



AMERICA



Easykart America LLC. 8475 N.W 29th Street Miami Fl. 33122
Phone: (305) 463 6699 Fax: (305) 463 6689



Technical Manual

Version 1.0

easykart

www.easykart.com

e-mail: info@easykart.com 1



AMERICA

Easykart America LLC. 8475 N.W 29th Street Miami Fl. 33122
 Phone: (305) 463 6699 Fax: (305) 463 6689

Congratulations on your EASYKART purchase!

Carefully reading this instruction manual will give you many hours of dependable enjoyment of your new EASYKART.

EASYKART is the first kart delivered totally assembled and ready to enjoy. It is a simple and easy to use product, either for having fun or for the competitor with ambitions to showcase his/her talents.

Your EASYKART has the chassis number (stamped on the rear wheel bearing support on the brake side of the axle **Fig.1**), the engine number (on the motor base support on the ignition side **Fig.2**) and the engine seal number (see cylinder head seal detail). These numbers are necessary to be registered at the time of purchase and together with a completed Easykart license application will entitle you to be eligible for championship points and prizes (where applicable)

WARNING:

Easykart is not a toy. Kart racing is dangerous. User must follow proper maintenance procedures and must acquire proper driving techniques through training.



Fig.1



Fig.2

To make it easier to read and understand, this manual is divided in two parts. The first part involves the chassis and the second part the engine.

Chassis

- 1T GENERAL
- 2T PEDALS
- 3T TRACK (Front & Rear)
- 4T FRONT WHEEL ALIGNMENT
- 5T FRONT TORSION BAR
- 6T FUEL TANK
- 7T SEAT
- 8T BRAKES
- 9T GEARS

Engine

- 1M GENERAL
- 2M MIXTURE OF GAS & OIL
- 3M CARBURETOR ADJUSTMENTS
- 4M STARTING THE ENGINE
- 5M RUNNING THE ENGINE
- 6M AIR FILTER
- 7M EXHAUST SYSTEM
- 8M CLUTCH
- 9M BATTERY





- 10T AXLE
- 11T WHEELS AND TIRES
- 12T REGULAR MAINTENANCE

- 10M SPARK PLUG
- 11M REGULAR MAINTENANCE
- 12M INCONVENIENCES AND REMEDIES

CHASSIS

1T GENERAL

Your EASYKART has been assembled by specialized personnel and in accordance with specific procedures. However, before using your Easykart it is advisable, for precautionary reasons, to complete a general revision.

WARNING: After completing a few initial warm up laps on the track, you should make sure that “all” bolts and nuts are tight.

2T PEDALS

The pedals of your EASYKART are adjustable to allow for an appropriate driving position. Your Easykart, as delivered, comes adjusted in a position for medium height drivers (between 5’5”- 5’9” ft. for the EASYKART 100 and 125 and between 3’11” - 4’3” ft. for the EASYKART 60), but they are easily adjusted following these instructions.

ADJUSTMENT OF THE ACCELERATOR CABLE.

(Right side pedal as seen by the driver) Loosen the accelerator cable “A” (Fig. 3) so that it is loose at the pedal end. Loose nut “B” with a 10mm. wrench (Fig. 3), and then adjust the screw until obtaining the pedal position wanted, keeping in mind that leaving the pedal in its resting position, the screw should rest against the chassis. Once the proper position is obtained, tighten the nut again.

WARNING: You must check the pedal screws adjustment regularly.

