CALIFORNIA AIR RESOURCES BOARD	**HYUNDAI DOOSAN INFRACORE CO. LTD.**	**EXECUTIVE ORDER U-R-019-0190** New Off-Road Compression-Ignition Engines Page **1** of **1**

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)
2022	NDICL01.8LEA	1.794	Diesel	5000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Exhaust Gas Recirculation, Diesel Oxidation Catalyst, Electronic Direct Injection, Turbocharger, Charge Air Cooler, Electronic Control Module	Loader, Tractor, Compressor, Generator Set, Auxiliary Power Unit, Excavator, Excavator, Forklift, Utility Terrain Vehicle

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
19 ≤ kW < 37	Tier 4 Final	**STD**	N/A	N/A	4.7	5.5	0.03	N/A	N/A	N/A
		CERT	--	--	3.8	0.2	0.02	--	--	--

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 21st day of December 2021.

Allen Lyons, Chief
Emissions Certification and Compliance Division

Attachment: Engine Models **EO #:** U-R-019-0190 **Family:** NDICL01.8LEA **Attachment Last Revised:** 10/22/2021

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
DL01-LEL00	D18NAP	N/A	I3	1.794	Liters	36.4	kilowatt	2800	45.7	mm3/stroke	165	N-m	1800	54	mm3/stroke	N/A	N/A	N/A	EGR, DOC, DFI, TC, CAC, ECM
DL01-LEE00	D18NAP	N/A	I3	1.794	Liters	24.6	kilowatt	2400	36.9	mm3/stroke	110	N-m	1600	36.6	mm3/stroke	N/A	N/A	N/A	EGR, DOC, DFI, TC, CAC, ECM
DL01-LEG00	D18PP	N/A	I3	1.794	Liters	29	kilowatt	1800	48.3	mm3/stroke	156	N-m	1800	48.3	mm3/stroke	N/A	N/A	N/A	EGR, DOC, DFI, TC, CAC, ECM
DL01-LEG00	D18PP	N/A	I3	1.794	Liters	26	kilowatt	1500	51.3	mm3/stroke	166	N-m	1500	51.3	mm3/stroke	N/A	N/A	N/A	EGR, DOC, DFI, TC, CAC, ECM
DL01-LEG01	D18PP	N/A	I3	1.794	Liters	29	kilowatt	1800	48.3	mm3/stroke	156	N-m	1800	48.3	mm3/stroke	N/A	N/A	N/A	EGR, DOC, DFI, TC, CAC, ECM
DL01-LEG01	D18PP	N/A	I3	1.794	Liters	26	kilowatt	1500	51.3	mm3/stroke	166	N-m	1500	51.3	mm3/stroke	N/A	N/A	N/A	EGR, DOC, DFI, TC, CAC, ECM
DL01-LER00	D18NAP	N/A	I3	1.794	Liters	36.4	kilowatt	2800	45.7	mm3/stroke	165	N-m	1800	54.0	mm3/stroke	N/A	N/A	N/A	EGR, DOC, DFI, TC, CAC, ECM
DL01-LER01	D18NAP	N/A	I3	1.794	Liters	24.6	kilowatt	2400	36.9	mm3/stroke	110	N-m	1600	36.6	mm3/stroke	N/A	N/A	N/A	EGR, DOC, DFI, TC, CAC, ECM
DL01-LER02	D18NAP	N/A	I3	1.794	Liters	36.2	kilowatt	2600	45.2	mm3/stroke	165	N-m	1800	54.0	mm3/stroke	N/A	N/A	N/A	EGR, DOC, DFI, TC, CAC, ECM
DL01-LER03	D18NAP	N/A	I3	1.794	Liters	36.4	kilowatt	2600	45.5	mm3/stroke	165	N-m	1800	53.5	mm3/stroke	N/A	N/A	N/A	EGR, DOC, DFI, TC, CAC, ECM