

THE WORDEN

After a faltering start the 750 Formula gathered momentum during the mid fifties. The vintage minded drivers continued to race Ulsters and a large number of competitors built new specials of thoroughly traditional concept but there was a growing band of radical thinkers who saw the Formula as a development engineering exercise only coincidentally connected with ancient motor car components. These men were racing car designers and not Austin Seven enthusiasts.

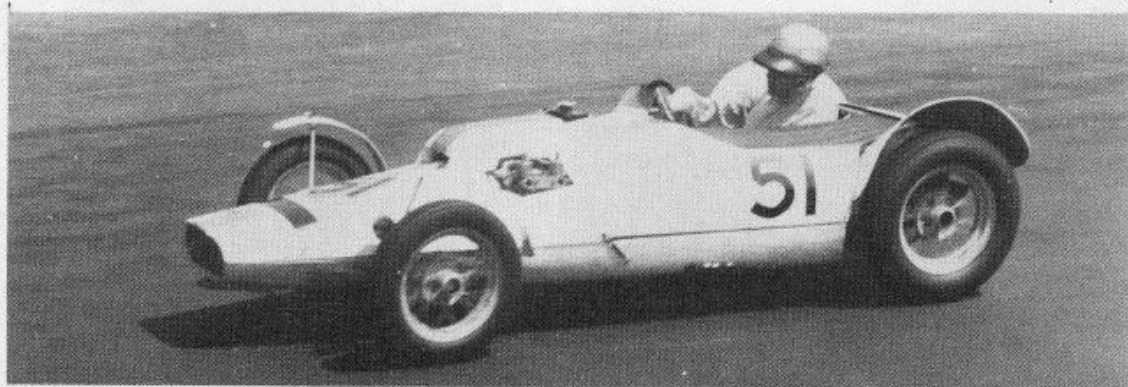
The new movement towards the creation of relatively complex one-off racing cars started an associated trend towards the pooling of resources and the formation of small racing teams. One of these collaborations styled itself Team Sigma, and out of its members' brief but fertile union a formula revolution was born in the shape of the Worden.

Team Sigma seems to have developed from an initial pairing of Mike Featherstonough and Harry Worrall to produce the F.W. Special. This was a pretty streamliner whose all enveloping body was designed by Mike, with suspension design by Harry and driving shared. Modest success was achieved in 1958, the team's first season and the shell design was so good that a number were sold commercially as the Speedex 'Silverstone'.

Ambitious expansion for 1959 saw Tony Densham and Keith Dixon join in with a particular enthusiasm for engine development to complement the existing team specialisations. Three cars were planned, a second streamliner for Tony Densham and a more radical racer for Harry Worrall. All three were to be beautifully presented in the smart Sigma colours of white overall with deep orange stripe of 'blood orange' hue, which approximated to the Austin factory team racing colour while being readily available as a standard Valspar colour.

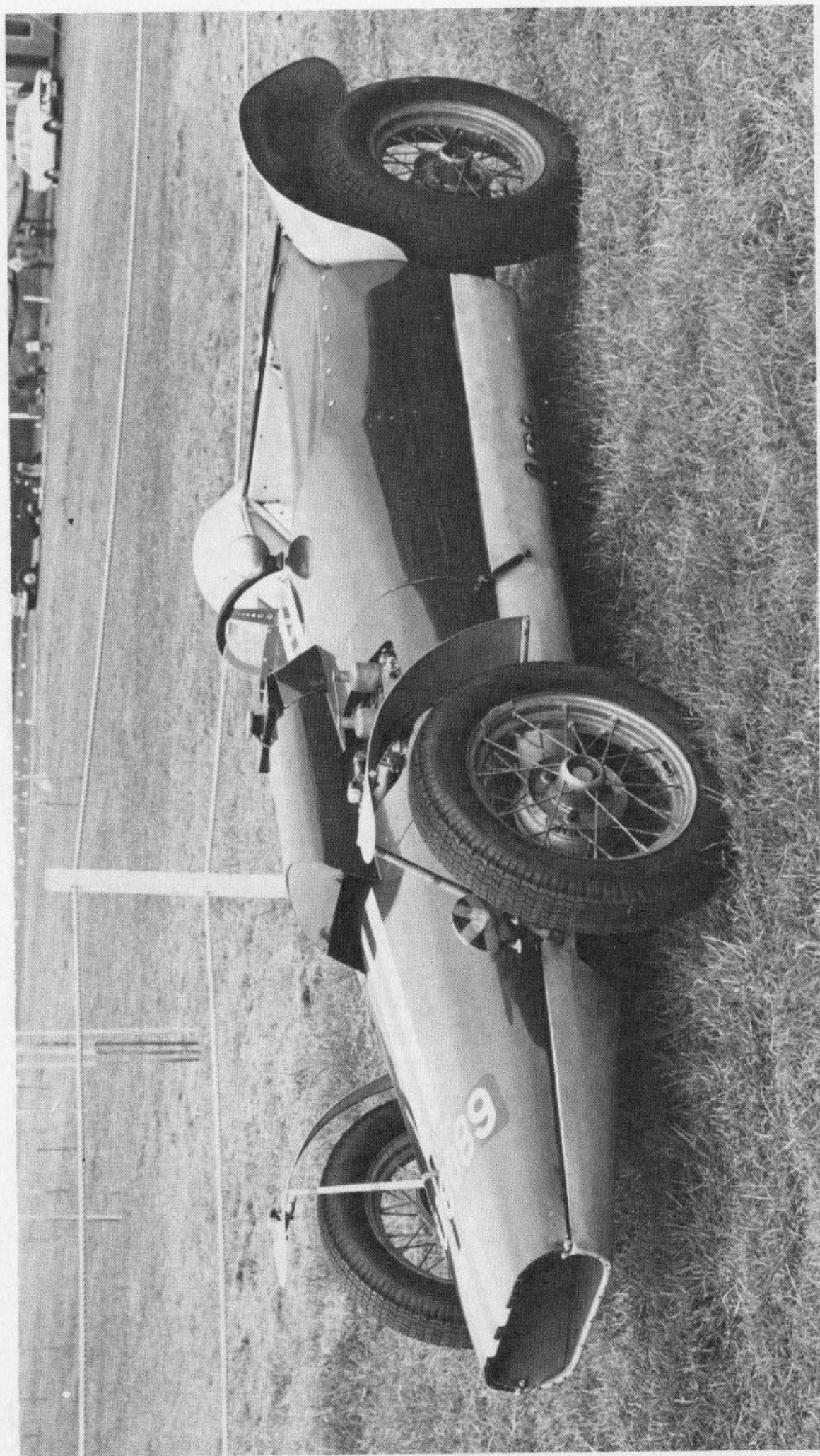
The cars were built and much was learnt during 1959, but the sheer size of the three car effort was counter productive and led to the eventual separation of the streamliners from the Worrall car which had finally appeared towards the end of the season powered by one of Keith Dixon's exotic Ulster engines. Harry Worrall joined forces with Tony Densham whose name now provided half the car's name and in whose premises, Sutton Rebores, the Worden was prepared for the 1960 season.

Harry Worrall, who was at that time a development engineer at Ford and deeply interested in contemporary racing car design, has said that his two inspirations for the Worden were the writings of Jack French and the Lotus designs of Colin Chapman. The Worden was conceived quite simply as a racing car designed to win the 750 Formula Championship, the Goodacre Trophy.



"The design of the Worden made the decisive break away from the traditional A7 special and into the world of development engineering in contemporary motor racing."

(John Cowley)

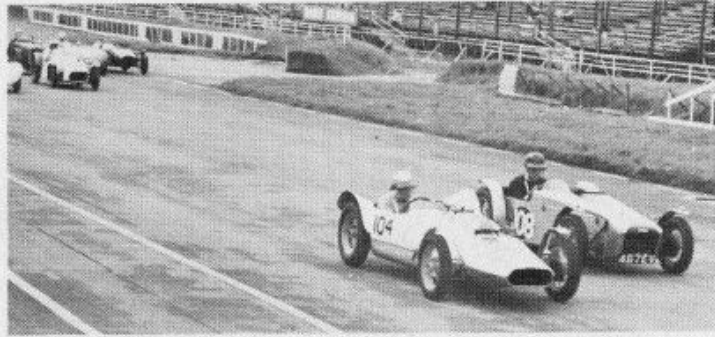


“The Worden dominated 750 Formula racing in 1960. Its appearance and performance had the impact of revolution. Mike Langton has preserved this marvellous piece of motor racing history in perfect condition, in the colours in which he raced it in 1961 and 1962.”

(John Cowley)

The definitive Densham built Worden engine was less exotic structurally than the Dixon Ulster and DEB engines but the tuning principles were the same. Standard crankcase, block and $1\frac{5}{16}$ in. splash fed crankshaft provided the structure while at the heart of the tuning modifications was an unblown Ulster camshaft operating offset $1\frac{9}{32}$ in. diameter inlet valves via slotted tappets with Ulster ground buttons for adjustment of valve clearances. None of the accessories were of prewar or Austin origin. Ignition was by coil and horizontal VW distributor camshaft driven, as was the Stuart Turner water pump. The Lee Racing Motors alloy head was prone to gasket trouble but provided better breathing, cooling and combustion than any previous Austin head. Induction was by twin $1\frac{1}{8}$ in. S.U. side draught carburettors and exhaust by four individual pipes of calculated length.

The definitive Worden, featuring revisions to the bodywork and rear suspension and powered by the new Densham built engine, was ready for the first Silverstone meeting of 1960. Tony Densham won the toss for who should drive in their first race and Harry Worrall was able to stand back and judge the impact of what he later described as the most exciting moment of his motor racing career. When the flag fell Densham simply left the field standing in a display of total performance superiority that was clear indication of a design revolution. Simple evolutionary development can never produce such a big leap in performance. As the car returned from the track it seemed that the entire population of the paddock was converging on it and Harry Worrall was amused to see a determined Arthur Mallock striding at the head of the pack.



“The start of a 750 Formula race in 1960 and the Worden streaks into the lead. DEB (car No. 108) was the only machine remotely competitive with the Worden in 1960.”
(John Farlie)

Following this triumph the team dropped the idea of alternating drives in favour of running Tony Densham to win the Goodacre Trophy in the fewest possible races. Thereafter Densham recorded seven wins from eight entries, non-starting at Aintree after blowing the engine in practice. When Worrall took over, with the Goodacre secure after the seventh win, he scored another four wins in five starts, non-finishing in a wet race at Oulton Park when a brush with DEB at the hairpin pulled out a tyre valve. The season therefore ended with the Goodacre Trophy to Tony Densham, eleven 750 Formula race wins to the Worden and lap records on every circuit that were staggering advances on all previous best times for 750 cars.

A reliable yardstick of post war Austin Seven racing performance is the lap times for the Silverstone club circuit which has remained virtually unaltered for many years. The racing Ulsters which lapped at around 1:40 early in the history of the formula had reduced their lap record time to around 1:32 by the end of the 1959 season at which point the quickest 750 specials were capable of around 1:27. During the course of the 1960 season the Worden reduced the Silverstone Club Circuit record to 1:20.0 and this time is a true reflection of the immense leap forward in formula car performance that the Worden achieved.