

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-19-095;

**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	FUEL TYPE
2024	REDIB03.5LSG	Gasoline, Liquefied Petroleum Gas (LPG), Compressed Natural Gas (CNG), Gasoline-Liquefied Petroleum Gas (LPG) Dual Fuel Gasoline-Compressed Natural Gas (CNG) Dual Fuel Liquefied Petroleum Gas (LPG)-Compressed Natural Gas (CNG) Dual Fuel
DURABILITY HOURS	EMISSION CONTROL SYSTEMS & SPECIAL FEATURES	EQUIPMENT APPLICATION
5000	Three-Way Catalyst (TWC), Heated Oxygen Sensors (HO2S), Sequential Multipoint Fuel Injection (SFI), Gaseous Fuel Mixer (MIX)	Forklift, Generator, Compressor, Pump, Other

Engines certified by this Executive Order are further described in 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).

	HC+NOx (g/kW-hr)	CO (g/kW-hr)
<b>EXHAUST STANDARD</b>	0.8	20.6
<b>CERTIFICATION LEVEL</b>	0.4	6.5

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

\*not applicable

**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 on this 11th day of December 2023.



Robin U. Lang, Chief  
 Emissions Certification and Compliance Division

Date: **09/26/2023**  
 Engine Family: **REDIB03.5LSG**

Model Summary  
 (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. Engine Displacement (Liters)	S17. Rated Power (kW)	S18. Rated Speed (RPM)	S19. Peak Torque (FT-LB)	S20. Peak Torque Speed (RPM)
		CA Only	49-State	50-State					
LSG635*	LPG-S*			X	3.5L	100.8	3600	268.0	2000
LSG635*	NG-S*			X	3.5L	90.5	3600	247.5	2800
LSG635*	LPG-T*			X	3.5L	86.1	3200	268.0	2000
LSG635*	NG-T*			X	3.5L	79.2	3200	247.5	2800
LSG635*	Gas-S*			X	3.5L	87.9	3200	262.4	3200
LSG635*	Gas-T*			X	3.5L	87.9	3200	262.4	3200
LSG635	LPV-S			X	3.5L	100.8	3600	268.0	2000
LSG635	LPV-T			X	3.5L	86.1	3200	268.0	2000
LSG635	Gas-LPG-S			X	3.5L	87.9	3200	262.4	3200
LSG635	Gas-NG-S			X	3.5L	87.9	3200	262.4	3200
LSG635	NG-LPV-S			X	3.5L	86.1	3200	268.0	2000
LSG635	Gas-LPG-T			X	3.5L	87.9	3200	262.4	3200
LSG635	Gas-NG-T			X	3.5L	87.9	3200	262.4	3200
LSG635	LPG-S(3500 RPM)			X	3.5L	96.5	3500	268.0	2000
LSG635	LPG-S(3400 RPM)			X	3.5L	92.2	3400	268.0	2000
LSG635	LPG-S(3300 RPM)			X	3.5L	89.1	3300	268.0	2000
LSG635	LPG-S(3200 RPM)			X	3.5L	86.1	3200	268.0	2000
LSG635	LPG-S(3100 RPM)			X	3.5L	83.3	3100	268.0	2000
LSG635	LPG-S(3000 RPM)			X	3.5L	80.5	3000	268.0	2000
LSG635	LPG-S(2900 RPM)			X	3.5L	79.1	2900	268.0	2000
LSG635	LPG-S(2800 RPM)			X	3.5L	77.8	2800	268.0	2000
LSG635	LPG-S(2700 RPM)			X	3.5L	75.1	2700	268.0	2000
LSG635	LPG-S(2600 RPM)			X	3.5L	72.4	2600	268.0	2000
LSG635	LPG-S(2500 RPM)			X	3.5L	69.9	2500	268.0	2000
LSG635	LPG-S(2400 RPM)			X	3.5L	67.3	2400	268.0	2000
LSG635	LPG-S(2300 RPM)			X	3.5L	64.2	2300	268.0	2000
LSG635	LPG-S(2200 RPM)			X	3.5L	61.1	2200	268.0	2000
LSG635	LPG-S(2100 RPM)			X	3.5L	58.6	2100	268.0	2000
LSG635	LPG-S(2000 RPM)			X	3.5L	56.1	2000	268.0	2000
LSG635	LPG-S(1900 RPM)			X	3.5L	52.9	1900	265.9	1900
LSG635	LPG-S(1800 RPM)			X	3.5L	49.7	1800	260.0	1700
LSG635	LPG-S(1700 RPM)			X	3.5L	46.0	1700	259.9	1700
LSG635	LPG-S(1600 RPM)			X	3.5L	42.2	1600	252.0	1600
LSG635	LPG-S(1500 RPM)			X	3.5L	38.1	1500	249.9	1500
LSG635	NG-S(3500 RPM)			X	3.5L	87.3	3500	247.5	2800
LSG635	NG-S(3400 RPM)			X	3.5L	84.2	3400	247.5	2800
LSG635	NG-S(3300 RPM)			X	3.5L	81.7	3300	247.5	2800
LSG635	NG-S(3200 RPM)			X	3.5L	79.2	3200	247.5	2800
LSG635	NG-S(3100 RPM)			X	3.5L	76.9	3100	247.5	2800
LSG635	NG-S(3000 RPM)			X	3.5L	74.7	3000	247.5	2800
LSG635	NG-S(2900 RPM)			X	3.5L	73.6	2900	247.5	2800
LSG635	NG-S(2800 RPM)			X	3.5L	72.6	2800	247.5	2800
LSG635	NG-S(2700 RPM)			X	3.5L	69.7	2700	247.4	2000

