



2017

NATIONAL COMPETITION RULES & REGULATIONS

Updated January 2017

Effective **1 January 2017**, these Rules supersede all previous National Competition Rules & Regulations and incorporate all new and altered Rules as decided by the ORANZ Council at the Council special meeting December 2016.

New Rules and changes to existing Rules are printed in RED font.

NATIONAL COMPETITION RULES AND REGULATIONS

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INTRODUCTION

This handbook has been compiled jointly by affiliated clubs. Becoming familiar with these Rules and Regulations is in your interest as they are designed to work for you in ensuring that offroad racing is conducted in an orderly and acceptable fashion in New Zealand. Though your club may have additional rules, different formats and different points systems to those contained within, the Rules and Regulations set out within this publication are the Rules which apply at all ORANZ events. Special rulings issued by ORANZ will be considered as official amendments to this list of Rules and Specifications. Amendments may be issued from time to time on official ORANZ releases

NATIONAL CHAMPIONSHIP TROPHY

This trophy was generously donated by Mr Barry Burgess of the Raceway Motel New Plymouth. At the time ORANZ was formed, Mr Burgess was the proprietor of the motel in Taupo where the Steering Committee met to form the Association. This trophy is presented each season to the driver who has the largest accumulated point's total of the season and must surely indicate the driver who has performed most consistently throughout the series.

ORANZ OFFICERS 2017

Patron:	Alan Tutt
National President:	Martin van der Wal
Northern Vice President:	Jason Delahunty
Southern Vice President:	Mike Blackmore
Executive Members:	Darren Thomason, Andy Briggs, Campbell Witherford
Secretary:	Katrina Strickett
Treasurer:	Shirley Cooper
Registrar:	Shirley Cooper
Points Co-ordinator:	Tania Delahunty
Chief Steward:	Phil Cameron
Chief Technical Officer:	Neville Smith
National Clerk of the Course:	Jim Cato

OFFICIALS

The following officials are appointed by the Association to ensure proper conduct at race meetings and to maintain proper records for the Association.

Registrar:

The Registrar is responsible for maintaining a register of all ORANZ drivers. The Registrar issues Competition Licenses and registration numbers.

Points Coordinator:

The Points Coordinator ensures that lap scoring is carried out to the required standard at National and titled events and maintains records of the points gained by individual competitors at each National Championship round. The Points Coordinator accumulates the points gained by individual competitors at National Championship rounds to determine final standings in the National Championship series.

Chief Steward:

The Chief Steward is not responsible for organising National and/or Sanctioned events and cannot be Clerk of the Course but is the senior ORANZ Official present at any Race Course. The Chief Steward is responsible for ensuring that safety standards are maintained and ORANZ Rules are adhered to.

The Chief Steward shall not over rule the Clerk of the Course or make decisions on racing matters unless it is the result of a protest or he has been requested to do so by the Clerk of the Course.

Decisions of the Chief Steward on interpretation of Rules pertaining to race regulations, race procedures or scoring of points shall be considered final. The Chief Steward may adjudicate in protests in accordance with the ORANZ Constitution and Rules set out within this publication.

Chief Technical Officer:

The Chief Technical Officer provides advice to the Association on technical matters and decides technical matters of contention.

Clerk of The Course:

The Clerk of the Course is responsible for all matters pertaining to the day's racing including spectator/competitor safety and enforcing ORANZ rules.

All Official race personnel shall be directly responsible to the Clerk of the Course. The Clerk of the Course may delegate duties as he sees fit.

1. REMITS/RULE CHANGES

- (a) Changes to the Rules shall be made by application to the Council by way of remits, notwithstanding; that new Rules or changes to the existing Rules, in the interests of safety, may be made at any time by the Executive on recommendation of the Chief Steward or Chief Technical Officer.
- (b) The Executive in consultation with the Council may at any time amend the wording of any existing Rule in order to better clarify the intention of that Rule.
- (c) Remits shall be submitted by ORANZ affiliated clubs, Chief Steward or Chief Technical Officer on an official ORANZ Remit Form. In the case of a proposed Rule change, or alteration, the existing Rule or clause shall be included on the form together with the proposed change or alteration.

- (d) Remits seconded by another ORANZ affiliated club shall be presented to the executive for ratification before the 1st March. The Executive may reject the remit or request clarification and amendments if required. The executive shall present remits to the council for discussion and clarification at the first or second Council meeting of the year. Minor or housekeeping remits pertaining to incorrect wording, spelling, grammar etc that do not alter the national championship rules may be voted on and altered at the discretion of the council. Final draft remits shall be delivered to the ORANZ secretary no later than the 30th September. The secretary shall deliver received valid remits to member clubs no later than the 30th October. Remits shall be voted on at the Association AGM. Only delegates present shall be permitted to vote – no proxy votes.
- (e) New Rules or changes (other than safety related changes or clarifications) shall take effect from the commencement of the next racing year. New Rules or changes that may have a significant impact on existing vehicles may, at the discretion of Council, have either a written exemption or a stand-down period determined by Council.

2. SANCTIONING AND EVENT TYPES

(a) Sanctioning

- (i) All race events must be sanctioned for insurance purposes.
- (ii) To hold an ORANZ sanctioned event the said club must be ORANZ affiliated.
- (iii) To apply/qualify for sanctioning of an event, and the associated activities such as track recce, track preparation, track set up, clean up etc, an event permit application must be completed and signed off by the ORANZ chief steward or his delegated ORANZ official.
- (iv) All competing drivers must be ORANZ registered or hold a valid day license.
- (v) The organising club must adhere to all current ORANZ rules and regulations (excluding the National Championship Points and format rules unless it is a National Championship event) as detailed in the National Competition Rules.
- (vi) Sanctioned club events may comprise any format deemed appropriate.
- (vii) ORANZ public liability insurance applies only to sanctioned events where an event permit application has been granted. Non sanctioned events such as club meetings, hot rod shows, bbq's etc. must have an event permit approved for the event to be covered by the public liability insurance policy.

(b) Event Types

(i) National Championship

To host a National championship event the organising club must apply to the ORANZ council for approval, obtain a signed event permit and adhere to all current rules and regulations as detailed in the National competition rules. A driver levy will apply to cover the costs of the nominated ORANZ officials attending.

(ii) Titled Events

To host a National, North Island, South Island or New Zealand titled event the organising club must apply to the ORANZ council for approval. The applicant must state the event type, format, Location and entry fee. The organising club must obtain a signed event permit and adhere to all current ORANZ rules and regulations as detailed in the National completion Rules excluding the National championship event format rules. Additional rules may apply but must be approved by the council at the time of application. A driver levy will apply to cover the costs of the nominated ORANZ officials attending.

(iii) Club Events

To hold a sanctioned club event a signed event permit must be obtained. The organising club must adhere to all current rules and regulations as detailed in the National Competition Rules, excluding the National championship points and event format rules. The event must be an Offroad club event and the format deemed appropriate. If the club requires the attendance of ORANZ officials a driver levy or fee may apply.

3. NATIONAL CHAMPIONSHIP

The National Championship shall consist of three North Island and three South Island rounds and a final. Drivers must compete at two rounds and the final in order to be eligible for National points. Drivers will gain 20 bonus points for competing at three regional rounds and the final.

- (a) The National Championship shall consist of 3 (three) rounds for South Island points and 3 (three) rounds for North Island points comprising one Short Course round, one Long Course (Enduro) round and one combined Short Course Enduro round in each region, each round having available a possible maximum total of 72 points. At the completion of the Regional Rounds, drivers will be awarded points (according to where they finished in class in their region) to be carried forward to the National Final (Refer Rule 14(f) Points Scoring). In the event that either Island is unable to hold a particular round (i.e. such as a combined or enduro rounds) because no club can host it, that Island will be allowed to substitute the missing round with a repeated alternative round to complete the three round series rather than shorten the series to two rounds, i.e. A second short course round.
- (b) The Short Course round shall consist of 3 (three) heats for each class and an all-in feature. The feature must be a minimum of three times to a maximum of five times the distance of a Short Course heat.
- (c) The combined Short Course/Enduro round shall consist of three Short Course heats per class and an all-in Enduro with a possible maximum of 72 points for the event.
- (d) The Final shall consist of three Short Course heats per class and one or more all-in feature(s), as detailed in (a) above, having available a possible maximum of 72 points per class, and an Enduro also having a possible maximum of 72 points giving a possible maximum total of 144 points for that event to which will be added points carried forward from the respective rounds (refer Rule 14(f)).

- (e) Drivers may only compete for National Championship points in one Region and after obtaining their first points, cannot change Regions for that year's competition. A driver may compete in the other region but not qualify for nor take National points from the competitors of that region. Points gained for class placing in that region will be converted to points as per Rule 14(f) and taken to the National Final. The driver who has the highest overall accumulated total points at the completion of the National Final shall be deemed to be the National Champion. Highest accumulated points in class shall determine Class Champions. Drivers must compete in at least two Rounds and the Final to be eligible for Championship Titles.
- (f) In the event of any competitors being equal on points at the end of the National Championship, the highest placed car in the Enduro at the Final shall be awarded the placing of which they are equal in points.
- (g) Drivers place 1st, 2nd and 3rd overall in the National Championship shall be entitled to run the numbers NZ1, NZ2 and NZ3 respectively instead of their registered number for the duration of their reign should they desire. Overall Class Champions shall be entitled to run NZ1, NZ2 and NZ3 respectively in addition to their registered number for the duration of their reign, these additional numbers shall not exceed 11cm in height. Drivers are required to include their Registered Number when registering for all events

4. ELIGIBILITY

- (a) To obtain an ORANZ Competition Licence:
 - (i) A new competitor must be a current full financial member of an ORANZ affiliated club and register with ORANZ, through their club, to receive their Competition Licence and numbers.
 - (ii) Current ORANZ Competition Licence holders will, upon renewal of their ORANZ registration, receive a Competition Licence or label valid for that year and retain their existing Competition number.
 - (iii) ORANZ reserve the right to refuse, suspend or withdraw (for any term) any Competition Licence.
 - (iv) Junior competitors must be a minimum age of 11 years. Competitors under the age of 15 are restricted to Class 7 unless deemed by the Chief Steward to be competent to compete in another class. Competitors under the age of 15 shall display a large black X on a white background on the rear of their vehicle and have an indemnity signed by a parent or guardian prior to each event entered.
 - (v) Competitors under the age of 15 are restricted to Short Course racing but may compete in Enduro type races at the discretion of the Chief Steward. In exercising this discretion, the Chief Steward will take into account the nature of the course and the competency of the competitor.
 - (vi) Junior competitor's age group ranges from 5-15 years refer to pages 65-69 (Junior classes).
- (h) All drivers must re-register annually to retain their Competition Number.

- (i) Day License:
 - (i) A maximum of THREE Day Licenses may be issued to any driver per year or FIVE Day Licences if truly 'Mechanics' in mechanics designated races.
 - (ii) A driver may not apply for a day license if he was a registered driver the year before, unless he is the second driver at any event and the primary driver is a fully paid up member.
 - (iii) All cars and primary drivers at National and titled events must be fully ORANZ registered.

5. LOGBOOK

- (a) All competitors are to be issued with a Log Book at the same time ORANZ numbers are assigned. The Log Book is assigned to that vehicle, not the competitor, and must accompany the vehicle when sold. For example, if two people are using the same car, the log book can have both drivers' numbers on it.
- (b) Upon receipt of the Log Book, the competitor must complete all details inside the front cover including the placement of a photo of that vehicle.
- (c) The Log Book must be presented to the scrutineers prior to commencement of any competition. Failure to do so may mean exclusion from that race meeting. Competition includes each and every race meeting that vehicle attends, including club race meetings.
- (d) The scrutineer will complete in detail any item which does not meet the scrutineering requirements.
- (e) Should the vehicle be sold, the Log Book must accompany the vehicle and all details of the new owner be recorded in the rear of the Log Book.
- (f) Should the Log Book be lost, its loss shall be reported to the ORANZ Registrar and a replacement will then be issued on receipt of a suitable fee (\$50.00). Should the Log Book become full, a replacement will be issued by the ORANZ Registrar, free of charge, upon the sighting by the Registrar of the full original.

6. VEHICLE TAGGING

As from 1st April 2014, each club shall appoint a person they believe has sufficient amount of technical knowledge of our sports mechanical requirements to be club scrutineers.

- (a) The club scrutineers must subsequently be approved by the Chief Technical Officer (CTO) where upon the CTO will provide the club scrutineer with full instructions for the new procedure and approval process.
- (b) The club scrutineers will be issued with ORANZ conformance tamper proof tags (to be fitted to the "B" pillar area of the vehicle) and also conformance stickers to be placed in the log book.
- (c) The club scrutineers will be responsible for insuring all cars in their club meet all requirements of the ORANZ scrutineering sheet when being inspected and are compliant with the class in which the vehicle is registered.
- (d) Any technical issues which may arise during these inspections will be reviewed by the CTO and Chief Steward in conjunction with detailed dialogue and photographic contact with the club scrutineers and a decision provided.

- (e) All drivers will be responsible for the vehicle being checked by their club scrutineer on an annual basis prior to the first major event for the year. The tag is then valid through to March of the following year. If a tag is removed for any reason then the vehicle must go through another full scrutineering inspection.
- (f) In the event of a major crash or rollover the tag will be removed by ORANZ or club officials and the vehicle will require a full scrutineering inspection prior to racing again.
- (g) It is the drivers/owners responsibility to ensure their vehicle fully complies with all ORANZ requirements at all times. **There are no exceptions.**
- (h) Vehicles will then only require a safety inspection at race events to check spark arrestors, safety belts, horns, 1st Aid Kits, tow ropes (minimum 3 meters) fire extinguishers, brake test, steering components and other relative to the course safety items.

7. EVENT REGISTRATION PROCESS.

Step 1: Registration paper work.

Complete all registration paperwork at the Registration desk (log books, ORANZ cards, indemnity forms, entry forms etc.

Step 2: Safety Gear inspection.

Take all safety gear for inspection to the designated area (racing suits, boots, helmets, goggles, visors, gloves, neck braces, etc.

Step 3: Vehicle safety inspection

Take your vehicle to the designated area for the safety inspection check spark arrestors, safety belts, horns, 1st Aid Kits, tow ropes (minimum 3 meters) fire extinguishers, brake test, steering components and other relative to the course safety items.

NOTE – Random checks.

Random checks of vehicles will be carried out by the CTO or his delegate at any stage of any event.

8. COMPETITION RULES

- (a) The Promoter and/or Race Officials reserve the right to refuse any entry application.
- (b) In the event of a late entry it is up to the event organiser or host club to place a penalty of cash and/or placement on the grid for the Short Course and/or Enduro. Late penalties, if any, should be set out on all Entry Forms.
- (c) All drivers at ORANZ events must have paid a full Entry Fee.
- (d) Drivers must produce their current Club Membership card and Competition License at Event Registration.
- (e) Drivers must produce the logbook pertaining to their vehicle at scrutineering.
- (f) No driver shall qualify more than one vehicle per race event unless the vehicle he has previously qualified in is withdrawn prior to a new qualifying attempt.

- (g) All vehicles must make the space at the top of the front windscreen or along the top of the roll cage, facing forward, available to ORANZ for National, Class or event sponsor's signage. Signage to be in place for the length of the season or event. Size to be 100mm deep and the width of the windscreen or roll cage. All vehicles must make space on each side of the vehicle of no more than 600mm long x 150mm high, at approximately driver's shoulder or helmet height, available to ORANZ for National, Class or event sponsor's signage. **A B4 sized space in a prominent position is also required to display the ORANZ logo.** Truck classes may run the signage on either front guards or rear side windows
- (h) All drivers intending to race must attend drivers' briefing. Drivers not attending drivers' briefing on the day shall not be permitted to race.
- (i) All drivers must arrive in time to compete in the events for which they are scheduled.
- (j) Any driver not ready to compete when scheduled or called may be sent to the rear of the field, changed to a later race or left out at the discretion of the Clerk of the Course or the ORANZ Chief Steward.
- (k) Vehicles are deemed to have competed in an event once they have passed scrutineering and started the qualifying prologue or, in the case of a Short Course only event, the first heat, including any preview lap(s).
- (l) Enduros - outside assistance is permitted from marshals, spectators and other competitors, note - only official vehicles and competing vehicles are allowed on the track during the race. Assistance may only consist of assistance to leave the track, fit parts or restart the vehicle. A vehicle must cross the Finish Line under its own power. Short course - no outside assistance is permitted in short course events other than by marshals or race officials.
- (m) Any points accumulated through competition at ORANZ National or Sanctioned events will be credited to the driver. The vehicle number must correspond with the driver's registered number and additional drivers must be nominated on entry and be registered separately. Swapping of drivers within the same race, unless sanctioned by ORANZ, will not be permitted.
- (n) Where a vehicle is reduced to three or less wheels (Tyres and/or rims) the driver may not pass the pits without repair unless the vehicle is completing the last lap.
- (o) Deliberate abusive nerfing or bumping shall be reason for reprimand, penalty, disqualification and/or suspension.
- (p) No contact whatsoever of any vehicle under racing conditions is allowable.
- (q) Any vehicle deemed to be deliberately baulking will be black flagged at the discretion of the Clerk of the Course.
- (r) Any contestant failing to allow another to overtake on a Short Course race may be penalised or disqualified at the discretion of the Clerk of the Course.
- (s) No one falling under the jurisdiction of any Race Official at any race and/or event shall subject said Official(s) to improper language, threatening behaviour or other demanding actions.
- (t) All vehicles shall be checked prior to the start of any race or heat and when re-entering a race after pitting or refuelling, to ensure all occupants must have their harnesses, helmet, neck brace, flame retardant race gloves and eye protection (visor/goggles) secured correctly, and these must remain in place for the duration of the race.

