

Exhaust Emission Systems

MERCEDES-BENZ 220/8 ENGINE MODIFICATION

220/8 (1968-72)

DESCRIPTION

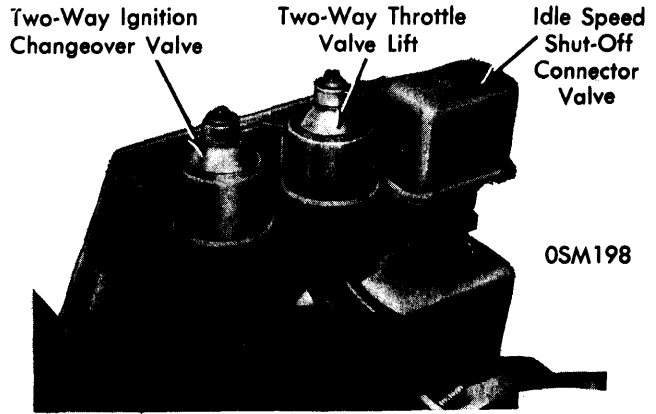
Mercedes-Benz 220/8 engine modification system consists of; RPM switch, temperature switch 100°C (212°F), two-way valve (ignition changeover), two-way valve (throttle valve lift), idling speed shut-off valve and a time delay switch.

OPERATION

Ignition Changeover – Ignition timing is governed by centrifugal advance in distributor. Intake manifold vacuum is directed through a two-way valve to vacuum retard unit, which retards centrifugal advance for optimum performance and emission control. When cooling water reaches 100°C (212°F), due to engine overheating, temperature switch in thermostat housing actuates two-way valve, shutting off vacuum between intake manifold and retard unit on distributor.

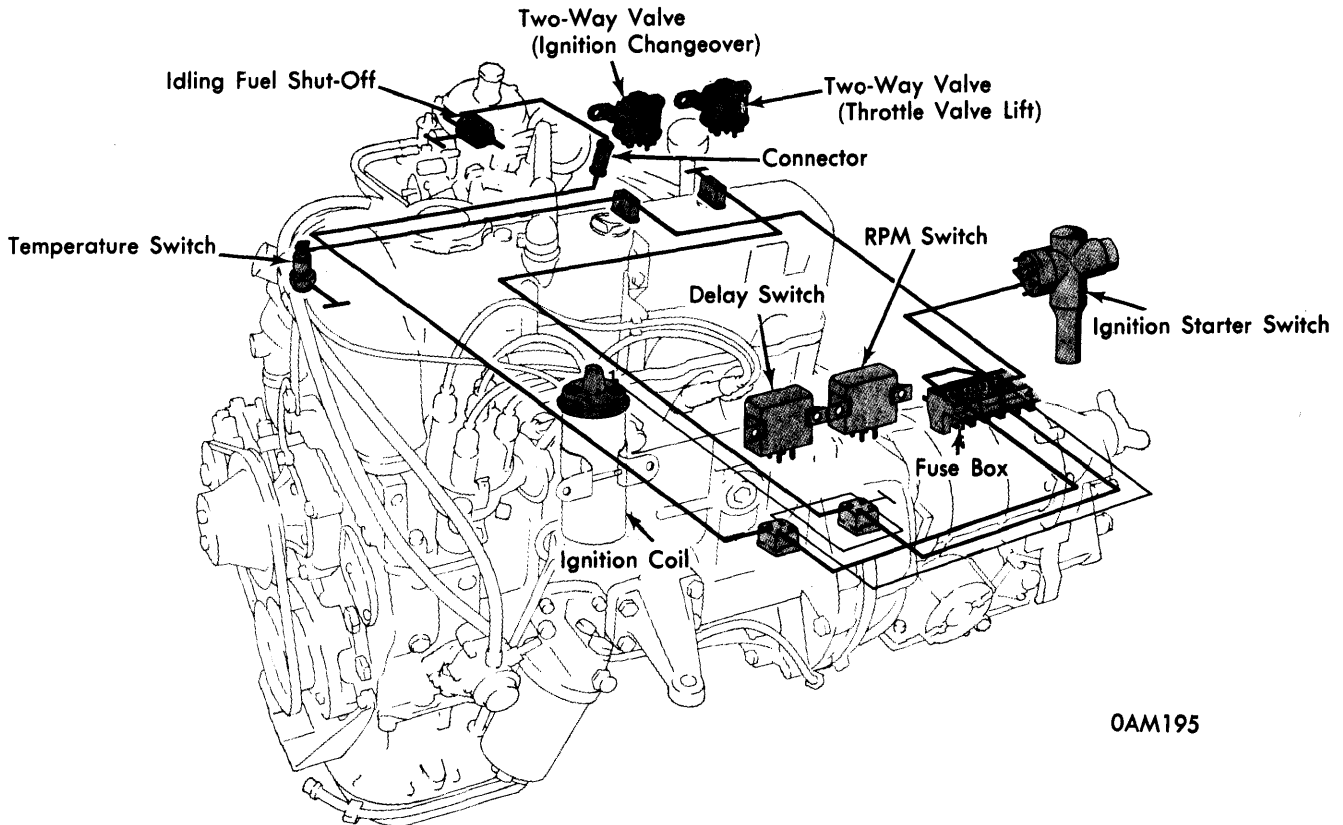
Throttle Valve Operation – Connected to carburetor is a throttle valve which keeps throttle slightly open when decelerating and engine speed is above 2000 RPM (engine overrun). Throttle valve is operated by a two-way valve which in turn is operated by an RPM switch. When engine speed rises above 2000 RPM, two-way valve is actuated by RPM switch and vacuum can no longer pass from intake manifold to throttle valve. Plunger on throttle valve would then remain extended, allowing throttle to remain slightly open during periods of deceleration (engine overrun). When engine speed drops below 1800 RPM, two-way valve is

again actuated by RPM switch allowing vacuum to pass from intake manifold to throttle valve, plunger is drawn in and throttle returns to its normal idling position.



TWO-WAY VALVE POSITIONS

Fuel Shut-Off – Carburetor incorporates an idling speed shut-off (fuel shut-off) valve. Valve is activated by a time delay switch, located in feed line from ignition switch. When ignition switch is turned off, time delay switch interrupts current to idling speed shut-off valve. Valve closes stopping fuel from entering carburetor. After a period of 6-8 seconds, time delay switch reopens idling speed shut-off valve.



OAM195

MERCEDES-BENZ 220/8 EXHAUST EMISSION SYSTEM