

California Environmental Protection Agency Air Resources Board	DEUTZ AG	EXECUTIVE ORDER U-R-013-0447 New Off-Road Compression-Ignition Engines
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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)
2013	DDZXL04.1013	4.038	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Common Rail Direct Injection, Turbocharger, Charge Air Cooler, Electronic Control Module, Smoke Puff Limiter, Exhaust Gas Recirculation, Periodic Trap Oxidizer			Loader, Compressor, Other Industrial Equipment	

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
75 ≤ kW < 130	Interim Tier 4/ ALT NO _x	STD	0.19	3.4	N/A	5.0	0.02	N/A	N/A	N/A
		CERT	0.15	2.3	--	0.2	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 25th day of January 2013.


Annette Hebert, Chief
Mobile Source Operations Division

Deutz AG
Nonroad CI

Engine Model Summary Template

Attachment

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EO# U-R-013-0447
Date: 1/17/2013

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 mm/stroke@pe (SEA Gross)		7. Fuel Rate: mm/stroke@pe ak torque		8. Fuel Rate: (lbs/hr)@peak torque		9. Emission Control Device Per SAE J1930	
			154.2@2000	154.2@2400	130.0	113.0	57.8	60.3	609@1600	140.5	140.5	48.9	48.9	48.9	DDI, TC, CAC, ECM, SPL, EGR, PTOX	DDI, TC, CAC, ECM, SPL, EGR, PTOX
DDZXL04.1013	C4FI115D	TCD4.1L4	154.2@2000	154.2@2400	130.0	113.0	57.8	60.3	609@1600	140.5	140.5	48.9	48.9	48.9	DDI, TC, CAC, ECM, SPL, EGR, PTOX	DDI, TC, CAC, ECM, SPL, EGR, PTOX
DDZXL04.1013	C4FI115A	TCD4.1L4	154.2@2300	154.2@2200	121.0	116.0	59.2	59.3	609@1600	140.5	140.5	48.9	48.9	48.9	DDI, TC, CAC, ECM, SPL, EGR, PTOX	DDI, TC, CAC, ECM, SPL, EGR, PTOX
DDZXL04.1013	C4FI115B	TCD4.1L4	154.2@2100	140.8@2400	104.0	103.0	52.6	53.8	550@1600	125.5	125.5	43.7	43.7	43.7	DDI, TC, CAC, ECM, SPL, EGR, PTOX	DDI, TC, CAC, ECM, SPL, EGR, PTOX
DDZXL04.1013	C4FI115C	TCD4.1L4	140.8@2300	140.8@2200	110.0	93.0	49.6	49.4	530@1600	122.5	122.5	43.7	43.7	43.7	DDI, TC, CAC, ECM, SPL, EGR, PTOX	DDI, TC, CAC, ECM, SPL, EGR, PTOX
DDZXL04.1013	C4FI105A	TCD4.1L4	127.4@2200	127.4@2100	106.0	93.5	47.1	47.8	530@1600	122.5	114.0	40.5	40.5	40.5	DDI, TC, CAC, ECM, SPL, EGR, PTOX	DDI, TC, CAC, ECM, SPL, EGR, PTOX
DDZXL04.1013	C4FI105B	TCD4.1L4	127.4@2200	120.7@2300	95.5	85.0	46.7	45.3	500@1600	114.0	101.0	35.9	35.9	35.9	DDI, TC, CAC, ECM, SPL, EGR, PTOX	DDI, TC, CAC, ECM, SPL, EGR, PTOX
DDZXL04.1013	C4FI95A	TCD4.1L4	107.3@2400	107.3@2300	83.5	84.0	41.1	41.5	440@1600	101.0	101.0	35.9	35.9	35.9	DDI, TC, CAC, ECM, SPL, EGR, PTOX	DDI, TC, CAC, ECM, SPL, EGR, PTOX
DDZXL04.1013	C4FI80A	TCD4.1L4	107.3@2200	107.3@2100	89.0	93.0	41.3	41.3	440@1600	101.0	101.0	35.9	35.9	35.9	DDI, TC, CAC, ECM, SPL, EGR, PTOX	DDI, TC, CAC, ECM, SPL, EGR, PTOX
DDZXL04.1013	C4FI80B	TCD4.1L4	140.8@2000	140.8@2100	118.0	114.0	52.4	53.2	550@1600	125.5	125.5	43.7	43.7	43.7	DDI, TC, CAC, ECM, SPL, EGR, PTOX	DDI, TC, CAC, ECM, SPL, EGR, PTOX
DDZXL04.1013	C4FI80C	TCD4.1L4	120.7@2200	120.7@2100	95.5	95.5	46.7	46.7	500@1600	114.0	114.0	40.5	40.5	40.5	DDI, TC, CAC, ECM, SPL, EGR, PTOX	DDI, TC, CAC, ECM, SPL, EGR, PTOX
DDZXL04.1013	C4FI85L	TCD4.1L4	107.3@2400	107.3@2300	85.0	85.0	45.3	45.3	440@1600	101.0	101.0	35.9	35.9	35.9	DDI, TC, CAC, ECM, SPL, EGR, PTOX	DDI, TC, CAC, ECM, SPL, EGR, PTOX
DDZXL04.1013	C4FI80S	TCD4.1L4	107.3@2400	107.3@2300	85.0	85.0	45.3	45.3	440@1600	101.0	101.0	35.9	35.9	35.9	DDI, TC, CAC, ECM, SPL, EGR, PTOX	DDI, TC, CAC, ECM, SPL, EGR, PTOX

PTOX = DPF + DOC