



TECHNICAL REGULATIONS

HONDA CUP | N1 RACE SERIES



2021-22 SEASON

TECHNICAL REGULATIONS 2021-22 Summer Series

Note, N1 technical regulations are a stand-alone article with no reference to the Honda Cup Race Series regulations.

1. General Information

- 1.1 This Schedule shall be read in its entirety and shall take precedence over Appendix 2 Schedule A of the 'National sporting Code' excepting where an item is not specifically covered within Schedule Honda Cup, in which case Appendix 2 Schedule A will apply.
- 1.2 Only vehicles approved by the Honda Cup Register as being compliant to the technical regulations as detailed hereinafter are eligible to compete in the series.
- 1.3 All technical eligibility and/or safety equipment enquiries shall be submitted in writing to the Series Scrutineer/Technical officer. All enquiries should reference the article in question and clearly specify the subject matter. A written reply will be given to a written enquiry. On matters of technical eligibility and/or safety compliance, a verbal statement will have no validity. Where a competitor is found to knowingly or unknowingly fail to comply with the requirements of these regulations, they shall be omitted from collecting any points until the car meets the regulations contained herein.
- 1.4 It shall at all times remain the competitor's responsibility to prove eligibility of any components used.

2. Definitions

Definition of terms used within this Schedule shall be referenced from the National Sporting Code, Appendix Two Schedule A and as detailed below:

'Long block' means the engine cylinder head, including valve train and engine block assembly including crankshaft, conrods and pistons together as one component. Does not include and not limited to cams, sump or manifolds.

'Non-standard' means those components which are not 'standard' fitment.

'OE or OEM' means original equipment as manufactured by Honda Motor Co.

'Original' means the manufacturer specification, as supplied when new and without modification in accordance with the reference Honda motor co. parts manual.

'Race trim' means the condition in which the car competes, and shall include all fluids, ballast, driver and their safety apparel.

'Race weight' means the minimum weight of the competing car in Race trim, including driver. It may be measured at any time during the qualifying sessions and/or races, on the official scales of the meeting.

'Space-frame' means a tubular structure with a lightweight body where the stresses are absorbed by the tubular chassis and none by the body.

'Standard' means the component/s as originally optioned or fitted to the make, model and type of car by the original manufacturer at the time of the initial sale.

'Stock Unibody' means the vehicle manufacturer's assembly or structure to which all suspension sub frames and mechanical components attach.

'Undertray' means a device fitted under the vehicle that can play a role in the vehicle's aerodynamics.

3. Eligible vehicles

N1 eligible chassis are EF, EG, EK, EK9, DC2, DC2R or DB8.

EF, EG to be fitted with B16A engine.

EK May be fitted with either B16A or B16B engine.

DC2, DC2R and DB8 fitted with B18C or B18CR.

No other engine/chassis configurations permitted unless prior approval is obtained in writing from the series Technical officer.

The Honda Cup N1 Racing series specs are as follows:

N1 - 0 to 1600 CC B16A and B16B spec, 1601-1800CC B18C and B18CR spec.

4. Race weights - Controls and penalties

2018-2019 Honda Cup minimum race weights, including all fluids, driver and safety apparel at point in time during any official competition are as follows:

