

## **DEUTZ AG**

## **EXECUTIVE ORDER U-R-013-0645**

New Off-Road Compression-Ignition Engines Page 1 of 2

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	MDZXL03.6123	3.621	Diesel	8000					
SPECIAL	FEATURES & EMISSION C	CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION						
Charge Electr	non Rail Direct Injection e Air Cooler, Exhaust G ronic Control Module, D st, Continuous Trap Ox Catalytic Reduction	as Recirculation, Diesel Oxidation Kidizer, Selective	Off-Road Crane, Loader, Tractor, Dozer, Pump, Compressor, Material Handler, Small Cranes						

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	EMISSION			I	EXHAUST (g/kw-l	OPACITY (%)				
POWER CLASS	STANDARD CATEGORY		NMHC	NOx	NMHC+NOx	СО	PM	ACCEL	LUG	PEAK
56 ≤ kW < 130	Tier 4 Final	STD	0.19	0.40	N/A	5.0	0.02	N/A	N/A	N/A
		CERT	0.003	0.14		0.02	0.002			

**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).

**BE IT FURTHER RESOLVED:** That for the listed engine models which include engines from different power categories in the same engine family, the manufacturer is complying with the more stringent set of standards from the 56 ≤ kW < 130 power categories in conformance with the incorporated Section 1039.230 (e) of the "California Exhaust Emission Standards and Test Procedures for New 2011 and Later Tier 4 Off-Road Compression Ignition Engines, Part 1-D" adopted October 20, 2005 and last amended October 25, 2012.



## **DEUTZ AG**

## **EXECUTIVE ORDER U-R-013-0645**

New Off-Road Compression-Ignition Engines Page **2** of **2** 

**BE IT FURTHER RESOLVED:** The listed engine family is conditionally certified pending submission of additional test data to verify compliance with useful-life emission standards. The manufacturer has until April 30, 2021 to provide test data to confirm or correct the certification emissions levels on this conditional certification. Failure to resolve concerns by the specified date, shall be cause for the Executive Officer to revoke the conditional Executive Order ab initio, in which case all engines covered under this conditional certification would be deemed uncertified pursuant to Health and Safety Code Section 43153 and subject to a civil penalty of up to \$40,500 per engine pursuant to Health and Safety Code Section 43154.

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 2nd day of February 2021.

