



**OFF ROAD  
ASSOCIATION OF  
NEW ZEALAND  
Inc**

# 2011

# NATIONAL COMPETITION RULES & REGULATIONS

Effective 1<sup>st</sup> January 2011, these Rules supersede all previous National Competition Rules & Regulations and incorporate all new and altered Rules as decided by the ORANZ Council at the 2010 AGM. **New Rules and changes to existing Rules are in 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 different Rules to those contained within, the Rules and Regulations set out within this publication are the Rules which apply at all ORANZ National and Sanctioned 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.

## **ORANZ OFFICERS 2011**

**Patron:** Alan Tutt  
**National President:** Tony Gardiner  
**Northern Vice President:** Phil Cameron  
**Southern Vice President:** Ron Campbell  
**Executive Members:** Tony Saelman, Colin Meredith

**Secretary: General:** Janeen Whitmore  
**Treasurer:** Vicki McLeish  
**Registrar:** Shane Wilson  
**Points Co-ordinator:** Shirley Cooper  
**Chief Steward:** Jim Cato  
**Chief Technical Officer:** Phil Cameron  
**National Clerk of the Course:** TBC

## **OFFICIALS**

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

### **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. All Official race personnel will be directly responsible to the ORANZ Chief Steward. Decisions of the Chief Steward on interpretation of Rules pertaining to race regulations, race procedures or scoring of positions 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 matters of contention at scrutineering for National and Sanctioned events.

### **Points Co-ordinator:**

The Points Co-ordinator ensures that lap scoring is carried out to the required standard at National and Sanctioned events and maintains records of the points gained by

individual competitors at each National Championship round. The Points Co-ordinator accumulates the points gained by individual competitors at National Championship rounds to determine final standings in the National Championship series.

**Registrar:**

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

**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 points total of the season and must surely indicate the driver who has performed most consistently throughout the series.

**1. NATIONAL CHAMPIONSHIP**

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 3 Points Scoring d)**

The National Final shall alternate, yearly, between the North and South Islands.

- a) 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 the distance of a Short Course heat to a maximum of five times a Short Course heat distance. The Feature will be handicapped by **class**, fastest to the rear, slowest class to the front. 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. 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.
  - b) 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..
  - c) 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.
- B.a) 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 carried forward to a 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.

- b) 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.
  - c) Drivers place 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> overall in the National Championship shall be entitled to run the numbers NZ1, NZ2 and NZ3 respectively for the duration of their reign should they desire. Overall Class Champions shall be entitled to run their Class number (e.g. 5 for Class 5 Champion) for the duration of their reign should they desire. All the letters and numerals in the above numbers shall be in conformance with the National Competition Rules. Drivers are required to include both their Registered Number and the number they are running on their vehicle when registering for a National and/or Sanctioned event.
- C a) 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
- b) 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.
  - c) 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 3 b) above or be re-run at a later date and,.
  - d) 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 C a) above and the Enduro as set out in C b) 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.

## **2. SANCTIONING AND EVENT TYPES**

- A. a) To hold an ORANZ Sanctioned event, the organising Club must adhere to all current ORANZ Rules and Regulations as detailed in the National Competition Rules.
- b) In any Sanctioned event, all drivers must be ORANZ Registered competitors.
  - c) To apply for an event to be sanctioned, application must be in writing and sent to the Secretary of ORANZ to be presented to a Committee Meeting of ORANZ Delegates for a ruling. The application must state the event type, location and Entry fee. Additional rules may apply but must be approved by Council at the time of the application being granted.

- d) ORANZ Sanctioned events may comprise any format considered appropriate by the ORANZ Council.
- e) An application in writing, as per clause A. c) above, must be presented to a Council meeting for an ORANZ affiliated Club to use the words “New Zealand”, “National”, “North Island” or “South Island” in any event title.

**B. 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 favour maximum laps rather than maximum distance travelled per lap.

- a) Any vehicle that does not finish the race will be deemed “DNF” and not eligible for points.
- b) 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 Chief Steward.
- c) 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 Chief Steward, but must do so from the rear of the field.
- d) Should, at any time, a race be stopped and restarted, only vehicles present on the original starting grid will be allowed to restart.
- e) All Short Course races are to be run in their entirety (not to be called or declared).
- f) 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.
- g) Competitors racing in any Class with less than four (4) starters at the start of the first race do not qualify for full points but will be allocated points in accordance with Rule 3: a) & b) (i) ) **in this and all subsequent races regardless of numbers decreasing in subsequent races. Competitors racing in any class with less than four (4) starters at the start of the first race do not qualify for full points but will be allocated points in accordance with Rule 3: a) & b) (i). Should class numbers in any subsequent heat increase to four (4) or more, full Points as in Rule 3: a) & b) (i) will be reinstated for that and all subsequent heats.**

**C. 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.

- a) All National Series endurance events, with the exception of the National Championship Final, must be a minimum of 150km. with a maximum of 250km. The endurance race at the National Championship Final must be a minimum of 150km. with a maximum of 250km.
- b) 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 60% of the total laps calculated at the finish line will be deemed a finisher without the need to see (pass) the chequered flag. In the event that 60% of the race falls in between laps (eg. 5.4 laps) the end of the next lap (eg. lap 6) will be deemed to be the 60% mark.
- c) 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, 3, 10, 4, C, 5, 6, 2, 7. If the organizing club also decide 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.

- d) Refuelling in Long Course events must be undertaken in designated fuel bays where all fuel must be stored before the event commences. When refuelling, all occupants of the vehicle must be completely out of the vehicle before the fuel cap is removed. The engine may be left running.
- 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.

