FORDification.com TSB Database

Ford Technical Service Bulletins - 1966-1973

Article 1283 - Momentary Engine Hesitation on Acceleration and/or Rough Engine Idle

TSB #85 - February 9, 1968
(1968 390-4V GT Engine Equipped Vehicles [Holley Carburetor] Built Prior to Approximately December 15, 1967)

Customer complaints of momentary engine hesitation on acceleration and/or rough engine idle may be encountered on 1968 390-4V GT engine equipped units built prior to approximately December 15, 1967. These units use Holley carburetor models C80F-C (standard transmission) and C80F-D (automatic transmission).

Complaints of this condition are primarily caused by a lean carburetor fuel condition at idle and off idle engine speeds. Subject units produced after the December 15, 1967 corrective date are equipped with a revised carburetor to eliminate possible occurrence of this problem. The revised carburetor can be identified by a white paint daub on the identification tag.

Before performing any of the following modifications to the carburetor, check the engine and related systems for functional soundness as outlined on page 29 of the Vehicle Emission Control Systems Training Handbook 5000 (Vol. 68 S2 L2). This corrective service procedure must be carefully performed to resolve this complaint and involves carburetor enrichment as well as steps to assure proper accelerator pump timing and carburetor base to manifold spacer sealing:

1. Secondary Idle Discharge Port — Remove the carburetor from the engine and use a No. 70 drill (0.028 inch) in a pin vise to very carefully enlarge the two idle discharge ports in the secondary throttle bases. Refer to Fig. 5.

