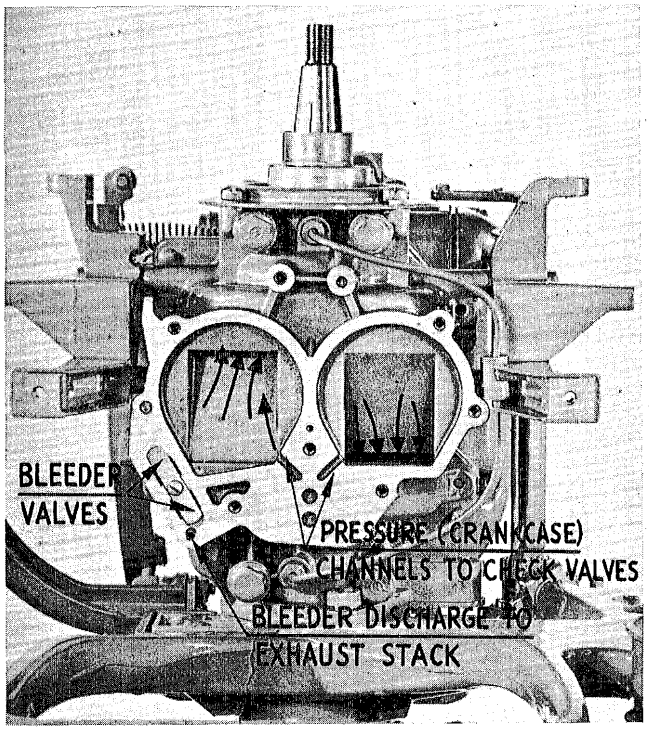
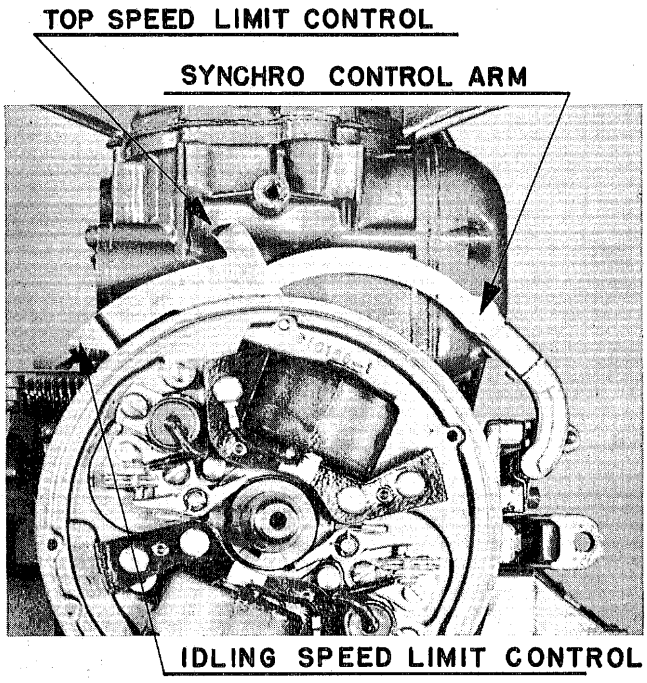
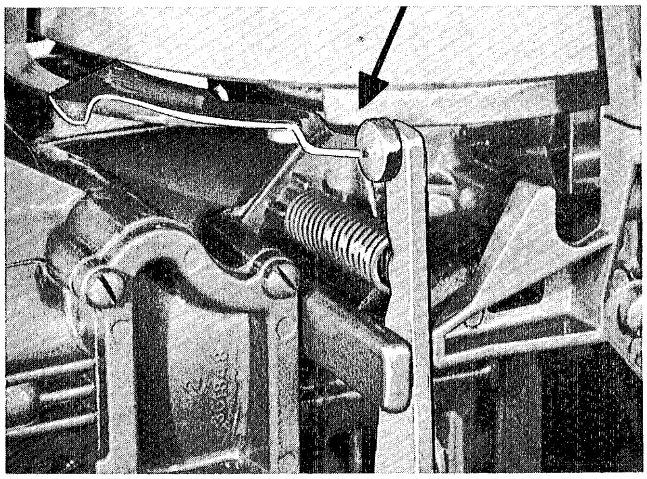


