



HYUNDAI DOOSAN INFRACORE CO.  
LTD.

EXECUTIVE ORDER U-R-019-0198-1  
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)
2022	NDICL05.8LEB	5.89	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Exhaust Gas Recirculation, Diesel Oxidation Catalyst, Selective Catalyst Reduction-Urea, Electronic Direct Injection, Turbocharger, Charge Air Cooler, Electronic Control Module, DEF Quality Sensor			Loader, Compressor, Excavator, Forklift	

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 ≤ 560	Tier 4 Final	<b>STD</b>	0.19	0.40	N/A	3.5	0.02	N/A	N/A	N/A
		<b>CERT</b>	0.02	0.23	--	0.01	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.**

This Executive Order hereby supersedes Executive Order U-R-019-0198 dated January 18, 2022.

Executed on this 24th day of March 2022.

Allen Lyons, Chief  
Emissions Certification and Compliance Division

**Attachment: Engine Models****EO #:** U-R-019-0198-1**Family:** NDICL05.8LEB**Attachment Last Revised:** 3/9/2022

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 Units	OBD	GHG	Special	Notes
DL06P	DL06-LEL06	N/A	I6	5.89	Liters	141	kilowatt	2000	107.8	mm3/stroke	902	N-m	1400	139.0	N/A	N/A	N/A	EGR, DOC, SCR, DFI, TC, CAC, ECM, DQS
DL06P	DL06-LEE18	N/A	I6	5.89	Liters	141	kilowatt	1900	111.3	mm3/stroke	804	N-m	1400	124.8	N/A	N/A	N/A	EGR, DOC, SCR, DFI, TC, CAC, ECM, DQS
DL06P	DL06-LEE17	N/A	I6	5.89	Liters	130	kilowatt	1800	104.7	mm3/stroke	804	N-m	1400	119.7	N/A	N/A	N/A	EGR, DOC, SCR, DFI, TC, CAC, ECM, DQS
DL06P	DL06-LEE19	N/A	I6	5.89	Liters	130	kilowatt	1900	101.0	mm3/stroke	755	N-m	1400	115.7	N/A	N/A	N/A	EGR, DOC, SCR, DFI, TC, CAC, ECM, DQS
DL06P	DL06-LEE20	N/A	I6	5.89	Liters	141	kilowatt	1900	111.3	mm3/stroke	804	N-m	1400	124.8	N/A	N/A	N/A	EGR, DOC, SCR, DFI, TC, CAC, ECM, DQS
DL06P	DL06-LEE21	N/A	I6	5.89	Liters	141	kilowatt	1900	111.3	mm3/stroke	804	N-m	1400	124.8	N/A	N/A	N/A	EGR, DOC, SCR, DFI, TC, CAC, ECM, DQS
DL06P	DL06-LEE22	N/A	I6	5.89	Liters	102	kilowatt	2000	79.7	mm3/stroke	588	N-m	1400	89.4	N/A	N/A	N/A	EGR, DOC, SCR, DFI, TC, CAC, ECM, DQS
DL06P	DL06-LEL04	N/A	I6	5.89	Liters	128	kilowatt	2100	96.3	mm3/stroke	804	N-m	1400	124.8	N/A	N/A	N/A	EGR, DOC, SCR, DFI, TC, CAC, ECM, DQS
DL06P	DL06-LEL05	N/A	I6	5.89	Liters	119	kilowatt	2100	89.7	mm3/stroke	736	N-m	1400	111.0	N/A	N/A	N/A	EGR, DOC, SCR, DFI, TC, CAC, ECM, DQS
DL06P	DL06-LEE02	N/A	I6	5.89	Liters	141.2	kilowatt	1900	111.3	mm3/stroke	804	N-m	1400	124.8	N/A	N/A	N/A	EGR, DOC, SCR, DFI, TC, CAC, ECM, DQS

**Attachment: Engine Models**EO #: U-R-019-0198-1Family: NDICL05.8LEBAttachment Last Revised: 3/9/2022

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 Units	OBD	GHG	Special	Notes	
DL06P	DL06-LEE00	N/A	I6	5.89	Liters	124.0	kilowatt	1800	103.1	mm3/stroke	755	N-m	1400	115.7	mm3/stroke	N/A	N/A	N/A	EGR, DOC, SCR, DFI, TC, CAC, ECM, DQS
DL06P	DL06-LEE01	N/A	I6	5.89	Liters	113.2	kilowatt	2000	88.5	mm3/stroke	804	N-m	1400	124.8	mm3/stroke	N/A	N/A	N/A	EGR, DOC, SCR, DFI, TC, CAC, ECM, DQS
DL06P	DL06-LEE03	N/A	I6	5.89	Liters	129.4	kilowatt	1900	101.0	mm3/stroke	755	N-m	1400	115.7	mm3/stroke	N/A	N/A	N/A	EGR, DOC, SCR, DFI, TC, CAC, ECM, DQS
DL06P	DL06-LEE04	N/A	I6	5.89	Liters	141.2	kilowatt	1900	111.3	mm3/stroke	647	N-m	1400	98.2	mm3/stroke	N/A	N/A	N/A	EGR, DOC, SCR, DFI, TC, CAC, ECM, DQS
DL06P	DL06-LEE05	N/A	I6	5.89	Liters	141.2	kilowatt	1900	111.3	mm3/stroke	755	N-m	1400	115.7	mm3/stroke	N/A	N/A	N/A	EGR, DOC, SCR, DFI, TC, CAC, ECM, DQS
DL06P	DL06-LEE07	N/A	I6	5.89	Liters	102.2	kilowatt	2000	79.7	mm3/stroke	588	N-m	1400	89.4	mm3/stroke	N/A	N/A	N/A	EGR, DOC, SCR, DFI, TC, CAC, ECM, DQS
DL06P	DL06-LLE00	N/A	I6	5.89	Liters	127.9	kilowatt	2100	96.3	mm3/stroke	804	N-m	1400	124.8	mm3/stroke	N/A	N/A	N/A	EGR, DOC, SCR, DFI, TC, CAC, ECM, DQS
DL06P	DL06-LFE00	N/A	I6	5.89	Liters	139.7	kilowatt	2100	106.2	mm3/stroke	785	N-m	1400	120.4	mm3/stroke	N/A	N/A	N/A	EGR, DOC, SCR, DFI, TC, CAC, ECM, DQS
DL06P	DL06-LFE01	N/A	I6	5.89	Liters	128.7	kilowatt	2100	97.1	mm3/stroke	726	N-m	1400	111.0	mm3/stroke	N/A	N/A	N/A	EGR, DOC, SCR, DFI, TC, CAC, ECM, DQS
DL06P	DL06-LLE02	N/A	I6	5.89	Liters	119.0	kilowatt	2100	89.7	mm3/stroke	736	N-m	1400	111.0	mm3/stroke	N/A	N/A	N/A	EGR, DOC, SCR, DFI, TC, CAC, ECM, DQS

**Attachment: Engine Models**

**EO #:** U-R-019-0198-1

**Family:** NDICL05.8LEB

**Attachment Last Revised:** 3/9/2022

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 Units	OBD	GHG	Special	Notes	
DL06P	DL06-LEL03	N/A	I6	5.89	Liters	127.9	kilowatt	2100	96.3	mm3/stroke	804	N-m	1400	124.8	mm3/stroke	N/A	N/A	N/A	EGR, DOC, SCR, DFI, TC, CAC, ECM, DQS