

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-19-095;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2020	LSIDL09.8H6C	9.8, 8.4	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Electronic Direct Injection, Turbocharger, Charge Air Cooler, Engine Control Module, Smoke Puff Limiter, Diesel Oxidation Catalyst, Ammonia Oxidation Catalyst, Selective Catalyst Reduction-Urea, Exhaust Gas Recirculation			Tractor	

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for non-methane hydrocarbon (NMHC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

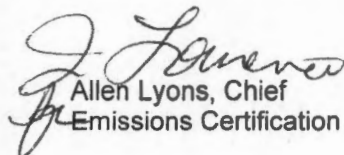
RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			NMHC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
130 ≤ kW ≤ 560	Tier 4 Final	STD	0.19	0.40	N/A	3.5	0.02	N/A	N/A	N/A
		CERT	0.03	0.34	--	0.1	0.02	--	--	--

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this 26th day of July 2019.


 Allen Lyons, Chief
 Emissions Certification and Compliance Division

ATTACHMENT 1 OF 2
 EO # U-R-050-0082
 Date 07/08/2019

Engine Model Summary Template

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SAE Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
LSIDL09.8H6C		84AWF.915	335@2100	168	117.6	1277@1500	229	114.5	ECM,DDI,TC,CAC,SPL,SCRC, EGR, DOC, AMOX
LSIDL09.8H6C		98AWF.927	350@2100	144	117.6	1296@1500	194	113.2	ECM,DDI,TC,CAC,SPL,SCRC, EGR, DOC, AMOX
LSIDL09.8H6C		98AWF.928	425@2100	177	144.6	1477@1500	224	130.7	ECM,DDI,TC,CAC,SPL,SCRC, EGR, DOC, AMOX
LSIDL09.8H6C		84AWF.931	362@2100	176	123.2	1230@1800	218	130.8	ECM,DDI,TC,CAC,SPL,SCRC, EGR, DOC, AMOX
LSIDL09.8H6C		84AWF.932	375@2100	186	130.2	1230@1500	218	109.0	ECM,DDI,TC,CAC,SPL,SCRC, EGR, DOC, AMOX
LSIDL09.8H6C		98AWF.933	430@2100	180	147.0	1477@1500	224	130.7	ECM,DDI,TC,CAC,SPL,SCRC, EGR, DOC, AMOX
LSIDL09.8H6C		98AWF.934	460@2100	196	160.1	1477@1500	224	130.7	ECM,DDI,TC,CAC,SPL,SCRC, EGR, DOC, AMOX
LSIDL09.8H6C		98AWF.935	489@2100	214	174.8	1477@1500	224	130.7	ECM,DDI,TC,CAC,SPL,SCRC, EGR, DOC, AMOX
LSIDL09.8H6C		84AWF.939	315@2100	154	107.8	1154@1500	204	102.0	ECM,DDI,TC,CAC,SPL,SCRC, EGR, DOC, AMOX
LSIDL09.8H6C		84AWF.940	339@2100	168	117.6	1230@1500	218	109.0	ECM,DDI,TC,CAC,SPL,SCRC, EGR, DOC, AMOX
LSIDL09.8H6C		84AWF.941	332@2100	163	114.1	1230@1500	218	109.0	ECM,DDI,TC,CAC,SPL,SCRC, EGR, DOC, AMOX
LSIDL09.8H6C		84AWF.942	364@2100	175	122.5	1230@1500	218	109.0	ECM,DDI,TC,CAC,SPL,SCRC, EGR, DOC, AMOX
LSIDL09.8H6C		84AWF.943	364@2100	210	147.0	1230@1500	218	109.0	ECM,DDI,TC,CAC,SPL,SCRC, EGR, DOC, AMOX
LSIDL09.8H6C		84AWF.944	375@2100	182	127.4	1230@1500	218	109.0	ECM,DDI,TC,CAC,SPL,SCRC, EGR, DOC, AMOX
LSIDL09.8H6C		84AWF.1018	276@2100	133	93.1	1000@1500	180	90.0	ECM,DDI,TC,CAC,SPL,SCRC, EGR, DOC, AMOX
LSIDL09.8H6C		84AWF.1019	300@2100	145	101.5	1069@1500	190	90.5	ECM,DDI,TC,CAC,SPL,SCRC, EGR, DOC, AMOX
LSIDL09.8H6C		84AWF.1020	330@2100	158	110.6	1177@1500	208	104.0	ECM,DDI,TC,CAC,SPL,SCRC, EGR, DOC, AMOX
LSIDL09.8H6C		84AWF.1021	351@2100	169	118.3	1223@1500	214	107.0	ECM,DDI,TC,CAC,SPL,SCRC, EGR, DOC, AMOX
LSIDL09.8H6C		84AWF.1031	330@2100	167	116.9	1154@1500	206	103.0	ECM,DDI,TC,CAC,SPL,SCRC, EGR, DOC, AMOX
LSIDL09.8H6C		98AWF.1032	399@2100	166	135.6	1477@1500	224	130.7	ECM,DDI,TC,CAC,SPL,SCRC, EGR, DOC, AMOX
LSIDL09.8H6C		84AWF.1033	364@2100	176	123.2	1230@1500	218	109.0	ECM,DDI,TC,CAC,SPL,SCRC, EGR, DOC, AMOX
LSIDL09.8H6C		98AWF.1034	375@2100	156	127.4	1390@1500	210	122.5	ECM,DDI,TC,CAC,SPL,SCRC, EGR, DOC, AMOX
LSIDL09.8H6C		84AWF.1268	330@2100	167	116.9	1154@1500	206	103.0	ECM,DDI,TC,CAC,SPL,SCRC, EGR, DOC, AMOX
LSIDL09.8H6C		84AWF.1269	315@2100	154	107.8	1154@1500	204	102.0	ECM,DDI,TC,CAC,SPL,SCRC, EGR, DOC, AMOX
LSIDL09.8H6C		84AWF.1270	364@2100	176	123.2	1230@1500	218	109.0	ECM,DDI,TC,CAC,SPL,SCRC, EGR, DOC, AMOX
LSIDL09.8H6C		84AWF.1271	332@2100	163	114.1	1230@1500	218	109.0	ECM,DDI,TC,CAC,SPL,SCRC, EGR, DOC, AMOX
LSIDL09.8H6C		84AWF.1272	375@2100	182	127.4	1230@1500	218	109.0	ECM,DDI,TC,CAC,SPL,SCRC, EGR, DOC, AMOX

