

JAGUAR LAND ROVER LIMITED

Executive Order: A-409-0116

New Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles

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Pursuant to the authority vested in California Air Resources Board by Health and Safety Code (HSC), Division 26, Part 5, Chapter 2; and pursuant to the authority vested in the undersigned by HSC Sections 39515 and 39516 and Executive Order G-19-095;

IT IS ORDERED AND RESOLVED: That the following exhaust and evaporative emission control systems produced by the manufacturer are certified as described below. Production vehicles shall be in all material respects the same as those for which certification is granted.

					TEST GRO	UP IN	IFORI	MATION							
MOD		EST GROUP		VEHICLE CLASS(ES)				FUEL CATEGORY			FUEL TYPE				
202	4 RJ	LXT03.0HTS		LDT4				HYBRID ELECTRIC VEHICLE			GASOLINE				
	USEFUL LIFE (miles			VEH	IICLE EMISS	ION C	ATEC	ORY	INTERIM / IN	NTE	RMEDIATE IN-USE STD				
EX	H/ORVR	EVAP			FTP		SF	ТР	FTP		SFTP				
1	50000	150000	١	LEV3	EV3 SIILEV30				LEV 3 SULEV STAND-ALONE		SIII.EV30		*		*
SPECIAL FEATURES & EXHAUST EMISSION CONTROL OBD ST						TATUS		ENGINE DISPLACEMENT (L)							
1	WR-HO	2S, TWC, HO2	S(2)	, DFI, T	C, SCE, CA	.c		FULL	*	*					
*			*					ARTIAL	ALL MODELS		3.0				
*			* PARTIAL WITH * FINES				*								
		E	/APO	RATIVE &	REFUELING	(EVA	P/OR	VR) FAMIL	/ INFORMATIO	N					
EV	AP / ORV	R FAMILY	EVA	PORATIVE	STD CATEGORY				SSION STD E CLASS		SPECIAL FEATURES				
	RJLXR01	.75P1B		LEV 3 OPTION2				LDT4			*				
				I	EMISSION C	REDIT	INFC	RMATION							
	REDIT FO	OX FLEET AVE. OR EXTENDED RRANTY			REDIT FOR NO ZERO-EVAP	EDIT FOR NON-PZEV ZERO-EVAP			REDIT FOR DO	OPTIONAL EXH. STD FOR WORK TRUCKS					
		N			N				N		N				
				NMOG	AND FLEET	AVE	RAGE	INFORMA	TION						
NMOG RAF	CH4 RAF	FTP NMOG/NMHC RATIO		HO/NMHC RATIO	P(:+11)1 /0-3/5					0	NMOG+NOX FLEET STD MDV (10,001-14,000 GVWR) (g/mi)				
*	*	1.10		*	0	. 037			0.038		*				

See the Attachment for Vehicle Models, Evaporative Family, Engine Displacement, Emission Control Systems, Phase-In Standards, OBD Compliance, Emission Standards and Certification Levels, and Abbreviations. (As applicable, heavy-duty vehicles (HDV) over 14,000 pounds in GVWR listed in this Executive Order are certified to the requirements in 13 CCR Section 1961.2 applicable to MDV pursuant to 13 CCR Section 1956.8(c)(3) or 13 CCR Section 1956.8(h)(5), as applicable.)



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BE IT FURTHER RESOLVED:

The exhaust and evaporative emission standards and the certification emission levels for the listed vehicles are as listed on the Attachment. Compliance with the 50° Fahrenheit testing requirement may have been met based on the manufacturer's submitted compliance plan in lieu of testing. Any debit in the manufacturer's fleet average compliance requirement for NMOG+NOx or Vehicle Equivalent Credit (13 CCR Sections 1961.2(b)(1), 1961.2(b)(3), or 1961.2(c) (3), and the incorporated test procedures, as applicable), or Greenhouse Gas Emissions (13 CCR Section 1961.3, or 17 CCR Section 95663, and the incorporated test procedures, as applicable), for PC, LDT, MDPV or MDV shall be equalized as required.

