

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)
2015	FHZXL2.57C43	2.574	Diesel	5000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Mechanical Direct Injection, Electronic Control Module, Exhaust Gas Recirculation, Diesel Oxidation Catalyst, Periodic Trap Oxidizer			Pump, Compressor	

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
19 ≤ kW < 37	Tier 4 Final	STD	N/A	N/A	4.7	5.5	0.03	N/A	N/A	N/A
		CERT	--	--	3.7	0.01	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).

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 12th day of January 2015.


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

Detailed engine models summarization of the engine family FHZXL2.57C43

Attachment 1 of 2

U-R-034-0303
1/7/15



EPA Engine Family Name	Engine Model	Engine Code	Rated power (kW)	Rated Speed (RPM)	Maximum Torque (N*m)	Speed at Maximum Torque	Fuel Rate at Maximum Torque	Fuel Rate at Rated Speed (mm3/stroke)	Emission Control System
FHZXL2.57C43	3M43	cs-3M43-3150	36,6	3150	111,0	3150	44,0	44,0	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43	cs-3M43-3000	36,6	3000	116,5	3000	44,5	44,5	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43	cs-3M43-2950	36,5	2950	118,2	2950	44,5	44,5	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43	cs-3M43-2900	36,2	2900	119,2	2900	44,5	44,5	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43	cs-3M43-2850	35,8	2850	120,0	2850	44,5	44,5	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43	cs-3M43-2800	35,5	2800	121,1	2800	44,5	44,5	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43	cs-3M43-2750	35,4	2750	122,9	2750	44,5	44,5	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43	cs-3M43-2700	35,2	2700	124,5	2700	44,5	44,5	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43	cs-3M43-2650	35,1	2650	126,5	2650	44,5	44,5	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43	cs-3M43-2600	34,9	2600	128,2	2600	45,0	45,0	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43	cs-3M43-2550	34,3	2550	128,4	2550	45,0	45,0	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43	cs-3M43-2500	34,1	2500	130,3	2500	46,0	46,0	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43	cs-3M43-2450	33,6	2450	131,0	2450	46,0	46,0	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43	cs-3M43-2400	33,2	2400	132,1	2400	46,0	46,0	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43	cs-3M43-2350	32,7	2350	132,9	2350	46,0	46,0	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43	cs-3M43-2300	35,1	2300	145,7	2300	49,5	49,5	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43	cs-3M43-2250	34,4	2250	146,0	2250	49,5	49,5	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43	cs-3M43-2200	34,0	2200	147,6	2200	49,5	49,5	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43	cs-3M43-2150	33,4	2150	148,3	2150	49,5	49,5	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43	cs-3M43-2100	32,7	2100	148,7	2100	49,5	49,5	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43	cs-3M43-2050	32,0	2050	149,1	2050	49,5	49,5	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43	cs-3M43-2000	31,4	2000	149,9	2000	49,5	49,5	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43	cs-3M43-1950	30,6	1950	149,9	1950	49,0	49,0	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43	cs-3M43-1900	29,7	1900	149,3	1900	49,0	49,0	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43	cs-3M43-1850	29,3	1850	151,2	1850	49,0	49,0	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43	cs-3M43-1800	28,4	1800	150,7	1800	49,0	49,0	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43	cs-3M43-1750	27,9	1750	152,2	1750	48,0	48,0	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43	cs-3M43-1700	27,0	1700	151,7	1700	48,0	48,0	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43	cs-3M43-1650	26,0	1650	150,5	1650	48,0	48,0	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43	cs-3M43-1600	24,9	1600	148,6	1600	48,0	48,0	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43	cs-3M43-1550	24,1	1550	148,5	1550	48,0	48,0	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43	cs-3M43-1500	23,2	1500	147,7	1500	48,0	48,0	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43Z	cs-3M43Z-3150	35,8	3150	108,5	3150	44,0	44,0	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43Z	cs-3M43Z-3000	35,8	3000	114,0	3000	44,5	44,5	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43Z	cs-3M43Z-2950	35,7	2950	115,6	2950	44,5	44,5	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43Z	cs-3M43Z-2900	35,4	2900	116,6	2900	44,5	44,5	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43Z	cs-3M43Z-2850	35,1	2850	117,6	2850	44,5	44,5	DDI/ECM/EGR/DOC/DPF

