



# 2021 I.C OFF-ROAD RULES

## CONTENTS

### IC GENERAL RULES

D1. RACE INTERRUPTIONS	2
D2. STARTING AND FINISHING PROCEDURES FOR HEATS	2
D3. QUALIFICATION ORDER FOR NZRCA NATIONALS	3
D4. STARTING AND FINISHING PROCEDURES FOR FINALS	4
D5. DELAYED START OF FINALS	6

### 1/8TH OFF- ROAD BUGGY

D6. DIMENSIONS	6
D7. CARS	7
D8. ENGINE	7
D9. FUEL	7
D10. MUFFLER	7
D11. BODY	7
D12. TYRES	8

### 1/8TH OFF- ROAD TRUGGY

D13. DIMENSIONS	8
D14. CARS	9
D15. ENGINE	9
D16. FUEL	9
D17. MUFFLER	9
D18. BODY	9
D19. TYRES	10

# IC OFFROAD GENERAL RULES

## D1 RACE INTERRUPTIONS

- D1.1 Any decisions on race interruptions due to rain are to be made by the Race Director.
- D1.2 In the case of an interruption of a heat the entire heat will be re-run.
- D1.3 In case of an interruption of sub-final or a final the following procedure will be used;
- a. If less than 25% of a final has been run, the results will be cancelled and a new start given for the total time of the final. Vehicles may be repaired before the new start.
  - b. If more than 25% of the final has been run, the results at the moment of the interruption will be kept. At the moment of the interruption of the final, the drivers will leave their vehicles on the start-line under the control of the Race Director. They may switch off the radio and stop the engine. There will be no repairs carried out to the vehicle or changing tyres (refuelling is not deemed to be a repair and therefore is allowed). Any driver who does not observe this rule will be immediately disqualified. The new start will be given for the time that remains to complete the final. The two results will be added to give the final and definitive placing. If the second start cannot be given for any reason, the results from the first part will be used as the final and definitive placing.
  - c. When the interruption takes place after 75% or more of the final is past the results as at the time of the interruption becomes the final result.
- D1.4 If a race meeting is stopped and cannot be resumed, overall placing will take into account, the finals that have been completed and the qualifying order for the uncompleted finals.

## D2 STARTING AND FINISHING PROCEDURES FOR HEATS

- D2.1 Starts of heats to be of a staggered start nature.
- D2.2 Order of starting sequence to be juggled to enable a fair selection of starting positions for each competitor.
- D2.3 Restarts during a race to be made from the pit lane only.
- D2.4 All cars are permitted to start by either;
- One by one, by the starter at an interval of approximately one second, or
  - By the “live loop” method where drivers decide themselves when to go
- If a car misses the starters signal, it may start at the start line as long as it starts before the first car away completes its first lap, (the late starting car or its pit man must not hinder the progress of other cars racing). If a start at the start line is not possible the car will start from the pit lane after the last car to start has gone past the pit area.
- D2.5 Heat timing/counting starts for each car separately the first time that car passes the start-line (pick-up coil). The computer indicates: lap 000, total time 0.00.00.0 and lap time 00.0. Actual start therefore has to be a few metres before the start-line (pick-up coil).
- D2.6 Failure to complete the last lap after the heat or final time is completed shall mean the result will be the number of laps and time at which the car

- completed the previous lap (e.g. in a 10 minute race the previous completed lap might have been at 9:43).
- D2.7 There must be a three-minute gap between the end of one heat and the start of the next heat. Also a minimum of two minutes must be allowed between issuing the transmitters and the start of the race. There will be an audible warning at two minutes prior to the start of a heat. Then a visual or audible form of warning at 30 seconds.
- D2.8 Under no circumstances will the race be stopped due to a jump-start.
- D2.9 The Starter may only interrupt the race and make a restart in the event that he/she considers the starting procedure or start was not carried out correctly.
- D2.10 When the heat time is over, an audible signal is given. A car finishes a heat when its individual split time is complete and it subsequently passes the finish line. When all cars in the heat are finished then the finish signal is given; the car must immediately return to the pits and may not hinder other cars still racing.
- D2.11 In case of doubt (on the finish line when time is over), a car may race one more lap and finish. Whether he/she finishes or did not finish when time was over, is up to the timekeepers and cannot be disputed.
- D2.12 After returning to the pits, the engine must be stopped immediately and the transmitter turned off and impounded with the car.