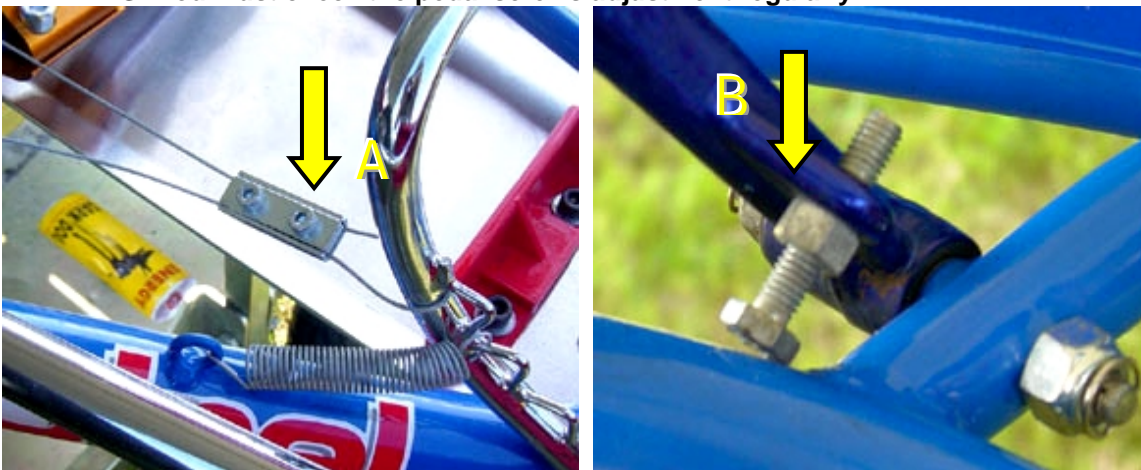


Fig. 3



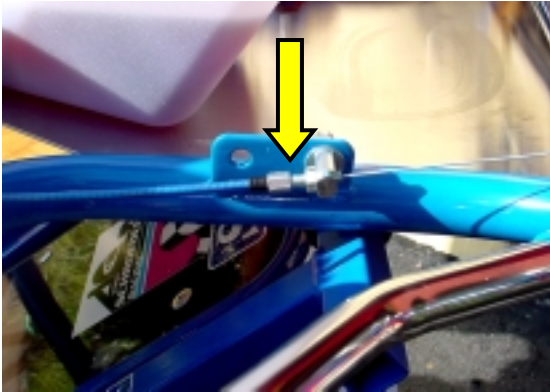


Fig. 4

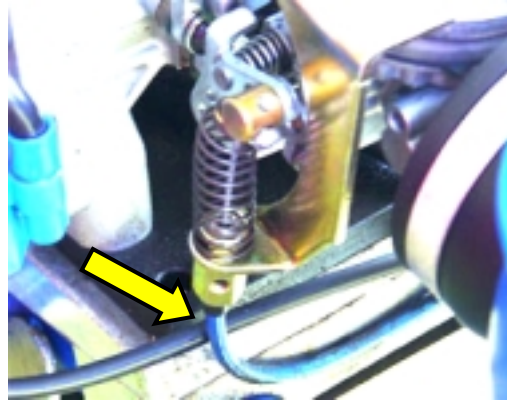


Fig.5

Now, you must adjust the accelerator travel by adjusting the cable while making sure that the cable housing fits securely into the housing adjusting screw (**Fig. 4 and 5**). Once the proper cable tension is achieved, you must also make sure that the carburetor butterfly and shaft are in the close position but not with too much pressure. Finally, tighten the cable adjuster “A” (**Fig. 3**).

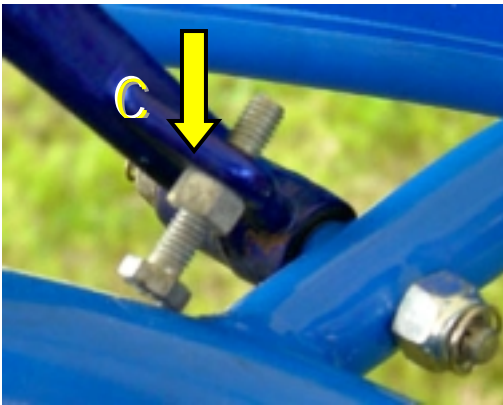


Fig.5

You must make sure that the travel of the pedal while checking the maximum and minimum positions is correct.

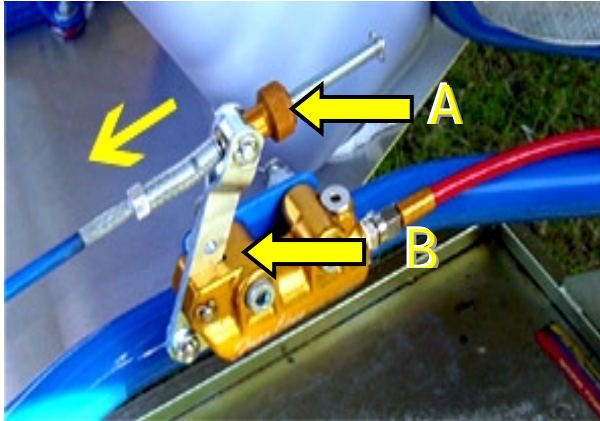
Now, it is necessary to adjust the accelerator pedal when in the fully open position. Press the pedal to the fully open position without using too much force, making sure that the carburetor butterfly is fully open. Then loosen nut “C” (**Fig. 3**) with a 10mm. wrench in a way that the head of the screw serves as a rest for the pedal against the chassis. Now re-tighten the nut.