Allen Lyons, Chief

**Emissions Certification and Compliance Division** 

**Attachment: Engine Models** 

EO #: U-R-013-0645

Family: MDZXL03.6123

Attachment Last Revised: 12/15/2020

				Displacement -		Peak Power -	Peak Power -	Peak Power -	Peak Power - Fue	el	Peak Torque -	Peak Torque -	Peak Torque -	Peak Torque -				
Code	Trim	Config	Displacement	Units	Peak Power	Units	Speed (rpm)	Fueling	Units	Peak Torque	Units		· ·	Fuel Units	OBD	GHG	Special	Notes
C5VI105DU		L4	3.621	Liters	140.8	horsepower	2300	110	mm3/stroke	550	N-m	1600	127	mm3/stroke				N/A
C5VI105EU		L4	3.621	Liters	140.8	horsepower	2200	113.5	mm3/stroke	550	N-m	1600	127	mm3/stroke				N/A
C5VI105GU		L4	3.621	Liters	140.8	horsepower	2000	121	mm3/stroke	550	N-m	1600	127	mm3/stroke				N/A
C5VI100DU		L4	3.621	Liters	134.1	horsepower	2300	104.5	mm3/stroke	500	N-m	1600	113.8	mm3/stroke				N/A
C5VI100EU		L4	3.621	Liters	134.1	horsepower	2200	107	mm3/stroke	500	N-m	1600	113.8	mm3/stroke				N/A
C5VI100GU		L4	3.621	Liters	134.1	horsepower	2000	115	mm3/stroke	500	N-m	1600	113.8	mm3/stroke				N/A
C5VI95DU		L4	3.621	Liters	127.3	horsepower	2300	99.5	mm3/stroke	500	N-m	1600	1138	mm3/stroke				N/A
C5VI95EU		L4	3.621	Liters	127.3	horsepower	2200	102.5	mm3/stroke	500	N-m	1600	113.8	mm3/stroke				N/A
C5VI95GU		L4	3.621	Liters	127.3	horsepower	2000	109.5	mm3/stroke	500	N-m	1600	113.8	mm3/stroke				N/A
C5VI90DU		L4	3.621	Liters	120.6	horsepower	2300	94	mm3/stroke	480	N-m	1600	110	mm3/stroke				N/A
C5VI90EU		L4	3.621	Liters	120.6	horsepower	2200	97	mm3/stroke	480	N-m	1600	110	mm3/stroke				N/A
C5VI90GU		L4	3.621	Liters	120.6	horsepower	2000	103	mm3/stroke	480	N-m	1600	110	mm3/stroke				N/A
C5VI85DU		L4	3.621	Liters	113.9	horsepower	2300	89	mm3/stroke	460	N-m	1600	104.5	mm3/stroke				N/A
C5VI85EU		L4	3.621	Liters	113.9	horsepower	2200	92	mm3/stroke	460	N-m	1600	104.5	mm3/stroke				N/A
C5VI85GU		L4	3.621	Liters	113.9	horsepower	2000	98	mm3/stroke	460	N-m	1600	104.5	mm3/stroke				N/A
C5VI85DV		L4	3.621	Liters	113.9	horsepower	2300	83.5	mm3/stroke	430	N-m	1600	96	mm3/stroke				N/A
C5VI85EV		L4	3.621	Liters	113.9	horsepower	2200	86	mm3/stroke	430	N-m	1600	96	mm3/stroke				N/A
C5VI85GV		L4	3.621	Liters	113.9	horsepower	2000	92	mm3/stroke	430	N-m	1600	96	mm3/stroke				N/A
C5VI74DU		L4	3.621	Liters	99.7	horsepower	2300	78	mm3/stroke	410	N-m	1600	91.5	mm3/stroke				N/A
C5VI74EU		L4	3.621	Liters	99.7	horsepower	2200	80	mm3/stroke	410	N-m	1600	91.5	mm3/stroke				N/A
C5VI74GU		L4	3.621	Liters	99.7	horsepower	2000	85.5	mm3/stroke	410	N-m	1600	91.5	mm3/stroke				N/A
C5VI70EU		L4	3.621	Liters	93.8	horsepower	2200	75	mm3/stroke	390	N-m	1600	87	mm3/stroke				N/A
	C5VI105DU C5VI105EU C5VI105GU C5VI100DU C5VI100EU C5VI100GU C5VI95DU C5VI95EU C5VI95GU C5VI90DU C5VI85DU C5VI85DU C5VI85EU C5VI85GV C5VI85GV C5VI85GV C5VI74EU C5VI74GU	C5VI105DU C5VI105EU C5VI105GU C5VI100DU C5VI100EU C5VI95DU C5VI95EU C5VI95GU C5VI90EU C5VI90EU C5VI85DU C5VI85DU C5VI85EU C5VI85GU C5VI85GV C5VI85GV C5VI85GV C5VI74EU C5VI74GU	C5VI105DU       L4         C5VI105EU       L4         C5VI105GU       L4         C5VI100DU       L4         C5VI100EU       L4         C5VI95DU       L4         C5VI95EU       L4         C5VI95GU       L4         C5VI90DU       L4         C5VI90EU       L4         C5VI90GU       L4         C5VI85DU       L4         C5VI85EU       L4         C5VI85GU       L4         C5VI85GV       L4         C5VI85GV       L4         C5VI74DU       L4         C5VI74GU       L4	C5VI105DU       L4       3.621         C5VI105EU       L4       3.621         C5VI105GU       L4       3.621         C5VI100DU       L4       3.621         C5VI100EU       L4       3.621         C5VI100GU       L4       3.621         C5VI95DU       L4       3.621         C5VI95EU       L4       3.621         C5VI95GU       L4       3.621         C5VI90DU       L4       3.621         C5VI90EU       L4       3.621         C5VI90GU       L4       3.621         C5VI85DU       L4       3.621         C5VI85EU       L4       3.621         C5VI85GU       L4       3.621         C5VI85GV       L4       3.621         C5VI85GV       L4       3.621         C5VI74DU       L4       3.621         C5VI74EU       L4       3.621         C5VI74GU       L4       3.621	Code         Trim         Config         Displacement         Units           C5VI105DU         L4         3.621         Liters           C5VI105EU         L4         3.621         Liters           C5VI105GU         L4         3.621         Liters           C5VI100DU         L4         3.621         Liters           C5VI100EU         L4         3.621         Liters           C5VI100GU         L4         3.621         Liters           C5VI95DU         L4         3.621         Liters           C5VI95BU         L4         3.621         Liters           C5VI95GU         L4         3.621         Liters           C5VI95GU         L4         3.621         Liters           