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Inquiry into Vehicle Safety, Standards and Technology, including Engine Immobiliser Technology

The Australian Recreational Motorists Association (ARMA) thanks the Transport and Public Works Committee for the opportunity to make a formal submission on behalf of our member associations, clubs and individual members, to the Inquiry into Vehicle Safety, Standards and Technology, including Engine Immobiliser Technology.

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Remote engine immobiliser technology

ARMA fully appreciates and respects the role QPS undertake in order to provide community law and order, and the difficult role, and consequential outcomes in high-speed vehicle pursuits. The desire by QPS to be able to end these high-speed vehicle pursuits early, or even before they begin, through the use of remote engine vehicle immobiliser technology has great merit, however there are considerable security and physics issues with the proposed technology and implementation strategy.

Firstly, ADR 82/00 – Engine Immobilisers (8 August 2006), only covers engine immobilisers as an anti-theft mechanism, it doesn't cover any type of remote control to vehicle subsystems. To enable remote access and management to every vehicle's engine / throttle management system across Australia, every single vehicle must have a communications link of some form, back to a remote management control centre, in order for the vehicles to be tracked, and for an authorised operator to send a specific vehicle the necessary code to de-activate throttle control.

In brief, this presents many telecommunications and cyber security related issues:

- Vehicles need to be connected to a communications link 100% of time for the technology to be effective;
- Communications networks must be secured, to prevent unauthorised access;
- The monitoring and operational control centre must also be secured from Internet hacking;
- The CAN Bus and OBD2 have no security mechanisms, they don't support confidentiality, identification, authorisation, or prevent injected messages being sent to other CAN Bus connected devices;
- People can use simple tools to read / interpret CAN Bus and OBD2, and even inject their own codes into the bus to control vehicle components;
- If the remote management control centre is compromised, the vehicle's CAN Bus will be fully accessible to unauthorised threat actor;
- Threat actors could take control of all drive-by-wire systems connected to CAN Bus, throttle, breaks, steering for self-park vehicles, and even update any firmware / flash / code modules without gaining physical access;
- There are already many examples, cases and articles on the Internet about remote hacking of vehicles, and the requirement for fleet wide recalls;
- All vehicles will be tracked by GPS and logged in real time, there will be no privacy for vehicle owners;
- It would be possible for the Government to then issue speeding fines and other traffic infringements, as they would have access to all vehicle GPS telemetry;
- If the control system and vehicles are targeted by a hacking group, or national state, how do we recover ECUs which have been over-written remotely, locked out, or encrypted; and
- How will it all be secured, and who will be responsible?

Offenders who are looking to steal vehicles which are fitted with mandatory remote vehicle engine immobilisation technology, have ready access to significant low-cost counter-measure resources to enable them to disrupt the systems, which are already able to purchased or downloaded from the Internet right now:

- The simple removal or exchange of the vehicle number plates by the thief will easily prevent the initially identification of the exact vehicle which has been stolen, causing concern over which vehicle to remotely disable;
- Purchasing a GPS jammer off eBay for under $20, will cause additional confusion to operators in the remote management control centre, as they won't be able to validate the location of any stolen vehicle; even if it is fitted with remote immobilisation technology and police are following the vehicle, or have it in line-of-sight;
- By using a portable communications jammer from inside the vehicle, all CDMA, GMS, 3G, 4G, 5G, BlueTooth, WiFi, LoJack and GPS signals will be completely blocked, rendering all communications types with the vehicle and its systems inoperable; and
- Connecting a mini compute device or adapter directly to the vehicle's OBD2 port, will allow the device to read, decode and interact with the vehicle's CAN Bus, providing full access to all Electronic Control Units across the vehicle electrical system. Any signal on the CAN Bus which is detected as an immobilisation command of any type, will be intercepted by the attached compute device and it will simply inject a counter-command to prevent the vehicle being immobilised.

A further concern with mandated technology of this type, is the possibility it will prevent future vehicle modifications, or updating the vehicle with a new / custom tune or flash? Similar to how ESC equipped vehicles currently have restricted modification regulations, affecting a whole community.

All of the cyber security issues identified with implementing technology will become a national issue, requiring a significant cyber security strategy by the federal government, and most likely won't be possible with current vehicle manufacturing. It is most probable any security controls will need to wait until Australia has full autonomous saturation of our national vehicle fleet, where they will need to comply with "UN Regulation No. 155 - Cyber security and cyber security management system".

However, being able to disrupt one telecommunications signal by over-powering / jamming it with another signal is simple electronic warfare, which is how electromagnetic radiation, signal strength and frequencies work – we can't change physics.

If the remote immobiliser technology is mandated by the Australian government, it will also have significant impacts on the future of the Australian telecommunications network infrastructure. When a vehicle is factory fitted with a remote immobiliser device, it will need to have a communications system in order to communicate back / forth to the central management control centre; in today's technology, this would most likely be a 4G data link. As the years progress and technology changes, all future telecommunications infrastructure will have a requirement to continue supporting 4G communications through backwards compatibility. The innovation and advances in telecommunications rely on use of different radio frequencies and modes of operation within the electromagnetic radiation spectrum, however if there was a government mandate to continue supporting an older technology, the advancements in the telecommunications industry will be significantly crippled by the requirement of older technology being used in the automotive industry. In order to continue supporting the advancement of the telecommunications innovations and advances, the vehicle manufacturers will need to be able to support and upgrade their entire in-service vehicle fleet, by replacing communication models inside their vehicles, which may have been initially built to be tamper-proof.

ARMA does not recommend progressing mandatory remote engine vehicle immobilisation technology as a state responsibility.

ARMA recommends the Queensland Government ensure the policing system and sentencing laws be increased in line with community expectation for repeat juvenile offenders, who know they will get a simple slap on the wrist for their under-age offences. Its time the magistrates and legal system are empowered to provide harder / mandatory punishments, and preventing bail. These children know what they can get away with, its time the system is overhauled and they're held accountable.

If there is a need to invest further in combatting youth crime and dangerous drivers, **then ARMA recommends** funding be withdrawn from remote immobilisation development, and be injected into additional air operations assets, such as an additional QPS helicopter, or rapidly deployable rotary winged Unmanned Aerial Vehicle (UAV), which can be multi-tasked to support other mission critical, or search and rescue operations. An UAV asset will still provide the line-of-sight surveillance of offenders from a tactical position, allowing QPS to discontinue from potentially dangerous high-speed pursuits.

Earlier government trials of retro-fitting engine immobiliser technology

Many years ago, before vehicles had factory security systems there were many companies with a relatively skilled workforce to do this. This is no longer the case; qualified installers are now few and far between with most now just fitting stereos and working from a mobile van. Introduction of a mandatory immobiliser fitment will only encourage a flood of underqualified personnel who do not have the skills on the newer technology equipped vehicles.

This happened when the WA State government introduced legislation making fitment of immobilisers compulsory back in the late 90's. These had to be installed by aftermarket fitters and because of the demand there were many poorly installed systems which caused a lot of breakdowns. The situation only really improved when there was nationwide legislation via ADR mandating immobilisers. This didn't stop thieves stealing cars though, it only made them now break into your home to get the keys.

Most cars now have keyless start where you keep the key in your pocket and simply press a button to start it. The start command is often on a data bus, you can no longer simply cut an ignition wire to stop the engine, its far more complicated than that, which then raises the next issue, if it is mandatory to fit a remote immobiliser who will warrant the vehicle. It's fair to say that any manufacturer who finds that their modern CAN based wiring system has been compromised by an aftermarket installation would be within their rights to invalidate any warranty claim which it may cause. Will the government indemnify owners if an immobiliser which had to be fitted by law, causes a problem which invalidates the manufacturer's warranty?