The above adjustments are simple if you follow directions carefully. The central part of the cable should have a slight flexion of approximately 5mm while in the open or close positions (**Fig. 6**)

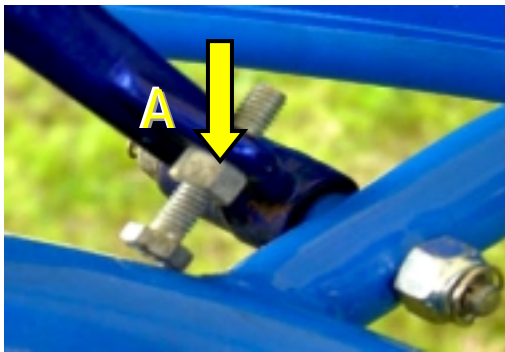
Fig. 6

BRAKE PEDAL ADJUSTMENT. (left side pedal as seen by the driver)



Loosen the round adjusting nut “A” that is at the end of the cable on the back of the brake master cylinder (**Fig.7**) making sure that the pedal can be moved slightly without moving the level from the master cylinder. The level should rest against the body of the master cylinder “B”. (**Fig. 7**)

Fig. 7



Loosen the adjusting nut “A” at the pedal (**Fig.8**) With a 10mm wrench until the desired position of the pedal is obtained making sure that the pedal adjusting screw rests against the chassis. Once the desired position is obtained re-tighten the nut “A” in **Fig. 8**

Fig.8

WARNING: You must check the pedal adjustment regularly!



Fig.9

Proceed now to the installation of the safety brake cable supplied as follows: Bend the cable in two equal lengths so that it forms a curve, pass the two tips of the cable through the front part of the master cylinder level (**Fig.9**) making it pass around the level, one end through the left and the other one through the right, and direct the cable forward. Make sure the two ends of the cable are then attached to the brake pedal with the locking prisoner provided. See **Fig. 10** below.



Fig.10

Once the brake safety cable is installed, make sure that during operation of the brake pedal that only the original brake cable is the one moving the master cylinder level and not the safety cable just installed. The safety cable should be loose at all times and should engage only on emergencies

3T TRACK (Front & Rear)

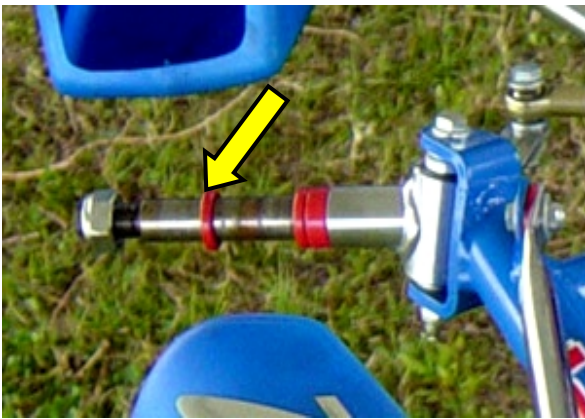
For shipping purposes the front and rear wheels have been mounted with a minimum amount of track. You can adjust the front and rear track to your preference.

To change the front track, proceed as follows:



Loosen and remove the front wheel lock nut with a 22mm. wrench and remove the wheel. (Fig.11)

Fig.11



Add or remove spacers behind the wheel (2 10mm spacers and one 25mm spacer supplied Fig.12) until obtaining the desired track measurements. Re-install the wheel and tighten the locking nut.

Fig. 12

! WARNING Once the 14mm front wheel nut is tight, make sure that the spacers are not excessively tight. The spacers should rotate by hand exercising little force.

The rear track should be adjusted in relation to the front track. To change the rear track proceed as follows:



Using a 6mm. wrench loosen the screw “A” of a rear hub (Fig.13), and remove the hub completely from the axle. Clean both surfaces. Re-install the hub and wheel and choose the desired track measurement “B” between the bearing support and the hub, then tighten the screw again.

Repeat the operation on the other side verifying that it has the same measurements. Now measure the total rear track.

Fig.13



CHECKING THE FRONT AND REAR TRACK.

When finishing adjusting the front and rear tracks, it is good practice to regularly check the track measurements.

The measurements you are taking are from exterior to exterior of the wheels like in **Fig. 14**

WARNING! DO NOT EXCEED THE MEASUREMENT IN CHART 3T.

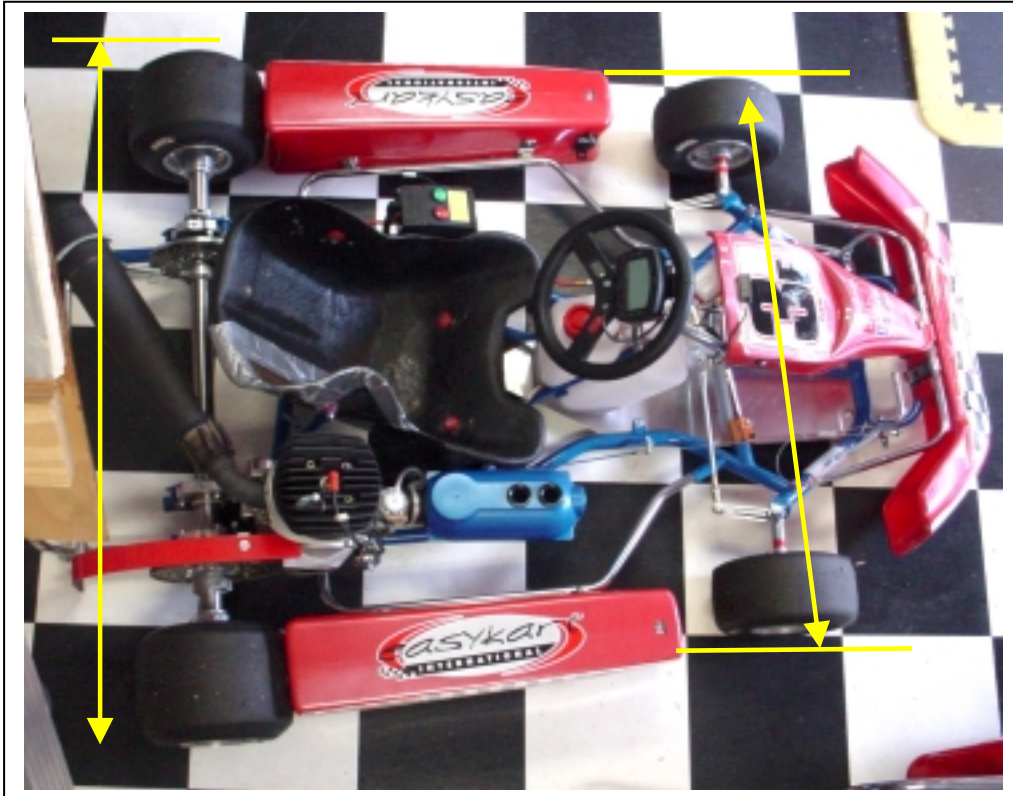


Fig. 14

CHART 3T

| MODEL | FRONT TRACK | | REAR TRACK | |
|---------------------|----------------|----------------|----------------|----------------|
| | <u>Minimum</u> | <u>Maximum</u> | <u>Minimum</u> | <u>Maximum</u> |
| EASYKART 60 | 890mm. | 950mm. | 950mm. | 1100mm. |
| EASYKART 100 | 1050mm. | 1110mm. | 1300mm. | 1400mm. |
| EASYKART 125 | 1050mm. | 1110mm. | 1340mm. | 1400mm. |



4T FRONT WHEEL ALIGNMENT

The front wheel alignment should be checked regularly because of accidents or as a result of the replacement of any of the parts involved. To check the alignment, there are two recommended methods:



Fig. 15

Method one: Remove the front wheels and all spacers, place the steering wheel in a straight ahead position and mount both ends of the Free Line toe gauge **Fig. 15**.

Measurements at the front and rear should be the same, in which case we have zero convergence ("0" toe).

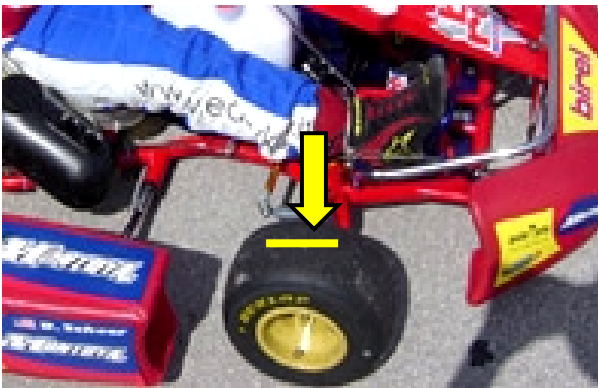


Fig. 16

Method two: In the event of not having a set of gauges, proceed in the following way:

Once the steering wheel is placed pointing straight ahead, with a marker, make a mark on the center of each of the front tire, **Fig. 16** (of a color that contrasts with the black of the rubber).

Place the tires with the marks pointing toward the front and measure the distance between the marks. Then rotate the tires so that the marks point to the rear and repeat the measurement.

If the measurement between the marks at the front and rear of the tires are the same, we can say that we have zero convergence ("0" toe)

If the measurements are not the same, or if any of the steering rods were replaced, it is necessary to make the following adjustments as follows:

With two 13mm. wrenches, loosen the two rod ends counter-nuts (**"A"**) on the tie rods (**Fig. 18 & 19**).



AMERICA

Easykart America LLC. 8475 N.W 29th Street Miami Fl. 33122
Phone: (305) 463 6699 Fax: (305) 463 6689

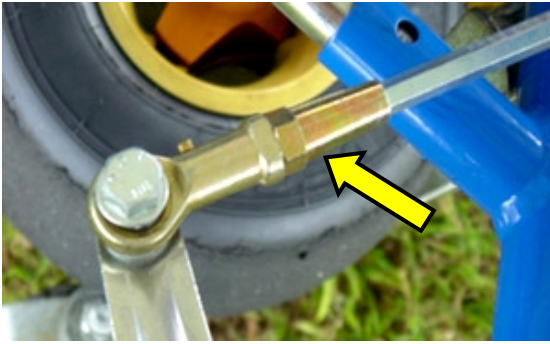


Fig. 18



Fig. 19

ATTENTION!: The counter-nut on the gold rod end (“A”) in Fig. 19 has left hand thread, while the one in the silver rod end has right hand thread.

While placing the steering wheel in a straight ahead position, adjust the tie rods by rotating the rods until zero convergence is obtained (“0” toe) (Fig. 20) by taking the measurements as in Fig. 15 & 16.

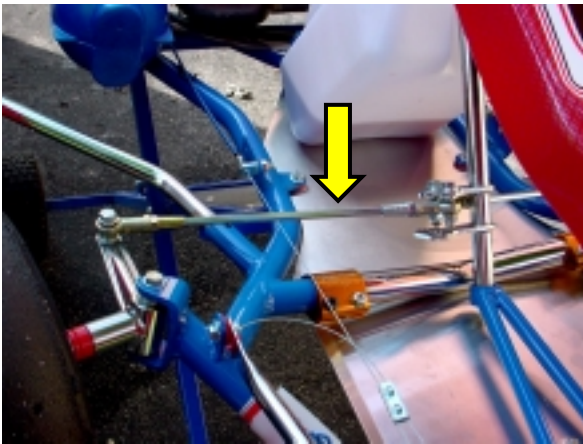
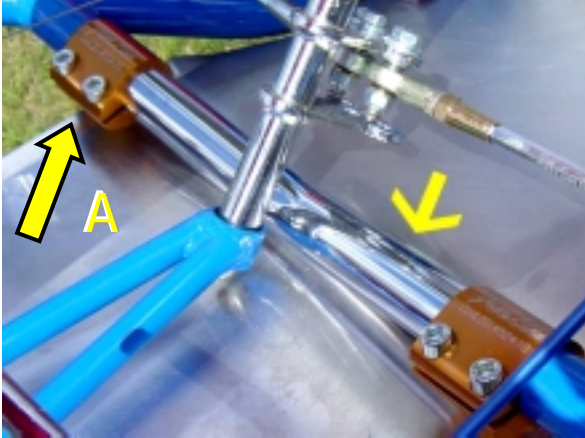


