

## CARTER WCD 2-BARREL

RAMBLER SIX	Carter No.
1959 Series 10.....	2887S
1960 Series 10.....	2887S, SA
1961 Classic.....	3170S
1962 Classic.....	3322S
1963 Classic.....	3535S
1963 Classic ("E-Stick").....	3434S
1964 American & Classic.....	3706S
1964 American & Classic ("E-Stick").....	3707S
1965 196" OHV Engine.....	3706S
1965 232" OHV Engine.....	3888S
1966 232" OHV Engine (Std.) .....	3888S
With "Air Guard" System.....	4191S
1967 232" OHV Engine (Std.).....	3888S
With "Engine Mod" System.....	4365S

## ► CHANGES, CAUTIONS, CORRECTIONS

- **"AIR-GUARD" CARBURETOR NOTE:** These carburetors are used on engines with "Air-Guard" exhaust emission control system and are special units with different jet calibrations and adjustment specifications.
- **"ENGINE MOD" CARBURETOR NOTE:** These carburetors are special units used with new exhaust emission control system which does not use an air pump for air injection into the engine. See *ADJUSTMENTS for special adjustment procedure.*
- **1964 RAMBLER LEAN SURGE CORRECTION (EARLY CARS):** This condition, occurring at 20-30 MPH on Synchro-mesh and Overdrive cars can be corrected by installing two larger low speed jets (size increased from .028" to .031") furnished in kit, Part No. 3205485. Carburetors after Jan. 1, 1964 (Code date "A-4" or later) have the larger jets installed in production.
- **1965 ALL SERIES STALLING ON HARD LEFT TURN OR FAST STOPS CORRECTION & CARBURETOR PRODUCTION CHANGE (Cars with 232" OHV Engine & Carter WCD 3888S Carb.):** This condition noted on 180° left turns at or near wide open throttle and on high deceleration stops from 30 MPH. Carburetors have been progressively changed in production as follows:
  - 1) **Brass Tag Carburetors** - Original production model.
  - 2) **Black Tag Carburetors** - Have the following changes: Double Vent tube Air Horn and Improved Float (3 grams weight added).
  - 3) **Green Tag Carburetors** - Have additional changes as follows: New Metering Rods Carter No. 75-1715 (superceding 75-1640). New Float Level Setting of ¼" (was 1/8").
- **1965 ALL SERIES THROTTLE STICKING OR NOT RETURNING TO IDLE CORRECTION (Cars with 232" OHV Engine and Carter WCD 3888S Carb.):** New Throttle Body Flange Assembly No. 3206797 with .020" offset throttle shaft is available to correct this condition. Install only after definitely establishing that condition not caused by accelerator linkage or transmission control cable. Check as follows:
  - 1) **Synchro-mesh or Overdrive Cars** - Disconnect accelerator linkage vertical rod at control shaft. If throttle shaft still binds, replace throttle body.
  - 2) **Auto. Trans. Cars** - Disconnect accelerator linkage vertical rod at control shaft. If binding still occurs, disconnect transmission control cable at carburetor

lever. If binding still evident, replace throttle body.  
**NOTE** - If binding caused by transmission control cable, check cable for sharp bends and replace or re-route cable as necessary.

- **1964-65 AMERICAN CARBURETOR NOT RETURNING TO IDLE SPEED CORRECTION (Cars with 196" OHV Engine and Carter WCD 3706S Carbs.):** Redesigned Control Shaft Assembly, No. 3206254, can be installed to correct this condition. This control shaft eliminates forward bearing bracket and is installed as follows: Disconnect original overtravel spring, return spring, accelerator cable, and transmission control cable. Remove forward bearing bracket bolt and bracket, re-install bolt in intake manifold cover without bracket. Install new control shaft with coil spring, washer, and cotter pin furnished in kit. Connect accelerator control cable (use Clevis pin 3164193 if old clevis pin welded to control shaft). Connect and adjust transmission control cable. Install pull back spring and adjust carburetor control cable for full travel.

- **1966 DASHPOT INSTALLATION TO ELIMINATE DRIVE LINE BACKLASH NOISE:** This noise caused by reversal of engine torque and is particularly noticeable at city driving speeds. Correct by installing Dashpot Kit, Part No. 3205126, mounting the bracket on bowl cover using existing bowl cover screws. Make certain dashpot stem contacts throttle lever. Adjust dashpot (see *Adjustments*).