Date: **09/26/2023**  
 Engine Family: **REDIB03.5LSG**

Model Summary  
 (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. Engine Displacement (Liters)	S17. Rated Power (kW)	S18. Rated Speed (RPM)	S19. Peak Torque (FT-LB)	S20. Peak Torque Speed (RPM)
		CA Only	49-State	50-State					
LSG635	NG-S(2600 RPM)			X	3.5L	66.9	2600	247.4	2000
LSG635	NG-S(2500 RPM)			X	3.5L	64.3	2500	247.4	2000
LSG635	NG-S(2400 RPM)			X	3.5L	61.6	2400	247.4	2000
LSG635	NG-S(2300 RPM)			X	3.5L	59.2	2300	247.4	2000
LSG635	NG-S(2200 RPM)			X	3.5L	56.9	2200	247.4	2000
LSG635	NG-S(2100 RPM)			X	3.5L	54.3	2100	247.4	2000
LSG635	NG-S(2000 RPM)			X	3.5L	51.8	2000	247.4	2000
LSG635	NG-S(1900 RPM)			X	3.5L	48.7	1900	244.7	1900
LSG635	NG-S(1800 RPM)			X	3.5L	45.6	1800	238.1	1700
LSG635	NG-S(1700 RPM)			X	3.5L	42.4	1700	238.1	1700
LSG635	NG-S(1600 RPM)			X	3.5L	39.3	1600	234.4	1600
LSG635	NG-S(1500 RPM)			X	3.5L	35.2	1500	229.0	1500
LSG635	Gas-S(3100 RPM)			X	3.5L	84.5	3100	260.3	3100
LSG635	Gas-S(3000 RPM)			X	3.5L	80.4	3000	255.9	3000
LSG635	Gas-S(2900 RPM)			X	3.5L	76.1	2900	250.6	2700
LSG635	Gas-S(2800 RPM)			X	3.5L	73.6	2800	251.0	2700
LSG635	Gas-S(2700 RPM)			X	3.5L	70.9	2700	250.9	2700
LSG635	Gas-S(2600 RPM)			X	3.5L	66.8	2600	249.7	2400
LSG635	Gas-S(2500 RPM)			X	3.5L	64.6	2500	249.7	2400
LSG635	Gas-S(2400 RPM)			X	3.5L	62.8	2400	249.7	2400
LSG635	Gas-S(2300 RPM)			X	3.5L	58.7	2300	247.0	2100
LSG635	Gas-S(2200 RPM)			X	3.5L	56.5	2200	247.0	2100
LSG635	Gas-S(2100 RPM)			X	3.5L	54.3	2100	247.0	2100
LSG635	Gas-S(2000 RPM)			X	3.5L	50.3	2000	240.4	2000
LSG635	Gas-S(1900 RPM)			X	3.5L	46.8	1900	235.0	1900
LSG635	Gas-S(1800 RPM)			X	3.5L	42.8	1800	226.9	1800
LSG635	Gas-S(1700 RPM)			X	3.5L	37.8	1700	212.5	1700
LSG635	Gas-S(1600 RPM)			X	3.5L	33.9	1600	202.4	1600
LSG635	Gas-S(1500 RPM)			X	3.5L	30.5	1500	194.0	1500
LSG635	LPV-S(3500 RPM)			X	3.5L	96.5	3500	268.0	2000
LSG635	LPV-S(3400 RPM)			X	3.5L	92.2	3400	268.0	2000
LSG635	LPV-S(3300 RPM)			X	3.5L	89.1	3300	268.0	2000
LSG635	LPV-S(3200 RPM)			X	3.5L	86.1	3200	268.0	2000
LSG635	LPV-S(3100 RPM)			X	3.5L	83.3	3100	268.0	2000
LSG635	LPV-S(3000 RPM)			X	3.5L	80.5	3000	268.0	2000
LSG635	LPV-S(2900 RPM)			X	3.5L	79.1	2900	268.0	2000
LSG635	LPV-S(2800 RPM)			X	3.5L	77.8	2800	268.0	2000
LSG635	LPV-S(2700 RPM)			X	3.5L	75.1	2700	268.0	2000
LSG635	LPV-S(2600 RPM)			X	3.5L	72.4	2600	268.0	2000
LSG635	LPV-S(2500 RPM)			X	3.5L	69.9	2500	268.0	2000
LSG635	LPV-S(2400 RPM)			X	3.5L	67.3	2400	268.0	2000
LSG635	LPV-S(2300 RPM)			X	3.5L	64.2	2300	268.0	2000
LSG635	LPV-S(2200 RPM)			X	3.5L	61.1	2200	268.0	2000