Fig. 20

Re-tighten both counter-nuts using a second 13mm. wrench while maintaining the head of the rod end blocked to avoid rotation. Must check everything again to make sure that after adjusting the tie rods, the rod ends are not blocked and maintain their free play.

easykart

5T FRONT TORSION BAR



The EASYKART 100 and 125 comes with a removable front torsion bar. **Fig. 21**

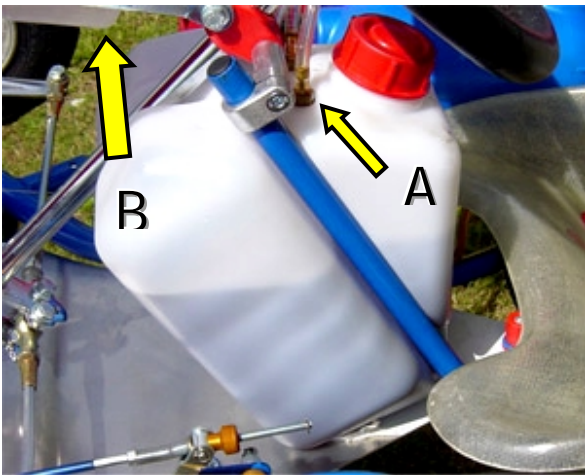
Fig. 21

The function of the bar is to increase the grip of the tires in the front end of the chassis when installed or to reduce it when loose or removed,

In wet conditions it is advisable to remove the torsion bar completely.

To remove the bar, using a 6mm allen wrench, it is only necessary to loosen the "allen" screws holding the torsion bar supports ("**A**") **Fig. 21** and then slip the supports toward the center of the bar. Then you will be able to remove the bar.

6T FUEL TANK



The fuel tank is a very important component of the EASYKART. The durability and efficiency of the engine depends on maintaining it in good condition and cleaning it regularly. Follow these basic rules to avoid problems:

Fig. 22

1. Before storing the kart, even for a short period of time, make sure that there are no residuals in the tank or in the fuel hose.
2. Make sure that the fuel hose is in good condition without any visible damage.
3. Make sure that the breather hose is in good condition and properly connected to the recovery tank. **Fig. 22 "A"**
4. Check the recovery tank, cleaning and making sure that it is properly fixed in position. **Fig. 22 "B"**

7T SEAT

The seat and its supports are fundamental components. They come mounted in a position that allows sufficient torsional rigidity of the chassis and a correct weight distribution.

The correct position of the driver is shown in **Fig. 23**. Observe the position of the arms and legs, they should not be neither too stretched nor too bent.

The seat of the EASYKART 60 has been placed in position for a 10 - 12 years old driver of median height.

The seat of the EASYKART 100 has been placed in position for a 12 - 16 years old driver of median height.

The seat of the EASYKART 125 has been placed in position for a 16 years or older driver of median height.

To adjust your driving position in the EASYKART in relation to the adjustment of the pedals, (chapter 2T), it may be sufficient to just install some padding on the seat. You can use Free Line lateral protection.



Fig. 23



Fig. 24

The position of your feet while driving is very important. They should rest like in **Fig. 23**, the accelerator and brake pedals should move without much effort and without any difficulty.

Similarly, the position of the hands on the steering wheel should be like in the **Fig. 24**. When turning the steering wheel, the arms should not force the torso to move.



8T BRAKING SYSTEM

WARNING! Before using the kart, the operation of the brake system should be properly tested.

The EASYKART braking system acts only on the rear axle. Before applying the brakes to the maximum, it is necessary to bed the pads properly.

With new brake pads, do some short and light stops and avoid excessive overheating of the brake rotor and pads. You must try to avoid crystallizing the surface of the rotor and the pads.

Then allow the whole brake system to cool down completely.