## CARBURETOR IDENTIFICATION

Carter number stamped on tag attached to carburetor by air horn screw. Standard suffix letter "S" indicates original carburetor design. "SA" etc. indicates changes in parts, jet calibration, or adjustment settings as listed.

## DESCRIPTION

Two barrel downdraft type with concentric float bowl and double floats, vacuumer (vacuum piston type) metering rod control, and automatic choke.

## ADJUSTMENT

## Idle Speed &amp; Mixture

*Adjust with engine at normal operating temperature (choke valve wide open and fast idle not operative), air cleaner in place, all transmissions in Neutral, and air conditioner turned On. Connect tachometer to engine.*

**Std. Engine** - Adjust throttle stopscrew for correct engine idle speed (see Specifications). Turn both idle mixture screws out equally until engine speed begins to drop off, then turn screws in to lean mixture until maximum engine speed is obtained and continue to turn screws in until engine speed begins to drop off due to lean mixture, finally turn screws out to secure maximum engine idle speed (this will assure a "lean as possible" setting). Readjust idle speed. If necessary to change idle speed more than 50 RPM. repeat idle mixture adjustment.

**"Engine Mod" Carburetors** - Adjust throttle stopscrew for correct engine idle speed (see Specifications). Turn both idle mixture adjusting screws out equally

## CARTER WCD 2-BARREL (Continued)

until maximum engine idle speed is obtained, then turn both screws in until a 20 RPM drop in engine speed is noted, finally turn screws out until original idle speed is just regained. Recheck idle speed. If necessary to readjust idle speed, repeat idle mixture adjustment. Continue this procedure until correct idle speed is obtained without further adjustment of the idle speed adjusting screw.

### Fast Idle (On Engine)

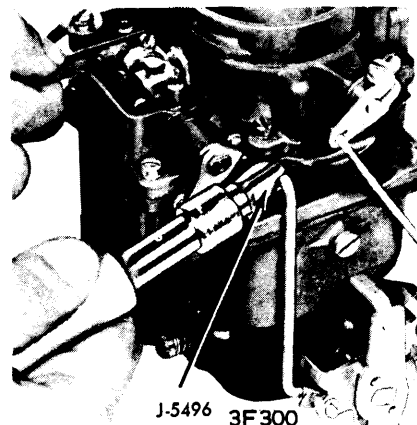
With engine at normal operating temperature and fast idle screw on high step of fast idle cam, adjust fast idle screw to obtain the correct engine speed (see "Specification Table").

### Accelerating Pump

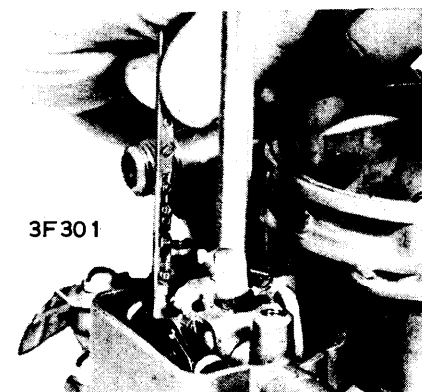
With pump connector link installed in outer hole (long stroke) of pump arm (under dust cover on bowl cover), back off throttle stopscrew so that throttle valves are fully closed. Place a straightedge across dust cover boss directly above pump arm. Flat on pump arm should be parallel to straightedge. To adjust, bend throttle connector rod at upper angle.

### Metering Rods

**NOTE** - Check and adjust metering rods after Accelerating Pump adjustment is completed. With throttle stopscrew backed off and throttle valves fully closed, loosen metering rod arm clampscrew (on countershaft under dust cover on bowl cover). Press down on vacuumeter link until both metering rods just bottom in carburetor casting, then rotate metering rod arm until



