



Haycock & Hague Pipework Systems Ltd

Value Added Engineering

Barry Herbert – 1922 Doble D2 Steam Car

We were initially contacted by Barry as the coiled monotube had perished within the Boiler of this incredible machine and he wanted to know if we could fabricate some new ones to replace them – to cut a long story short we did and the car once again became fully operational.

A little information as to the origin of this incredibly beautiful machine:

Due to significant problems of previous steam car models the Model D of 1922 came in to being whereby the formerly installed uniflow engines, perceived as the root of the troubles with the Doble Detroit, gave place to a two cylinder compound type, still with Joy's valve gear, but with piston valves. Another crucial development was a coiled monotube once-through vertically-mounted cylindrical boiler following the thinking behind the later version of the Detroit boiler, the

most distinctive feature of which was the placing of the burner at the top of the boiler. This plus drastic insulation was meant to cause the hot gases to reside within the boiler casing for an optimum length of time giving up the maximum amount of heat to the feedwater. There was a forced draft burner at the top of the boiler and an exhaust flue at the bottom. The venturi was placed horizontally at the top of the vertical boiler barrel and oriented in such a manner as to avoid direct contact with the monotube whilst inducing a swirl motion to the gases. It was thus a counter flow design with water entering the lower end of the coiled monotube and progressing upward toward the burner, which meant that the hottest gases gave superheat to the steam at the top of the coil whilst the cooler gases preheated oncoming the feedwater at the bottom. The distinctive hand operated "miniature steering wheel" rotating a throttle control rod that passed down the middle of the steering column can be observed in D2 which still exists at the present time.



It is believed that No more than five of the D model appear to have been built!