

ONCHAN RACEWAY

Ninja Kart Specification 2026

1. Definition:

2. To provide children aged from 6 to 11 years of age. **A driver who turns 11 during the racing season can finish the season.** This is an entry into short circuit motor racing.
3. It is primarily a MSA go kart chassis-based formula, but purpose-built Ninja Kart chassis are allowed, Providing the chassis is constructed in accordance with MSA yearbook.

4. Construction:

5. It is required that the chassis is constructed from magnetic steel tubing, cross section free. The method of Welding/brazing is free but for all main chassis joins welding/brazing is obligatory - i.e., no clamping, sliding twisting members or torsional adjustments of any kind including bolt-in torsion bars are allowed. The use of any type of hydraulic or similar damping device for any purpose is specifically prohibited. Purpose built Ninja Kart's must be constructed using 28 mm or 32mm O/D tube with min wall thickness of 2mm, with symmetrical pivot/steering pick up points steelwork/components with no KPI adjustments. It is not permitted to run any off-set front or back. Karts will be monitored before the meetings for symmetrical /off-set, if any damage occurs during the meeting the scrutineers will check whenever possible, and any faults found will have to be altered to the scrutineer's discretion before allowed to race.
6. The wheel lift when the car is placed on full lock will be allowed a maximum tolerance of 5mm difference between each side. This can be achieved by using different size washers each side top or bottom on the pivot/steering bolts.
7. The floor pan must be complete in the driver's compartment, made from alloy with min thickness 1.5 and max 2mm; a 50mm hole must be cut in the floor pan underneath the centre of the seat.
8. The Drivers lower body must be covered by the body panels (no open sides). The Left side v opening which is allowed for entry must be a minimum of 14" from the bottom of the chassis to the top of the Opening and must be covered the bar across must be 25mm o/d tube. All Body panels must be made of alloy with a min thickness of 1mm
9. The driver's seat must be a full containment type and must be positioned centrally in the car with strict attention being paid to its correct fitment, as set out by the manufacturer. No part of the driver's seat must be below the bottom of the chassis
10. Axle carriers must be symmetrical both sides no off set and must not be adjustable, Axles must be 30mm hollow or solid type, The maximum overall track of the rear axle must be no greater than 1320mm (52") measured from outside of tyre to outside of tyre. The rear axle alignment will be measured from the inner edge of the rear wheel rim to the edge of the chassis rail which must be equal on each side. Front Stub axles must be a Minimum of 10mm back from the outside of the wheel rim not the tyre, Hollow stub axles are not allowed, scrutineers are advised to reject any car that has them fitted.
11. Front bumper must be flat vertical surface type and cover front wheels to stop wheel contact. The rear wheels must be protected from rear impact by a single hoop attached to the main chassis rail and roll cage and must cover the rear wheels.
12. The driver's feet (when pedals are depressed) MUST be a minimum of 12" (300mm) back from the front of the bumper.
13. The Engine must be positioned centrally in the car behind the drive axle plus or minus 50mm, the fuel cap on the engine unit will be deemed as the centre of the engine. The engine Clamping tubes must be no higher than 64mm above the main frame, measured from the underside of the Main frame to the top side of the clamping tube, you must use the standard Honda GX160 type mounting clamps and frame.
14. The roll cage. must be constructed in such a manner that the driver is protected from side and head impact, minimum size tubing in the roll cage is 25mm/o/d x 3.0mm and must consist of four posts two

hoops joined together with 5 cross bars, with both the front braces running from the front upright bars of the roll cage down to the outer front part of the main chassis. The minimum height of the roll-cage must be 813mm (32") from the bottom of the chassis to the lowest point of the top of the roll cage, whilst maintaining a minimum of a 100mm (4") clearance between the top of the child's crash helmet and the top and/or any part of the roll-cage. The halo will no longer be factored into this measurement; the roll cage must be welded to the main chassis. The Cross bars joining the roll cage are to be 25mm o/d x 3.0mm and fitted: one just above the rear pod, one at rear of roof. One at front of roof, one at steering column height, one at front bumper height. "note" all welds must be complete, A diagonal safety bar 25mm o/d x 2.0mm must be fitted (offside) on side of roll cage Running from the steering support cross bar to terminate in front of the driver's Seat, the diagonal bar must be welded at both ends, as per roll cage rules. If the Roll cage has no left side V opening as per Rule No 8 which is for entry another diagonal Bar will have to be fitted the same as the right side.

15. You must use the go kart plastic side pods and front bumper, in addition a roof wing and rear engine pod must be used in the construction of your Ninja Kart. The only holes allowed in rear pod are for exhaust and pull cord, it's the scrutineer's discretion if the holes are a suitable size or to big their word is final.

16. The roof wing. must be of similar design to a Sprint Car, and must be fitted directly above the driver's head, it must be hinged at the rear of the roof with a quick release closure mechanism fitted at the front, it must also have a secondary fixing for safety, it must measure a minimum 28" x 35 max "body, with side plates of 8.5" x 32 maximum and 16" x 32" maximum. The side plates of the wing MUST not be below the roll cage at any point. The scrutineer will pass a rod through the roll cage, from front to rear and this must not touch any part of the wing. Full access to the roll cage tubing must be achieved. The rear of the wing/side plate must be level with the centre of the rear axle. Rear wing fixing brackets and hinges must be symmetrical.

17. Minimum weight of ready to race Ninja Kart must be 105 kg (without driver). kart must make the 105 kg weight without refuelling after a race. (Regular weight checks will be carried out). Ballasting of any type is not permitted. Achieving the weight rule is the parent's responsibility.

18. Do not attempt the above construction if you have concerns as to your welding and construction ability, your child's safety will depend on your skills. Due to the scrutineer not being able to determine if a chassis has been repaired using a slip tube Technique or a deliberate attempt to provide the chassis with flex, such type of repairs is not Allowed, should the chassis be damaged to the extent it needs that type of repair then the chassis has come to the end of its use and needs replacing

19. Safety Equipment.

20. You must use a 5-point Ninja Kart type safety harness. Close attention to the manufactures Fitting and maintenance instructions must be always observed. The seat belts must be connected to bolts /eyelets and the straps must not be wrapped round the main chassis rails.

21. Neck Brace, round type only allowed, no u-shaped brace is allowed, Fire retardant gloves, overalls and a balaclava must be worn, a head/ neck restraint System is highly recommended.

22. A high back full containment type seat must be fitted. The top headrest of the seat must be fully supported by a steel loop or bars to prevent any rearward collapse of the upper part of the seat– this may be adjustable using the minimum of 8mm bolts but must always be secure.

23. A Window net must be fitted to the right-hand (fence) side.

24. A Chain Guard must be fitted.

25. The use of quick release steering wheel hub is recommended.

26. A cut out switch must be fitted and clearly marked ON/OFF and be within easy reach by the driver

27. Helmets, Goggles, Visors

A helmet conforming to at least one of the permitted standards detailed below MUST be worn. Helmets MUST meet or exceed the MINIMUM standard as directed by the ORCi (previously undertaken by BORSE).

The current permitted helmet standards for all drivers are:

FIA8860-2010
FIA8859-2015
FIA8860-2018
FIA8860-2018 ABP
Snell SA2010
Snell SAH2010
Snell SA2015
SnellEA2016
Snell SA2020
SFI Foundation 31.1A
SFI Foundation 31.2A
SFI Foundation 31.1
ECE R22.05

The following helmet standards are permitted for Junior drivers only in addition to those above:

Snell CMR 2007
Snell CMS 2007
Snell CMR 2016
Snell CMS 2016
SFI 24.1

The helmet **MUST** fit the driver correctly, referencing the manufacturer's sizing/fitting guidelines.

Goggles/Visors

Shatterproof goggles or a shatterproof visor **MUST** be always worn with the helmet.

28. Drivers must wear flame retardant racing overalls; these must be maintained in a clean and tidy condition and be clearly marked fireproof. N.B. If wet weather clothing is used this must be worn **IN ADDITION TO AND NOT INSTEAD OF** the regulation overall type clothing as described above.

29. A screen mesh with a max 2" square must be fitted; this may be cable tied in.

30. Mirrors are not allowed to be fitted

31. Tyres

To keep costs under control you will be allowed a maximum of 2 full sets of duro tyres for the season. Bar codes will be entered on your logbook. If damage is done to a tyre during a meeting, you must declare this with the scrutineer at the meeting that the damage was done and only then will you be allowed to replace the damaged tyre with a new one. Anybody caught damaging tyres on purpose will be excluded from 3 championship meetings.

Amount off wets is free but can only be run if it's declared a wet meeting

32. Only the Duro Highline HF-242 BI and B2 slick- tyre can be used, these must remain as manufactured and may not be altered in any form, tyre softener, substances or additives are **NOT** permitted. When the race is declared a "wet race" by officials, then and only may wet tyres be used. The only wet Tyres permitted are the MojoW2 rain tyre set with yellow green or White barcode UK spec. Due to the Mojo W2 full wet tyre set being discontinued Mojo have replaced it with the Heidenau WH-1 full wet tyre set (White barcode). There will be a run out period on the Mojo W2 wets until the end of the 2026 Season.

If any issues are raised on the wet tyres during the run-out period, an investigation will be held. The promoters will have the right to withdraw the run-out period with immediate effect if deemed necessary.

Championship Meetings:

If declared a wet meeting by the Racing Steward at any Championship meeting with visiting drivers you must run the new Heindau WH-1 wets only.

Details you require to order tyres are as follows:

Name – KKC Address – Whilton Mill Kart Shop, Whilton Mill Kart Circuit, Whilton Locks, Daventry, Northamptonshire, NN11 2NH

Due to the tyres changing pressure and size during racing when the tyre circumference is measured after racing the maximum tolerance allowed between the rear left tyre and rear right tyre is 10mm.