With over a million new cars sold each year and a fleet of in-service registered vehicles approaching 20 million, the logistics of trying to get all these cars compliant would make any other challenge seem insignificant.

ARMA does not recommend retro-fitting the current in-service vehicle fleet with aftermarket remote vehicle engine immobilisation technology.

Commonwealth and insurer's role in mandatory engine immobilisation technology

The current QPS proposal suggests each vehicle will cost approximately $10 per month for the mandatory technology, and the insurance companies may play some part in covering the costs of the program. However, for $120 per annum per vehicle, and a national fleet reaching 20 million in-service vehicles, this is not going to be a free ride from an insurance, or telecommunication company's perspective, this will be pushed back on to consumers and vehicle owners. And what if you don't have insurance for your vehicle? If this is a mandatory technology, who will be covering the costs for the uninsured?

As every vehicle in Australia would be connected to a centralised monitoring and management system, the Australian government will need to build the overarching operational system and implement a significant Cyber Security Management Framework to provide security in order to protect it. It would need to be classed as nationally critical infrastructure, similar to our water supplies, electrical grids and road / rail networks.

The implementation of mandatory remote vehicle engine immobiliser technology will ultimately be dependent upon reliable communications between the mobile vehicle and the control centre, this will most likely be either mobile phone or satellite-based communications. However, as the motor vehicle may have a road life of 20 years or more, the communications technology put into these vehicles, most likely won't be able to be updated by the manufacturer, and keep up with the ever-evolving world of telecommunications. These means the national telecommunications network will need to maintain backwards compatibility with the fleet of 20-year-old vehicles, which will stunt the on-going innovation and advancement in national telecommunications communications infrastructure.

With the ease of electronic counter measures to disrupt the communications to a stolen vehicle, and preventing the vehicle from being able to be remotely deactivated, there is no guarantee the end-to-end requirements of the technology will function as anticipated. The Federal Government should wait until there are suitable advancements in technology / security / telecommunication, and take the lead from other countries who currently have a vehicle manufacturing industry.

For the same reason, the motor vehicle insurance companies should also have no part, as the cost to install and operate the system nationally, does not guarantee any success in the program given all the cyber security issues, and counter-measures to disrupt communications.

ARMA does not recommend the Commonwealth Government or vehicle insurance companies support the implementation of mandatory remote vehicle engine immobilisation technology.

Loss of venues supporting motorsports in Queensland

In the last 30 years, Queenslanders have lost access to almost 100 recreational motoring facilities, such as speedways, kart tracks, raceways, motorcycle parks, and international raceways. The majority of these motorsport closures are a result of housing developments and population encroaching towards them, and noise complaints putting significant pressure on councils, where some facilities are forced to close, or restrictions placed on operational hours. Archerfield speedway and Lakefield raceway are currently under increasing pressure, due the noise from the speedways being a significant complaint by expanding developments and population.

REFERENCE: http://www.speedwayandroadracehistory.com/queensland.html

Australians have a love affair and enjoyment of motorsport and outdoor recreational activities, and while there are many affiliated motoring clubs throughout the Queensland community doing the right thing, there are still people among the population that take it upon themselves to undertake illegal hooning activities in public places, placing themselves and other community members at risk; this includes theft and dangerous use of a motor vehicle under the current “Youth Crime” initiatives.

Illegal hooning is dangerous, has the potential to harm innocent people, and noise is one of the largest complaints by residents across Brisbane. The Queensland motoring communities do not endorse, nor tolerate, illegal hooning by their members, in public, or at their sanctioned events. Additionally, when vehicles are stolen or driven in a dangerous manner resulting in catastrophic results, it inadvertently places additional negative light our on good motoring associations who work tirelessly in the community and have achieved so much.

While this inquiry seems to be more focused on the youth crime related vehicle theft and dangerous driving rather than hooning by registered vehicle owners, there are opportunities to address the hooning component of dangerous drivers.

With the loss of almost 100 recreational motoring facilities across Queensland minimises the locations where people can take their motor vehicles and have a drive around a circuit, or use the skid pans to conduct burnouts in a safe location / environment.

One of the most successful, and well-run motoring events in Australia, is Summernats, held in Canberra each year. This activity brings motorists from all parts of Australia to show case their motor vehicles, their industry skills, and holds a burnout event with hundreds of competitors and vehicles.

Summernats attracts thousands of tourists to Canberra, bringing in excess of $20 million in economic benefit to the ACT economy. It has increasingly been promoted as an event for families. The Summernats spectator attendance record was set in 2017 with 119,184 attendees.

We know that hooning can be conducted safely in the right environment, therefore we suggest the Queensland Government trial a different approach to illegal hooning, by providing a safe location for people to actively participate in burnouts and similar events, in locations which are far enough away from housing and industrial estates, that they don't become a noise issue.

Hooning trial of skid pans in isolated areas

We propose the Queensland Government identify several hooning hotspot locations, with the intent to build a miniature motor facility in a nearby quiet location, and is large enough for two burnout pads to be built side-by-side. Each pad would be approximately 40m x 30m and surrounded by concrete barriers to separate active vehicles on each individual pad, and to also ensure any observers were located behind the concrete barrier, in the event a vehicle loses control.

Any motor vehicle entering the motor facility must enter through a designated entry gate, and leave through a second designated exit gate – these gates are to be one-way only. While a motor vehicle is located on the motor facility (between the gates), the drivers are allowed to drive with excess tyre spin, generation of tyre smoke, and high revving engine noise, which is typical of hooning activities.

The Queensland Police Service (QPS) are encouraged to attend the motor facility and associated vehicle parking areas, but are discouraged from issuing traffic infringement notices to vehicles and drivers in these locations. In order to trial hooning reform and change poor driving behaviour, motorists should be encouraged to attend the designated motor facility, without fear of being ticketed. However, whilst a vehicle and motorist are transiting to and from the facility and car parking area, then all road rules and police enforcement should apply.

The facilities could also provide a dedicated area for food trucks and mobile eateries to park, as this will provide a more social atmosphere, attracting more social / responsible members of the motoring community.

Industrial waste bins should be provided, as some people who currently undertake illegal hooning, will do continuous burnouts until their tyres are completely shredded, and remove the tyres from their vehicles and leave them dumped and smouldering in nearby bushland.

While there may be opposition to setting up such areas which allow people to conduct hooning activities without fear of receiving a traffic infringement or hooning offence from the QPS, it also provides an area of fixed size, where the maximum speed of a vehicle in any direction is restricted much more than that of any public road, this minimises some of the risks related to high-speed types of accidents if the participants were illegally hooning in other areas. This type of controlled hooning environment won't be totally without risk or accidents, however there would be considerably less vehicle accidents, amount of vehicle damage, and number of deaths, than illegal hooning on public streets and built-up areas.

The trial of skid pads by the Queensland Government to help minimise hooning on public streets may have some hurdles, or resistances regarding the legal obligations, and around areas of insurance and

indemnity for any accidents which may occur. However, hoons are already driving illegally and dangerously on our public roads, on in our built-up neighbourhoods, that the focus should be relocated this behaviour, and absolving the Government and insurance companies from any risks or damages associated with using the skid pads.

ARMA drafted a discussion paper prior to the 2020 Queensland election, which aims to provide a motoring community's perspective and approach to address areas of illegal hooning, by providing some suggested solutions and trial activities. The discussion paper was developed after a meeting with The Honourable Ros Bates MP, who was having significant hooning issues in her electorate leading into the election, however the paper was not formally released to government ministers and agencies for engagement. The paper raises several solutions to anti-hooning, and the possibility of also promoting international level gymkhana events, with major tourism opportunities for Queensland.