- (u) Goggle changing or cleaning may occur in a designated go slow area on the race track. Otherwise, goggle changes and cleaning must be done off the track unless an area is specifically allocated for this purpose.
- (v) If a competitor passes under a yellow flag or as a result of cutting the course, he must relinquish the positions gained within one lap or before the chequered flag if it is the final lap. If he fails to do so he will be relegated 2 positions for every position gained. In an Enduro / Long Course he may be black flagged and given a stop / go penalty.
- (w) Any Entrant or Contestant excluded, suspended or disqualified for any event forfeits all rights to prize, purse, points or contingency monies. In any case there shall be no refund of any Entry Fee paid.
- (x) Any person who makes a false statement on an Entry Form shall be disqualified and shall forfeit all prize monies and points.
- (y) Drinking of intoxicating beverages in the pits, on the race-course or surrounding premises is strictly forbidden.
- (z) The use of narcotics, amphetamines, barbiturates or other stimulants or depressants, is strictly forbidden.
- (aa) No drugs acting like or containing Ephedrine may be used unless written authorisation is obtained and presented to Race Officials prior to Race Day.
- (bb) Any competitor in an event who shows any evidence whatsoever of being under the influence of any of the aforementioned shall be disqualified and subject to suspension from all future events and must leave the premises immediately at the direction of any Race Official instructed by the Clerk of the Course.
- (cc) At all times the Driver assumes responsibility for the actions of his/her pit crew.

NOTE: All persons infringing the marked track area are to wear **HI VIZ Vests** at all times. Failure to comply could see long standing penalties.

9. VEHICLE SAFETY FLAGS

For some events, such as those held on an area of sand dunes, where a vehicle could be stopped in a dangerous position out of sight, a flag, with a minimum height of 3 metres from the ground, must be fitted.

10. SCRUTINEERING

- (a) Prior to competing in any National or Sanctioned event, all competing vehicles must be presented to a designated place to be checked for compliance with the current Rules.
- (b) Vehicles having defects affecting safety shall not be permitted to compete.
- (c) Refund of any entry fee, for vehicles being deemed at scrutineering to be unsafe to compete, shall be at the discretion of the event organiser.
- (d) All vehicles competing in an enduro event must demonstrate a functional reverse gear at scrutineering.

11. REFUELLING

- (a) All occupants of the vehicle must be out of the vehicle during refuelling but the engine may be left running. All spilt fuel is to be cleaned off the vehicle after refuelling **and must be caught rather than going to the ground if a common occurrence (such as U Class.)**. All seat belts and helmets are to be securely fastened before leaving the fuel bay or pits if refuelling is within the pit confines.
- (b) Refuelling in Long Course events must be undertaken in designated fuel bays where all fuel must be stored before the event commences.

12. SHORT COURSE

- (a) **Short Course** shall be determined by its make up rather than its length and shall consist of maximum passing areas and be run over such terrain as farm land and largely open areas. Short Course shall favor maximum laps rather than maximum distance travelled per lap.
- (b) Any vehicle that does not finish the race will be deemed “DNF” and not eligible for points.
- (c) If the race is stopped before one lap has been completed, then the race will be re-started as per the original starting grid. The vehicle which caused the stoppage may start in its original position at the discretion of the Clerk of the course.
- (d) If the race is stopped after more than one lap has been completed, the race will re-start, in single file, as per the positions at the end of the previous lap. The vehicle(s) which caused the stoppage may restart at the discretion of the Clerk of the course but must do so from the rear of the field.
- (e) Should, at any time, a race be stopped and restarted, only vehicles present on the original starting grid will be allowed to restart.
- (f) All Short Course and feature **races** are to be run in their entirety (not to be called or declared).
- (g) Cars in a Short Course race who get lapped once only by the leader are able to be called finishers on the lap they are on when they cross the finish line and are shown the chequered flag.
- (h) The feature must be a minimum of three times to a maximum of five times the distance of a Short Course heat. The Feature will be handicapped by class, fastest to the rear, slowest class to the front.
- (i) Due to the numbers of competitors in the feature, it may be necessary to run more than one feature. All competitors of the same class must compete in the same feature. Any **competitors** in the feature who get lapped up to three times by the leading car in their class are able to be called finishers on the lap they are on, in the order they cross the finish line (and are shown the chequered flag). Each of the three heats and the feature carry equal points (class racing only) to a possible maximum total of 72 points for each class.

13. LONG COURSE/ENDURO

- (a) **Long Course (Enduro)** shall be determined by its length or endurance and can consist of any terrain, including narrow tracks, and shall favour maximum distance per lap travelled rather than maximum laps. **Track width to exceed 3.6 meters.** Competitors will receive points determined by their finishing place as per Rule 14c & d Points Scoring.
- (b) All National Series endurance events, including the final, must be a minimum of 150km. with a maximum of 250km.
- (c) The length of a Long Course race shall be determined on the basis of distance or laps completed, not time elapsed. The race will be deemed finished when the chequered flag has been shown to the first car to complete the specified number of laps. The chequered flag will remain out and be shown to all other vehicles that reach the finish line until the specified cut-off time has passed. Any vehicle that has completed at least 60% of the total laps, or 60% of the total laps completed by the lead car in his class calculated at the finish line, will be deemed a finisher without the need to see (pass) the chequered flag, and shall be eligible for overall and or class points, Refer to “12d POINTS SCORING”. In the event that 60% falls in between laps (eg. 5.4 laps) the end of the next lap (e.g. lap 6) will be deemed to be the 60% mark.
- (d) To qualify for a grid placing in an ORANZ Endurance event, a competitor must complete a sprint time trial prior to the Enduro commencing. Cars that do not meet with these criteria must start from the rear of the grid in the order of Class 1, 8, S, U, 3, 10, 9, 4, C, 5, 6, 2, 7. If the organizing club also decides to run a “Top 10 Shootout” with a maximum of 10 of the fastest cars, it is a requirement that these drivers participate. A “Top 10 Shootout” shall be a timed run of the original sprint track to determine the ultimate grid positions for these drivers. Previous sprint times will be invalid. Drivers who fail to complete the “Shootout” will start at the rear of the cars that completed the “Shootout” in order of their original sprint time. Where electronic lap timing such as transponders are being used, the option to use competitors fastest lap times to determine grid placings is allowed for the purpose of speeding up the event timetable procedures. This shall be at the discretion of the Clerk of the Course.
- (e) In the event of any portion of the course being rendered impassable resulting in race vehicles being unable to pass the obstruction, once the track has been cleared or an alternate route around the obstruction determined, the race vehicles shall continue the race in the order they arrived at the obstruction with the exception of any vehicle(s) which may have caused the obstruction who may restart only after all the baulked vehicles have restarted.
- (f) In case of a total restart at an Enduro event, the race will re-start with the lead car leaving first with the rest of the field following in Indian file at the same time period apart as when crossing the finish line on the previous lap. If the time differential between the cars are not available, the separation will be decided by the Clerk of the Course.

14. POINTS SCORING

- (a) **Short Course Round & Final Short Course** – each race (including all-in race)
Max. Points – 72

1st	2nd	3rd	4 th	5th	6 th	7th	8th	9th	All other finishers
18	16	14	12	11	10	9	8	7	6

- (b) **Short Course / Enduro Round** (Max Points – 72)

- (i) **Short Course** – each race (3)

1st	2nd	3rd	4th	5th	6th	7th	8th	All other finishers
12	10	8	6	5	4	3	2	1

- (ii) **Long Course (Enduro) Race**

Class Place

1st	2nd	3rd	4th	5th	6th	7th	8th	All other finishers
12	10	8	6	5	4	3	2	1

Overall Points

Place	Points	Place	Points	Place	Points	Place	Points
1st	24	7 th	18	13th	12	19th	6
2nd	23	8 th	17	14th	11	20th	5
3rd	22	9 th	16	15th	10	21st	4
4th	21	10 th	15	16th	9	22nd	3
5th	20	11 th	14	17th	8	23rd	2
6th	19	12 th	13	18th	7	All other finishers	1

- (c) **Enduro Only Round and Final Enduro** (Max. Points – 72)

Class Places

1st	2nd	3rd	4th	5th	6th	7th	8th	All other finishers
24	20	16	12	10	8	6	4	2

Overall Points

Place	Points	Place	Points	Place	Points	Place	Points
1st	48	7 th	36	13th	24	19th	12
2nd	46	8 th	34	14th	22	20th	10
3rd	44	9 th	32	15th	20	21st	8
4th	42	10 th	30	16th	18	22nd	6
5th	40	11 th	28	17th	16	23rd	4
6th	38	12 th	26	18th	14	All other finishers	2

(d) Awarding of Long Course/Enduro points

- (i) Vehicles must complete at **least** 60% of the total laps completed by the lead car in their class (calculated at the finish line) to be eligible for class points.
- (ii) Vehicles must complete at least 60% of the total race laps calculated at the finish line to be eligible for overall points.

For example: Any vehicle that does not complete at least 60% of the total race laps shall not be eligible for overall points and shall only receive class points as explained in d(i) above.

- (e) Points awarded for overall Regional Class placing to be carried forward to National final;

Class Placing	Points
1st	72
2nd	68
3rd	64
4th	60
5th	56
6th	52
7th	48
8th	44
All other finishers	40

Competitors who compete in all three of their region's rounds shall be allocated 20 bonus points in addition to points gained for their overall regional placing.

- (f) All types of National rounds shall have available a possible maximum of 72 points for any race meeting. The National Final having available a possible maximum of 144 points, 72 from Short Course and 72 from the Enduro.

15. EVENT ABANDONMENT

- (a) Only the Chief Steward can call a race or event but must do so in consultation with the Clerk of the course and event organisers
- (b) In the event of a Short Course round having to be abandoned by decision of the Chief Steward, or his appointee, due to weather and/or safety concerns after all of the three Class heats have been completed, the points gained thus far shall be divided by three and that total added to the points gained thus far. If all classes have not completed all of the three scheduled heats, the Short Course shall be completely re-run at a later date
- (c) In the event of an Enduro round having to be abandoned by decision of the Chief Steward, or his appointee, due to weather or safety concerns after 60% of the scheduled laps have been completed by the leading car, then the race will be deemed to have been completed by all cars completing 60% of the laps completed when the race was stopped. Should the leading car not complete 60% of the scheduled laps, the race will be completely re-run on another date.
- (d) In the event of all or part of a combined Short Course/Enduro round having to be abandoned by decision of the Chief Steward, or his appointee, due to weather or safety concerns, the Enduro race must meet the criteria in 14(c) above or be re-run at a later date.
- (e) In the event of all, or part, of the National Final having to be abandoned by decision of the Chief Steward, or his appointee, due to weather or safety concerns, the Short Course shall be treated as set out in 14(b) above and the Enduro as set out in 14(c) above or either or both types of racing, at the decision of the Chief Steward, or his appointee, will be completely re-run on another date.

16. PROTESTS

- (a) The ORANZ Chief Steward must keep a record of all upheld protests along with a driver history record to allow action to be taken against continual offending by competitors.
- (b) All protests must be lodged within one hour of the last chequered flag waving of the race meeting. Protests must be accompanied by a fee of \$100.00 for a Technical Protest or \$30.00 for a Conduct Protest.
- (c) All protests must be in written form signed by the complainant.
- (d) Protests against drivers may only be lodged by competing drivers or the Clerk of the Course.
- (e) In the event of an injustice being ruled by the Chief Steward, the complainant's money shall be refunded. Should an injustice not be ruled by the Chief Steward, the complainant's money shall not be refunded and shall be held as service fees by the Association to service the complaint.
- (f) All protests, lodged from any event at which the Chief Steward is not present, must be provided to the ORANZ Chief Steward within 7 days of the event in the form of the original written copy.
- (g) If a protest is upheld, the Protest Committee must decide the grade of the offence, using the guidelines listed in Rule 19.

17. PROTEST PROCEDURE

- (a) The first step to any protest is to obtain the appropriate Protest Form from your club or Steward as protests will only be accepted on the correct form and completed in the correct manner.
- (b) The form, together with the accompanying appropriate sum of money, must be presented to the **Clerk of the Course** within 1 hour of the last flag of the event.
- (c) The protest will proceed under the guidelines listed below dependent upon the type of protest lodged.
- (d) The result of any protest upheld by these formats will be sent to the protested person by mail and only after that will the finding be released elsewhere.
- (e) Any fine imposed must be paid before taking part in any club, Regional, National or Sanctioned event.
- (f) The protested person has 7 days in which to lodge an appeal. If an event is scheduled in which they wish to participate, any fine imposed must be paid in full in order to ensure all points scored in that event are secure. If the appeal is upheld, all fine monies will be refunded.

18. TECHNICAL PROTEST (\$100.00)

- (a) The Clerk of the Course will, in conjunction with the Chief Technical Officer, arrange storage of the vehicle in question for the purpose of removing any possibility of the vehicle being altered or tampered with until the protest is completed.
- (b) The impounding of any vehicle will be done with the least amount of inconvenience for an out of area driver. This may mean that a person be appointed to accompany the vehicle to its town of origin or as close as possible to its destination.
- (c) The examination of the vehicle is to be carried out by a person whom the vehicle owner and the Chief Technical Officer agree will deliver an impartial and factual compliance evaluation of the area in concern. This examination is to be witnessed by an appointed ORANZ Officer.
- (d) The only items to be checked are those items specified in the protest, these being checked for compliance with the standing Rules of the Association.
- (e) The result or findings that are made under these circumstances will remain confidential between the persons undertaking the inspection unless they are outside what the Rules allow. Any item found to be in contravention of the Rules will be open to full publication at the discretion of the Executive. The findings will be the property of the Association for publication or sealing as the Executive Committee deems appropriate under the circumstances.
- (f) Should the vehicle be found to be non-compliant in the area protested, the Chief Steward, in conjunction with the Chief Technical Officer, will impose any penalty deemed by them to fit the offence.
- (g) The Protest Fee is the property of the Association and will be handled as the Executive Committee deems appropriate in the circumstances.

19. CONDUCT PROTEST (\$30.00)

- (a) The Clerk of the Course will inform the Chief Steward of the protest so as to allow witnesses to be made aware of the protest and the need for them to be available.
- (b) The Chief Steward shall form a Judicial Committee of three impartial persons to hear the protest and listen to all available witnesses, asking questions as necessary.
- (c) Once all witnesses have been heard, the Committee will retire with the Chief Steward to either uphold or reject the protest as they judge the facts.
- (d) At this hearing, the Chief Steward will act as convener and remain as the advocate of the standing Rules.
- (e) If a protest is upheld, the Protest Committee must decide on the grade of the offence and a penalty will be imposed on the day of the offence using the guidelines listed. Offending competitors will be advised in writing by the Chief Steward within 7 days of the ruling of the Judicial Committee having been made.
- (f) A Protest Committee or Judicial **will** adjudicate that part, or all, of any fine be paid to a disadvantaged competitor whose vehicle has suffered damage in the incident resulting in the protest in order to assist with the cost of repairs
- (g) Any Competitor who accumulates **more than** five Demerit Points in any 12 month period shall have an automatic 6 month stand-down from all competition. Commencement of such 12 month period will be calculated 12 months back from the date of the last point accumulated.
- (h) All penalties imposed will be effective from the date of the race to which the Offence relates.
- (i) **Grade 1 Offence – Minor vehicle contact or minor (unintentional) non-compliance with the Competition Rules:**
May include racing incidents where no party is greatly disadvantaged. An example may be a slower vehicle impeding a faster vehicle for an extended period(s) during an endurance race. (Note: this is an **example only** and that this list is not intended to be exhaustive).
Penalty – A warning from the Chief Steward or Clerk of the Course, and/or one Demerit Point.
- (j) **Grade 2 Offence – Deliberate vehicle contact or deliberate non-compliance with the Competition Rules:**
May include racing incidents where no party is disadvantaged. An example may be a slower vehicle impeding a faster vehicle during an endurance race by failing to give way when signalled to do so. (Note: this is an **example only** and that this list is not intended to be exhaustive).
Penalty – A warning from the Chief Steward or Clerk of the Course, and/or a probation period of up to 3 months, and/or a fine of \$50.00, and/or a loss of some or all race points gained from the event, plus two Demerit Points.

- (k) **Grade 3 Offence – Deliberate vehicle contact or deliberate non-compliance with the Competition Rules:**

May include incidents involving contact between vehicles intended to disadvantage one or more parties and where at least one party is considerably disadvantaged as a result. At least one vehicle may have been eliminated from the race or event or have suffered moderate to heavy damage. (Note: this is an **example only** and that this list is not intended to be exhaustive).

Penalty – A warning from the Chief Steward or Clerk of the Course and/or a probation period of up to 12 months, and/or a fine of up to \$250.00, and/or a loss of some or all race points gained from the event, plus three Demerit Points.

- (l) **Grade 4 Offence – Deliberate vehicle contact (innocent party eliminated from the race) or serious misconduct.**

Includes deliberate vehicle contact where the innocent party may have been eliminated from the race and/or heavy vehicle damage has been inflicted, incidents of driver or crew member's misconduct deemed to be of an unsporting nature or likely to bring the sport into disrepute.

Penalty – Immediate disqualification from the event pending further notice of penalties from the ORANZ Chief Steward which may include a fine of up to \$750.00, and/or a probation period of up to 2 years, and/or a ban from all competition for up to 2 years, plus 4 Demerit Points.

20. APPEALS

Any appeal of a ruling by the Protest Committee or points allocation must be in writing and received by the Chief Steward within seven (7) days of receipt of the finding. The Chief Steward will inform the Executive of the facts and the Executive will then decide whether the appeal is upheld or declined.

