembly and disassembly, refer to TSIB No. L-SB-0087-08, *"M.I.L. 'ON' DTC P0300, P0301, P0302, P0303, P0304, P0305, or P0306"*.

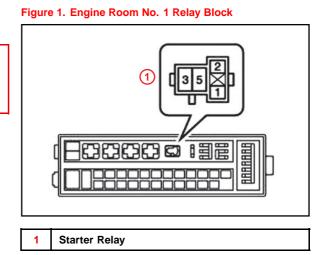
NOTE

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.



- 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.



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.