

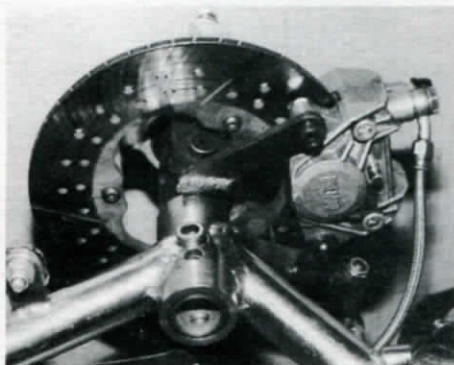
STRATEGY

The Royston based firm of Stratos Leisure were best known by many, until recently, for their range of PMP exhausts for karts, bikes and even microlites. However this season has seen Stratos karts in the hands of Chris Stoney, Paul Molloy and Andy Martin win many of the long circuit events, including first places at the RAC Championship rounds in the 125s and 210s. Using the same karts but without the full bodywork they went along to the RAC Short Circuit Championships and came away with 1st and 2nd in the 125s, and 1st in the 210s!

Their kart development, over the last 2 or 3 years, has been mainly financed by the sales of PMPs, of which they manufacture around 80 different types. Recently they have concentrated on lightening the whole kart without losing strength where it is required, and simplifying the design by applying engineering principles.

Paul Molloy's kart is now 52lbs lighter than it was last year. A quarter of that was saved on the body with the main segment in Kevlar, floor tray, fasteners and paint weighing in at only 28lbs. The body, which is mounted onto the floortray rather than to the chassis, can be removed by one man in 65 seconds using just a screwdriver.

The body works well aerodynamically without a wing. They feel too much attention



Brembo brakes are standard

is paid by other manufacturers to piercing the air with an aerodynamic nose, rather than on how to get rid of the stream cleanly. Thus their body finishes much further back than normal. This "cleans" up the airflow and has resulted in following drivers commenting on the difficulty in getting a 'tow'.

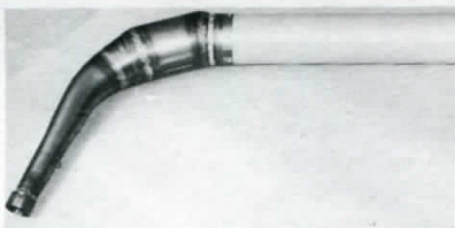
Further weight saving has come from practically every component, with aluminium being used wherever practicable. The savings include:

Rear bumper 12oz, front bumper 8oz, hollow rear axle 2lbs, aluminium pedals 1lb, lightened Duplex sprockets 3oz, three ventilated discs 1.5lbs.

The list just goes on with weight being saved on the exhaust, brake linkage — even number plates, all adding up to a very impressive reduction. The 6 steel bolts securing the rear disc are replaced with aluminium of 13 ton shear strength with a tensile strength of 36 tons/sq. in against the 28 tons/sq. in. of steel bolts. Such bolts should not be used for the calipers and steering and you shouldn't replace anything with aluminium unless you know what you are doing.

This weight reduction has meant that on occasions they have had to add ballast at long circuits.

Amongst the well engineered details are the rear bumper which on many other karts is made stiffer than the rest of the chassis. With a rear end shunt the bumper stays rigid and the rest of the chassis suffers. Stratos



The 'quiet' PMP for short circuits

have designed theirs with a long gentle curve which will absorb some of the impact and then crumple, often saving the chassis from major damage.

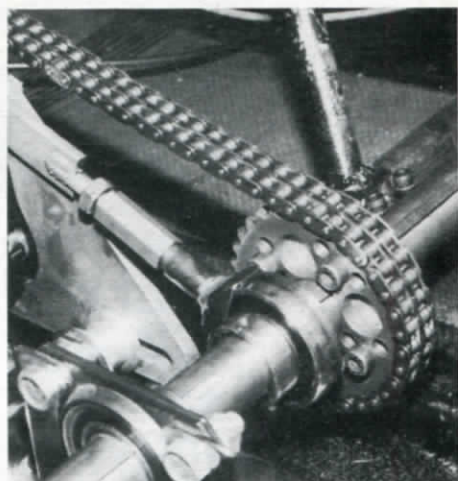
SOME LATE SMALL ADVERTS

100 NATIONAL. Zip K77 5 port with new piston and main bearing. Wets on rims, sprocket, spare seat and tyres. £200 ono. Tel: Mogodor 832705.

SPECTRE SIRIO ST51TT. Bridgestones, stand, wets, very quick. New job forces sale. £350 for quick sale. Tel: Peterborough (0733) 241682 (eves).

GILLARD 100 National kart complete (never raced), on brand new Bridgestone tyres, £280. Tuned TKM motor £175. Upton Manx motor £80. Spare chassis complete (slightly damaged) on Goodyears, £80. Trailer £80. Many extras. Phone M. Hogg on Cramlington 712807 Work, North Shields 579468 Home.

FERRARI 100 NATIONAL (Novice). Won All England Championship at Rye, also won at Kimbolton. Blueprinted PCR very fast, cost £700 new, spare Parilla, new slicks on rims, new wets on rims. Spare carb, exhaust, sprockets and other parts. Stand etc. and other parts also available. Ready to race, excellent condition, reliable and quick. £500 ono. Would split. Jim (Eves) Thaxted 830012.



Lightened Duplex drive sprocket

If components are engineered properly so they work in harmony then their gauge can be reduced. This has enabled the use of 18 gauge for the seat stays and gear lever, to assist the dieting process.

A substantial factor to the race successes has been the contribution of top drivers such as Chris Stoney and Andy Martin. Paul Molloy's serious return to competition has been dramatically aided by the provision of two new engines, kindly donated by Ann Banbury of Kartpro, to whom the firm are indebted. Plans for 1986 include a Formula E 250 kart with very special aerodynamics to make an assault on the World Championship.

At this year's RAC Kart Open Day many stated that the worst offender for noise is the 125 class. Only one was under the limit at the recent RAC Short Circuit Championships. Paul Molloy, after some fiddling with the noise box and putting rubber hose between the engine fins got his level down by 1 dB. He then arranged for John Cooke, with a level of 104dB, to give a demonstration of their special short circuit muffler.

With similar lap times to before the muffler was attached two readings were taken, one at 88dB and one at 90dB! The reduction was obvious, the squealing of his tyres could now be heard. Alan Dell has won using another pattern which has a U bend so that the exhaust doubles back on itself. This typically reduces the noise level by 10dB.

So the level can be reached but there is no point in Stratos continuing their development if the regulations are not enforced. Because the quieter silencer changes the engine note, drivers think they are not going as quickly. This is demonstrated convincingly by the very poor demand to date.

Four were even put up as prizes in the 210 Challenge and only one of the four winners has opted to take one. At the moment there is a slight performance loss but the firm are sure that with a little bit of development that would be no problem — provided they had protection against the design being copied and reproduced.



Aluminium pedals