

## Porsche Air Cooled Tractors

Ferdinand Porsche is a name synonymous with sports cars but he was first and foremost a gifted engineer who worked on many other projects during his varied career. This career involved creating the world's first hybrid car, designing many successful racing cars of the 20's and 30's, as well as being Chauffeur for Archduke Franz Ferdinand whose assassination sparked the First World War. It must also be said that it encompassed working for the German war effort and as part of Hitler's vision for the future of the Third Reich the German Chancellor insisted that every German family should have either a car or a tractor for transport or work.

We are of course familiar with the resulting VW Beetle but maybe less so with the tractor side of the deal, probably because they were not actually put into production until 1950 at Manzell, a small town on the shores of Lake Constance at the very southern end of Germany. The factory itself was the old Dornier aircraft works and one time home of the Zeppelins. Work on the tractors started in the canteen, the only part of the building left standing after allied bombing. Although originally commissioned in 1937 the war delayed the tractor's introduction as did the allies in the post war period with France especially opposing any reestablishment of German industry for obvious reasons. With the implementation of the Marshall Aid plan the restrictions were lifted and most German companies could once again trade as they wished. Ferdinand Porsche himself had died in 1951 but his designs had been adopted by the Allgaier Werke company who gradually developed the machine into the round bonneted models that became the hallmark of the make.

In 1956 the Porsche company joined forces with a steel company by the name of Mannesmann and a new company was formed, Porsche-Diesel-Motorenbau. This new venture purchased the recently rebuilt facility at Manzell and assembled over 125,000 units before the factory was once again pressed into serving the military, this time to supply tank engines for NATO. The tractor business itself was sold to Renault who continued to supply parts and service but no longer the machines themselves.

The original design brief had called for small tractor that was easy to build, operate, repair and service. The engine was to be air cooled, have two cylinders and produce around 11hp, Ferdinand Porsche also incorporated a fluid drive as it was believed that manual clutches were too complicated for farm labourers to cope with. By the early fifties this design concept had been expanded to include a range of tractors that extended from the single cylinder Junior model, producing 12hp at the outset, to the four cylinder Master which could boast 50hp when manufacture ceased in 1961. In between there was the two pot Standard (18 – 25hp) and the three cylinder Super (33-40hp). Various gearboxes were made available from a simple 4 speed (4 forward, 4 reverse) on the junior model to an 8 forward and 4 reverse box on the Master.

The most important feature of all these tractors however was that the engines were made up of multiples of the single cylinder unit. All the components for each were the same except for items like the crank and flywheel which obviously got larger in each model. Indeed, even when production ceased the company could boast of 80% interchangeability of parts across the whole range which kept both production and

servicing costs low. Cooling was by air being directed via duct over the cylinders from a fan at the front which went some way to equalising temperatures throughout the engine.

Today there is a strong demand from collectors for these tractors with prices ranging from €3,000 to €25,000 depending on condition. The earlier green Allgaier models fetch the most as their rarity was ensured by the scrap value of their aluminium transmission cases. However, there are still plenty of the later red Porsche System models that survive and may be seen regularly at events throughout Ireland.