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2024

THE NINJA MIDGET CLASS (N4M) - 4 STROKE ENGINE – ONE CLASS

Introduction:

Competitor age restriction: Only competitors from the age of 5 years till the end of year in which he / she turns 14 for Girls and 13 for boy's years are permitted to enter this class.

4 STROKE ENGINE BRAND – HOFFMAN 6.5HP

Engines can only be bought from the Race Shop @ Mahem Raceway and must be double sealed (engine builder- Roelf Coetzee and the race shop)

Each engine must have a number and will come with a dyno sheet, if engines are transferred/sold change of owners must be filled at The Race Shop

Minimum Weight 125kg irrespective of age.

Only modifications specifically stated shall be allowed, what is not written is not permissible

PHOTOS ATTACHED AS THE SPEC FOR THIS CLASS

N4M 1. 4 STROKE ENGINE – MANDATORY REQUIREMENTS

- 1.1** Each engine including the carburettor must be sealed by Roelf Coetzee and The Race Shop with two seals;
- 1.2** Failure to comply to the above regulation will result in the competitor being refused entry and/or excluded from the event.
- 1.3** Random engine checks – following/during an event, the engine may be impounded, sealed, and checked by a Womza TC.
- 1.4** WOMZA reserves the right to impound your engine and give you a new engine to race, prior or during the event

N4M 2. ELIGIBILITY OF VEHICLE

- 2.1** Length and width references of the chassis; Refer to diagram
- 2.1.1** Only genuine manufactured kart chassis are permitted;
- 2.1.2** NO modifications to the chassis will be allowed, only to accommodate fitment of the 4-stroke engine.
- 2.1.3** All components must be the same make and type as original equipment as per the Karting Commissions accredited Dealer/s except for hubs; axles; wheels; sprockets and carriers (provided these are aluminium) as well as seats; bearings (provided these are the same type); steering wheels and bumper;
- 2.2** The axle shaft must not exceed 32mm in diameter, and be manufactured from a magnetic material not exceeding 1m in length;
- 2.3** The rear axle bearing carriers may be slotted for the purpose of aligning the axle;
- 2.4** The fitting of non-standard additional seat stays support is Permitted;

N4M 3. SAFETY AND GENERAL

- 3.1** Seat Belts must be a minimum of 4 points and mounted individually on the Chassis no loose end close to the chassis; Seat belts not to be mounted on the seat. Seat Belts must be mounted in a way with an offset to the chassis to prohibit the belts meeting the surface while racing.



3.2 *All Competitors must be equipped with:*

3.2.1 Neck Braces (Donut type and other)

3.2.2 Karting Overhauls/ Race Suites, **Not Permitted** – Kart suites are flammable, with Oval Karts, the competitors are strapped in;

3.2.3 Racing Shoes or closed sneakers,

3.2.4 Shoelaces to be secured in shoe or taped down.

3.2.5 Only full-face helmets are permitted. All helmets will be in a good condition, the only helmet that will be approved has to bear the SABS, Snell, ECE, TUV, DOT and of a higher standard and a type that is suitable for highway usage;

3.2.6 No pushing up of sleeves whilst racing

3.2.7 Fire Retardant racing Gloves are Compulsory. Open Finger type not Permitted

N4M 4. NUMBERS

4.1 Must be on the outside of both wing endplates and must measure 300mm in height using a bold number in black on a white background (or a white number on a black background) with no shading or 3D effect.

4.2 Number dimensions, designs and sizes on the bib, tail cone and side plates are free.

N4M 5. ROLL CAGE AND BODY KIT:

5.1 The roll cage must be made out of a minimum of 19 x 2mm tubular mild steel with corner gussets.

5.2 Body kit consist out of the following:

5.2.1 1 x PVC original karting nose cone – please note that the “long track” nose cone is permitted. Nose cone must remain as per manufacturers spec. A skid plate manufactured from plastic with a rounded leading edge may be fitted below this nose cone and may not protrude forward more than 50mm when measured from the nose cone at any point.

5.2.2 1 x rear tail cone as per sprint car design (large old type and new small type up to 2024). This cone may only be modified to accommodate the exhaust exit and mounting points and may have no additional open holes. Grid type structures to fill the holes are not permitted.
2 x side bumper / side pods may be fibre glass.

5.2.3 1 x front bib as per SDB design. This bib may be cut to accommodate the steering wheel allowing sufficient clearance for the competitors hands. No other open holes are permitted. Grid type structures to fill the holes are not permitted – see example on last page

5.2.4 Cockpit side panels are permitted and may be manufactured from Aluminium, Fibre glass and ABS Plastic only. These panels must be fixed to the roll cage by means of T30 cable ties or quick remove clips provided the clip base is attached to the roll cage using purpose applied tags and not by drilling into and thereby weakening the roll cage. These cockpit sides must allow for peripheral vision level to the rear point of the helmet visor of the competitor seated in the cockpit in normal race conditions.

5.2.5 Window Nets to be fitted, to both open sides of the cockpit. Net to be secured using T30 cable ties that can be ripped off in case of an accident.

5.2.6 Clearance of at least 75 mm between the top of the child’s helmet and the top of the roll cage (not the wing) in the normal sitting position is required.

5.2.7 Competitors will be excluded immediately should any body part/engine part become partially detached or fall off completely without a discussion to determine the merits of such.

N4M 6. WINGS:

- 6.1 Wings are compulsory and are not adjustable.
- 6.2.1 Maximum wing sizes are 650mm width x 620mm length.
- 6.2.2 Minimum wing sizes are 550mm width x 520mm length.
- 6.2.3 Maximum wing endplate sizes are 470mm height x 650mm length.
- 6.2.3 Minimum wing endplate sizes are 320mm height x 550mm length;
- 6.4 Wing and endplate designs within these parameters are free.
- 6.5 Staggered height endplates are permitted.

N4M 7. BRAKES:

- 7.1 Only original kart back brakes permitted;
- 7.2 Original kart hydraulic or mechanical brake systems are permitted.
- 7.3 Must be effective and operated by foot pedal mechanically on both wheels simultaneously.

N4M 8. STEERING:

- 8.1 Must be controlled by a steering wheel, which must have a completely closed circular shape;
- 8.2 All parts of the steering must have a method of attachments offering maximum safety (split pins; self-locking nuts or bolts);

N4M 9. ENGINE AND TRANSMISSIONS:

9.1



- 9.1.1 Only a Hofman 6.5 HP engine permitted.
- 9.1.2 Maximum HP 9.8HP
- 9.1.3 Maximum torque 22NM
- 9.1.4 All replacement parts to be supplied by Hofman, The Race Shop or Roelf Coetzee
- 9.2 *Engine modifications*
 - 9.2.1 No material may be removed from any part of the motor unless specified.
 - 9.2.2 Only Roelf Coetzee may remove the Limiter / Govender
 - 9.2.3 It is recommended to remove the Limiter as it introduces additional oil in the casing.
- 9.3 The Flywheel key may not be modified.
- 9.3.1 The Flywheel timing may not be advanced, to remain standard.
- 9.4 Oil Plug and dip stick must be strapped.
- 9.5 Only Valves clearances may be adjusted.
- 9.6 The balancing of the crank is not permitted
- 9.7 Valve springs to remain standard
- 9.8 Only original NGK BP6ES spark plugs are permitted.
- 9.9 The washer may not be removed from the spark plug.
- 9.10 **CARBURETTOR**
 - 9.10.1 Only Hofman carburettor as supplied with the 196cc motor may be used.
 - 9.10.2 No modifications whatsoever to the carburettor will be allowed.
 - 9.10.3 Main jets of 74 or 76 may be used.
 - 9.10.4 Only the standard idling jet of 35 may be used.
 - 9.10.5 The removal of choke is not permitted.



9.11 EXHAUST

9.11.1 Only standard original manufactured exhaust systems may be used.

9.12 AIRFILTER AND AIRBOX

9.12.1 Only original air filter, and assembly may be used as per standard engine.

9.13 CLUTCH

9.13.1 Only an approved Centrifugal clutch supplied by The Race Shop may be used.

9.14 GEARING

9.14.1 Only 218 pitch chains with a size 21 front sprocket

9.14.2 Only size 71 rear sprockets will be allowed.

N4M 10. SEAT:

10.1 The seat must be rigidly located on the chassis, it must be so designed as that the driver is securely located to resist movement when cornering or braking;

10.2 Seat must be to be modified to support drivers Head;

10.3 No low back rest Kart style seats permitted;

N4M 11. CHAIN GUARD:

11.1 A chain guard is compulsory and must efficiently cover the engine sprocket and axle sprocket down a line at least level with the centre of both front and rear sprocket. Can be purchased from The Race Shop or made from steel min 1.6mm for the top part that covers the chain.

