

Figure 4

engine slows down, indicating too lean a mixture. Determine this point as accurately as possible. Turn needle counterclockwise one-half turn from that point. When in doubt, set mixture slightly rich rather than too lean. A lean mixture will cause overheating and a loss of power could cause severe engine damage.

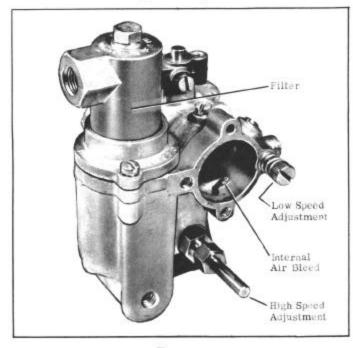


Figure 5

B. Low Speed Adjustment (Figure 5)

With engine running in forward gear, turn low speed adjusting needle clockwise until engine slows down from this point. Turn low speed needle counterclockwise about one-half turn. Do not adjust leaner than necessary to attain reasonably smooth idling. When in doubt, set mixture slightly rich rather than too lean. Engine should idle at about 500 RPM.

Note: Idle cannot be adjusted while in "Neutral" or engine will sputter and stop when shifted to "Forward" because of "no load" condition while adjusting.

III. Adjusting and Testing

A. Pickup Adjustment (Figure 6)

With engine running in forward gear, turn twist grip throttle to obtain 1000 RPM. At this point, the

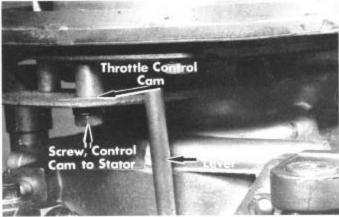


Figure 6.

throttle pickup cam on the magneto should just touch the carburetor throttle lever on the carburetor. If recommended RPM is not obtained, loosen the long hex head screw which secures the throttle control cam assembly to the magneto stator plate and move cam portion "in" (away from carburetor throttle lever) to decrease pickup RPM and "out" (toward carburetor throttle lever) to increase pickup RPM. After obtaining the desired 1000 RPM, tighten screw to secure cam. In some cases, this lever may be set to pick up slightly before or after the 1000 RPM pickup to eliminate erratic engine operation at intermediate speed. Improper synchronization will cause a "flat spot" or 4-cycling in engine operation at intermediate speeds.

B. Neutral RPM

With engine running, turn twist grip throttle to neutral. Engine should operate at 2400 RPM. To adjust RPM, adjust position of lock drum on cross shaft by setting shift lever in forward position and sliding lock drum to position where stop pin just clears end face of drum. Move shift lever to neutral position and turn twist grip throttle to advance magneto to obtain 2400 RPM. With magneto remaining in this position, turn lock drum to position where flat surface contacts end of stop pin. Secure lock drum in this position by tightening set screw. Repeat shifting procedure to check engine shift range--forward, neutral and reverse.

C. Readjust Interlock-Remote Control

It has been noted that Mark 25 motors, with remote control attached, have excessive high RPM in neutral gear and shifting range because of lost motion between vertical connection and throttle-shift interlock control. Readjust interlock drum to get correct RPM after installing remote control. To readjust interlock, decrease RPM by resetting throttle and shift lock drum. Loosen 1/4" square head set screw and rotate drum slightly forward to obtain 2400 RPM in neutral gear. Do not allow engine to race when shifting or while in neutral gear. Decrease RPM by retarding throttle.