

Fuel Tanks

Most fuel tanks are manufactured; however some fuel tanks are made by skilled craftsmen. Custom tanks or restored tanks could be found on aircraft, automotive, tractors and motorcycles.

When constructing fuel tanks, there are a series of requirements which should be followed. Initially, the tanks craftsman will make a mockup so as to know the measurements of the tank. This is normally performed making use of foam board. After that, design concerns are addressed, consisting of where the seams, drain, outlet, baffles and fluid level indicator would go. The craftsman has to determine the alloy, thickness and temper of the metal sheet he will make use of in order to make the tank. As soon as the metal sheet is cut into the shapes required, many parts are bent to be able to create the basic shell and or the baffles and ends utilized for the fuel tank.

In racecars and aircraft, the baffles contain "lightening" holes, which are flanged holes that provide strength to the baffles, while likewise reducing the tank's weight. Openings are added toward the ends of construction for the fluid-level sending unit, the drain, the fuel pickup and the filler neck. At times these holes are added when the fabrication process is finish, other times they are created on the flat shell.

After that, the baffles and ends can be riveted into position. The rivet heads are normally soldered or brazed so as to avoid tank leaks. Ends could next be hemmed in and flanged and soldered, or sealed, or brazed utilizing an epoxy kind of sealant, or the ends could even be flanged and afterward welded. After the brazing, welding and soldering has been completed, the fuel tank is tested for leaks.