1975-79 EXHAUST EMISSION SYSTEMS
International Harvester Electric Assist Choke

DESCRIPTION

Electric assist choke is designed to provide faster choke openings, more efficient choke operation to engine requirements and reduce carbon monoxide (CO) during engine warm-up. It consists of an electric choke assembly, choke heat chamber assembly and piping, tube inlet heat shield, and a choke switch. The electric assist choke is used only on 196" engines equipped with Holley 1940 1-barrel carburetors.

OPERATION

Choke assembly incorporates a Positive Temperature Coefficient (PTC) disc. Its resistance increases as temperature increases. When engine cylinder head temperature is below 80°F, the choke heat sensor switch contacts are open. When cylinder head temperature rises above 130 ± 8°F, PTC switch contacts closes allowing 14 volts and 5.2 amps to PTC disc. As disc temperature increases, resistance increases and current drops until a minimum of .5 amp is maintained. This .5 amp with heat from manifold heat stove, keeps choke plate open for normal engine operation.

TESTING

1) With ignition switch on and cylinder head temperature above 130 ± 8°F, connect voltmeter between carburetor side of heat sensor switch and ground. Full battery voltage should be indicated (choke heat sensor switch contacts closed).
2) If voltage is zero, check voltage at battery side of heat sensor switch. If voltage is still zero, check choke circuit fuse and related wire harness. If voltage at battery side of switch is correct and engine temperature is above 138°F and there is no voltage going through switch, replace switch.
3) If full battery voltage is obtained at carburetor side of switch but choke fails to open, check choke plate and choke shaft for binding. If no binding condition exists, connect an ammeter into the circuit in series between the cold switch and the electric choke. If a minimum reading of .5 amp is not obtained, replace electric choke unit.

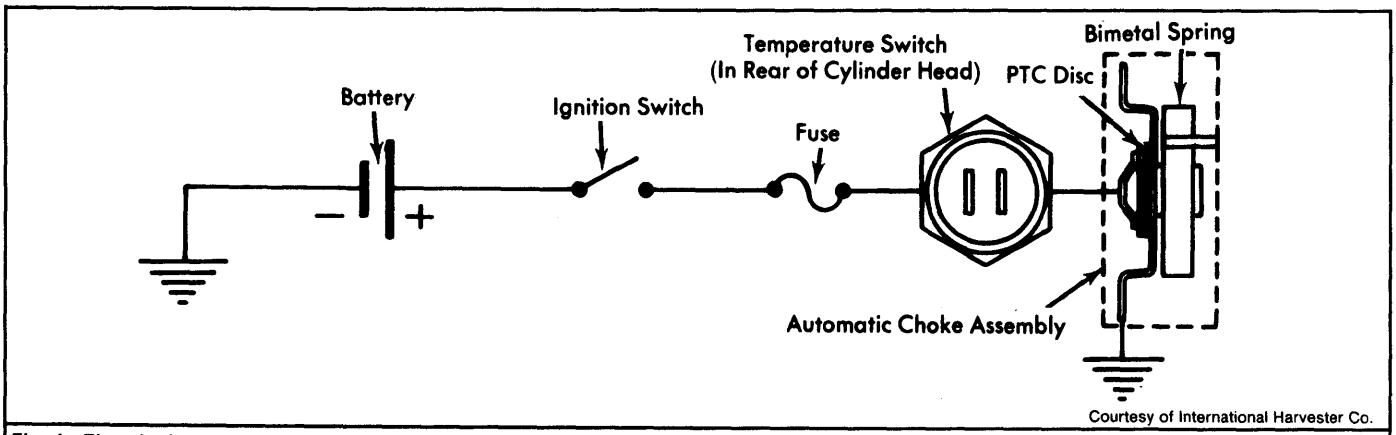

Fig. 1: Electric Assist Choke Schematic