

[Photo by J. Farle]

*"IT'S QUICKER BY ROAD."—John Harwood spins away his lead during the Trio Meeting at Brands Hatch.*

**Engine.**—This was the biggest problem. I never had any doubt that the 105E was the answer, but how to get a good one cheap was a problem. A professional tuner might well charge the full amount of my £400 budget and, in any case, by Christmas no one was really making any progress. Jack French came to the rescue and offered to build me two engines at a non-professional rate. This took care of the price, but what of the power? I had a lot of faith in Jack's ability as a tuner, but felt that here was an engine which must be developed on a brake. Jack agreed and plans were laid for the installation of such a device. Unfortunately, it never did materialise and this was where we slipped up badly.

In the autumn of 1959, my friend Capt. John Harwood wrote from Cyprus that he was to be posted to Europe in June 1960 and wanted to do some serious racing. By going on a diet of beetroot sandwiches and not having his hair cut too often he reckoned he could save £40 a month out of his pay, so that with disturbance allowance, etc., he should have about £500 by mid-summer. I suggested that Junior Formula was the coming thing and that I help him to build a replica of my car. The plan was to order two of all "bought out" items and to have any special bits copied by semi-professionals, and that John would put the finishing touches when he came on leave in May. Unfortunately I got diverted into building a trials car and a go-kart, so that with one thing and another, there was not much more than a collection of bits when John started his leave.

Some six weeks later the car was ready to race and we tried it out at Silverstone the Friday before the A.M.O.C. Silverstone Meeting at the end of June. Apart from a chronic weakness, which we cured by the rather brutal method of dropping the S.U. needles  $\frac{1}{16}$  in., it ran very well, but just before we packed up it went sour. Investigation showed a bent valve, and a scored bore due to circlip trouble. Overnight, my engine was installed and at 6.30 a.m. we started to run it in at the track.

John drove in the Junior race and finished a rather ignominious last. "Oil surge," he reported, "I had to nearly stop on every corner." I remembered Keith Duckworth's advice about over-filling the sump and this made a complete cure so that in the Formule Libre race I was able to lap in 1 min. 15 sec., which we calculated would have given us sixth place in the Junior race.

The following day John went to the Trio meeting at Brands and in spite of chronic overgearing and our queer carburation he lapped at 2½ sec. outside the then-current Junior lap-record and finished third after spinning off whilst in the lead.

"D.S.J." wrote in *MOTOR SPORT* that: "The amateur constructor/tuner could not hope even to get an entry on the Continent, let alone collect any prize money." We were agreeably surprised therefore, to be accepted for Reims on July 3rd and Nurburgring a week later, the first two events entered. After that, organisers actually wrote, asking to us enter and John twice finished "in the money," as we shall see.

John's engine was rebuilt in the rather short and hectic week between Brands and Reims. It was run in by the simple process of driving the U2 most of the way from Calais to the circuit.

There were 36 entries and 25 starters, so the problem was to qualify for the £75 starting money without blowing up. This John managed quite easily, in eighteenth position, ahead of most

of the Continental cars. In the race John retired about three-quarters of the way through the first heat, when he lost his radiator cap. The carburation trouble was traced to a leaky manifold and as we had nothing to lose, we decided to ignore the principle of not racing on an untried mod., and cured the leak with the help of B.R.M. and fitted some better needles, borrowed from the Fitzwilliam racing team. The gamble paid off and John finished the second 50-mile heat going much better, lapping constantly at 96 m.p.h., and was classified fifteenth overall.

A week later at Nurburgring the circuit was much more to our liking and this time John qualified in eighth place (out of 36), with only British cars in front of him.

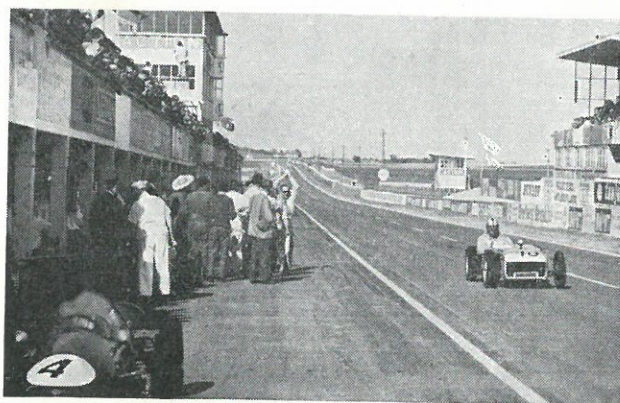
During the winter of 1959/60 there had been something of an alarm and despondency campaign in the Motor papers suggesting that Formula Junior was not for the poor man. One suggestion was that to have any hope of success you must lash out some £500 for a Stanguellini-Fiat or Mitter-D.K.W. engine. At Reims, therefore, we were rather amused to see the Fitzwilliam Team replacing one of their Stanguellini engines with an S.U.-carburetted Ford unit in a successful attempt to restore some measure of performance. At Nurburgring John also had a little chuckle when he passed Mitter's D.K.W.-engined Lotus, allegedly developing 93 b.h.p. He was then running seventh when he suddenly lost 500 r.p.m. Trying to make up time on the downhill section he "lost it" and bent the front end pretty extensively. Power loss was traced to a slipped cylinder liner.

The Services seem to have a lot of exigencies in the late summer and John never had a chance to get the U2 really raceworthy again, but he finished "in the money," eighth, at the next Nurburg meeting and finally, on October 16th, again at Nurburg in appalling weather, he gave the U2 its first International win. True, the British contingent were absent, but against this, his engine was well down on power. (It developed 58 b.h.p. just after the race.)

In spite of the gloomy prophecies, therefore, John could fairly well claim to have achieved "Poor Man's Motor Racing." He had built the car mostly himself, paid for the bits from his salary, won an International race, and in what was really only his first full season, his starting money and prize money had more than paid for all his competing and travelling expenses.

Back in England, the second U2 was slowly nearing completion. On August 26th at Oulton Park the great day dawned. The weather was foul. I had never driven the car in anger until I started from the back of the grid, but before I could say "Live axles give chronic wheelspin," I found myself going into the first corner (Old Hall) in fifth place. I was pipped by Fenning's Lotus by inches for third place, 6.8 sec. behind the winner, and made fastest lap on the one tour on which I wasn't breathing someone's spray. If only the scrutineer had allowed me to practice! I was getting 7,000 r.p.m. in top, with a 4.875 axle-ratio. I was using Webers (compared with John's S.U.s), a home-made cam, and standard inlet valves.

For Rufforth, two weeks later, I changed to oversize (1.400-in.) inlet valves and got 7,400 r.p.m., but was still being left hopelessly on acceleration. A Cosworth cam was fitted for the Peterborough Silverstone Meeting and now we really started to "cook with gas,"



*BUILT-IN HEADWIND!—John Harwood's 6 ft. 4 in. results in an aerodynamic loss to U2 as it goes past the pits at Reims at an estimated speed of over 120 m.p.h. A more somniferous driving position is planned for the coming season.*