California Environmental Protection Agency Air Resources Board

GLOBAL COMPONENT TECHNOLOGIES CORPORATION

EXECUTIVE ORDER U-L-059-0014

New Off-Road Large Spark-Ignition
Engines Above 19 Kilowatts

Pursuant to the authority vested in the 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 YEAR	ENGINE FAMILY NAME	ENGINE DISPLACEMENT (liters)	FUEL TYPE			
2018	JNFXB02.548D	2.5	Dual Fuel, Gasoline or LPG			
		IAL FEATURES & I CONTROL SYSTEMS	TYPICAL EQUIPMENT USAGE			
5000	Multiport Fuel Injecti Body Injection (LPG Heat	Forklift				
	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	CO		
Exhaust Standards	0.8	20.6		
Certification Levels	0.5	5.6		

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.

day of June 2017.

Executed at El Monte, California on this

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

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RÉZ 7/13/18 u-L-059-0014

Model Year: __2018__
Manufacturer Name: __Global Component Technologies Corporation_
Engine Family: __JNFXB02.548D_
OFF-ROAD LSI ENGINE SUPPLEMENTAL INFORMATION

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\$12. MODEL SUMMARY (For K25) (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 Speed	
		Calif. Only	49- State	50- State	(Liters)	(kW)	(RPM)	(Nm)	(RPM)
K25 N-1				٧	2.488	41.6	2700	158.1	1620
K25 N-2				٧	2.488	41.7	2700	182.9	1620
K25 N-3	(Gasoline)			٧	2.488	41.6	2700	158.1	1620
N25 N-5	(LPG)			V	2.488	40.9	2700	180.0	1620
K25 M-1				٧	2.488	41.4	2700	158.0	1620
K25 M-2				٧	2.488	41.6	2700	182.7	1620
K25 M-3	(Gasoline)			٧	2.488	41.4	2700	158.0	1620
N25 M-3	(LPG)			٧	2.488	40.9	2700	179.9	1620
K25 K-1				٧	2.488	41.5	2700	158.2	1620
K25 K-2				٧	2.488	41.7	2700	183.4	1620
Vas V a	(Gasoline)			٧	2.488	41.5	2700	158.2	1620
K25 K-3	(LPG)			٧	2.488	41.0	2700	181.4	1620
*K25 T-1				٧	2.488	41.7	2800	156.9	1680
K25 T-2				٧	2.488	42.0	2800	182.9	1680
V05 T 0	(Gasoline)			٧	2.488	41.4	2700	156.9	1620
K25 T-3	(LPG)			٧	2.488	40.9	2700	180.0	1620
K25 D-1				٧	2.488	44.9	2600	177.0	1600
K25 D-2				٧	2.488	46.8	2600	190.0	1600
1405 B C	(Gasoline)			٧	2.488	44.9	2600	177.0	1600
K25 D-3	(LPG)			٧	2.488	46.8	2600	191.0	1600
K25 H-2				V	2.488	45.8	2700	187.0	1600
K25 D-5				٧	2.488	44.0	2600	180.2	1600

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Model Year: __2018_ Manufacturer Name: __Global Component Technologies Corporation Engine Family: __JNFXB02.548D_ OFF-ROAD LSI ENGINE SUPPLEMENTAL INFORMATION

06/28/2018

\$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. (Liters)	Rated Power (kW)	S18. Rated Speed (RPM)	S19. Peak Torque (Nm)	S20. Peak Torque Speed	
		Calif. Only	49- State	50- State	((()	(RPM)
GK25 N-1				٧	2.488	41.6	2700	158.1	1620
GK25 N-2				٧	2.488	41.7	2700	182.9	1620
GK25 N-3	(Gasoline)			٧	2.488	41.6	2700	158.1	1620
GA25 N-3	(LPG)	711		V	2.488	40.9	2700	180.0	1620
GK25 M-1				٧	2.488	41.4	2700	158.0	1620
GK25 M-2				٧	2.488	41.6	2700	182.7	1620
OVOE M 2	(Gasoline)			٧	2.488	41.4	2700	158.0	1620
GK25 M-3	(LPG)			٧	2.488	40.9	2700	179.9	1620
GK25 K-1				٧	2.488	41.5	2700	158.2	1620
GK25 K-2	,			V	2.488	41.7	2700	183.4	1620
OV25 V 2	(Gasoline)			٧	2.488	41.5	2700	158.2	1620
GK25 K-3	(LPG)			V	2.488	41.0	2700	181.4	1620
GK25 T-1				٧	2.488	41.7	2800	156.9	1680
GK25 T-2				٧	2.488	42.0	2800	. 182.9	1680
OVAL T A	(Gasoline)			٧	2.488	41.4	2700	156.9	1620
GK25 T-3	(LPG)			٧	2.488	40.9	2700	180.0	1620
GK25 D-1				V	2.488	44.9	2600	177.0	1600
GK25 D-2				٧	2.488	46.8	2600	190.0	1600
OVAE D A	(Gasoline)			V	2.488	44.9	2600	177.0	1600
GK25 D-3	(LPG)			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