We have attached our discussion paper on addressing illegal hooning, and is considered part of our inquiry submission into Vehicle Safety, Standards and Technology, including Engine Immobiliser Technology:

ATTACHMENT: ARMA - Community Assistance in Addressing Illegal Hooning.pdf

ARMA recommends undertaking a hooning trial using skid pads in several hoon hotspots, as discussed in our accompanying discussion paper - Community Assistance in Addressing Illegal Hooning.

Vehicle Modification Regulations

Australian Recreational Motorists Association, 4WD Australia Association and 4WD Queensland Association have been lobbying federal and state governments for several years, in order to improve vehicle modification options for our motoring communities, and allowing modifications to be undertaken against any Australian Design Rule / Australian Standard, as long as the modifications comply, and are appropriately certified by an approved auto-mechanical Chartered Professional Engineer (CPE).

For example, a brand-new vehicle can be modified and certified "pre-registration" against the ADRs using the federal Second Stage Manufacturing (SSM) process for any size or combination of tyre and suspension lift increase. However, installing the exact same modifications on the exact same type of vehicle "post-registration" is not possible, as the state / territory vehicle modification regulations prevent this; the only difference is whether the modifications are installed and certified before or after the vehicle is first registered; this is a bureaucratic issue.

Additionally, the current National Code of Practice (NCOP, aka VSB-14) only allows a maximum increase in 4WD ride height of 150mm, comprising of 50mm tyre diameter (25mm lift), 75mm of suspension, and 50mm of body blocks. These measurements are explicitly set and are mandatory across all MC category post-registration 4WD vehicles, regardless of each vehicle's size. This one-size-fits-all standard causes a lot of issues within the 4WD community, and if law enforcement inspects a vehicle which is slightly over these mandatory limits, it will be defected as a Type 2 Illegal Modification

under the anti-hooning legislation. This issue only exists with post-registration vehicles, as SSM / ADRs do not impose set limits on ride height. Additionally, some states allow engineering to be undertaken outside of the NCOP limits, such as NSW and SA. SA has "no set limits" or combination types when it comes to increasing 4WD vehicle ride height; it is up to the certifying engineer to ensure the modifications comply to relevant testing criteria. In NSW, Roads and Maritime Services (RMS) Vehicle Safety Compliance Certification Scheme (VSCCS) allows 4WD owners to increase their tyres any size, however it must be engineered if the tyre diameter increase is 8% or greater.

ATTACHMENT: SA - DPTI Vehicle Standards - No Set Limits for Modified 4WD Ride Height.msg

ATTACHMENT: NSW - VSI 06 - Light Vehicle Modifications.pdf

ATTACHMENT: NSW - VSI 09 - Guidelines for Alternative Wheels and Tyres.pdf

ARMA believes in a philosophy of Safe, Practical and Affordable approach to vehicle modifications, where they should be:

- **Safe**: for both on-road and off-road use;
- **Practical**: testing and certification procedures are appropriate for modification; and
- **Affordable**: testing and certification procedures are within reach of the general public.

If the Queensland / Australian post-registration vehicle modification standards and testing requirements are too restrictive and don't allow motorists to undertake the modifications people want in a safe, practical and affordable manner, then people will simply bypass the certification processes entirely, and purchase cheap (and sometimes) counterfeit products from overseas for their vehicles, which puts other road users at increased risk, as many of these imported products are significantly more inferior and do not meet the standards Australians want. The current cost for Electronic Stability Control (ESC) testing for modified ESC equipped 4WD vehicles is approximately $15,000 per assessment, as state regulators mandate a steering-robot must be used to assess the ESC, and don't allow alternate testing methods, so people bypass the testing and certification, and fit their cheap components anyway. Additionally, spending $15K on ESC testing does not guarantee it will pass the requirements for certification.

ARMA is of the opinion that approved auto-mechanical CPEs should be able to certify increased ride height limits as needed, to meet a vehicle owner's requirements, and maintain a safe, practical and affordable framework for modifications.

The Australian post-registration vehicle modification regulations and certification processes need to be remodelled in a fashion that brings the motoring community's requirements and automotive after-market industry experience together in order to provide safe, practical and affordable modification and engineering processing, in order to drive post-registration vehicle modification regulations. It should have a mechanism for CPE to operate against other Australian and International standards, a mechanism for appeal, and should be reviewed often by all stakeholders.

Unless a vehicle owner is willing to spend several thousand dollars on changing axles on their vehicle, then tyres are the only modification available to increase the vehicle's ride height and to provide

appropriate ground clearance for the axle, and other critical vehicle components such as the brakes and steering assembly (suspension is used to lift the chassis and body of the vehicle). While there are no restrictions in ADR, SSM and some other Australian states, for increasing tyres and suspension, the state regulations place a 25mm lift restriction on tyres, which is equivalent to 50mm increase in tyre diameter. Enforcement officers will defect a vehicle if the tyres are 51mm larger or more.

The NCOP / VSB-14 allows increase in tyre size width of 1.3 times the original factory tyre size for MA category passenger vehicles, and 1.5 times the original factory tyre size for MC category off-road type vehicles. However, with the limited increase allowed in tyre diameter (height), there is no possibility of finding tyres which are structurally capable of being increased 1.5 time the original width, and only increase in 50mm diameter. Additionally, with a restriction of increasing the 4WD track width to 25mm, there is no possibility a tyre can be increased 1.5 times the original width, and still physically fit inside the wheel arches of the 4WD vehicle. While there seems to be recognition and some allowances for 4WD vehicles by increasing the width of tyres, other restrictions to tyre diameter and track width increase, leads us to believe the authors of the NCOP did not have a sound understanding of tyre design, and requirements of the 4WD motoring community, when developing the standards (the 4WD motoring community were not involved in the development of NCOP or QCOP regulations). 4WD vehicle owners, modifiers and certifiers should be able to select from other tyre sizes, not just be restricted to a maximum 50mm diameter increase. Where certifiers approve larger sizes tyres for 4WDs, they also need to ensure the brakes and speedometer are adjusted to cater for the larger tyres, where necessary.

Unfortunately, TMR Vehicle Standards do not allow modifications outside the current NCOP / QCOP standards for personal use, even a small increase in tyres of 26mm is considered “defective”.

4WD Queensland Association submitted a Right To Information request (RTI-336) to Transport and Main Roads. These requests were designed to identify the amount of illegal and unsafe modifications which may contribute in some form to road vehicle accident statistics in Queensland, as these are the main reasons that both TMR and QPS state certain modifications should not be allowed on 4WD vehicles. The RTI response from TMR indicated that only very minor numbers of component types (suspension / brakes) had contributed to a road vehicle accident over a seven-year period (from the time of request). Further, there was absolutely no correlation to a vehicle component type failure which was either aftermarket, or factory fitted as an OEM part, which could have been simple poor maintenance of a factory spec vehicle by the registered owner. As a result, there is no statistical evidence available by TMR which indicated any modification type, or change in ride height of a vehicle, was a cause in road vehicle accidents and should be subsequently restricted as an aftermarket and recreational opportunity for the motoring industry and community motoring groups.

ATTACHMENT: TMR - Accident Statistic Data.docx

QPS Right To Information (RTI/26811) – 4WD Queensland Association also submitted a Right To Information to the Queensland Police Service, which was meant to identify the processes used by officers in order to inspect, measure and issue infringements to vehicle which may not comply with the state modification laws, resulting in tickets, demerit points, financial penalties, and in some cases being impounded against the Anti-Hooning Legislation.