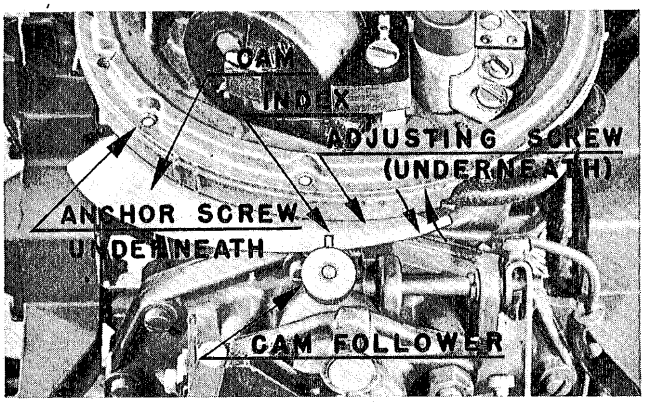
Valve Plate Removed to Expose Channels (Fuel-Vapor) to Upper and Lower Crankcase Chambers, Bleeder Check Valves, Pressure Channels (to Pressurize Tank), Oil Return and Bleeder Drain to the Exhaust Stack.



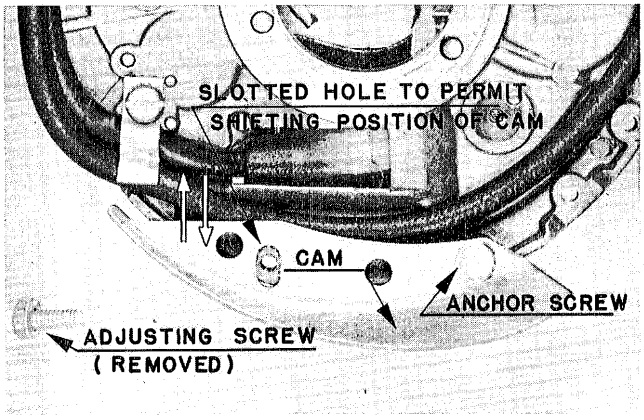
Showing synchro-control linkage with built in stops to limit idling and top speed running.



Speed Control Grip Set for Neutral Running—Note "Stop" Arrangement to Limit Idling on Neutral Running Speed.



Showing Synchro-Speed Control Arrangement and Adjusting Facilities, Note "Index" Mark on Cam which is Adjustable as Attached to the Lower Side of the Armature Plate and the Cam Follower. To properly Synchronize, (1) Loosen the Adjusting Screw which Seats in an Elongated or Slotted Hole in the Cam; Permitting "Low" End of the Cam Being Shifted "in" or "out" as Required (2) Adjust Position of Cam to Point where the Index (on cam) Aligns with Center of the Cam Follower, but only after all of the "Slack" in the Synchro-Control Linkage has been "Taken up" and the Carburetor Shutter is JUST on the Verge of Opening, (3) Tighten Adjusting Screw and if Necessary the Anchor Screw. Recheck Alignment since this Adjustment is of Extreme Importance to Achieve the Maximum in Performance.



Bottom View of the Armature Plate Showing Installation of the Carburetor Control Cam, Anchor Screw, Adjusting "Slot" and Corresponding Screw Removed for Purpose of Illustration.

CARBURETOR ADJUSTMENT — SLOW AND HIGH SPEEDS

Both high and slow speed needles are adjusted at the factory on final assembly and testing, with a limited range for further adjustment provided the ultimate owner to compensate for local operating conditions such as temperature (atmospheric and water), atmospheric or barometric pressure (altitude), humidity, etc., which frequently require slight variations in needle settings. A boss or "stop" is cast on to the carburetor panel and a similar arrangement cast on to the back or inside of the slow speed adjusting knob which permits somewhat more than a half turn of the knob as and if required to achieve best performance—Note pointer on knob and numerals 1 to 7 on the control panel.

Similar provisions are made for compensating adjustment of the high speed needle for like reasons except that the limiting "stops" for the high speed adjusting lever are built into the cover—Note numerals 1 to 7 which limits adjusting to less than a half turn.

In event the carburetor has been "torn down" for cleaning and/or repairs, primary or initial adjustment will be required for both high and slow speed needles—best accomplished with the motor cover removed. Proceed as follows:

1. Note—that the slow speed knob and high speed lever are made fast to their respective needles by means of serrations on the slotted end of the needle as result of expansion when drawing up on the taper headed screw—remove both screws to gain access to slot at the extreme end of each needle.