C5VI90BU         L4         3.621         Liters           C5VI90GU         L4         3.621         Liters           C5VI85DU         L4         3.621         Liters           C5VI85GU         L4         3.621         Liters           C5VI85GV         L4         3.621         Liters           C5VI85GV         L4         3.621         Liters           C5VI74DU         L4         3.621         Liters	Code         Trim         Config         Displacement         Units         Peak Power           C5VI105DU         L4         3.621         Liters         140.8           C5VI105EU         L4         3.621         Liters         140.8           C5VI105GU         L4         3.621         Liters         134.1           C5VI100DU         L4         3.621         Liters         134.1           C5VI100GU         L4         3.621         Liters         127.3           C5VI95DU         L4         3.621         Liters         127.3           C5VI95EU         L4         3.621         Liters         127.3           C5VI95GU         L4         3.621         Liters         127.3           C5VI95GU         L4         3.621         Liters         120.6           C5VI95GU         L4         3.621         Liters         120.6           C5VI90GU         L4         3.621         Liters         120.6           C5VI85DU         L4         3.621         Liters         113.9           C5VI85GU         L4         3.621         Liters         113.9           C5VI85DV         L4         3.621         Liters         11	Code         Trim         Config         Displacement         Units         Peak Power         Units           C5VI105DU         L4         3.621         Liters         140.8         horsepower           C5VI105EU         L4         3.621         Liters         140.8         horsepower           C5VI105GU         L4         3.621         Liters         140.8         horsepower           C5VI100DU         L4         3.621         Liters         134.1         horsepower           C5VI100GU         L4         3.621         Liters         134.1         horsepower           C5VI100GU         L4         3.621         Liters         127.3         horsepower           C5VI95DU         L4         3.621         Liters         127.3         horsepower           C5VI95EU         L4         3.621         Liters         127.3         horsepower           C5VI90DU         L4         3.621         Liters         120.6         horsepower           C5VI90EU         L4         3.621         Liters         120.6         horsepower           C5VI90GU         L4         3.621         Liters         113.9         horsepower           C5VI85DU         L4	Code         Trim         Config         Displacement         Units         Peak Power         Units         Speed (rpm)           C5VI105DU         L4         3.621         Liters         140.8         horsepower         2300           C5VI105EU         L4         3.621         Liters         140.8         horsepower         2200           C5VI105GU         L4         3.621         Liters         140.8         horsepower         2000           C5VI100DU         L4         3.621         Liters         134.1         horsepower         2300           C5VI100EU         L4         3.621         Liters         134.1         horsepower         2200           C5VI100GU         L4         3.621         Liters         134.1         horsepower         2000           C5VI19DU         L4         3.621         Liters         127.3         horsepower         2200           C5VI95GU         L4         3.621         Liters         127.3         horsepower         2000           C5VI99DU         L4         3.621         Liters         120.6         horsepower         2200           C5VI90GU         L4         3.621         Liters         120.6         horsepower	Code         Trim         Config         Displacement         Units         Peak Power         Units         Speed (rpm)         Fueling           C5VI105DU         L4         3.621         Liters         140.8         horsepower         2300         110           C5VI105GU         L4         3.621         Liters         140.8         horsepower         2000         113.5           C5VI10DGU         L4         3.621         Liters         134.1         horsepower         2300         104.5           C5VI100GU         L4         3.621         Liters         134.1         horsepower         2200         107           C5VI100GU         L4         3.621         Liters         134.1         horsepower         2000         115           C5VI95DU         L4         3.621         Liters         127.3         horsepower         2300         99.5           C5VI95EU         L4         3.621         Liters         127.3         horsepower         2000         102.5           C5VI95GU         L4         3.621         Liters         127.3         