

 AIR RESOURCES BOARD	DEUTZ AG	EXECUTIVE ORDER U-R-013-0419
		New Off-Road Compression-Ignition Engines

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)
2012	CDZXL04.1013	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 (NO_x), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NO_x), 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	NO _x	NMHC+NO _x	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 5 day of June 2012.


 Annette Hebert, Chief
 Mobile Source Operations Division

Deutz AG
Nonroad CI

Engine Model Summary Template

Attachment page 1 of 1

EO# U-R-013-0419

5/17/2012

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@pe ak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
CDZXL04.1013	C4FI115D	TCD4.1L4	154.2@2000	130.0	57.8	609@1600	140.5	48.9	DDI, TC, CAC, ECM, SPL, EGR, PTOX
CDZXL04.1013	C4FI115	TCD4.1L4	154.2@2400	113.0	60.3	609@1600	140.5	48.9	DDI, TC, CAC, ECM, SPL, EGR, PTOX
CDZXL04.1013	C4FI115A	TCD4.1L4	154.2@2300	116.0	59.3	609@1600	140.5	48.9	DDI, TC, CAC, ECM, SPL, EGR, PTOX
CDZXL04.1013	C4FI115B	TCD4.1L4	154.2@2200	121.0	59.2	609@1600	140.5	48.9	DDI, TC, CAC, ECM, SPL, EGR, PTOX
CDZXL04.1013	C4FI115C	TCD4.1L4	154.2@2100	125.0	58.3	609@1600	140.5	48.9	DDI, TC, CAC, ECM, SPL, EGR, PTOX
CDZXL04.1013	C4FI105	TCD4.1L4	140.8@2400	104.0	55.5	550@1600	125.5	43.7	DDI, TC, CAC, ECM, SPL, EGR, PTOX
CDZXL04.1013	C4FI105A	TCD4.1L4	140.8@2300	103.0	52.6	550@1600	125.5	43.7	DDI, TC, CAC, ECM, SPL, EGR, PTOX
CDZXL04.1013	C4FI105B	TCD4.1L4	140.8@2200	110.0	53.8	550@1600	125.5	43.7	DDI, TC, CAC, ECM, SPL, EGR, PTOX
CDZXL04.1013	C4FI95	TCD4.1L4	127.4@2400	93.0	49.6	530@1600	122.5	43.7	DDI, TC, CAC, ECM, SPL, EGR, PTOX
CDZXL04.1013	C4FI95A	TCD4.1L4	127.4@2200	101.0	49.4	530@1600	122.5	43.7	DDI, TC, CAC, ECM, SPL, EGR, PTOX
CDZXL04.1013	C4FI95B	TCD4.1L4	127.4@2100	104.0	48.5	530@1600	122.5	43.7	DDI, TC, CAC, ECM, SPL, EGR, PTOX
CDZXL04.1013	C4FI95C	TCD4.1L4	127.4@2200	106.0	47.1	530@1600	122.5	43.7	DDI, TC, CAC, ECM, SPL, EGR, PTOX
CDZXL04.1013	C4FI90	TCD4.1L4	120.7@2300	93.5	47.8	500@1600	114.0	40.5	DDI, TC, CAC, ECM, SPL, EGR, PTOX
CDZXL04.1013	C4FI90A	TCD4.1L4	120.7@2200	95.5	46.7	500@1600	114.0	40.5	DDI, TC, CAC, ECM, SPL, EGR, PTOX
CDZXL04.1013	C4FI80	TCD4.1L4	107.3@2400	85.0	45.3	440@1600	101.0	35.9	DDI, TC, CAC, ECM, SPL, EGR, PTOX
CDZXL04.1013	C4FI80A	TCD4.1L4	107.3@2300	83.5	42.7	440@1600	101.0	35.9	DDI, TC, CAC, ECM, SPL, EGR, PTOX
CDZXL04.1013	C4FI80B	TCD4.1L4	107.3@2200	84.0	41.1	440@1600	101.0	35.9	DDI, TC, CAC, ECM, SPL, EGR, PTOX
CDZXL04.1013	C4FI80C	TCD4.1L4	107.3@2100	89.0	41.5	440@1600	101.0	35.9	DDI, TC, CAC, ECM, SPL, EGR, PTOX
CDZXL04.1013	C4FI80D	TCD4.1L4	107.3@2000	93.0	41.3	440@1600	101.0	35.9	DDI, TC, CAC, ECM, SPL, EGR, PTOX
CDZXL04.1013	C4FI105C	TCD4.1L4	140.8@2000	118.0	52.4	550@1600	125.5	43.7	DDI, TC, CAC, ECM, SPL, EGR, PTOX
CDZXL04.1013	C4FI105D	TCD4.1L4	140.8@2100	114.0	53.2	550@1600	125.5	43.7	DDI, TC, CAC, ECM, SPL, EGR, PTOX
CDZXL04.1013	C4FI85L	TCD4.1L4	120.7@2200	95.5	46.7	500@1600	114.0	40.5	DDI, TC, CAC, ECM, SPL, EGR, PTOX
CDZXL04.1013	C4FI80S	TCD4.1L4	107.3@2400	85.0	45.3	440@1600	101.0	35.9	DDI, TC, CAC, ECM, SPL, EGR, PTOX

PTOX = DPFI + OC