

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER U-U-1-166  
Relating to Certification of  
New Small Off-Road Engines

HONDA MOTOR CO., LTD.

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 the Health and Safety Code Sections 39515 and 39516 and Executive Order G-45-9;

IT IS ORDERED AND RESOLVED: That the engine and exhaust emission control systems produced by the manufacturer for use in small off-road equipment are certified as described below:

Model Year: 2002

Fuel Type: Gasoline

Engine Class: Spark-ignition, 4-stroke, 0-65 cubic centimeters

Typical Equipment Usage: Pump, generator set, hedge trimmer, tiller

<u>Engine Family</u>	<u>Displacement (Cubic Cent.)</u>	<u>Durability Period (Hours)</u>	<u>Emission Control System and Special Features</u>
2HNXS.0574AK	49 and 57	300	Engine Modification

Engine models are listed on the attachment. Production engines shall be in all material respects the same as those for which certification is granted.

The exhaust emission standards, and certification emission values, in grams per brake horsepower-hour for this engine family are:

	<u>Hydrocarbons plus Oxides of Nitrogen</u>	<u>Carbon Monoxide</u>	<u>Particulate Matter</u>
<u>Standards:</u>	54	400	n/a
<u>Family Emission Limits:</u>	n/a	n/a	n/a
<u>Certification</u>	19	277	n/a

BE IT FURTHER RESOLVED: That the listed engine models also comply with the "Emission Control Labels and Consumer Information - 1995 and Later Small Off-Road Engines" (Title 13, California Code of Regulations, Section 2404) for the aforementioned model year.

BE IT FURTHER RESOLVED: That the listed engines shall have closed crankcases as stipulated in Part I, Section 18(h) of the "California Exhaust Emission Standards and Test Procedures for 1995 and Later Small Off-Road Engines."

BE IT FURTHER RESOLVED: That the Executive Officer has been provided all material required to demonstrate certification compliance with the Board's emission control system warranty regulations (Title 13, California Code of Regulations, Sections 2405 and 2406). The Executive Officer hereby approves these materials for use in complying with these sections for this engine family.

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

Executed at El Monte, California this 25<sup>th</sup> day of January 2001.



R. B. Summerfield, Chief  
Mobile Source Operations Division

Model Year: 2002  
 Manufacturer: HONDA MOTOR CO.,LTD.  
 Engine Family: 2HNXS.0574AK

Issued:  
 Revised: 11/16/2000  
 E.O. Number: U-U-1-166

**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. Emiss Control Sys
	2057V1	50-State	57.3	45.0/36.0	21 BTDC	1.4	4200	3.20	4000	EM
	2049H1	50-State	49.4	41.8/36.0	30 BTDC	1.8	7000	3.04	4500	EM
	2049H2	50-State	49.4	41.8/36.0	30 BTDC	1.8	7000	3.04	4500	EM
	2049H3		49.4	41.8/36.0	30 BTDC	1.8	5500	2.73	4000	EM
X	2049H4	50-State	49.4	41.8/36.0	30 BTDC	1.38	4500	2.73	4000	EM
	2049V1	50-State	49.4	41.8/36.0	30 BTDC	1.25	4600	2.74	4500	EM
	2049V2	50-State	49.4	41.8/36.0	30 BTDC	1.28	7000	3.04	4500	EM