State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-220-46
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 1997 model-year Jaguar Cars, Ltd. exhaust emission control systems are certified as described below for passenger cars:

Fuel Type: Gasoline

Engine Family: VJC4.0VJGKGK Displacement: 4.0 Liters (243 Cubic Inches)

Exhaust Emission Control Systems & Special Features:

Dual Warm Up Three Way Catalytic Converters
Dual Three Way Catalytic Converters
Dual Heated Oxygen Sensors (two)
Exhaust Gas Recirculation
Secondary Air Injection
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	0.17	1.4	0.2	7.6
100,000	0.23	1.6	0.2	n/a

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 listed vehicle models also comply with the "California Motor Vehicle Emission Control Label Specifications" for the aforementioned model year (Title 13, California Code of Regulations, Section 1965).

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 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 13th day of August 1996.

R. B. Summerfield
Assistant Division Chief
Mobile Source Division

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06.01.01 1996 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

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

Manufacturer: Jaguar Cars Ltd Exh Eng Fam: VJC4.0VJGKGK Evap Fam: VJC1284AYME0

Exh Std: CA - Tier-1 X TLEV _ LEV _ ULEV _ ZEV _ ; US EPA - Tier-1 X 50S X

Evap Std: 50K _ Useful Life with R/L X

In-Use Exh Std: Full In-Use X Alt In-Use _

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 _ M85 _ CNG _ LNG _ LPG _ Other _

Emission Test Fuel(s): Ind X Ph2 _ M85 _ CNG _ LPG _ Other _
Diesel: 13 CRR 2282 _ 40CFR86.113-90 _ 40CFR86.113-94 _

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

Hybrid: Type A _ B _ C _; APU Cycle _

Engine Configuration: L6 Displacement: 4.0 liters 243 cubic inches

Valves per Cylinder: 4 Rated HP: 245 @ 4800

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

Exhaust ECS: AIR:EGR:2HO2S(2):2WUTWC:2TWC:SFI

Engine Code	Vehicle Models	Trans A- Auto M- Man	ETW	DPA	ECM Part No	EGR System Part No	Catalyst Part No.
4.0HFC-96 (50ST)	XJ6	A	4250	7.0	LNB1410AB	LHE1550AB	D/P:NCC U/F:NDB
4.0HFC-96 (50ST)	XJ6 (lwb)	A	4500	7.0	LNB1410FB	LHE1550AB	D/P:NCC U/F:NDB
4.0HFC-96 (50ST)	Vanden Plas	A	4500	7.0	LNB1410FB	LHE1550AB	D/P:NCC U/F:NDB

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06.01.02 **1997 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET**

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

Manufacturer: **Jaguar Cars Ltd** Exh Eng Fam: **VJC4.0VJGKGK** Evap Fam: **VJC1284AYME0**

All Eng. Codes in Eng. Fam: CA _ 49S _ 50S X AB965 _

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

Evap Std: 50K _ Useful Life with R/L X

In-Use Exh Std: Full In-Use X Alt In-Use _

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 _ M85 _ CNG _ LNG _ LPG _ Other _

Emission Test Fuel(s): Ind X Ph2 _ M85 _ CNG _ LPG _ Other _
Diesel: 13 CRR 2282 _ 40CFR86.113-90 _ 40CFR86.113-94 _

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

Hybrid: Type A _ B _ C _ ; APU Cycle _

Engine Configuration: **L6** Displacement: **4.0** liters **243** cubic inches

Valves per Cylinder: **4** Rated HP: **245 @ 4800**

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

Exhaust ECS: **AIR:EGR:2HO2S(2):2WUTWC:2TWC:SFI**

Engine Code	Vehicle Models	Trans A- Auto M- Man	ETW	DPA	ECM Part No	EGR System Part No	Catalyst Part No.
4.0HFC-96 (50ST)	XJ6	A	4250	7.0	LNB1410AC*	LHE1550AB	D/P:NCC U/F:NDB
4.0HFC-96 (50ST)	XJ6L	A	4500	7.0	LNB1410FC*	LHE1550AB	D/P:NCC U/F:NDB
4.0HFC-96 (50ST)	Vanden Plas	A	4500	7.0	LNB1410FC*	LHE1550AB	D/P:NCC U/F:NDB

* Introduced by RC #4.0-97/2 - see Page 21-2.

17.00.00.00 cont'd E.O. # A-220-46

06.01.04 **1997 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET**

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

Manufacturer: **Jaguar Cars Ltd** Exh Eng Fam: **VJC4.0VJGKGK** Evap Fam: **VJC1284AYME0**

All Eng. Codes in Eng. Fam: CA _ 49S _ 50S X AB965 _

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

Evap Std: 50K _ Useful Life with R/L X

In-Use Exh Std: Full In-Use X Alt In-Use _

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 _ M85 _ CNG _ LNG _ LPG _ Other _

Emission Test Fuel(s): Ind X Ph2 _ M85 _ CNG _ LPG _ Other _
Diesel: 13 CRR 2282 _ 40CFR86.113-90 _ 40CFR86.113-94 _

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

Hybrid: Type A _ B _ C _; APU Cycle _

Engine Configuration: **L6** Displacement: **4.0** liters **243** cubic inches

Valves per Cylinder: **4** Rated HP: **245 @ 4800**

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

Exhaust ECS: **AIR:EGR:2HO2S(2):2WUTWC:2TWC:SFI**

Engine Code	Vehicle Models	Trans A- Auto M- Man	ETW	DPA	ECM Part No	EGR System Part No	Catalyst Part No.
4.0HFC-96 (50ST)	XJ6	A	4250	7.0	LNB1410AD*	LHE1550AB	D/P:NCC U/F:NDB
4.0HFC-96 (50ST)	XJ6L	A	4500	7.0	LNB1410FD*	LHE1550AB	D/P:NCC U/F:NDB
4.0HFC-96 (50ST)	Vanden Plas	A	4500	7.0	LNB1410FD*	LHE1550AB	D/P:NCC U/F:NDB

* Introduced by RC #4.0-97/4 - see Page 21-4