State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-220-49-B
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 1998 model-year Jaguar Cars, Ltd. exhaust emission control systems are certified as described below for passenger cars:

Fuel Type: Gasoline

Engine Family: WJCXV04.0AN1 Displacement: 4.0 Liters (243 Cubic Inches)

Exhaust Emission Control Systems & Special Features:

Dual Three Way Catalytic Converters
Dual Heated Oxygen Sensors
Dual Oxygen Sensors
Sequential Multiport Fuel Injection

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

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

Miles	Non-Methane Hydrocarbons	Carbon Monoxide	Nitrogen Oxides	Carbon Monoxide (20°F)
50,000	0.25	3.4	0.4	10.0
100,000	0.31	4.2	0.6	n/a

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

Miles	Non-Methane Hydrocarbons	Carbon Monoxide	Nitrogen Oxides	Carbon Monoxide (20°F)
50,000	0.13	1.3	0.1	5.0
100,000	0.15	1.5	0.2	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 "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger 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 projected California sales exceeds 3000 vehicles per model year.)

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 vehicle manufacturer is certifying the listed vehicle models to the "California Refueling Emission Standards and Test Procedures for 1998 and Subsequent Model Motor Vehicles," Title 13, California Code of Regulations, Section 1978, 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 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 the listed vehicle models also comply with the "Malfunction and Diagnostic System Requirements--1994 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines" (Title 13, California Code of Regulations, Section 1968.1) 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 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 25th day of September 1997.

R. B. Summerfield, Chief
Mobile Source Operations Division

17.00.00.00 cont'd E.O. #A-220-49-B Page 1 of 1

06.01.01 **1998 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET**

PASSENGER CARS, LIGHT-DUTY TRUCKS & MEDIUM-DUTY VEHICLES

Manufacturer: **Jaguar Cars Ltd** Exh Eng Fam: **WJCXV04.0AN1** Evap Fam: **WJCXR0121M2X**

All Eng. Codes in Eng. Fam: CA _ 49S _ 50S X AB965 _ ; ORVR: YES X NO _.

Exh Std: **CA** - Tier-1 X TLEV _ LEV _ ULEV _ SULEV _ ; **US EPA** - Tier-1 X

Veh Class(es): PC X LDT1 _ LDT2 _ MDV1 _ MDV2 _ MDV3 _ MDV4 _ MDV5 _

Single Cert Std for Muti-Class Eng Fam: **N/A**

Fuel Type(s): Dedicated X Flex-Fuel _ Dual-Fuel _ Bi-Fuel _ Gasoline X Diesel _
CNG _ LNG _ LPG _ M85 _ Other _

Emission Test Fuel(s): Indo X CBG _ CNG _ LPG _ M85 _ Other _
Diesel: 13 CRR 2282 _ 40CFR86.113-90 _ 40CFR86.113-94 _

Evaporative Emission Test Procedure: California _ Federal X

Service Accum: Std AMA X Mod AMA _ Mfr ADP _ Other _

NMOG Test Procedure: N/A X Std _ Equiv _; R/L Test Proc: SHED _ Pt Source X

Engine Configuration: **V8** Displacement: **4.0** liters **243** cubic inches

Valves per Cylinder: **4** Rated HP: **290 @ 6100**

Engine: Front X Mid _ Rear _ Drive: FWD _ RWD X 4WD-FT _ 4WD-PT _

Exhaust ECS: - **2HO2S:2TWC:2O2S: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-98 (50ST)	XJ8	A5	4250	7.4	LNC1410AC*	not fitted	NJA6700AG NJA6701AG
4.0HFC-98 (50ST)	XJ8L	A5	4250	7.1	LNC1410AC*	not fitted	NNC6700EA NNC6701EA
4.0HFC-98 (50ST)	Vanden Plas	A5	4500	7.1	LNC1410AC*	not fitted	NNC6700EA NNC6700EA

* Alternative ECM part numbers are:- LNC1410AF and LNC1410BB