### 3. POINTS SCORING

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

Max. Points - 72

Cars in Class	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	all other finishers
4+	18	16	14	12	11	10	9	8	7	6
3	16	14	12							
2	14	12								
1	12									

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

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

Cars in Class	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>	all other finishers
4+	12	10	8	6	5	4	3	2	1
3	10	8	6						
2	8	6							
1	6								

- (ii) **Long Course Race**

Cars in class	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>	all other finishers
4+	12	10	8	6	5	4	3	2	1
3	10	8	6						
2	8	6							
1	6								

Bonus Points

1 <sup>st</sup> overall	24 points	7 <sup>th</sup> 18 points	13 <sup>th</sup> 12 points	19 <sup>th</sup> points	6
2 <sup>nd</sup>	23	8 <sup>th</sup> 17	14 <sup>th</sup> 11	20 <sup>th</sup>	5
3 <sup>rd</sup>	22	9 <sup>th</sup> 16	15 <sup>th</sup> 10	21 <sup>st</sup>	4
4 <sup>th</sup>	21	10 <sup>th</sup> 15	16 <sup>th</sup> 9	22 <sup>nd</sup>	3
5 <sup>th</sup>	20	11 <sup>th</sup> 14	17 <sup>th</sup> 8	23 <sup>rd</sup>	2
6 <sup>th</sup>	19	12 <sup>th</sup> 13	18 <sup>th</sup> 7	all other finishers	1

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

**Class points**

Cars in Class	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>	all other finishers	
	4+	24	20	16	12	10	8	6	4	2
	3	20	16	12						
	2	16	12							
	1	12								

**Bonus Points**

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

- d) 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 available maximum of 144 points, 72 from Short Course and 72 from the Enduro.

**Points awarded for Regional Class placing to be carried forward to National Final;**

1<sup>st</sup> in class 72 points

2<sup>nd</sup> 68

3<sup>rd</sup> 64

4<sup>th</sup> 60

5<sup>th</sup> 56

6<sup>th</sup> 52

7<sup>th</sup> 48

8<sup>th</sup> 44

All other finishers 40

#### 4. COURSE MARKINGS

**Long Course Markings:**

- (a) Triangle to show change of direction.
- (b) Red Diamond to warn of approaching hazard.

**A: Directional Markers.**

**Triangle Size:**

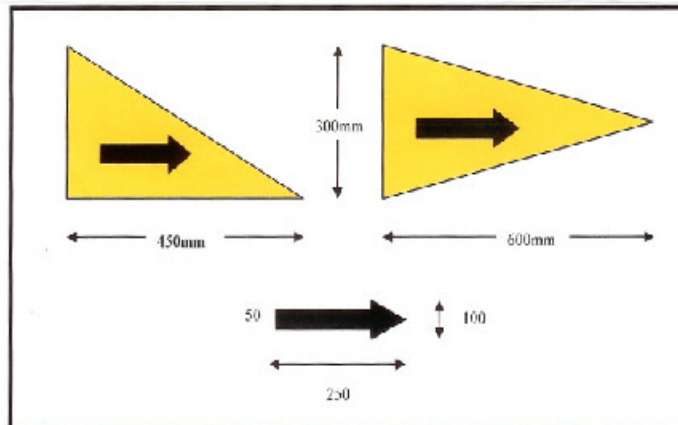
Minimum size 300mm x 450mm right-angled triangle or 300mm x 600mm isosceles triangle.

**Triangle Colour:**

Base colour, AA Yellow (or as close as possible) or Fluorescent Orange or Pink. Choice of

**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 below).



**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, eg. 100metres (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.

**B: Hazard Warning Markers.**

Hazard Warning Size: Minimum size 450mm Diamond shape.

Hazard Warning Colour: Fluorescent type Hot Pink only.

**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.

**C:** 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.

**5. FLAG SIGNALS**

- a) GREEN: Signals race start. (see also 5.1 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 to 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, eg. 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 DIAGONAL 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.

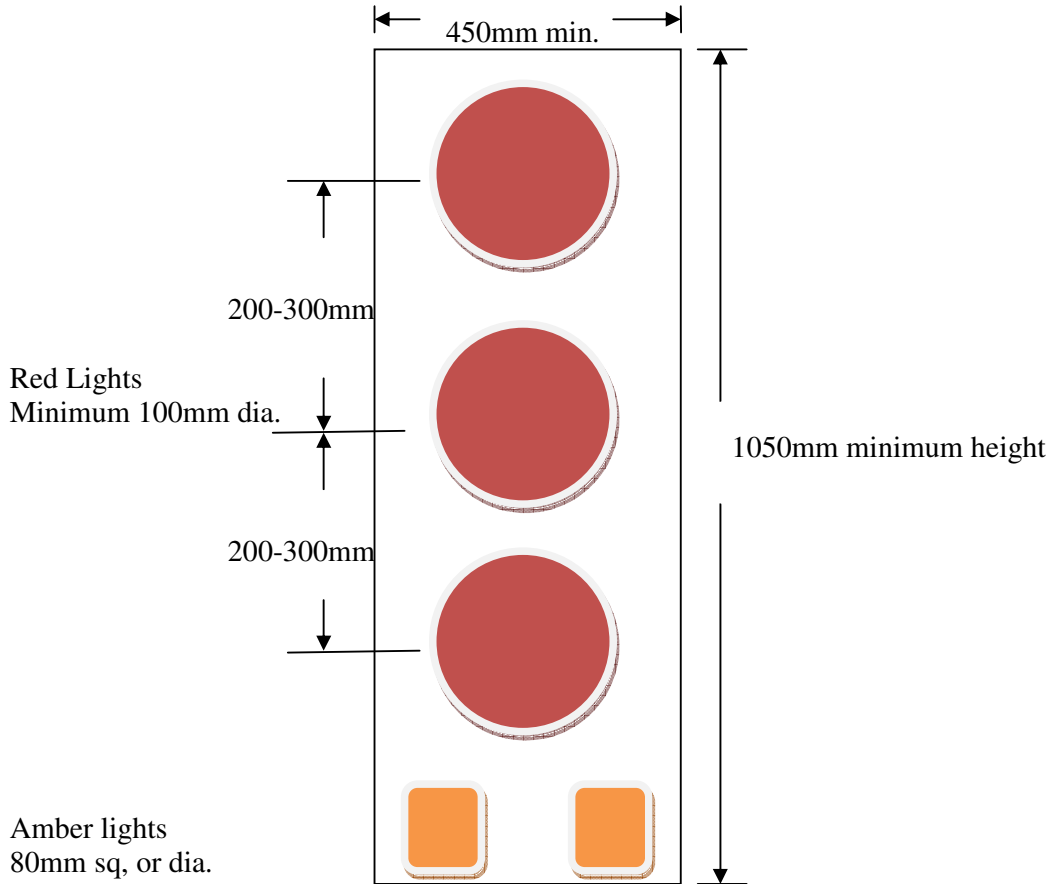
5.1 Starting lights are permitted to be used to signal the start of a race provided the Start Lights meet the following criteria

