

ALRC Competition Regulations. 28.11.17

These are supplementary to those in the MSA Yearbook.

Any updates prior to the next edition being printed will be sent to all clubs for circulation and be available on the website www.alrc.co.uk

To set a starting point for the set of regulations, we need to define a "Standard Vehicle" and then list what alterations, additions, subtractions and component substitutions may be made. It's not hard to visualise a standard factory vehicle as one which has a defined range of engine types and sizes, body style variations, chassis shape and the transmission and suspension systems that go with them - all using Land Rover components. This obviously includes a clearly defined set of bought-in items. In other words, catalogued options / choices only.

The ALRC Vehicle Dimensions Chart (printed in this Handbook) lists engines sizes and physical dimensions for most models. The vehicle should have the suspension type as appropriate and ALL bodywork, windows, bumpers etc. as appropriate for the model. Changes to gain competitive advantage will be very limited on Standard Class vehicles but quite wide-ranging for Modified vehicles.

So having defined a "Standard Vehicle":-

A) The Standard Class regulations consist of practically no major "competitive advantage" alterations but may define a wide range of minor ones and some component substitutions or service replacement items.

B) The Modified Class regulations list *further* alterations and component substitutions that are allowed to be carried out on a Standard Class vehicle.

The regulations are divided into the following layout:-

Part 1 General Vehicle Regulations *

(Structure and equipment of all vehicles.)

Part 2 Event-Specific Vehicle Regulations *

(Structure and equipment of vehicles specific to defined events.)

Part 3 Competition Regulations **

(Describes the manner in which the vehicles compete in events, and the organisation of those events.)

* (Subject to the full rule change process) ** (May be changed by vote at an EGM or AGM)

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Part 1 General Vehicle Regulations

Section A - General

A.1. As a general principle in all vehicle regulations, it is prohibited to carry out any tuning or modification that is not specifically permitted. The fact that some modifications are mentioned as prohibited does not imply that others are allowed.

A.2. Source
Rover Company to 2001 – This was to allow car vehicles prior to that date.

Land Rover by whoever owned.

Vehicle specifications should be limited to European countries only and the engine must stay in the vehicle model it was manufactured in. (Implemented 16th October 2010)

- A.3. Design
The vehicle shall be of a Land Rover design. Many alterations to the original vehicles are permitted in the following regulations. These shall be in the spirit of the regulations as well as styles, physical dimension(s) etc. Any standard Land Rover accessory parts may be fitted.
- A.3.1. Those modifications necessary to comply with safety regulations are authorised.
- A.4. MSA Regulations:-
These rules are to be read in conjunction with the MSA Regulations to be found in the current 2017 MSA Competitors' Yearbook (known as the "Blue Book"). References to the MSA regulations are included where applicable and / or where more information would be helpful.
- A.5. Definitions:-
- A.5.1. "Where factory fitted" - This expression (or something akin to it) appears in the following rules. Where a change is made by Land Rover Ltd. during the life-span of a model design, then the applicability of that change is retrospective. For example, disc brakes have replaced drum brakes at the rear of Defenders, so disc brakes are now permitted at the rear of Ninety's and One Ten's regardless of age. The factory mentioned is a Land Rover factory or a location specified by Land Rover for official accessories to be added.
- A.5.2. "Equivalent cross references" - Rover parts may be replaced with parts made by other manufacturers on condition they are of the same basic design and are offered for sale as direct like-for-like replacements for those Rover parts.
- A.5.3. Where the word "manufacturer" is used, this is taken to mean the vehicle manufacturer. (Implemented 17th Oct 2009)

Section B - Standard Class Vehicle Regulations

This section lists the permitted changes from the original standard production / factory design and dimensions of the whole vehicle and its component parts.

When optimising a road-legal vehicle for off-road use, owners may need to take advice on the suitability of any alterations to establish that they are not detrimental to safety for public road use, and that the terms of the vehicle's insurance are not contravened.

Original dimensions are defined in the Vehicle Sizes Chart in the ALRC Handbook.

- B.1. VEHICLE DIMENSIONS:-
B.1.1 All dimensions given in the Vehicle Sizes Chart shall apply.
- B.2. ENGINE DESCRIPTION:-
B.2.1. Alternative engines or engine parts which may be interchanged are:-

<u>Original Land Rover engine</u>	<u>Acceptable replacement</u>
1.6 and 2 litre	Rover 60 2 litre car engine.
2.25 litre	Rover 80 2.25 litre car engine, or normally aspirated 2.5 litre diesel.
2.6 litre	Any Rover P4 range car engine.
Up to 2.5 litre 4 cylinder Turbo-diesel	Any other 4 cylinder 2.5 litre (nominal) turbo-diesel Land Rover engine.
2.5 litre 5 or 6 cylinder Turbo-diesel	Any other 5 or 6 cylinder 2.5 litre (nominal) turbo-diesel Land Rover engine.
V8 petrol (where factory fitted.)	Any V8 aluminium engine up to maximum size listed in the vehicle size chart from product listed in A.2 for that vehicle.

