

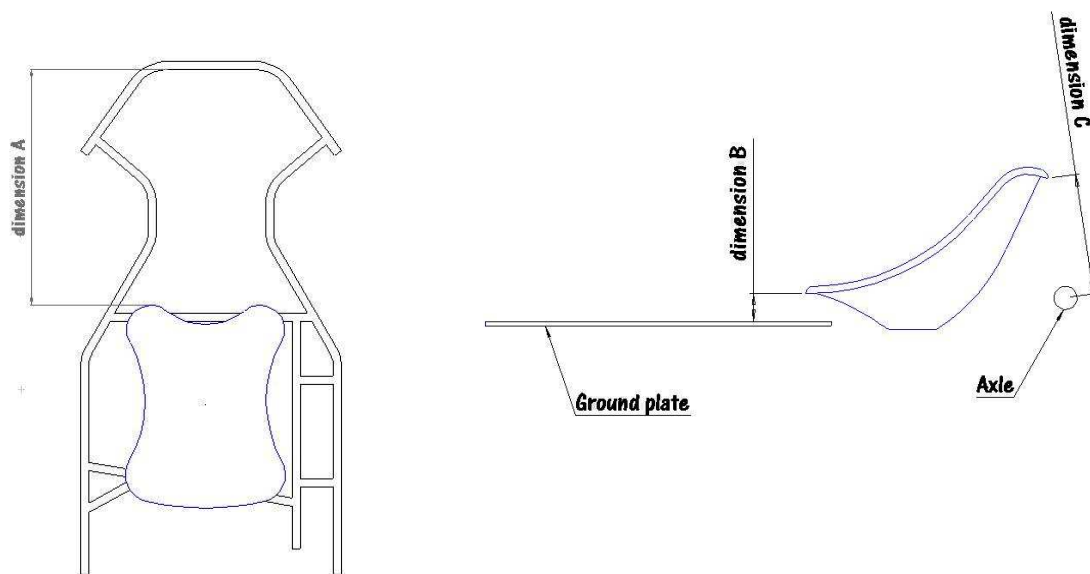
CHASSIS SET – UP

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1. BASIC SETTING

1.1. Seat assembly (Chassis 100ccm and 125ccm)



Height	Dimension A(mm)	Dimension B(mm)	Dimension C(mm)
1m45 to 1m55	580	95	220
1m55 to 1m70	590	90	210
1m70 to 1m80	600	85	200
1m80 to 1m90	610	85	190

1.2. Front and rear track adjustment:

Front

With the 3-hole rims, which is to use in combination with wheel hubs the total width is 119cm (measured from the outer edge of the wheels).

Base width with rims including bearing (without wheel hub) is 116cm (measured from the outer edge of wheels).

If the driver likes to have more grip, the total width has to increase. For less grip, go smaller.

Rear

We recommend a maximum width of 140cm for the Senior and 136cm for the Junior category (measured from the outer edge of the wheels).

1.3. Tyre pressure

for soft tyres:	0,75 to 0,8 bar (warm).
for medium tyres:	0,75 to 0,8 bar (warm).
for hard tyres:	0,85 to 0,95 bar (warm).
for wet tyres:	front 1,0 to 1,6 bar and rear 1,2 to 1,8 bar (cold).

The pressures indicated are for warm tyres, e.g. the pressure must be measured immediately after the first laps, when the tyres are warm.

Only wet tyres are measured in cold condition.

1.4. Which accessories to begin with

- front stabilizer
- standard excentric (neutral)
- standard rear wheel hubs 90mm
- seat supports: 2 right and 2 left
- standard stub axle 12°
- rear axle medium no. 147.725
- rims Douglas

2. FOR DRY TRACK CONTITIONS

2.1. Different adjusments and their effects without readjusting the accessories

2.1.1. Tyre pressure

The tyre pressure always depends on the track conditions, the temperature, a.s.o., and vary from track to track.

The tyre pressure changes once the tyres reach their optimum temperature. The higher the pressure the faster the tyres' response time. It is very important however not to chose a too high pressure. The tyre reaches its « top efficiency » faster but also wears down faster and the kart will start to skid. Generally said, the pressure should be lower the hotter it gets, and the colder it gets the more the tyres schould be pumped.

2.1.2. Front and rear track width

The rear width gives the chassis stability. For this reason we usually have 140cm for the Senior and 136cm for the Junior category.

The front track width has an effect on the whole chassis performance in the curves. The wider the front track is the less aggressiv the kart will be entering the curve, however the grip increases at the end of the curve.