### **D3 QUALIFICATION ORDER FOR NZRCA NATIONALS**

- D3.1 In each round of qualifying, drivers will score points based on the laps and times achieved. The maximum number of points awarded to the best driver will be equal to the total number of participants at the event plus 5 (five). Fastest in each round will score: number of participants, plus 5 (five) points. Second fastest will score: points of fastest driver, minus 2 (two) points. Third fastest will score: points of fastest driver, minus 3 (three) points. Points for subsequent finishing positions differ from the position above by 1 (one) point.
- D3.2 In every round, in case of a tie, the points will be equally awarded to each driver, and the first driver not to tie will receive one point less per tie. For example, with 150 drivers racing, maximum number of points is 155.  
 1st driver will score 155 points  
 2nd driver will score 153 points  
 3rd driver will score 152 points  
 4th driver will score 151 points  
 5th driver TIE will score 150 points  
 6th driver TIE will score 150 points  
 7th driver TIE will score 150 points  
 8th driver will score 147 points
- In a case of two or more drivers having the same point score, the next best point score determines position. If still unable to resolve with the next best round, then the driver with the fastest laps and times in a qualifying attempt will determine position. If a driver does not start a heat, they receive no points. For the purposes of this rule, a driver is considered to have started a race once they cross the start line (loop) for the first time.
- D3.3 Qualifying results will be calculated on the number of rounds as follows:  
 Out of 6 (six) rounds, the best 4 (four) points will be taken to establish a driver's ranking.  
 Out of 5 (five) rounds, the best 3 (three) points will be taken to establish a

driver's ranking.

Out of 4 (four) rounds, the best 2 (two) points will be taken to establish a driver's ranking.

Out of 3 (three) rounds, the best 2 (two) points will be taken to establish a driver's ranking.

Out of 2 (two) rounds, the best 1 (one) points will be taken to establish a driver's ranking.

Out of 1 (one) round, the points of that round will be taken to establish a driver's ranking.

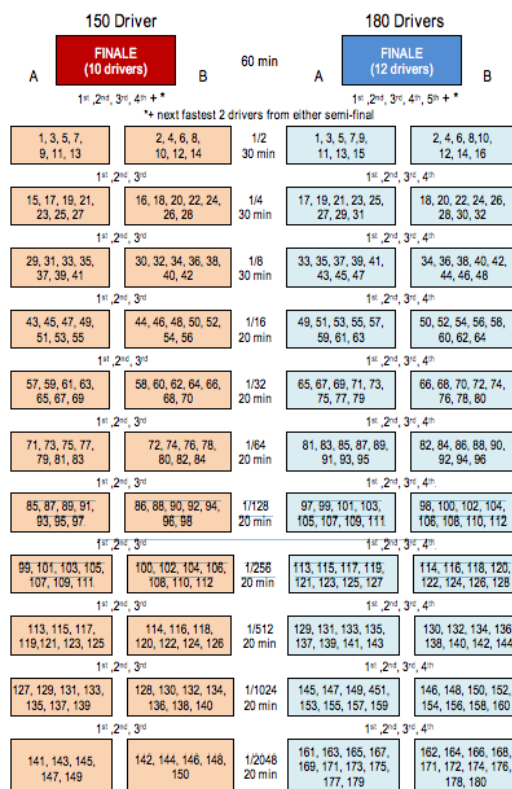
#### **D4 STARTING AND FINISHING PROCEDURES FOR FINALS**

- D4.1 Starting for Sub Finals and Final will be "Le Mans" type grid, with the faster Qualifier starting in front of the slower.
- D4.2 During sub finals and final, a trial lap is issued to avoid frequency problems and to check transponders.
- D4.3 Starting Procedure:
- a. Audible warnings will be given in English language at one (1) minute and at thirty (30) Seconds before the race start.
  - b. Anytime from thirty (30) seconds until three (3)seconds before the race start the cars may be placed on the ground
  - c. If a car is not at the start line at the ten (10) second mark, it will be considered as a late starter (see rule 4.4 below).
  - d. From ten (10) seconds until three (3) seconds, time is counted down either in English language or with audible beeps, second by second.
  - e. At three (3) seconds, cars must be released by the mechanics who must all step back behind the hold line. The cars must remain stationary. Starter boxes are allowed at the start line as long as the Race Director deems them safe, If a car is still in the hands of the mechanic at 3 seconds (e.g. on the starter box etc.) it must start from pit lane.
  - f. From 3 seconds, the counting stops and the start signal will be given by the starter between 0 and 5 seconds.
  - g. If the grid is not to the satisfaction of the starter, he may command a restart, beginning count down from 30 seconds.
  - h. The official starting signal will be audible by means of a horn operated by the starter. This signal will also start the timing systems.
- D4.4 Late Starters of Sub Finals or Finals. If a car is not at the start line by the time the ten (10) second warning sounds, the car must start from pit lane. The late starting car must not gain any advantage from starting out of pit lane, with this in mind it must not exit the pits until all remaining running cars (i.e. not stalled, broken or off the track) have passed the pit exit for their first time. If there is more than one car starting from pit lane at the same time then they must exit the pits in the order they qualified.
- D4.5 Early start (i.e. any car moving forward before the start horn sounding) will be penalised with a stop and go penalty. This penalty is issued by the Race Director or the time-keeping official and has to be announced immediately after the start. The penalty will be marked on the result sheet. Under no circumstances will the race be stopped due to an early start. Only the Race Director may interrupt the race and order a restart in the event.
- D4.6 Once the countdown has reached ten (10) sec mark, a car can not be carried across the track, either from the start line to the pits or from the pits to the

start line.

- D4.7 Pitman must wait till the race has started and cars are passed before crossing the track. The car will then start in accordance as Late Starter D4.4
- D4.8 When the final time is over, an audible signal is given. A car finishes a final when the set time is complete and it subsequently passes the finish line. The car must immediately return to the pits and may not hinder other cars still racing. When all cars in the final are finished, then the finish signal is given.
- D4.9 In case of doubt as to whether it is finished or not, a car may race one more lap and finish. Whether he/she finishes or did not finish when the race time was over, is up to the timekeepers and cannot be disputed.
- D4.10 After returning to the pits, the engine must be stopped immediately and the transmitter turned off and impounded with the car.
- D4.11 Finals are to be of 10, 12 or 15 drivers at the discretion of the Race Organiser or Race Director.
- D4.12 Every qualifying driver must progress to the main final in accordance with the Christmas Tree System.

3.5 CHRISTMAS TREE



- D4.13 Duration of finals at National events will be as follows:
  - a. The Main final will be a minimum of 45 minutes to a maximum of 60 minutes.
  - b. The Semi-Finals will be 30 minutes.
  - c. The Quarter Finals and lower will be a minimum of 20 minutes up to a maximum of 30 minutes.
- D4.14 At National events, race organisers will allow at least a 10 minute practice period for all semi-final direct qualifiers at a suitable time prior to the Finals commencement

- D4.15 For national events, EP & I.C Truggy mains are to be run on Saturday afternoon following qualifying. Ep and I.C Buggy mains are to be run on Sunday
- D4.15.1 In the event of weather delays on Saturday, Truggy mains can be delayed until Sunday based on competitor voting in favor my simple majority.
- D4.15.2 In the event of negative weather forecast for Sunday, Buggy mains can be run on Saturday based on competitor voting in favor by simple majority.

## D5 DELAYED START OF FINALS

- D5.1 DELAYED START - A ten (10) minute delay can be called only prior to the starter calling the cars to the starting line at the 30-second countdown announcement. Only participants of the semi-finals or final may request a delay. One only delay will be granted for each final. The track shall be closed to all cars and all engines will be shut off for the duration of the delay period. The driver requesting the delay for whatever reason, except an error in frequencies by Race Control, must start off the back of the grid as directed by race control. A 10-minute delay period can be reduced only if all drivers competing in the race are in full agreement. The race schedule start will resume from the two (2) minutes warm up countdown sequence.

## 1/8TH OFF- ROAD BUGGY

### D6 DIMENSIONS

- D6.1 The Dimensions for 1/8th Off-road Buggy class must be:

<b>Overall Dimensions &amp; Weight</b>	<b>Minimum</b>	<b>Maximum</b>
<i>Wheelbase</i>	270mm	330mm
<i>Overall Width (including body)</i>		310mm
<i>Overall Length (including body)</i>		730mm
<i>Overall Height (overall without aerial – measure with suspension fully compressed)</i>		250mm
<i>Weight (no fuel but with transponder)</i>	3200g	
<i>Wing Overall Width</i>		217mm
<i>Wing Length</i>		85mm

- D6.2 The car shall be measured for width by placing it on a flat base material equipped with two side rails of 150mm height. These shall be spaced 310mm apart and constructed in such a way that the car can roll freely between them. The base material must be constructed of high quality components suitably stiffened to prevent distortion. The car must roll freely between the side rails with any steerable wheels set in the straight ahead position irrespective of the compression, extension or roll angle of the suspension.
- D6.3 The car shall be measured for length and height in a similarly constructed box of internal dimension 730mm x 310mm, which includes provision for checking the maximum height.
- D6.4 The measurement of the wheelbase may be made by simple measure of axle centre distances with the suspension in any position. The Race Director should be prepared to make more exact checks in cases of doubt or protest. It is then suggested that the wheels are removed and the wheel spindles are firmly placed on V blocks whilst accurate measurements are made.

- D6.5 If a car is found to exceed the limits of dimensions on checking immediately after a race, positive proof of race damage may prevent disqualification.

## **D7 CARS**

- D7.1 All cars will be fitted with brakes and clutch in such a manner as that the car can be held stationary whilst the engine is running.
- D7.2 Any part of a car may be substituted during a race meeting except the chassis. The chassis may be changed with approval of the Race Director. The essence of this is that a car cannot be replaced or substituted once entered into a race meeting.

## **D8 ENGINE**

- D8.1 Internal combustion engines of not more than 3.5 cubic centimetres/0.214 cubic inches. No tolerance allowed.
- D8.2 If an RTR comes with an engine size not exceeding 0.28 cubic inches\4.67 cubic centimetres it will be allowed as long as the pull start/roto start/electric start is operational. If the engine is to be replaced it must be with the exact same engine, or a 0.21 cubic inches size engine.
- D8.3 Engine must be fitted with a throttle return mechanism that closes the carburettor should the throttle servo lose connection with the carburettor. The mechanism can be either a throttle return spring or elastic band device.

## **D9 FUEL**

- D9.1 Fuel tanks must be securely mounted.
- D9.2 Maximum fuel system capacities are 125cc.
- D9.3 Fuel will only contain methanol, oil/lubricant and nitro methane.
- D9.4 The following additives are formally prohibited for all on road and off road classes: Hydrazine, Hydrogen Peroxide, Toluene, Propylene Oxide

## **D10 MUFFLER**

- D10.1 Only IFMAR homologated silencers or silencers conforming to and no louder than currently homologated specifications are allowed and must conform to approved specifications during the entire championship.
- D10.2 Standards being a 2 or more chamber design pipe with an outlet pipe of a max 8mm Diameter with a tolerance of + 0.2mm. The length cannot be altered from standard and producing, no more than 85 DB b at 10 meter.
- D10.3 Rubber extensions are not allowed.
- D10.4 If for some reason the exhaust or manifold becomes dislodged during a race, and produces above the normal operating noise level, the car must be returned to the pits for repairs immediately.
- D10.5 If a Db meter is to be used, a qualified person must operate it and notification to entrants must be made prior to the event via the entry forms.

## **D11 BODY**

- D11.1 Cars shall be a reasonable representation of the style of car used for OffRoad, Desert or Trial racing.
- D11.2 Full body shells of saloon style are permitted but may only be trimmed to expose a maximum of 50% of the tyres at full suspension depression.

- D11.3 Where a roll-cage is fitted an open wheel style body shell must be fitted underneath the cage so designed as to enclose R/C equipment and fuel tank with sufficient front and side areas to allow clear display of racing numbers.
- D11.4 Openings may be cut in the shell to allow access to fuel filler, radio switch and engine adjustment. Clearance around such items shall be kept to a minimum.
- D11.5 Cooling openings are allowed in windows.
- D11.6 Bodies must be readily available and commercially produced (i.e. no one-offs).
- D11.7 The body entered for Concourse judging must be the body shell used for at least one race during the meeting.
- D11.8 The body must be made of a flexible material and be painted properly. When initially entered in a meeting the body must be neatly finished.
- D11.9 The aerial must be made of a flexible material not likely to inflict injury to anybody (i.e. no thick piano wire).

## D12 TYRES

- D12.1 Tyres must be black in appearance (except for writing on sidewalls) and treatment of the tyre with additives is prohibited. The selection of the type of tyre is "open".
- D12.2 No spikes, tubes or additional items intended to increase traction may be either glued to the outside of tyres or passed through tyres from the inside.
- D12.3 The use of traction additives on tyres is strictly prohibited. The penalty for breaching this rule is automatic disqualification from the meeting.

