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## State of California AIR RESOURCES BOARD

EXECUTIVE ORDER A-61-24 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 1988 model-year Winnebago Industries, Inc. emission control systems are certified as described below for gasoline-powered medium-duty vehicles:

| Engine Family | Displacement<br>Liters (Cubic Inches) |         | Exhaust Emission Control Systems<br>(Special Features)   |  |  |
|---------------|---------------------------------------|---------|--|--|--|
| JWB2.2T5F9AX  | 2.2                                   | (132.1) | Exhaust Gas Recirculation<br>Oxygen Sensor<br>Three-Way Catalyst<br>(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:

| Loaded<br>Vehicle<br>Weight | Hydrocarbons<br>Grams per Mile | Carbon Monoxide<br>Grams per Mile | Nitrogen Oxides<br>Grams per mile |
|-----------------------------|--------------------------------|-----------------------------------|-----------------------------------|
| 3751-5750                   | 0.50                           | 9.0                               | 1.0                               |

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

| Loaded<br>Vehicle<br>Weight | Hydrocarbons<br>Grams per Mile | Carbon Monoxide<br>Grams per Mile | Nitrogen Oxides<br>Grams per Mile |
|-----------------------------|--------------------------------|-----------------------------------|-----------------------------------|
| 3751-5750                   | 0.38                           | 3.6                               | 0.3                               |

## WINNEBAGO INDUSTRIES, INC.

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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 in 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 Ith day of October, 1987.

K. D. Drachand, Chief Mobile Source Division

| 19 <u>88</u> AIR R   | Attachment 3<br>ESOURCES BOARD SUPPLEMENTAL DATA SH  | E.O. # <u>A-61-24</u><br>EET<br>Page 1   |
|--|--|--|
| •  | ries, Inc. Engine Family J   |  |
| Evaporative Family   |  |  |
|  | Liters (CID)2  |  |
| ABBREVIATIONS  |  |  |
| Ignition System  | Exhaust Emissions Control System   | Special Features   |
| CA-Centrifugal Advance<br><u>ECU-Electronic Control Unit</u><br><u>EI-Electronic Ignition</u><br><u>ESAC-Electronic Spark Advance</u><br><u>Control</u><br>VA-Vacuum Advance<br>VR-Vacuum Retard | AIP-Air Injection-Pump<br>AIV-Air Injection-Valve<br>DBC-Dual Bed Catalyst<br>EGR-Exhaust Gas Recirculation<br>EIC-Electronic Injection Control<br>EM-Engine Modification<br>OC-Oxidation Catalyst<br>OS-Oxygen Sensor<br>HOS-Heated Oxygen Sensor<br>SPL-Smoke Puff Limiter or<br>Throttle Delay<br>TOC-Trap Oxidizer, Continual<br>TOP-Trap Oxidizer, Periodical<br>IWC-Three-Way Catalyst | CCV-Combustion<br>Chamber Valve<br>CFI-Central Fuel<br>Injection or<br>Throttle Body<br>Injection<br>DID-Diesel<br>Injection-<br>Direct<br>DIP-Diesel<br>Injection-<br>Prechamber<br><u>EFI-Electronic</u><br>Fuel |
| <u>el System</u><br>CFI, CL, DID, DIP, <u>EFI</u> , MFI<br>nV-nVenturi Carburetor  | WUOC-Warm-Up Oxidation Catalyst<br>WUTWC-Warm-Up Three-Way Catalyt   | Injection<br>IC-Intercooler<br>or Aftercooler<br>MFI-Mechanical<br>Fuel  |
| Vehicle Configuration<br>Winnebago "H"-Body  |  | Injection<br>OBD-On-Board<br>Diagnostics<br>TC-Turbocharger  |
| VEHICLE MODELS:  | i .  |  |

LeSharo, Phasar, Utility Van

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| Ligine: | Front X | Mid | Rear          |               |
|---------|---------|-----|---------------|---------------|
| Drive:  | FWD X   |     | 4WD Full Time | 4WD Part Time |

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|                  | 19 88 ATR RESOURCES R      | OARD SUPPLEMENTAL DATA | E.O. # <u>A-61-24</u>    |
|------------------|----------------------------|------------------------|--------------------------|
| Passenger Cars   | Light-Duty Trucks          |                        | Page 2<br>X Gas X Diesel |
| rassenger cars _ | Light=buty Hucks           |                        |                          |
| Manufacturer     | Winnebago Industries, Inc. | Engine Family          | JWB2.2T5F9AX             |
| Liter (CID)      | 2.2 (132.1)                | Eng. Type              | 14                       |
| Emission Control | Svs. (Special Features)    | EGR-EIC-OS-TWC (EFI)   |                          |

| Engine Vehicle Models<br>Code (If Coded see<br>attachment) | Trans. Equiv.<br>Type Test<br>Weight | Test | Ign. System<br>(ECU) | Fuel System | EGR Valve  | -          |          |
|--|--------------------------------------|------|----------------------|-------------|------------|------------|----------|
|  | (Dyno Hp)                            |      |                      | Part No.    | Part No.   | Part No.   | Part No  |
| A  | Winnebago H-Body<br>(22.0)           | м5   | 5500                 | 7700720060  | 7700715635 | 7700720061 | 7700742  |
|  |                                      |      |                      |             |            |            |          |
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|  |                                      |      |                      |             |            |            |          |
|  | See page one for                     |      |                      |             |            |            | <u> </u> |

Date of Issue \_\_\_\_\_ Revisions: