

# The Loveboat

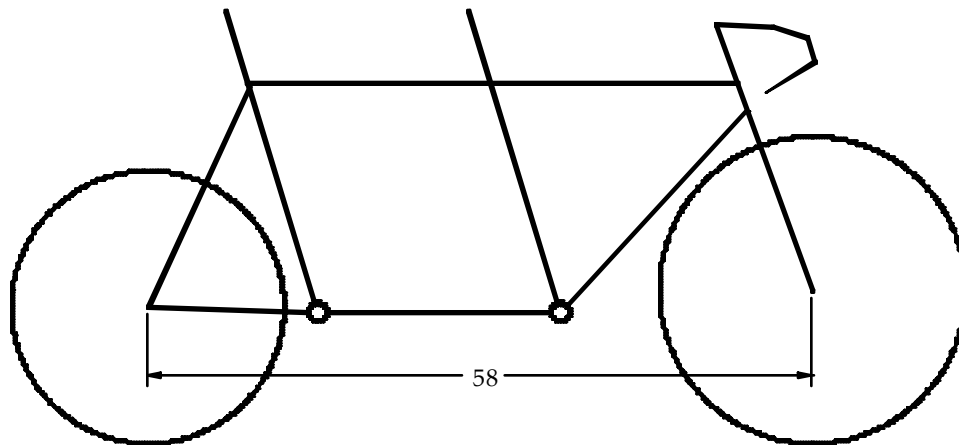
*The fastest, most efficient tandem bicycle ever built and how it came to be.*

*Master level skills required*

Some projects begin as sketches and tables of load calculations while some projects begin by changing the blade in the hack saw. Loveboat began with a personal ad.

When the ad was placed, a tandem bike was half finished and clamped in a welding jig. More accurately, the front half of the bike was finished. The rear half sat waiting for the selection of a stoker. Dozens of women were interviewed. Stoker candidates with no prior bicycling experience were given top consideration. After a month of marathon dating, a stoker was selected.

Building a custom bike, if done right, results in a bicycle that absolutely fits one person. Building a custom tandem results in a bike that absolutely fits one person times two. For this reason, mostly, it was decided to approach this project in a series of steps; the first step was to build a low performance bike from carbon steel to work out the geometry and step two, to build a high performance bike with stiffer material. The plan worked very well. The first bike was built of low carbon commercial steel square tubes, an odd but valid choice.



This illustration shows step one as first proposed and subsequently built. The front wheel was a high performance 27 inch clincher and the rear wheel a 24 inch high performance clincher of the type Junior USCF racers used in the 1980s. The rear rim was laced to a Sturmey Archer 3 speed hub that had been gutted and modified with a TIG welder to accept a five speed cluster. The choice of the smaller rear wheel was made in an attempt to shorten the wheelbase. A smaller wheel is easier to bring forward. Doing so moves the center of gravity aft. The bike rode fine.

The specs for the **step one** bike were:

Wheelbase 58 inches

Front wheel diameter 27 inches

Rear wheel diameter 24 inches

Captain has control of single caliber brakes front and rear

Shifting with downtube shifters, Captain

Conventional ten speed gear arrangement