



Operating Instructions

Congratulations on your purchase of what we believe to be the finest and best performing carburetor manufactured for Harley-Davidson motorcycles. This set of instructions will explain the basics of how the carburetor operates, how to adjust the idle, the main jet enrichener, and to correct the float level if needed. If there are any further questions you have beyond the scope of these instructions, feel free to call Carl's Speed Shop.

Important Note

After installation of the Typhoon™ carburetor, you must remember to shut off the fuel supply to the carburetor whenever your engine is stopped for any length of time. This will prevent fuel from overflowing past the float valve.

Carburetor Operation

This carburetor is built around a constant velocity (CV) design. This CV, which you can see as a round slide in the front of the carburetor, moves up and down with engine demand, keeping the velocity of the incoming air high, allowing for extremely accurate fuel metering throughout the entire engine operating range. This CV allows us to do away with an accelerator pump, idle circuits, and primary and secondary jets, leaving us with only one jet orifice. This orifice is the brass fitting in the center of the jet orifice table beneath the slide. The jet orifice is penetrated by the jet needle which is attached to the slide. You can carefully reach in and lift the slide with your fingers to examine its operation, but use caution. Behind this at the rear of the carburetor bore is the throttle disk which is attached to the throttle shaft. This regulates the airflow through the carburetor, and hence, the engine speed and power. At the base of the carburetor and behind the Carl's Speed Shop logo is the float bowl. This monitors how much fuel the carburetor gets, keeping the fuel level constant. It operates in the same manner as most carburetors, letting in more fuel until it reaches a predetermined level. As you can now understand, hi-tech doesn't have to be complicated.

Adjustments

There are only two adjustments that you may need to make to the carburetor, the idle adjustment, and the main jet enrichener. For the idle adjustment, locate the throttle wheel attached to the throttle shaft at the rear of the carburetor. Just in front of this wheel you will see a chrome thumb screw. If you screw this in (clockwise), it will open the throttle disk slightly, thus increasing the engine idle RPM. If you turn the screw counter clockwise, the opposite will happen and the idle RPM will drop. At engine startup, you may want to adjust the idle a little higher until the engine warms up and then readjust it to between 900 and 1200 RPM.

The second adjustment is of the main jet enrichener. The adjustment bolt and lock nut can be found at the very bottom of the carburetor. To richen the overall mixture, release the lock nut and turn the adjustment bolt counterclockwise (left) in small (one hex flat) increments. To make a leaner mixture, turn the bolt clockwise (right). Make all adjustments slowly and a little at a time. A small turn will make a big difference. When you are satisfied with the adjustment, tighten down the lock nut snugly. Remember -left is rich, right is lean. If while running at highway speeds, the carburetor spits back, this means that your engine is running too lean. To correct this, turn the jet enrichner counterclockwise (left) one flat at a time until your engine runs smoothly. Then readjust the idle.

Made in U.S.A.

continued on next page

Float Level Correction

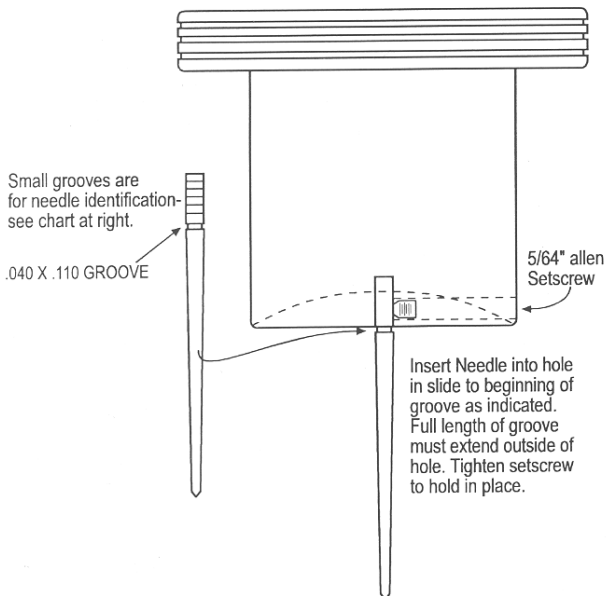
The float level of your carburetor was set at a level of approximately .060 to .080 inches below the jet orifice table. To locate the jet orifice table refer the Carburetor Operation section of these instructions. Should your carburetor no longer meet these specifications it can be corrected. Begin by removing the carburetor from the bike, being careful not to spill the gas. Empty the remaining gas and dispose of it properly. Take the float bowl cover off by removing the four stainless steel alien screws holding it. Use caution not to tear the gasket. Locate the float and examine it's operation. The correction can be made by bending the stainless steel tang on the end of the float up for a higher fuel level, or down for a lower fuel level. It is highly recommended that you keep the level where specified, or the chances of flooding your engine with fuel increases. Replace the gasket and float cover. Tighten the screws snugly but carefully to avoid stripping the threads.

Miscellaneous

You will find with the Typhoon™ that it take approximately two miles until the engine reaches correct operating temperature and the true performance capability of the carburetor can be experienced. Until your engine is warmed up, the engine may run rough and slightly misfire, but this is not abnormal and should cease once warm. If the problems persist after the engine has reached correct operating temperature, the carburetor may be out of adjustment.

Bikes from late 1993 to present are equipped with a vacuum operated fuel shutoff and owners may find that it requires more cranking to start their engines at the beginning of the day. This is normal.

Setting Needle Height



Jet Needle Chart

1 RING		2 RING		3 RING		4 RING		5 RING	
80 CI	80 CI	114+ CI	100+ CI	88+ CI	80 CI	80 CI	114+ CI	100+ CI	88+ CI
.1240	.1240	.1240	.1240	.1240	.1240	.1240	.1240	.1240	.1240
.1205	.1205	.1180	.1195	.1205	.1205	.1205	.1180	.1195	.1205
.1165	.1160	.1130	.1150	.1160	.1165	.1160	.1130	.1150	.1160
.1135	.1130	.1110	.1120	.1130	.1135	.1130	.1110	.1120	.1130
.1105	.1106	.1060	.1080	.1090	.1105	.1106	.1060	.1080	.1090
.1085	.1073	.1020	.1040	.1060	.1085	.1073	.1020	.1040	.1060
.1065	.1035	.0980	.1000	.1020	.1065	.1035	.0980	.1000	.1020
.1040	.0997	.0930	.0960	.0980	.1040	.0997	.0930	.0960	.0980
.1015	.0960	.0890	.0920	.0940	.1015	.0960	.0890	.0920	.0940
.0990	.0927	.0850	.0880	.0900	.0990	.0927	.0850	.0880	.0900
.0965	.0900	.0820	.0860	.0880	.0965	.0900	.0820	.0860	.0880
.0940	.0875	.0800	.0830	.0850	.0940	.0875	.0800	.0830	.0850
.0915	.0860	.0770	.0790	.0830	.0915	.0860	.0770	.0790	.0830
.0890	.0845	.0740	.0770	.0810	.0890	.0845	.0740	.0770	.0810
.0865	.0830	.0710	.0750	.0800	.0865	.0830	.0710	.0750	.0800
.0840	.0815	.0690	.0730	.0770	.0840	.0815	.0690	.0730	.0770