21. FLAG SIGNALS

- (a) GREEN: Signals race start. (see also rule 22 Starting Lights)
- (b) YELLOW: Held stationary – signifies an obstacle or obstruction ahead, retain position until past the obstacle, no passing. Waved – Extreme caution, reduce speed and be prepared to stop. Retain position (no passing) until past the obstacle. Only the flag immediately preceding the obstacle is too held or waved. Once vehicles are past the obstacle or incident, racing resumes.
- (c) RED: IMMEDIATE STOP. May be used when a vehicle has rolled over or a fire occurs.
- (d) BLACK: Retire from the course immediately. Used in conjunction with a car number. Used in Short Course racing for matters of urgency only, e.g. A car is on fire or a competitor is driving dangerously putting others at risk. May also be used in Enduro / Long Course races for the purpose of a stop/go penalty.
- (e) WHITE: Signifies vehicles are commencing the final lap.
- (f) CHEQUERED: Signifies end of race.
- (g) BLUE: Signifies that a competitor is being closely followed. Be prepared to be overtaken. This is an advisory flag only.

- (h) **WHITE WITH RED CROSS:** Flag or board displayed at start/finish line of Enduro races only. To warn competitors that an official vehicle or ambulance is on the racetrack. Competitors may not overtake such vehicles unless signalled to do so.

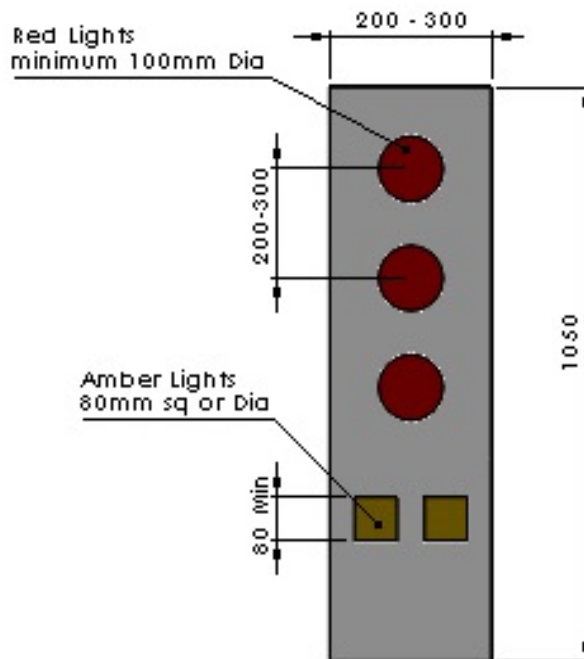
22. STARTING LIGHTS:

Starting lights are permitted to be used to signal the start of a race provided the Start Lights meet the following criteria

- (a) **Number of lights** – 3 (preferably LED)
- (b) **Colour** – Red
- (c) **Size/shape** – Circular, square or rectangular with no dimensions less than 100mm
- (d) **Mounting** – Vertically arranged and positioned with light centres spaced between 200mm – 300mm apart upon any surface panel which is black and has dimensions not less than 1050mm (height) x 450mm (width)
- (e) **Height** – At any race event where starting lights are proposed to be used, the starting light panels shall be mounted at a minimum 2.00m in height from the ground to the lowest of the three lights
- (f) **Height Adjustment** – All starting lights shall be readily height adjustable. They must be able to extend 1.00m from the minimum height requirement as set out above to cater for a variety of potential conditions that may require the adjustment of the starting lights
- (g) **Position** – Starting lights shall always be positioned at the most suitable location for driver viewing but shall not be positioned closer than 20.00m from the front row of the grid
- (h) **Starting Sequence** – No red lights whilst the grid is being formed. Once the grid is formed and the Clerk of the Course or race control official has declared the track ready to race, the first of the red lights will be switched on to reflect this. A second red light will be illuminated once the starter is satisfied with the positioning of the vehicles on the grid. This will be followed by the third red light being illuminated indicating the race is about to start. The starter will then extinguish all the lights simultaneously. **When the lights go out, the race starts**
The timing sequence of the lights shall not be regulated but shall remain consistent throughout the duration of the day. It will be the starter's responsibility to ensure consistency under normal circumstances.
- (i) **False Starts** – will mean a grid reset is necessary and so the lights will be turned off under a red flag held by the starter. **The starter must clearly display the red flag prior to turning off the lights for a grid reset.** Once the grid is reset, the normal sequence of lights can be repeated to start the race.
- (j) **Yellow Lights** – are permitted to be mounted on the starting light panel but are not compulsory. The yellow lights must be mounted below the lowest red starting light. A maximum of two yellow lights is acceptable.
Yellow lights can be used as if they were a **stationary yellow flag** only in normal racing conditions. Yellow lights can be used to signal a false start and grid reset.

(j) continued.....Example – if the grid is set and three red lights are on and someone false starts; then the yellow light(s) can be switched on to signify this. **The starter should still clearly display a red flag prior to turning off the red lights.** The use of yellow lights in this regard will simply provide a faster indication that there has been a false start and allow a more manageable approach to a potentially dangerous situation.

- (k) **Rear mounted lights on the light stand are required so the Clerk of the Course can monitor jump starts.**



NOTE: All dimensions are minimum requirements.

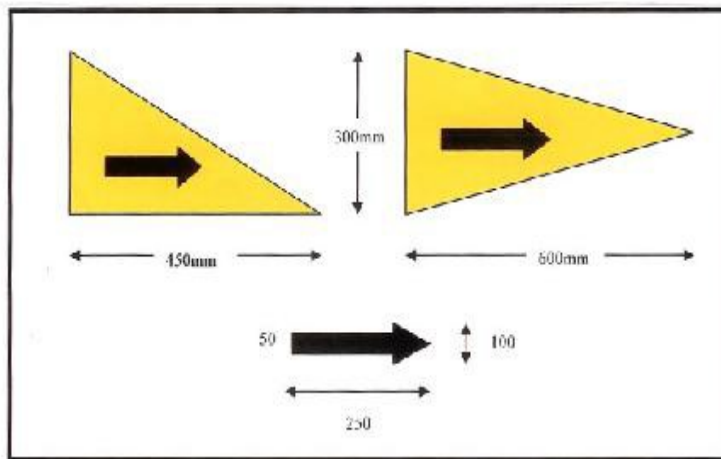
23. COURSE MARKINGS

- (a) Enduro Markings:
 - (i) Triangle to show change of direction.
 - (ii) Red Diamond to warn of approaching hazard.
- (b) Directional Markers
 - (i) Triangle Size:

Minimum size 300mm x 450mm right-angled triangle or 300mm x 600mm isosceles triangle.
 - (ii) Triangle Colour:

Base colour, AA Yellow (or as close as possible) or Fluorescent Orange or pink
 - (iii) Supplementary Arrow:

A supplementary arrow may be imposed on the Directional Marker. Total length 250mm. Arrow head 100mm wide and 60mm long. Tail 50mm wide (see Diagram on next page).



(iv) Placement and Use:

One Directional Marker at each corner to mark a change of direction plus double markers placed a practical distance prior to the corner, e.g. 100 metres (subject to approval by the Chief Steward). Height above the ground to be no less than one metre, but at the discretion of the Chief Steward with consideration given to the terrain.

(c) Hazard Warning Markers

(i) Hazard Warning Size:

Minimum size 450mm Diamond shape.

(ii) Hazard Warning Colour:

Fluorescent type Hot Pink only.

(iii) Hazard warning Placement:

Both sides of the track should be marked well prior to the actual hazard as well as the hazard proper being indicated with markers as described above.

(d) All side roads and tracks to be taped off. All major changes in direction where vehicles can continue off the race track up a wrong road or track are to have a second tape across the road or track a minimum of 50m in from the first tape.

VEHICLE CLASSES

Rules Pertaining to all Classes

24. CLOTHING, FOOTWEAR AND HELMETS

- (a) All competing drivers and passengers shall wear flame resistant racing overalls minimum single layer that cover the body from ankle to wrists and neck. Any rips, tears or broken fasteners will not be acceptable. Any repairs, modifications to be approved material only and to a professional standard. All Competitors and Navigators are to wear fire retardant gloves and eye protection (visor of goggles). Note comments 8(t).
- (b) All competing drivers and passengers shall wear fire retardant racing footwear or lace up leather boots. Competing in sandals, training shoes, jandals, gumboots or bare feet is not permitted. Failure to comply with the above rule, could lead to exclusion from the event.
- (c) All drivers and passengers in any race vehicle in any event shall wear protective helmets at all times the vehicle is operating above walking pace. ORANZ recommends the use of full-face type helmets. Should a competitor choose to use an open-face type helmet, an approved face-mask and goggles (leaving no part of the face exposed) must be used if running without a windscreen. Optical or sunglasses are not permitted unless covered by approved goggles, or visor.
 - (i) All protective helmets must comply with a current approved Safety Standard. Helmets should be a good fit so they are secure when worn. The helmet must not be able to be removed by lifting the back of the helmet up when fastened.
 - (ii) Helmets must be presented at scrutineering in clean condition and not modified except as permitted by the helmet manufacturer.
 - (iii) ABS and polycarbonate helmets shall not be painted unless a paint approved by Helmet manufacturer is used.
 - (iv) Helmet peaks must be of a flexible material, i.e. that it will bend or deform then return to its original shape. Peaks constructed of metal or Perspex will not be permitted. Any peak not permanently attached to the helmet must be held on with a strap attached by press studs or original manufacturer's fastenings. Attaching of peaks with self-tapping screws or nuts/bolts is prohibited.
 - (v) **Approved Helmet Safety Standards:**

Snell Foundation Inc.	Snell SA2000, Snell SA90, M90, M95, M2000 and SA95.
SFI Foundation Inc.	SFI Spec. 31.1 (open face design), SFI Spec. 31.2 (closed face design).
British Standards Institute	BS6658-85 A/FR (red label) including all amendments, BS6658-85 type A (blue label).

European Standards

“E” mark 02, 03, 04, or 05 series – a production number will immediately follow these numbers, e.g., 01, 02, 03, 12345, 05 12345 etc.

NZ Standards

NZ5430

Australian Standards

AS1698

American National Standards

ANA1Z-90.1 (1992).

(vi) ORANZ recommends

- Helmets be replaced at least every seven years (sweat and perspiration breaks down the protective head lining).
 - In cases of severe impact, the helmet should immediately be destroyed so it cannot be re-used.
 - Helmets should be stored in a cool, dry, dark place.
- (d) All competing drivers and passengers shall wear a neck brace or acceptable helmet support of a recognised, approved manufacturer’s design (e.g. HANS device). Devices not giving forward support to the helmet are not permitted
- (e) **HELMET CLEARANCE** - This is to be measured when the driver and passenger (navigator) are belted in with helmets on. The minimum allowable clearance from the top of the helmet (both driver and passenger) is **90mm** to a line across the top of the roll cage when measured across the car or from front to rear of the car, whichever is greater. In the case of externally mounted roll cages, a minimum clearance of 70mm from the top of the helmet to the roof must be maintained.

25. TOW ROPE – FIRST AID KIT – FIRE EXTINGUISHING

- (a) All vehicles must carry an adequate tow rope – minimum length 3 meters.
- (b) All vehicles must carry an adequate first aid kit, containing a minimum of :-
- A thermal blanket for each occupant.
 - An elastic gauze type bandage size approx 5cm x 4m
 - A crape type bandage 7.5cm x 4m to use as dressing-sling-tourniquet
 - 7.5cm x 10cm double sided non-adhesive absorbent dressing
 - 2 x alcohol free cleansing wipe
 - 1 x small saline solution
 - 1 x small eyewash solution
 - 1 x small antiseptic burn cream
 - 6 x various size adhesive dressings
 - 1 x small roll strapping tape
 - 1 x craft knife.
 - All the above to be individually sealed units contained in a marked sealed first aid unit.

- (c) All vehicles must carry a fire extinguisher of at least 1kg, which must be mounted in a secure position within reach of both driver and passenger while seated, not necessarily belted in.

AND

All vehicles must carry at least 1 additional 1kg fire extinguisher in a safe and secure position easily assessable from the outside of the vehicle. Vehicles fitted with in-car fire extinguisher systems are not exempted from these requirements.

- (d) The fire extinguishers must be of an approved type. Multi-purpose foam spray fire extinguishers are permitted. All must have a current service receipt, no more than one year old. All must have a current service receipt or official service tag no more than one year old with an intact trigger seal.
- (e) Aerosol type fire extinguishers are NOT permitted.
- (f) Tape, wire or string or any method other than a purpose-type mount are not permitted as a fixing method.

26. SEATS AND RESTRAINTS (Refer Figure 1 page 36)

- (a) All seats shall be securely mounted.
- (b) Recliner style seats shall have a restraining bar behind to prevent rearward collapse of the seat back.
- (c) Head restraints are required to be fitted for all occupants in all classes of vehicles. Each restraint, if not incorporated into the seat, must consist of a metal plate at least 2.0mm. thick and not less than 150mm. (horizontal) by 75mm. (vertical) together with a resilient padding at least 25.0mm. thick, the restraint shall be securely mounted. With the occupant seated in the normal position, the restraint shall be in a position to restrain the rear movement of the head
- (d) A single point catch and release buckle shall be fitted to belts.
- (e) A minimum 5-point 75mm wide competition harness of a recognized, approved manufacture and type shall be used. **A factory made 50mm webbing for the over the shoulder HANS Device is permitted, but must only be fitted with the HANS Device.** Seat belts are to be no older than five years old from the date stamped on them. If new but old stock is being used dispensation has to be given by the chief tech.
- (f) No chafed or stretched webbing is permitted.
- (g) Safety belts shall not be fastened to seat frames or supports.
- (h) Safety belt mounting points are to be secured to:
 - (i) vehicle frame or chassis
 - (ii) vehicle floor, if reinforced with MOT approved backing plates.
 - (iii) the harness clips must be wired closed in the correct manner where they clip into the retaining eyes.
- (i) Inertia reel seat belts are not permitted.
- (j) Shoulder strap mounting points are to be positioned so that the straps are not more than a 45 degree angle from a horizontal plane extending from the occupant's shoulders (refer Figure 1 page 36).

27. NUMBERS

- (a) All vehicles must clearly display their Competition Number on each side of the vehicle and the rear and on the front facing forward on the bonnet, at all times. It is a competitor's responsibility to ensure that numbers are positioned to remain clearly legible throughout an entire event. **The forward facing number may be smaller if required for placement, but must be clear for gridding up purposes.**
- (b) Competition Numbers shall conform to the following colours and minimum sizes:
- (c) All numbers – BLACK numerals (30mm. brush stroke width, 22cm. high) on a WHITE background 30cm x 30cm. square.
A sample/example is illustrated on the last page of this rule book.
- (d) The first numeral/letter shall denote the class (e.g. 521 – Class 5, C18 – Challenger).
- (e) Competitors competing in more than one class must be registered with ORANZ with a separate number for each class.
- (f) Transponders are to be mounted with looking down with a clear view of the track mounted between the driver's seat and the rear axle and out of the line of the wheels to prevent rock and mud damage.

28. ENGINES

- (a) **All classes, other than 10, Odyssey G, H, J, K, M, P, U & S must run a conventional type car engine.**
- (b) Every vehicle must be fitted with an operational reverse gear (motor driven, electric or internal combustion). Odyssey do not require reverse gear when competing in Short Course events.

29. FUEL

- (a) **Class 7** - Only commercially available fuel with an octane rating not exceeding 130 octane is permitted
- (b) **Junior classes**- Only commercially available fuel with an octane rating not exceeding 98 is permitted
- (c) **All other classes** - LPG, diesel and pump petrol only to be used. Methanol, alcohol or any compressed natural gasses are not permitted.
- (d) Fuel octane allowance is 130 octane or lower
- (e) Any LPG powered vehicle must have a certificate no older than 3 months.

30. FUEL TANKS AND LINES

- (a) **Classes 1, 3, 5, 7, C, 10, S & U**
 - (i) All fuel lines shall be firmly clamped to the chassis or frame
 - (ii) All fuel lines shall be of an approved type.
 - (iii) Flexible lines between body / frame / engine shall be securely clamped at each end and free from direct heat or chafing.
 - (iv) All in line filters must be constructed of metal.
 - (v) No sight level gauges shall be permitted.

- (vi) All carburettors which have a vent opening to the outside of the carburettor must have a system whereby any petrol leakage which can occur is directed to an area which can contain that leakage e.g. air filter or fuel tank. Any fuel line which forms a part of that system must be of an approved type.
- (vii) All fuel tanks must be fitted with a breather that will not release fuel in the event of a rollover.
- (viii) All fuel tanks to be securely mounted as low as possible within the confines of the main frame.
- (ix) All fuel tanks must be equipped with a filler cap which is fuel-tight and mounted within the confines of the frame. Rubber fuel caps are not permitted.

(b) Classes 2, 4, 6, 8 & 9

- (i) All fuel lines shall be firmly clamped to the chassis or frame
- (ii) All fuel lines shall be of an approved type.
- (iii) Flexible lines between body / frame / engine shall be securely clamped at each end and free from direct heat or chafing.
- (iv) All in line filters must be constructed of metal.
- (v) No sight level gauges shall be permitted.
- (vi) All fuel tanks and cells to be securely mounted to exclude chafing or twisting.
- (vii) All fuel tanks must be fitted with a breather that will not release fuel in the event of a capsize.
- (viii) All fuel tanks shall have an external leak-proof filler outside of the passenger compartment.
- (ix) Fillers or fuel tanks shall be fitted with a non-returnable breather.
- (x) Fillers must be constructed and situated so that, during refuelling, no fuel can be spilt into the driving compartment.
- (xi) Fuel fillers shall be mounted within the confines of the bodylines.
- (xii) Fuel filler caps shall be of a positive closing nature to prevent accidental loosening from vibration, i.e. must be of twist-fit or locking type.

31. CARBURETTORS and THROTTLE BODIES

- (a) The throttle system must be fitted with **two** external carburettor / throttle body return springs to ensure the system returns to idle
- (b) All carburettors which have a vent opening to the outside of the carburettor must have a system whereby any petrol leakage which can occur is directed to an area which can contain that leakage e.g. air filter or fuel line. Any fuel line which forms a part of that system must be of an approved type.
- (c) All fly by accelerator systems must run a 'return to idle in case of failure' arrangement. Most standard do this but there are odd (some Honda and other) units that do not and are not acceptable in the sport.

32. OIL LINES, WATER PIPES, RADIATORS

(a) Classes 1, 3, 5, 7, 10, C, S & U

- (i) All external oil lines are to be of approved oil resisting pressure hose, securely fixed.
- (ii) All water pipes to be securely fixed and of approved types.
- (iii) All overflow pipes are to exit well away from the occupants.
- (iv) Radiators and oil coolers are to be securely mounted within the confines of the frame. If the radiator and/or oil cooler is mounted within 300mm. behind the driving position, metal or alloy mesh with a maximum hole size of 15mm is required in front of the radiator and/or oil cooler between the radiator and/or oil cooler and the occupants.
- (v) Radiators must be equipped with approved caps.

(b) Classes 2, 4, 6, 8 & 9

- (i) All external oil lines are to be of approved oil resisting pressure hose, securely fixed.
- (ii) All water pipes to be securely fixed and of approved types.
- (iii) All radiators, fans and drive belts shall be contained within a compartment separate to the driving compartment with partitions to prevent the flow of liquids into the driving compartment.
- (iv) If the radiator and/or oil cooler is mounted within 300mm. behind the driving compartment, all fluid connections shall be fixed away from the occupants. Steel mesh is required in front of the radiator between the radiator and/or oil cooler and occupants. All care must be taken to prevent any spills of liquids from the radiator and/or oil cooler to the occupants at all times.
- (v) Overflow hoses must be directed away from the occupants.

33. EXHAUST SYSTEMS

- (a) All vehicles must be equipped with an effective silencer or muffler giving a 90 decibels reading maximum at 2 meters from the vehicle in the direction of the exhaust opening.
- (b) All exhaust systems must exit towards the rear of the vehicle and must not extend more than 150mm past the perimeter dimension of the vehicle.
- (c) All vehicles must be equipped with a spark arrestor for any event held in forest areas or any venue where there is a danger of fire. This includes turbocharged vehicles. This requirement must be stated on the event entry form.

See (Figure 1) next page.

Rule 33 Figure 1



34. ELECTRICAL SYSTEMS

- (a) All wiring and connections shall be insulated and free from chaffing or direct heat.
- (b) Wiring looms shall be adequately supported and tied.
- (c) Wiring passing through bulkheads shall be surrounded by grommets.
- (d) All vehicles must be fitted with a battery isolator (**kill switch**) which, when operated, isolates the total electrical system, including the ignition and charging circuits which, when operated, isolates the total electrical system, including the ignition and charging circuits and must shut off the engine. A live supply to the alternator is permitted.. This switch must be clearly marked with a red surrounding triangle approximately 75mm x 75mm with the ON/OFF positions clearly marked and in reach of both the driver and passenger when strapped in the vehicle. An external red triangle 75mmx75mm is to be placed on the exterior bodywork in closest proximity to the switch.
- (e) All systems shall be fitted with an ignition ON/OFF switch in reach of the driver when strapped in. The battery isolator / kill switch may be used as the ignition switch.
- (f) All vehicles shall be fitted with an **adequate warning device**, e.g., electric horn.
- (g) All vehicles must run an **ORANGE dust light** (not stop light) facing to the rear. This light must be connected in such a manner that it illuminates automatically at all times the engine is running. The dust light lens must have a minimum diameter of **85mm**. Multiple lights of a smaller diameter may be mounted immediately adjacent to each other to achieve a result, e.g., 2 x 50mm lights. The minimum wattage of an incandescent or halogen lamp to be 21 watt or **equivalent LED's (approx. 300 lumens)**
- (h) All vehicles competing in Enduro events must be fitted with a forward facing clear spotlight with a minimum sized lamp of 50W **or equivalent LED's (approx. 400 Lumens).**

- (i) Electronic aids capable of predicting race direction such as **navigation devices** are prohibited. This is to include GPS devices with driver/co-driver viewable or audible cue.

35. BATTERIES

(a) All classes:

- (i) All batteries to be securely mounted.
- (ii) Main power cable to be fully insulated.
- (iii) All batteries to be fitted with leak resistant caps.

(b) Classes 2, 4, 6, 8 and 9:

If contained within the driving compartment, batteries shall be enclosed in a leak-proof container of a non-conductive, material, vented externally from the driving compartment, dry cell and gel batteries are exempted.

36. BRAKES

(a) All classes (except J)

- (i) All vehicles shall be equipped with 4 wheel braking to enable all wheels to lock under brake test.
- (ii) All brake lines must be securely fixed to the vehicle.
- (iii) All brake lines to be in good condition – No perished or chafed hoses to be used.
- (iv) All vehicles to be fitted with a dual or tandem brake Master Cylinder.

(b) Classes 1, 3, 5, 7, 8, 9, 10, C, S & U

Independent brakes are permitted but must work only on the rear wheels. Independent brakes are optional.

(c) Classes 2, 4, 6, & 8

- (i) All brake lines to be of the non-expanding type.
- (ii) All brake lines shall be securely clamped to the chassis or frame construction.
- (iii) All flexible hoses to be securely clamped at each end and shall be clear of any chafing or direct heat.
- (iv) Two separate flexible hoses may be screwed together with purpose threaded couplings to make a longer hose.

37. STEERING and SUSPENSION

- (a) Tilt steering columns shall be permanently locked **during the race**.
- (b) All suspension (front & rear) and all steering components shall be of a safe and acceptable high standard. This standard is at the discretion of the governing body (ORANZ).

38. DRIVESHAFTS

A hoop is to be fitted to the chassis at the gearbox end, to stop the drive shaft dropping down and hitting the ground. In the case of 4WD vehicles, a second hoop must be fitted to the chassis or structural part of the vehicle at the front differential end, to prevent the front driveshaft dropping down and hitting the ground.

39. WHEELS, TYRES & TUBES

- (a) All wheel rims not fitted with bead lock devices shall have Tyres fitted with suitable inner tubes.
- (b) Carrying of spare Tyres and wheels is optional.
- (c) Any spare wheels carried must be bolted to the vehicle frame through at least three stud holes or be attached by an adequate central bolt arrangement through the wheel centre.
- (d) It is recommended that wheels be fitted with safety beads.

40. BODIES – All Classes

- (a) All body panels must be securely mounted to the frame or chassis.
- (b) Hinged doors shall be adequately secured with an operable catch.
- (c) All driving compartments must have a solid floor of material approved by the Chief Technical Officer.
- (d) All race vehicles must have an effective **and usable** rear vision mirror fitted in all events.
- (e) Classes 2, 4, 6, 8 and all front-engine vehicles shall run an adequate bonnet.
- (f) **Maximum car width 2.5 meters.**
- (g) **All vehicles must have two points of exit in case of roll over.**

41. BONNET FASTENINGS (Class 2, 4, 6, & 8)

Bonnets and engine covers shall be fastened securely at four (4) non expanding Points, i.e. bonnet pins.

42. WINDSCREEN/GLASS

- (a) Screens and windows are optional
- (b) Screens and windows may be replaced by metal or polycarbonate substitutes.
- (c) All glass screens shall be of laminated or safety glass.

43. LIFTING POINTS

All vehicles must have somewhere on their structure, two points where they may be lifted, pushed or towed should they get into a dangerous situation.

44. NERF BARS

All open-wheeled vehicles must have nerf bars extending at least 2/3rd the width of the each rear wheel measured from the inside of the rim and positioned as close as possible to the rear wheel.

45. FIREWALLS

(a) Classes 1, 3, 5, 7, 10, C, ~~S & U~~

- (i) All vehicles in competition must utilize an all-metal firewall to separate the driver's compartment from any danger of fire from the engine or fuel cell(s).
- (ii) A minimum firewall must extend from the driver's shoulder height to the vehicle floor and body sides.
- (iii) If the rear-mounted fuel tank or cell is higher than shoulder height, the firewall must be extended at least 25mm. above the fuel tank or cell.
- (iv) Air-cooled odyssey type vehicles do not necessarily require a full width firewall.
- (v) All Odyssey type vehicles that do not have a full width firewall must have a fuel tank deflector that prevents fuel (in the event of a spill or tank rupture) from entering the driving compartment.

(b) Classes 2, 4, 6, 8 & 9

All vehicles shall be fitted with an all-metal firewall completely partitioning the passenger and engine compartments so as to prevent flame and liquids entering the passenger area.

46. ROLL CAGES (refer Figure 2 to Figure 5 pages 36-37)

(a) Classes 1, 3 5, 7, 9, 10, C, S & U

- (i) All main frame members are to be a minimum of 1½" x 16 gauge ERW mild steel tubing or the equivalent strength. Alternatively MNZ 38.1mm O.D.
- (ii) (1 1/2 inch) by 2.5mm wall or Chrome Moly tube of 1 1/2 inch diam by .065 inch wall thickness as a minimum.
- (iii) All bracing to be a minimum of 1" x 16 gauge ERW mild steel tubing or of the equivalent strength.
- (iv) All rear hoops are to be a minimum of 1½ x 14 gauge ERW mild steel tubing or of the equivalent strength. In addition, the rear roll cage hoop must extend down to the lower frame or torsion bar housing.
- (v) Diagonal bracing of the rear hoops, or gussets to the equivalent design strength, are required.

(b) Class 2, 4, 6 & 8

A roll cage shall consist of:

- (i) A main hoop positioned behind the crew seats and **mounted to the vehicle floor (to current MNZ Specifications) or chassis.**
- (ii) A front hoop, sufficiently forward to contain the crew, **mounted to the floor or chassis.**
- (iii) At least two interconnecting bars at the outermost extremities.
- (iv) At least two longitudinal rear braces connecting the uppermost corners of the main hoop to the floor or chassis.
- (v) Diagonal bracing **within the main hoop** (refer page 36 Figure 2)
- (vi)).A diagonal brace is not required in a space-frame construction provided that the frame construction exceeds the requirement of these Rules.

- (vii) CLARIFICATION of DIAGONAL BRACING (refer page 36 Figure 2)
- (viii). Diagonal bracing must connect any or all of the following points: Options:
- Connect A to D
 - Connect B to C
 - Connect A to F
 - Connect B to E
- (ix) Mounting points E and F shall be in line between G and C, and H and D respectively.
- (x) Mounting points E and F shall be no more than 50% of the distance **back** from C and D along that line described above.
- (xi) It is **strongly recommended** that horizontal side bars, protecting the occupants from sideways impacts, be fitted. These should connect the front hoop and the rear main hoop in a line passing the occupants' hips or at waist level.
- (xii) The Main hoop shall be chassis or floor mounted to the satisfaction of the Chief Technical Officer.
- (xiii) **It is recommended that all cage members are chassis mounted.**
- (xiv) **Material**
- a) All vehicles up to a kerb weight of 1000 kg will use a minimum of 25mm nominal bore medium wall steam pipe or RHS for hoops and supports.
 - b) Alternatively MNZ 32mm O.D. (1¼ inch) by 2.5mm wall or Chrome Moly tube of 1¼ inch **diameter** by .065 inch wall thickness as a minimum.
 - c) All vehicles over kerb weight of 1000 kg will use a minimum of 32mm medium wall steam pipe or RHS for hoops and supports. Alternatively MNZ 38.1mm O.D. (1 1/2 inch) by 2.5mm wall or Chrome Moly tube of 1 1/2 inch dia. by .083 inch wall thickness as a minimum
 - d) An exception to (a & b) applies to fully space-frame constructed vehicles where 2mm walled tube (mild steel) shall be the minimum requirement.
 - e) MNZ tube to be 2mm, Chrome Moly tube to be .065 inch.
 - f) Aluminium tube may be used for roll cage construction and it will be two sizes greater than material used for steel construction.
 - g) All bolts shall have a minimum of one thread showing through the fixing nut. All fastenings shall be fitted with locking washers, tabs or spring washers to prevent loosening under vibration.
 - h) All bolts will be minimum 10mm (3/8") diameter high tensile steel, with hexagonal heads and shall be secured with hexagonal nuts. Where cap screws are used they will be minimum 10mm (3/8") diameter high tensile steel and shall be secured with hexagonal nuts.
- (xv) **Fabrication**
- a) No part of the structure shall show evidence of crimping; wall failure, or section weakening and bends should be smooth and continuous nature.
 - b) All welding shall be of the highest possible quality with maximum penetration.

- c) Joints in the main structure are not recommended and should be avoided. If it is necessary to make a joint in the main structure then the joint shall be sleeved, especially if butt-welded, to prevent shearing of the joint. A muff connection (Figure 3 page 37) may also be used under these conditions.

(xvi) Removable Connections

- a) In cases where removable connections are incorporated in the roll cage design, they must be one of the following types:
- b) Where clamps are used to secure parts of the roll cage, a bolt or cap screw is to pass through the clamp to resist sliding.
- c) The muff connection (Figure 3 page 37).
- d) A tongue and gusset connection (Figure 4 page 37). In this case, the tongue and gusset will be made from minimum 6mm (1/4") plate.
- e) A twin lug connection with axis working under double shearing conditions (Figure 5 page 37).

(xvii) Mountings

- a) The roll cage attachment points and surrounding area of the body or chassis shall be of a strong nature and shall be free of rust, corrosion and cracks.
- b) One of the following approved methods shall be used for the mounting of the roll cage.
 - (i) The twin lug connection (Figure 5 page 37).
 - (ii) The roll cage may be welded directly to the chassis and it is recommended that it be gusseted to a bearing area of 232 sq. cms. (36 sq. in.) per mount.
 - (iii) The roll cage may be welded to a plate which in turn is bolted to the chassis to facilitate roll cage removal. The plate shall have an area of 232 sq. cms. (36 sq. ins.) minimum, a thickness of 5 mm (3/16"), and be attached with a **minimum** of four bolts or cap screws. A backing plate should be used where possible.
 - (iv) When mounts are not part of the vehicle's chassis and are mounted to body panels, there is to be a minimum area of 232 sq. cms. (36 sq ins.) per mount of 5mm (3/16") plate and of the same shape (silhouette) as the mounting plate shall be attached, so as to sandwich the body panel, with a minimum of four bolts or cap screws. **Where aluminium is used**, the plates shall be a minimum thickness of 10mm (3/8") and a minimum area of 232 sq. cm (36 sq. in.).
 - (v) Any rubber mount used in the roll cage design shall be enclosed by a steel case to prevent tearing of the mount and possible roll cage separation.
 - (vi) **Space frame Vehicles** – Where the roll cage is part of the vehicle frame, the principals of Rule 46. (b) i)-xiii) shall be adhered to.

Figure 1 – Seats and Restraints

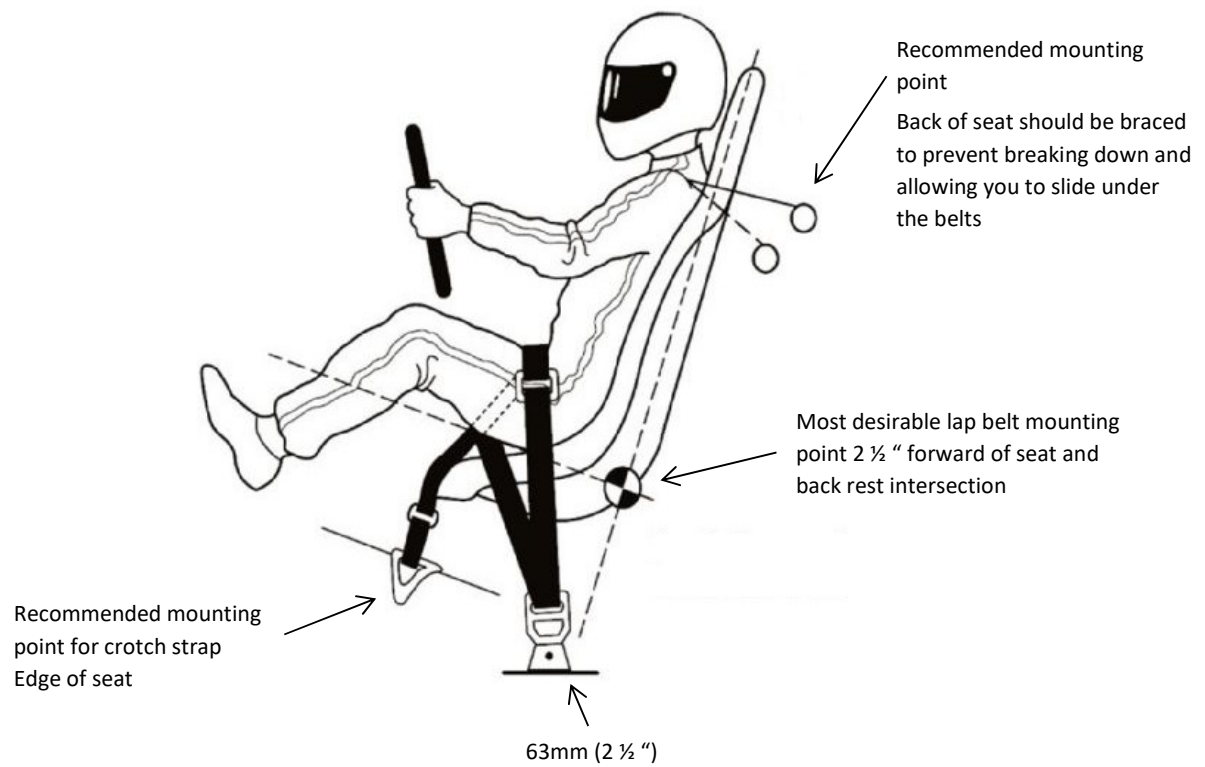


Figure 2 – Diagonal Bracing

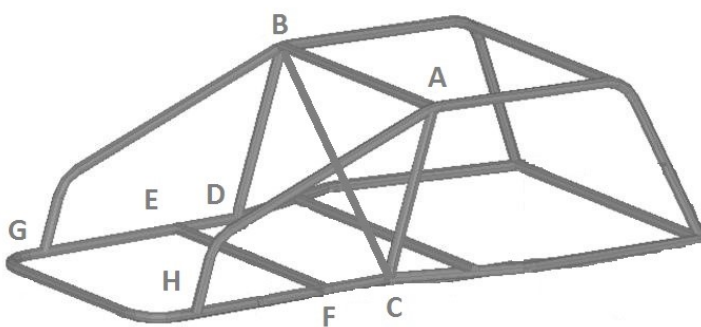


Figure 3 – Muff Connection

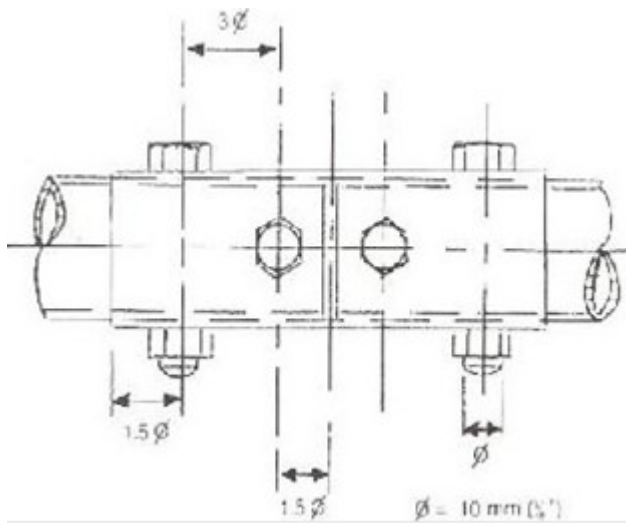


Figure 4 – Tongue and Gusset Connection

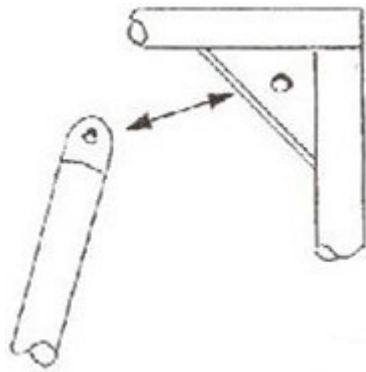
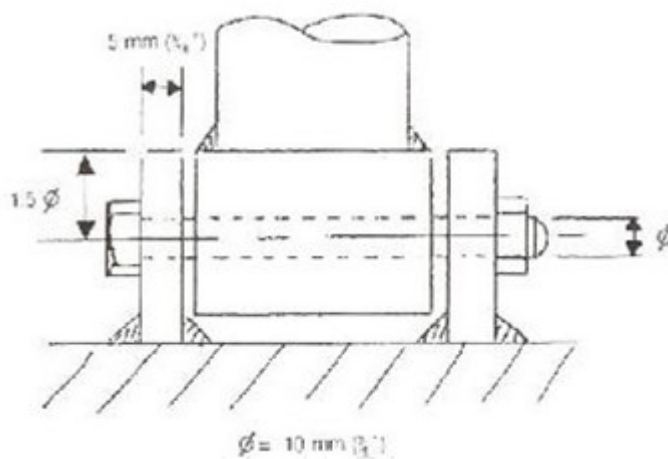


Figure 5 - Twin Lug Connection



RULES PERTAINING TO INDIVIDUAL CLASSES

BUGGY CLASSES

Any person deliberately attempting to campaign a vehicle in contravention of these rules and the spirit of any class will be dealt with by a ruling of the Chief Steward

47. Class 1

- (a) A rear or mid-engine vehicle using independent rear suspension (no straight axles) with the driver's seat in front of the engine and gear box but not exceeding 70% of the wheel base length forward of the rear axles as measured from the centre of the rear wheels to the front edge of the seat. All vehicles must have four wheels and be rear wheel drive.
- (b) **1633 to unlimited** engine displacement. 3: Any engine modifications permitted.
- (c) This class includes all turbocharged, supercharged and rotary engines from Classes 3, 5, C and 7.

48. Class 3

- (a) A rear or mid-engine vehicle using independent rear suspension (no straight axles) with the driver's seat in front of the engine and gear box but not exceeding 70% of the wheel base length forward of the rear axles as measured from the centre of the rear wheels to the front edge of the seat. All vehicles must have four wheels and be rear wheel drive.
- (b) **1333 – 1650cc** engine displacement.
- (c) Any engine modifications permitted except turbocharging or supercharging.

49. Class 5

- (a) A rear or mid-engine vehicle using independent rear suspension (no straight axles) with the driver's seat in front of the engine and gear box but not exceeding 70% of the wheel base length forward of the rear axles as measured from the centre of the rear wheels to the front edge of the seat. All vehicles must have four wheels and be rear wheel drive.
- (b) **0 - 1332cc** engine displacement.
- (c) Any engine modifications permitted except turbocharging or supercharging

50. Class C – Challenger Class

- (a) A rear-engined vehicle using independent rear suspension (no straight axles) with the driver's seat in front of the engine and gear box but not exceeding 70% of the wheel base length forward of the rear axles as measured from the centre of the rear wheels to the front edge of the seat. All vehicles must have four wheels and be rear wheel drive.
- (b) **V.W.** air-cooled engine, **1225 – 1641cc** engine displacement with **69mm** crankshaft stroke, any modifications with the exception of turbo or supercharging permitted.

- (c) **Carburettor** – V.W. Solex, single throat with the choke venturi not exceeding 26mm at its narrowest part. No force venting permitted.

(d) **Front Suspension**

(i) **Front Beam**

- a) Must be original VW Type One
- b) Unwanted brackets may be removed.
- c) Original shock towers may be reinforced or replaced with tubular construction. The shock mount position must remain unchanged and the measurement between the centre of the top shock mount bolt hole to the centre of the bottom shock mount stud is not to exceed 390mm. The measurement from the top of the upper torsion beam against the shock tower will be 195mm, plus or minus 5mm, to the upper shock mount bolt hole.
- d) Shock travel must remain standard, with measurement not exceeding 390mm between the centre of the original shock mount bolt to the centre of the bottom arm original shock mount bolt.
- e) Torsion arm rubber stops (travel stops) may be removed. Torsion arm stops (travel stops) may be altered in shape or shaped to a chisel point so long as the 390mm measurement from the centre of the top shock mount attachment to the Bottom shock mount attachment is maintained with the suspension fully extended.
- f) Front beam may be welded or bolted into the frame.
- g) Centre torsion clamps cannot be repositioned.
- h) Front beam bushes may be replaced with after-market bushes.

(ii) **Torsion Leaves**

- a) Must be original VW Type 1

(iii) **Torsion Arms**

- a) Must be, or maintain original VW Type one (no reinforcing) dimensions.
- b) Bottom shock stud is allowed to be sleeved or replaced with larger diameter provided the original stud hole diameter is unchanged (stepped diameter stud)
- c) An alternative torsion arm with the following critical dimensions the same as the original Type 1 are permitted
 - (i) Length – center of beam to center of link pin hole
 - (ii) Offset – distance from the mating face at the beam end of the mating face of the king pin carrier, measured parallel to the beam
 - (iii) Spigot – outside diameter and length
 - (iv) Link pin hole – diameter
 - (v) Location of shock mount – center of beam to mount position and offset from the mating face at the beam end to the mount position

(iv) **King pin Carrier and Front Spindle**

- a) King pin carriers must be original VW Type One with reinforcing allowed or EMPI Part no. E-17-2563 assembly may be used.
- b) King pin and king pin bushes may be replaced with aftermarket units so long as the original VW Type One dimensions are retained.

- c) Link pin bushes may be replaced with aftermarket units provided the original VW Type One dimensions are retained.
- d) Link pins may be replaced with either bolts or aftermarket pins provided the original VW Type One outside diameter is retained.
- e) Front spindles must be original VW Type One and may be reinforced by sleeving over the bearing area or EMPI part no. E-17-2563 units may be used.
- f) Front spindle tie rod arms may be drilled or replaced to allow for larger tie rod ends or the use of rose joints. Strengthening of the arms is permitted.
- g) Bearings and brakes open, brakes must be functional.
- h) The speedo cable hole may be welded or pinned and welded for increased strength.

(e) Gearbox

Any V.W. swing-axle (transaxle) gearbox. Gear and differential ratios – open.

(f) Frame

Single or two seats – optional.

51. Class 7

- (a) A rear engine vehicle using independent rear suspension with driver's seat in front of the engine and gearbox but not exceeding 70% of the wheel base length forward of the rear axles, as measured from centre of rear wheels to front edge of seat. All vehicles must have four wheels and rear wheel drive.

Specifications as follows:

- (b) Any standard single carburetted car engine up to 1000cc, fitted with original factory carburettor and jets as originally fitted, or any combination of homologated VW 1200 engine part is acceptable.
- (c) VW engines that can be used are:

36 HP Engines

Engine No.'s	1-195-282	to	3-912-914
	20-945-526	to	20-1277347
	122-001-986	to	122-74000

(Note 36 HP engines cannot be converted to 41.5 HP specifications)

41.5 HP Engines

Engine No.'s	5-000-001	to	9-800-000
	122-74001	to	D1430280

Certain non-standard combinations of older and later parts in conjunction with permitted modifications may result in failure to meet the required specifications in the following paragraphs. In such cases the specifications take precedence, regardless of the legality of the individual parts.

- (d) Carburettors
 - (i) Carburettors must be 28 PICT as originally fitted to 1200VW engines or optional an H 30/31 PICT 3 carburettor choked to 28mm.
 - (ii) Choke shafts and butterflies may be removed and resulting holes may be plugged.
 - (iii) All other relating parts and jets to remain standard.
 - (iv) Air filters are optional.
- (e) Inlet manifold shall be standard VW 1200 as originally fitted to VW 1200 power plant.
- (f) Exhaust system is of free choice so long as it meets the requirements as set down in ORANZ rules regarding position inside of frame and the use of spark arresters at certain events.
- (g) The flywheel must be standard VW, not lightened.
 - (i) Eight dowelling pins may be used.
 - (ii) An 'O'ring may be fitted to the flywheel by machining a groove in the flywheel and using the VW 'O'ring.
- (h) Balance of all moving parts of the engine, provided such balancing does not remove more material than is necessary to achieve the balance. (i.e. one piston etc. shall remain standard).
 - (i) Connecting rods: Polishing is prohibited and the only machining permitted is to achieve balance. Minimum connecting rod weight 470 grams.
 - (ii) The crankshaft may be ground and the case may be machined to accommodate the use of standard factory oversize/undersize crankshaft bearings provided the crankshaft location is not changed.
- (i) Polishing of the intake and exhaust ports provided polishing does not enlarge the exhaust ports beyond 33mm inside diameter, and the intake port beyond 29mm inside diameter.
 - (i) The inlet port may be reclaimed by argon welding and machined back to standard angles.
 - (ii) The intake manifold recess for retaining 'O' rings may be enlarged to accept the late model d-type "O" ring.
- (j) Cooling duct components shall remain standard type VW 1200. Removal of brushes, brush-holders and field coils from the generator permissible. Removal of the voltage regulator when fitting an alternator.
- (k) The use of any standard VW oil pump which can be fitted without alteration of the engine case permissible.

- (l) The following standard dimensions and tolerances of engine components shall be observed:
- (i) Bore 77mm or 1st oversize 77.5mm Or 2nd oversized 78mm
 - (ii) Stroke 64mm plus or minus 0.01mm
 - (iii) The combustion chamber must retain a minimum of 39cc
 - (iv) Minimum depth top of cylinder barrel to top of piston 1mm.
The above dimension may be achieved by machining any previously machined surface or by placing shims under the barrels, provided that the total surface is machined on the same plane as the previously machined surface.
 - (v) The ring groove on the piston can be modified to accept a ring insert to allow for reclamation of the piston. Compression rings must be 2.5mm width and standard VW configuration, but of any make. 2mm piston rings allowable. Teflon buttons may be used instead of gudgeon pin clips.
- (m) The use of any standard VW clutch of the same diameter that can be fitted without alteration to the transmission or flywheel is permissible.
- (i) The operation of the clutch mechanically or hydraulically is optional.
 - (ii) The make of the clutch lining is optional.
- (n) The installation of baffles housed completely within the original oil sump and crankcase is permissible.
- (o) Oil galleries in the crankcase may be enlarged and fitted with threaded end plugs.
- (p) The following dimensions must be observed:
- (i) Inlet valve diameter 30mm or 31.5mm.
 - (ii) Exhaust valve diameter 28mm or 30mm
 - (iii) Valves may be polished.
- (q) The crankcase may be machined to permit the use of standard VW camshaft bearing inserts, provided that camshaft location is not changed.
- (r) The fan belt must be in position and fully operational.
- (s) The use of any oil cooler and/or oil filter permissible. Location of the oil cooler and/or filter may be as desired.
- (i) An additional oil cooler may be used.
 - (ii) The cover plate of the oil pump may be modified or replaced so that oil pipes and oil filter can be directly attached.
- (t) Camshaft shall remain standard. Valve timing with valve clearance of 1mm (.040") shall be:
- | | |
|----------------|--------------------------------|
| Intake opens | 4 deg BTDC or 6 deg BTDC |
| Intake closes | 32 deg ABDC or 35 deg 30' ABDC |
| Exhaust opens | 41 deg BBDC or 42 deg 30' BBDC |
| Exhaust closes | 1 deg ATDC or 3 deg ATDC |

- (u) The use of the following non-standard replacement parts is permitted providing there is no unauthorized modification of any other component:
 - (i) Fasteners (nuts, bolts, screws, etc)
 - (ii) Wiring
 - (iii) Gaskets and seals
 - (iv) Spark plugs
 - (v) Valve guides
 - (vi) Fan belt
 - (vii) Pushrod tubes
 - (viii) Electrics are optional 6 or 12 volts
 - (ix) Sand seal power pulley
 - (x) Oil coolers and filters
 - (xi) Air filters
 - (xii) Exhaust systems
 - (xiii) Rocker covers
 - (xiv) Centrifugal advance distributor
- (v) Transmission assembly shall be standard VW 1200 type 1 sedan.
 - (i) Use of a limited slip differential device or assembly of the differential in such a manner as to create the effect of such a device is prohibited.
 - (ii) The differential must function freely.
 - (iii) The transmission and axles must mount on type 1 VW 1200 spring plate systems.
 - (iv) Only the following gear ratios are allowed:

Fully synchronized transmission – (tunnel case)

Gear	No of Teeth	Ratio
1st	10:38	3.80
2nd	17:35	2.06
3rd	22:29	1.32
	23:29	1.26
	23:28	1.22
4th	27 24	0.89
	28.23	0.82
Ring & Pinion	08:35	4.375
	08:33	4.125

Partly synchronized transmission – (split case)

Gear	No of Teeth	Ratio
1st	10:36	3.60
2nd	17:35	1.94
3rd	17:32	1.88
	23:28	1.22
4th	22:27	1.23
	28 23	0.82
Ring & Pinion	07:31	4.43

- (w) Front suspension - shall be standard VW 1200 type 1 as used on VW sedans.

The following modifications are allowed:

- (i) The fitting of rack & pinion steering
 - (ii) Split leaf springs may be replaced by solid leaf springs
 - (iii) The fitting of non-genuine front shock absorbers, so long as they retain the same dimensions and travel as the genuine front shock absorbers and they are mounted in the same position.
 - (iv) Gusseting of the front suspension components is allowable.
 - (v) Resetting of anchor points to increase ride height, but still retain original length of suspension travel.
 - (vi) Running of Combo front spindles as per Challenger Class rule 50d (iv), 50e & 50f is permitted.
- (x) Improvements to braking bias system are allowed retaining VW components. Brake drums, backing plates and wheel cylinders must be standard VW 1200 sedan. After market disc brakes accepted.
- (i) Any brake shoes, brake linings and/or hydraulic brake lines may be used.
 - (ii) Park-brake components may be removed.
 - (iii) The fitting of hydraulic steering brakes is optional.
 - (iv) Any improvements to the master cylinder are acceptable.
 - (v) Front and rear disc brakes allowable.
- (y) This class is to be run in the spirit in which it is formed, that is to provide an affordable, entry level class with each vehicle having similar performance. Any person deliberately attempting to campaign a vehicle in contravention of These Rules and the spirit of this class will be dealt with by a ruling of the Chief Steward

52. Class 10

This class includes all off road vehicles not powered by a conventional production type car engine.

- (a) A rear or mid-engine vehicle using independent rear suspension (no straight axles) with the driver's seat in front of the engine and gearbox but not exceeding 70% of the wheel base length forward of the rear wheels to front edge of the seat. All vehicles must have four wheels and be rear wheel drive.
- (b) **0 – 1500cc** engine displacement
- (c) Any engine modifications permitted.
- (d) Turbo or supercharging not permitted.
- (e) Window nets on side openings to restrain arms from exiting the vehicle in case of accident are to be fitted. These must be a simple release arrangement to allow either the competitor or Marshall to open easily. Alternatively, a bar running from shoulder height to lower front window height.

