

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-6-96  
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 1977 model-year gasoline-powered engines in heavy-duty motor vehicles are certified for the engine family described below:

| <u>Family</u> | <u>Engine Size<br/>CID</u> | <u>Engine Model</u> | <u>Exhaust Emission<br/>Control System</u> |
|---------------|----------------------------|---------------------|--|
| GM113T        | 400                        | LF4                 | Air Injection                              |
|               | 350                        | LF9                 | Air Injection                              |
|               | 350                        | LS9                 | Air Injection                              |

Section 43200, Part I, 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 following are the recommended values to be listed on the decal:

| <u>Engine<br/>Family</u> | <u>HC + NO<sub>2</sub><br/>gm/bhp-hr</u> | <u>CO<br/>gm/bhp-hr</u> | <u>HC<br/>gm/bhp-hr</u> | <u>NO<sub>2</sub><br/>gm/bhp-hr</u> |
|--------------------------|--|-------------------------|-------------------------|-------------------------------------|
| GM113T                   |  | 20                      | 0.7                     | 7.1                                 |

Engines 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 12 day of August, 1976.

  
G. C. Hass, Chief  
Division of Vehicle Emissions Control

## 1977 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET HEAVY-DUTY GASOLINE ENGINES

Manufacturer General Motors Corporation Executive Order No. A-6-96 Page 1  
 Engine Family GM 113T Engine (CID) 350 - 400 Calibration \_\_\_\_\_  
 Emission Control System AI

| Engine Models  | Distributor Type HEI C,V<br>Mfgr. Part No. | Fuel System Type See below<br>Mfgr. (1) Part No.    | EGR System Part No. Service* | Tune-Up Specifications<br>Idle Speed<br>Basic Timing<br>Idle Mixture |
|--|--|---|------------------------------|--|
| LS9  | Delco Remy<br>1103250                      | RPD/Carter<br>1-4V<br>7045583<br>7045585<br>7045586 | None                         | See Tune-Up Label No. CU   |
| LS9  | Delco Remy<br>1103250                      | RPD/Carter<br>1-4V<br>17057514                      |                              |  |
| LF4  | Delco Remy<br>1103250                      | RPD/Carter<br>1-4V<br>17057529                      |                              |  |
| LF4  | Delco Remy<br>1103250                      | RPD/Carter<br>1-4V<br>17057525                      |                              |  |
| LF9  | Delco Remy<br>1103251                      | RPD/Bay City<br>1-2V<br>17056434                    |                              |  |
| LF9  | Delco Remy<br>1103251                      | RPD/Bay City<br>1-2V<br>17056433                    |                              |  |
| Comments<br>(1) Optional Manufacturers.                      |  |   |                              |  |
| Date of Issue 08/17/76<br>Tune-up label No. CU added 090376. |  |   |                              |  |

## Abbreviation

## Distributor

C-Centrifugal Advance

V-Vacuum Advance

VR-Vacuum Retard

EI-Electronic Ignition

## Exhaust Emission Control System

AI-Air Injection

EGR-Exhaust Gas Recirculation

EM-Engine Modification

OC-Oxidation Catalyst


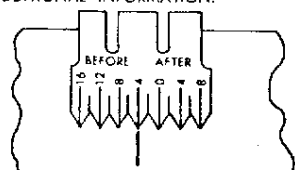
## \*Service

I-Inspect, repair, replace  
as needed

R-Replace

## 1977 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET HEAVY-DUTY GASOLINE ENGINES

Manufacturer General Motors Executive Order No. A-6-96 Page 2Engine Family GM 113T

|   |  |  |   |                    |
|---|--|--|---|--------------------|
| 2009482<br>CAL  | ENGINE EXHAUST EMISSION CONTROL<br>INFORMATION<br>GENERAL MOTORS CORPORATION |  | ENGINE  | GM 113T<br>350 CID |
|   |  |  | IDLE SPEED  | 600 RPM            |
| MAKE ADJUSTMENTS WITH ENGINE AT NORMAL OPERATING TEMPERATURE, AIR CLEANER ON, AIR CONDITIONING ON, AND TRANSMISSION IN NEUTRAL. PLUG DISCONNECTED VACUUM FITTINGS.  |  |  | IGN. TIMING   | 4° BTDC            |
|   |  |  | SPARK PLUG GAP  | 0.035 IN.          |
|   |  |  | VALVE LASH  | HYDRAULIC          |
| <p align="center"><b>SET PARKING BRAKE AND BLOCK DRIVE WHEELS</b></p> <ol style="list-style-type: none"> <li>DISCONNECT DISTRIBUTER VACUUM HOSE AND PLUG AT CARBURETOR AND DISCONNECT FUEL TANK HOSE ON VAPOR CANISTER, WHEN EQUIPPED.</li> <li>SET TIMING AT SPECIFIED IDLE SPEED.</li> <li>ADJUST IDLE STOP TO SPECIFIED IDLE SPEED</li> <li>RECONNECT VACUUM HOSES.</li> </ol> <p>NOTE: Idle mixture screws are preset and capped at factory. Either removing mixture screw caps or breaking the tabs thereon and altering the mixture setting by other than approved procedures may violate Federal and/or California or other state laws.</p> <p>FUEL REQUIREMENTS-USE 91 OCTANE OR HIGHER - PRINTED IN U.S.A.</p> |  |  | <p>IF IDLE MIXTURE ADJUSTMENT IS REQUIRED, ADJUST MIXTURE SCREWS TO HIGHEST IDLE SPEED AND SET IDLE STOP TO 675 RPM. THEN, TURN IN MIXTURE SCREWS EQUALLY TO REDUCE IDLE SPEED TO 600 RPM. SEE SERVICE MANUAL FOR ADDITIONAL INFORMATION.</p> |                    |
|   |  |  |    |                    |
| THIS ENGINE CONFORMS TO U.S. ENVIRONMENTAL PROTECTION AGENCY, AND WHERE APPLICABLE CALIFORNIA, REGULATIONS APPLICABLE TO 1977 MODEL YEAR GASOLINE-FUELED HEAVY DUTY ENGINES.  |  |  |   |                    |