Date: **09/26/2023**  
 Engine Family: **REDIB03.5LSG**

Model Summary  
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S13. Engine Model	S14. Engine Code	S15. Sales Codes (Check all appropriate)			S16. Engine Displacement (Liters)	S17. Rated Power (kW)	S18. Rated Speed (RPM)	S19. Peak Torque (FT-LB)	S20. Peak Torque Speed (RPM)
		CA Only	49-State	50-State					
LSG635	LPV-S(2100 RPM)			X	3.5L	58.6	2100	268.0	2000
LSG635	LPV-S(2000 RPM)			X	3.5L	56.1	2000	268.0	2000
LSG635	LPV-S(1900 RPM)			X	3.5L	52.9	1900	265.9	1900
LSG635	LPV-S(1800 RPM)			X	3.5L	49.7	1800	260.0	1700
LSG635	LPV-S(1700 RPM)			X	3.5L	46.0	1700	259.9	1700
LSG635	LPV-S(1600 RPM)			X	3.5L	42.2	1600	252.0	1600
LSG635	LPV-S(1500 RPM)			X	3.5L	38.1	1500	249.9	1500
LSG635	Gas-LPG(3100 RPM)			X	3.5L	84.5	3100	260.3	3100
LSG635	Gas-LPG(3000 RPM)			X	3.5L	80.4	3000	255.9	3000
LSG635	Gas-LPG(2900 RPM)			X	3.5L	76.1	2900	250.6	2700
LSG635	Gas-LPG(2800 RPM)			X	3.5L	73.6	2800	251.0	2700
LSG635	Gas-LPG(2700 RPM)			X	3.5L	70.9	2700	250.9	2700
LSG635	Gas-LPG(2600 RPM)			X	3.5L	66.8	2600	249.7	2400
LSG635	Gas-LPG(2500 RPM)			X	3.5L	64.6	2500	249.7	2400
LSG635	Gas-LPG(2400 RPM)			X	3.5L	62.8	2400	249.7	2400
LSG635	Gas-LPG(2300 RPM)			X	3.5L	58.7	2300	247.0	2100
LSG635	Gas-LPG(2200 RPM)			X	3.5L	56.5	2200	247.0	2100
LSG635	Gas-LPG(2100 RPM)			X	3.5L	54.3	2100	247.0	2100
LSG635	Gas-LPG(2000 RPM)			X	3.5L	50.3	2000	240.4	2000
LSG635	Gas-LPG(1900 RPM)			X	3.5L	46.8	1900	235.0	1900
LSG635	Gas-LPG(1800 RPM)			X	3.5L	42.8	1800	226.9	1800
LSG635	Gas-LPG(1700 RPM)			X	3.5L	37.8	1700	212.5	1700
LSG635	Gas-LPG(1600 RPM)			X	3.5L	33.9	1600	202.4	1600
LSG635	Gas-LPG(1500 RPM)			X	3.5L	30.5	1500	194.0	1500
LSG635	Gas-NG(3100 RPM)			X	3.5L	84.5	3100	260.3	3100
LSG635	Gas-NG(3000 RPM)			X	3.5L	80.4	3000	255.9	3000
LSG635	Gas-NG(2900 RPM)			X	3.5L	76.1	2900	250.6	2700
LSG635	Gas-NG(2800 RPM)			X	3.5L	73.6	2800	251.0	2700
LSG635	Gas-NG(2700 RPM)			X	3.5L	70.9	2700	250.9	2700
LSG635	Gas-NG(2600 RPM)			X	3.5L	66.8	2600	249.7	2400
LSG635	Gas-NG(2500 RPM)			X	3.5L	64.6	2500	249.7	2400
LSG635	Gas-NG(2400 RPM)			X	3.5L	62.8	2400	249.7	2400
LSG635	Gas-NG(2300 RPM)			X	3.5L	58.7	2300	247.0	2100
LSG635	Gas-NG(2200 RPM)			X	3.5L	56.5	2200	247.0	2100
LSG635	Gas-NG(2100 RPM)			X	3.5L	54.3	2100	247.0	2100
LSG635	Gas-NG(2000 RPM)			X	3.5L	50.3	2000	240.4	2000
LSG635	Gas-NG(1900 RPM)			X	3.5L	46.8	1900	235.0	1900
LSG635	Gas-NG(1800 RPM)			X	3.5L	42.8	1800	226.9	1800
LSG635	Gas-NG(1700 RPM)			X	3.5L	37.8	1700	212.5	1700
LSG635	Gas-NG(1600 RPM)			X	3.5L	33.9	1600	202.4	1600
LSG635	Gas-NG(1500 RPM)			X	3.5L	30.5	1500	194.0	1500
LSG635	NG-LPV(3100 RPM)			X	3.5L	83.3	3100	268.0	2000
LSG635	NG-LPV(3000 RPM)			X	3.5L	80.5	3000	268.0	2000

