

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-61-27
Relating to Certification of New Motor Vehicles

WINNEBAGO INDUSTRIES, INC.

Pursuant to the authority vested in the Air Resources Board by the Health and Safety Code, Division 26, Part 5, Chapter 2; and

Pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Orders G-45-3 and G-45-4;

IT IS ORDERED AND RESOLVED: That 1989 model-year Winnebago Industries, Inc. emission control systems are certified as described below for gasoline-powered medium-duty vehicles:

<u>Engine Family</u>	<u>Displacement</u> <u>Liters (Cubic inches)</u>		<u>Exhaust Emission Control Systems</u> <u>(Special Features)</u>
KWB2.2T5F9A0	2.2	(132.1)	Exhaust Gas Recirculation Oxygen Sensor Three-Way Catalyst No On-Board Diagnostics (Exempted) (Electronic Port Fuel Injection)

Vehicle models, transmissions, engine codes and evaporative emission control families are listed on attachments.

The following are the emission standards for this engine family:

<u>Loaded Vehicle</u> <u>Weight(lbs.)</u>	<u>Hydrocarbons</u> <u>(Grams per Mile)</u>	<u>Carbon Monoxide</u> <u>(Grams per Mile)</u>	<u>Nitrogen Oxides</u> <u>(Grams per Mile)</u>
3751 - 5750	0.50	9.0	1.0

The following are the certification emission values for this engine family:

<u>Loaded Vehicle</u> <u>Weight(lbs.)</u>	<u>Hydrocarbons</u> <u>(Grams per Mile)</u>	<u>Carbon Monoxide</u> <u>(Grams per Mile)</u>	<u>Nitrogen Oxides</u> <u>(Grams per Mile)</u>
3751 - 5750	0.38	3.6	0.3

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with "California Evaporative Emission Standards and Test Procedures for 1978 and Subsequent Model Gasoline-Powered Motor Vehicles".

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's "Specifications for Fill Pipes and Openings of Motor Vehicle Fuel Tanks" (Title 13, California Administrative Code, Section 2290) for the aforementioned model-year.

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's high altitude requirements and highway emission standards as stipulated in "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles".

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the "California Motor Vehicle Tune-Up Label Specifications" (Title 13, California Administrative Code, Section 1965) for the aforementioned model year.

BE IT FURTHER RESOLVED: That the vehicle models listed have been granted an exemption from compliance with the requirements of the "Malfunction and Diagnostic System for 1988 and Subsequent Model Year[s]..." (Title 13, California Administrative Code, Section 1968) for the aforementioned model year.

BE IT FURTHER RESOLVED: That for the listed vehicles, the manufacturer has submitted and the Executive Officer hereby approves the materials to demonstrate certification compliance with the Board's emission control system warranty regulations (Title 13, California Administrative Code, Section 2035 et seq.).

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

The Bureau of Automotive Repair will be notified by copy of this order and attachment.

Executed at El Monte, California this 21st day of June, 1988.



K. D. Drachand, Chief
Mobile Source Division

1989 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer Winnebago Industries, Inc. Engine Family KWB2.2T5F9A0
 Evaporative Family KT2.2E2P Engine Type I4
 Liters (CID) 2.2 (132.1)

ABBREVIATIONS

Ignition System

CA-Centrifugal Advance
 ECU-Electronic Control Unit
 EI-Electronic Ignition
 ESAC-Electronic Spark Advance
 Control
 VA-Vacuum Advance
 VR-Vacuum Retard

Exhaust Emissions Control System

AIP-Air Injection-Pump
 AIV-Air Injection-Valve
 DBC-Dual Bed Catalyst
 EGR-Exhaust Gas Recirculation
 EIC-Electronic Injection Control
 EM-Engine Modification
 OC-Oxidation Catalyst
 OS-Oxygen Sensor
 HOS-Heated Oxygen Sensor
 SPL-Smoke Puff Limiter or
 Throttle Delay
 TOC-Trap Oxidizer, Continual
 TOP-Trap Oxidizer, Periodical
 TWC-Three-Way Catalyst
 WUOC-Warm-Up Oxidation Catalyst
 WUTWC-Warm-Up Three-Way Catalyt

Special Features

CCV-Combustion Chamber Valve
 CFI-Central Fuel Injection or Throttle Body Injection
 DID-Diesel Injection-Direct
 DIP-Diesel Injection-Prechamber
 EPFI-Electronic Port Fuel Injection
 IC-Intercooler or Aftercooler
 MFI-Mechanical Fuel Injection
 OBD-On-Board Diagnostics
 TC-Turbocharger

Fuel System

CFI, CL, DID, DIP, EFI, MFI
 nV-nVenturi Carburetor

Vehicle Configuration

Winnebago "H"-Body

VEHICLE MODELS:

LeSharo, Phasar, Utility Van

Engine: Front X Mid. _____ Rear _____

Drive: FWD X RWD _____ 4WD Full Time _____ 4WD Part Time _____

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Passenger Cars _____ Light-Duty Trucks _____ Medium-Duty Vehicles X Gas X Diesel _____

Manufacturer Winnebago Industries, Inc. Engine Family KWB2.2T5F9A0

Liter (CID) 2.2 (132.1) Eng. Type I4

Emission Control Sys. (Special Features) EGR-EIC-OS-TWC (EPFI)

Engine Code	Vehicle Models (If Coded see attachment) (Dyno Hp)	Trans. Type	Equiv. Test Weight	Ign. System (ECU) Part No.	Fuel System Part No.	EGR Valve Part No.	Catalys Part No.
A	Winnebago H-Body (22.0)	M5	5500	7700720060	7700715635	7700720061	770074235

Comments: See page one for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP list for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.

Date of Issue _____ Revisions: