

## Chapter 1 : Batman TV Batcycle Model Kit – GeekAlerts

*JOES Chassis Sheets are formatted for you to download and make as many copies as you want on your personal printer or copy machine. Tell your racing friends and spread the word about the JOES Free Download!*

This article was kindly contributed to our site by John Learmonth, J. Chassis tuning for good turn in Does this seem familiar to you. It then misses the apex and slides wide into the middle of the corner, scrubbing speed and bogging down through the corner exit? If it is, then the problem may have little or nothing to do with the rear end. Poor corner turn-in is a very common handling problem. If the kart understeers at the instant you turn the wheel, the front tyres are momentarily sliding. Often they suddenly regain grip, causing a violent change of direction, which upsets the rear end giving the rear tyres little chance to produce grip, so the kart slides into the corner in an oversteering condition. This can easily be made much worse by incorrect toe and camber settings. For effective chassis tuning, certain basic things have to be at least close to correct to begin with, or you are likely to only be getting seat time. When trying to diagnose handling problems, it is very important to make sure the problem is not the tyres or the toe and camber alignment. Tyres are the point of contact between the kart and the track, and are the single most important part of the chassis, as this is where the grip happens. The best chassis in the world is only able to grip and handle to the capacity of the tyres. If the tyres are old and hard, any chassis adjustments you make will only result in different kinds of bad handling with poor grip. They should also be at least close to the correct pressures, tyre pressures should be set for maximum consistent grip, and only adjusted to fine tune the handling, not to make large changes. I personally prefer about 20 to 23 psi 1. As a general rule you should use more pressure in hard tyres and less in soft ones YEQ tyres are a fairly hard compound. Even if you manage to find a half way reasonable set-up with old hard tyres, the settings are likely to be useless as soon as you put new tyres on the kart, resulting in the waste of the new rubber and uncompetitive times. Toe and camber, at least as the basic starting point should always be set to zero settings ie. Zero toe and camber may not always be the absolutely perfect settings, but are going to be very close. A zero toe setting will lessen tyre scrub and friction on the straights, which will lessen the rolling resistance of the kart. Unfortunately for those karters thinking this way, the tyres used in most other forms of motorsport are radically different in their construction being radials, while kart tyres use cross-ply bias-belted diagonal construction. Radial tyres have much more flexible sidewalls than cross-plys, and because of this can work well at larger camber settings. The stiffer sidewall of a cross-ply tyre means it has to be kept very close to vertical to work correctly. Inaccurate camber incorrectly loads the tyre and lessens the size of the contact patch. Especially in hot conditions, this contributes strongly to premature tyre wear and inconsistent handling ie. At most race meetings you will see plenty of front tyres with substantial wear on the inside edge, yet virtually unworn on the outside. Poor camber settings can have a similar but not identical effect as fitting undersized narrow tyres. In racing, it takes only a tiny deficit to lose large amounts of track distance. An expensive engine blueprint might gain you 3 tenths. So why waste this costly and valuable advantage with poor alignment? If a kart is aligned to zero toe and camber without the driver seated, it is certain to have some unpredictable amount of negative camber with the driver. Toe-in can easily contribute to poor turn-in as it makes the kart more resistant to change of direction and lessens turn-in weight transfer see below. As the kart will always be raced with the driver in it, it is strongly recommended both the toe and camber be adjusted to zero settings with the driver seated in the kart. This is by far the best starting point for setting camber, and the exact setting can be fine tuned using tyre wear as a guide. A kart set up to zero toe and camber with the driver will have some positive camber and probably some toe-out without the driver. Worn steering components can cause substantial increased toe and camber change with driver weight, and can also contribute to unstable alignment settings in transitional stages of the corner. To check for worn tie rod ends, attempt to move the rod end up and down vertically. Any up and down movement indicates wear is present some cheaper rod ends have some movement even when new. This weight transfer causes the inside rear tyre to be physically lifted from the track surface at turn in. If this weight transfer is not great enough, the combined grip of the rear tyres can simply push the front wheels straight ahead. This mechanical weight transfer means the inside front tyre is