- 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.
- **False Starts** – will mean a grid reset is necessary and so the lights will be Turned of under a red flag held by the starter. **The starter must clearly Display the red flag prior to turning of the lights for a grid reset.** Once the grid is reset, the normal sequence of lights can be repeated to start the race.
- i) **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.  
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.



**NOTE: All dimensions are minimum**

## 6. ELEGIBILITY

- 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) 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.

- b) All drivers must re-register annually to retain their Competition Number.
- c) No unregistered drivers shall be permitted to compete in any ORANZ National or Sanctioned event.
- d) All drivers at ORANZ events must have paid a full Entry Fee.
- e) Drivers must produce their current Club Membership card and Competition Licence at Event Registration.
- f) Drivers must produce the logbook pertaining to their vehicle at scrutineering.
- g) 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.
- h) All drivers must arrive in time to compete in the events for which they are scheduled.
- i) 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.
- j) Outside assistance is permitted from marshals, spectators and other competitors, notwithstanding that only official vehicles and competing vehicles are allowed on the track during the race. Assistance may only consist of assistance to leave the track or restart the vehicle. A vehicle must cross the Finish Line under its own power.
- k) 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.
- l) 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.
- m) All drivers intending to race must attend drivers' briefing. Drivers not attending drivers' briefing on the day shall not be permitted to race.
- n) 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.
- o) 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).
- p) 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 drivers shoulder or helmet height, available to ORANZ for National, Class or event sponsor's signage. Truck classes may run the signage on either front guards or rear side windows**

## 7. COMPETITION RULES

- a) The Promoter and/or Race Officials reserve the right to refuse any entry application.
- b) 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.
- c) Any person who makes a false statement on an Entry Form shall be disqualified and shall forfeit all prize monies and points.
- d) Drinking of intoxicating beverages in the pits, on the race-course or surrounding premises is strictly forbidden.
- e) The use of narcotics, amphetamines, barbiturates or other stimulants or depressants, is strictly forbidden.
- f) No drugs acting like or containing Ephedrine may be used unless written authorisation is obtained and presented to Race Officials prior to Race Day.
- g) 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.
- h) Deliberate abusive nerfing or bumping shall be reason for reprimand, penalty, disqualification and/or suspension.
- i) At all times the Driver assumes responsibility for the actions of his/her pit crew.
- j) No contact whatsoever of any vehicle under racing conditions is allowable.
- k) Any vehicle deemed to be deliberately baulking will be black flagged at the discretion of the Clerk of the Course.
- l) 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.
- m) 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.
- n) 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 have their harnesses and helmets secured and are wearing a neck brace.
- o) 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.

## 8. PROTESTS

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.

- a) 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.
- b) All protests must be in written form signed by the complainant.
- c) Protests against drivers may only be lodged by competing drivers or the Clerk of the Course.
- d) 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.

- e) 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.
- f) If a protest is upheld, the Protest Committee must decide the grade of the offence using the guidelines listed in Rule 9. B..

## **9. PROTEST PROCEDURE**

- A. i) 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.
- ii) 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.
- iii) The protest will proceed under the guidelines listed below dependant upon the type of protest lodged.
- iv) 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.
- v) Any fine imposed must be paid before taking part in any club, Regional, National or Sanctioned event.
- vi) 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.

### **B. Conduct Protest (\$30.00)**

- i) 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.
- ii) 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.
- iii) 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.
- iv) At this hearing, the Chief Steward will act as convenor and remain as the advocate of the standing Rules.
- v) 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.
- vi) 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
- vii) 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.
- viii) All penalties imposed will be effective from the date of the race to which the Offence relates.
- ix) **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.**

x) **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.**

xi) **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.**

xii) **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.**

C. **Technical Protest (\$100.00)**

- i) 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.
- ii) 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.
- iii) The examination of the vehicle is to be carried out by a person or persons 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.

- iv) 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.
- v) 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.
- vi) 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.
- vii) The Protest Fee is the property of the Association and will be handled as the Executive Committee deems appropriate in the circumstances.

#### **D. Appeals**

Any appeal of a ruling by the Protest Committee 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.

#### **10. LOGBOOK**

- i) 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.
- ii) 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.
- iii) 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.
- iv) The scrutineer will complete in detail any item which does not meet the scrutineering requirements.
- ) 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.
- vi) 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.

#### **11. VEHICLE CLASSES**

- a) All classes, other than Class 1, 8, Odyssey G, H and K and Formula 1100, must run a conventional production type car engine.
- b) Every vehicle must be fitted with an operational reverse gear (motor driven, electric or internal combustion). Odyssey G, H, and K do not require reverse gear when competing in Short Course events.

##### **A: Class 1**

- 1: 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.

- 2: **1633 to unlimited** engine displacement.
- 3: Any engine modifications permitted.
- 4: This class includes all turbocharged, supercharged and rotary engines from Classes 3, 5, C and 7.

