

Fuel Tanks

Some fuel tanks are made by trained metal craftsmen, although most tanks are fabricated. Restoration and custom tanks can be utilized on motorcycles, aircraft, automotive and tractors.

There are a series of specific requirements to be followed when constructing fuel tanks. Commonly, the craftsman sets up a mockup to be able to find out the precise shape and size of the tank. This is normally performed using foam board. Afterward, design concerns are addressed, consisting of where the outlets, seams, drain, baffles and fluid level indicator will go. The craftsman must find out the alloy, temper and thickness of the metal sheet he will use to make the tank. When the metal sheet is cut into the shapes needed, many parts are bent so as to make the basic shell and or the ends and baffles for the fuel tank.

In aircraft and racecars, the baffles have "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 filler neck, the fluid-level sending unit, the drain and the fuel pickup. Every now and then these holes are added once the fabrication method is done, other times they are made on the flat shell.

Next, the baffles and ends could be riveted into place. The rivet heads are frequently soldered or brazed to be able to avoid tank leaks. Ends could next be hemmed in and flanged and soldered, or sealed, or brazed making use of an epoxy type of sealant, or the ends can also be flanged and then welded. After the welding, soldering and brazing has been done, the fuel tank is checked for leaks.