

## HONDA MOTOR CO., LTD.

EXECUTIVE ORDER U-U-001-0941 New Off-Road Small Spark-Ignition Engines at or Below 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 engine and emission control systems produced by the manufacturer are certified for use in small off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY		ENGINE CLASS		FUEL TYPE (CNG/LNG=compressed/liquefied natural gas LPG=liquefied petroleum gas)					
2020	LHNX	(S.1631BB	163	4-stroke, >8	0 cc - <225 cc	Gasoline				
DURABILITY HOURS		1	SPECIAL FEATURES SION CONTROL SYS		TYPICAL EQUIPMENT APPLICATION					
500			EM		Walk-Behind Lawnmower, Compressor, Pump, Pressure Washer, Generator Set, Tiller					
ENGINE CODES/MODELS (rated power in kilowatt, kW)			See Attachment							

The following are the hydrocarbon plus oxides of nitrogen (HC+NOx), carbon monoxide (CO), and particulate matter (PM) emission standards (Title 13, California Code of Regulations, (13 CCR) Section 2403(b)), 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 Section 1054.115(a) of the "California Exhaust Emission Standards and Test Procedures for New 2013 and Later Small Off-Road Engines," adopted October 25, 2012.

DFI=direct fuel injection TC/SC=turbo/super charger CAC=charge air cooler 2(prefix)=parallel (2)(suffix)=in series ECM=engine control module

*=not applicable	HC+NOx (g/kW-hr)	CO (g/kW-hr)	PM (g/kW-hr)	
STANDARD	10.0	549	*	
FAMILY EMISSION LEVEL	10.6	*	*	
CERTIFICATION LEVEL	9.7	380	*	

BE IT FURTHER RESOLVED: That the family emission level(s) (FELs), as applicable, is an emission limit declared by the manufacturer for use in the averaging, banking and trading program and in lieu of an emission standard for certification. It serves as the applicable emission standard for determining compliance of any engine within this engine family under 13 CCR Sections 2403(e)(1) and 2407(a).

BE IT FURTHER RESOLVED: That for the listed engines, the manufacturer has submitted, and the Executive Officer hereby approves, the information and materials to demonstrate certification compliance with 13 CCR Section 2404 (emission control labels) and 13 CCR Sections 2405 and 2406 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

Quarterly reports of engines produced in this engine family for sale in California shall be submitted to the Executive Officer no later than 45 days after the end of each calendar quarter.

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 24<sup>th</sup> day of December 2019.

Allen Lyons, Chief

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**Emissions Certification and Compliance Division** 

Model Year:

2020

Engine Family: LHNXS.1631BB

Manufacturer: Honda Motor Co.,Ltd.

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05/22/2019

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E.O. Number: U-U-001-0341

## **Small Off-Road Engine Model Summary Form**

Units for Table: kW

Worst Case?	47. Model Designation	48. Sales Code	49. Displ (cc)	50. Bore/ Stroke	51. Ignition Timing	52. Max Power	53. Rated Speed (RPM)	54. Rated Torque	55. Torque Speed (RPM)	56. I Emiss Control Sys
	1SJ01A	50-State	163	68/45	18° BTDC	3.6	3600	10.3 N.m	n 2500	EM
	1SJ02A	50-State	163	68/45	18° BTDC	3.6	3600	10.3 N.m	n 2500	EM
X	1SJ03A	50-State	163	68/45	18° BTDC	3.6	3600	10.3 N.m	n 2500	EM
	1SJ04A	50-State	163	68/45	18° BTDC	3.6	3600	10.3 N.m	n 2500	EM
	1SJ05A	50-State	163	68/45	18° BTDC	3.6	3600	10.3 N.m	n 2500	EM
	1SJ06A	50-State	163	68/45	18° BTDC	3.6	3600	10.3 N.m	n 2500	EM
:	1SJ07A	50-State	163	68/45	18° BTDC	3.6	3600	10.3 N.m	n 2500	EM
	1SJ08A	50-State	163	68/45	18° BTDC	3.6	3600	10.3 N.m	n 2500	ЕМ
	1SJ09R	50-State	163	68/45	18° BTDC	3.6	3600	10.3 N.m	n 2500	EM
	1SJ09A	50-State	163	68/45	18° BTDC	3.6	3600	10.3 N.n	n 2500	EM
	1SJ10A	50-State	163	68/45	18° BTDC	3.6	3600	10.3 N.n	n 2500	EM

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Model Year:

2020

Manufacturer: Honda Motor Co.,Ltd.

Engine Family: LHNXS.1631BB

Issued: Revised: 5/22/2019

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E.O. Number: V-V-001-0941

## **Small Off-Road Engine Model Summary Form**

Units for Table:

Worst Case?	47. Model Designation	48. Sales Code	49. Displ (cc)	50. Bore/ Stroke	51. Ignition Timing	52. Max Power	53. Rated Speed (RPM)	54. Rated To Torque	55. orque Speed (RPM)	56. Emiss Control Sys
	1SJ11A	50-State	163	68/45	18° BTDC	3.6	3600	10.3 N.m	2500	EM
	1SJ12A	50-State	163	68/45	18° BTDC	3.6	3600	10.3 N.m	2500	EM
	1SJ13A	50-State	163	68/45	18° BTDC	3.6	3600	10.3 N.m	2500	EM
	1SJ14A	50-State	163	68/45	18° BTDC	3.6	3600	10.3 N.m	2500	ЕМ
	1SJ15A	50-State	163	68/45	18° BTDC	3.6	3600	10.3 N.m	2500	EM
	1SJ16A	50-State	163	68/45	18° BTDC	3.6	3600	10.3 N.m	2500	EM