CALIFORNIA AIR RESOURCES BOARD	DEUTZ AG	**EXECUTIVE ORDER U-R-013-0635** New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in California 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-19-095;

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)
2021	MDZXL07.8047	7.755	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Common Rail Direct Injection, Turbocharger, Charge Air Cooler, Electronic Control Module, Exhaust Gas Recirculation, Continuous Trap Oxidizer, Selective Catalytic Reduction-Urea	Tractor, Loader, Material Handler, 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
130 ≤ kW ≤ 560	Tier 4 Final	STD	0.19	0.40	N/A	3.5	0.02	N/A	N/A	N/A
		CERT	0.02	0.31	--	0.01	0.004	--	--	--

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 on this 24th day of November 2020.

Allen Lyons, Chief
Emissions Certification and Compliance Division

Attachment: Engine Models **EO #:** U-R-013-0635 **Family:** MDZXL07.8047 **Attachment Last Revised:** 11/16/2020

Model	Code	Trim	Config	Displacement	Displacement - Units	Peak Power	Peak Power - Units	Peak Power - Speed (rpm)	Peak Power - Fueling	Peak Power - Fuel Units	Peak Torque	Peak Torque - Units	Peak Torque - Speed (rpm)	Peak Torque - Fuel	Peak Torque - Fuel Units	OBD	GHG	Special	Notes
TTCD7.8L6	CFWT291U		L6	7.755	Liters	390.2	horsepower	2100	199.1	mm3/stroke	1154	N-m	1500	221.3	mm3/stroke	N/A	N/A	N/A	N/A
TTCD7.8L6	CFWT269U		L6	7.755	Liters	360.7	horsepower	2100	183.4	mm3/stroke	1117	N-m	1500	213.9	mm3/stroke	N/A	N/A	N/A	N/A
TTCD7.8L6	CFWT247U		L6	7.755	Liters	331.2	horsepower	2100	169.1	mm3/stroke	1018	N-m	1500	192.9	mm3/stroke	N/A	N/A	N/A	N/A
TTCD7.8L6	CFWT224U		L6	7.755	Liters	300.3	horsepower	2100	155.1	mm3/stroke	943	N-m	1500	177.9	mm3/stroke	N/A	N/A	N/A	N/A
TTCD7.8L6	CFWT202U		L6	7.755	Liters	270.8	horsepower	2100	142.2	mm3/stroke	856	N-m	1500	160.1	mm3/stroke	N/A	N/A	N/A	N/A
TTCD7.8L6	CFWT232U		L6	7.755	Liters	311.1	horsepower	2100	160.5	mm3/stroke	1012	N-m	1500	194.5	mm3/stroke	N/A	N/A	N/A	N/A
TTCD7.8L6	CFWT217U		L6	7.755	Liters	291.6	horsepower	2100	152.5	mm3/stroke	951.4	N-m	1500	182.5	mm3/stroke	N/A	N/A	N/A	N/A
TTCD7.8L6	CFWT203U		L6	7.755	Liters	272.8	horsepower	2100	143.5	mm3/stroke	888.7	N-m	1500	170.0	mm3/stroke	N/A	N/A	N/A	N/A
TTCD7.8L6	CFWT189U		L6	7.755	Liters	254.1	horsepower	2100	135.0	mm3/stroke	826	N-m	1500	156.5	mm3/stroke	N/A	N/A	N/A	N/A
TTCD7.8L6	CFWT255U		L6	7.755	Liters	341.9	horsepower	2100	175.5	mm3/stroke	1104.8	N-m	1500	213.5	mm3/stroke	N/A	N/A	N/A	N/A
TTCD7.8L6	CFWT201U		L6	7.755	Liters	270.8	horsepower	2100	142.2	mm3/stroke	856	N-m	1500	160.1	mm3/stroke	N/A	N/A	N/A	N/A
TTCD7.8L6	CFWT223U		L6	7.755	Liters	300.3	horsepower	2100	155.1	mm3/stroke	943	N-m	1500	177.9	mm3/stroke	N/A	N/A	N/A	N/A
TTCD7.8L6	CFWT246U		L6	7.755	Liters	331.2	horsepower	2100	169.1	mm3/stroke	1018	N-m	1500	192.9	mm3/stroke	N/A	N/A	N/A	N/A
TTCD7.8L6	CFWT268U		L6	7.755	Liters	360.7	horsepower	2100	183.4	mm3/stroke	1117	N-m	1500	213.9	mm3/stroke	N/A	N/A	N/A	N/A
TTCD7.8L6	CFWT290U		L6	7.755	Liters	390.2	horsepower	2100	199.1	mm3/stroke	1154	N-m	1500	221.3	mm3/stroke	N/A	N/A	N/A	N/A