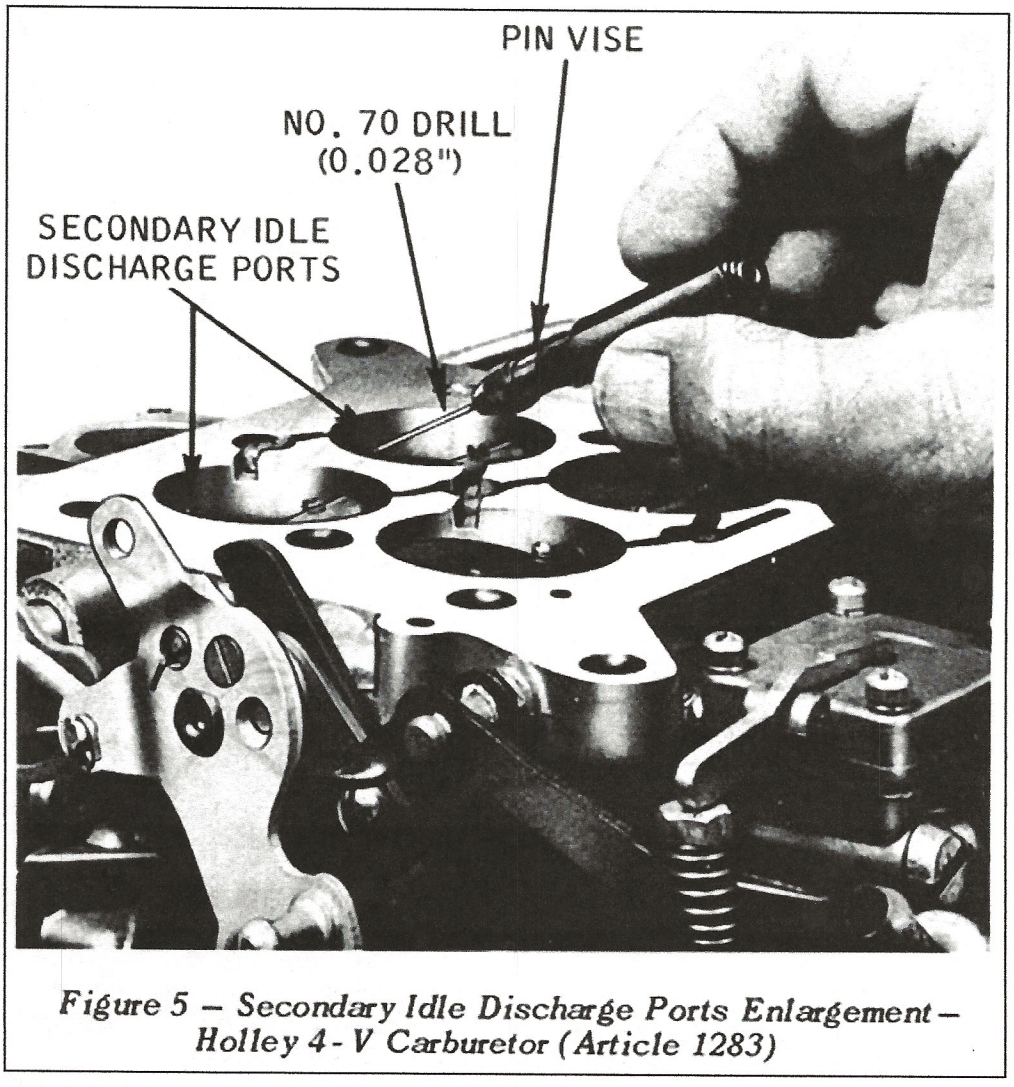

Figure 5 – Secondary Idle Discharge Ports Enlargement – Holley 4-V Carburetor (Article 1283)

2. Accelerator Pump Check Valve — Remove the accelerator pump cover and diaphragm to measure the clearance as shown in Fig. 6A between the check ball and its retainer. This clearance dimension must be between 0.012 - 0.018 inches. Check this clearance with a wire gauge within this dimension range which is bent at a 90° angle 1/8 inch from the end. Adjust the clearance as necessary by relocating the retainer with a screwdriver. (Fig. 6B.) Reinstall the accelerator pump diaphragm and cover upon completion.

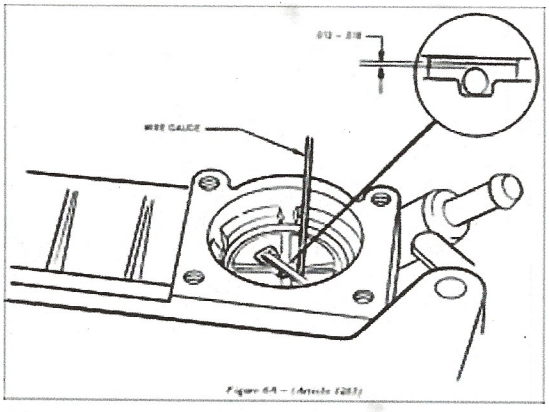

Fig. 6A

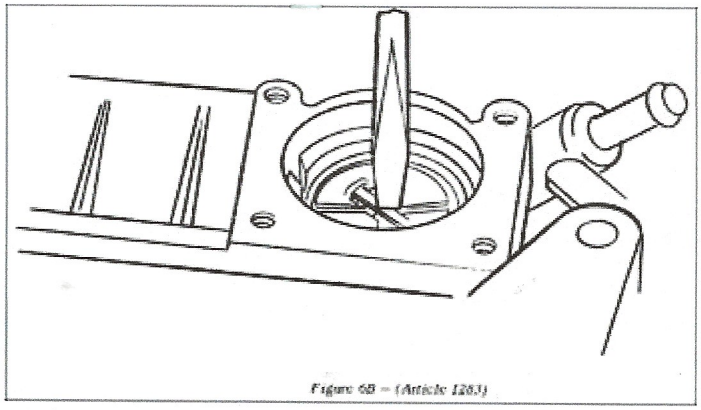

Fig. 6B

3. Carburetor Base Surface — Check the flatness of the carburetor base by using a 12 inch steel straight edge and feeler gauges as illustrated in Fig. 7A. Measure the flatness six (6) ways (Fig. 7B) (diagonally, each side from front to rear, and front and back from side to side). The flatness should be within 0.015 inches.

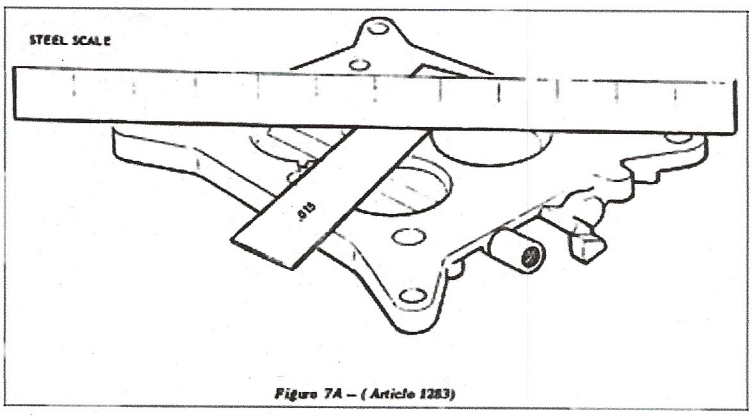

Figure 7A – (Article 1283)