**B: Class 2 “Pro Truck” Production 2 and 4WD Utility Type Vehicles**

- a) SPECIFICATION – Restricted to volume production commercial or recreational vehicles. Sedan-bodied vehicles are excluded.
- b) ENGINE – Any engine size and configuration providing that the engine has been part of the original manufacturer’s specification for that model or subsequent model upgrades. The engine must retain the original induction inlet manifold system, number of valves and lubrication system and be installed in its original position in the chassis. Where a vehicle has turbocharging or supercharging as standard, this is allowed, but there is to be absolutely no exchange of type or size of turbocharger or supercharger for any reason.
- c) TRANSMISSION & REAR AXLE – Must remain stock as originally specified for the vehicle. Differential ratios may be altered.
- d) CHASSIS – Must remain stock as built with the exception of reinforcing and stiffening at suspension points. Uni-bodies are permitted.
- e) SUSPENSION – Vehicles must retain the original suspension design. Arms and components may be strengthened. All suspension mounting points and hub mounting points are to remain in the original position. Bump-stops may be upgraded. After market springs are permitted. Type, number and length of shock absorbers are open provided that one shock per wheel remains in the original position.
- f) COACHWORK – The original coachwork must be retained including all frames and a functional well-side where applicable. Tailgates may be removed. Replacement of outer skins is permissible providing that the original shape and size is maintained.  
 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 30: 2. a. ix.**, are fitted.  
 Body lift kits are not permitted.  
 Doors must retain standard methods of closing and fixing.  
 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. Indicator lamps may be replaced by metal or plastic panels coloured to give the impression that the original item is retained.  
 Interior trim may be removed provided no sharp edges or protrusions remain that could cause injury to occupants.  
 Where a vehicle is of uni-body or part uni-body construction, this must remain unaltered. It is permitted to cut back inner wheel wells to allow space for the fitment of extra shock absorbers, providing the structural integrity is maintained by other approved means.  
 All Pro Trucks are to feature the name of the manufacturer on each side, roof or Bonnet, at a minimum letter height of 70mm.
- g) TYRES & WHEELS – Unrestricted provided that they are contained within the manufacturer’s standard coachwork.
- h) RADIATOR – Original location must be retained.
- i) STEERING – Original manufacturer’s specification must be retained.

- j) 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.
- k) DRIVESHAFT – 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: Class 3**

- 1: 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.
- 2: **1333 – 1632cc** engine displacement. (1650cc from 1<sup>st</sup> Jan. 2012)
- 3: Any engine modifications permitted except turbocharging or supercharging.

**D: Class 4 Restricted 2 & 4wd “Sports Truck”**

- 1) SPECIFICATION – “Sport Trucks” are a progression from “Pro Trucks”. They must resemble volume produced commercial or recreational vehicles. Sedan bodied vehicles are not permitted.
- 2) ENGINE – 4 & 6 cylinder maximum engine capacity – **4300cc**. Both turbo and supercharger allowed up to **2000cc (petrol), 3200cc (diesel)**. **Petrol engines above 2000cc and diesel engines above 3200cc must be naturally aspirated.**  
Engine must be mounted forward of the driver's seat.  
Radiators may be relocated within the frame.
- 3) BODY – Panel work may be reduced to outside skin only, either with original or replacement panels provided the original appearance is maintained.  
The floor and firewall may be detached from the cabin and become part of the main structure provided they comply with all general Rules.  
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.
- 4) CHASSIS – The original vehicle's chassis must be used with the shape of the chassis rails remaining unaltered with the exception of front and rear docking of a maximum of **200mm** for entry and exit clearances.  
Cross members may be altered, deleted or substituted and the chassis rail centres narrowed by a maximum of **230mm**.  
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.
- 5) SUSPENSION – Open
- 6) TRANSMISSION – Open
- 7) REAR AXLE – Open
- 8) WHEEL/TYRE TYPE AND SIZE – Open
- 9) DRIVESHAFT – 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.
- 10) 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: Class 5**

- 1: 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.
- 2: **0 - 1332cc** engine displacement.
- 3: Any engine modifications permitted except turbocharging or supercharging.

**F: Class C – Challenger Class**

- 1: 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.
- 2: V.W. air-cooled engine, **1225 – 1641cc** engine displacement with **69mm** crankshaft stroke, any modifications with the exception of turbo or supercharging permitted.
- 3: CARBURETTOR – V.W. Solex, single throat with the choke venturi not exceeding **26mm** at its narrowest part. No force venting permitted.
- 4: FRONT SUSPENSION

**4.1 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.

**4.2 Torsion Leaves**

- a) Must be original VW Type One components
- b) Split leaves may be replaced with full width leaves.

**4.3 Torsion Arms**

- a) Must be original VW Type one (no reinforcing)
- 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).

#### 4.4 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 after market units so long as the original VW Type One dimensions are retained.
  - c) Link pin bushes may be replaced with after market units provided the original VW Type One dimensions are retained.
  - d) Link pins may be replaced with either bolts or after market 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.
- 5: GEARBOX – Any V.W. swing-axle (transaxle) gearbox. Gear and differential ratios – open.
- 6: FRAME – Single or two seats – optional.

#### G: Class 6 – Road Legal 4x4 Vehicles

- a) SPECIFICATION – Restricted to volume production commercial or recreational vehicles. Must be certified road legal, registered and warranted to comply.
- b) ENGINE & TRANSMISSIONS – Replacement engines and transmissions from any automotive manufacturer are permitted. Any conversions must be certified. The engines may run turbo or superchargers. 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 – The 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**. 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 **30**

#### H: Class 7

- 1. 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.
- 2. Specifications as follows:
  - (a) **Any standard single carbureted car engine up to 1000cc, fitted with original factory carburetor and jets as originally fitted, or any combination of homologated VW 1200 engine part is acceptable.**
  - (b) **VW engines that can be used are:**
    - 1. **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)