## 1/8TH OFF- ROAD TRUGGY

A Truggy is a 1/8th Scale 4WD Buggy based Truck

## D13 DIMENSIONS

- D13.1 The Dimensions for 1/8th Off-road Truggy class must be:

<b>Overall Dimensions &amp; Weight</b>	<b>Minimum</b>	<b>Maximum</b>
<i>Overall Width (including body)</i>	300mm	450mm
<i>Overall Length (including body)</i>	465mm	730mm
<i>Overall Height (overall without aerial – measure with suspension fully compressed)</i>		250mm
<i>Weight (no fuel but with and transponder)</i>	3900g	
<i>Wing Overall Width</i>		217mm
<i>Wing Cord</i>		85mm

- D13.2 The car shall be measured for width by placing it on a flat base material equipped with two side rails of 150mm in height. These shall be spaced 450mm apart. The car must roll freely between the side rails with any steer able wheels set in the straight -ahead position irrespective of the compression, extension or roll angle of the suspension.
- D13.3 The car shall be measured for length and height in a similarly constructed box of internal dimension 730mm x 450mm, which includes provision for checking the maximum height.
- D13.4 If a car is found to exceed the limits of dimensions on checking immediately after a race, positive proof of race damage may prevent disqualification.
- D13.5 Front and rear bumpers not to exceed 10mm past the body unless O.E.M



(Original Equipment Manufacturer/or factory).

#### **D14 CARS**

- D14.1 All cars will be fitted with brakes and clutch in such manner as that the car can be held stationary whilst the engine is running.
- D14.2 Two or three speed transmissions are NOT allowed.
- D14.3 Any part of a car may be substituted during a race meeting except the chassis. The chassis may be changed with approval of the Race Director. The essence of this is that a car cannot be replaced or substituted once entered into a race meeting.

#### **D15 ENGINES**

- D15.1 Internal combustion engines of not more than 4.67 cubic centimetres/0.28 cubic inches. No tolerance allowed.
- D15.2 Bump start engines accepted.
- D15.3 Engine must be fitted with a throttle return mechanism that closes the carburettor should the throttle servo lose connection with the carburettor. The mechanism can be either a throttle return spring or elastic band device.

#### **D16 FUEL**

- D16.1 Fuel tanks must be securely mounted.
- D16.2 Maximum fuel system capacities are 150cc.
- D16.3 Fuel will only contain methanol, oil/lubricant and nitro methane.
- D16.4 The following additives are formally prohibited for all on road and off road classes: Hydrazine, Hydrogen Peroxide, Toluene, Propylene Oxide

#### **D17 MUFFLER**

- D17.1 Only IFMAR homologated silencers or silencers conforming to and no louder than currently homologated specifications are allowed and must conform to approved specifications during the entire championship.
- D17.2 Standards being a 2 or more chamber design pipe with an outlet pipe of a max 8mm Diameter with a tolerance of + 0.2mm. The length cannot be altered from standard and producing, no more than 85 DB b at 10 meter.
- D17.3 Rubber extensions are not allowed.
- D17.4 If for some reason the exhaust or manifold becomes dislodged during a race, and produces above the normal operating noise level, the car must be returned to the pits for repairs immediately.
- D17.5 If a Db meter is to be used, a qualified person must operate it and notification to entrants must be made prior to the event via the entry forms.
- D17.6 Silencers that come with an RTR kit are allowed and are the only allowable exception to rules D17.1 to D17.3 inclusive.

#### **D18 BODY**

- D18.1 Must be a good representation of a Stadium/Arena style truck body.
- D18.2 No buggy or sedan bodies will be accepted.
- D18.3 Openings may be cut in the shell to allow access to fuel filler, radio switch and engine adjustment. Clearance around such items shall be kept to a minimum.
- D18.4 Cooling openings are allowed in windows.

- D18.5 Bodies must be readily available and commercially produced (i.e. no one-offs).
- D18.6 The body entered for Concourse judging must be the body shell used for at least one race during the meeting.
- D18.7 The body must be made of a flexible material and be painted properly. When initially entered in a meeting the body must be neatly finished.
- D18.8 The windscreens and windows must be translucent (i.e. not completely painted in), or authentically decorated
- D18.9 All bodies must have the front and rear wheel arches cut out if the original was so designed.
- D18.10 The aerial must be made of a flexible material not likely to inflict injury to anybody (i.e. no thick piano wire).

## **D19 TYRES**

- D19.1 Tyres must be black in appearance (except for writing on sidewalls) and treatment of the tyre with additives is prohibited. The selection of the type of tyre is “open”.
- D19.2 No spikes, tubes or additional items intended to increase traction may be either glued to the outside of tyres or passed through tyres from the inside.
- D19.3 Any combination of commercially available 1/8th-scale wheels and tyres may be used.
- D19.4 Modifications to tyre patterns are allowed.
- D19.5 The use of traction additives on tyres is strictly prohibited. The penalty for breaching this rule is automatic disqualification from the meeting.