

Fig. 11. Automatic choke and choke valve immediately after starting

air passes the valve to prevent the engine stalling, directly it starts from cold with the choke (strangler) valve closed. An adjustment is provided for the choke valve light return spring tension, so that the amount of choke valve opening can be controlled to meet extremely cold starting conditions.

Idling circuit (See Fig. 5)

This supplies, through the orifice (34), the mixture required for idling when the engine is warm. It also provides through the by-pass orifice (35) the mixture required when the throttle is first opened, but before it opens enough for the main spraying orifice to begin to discharge. The circuit is as follows, fuel is supplied from the well above the main jet and metered by the pilot jet (slow running jet) (16) the pilot jet air bleed (14)

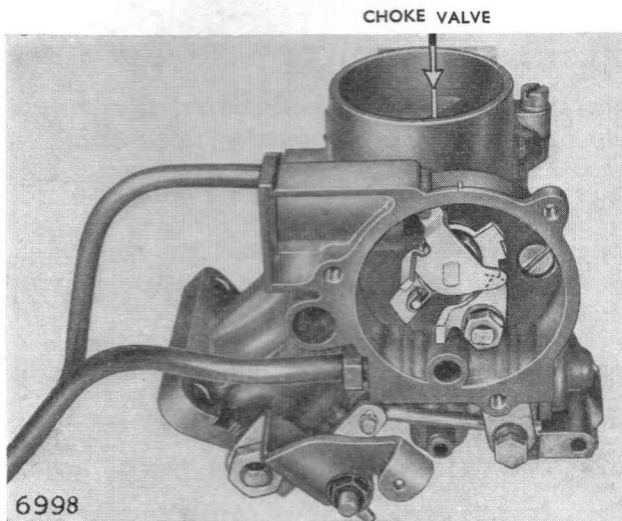


Fig. 13. Automatic choke valve in hot running position

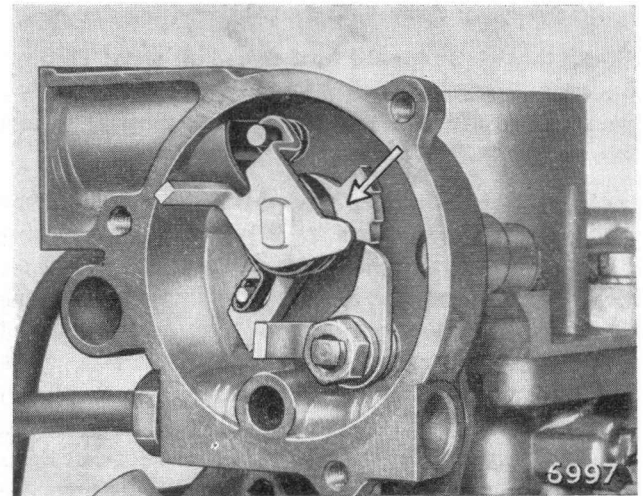


Fig. 12. Fast idle stepped cam in normal hot running position

providing the emulsifying air. When idling, additional air passes through the by-pass orifice (35), the volume of the resultant mixture being controlled by the screw (33). On leaving the idling orifice (34) the mixture is further emulsified by air passing round the throttle (36), the latter being held slightly open by an adjustment screw. As the throttle is opened engine depression is directed to the by-pass orifice (35) which discharges additional mixture to meet engine requirements until the throttle (36) has been opened sufficiently for the main spraying system to come into operation.

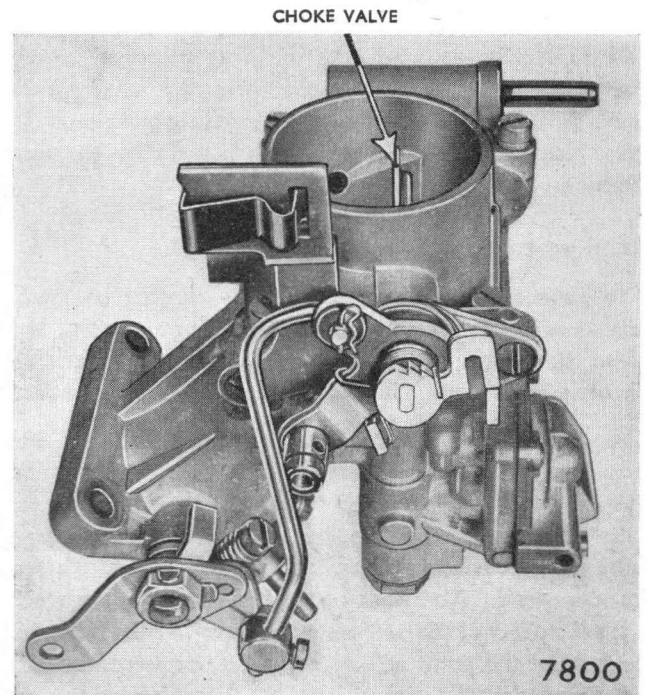


Fig. 13A. Manual choke valve fully open