much more heavily loaded than the outside front tyre at turn-in. As a result, the inside front tyre provides most of the front-end grip at turn-in. Once into the middle part of the corner most of the kart weight is transferred to the outside tyres due to cornering force. A wider rear track width will also make lifting the inside rear wheel off the track more difficult. The only conditions in which I would recommend using toe settings other than zero would be in the rain, or if all other means of improving the turn in have failed in which case some extra toe out may be an acceptable compromise. Increasing either caster angle or scrub radius will increase the inside rear wheel lift at corner turn-in, which is really what you are after if the kart is turning in badly. Increased caster may require using more positive camber to keep the tread flat on the track during cornering. Too little weight over the front wheels and too much over the rear wheels could also be the problem. If you suspect this, try moving the seat forward. Trying to tune a chassis with bad weight distribution is often impossible. Incorrect driving style can easily cause poor turn-in as well. When turning into a corner, many racers in an effort to be smooth turn the steering wheel too gently. This causes an indecisive lifting of the inside rear wheel, when what you want is for the wheel to lift AT the point of turn-in. Poor turn-in tends to get worse during the course of a race. When the tyres are sliding they are subject to more friction which increases the amount of heat build up in the tread. This sets up a downward spiral of grip loss and exaggerated tyre wear. One of the keys to a good handling chassis, is balanced grip front to rear. This balance can be greatly enhanced if the tyre footprints can be kept as large and consistent as possible, for as much of the corner as possible. Many racers will try to balance the handling by reducing the grip at the end of the kart they perceive has too much. A better approach is to increase the grip at the end of the kart that has less grip. Grip is only too great if the chassis cannot use it, usually manifested by chassis hop. Always go for the more grip option if possible. Good turn-in is usually not that difficult to tune into the chassis, if you know what to adjust. Be careful not to go too far though, as too much turn-in can make the kart twitchy and difficult to drive smoothly. Too much scrub radius and caster makes the kart overly sensitive to steering input, and can result in a chassis that needs constant steering corrections. Remember that every time the steering wheel is turned it causes substantial diagonal weight transfer between the front and rear wheels. Lap times may well be better at the end of a test day, but this is often due to the driver improving with practice. This can be especially true if the number of practice days are limited. This is usually the result of the driver being able to find just that bit extra on race day! Front-end settings have a huge effect on the overall handling of the kart. If your kart turns-in to a corner the way it should, then the rest of the corner will be easier and faster to negotiate as you are not having to catch up with the effects of poor turn-in. In addition, the rest of the chassis is likely to be easier and less confusing to tune if the front end is functioning properly. Finally, many handling problems that may at first seem similar can easily stem from different causes. Any adjustment you make to your kart is only correct if it lowers your lap times, assuming that the basic alignment is at least close to accurate. C Copyright Resonate Brendel Racing. Do not duplicate or redistribute. He spends hours and hours and many dollars preparing the engine so that it will deliver the maximum amount of horsepower. By the time he bolts it onto his nice shiny chassis, every detail of that engine is perfect. But what about the nice shiny chassis? Sure it has been washed and polished and at the track the wheels and tyres will be pumped up and moved in and out to suit the track. But is it perfect like the engine. It is all too often that the karter who wants to improve the handling of his kart will go out and purchase the latest in wheels, tyres and other optional equipment and then after paying out a handsome sum of money, find that the thing in fact handles worse. The fact is that the first stage in achieving a good handling kart that will deliver the greatest percentage of power available to the ground is to go right back to basics. It is this area with which we will now attempt to deal with. What is written in this article will, with these basic requirements to good handling, apply equally to all karts regardless to make or class in which the kart is to be run. The first dimension to check is the parallel between the front stub axles at dead a head steering and the rear axle. Both sides should be even. If this is out it is then necessary to stretch the side of the chassis that is shorter. It is usually necessary to jack the chassis a little further than the difference, as it will spring back. However, carry this operation out with care, otherwise you could possibly end up with the longest kart in the country. If it is not, then it will not matter how much care you take with the front end alignment, as the kart will always want to steer better in one direction and will wear tyres. It is important when equalising

## DOWNLOAD PDF GO KART SCALE SHEET FILLABLE FORM

the chassis length that both sides are equal for both dimensions A and B as shown in the sketch in the book. To ensure this, it may be necessary to heat the front axle and twist the top of the king pin with the greatest lean back to a more upright position to match the other side. Once the chassis is the same length on both sides, it is time to align the steering. Before proceeding to carry out this task, take your front wheels to a machine shop and have your rims machined so that the inner and outer diameters on both wheels are all exactly the same size. Once this has been done it is possible to use a straight edge to check the front wheel alignment. The first thing to do when aligning the steering, is to centralise the steering. This is necessary so as to have the kart steering evenly in both directions, and tracking well in a straight line. The steering shaft in most modern karts is offset to the brake side of the kart.

### Chapter 2 : AF Form 10A - PDF documents

*Setup Sheets. Click to download and print or fill in form and save.*

### Chapter 3 : General Arts & Entertainment Mobile Apps and Forms - iPhone, iPad, Android, Windows Mobil

*Go- Kart racing is a smaller version of a car racing sport. Go-Karts are open wheel cars, generally used for racing sport on scaled down circuits or in amusements parks. Go-Karts are open wheel cars, generally used for racing sport on scaled down circuits or in amusements parks.*

### Chapter 4 : Request Our Catalog

*Ultramax Go-Kart Racing Chassis: Setup Sheets for BadMax, Inferno, Element, Blaze, and Octane Series.*

### Chapter 5 : CAB Racing - Kart Setup Programs and Software

*The legendary Lotus F1 car is now available in a 2/3 scale go kart from Autosport Designs. You can custom design it in any livery such as Gulf Racing or Martini Racing.*

### Chapter 6 : American Made Vinyl Sheets for Racers, Racing Graphics, Race Car Numbers

*We will send a FREE Mittler Bros. Catalog to your door! form. Click here to view or download a PDF of our catalog.*

### Chapter 7 : Power Hammer Tools for Machine Shops & Automotive Repair Shops

*MI's HIGHWAY KART You don't need a trailer or a station wagon to haul this kart to a track-you can drive it there on public roads! By R. J. Capotosto RIVING a kart is a real thrill.*

### Chapter 8 : American Made Vinyl Sheets for Racers, Racing Graphics, Race Car Numbers

*Kart Scaling & Weight Distribution Scaling the kart is perhaps the most important thing a driver or team can do to ensure proper handling of their machine. When the kart is scaled properly, the ideal weight distribution is achieved.*

### Chapter 9 : Go Kart Racing Set Up Sheets, Kart Set Up, | Go Fast Kart Parts

*Tech Sheets â€¢ These are printable .pdf) setup sheets â€¢ We thank Randy Major for a great portion of this information. Chassis Set-Up Sheet 1. Chassis Set-Up Sheet 2. Chassis Set-Up Sheet 3.*