- B.2.2. Engines may be modified to enable the use of unleaded petrol, electronic ignition, LPG (Liquefied Petroleum Gas), rev limiters.
- B.2.3. Carburettors and air filters may be changed subject to the original number fitted not being exceeded and original standard inlet manifolds are retained.
- B.2.4. Spark plugs, HT cables, ignition coil are free.
- B.2.5. Additional gauges to monitor engine performance may be fitted.
- B.2.6. Air filter elements are free and may be removed.
- B.2.7. Engine mounts are free.
- B.2.8. The forced induction coefficient does not apply to diesel engines. (See MSA Yearbook 2017. J.5.4.1)
- B.2.9. A non-standard air to air intercooler is permitted. (Implemented 1st January 2012).
- B.2.10. The engine must stay in the vehicle model it was manufactured in. (Implemented 11th June 2011).
- B.3. SEATS & SEAT BELTS.
- B.3.1. Competition seats are permitted. (See MSA Yearbook 2017 reg. K.2.2. for attachment specs.) Seat support structure may be strengthened as required.
- B.3.2. Seat belts are mandatory in all competitions. Anchorage points minimum specifications are:-
RTV - Standard class, as per manufacturer's design. Modified Class as per CCV, Comp Safari, Point-to-point and Team Recovery.
CCV, Comp Safari, Point-to-point and Team Recovery.
For Defender style vehicles; the factory-standard anchorage points on 90 / Defender-type models onwards represent the minimum specifications. Any vehicle prior to that requires anchoring either directly or indirectly to the chassis in the manner and materials of the Defender type installation, or better.
For Range Rover / Discovery / Freelander vehicles; the factory-standard anchorage points should be retained.
As applicable, anchorage points on the roll-cage to the rear of the driver / passenger shall be as shown in the Roll-bar Regulations.
- B.4. EXHAUST SYSTEM.
- B.4.1. The exhaust system may be modified.
- B.5. RADIATORS & PLUMBING.
- B.5.1. Replacement or additional cooling fan(s) may be fitted but must remain within the confines of the original bodywork.
- B.5.2. Oil coolers may be added but the coolers and associated pipework / plumbing etc. must remain within the confines of the original bodywork

- B.6. STEERING & AXLES.**
- B.6.1. Steering linkage rods may be sleeved or have extra material bolted to them for additional strength. Any sleeves must be made in such a way that they can easily be removed at the Scrutineers request to enable examination of the contained part(s). (For the avoidance of doubt, steering gear parts may not be welded after original manufacture.)
- B.6.2. High strength one-piece non-Rover steering rods are allowed. Locking of these will be by the use of lock nuts, not clamps.
- B.6.3. Axle casings may have strengthening material welded to them.
- B.6.4. Series I, II & III steering boxes and axles may be interchanged to an improved specification (i.e. late items to early vehicles only), points of attachment being strengthened where necessary.
- B.7. WHEELS.**
- B.7.1. Any brand / make of steel wheels are allowed but they must be of adequate strength, have a diameter matching that of factory fitted wheels for that model and have an offset between the outer flat of the nave plate and the external face of the bead area (not the outermost turned-out flange of the rim) of 4" / 102mm or less. Also any Land Rover produced / manufactured aluminium alloy wheels and matching wheel nuts may be used when suitable hubs for that wheel are fitted. (*Implemented 1st January 2011*)
- B.7.2. The use of wheel spacers is prohibited. (Regardless of rules P.56.6 and J.5.8.2 in the 2017 MSA Yearbook)
- B.8. TYRES.**
- B.8.1. Any size tyres may be used so long as they have a maximum inflated diameter of 33". Forward Control Land Rovers (all types) may have larger diameter tyres up to a maximum inflated diameter of 37".
- B.8.2. Tyres may be changed to any type other than tractor or implement tyres, "maxi-cross" type tyres or those fitted with studs or chains. (Tractor and implement tyres have a "V"-shaped tread of separate blocks of rubber like the ones fitted to the driving wheels of tractors and dumper trucks.)
- B.9. SUSPENSION.**
- B.9.1. Leaf-spring shackle plates may be altered but the distance between the spring bolt centre and the chassis bolt centre must be no more than 6" / 152.4mm. If greater than 5" / 127mm between pin centres, they shall incorporate a mid-point strengthening device forming an H-shape assembly.
- B.9.2. Any make of suspension springs may be used but they shall be the same type as those fitted as standard for that model. (See B.20, "Use of non-Rover parts").
- B.9.3. Leaf spring types:-
- B.9.3.1. In all cases, the ends of the top and the second leaf must wrap around the eye.
- B.9.3.2. Springs that were originally built with more than 5 leaves may be rebuilt so as to have no less than 5 leaves. The leaves below the top two MUST be in proportionally reducing steps similar to the originals and must be of the original thickness.
- B.9.3.3. Parabolic leaf springs may be used but must have at least two leaves on each spring. (This allows, but is not restricted to, the use of leaf springs built to the Santana parabolic designs.)
- B.9.4. The narrow springs on 80" Land Rovers may be replaced with wider springs as an alternative.
- B.9.5. Axle check-straps may be removed.
- B.9.6. Any radius arms that have been welded to, drilled or cut into, deliberately notched or bent up/ down /sideways are prohibited. Any attachment or modification to the radius arms (unless manufacturer's specification) are prohibited. The only addition to this is that brake pipes can be secured by the same method as a breather pipe (*Amended March 2012*) (*Implemented 1st January 2013*)
- B.10. DAMPERS.**
- B.10.1. Dampers are free
- B.10.2. On Series Ones, the front damper mounts on the axle may be altered to give more clearance.
- B.10.3. Additional damper mountings are permitted to be in place but not in use.
- B.10.4. Remote damper reservoirs must be isolated from the driver / passenger compartment and be shielded from spectators. (*Implemented 1st January 2012*).
- B.11. FUEL TANKS.**
- B.11.1. For safety reasons, underseat tank-covers / lids shall be screwed down with a gasket. This affects early vehicles in particular.
- B.11.2. Fuel tank location / design may be changed. If the fuel tank is moved, a separate metal cover (vented at the bottom) must be fitted even if a truck cab is fitted.
The basic requirement is to prevent fuel leaking onto the driver / navigator if the vehicle overturns. The design should be such that any fuel that has leaked into the cover when the vehicle was inverted, will drain onto the ground when the vehicle is righted. The cover must NOT be sealed at the bottom or fumes will be trapped.
- B.11.3. Where an alternative fuel to petrol or diesel is used, the installation must conform to current Road Vehicle Construction & Use Regulations. If it is LPG, then follow the LPG Industry Technical Association Code of Practice No. 11 as a minimum specification. The cylinder(s) and the pipework must be protected to at least the same standard as the original fuel system equipment. If the tank is installed inside the passenger compartment, the tank must have a cover to protect it and its valves and pipework etc. from damage. Relevant test certificate(s) must be retained for inspection. Any date markings on the pipework must remain legible.
- B.11.4. Fuel pumps are free
- B.12. BODYWORK & CHASSIS.**
- B.12.1. Bolt-on sill panels and air dams / front spoilers may be removed. Where applicable bumper end caps may be trimmed along the horizontal moulding line level with the bottom of the bumper. The number plate moulding may be removed.
- B.12.2. Bonnets.
- B.12.2.1. Series I, II, IIA and III vehicles may be fitted with Defender-style bonnets, grilles and front panels.
- B.12.2.2. Composite material bonnets are allowed if they have been made from fire retardant materials.
- B.12.2.3. If the vehicle has a permanently fitted windscreen, then the bonnet may have holes, louvers, air-scoops etc.
- B.12.3. The shortening of a chassis is permitted providing the resulting wheelbase matches the body being used. The ends of the chassis may be altered to accommodate the requisite style of bumpers and / or cross-members.
For example, if a Range Rover chassis is shortened to go under a 90 style body, the wheelbase must be the same measurement as in a 90 and body dimensions and appearance must be exactly as in a 90. All welding on the chassis must be of a high standard.
- B.12.4. Cross members and outriggers may be replaced by section of equal or greater strength than the original whilst retaining original minimum silhouette.
- B.12.5. Underbody protection may be added.
- B.13. BUMPERS & CROSS-MEMBERS.**
- B.13.1. Heavy-duty bumpers, and bumpers associated with winch installations are permitted on condition they are no smaller or weaker than the originals. See Log Book article Dimensions Chart for bumper widths.

- B.13.2. On Land Rovers, bumpers, mounting and rear cross-members must be straight, have at least equal strength to the original fitment, be of original specification and shall be mounted in the original position with the front and rear faces presenting flat vertical faces. (Amended & Implemented 16th November 2013)
- B.13.3. On Range Rover / Discovery / Freelander bumpers must be of original size and shape and have at least equal strength to the original fitment. Bumper sizes and shapes may vary with the model concerned.
- B.14. BATTERIES.
- B.14.1. Non-standard batteries are permitted but wet batteries must be fitted with anti-spillage caps. All types of battery must be separated from the driver / passenger compartment by means of a bulkhead or cover, must be securely fixed and if moved from the normal place of fitment must be adequately covered to contain any spillage in the event of a roll over. Covers do not have to be of metal; plastic and wood are acceptable.
- B.15. BRAKES.
- B.15.1. The hand-brake lever may be altered or changed in order to meet the requirement that the hand brake is operable by the driver whilst wearing a seat belt. No other additional linkage to operate the hand brake is allowed. (Implemented 1st January 2013).
- B.15.2. Land Rover drum brakes may be interchanged with other Land Rover drum braking systems.
- B.15.3. Land Rover disc brakes may be interchanged with other Land Rover disc braking systems.
- B.15.4. Brake friction materials are free.
- B.16. TRACTION CONTROL
- B.16.1. The use of traction control and hill descent systems will be limited to standard vehicles where fitted as original equipment.
- B.17. AXLE DIFFERENTIALS
- B17.1. Lockable axle differentials may be fitted on condition they are disabled in an unlocked state to the satisfaction of the scrutineers and not used during competition.
- B17.2. Any gear ratio may be used. (Implemented 1st January 2012).
- B.18. GEARBOXES.
- B.18.1. All types of Land Rover gearboxes and their component parts may be interchanged.
- B.18.2. Automatic Transmissions must be fitted with an inhibitor to prevent the engine from being started in gear.
- B.19. RECOVERY POINTS.
- B.19.1. Adequate front and rear recovery attachments must be provided for recovery purposes in all events. Bumpers, tie-down rings, lifting rings or Range Rover / Discovery "tow fittings" are not adequate. Factory specification (or better) trailer hitches are acceptable. If a tow-ball is fitted, welding alone is insufficient - high tensile nuts and bolts must be used for attachment. If the recovery point is attached to a bumper, the bumper must be attached to the chassis with high tensile nuts and bolts. These recovery points must have a minimum of a 3mm thick, mild steel spreader plate behind it's mounting point, regardless of its type or location. (Clarification 9th July 2016).
Factory specification recovery points, when installed and used as vehicle handbook, to the following generations of vehicle are deemed suitable for recovery up to and including RTV Trials:
- Range Rover P38A and subsequent generations
 - Discovery 3 and subsequent generations
 - Freelander, all generations
- Towing balls, jaws and pintles used for recovery must be rated as a minimum to the capacity of the vehicle being recovered. E.g. a 3.5Te towing ball fitted to a Freelander is compliant: a 2.25Te combined ball and jaw hitch fitted to a Defender is not compliant. (Clarification 4th July 2015).
- B19.2. A pair of Land Rover chassis-shackles (forged JATE rings) are suitable. (Implemented November 2016)
- B.20. NON-ROVER PARTS
- B.20.1. The following non-Rover design items may be fitted (subject to limitations elsewhere in these rules):-
- a) Wheels, tyres, steering wheel, seats, seat belts, mirrors, **steering wheel knobs.**
 - b) Service items (ignition components, filters etc)
 - c) Bull-bars, entry steps, lens guards, roof-racks, tow-bars, extra lamps / lights (spot, fog, etc.), winches.
- B.20.2. Bush wires are not permitted.**

Section C - Modified Class Vehicle Regulations.

The following changes from the Standard Class Regulations are permitted in this class:-

When optimising a road-legal vehicle for off-road use, owners may need to take advice on the suitability of any alterations to establish that they are not detrimental to safety for public road use, and that the terms of the vehicle's insurance are not contravened.

C.1. VEHICLE DIMENSIONS

C.1.1. All dimensions given in the Vehicle Sizes Chart shall apply.

C.2. STEERING.

C.2.1. Power steering may be fitted to any model, using parts from any other product listed in A.2. Points of attachment may be strengthened where necessary.

C.2.2. High ratio steering boxes may be used. (Implemented 1st January 2012).

C.3. ENGINES.

C.3.1. Any Land Rover or Rover car engines (and others with Rover part numbers) up to a Max of 4600cc may be used complete with their ancillaries subject to A2.

C.3.2. Carburettors may be changed, air intake system and manifolds may be altered to any specification.

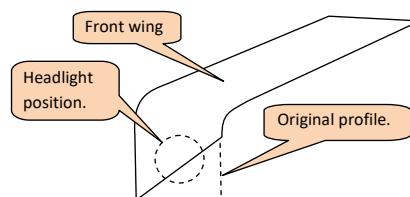
C.3.3. Engine location and orientation is free on condition that the forward facing part of any engine block (the main cast structure and not ancillary equipment / bolted-on parts) shall be forward of the midpoint of the wheelbase of the vehicle.

C.3.4. Forced induction petrol engines are not permitted.

C.4. TRANSMISSION. GEARBOXES

C.4.1. The transmission type and its location are free, provided the transmission consists of parts that have Land Rover / Rover part numbers or equivalent cross-references.

- C.5. SUSPENSION & AXLES.
- C.5.1. Any Land Rover suspension system and components may be used on any model and the suspension mounts modified to accommodate the components, the use of air suspension is prohibited except in classes and periods where fitted as original equipment.
- C.5.2. Any axle types may be used (provided they have Land Rover part numbers or equivalent cross-references).
- C.5.3. Coil assisters (where the coil is separate from the shock absorber / damper) may be fitted to a leaf-spring vehicle. The suspension system shall then be deemed to be a coil-spring type and not a leaf-spring type.
- C.5.4. Bump-stops must be fitted in the appropriate location and must be complete factory-specification items that match either the chassis or axles in use.
- C.5.5. The suspension system is defined as including anti-roll bars, shock absorbers, Panhard rods, radius arms (in matched pairs per axle), leaf, coil and air springs, and associated bushes, mountings and parts capable of moving under suspension loadings. All suspension nuts and bolts must be fastened properly and tightened to a minimum of the manufacturer's appropriate torque settings. *(Amended March 2010)(Implemented 1st January 2011)*
- C.5.6. Crown wheel slipper pads or pegs can be used. *(Implemented 1st January 2012).*
- C.5.7. **Axle casings can be modified. *(Implemented 18th March 2017).***
- C.6. DAMPERS
- C.6.1. Additional dampers may be fitted.
- C.6.2. Damper mounts are free. *(Implemented 16th November 2013)*
- C.7. BRAKES.
- C.7.1. Any type of braking system may be used except fiddle brakes.
- C.7.2. Bias braking (front to rear) is permitted but the ability to alter the settings from the driver / passenger compartment, or whilst the vehicle is being driven, is prohibited.
- C.7.3. A hand brake must be fitted. The hand brake lever may be altered or changed in order to meet the requirement that the hand brake is operable by the driver whilst wearing a seat belt. No other additional linkage to operate the hand brake is allowed." *(Implemented 1st January 2013).*
- C.8. CHASSIS
- C.8.1. The chassis may be constructed from one or more original Land Rover chassis or one(s) of Land Rover design maintaining a chassis rail separation of Land Rover Ltd design specification. The profile and rectangular cross section above and between the axles must remain as the original. All welding on the chassis must be of a high standard.
- C.8.2. Rail, space-frame or monocoque chassis construction may be used where factory fitted to that model.
- C.9. RADIATORS & PLUMBING.
- C.9.1. The radiator may be fitted in any suitable location within the confines of the original silhouette. Coolant hoses and pipework may be re-routed but must be separated from the driver / passenger compartment by means of lagging (if metal pipework) and a solid metal cover (if rubber pipework) to protect all persons including marshals and spectators.
- C.9.2. All pipework, header tanks etc. shall be covered to protect occupants, marshals and spectators should any part of the cooling system fail and cause water or steam to escape.
- C.9.3. The radiator shall be shielded from the driver / passenger compartment regardless of its location. Louvre vents are acceptable as radiator shielding.
- C.9.4. The cooling fan(s) must be protected by a grille, louvre or similar.
- C.10. FUEL TANKS.
- C.10.1. Fuel tanks may be changed or repositioned but must be securely fixed in place and be of metal construction. Plastic or composite fuel tanks are permitted only where they are factory fitted to that model and mounted in the original position.
- C.10.2. If a non-standard fuel filler is used, it must have a leak-proof cap, and be isolated from the driver / passenger compartment by the best possible method commensurate with the vehicle design. Underseat lids shall be screwed down with a gasket. The very minimum protection for an early underseat filler is the cap separately sealed. The fuel filler cap must be located in a safe place. Fuel tank air vents must be at least 25cm to the rear of the cockpit and must be designed to prevent the escape of fuel should the vehicle be inverted. It is recommended that a non-return valve is incorporated in the vent system. *(See 2017 MSA Yearbook reg K.6.)*
- C.11. BUMPERS & CROSS-MEMBERS
- C.11.1. Must comply with the requirements of regulation B.13 as set in B.13.1, B.13.2 and B.13.3 as appropriate for the vehicle / bumper type. *(Amended March 2010.) (Implemented 1st January 2011)*
- C.12. SILHOUETTE.
- Definition:- The "body capping line" on a "Series" Land Rover or Defender is defined as a horizontal line level with the top edge of the fixed rear load area surround. The "window line" on Saloon / Station Wagon types is level with the bottom edge of the driver's door window.
- C.12.1. The body parts above the "body capping line" or "window-line" (as defined above) may be removed.
- C.12.2. The silhouette (as viewed from the side and front) of the bodywork below the "body capping line" or "window line" (as applicable) must be retained. The chassis, fuel tank etc. are not considered to be part of the silhouette.
- C.12.3. Sill panels may be removed and wings cut away, provided they present no sharp edges. Inner faces of the wings (those either side and forward of the radiator panel on a Series Land Rover) shall remain leaving the silhouette of the body unaltered. The front of the front wing may be cut-away as shown:-



- C.12.4. Bodywork may be replaced with non-Rover items on condition that all other shape / dimension specifications above are adhered to.

Part 2 Event-Specific Vehicle Regulations

Section D - Regulations Applicable to all Competition Events.

This section contains items of a technical nature only.

- D.1. MSA PERMITTED EXEMPTIONS (All other MSA Regulations apply.)
- D.1.1. Vehicles may be of a commercial type. (See MSA Yearbook 2017 reg. J.5.20.6)
- D.1.2. Only RTV trials vehicles need to be registered and taxed; all other classes are exempt. (See 2017 MSA Yearbook reg. P.60.1.1 and P.60.1.2.)
- D.1.3. Only RTV trials vehicles must comply with all Statutory Regulations as to Construction and Use and lighting; all other classes are exempt. (See MSA Yearbook 2017 reg. P.60.2.1)
- D.1.4. Towing / recovery points need not be painted in a contrasting colour. (See 2017 MSA Yearbook reg. P.60.2.2)
- D.1.5. Vehicles shall be fitted with an independent braking system capable of holding them while parked. It shall be activated by a single operation and shall be external to the engine and gearbox. The use of line lockers in any form is prohibited. (Amended & Implemented 7th July 2012).

Section E - Road Taxed Vehicle (RTV) Trial-Specific Technical Regulations

- E.1. BODYWORK:-
Rule C.12. states which part(s) of the bodywork may be removed. However, in this class, the following applies:-
 - E.1.1. All vehicles must be in one of the following two configurations:-
 - E.1.1.1. Soft-top vehicles - must have the manufacturer's windscreen raised, and complete manufacturer's hood and support structure in place. The rear flap on the tilt may be secured open.
 - E.1.1.2. Hardtop vehicles must have the whole of the manufacturer's hardtop or truck cab with all fastenings secured and all glass in position.
 - E.1.2. Door tops must be in place complete with all glazing panels in place.
 - E.1.3. The tailgate must be in place and secured closed.
- E.2. TYRES & WHEELS
 - E.2.1. Vehicles must be entered on their normal road tyres which must be UK road legal for the vehicle on which they are fitted.
 - E.2.2. Aluminium alloy wheels and matching nuts may be used in place of factory-fitted steel wheels where suitable hubs are fitted. (See Scrutineering Guide in the ALRC Handbook for details on identification of suitable hubs.)
 - E.2.3. Minimum tyre pressure to be 22 psi.
 - E.2.4. Spare wheels and tyres need not be carried. (See 2017 MSA Yearbook P.56.7.1.)
- E.3. SEATS & SEAT BELTS.
 - E.3.1. Seat backs and squabs must be secured to the vehicle structure at least as securely as originally manufactured unless originally manufactured with no securing devices.
 - E.3.2. Vehicles must have a minimum of lap and diagonal seat belts fitted and worn by both driver and passenger. This is to apply even if the vehicle does not require seat belts for use on the public road. A properly fitted 3-point (or better) safety harness is an acceptable replacement for the standard seat belt. Lap belts only are required on Series vehicles up to 1965.
- E.4. FIRE EXTINGUISHERS
 - E.4.1. It is recommended that all competing vehicles carry a fire extinguisher, minimum 1.75 litre AFFF or equivalent extinguishant / weight as specified in the 2017 MSA Yearbook (Regulation K.3. *et seq* on page 164 and table 3 on page 176) operable or accessible from the driver's seat.
- E.5. FUEL TANKS
 - E.5.1. Where the fuel tank and filling system are unaltered from the original design, a standard filler cap may be used unless event SRs state otherwise. See also rule C.10.2.
- E.6. BUMPERS
 - E.6.1. In modified RTV classes the use of non-Land Rover heavy duty or winch bumpers are permitted so long as they are no smaller, weaker or more flexible than the original. (Implemented 1st January 2011)

Section F - Cross Country Vehicle (CCV) Trial-Specific Technical Regulations

- F.1. ROLL-OVER PROTECTION
 - F.1.1. All vehicles must be fitted with an ALRC approved roll-cage. See separate regulation set for details.
- F.2. SEATS & SEAT BELTS.
 - F.2.1. Minimum of a lap belt to be worn by all occupants whilst on a section.
 - F.2.2. All seat components must be securely attached regardless of original design.
- F.3. WHEELS & TYRES
 - F.3.1. Minimum tyre pressure is 12 psi.
 - F.3.2. Spare wheels and tyres need not be carried. (See MSA Yearbook 2017 P.56.7.1.)
- F.4. FIRE EXTINGUISHERS
 - F.4.1. All competing vehicles must carry a fire extinguisher, minimum 1.75 litre AFFF or equivalent extinguishant / weight as specified in the 2017 MSA Yearbook (Regulation K.3. *et seq* on page 164 and table 3 on page 176) within reach of, or operable from the driver's seat.
- F.5. SILHOUETTE
 - F.5.1. Body panels above the 'body capping line' or 'window line' as permitted by C.12.1 may be replaced in their entirety or in part by parts other than standard manufacture. All coverings to be mounted securely to the body structure or to the Roll Over Protection System (ROPS). No drilling of the ROPS is permissible and covers may be fixed via brackets welded or clamped to the ROPS. Coverings are to be suitable for the anticipated use and not present sharp edges to the occupants or those outside the vehicle. (Implemented 14th March 2015)

Section G - Competitive Safari-Specific Technical Regulations

- G.1. ROLL-OVER PROTECTION
- G.1.1. All vehicles must be fitted with an ALRC approved full roll-cage. See separate regulation set for details.
- G.2. WHEELS & TYRES
- G.2.1. Minimum tyre pressure to be 18 psi.
- G.3. SILHOUETTE
- G.3.1. Body panels above the 'body capping line' or 'window line' as permitted by C.12.1 may be replaced in their entirety or in part by part other than standard manufacture. All coverings to be mounted securely to the body structure or to the Roll Over Protection System (ROPS). No drilling of the ROPS is permissible and covers may be fixed via brackets welded or clamped to the ROPS. Coverings are to be suitable for the anticipated use and not present sharp edges to the occupants or those outside the vehicle. *(Implemented 14th March 2015)*

Section H - Timed Trial-Specific Technical Regulations

- H.1. ROLL-OVER PROTECTION
- H.1.1. All vehicles must be fitted with an ALRC approved roll-cage. See separate regulation set for details.
- H.2. SEATS & SEAT-BELTS
- H.2.1. Minimum of a lap belt to be worn by all occupants whilst on a section.
- H.3. WHEELS & TYRES
- H.3.1. Minimum tyre pressure to be 12 psi.
- H.4. SILHOUETTE
- H.4.1. Body panels above the 'body capping line' or 'window line' as permitted by C.12.1 may be replaced in their entirety or in part by parts other than standard manufacture. All coverings to be mounted securely to the body structure or to the Roll Over Protection System (ROPS). No drilling of the ROPS is permissible and covers may be fixed via brackets welded or clamped to the ROPS. Coverings are to be suitable for the anticipated use and not present sharp edges to the occupants or those outside the vehicle. *(Implemented 14th March 2015)*

Section I - Point to Point & Team Recovery-Specific Technical Regulations

- I.1. ROLL-OVER PROTECTION
- I.1.1. All vehicles must be fitted with an ALRC approved roll-cage. See separate regulation set for details.
- I.2. WHEELS & TYRES
- I.2.1. Minimum tyre pressure to be 18 psi on Point to Point, 12 psi on Team Recovery.
- I.3. TOW ROPES
- I.3.1. Quick release mechanisms for towropes are not allowed.
- I.3.2. Only fibre or nylon ropes may be used. Wire cables or chains are prohibited.
- I.4. MESH SCREENS
- I.4.1. A full width wire mesh, 2" square maximum aperture and minimum of 10 gauge weld-mesh to be securely fitted to protect the front and rear windscreens and the driver / passenger compartment.
- I.5. SEAT & SEAT-BELTS
- I.5.2. In Point to Points a minimum of a 3 point fixing safety belt with two shoulder straps and one abdominal strap to be worn by all occupants whilst the vehicle is in motion.
- I.5.3. All occupants must be properly seated.
- I.6. SILHOUETTE
- I.6.1. Body panels above the 'body capping line' or 'window line' as permitted by C.12.1 may be replaced in their entirety or in part by parts other than standard manufacture. All coverings to be mounted securely to the body structure or to the Roll Over Protection System (ROPS). No drilling of the ROPS is permissible and covers may be fixed via brackets welded or clamped to the ROPS. Coverings are to be suitable for the anticipated use and not present sharp edges to the occupants or those outside the vehicle. *(Implemented 14th March 2015)*

Section J - Winch Recovery-Specific Technical Regulations

- J.1. EQUIPMENT
- J.1.1. All equipment, including cables, ropes, straps or webbing, shackles, blocks, hooks, ground anchors, winches, etc. and vehicles must be presented to the Scrutineer prior to the event.
- J.1.2. Only equipment passed by the Scrutineer may be used.
- J.2. SAFETY
- J.2.1. It is recommended that all competing vehicles carry a fire extinguisher, minimum 1.75litre AFFF or equivalent extinguishant / weight as specified in the 2017 MSA Yearbook (Regulation K.3. *et seq* on page 164 and table 3 on page 176) operable or accessible from the driver's seat.

Section K - Gymkhana-Specific Technical Regulations

- K.1. GENERAL
- K.1.1. All vehicles entered must be of Land Rover manufacture and must comply with a Trials class.

Part 3 Competition Regulations

Section L - Regulations Applicable to all Competitive Events.

This section contains items of an operational nature only.

L.1. VEHICLE CLASSES
Grouped mainly by physical size and suspension type.

L.1.1. Trials:-
Vehicles are categorised on wheelbase and suspension type and divided into Standard and Modified.

<u>Class</u>	<u>Suspension Type</u>	<u>Wheelbase Range Applicability</u>	
Standard:-			
1	Leaf	Up to 84	80 only.
2	Leaf	Over 84 to 90	86, 88, Lightweight.
3	Leaf	Over 90	101, 107, 109, 110 (includes FCs).
4	Coil	Up to 95	90.
5	Coil / air	Over 95	Range Rover, Discovery, Freelander, 110, 127 / 130.
Modified:-			
6	Leaf	Up to 84	80 only.
7	Leaf	Over 84 to 90	86, 88, Lightweight.
8	Leaf	Over 90	101, 107, 109, 110 (includes FCs).
9	Coil	Up to 84	80 only.
10	Coil	Over 84 to 95	86, 88, Lightweight, 90.
11	Coil / air	Over 95	All types over 95" wheelbase.

