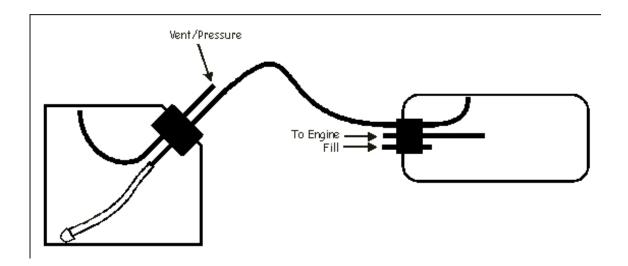
Using header tanks has many advantages one of which is to prevent air bubbles from entering the engine carburetor. In helicopter application where there is a lot of high frequency vibrations, fuel can start foaming in the tank. This can cause the engine to suck air and lean out or worse, stall. Header tanks help this situation because these tanks remain full at all times and thus does not contain enough air to cause fuel foaming. The basic plumbing of such a tank is illustrated below.



Use of header tanks

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The engine pickup is from the center of the header tank. This ensures that the pickup will always be in fuel as this tank is always full. The system must be filled through the header tank. The main tank starts filling only when the header tank is full. As fuel is fed into the engine the exact same amount is pulled from the main tank. This ensures that the header tank remains full. The engine feed must be pinched in order to prevent flooding during the filling operation. The main tank can either be pressurized or not.