ATTACHMENT: QPS - RTI-26811 RTI - Decision.pdf

We have many people complaining via social media that their vehicles are being inspected using certain processes, which are inconsistent with TMR guidelines, and would indicate they are issuing infringements and defects in error. The RTI was meant to get an understanding of the QPS inspection processes, identify areas of inconsistency, in order to address the processes. For example, QPS officers regularly issue infringement notices on tyres being either too big or too small, by referencing the vehicle's tyre placard located on the inside of the driver's door – however this is not the authoritative source manufacturer tyre sizes for all vehicle make and models, and all references should be looked up against the DOTARS (Department of Transport and Regional Services) website.

The QPS subsequently denied our RTI request, stating there were 3780 documents containing the information we requested, some of it was "commercial in confidence", and it wasn't in the public interest. 4WD Queensland Association most certainly doesn't want access to this many documents, however we feel QPS over-extended their search on our RTI, and preventing an opportunity to remedy current process issues on incorrectly issued infringement notices. They also denied our request for statistical information on their infringements, which does not require access to any internal QPS documents or processes.

There is also a precedent with SSM, ADRs, and some other state modification regulations, that modifications can be undertaken safely and certified outside the standards currently in force in Queensland, and many states have processes to apply for larger / more technical modifications through their Transport Departments. However, TMR have advised that only "operational" modifications (fire, ambulance, and police services etc…) can be approved outside the current NCOP / QCOP limits – there is no option for the general public to have additional modifications approved, yet our communities need many modification types outside the codes, in order to ensure safety on some of the trips and activities our clubs and members conduct. NSW specifically states "extreme off-road activities" are suitable reasons for vehicle owners to undertake larger modifications, but not in Queensland.

ARMA believes that a "one size fits all" approach using fixed combination parameters that apply regardless of the vehicle model and circumstances, is not appropriate and may negatively impact on vehicle safety outcomes. The certifying engineer is in an ideal position to exercise their expert experience and judgement in this matter; the engineer is able to request any additional test evidence and to assess the original vehicle configuration and interrogate the issues relating to the end use of the vehicle. ARMA's view is that the certifying engineer is the most qualified and appropriate individual that should sign off on the vehicle and lift combination as appropriate, compliant, fit for purpose and safe.

We are concerned about the current approval process by TMR's requirement for controlling all modification approvals centrally. Given 4WD Queensland Association has not had success in correcting modification issues in nine years, we believe this is more a process around bureaucratic control, rather than a streamlined process to allow qualified and approved auto-mechanical engineers to undertake all design, build, test and certification assessments of a vehicle modification at the coalface, who is in a better position to assess what is safe and appropriate than a desk-based assessment made by a TMR officer.

ARMA recommends any vehicle modification which has passed ADR / SSM certification, be available for sale, installation and certification for in-service vehicles, where the vehicle and modification are equivalent to those under the original SSM certification.

ARMA recommends the approval process for all in-service vehicle modifications should be assessed, tested and certified directly by the dually qualified and authorised auto-mechanical engineer, who is engaged to certify the modifications in accordance with relevant modification regulations and standards.

ARMA recommends modifications outside the NCOP / QCOP codes of practice should be allowed for both personal and operational purposes, in line with SSM, ADR and other state approval processes.

ARMA recommends the Transport and Resource Committee review and acknowledge there are no factual statistics or collected evidence which suggests legally modified vehicles and their components are contributing the Queensland's road traffic statistics and are an inherent risk to other road users. Recommend engaging insurance and towing industries for additional information.

Goal posts keep moving on certification for 4WD modifications

4WD Queensland Association has been seeking options via TMR to on how to progress ESC testing, as it is cost prohibitive for the general public at approximately $15K per test, with a significant lack of testing facilities in Australia. Additionally, vehicle suspension systems which are fully tested and certified on Australian vehicles using the ADRs pre-registration via SSM, are not accepted by TMR to be installed on post-registration vehicles, even if the suspension system and the vehicle are exactly the same as the pre-registration combination.

TMR discussed ESC certification at the 4WD Industry Forum on 24 Sept 2018, certifiers needed to validate the ESC operated as intended by the vehicle manufacturers after installing the modifications. TMR engineers said they did not want to see the test data, only the test report, as it was up to the certifying engineer to undertake the testing to ensure it was safe. We were led to believe the ESC testing could be undertaken by a human test driver, with the recording equipment located inside the vehicle; some companies spent $20K-$30K on VBOX test equipment, which is used to record the ESC responses when a vehicle undertakes the required driving / test manoeuvres in a test track.

We were later advised by TMR that the test had to be exactly the same as what is in the ADRs, and it required the use of a full robot steering assembly bolted into the vehicle, removing the airbag, and getting the robot to undertake the swerve testing, which was activated when the test driver got the vehicle at the correct testing speed. The price of the VBOX and robot steering test equipment was now going to cost companies approximately $300K. While a robot steering machine ensures repeatable actions to provide more accurate test results, the modified in-service vehicles will be driven by humans with response times much less of a steering robot, each scenario where evasive driving is required on public road and tracks will be different and won't be representative of a large test-driving area and controlled test conditions.

Due to the lack of ADR based ESC testing facilities in Australia, 4WD Queensland Association sort alternate testing and certification processes through TMR Vehicle Standards. ADRs are mostly harmonised with UNECE Vehicle Regulations, however we sought guidance on accepting US Department of Transport (DoT) Federal Motor Vehicle Safety Standards (FMVSS), number 126, which provides the specific testing requirements in order to assess and certify ESC suspension systems for the US market. As many of the vehicles owned by the motoring community are built in America, the testing and certification would be the same for the new US vehicles and aftermarket products.

When we originally approached TMR regarding the acceptance of US FMVSS126 certified suspension systems from the US, we were told it was not an option as they did not recognise the US standard. However, we submitted a Right To Information (336) requesting details on vehicle accidents statistics involving modified vehicles and suspension certification processes, and the RTI response provided a copy of a TMR issued guidance document to approved vehicle certifiers, stating:

"*TMR will accept any testing to ECE R13H and FMVSS126 for ESC compatibility*"

ATTACHMENT: TMR - Right To Information (336) - FMVSS126 ESC Allowed.pdf

We spoke to TMR again about the process to install US based suspension systems which were certified using the FMVSS126 standard, and we were then advised they would not accept the certification without proving "traceability" to the testing facility. This means the US based test facility needed to be registered as an Australia test facility with the Federal Government, and they needed to hold active membership to an Australian testing association, such as NATA (National Association of Testing Authorities, Australia). Until overseas testing facilities register with Federal Government as a test facility and join Australian based associations, TMR will not accept their US based certified components, which were built and engineered for the same US vehicles we have in Australia, regardless of the international testing authorities they are already certified with.

Furthermore, the ESC testing for all of the different international ESC regulations (ADR 88/00, UN ECE R 13H, Global Technical Standard GTR-08), were all developed from the US FMVSS-126 regulation, which was the first global standard developed to test and certify ESC equipped vehicles.

The mandated requirement for traceability for all international testing facilities, means that any current ESC tested suspension system which has passed recognised international testing standards and is available for purchase in a global market, will not be allowed to be used in Australia, if the testing facility is not registered as an Australian certified facility.

During our discussion with one of the TMR engineers from Vehicle Standards about the difficulty in getting changes accepted by TMR, he stated he was personally liable for all modified vehicles on Queensland roads, and could be personally sued in the event a modified vehicle was involved in an accident. We specifically raised this as a concern with the Minister of Transport's policy advisor, who confirmed the engineer is not personally response for all modified vehicles in Queensland.

After the QAWP shut down, we had a meeting with the Manager of Vehicle Standards and a Senior Policy Advisor, who stated (words to the effect) "we know people could spend the right amount of money and follow processes to engineer a vehicle safely for on-road use, however if we allowed that, then the next 10 people will stuff it up". This is not how the motoring community expects departments

and governments to manage regulations and legislation. This meeting was recorded on approval of members present.