Detailed engine models summarization of the engine family FHZXL2.57C43

Attachment 2 of 2

U-R-034-0303
1/7/15



EPA Engine Family Name	Engine Model	Engine Code	Rated power (kW)	Rated Speed (RPM)	Maximum Torque (N*m)	Speed at Maximum Torque	Fuel Rate at Maximum Torque	Fuel Rate at Rated Speed (mm3/stroke)	Emission Control System
FHZXL2.57C43	3M43Z	cs-3M43Z-2800	34,8	2800	118,7	2800	44,5	44,5	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43Z	cs-3M43Z-2750	34,7	2750	120,5	2750	44,5	44,5	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43Z	cs-3M43Z-2700	34,5	2700	122,0	2700	44,5	44,5	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43Z	cs-3M43Z-2650	34,4	2650	124,0	2650	44,5	44,5	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43Z	cs-3M43Z-2600	34,2	2600	125,6	2600	45,0	45,0	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43Z	cs-3M43Z-2550	33,7	2550	126,2	2550	45,0	45,0	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43Z	cs-3M43Z-2500	33,5	2500	128,0	2500	46,0	46,0	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43Z	cs-3M43Z-2450	33,0	2450	128,6	2450	46,0	46,0	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43Z	cs-3M43Z-2400	32,6	2400	129,7	2400	46,0	46,0	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43Z	cs-3M43Z-2350	32,1	2350	130,4	2350	46,0	46,0	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43Z	cs-3M43Z-2300	34,5	2300	143,2	2300	49,5	49,5	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43Z	cs-3M43Z-2250	33,9	2250	143,9	2250	49,5	49,5	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43Z	cs-3M43Z-2200	33,5	2200	145,4	2200	49,5	49,5	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43Z	cs-3M43Z-2150	32,9	2150	146,1	2150	49,5	49,5	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43Z	cs-3M43Z-2100	32,2	2100	146,4	2100	49,5	49,5	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43Z	cs-3M43Z-2050	31,5	2050	146,7	2050	49,5	49,5	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43Z	cs-3M43Z-2000	30,9	2000	147,5	2000	49,5	49,5	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43Z	cs-3M43Z-1950	30,2	1950	147,9	1950	49,0	49,0	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43Z	cs-3M43Z-1900	29,3	1900	147,3	1900	49,0	49,0	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43Z	cs-3M43Z-1850	28,9	1850	149,2	1850	49,0	49,0	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43Z	cs-3M43Z-1800	28,0	1800	148,5	1800	49,0	49,0	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43Z	cs-3M43Z-1750	27,5	1750	150,1	1750	48,0	48,0	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43Z	cs-3M43Z-1700	26,6	1700	149,4	1700	48,0	48,0	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43Z	cs-3M43Z-1650	25,7	1650	148,7	1650	48,0	48,0	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43Z	cs-3M43Z-1600	24,6	1600	146,8	1600	48,0	48,0	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43Z	cs-3M43Z-1550	23,8	1550	146,6	1550	48,0	48,0	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3M43Z	cs-3M43Z-1500	22,9	1500	145,8	1500	48,0	48,0	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3L43C	cs-3L43C-3150	34,0	3150	103,1	3150	42,5	42,5	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3L43C	cs-3L43C-3000	34,0	3000	108,2	3000	42,5	42,5	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3L43C	cs-3L43C-2950	33,8	2950	109,4	2950	42,5	42,5	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3L43C	cs-3L43C-2900	33,7	2900	111,0	2900	42,5	42,5	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3L43C	cs-3L43C-2850	33,6	2850	112,6	2850	42,5	42,5	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3L43C	cs-3L43C-2800	33,4	2800	113,9	2800	42,5	42,5	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3L43C	cs-3L43C-2750	33,2	2750	115,3	2750	43,0	43,0	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3L43C	cs-3L43C-2700	33,0	2700	116,7	2700	43,0	43,0	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3L43C	cs-3L43C-2650	32,8	2650	118,2	2650	43,0	43,0	DDI/ECM/EGR/DOC/DPF
FHZXL2.57C43	3L43C	cs-3L43C-2600	32,6	2600	119,7	2600	43,5	43,5	DDI/ECM/EGR/DOC/DPF