

INTERNATIONAL CHASSIS

The headline 'International Chassis Galore!' in our February issue signalled the amazing fact that no less than 320 chassis from 55 different manufacturers had been put forward for international homologation, the process by which the specification of an item is registered and certified. In the case of kart chassis the homologation process seeks to ensure that a sufficient quantity have been made in conformity to the data and parameters shown on the homologation document (the 'fiche'), to justify inclusion in a class. All chassis used in the CIK Group 2 or 'Intercontinental' classes, such as Intercontinental A, have to be homologated every three years.

Some of these 320 chassis are duplications as manufacturers had to make separate homologation applications for Intercontinental-A, Intercontinental-A/Junior (JICA) and Intercontinental-C even if the karts were identical! Nevertheless there are still a huge

number of different chassis now hitting the race tracks and in the next few months we'll bring you details on as many as we can.

One might be forgiven for thinking that there are a limited number of worthwhile ways of linking the four wheels of a kart together but, forced on by the relentless search for improved performance, new designs continue to be created. Put briefly, the ongoing evolution of the kart chassis is all about the control of frame flex to benefit the handling characteristics. Thus designers explore changes to the positioning, specification and size of frame tubes.

The classic configuration for a chassis is to have three cross-members; a front one that curves rearwards and on to which are mounted the stub axle yokes or kingpins, a middle one, near the front of the seat, that is associated with the support of the top of the steering column, and a rear one tying the two sides together. Two side rails provide the

longitudinals and by means of a narrowing or 'waist' when seen in plan view they provide the degree of flexibility sought by the manufacturer.

The side rails may be either a single length of tube or of multi-tubular construction requiring additional welds. The rear portion of the right side rail is shadowed by a matching tube to which it is linked by short tubes. The engine mount rests upon these two parallel tubes with chain tension being adjusted by moving the mount fore or aft. The rear axle bearing hangers are located on the rear extremities of these tubes

The degree and location of chassis flex is not limited only to the frame tubes and there are many items which provide ways of influencing it such as the relative tightness of seat bolts, front and rear bumper clamps and side pod tubes mountings to the frame, as well as dedicated adjustable torque control tubes and links.

S.W.R.D.

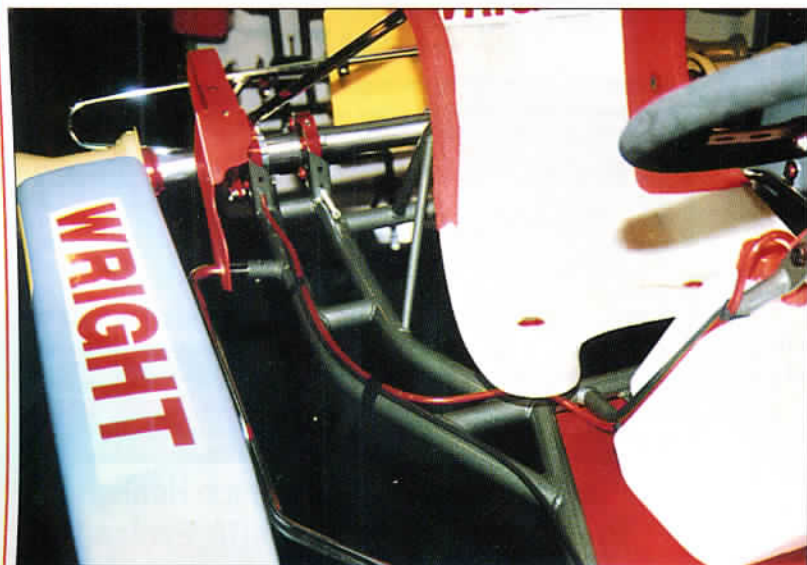
Braga 2: ICA, ICA-J and ICC. Wheelbase: 1040mm. Front/Rear Track: 700mm/655mm. Overall Length: 1458mm. Tubing: Mixture of 30mm and 32mm, 30mm for the middle cross-member, the two waist section side rails which join the front and middle cross-members, and the welded flank tube at the left rear. Three rail chassis with welded flank tube at the left rear. Provision for an additional rear bar.

Garda 2: ICA and ICA-J. Wheelbase: 1040mm. Front/Rear Track: 747mm/

712mm. Overall Length: 1458mm. Tubing: 30mm throughout. Three rail chassis with welded flank tube at the left rear. Provision for an additional rear bar.

Garda 3: ICA and ICA-J. Wheelbase: 1040mm. Front/Rear Track: 700mm/655mm. Overall Length: 1458mm. Tubing: Predominately 30mm with 32mm for the three cross-members. Three rail chassis

with welded flank tube at the left rear. Provision for an additional rear bar.



The Braga for ICA, ICA-J and ICC



This is the Garda 03, the 02 model looks identical but is wider front and rear

BIREL

R32: ICA and ICA-J. Wheelbase: 1040mm. Front/Rear Track: 715mm/647mm. Overall Length: 1505mm. Tubing: 32mm throughout. Three rail chassis. Provision for additional bars front and rear.

CR32: ICC. Details as R32.