**2. 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.

- (c)
  - 1. Carburetors must be 28 PICT as originally fitted to 1200VW engines.
  - 2. Choke shafts and butterflies may be removed and resulting holes may be plugged.
  - 3. All other relating parts and jets to remain standard.
  - 4. Air filters are optional.
- (d) Inlet manifold shall be standard VW 1200 as originally fitted to VW 1200 power plant.
- (e) 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.
- (f) The flywheel must be standard VW, not lightened.
  - 1) Eight dowelling pins may be used.
  - 2) An 'O' ring may be fitted to the flywheel by machining a groove in the flywheel and using the VW 'O' ring.
- (g) 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).
  - 1) Connecting rods: Polishing is prohibited and the only machining permitted is to achieve balance. Minimum connecting rod weight 470 grams.
  - 2) 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.
- (h) 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.
  - 1) The inlet port may be reclaimed by argon welding and machined back to standard angles.
  - 2) The intake manifold recess for retaining 'O' rings may be enlarged to accept the late model d-type "O" ring.
- (i) 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.
- (j) The use of any standard VW oil pump which can be fitted without alteration of the engine case permissible.
- (k) The following standard dimensions and tolerances of engine components shall be observed:
  - 1) Bore 77mm or 1<sup>st</sup> oversize 77.5mm

Or 2<sup>nd</sup> oversized 78mm

- 2) Stroke 64mm plus or minus 0.01mm
- 3) The combustion chamber must retain a minimum of 39cc
- 4) 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.
- 5) 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. Teflon buttons may be used instead of gudgeon pin clips.
- (l) The use of any standard VW clutch of the same diameter that can be fitted without alteration to the transmission or flywheel is permissible.
  - 1) The operation of the clutch mechanically or hydraulically is optional.
  - 2) The make of the clutch lining is optional.
- (m) The installation of baffles housed completely within the original oil sump and crankcase is permissible.
- (n) Oil galleries in the crankcase may be enlarged and fitted with threaded end plugs.
- (o) The following dimensions must be observed:
  - 1) Inlet valve diameter 30mm or 31.5mm.
  - 2) Exhaust valve diameter 28mm or 30mm
  - 3) Valves may be polished.
- (p) The crankcase may be machined to permit the use of standard VW camshaft bearing inserts, provided that camshaft location is not changed.
- (q) The fan belt must be in position and fully operational.
  - (r) The use of any oil cooler and/or oil filter permissible. Location of the oil cooler and/or filter may be as desired.
    - 1) An additional oil cooler may be used.
    - 2) The cover plate of the oil pump may be modified or replaced so that oil pipes and oil filter can be directly attached.
  - (s) 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
- (t) The use of the following non-standard replacement parts is permitted providing there is no unauthorized modification of any other component:
  - 1) Fasteners (nuts, bolts, screws, etc)
  - 2) Wiring
  - 3) Gaskets and seals
  - 4) Spark plugs
  - 5) Valve guides
  - 6) Fan belt
  - 7) Pushrod tubes
  - 8) Electrics are optional 6 or 12 volts
  - 9) Sand seal power pulley

- 10) Oil coolers and filters
- 11) Air filters
- 12) Exhaust systems
- 13) Rocker covers
- 14) Centrifugal advance distributor

- (u) Transmission assembly shall be standard VW 1200 type 1 sedan.  
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.  
The differential must function freely.  
The transmission and axles must mount on type 1 VW 1200 spring plate systems.  
Only the following gear ratios are allowed:

- (i) Fully synchronized transmission – (tunnel case)

<b>Gear</b>	<b>No of Teeth</b>	<b>Ratio</b>
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

- (ii) Partly synchronized transmission – (split case)

<b>Gear</b>	<b>No of Teeth</b>	<b>Ratio</b>
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

- (v) Front suspension - shall be standard VW 1200 type 1 as used on VW sedans.  
The following modifications are allowed:
  - 1) The fitting of rack & pinion steering
  - 2) Split leaf springs may be replaced by solid leaf springs
  - 3) 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.
  - 4) Gusseting of the front suspension components is allowable.
  - 5) Resetting of anchor points to increase ride height, but still retain original length of suspension travel.
- (w) Improvements to braking bias system are allowed retaining VW components. Brake drums, backing plates and wheel cylinders must be standard VW 1200 sedan.
  - 1) Any brake shoes, brake linings and/or hydraulic brake lines may be used.
  - 2) Park-brake components may be removed.
  - 3) The fitting of hydraulic steering brakes is optional.
  - 4) Any improvements to the master cylinder are acceptable.

- (x) 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.

**I: Class 8 – “Thunder Trucks” 2wd & 4WD**

**SPECIFICATION** – Unlimited engine capacity and configuration.

Engine flywheel must be mounted in front of the rear differential.

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).

Monocoque or uni-body construction is permitted providing original strength and rigidity are not compromised in any way.

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.

**SUSPENSION** – Open

**CHASSIS DESIGN** – Open

**TRANSMISSION** – Open

**REAR AXLE** – Open

**DRIVESHAFT** – 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.

**J: Class 9**

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

**K: Class 10**

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

- i) 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.

ii) **0 – 1500cc** engine displacement

iii) Any engine modifications permitted.

iv) Turbo or supercharging not permitted.

**L: Class G (Odyssey)**

This class includes all off road vehicles **0 – 1500cc**, not powered by a conventional production type car engine.

**Specifications:**

- 1) **0 – 1500cc** maximum
- 2) Wheelbase a maximum of **2100mm**.
- 3) Roll Cage
  - a. All main frame members are to be a minimum of 1” x 14 gauge (25.4x2.0mm) ERW mild steel tubing or of equivalent strengths.
  - b. All bracing to be a minimum of ¾” x 14 gauge (19.0x2.0mm) ERW mild steel

tubing or of equivalent strength.

- c. All roll cage hoops are to be a minimum of 1 1/4" x 12 gauge (32.0x2.6mm) ERW mild steel tubing or of equivalent strength. In addition the rear roll cage hoop must extend down to the lower frame or torsion bar housing.
  - d. Main roll bar must have a minimum of one cross brace and the top of the roll cage must be minimum of **90mm** from the top of the driver's helmet (when in driving position and belted in).
  - e. Drivers must have at least two exits from the vehicle in the event of a roll over or accident.
- 4) All gravity fuel tanks to have a quick-action shut-off valve.

