

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-6-130
Relating to Certification of New Motor Vehicle Engines

GENERAL MOTORS CORPORATION

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 General Motors Corporation 1978 model-year diesel-powered engines in heavy-duty motor vehicles with manufacturer's gross vehicle weight rating greater than 8500 pounds are certified for the engine families and models described below:

| <u>Families</u> | <u>Engine Size (CID)</u> | <u>Type</u> |
|-----------------|------------------------------|-----------------------------------|
| 4L-53T | 212 | Inline 4, Turbocharged |
| 6L-71N | 426 | Inline 6, Naturally Aspirated |
| 8V-71TA | 568 | V-8, Turbocharged and Aftercooled |
| 6V-92TA | 552 | V-6, Turbocharged and Aftercooled |
| 8V-92TA | 736 | V-8, Turbocharged and Aftercooled |

Engine models as listed in attachment.

Section 43200, Part 5, Division 26 of the California Health and Safety Code requires that the manufacturer affix a decal to the side window to the rear of the driver or, if there is no such window on the driver's side, to the windshield of the motor vehicle.

The decal shall display the applicable model year heavy-duty engine exhaust emission standards and the following recommended values:

| <u>Engine Family</u> | <u>HC + NOx gm/bhp-hr</u> | <u>CO gm/bhp-hr</u> | <u>HC gm/bhp-hr</u> | <u>NOx gm/bhp-hr</u> |
|--------------------------|-------------------------------|-------------------------|-------------------------|--------------------------|
| 4L-53T | | 3 | 0.7 | 6.9 |
| 6L-71N | | 6 | 0.4 | 7.5 |
| 8V-71TA | | 2 | 0.5 | 6.2 |
| 6V-92TA | | 2 | 0.6 | 6.4 |
| 8V-92TA | | 2 | 0.6 | 7.3 |

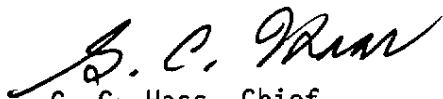
Engines certified under this Executive Order must conform to all applicable California emission regulations.

GENERAL MOTORS CORPORATION

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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 13 day of October, 1977.



G. C. Hass, Chief
Vehicle Emissions Control Division

1978 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET HEAVY-DUTY DIESEL ENGINES

Manufacturer GENERAL MOTORS CORPORATION Executive Order No. A-6-130 Page 1
 Engine Family 4L-53T and 6L-71N Engine (CID) 212 and 426
 Emission Control Systems FM (4L-53T); None (6L-71N) Type TC and NA

| Engine Model | CID | Fuel Injection Pump Mfgr. Part Number | Injector Mfg. Part Number | Maximum Rated HP and RPM | Fuel Rate at Maximum HP (1) | Basic Initial Timing °BTC |
|--------------|-----|---------------------------------------|---------------------------|--------------------------|-----------------------------|---------------------------|
| 4L-53T | 212 | None | 5A55 GMC 5229676 | 155 @ 2500 | 54.0 | 8 |
| 6L-71N | 426 | | 71B5 GMC 5229550 | 190 @ 2300 | 49.7 | 13 |
| | | | B55 GMC 5229555 | 203 @ 2300 | 52.3 | 14 |
| | | | B60 GMC 5229560 | 219 @ 2300 | 56.2 | 15 |
| 4L-53T | 212 | | 5A60 GMC 5229666 | 170@2500 | 61.1 | 8 |

Comments (1) Cubic millimeters per stroke.

Date of Issue 100777, 4L-53T with 5A60 injectors added by RC2, on 121577.

Abbreviations

Type

NA - Natural Aspiration
 TC - Turbocharged
 TCA - Turbocharged and Aftercooled

Emission Control Systems

AC - Aftercooler
 EGR - Exhaust Gas Recirculation
 TD - Throttle Delay
 FM - Fuel Modulator

1978 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET HEAVY-DUTY DIESEL ENGINES

Manufacturer GENERAL MOTORS CORPORATION Executive Order No. A-6-130 Page 2Engine Family 8V-71TA Engine (CID) 568Emission Control Systems Throttle Delay & Aftercooler Type TCA

| Engine Model | Fuel Injection Pump Mfgr. Part Number | Injector Mfg. Part Number | Maximum Rated HP and RPM | Fuel Rate at Maximum HP (1) | Basic Initial Timing °BTC |
|---------------------------|---------------------------------------|---------------------------|--------------------------|-----------------------------|---------------------------|
| 8V-71TA | None | 7A50 GMC 5229690 | 228 @ 2100 | 50.8 | 4 |
| | | 7A55 GMC 5229685 | 246 @ 2100 | 54.3 | 4 |
| | | 7A60 GMC 5229680 | 262 @ 2100 | 57.4 | 5 |
| | | 7A65 GMC 5229665 | 308 @ 2100 | 67.1 | 5 |
| | | 7A70 GMC 5229670 | 335 @ 2100 | 72.1 | 5 |
| | | 7A75 GMC 5229675 | 350 @ 2100 | 75.6 | 5 |
| 8V-71TA Constant Power | | 7A75 GMC 5229675 | 305 @ 1900 | 69.6 (2) | 5 |

Comments (1) Cubic millimeters per stroke.
(2) Fuel/cycle at 305 HP @ 1900 RPM.

Date of Issue 100777

Abbreviations

Type

NA - Natural Aspiration

TC - Turbocharged

TCA- Turbocharged and Aftercooled

Emission Control Systems

AC - Aftercooler

EGR - Exhaust Gas Recirculation

TD - Throttle Delay

1978 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET HEAVY-DUTY DIESEL ENGINES

Manufacturer GENERAL MOTORS CORPORATION Executive Order No. A-6-130 Page 3

Engine Family 6V-92TA and 8V-92TA Engine (CID) 552 and 736

Emission Control Systems Throttle Delay & Aftercooler Type TCA

| Engine Model | CID | Fuel Injection Pump Mfgr. Part Number | Injector Mfg. Part Number | Maximum Rated HP and RPM | Fuel Rate at Maximum HP (1) | Basic Initial Timing °BTC |
|---------------------------|-----|---------------------------------------|---------------------------|--------------------------|-----------------------------|---------------------------|
| 6V-92TA | 552 | None | 9A80 GMC 5229620 | 280 @ 2100 | 79.0 | 9 |
| | | | 9A85 5229625 | 300 @ 2100 | 84.0 | 10 |
| | | | 9A90 5229630 | 318 @ 2100 | 89.0 | 11 |
| 6V-92TA Constant Power | 552 | | 9A90 5229630 | 240 @ 1900 | 72.8 (2) | 11 |
| 8V-92TA | 736 | None | 9A80 5229620 | 373 @ 2100 | 79.0 | 9 |
| | | | 9A85 5229625 | 400 @ 2100 | 84.0 | 10 |
| | | | 9A90 5229630 | 424 @ 2100 | 89.0 | 11 |
| 8V-92TA Constant Power | 736 | | 9A90 5229630 | 335 @ 1800 | 79.2 (3) | 11 |

Comments (1) Cubic millimeters per stroke.
(2) Fuel/cycle at 240 HP @ 1900 RPM.
(3) Fuel/cycle at 335 HP @ 1800 RPM.

Date of Issue 100777

Abbreviations

Type

NA - Natural Aspiration
TC - Turbocharged
TCA - Turbocharged and Aftercooled

Emission Control Systems

AC - Aftercooler
EGR - Exhaust Gas Recirculation
TD - Throttle Delay