ARMA recommends alternate testing criteria be developed by the Australian automotive aftermarket industry, which provides confidence in a modified 4WD suspension fitted with ESC, and is safe for on-road and off-road use. The testing criteria needs to be easily implemented and operated without excessive cost of equipment to the testing company, and on-flow test and certification pricing to the general public. The alternate testing criteria will also need to take into account the ease of access to locations, roads, closed tracks and dedicated facilities, which will be able to cater for the proposed testing to be undertaken.

ARMA recommends approved and authorised auto-mechanical engineers should have the option to choose between any of the equivalent ESC testing and certification standards (UN ECE R13H, GTR-08, or FMVSS-126) which are international equivalents to ADR88/00, for modifications to in-service ESC equipped vehicle. This includes the approved certifier making the assessment whether the testing facility for an international equivalent standard, is suitable to undertake the international ESC certification, rather than the need for each international test facility to become members of NATA for traceability.

ARMA recommends the Queensland Government identifies where the responsibility lays for assessing, mitigating and accepting risk lays in regards to approving vehicle modification regulations, and whether individual bureaucrats are personally liable for motor vehicle accidents by the general public, which may be modified in accordance with an approved department regulation.

National alignment of vehicle modification standards / regulations

Australia no longer has a new vehicle manufacturing industry, and misaligned legislation / standards / processes across state borders does nothing to help the aftermarket industry and general consumers. ARMA would like to see a National Technical Advisory Committee (NTAC) established federally (representing all motoring communities / genres) stating their requirements to industry, who use their aftermarket associations / engineering affiliations to filter the requirements and document how the community requirements could be implemented using safe / practical / affordable processes, leading to a mutually agreed set of modification standards, which are then ratified as federal government legislation, for automatic implementation across all state and territories. This way, we have a nation-wide, consumer driven, industry validated process to support the Australian aftermarket industry.

There are also many unreasonable restrictions in state modification legislations, which are overly more so than in the ADRs. Some vehicles can be modified under the federal Second Stage Manufacturing (SSM) process and have much more flexibility in engineering, however these same types of modifications cannot be applied to vehicles which are currently registered in Queensland (or some other jurisdictions), as the state NCOP and QCOP modification standards are more restrictive than new vehicle standards. Further, we have requested vehicle accident statistics for modified

vehicles through RTI, and both Queensland Police Service and Department of Transport and Main Road do not have any factual statistics relating to vehicle accidents for modified vehicles and whether they are any more dangerous on the road than vehicles which have not been modified.

ATTACHMENT: TMR - Accident Statistic Data.docx

Unjust and disparate vehicle standards are disruptive to the Australian general population, motoring industry, motoring communities and generates an unnecessary level of bureaucracy, with many people losing faith in the necessity of state and territory governments.

We started our national Time To Align campaign in 2019, after all effort to address our concerns with vehicle modifications through departmental bureaucratic processes were returning no progress. Two weeks out from the 2019 Federal Election, we received majority support of all major political parties to help resolve, and harmonise vehicle modification legislation across all Australian states and territories.

REFERENCE: https://www.timetoalign.org.au/federal-party-responses/

Of all the political parties who were registered with the AEC prior to the 2019 Federal Election, 32 parties provided written pre-election commitment to help resolve misalignment of modification standards, 3 parties did not commit, 10 parties did not respond, and 2 parties were not able to provide pre-election commitments, as their policies are derived from computer surveys generated from public input. The obvious issue, vehicle modification regulations for in-service vehicles belongs to state and territory governments, so this would require the states governments to pass control of the in-service modification regulations to the Federal Government, or a National Regulator; similar to the National Heavy Vehicle Regulator (NHVR). However, it now clearly has visibility and support at the Federal level.

4WD Australia Association and ARMA continued to lobby each state and territory government at each election thereon, gaining many more pre-election commitments at the state and territory levels. Two days prior to the 2020 Queensland election, ARMA again achieved majority political party from all AEC registered parties, except for two minor parties. All written pre-election commitments from each party have been uploaded to the Time To Align campaign website, for full public visibility. Queenslanders want to fix their vehicle modification regulations.

REFERENCE: https://www.timetoalign.org.au/qld-party-responses/

QLD Political Party	Campaign Commitment
Australian Federation Party	Formal Commitment
Liberal National Party of Queensland	Formal Commitment
Pauline Hanson's One Nation	Formal Commitment
Katter's Australian Party (KAP)	Formal Commitment
Shooters, Fishers and Farmers Party	Formal Commitment
Liberal Democrats QLD	Formal Commitment
North Queensland First	Formal Commitment
United Australia Party	No Response
Motorists Party	Formal Commitment
Queensland Labor	Formal Commitment
Animal Justice Party	No Policy Position
Queensland Greens	Formal Commitment

The "Time To Align" campaign which has been run at each state and territory election has asked for the following commitments, with minor variations based on local differences… i.e. NT already have a TAC, only Queensland have QCOP:

- Acknowledge disparity in vehicle modification standards and processes across all state and territory jurisdictions;
- Position the National Code of Practice (NCOP) and Queensland Code of Practice (QCOP) as reference guides for un-certified / un-engineered vehicle modifications;
- Introduce an engineering and certification program where Australian and Queensland Chartered Professional Engineers (CPE) are empowered, responsible, and able to freely undertake vehicle modifications based on sound Australian Standards and engineering principles (similar to schemes in NSW and SA), using the Australian Design Rules (ADRs);
- Allow all Second Stage Manufacturing (SSM) modifications approved under federal ADRs to be automatically approved and accepted under state modification standards for current in-service vehicles (same modifications for same vehicles);
- Recognise interstate modifications for registration transfers, or currently registered Queensland vehicles, where the modifications are undertaken by a CPE from interstate, and an appropriate engineering report is provided;
- Commit to regular reviews of restrictive regulations, standards and red tape, where clear modification and certification details are already provided within the Australian

Design Rules, equivalent international standards, or where there is lack of evidence to prove modifications are unsafe;

- Establish a Technical Advisory Committee (TAC) from motoring community and industry groups, to review, advise and approve requirements for department of transport enactment;
- Coordinate a meeting between the Transport Minister and Queensland motoring community with the focus to review and overhaul the special interest vehicle concession scheme and the restrictions placed on vehicle usage;
- Work with motoring community and industry groups to generate education programs to cover safe modifications and driving in non-standard conditions, such as beach driving, towing caravans, undertaking vehicle recoveries;
- Engage other Council of Australian Governments (COAG) representatives and seek to harmonise vehicle standards and regulations where possible, through the Australian Motor Vehicle Certification Board (AMVCB);
- Agree to transfer responsibility of vehicle modifications regulations and standards to the Commonwealth (or a national regulator), on the condition that:
    - Moving to a Federal model does not negatively reduce, restrict, or prohibit those provided by the state, and committed above; and
    - It is agreed by Queensland community and industry representatives.

We must be very clear from the start, while ARMA represents many associations and motor vehicle types across Australia, not everyone is in full agreement to harmonise regulations, or give up control to a national regulator. Every state and every motoring group across Australia has endured many struggles to achieve the current regulations many enjoy (and some don't), and are not willing to give these up lightly. In fact, many motoring communities are rightfully concerned that any activity regarding their regulations, bureaucrats and the government will only end in disaster; after nine years, 4WD Queensland Association has had no success in having our community modification requirements implemented, yet they are available in other states and via Second Stage Manufacture. In order to progress, we need to get the maximum support from all state and territory governments, as well as the national and state associations of all motoring groups, and solid assurances national harmonisation will not have any detrimental effects; this will not be an easy activity.