ACCELERATING PUMP ADJUSTMENT



METERING ROD ADJUSTMENT

## CARBURETOR ADJUSTMENT SPECIFICATIONS

Carter Carb. No.	Idle Speed (Engine RPM)		Initial Idle Mixture	Fast Idle (Off Engine)		Float Level Setting	Float Drop Setting	Unloader Setting	Auto. Choke Setting
	Hot	Fast		Cam Clear.	Initial Setting				
2887S	550 ①②	1900 ④	½-2	.010"	.020"	5/32" ⑥	5/8"	3/16"	Index
2887SA	550 ①②	1900 ④	½-2	.010"	.020"	5/32" ⑥	5/8"	3/16"	Index
3170S	550 ①②	1900 ④	½-2	.010"	.020"	5/32" ⑥	5/8"	3/16"	Index
3322S	550 ②③	1800 ⑤	½-2	.010"	.020"	5/32" ⑥	5/8"	3/16"	Index
3434S	550	1800	½-2	.010"	.020"	1/8"	5/8"	3/16"	Index
3535S	550 ②③	1800	½-2	.010"	.020"	1/8"	5/8"	3/16"	Index
3706S	550 ②③	1800	½-2	.010"	.020"	1/8"	5/8"	3/16"	Index
3707S	550	1800	½-2	.010"	.020"	1/8"	5/8"	3/16"	Index
3888S	③	1900 ④	½-2	.010"	.020"	⑨	5/8"	3/16"	Index
4191S	575 ⑩	1850 ⑤	1¼	.010"	.015"	17/64"	5/8"	3/16"	2 Rich
4365S	600 ⑪	1350	3	.010"	.015"	7/32"	5/8"	3/16"	2 Rich

① - 475 RPM with Auto. Trans. in "N".

③ - 500 RPM with Auto. Trans. in "N".

⑤ - ± 50 RPM.

⑦ - With fast idle screw on high step of fast idle cam.

⑧ - 550 RPM (1965-66), 600 RPM (1967). Auto. Trans. in Neutral. 500 RPM Air Cond. Cars (Air Cond. ON).

⑨ - 1/8" (1965 carburetors with Brass or Black tag).

④ - 1/4" (1965 carburetors with Green tag and all 1966-67 carburetors).

② - 500 RPM with Air Conditioner ON.

④ - ± 100 RPM.

⑥ - 1/8" if inlet valve has resilient seat.

⑩ - Synchro-mesh & Auto. Trans. Cars (In Neutral). 500 RPM Air Conditioned Cars (Air Cond. ON).

⑪ - Synchro-mesh & Auto. Trans. Cars (In Neutral). Air Conditioner ON (if equipped).

## CARTER WCD 2-BARREL (Continued)

finger on arm contacts lip on vacuumer link and tighten clampscrew. **CAUTION** - Do not disturb arm position.

## Float Level

**FLOAT LEVEL SETTING CAUTION** - When bending float level to adjust height on carburetors with resilient inlet valve seat, do not allow float lever to contact needle as seat can be compressed enough to cause a false setting. Float level specifications are different for carburetors with resilient inlet valve seats. See "Specification Table".

**Vertical Adjustment** - With bowl cover removed from carburetor, invert assembly, remove cover gasket and install correct gauge (see "Specification Table") on cover directly below floats. Top of each float should just clear horizontal portion of gauge. To adjust, bend float arms so that both floats are uniform height.

**Lateral Adjustment** - Sides of floats should barely touch vertical uprights of float gauge. Adjust by bending float arms as necessary. **CAUTION** - This adjustment is important to prevent floats hanging up in fuel bowl when floats installed.

## Float Drop

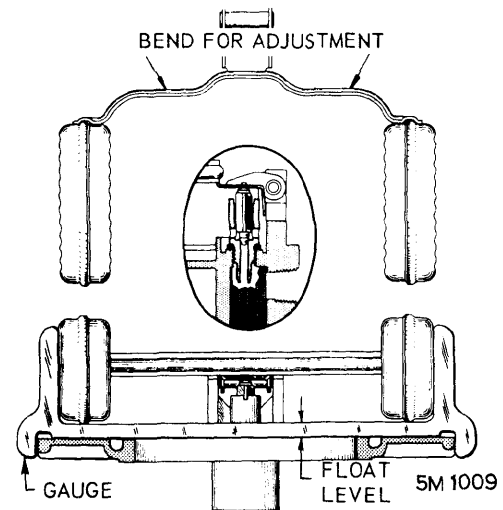
With bowl cover held in upright position, distance between top of float at center and bowl cover should be as indicated in "Specification Table". To adjust, bend stop tab on float bracket.

## Fast Idle (Off Engine)

**NOTE** - Two adjustments are required as follows:

**Fast Idle Cam Clearance** - Loosen choke lever clampscrew on choke valve shaft, then insert a gauge of proper thickness (see "Specification Table") between lip on fast idle cam and boss on flange casting. Hold choke valve tightly closed and remove all slack from linkage by pressing choke lever toward closed position, then tighten choke lever clampscrew.

