

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-220-51  
Relating to Certification of New Motor Vehicles

JAGUAR 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 Order G-45-9;

IT IS ORDERED AND RESOLVED: That 1999 model-year Jaguar Cars Ltd. emission control systems are certified as described below for passenger cars:

Emission Standard Category: Transitional Low-Emission Vehicle (TLEV)

Fuel Type: Gasoline

Engine Family: XJCXV04.OBN4 Displacement: 4.0 Liters (243 Cubic Inches)

Exhaust Emission Control Systems & Special Features:

Sequential Multiport Fuel Injection  
Dual Heated Oxygen Sensors  
Dual Three Way Catalytic Converters  
24025 Dual Universal Heated Exhaust Gas Oxygen (Air/Fuel) Sensors

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

The TLEV certification exhaust emission standards for this engine family in grams per mile are:

<u>Miles</u>	<u>Non-Methane Organic Gas</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Formaldehyde</u>	<u>Carbon Monoxide (20°F)</u>
50,000	0.125	3.4	0.4	0.015	10.0
100,000	0.156	4.2	0.6	0.018	n/a

Reactivity Adjustment Factor (RAF) for NMOG Mass Emission: 0.98

The certification exhaust emission values set forth for non-methane organic gas (NMOG) reflect application of a 0.98 RAF for 1999 model-year TLEVs. The TLEV certification exhaust emission values for this engine family in grams per mile are:

<u>Miles</u>	<u>Non-Methane Organic Gas</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Formaldehyde</u>	<u>Carbon Monoxide (20°F)</u>
50,000	0.069	0.4	0.3	0.001	2.4
100,000	0.078	0.4	0.4	0.001	n/a

BE IT FURTHER RESOLVED: That the vehicle manufacturer shall not be subject to the fleet average non-methane organic gases exhaust mass emission requirements as set forth in the "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passengers Cars, Light-Duty Trucks, and Medium-Duty Vehicles" pursuant to Section 3.h., note (6) d. of these standards and test procedures (small volume manufacturer whose project California sales exceeds 3000 vehicles per model year.)

BE IT FURTHER RESOLVED: That the vehicle manufacturer is certifying the listed vehicle models to the "California Refueling Emission Standards and Test Procedures for 1998 and the Subsequent Model Motor Vehicles," Title 13, California Code of Regulations, section 1978, and listed vehicle models comply with those standards.

BE IT FURTHER RESOLVED: That the vehicle manufacturer is certifying the listed vehicle models to the running loss and useful life standards applicable to 1995 and subsequent model-year vehicles in the "California Evaporative Emission Standards and Test Procedures for 1978 and Subsequent Model Motor Vehicles," and the listed vehicle models comply with those standards.

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" for the aforementioned model year (Title 13, California Code of Regulations, Section 2235).

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's high-altitude requirements and highway emission standards, and with the California Inspection and Maintenance emission standards in place at the time of certification, 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 vehicle manufacturer has demonstrated compliance with the exhaust emission standards at 50 degrees Fahrenheit 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 manufacturer is certifying the listed vehicle models with a partially complying on-board diagnostic system for the aforementioned model year pursuant to Title 13, California Code of Regulations, Section 1968.1(m)(6.2) ("Malfunction and Diagnostic System Requirements--1994 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines").

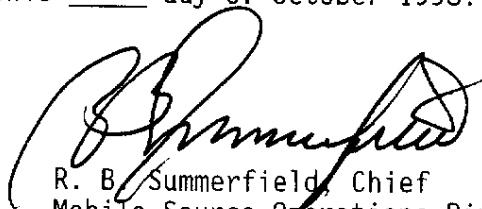
BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the "California Motor Vehicle Emission Control and Smog Index Label Specifications" for the aforementioned model year (Title 13, California Code of Regulations, Section 1965).

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 provisions (Title 13, California Code of Regulations, 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 7<sup>th</sup> day of October 1998.



R. B. Summerfield, Chief  
Mobile Source Operations Division



MY 1999

Engine Family XJCXV04.0BN4

17-14

17.00.00.00 cont'd

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06.01.01 1999 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

**PASSENGER CARS, LIGHT-DUTY TRUCKS & MEDIUM-DUTY VEHICLES**Manufacturer: Jaguar Cars Ltd Exh Eng Fam: XJCXV04.0BN4 Evap Fam: XJCXR0121M2XAll Eng. Codes in Eng. Fam: CA \_ 49S \_ 50S  AB965 \_ ; ORVR: YES  NO \_Exh Std: CA - Tier-1 \_ TLEV  LEV \_ ULEV \_ SULEV \_ ; US EPA - Tier-1 Veh Class(es): PC  LDT1 \_ LDT2 \_ MDV1 \_ MDV2 \_ MDV3 \_ MDV4 \_ MDV5 \_Single Cert Std for Multi-Class Eng Fam: N/AFuel Type(s): Dedicated  Flex-Fuel \_ Dual-Fuel \_ Bi-Fuel \_ Gasoline  Diesel \_  
CNG \_ LNG \_ LPG \_ M85 \_ Other \_Emission Test Fuel(s): Indo  CBG  CNG \_ LPG \_ M85 \_ Other \_  
Diesel: 13 CRR 2282 \_ 40CFR86.113-90 \_ 40CFR86.113-94 \_Evaporative Emission Test Procedure: California \_ Federal Service Accum: Std AMA  Mod AMA \_ Mfr ADP \_ Other \_NMOG Test Procedure: N/A \_ Std  Equip \_ ; R/L Test Proc: SHED \_ Pt Source Engine Configuration: V8 Displacement: 4.0 liters 243 cubic inchesValves per Cylinder: 4 Rated HP: 290 @ 6100Engine: Front  Mid \_ Rear \_ Drive: FWD \_ RWD  4WD-FT \_ 4WD-PT \_Exhaust ECS: 2UHEGO:2TWC:2HO2S:SFI

Engine Code	Vehicle Models	Trans A- Auto M- Man	ETW	DPA	ECM Part No	EGR System Part No	Catalytic Converter Part No.
4.0HFC-99 (50ST)	XK8 Coupe	A5	4000	6.8	LNE1410BC	not fitted	NNE6700GD NNE6701GD
4.0HFC-99 (50ST)	XK8 Convert.	A5	4250	7.3	LNE1410BC	not fitted	NNE6700GD NNE6701GD
4.0HFC-99 (50ST)	XJ8	A5	4250	7.0	LNE1410BC	not fitted	NNE6700GD NNE6701GD
4.0HFC-99 (50ST)	XJ8L	A5	4250	7.0	LNE1410BC	not fitted	NNE6700HD NNE6701HD
4.0HFC-99 (50ST)	Vanden Plas	A5	4250	7.0	LNE1410BC	not fitted	NNE6700HD NNE6701HD