2. Insert screw driver bit into slotted end of the high speed needle—turn right to close until the face of the pointed needle rests gently on its seat in the carburetor body (this is important, do not turn down tightly—to do so will cause the face of the needle to "ring" and the seat to expand or distort after which further adjustment becomes impossible due to damage caused). Then turn left or "unscrew" approximately 1/2 turn high speed.

3. Perform same function on the slow speed needle but open or "unscrew" about 1-1/8 turn.

4. Attach test wheel—start and run the motor in a test tank until normal running temperature has been attained.

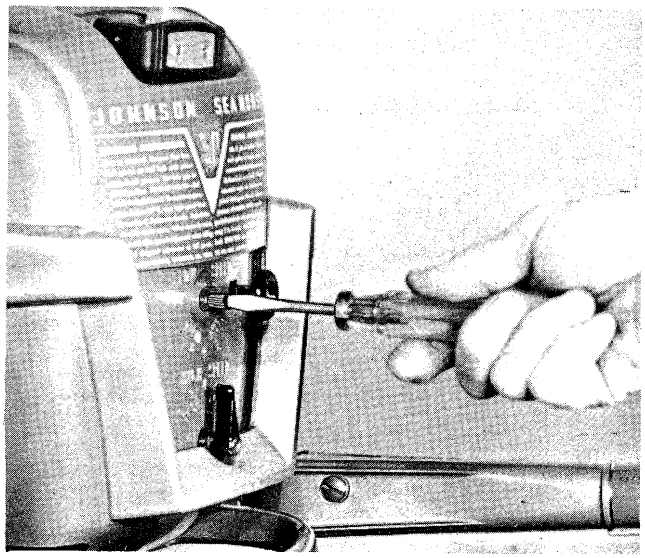
5. Turn high speed needle (with screw driver) to right or left as required to obtain best setting for maximum performance.

6. Reduce motor speed towards idling position —turn slow speed needle to right or left as required to obtain smooth operation in the lower speed range. Further retard motor speed—adjust position in like manner for best performance. Repeat the operation until best setting for maximum slow speed running has been accomplished.

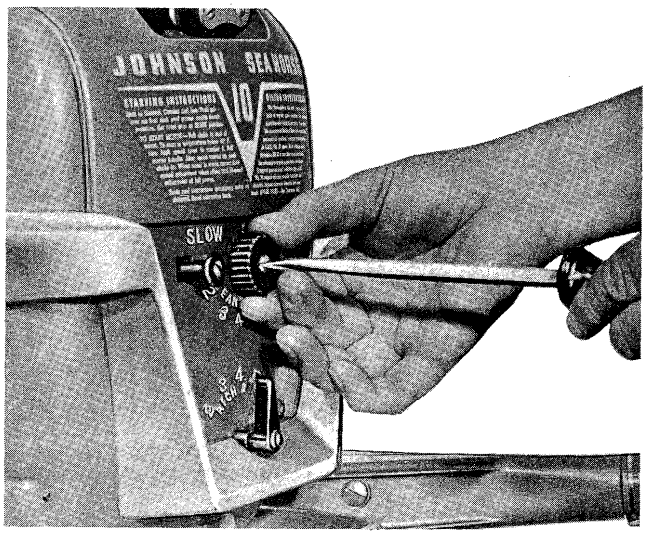
NOTE—rough or "jumpy" running of the motor denotes an excessively rich carburetor mixture (too much fuel—too little air) and as evidenced by a "smoky" exhaust. Spitting back or "coughing" through the carburetor is indication of a too lean mixture (too little fuel—too much air). Turning needle adjusting valve to right reduces flow of liquid fuel into the carburetor air stream thus "leaning out" the fuel vapor mixture; turning to left, increases the flow of liquid fuel to result in a correspondingly richer mixture.

7. Re-check both needle settings to assure best performance.

8. Without disturbing position of the slow speed needle, install the slow speed knob over the protruding serrated end, with pointer directed towards numeral 4. Insert and draw up snugly on the taper headed screw provided for the purpose.



Adjusting needle setting with screwdriver prior to final placing of the slow speed dial and high speed lever.



Locating Position of Knob on the Slow Speed Needle.