

# CARLSSON CAR

BUILT & TESTED BY JOHN RUSSELL

THE Swedish model car racing world had for a number of years been dominated by foreign cars. Rune Carlsson, one of the most experienced drivers in Sweden, was not satisfied with the cars available on the market, so, took on the task of constructing a car of his own. Racing in Sweden in 1978 the new car scored an imposing mark-up of victories.

This year the "Carlsson Pro C 1 d" really made the limelight in International Competition, with Hans Johansson taking second Formula and third Sports GT trophies in the European Championships held at Nurnberg in August.

The Kit itself is very impressive in that all its features look so uncomplicated, and this is backed up by the ease with which it was built. (No workshop facilities required!

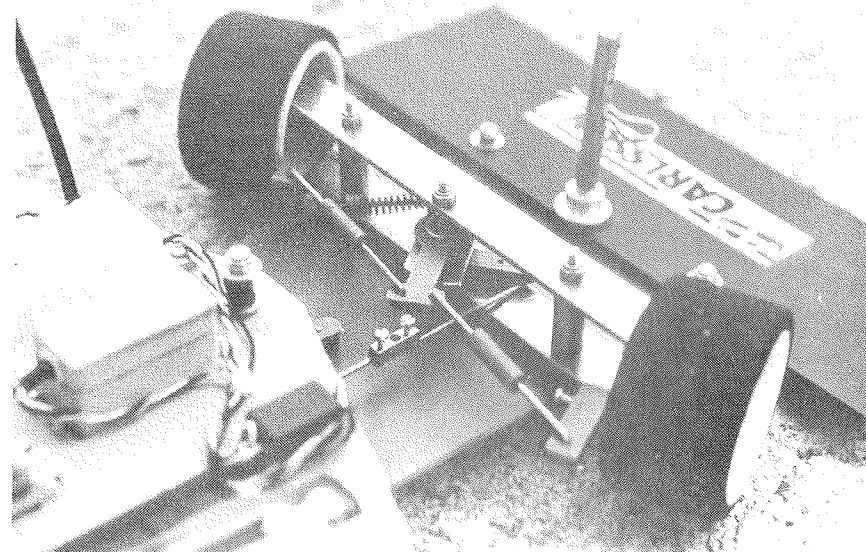
The outstanding parts of the car are, obviously the Lightweight Differential Unit, the Clutch and the very strong Ball-raced front axle assembly.

The car is built upon a duraluminum chassis with two parallel slots to give the right flexibility, (Fibre Glass chassis

optional extra) the power pod being made of aluminum. Clutch support and engine mount holes are slotted to allow Ratios to be altered etc.

Moving on now to the Clutch. (This to me seems to be the only answer to the many clutch problems which have been experienced in this country this season.) The shoes are made from PTFE as most types are nowadays but they do not require any springs or 'O' Rings for securing. To change gear ratios the pinion is replaced, by loosening a grub screw in the Clutch housing and simply pulling it out. The pinion is supported by a large bearing in the Clutch adaptor, and also a bearing of the same size in the aluminum block. A choice of 10T 11T and 12T pinions is available.

The brakes are of the conventional drum brake type with the brake shoe working on the clutch housing. Placed immediately behind this is the unique part of the Carlsson Car, the differential unit, which is situated inside the right hand rear wheel, and is mainly made from nylon. This is fitted to a steel axle ball-raced at both ends



Heading: The car ready to run.

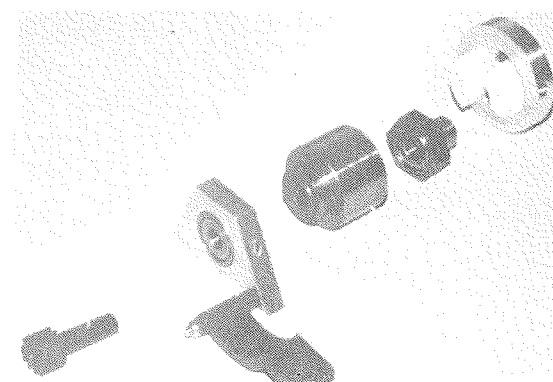
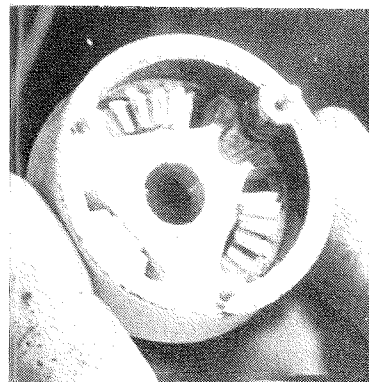
Above: Complete front end with servo-saver and linkages.

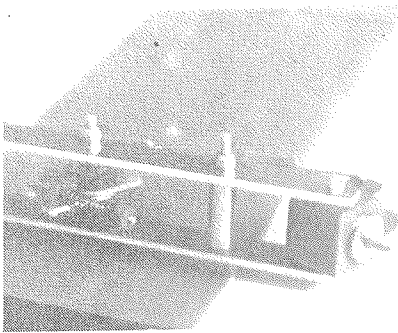
Below left: Part of diff unit showing nylon gears.

Below right: Various parts of the clutch and brake assembly.

and supported in aluminum blocks. Rune Carlsson has solved the problem of attaining the right so called limited slip in rather an ingenious way. Instead of using oils of various thickness to adjust the slip, you simply tighten or loosen the centre wheel nut.

At the moment radio plates seem to be in fashion, the one supplied with this Kit is more of a crate made of strong plastic. It is pre-drilled to fit most types of radio gear and comes complete with all the necessary links, springs, rubber bands and servo output arms.





*Note size of ballraces in steering blocks.*

Fitted into the radio crate is the flip top fuel tank which is made of nylon and comes in two parts, top and bottom. They are held together with 10 self tapping screws and a large "O" ring for sealing. The fuel outlet pipe and the pressure pipe into the tank are made out of P.T.F.E. which enables them to be repositioned at anytime if required.

Now we come to the front axle assembly, which is very strong but uncomplicated. The front axle beam is two aluminum plates screwed together with the use of spacers. Each front axle runs between two large ballraces, therefore, no bearings are required in the actual wheels. The axle blocks are nylon which acts as a bush for the steel king pins.

Finally the bumpers, an ABS body shell and a do-it-yourself lexan aerofoil kit

complete the "Carlsson Pro C 1 d" car with full comprehensive building instructions supplied.

The car's first test run was made on a dry and sunny day at Littlemoor Park, Queensbury. (Straight out of the Box) At first the car was spinning out on the corners so I immediately thought, kit tyres not much use, but that was not the case. A slight adjustment to the differential to give more slip solved the problem. After an hour or two's practice I was quite confident of the car's potential.

So, on to the first race meeting again at Littlemoor Park. This time there were one or two problems to sort out. The brakes were too fierce causing the ring gear to strip. (Braking on the Clutch Drum) The other problem was, that the famous edging stones at Littlemoor Park helped to bend the rear axle.

On reporting my difficulties back to Sweden, I was promptly sent their latest brake material and a new harder type of rear axle, which, I am informed are now included in their Kits.

At the moment the Carlsson is not being distributed in the U.K. However, taking its home price of around Sw.Kr 950 it should cost about £100 over here with taxes and import duties, including the very interesting differential! For readers who are encouraged to try their hand address is: B-K TJANST, Box 136, 560 40 HABO Sweden.

*General view of radio and tank layout.*