You may clean the tyres, but you must NOT raise the kart off the ground and use the engine to drive the wheels in the pits at race meetings to clean the tyres as this has a potential to cause harm.

Rear wheels must be a minimum of 175mm deep, with both wheels being the same depth.

Front wheels must be a minimum of 120mm with both wheels being the same depth.

Measurement of the width of rims is taken from bead to bead.

No stagger is permitted under any circumstances, the o/d of the left and right must be the same.

33. Points and GRADING

Points will be scored 10 points for a win, down to 1-point for 10th place.

If a driver of a white grade, yellow, grade or blue grade driver wins a race they start at the back of their grade for the rest of the meeting. If a white, yellow or blue grade driver wins 2 races at a meeting, then at another meeting before grading they automatically go up a grade, if a white, yellow or blue grade driver wins all 3 races at a meeting they automatically move up a grade.

Grading will take place after every fourth meeting.

Normal championship starting grid positions will be in graded order and reverse point scoring order. ie Lowest points scorer before the start of the meeting in each grade starts all the races at that meeting from inside front row etc. ie. Grades within grades.

Drivers who regularly share the same car, will have their points totals added together to determine their starting grid position for each meeting.

SILVER with 2 orange flashing lights denotes previous season's point's champion.

All drivers must display their current grade; this must be with a 50mm wide x500mm long stripe running along the front edge of their roof wing.

34. The highest grade achieved no matter what promotion you are registered with you must start at highest grade all over.

35. Brakes. A single brake is required on the rear axle

36. ENGINES. The only engine eligible for use is the Honda GX160 supplied in sealed form by RPM whose Contact details are RPM Racing Engines, Lancaster Park, Newborough road, Needwood, upon Trent, Burton-On –Trent, Burton uDE13 9PD. 01283575566. 07977430680

37. You may change the oil and must use the correct amount of oil, replace the STD as manufactured spark plug with the correct type and make NGK BPR6ES, replace the paper air filter/foam with a standard Honda paper air filter/foam. (Honda GX160 pattern filters/foam may be used). Any maintenance that requires removal of the seal, the engine must be returned to RPM so the seal can be removed for the maintenance to be carried out, upon completion of the works the engine will be resealed and fresh documents and seal details will be supplied to the record holder by RPM, it is your responsibility to ensure your scrutineer is aware of the changes, as in the event of an engine check, the scrutineer is advised to reject any engine that bears the incorrect seal number to that assigned to that engine or driver, it is a condition of your entry, you agree to allow the Promoter to swap your engine to that of another competitor for the duration of the meeting.

38. Max number of engines is two which the engine numbers and seal numbers must be logged in the driver's licence/logbook. Scrutineers are advised to note the seal number in the driver's logbook at all meetings when scrutineering.

39. After scrutineering at all meetings; before changing/removal of the engine you must notify the scrutineer who will take the seal numbers of the engine removed and the new engine fitted in case of any further checks are necessary.

40. Engine Claimer Rules, it is a condition of your entry you agree to sell your engine to a fellow competitor upon a request being made to the scrutineer, the driver will then pay in cash to the scrutineer the full replacement cost of the engine from RPM. To include VAT and admin fee of £10 to cover the cost of arranging the transaction. (The transaction can be arranged any time during the meeting and removal of the engine can only be done after the last race of the meeting)

41. Axle and Drive Sprocket. Only a 70 tooth 219 pitch rear sprocket and 20 tooth 219 pitch clutch sprockets may be used using a 219 pitch Chain.

42. Clutch. Two clutches are allowed to be used: NoramBE, & Maxtorque SS. both 6 shoe with stainless steel Plain Spring. This comes into effect on January 1st, 2018, Clutch must Tick 1900- 2000 and engage at 2200 -2400 rpm when checked by the scrutineers.
Clutch must remain standard as manufactured.

43. Fuel. No additives of any kind may be used; petrol purchased at the roadside pump may only be used. The freezing of fuel is not allowed, random checks will be done at race meetings.
You may not alter the fuel tank in any way.
You must only use the large Honda type chrome fuel cap which is supplied with the engine with two breather holes, the breather holes must not be drilled out or enlarged.
You must use the approved Ninja kart petrol tank cover, which is available only from Miller Motorsport and Speedworth Fabrications, no other type is permitted

44. The main jet and Emulsion tube fitted in the engine by RPM. Emulsion tube: PN 16166-Z4M-922
Main jet: 0.695

45. The measurement for the fitting of the transponder is: Min of 28" from the centre of the front stub bolt (top) to the centre of the transponder bracket. The transponder can be fitted on the inside or outside of the Kart. The use of race receivers and transponders are compulsory.

46 IE. Unless these rules state you can do it, you CANNOT DO IT.

47. As from 1ST January 2022 all new built Ninja Karts will have to be inspected and passed by the Scrutineers to confirm they comply to the current 2022 Ninja Kart
Please Note:

It is always the parent's responsibility that their Childs Ninja Kart conforms to the current 2026 specs/rules.

48. Contacts: 07624 259012- Kevin - onchanraceway@outlook.com