There are two distinct paths to harmonisation, individually between states where the bureaucrats and departments identify and fix all indifferences, or a national code / standard is identified and passed to a national regulator and all states and territories hand over authority for in-service modifications.

There are many advantages to a national regulator managing the in-service modification regulations:

- Changes to standards via the regulator will be immediate for all states / territories;
- Engineers and certifiers will be able to modify vehicles across all states / territories;
- Modifications can be undertaken in one state, and certified in other states;
- Single / national guide on modification regulations for the public - minimises Facebook experts;

- Engineers and certifiers will be able to lodge certification details, photos and test report evidence directly via a central portal;
- Modified vehicles can be easily transferred and re-registered between states;
- Creation of a centralised national database of modified vehicles and their certifications;
- Database can be searched by general public looking for approved modifications, the workshops and certifier details;
- Database can be searched by public and inspection stations to validate modifications prior to sale / transfer of registration;
- Enforcement of modifications can occur between states and enforcement agencies by accessing national database; and
- Enforcement personnel do not require additional training if assisting or transferring interstate enforcement agencies

ARMA recommends the Queensland Government take a lead on harmonising Australia's in-service vehicle modification regulations, by undertaking a national survey of all national and state incorporated motoring associations and aftermarket industry peak bodies, to identify key stakeholders across the motoring groups and states, and work to understand the current level of modifications available, and what changes to modification regulations are needed to achieve a nationally agreed direction.

While this is a longer-term recommendation and activity to achieve a national desired end state, this activity should not prevent other recommendations made by ARMA from being recognised and progressed.

ARMA does not have significant experience dealing with Federal Departments, however recent discussions with our contacts in the automotive aftermarket industry and automotive engineering associations, suggest the National Transport Commission (NTC) is not the recommended body to take the role of a national regulator to manage a national vehicle modification framework, as they their operating model suggests they are very risk adverse and tend to be overly cautious and lean towards to lowest common denominator. This does not give the motoring community confidence the agency will manage the role of a national regulator which is equitable and beneficial to our members.

ARMA does not recommend NTC as the national regulator for vehicle modifications regulations.

ARMA recommends the automotive aftermarket industry, engineering associations and motoring communities are involved in communications and decisions to establish a national regulator for vehicle modification regulations.

ARMA recommends a National Technical Advisory Committee (NTAC) be established, comprising representatives from the automotive aftermarket industry, engineering associations and motoring communities, in order to provide oversight to the on-going management of vehicle modifications regulations, which are fed into the national regulator for enablement.

The importance of tyre sizes, air pressure and critical traction efficiency for 4WDs

One of the most crucial components of any motor vehicle on the Australia road network, is the humble tyre, however its most significant role, is to ensure it provides good traction with the road surface, during general driving, steering and braking maneuverers. The failure of a tyre to perform its main function can have catastrophic results, and the loss of traction can occur through various factors, such as wet roads, worn tyres, over steering, dirt roads and muddy tracks; each of which needs the vehicle operator to adjust their driving behaviour to suit the conditions.

A 4WD vehicle is purpose built to be able to drive across different terrains, on unformed, dirt, or muddy roads, and a popular destination in Australia, at the beach. Each of these different road / terrain surfaces, provide varying levels of traction when driving over them with either a sedan or 4WD. However, a 4WD owner has several different tyre choices when it comes of off-road tyres, and the ability of each to provide the best traction and performance, based on the type of driving and terrain.

To prepare for off-road driving in a 4WD, tyres need to be aired down in order to match the terrain and conditions. When air is let out of a tyre and the internal pressure drops, the bottom of the tyre flattens out, which increases the overall footprint of the tyre and the amount of traction. This in-turn, spreads the weight / load on each tyre, over a larger ground surface area, meaning the tyres will be less prone to "digging in" to the terrain, and bogging a vehicle.

The following chart is an example of the differences in a tyre as it is deflated from a road pressure of 40PSI, to an off-road pressure of 10PSI. The lower the internal air pressure of the tyre, the larger the tyre footprint, and the load is spread across the terrain in a larger tread area, providing better traction efficiency. However, as the tyre is deflated, the axle also drops, to a point where the axle drops below the maximum 25mm increase in tyre ride height (50mm diameter). This restriction effectively means the vehicle is traveling across rough terrain, and the axle is still at, or below, original factory ride height.

Tyre Pressure (PSI)	Tread Length (cm)	Tread Length (increase in %)	Tread Width (cm)	Tread Area (cm^2)	Tread Pressure (kg/cm^2)	Traction Efficiency (increase in %)	Axle Drops (mm)
40	19	N/A	23.5	446.5	1.254	N/A	N/A
35	21 (+2)	10.55	23.5	493.5 (+47)	1.135 (-0.119)	9.53	6
30	23 (+4)	21.05	23.5	540.5 (+94)	1.036 (-0.218)	19.22	11
25	25 (+6)	31.59	23.5	587.5 (+141)	0.953 (-0.301)	29.06	16
20	29 (+10)	52.63	23.5	681.5 (+235)	0.822 (-0.432)	45.37	20
15	33 (+14)	73.68	23.5	775.5 (+329)	0.722 (-0.532)	64.76	23
10	37 (+18)	94.74	23.5	869.5 (+423)	0.644 (-0.610)	84.50	26

A larger tyre footprint provides critical tyre traction in off-road environments, it distributes the load of the vehicle and axles over a larger surface area, which makes it better for the environment and off-road tracks, however its effectiveness is limited as tyre modifications cannot be increased more than the current 25mm (50mm diameter) limit. Additionally, it tyres are not large enough, and the ground clearance is reduced too much, then critical vehicle components will be prone to scraping on the

ground, or being damaged in these impacts. Larger tyres are more environmentally friendly, the picture below demonstrates how the tyre surface spreads and distributes the load in a deflated tyre.

An online petition called "*Amend Vehicle Standards & Safety Regulation - remove limit of 50mm Suspension-4x4 Vehicles*", currently has over 92,500 signatures, requesting the suspension restrictions be removed, due to the conflict with the Police Powers and Responsibilities Act.

REFERENCE: https://www.change.org/p/australian-government-amend-vehicle-standards-safety-regulation-remove-limit-of-50mm-suspension-4x4-vehicles

There were many 4WD vehicle rollovers several years ago on Fraser Island, and this subsequentially resulted in large restrictions on modifications to lifted 4WD vehicles, however, this was attributed to the tourism sector hiring 4WDs, and overloading the vehicles with tourists and their luggage. The 4WD touring industry now has regulations in place to address the issues identified in Government inquiries, and TMR acknowledges the earlier modification restrictions were due to tourism issues at Fraser Island. While there is still the occasional 4WD vehicle rollover at Fraser Island, it has significantly decreased since the tourism regulations, and these would mostly be contributed to poor driver behaviour and beach conditions, rather than issues with the modifications; people need to drive responsibly. People need to understand that once modifications have been undertake to a motor vehicle, it should be driven like it is a completely different vehicle altogether, as the behaviour will change depending on the modifications which were approved.

ARMA recommends the current lift combinations as set out in LS9 and LS10, be changed to allow variable lift combinations, and certification against the ADRs, similar to SSM. Where there are any limits set using the metric measurement system, allowance should be made to cater for imperial measurements, as many tyre and suspension systems are built using both systems, and police enforcement should not be critical of 25mm versus the metric conversion of one inch, being 25.4mm.

ARMA recommends the approval process for modifications outside the codes of practice also cater for personal use, not restricted to operational use. TMR advised in writing they were reviewing the wording for personal use; this has not yet occurred.

ARMA recommends updating the TORUM Vehicle Standards legislation, to allow vehicle modifications to be approved and certified using ADRs, as well as the current NCOP and QCOP.