**M: Class H (Odyssey)**

- 1) **251 – 400cc** maximum.
- 2) All Class G Rules from 2 through to 4 apply.

**N: Class K (Odyssey)**

- 1) **401 – 750cc** maximum.
- 2) All Class G Rules from 2 through to 4 apply.

**O: 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 5 years, maximum 9<sup>th</sup> birth date ending 31<sup>st</sup> 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; 145x70x6 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 15 d), goggles or full face helmet, cotton or fire proof overall and enclosed shoes. Gloves are optional but recommended.

**P: Class Trophy Karts (known as **Junior Kiwi Trucks (“J”)** and **Modified Kiwi Trucks (“M”)**).**

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.

**Description**

**Junior Kiwi Truck (J)** – custom built to a single design, single seat mini race truck with 9hp 266cc 4 stroke industrial engine with no modifications. Restricted to ages 8yrs to 15yrs.

**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.

- a) Marking and Identification – Numbers as per ORANZ National Competition Rule 21 and as issued by the ORANZ Registrar.
- b) Kiwi Junior Trucks will be prefixed by the letter “J”.
- c) Kiwi Modified Trucks will be prefixed by the letter “M”.

**General Rules**

- d) 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.
- e) Drivers wear: as per ORANZ National Competition Rule 15.
- f) 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 22.
- g) 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.
- h) Chassis/Roll Cage: must be of common design for the class and constructed with quality welds and constructed from a minimum 32mm x 2.1mm 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.
- i) 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 27. Firewalls and floor pans must be securely fastened.

- j) 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; 56.75in or 1.441m  
wheel base; 71in or 1.802m  
Modified Kiwi Truck maximum dimensions: track; 58in or 1.473m  
wheel base; 73in or 1.854m
- k) 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.
- l) 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).
- m) 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.
- n) 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.
- o) 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).
- p) Bump Stops – must be solid type, air or hydraulic are not permitted.
- q) Steering – geometry settings to be common, steering racks optional. Power steering is not permitted.
- r) Brakes – must be in safe working condition and working on all four wheels in M class, rear axle in J class with 4 wheel braking optional in J class. Independent brakes (cutting brakes) are not permitted.
- s) Engines;  
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.  
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.
- t) 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 16 d).

- u) 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 24. Air inlet filtration is open. Clutch to be mounted in standard configuration. Aftermarket clutch pads are permitted.
- v) Fuel, Fuel Cells and Fuel Lines – Must comply with ORANZ National Competition Rule 18. Only standard pump fuel, maximum 98 octane, is permitted.
- w) 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.  
Junior Kiwi Trucks - no transmissions.  
Modified Kiwi Trucks – transmission to remain standard to the engine used.
- x) 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.  
Tyres:  
Junior Kiwi Truck: max. diameter – 21in (534mm)  
Modified Kiwi Truck: max. diameter – 23.5in (597mm)

## 12: 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.**

## 13: Bodies – All Classes

- i. All body panels must be securely mounted to the frame or chassis.
- ii. Hinged doors shall be adequately secured with an operable catch.
- iii. All driving compartments must have a solid floor of material approved by the Chief Technical Officer.
- iv. All race vehicles must have and effective rear vision mirror fitted in all events.
- v. Classes 2, 4, 6, 8 and all front-engine vehicles shall run an adequate bonnet.

## 14: 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, 9, 10, C**  
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.

#### **15: Clothing, Footwear & Helmets**

- a) All competing drivers and passengers shall wear approved driving suits that cover the body from ankle to wrists and neck.
- b) Driving suits shall be of flame-resistant or retardant material. Nylon or synthetic overalls or garments will not be permitted. It is recommended that woollen or cotton underclothing is worn to prevent injury from melting synthetic items.
- c) All competing drivers and passengers shall wear on their feet driving shoes, light low-heeled boots or similar. Sandshoes permitted if worn with heavy woollen socks. Competing in sandals, jandals, gumboots or bare feet is not permitted.
- d) 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, visor or windscreen.

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. Helmets must be presented at scrutineering in clean condition and not modified except as permitted by the helmet manufacturer. ABS and polycarbonate helmets shall not be painted unless a paint approved by Helmet manufacturer is used. 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 not permitted under any circumstances.

#### **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).

#### **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.**

- e) All competing drivers and passengers shall wear a neck brace **or acceptable helmet support** of a recognised, approved manufacturer's design (eg. HANS device). **Devices not giving forward support to the helmet are not permitted.**
- f) 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, which ever 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.**

## **16: 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 of 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 LTNZ approved LED directional indicator lights may be used.
- h) All vehicles competing in Enduro events must be fitted with a forward facing clear spotlight with a minimum sized lamp of 50W.

## **17: Fuel/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. 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) All classes except Class 7:
  - i: LPG, diesel and pump petrol only to be used. Methanol, alcohol or any compressed natural gases are not permitted.
  - ii: Fuel octane allowance is 130 octane or lower.
  - iii: Any LPG powered vehicle must have Certification no older than 3 months.
- c) Class 7 – Only commercially available fuel with an octane rating not exceeding 130 octane is permitted.

## **18: Fuel Tanks & Lines**

1. **Classes 1, 3, 5, 7, C, 10**

- a) All fuel lines shall be firmly clamped to the chassis or frame
- b) All fuel lines shall be of an approved type.
- c) Flexible lines between body / frame / engine shall be securely clamped at each end and free from direct heat or chafing.
- d) All in line filters must be constructed of metal.
- e) No sight level gauges shall be permitted.
- f) All carburetors which have a vent opening to the outside of the carburetor 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.
- g) All fuel tanks must be fitted with a breather that will not release fuel in the event of a capsize.
- h) All fuel tanks to be securely mounted as low as possible within the confines of the main frame.
  - i) 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.

