## Adjusting Idle Speed

## Spezial Tool:

## P-75, Carbureter Synchronizing Unit

- Remove idle mixture adjusting screws and inspect needle tips for burrs, grooves, and misalignment. If in doubt, install new adjustment screws.
- 2. Bring engine to normal operating temperature and remove air cleaners.

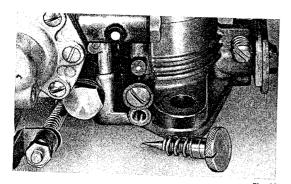


Fig. 13

- 3. Detach throttle rods from throttle levers.
- 4. Uniformly turn idle speed adjustment screws in until the engine idles at about 1,000 rpm.
- 5. Following any convenient sequence turn idle mixture screws fully in on both carbureters do not tighten or else needle tips will be damaged then back off 1½ turns. From this position turn the screws in or out until fastest idle is achieved. In no case should the idle mixture screws be left fully turned in.

- Adjust idle speed screws until the idle speed drops to 800—900 rpm.
- Place carbureter adjustment gauge (P-75) on carbureter throat and adjust plunger glass to vertical position.
- 10. Without changing gauge settings place gauge (P-75) on second carbureter and adjust throttle valve with idle speed screw so that plunger in glass tube moves to same position as obtained in previous testing outlined under Point 8, above. Also check throttle valve synchronization according to outline under Point 9, above, and correct if necessary.

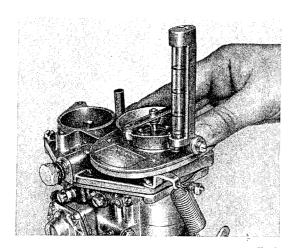


Fig. 14

- 11. Should it be noted during the adjustment procedure that idle rpm has changed, corrective adjustment must be made with idle speed screws, whereupon synchronization of carbureters must be rechecked with carbureter gauge (P-75) and corrected if necessary.
- 12. Reconnect throttle rods to throttle levers.

**Note:** Carbureter rods must be so adjusted as to reconnect with throttle levers without causing tension elsewhere.

- 8. Turn adjustment screw on gauge until plunger moves to about half-way between two scriber marks on glass tube; this accomplished, no further adjustments should be made on gauge as it is set for the particular engine.
- 13. Set hand throttle to 1,200—1,300 rpm and using gauge (P-75) check if both carbureters are still synchronized, following instructions under Point 8 and 9. If the gauge shows unequal readings on both carbureters it will be necessary to again resynchronize the carbureters by marking proper adjustments on both throttle rods.
- 9. Place gauge (P-75) on the second throat of same carbureter; plunger should move up to same point as obtained during procedure outlined under Point 8, above. Should a different reading be obtained it will be necessary to resynchronize both throttle valves; this is easily accomplished by slightly twisting the throttle shaft. Using the adjustment gauge check if throttle valves are properly synchronized by comparing subsequent readings obtained at the two carbureter throats.
- 14. Recheck idle speed.
- 15. Check injection quantity (warm season 0.45 cc from each nozzle on two pump strokes, cold season 0.65 cc).

- 16. Check accelerator pedal stop screw and adjust if necessary. When the accelerator pedal is depressed against the stop screw the carbureter lever should be clearing the carbureter stop block by about 1 mm (.039 in.).
  - 17. Install air cleaners with gaskets and tighten securing screws.