N1-1600cc B16A spec

15's: (205) = 1030kg Z214

N1-1600cc B16B spec

15s: (205) = 1060kg Z214

N1-1800cc B18C spec

15's: (205) = 1070kg Z214

N1-1800cc B18CR spec

15's: (205) = 1090kg Z214

- 4.1 Minimum race weights will be the weight as the car is being raced, including all fluids, driver and safety apparel and can be checked at any time before, during and immediately following competition by the Series Tech. Officer or their assistant on the series official scales of the day.
- 4.2 Minimum race weights are based on actual engine capacity and largest tyre size as declared on the official Honda Cup entry form. If a competitor's engine capacity and/or tyre size changes during the race season it is the sole responsibility of the competitor to advise the series technical officer at least seven days prior to the commencement of the round.
- 4.3 Minimum race weights shall be observed at all times during competition including qualifying and racing. Minimum race weight is the lowest weight of the driver and race car weighed prior or post race. Competitors who run their cars below the minimum weight will be penalised. Cars are weighed when required by the Tech officer and their assistants. Refusing to be weighed when requested will result in an immediate exclusion from the meeting and loss of any points awarded at that meeting. If a competitor cannot comply with the Honda Cup minimum race weight rules throughout the weekend they will be excluded from the results and may be excluded from racing that event.
- 4.4 Competitor weighing up to 5kgs below the minimum race weight will receive an official warning and be required to rectify the weight and will be rechecked at the Tech Officer's discretion. A subsequent breach at the same race meeting will result in the competitor being moved back five places on the grid for the next race competed in.
- 4.5 Competitor weighing over 5kgs and up to 10kgs below the minimum race weight will result in the competitor being moved back five places on the grid for the next race competed in. A subsequent breach at the same race meeting will result in the competitor being moved back 10 places on the grid for the next race competed in.
- 4.6 Competitor weighing over 10kgs or more below the minimum race weight will result in the competitor being moved back ten spots on the grid for the next race competed in. A subsequent breach at the same event will result in a pit lane start for the next race competed in or exclusion at the Tech Officer's discretion.

5. Safety requirements

The following safety equipment shall be fitted to the competing vehicle

- 5.1 A roll cage installed in full compliance with Schedule A requirements.
- 5.2 A safety harness and a fire extinguisher shall be installed, in full compliance with Schedule A.
- 5.3 All drivers must wear approved fire resistant protective clothing in full compliance with Schedule A at all times during competition.
- 5.4 Any driver wishing to race with the driver's side window down shall have an approved window net fitted and in place.
- 5.5 No tow hooks or other sharp objects shall protrude further forward or backwards more than the bumper.
- 5.6 Safety equipment as may be required by round organizer.
- 5.7 Onboard Cameras: It is highly recommended all competitors carry an onboard in car camera with a wide-angle lens that records to an SD card at a minimum resolution of 720P. Footage from the cameras may be used where there is an incident which is subsequently brought before the Clerk of the Course for investigation. The decision to review any such video footage is at the discretion of the Clerk of the Course, the Stewards of the Meeting or the Driving Standards Officer. It is the competitor's sole responsibility to ensure safe installation and effective operation of the camera equipment. At all times cameras must be fitted in accordance with Schedule A regulations and be approved by the Chief Scrutineer. Cameras must be mounted in a central to left position with the steering wheel and front windscreen in clear view.

6. Body shell, vehicle exterior and sub-frames.

- 6.1 Bodywork shall be standard except for front lower lip, side skirts and rear wing, which may be aftermarket parts from an approved nominated supplier as per Appendix #2. Front doors and boot lid shall remain OEM with steel outer skin but can be modified, composite doors are not permitted. Any aftermarket panel must be approved prior to fitting. Approval can be obtained from the Tech Officer. Approval must be made and will be given in writing.
- 6.2 N1 side profile must remain standard with the exception for front lip, side skirts and rear wing. Rear bumpers are to remain complete, no removing of lower half or "aero" holes permitted. Roof chopping and /or body channelling is not permitted.
- 6.3 Rear spoiler or wing must be an OEM component fitted in its original position or an aftermarket similar style component supplied by speed science and approved by the series
- 6.4 No front splitters or under trays permitted
- 6.5 Arch rolling is permitted but guards must be OEM in position, shape and size. Measurement is to be taken from a standard guard attached in the standard position. Bolt on or weld on flares are not permitted. Any rolling shall be blended to the original OEM shape.
- 6.6 Side skirt panels may be fitted but must remain compliant with MSNZ Schedule A regarding ground clearance and safety at all times.
- 6.7 All non-standard parts should be able to be easily removed from the front and rear of the vehicle, must have the same dimensions as standard and a similar visual appearance.
- 6.8 Engine must be in identical position to standard.
- 6.9 Ducting for the purpose of the flow of cooling air for brakes is permitted only provided that such ducting does not alter the profile of the vehicle. Ducting of air into, through and away from the radiator through non-standard opening/holes in the bumper or bonnet is not permitted.
- 6.10 Front and rear windscreens must be OEM. Front windscreen must remain as laminated safety glass. Side windows may be OEM or approved plastic. Plastic glazing fitted to both front doors must have a hole to grip through to allow for easy removal in case of an emergency.

7. Vehicle interior

- 7.1 A driver's seat shall be installed offset from the centre line of the vehicle.
- 7.2 N1 vehicles shall retain standard dash pad, alternative front inner door panels may be fitted but OEM door openers must be retained.
- 7.3 N1 vehicles must have provision for a passenger seat and seat belts to be fitted.
- 7.4 N1 vehicles to retain all factory body bracing. No metal to be removed from shell interior.

8. Chassis

- 8.1 N1 Racing series vehicles must use an approved stock uni-body chassis, which may not be modified other than a roll cage complying with Schedule A. This assembly/structure must consist of at least the following sheet steel pressings welded together in their standard position, door pillars, sills, front and rear inner guards, nose cone, front bulkhead, chassis rails and floor pan.
- 8.2 Inner steel Guards must remain standard.
- 8.3 Chassis rails and floor pan must remain standard in standard position. No modifications to floor pan permitted.
- 8.4 The firewall must remain standard in the standard position however filling of holes is permitted.
- 8.5 N1 floor pan and exhaust tunnel must remain completely unmodified.

9. Engine Specifications

9.1 Engine capacity maximum:

B16 series - 1615cc

B18 series – 1820cc

- 9.2 Type and manufacturer: Honda, B series engines.
- 9.3 Cylinder block must be OEM casting, Honda B16A 1, 2, 3, B16B B18C, B18CR.
- 9.4 Cylinder head must be OEM casting, Honda B16A 1,2, 3, B16B, B18C or B18CR standard.
- 9.5 Overbore allowance for class capacity calculations: B series Honda engines shall be allowed a maximum overbore allowance of 0.5 mm from the standard bore diameter when running a standard crankshaft with standard stroke for that engine. This rule is to allow B16A/B16B engines to remain in the 1600CC weight category and B18C engines to remain in the 1800CC weight category.
- 9.6 N1 B16A and B16B engines must use standard OEM crankshaft and pistons.
 - OEM B16A, B16B, B18C or B18CR head.
 - OEM B16A, B16B, B18C or B18CR valves and springs.
 - OEM B16A, B16B, B18C or B18CR camshafts.
- 9.7 N1 B18C engine must use standard OEM crankshaft and pistons.
 - OEM B16A, B16B, B18C or B18CR head.
 - OEM B16A, B16B, B18C or B18CR valves and springs.
 - OEM B16A, B16B, B18C or B18CR camshafts.
- 9.8 N1 B18CR engine must use standard OEM crankshaft and pistons.
 - OEM B18CR head.
 - OEM B18CR valves and springs.
 - OEM B18CR camshafts.
- 9.9 Cam gears are free.
- 9.10 N1 engines may use B16A1, B16A2, B16B, B18C or B18CR intake manifold.
- 9.11 N1- Port matching between intake and head is permitted a maximum of 15 mm each way into the manifold port and cylinder head.
- 9.12 Intake pipe to throttle body is free.
- 9.13 Only unmodified B16A2 (60mm), B16B/B18CR (62mm) throttle bodies may be used (no taper boring).
- 9.14 Head gasket is free.
- 9.15 All cars are to be naturally aspirated with no turbo charging, supercharging or other forms of forced induction allowed.
- 9.16 The engine placement shall remain as per standard location forward of the vehicle's wheelbase centre line. Engine mounts may be upgraded to hard rubber type mounts or commercially available billet housing with urethane bonded style bush, no solid mounting.
- 9.17 Lubrication system must remain OEM with only a modified breather and catch tank permitted.
- 9.18 Half or full width radiators are permitted mounted in the standard position and aftermarket radiators permitted.
- 9.19 N1 exhaust system is free but must remain in standard position including outlet.
- 9.20 N1 may only use OEM or Hondata ECU (to be supplied by competitor). OEM ECU's may be chipped. No other ECU's permitted.
- 9.21 All N1 engines must have the provision to be sealed by means of a numbered wire tag securing the rocker cover to the cylinder head as per corresponding picture in appendix 4 before any official event begins.
- 9.22 Tags may only be removed under the supervision or authorisation of a Honda Cup series official or their nominated counterpart, which must be gained in writing prior

their removal. Non authorised removal of sealing tags will result in forfeiture of any points accumulated during the period of which the applicable tag was fitted.

10. Fuel systems

- 10.1** The only fuel used at any round of the series is unleaded 95 or 98 octane (RON) petrol as commercially available from retail service station forecourt pumps throughout New Zealand and comply with the Fuel Specification Chart detailed in Schedule A Part 2 of the current MotorSport Manual. Blended fuels are not permitted.
- 10.2** All Competitors upon entering the Series agree to fuel samples being taken for compliance purposes.
- 10.3** N1 must retain and use standard under floor fuel tank. Upgraded under floor fuel delivery lines and pump may be fitted.

11. Transmissions

- 11.1** The transmission must comprise a working clutch and gearbox assembly, having a minimum of four forward and one reverse gear. The placement shall remain, as per standard manufacturer, forward of the vehicle's wheelbase centre line.
- 11.2** Transmission casing must remain standard, no coolers permitted.
- 11.3** Transmission ratios may be altered provided they fit inside standard housing without modifications to the housing.
- 11.4** Sequential shifting gearboxes are not permitted.
- 11.5** Any final drive ratio may be used provided it fits inside the stock differential housing without modifications to the housing.
- 11.6** Any commercially available LSD is permitted provide it fits in the standard housing.
- 11.7** Transmission oil coolers are not permitted.
- 11.8** Gear shift mechanism must be OEM. Upgraded bushes are permitted. Quick shift levers are permitted.

12. Electrical systems

- 12.1** N1 shall retain operational OEM head, tail and brake lights with OEM switches in their standard locations.
- 12.2** One high level rain light must be installed in compliance with Schedule A and used when directed by the Clerk of course.
- 12.3** Headlights or other forward facing lights can only be used at times of darkness or when lapping another vehicle. No flashing forward facing lights are permitted.
- 12.4** No rear facing flashing lights shall be used in dry conditions.
- 12.5** Wiring loom shall remain standard but wires may be removed and added to.
- 12.6** OEM headlights must remain and be operational.
- 12.7** Fuse box or boxes may be relocated.
- 12.8** Ignition system must remain standard. Ignition leads may be upgraded.
- 12.9** Pit to car radios are not permitted with the exception of during an endurance event if run as part of the normal points season.
- 12.10** All competitors must run a transponder (hired or owned). If no transponder is run or transponder failure occurs then that competitor will not be eligible for fastest lap points for that race/qualifying and be required to rectify the issue before the next race. The series officials have the right to assess a suitable lap time for a competitor that has not recorded a time for use when calculating the grid for race 3 (Handicap reverse grid).

13. Suspension

- 13.1** The overall wheelbase must remain standard. Front and rear track measured at the hub face must remain standard but spacers up to a maximum thickness of 10mm per side are permitted.
- 13.2** Only standard suspension pickup points must be used and these shall not be altered, modified or added too.
- 13.3** Standard suspension type must be used (i.e. torsion bar must remain torsion bar and coil over must remain coil over).
- 13.4** Front uprights and rear trailing arms must remain standard. Spindle height cannot be modified
- 13.5** Unmodified OEM front lower arms must be used. OEM style rubber or urethane bushes and ball joints must be used. Adjustable upper arms are permitted.
- 13.6** Rear suspension lower arms, camber arms and toe links may retain unmodified components or may be replaced with direct fit un-modified aftermarket components.
- 13.7** Aftermarket tension or compression struts (traction bars) are not permitted.
- 13.8** Shock absorbers may only be height and one way adjustable and must be mounted in the standard position
- 13.9** spring rates are free.
- 13.10** N1 sway bars may be an unaltered OEM part from a compatible model or aftermarket of OEM fitment using OEM pickup points and OEM style end links. Front swaybar to be a maximum of 27mm diameter and rear swaybar to be a maximum of 26mm diameter. Upgraded hard bushes are permitted.
- 13.11** Aftermarket rear subframe braces are permitted on non-Type R vehicles for the purpose of fitting aftermarket swaybars only. They must be commercially available bolt on braces attaching only to the rear or the rear subframe.

