Compression-Ignition Engines

⊘ Air Resources Board

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-02-003;

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)		
2014	EPKXL7.01BL3	7.01	Diesel	8000		
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION			
Electronic Direct Injection, Turbocharger, Charge Air Cooler, Engine Control Module, Exhaust Gas Recirculation, Diesel Oxidation Catalyst, Periodic Trap Oxidizer			Crane, Loader, Tractor, Dozer, Pump, Compressor, 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	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
CLASS			NMHC	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK
75 ≤ kW ≤ 560	Tier 4 Final / ALT 20% NOx	STD	0.19	0.40	N/A	3.5	0.02	N/A	N/A	N/A
		FEL	N/A	2.00	N/A	N/A	N/A	N/A	N/A	N/A
		CERT	0.03	1.83		0.2	0.004			

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 Emission Standards and Test Procedures for 2008 and Later Tier 4 Off-Road Compression-Ignition Engines, Part I-C" adopted October 20, 2005 and last amended October 25, 2012.

BE IT FURTHER RESOLVED: That the family emission limit(s) (FEL) is an emission level declared by the manufacturer for use in any averaging, banking and trading program and in lieu of an emission standard for certification. It serves as the applicable emission standard for determining compliance of any engine within this engine family under 13 CCR Sections 2423 and 2427.

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.

day of December 2013. Executed at El Monte, California on this

Mobile Source Operations Division

Attachment 1 %1

Engine Model Summary Template

U-R-022-0192 12-11-13

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 torqu	9.Emission Control ueDevice Per SAE J1930
EPKXL7.01BL3	Cert Test 1	3764/2200	302@2200	170	123	940@1400	198	91	DDI TAA ECM DOC PTOX EGR
EPKXL7.01BL3	1	3764/2200	302@2200	170	123	940@1400	198	91	DDI TAA ECM DOC PTOX EGR
EPKXL7.01BL3	2	4292/2150	219@2150	120	80	777@1300	163	68	DDI TAA ECM DOC PTOX EGR
EPKXL7.01BL3	3	4302/2100	172@2100	102	66	627@1000	128	42	DDI TAA ECM DOC PTOX EGR
EPKXL7.01BL3	4	4300/2100	192@2100	113	74	707@1000	150	49	DDI TAA ECM DOC PTOX EGR
EPKXL7.01BL3	5	4298/2100	212@2100	118	81	763@1200	159	63	DDI TAA ECM DOC PTOX EGR
EPKXL7.01BL3	6	4296/1800	204@1800	123	70	687@1400	142	65	DDI TAA ECM DOC PTOX EGR
EPKXL7.01BL3	7	4306/1800	241@1800	144	85	791@1400	163	75	DDI TAA ECM DOC PTOX EGR
EPKXL7.01BL3	8	4304/2200	225@2200	124	83	758@1400	155	72	DDI TAA ECM DOC PTOX EGR
EPKXL7.01BL3	9	4294/2150	239@2150	129	89	777@1300	161	69	DDI TAA ECM DOC PTOX EGR

TAA = TC +CAC