↓ NOTE: THE FIRST TWO DIGITS SIGNIFY THE ENGINE DISPLACEMENT
 84 → 8.4L 98 → 9.8L

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ATTACHMENT 2 OF 2

EO # U-R-050-0082

Date 07/08/2019

Engine Model Summary Template

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SAE Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
LSIDL09.8H6C		84AWF.1273	351@2100	169	118.3	1223@1500	214	107.0	ECM,DDI,TC,CAC,SPL,SGRC, EGR, DOC, AMOX
LSIDL09.8H6C		84AWF.1274	330@2100	158	110.6	1177@1500	208	104.0	ECM,DDI,TC,CAC,SPL,SGRC, EGR, DOC, AMOX
LSIDL09.8H6C		84AWF.1275	300@2100	145	101.5	1069@1500	190	90.5	ECM,DDI,TC,CAC,SPL,SGRC, EGR, DOC, AMOX
LSIDL09.8H6C		84AWF.1276	276@2100	133	93.1	1000@1500	180	90.0	ECM,DDI,TC,CAC,SPL,SGRC, EGR, DOC, AMOX
LSIDL09.8H6C		84AWF.1277	370@2100	176	123.2	1230@1500	218	109.0	ECM,DDI,TC,CAC,SPL,SGRC, EGR, DOC, AMOX
LSIDL09.8H6C		84AWF.1278	330@2100	163	114.1	1230@1800	218	130.8	ECM,DDI,TC,CAC,SPL,SGRC, EGR, DOC, AMOX
LSIDL09.8H6C		84AWF.1281	335@2100	166	116.2	1107@1500	196	98.0	ECM,DDI,TC,CAC,SPL,SGRC, EGR, DOC, AMOX
LSIDL09.8H6C		84AWF.1282	300@2100	145	101.5	1107@1500	196	98.0	ECM,DDI,TC,CAC,SPL,SGRC, EGR, DOC, AMOX
LSIDL09.8H6C		84AWF.1283	280@2100	154	107.8	1154@1500	204	102.0	ECM,DDI,TC,CAC,SPL,SGRC, EGR, DOC, AMOX
LSIDL09.8H6C		84AWF.1284	362@2100	176	123.2	1230@1800	218	130.8	ECM,DDI,TC,CAC,SPL,SGRC, EGR, DOC, AMOX
LSIDL09.8H6C		84AWF.1285	375@2100	186	130.2	1230@1500	218	109.0	ECM,DDI,TC,CAC,SPL,SGRC, EGR, DOC, AMOX
LSIDL09.8H6C		98AWF.1301	425@2100	177	144.6	1477@1500	224	130.7	ECM,DDI,TC,CAC,SPL,SGRC, EGR, DOC, AMOX
LSIDL09.8H6C		98AWF.1302	399@2100	166	135.6	1477@1500	224	130.7	ECM,DDI,TC,CAC,SPL,SGRC, EGR, DOC, AMOX
LSIDL09.8H6C		98AWF.1303	375@2100	156	127.4	1390@1500	210	122.5	ECM,DDI,TC,CAC,SPL,SGRC, EGR, DOC, AMOX
LSIDL09.8H6C		98AWF.1304	399@2100	166	135.6	1477@1500	224	130.7	ECM,DDI,TC,CAC,SPL,SGRC, EGR, DOC, AMOX
LSIDL09.8H6C		98AWF.1305	430@2100	180	147.0	1477@1500	224	130.7	ECM,DDI,TC,CAC,SPL,SGRC, EGR, DOC, AMOX
LSIDL09.8H6C		98AWF.1306	460@2100	196	160.1	1477@1500	224	130.7	ECM,DDI,TC,CAC,SPL,SGRC, EGR, DOC, AMOX
LSIDL09.8H6C		98AWF.1307	489@2100	214	174.8	1477@1500	224	130.7	ECM,DDI,TC,CAC,SPL,SGRC, EGR, DOC, AMOX
LSIDL09.8H6C		98AWF.1330	375@1700	187	152.6	1251@1275	197	114.9	ECM,DDI,TC,CAC,SPL,SGRC, EGR, DOC, AMOX
LSIDL09.8H6C		98AWF.1331	400@1700	198	161.6	1331@1275	213	124.2	ECM,DDI,TC,CAC,SPL,SGRC, EGR, DOC, AMOX
LSIDL09.8H6C		98AWF.1332	425@1700	214	174.6	1416@1275	227	132.3	ECM,DDI,TC,CAC,SPL,SGRC, EGR, DOC, AMOX
LSIDL09.8H6C		98AWF.1351	430@1900	198	146.3	1400@1400	222	120.8	ECM,DDI,TC,CAC,SPL,SGRC, EGR, DOC, AMOX

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