

30,000 MILE SERVICE OR MAJOR MAINTENANCE

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A common question on the DeLorean One tech hotline concerns the co-incidence of the odometer turning 30,000 and the appearance of a yellow light on the dash with the cryptic message, "lambda". "What does it mean?" "What does it do to the car?" "What do I do to make it go out?" Rest easy. The light will not shut the car down nor cause a hoard of fraternity boys to attempt repossession. It is merely a service reminder. Federal law requires that manufacturers guarantee the legal efficiency of the emission system for 50,000 miles. The light, triggered by an independent service interval counter which is in series with the speedometer, warns the owner that maintenance designed to insure emissions compliance and preserve original performance is in order.

This major, or "D" service consists of two sections: That which is mandatory and involves replacement of some parts and the adjustment of others; and checks made on the operation and condition of whole car.

First, the mandatory part:

- 1) Replace the oxygen (lambda) sensor.
- 2) Replace the air, oil, and fuel filters.
- 3) Replace the spark plugs and wires, the distributor cap and rotor.
- 4) Adjust the valve lash.
- 5) Replace the two drive belts.
- 6) Replace the engine oil and transaxle lubricant—clean the oil filler cap—lubricate the chassis.
- 7) Drain and refill coolant, pressure test and bleed cooling system.
- 8) Replace fluid, filter, filter gasket and pan gasket on cars with automatic transmission.
- 9) Adjust ignition timing.
- 10) Reset CO and HC levels if necessary.

THE SAFETY AND PERFORMANCE INSPECTION STARTS WITH A TEST DRIVE

At DeLorean One this is done in order to evaluate the operation of the complete vehicle. These things are checked during the first road test.

- 1) The operation of the cooling system running temperature and fan engagement.

- 2) The operation of the brakes. Note the presence of fade, pulsation, pull or noise.
- 3) The operation of the transmission smoothness and quality of selection, free play in lever. Note the manner and number of shifts in an automatic transmission.
- 4) The operation of the clutch—smooth and quiet.
- 5) The operation of the suspension and steering—free play or noise in the steering, wandering or roughness inside, clunks or howls from the bearings.
- 6) The general operation of the engine. Note the presence of smoke or exhaust noise, roughness or lack of power.
- 7) The operation of the lights—high/low beams, turn and hazard flashers, backup lights, horn, windshield washer and wipers.
- 8) See that the indications and operation of all the instruments and warning lights are proper.
- 9) The operation of the heating and air conditioning system—temperature, airflow and operation of windshield defog.
- 10) The operation of the electric door locks and electric windows.
- 11) Check operation of the speedometer.
- 8) Check for power train leaks, ie. engine and transmission.
- 9) Inspect condition of coolant hoses and radiator.
- 10) Check brake master and clutch master cylinders.
- 11) Check front and rear suspension bushings for wear.
- 12) Check front and rear shock absorbers.
- 13) Check tires for correct wear pattern and correct pressure.
- 14) Check all four axle boots for tears or cracks.
- 15) Check ground connections at motor mounts and trailing arm bolt mounts.
- 16) Check air conditioning hoses for leaks.
- 17) Lubricate angle drive.
- 18) Check alternator.

Motorola _____ Ducellier _____

INSIDE PASSENGER COMPARTMENT

- 1) Check hood release cable at handle.
- 2) Check inertia switch for update.
- 3) Check brake and clutch linkage pivot pins.
- 4) Check pedal pads.
- 5) Check operation of both seat belts.
- 6) Check seat adjusters.
- 7) Check interior light operation and delay.
- 8) Check glove box light and latch.
- 9) Check relay compartment for update.
- 10) Check fuse box including removing each fuse and cleaning contacts.
- 11) Check operation of electric radio antenna.
- 12) Check headliner for sagging or stains.
- 13) Check operation of electric door mirrors left and right.
- 14) Check operation of door lights on door.
- 15) Check for dash fade and cracked binnacle.
- 16) Check seat leather for cracks and tears.

IN THE LUGGAGE COMPARTMENT

- 1) Check brake fluid level.
- 2) Check clutch fluid level.
- 3) Check tension on body bolts.

UNDERNEATH, WHILE THE CAR IS ON A HOIST:

- 1) Check for the installation of a front-end safety campaign kit.
- 2) Remove the wheels and check brakepad thickness, rotor condition and wear. Rotor thickness (minimum 11.7mm) each:
Left Front _____ Right Front _____
Left Rear _____ Right Rear _____
- 3) Check rack and pinion, boots, upper and lower ball joints, tie rod ends and steering universal joints.
- 4) Inspect cool fan motors and connections.
- 5) Check shifter linkage and pivot bolts.
- 6) Check and tighten trailing arm bolts, shims, mounts and battery ground.
- 7) Check engine mounts.

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- 4) Check windshield washer fluid level.
- 5) Check hood latch and cable end for fraying.
- 6) Check spare tire condition and pressure.
- 7) Remove fuel pump access cover and inspect fuel pump cover seal, sealing ring and check for updated fuel pump.
- 8) Check operation of trunk compartment light.
- 9) Operation of hood struts.
- 10) Check hood seal.

ENGINE COMPARTMENT

- 1) Check louvre for cracks, operation of struts and latch.
- 2) Check engine cover for cracks, operation of support and latch.
- 3) Check engine cover grills, retainers and body bolts.

- 4) Check muffler and catalytic converter heat shields.
- 5) Check right hand upper muffler mount.
- 6) Check condition of header bottle.

EXTERIOR OF CAR

- 1) Condition of rubber around doors including roof seals.
- 2) Operation of door struts.
- 3) Check condition of all body moldings.
- 4) Check condition of paint on front and rear facias.
- 5) Inspect stainless steel for any dents.
- 6) Check condition of glass.
- 7) Inspect windshield wipers
- 8) Check for seat belt anchor covers

ABOUT THE AUTHOR

Stephen Wynne

Stephen, co-owner of DeLorean One, hails from Liverpool, England where he was trained in automobile technology.

His first venture in this country was the highly successful Cars of Distinction which specializes in servicing European cars. At the time, it also serviced a few DeLoreans.

Stephen met Ed Bernstein while participating in an Association event and shortly thereafter sold Cars of Distinction to form DeLorean One.

He lives with his wife Elaine and two children in Houston where he manages the Texas branch of the company.