**Fast Idle (Initial Setting)** - With choke valve tightly closed, tighten fast idle adjusting screw against high step of fast idle cam until throttle valve opening (clearance between edge of valve and carburetor bore



FLOAT LEVEL ADJUSTMENT

on side opposite idle ports) is as indicated in "Specification Table".

## Dashpot

**1966 Models** - With carburetor throttle stopscrew set for correct curb idle speed, hold dashpot stem fully depressed and adjust dashpot in bracket by loosening locknut and turning dashpot in or out of bracket for 1/8" clearance between end of dashpot stem and throttle lever.

## Unloader

Hold throttle valves wide open and check clearance between edge of choke valve and air horn wall. Clearance should be as indicated in "Specification Table". To adjust, bend unloader lip on throttle valve lever.

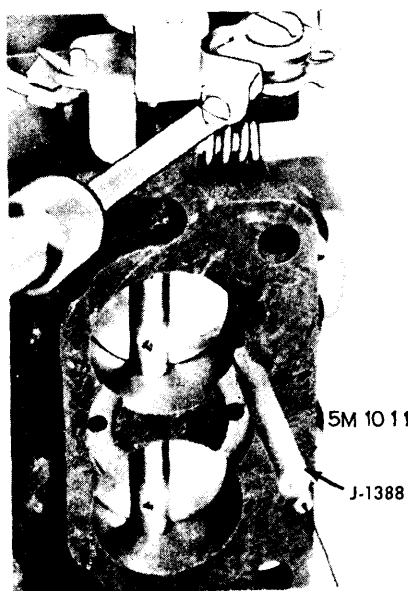
## Automatic Choke

Loosen choke cover attaching screws and rotate cover to align index mark on cover with proper graduation on choke housing. See "Specification Table"

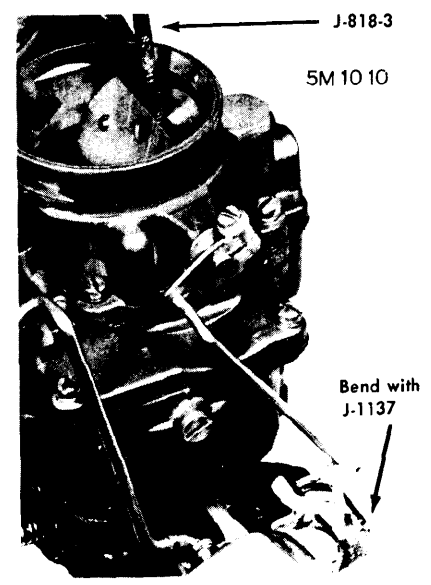
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FAST IDLE CAM CLEARANCE

