CARBURETOR SYNCHRONIZING & IDLE MIXTURE ADJUSTMENT FOR # 1110 & # 4110

PROCEDURE

1. Remove the air filter assemblies.

2. Disconnect the throttle linkage rods on ALL carburetors.

3. Turn "out" (counter clock-wise) the idle speed screw, on each carburetor, until the tip of the screw is flush with the casting. Check for binding or sticking of the throttle plates. With the idle speed screw in this position, the throttle plates should be completely closed in the bores. Correct any misalignment or binding BEFORE proceeding.

4. Turn "in" (clockwise) the idle speed screw, on each carburetor, until the tip of the screw just touches the carburetor lever. From this "contact" position, turn each idle speed screw exactly *one* (1) full turn "in". This is your preliminary set point.

5. Start the engine. CAUTION: Be sure the loose throttle-rods are not interfering with other linkage components.

7. To synchronize the carburetors, adjust each idle speed screw until a balanced airflow reading is obtained on the Syncrometer.

8. After the carburetors are synchronized, reinstall the linkage rods. If the linkage rod length is not correct the throttle lever position will be affected. To adjust linkage rod length loosen the right and left handed nuts and turn the rod shaft to shorten or lengthen the rod as necessary. **NOTE: When linkage rods are properly adjusted the Syncrometer reading will remain as originally set. When rods are adjusted, lock the rod nuts in place.**

9. If idle mixture and idle speed adjustments are not required, turn engine off and remove syncrometer. Replace air filter assemblies and this procedure is complete. If idle speed adjustment is necessary, see next step.

IDLE MIXTURE & IDLE SPEED ADJUSTMENT

This "Lean-Best" idle setting procedure can be used to adjust your carburetor in the absence of an Infrared Exhaust Analyzer. Those with an analyzer can set idle mixture to the engine manufacturer's specification.

10. If a tachometer is available, install it prior to starting the engine. If a tachometer is not available. set idle mixture "by ear".

11. Start engine. Be sure engine is at operating temperature and choke is not engaged.

12. Turn "in" (clockwise) the idle mixture screw until the engine RPM begins to fluctuate on the tachometer. (If adjusting "by ear," until a noticeable change in speed is heard).

13. Turn "out" (counter-clockwise) the idle mixture screw slowly, until the engine idle speed becomes steady. Try to obtain the leanest setting without affecting the idle speed. If necessary repeat steps 13 and 14 until best setting is achieved. Repeat this procedure br each carburetor. Try to maintain a balanced setting between all carburetors. EXAMPLE: Each carburetor idle mixture screw should be within 1/4 turn of each other.

14. Once the idle mixture has been set, fine tune the idle speed if necessary, to meet the engine manufacturer's specification using the idle speed screw. Try to keep the adjustment equal on all carburetors.

15. Recheck *the* carburetor synchronization if any idle speed adjustment is made and check the linkage rod position.

16. Turn the engine off. Remove tachometer and synchronizer. Replace the air filter assemblies.

GENERAL INSTRUCTIONS FOR INSTALLING IDF TYPE CARBURETTORS ON AIR COOLED ENGINES

1. if vehicle was originally equipped with fuel injection, it will be necessary to change to a low pressure fuel pump, or install a fuel pressure regulator (# 1689). The carburetors do not have a provision for a vacuum distributor. The original vacuum operated distributor will have to be replaced by a fully mechanical advance model (# 2234).

2. When changing levers, do not over tighten the shaft nuts (**4-5 FT/LBS MAXIMUM**).

3. The manifold to cylinder gasket may have to be trimmed to fit inside the sheet metal. Remove just enough material so it will fit properly.

4. Be sure all old gasket material is removed. Plug the cylinder head intake ports with rags, or paper towels to keep old gasket material out.

5. When installing mounting studs in manifolds or adaptors use a liquid thread locker.

6. Before starting and driving the vehicle be sure the linkage does not bind, or jam over center. Also the carburetors should close when accelerator is released. See that all parts are secure, and there is no interference or contact between linkage, *fuel lines,* wires, exhaust system, or other parts where damage could occur.