CARBURETOR

The Bendix Carburetor, Model 13479 carburetor, being used on FLP/FLH/FX models has been modified since the start of 1971 production, in order to improve performance, with the following changes.

The letter A, B, C or D is stamped near the basic Bendix carburetor part number 13479 on the carburetor body boss for identifying carburetors with modifications. See Figure 3.

Changes were made as follows:

1. No. 13479A

Float setting changed from 1/8 in. to 3/16 in. to remedy a rich condition occurring at steady speeds. To correct, remove bowl nut and bowl. Hold carburetor upside down and measure height of float above surface of gasket with a 3/16 in. dia. drill as shown in diagram below. To raise float (results in lower fuel level), bend brass tang downward toward needle. To lower float, bend tang up. See Figure 1 following.
Clearance between float tang and inlet needle wire clip decreased—should be .005 to .010 in. To correct, close up loop of wire by bending with a pliers as shown in Figure 2 following. Needle should operate freely with no bind when carburetor is held upright and float moved up and down.

Later carburetors have a bend in the upper leg of the loop.

Note: When assembling bowl to carburetor body, make sure long end of float spring presses against inside of bowl wall, and short end of float spring is hooked on float tang.

FIGURE NO. 2

2. 13479B

New carburetor choke shaft has detents with a spring loaded plunger engaging the detents to provide positive positioning throughout the choking range (See Figure 3).

New Part No. 27664-71 Choke shaft replaces 27664-70
New Part No. 27665-71 Plunger added
New Part No. 27666-71 Plunger spring added

3. 13479C and 13479D

New idle jet with two 0.6 MM holes instead of one 0.8 hole near screw end. New part No. 27725-71 idle jet is identified by letter A stamped on screw end and it replaces part No. 27723-71.

Coupled with the preceding change in the idle jet, the idle air bleed hole in the carburetor body was increased from 3.35 MM to 3.60 MM (approximately 9/64 in. dia.). These two changes were made to correct over-rich mixtures in the intermediate (off-idle) speed range. Present carburetors in the field can be modified by drilling out the idle air bleed hole with a 9/64 in. dia. drill (See Figure 3). When enlarging air bleed hole, stuff venturi with a rag to prevent entry of chips into carburetor passages and blow all chips out to be sure passages are clear.
IMPORTANT

New idle jet, part No. 27725-71, must be used with drilled out passage for proper carburetion.

Accelerating pump shaft upper end has two additional holes for lever attaching pin, to allow for increasing or decreasing the quantity of fuel delivered. Moving the lever roll pin to the upper hole will produce the smallest pump stroke and least quantity of fuel for acceleration. Carburetors from the factory incorporating this change have the pin installed in the center hole.

Note: Another cause for over-rich condition which should not be overlooked is partial closure of the choke disc caused by the choke lever arm or arm control wire block contacting the air cleaner back plate. Be sure that there is clearance to allow the choke to remain fully open.

A repair & gasket kit is available under Part No. 27132-71

IGNITION TIMING

Starting with the 1971 models, a rear cylinder ignition timing mark, a 1/4 in. dia. drill point hole, has been added to the flywheel so that both front and rear cylinder advanced ignition timing can be checked with a strobe timing light. With engine running at 2000 R.P.M., the front cylinder timing mark line should appear in the center of the hole with the rear cylinder timing mark dot appearing on or near the line. (See diagrams below.)
If both timing marks cannot be brought into view in crankcase inspection hole by shifting the circuit breaker base clockwise or counter-clockwise, check circuit breaker point gap to see that it is within .018 to .020 in. on highest point of both cam holes.

Correct any cause for eccentric cam operation so that point gaps will be within limits and then adjust breaker base to bring both timing marks into inspection hole with strobe timing light at 2000 R.P.M.

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Note: If there is any tendency for the engine to hesitate or backfire or stop, when accelerating from a low engine speed, check ignition timing and carburetor adjustment both according to procedure recommended in this bulletin.

COMPENSATING SPROCKET

The compensating sprocket spring cover thickness has been increased from .040 to .060 to strengthen against deforming. It is recommended that you install a new heavier cover, part No. 40385-70 on all motorcycles below VIN - 26758 Hl. On very early production models also install new spring cup, part No. 40324-70 which is .840 in. high and replaces early spring cup which was .900 in. high. Compensating sprocket noise is an indication of loss of preload on the spring washers.

It is possible for this to be caused by worn cam surfaces, therefore cam should be checked first when disassembling sprocket.

To remove and install parts, remove primary cover, compensating sprocket nut and spring assembly. To remove springs from cover, bend staking open in 3 places with a vise grips so that 8 dished spring washers can be removed. Inspect washers and if damaged, replace with new ones, or replace entire assembly part No. 40324-70. Before installing 8 washers in new heavier cover, remove sharp edges from outside diameter with emery cloth. Install washers in the cover exactly as shown in following figure and stake cover in 3 places as shown.
Stake with punch in 3 places to retain washers

Cover

Spring washers (8 used)

cover

FIGURE NO. 5