

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-37-16  
Relating to Certification of New Motor Vehicles

LOTUS CARS LTD.

Pursuant to the authority vested in the Air Resources Board by the Health and Safety Code, Division 26, Part 5, Chapter 2; and

Pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Orders G-45-3 and G-45-4;

IT IS ORDERED AND RESOLVED: That 1989 model-year Lotus Cars Ltd exhaust emission control systems are certified as described below for gasoline-powered passenger cars:

<u>Engine Family</u>	<u>Displacement Liters (Cubic Inches)</u>	<u>Exhaust Emission Control Systems (Special Features)</u>
KLT2.2V5F1C8	2.2 (132.6)	Three-Way Catalyst Heated Oxygen Sensor (Electronic Port Fuel Injection) (Turbocharger) (Intercooler) (On-Board Diagnostics)

Vehicle models, transmissions, engine codes and evaporative emission control families are listed on attachments.

The following are the emission standards for this engine family:

<u>Hydrocarbons (Grams per Mile)</u>	<u>Carbon Monoxide (Grams per Mile)</u>	<u>Nitrogen Oxides (Grams per Mile)</u>
0.41	7.0	0.4

The following are the certification emission values for this engine family:

<u>Hydrocarbons (Grams per Mile)</u>	<u>Carbon Monoxide (Grams per Mile)</u>	<u>Nitrogen Oxides (Grams per Mile)</u>
0.16	1.2	0.3

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with "California Evaporative Emission Standards and Test Procedures for 1978 and Subsequent Model Gasoline-Powered Motor Vehicles".

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's "Specifications for Fill Pipes and Openings of Motor Vehicle Fuel Tanks" (Title 13, California Administrative Code, Section 2290) for the aforementioned model-year.

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's high altitude requirements and highway emission standards as stipulated in "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles".

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the "California Motor Vehicle Tune-Up Label Specifications" (Title 13, California Administrative Code, Section 1965) for the aforementioned model year.


BE IT FURTHER RESOLVED: That the vehicle models listed also comply with the "Malfunction and Diagnostic System for 1988 and Subsequent Model Year[s]..." (Title 13, California Administrative Code, Section 1968) for the aforementioned model year.

BE IT FURTHER RESOLVED: That for the listed vehicles, the manufacturer has submitted and the Executive Officer hereby approves the materials to demonstrate certification compliance with the Board's emission control system warranty regulations (Title 13, California Administrative Code, Section 2035 et seq.).

Vehicles certified under this Executive Order must conform to all applicable California emission regulations.

The Bureau of Automotive Repair will be notified by copy of this order and attachment.

Executed at El Monte, California this 2<sup>nd</sup> day of April, 1989.

  
K. D. Drachand, Chief  
Mobile Source Division

17:03:00:00  
KLT2.2V5F1C8

Attachment 3

E.O. A-37-16

1989 Air Resources Board Supplemental Data Sheet

Manufacturer LOTUS CARS LTD Engine Family KLT2.2V5F1C8  
Evaporative Family LT4 Engine Type KLT2.2V5F1C8  
Litres (CID) 2.2 (132.6)

ABBREVIATIONS

Ignition System

CA-Centrifugal Advance  
ECU-Electronic Control Unit  
EI-Electronic Ignition  
ESAC-Electronic Spark  
Advance Control  
VA- Vacuum Advance  
VR-Vacuum Retard

Exhaust Emissions Control System

AIP-Air Injection - Pump  
AIV-Air Injection - Valve  
EGR-Exhaust Gas Recirculation  
EIC-Electronic Injection Control  
(Diesel only)  
EM-Engine Modification  
SPL-Smoke Puff Limiter or  
Throttle Delay  
TOC-Trap Oxidizer, Continual  
TOP-Trap Oxidizer, Periodical  
DBC-Dual Bed Catalyst

Special Features

CFI-Central Fuel  
Injection or  
Throttle Body  
Injection.  
EPFI-Electronic  
Port Fuel Injection  
MPFI-Mechanical  
Port Fuel Injection  
SFI-Sequential Fuel  
Injection  
DID-Diesel Injection-  
Direct  
DIP-Diesel Injection  
Prechamber  
TC-Turbocharger  
SC-Supercharger  
IC-Intercooler or  
Aftercooler  
CCV-Combustion  
Chamber Valve  
OBD-On board  
Diagnostics

Fuel System

CFI,EPFI,MPFI, SFI,  
DID, DIP, HOS, OS  
nV-nVenturi Carburetor  
VV-Variable Carburetor

TWC-Three way Catalyst  
WUOC-Warm up Oxidation Catalyst  
WUTWC-Warm up Three way Catalyst  
OS-Oxygen Sensor  
HOS-Heated Oxygen Sensor

VEHICLE MODELS

Engine: Front  Mid  Rear   
Drive; FWD  RWD  4WD Full Time  4WD Part Time

KLT2.2V51C8

1989 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

E O A-37-16

PASSENGER CARS  LIGHT DUTY TRUCKS  MEDIUM DUTY VEHICLES  GAS  DIESEL

MANUFACTURER: LOTUS CARS LTD

ENGINE FAMILY: KLT2.2V51C8

LITRE (CID) (132.6) 2.2

ENGINE FAMILY: KLT2.2V51C8

EMISSION CONTROL SYSTEM (SPECIAL FEATURES)

TWC/HOS/OBD's/EPFI/TC/IC

ENGINE CODE	VEHICLE MODELS (IF CODED SEE ATTACHMENT)  (DYNO HP)	TRANS TYPE WEIGHT	EQUIV TEST	IGN SYSTEM  PART NO.	FUEL SYSTEM  PART NO.	EGR VALVE  PART NO.	CATALYST  PART NO.
KLT2.2V51C8	LOTUS ESPRIT TURBO  (7.0 Hp)	M5	3250	A910E6940 Direct ignition system	A910E6946 (Fuel rail assembly)	None	A08256045

Comments: See Page 1 for abbreviations and evaporative emission family identification. Please refer to manufacturer's Hp list for correct dyno test Hp settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.

Date of Issue .....Revisions: