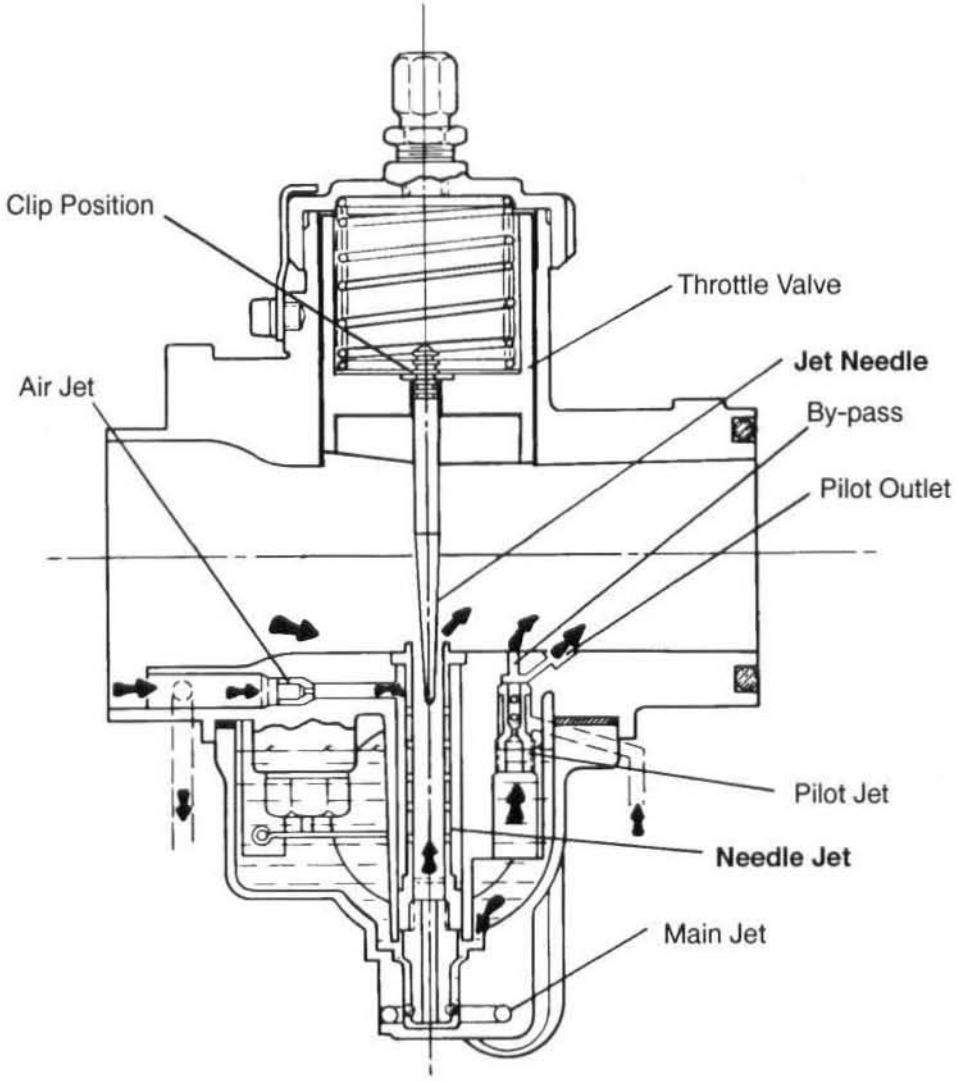
Jet Needle/Needle Jet (3/8-3/4 Throttle)

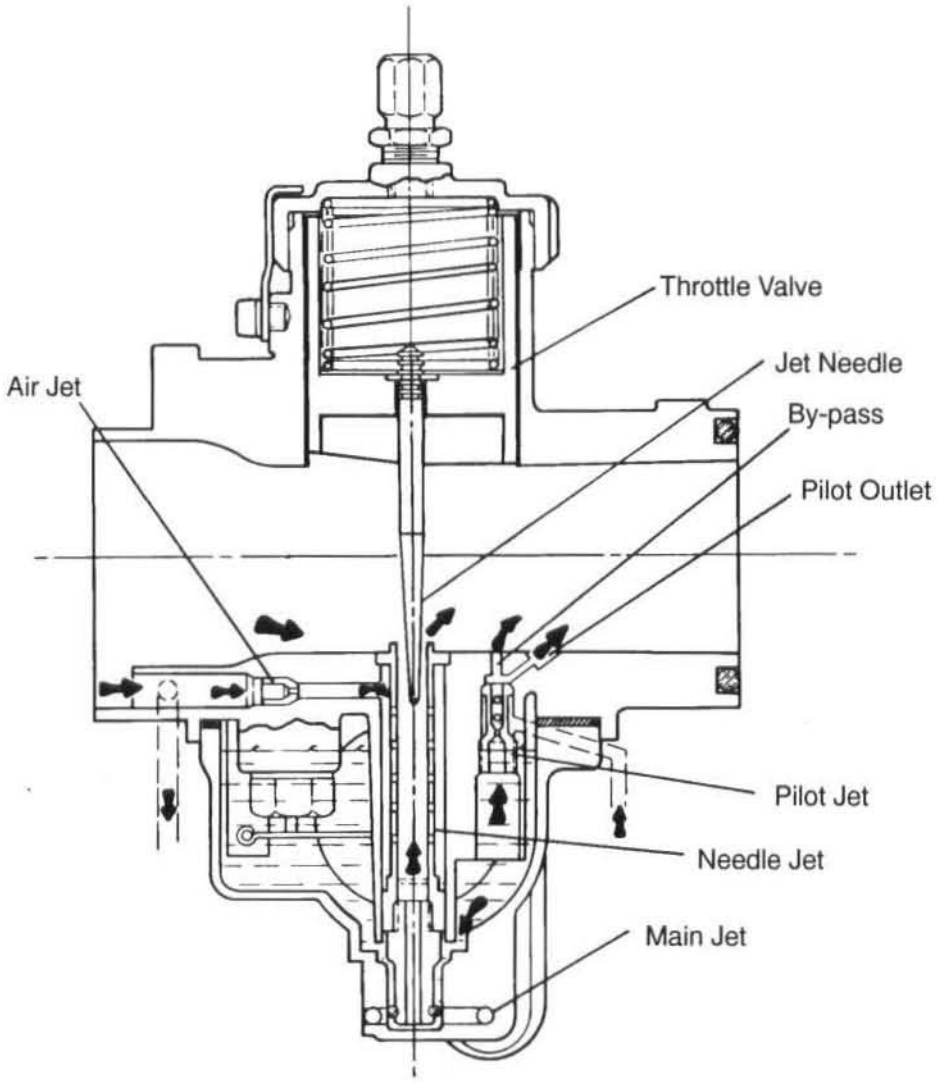
The jet needle and needle jet have the most effect at approximately 3/8 to 3/4 throttle opening. Some mixture adjustment can be accomplished by changing the location of the "E" clip on the needle. Moving the clip down raises the needle in the jet passage and richens the mixture. Moving the clip up lowers the needle in the jet passage and leans the mixture. Letter and number codes are stamped into the needle and the jet indicating sizes and tapers of each.



CARBURETION
Main System (3/4 to Full Throttle)

The main system is designed for delivering fuel between low speed and high speed operation. This system is made up of the jet needle, needle jet, and main jet. the main system begins to take effect as soon as there is enough air flow into the carburetor venturi to draw fuel up through the main jet and needle jet assembly. This system works in conjunction with the needle jet system.

During low speed driving, there is very little clearance between the jet needle and the needle jet; therefore, very little fuel from the main jet can pass between the jet needle and the needle jet. As the throttle valve opening is increased, the tapered jet needle is raised farther out of the needle jet, allowing greater fuel flow. Under full throttle opening, the cross sectioned area of clearance between the jet needle and the needle jet becomes greater than the cross sectioned area of the main jet. Thus the main jet is now controlling the amount of fuel flow.



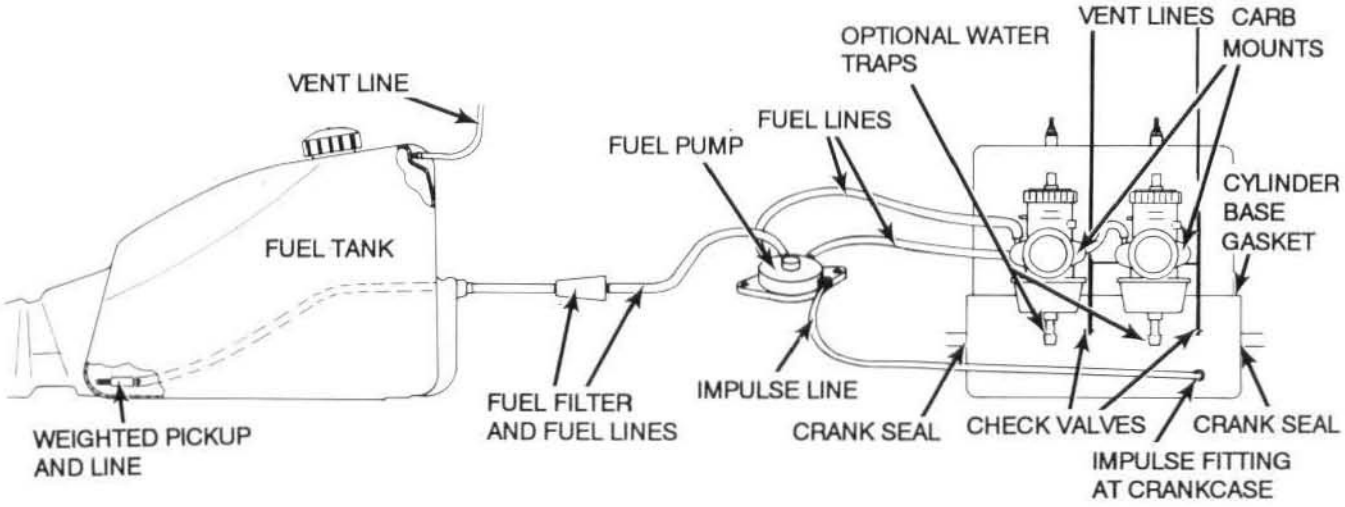
Fuel Delivery System - Typical

The fuel system contains many components which directly affect fuel mixture and driveability. When performing diagnosis or carburetor maintenance, the entire fuel delivery system should be inspected. Illustration 1 shows parts of the system requiring periodic maintenance to ensure there is no fuel or air leaks present.

Fuel filters should be replaced at least once per season or more often if any contamination is suspected.

Fuel lines should be replaced every other season or more often if they become brittle or swollen. Fittings should be inspected at that time for cracks or leaks.

Test run and leak check the fuel system after any parts have been replaced and verify that all lines are routed correctly away from any moving parts.



Fuel Hose - Indy Storm/Storm SKS

The Storm model fuel system incorporates dual fuel pumps. It is important to pay particular attention to correct routing of the fuel lines in order to provide an adequate fuel supply to the engine.