R31: ICA and ICA-J. Wheelbase: 1040mm. Front/Rear Track: 715mm/645mm. Overall Length: 1505mm. Tubing: Predominately

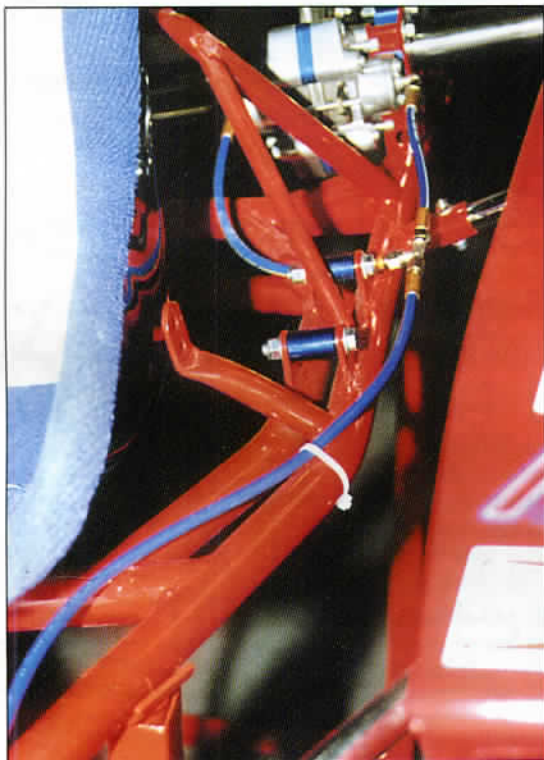
30mm with 32mm for the three cross-members. Three rail chassis with a welded flank tube at the left rear. Provision for additional bars front and rear.

CR31: ICC. Details as R31.

Q31: ICA and ICA-J. Wheelbase: 1040mm. Front/Rear Track: 715mm/645mm. Overall Length: 1505mm. Tubing: Predominately 30mm with 32mm for the three cross-

members. Three rail chassis. Removable torsion bars front and rear.

CQ32: ICC. Wheelbase: 1040mm. Front/Rear Track: 715mm/647mm. Overall Length: 1505mm. Tubing: Predominately 32mm with 30mm just for the two waist section side rails which join the front and middle cross-members. Three rail chassis. Provision for additional bars front and rear.



R31



R32



R31



The Q series

DARTFORD KARTING



The Tornado's waist section side rails join the front and middle cross-members



The Taurus has an additional cross-member linking the steering yokes



Solo Taurus: ICA-J and ICA-J. Wheelbase: 1040mm. Front/Rear Track: 715mm/640mm. Overall Length: 1470mm. Tubing: Predominately 32mm with 30mm for the front cross-member and the additional cross-member linking the steering yokes. Three rail chassis with a detachable flank tube at the left rear. Provision for an additional rear bar.

Solo Tornado: ICA and ICA-J. Wheelbase: 1040mm. Front/Rear Track: 715mm/640mm. Overall Length: 1460mm. Tubing: Predominately 32mm with 30mm for the middle cross-member and the two waist section side rails which join the front and middle cross-members. Three rail chassis. Provision for an additional rear bar.

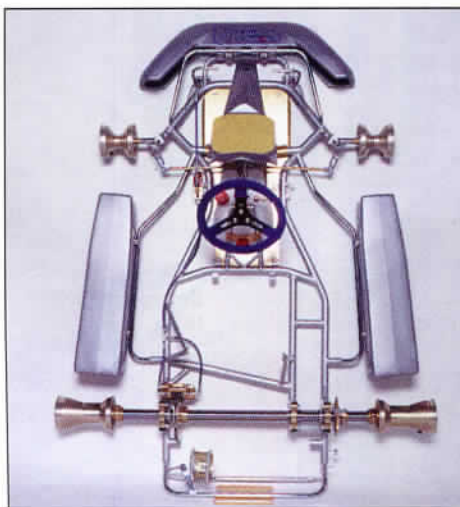


MERLIN

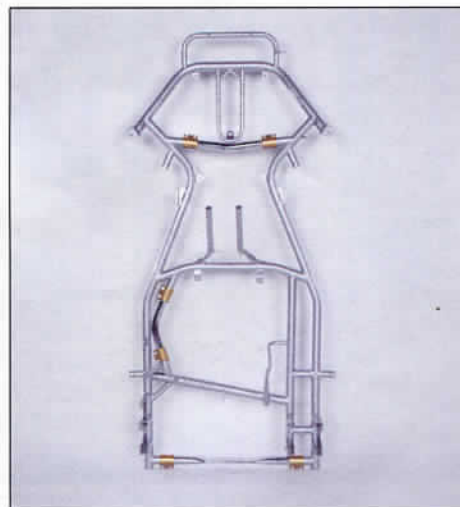
M12: ICA. Wheelbase: 1040mm. Front/Rear Track: 715mm/640mm. Overall Length: 1475mm. Tubing: Predominately 30mm with 32mm for the three cross-members. Three rail chassis. Provision for additional bars front and rear.

L11: ICA. Wheelbase: 1040mm. Front/Rear Track: 715mm/640mm. Overall Length: 1475mm. Tubing: 32mm throughout. Three rail chassis. Provision for additional bars front and rear.

H10: ICC. Wheelbase: 1040mm. Front/Rear Track: 715mm/640mm. Overall Length: 1435mm. Tubing: 32mm throughout. Three rail chassis with a detachable flank tube at the left rear. Provision for additional bars front and rear.



M12 for ICA



H10 for ICC