State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-249-3
Relating to Certification of New Motor Vehicles

GRUMMAN OLSON

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 Grumman Olson exhaust emission control systems are certified as described below for gasoline-powered light-duty trucks:

Engine Family	Displacement Liters (Cubic Inches)	Exhaust Emission Control Systems (Special Features)
JGR2.5T5TEG2	2.5	Exhaust Gas Recirculation Three-Way Catalyst Oxygen Sensor (Throttle Body Injection) (On-Board Diagnostics)

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 Vehicle Weight	Hydrocarbons Grams per Mile	Carbon Monoxide Grams per Mile	Nitrogen Oxides Grams per mile
0-3750	0.39	9.0	1.0

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

Loaded Vehicle Weight	Hydrocarbons Grams per Mile	Carbon Monoxide Grams per Mile	Nitrogen Oxides Grams per Mile
0-3750	0.14	3.9	0.6

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 also comply with 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.) and with Health and Safety Code Section 43204.

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 3rd day of September, 1987.

Mona Kaye for
K. D. Drachand, Chief
Mobile Source Division

17- JGR2.5T5TEG2-2A

E.O. # A-249-3

1988 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer Grumman Allied Industries ✓ Engine Family JGR2.5T5TEG2

Evaporative Family G7BO-3A ✓ Engine Type I-4

Liters (CID) 2.5 (151)

ABBREVIATIONS

Ignition System

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

Fuel System

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

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
EFI-Electronic Fuel Injection
IC-Intercooler or Aftercooler
MFI-Mechanical Fuel Injection
OBD-On-Board Diagnostics
TC-Turbocharger

VEHICLE MODELS:

LLV

Engine: Front X Mid. ____ Rear ____

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

17-JGR2.5T5TEG2-3A

E.O. # A-249-3

1988 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Page _____

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

Manufacturer Grumman Allied Industries Engine Family JGR2.5T5TEG2

Liter (CID) 2.5 (151) Eng. Type I-4

Emission Control Sys. (Special Features) EGR, TWC, CL, (CFI), (OBD)

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.	Catalyst Part No.
GAI-E01	LLV (17.9)	A3	3375	16069411	17087282	17087252	25103222

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

Date of Issue _____ Revisions:

030186