NOTE: Classes G, H and K are now deleted and any competing vehicle with in these Classes go to Class 10. Odyssey cars built prior to December 31st 2014 may apply to the Chief Technical Officer for dispensation due to chassis/roll cage specification changes. The CTO will advise the Chief Steward for a letter of Dispensation.

53. Class U (UTV)

These rules are valid from January 2016. Production SXS/UTV presently competed. Factory production releases of SXS/UTV up to 1000cc engine capacity.

Note: these rules are to pertain to all brands of similar type vehicles and are not exclusive to any particular brand. The following rules may be altered or added to by the Chief Steward on the Recommendation of the Chief Technical Officer without notice during 2017 as the need may arise.

- (a) SPECIFICATION: Restricted to mass produced side by side UTV type recreational vehicles. Vehicle makes and models to be inspected and passed by the ORANZ Chief Technical Officer or delegated person before that type/model is eligible to compete. Each model will be provided with a list of safety enhancements pertaining to that type of vehicle which shall be presented with the log book at scrutineering for ease of scrutineering.
- (b) Engine: Engine size up to a maximum 1000cc for naturally aspirated engines. No Turbos or Superchargers. The engine must be based on the production engine that came from the manufacturer, retro fits are not permitted. Aftermarket air cleaners and mufflers are permitted but must be bolt on accessories designed for the vehicle. ~~Aftermarket fuel mapping is not permitted on fuel injected motors.~~ No internal or external modifications are permitted on the engine. As factory supplied. ~~ORANZ Chief Technical Officer or his delegated person has the right to check the competitors ECU at any point or have the ECU checked by the manufacturers Technical engineer.~~

- (c) Transmission: Transmission and diff(s) to remain stock and vehicles must have an operational reverse gear. Axles may be strengthened or aftermarket axles used provided parts are the same dimensions as original parts. Clutches, are to remain factory stock items but clutch springs and shoes are free. Clutch Cooling Optional. No other modifications to the clutch are permitted.
- (d) Chassis: Must remain stock except for reinforcing for safety reasons required by ORANZ at the time of type approval for racing or subsequently on the recommendation of the Chief Technical Officer.
- (e) Suspension: Vehicles must retain the original suspension design, number of shock absorbers and dimensions (e.g. wheel base and width). Aftermarket springs and shock absorbers may be used but must not alter the original suspension travel. Suspension arms may be strengthened or aftermarket parts are permitted provided parts are the same factory length and dimensions as original parts. Front and rear sway bars are free.
- (f) Wheel width is to be measured from hub flange to hub flange with wheels off and not to exceed 1.420m. Overall wheel width not to exceed 2.000m measured outside to outside of wheels normally inflated.
- (g) Coachwork: The original coachwork is to remain including all safety features included by the manufacturer. Extra mudguards may be fitted. It is essential that protective nerf bars be fitted which protect at least 2/3rds of the rear tyre width or anywhere that sharp edges are present. Protective panels such as under body protector, roofs or A arm protectors etc may be fitted. **Doors to be fitted and side intrusion bars must be included from armpit to knee/foot line to forward chassis member, made of minimum 2.5 wall thickness tube no less than 8mm in diameter of existing chassis tube.** At least one rear vision mirror is compulsory. Window nets to side openings to restrain arms from exiting the vehicle in case of accident are to be fitted. These must be a simple release arrangement to allow either the competitor or marshal to open easily. UTV passenger seat as supplied by manufacturer for the model to be retained in the original position.
- (h) Roll Cage: A standard or retro fitted top roll cage, a "V" in the front windscreen area of no less than 32mm x 2mm wall is required. **Diagonal bracing in the roof to be fitted. At least one diagonal in either the rear hoop or back stays must be fitted. A tube from the top "A" pillar bend down to the lower chassis to be fitted.** Head ache bars must be fitted or retro fitted roll cage of superior strength design to give adequate helmet clearance and protection. Welding to be carried out by a confident tradesperson. Pipe or tube must be of sufficient wall thickness to take significant side impact and wall thickness and tube diameter must be as per ORANZ Rules for roll cages (rule 46). Bolt holes in the roll cage tubing is not permitted unless as from manufacturers production.
 - (i) Head ache bars must be fitted - these protect occupant's heads as pictured. 3p
 - (ii) Rear cage must be fitted similar to one pictured below. 1p
 - (iii) Front nudge bar (bush bar) must be fitted. 4p
 - (iv) Front v bar must be fitted similar to picture. 2p
 - (v) Harness retaining clamps must be fitted; 5p or seat belts placed through seats must pull down on the occupant.
 - (vi) Nerf bars must be fitted. 6p.

1P



2P



3P



4P



5P



6P



- (i) Wheels and Tyres: Wheels and Tyres are open. Adapter plates / Spacers to allow fitment of aftermarket rims are permitted but must fall within Rule 53.(f).
- (j) Radiator: May be upgraded but must be mounted in the manufacturers original position. Protective guards may be fitted.

- (k) Steering: Manufacturer's original specification is to remain. Aftermarket steering wheels may be fitted but must be securely fastened. Tilt steering columns are permitted if part of the vehicles original specification but must be securely locked into position. These are to be checked at scrutineering. Steering 'Quickeners' are not permitted.
- (l) Fuel Tanks: Original makers fuel tank to be installed.
Note; at this time, no additional fuel tank may be fitted in this class. The only permitted increase in fuel capacity is by running a manufacturers supplied after-market tank in the original position.
- (m) Firewall: Original firewall to be in place but may require alteration if deemed necessary by the Chief Technical Officer.
- (n) Electrics: The ignition key may not be used as the battery isolating switch. An additional battery isolating switch is to be fitted to completely isolate the electrics at any given time including engine stopping. Battery Isolation switch to be fitted in reach of driver, passenger and from outside the vehicle. Battery isolation switch to be clearly identified.
- (o) Battery to be a sealed type or a non-spill type when inverted.
- (p) All other ORANZ Rules pertaining to general racing requirements (dust lights, tow rope, harnesses, first aid kit, fire extinguisher, seats, horn, clothing and footwear, battery etc.) are applicable to this class.

54. Class S – UTV Modified Division

These rules are valid from January 2016 and relate to the next step of improvement from the Production SXS/UTV presently competed. This class encompasses modified engines up to 1500cc or factory production turbo releases of SXS/UTV up to 1000cc engine capacity.

Note: The following rules may be altered or added to by the Chief Steward on the Recommendation of the Chief Technical Officer without notice during 2017 as the need may arise.

- (a) SPECIFICATION: Restricted to mass produced side by side UTV type recreational vehicles. Vehicle makes and models to be inspected and passed by the ORANZ Chief Technical Officer or delegated person before that type/model is eligible to compete. Each model will be provided with a list of safety enhancements pertaining to that type of vehicle which shall be presented with the log book at scrutineering for ease of scrutineering.
- (b) Engine: Engine size up to 1000cc for turbo engines and 1500cc for naturally aspirated engines. The engine must be based on the production engine that came from the manufacturer, retro fits are not permitted. Turbo type, boost pressure, ecu mapping and ECU open. Aftermarket air cleaners, snorkels and mufflers open not to exceed 90 decibels as per Rule 33. A bolt on turbo kit can be fitted to a production based turbo engine or a non-turbo based naturally aspirated engined UTV. The only internal modification allowed to the engine is head gasket and de-compression plate plus change of head studs to lower the factory compression.

- (b) continued...Naturally aspirated UTV engines are permitted to have modifications to both internal and external components to a maximum of 1500cc. No NOS or other gas additives are permitted.
- (c) Transmission: Transmission and diff(s) to remain stock and vehicles must have an operational reverse gear. Axles may be strengthened or aftermarket axles used provided parts are the same dimensions as original parts. Clutches, clutch springs and shoes are free. Clutch Cooling Optional. No other modifications to the clutch are permitted.
- (d) Chassis: Must remain stock except for reinforcing for safety reasons required by ORANZ at the time of type approval for racing, or subsequently on the recommendation of the Chief Technical Officer.
- (e) Suspension: Vehicles must retain the original suspension design, number of shock absorbers and dimensions (e.g. wheel base and width). Aftermarket springs and shock absorbers may be used but must not alter the original suspension travel. Suspension arms may be strengthened or aftermarket parts are permitted provided parts are the same factory length and dimensions as original parts. Front and rear sway bars are free
- (f) Wheel width is to be measured from hub flange to hub flange with wheels off. Wheel Base is to be measured from front Hub center to Rear hub Centre. Wheel width not to exceed 2.000m measured outside to outside of wheels normally inflated.
- (g) Coachwork: The original coachwork is to remain including all safety features included by the manufacturer. Extra mudguards may be fitted. It is essential that protective nerf bars be fitted which protect at least 2/3rds of the rear tyre width or anywhere that sharp edges are present. Protective panels such as under body protector, roofs or A arm protectors etc. may be fitted. **Doors to be fitted and side intrusion bars must be included from armpit to knee/foot line to forward chassis member, made of minimum 2.5 wall thickness tube no less than 8mm in diameter of existing chassis tube.** or a “V” pattern from shoulder rail to floor pan rail. At least one rear vision mirror is compulsory. Window nets to side openings to restrain arms from exiting the vehicle in case of accident are to be fitted. These must be a simple release arrangement to allow either the competitor or marshal to open easily. UTV passenger seat as supplied by manufacturer for the model to be retained in the original position.
- (h) Roll Cage: A standard or retro fitted top roll cage must have a “V” in the front windscreen area of no less than 32mm OD x 2mm wall, plus diagonal bracing in the roof, and at least one diagonal in either the rear hoop or back stays. A tube from the top “A” pillar bend down to the lower chassis must be installed. Head ache bars must be fitted or retro fitted roll cage of superior strength design to give adequate helmet clearance and protection. Minimum roll cage tube diameter, wall thickness, material specification with driver and passenger head clearance is listed in Rule 24e of the ORANZ Rule Book.
- (i) Head ache bars must be fitted - these protect occupants heads as pictured.3p
 - (ii) Rear cage must be fitted similar to one pictured below.1p
 - (iii) Front nudge bar (bush bar) must be fitted. 4p
 - (iv) Front v bar must be fitted similar to picture. 2p

- (v) Harness retaining clamps must be fitted, 5p or seat belts placed through seats must pull down on the occupant.
- (vi) Nerf bars must be fitted. 6p.

1P



2P



3P



4P



5P



6P



- (i) Wheels and Tyres: Wheels and Tyres are open. Adapter plates / Spacers to allow fitment of aftermarket rims are permitted but must fall within Rule 54. (f).
- (j) Radiator: May be upgraded but must be mounted within the body frame or within the roll cage. Protective guards may be fitted. Driver and passenger to be protected.
- (k) Steering: Manufacturer's original specification is to remain. Aftermarket steering wheels may be fitted but must be securely fastened. Tilt steering columns are permitted if part of the vehicles original specification but must be securely locked into position. These are to be checked at scrutineering.

- (l) Fuel Tanks: Original fuel tank(s) and/or an additional fuel tank may be fitted. Additional fuel tanks can only be fitted in the rear tray compartment and MUST fit within the confines of the roll cage and be fastened to the chassis. Additional fuel tanks cannot be fitted in the driving compartment. Fuel must not be able to enter the driving compartment at the time of refuelling; additional splash guards may be required. All fuel tanks to be fitted with a non-return valve to the breather to prevent fuel spillage in the case of a roll over. Maximum capacity of fuel to be carried must not exceed 85 litres in total. Additional fuel tanks if used must be fitted prior to tagging and noted within the Log Book. Any additional fuel tank are to follow the firewall rule 30 (a) (i to v and vii to ix) plus Rule 45 (a) (i and iii).
- (m) Firewall: Original firewall to be in place but may require alteration if deemed necessary by the Chief Technical Officer.
- (n) Electrics: The ignition key may not be used as the battery isolating switch. An additional battery isolating switch is to be fitted to completely isolate the electrics at any given time including engine stopping. Battery Isolation switch to be fitted in reach of driver, passenger and from outside the vehicle. Battery isolation switch to be clearly identified.
- (o) Battery to be a sealed type or a non-spill type when inverted.
- (p) All other ORANZ Rules pertaining to general racing requirements (dust lights, tow rope, harnesses, first aid kit, fire extinguisher, seats, horn, clothing and footwear, battery etc.) are applicable to this class.

RULES PERTAINING TO INDIVIDUAL CLASSES

TRUCK AND CAR CLASSES

Any person deliberately attempting to campaign a vehicle in contravention of these rules and the spirit of any class will be dealt with by a ruling of the Chief Steward

55. Class 9

- (a) Front, mid or rear-engine, vehicles resembling a manufacturer's body type.
- (b) Two and four wheel drive (production car/sedan type).
- (c) Unrestricted engine capacity and engine type.

56. Class 8 – “Thunder Trucks” 2WD & 4WD

- (a) SPECIFICATION – Unlimited engine capacity and configuration. Engine must be mounted in front of the rear differential.
- (b) Body design must resemble a production commercial, or recreational vehicle (vehicles constructed and registered in this class prior to 2007 are exempt upon application to the Chief Steward for dispensation. Vehicles constructed and/or registered after 2007 must comply).
- (c) Monocoque or uni-body construction is permitted providing original strength and rigidity are not compromised in any way.
- (d) Cab and chassis type vehicles must have no protruding corners front and/or rear that could endanger other competitors. Intrusion bars to be fitted to prevent other vehicles being caught under the tray or chassis, both rear and sides.
- (e) Front bumpers to have rounded ends and no sharp protrusions.
- (f) SUSPENSION – Open
- (g) CHASSIS DESIGN – Open
- (h) TRANSMISSION – Open (Transaxles not permitted)
- (i) REAR AXLE – Open

57. PROLITE CLASS (run within Class 8)

All Prolite race trucks must comply with the ORANZ 'General Rules'

- (a) CHASSIS
 - (i) The Standardized Prolite Chassis must be constructed in accordance to approved ORANZ NZ Prolite.
 - (ii) Standardized Chassis prints.
 - (iii) All chassis information such as ride height and tracking width are included in the ORANZ
 - (iv) Standardized chassis prints.
 - (v) The transmission and engine must fit within the frame rails.
 - (vi) Motor set back will be a maximum of 42 inch \pm 2 inch measured from the spindle centerline to the back of the block at the bell housing mounting surface
 - (vii) The engine block and head must be positioned between frame rails as viewed from the top

(b) FRAME and ROLL CAGE CONSTRUCTION

- (i) Chassis/Frame must be constructed of 3" x 2" rectangular box section, minimum wall thickness of 1/8".
- (ii) Metric equivalent 75mm x 50mm x 3mm.
- (iii) Roll cage must be made of 38.10mm x 2.6mm wall Tube.
- (iv) Chromoly must be 1.5 inch x .095.
- (v) This includes sections C, A, B, to D. Also A to G and B to H. Also I, J, K, to L and inter- connecting points A to J and B to K. as per ORANZ Roll cage general design.
- (vi) Roll cage tube material must meet or exceed NZTM-Q29

(c) BODY

- (i) All fender and box side mounts must be a looped design only. Box sides must be full length including the taillight wrap around.
- (ii) Roofline, Rocker panels and top of bed side must parallel to the horizontal frame members.

(d) BUMPERS

- (i) Rear bumper must have a minimum of 6 inches between bumper and fuel cell and may not extend more than 1 inch beyond the outside front to rear tyre line.
- (ii) Bumper must be constructed of tubing with a minimum of 1.5 inch x .095. or 38.10mm x 2.6mm
- (iii) Any bumper brackets must be a minimum of .095.
- (iv) Rear bumper must be 1 inch behind bed side as measured in a straight line between the rear of stock production length bedsides.
- (v) Nerf bars may not extend more than 2 inches beyond the outside front to rear tyre line.
- (vi) Nerf bars and bumpers must be rounded.
- (vii) Minimum front and rear bumper width is 32 inches.
- (viii) Front bumper must be 1 inch in front of, and cannot extend more than 12 inches beyond grill

(e) REAR SUSPENSION

- (i) Four bar suspension only.
- (ii) Sway bars allowed.
- (iii) Rear wheel travel limit: fourteen (14) inches.
- (iv) Rear axle may not rotate separately of the axle housing mounts.

(f) SUSPENSION

- (i) All four corners must be a coil over suspension.
- (ii) Sway bars allowed.
- (iii) Front suspension, the "A" arm must be constructed symmetrical about the centerline.
- (iv) Front wheel travel limit: twelve (12) inches.

(g) FENDERS

- (i) Tyres must retract into fender wells

(h) WEIGHT OF TRUCK

- (i) All trucks weigh a minimum weight of 1300kgs without driver, with empty fuel tank. All other fluids to be at full marks.
- (ii) All chassis must be constructed with a minimum 45% front weight ratio.
- (iii) All trucks must meet minimum weight and front percentage both pre and post-race.
- (iv) Weight is subject to change; in the interest of competition prolite can be cleaned to establish post-race compliance.

(i) HOODS

Hood must be locked down with five (5) positive pin fasteners equipped with clip cables. Three (3) must be evenly spaced across the front of the hood and two (2) placed in the rear corners of the hood.

(j) WHEEL AND TYRES

- (i) Tyre must be D.O.T. approved.
- (ii) Tyres must be produced in quantity each year and available for sale to the general public through normal dealer distribution.
- (iii) Maximum tyre size will be 32" X 11.50" as indicated on tyre. Metric tyres may be used so long as they do not exceed the maximum tyre size indicated above.
- (iv) Tyres will not be allowed if circumference exceeds 101".
- (v) Tyres will be measured without load of vehicle.
- (vi) Tyres will be measured from their widest and highest point, inflated to 35psi, mounted on a standard eight- (8) inch width wheel.

