State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-116-1
Relating to Certification of New Motor Vehicles

SPECIALIZED AUTOMOTIVE ENGINEERING, INC.

Pursuant to the authority vested in the Air Resources Board by Sections 43100, 43102, and 43103 of the Health and Safety Code; and

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

IT IS ORDERED AND RESOLVED: That Specialized Automotive Engineering, Inc. exhaust emission control systems for 1977 model-year passenger cars are certified for the engine family described below:

Engine Family: 20R(TC)
Engine: 133 CID
Transmission: 4 Speed Manual or 5 Speed Manual
Exhaust Emission Control Systems: Air Injection, Engine Modification, Exhaust Gas Recirculation, Oxidation Catalyst

Models: Wolverine 4 x 4 Light-Duty Truck #1 4M
Wolverine 4 x 4 Light-Duty Truck #2 4M
Wolverine 4 x 4 Light-Duty Truck #1 5M
Wolverine 4 x 4 Light-Duty Truck #2 5M
Wolverine 4 x 4 Light-Duty Truck Cab & Chassis

The following are the recommended values to be listed on the window decal required by California Assembly-Line Test Procedures for 1977 model-year vehicles:

Engine Family	Hydrocarbons Grams per Mile	Carbon Monoxide Grams per Mile	Nitrogen Oxides Grams per Mile
20R(TC)	0.3	2	1.8

BE IT FURTHER RESOLVED: That this certification is contingent upon Specialized Automotive Engineering, Inc. affixing a permanent catalyst overheat warning label on the driver's sun-visor of all catalyst-equipped vehicles. This label must be approved by the Executive Officer.

BE IT FURTHER RESOLVED: That this certification is also contingent upon Specialized Automotive Engineering, Inc. listing in the owner's manual the operating cautions associated with a catalyst-equipped vehicle. This listing must be approved by the Executive Officer.

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

The Department of Motor Vehicles, the California Highway Patrol, and the Bureau of Automotive Repair will be notified by copy of this order and attachment.

Executed at El Monte, California, this 17 day of December, 1976.

G. C. Hass, Chief
Vehicle Emissions Control Division

1977 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

☐ Passenger Cars ☒ Light-Duty Trucks

Manufacturer Specialized Automotive Engineering, Inc. Executive Order No. A-116-1 Page 1

Engine Family 20R(TC) Engine (CID) 133.6 Engine Code

Emission Control System AI-EGR-EM-OC +10%(A/C) Yes ☐ No ☒

Vehicle Models (If Coded see attachment)	Trans	Inertia Weight	Distributor Type: C,V,TI Mfgr. Part Number	Fuel System Type: 1-2V Mfgr. Part Number	EGR System Part No. Service**	Tune-Up Specification (1) Basic Timing (2) Idle Mixture (3) Idle Speed
Wolverine 4x4 Light-Duty: Truck 1 Truck 2	M/T4 M/T5	2750	Nippondenso 19100-38020	Aisan Kogyo 21100-38160	25620-38100	(1) 8° BTDC @ 800 RPM in neutral; vacuum line remain connected to distributor.
Wolverine 4x4 Light-Duty Cab and Chassis	M/T4	3500	19100-38011		25620-38120	(2) Lean Drop idle (See attached sheet). (3) 800 RPM in neutral.

Comments ** No Service
Shift speed (1 to 2) 10 mph, (2 to 3) 20 mph, (3 to 4) 30 mph, (4 to 5) 40 mph
Axle ratio: 4.111

Date of Issue

Abbreviations

Distributor
C-Centrifugal Advance
V-Vacuum Advance
VR-Vacuum Retard
HEI-High Energy Ignition
EI-Electronic Ignition

Fuel System
EFI, FI
nV-nVenturi Carburetor
VV-Variable Venturi

Exhaust Emission Control System
AI-Air Injection
CAI-Catalyst Air Injection
EFI-Electronic Fuel Injection
EGR-Exhaust Gas Recirculation
EM-Engine Modification
EFE-Early Fuel Evaporation
ESAC-Electronic Spark Advance Control
FI-Fuel Injection

OC-Oxidation Catalyst
PAI-Pulse Air Injection
RC-Reduction Catalyst
TR-Thermal Reactor
TWC-Three Way Catalyst
λ-Air Fuel Ratio Sensor

*Service
I-Inspect, repair/replace as needed
R-Replace

Toyota Lean Idle Drop Method

Attachment to Specialized Automotive Engineering's
Supplemental Data Sheet

Engine Family: 20 R(TC)

All adjustment must be made with engine at normal operating temperature.

(1) Coolant temperature 190°F
(2) Choke valve fully open

Before adjusting the idle mixture, the basic timing, 8° BTDC @ 800 RPM (manual transmission(M/T) or 8° BTDC @ 850 RPM, (automatic transmission (A/T) and idle speed, 800 RPM (M/T) or 850 RPM (A/T), must be within specifications. All adjustments must be made in neutral with all accessories (wipers, heater, air conditioning, etc.) off.

Adjust the idle mixture screw to obtain the maximum engine speed (engine RPM). Readjust idle speed screw to return engine speed to 870 RPM (M/T) or 920 RPM (A/T). Repeat attempt to increase the engine speed by adjusting idle mixture screw and again readjusting the engine speed back to 870 RPM (M/T) or 920 RPM (A/T). When it is no longer possible to increase engine speed by adjusting the mixture screw, the idle mixture screw must be adjusted until the idle speed at 800 RPM (M/T) or 850 RPM (A/T) is obtained.