14. Brake systems

- 14.1** N1 must remain OEM including brake booster, master cylinder, callipers and brake discs with upgrades to larger Honda OEM parts permitted except for all brake pads. Front brake pads must be parts from an approved nominated supplier as per Appendix #3, rear brake pads are free. OE bias valve may be removed and one aftermarket rear pressure limiting valve may be fitted. Substitute brake discs may be used with the only non-Honda vehicle parts allowed being as per Appendix #3.
- 14.2** A maximum of one calliper per wheel.
- 14.3** No liquid cooling or fluid recirculation is permitted.
- 14.4** Master cylinder braces are permitted.
- 14.5** All cars must run one dual-circuit master cylinder.

15. Steering

- 15.1** N1 vehicles must retain OEM steering system but steering wheel and boss may be aftermarket provided compliance with Schedule A is maintained.
- 15.2** A standard OEM steering rack must be used but power steer racks can be converted to non-power steer and vice versa.

16. Wheels and tyres

- 16.1** N1 maximum wheel rim size shall be 15x7 with a minimum positive offset down to 35mm - one piece alloy rim.
- 16.2** Only approved Hankook 15-inch Z214 and 205/50R15 supplied by Value Tyres NZ may be used in any Honda Cup qualifying, race or display.
- 16.3** Wet tyres are free, but dimension must not exceed the registered dry race tyre sizing.
- 16.4** Tyre limits.
 - 16.4.1** A maximum of eight tyres can be used over a season. Tyres will be marked and recorded by the Technical Team before qualifying.
 - 16.4.2** Competitors will introduce four tyres at their first round of the season and then may introduce a maximum of two tyres per subsequent round until their full allocation of eight tyres is reached.
 - 16.4.3** If a competitor changes class mid-season they are not eligible for four new tyres and must continue in accordance to 16.5.2 for the season.
 - 16.4.4** Tyres from previous rounds of the same season that have been marked and that have legible markings may also be used in subsequent rounds. (If markings have rubbed off or are illegible this must be brought to the attention of the tech officer for remedying).
 - 16.4.5** Used tyres can be introduced instead of new tyres e.g. tyres from last season may be marked at a round if a competitor does not wish to introduce new unused tyres.
 - 16.4.6** It is the driver's responsibility to ensure all tyres are marked and legible for the duration of competition.
 - 16.4.7** If a competitor has a tyre flat spot, puncture or the tyre is damaged, it can be replaced after consulting with the Tech Officer. If the Tech officer considers the replacement tyre is likely to give a performance advantage, he will mark the replacement tyre and may give the competitor a grid position penalty.
 - 16.4.8** If a race or meeting is declared wet and cars have to run on wets, a driver can bank their allocation of slicks for the next meeting however they must be mounted on wheel rims and marked at the declared meeting.
 - 16.4.9** The use of an unmarked tyre without the approval of a series official during any potential points awarding competition will result in the competitor being moved back ten spaces on the grid or a 10 sec time penalty added to the handicap delayed start time for the next race competed in which may be carried over to the next event and be required to rectify before the next race. Any sub-sequent breaches at the same event will result in a further ten place grid penalty or a 10 sec time penalty added to the handicap delayed start time for the next race competed in which may be carried over to the next event if occurring in the last race of the event and may be omitted from collecting points at the discretion of the Series Co-ordinator or Tech officer as per article 1.3.
 - 16.4.10** Vehicles will only be allowed to run medium compound tyres on the front. Rear tyres can be soft or medium compounds.

Appendix #1

Hankook Honda Cup spec race tyre list:

1008926 - 205 50 15 Z214 Medium compound
1008927 - 205 50 15 Z214 Soft compound
1008877 - 190 580 15 Z207 Wet compound

Appendix #2

Nominated supplier:

N1 spec approved front bumper lips.
Supplier: Speed Science
www.speedscience.co.nz
adam@speedscience.co.nz
0508 773 337

Appendix #3

N1 spec approved front brake pad: HAWK DTC-60. SKU: hawkHB143G.680
For the avoidance of doubt, the Hawk DTC-60 front brake pad is the N1 spec pad - you must run it – this is mandatory.

Supplier: Speed Science
www.speedscience.co.nz
adam@speedscience.co.nz
0508 773 337

N1 nominated non-Honda vehicle approved brake discs part numbers
BMW Mini – DBA2526
MG/Rover – CAR142.1109
Or other manufacturers equivalent direct replacement of these two approved part numbers.

Appendix #4

N1 engine sealing location

Fig.1 B series