N4M 12. PEDALS:

12.1 The pedals may not protrude forward of the front bumper;

N4M 13. Fuel and Oil:

13.1 The only pump fuel up to 95 octane is permissible;

13.2 No octane boosters allowed;

13.3 Engine oil open, recommended CIM, Shell 5W/40

N4M 14 TYRES:

14.1 Make – open;

14.2 Rims: Kart rims, no plastic rims allowed;

14.2.1 Only front 115mm **SOME HAVE BIREL 130MM FRONT RIMS??** and rear 130 to 140mm standard aluminium or magnesium rims are permissible

14.3 Tyre Size:

14.3.1 Front – 10 x 4.00, 4.50 or 5.00

14.3.2 Rear – 11 x 5.00

14.4 Ninja weather tyres are permitted if racing in rain or wet track;

14.4.1 This may only happen when the Clerk of the Course declares a wet race;

14.4.2 A 15-minute time frame for this procedure will be given;

14.5 Officials will not be subject to pressure to cancel rain races;

14.6 Races will continue with Competitors who comply with wet tyres provided the circuit does not have puddles of standing water that could cause aquaplaning;

N4M 15 TITANIUM:

15.1 The use of titanium for any parts of a kart is forbidden;

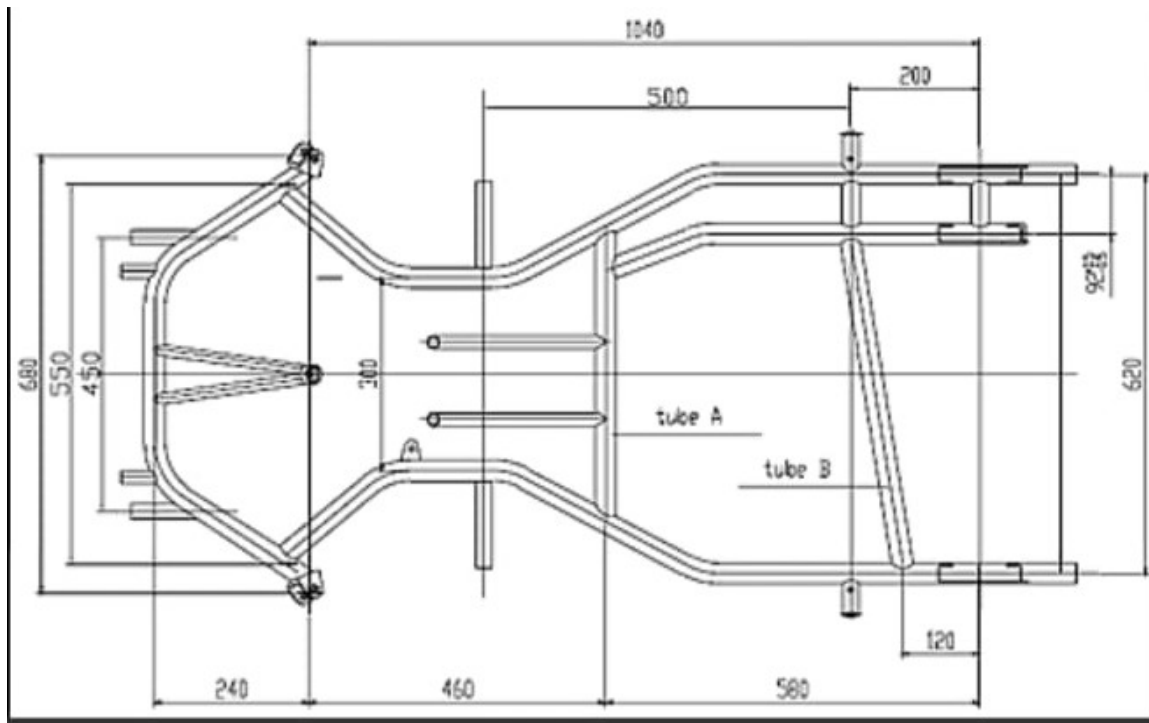
N4M 16 ADDITIONAL RULES:

16.1 No persons will be permitted in the infield at all events

16.2 Any modifications not mentioned is not allowed

16.3 All female drivers must tie up their hair

MAXIMUM CHASSIS SIZES



BIBS

