

1975-79 EXHAUST EMISSION SYSTEMS

Chrysler Corp. Systems & Service Procedures

3-27

DESCRIPTION

Control of exhaust emissions is accomplished by a combination of engine modifications and special system components. Component usage varies according to model, engine, state, and emissions application.

NOTE: There are 2 Light Duty truck emission control standards classifications: Light Duty and Heavy Duty. Light Duty refers to vehicles up through 8,500 lbs. GVW; Heavy Duty refers to vehicles over 8,500 lbs. GVW.

EXHAUST EMISSION SYSTEMS

Exhaust Gas Recirculation (EGR) - System allows a predetermined amount of hot exhaust gas to recirculate and dilute air/fuel mixture in order to lower peak combustion temperature and reduce oxides of nitrogen (NOx) emissions.

Electric Assist Choke - System is designed to give faster choke openings at temperatures above 60°F and slower choke openings below 60°F.

Orifice Spark Advance Control (OSAC) - System is used on some Light Duty emissions engines to aid in control of tailpipe emissions. OSAC delays vacuum to distributor vacuum advance.

Vacuum Throttle Positioner - System is used on Heavy Duty emissions vehicles. Throttle positioner prevents unburned hydrocarbons from entering atmosphere by preventing full throttle closure during deceleration from high engine speeds.

Idle Enrichment System - System is used on some Light Duty emissions models with automatic transmission to reduce cold engine stalling. System enriches carburetor mixture at curb idle and fast idle during cold or semi-cold engine operation.

Air Injection - System consists of an air pump, diverter valve, check valves and various air distribution lines. Injection of fresh air adjacent to exhaust valves creates an afterburn effect which results in lower emission levels.

Catalytic Converter - Catalytic converter reduces exhaust emissions by continuing the burning process of exhaust gasses. As the partially burned and unburned exhaust gasses enter the converter, a combustion type reaction takes place. This provides a more complete burn, lowering emissions. Vehicles equipped with catalytic converters must use unleaded fuel only.

Thermostatic Air Cleaner (TAC) - System provides heated air to carburetor (from stove on exhaust manifold) in combination with underhood air to maintain a constant intake air temperature for more efficient combustion and emission control.

Positive Crankcase Ventilation (PCV) - System is used on all vehicles to eliminate fumes and vapors from crankcase by directing them back through the combustion chamber to be burned.

Fuel Evaporation Control System - This system routes fuel vapors from fuel tank and carburetor fuel bowl through a carbon canister to engine for burning. This closed system prevents fuel vapors from venting to the atmosphere.

SERVICE PROCEDURES

EXHAUST EMISSION SYSTEMS

See appropriate articles in this section.

TUNE-UP

See appropriate article in TUNE-UP PROCEDURES section.