Once this simple operation is complete, you must check that all bolts and nuts are tight. Now you will be able to obtain maximum performance from your brakes.

WARNING! Must check the brake pads thickness and replace the brake fluid regularly. (Section 12T, Regular Maintenance).

Checking the brake pads consists on checking the clearance between the rotor and pads. **Fig. 26 A.**

Excessive clearance between pads and rotor will produce excessive brake pedal travel. **Fig. 25 A.**



Fig. 25

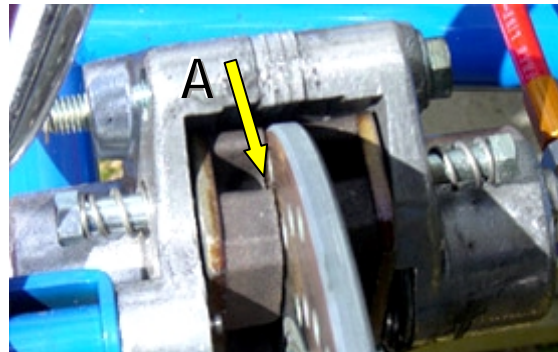


Fig. 26

If the brake pads show excessive clearance, you can adjust the play by removing or inserting available spacers which come in two thicknesses of 0.5 and 1mm. These spacers must be installed between the pads and the caliper piston. These **brake pad spacers** are also offered by Free Line.

9T GEARS

The transmission of power from the motor to the axle is made through a special chain (Type 219).

The chain slack and alignment comes properly set from the factory, however after having completed a few laps, and also regularly, you must check and adjust the chain slack and alignment if necessary. (See MOTOR section of this manual).

The relationship of the number of teeth of axle gear to motor pinion (specified in the chart below) is set at the factory and it may work for some race tracks. However you must follow the supplemental regulations for each race track which specifies the gear to be used. In some cases, when replacing



the gear, it may be necessary to shorten, lengthen, or replace the chain to obtain the proper chain slack. See GEAR CHART below for suggestions.

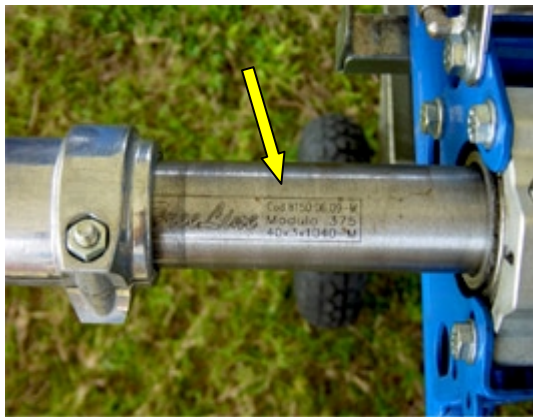
GEAR CHART

| | EASYKART 60 | EASYKART 100 | EASYKART 125 |
|------------------|------------------|------------------|------------------|
| Pinion | Z10 | Z11 | Z11 |
| Axle Gear | Z 76-78-80-82-84 | Z 78-80-82-84-86 | Z 78-80-82-84-86 |
| Chain | 102-104 * | 104-106-108 * | 104-106-108 * |

* suggested number of teeth on the chain

WARNING! : Must lubricate the chain frequently during use with oil or specific lubricants. It is advisable to do this while hot as soon as the engine has stopped because the friction and high rotational speeds overheats the chain allowing easier penetration of the lubricant between the links.

10T THE AXLE



Your EASYKART comes with a FREELINE brand axle installed. In the following AXLE CHART you will be able to find the references to the various EASYKART models.

Axles should be replaced only with the correct original part number. These specific axles have been proven and chosen especially for your kart model, and offer a reasonable balance between rigidity and torsion.

Replacement of the axle with another non original type is prohibited by the EASYKART regulations. Axles can be identified by the laser inscription made at one end of the axle. **Fig. 28 (Warning! Be careful when cleaning the axle that the laser inscription is not removed)**

Fig. 28

AXLE CHART

| | EASYKART 60 | EASYKART 100 | EASYKART 125 |
|-------------|-------------|-----------------|-----------------|
| AXLE | 25 x 960 C | 30 x 5 x 1000 M | 40 x 3 x 1040 M |
| HUB | AL 25 x 50 | AL 30 x 100 | AL 40 x 100 |



11T TIRES AND WHEELS

New Easykarts come with Bridgestone brand tires mounted. However for Easykart competitions it is obligatory the use MG brand tires with a WHITE compound (Easykart brandings on the tire) which has been specially made for EASYKART. Dimensions and recommended tire pressures are in the following chart.