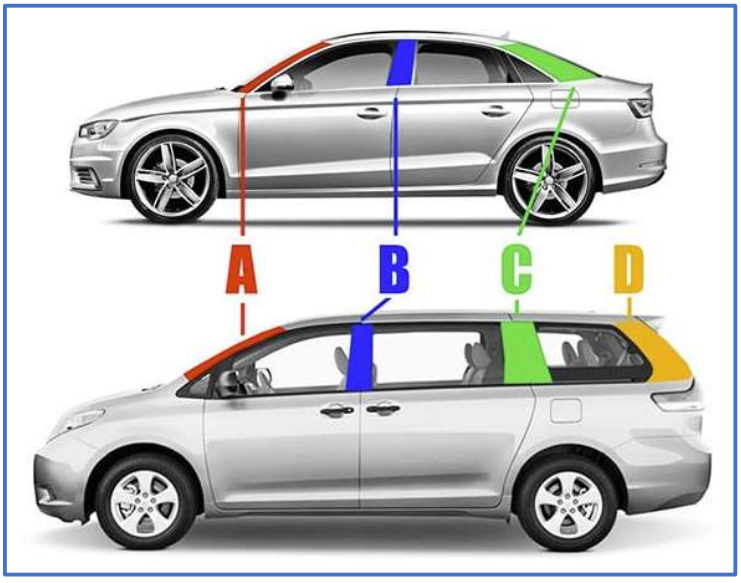
The importance "A" pillar rollover protection for 4WD vehicles

Current NCOP standards prohibit the installation of an internal roll-cage assembly, where internal bars are installed as part of the "A" pillar. The NCOP states the following regarding internal roll-over safety devices:

> "*The majority of internal roll-bars or roll-cages were originally designed for use in competition vehicles where the driver and any passengers are required to wear helmets. In normal road use, occupants of motor vehicles do not wear helmets, therefore any modifications to the inside of the cabin must be carefully designed to reduce the risk of injuries to all occupants in the event of a crash.*"

The NCOP initially discusses that roll-cages are mostly for competition type vehicles, and not normally used in everyday vehicles. However, 4WD vehicles used in everyday recreational driving, has the potential to get off-balance, depending on the terrain, the slope of hill, or a tyre slipping on a muddy track, and if the vehicle topples over and rolls onto its roof, or down a hill, there is very little protection provided to the internal occupants; all support for the roof is contained within the factory designed "pillars", as shown in the below picture.

Under the NCOP, roll-cages can be installed into some vehicles, however they are prohibited from being installed as part of the "A" pillar, which holds the front of the window and roof section.



Australian Recreational Motorists Association

However, the “A” pillar is one of the weakest roof supports of all the roof pillars, due to the sloping nature of the front window, and lack of support across the top of the roof line, above the window. When a vehicle is turned upside down, the section is extremely fragile and will begin to crumble. In an off-road driving scenario where a vehicle rolls over or tumbles down a hill, the “A” pillar is commonly crushed, which caves the roof of the vehicle inwards, on top of the front occupants.

ARMA does not agree internal based “A” pillar roll-cages restrict visibility if engineered correctly, nor that they provide much further risk to occupants in a road vehicle accident, as compared to the consequences of a vehicle rolling down a hill and crushing the roof.

We are of the opinion the NCOP was written to restrict access to internal roll-cages on street racing types of vehicles, which may be taken to the race track on weekends, without understanding the impact these changes would have on an entire 4WD motoring community. While the NCOP codes were published approximately 10 years ago, we cannot find any past representatives of our community that had any input to these standards, and don’t believe they are currently accurate for our community safety needs; particularly when some new vehicles are manufactured with internal roll-cages as part of the “A” pillar, such as the Jeep Wranglers.

ARMA recommends that modification regulations be amended to allow certified engineers to assess and certify internal roll-cages with “A” pillar support, using the head space requirements in either the ADRs or NCOP.

Lack of community engagement on TMR activities and vehicle modification standards

4WD Queensland Association originally tried to engage with TMR Vehicle Standards prior to Queensland’s introduction of the current NCOP / QCOP regulations back in 2012, as the limits being introduced did not meet the community requirements for off-road tyre and suspension requirements.

We attempted to fix the modification issues back in 2012 with E-Petition 1975-12, before the NCOP / QCOP was introduced, unfortunately 250 words doesn't allow the ability to accurately portray legislation issues we were attempting to address via Parliament. No one from TMR / LNP minister's office contacted us regarding the petition to discuss our concerns, and the minister's response was somewhat off the mark. Subsequently, the NCOP / QCOP was legislated without change, and still does not meet the needs of the 4WD community to this day:

https://www.parliament.qld.gov.au/work-of-assembly/petitions/petition-details?id=1975

The Newman Government also brought with it the pre-election commitment for the toughest anti-hooning laws in Australia. While we don’t condone illegal hooning, or dangerous driving, it was easy to see how the new Police Powers regarding hooning laws would inadvertently pick up motorists who may have a modification which does not meet the regulations (for various reasons), and they would be infringed by the police using the Anti-Hooning laws, which would result in a Type 2 Illegal Modification infringement, in situations where motorists were just driving down the road or parked, and not doing any hooning, dangerous, or anti-social behaviour.

We engaged with Premier Newman and The Hon Scott Emerson MP (Minister for Transport and Main Roads) about our concerns with the new Police Powers and how the 4WD community would be caught up in the Anti-Hooning laws, and Scott Emerson MP formally acknowledged our concerns, and

appointed Miles Brennan to be a member of TMR's Queensland Automotive Working Party (QAWP), which as the minister advised in writing, "*The QAWP was formed during the development of the NCOP and continues to meet to provide input into the review of the NCOP*". It was anticipated our inclusion in the QAWP would help to address the issues we raised with the Minister in E-Petition 1975-12, and the potential for 4WD owners being inadvertently picked up under the Anti-Hooning laws.

ATTACHMENT: Scott Emerson Letter - Invite to QAWP.png

However, in order to deconflict the issues between NCOP / QCOP modification regulations and the Police Anti-Hooning Laws, we needed to make a change to the modification standards, so the Police enforcement wasn't based on millimetre-based measurements.

The QAWP only meet once every six months and any progress was extremely slow. We raised our issues affecting 4WD modifications so they could be addressed, however, after 18 months, it was clear there was no intention from TMR that any changes were going to be made to the 4WD ride height regulations

We raised my concerns formally in writing to the Chair of the QAWP, regarding the authority / Terms of Reference of the QAWP, and the Manager of Vehicle Standards replied:

> "*I regret if there has been any confusion, but the QAWP is not, and never has been a statutory mechanism for reviewing or approving vehicle legislation, standards or policies, and while input and feedback from QAWP members is highly regarded and taken into consideration by TMR, the role of the QAWP is primarily to share knowledge between the participants.*"

ATTACHMENT: TMR - QAWP - Not a Mechanism for Changing Vehicle Legislation.pdf

This was not the expectation we had from The Hon Scott Emerson MP's letter of invitation, and sadly the QWAP was shut down several months later as the chair stated "it had served its purpose". As there were no outcomes achieved regarding our issues with 4WD vehicle modification regulations and Police Anti-Hooning Laws, we asked for addition ways to engage TMR, and the department was supposed to send through details on the Motoring Organisation Car Club (MOCC) meetings, as another forum for engagement.

ATTACHMENT: TMR - MOCC Request 1 - Rejection from Attending MOCC 2015.pdf

We never received any details for additional avenues to formally engagement TMR via the MOCC, and when we followed up in Oct 2015, the Manager of Vehicle Standards stated:

> "*Regrettably, at this time there is no capacity for additional members as membership of the MOCC forum is set through the Terms of Reference on an annual basis. However, your details are now on our register for consideration at our annual Terms of Reference and membership review.*"

4WD Queensland Association followed up again requesting membership to the MOCC in Nov 2016, and TMR once again rejected our membership request, using almost a cut-and-paste reply, from a different TMR representative.