horsepower         2000         109.5           C5VI90DU         L4         3.621         Liters         120.6	Code         Trim         Config         Displacement         Units         Peak Power         Units         Speed (rpm)         Fueling         Units           C5V1105DU         L4         3.621         Liters         140.8         horsepower         2300         110         mm3/stroke           C5V1105GU         L4         3.621         Liters         140.8         horsepower         2200         113.5         mm3/stroke           C5V1105GU         L4         3.621         Liters         140.8         horsepower         2000         121         mm3/stroke           C5V1100EU         L4         3.621         Liters         134.1         horsepower         2200         104.5         mm3/stroke           C5V1100GU         L4         3.621         Liters         134.1         horsepower         2200         107         mm3/stroke           C5V19DU         L4         3.621         Liters         127.3         horsepower         2300         99.5         mm3/stroke           C5V195EU         L4         3.621         Liters         127.3         horsepower         2200         109.5         mm3/stroke           C5V199DU         L4         3.621         Liters         127.3	Code         Trim         Config         Displacement         Units         Peak Power         Units         Speed (rpm)         Fueling         Units         Peak Torque           C5V1105DU         L4         3.621         Liters         140.8         horsepower         2300         110         mm3/stroke         550           C5V1105GU         L4         3.621         Liters         140.8         horsepower         2200         113.5         mm3/stroke         550           C5V1105GU         L4         3.621         Liters         140.8         horsepower         2000         121         mm3/stroke         550           C5V1100EU         L4         3.621         Liters         134.1         horsepower         2300         104.5         mm3/stroke         500           C5V1100GU         L4         3.621         Liters         134.1         horsepower         2000         115         mm3/stroke         500           C5V1100GU         L4         3.621         Liters         127.3         horsepower         2300         99.5         mm3/stroke         500           C5V19DGU         L4         3.621         Liters         127.3         horsepower         2000         102.5	Code         Trim         Confige         Displacement         Units         Peak Power         Units         Speed (rpm)         Fueling         Units         Peak Torque         Units           CSV1105DU         L4         3.621         Liters         140.8         horsepower         2200         113.5         mm3/stroke         550         N-m           CSV1105DU         L4         3.621         Liters         140.8         horsepower         2200         113.5         mm3/stroke         550         N-m           CSV1105DU         L4         3.621         Liters         140.8         horsepower         2000         121         mm3/stroke         550         N-m           CSV1100DU         L4         3.621         Liters         134.1         horsepower         2200         107         mm3/stroke         500         N-m           CSV1100DU         L4         3.621         Liters         134.1         horsepower         2200         107         mm3/stroke         500         N-m           CSV190DU         L4         3.621         Liters         127.3         horsepower         2200         102.5         mm3/stroke         500         N-m           CSV199SU         L4	Code         Trim         Config         Displacement         Units         Peak Power         Units         Speed (rpm)         Fueling         Units         Peak Torque         Units         Speed (rpm)           CSV1105DU         L4         3.621         Liters         140.8         horsepower         2200         113.5         mm3/stroke         550         N-m         1600           CSV1105GU         L4         3.621         Liters         140.8         horsepower         2200         121         mm3/stroke         550         N-m         1600           CSV110DGU         L4         3.621         Liters         134.1         horsepower         2200         107         mm3/stroke         550         N-m         1600           CSV110DGU         L4         3.621         Liters         134.1         horsepower         2200         107         mm3/stroke         500         N-m         1600           CSV110DGU         L4         3.621         Liters         134.1         horsepower         2200         115         mm3/stroke         500         N-m         1600           CSV195DU         L4         3.621         Liters         127.3         horsepower         2300         99.5	Code         