TIRES CHART

| | EASYKART 60 | | EASYKART 100 | | EASYKART 125 | |
|--------------------|------------------|-----------------|------------------|-----------------|------------------|-----------------|
| | <u>Dimension</u> | <u>Pressure</u> | <u>Dimension</u> | <u>Pressure</u> | <u>Dimension</u> | <u>Pressure</u> |
| Front Dry | 10x4.60-5 | 10 psi + / - 2 | 10x4.60-5 | 10 psi + / - 2 | 10x4.60-5 | 10 psi + / - 2 |
| Rear. Dry | 10x4.60-5 | 11 psi + / - 2 | 11x7.10-5 | 11 psi + / - 2 | 11x7.10-5 | 11 psi + / - 2 |
| Front. Rain | 10x4.20-5 | 14 psi + / - 2 | 10x4.20-5 | 14 psi + / - 2 | 10x4.20-5 | 14 psi + / - 2 |
| Rear. Rain | 10x4.20-5 | 14 psi + / - 2 | 11x6.00-5 | 14 psi + / - 2 | 11x6.00-5 | 14 psi + / - 2 |

Pressures indicated in this chart are to be applied to cold tires.

The tires in your kart are "SLICK" this means they are bold and don't have any design or threads on the surfaces. Tire surfaces show small 5mm holes in diameter and 5mm in depth to be able to check wear. **Fig. 29**

The tire should be replaced before the holes disappear. Replacement of tires is a quite simple operation but it requires some knowledge and proper tools. The easiest way is to ask for help from an EASYKART dealer, always remembering to follow the tire rotation arrows.

WHEELS

The factory mounted wheels are of the FREELINE brand and have the following dimensions.

| | EASYKART 60 | EASYKART 100 | EASYKART 125 |
|--------------------|-------------|--------------|--------------|
| Front Wheel | 5" CR 115 A | 5" CH 130 A | 5" CH 130 A |
| Back Wheel | 5" DR 150 A | 5" DH 210 A | 5" DH 210 A |





Fig. 29



Fig.30

Both, front and rear wheels come with tire locking screws installed, **Fig. 30**, which are mandatory by the new international rules to avoid dismounting of the tires in the event of using very low pressures.

It is obvious that to be able to replace a tire these screws should loosen until they are to level with the internal part of the rim and must be retighten smoothly once the replacement tire is installed.

WARNING! : Technical regulations require that all parts be original EASYKART of the FREELINE brand.

12T REGULAR MAINTENANCE

| HOW OFTEN | COMPONENT | WORK TO DO |
|------------------------|---------------------|-----------------|
| BEFORE EACH USE | Brake cable | Check |
| | Brake pads | Check |
| | Tie rods | Check |
| | Front end alignment | Check |
| | Wheels | Tighten bolts |
| | Fuel tank | Check |
| | Tires | Check pressures |
| | Fuel hose | Check |



AMERICA

Easykart America LLC. 8475 N.W 29th Street Miami Fl. 33122
 Phone: (305) 463 6699 Fax: (305) 463 6689

| HOW OFTEN | COMPONENT | WORK TO DO |
|----------------------------|-------------------|---|
| AFTER EACH USED | Chassis | Clean and lubricate all moving parts (bearings, etc.) |
| | Air box | Remove and clean (inside and out) |
| | Chain | Clean and lubricate |
| AFTER 8 - 10 HOURS | Chain | Replace |
| | Brake pads | Replace |
| | Tires | Replace |
| | Fuel tank | Clean internally |
| | Catch tank | Clean internally |
| AFTER 15 - 20 HOURS | Fuel hose | Replace |
| | Accelerator cable | Replace |
| | Chassis | Check all hardware |
| EVERY YEAR | Brake assembly | Rebuild all cylinders |
| EVERY 2 YEARS | Brake assembly | Replace brake fluid |

easykart