LOCATION: LABELS TO BE AFFIXED  
TO THE AIR CLEANER

## 1977 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET HEAVY-DUTY GASOLINE ENGINES

Manufacturer General Motors Corporation Executive Order No. A-6-96 Page 3Engine Family GM 113T**CU****ENGINE EXHAUST EMISSION CONTROL INFORMATION****GENERAL MOTORS CORPORATION**

MAKE ADJUSTMENTS WITH ENGINE AT NORMAL OPERATING TEMPERATURE, CHOKE FULL OPEN, AIR CLEANER INSTALLED AND AIR CONDITIONING OFF UNLESS OTHERWISE INDICATED. SET PARKING BRAKE AND BLOCK DRIVE WHEELS. PUT TRANSMISSION IN PARK OR NEUTRAL FOR ALL SETTINGS. (1) DISCONNECT FUEL TANK HOSE TO VAPOR CANISTER. (2) DISCONNECT AND PLUG VACUUM HOSE AT DISTRIBUTOR. SET IGNITION TIMING AT SPECIFIED RPM. UNPLUG AND RECONNECT VACUUM HOSE AT DISTRIBUTOR. (3) ADJUST IDLE MIXTURE BY THE LEAN DROP PROCEDURE AS REQUIRED. (4) ADJUST IDLE SPEED ONLY WITH AIR COND. ON, IF SO EQUIPPED, EXCEPT FOR 454 CU. IN. (5) DISCONNECT AND PLUG VACUUM HOSE AT EGR VALVE (454 CU. IN. ONLY). ADJUST FAST IDLE SPEED WITH LEVER ON HIGH STEP OF CAM. UNPLUG AND RECONNECT VACUUM HOSE TO EGR VALVE WHEN SETTING IS COMPLETED. (6) RECONNECT FUEL TANK HOSE TO VAPOR CANISTER.

| FAMILY | ENG. DISP. | EMISSION CONTROL | IDLE RPM | TIMING | FAST IDLE RPM | SPARK PLUG GAP (IN.) | LEAN DROP IDLE MIXTURE | VALVE LASH |
|--------|------------|------------------|----------|--------|---------------|----------------------|------------------------|------------|
| 112A   | 292        | CCS              | 600      | 8° BTC | 2400          | 0.035                | 700-600 RPM            | HYD.       |
| 113T   | 350        | AIR              | 700      | 2° BTC | 1600          | 0.060                | 800-700 RPM            | HYD.       |
| 113T   | 400        | AIR              | 700      | 2° BTC | 1600          | 0.045                | 770-700 RPM            | HYD.       |
| 115    | 454        | AIR-EGR          | 700      | 8° BTC | 1700          | 0.045                | 750-700 RPM            | HYD.       |

ENGINE DISPLACEMENT AND EMISSION FAMILY FOR THIS VEHICLE ARE NOTED ON OTHER ENGINE EXHAUST EMISSION CONTROL INFORMATION LABEL.

**NOTE** IDLE MIXTURE SCREWS ARE PRESET AND CAPPED AT FACTORY. EITHER REMOVING MIXTURE SCREW CAPS OR BREAKING THE TABS THEREON AND ALTERING THE MIXTURE SETTING BY OTHER THAN APPROVED PROCEDURES MAY VIOLATE FEDERAL AND/OR CALIFORNIA OR OTHER STATE LAWS. IF ADJUSTMENT IS REQUIRED, MIXTURE MAY BE RESET USING LEAN DROP METHOD PER SERVICE MANUAL.

SEE SERVICE MANUAL FOR ADDITIONAL INFORMATION.

FUEL REQUIREMENTS — USE 91 OCTANE OR HIGHER

PRINTED IN U.S.A.

THIS ENGINE CONFORMS TO U.S. ENVIRONMENTAL PROTECTION AGENCY, AND WHERE APPLICABLE CALIFORNIA,

REGULATIONS APPLICABLE TO 1977 MODEL YEAR GASOLINE-FUELED HEAVY DUTY ENGINES.

PT. NO. 460481