

Boosting a Biggie

Take one Honda CB750 bolt on one Weber carburetor and watch it go.

by Walt Fulton, Jr

BOOSTING A BIGGIE

Take one Honda
bolt on one
Weber carburetor
and watch it go.

by Walt Fulton, Jr.



In 1970 Honda released the four cylinder super bike that immediately captured the fancy as well as the coins of the American motorcyclist. The big 750 quickly became a market guide line—its success an incentive which spurred other manufacturers to clamor aboard the big bike bandwagon. The Four was quite striking in appearance. Admittedly heavy, it stopped super quick because of an excellent front disc brake, the first use of such a binder on a production machine. The OHC four cylinder engine was smooth and very quiet, emitting a muffled resonance instantly identifiable by even the most casual of listeners.

The same curiosity that makes man an explorer and experimenter is quite evident in that breed of human being that closely align their lives with motorized two wheelers. The status quo

isn't really for them. An off-the-floor production machine grates at their tinkering nature. For those of that ilk they have but one recourse, that of modification.

The basic economic principle of demand creating supply has been ably demonstrated by the appearance of the many accessory companies currently offering a thousand and one items for the motorcycle customizer. Today a bike enthusiast can buy custom seats, tanks, forks and any other imaginable (or even unimaginable) item; the list goes on forever. Added to these appearance goodies designed to reflect individual flavor are several performance goodies that can make your 750 Honda a real fire breathing road monster. High lift cams, larger valves, heavier springs, different exhaust systems and various kits that boost the engine size up to 1014 cc's

Removing the standard carburetors and installing the Webers took only 15 minutes.

are readily available.

With this large selection of obtainable custom and speed there is still one often overlooked very important item that needs attention—the carburetor. This gets misunderstood component is certainly a key consideration in obtaining smooth performance at both low and high speeds. Some bikers simply move the air cleaners to increase flow of air and fuel. This is a good idea if the machine is never run inside the garage; but absence of an air cleaner can mean foreign matter inside the combustion chamber. This usually leads to costly repairs.

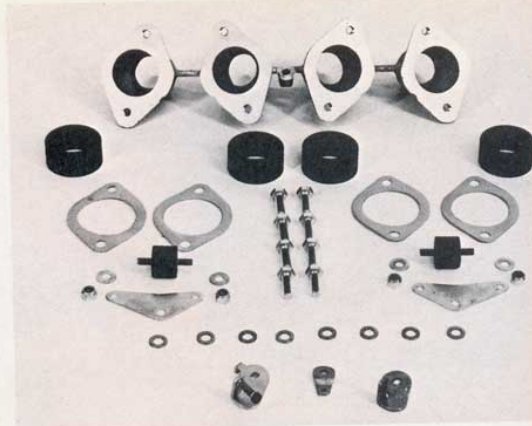
An alternative approach is fitting larger carburetors. This requires some port work so that port dimensions match those of the carburetor.

BOOSTING A BIGGIE

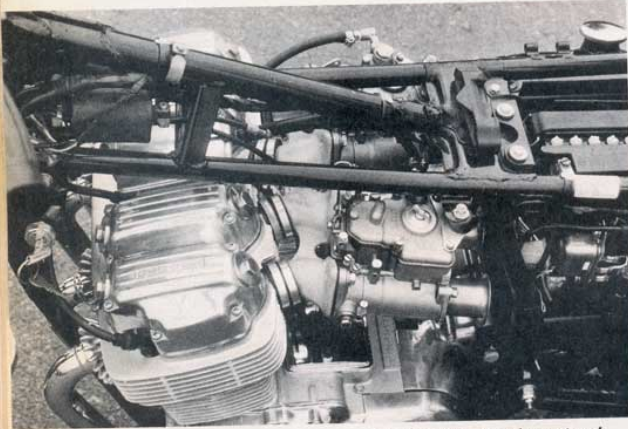
ally low end performance will suffer upon alteration because of slower air velocity through the venturi.

Don't despair; there is a third path to tread in the quest for increases in both horsepower and overall performance. For many years the Weber carburetor has been used on high performance racing vehicles. Now Weber makes available, as a bolt-on item, carburetors for several different motorcycles including the Honda. An efficient air cleaner is also available with the carb at a cost of only one horsepower.

We tested a four cylinder Honda fitted with an 810cc kit and higher lift cams. The carburetors were two dual throat 3mm Webers. These two carburetors come complete with ev-



This is the manifold kit that comes with the Webers. These manifolds have a slightly different angle than the standard ones.



By loosening the wing nut and removing the circular cover the emulsion tube and jets are readily accessible.



This picture clearly shows installation and mounting of the carburetors. There is just enough room between the velocity stacks and the frame to fit an air cleaner.

everything necessary to bolt them directly to the standard ports. The four manifolds and two carburetors in the kit sell for approximately \$345. The reported horsepower gain on our test machine was an unbelievable twenty percent. This does seem a bit high but it was worth a full half second in the quarter mile. Standard carburetors were clocked at 12.7 seconds while the Weber set-up was timed at 12.2 seconds.

This automotive carburetor is much easier to figure out than most people imagine. There are four distinct tuning stages in the Weber: starting, idle, acceleration and high speed. All of these stages are controlled by various

size tubes and jets which regulate either the fuel or air flow. In addition, the acceleration is also governed by an accelerator pump, just like any automotive carburetor. When the throttle is opened the fuel is pushed through a spray nozzle into the venturi. A properly adjusted pump eliminates any dead spots when the throttle is opened quickly. Each one of the circuits can be adjusted separately to ensure perfect carburetion throughout the entire range.

The venturi size of the Weber is

adjustable. The 30mm venturi produced the best results on our machine. Venturi sizes from 24 to 35mm are available providing a wide range for practical application.

In the near future a single dual throat Weber with manifold will be available for the Honda as a bolt-on item. This kit will sell for approximately \$185. Anyone wishing more information can contact Mel DeLeon at Drag Bike Engineering, 2219 Artesia Blvd., Redondo Beach, Calif. **CG**

Nic
do
mo

Ov
on
yo
Yo
dor

Full
driv
gear
thro

In 1970 Honda released the four cylinder super bike that immediately captured the fancy as well as the coins of the American motorcyclist. The big 750 quickly became a market guide line - its success an incentive which spurred other manufacturers to clamber aboard the big bike bandwagon. The Four was quite striking in appearance. Admittedly heavy, it stopped super quick because of an excellent front disk brake, the first use of such a binder on a production machine. The OHC four cylinder engine was smooth and very quiet, emitting a muffled resonance instantly identifiable by even the most casual of listeners.

The same curiosity that makes man an explorer and experimenter is quite evident in that breed of human being that closely align their lives with motorized two wheelers. The status quo isn't really for them. An off-the-floor production machine grates at their tinkering nature. For those of that ilk they have but one recourse, that of modification.

The basic economic principle of demand creating supply has been ably demonstrated by the appearance of the many accessory companies currently offering a thousand and one items for the motorcycle customizer. Today a bike enthusiast can buy custom seats, tanks, forks, and other imaginable (or even unimaginable) item; the list goes on forever. Added to these appearance goodies designed to reflect individual flavor are several performance goodies that can make your 750 Honda a real fire breathing road monster. High lift cams, larger valves, heavier springs, different exhaust systems and various kits that boost the engine size up to 1014 cc's are readily available.

With this large selection of easily obtainable custom and speed items, there is still one often overlooked, but very important item that needs a mention - the carburetor. This generally misunderstood component is certainly a key consideration in obtaining smooth performance at both low and high speeds. Some bikers simply remove the air cleaners to increase the flow of air and fuel. This is a great idea if the machine is never run outside the garage; but the absence of an air cleaner can beam foreign matter inside the combustion chamber. This usually leads to costly repair.

An alternative approach is fitting of larger carburetors. This requires some port work so that port dimensions match those of the carburetor. And normally low end performance will suffer upon alteration because of slower air velocity through the venturi.

Don't despair; there is a third path to tread in the quest for increases in both horsepower and overall performance. For many years the Weber carburetor has been used on high performance racing vehicles. Now Weber makes available, as a bolt-on item, carburetors for several different motorcycles including the Honda. An efficient air cleaner is also available with the carb at a cost of only one horsepower.

We tested a four cylinder Honda fitted with an 810cc kit and higher lift cams. The carburetors were two dual throat 3mm Webers. These two carburetors come complete with everything necessary to bolt them directly to the standard ports. The four manifolds and two carburetors in the kit sell for approximately \$345. The reported horsepower gain on our test machine was an unbelievable twenty percent. This does seem a bit high but it was worth a full half second in the quarter mile. Standard carburetors were clocked at 12.7 seconds while the Weber set-up was time at 12.2 seconds.

This automotive carburetor is much easier to figure out than most people imagine. There are four distinct tuning stages in the Weber: starting, idle, acceleration, and high speed. All of these stages are controlled by various size tubes and jets which regulate either the fuel or air flow. In addition, the acceleration is also governed by an accelerator pump, just like any automotive carburetor. When the throttle is opened, the fuel is pushed through a spray nozzle into the venturi. A properly adjusted pump eliminates any dead spots when the throttle is opened quickly. Each one of the circuits can be adjusted separately to ensure perfect carburation throughout the entire range.

The venturi size of the Weber is adjustable. The 30mm venturi produced the best results on our test machine. Venturi sizes from 24mm through 35mm are available providing a wide range for practical

applications.

In the near future, a single four throat Weber with manifold will be available for the Honda as a bolt-on item. This kit will sell for approximately \$185.