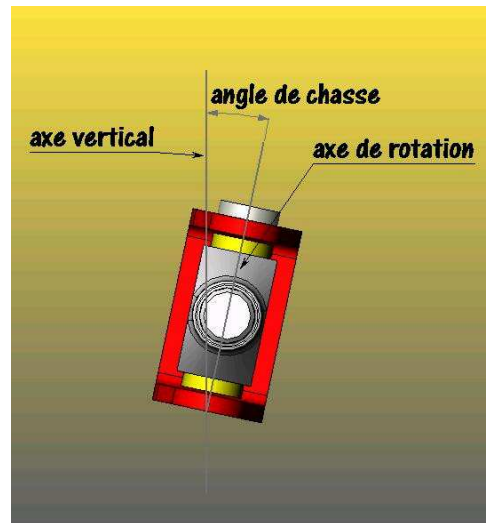
On the other hand, when the width is smaller, the kart will be more aggressive when entering less direct at the end of the curve.

The height adjustment of the track changes the position of the kart's balance point and gives the chassis a certain stability. The lower the kart is at the front the more direct the chassis will be, while losing, however, on efficiency after the angular point. The lower the chassis is at the rear the more steady it will be in the curve.

2.2. The mounted parts and their effects

2.2.1. Excentric

The excentrics are small in size but most effective on the track performance. They balance the chassis, give grip in the front when the kart is understeered or take away grip when the kart sticks to the track. The excentrics are important kart components which must be handled with skill. The different reactions the excentrics bring along, have an effect on the castor angle.



1. The more castor you setting up (tilt back the stub axle bolt by using the excentric) the more grip you get on the front axle. The kart has more bite but in the same time it's harder to steer.

2. If you reduce the castor (tilt forward the stub axle bolt by using the excentric) the easier the kart can be steered. The kart has less grip on the front axle and the chassis becomes more free at the end from a curve.

2.2.2. Stub axles

In our range we have stub axles with a bolt diameter 17mm and 25mm. Basically: The stub axle with bolt diameter 25mm makes the steering direct and the chassis has more grip.

On the Minikarts you can use both stub axles, depending the drivers choice. For chassis 100ccm and 125ccm we use almost exclusively stub axles with bolt 25mm.

Our range stub axles with bolt 17mm:

- No. 1 = negative camber = 11.5°
- No. 2 = standard = 12°
- No. 3 = positive camber = 12.5°

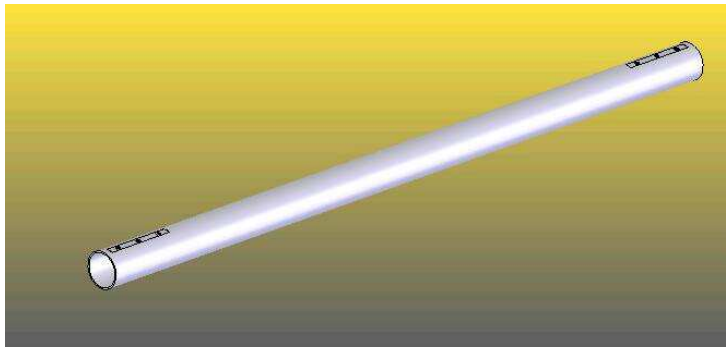
Our range stub axles with bolt 25mm:

- No. 1 = negative camber = 11.5°
- No. 2 = standard = 12°
- No. 3 = standard = 12° soft

The soft stub axle reduces the grip on the front axle.

2.2.3. Rear axle

Our standard rear axle with article no. 147.725 is a medium hard axle. The rear axle with article no. 147.726 is softer and makes the chassis run freely. Used when the track has more rubber. If you wish to go further this way, we suggest the rear axle with article no. 147.732 supersoft rear axle.



		length	hardness
axle 725	blue	105 cm	hard
axle 726	red	105 cm	soft

2.2.4. Front wheel hubs

For stub axles with diameter 17mm we use the standard wheel hubs with a width of 70mm. For more grip and also on wet tracks we use wheel hubs with a width of 90mm.

For stub axles with diameter 25mm we use the standard wheel hubs with a width of 60mm. For more grip and also on wet tracks we use wheel hubs with a width of 85mm.

2.2.5. Rear wheel hubs

Standard hubs for different rear axle diameters are:

Diameter rear axle:	Hub:
25mm	70mm
30mm	70mm
40mm	70mm
50mm	90mm

Additionally are also different, longer and shorter hubs available.

