

Pursuant to the authority vested in California 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)
2021	MSIDL06.6G6D	3.3, 4.4, 4.9, 6.6	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Electronic Diesel Injection, Turbocharger, Charge Air Cooler, Engine Control Module, Smoke Puff Limiter, Diesel Oxidation Catalyst, Selective Catalytic Reduction-Urea, Ammonia Oxidation Catalyst,			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	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 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).

**BE IT FURTHER RESOLVED:** That for the listed engine models which include engines from different power categories in the same engine family, the manufacturer is complying with the more stringent set of standards from the 56 ≤ kW < 130 power categories in conformance with the incorporated Section 1039.230 (e) of the "California Exhaust Emission Standards and Test Procedures for New 2011 and Later Tier 4 Off-Road Compression Ignition Engines, Part 1-D" adopted October 20, 2005 and last amended October 25, 2012.

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 on this 16th day of December 2020.



Allen Lyons, Chief  
 Emissions Certification and Compliance Division

## Attachment: Engine Models

EO #: U-R-050-0087

Family: MSIDL06.6G6D

Attachment Revised: 11/19/2020

Model	Code	Trim	Config	Displacement	Displacement - Units	Peak Power	Peak Power - Units	Peak Power - Speed (rpm)	Peak Power - Fueling	Peak Power - Fuel Units	Peak Torque	Peak Torque - Units	Peak Torque - Speed (rpm)	Peak Torque - Fuel	Peak Torque - Fuel Units	OBD	GHG	Special	Notes
49	AWF	.1120	I4	4.9	Liters	161	horsepower	2100	120	mm3/stroke	608	lb-ft	1500	173	mm3/stroke				CCV
66	AWF	.981	I6	6.6	Liters	154	horsepower	2100	77	mm3/stroke	528	lb-ft	1500	96	mm3/stroke				CCV
49	AWF	.1130	I4	4.9	Liters	154	horsepower	2100	121	mm3/stroke	531	lb-ft	1500	145	mm3/stroke				CCV
49	AWF	.1083	I4	4.9	Liters	166	horsepower	2100	126	mm3/stroke	577	lb-ft	1500	162	mm3/stroke				CCV
49	AWF	.1124	I4	4.9	Liters	134	horsepower	2100	104	mm3/stroke	472	lb-ft	1500	129	mm3/stroke				CCV
49	AWF	.1125	I4	4.9	Liters	147	horsepower	2100	115	mm3/stroke	498	lb-ft	1500	136	mm3/stroke				CCV
49	AWF	.1126	I4	4.9	Liters	147	horsepower	2100	115	mm3/stroke	498	lb-ft	1500	136	mm3/stroke				CCV
49	AWF	.1127	I4	4.9	Liters	147	horsepower	2100	115	mm3/stroke	498	lb-ft	1500	136	mm3/stroke				CCV
49	AWF	.1128	I4	4.9	Liters	154	horsepower	2100	121	mm3/stroke	531	lb-ft	1500	145	mm3/stroke				CCV
49	AWF	.1129	I4	4.9	Liters	154	horsepower	2100	121	mm3/stroke	531	lb-ft	1500	145	mm3/stroke				CCV
33	AWFC	.1100	I3	3.3	Liters	80	horsepower	2200	83	mm3/stroke	267	lb-ft	1500	103	mm3/stroke				CCV
33	AWFC	.1101	I3	3.3	Liters	86	horsepower	2200	89	mm3/stroke	285	lb-ft	1500	110	mm3/stroke				CCV
33	AWFC	.1102	I3	3.3	Liters	91	horsepower	2200	94	mm3/stroke	273	lb-ft	1500	105	mm3/stroke				CCV
33	AWFC	.1103	I3	3.3	Liters	95	horsepower	2200	101	mm3/stroke	315	lb-ft	1500	122	mm3/stroke				CCV
33	AWFC	.1104	I3	3.3	Liters	101	horsepower	2200	104	mm3/stroke	273	lb-ft	1500	105	mm3/stroke				CCV
33	AWFC	.1105	I3	3.3	Liters	80	horsepower	2200	83	mm3/stroke	266	lb-ft	1500	93	mm3/stroke				CCV
33	AWFC	.1106	I3	3.3	Liters	90	horsepower	2200	93	mm3/stroke	298	lb-ft	1500	115	mm3/stroke				CCV
33	AWFC	.1107	I3	3.3	Liters	99	horsepower	2200	102	mm3/stroke	315	lb-ft	1500	122	mm3/stroke				CCV
44	AWFC	.1111	I4	4.4	Liters	95	horsepower	2200	72	mm3/stroke	315	lb-ft	1500	88	mm3/stroke				CCV
44	AWFC	.1112	I4	4.4	Liters	106	horsepower	2200	79	mm3/stroke	354	lb-ft	1500	100	mm3/stroke				CCV
44	AWFC	.1113	I4	4.4	Liters	106	horsepower	2200	79	mm3/stroke	321	lb-ft	1500	90	mm3/stroke				CCV
44	AWFC	.1114	I4	4.4	Liters	115	horsepower	2200	84	mm3/stroke	392	lb-ft	1500	111	mm3/stroke				CCV
44	AWFC	.1115	I4	4.4	Liters	125	horsepower	2200		mm3/stroke	415	lb-ft	1500	117	mm3/stroke				CCV
44	AWFC	.1116	I4	4.4	Liters	99	horsepower	2200	74	mm3/stroke	323	lb-ft	1500	91	mm3/stroke				CCV
44	AWFC	.1117	I4	4.4	Liters	106	horsepower	2200	79	mm3/stroke	360	lb-ft	1500	102	mm3/stroke				CCV
44	AWFC	.1118	I4	4.4	Liters	115	horsepower	2200	84	mm3/stroke	393	lb-ft	1500	111	mm3/stroke				CCV
44	AWFC	.1119	I4	4.4	Liters	125	horsepower	2200	94	mm3/stroke	415	lb-ft	1500	117	mm3/stroke				CCV
49	AWF	.1142	I4	4.9	Liters	166	horsepower	2100	125	mm3/stroke	577	lb-ft	1500	157	mm3/stroke				CCV
44	AWF	.1184	I4	4.4	Liters	101	horsepower	2100	82	mm3/stroke	372	lb-ft	1500	106	mm3/stroke				OCV
44	AWF	.1186	I4	4.4	Liters	114	horsepower	2100	90	mm3/stroke	400	lb-ft	1500	109	mm3/stroke				OCV
44	AWF	.1249	I4	4.4	Liters	103	horsepower	2100	83	mm3/stroke	327	lb-ft	1500	91	mm3/stroke				OCV
44	AWF	.1250	I4	4.4	Liters	114	horsepower	2100	90	mm3/stroke	346	lb-ft	1500	96	mm3/stroke				OCV
44	AWF	.1267	I4	4.4	Liters	103	horsepower	2100	83	mm3/stroke	327	lb-ft	1500	91	mm3/stroke				OCV
44	AWF	.1214	I4	4.4	Liters	138	horsepower	2100	108	mm3/stroke	481	lb-ft	1500	135	mm3/stroke				CCV
49	AWF	.1078	I4	4.9	Liters	165	horsepower	2100	125	mm3/stroke	565	lb-ft	1500	153	mm3/stroke				CCV
49	AWF	.1187	I4	4.9	Liters	166	horsepower	2100	126	mm3/stroke	577	lb-ft	1500	162	mm3/stroke				CCV
44	AWF	.1144	I4	4.4	Liters	138	horsepower	2100	108	mm3/stroke	481	lb-ft	1500	135	mm3/stroke				CCV
44	AWFC	.1238	I4	4.4	Liters	89	horsepower	2200	68	mm3/stroke	405	lb-ft	1500	88	mm3/stroke				CCV
49	AWF	.1246	I4	4.9	Liters	148	horsepower	2100	114	mm3/stroke	481	lb-ft	1500	134	mm3/stroke				CCV
49	AWF	.1247	I4	4.9	Liters	169	horsepower	2100	130	mm3/stroke	577	lb-ft	1500	161	mm3/stroke				CCV
49	AWF	.1345	I4	4.9	Liters	161	horsepower	2100	120	mm3/stroke	519	lb-ft	1500	144	mm3/stroke				CCV
49	AWF	.1372	I4	4.9	Liters	166	horsepower	2100	131	mm3/stroke	549	lb-ft	1500	158	mm3/stroke				CCV
49	AWF	.1373	I4	4.9	Liters	166	horsepower	2100	131	mm3/stroke	549	lb-ft	1500	158	mm3/stroke				CCV
66	AWF	.1374	I6	6.6	Liters	166	horsepower	2100	86	mm3/stroke	549	lb-ft	1500	108	mm3/stroke				CCV
66	AWF	.1375	I6	6.6	Liters	166	horsepower	2100	86	mm3/stroke	549	lb-ft	1500	108	mm3/stroke				CCV
33	AWFC	.1376	I3	3.3	Liters	166	horsepower	2200	91	mm3/stroke	298	lb-ft	1500	118	mm3/stroke				CCV
49	AWF	.1377	I4	4.9	Liters	166	horsepower	2100	131	mm3/stroke	549	lb-ft	1500	158	mm3/stroke				CCV
66	AWF	.1378	I6	6.6	Liters	166	horsepower	2100	86	mm3/stroke	549	lb-ft	1500	108	mm3/stroke				CCV
49	AWF	.1210	I4	4.9	Liters	166	horsepower	2100	127	mm3/stroke	553	lb-ft	1500	162	mm3/stroke				CCV
49	AWF	.1538	I4	4.9	Liters	161	horsepower	2100	120	mm3/stroke	608	lb-ft	1500	173	mm3/stroke				OCV