(k) REAR AXLE/DIFFERENTIAL

- (i) Rear axle ring and pinion may be of any gear ratio.
- (ii) Quick-change rear ends are not allowed.
- (iii) Only steel axles permitted.
- (iv) Independent rear suspension is not allowed
- (v) Must be location as indicated in Standardized chassis drawings

(l) ENGINE BLOCK

- (i) Eight cylinders only.
- (ii) Maximum displacement: 360 cubic Inch (5.9 litres)
- (iii) Fuel is automotive gasoline only.
- (iv) Two (2) valves per cylinder
- (v) Approved manufacturer engine blocks are Chevy, Ford, and Mopar. ORANZ Technical Officer can approve other blocks that meet the standard engine block specification.
- (vi) F. Centerline of crankshaft cannot be less than eight (8) inches above the lowest part of the frame rail, as measured from the front of the engine.
- (vii) Engine must remain in front of truck as per standardized Chassis drawings
- (viii) Mandatory that the engine block and head be positioned between frame rails as viewed from the top.
- (ix) Magnetic steel crankshaft only.

(m) ENGINE OILING SYSTEMS

- (i) Dry oil sumps systems are allowed.
- (ii) Any wet sump pan is allowed.

(n) ENGINE HEADS

- (i) Aluminium heads are permitted.
- (ii) Valve angle cannot be changed from stock location.
- (iii) No welding or material added except for repairs without ORANZ technical approval.
- (iv) Valve location cannot be changed.
- (v) Spark plug location cannot be changed.
- (vi) Modification to combustion chamber allowed.
- (vii) Cam location and mounting cannot be changed.

(o) CARBURETOR

- (i) A single 650 Holley 80541-1 650 CFM is mandated.
- (ii) Typical adjustments to maintain performance levels, or tailor the metering system, are permitted
- (iii) Adjustments which are not perceived as modification are:
 - (iv) Idle speed
 - (v) Idle mixture
 - (vi) Power valve
 - (vii) Jets
 - (viii) Air bleeds
 - (ix) Float Level
- (x) No other modifications are allowed
- (xi) A single 1 inch spacer is permitted. Spacer must have 4 holes
- (xii) Tapering is permitted

(p) HEADERS

- (i) Are allowed.
- (ii) 1 ¾ inch primaries
- (iii) No step headers

(q) IGNITION SYSTEM

MSD ignition with module 6AL #6420 (or ALN), 6LS #6010 will be required with a 6000 RPM limit.

(r) ENGINE COOLING SYSTEM

- (i) Radiator of any size may be used.
- (ii) Mounting position in front of engine or behind driver compartment.

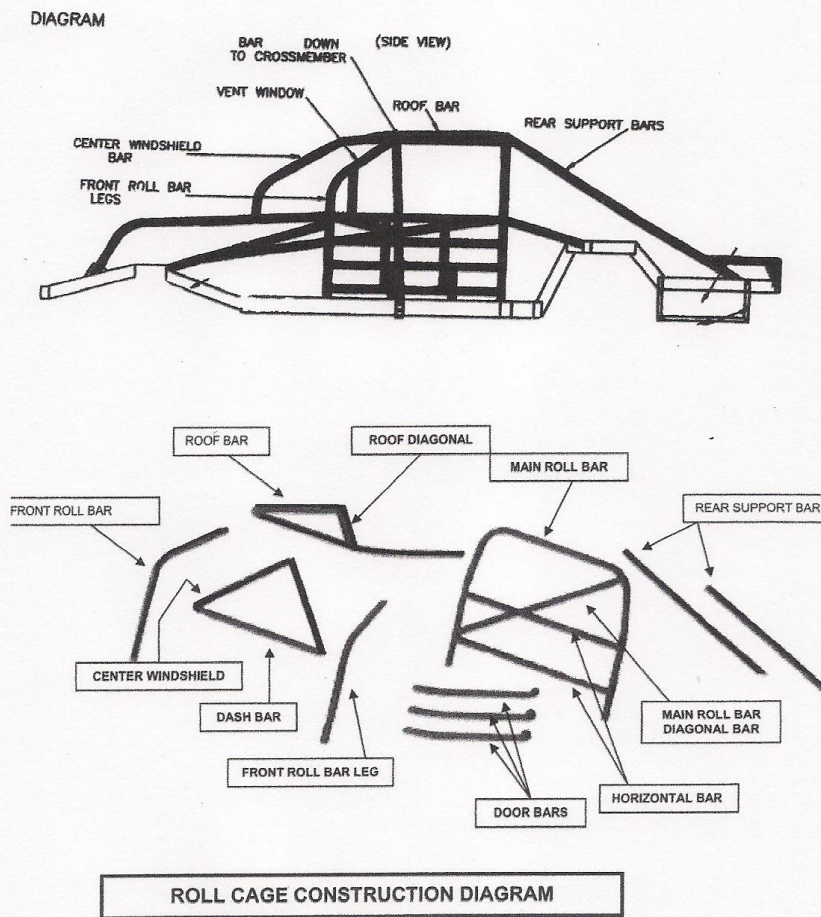
(s) TRANSMISSION

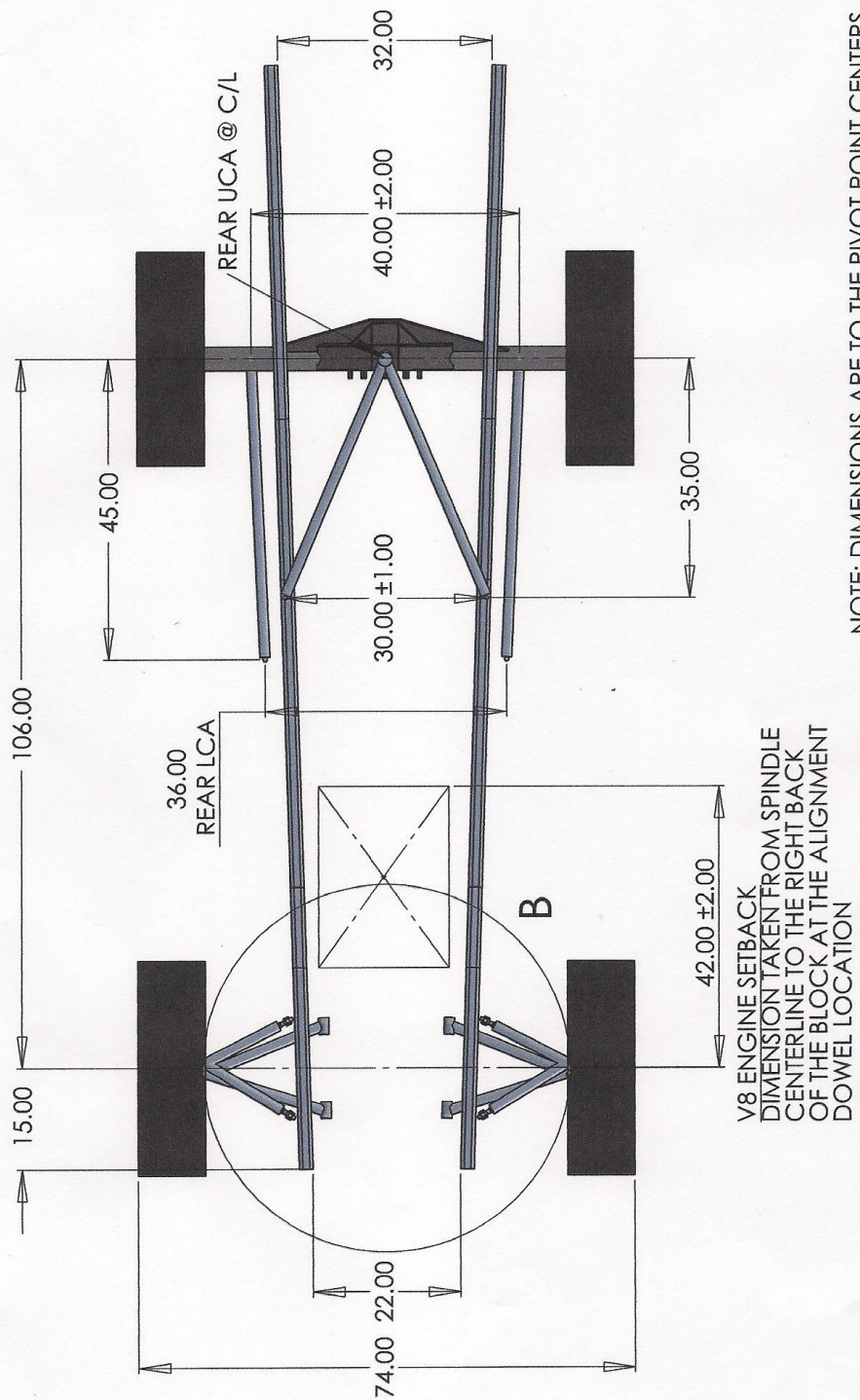
- (i) GM turbo 400 transmissions with standard gearing (2:48, 1:48, 1:0) will be the only transmission allowed
- (ii) Aftermarket short extension housing is allowed
- (iii) Transmission must operate through a conventional torque converter

- (iv) Manual shifting of transmission is mandatory unless other method need be employed for handicap condition of driver
- (v) Remote accessory drives are not allowed
- (t) PROTECTIVE SHIELDS
 - (i) Transmission, case/ bell housing must have a protective shield so placed as to protect the driver from exploding parts.
 - (ii) Shield must be constructed of ¼ inch thick metal material.
 - (iii) Shield must extend from beginning of the transmission bell housing back to the bolt on tail shaft housing protecting the driver or the driver and passenger if two seaters. Shield can be attached to the chassis rail but must extend to centerline of transmission as minimum for single seaters or completely enclose for two seaters.
- (u) DRIVESHAFT
 - (i) Hoop to be fitted to chassis at the Transmission end to stop the drive shaft dropping down and hitting the ground.
 - (ii) Hoop to be a solid steel bracket, no less than 2 inches wide and ¼ inch thick or 1 inch tubing with a minimum thickness of .095 inches.
- (v) FUEL CELL

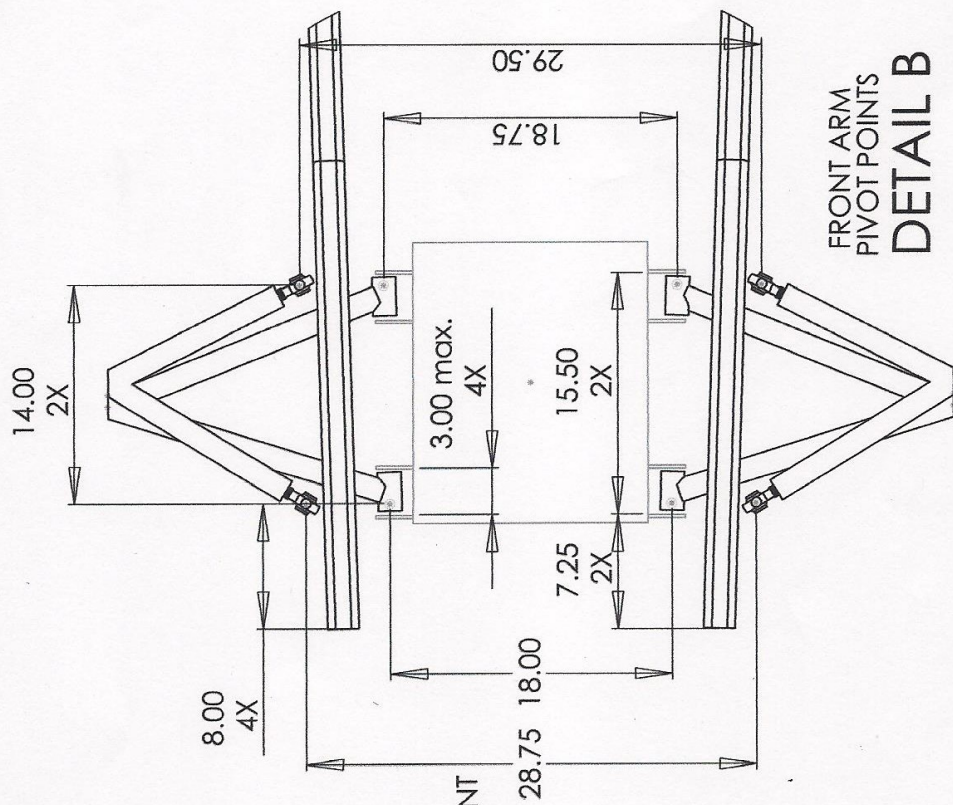
Fuel cell must be located behind truck cab.
- (w) SHOCKS AND BUMP STOPS
 - (i) Maximum of two (2) shocks per corner.
 - (ii) One (1) spring stack per corner, maximum of two (2) springs on one (1) shock.
 - (iii) External bypass allowed on one (1) shock per corner.
 - (iv) Bump stops may only be attached to the chassis of the truck. Cannot be attached to any moving suspension parts.
 - (v) Bump stops will be allowed on front and rear of the truck. Bump stops if fitted to absorb a maximum of 4 inches of upward travel (compression)
- (x) RIDE HEIGHT OF TRUCK
 - (i) Ten (10) inches measured as vehicle drives over ten (10) inch ride height
 - (ii) Truck may be measured before and after competition with maximum clearance being the criteria of acceptance.
 - (iii) Trucks will be measured with all tyres inflated to 20 psi not including inner bead lock tubes

40.3 Roll Cage

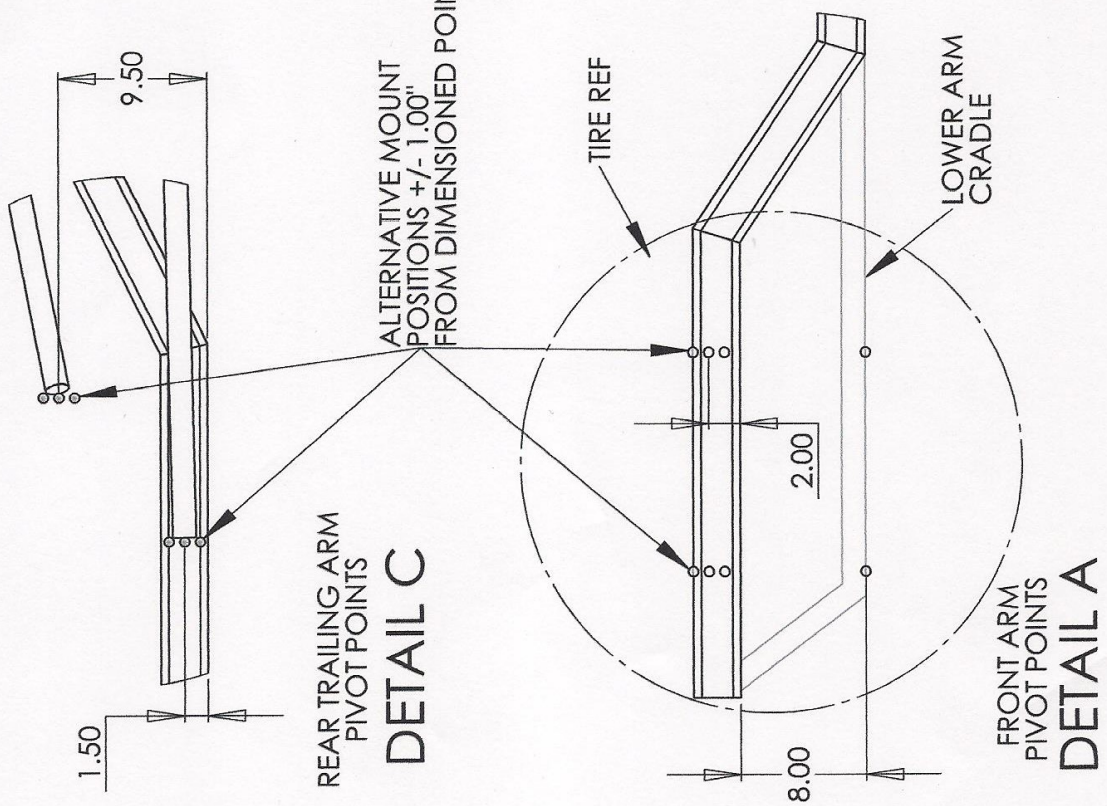




NOTE: DIMENSIONS ARE TO THE PIVOT POINT CENTERS
 ALL DIMENSIONS TO BE HELD TO $\pm .50$ " INCHES
 UNLESS OTHERWISE NOTED.



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ALL DIMENSIONS TO BE HELD TO +/- .50" INCHES
UNLESS OTHERWISE NOTED.



58. Class 6 – Road Legal 4x4 Vehicles

(a) SPECIFICATION

- (i) Restricted to volume production commercial or recreational vehicles.
- (ii) Must be certified road legal, registered and warranted to comply.

(b) ENGINE & TRANSMISSIONS

- (i) Replacement engines and transmissions from any automotive manufacturer are permitted.
- (ii) Any conversions must be certified.
- (iii) The engines may run turbo or superchargers.
- (iv) Hoop to be fitted to chassis at the gearbox end to stop the drive shaft dropping down and hitting the ground. In the case of 4WD vehicles, a second hoop must be fitted to the chassis or structural part of the vehicle at the front differential end to prevent the front driveshaft dropping down and hitting the ground.

(c) BODY

- (i) Body shall be of the same OEM (original equipment manufacturer) as the chassis and remain readily recognizable as such forward of the “B” pillar. Maximum body lift is 75mm.
- (ii) Cab and chassis type vehicles must have no protruding corners front and/or rear that could endanger other competitors. Intrusion bars to be fitted to prevent other vehicles being caught under the tray or chassis, both rear and sides.

(d) SUSPENSION

Open, provided it conforms to LVVTA and WOF standards.

(e) ROLL CAGES

Roll cages must be to ORANZ specifications as per Rule 46b.