Fig. 7A

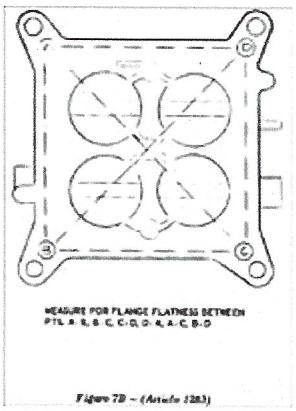

Fig. 7B

- **Flatness Within 0.015 Inch** - Reinstall the carburetor using a new C80Z-9447-A base gasket which has brass grommets in the mounting stud holes.
- **Base Over 0.015 Inch Out of Flat**

a. Remove the ears from a C8SZ-9447-A carburetor base gasket as shown in Fig. 8A.

b. Cement a C80Z-9447-A carburetor base gasket (brass grommets in the mounting stud holes) to the top of the gasket modified in Step "a" using gasket cement. Be sure the four (4) gasket venturi holes are perfectly aligned.

c. After the gaskets are cemented, cut the center webs between the right and left venturi from the gasket previously modified (Fig. 8A) to make the two (2) gaskets similar in that area.

d. Reinstall the carburetor using this cemented gasket combination. Install this gasket as shown in Fig. 8B. Torque the carburetor attaching bolts alternately to 6-8 ft.-lbs. and then alternately increase this torque to a final 12—15 ft.-lbs. specification.

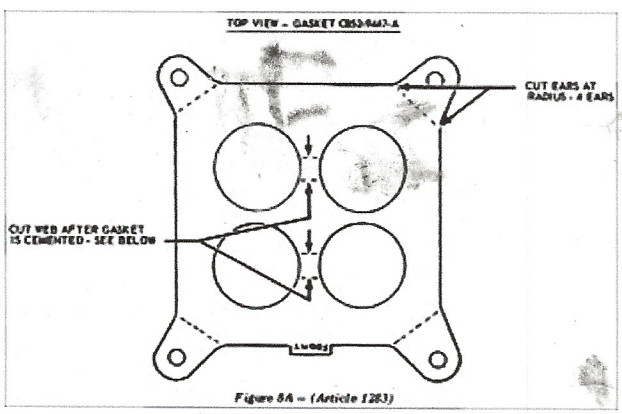

Figure 8A – (Article 1283)

Fig. 8A

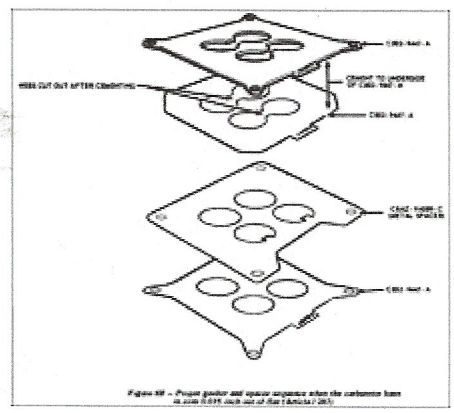

Fig. 8B

4. Fuel Level Adjustment - Start the engine and adjust the fuel level in the primary and secondary fuel bowls to the base of the sight plug holes which is the specified setting. Install the sight plugs shut

off the engine, and raise the fuel level in the primary fuel bowl only an additional 1/8 inch by loosening the adjustment lock screw and turning the primary float adjustment hex nut V2 turn "counter-clockwise". Re-tighten the lock screw following this adjustment.

5. With ignition system components in satisfactory condition and properly adjusted, use an approved Rotunda or equivalent exhaust gas analyzer to adjust the carburetor idle mixture and engine speed in accordance with the procedure specified in the appropriate maintenance manual.

Transmission	Curb Idle Speed (RPM)	Air-Fuel Ratio Specification
Automatic	550 D	14.0
Standard	700	13.2

SPECIAL TOOLS REQUIRED

1. A number 70 drill (0.028 inch) and pin vise.
2. A wire gauge - 0.012 to 0.018 inch in diameter.
3. An approved Rotunda or equivalent exhaust gas analyzer.

PART REQUIREMENTS

- 1 C80Z-9447-A Carburetor Base Gasket (Class B)
- 1 C8SZ-9447-A Carburetor Base Gasket (Class B)

WARRANTY STATUS: *REIMBURSABLE*
Oper: SP-9510-A-68 Time: 1.2 Hrs.
(Add 0.1 hrs. if a modified carburetor base gasket is required)
Top
