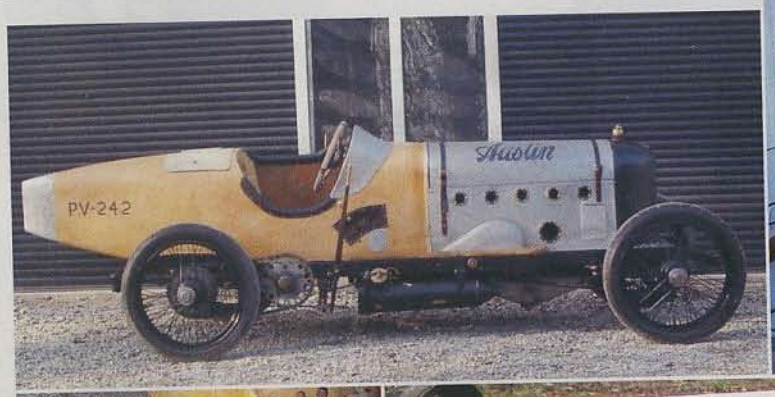
EDWARDIAN AUSTIN SPORTS/RACER

By **Michael Ware**



Above left: The completed car, ready for its launch party in February. Right: The first aluminium and steel panels are about to be fitted. Far left: The sprockets and driving chain came straight off the shelves of an agricultural machinery specialist. Left: Exhaust side of the engine. The four stubs are destined to be replaced by an exhaust running along the side of the car, using some original parts from the aero engine

Oliver Way from Petworth graduated from Coventry University not long ago with a degree in car design. Rather than go straight to work for one of the large motor manufacturers, he took some time off to build a car of his own. Not, as you might think, a modern concept car incorporating all the latest ideas, but a chain driven Edwardian sports-racing machine with a 10litre aero engine as its power source. I caught up with him when he had been at it for about 10 months and was hoping to complete the project well within the year.

The basis for the special is a 1911 Austin 15 chassis, together with a 1918 American Hall Scott aero engine of the type used in training aircraft in those days. Some years ago Oliver's father, a keen VSCC competitor, had heard of the engine, which had never been used, and bought it just in case it might come in useful for something in the future. Before fitting it into the car they stripped it down, rebuilt it and fired it up on the bench (at a Millennium party, as it happens) to test it. The family, Austin fanatics, advertised some time ago for Edwardian Austin parts. This led to the acquisition of no fewer than three chassis in various states of repair.

Oliver started by researching early Austin Brooklands racing cars and made sketches of how he thought his creation should look. The mechanical parts were designed on computer using Autocad. Is this the first Edwardian car to take shape electronically?

What Oliver came up with was a car of the type that might have raced at Brooklands and in Grand Prix events prior to WWI. When he thought he had the outline correct, he laid out a full scale drawing of it on the garage wall. There were certain fixed points on the chassis, such as the axle and spring mountings. An eminently usable aluminium bulkhead came with one of the chassis, with the word Austin standing out in raised lettering on it. This definitely had to be used and it helped to set the final shape of the bodywork, including the height.

A period-looking subframe was fabricated, with two longitudinal rails and two cross members, to take the engine. A third cross member was made to support the gearbox. The box itself, found at a VSCC autojumble at Prescott, is Edwardian and has four speeds and reverse. Oliver is fairly certain it was made by Austin —not only does it have markings similar to those on the differential unit, but it is also stamped with the letters K E for the steel producer Kayser Ellison — a major shareholder in Austin in those days. The differential, an original Austin part, is mounted directly behind the gearbox, driving the two front sprockets. The rear axle is therefore a simple beam holding the rear stub axles and hubs.

Oliver is lucky in having his father's extensive machine shop at his disposal. His younger brother used this to machine the rear brake drums from solid, 'resulting in a great deal of swarf,' he told me. The hubs are new Rudge Whitworths, as are the 25in wheels.

Much deliberation took place over the correct ratios for the gearbox and the drive sprockets. The gearbox has been completely re-geared to give an estimated 90mph in top at a maximum of 1500rpm. If necessary, bigger sprockets can be used to change the ratios. Oliver is worried that it will be too low geared. The sprockets and drive chains are off-the-peg agricultural parts which, he told me, came via a 24hr delivery service. Can't you just imagine finding the car too low geared in practice at Prescott, then telephoning the agricultural suppliers and having them deliver a different set of sprockets before the start of timed runs the next day?

At the time of my visit the flywheel had just been machined from solid and a clutch from a large Austin commercial fitted into it. The combination was not yet in the car. Two five-gallon fuel tanks are mounted low down on the chassis, both with shapely, pointed front ends. Estimated fuel consumption when touring is likely to be as low as 10mpg, so they may have to be enlarged. A hand pressure pump and an engine pump provide fuel pressure. The exhausts, originally just four long stubs, are being replaced by a very stylish system going along the passenger side, using part of the original aeroplane exhaust. The engine runs on its original single Miller carburettor. The steering column, box and advance and retard levers and mechanism all came with one of the Austin chassis, while the wheel is home made.

The body looks truly of the period. It is made out of plywood, aeroplane fashion. Two layers of 1½mm ply were overlaid in a criss-cross pattern. This was covered in fabric which was then treated with aeroplane dope to shrink it to a tight fit. Within the body there are five plywood bulkheads and every four inches there is a longitudinal stringer.

The frontal treatment is very Brooklands. There is a modern radiator core hidden behind a set of streamlined louvres which can be tilted by means of a lever operated from the cockpit, either to open up for maximum air or to close right down to keep the engine warm. A brass Austin badge adorns the cowl.

This should be a lovely Edwardian road car as well as being fun in competition. At present Oliver doesn't know what to call it. Can anyone suggest a suitably Brooklands-sounding name? He would welcome suggestions via e-mail to ojway@hotmail.com.

The new aero-engined special made its competition début at the VSCC's Curborough sprint in May. Further plans for the season include hillclimbing and some circuit racing. Not one to rest on his laurels, Oliver has it in mind to build another car around a 1918 Curtiss V-8 aero engine.