BE IT FURTHER RESOLVED:

For the listed vehicle models, the manufacturer has attested to compliance with Title 13, California Code of Regulations, (13 CCR) Sections 1965 [emission control labels], 1968.2 [on-board diagnostic, full or partial compliance], 2035 et seq. [emission control warranty], 2235 [fuel tank fill pipes and openings] (gasoline and alcohol fueled vehicles only), and "High-Altitude Requirements" and "Inspection and Maintenance Emission Standards" (California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for PC, LDT and MDV).

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

The Bureau of Automotive Repair will be notified by copy of this Executive Order.

Executed on this <u>25th</u> day of August 2023.

Robin U. Lang, Chief

Emissions Certification and Compliance Division

Rolin U. Lang

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ATTACHMENT

EXHAUST AND EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS (FTP, HWFET, 50°F, 20°F)

CH4: methane; NMOG: non-CH4 organic gas; HC: hydrocarbon; NMHC: non-CH4 HC; CO: carbon monoxide; NOx: oxides of nitrogen; HCHO: formaldehyde; PM: particulate matter; RAF: reactivity adjustment factor; 2DHS/3DHS [g HC/test]: 2/3 days diurnal+hot-soak; RL [g HC/mi]: running loss; ORVR [g HC/gallon dispensed]: on-board refueling vapor recovery; g: gram; mg: milligram; mi: mile; K: 1000 miles; F: degrees Fahrenheit; FTP: federal test procedure; SFTP: supplemental FTP

FUEL TYPE

			NMOG+NOx (g/mi)		CO (g/mi)		NOx (g/mi)		HCHO (mg/mi)		PM (g/mi)	
		CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD	
FTP@50K	*	*	*	*	*	*	*	*	*	*	*	
FTP@UL	GASOLINE- LEV3 E10 PREM	0.018	0.030	0.87	1.0	*	*	*	4	0.001	0.003	
50°F @4K	GASOLINE- LEV3 E10 PREM	0.019	0.060	0.48	1.0	*	*	*	8			

	FUEL TYPE	NMOG+N	lOx (g/mi)	CO (g/mi)		
	FUEL TIPE	CERT	STD	CERT	STD	
HWFET @ 50K	*	*	*			
HWFET @ UL	GASOLINE-LEV3 E10 PREM	0.003	0.030			
20°F @ 50K	GASOLINE-LEV3 E10 PREM			1.4	12.5	

SFTP EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS

				US06		SC03	3	COMPOSITE		
	FUEL TYPE		NMOG+NOx (g/mi)	CO (g/mi)	PM (mg/mi)	NMOG+NOx (g/mi)	CO (g/mi)	NMOG+NOx (g/mi)	CO (g/mi)	PM (mg/mi)
@ 4K	*	CERT	*	*		*	*			
		STD	*	*		*	*			
		CERT	0.008	1.0	2.2	0.003	0.9	*	*	*
@ UL	GASOLINE- LEV3 E10 PREM	STD	0.050	9.6	6	0.020	3.2	*	*	*
		BIN						*		

WHOLE VEHICLE EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

			WHOLE \						
EVAPORATIVE FAMILY	FUEL TYPE	3DH	S (g/test) @) UL	2DI	HS (g/test) (RL (g/mi) @ UL		
		CERT	STD	FEL	CERT	STD	FEL	CERT	STD
RJLXR0175P1B	GASOLINE- LEV3 E10 PREM	0.3095	0.500	*	*	0.500	*	0.001	0.05



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ORVR / FUI	EL ONLY / CA	NISTER	BLEED	EVAPOR	RATIVE	EMISSION	STANDA	RDS AND	CERTIFICA	ATION LEV	ELS
		FUEL ONLY EVAP & CANISTER BLEED									
EVAPORATIVE FAMILY	ORVR (g/	gallon) @) UL	FUEL TYPE		3DHS R (g/test	IG TEST) @ UL		RIG TEST st) @ UL	T BLEED CANISTER TEST (g/test) @ 4K CERT STD 0.0109 0.020	
	FUEL TYPE	CERT	STD			CERT	STD	CERT	STD	STD CERT STD	
RJLXR0175P1B	GASOLINE- LEV3 E10 PREM	0.038	0.20	GASOLINE- LEV3 E10 PREM		*	*	*	*	0.0109	0.020
l l	EFFECTIVE	LEAK D	IAMET	ER STAI	NDARI	O AND CE	RTIFICAT	TION LE	VEL (INCH	IES)	
EVAPORATIVE	FAMILY	LEA	K FAMIL	_Y	Y CERT				STD		
RJLXR0175	P1B	RJLXR0	175P1B	-001		*	•			0.02	

