

California Environmental Protection Agency Air Resources Board	DEUTZ AG	EXECUTIVE ORDER U-R-013-0531 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-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)
2017	HDZXL04.1054	4.038	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Common Rail Direct Injection, Turbocharger, Charge Air Cooler, Electronic Control Module, Exhaust Gas Recirculation, Diesel Oxidation Catalyst, Continuous Trap Oxidizer, Selective Catalytic Reduction-Urea			Crane, Loader, Dozer, 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	Tier 4 Final	STD	0.19	0.40	N/A	5.0	0.02	N/A	N/A	N/A
		CERT	0.01	0.32	--	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).

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 23rd day of March 2017.


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

Engine Model Summary Template

Attachment page 1 of 1

EO# U-R-013-0531

Date: 3/7/2017

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
HDZXL04.1054	CFVI85	D4J	113.9@2000	91	40.4	476@1500	103	34.3	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
HDZXL04.1054	CFVI80	D4J	107.2@2000	86	38.2	476@1500	103	34.3	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
HDZXL04.1054	CFVI110	D4J	147.5@2000	120	53.3	609@1600	137	48.7	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
HDZXL04.1054	CFVI80A	D4J	107.2@2000	86	38.2	476@1500	103	34.3	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
HDZXL04.1054	CFVI90	D4J	120.6@2000	95	42.2	566@1500	123	40.9	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
HDZXL04.1054	CFVI110A	D4J	147.5@2000	120	53.3	609@1600	137	48.7	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
HDZXL04.1054	CFVI105	D4J	140.8@2000	107	47.5	609@1600	137	48.7	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
HDZXL04.1054	CFVI98	D4J	131.4@2200	99	48.3	568@1650	125	45.8	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
HDZXL04.1054	CFVI110B	D4J	147.5@2200	109	53.2	609@1600	137	48.7	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
HDZXL04.1054	CFVI110C	D4J	147.5@2200	109	53.2	609@1600	137	48.7	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
HDZXL04.1054	CFVI98A	D4J	131.4@2200	99	48.3	568@1650	125	45.8	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
HDZXL04.1054	CFVI98B	D4J	131.4@2200	99	48.3	568@1650	125	45.8	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
HDZXL04.1054	CFVI98C	D4J	131.4@2200	99	48.3	568@1650	125	45.8	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
HDZXL04.1054	CFVI75	D4J	100.5@2200	77	37.6	425@1450	94	30.2	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
HDZXL04.1054	CFVI87	D4J	116.6@2200	87	42.5	490@1450	108	34.7	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U