Date: **09/26/2023**  
 Engine Family: **REDIB03.5LSG**

Model Summary  
 (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. Engine Displacement (Liters)	S17. Rated Power (kW)	S18. Rated Speed (RPM)	S19. Peak Torque (FT-LB)	S20. Peak Torque Speed (RPM)
		CA Only	49-State	50-State					
LSG635	NG-LPV(2900 RPM)			X	3.5L	79.1	2900	268.0	2000
LSG635	NG-LPV(2800 RPM)			X	3.5L	77.8	2800	268.0	2000
LSG635	NG-LPV(2700 RPM)			X	3.5L	75.1	2700	268.0	2000
LSG635	NG-LPV(2600 RPM)			X	3.5L	72.4	2600	268.0	2000
LSG635	NG-LPV(2500 RPM)			X	3.5L	69.9	2500	268.0	2000
LSG635	NG-LPV(2400 RPM)			X	3.5L	67.3	2400	268.0	2000
LSG635	NG-LPV(2300 RPM)			X	3.5L	64.2	2300	268.0	2000
LSG635	NG-LPV(2200 RPM)			X	3.5L	61.1	2200	268.0	2000
LSG635	NG-LPV(2100 RPM)			X	3.5L	58.6	2100	268.0	2000
LSG635	NG-LPV(2000 RPM)			X	3.5L	56.1	2000	268.0	2000
LSG635	NG-LPV(1900 RPM)			X	3.5L	52.9	1900	265.9	1900
LSG635	NG-LPV(1800 RPM)			X	3.5L	49.7	1800	260.0	1700
LSG635	NG-LPV(1700 RPM)			X	3.5L	46.0	1700	259.9	1700
LSG635	NG-LPV(1600 RPM)			X	3.5L	42.2	1600	252.0	1600
LSG635	NG-LPV(1500 RPM)			X	3.5L	38.1	1500	249.9	1500