

## GLOBAL COMPONENT TECHNOLOGIES CORPORATION

EXECUTIVE ORDER U-L-059-0020 New Off-Road Large Spark-Ignition Engines Above 19 Kilowatts

Pursuant to the authority vested in California Air Resources Board by the Health and Safety Code, Division 26, Part 5, Chapters 1 and 2; and

Pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Order G-14-012;

IT IS ORDERED AND RESOLVED: That the following new large spark-ignition engines and emission control systems produced by the manufacturer are certified for use in off-road equipment as described below. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL ENGINE FAMILY YEAR NAME		ENGINE DISPLACEMENT (liters)	FUEL TYPE			
2020	LNFXB02.548D	2.5	TYPICAL EQUIPMENT USAGE  Forklift			
DURABILITY HOURS	1	IAL FEATURES & I CONTROL SYSTEMS				
5000	Throttle Body Injection Converter,	tion (LPG), Three-Way Catalytic Heated Oxygen Sensor				
	NE MODELS er in kilowatt, kW)	See Attachment				

The following are the hydrocarbon plus oxides of nitrogen (HC+NOx) and carbon monoxide (CO) exhaust certification emission standards (Title 13, California Code of Regulations, (13 CCR) Section 2433(b)(1)) and certification emission levels for this engine family in grams per kilowatt-hour (g/kW-hr). Engines within this engine family shall have closed crankcases in conformance with 13 CCR Section 2433(b)(3).

(g/kW-hr)	HC+NOx	со
Exhaust Standards	0.8	20.6
Certification Levels	0.3	4.5

The following is the evaporative hydrocarbon emission standard (13 CCR Section 2433(b)(4)) and certification emission level for this engine family in grams per gallon of fuel tank capacity (g/gallon).

Evaporative Certification Method	HC Certification Level (g/gallon)	HC Certification Standard (g/gallon)		
Design Based	N/A	0.2		

BE IT FURTHER RESOLVED: That for the listed engines for the aforementioned model-year, the manufacturer has submitted, and the Executive Officer hereby approves, the information and materials to demonstrate certification compliance with 13 CCR Section 2433(c) (certification and test procedures), 13 CCR Section 2434 (emission control labels), and 13 CCR Sections 2435 and 2436 (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 \_\_\_\_\_\_\_ day of April 2019.

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

## AMACHMENT PS 10+2

Model Year: 2020 | Manufacturer Name: Global Component Technologies Corporation | Engine Family: LNFXB02.548D | OFF-ROAD LSI ENGINE SUPPLEMENTAL INFORMATION

Page: Issued: <u>02/28/2019</u> . Revised: <u>01/28/2020</u> . E.O.#: <u>U-L-059-0020</u> .

\$12 MODEL SLIMMARY (For K25) (like an asterick /\*) to identify worst-case engine model used for certification testing )

ode	Calif. Only	49- State	50- State	(Liters)	(kW)	(RPM)	Torque (Nm)	Speed
		AND DESCRIPTION		Displ. (Liters)	Power (kW)	Speed (RPM)		
			V	2.488	41.7	2700	182.9	1620
			٧	2.488	41.6	2700	182.7	1620
			٧	2.488	41.7	2700	183.4	1620
		114.5	٧	2.488	42.0	2800	182.9	1680
		0.55%	٧	2.488	46.8	2600	191.0	1600
		102011	V	2.488	45.8	2700	187.0	1600
			٧	2.488	44.0	2600	180.2	1600
				v v	V 2.488 V 2.488 V 2.488	V 2.488 42.0 V 2.488 46.8 V 2.488 45.8	V     2.488     42.0     2800       V     2.488     46.8     2600       V     2.488     45.8     2700	V     2.488     42.0     2800     182.9       V     2.488     46.8     2600     191.0       V     2.488     45.8     2700     187.0

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Model Year: \_\_2020\_\_\_ Manufacturer Name: \_\_Global Component Technologies Corporation Engine Family: \_\_LNFXB02.548D\_ OFF-ROAD LSI ENGINE SUPPLEMENTAL INFORMATION

Revised: 01/28/2020 . E.O.#: U-L-059-0020 .

\$12. MODEL SUMMARY (For GK25) (Use an asterisk (\*) to identify worst-case engine model used for certification testing.)

S13. Engine Model	S14. Engine Code	S15. Sales Codes (Check ALL appropriate)			S16. Eng. Displ.	S17. Rated Power	S18. Rated Speed	S19. Peak Torque	S20. Peak Torque
		Calif. Only	49- State	50- State	(Liters)	(kW)	(RPM)	(Nm)	Speed (RPM)
GK25 N-2				٧	2.488	41.7	2700	182.9	1620
GK25 M-2				٧	2.488	41.6	2700	182.7	1620
GK25 K-2				٧	2.488	41.7	2700	183.4	1620
*GK25 T-2				V	2.488	42.0	2800	182.9	1680
GK25 D-2				٧	2.488	46.8	2600	191.0	1600
GK25 H-2				٧	2.488	45.8	2700	187.0	1600
GK25 D-5				٧	2.488	44.0	2600	180.2	1600
GK25 Z-2				V	2.488	47.0	2700	188.0	1600