(f) Front bumpers to have rounded ends and no sharp protrusions.

59. Class 4 Restricted 2 & 4wd “Sports Truck”

(a) SPECIFICATION

“Sport Trucks” are a progression from “Pro Trucks”. They must resemble volume produced commercial or recreational vehicles. Sedan bodied vehicles are not permitted.

(b) ENGINE

- (i) 4 & 6 cylinder maximum engine capacity – 4300cc.
- (ii) Both turbo and supercharger allowed up to 2000cc (petrol), 3200cc (diesel).
- (iii) Petrol engines above 2000cc and diesel engines above 3200cc must be naturally aspirated.
- (iv) Engine must be mounted forward of the driver’s seat. Radiators may be relocated within the frame.

(c) BODY

- (i) Panel work may be reduced to outside skin only, either with original or replacement panels provided the original appearance is maintained.
- (ii) The floor and firewall may be detached from the cabin and become part of the main structure provided they comply with all general Rules.
- (iii) Rear side panels are to be retained and must resemble the original appearance. Wheel arch reshaping is permitted providing the original headlight and grille size and appearance is maintained.

(d) CHASSIS

- (i) The original vehicle's chassis must be used with the shape and position of the chassis rails remaining unaltered with the exception of front and rear docking of a maximum of 200mm for entry and exit clearances.
- (ii) Cross members may be altered, deleted or substituted and the chassis rail centres narrowed by a maximum of 230mm.
- (iii) Wheelbase of vehicle must be within +/- 50mm of the original wheelbase of the chassis used.
- (iv) Framing for safety cage, body mounting, suspension, etc. may be permanently attached. Uni-body or monocoque construction is permitted providing the original rigidity and strength is not compromised in any way.
Note: position in relation to cab

(v) Front bumpers to have rounded ends and no sharp protrusions.

(e) SUSPENSION – Open

(f) TRANSMISSION – Open

(g) REAR AXLE – Open

(h) WHEEL/TYRE TYPE AND SIZE – Open

- (i) Cab and chassis type vehicles must have no protruding corners front and/or rear that could endanger other competitors. Intrusion bars to be fitted to prevent other vehicles being caught under the tray or chassis, both rear and sides.

60. Class 2 “Pro Truck” Production 2WD and 4WD Utility Type Vehicles

(a) SPECIFICATION

Restricted to commercial or recreational vehicles of a series production type with a production run of not fewer than 20000 units produced annually. Van and Sedan-bodied vehicles are excluded.

Note to competitors:

All modifications are forbidden unless expressly authorised by these rules. In the case of a dispute the onus is on the competitor to provide supporting information from the relevant brochure or official documents issued by the vehicle manufacturer/importer/distributor.

(b) ENGINE

- (i) Any engine size and configuration providing that the engine has been part of the original manufacturer's specification for that model or model variants that belong to the same generation.

- (ii) Vehicles with OEM forced induction are allowed but no modifications or exchange of induction system, associated mountings and components are allowed.
 - (iii) The air filter and associated fittings leading to the inlet manifold are free;
 - (iv) The electronic or mechanical equipment involved in the management, monitoring or calibration of the injection and ignition system is free.
 - (v) Intake manifold , injectors, throttle bodies , carburettor must be stock and must not be modified.
 - (vi) "Fly by wire" throttle controls can be replaced with a cable type, but the location and internal dimensions of the original throttle body must be retained.
 - (vii) Vehicles with forced induction must run OEM induction pressures.
 - (viii) Exhaust systems free.
 - (ix) Engine mounts free but not their location.
 - (x) OEM cylinder heads must be used, planning of the cylinder head is allowed but the chamber and ports must not be modified.
 - (xi) Valves, valve springs and their number must be OEM specification
 - (xii) Camshafts, crankshaft and conrods must be OEM specification
 - (xiii) Oil pump must be OEM style, oil lines, filters and coolers free.
 - (xiv) Flywheel must be OEM specification.
 - (xv) Engine may be balanced.
- (c) RADIATOR
- Original location and mounting must be retained
- (d) TRANSMISSION AND FINAL DRIVE
- Any transmission and final drive providing that all the components are specified for that model or model variants that belong to the same generation.
- (i) Coolers are free.
 - (ii) Mounts are free but not their location.
- (e) STEERING
- Vehicles must retain the original steering components and design. Components may be strengthened.
- (f) CHASSIS
- The original chassis must be retained unmodified, save that material for strengthening purposes may be added, as may be material to enable the addition of shock absorbers. Uni-bodies are permitted.
- (g) SUSPENSION
- (i) Vehicles must retain the original suspension components and design.
 - (ii) Arms and components may be strengthened.
 - (iii) All suspension mounting points and hub mounting points are to remain in the original position.
 - (iv) Shock absorbers are free subject to the following:

- (v) Type, number and length of shock absorbers are open provided that one working shock per wheel remains in the original position. Mountings for such additions may be attached to the chassis or bodywork. However the minimum amount of bodywork/coach-work only, may be removed as is necessary for the fitment of these;
 - (vi) No part of any shock absorber or its associated mounting may protrude through any external body panel.
 - (vii) Suspension and spring mounting points, and all suspension components, may be strengthened by the addition of material;
 - (viii) Spring hangers and shackles may not be reversed or lengthened.
 - (ix) Springs are free subject to their retaining the original type of spring, e.g. coil, torsion bar, leaf;
 - (x) The use of limit straps or other devices to limit the downward travel of the suspension are permitted.
 - (xi) Bump-stops may be upgraded.
- (h) TYRES & WHEELS
- Unrestricted provided that no modifications to the manufacturer's standard coach-work and/or outer panels are required.
- (i) COACHWORK AND INTERIOR
- The original coachwork must be retained including all frames and a functional well-side where applicable.
- (i) Coachwork beneath the bumper bar mounts may be removed or modified.
 - (ii) Bumper bars may be replaced with a bull bar/brushguard.
 - (iii) Front bumpers to have rounded ends and no sharp protrusions.
 - (iv) Tailgates may be removed.
 - (v) Replacement of outer bodywork is permissible providing that the original shape and size is maintained.
 - (vi) Windscreens and windows may be removed.
 - (vii) Vehicles that were originally manufactured as soft-tops may have half doors fitted in place of the originals provided that side intrusion bars as referred to in Rule 46. (b) ix) are fitted.
 - (viii) Body lifts are not permitted.
 - (ix) Doors must retain standard methods of closing and fixing.
 - (x) Front lights, indicators, etc., may be removed in the interests of improved safety and reduced cost, however, each of these areas shall be covered in a manner which gives a finished appearance to the vehicle.
 - (xi) Interior trim may be removed provided no sharp edges or protrusions remain that could cause injury to occupants.
 - (xii) Where a vehicle is of uni-body or part uni-body construction, this must remain unaltered.
 - (xiii) When material is removed for the fitment of shock absorbers Uni-body vehicles must ensure structural integrity is maintained by other approved means.
 - (xiv) Utility type vehicles must have an OEM well side deck/tray. Cab and Chassis vehicles are not permitted.

RULES PERTAINING TO INDIVIDUAL CLASSES

JUNIOR CLASSES

Any person deliberately attempting to campaign a vehicle in contravention of these rules and the spirit of any class will be dealt with by a ruling of the Chief Steward

61. Class P Midget

This class is intended as a child's introduction to offroading and to compete amongst themselves and not alongside other classes of vehicles. The Rules and Specifications are unique to this class and competitors are always under parental control. The personal safety of the competitor is firmly the responsibility of the parent or caregiver. Refer to the ORANZ website for full dimensions and drawings for the vehicle build.

- (a) The age limit for drivers is: minimum 5years, maximum 9th birth date ending 31st December.
- (b) Non conventional motor, air cooled 4 stroke, maximum cc rating 110cc.
- (c) Mid engine mounting – refer to design specifications.
- (d) Chain drive from motor to one piece fixed axle.
- (e) Chain sprocket diameter open.
- (f) Motor and drive line to pivot as one frame construction – refer drawings.
- (g) Centrifugal clutch.
- (h) Chassis and design to follow the existing Class 10/M fabrication design with all dimensions maintained other than for increased roll cage height which may be increased for helmet clearance of 90mm from top of helmet to top of roll cage with driver seated.
- (i) Engine, clutch and transmission package are available from Custom Mini Choppers or Richard Crabb.
- (j) Package includes; wheels, suspension, steering wheel, steering rack, steering column, tie rods, seat, fuel tank (with cap and shutoff valve), brakes (complete), front stub axles, rear drive line, engine chassis frame from pivot point and required springs.
- (k) Body style optional but cars and drivers must be enclosed. (Pre-made body panels, including firewall and floor) are available from Manukau Sheetmetals Ltd.
- (l) Five point seat belts (minimum 50mm webbing) are mandatory.
- (m) Safety nets on side openings mandatory.
- (n) Fuel tank to be fitted with leak proof cap and vent plus a shut off valve fitted directly to the outlet of the fuel tank (gravity feed to carburettor).
- (o) Exhaust, ignition, carburation and wiring loom to remain standard.
- (p) Rear axle braking only.
- (q) Tyre size for front and rear; 145 x 70 x 6 with maximum outside diameter of 370mm mounted on a 6 inch diameter x 4 inch wide steel rim.
- (r) Competition numbers to be visible on both sides and bonnet.
- (s) Short Course racing only.
- (t) The minimum requirements for personal protection are and approved helmet (refer to ORANZ National Competition Rules 24. (c)) or full face helmet, cotton or fire proof overall and enclosed shoes. Gloves are optional but recommended.

62. Class Trophy Karts (known as Junior Kiwi Trucks (“J”) and Modified Kiwi Trucks (“M”) – **Note: National Class Rules to be followed (i.e. fire extinguishers, numbers, etc)**

The two classes are intended to run on an equal vehicle basis, no modifications away from the original design are permitted. Motors are to remain standard as supplied.

(a) Description

- (i) Junior Kiwi Truck (J) – custom built to a single design, single seat mini race truck with 9hp 266cc 4 stroke. **No modifications are permitted other than the Stage 1 kit from NR Racing, plus a billet conrod. Inlet filtration system and exhaust kit are open. Carburetor choke not to exceed 28.5mm diameter. Engines will be sealed by a person approved by the Chief Steward / Chief Tech.** Restricted to ages 8yrs to 15yrs. However, if a child is younger or older than specified in the rules and wishes to race, it is up to the discretion of the Chief Steward.
- (ii) Modified Kiwi Truck (M) – Custom built to single design, single seat mini race truck with 200 cc 4 stroke farm bike motor. Minimum age of competitor 11yrs.

(b) Marking and Identification – Numbers as per ORANZ National Competition Rule 21 and as issued by the ORANZ Registrar.

- (i) Kiwi Junior Trucks will be prefixed by the letter “J”.
- (ii) Kiwi Modified Trucks will be prefixed by the letter “M”.

(c) General Rules

- (i) No passenger is allowed on the race truck at any time the truck is in motion. Race trucks will not be permitted to race without adequate safety equipment at the race venue. No driver will compete in any event with his/her head or other body part extended outside the vehicle. Additions to the vehicle body such as fins, scoops, wings and other extruding additions are not permitted.
- (ii) Drivers wear: as per ORANZ National Competition Rule 24.
- (iii) Seats and seat belts: only manufactured race seats are permitted and must be centred in the vehicle. Full containment seats are recommended. Seat belts as per ORANZ National Competition Rule 26.
- (iv) Window nets are compulsory on all Kiwi Trucks and must completely cover the side window openings. Nets must be mounted on the inside of the truck and be easily opened by the occupant giving the full width and height of the window for emergency exit.
- (v) Chassis/Roll Cage: must be of common design for the class and constructed with quality welds and constructed from a minimum 25.4mm x 2.0mm od .steel tube in the construction of the roll cage. No aluminium or non-ferrous materials are permitted. Roll cages must have one front and rear vertical hoop, two interconnecting top bars, two rear down braces and at least one diagonal brace in the rear hoop. Additional bracing to the roll cage area is permitted. All roll cages must have a minimum head clearance of 90mm from top of helmet to top of roll cage with the driver seated.

- (vi) Firewalls and floor pan: Must completely enclose the interior of the vehicle and be made of metal. The floor pan must be a minimum of 1/8in Or 3mm thick and extend from forward of the pedals to behind the seat position and is recommended that is reasonably protects the front suspension, steering and brake components.

The firewalls must separate the driving compartment from any fuels, engine fluids and acids as per ORANZ National Competition Rule 45. Firewalls and floor pans must be securely fastened.

- (vii) Measurements: Being related to a common design chassis, wheel base is measured from the centre of the front wheel to the centre of the rear wheel on the same side. Track width will be measured from outside of tyre to outside of tyre. Overall length is measured from the outside of the front bumper to the outside of the rear bumper.

The maximum overall length is 120in or 3.048m.

Junior Kiwi Truck maximum measurements:

Track: 1.500mtrs

Wheel base: 1.802m

Modified Kiwi Truck maximum dimensions:

Track 1.500mtrs

Wheel base: 1.854m

- (viii) Bodies and Fenders – a truck body is required. The body may be multi piece. All fender and body mounts must have loop ends with no single tubes or long brackets. The removal of fenders or body panels during competition for any reason other than damage during the event is not permitted.
- (ix) Bumpers – must be mounted front and rear and must be capped and rounded to prevent any sharp edges. Bumpers and nerf bars must be designed following class chassis rules (single design).
- (x) Front Suspension – must be of single design as per class requirements. Front suspension must be A arm design with a single coil over shock per wheel. Front suspension travel is limited to 13in or 330mm. Suspension fastenings must be grade 8 bolts or better.
- (xi) Rear Suspension – is trailing arm style as per class requirements. Sway bars are permitted, secondary suspension is not permitted. Rear suspension travel is limited to 19in or 330mm. Suspension fastenings must be grade 8 bolts or better.
- (xii) Shocks – One shock absorber per corner. No internal or external by-pass or air shocks allowed. Progressive and dual rate springs are permitted. Shocks may not be adjusted while the vehicle is in motion. Junior Kiwi Truck shocks must be a maximum of 2in diameter by 6in of travel (50.8mm x 152.4mm). Modified Kiwi Truck shock must be a maximum of 2in diameter by 12in of travel (50.8mm x 304.8mm). Only emulsion shocks are permitted (no remote reservoirs).
- (xiii) Bump Stops – must be solid type, air or hydraulic are not permitted.
- (xiv) Steering – geometry settings to be common, steering racks optional. Power steering is not permitted.

(xv) Brakes –

- a) Class M to have functional FOUR wheel breaking.
- b) Class J to have minimum rear axle breaking, FOUR wheel braking optional
- c) Independent brakes (cutting brakes) are not permitted in either class.

(xvi) Engines:

- a) Junior Kiwi truck – must be a common 266cc 4 stroke air cooled petrol engine, ~~no modifications are permitted other than the inlet filtration system. No components may be added or removed.~~ . No modifications are permitted other than the Stage 1 kit from NR Racing, plus a billet conrod. Inlet filtration system and exhaust kit are open. Carburetor choke not to exceed 28.5mm diameter. Engines will be sealed by a person approved by the Chief Steward / Chief Tech.
- b) Modified Kiwi Truck – Must be a production 200 cc unmodified four stroke petrol engine. Approved engines are Kawasaki, Honda, Suzuki, Yamaha. Only original engine manufacturer (OEM) and genuine standard rebuild parts may be used. No factory or other racing parts are permitted.

(xvii) Ignition/Kill Switch – must be in reach of the driver and be of a positive action and shut down the motor and isolate the battery when switched off. Must be highlighted as per ORANZ National Competition Rule 34. (d).

(xviii) Engine Components – ignition style, coil, cooling system, oil lubrication system and carburettor must remain standard to the motor. Exhaust is open but must comply with ORANZ National Competition Rule 33. Air inlet filtration is open. Clutch to be mounted in standard configuration. Aftermarket clutch pads are permitted.

(xix) Fuel, Fuel Cells and Fuel Lines – Must comply with ORANZ National rules.

- a) 98 octane pump gas only, no additives allowed.

(xx) Transmission and Gearing - Final drive open. Rear wheel drive only, 4WD is not permitted. Chain drive is mandatory; rear axle must be of class design with no CVs or universals.

- a) Junior Kiwi Trucks - no transmissions.
- b) Modified Kiwi Trucks – transmission to remain standard to the engine used. Steel or billet aluminium fly wheel allowed.
- c) 2:1 Factory Fitted Reduction gearbox permitted.

(xxi) Wheels and Tyres – are measured from their widest or highest point. No inner liners are permitted. Rims must be in good condition with maximum diameter of 10in or 254mm.

d) Tyres:

Junior Kiwi Truck: max. diameter – 21in (534mm)

Modified Kiwi Truck: max. diameter – 23.5in (597mm)

63. Class K Polaris Kids UTV Up to 200cc

- (a) Standard competition running and safety rules to apply
- (b) Vehicle to maintain standard production features including motor and drive chain, suspension, wheels and general appearance. (Tyre pattern optional, but size to remain standard)
- (c) Structural and safety improvements;
 - (i) Cross brace in rear hoop
 - (ii) Intrusion rails on each side
 - (iii) Nerf bars on each side
 - (iv) 5 point 50mm wide seat belts for both driver and passenger
 - (v) 2 of 1kg or 1 of 2kg Fire Extinguisher mounted in way that a marshal can access
 - (vi) Battery sealed from cockpit area
 - (vii) No additional fuel tanks or modifications to original tank
 - (viii) Safety nets mandatory
- (d) Cars to be tagged yearly with standard on the day checks for safety items (i.e. brakes and steering)
- (e) Driver aged between 8 years and 15 years, although 15 year old can race to end of year to benefit from accrued points.

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