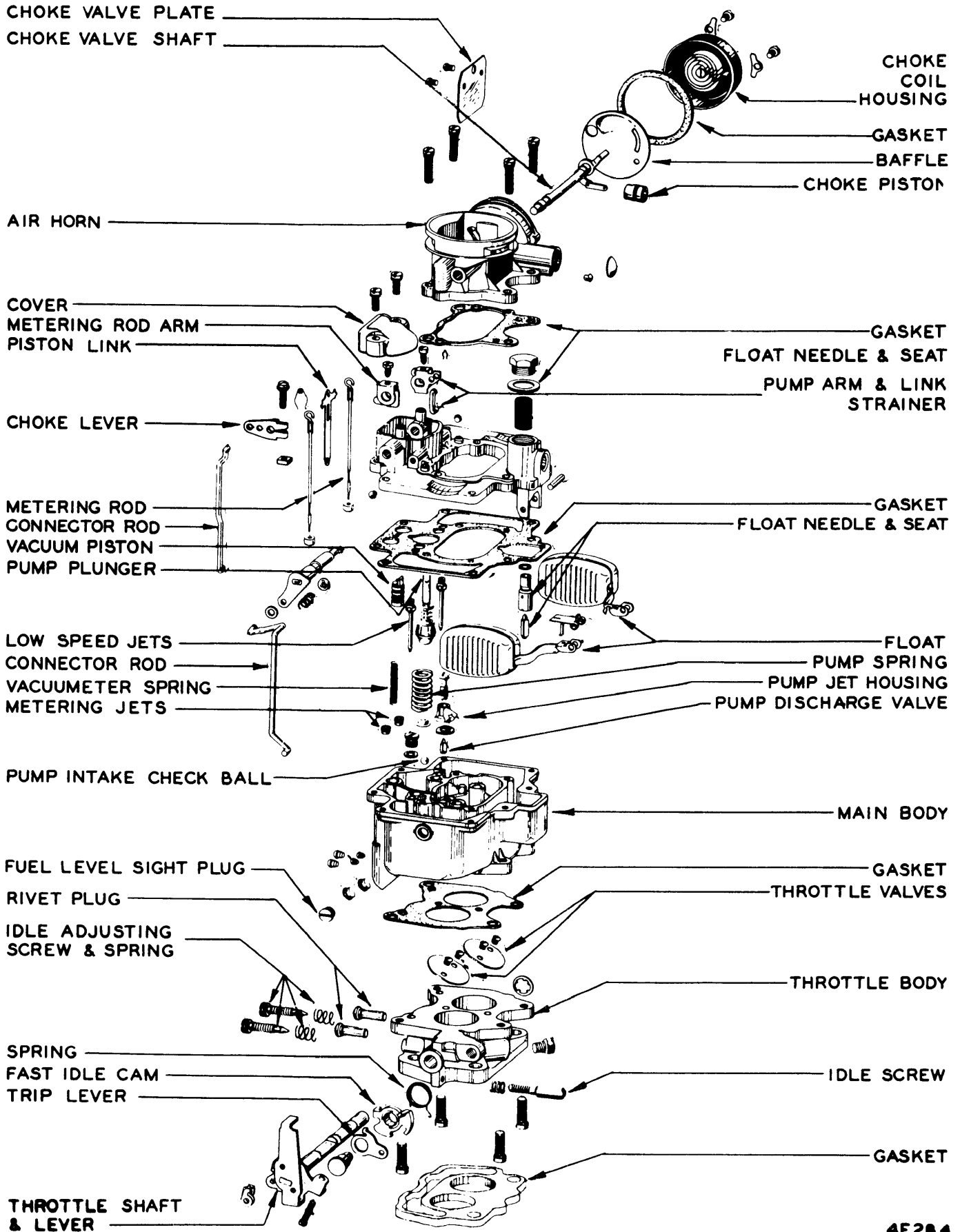


FAST IDLE INITIAL SETTING



UNLOADER ADJUSTMENT

## CARTER WCD 2-BARREL (Continued)



CARTER WCD 2-BARREL CARBURETOR ASSEMBLY

4F264

# Carter Carburetors

## CARTER WCD 2-BARREL (Continued)

### OVERHAUL

#### Disassembly

1) Remove dust cover from bowl cover, then remove throttle operating rod and choke connector rod. Remove air horn from bowl cover, then remove bowl cover from main body.

2) Remove accelerator pump and vacuumeter piston spring, then disconnect and remove throttle body. Remove idle mixture adjusting screws and springs, and remove throttle stop screw from throttle body.

**NOTE** - *It is not necessary to remove throttle valve plates except for parts replacement.* To remove throttle valves and shaft, file off staked portion of valve screws and remove screws and valves.

3) Remove pump jet and metering rod jets from main body, then remove pump intake check ball retainer and spring. Remove pump passage plug. Remove vacuumeter piston from bowl cover, then remove float and lever assembly, fuel needle and seat, and bowl cover gasket. Remove metering rods from vacuumeter link and push out through top of bowl cover. Disconnect pump plunger link and slide plunger assembly out of bowl cover.

4) Remove fuel strainer and gasket, then remove both low speed jets. Remove choke cover, gasket and baffle plate. If necessary, remove choke valve plate and choke shaft. **NOTE** - *Choke piston and choke shaft are removed as a complete assembly.*

**CLEANING NOTE** - *Wash metal parts only in carburetor cleaner.*

#### Reassembly

Reverse disassembly procedure and note the following: If throttle valve plates were removed from throttle shaft, slide throttle shaft into throttle body and install valve plates and screws (do not tighten screws). Rotate plates until they are a snug fit in bores, then tighten screws. Check alignment after tightening by holding up to a light. With throttle in closed position, little or no light should pass between plates and bores. Stake throttle valve plate screws and check for binding.