
1917 Woods Dual Power

Lot sold	USD 42 428 - 46 406 GBP 32 000 - 35 000 (listed)	Condition	Used
Year of manufacture	1917	Location	
Chassis number	5086	Exterior colour	Other
Lot number	235		

Description

1917 Woods Dual Power Type 44 Roadster

Registration no. not registered

Chassis no. 5086

Woods was one of the most important and long-lived manufacturers of electric cars in the USA. Although they started to make petrol-engined cars in 1905, these were more expensive than the electric ones so Woods decided to combine the two technologies, as sales of the petrol-engined cars declined. They manufactured the 'Woods Dual Power', which had a four-cylinder petrol engine and an auxiliary electric motor. At speeds below 15mph the electric motor powered the car, with the petrol engine taking over for higher speeds up to around 35mph.

Car number '5086', a Type 44, was made in 1917. The Type 44 had a 14hp four-cylinder engine, a DC electric motor with an electro/mechanical (magnetic) clutch between, and 48-volt power supplied by Exide batteries. Fewer than 1,900 of these complex and expensive 'hybrid' cars were made. Sadly, the demise of the Woods Motor Co was inevitable, and this car is one of only four known to exist. The others are believed to be in museums: one in the Henry Ford Museum; one in the Petersen Automotive Museum in Los Angeles, and one in the National Automobiel Museum in the Netherlands.

This car was fully restored in New Zealand in the mid-1980s, following which it was shipped back to the German owner and renowned car collector, Gerhard von Raffay. In January 2011 a disastrous fire swept through a building in Hamburg, containing some of Von Raffay's collection; around 20 cars were destroyed by the fire. The Woods was one of them, and with the main roof beam landing across it, the vehicle was flattened.

The car then found its way to the current owner, who had owned other electric vehicles including an Owen magnetic, which is very similar to the Woods Dual Power. The chassis was straightened along with the front axle. The rear axle was fine, as was the steering box, with the road springs just requiring resetting, while the wheel hubs were rebuilt with new rims, spokes and tyres.

The roof beam had landed on the car just forward of the bulkhead. This impact distorted the motor housing and damaged the rear of the engine to the extent that a replacement was required. Fortunately the 'Continental engine', which Woods adopted then, was widely used so a direct replacement was not too hard to find. Many of the original unusable parts have been kept.

The armature in the motor was burnt and damaged, so the owner fitted a traction motor inside the original casing, which was re-engineered. The magnetic clutch was rewound and relined. The radiator was totally remade and finished off with an exact copy of the Woods Dual Power enamel badge. The control gear was too badly damaged so a modern Simtec 450 electronic speed controller was used in conjunction with four Optima batteries.

Using various interlocks, relays and switches, a system that mimicked the original control arrangements was constructed. The car would start off electrically, then, as the throttle pedal was depressed further, the clutch would engage, the petrol engine start up, and the car gain speed. When reverse was selected, via the forward/reverse switch on the column, the clutch would be disabled and the car would be moved backwards solely by the electric motor. The only function that could not be replicated was battery charging, due to the type of motor now in use. Unfortunately, having been affected by dementia, the owner removed the electrical circuits, which had been painstakingly installed to 'prove' the set-up.

With electric and hybrid cars commonplace today, this Woods Dual Power can be seen as of some historical importance as one of the first, true, hybrid motor vehicles. With the project 80% complete, it is looking for a new home to be finished and enjoyed. If a modern electric power train were incorporated, it would have stunning performance to match the sleek two-seat roadster body.

Bonhams 1793

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