## 2. Classes 2, 4, 6, 8 & 9

- a) All fuel lines shall be firmly clamped to the chassis or frame
- b) All fuel lines shall be of an approved type.
- c) Flexible lines between body / frame / engine shall be securely clamped at each end and free from direct heat or chafing.
- d) All in line filters must be constructed of metal.
- e) No sight level gauges shall be permitted.
- f) All fuel tanks and cells to be securely mounted to exclude chafing or twisting.
- g) All fuel tanks must be fitted with a breather that will not release fuel in the event of a capsize.
- h) All fuel tanks shall have an external leak-proof filler outside of the passenger compartment.
  - i) Fillers or fuel tanks shall be fitted with a non-returnable breather.
  - j) Fillers must be constructed and situated so that, during refueling, no fuel can be spilt into the driving compartment.
  - k) Fuel fillers shall be mounted within the confines of the bodylines.
  - l) 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.

## 19: Lifting Points

- a) 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.

## 20: Nerf Bars

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

## 21: 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 either the bonnet or visor. It is a competitor's responsibility to ensure that numbers are positioned to remain clearly legible throughout an entire event.
- b) Competition Numbers shall conform to the following colours and **minimum sizes**:
  - i. **Rear and side numbers – BLACK numerals (30mm. brush stroke width, 22cm. high) on a WHITE background 30cm. x 30cm. square.**

- ii. **Front number – each digit 100mm. high by 20mm. wide.**
  - iii. The first numeral/letter shall denote the class (e.g. 521 – Class 5, C18 – Challenger).
  - iv. Competitors competing in more than one class must be registered with ORANZ with a separate number for each class.
  - v. Vehicles will be required to display their Competition Numbers at scrutineering.
- 22: Seats & Restraints (Refer Fig. 5, page 33)**
- 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) A single point catch and release buckle shall be fitted to belts.
  - d) A minimum 5-point competition harness of recognized, approved manufacture and type shall be used.
  - e) No chafed or stretched webbing is permitted.
  - f) Safety belts shall not be fastened to seat frames or supports.
  - g) 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.
  - h) Inertia reel seat belts are not permitted.
  - i) 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 fig.5)
  - j) 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.

**23: Tow Rope - First Aid Kit – Fire Extinguisher**

- a) All vehicles must carry an adequate tow rope – minimum length 3 metres.
- b) All vehicles must carry an adequate first aid kit. In addition to first aid materials, this kit must contain a thermal blanket for each occupant of the vehicle.
- c) All vehicles must carry a fire extinguisher of at least 800 grams which must be mounted in a secure position within reach of both the driver and passenger while seated, not necessarily belted in. Some venues may require fire extinguishers of a greater capacity than listed above, in which case this requirement shall be stated in the event Entry Form. It is permissible to use multiple units to achieve a capacity greater than the minimum 800 grams as the event may require. Vehicles fitted with fixed in-car extinguisher systems are not exempt from these requirements.
- d) The fire extinguisher(s) 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.

**24: Exhaust Systems**

- a) All vehicles must be equipped with an effective silencer or muffler.
- b) All exhaust systems must exit to 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.

**25: 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.

**26: Fan & Pulley Guards**

- a. Any fan or pulley which could easily allow something to become entangled must be fitted with a guard.

**27: Firewalls**

1. **Classes 1, 3, 5, 7, 10, C** a. 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).
- b. A minimum firewall must extend from the driver's shoulder height to the vehicle floor and body sides.
- c. 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.
- d. Air-cooled odyssey type vehicles do not necessarily require a full width firewall.
- e. 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.

2. **Classes 2, 4, 6, 8 & 9**

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

**28: Carburettors**

- a. The throttle system must be fitted with **two** external carburetor / throttle body return springs to ensure the system returns to idle
- b. All carburetors which have a vent opening to the outside of the carburetor 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.

**29: Oil Lines, Water Pipes, Radiators**

1. **Classes 1, 3, 5, 7, 10, C** a. All external oil lines are to be of approved oil resisting pressure hose, securely fixed.

- b. All water pipes to be securely fixed and of approved types.
- c. All overflow pipes are to exit well away from the occupants.
- d. 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, steel mesh is required in front of the radiator **and/or oil cooler** between the radiator **and/or oil cooler** and **the** occupants.
- e. Radiators must be equipped with approved caps.

2. **Classes 2, 4, 6, 8 & 9**

- a. All external oil lines are to be of approved oil resisting pressure hose, securely

fixed.

- b. All water pipes to be securely fixed and of approved types.
- c. 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.
- d. 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.
- e. Overflow hoses must be directed away from the occupants.

**30: Roll Cages** (refer Fig.1 page 32)

1. **Classes 1, 3, 5, 7, 9, C** (Class 10 refer page 24)

- a. All main frame members are to be a minimum of 1½” x 16 gauge ERW mild steel tubing or the equivalent strength. **Alternatively MANZ (MSNZ) 38.1mm O.D. (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.**
- b. All bracing to be a minimum of 1” x 16 gauge ERW mild steel tubing or of the equivalent strength.
- c. 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.
- d. Diagonal bracing of the rear hoops, or gussets to the equivalent design strength, are required.

2. **Class 2, 4, 6 & 8**

- a. A roll cage shall consist of:
  - i. A main hoop positioned behind the crew seats and **mounted to the vehicle floor (to current MANZ 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 fig.1). A diagonal brace is not required in a space-frame construction provided that the frame construction exceeds the requirement of these Rules.
  - vi. CLARIFICATION of DIAGONAL BRACING (refer fig.1).  
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
  - vii. Mounting points E and F shall be in line between G and C, and H and D respectively.
  - viii. Mounting points E and F shall be no more than 50% of the distance **back** from C and D along that line described above.
  - ix. 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.
- b. The Main hoop shall be chassis or floor mounted to the satisfaction of the Chief

Technical Officer.