*: not applicable; #: pounds; UL: useful life; PC: passenger car; LDT: light-duty truck; LDT1: LDT<6000#GVWR,0-3750#LVW; LDT2: LDT<6000#GVWR,3751-5750#LVW; LDT3: LDT 6001-8500#GVWR,3751-5750#ALVW; LDT4: LDT 6001-8500#GVWR,5751-8500#ALVW; MDV; medium-duty vehicle; MDV4; MDV 8501-10000#GVWR; MDV5; MDV 10001-14000#GVWR; MDPV; mediumduty passenger vehicle; HDV: heavy-duty vehicle; ECS: emission control system; CERT: certification; STD: standard; FEL: family emission limit; GVWR: gross vehicle weight rating; LVW: loaded vehicle weight; ALVW: adjusted LVW; LEV: low emission vehicle; ULEV: ultra LEV; SULEV: super ULEV; ZEV: zero-emission vehicle; TZEV: transitional ZEV; TWC/OC: 3-way/oxidizing catalyst; ADSTWC: adsorbing TWC: HAC: HC adsorbing catalyst; WU: warm-up catalyst; NAC: NOx adsorption catalyst; SCR-U or SCRC/SCR-N or SCRC-NH3: selective catalytic reduction-urea/ammonia; NH3OC: ammonia oxidation catalyst; CTOX/PTOX: continuous/periodic trap oxidizer; DPF: diesel particulate filter (active); GPF: PM filter for spark-ignited engine; cGPF (coated gasoline particulate filter); HO2S/O2S: heated/oxygen sensor; WR-HO2S or AFS: wide range/linear/heated air-fuel ratio sensor; NOXS: NOx sensor; PMS: PM sensor; RDQS: reductant quality sensor; NH3S: ammonia sensor; EGR: exhaust gas recirculation; HP/LP EGR: High/Low Pressure EGR; EGRC: EGR cooler; AIR/AIRE: secondary air injection (belt driven)/(electric driven); PAIR: pulsed AIR; SFI/MFI: sequential/multiport fuel injection; DFI/IFI: direct/indirect fuel injection; TC/SC: turbo/super charger; SCE: SC (electric driven); CAC: charge air cooler; FFH: fuel fired heater; F/P/\$: full/partial/partial with fines on-board diagnostic; DOR: direct ozone reducing; HCT: hydrocarbon trap; BCAN: bleed carbon canister; prefix 2: parallel; (2) suffix: series; a hyphen (-) between after treatment ECS indicates multiple functionalities of the after treatment device (ex. DPF-SCRC: SCR coated DPF); CNG/LNG: compressed/liquefied natural gas; LPG: liquefied petroleum gas; E85: "85%" ethanol ("15%"gasoline) fuel; E10: "10%" ethanol ("90%"gasoline) fuel; A: automatic (with lockup); M: manual transmission; SA: semi-automatic transmission; CV: continuously variable transmission: SCV: selectable continuously variable transmission: AM: automated manual transmission: AMS: automated manual-selectable transmission; OT: other transmission; AER: all-electric range; EAER: equivalent AER; PHEV: plug-in hybrid electric vehicle; NMOG + NOx Fleet Ave. Credit for Extended Warranty: N = no credits, Y = credits, S = credits for some/select models

2024 MODEL YEAR: VEHICLE MODELS INFORMATION

MAKE	MODEL	VEH CLASS	ENGINE (L)	TRANS TYPE	EVAPORATIVE FAMILY	EXH ECS	OBD
LAND ROVER	DEFENDER 130 OUTBOUND	LDT4	3.0	SA8	RJLXR0175P1B	1	P