Class Q. A vehicle manufactured from Land Rover parts in accordance with MSA Regulations. Vehicles must retain Land Rover axles, engines and drivetrain. Vehicles must retain the appearance of a Land Rover.

This rule comes into effect on the 1st January 2017 and will run for a two year period until 31st December 2018 when the success or failure of it will be assessed. Please refer to the article entitled Q Class Trial.

L.1.2. Amalgamations. Where event entry is small, suggested amalgamations are shown below:-

<u>Class</u>	<u>Suspension Type</u>	<u>Wheelbase Range Applicability</u>	
1 & 6	Leaf	Up to 84	80 only.
2 & 7	Leaf	Over 84 to 90	86, 88, Lightweight.
3 & 8	Leaf	Over 90	101, 107, 109, 110.
9	Coil	Up to 84	80 only.
4 & 10	Coil	Over 84 to 95	86, 88, Lightweight, 90.
5 & 11	Coil / air	Over 95	Range Rover, Discovery, Freelander, 101, 107, 109, 110.

This reduces 11 classes to 6 in a practical and fair way.

Amalgamation depends upon how many of each class turn up at the event, but the six classes above would be close to the norm at small-club level.

L.1.3. Competitive Safari:-

<u>Class</u>	<u>Description / Applicability</u>
Standard:-	
1	Leaf sprung. Up to 2000cc 4 cylinder petrol and up to 2286cc diesel engine.
2	Leaf sprung. 2001cc to 2495cc petrol or 2287cc to 2495cc diesel & LWB 2625cc 6 cylinder petrol.
3	90 / Ninety / SWB Defender (Petrol & normally aspirated diesel.)
4	All models with Turbo-diesel engines.
5	Range Rover, Discovery, 110 / One Ten / LWB Defender, Freelander, all FC's & LWB-V8.(Petrol.)
Modified:-	
6	Leaf sprung up to 3000cc.
7	Leaf sprung above 3000cc.
8	Coil / air sprung up to 3600cc.
9	Coil / air sprung above 3600cc.

Class Q. A vehicle manufactured from Land Rover parts in accordance with MSA Regulations. Vehicles must retain Land Rover axles, engines and drivetrain. Vehicles must retain the appearance of a Land Rover.

This rule comes into effect on the 1st January 2017 and will run for a two year period until 31st December 2018 when the success or failure of it will be assessed. Please refer to the article entitled Q Class Trial.

L.1.4. The Defender range of vehicles are directly equivalent to the Ninety / 90, One Ten / 110 & 127 / 130 / One-Thirty range.

L.1.5. Standard production vehicles from Land Rover Ltd, built after January 1st 1993 which do not have a competition class listed above are to be allowed to compete in the class which nearest fits their specification.

L.2. ENTRIES.

L.2.1. The minimum entry figure for each class should preferably be kept to a reasonable size, say 5. If this is not possible then consideration must be given to a reduction in the number of awards in that class before deciding to amalgamate classes. In the event that amalgamation is decided upon, then this should be carried out as defined in the relevant sections E onwards. (See L.1.2., suggested amalgamations list.)

L.3. SMOKING.

L.3.1. Smoking by vehicle occupants while competing is prohibited.

L.3.2. Smoking in a designated refuelling area is prohibited.

L.4. MEMBERSHIP.

L.4.1. Current membership card of an ALRC member competitive club and MSA competition licence, when required, to be shown at signing on.

- L.5. INTERCHANGE OF PASSENGERS (Not applicable to gymkhanas & Tyros.)
- L.5.1. A passenger / navigator may accompany only one driver.
- L.5.2. A driver may not act as a passenger / navigator for another driver. (Implemented 12th June 2010)

- L.6. WHEELS & TYRES
- L.6.1. Tyres which are deemed to be over-aggressive by the event organisers will be prohibited.

- L.7. BONNETS, ENGINE & RADIATOR COVERS, BODYWORK
- L.7.1. The bonnet, engine cover, inner wings and radiator cover must be fitted at all times. (Amended & Implemented 7th July 2012).
- L.7.2. Doors are to be securely fastened closed when competing.

- L.8. LOG BOOKS.
- L.8.1. An ARC / ALRC Competition Vehicle logbook is required in all events where a roll over protection is required. (Implemented 12th June 2010)

- L.9. CRASH HELMETS
- L.9.1. In timed events other than winch recovery, all occupants shall wear a properly positioned and fastened crash helmet bearing a current approval mark issued by the MSA.

- L.10. CLERK OF COURSE
- L.10.1. All Clerks of Course for permitted events must hold a valid full RTA driving licence. (Implemented 1st January 2013)

Section M - Road Taxed Vehicle (RTV) Trial Competition Regulations

RTV event vehicles should be within the "spirit of the event". CCVT or Comp-Safari vehicles that have been made road-legal should not be used in RTV events.

- M.1. PASSENGERS
- M.1.1. One passenger / navigator only, over the age of 14 years, allowed per vehicle if it has a manufacturer's hard top, a truck cab, or a roll-bar, or where the vehicle is a road legal, mass produced, production vehicle retaining the original hardtop or truck cab and where the seat belts comply with 2017 MSA Yearbook K2.1.1., the minimum age of the passenger can be 12 years; 16 years for an open vehicle. (Implemented 16th June 2012).

- M.2. SHUNTS.
- M.2.1. Vehicles over 95" wheelbase are allowed one stop-reverse-recommence (known as a shunt) per section when they fail to negotiate a tight turn. This can be taken at the driver's discretion and the intention to do this must be announced BEFORE coming to an involuntary halt. See Guide to Trialling for details.

