

# JAGUAR LAND ROVER LIMITED

Executive Order: A-409-0051

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-14-012;

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	IFOR	MATION						
MODE	_   1	EST GROUP	VEHICLE CLASS(ES)					FUEL CATEGORY			FUEL TYPE			
2019	KJ	LXJ02.ORTX		L	DT2, PC			DEDICATED SINGLE FUEL VEHICLE			GASOLINE			
	USEFUL	. LIFE (miles)		VEH	IICLE EMISS	ION C	ATE	GORY	INTERIM / IN	1TI	ERME	EDIATE IN-USE STD		
EXH	I/ORVR	EVAP		1	FTP		SF	TP	FTP			SFTP		
15	50000	150000		LEV3	SULEV30			SULEV -ALONE	NMOG+NOX A	AND PM PM		PM		
SPE	SPECIAL FEATURES & EXHAUST EMISSION CONTROL SYSTEMS							OBD S	TATUS		ENGINE DISPLACEMENT			
1	1 TWC, WR-H02S, H02S(2), DFI, TC, CAC							FULL	*					
*	* *						F	ARTIAL	ALL MODELS		2.0			
*	* *						PAR	TIAL WITH FINES	*					
	EVAPORATIVE & REFUELING (EVAP/ORVR) FAMILY INFORMATION													
EVA	P / ORV	RFAMILY	EVA	PORATIVE	STD CATE	GORY	,		EMISSION STD HICLE CLASS			ECIAL FEATURES		
1	KJLXR01	.40P1Z		LEV 3	OPTION2 LDT2			)T2	*					
1	KJLXR01	.60P1Z	_	LEV 3	OPTION2			PC *			*			
				E	EMISSION CI	REDIT	INF	DRMATION						
	EDIT FO	X FLEET AVE. OR EXTENDED RRANTY			EDIT FOR N ZERO-EVAP		NMOG CREDIT FOR DOR			OPTIONAL EXH. STD FOR WORK TRUCKS				
		N			N				N		И			
				NMOG	AND FLEET	AVE	RAG	E INFORMA	TION					
NMOG RAF	CH4 RAF	FTP NMOG/NMHC RATIO	1	HO/NMHC RATIO	NMOG+NO PC+LDT (			/W) LDT (3751 LVW-8500 MD		MOG+NOX FLEET STD MDV (10,001-14,000 GVWR) (g/mi)				
*	*	1.10		0.02	0	.072			0.083			*		

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.



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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 at El Monte, California on this \_

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division



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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)						1	O mi)	N( (g/	Ox mi)	1	HO /mi)	1	M mi)
		CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD				
FTP@50K	*	*	*	*	*	*	*	*	*	*	*				
FTP@UL	GASOLINE- LEV3 E10	0.020	0.030	0.6	1.0	*	*	0	4	0.002	0.003				
50°F @4K	GASOLINE- LEV3 E10	0.017	0.060	0.4	1.0	*	*	1	8						

	FUEL TYPE	NMOG+N	Ox (g/mi)	CO (	g/mi)
	FOEL TIPE	CERT	STD	CERT	STD
HWFET @ 50K	*	*	*		,
HWFET @ UL	GASOLINE-LEV3 E10	0.007	0.030		
20°F @ 50K	GASOLINE-LEV3 E10			1.2	10.0

# SFTP EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS

					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	0.028	1.8	0	0.011	2.1	*	*	*
@ UL	GASOLINE- LEV3 E10	STD	0.050	9.6	6	0.020	3.2	*	*	*
		BIN						*		

### WHOLE VEHICLE EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

			WHOLE \	/EHICLE	EVAPORA	TIVE TESTII	NG	RL (g/n CERT 0.00	
EVAPORATIVE FAMILY	FUEL TYPE	3DH	S (g/test) @	D UL	2D	HS (g/test) (	@ UL		ni) @ UL
		CERT	STD	FEL	CERT	STD	FEL	CERT	STD
KJLXR0140P1Z	GASOLINE- LEV3 E10	0.227	0.400	*	*	0.400	*	0.00	0.05
KJLXR0160P1Z	GASOLINE- LEV3 E10	0.238	0.300	*	*	0.300	*	0.00	0.05



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				FUEL ONLY EVAP & CANISTER BLEED									
EVAPORATIVE FAMILY	ORVR (g/g	gallon) (	) UL	FUEL TYPE		OHS RIG TEST 2DHS RIG TEST (g/test) @ UL (g/test) @ UL							
	FUEL TYPE	L TYPE CERT STD			CERT	STD	CERT STD		CERT	STD			
KJLXR0140P1Z	GASOLINE - TIER 2 UNLEADED	0.01	0.20	GASOLINE- LEV3 E10	*	*	*		0.018	0.020			
KJLXR0160P1Z	GASOLINE - TIER 2 UNLEADED	0.01	0.20	GASOLINE- LEV3 E10	*	*	*	*	0.010	0.020			
	EFFECTIVE I	LEAK	IAMET	ER STANDAF	D AND CE	RTIFICA	TION LEV	EL (INC	HES)				
EVAPORATIVE	FAMILY	LEA	K FAMIL	Υ .	CE	RT	100		STD				
KJLXR0160	P1Z	KJLXR0	160P1Z	-001					0.02				
KJLXR0140	P1Z	KJLXR0	140P1Z	-001	1				0.02				

: not applicable; #: pounds; UL: useful life; PC: passenger car; LDT: light-duty truck; LDT1: LDT<6000#GVWR,0-3750#LVW; LDT2: .DT<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; 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; 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; 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; 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

# 2019 MODEL YEAR: VEHICLE MODELS INFORMATION

MAKE	MODEL	VEH CLASS	ENGINE (L)	TRANS TYPE	EVAPORATIVE FAMILY	EXH	ОВО
JAGUAR	F-PACE 25T	LDT2	2.0	SA8	KJLXR0140P1Z	1	P
JAGUAR	F-PACE 30T	LDT2	2.0	SA8	KJLXR0140P1Z	1	P
JAGUAR	F-TYPE	PC	2.0	SA8	KJLXR0160P1Z	1	P
JAGUAR	XE 2.0 AWD	PC	2.0	SA8	KJLXR0160P1Z	1	P
JAGUAR	XE 2.0 RWD	PC	2.0	SA8	KJLXR0160P1Z	1	P
JAGUAR	XE 25T	PC	2.0	SA8	KJLXR0160P1Z	1	P
JAGUAR	XE 25T AWD	PC	2.0	SA8	KJLXR0160P1Z	1	P
JAGUAR	XF 25T	PC	2.0	SA8	KJLXR0160P1Z	1	P
JAGUAR	XF 25T AWD	PC	2.0	SA8	KJLXR0160P1Z	1	P
JAGUAR	XF 30T	PC	2.0	SA8	KJLXR0160P1Z	1	P
JAGUAR	XF 30T AWD	PC	2.0	SA8	KJLXR0160P1Z	1	P
JAGUAR	XF 30T AWD SPORTBRAKE	PC	2.0	SA8	KJLXR0160P1Z	1	P
LAND ROVER	RANGE ROVER VELAR	LDT2	2.0	SA8	KJLXR0140P1Z	1	P