

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-14-012;

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)
2019	KSIDL06.6G6D	6.6, 4.9, 4.4, 3.3	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			Tractor, Generator Set	

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
56 ≤ kW < 130	Tier 4 Final	OPTIONAL STD	0.19	0.40	N/A	5.0	0.02	N/A	N/A	N/A
		CERT	0.07	0.26	--	0.1	0.01	--	--	--

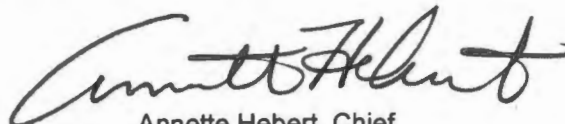
BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has complied with the more stringent set of standards from the various power categories in conformance with section 1039.230 (e) of the "California Exhaust Emissions Standards and Test Procedures for 2008 and Later Tier 4 Off-Road Compression-Ignition Engines, Part I-D" adopted October 20, 2005

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 18 day of July 2018.



Annette Hebert, Chief
 Emissions Compliance, Automotive Regulations and Science Division

ATTACHMENT 1 OF 2

U-R-050-0074

Engine Model Summary Template

Date: 04/17/2019 (Ric)

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 (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
KSIDL06.6G6D	*	49AWF.1120	161@2100	120	56.0	608@1500	173	57.7	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D		66AWF.981	154@2100	77	53.9	528@1500	96	48.0	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D		49AWF.1130	154@2100	121	56.4	531@1500	145	48.3	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D		49AWF.1083	166@2100	126	58.8	577@1500	162	54.0	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D		49AWF.1124	134@2100	104	48.5	472@1500	129	43.0	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D		49AWF.1125	147@2100	115	53.6	498@1500	136	45.3	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D		49AWF.1126	147@2100	115	53.6	498@1500	136	45.3	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D		49AWF.1127	147@2100	115	53.6	498@1500	136	45.3	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D		49AWF.1128	154@2100	121	56.4	531@1500	145	48.3	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D		49AWF.1129	154@2100	121	56.4	531@1500	145	48.3	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D		33AWFC.1100	80@2200	83	30.4	267@1500	103	25.8	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D		33AWFC.1101	86@2200	89	32.6	285@1500	110	27.5	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D		33AWFC.1102	91@2200	94	34.5	273@1500	105	26.3	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D		33AWFC.1103	95@2200	101	37.0	315@1500	122	30.5	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D		33AWFC.1104	101@2200	104	38.1	273@1500	105	26.3	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D		33AWFC.1105	80@2200	83	30.4	266@1500	93	23.3	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D		33AWFC.1106	90@2200	93	34.1	298@1500	115	28.8	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D		33AWFC.1107	99@2200	102	37.4	315@1500	122	30.5	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D		44AWFC.1111	95@2200	72	35.2	315@1500	88	29.3	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D		44AWFC.1112	106@2200	79	38.6	354@1500	100	33.3	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D		44AWFC.1113	106@2200	79	38.6	321@1500	90	30.0	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D		44AWFC.1114	115@2200	84	41.1	392@1500	111	37.0	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D		44AWFC.1115	125@2200	94	46.0	415@1500	117	39.0	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D		44AWFC.1116	99@2200	74	36.2	323@1500	91	30.3	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D		44AWFC.1117	106@2200	79	38.6	360@1500	102	34.0	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D		44AWFC.1118	115@2200	84	41.1	393@1500	111	37.0	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D		44AWFC.1119	125@2200	94	46.0	415@1500	117	39.0	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC

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 (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
KSIDL06.6G6D		49AWF.1142	166@2100	125	58.3	577@1500	157	52.3	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D		44AWF.1184	101@2100	82	38.2	372@1500	106	35.3	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D	OCV	44AWF.1186	114@2100	90	41.9	400@1500	109	36.3	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D		44AWF.1249	103@2100	83	38.7	327@1500	91	30.3	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D		44AWF.1250	114@2100	90	41.9	346@1500	96	32.0	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D		44AWF.1267	103@2100	83	38.7	327@1500	91	30.3	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D		44AWF.1214	138@2100	108	50.3	481@1500	135	44.9	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D		49AWF.1078	165@2100	125	58.3	565@1500	153	50.9	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D		49AWF.1187	166@2100	126	58.7	577@1500	162	53.9	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D		44AWF.1144	138@2100	108	50.3	481@1500	135	44.9	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D		44AWFC.1238	89@2200	68	33.2	405@1500	88	29.3	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D		49AWF.1246	148@2100	114	53.1	481@1500	134	44.6	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D		49AWF.1247	169@2100	130	60.6	577@1500	161	53.6	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D		49AWF.1345	161@2100	120	55.9	519@1500	144	48.0	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D		49AWF.1372	166@2100	131	61.0	549@1500	158	52.6	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D		49AWF.1373	166@2100	131	61.0	549@1500	158	52.6	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D		66AWF.1374	166@2100	86	60.2	549@1500	108	54.0	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D		66AWF.1375	166@2100	86	60.2	549@1500	108	54.0	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D		33AWFC.1376	166@2200	91	33.3	298@1500	118	29.6	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D		49AWF.1377	166@2100	131	61.0	549@1500	158	52.6	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D		66AWF.1378	166@2100	86	60.2	549@1500	108	54.0	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D		49AWF.1210	166@2100	127	59.1	553@1500	162	54.0	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC
KSIDL06.6G6D	**	49AWF.1538	161@2100	120	56.0	608@1500	173	57.7	ECM,DDI,TC,CAC,SPL,SCRC, AMOX, DOC

** NEW ENGINE MODEL

* TESTED ENGINE MODEL