c. **It is recommended that all cage members are chassis mounted.**

d. (Material) –

- i. 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. **Alternatively MANZ (MSNZ) 32mm O.D. (1¼ inch) by 2.5mm wall or Chrome Moly tube of 1¼ inch diam by .065 inch wall thickness as a minimum.**
- ii. 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 MANZ (MSNZ) 38.1mm O.D. (1 1/2 inch) by 2.5mm wall or Chrome Moly tube of 1 1/2 inch diam by .083 inch wall thickness as a minimum**
- iii. An exception to (a & b) applies **to** fully space-frame constructed vehicles where 2mm walled tube (**mild steel**) shall be the minimum requirement. **MANZ (MSNZ) tube to be 2mm, Chrome Moly tube to be .065 inch.**
- iv. Aluminium tube may be used for roll cage construction and it will be two sizes greater than material used for steel construction.
- v. 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.
- vi. 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.

e. Fabrication -

- i. No part of the structure shall show evidence of crimping; wall failure, or section weakening and bends should be smooth and continuous nature.
- ii. All welding shall be of the highest possible quality with maximum penetration.
- iii. 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 (Fig. 2 page 35) may also be used under these conditions.

f. (Removable Connections)

- i. In cases where removable connections are incorporated in the roll cage design, they must be one of the following types:
  - a. 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.
  - b. The muff connection (Fig. 2).
  - c. A tongue and gusset connection (Fig. 3). In this case, the tongue and gusset will be made from minimum 6mm (1/4”) plate.
  - d. A twin lug connection with axis working under double shearing conditions (Fig. 4).

g. (Mountings)

- i. 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.
- ii. One of the following approved methods shall be used for the mounting of the roll cage.
  - a. The twin lug connection (Fig. 4).
  - b. 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.

- c. 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.
- d. 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.).
- e. 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.
- h. **Space frame Vehicles** – Where the roll cage is part of the vehicle frame the principals of the above sections (A – E) shall be adhered to.

**31: Steering / Suspension**

- a. Tilt steering columns shall be permanently locked.
- 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).

**32: 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.

**33: 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.

**34: 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.

**35: Remits / Rule Changes**

Changes to the Rules shall be made by application to Council by way of remits, notwithstanding that new Rules or changes to the existing Rules, in the interests of safety only, may be made at any time by the Executive on recommendation of the Chief Steward or Chief Technical Officer.

- a. 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.
- b. Remits, shall be presented at the first and second Council meetings of the year for discussion, clarification and amendments, if required. Following the second Council meeting, remits, seconded by another ORANZ affiliated club, shall be delivered to the ORANZ Secretary no later than the 30<sup>th</sup> September. The Secretary shall deliver received valid remits to member clubs, no later than 31<sup>st</sup> October, for voting at club level. Clubs shall return remits showing their vote to

Secretary by 15<sup>th</sup> November and results presented at the Association AGM.

- c. New Rules or changes 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 an written exemption or a stand-down period determined by Council.

**36: 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. All vehicles competing in an enduro event must demonstrate a functioning reverse gear at scrutineering.
- c. Vehicles having defects affecting safety shall not be permitted to compete.
- d. Refund of any entry fee, for vehicles being deemed at scrutineering to be unsafe to compete, shall be at the discretion of the event organizer.

**37: Electronic aids capable of predicting race direction are prohibited. This is to include GPS devices with driver/co-driver viewable or audible cue.**

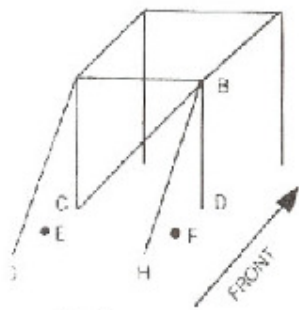


Fig 1.  
Roll Cage  
General Design.

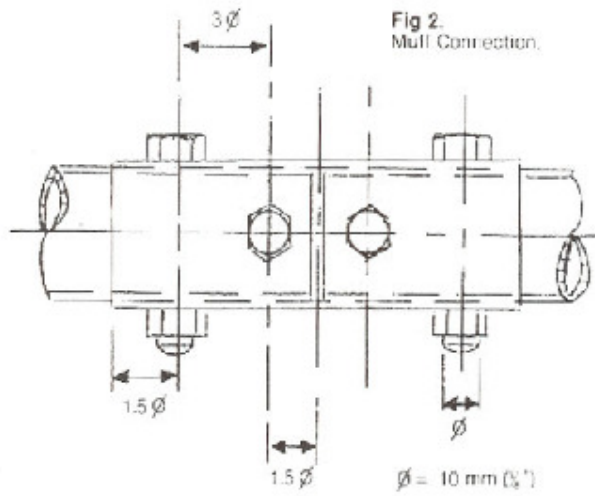


Fig 2.  
Mull Connection.

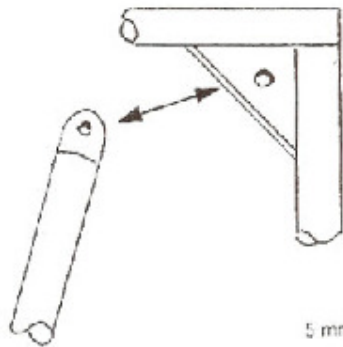


Fig 3.  
Tongue and Gusset  
Connection

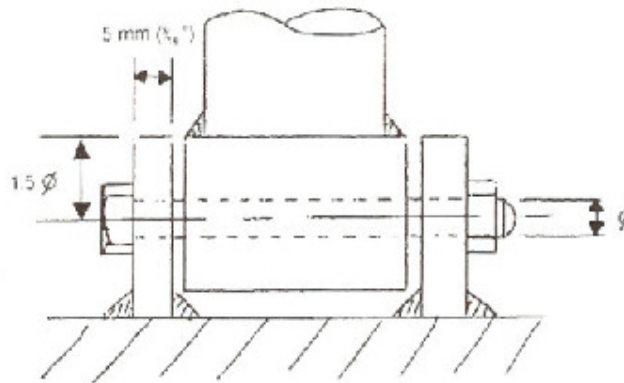


Fig 4.  
Twin Lug Connection.

$\phi = 10 \text{ mm } (3/8")$

Fig 5.