Basic principle: The longer the hubs, more grip you get on the rear axle.

2.2.6. Rims

We use mainly magnesium rims for the types of tyres we actually run. We recommend rims from Douglas.

On wet track and with wet tyres we recommend aluminium rims with dimensions 130mm front and 180mm rear.

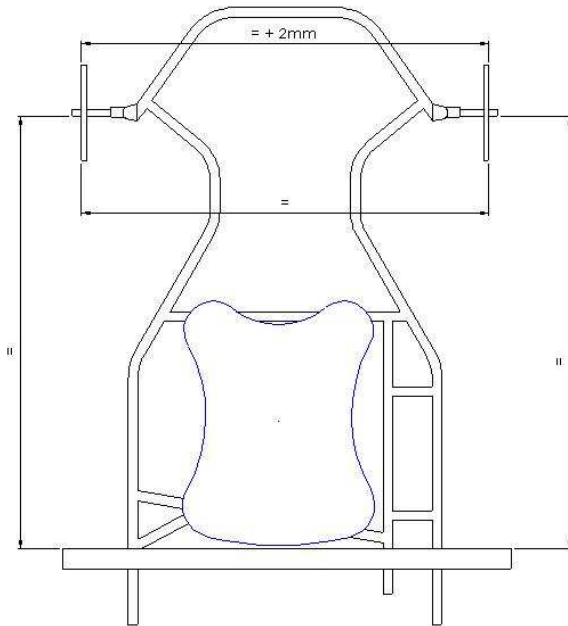
2.2.7. Stabilizers

As the name says, the stabilizers give the chassis stability, both front and rear. When using the rear stabilizer it's important that the kart doesn't have too much grip, which would slow down the engine when accelerating.

1 front stabilizer is imperatively recommended.

2.3. Systematic checking:

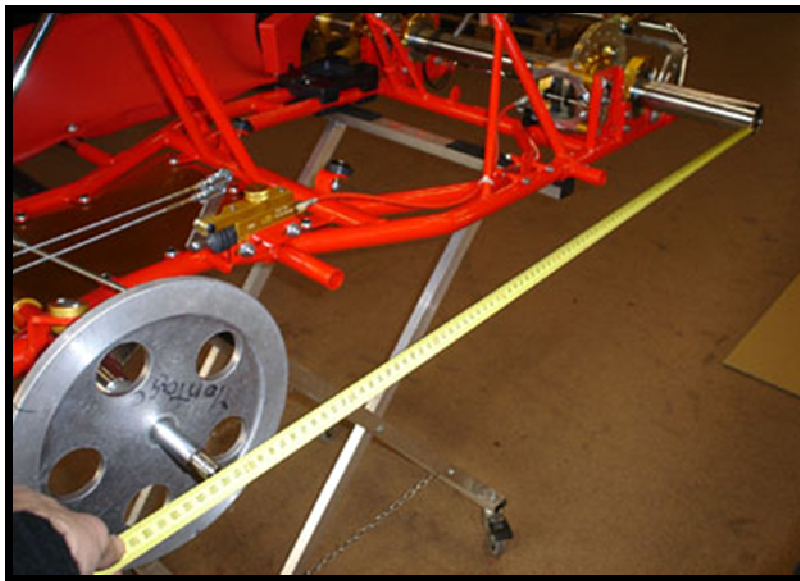
- After driving, always check the tyre pressure
- Before the first run, check if the seat is mounted properly.
- After driving, always check if all screws are still tight (suitably when cleaning the kart).
- Check the track and castor adjustments (see below).



2.3.1. Adjustment of the parallelism

Work Steps:

- Take a spacer and then slide the track adjustment discs onto the stub axles.
- Straighten out the steering column.
- Measure from the rear axle to the stub axle (as illustrated) and turn the track rods until the length is the same on both sides.



2.4. Track adjusting

Work steps:

- Now measure the track adjusting discs on the front and back side of the disc from left to right (as illustrated).



- As a standard adjustment the track is open 2mm, i.e. the distance from one disc to the other, measured in the front, must be 2mm larger than at the rear.
- Turn the track rods until this distance can be measured.
- In order not to change the adjusted parallelism, the two track rods must always be equally adjusted .
For example when you measure 968mm at the back and 972mm at the front, adjust 1mm on both sides of the track rod.
- When you have finished, check all measurements.
Now tighten the cone adapters.
- Make sure that the adjustment of the track rods remains the same when you tighten the cone adapters. Block them while tightening.
- After tightening, check if the ball joints rotate well.
- Re-check all measurements!