

ENGINE DISTRIBUTORS, INC.

EXECUTIVE ORDER U-L-034-0052 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-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 NAME	ENGINE DISPLACEMENT (liters)	FUEL TYPE	
2020	LEDIB02.5MSI	2.5	Gasoline, LPG, Gasoline-LPG Dual Fuel	
DURABILIT HOURS	-	CIAL FEATURES & CONTROL SYSTEMS	TYPICAL EQUIPMENT USAGE	
5000	Three-Wi Heate Sequentia	ay Catalytic Converter, ed Oxygen Sensor, I Multiport Fuel Injection	Forklift, Other	
ENG (rated pov	iNE MODELS ver 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	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		

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 <u>/374</u> day of July 2020.

Allen Yons, Chief

Emissions Certification and Compliance Division

Model Year:	2020	Page:	5of 16
Manufacturer Name:	Engine Distributors, Inc. (EDI)	Issued: 05/1:	3/2020
Engine Family:	LEDIB02.5MSI	Revised:	
OFF-ROAD LSI ENGINE	SUPPLEMENTAL INFORMATION	E.O.#:	

S12. 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. Eng. Displ.	S17. Rated Power	S18. Rated Speed	S19. Peak Torque	S20. Peak Torque	
iviodei	Code	Calif. Only	49- State	50- State	(Liters)	(kW)	(RPM)	(FT-LB)	Speed (RPM)
2.5L Gas (3000 rpm)	MSG425i Gas			Х	2.5	52.5	3000	176	2000
2.5L LPG (3000 rpm)	MSG425i LPG			х	2.5	59.2	3000	194	2600
2.5L DF LPG/Gas*	MSG425i LPG/Gas			х	2.5	59.2	3000	194	2600
Ford 2.5L CK- LPG	MSG425i Clark LPG			х	2.5	48.0	2500	185	1800
2.5L LD-LPG- 1219	MSG425i Linde LPG			х	2.5	53.0	2800	185	1800
2.5L CK- LPG-Gas	MSG425i Clark-DF			х	2.5	48.0	2500	185	1800