State of California AIR RESOURCES BOARD

EXECUTIVE ORDER A-6-1016

Relating to Certification of New Heavy-Duty 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-45-9;

IT IS ORDERED AND RESOLVED: That the following 2001 model-year General Motors Corporation Otto-cycle engines are certified for use in heavy-duty vehicles with a manufacturer's gross vehicle weight rating (GVWR) greater than 14,000 pounds:

Fuel Type: Gasoline

| Engine Family | | Displacement Cubic Inches) | Exhaust Emission Control Systems and Special Features |
|---------------|-----|-------------------------------|---|
| 1GMXH08.1513 | 8.1 | (496) | Dual Three Way Catalytic Converters Sequential Multiport Fuel Injection Exhaust Gas Recirculation Dual Heated Oxygen Sensors |

Engine models and codes are listed on attachments.

The certification exhaust emission standards for this engine family in grams per brake horsepower-hour are:

| Total <u>Hydrocarbons</u> | Carbon Monoxide | Nitrogen Oxides |
|------------------------------|-----------------|-----------------|
| 1.9 | 37.1 | 4.0 |

The certification exhaust emission values for this engine family in grams per brake horsepower-hour are:

| Total <u>Hydrocarbons</u> | Carbon Monoxide | Nitrogen Oxides |
|------------------------------|-----------------|-----------------|
| 0.3 | 7.2 | 0.9 |

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the materials to demonstrate certification compliance with the Board's emission control system warranty provisions (Title 13, California Code of Regulations, Section 2035 et seq.).

BE IT FURTHER RESOLVED: That the listed engine models comply with the "California Motor Vehicle Emission Control and Smog Index Label Specifications" for the aforementioned model year (Title 13, California Code of Regulations, Section 1965).

Engines 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 attachments.

Executed at El Monte, California this 3 day of November 2000.

R. B. Summerfield, Chief

Mobile Source Operations Division

Engine Model Sur hary Form

Manufacturer: General Motors Corporation

Engine category: On-highway HDGE

EPA Engine Family: 1GMXH08.1513

Mfr Family Name:

Process Code: New Submission

| Sale I.18 340@4200° NA NA 455@3200° NA NA EGR2HOSS 30 I.18 340@4200° NA K56@3200° NA NA STWC.SFI. Sale NET Sal | Engine Code 2.Engine Mode. | 3 BHP@RPM (SAE Gross) | 4.Ft el Rate: mm/stroke @ peak HP (for diesel only) | 5.Fuel Rate: (lbs/hr) @ peak HP (for diet els only) | 6.Torque @ RPM (SEA Gross) | 7.Fuel Rate: mm/stroke@peak torque | 8.Fuel Rate: (lbs/hr)@peak torque | 9 Emission Control ue Device Per SAE J1930 |
|--|----------------------------|--------------------------|---|---|-------------------------------|--|--------------------------------------|---|
| SAENET. | 118 | 340@4200* 340@4200* | | A N | 455@3200* 455@3200* | NA NA | NA NA | 2TWC,SFI, EGR,2HO2S, -GL,PCM |
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