- M.3. DOCUMENTATION.
- M.3.1. Where required by law all entrants must possess a current VOSA Test Certificate (generally known as the MoT) and a valid Vehicle Excise Licence or equivalent MoD documentation relating to the vehicle being entered. (Implemented 21st February 2015)
- M.3.2. Vehicles must display valid civil or military registration plates (front and rear) relevant to that vehicle.
- M.4. In support of the ALRC stated policy intention to encourage Standard vehicles in competitions, Modified class vehicles competing in the National RTV trial shall only be permitted to compete for a class award in their class and not for overall position in the event.

Section N - Cross Country Vehicle (CCV) Trial Competition Regulations

- N.1. PASSENGERS.
- N.1.1. One passenger / navigator, over the age of 14 years, is allowed per vehicle.

- N.2. SHUNTS.
- N.2.1. Vehicles over 95" wheelbase are allowed one stop-reverse-recommence (known as a shunt) per section when they fail to negotiate a tight turn. This can be taken at the driver's discretion and the intention to do this must be announced BEFORE coming to an involuntary halt. See Guide to Trialling for details.

Section O - Competitive Safari Competition Regulations

- O.1. PASSENGERS.
- O.1.1. One passenger / navigator, over the age of 16 years, is allowed per vehicle.

Section P - Timed Trial Competition Regulations

- P.1. PASSENGERS.
- P.1.1. One passenger / navigator, over the age of 16 years, is allowed per vehicle.

Section Q - Point to Point & Team Recovery Competition Regulations

- Q.1. PASSENGERS
- Q.1.1. Point to Point One passenger / navigator, over the age of 16 years, is allowed per vehicle.
- Q.1.2. Team Recovery No vehicle at any time may carry a passenger.

- Q.2. TOW ROPES
- Q.2.1. Vehicles must not be connected at the start or finish, and all equipment used must be completely contained within the vehicles.

- Q.3. ENTRIES
- Q.3.1. Minimum entry for any class to be 3 teams.

- Q.4. TEAMS
- Q.4.1. Point to Point A team shall comprise two vehicles

- Q.4.2. Team Recovery A team shall comprise two vehicles and two drivers.
Q.4.3. Each team shall nominate a captain.

Section R - Winch Recovery Competition Regulations

R.1. BRIEFING

- R.1.1. Details of the course and the manner in which the recovery object is to be moved will be given at the start.
R.1.2. Each team will be allowed 2 attempts at the course.

R.2. TIME ALLOWED

- R.2.1. Maximum time for completion and method of starting will be given at the start.
R.2.2. Competitors will be allowed to examine the course prior to the start.

R.3. PREPARATION

- R.3.1. All objects to be recovered shall have a good quality chain pre-attached by the Clerk of the Course.
R.3.2. If the object to be recovered is a vehicle, then good quality chain is to be securely attached to the front and rear, all glass removed where possible. The steering wheel(s) may be locked in any position and one or more wheels may be removed.

R.4. EQUIPMENT

- R.4.1. All equipment, including cables, ropes, straps or webbing, shackles, blocks, hooks, ground anchors, winches, etc. and vehicles must be presented to the Scrutineer prior to the event.
R.4.2. Only equipment passed by the Scrutineer may be used.
R.4.3. The organisers may supply certain equipment.

R.5. PERSONAL PROTECTION

- R.5.1. It is strongly recommended that all members of the team wear protective clothing, e.g. overalls, gloves, eye protectors, and for competitors other than the winch operator, a crash helmet to MSA specifications. (See 2017 MSA Yearbook reg. P.46.4.5., P.46.4.6. and K10.3.1.).

R.6. START & FINISH ARRANGEMENT

- R.6.1. There will be a maximum of 2 vehicles and 3 members to each team.
R.6.2. All team members must be correctly seated in the vehicles and all equipment to be used must be in or on the vehicle at the start and finish lines.

R.7. TEAM CAPTAIN

- R.7.1. Each team will elect a captain who shall be responsible for keeping any scorecard(s) issued and represent the team to the Clerk of the Course.

R.8. POSITIONING

- R.8.1. Once the winch vehicle and anchor vehicle have manoeuvred into position they must remain stationary whilst winching.
R.8.2. Natural anchorage points may be used but should be protected from damage.

R.9. SAFETY

- R.9.1. The Clerk of the Course will, at all times, observe the event and may stop the team if he considers that the mode of recovery is or is likely to prove dangerous to officials, competitors, spectators or natural terrain.
R.9.2. He may award penalty points should any gate or previously specified natural object be touched by either object or team.

R.10. AWARDS

- R.10.1. The team that completes the course with the fewest penalties will be classed as the winner.
R.10.2. An award will be made to each member of the winning and placed teams.

Section S - Gymkhana Competition Regulations

S.1. GENERAL

- S.1.1. All vehicles entered must be products listed in rule A.2. plus Rover cars.
S.1.2. If a Land Rover, Range Rover, Discovery or Defender, it must comply with a Trials class.

Section T - Other Events

- T.1. Any other events, such as Tyro Trials, not covered above must be run in accordance with the relevant MSA Regulations. Any vehicle classed as Standard by the ALRC is acceptable to use. (2011)

SECTION U – PRIVILEGE EVENTS (Implemented 11th February 2012)

- U.1. ALRC member clubs may invite non-ALRC member, MSA registered clubs to compete in a maximum of eight events in any one calendar year. The definition of an event is 1 MSA permit = 1 privilege event application.
U.2. Prior written approval of the invitation must be obtained from the ALRC Secretary.
U.3. Events must be held under a MSA event permit applied for by the host club.
U.4. Events must be held under MSA regulations, ALRC regulations and any ASR's as required by the host club.
U.5. ALRC club members entering an event using an ALRC member club membership card must enter using an ALRC compliant vehicle. They may not enter a non-ALRC compliant vehicle unless they enter using a non-ALRC club membership card.

END of REGULATIONS