EXECUTIVE ORDER U-U-001-0511 New Off-Road Small Spark-Ignition Engines at or Below 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-02-003;

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		DISPLACEMENT (cc)	ENGIN	E CLASS	FUEL TYPE (CNG/LNG=compressed/liquefied natural gas LPG=liquefied petroleum gas)			
2011	BHN	(S.1961AA	196	4-stroke, >8	0 cc - <225 cc	Gasoline			
DURAB HOUI			PECIAL FEATURES SION CONTROL SYS		TYPICAL EQUIPMENT APPLICATION				
500		EM			Walk-Behind Lawnmower, Compressor, Pump, Pressure Washer, Generator Set, Tiller, Other OEM Product				
ENGINE CODES/MODELS (rated power in kilowatt, kW)		·			See Attachm	ent .			
EGR=exhaus	st gas recirc	ulation AIR=sec	ondary air injection PAIR=	pulsed AIR MFI=	multi port fuel injec	varm-up TWC/OC O2S=oxygen sensor HO2S=heated O2S tion SFI=sequential MFI TB:=throttle body fuel injection x)=in series ECM=engine control module			

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 90.109 of the "California Exhaust Emission Standards and Test Procedures for 2005 and Later Small Off-Road Engines," adopted July 26, 2004.

*=not applicable	HC+NOx (g/kW-hr)	CO (g/kW-hr)	PM (g/kW-hr)	
STANDARD	10.0	549	*	
FAMILY EMISSION LEVEL	9.4	*	*	
CERTIFICATION LEVEL	8.0	339	•	

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 th day of December 2010.

Annette Hebert, Chief

Mobile Source Operations Division

Attachment 10/2

Page: 9 - 1

Model Year:

2011

Engine Family: BHNXS.1961AA

Manufacturer: Honda Motor Co., Ltd.

Issued:

6/23/2010

Revised:

E.O. Number: U-U-001-0511

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 Tor Torque	55. que Speed (RPM)	56. Emiss Control Sys
x	B1GH01B3- C	50-State	196.1	68.0/54.0	20° BTDC	4.1	3600	12.4 N.m	2500	EM
	B1GH0100-D	50-State	196.1	68.0/54.0	20° BTDC	4.1	3600	12.4 N.m	2500	EM
	B1GH0100R D	50-State	196.1	68.0/54.0	20° BTDC	4.1	3600	12.4 N.m	2500	EM
	B1GH0200-D	50-State	196.1	68.0/54.0	20° BTDC	4.1	3600	12.4 N.m	2500	ЕМ
	B1GH03B3- C	50-State	196.1	68.0/54.0	20° BTDC	4.1	3600	12.4 N.m	2500	EM
	B1GH0400-D	50-State	196.1	68.0/54.0	20° BTDC	4.1	3600	12.4 N.m	2500	EM
	B1GH05B3- C	50-State	196.1	68.0/54.0	20° BTDC	4.1	3600	12.4 N.m	2500	EM
	B1GH06B3- C	50-State	196.1	68.0/54.0	20° BTDC	4.1	3600	12.4 N.m	2500	EM
	B1GH0300D	50-State	196.1	68.0/54.0	20° BTDC	4.1	3600	12.4 N.m	2500	EM

Attachment 2 of 2 Issued:

Page: 9 -3

Model Year:

Revised:

8/14/2009

Manufacturer: Honda Motor Co., Ltd. Engine Family: BHNXS.1961AA E.O. Number: 4-4-001-0511

Small Off-Road Engine Model Summary Form

Units for Table:

Worst Case?	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. rque Speed (RPM)	56. Emiss Control Sys
	B1GH0700-D	50-State	196.1	68.0/54.0	20° BTDC	4.1	3600	12.4 N.m	2500	EM
	B1GH0800-D	50-State	196.1	68.0/54.0	20° BTDC	4.1	3600	12.4 N.m	2500	EM
	B1GH0900-D	50-State	196.1	68.0/54.0	20° BTDC	4.1	3600	12.4 N.m	2500	EM
	B1GH1000R D	50-State	196.1	68.0/54.0	20° BTDC	4.1	3600	12.4 N.m	2500	EM
	B1GH11F2- C	50-State	196.1	68.0/54.0	20° BTDC	4.1	3600	12.4 N.m	2500	EM
	B1GH12F1- C	50-State	196.1	68.0/54.0	20° BTDC	4.1	3600	12.4 N.m	2500	EM
	B1GH13B3- C	50-State	196.1	68.0/54.0	20° BTDC	4.1	3600	12.4 N.m	2500	EM
	B1GH1400-D	50-State	196.1	68.0/54.0	20° BTDC	4.1	3600	12.4 N.m	2500	EM