Trim         Config         Displacement         Units         Peak Power         Units         Speed (prm)         Fueling         Units         Peak Torque         Units         Speed (prm)         Fuel           CSV1105EU         L4         3.621         Liters         140.8         horsepower         2200         113.5         mm3/stroke         550         N-m         1600         127           CSV1105EU         L4         3.621         Liters         140.8         horsepower         2000         121         mm3/stroke         550         N-m         1600         127           CSV110D6U         L4         3.621         Liters         134.1         horsepower         2200         104.5         mm3/stroke         500         N-m         1600         113.8           CSV110D6U         L4         3.621         Liters         134.1         horsepower         2000         115         mm3/stroke         500         N-m         1600         113.8           CSV1195DU         L4         3.621         Liters         134.1         horsepower         2000         115         mm3/stroke         500         N-m         1600         113.8           CSV195DU         L4	Code         Trim         Config         Displacement         Units         Peak Power         Units         Speed (rpm)         Fuelling         Units         Peak Torque         Units         Speed (rpm)         Fuel Units           CSV1105DU         L         4         3.621         Liters         140.8         horsepower         2200         1113         mm3/stroke         550         N-m         1600         127         mm3/stroke           CSV1105DU         L         4         3.621         Liters         140.8         horsepower         2200         121         mm3/stroke         550         N-m         1600         127         mm3/stroke           CSV110DU         L         4         3.621         Liters         134.1         horsepower         2200         104.5         mm3/stroke         500         N-m         1600         113.8         mm3/stroke           CSV110DU         L         4         3.621         Liters         134.1         horsepower         2200         115         mm3/stroke         500         N-m         1600         113.8         mm3/stroke           CSV110DU         L         4         3.621         Liters         127.3         horsepower         2200	Code         Time         Confige         Displacement         Units         Peak Power         Units         Speed (prm)         Fuel Units         Peak Torque         Units         Speed (prm)         Fuel Units         OBD           CSV110SDU         L         4         3.621         Liters         140.8         horsepower         2200         113.5         mm3/stroke         550         N-m         1600         127         mm3/stroke         CSV110SU         4         3.621         Liters         140.8         horsepower         2200         121         mm3/stroke         550         N-m         1600         127         mm3/stroke         CSV110DU         4         3.621         Liters         134.1         horsepower         2300         104.5         mm3/stroke         500         N-m         1600         113.8         mm3/stroke         CSV110DU         4         3.621         Liters         134.1         horsepower         2200         115         mm3/stroke         500         N-m         1600         113.8         mm3/stroke         CSV110DU         4         3.621         Liters         127.3         horsepower         2200         19.5         mm3/stroke         500         N-m         1600         113.8         mm3/st	Code         Time         Coffige         Displacement         Units         Speed (prm)         Fueling         Units         Speed (prm)         Fuel Units         OBD         GHS           CSV110SDU         L         4         3.621         Liters         140.8         horsepower         2200         113.5         mm3/stroke         550         N-m         1600         127         mm3/stroke         CSV110SFU         4         3.621         Liters         140.8         horsepower         2200         113.5         mm3/stroke         550         N-m         1600         127         mm3/stroke         CSV110SFU         4         3.621         Liters         140.8         horsepower         2200         104.5         mm3/stroke         550         N-m         1600         113.8         mm3/stroke         CSV110DFU         4         3.621         Liters         134.1         horsepower         2200         104.5         mm3/stroke         500         N-m         1600         113.8         mm3/stroke         CSV110GFU         4         3.621         Liters         134.1         horsepower         2200         115         mm3/stroke         500         N-m         1600         113.8         mm3/stroke         CSV195U         4	Control   Cont