> "*At this time there is no capacity for additional members as membership of the MOCC forum is set through the Terms of Reference on an annual basis. As I mentioned during our conversation, the focus of the MOCC meetings is centred on Special Interest Vehicles (SIV) (street rods and vehicles => 30 years from year of manufacture) and the policy, regulation and guidelines with the requirements for registering vehicles under the scheme.*"

ATTACHMENT: TMR - MOCC Request 2 - Rejection from Attending MOCC 2016.pdf

4WD Queensland Association is the state's largest non-profit motoring association, representing recreational 4WD vehicle clubs, members and the general public. Additionally, we have many members with vehicles over the 30-year manufacture date, and being prevented from the TMR MOCC meetings again is unjustified, and prevents our association from developing our own historic vehicle registrar program and access to Special Interest Vehicles registration scheme, and is borderline discrimination by deliberately excluding our association and members.

Miles Brennan lives in the electorate of Ferny Grove, and organised a meeting with the local MP, The Hon Mark Furner MP. The meeting with Mark was productive, we explained the issues affecting the 4WD motoring community and lack of community engagement or willingness for TMR to make any adjustments to modification regulations. Mark was going to try and organise a follow-up meeting with The Hon Mark Bailey MP, so we can escalate the issues to the Transport Minister. Unfortunately, prior to the meeting with Mark Bailey, QPS and TMR initiated Operation Lift, which targeted many 4WD vehicles with high-lift modifications, issuing heavy fines and Type 2 Illegal Modification infringements. While Police stated "Operation Lift" was only a three-day operation, there were many subsequent defect stations set up across the state, and areas 4WDs ventured (beaches / national parks) for the next several weeks, which specifically targeted high lift 4WD vehicles.

"Operation Lift" was a joint QPS and TMR activity targeting high lift 4WDs, however, the "Vehicle Defect Check List" being used during the activity, clearly states:

> "***Non approved modifications TIN 9594- Owner not ensure modification has been approved (If the owner is in vehicle or driver)*** *Interstate vehicle or non-owner driver consider DVRN and defect tin.*"

ATTACHMENT: QPS - Vehicle Defect Check List.jpg

On later follow-up, we were able to confirm Traffic Infringement Number (TIN) 9594 is the Type 2 Illegal Modification infringement under the Anti-Hooning Laws. Additionally, the QPS / TMR check list also gives guidance that interstate vehicles can be issued with defect notices, if they were not compliant with Queensland regulations. This is a contradiction of the Transport Minister's statement and TMR briefing to the Transport Committee. We also provided evidence to the Police Minister, The Hon Mark Ryan MP, who passed it on to CCC, who passed it on to QPS for review, however nothing ever came back from QPS to address interstate vehicles being defected against Queensland regulations, however we were able to get Police to drop the infringement / defect notice.

"Operation Lift" commenced early in Sept 2018, and was widely criticised by 4WD Queensland Association, Australian Automotive Aftermarket Association (AAAA), and many other 4WD community

and industry groups, as well as many motoring correspondence / journal groups, due to the conflict in legislation and again, lack of engagement.

ATTACHMENT: 4WD QLD Press Release 2018 - 4WDs Targeted in State Wide Modification Crackdown.pdf

https://mr4x4.com.au/aaaa-wades-queenslands-operation-lift-kerfuffle/

While 4WD Queensland Association was attempting to follow up with Mark Furner MP in order to get a meeting with Mark Bailey MP, we were forwarded a draft copy of TMR's LS9 and LS10 codes, which were changing the maximum 4WD vehicle lift in Queensland from 125mm to 150mm, and allow a self-certification of 75mm; while this brings the QCOP more in line with the NCOP which NSW and VIC use, it is not the outcome sort by the national or state 4WD communities or industry groups.

The Hon Mark Bailey issued a media statement on 12 Sept 2018 regarding "Operation Lift and Queensland's suspension and lift laws", which announced TMR were reviewing the LS9 and LS10 high-lift 4WD suspension codes, and that:

> "*Feedback on these proposed changes from industry has been positive and the Department of Transport and Main Roads aims to introduce them in Queensland in October this year.*"

https://mysunshinecoast.com.au/news/news-display/operation-lift-and-queenslands-suspension-and-lift-laws,56409

However, this was not correct. 4WD Queensland Association was not involved nor consulted regarding TMR's review of LS9 and LS10, an activity we've been trying to undertake since 2012. This resulted in 4WD Queensland Association and Australia Automotive Aftermarket Association both issuing our own policy positions on what the LS9 and LS10 codes should be moving towards, and that included "Variable Lift Combinations", so vehicle modifiers and certifiers could use the lift limits within the codes for any variation, instead of the fixed lift combinations of 25mm tyres (50mm in diameter), 75mm suspension, and 50mm in body blocks. The AAAA also published a policy position which recommended variable lift combinations.

ATTACHMENT: 4WD QLD Press Release 2018 - Modification Policy Position.pdf

ATTACHMENT: AAAA - Modification Policy Position.pdf

On 24 Sept 2018, TMR Vehicle Standards hosted a 4WD Industry Forum in order to discuss the proposed LS9 and LS10 codes. 4WD Queensland Association were in attendance and we specifically stated the restrictive millimetre limits are causing police enforcement issues with motorists, and we wanted to adopt a "Variable Lift Combination" approach to 4WD high-lift vehicles similar to NSW, who use a percentage-based system. The TMR General Manager agreed to take this item on notice for review, however we followed up with the GM afterwards to get an update on variable lifts, and he stated there were too many people at the forum who raised concern with this. We disagree, while some forum attendees stated there are always concerns when lifting 4WDs, no one specifically stated they did not support the proposal of variable lifts. TMR made the decision to dismiss the suggested "Variable Lift Combinations", without further consultation after the forum. The 4WD community and

industry groups were very disappointed in this action, as again, our community request to fix modification regulations for our requirements was dismissed.

ATTACHMENT: AAAA Magazine - President's Report Oct 2018.pdf

On 16 Nov 2018, due to the overwhelming correspondence sent to the Transport Minister concerning the issues with "Operation Lift" and the revised LS9 and LS10 codes not being suitable for the community, the Minister's office released a generic letter out to everyone who had written to the Minister for Transport, stating TMR had been working with 4WD enthusiasts and the automotive industry which had lead to the approval of the new LS9 and LS10 codes. 4WD Queensland Association did not support the rushing in of LS9 and LS10 4WD high-lift modification codes, and believe the statements made in the Minister's communications to be a misrepresentation of our position and approval.

> "*The Department of Transport and Main Roads (TMR) has been working with 4WD enthusiasts, the automotive industry and road authorities in other jurisdictions to introduce changes to QCoP, which sets rules for vehicle lifts in Queensland.*
>
> *As a result of consultation, Minister Bailey recently approved changes to QCoP that include allowing the maximum certifiable lift in Queensland to increase from 125 mm to 150 mm, which is consistent with NCoP.*"

ATTACHMENT: Minister for Transport - Generic Letter To Everyone About LS9 and LS10 Concerns.pdf

On 26 Oct 2018, the revised LS9 and LS10 4WD high-lift suspension codes were released in a statement by The Hon Mark Bailey.

ATTACHMENT: TMR - Fact Sheet - 4WD Vehicle Lifts (26 Oct 2018).pdf

ATTACHMENT: Minister for Transport - Media Release - 4WD Lift - LS9 & LS10.jpg

It was after this lack of community engagement by TMR and Queensland Ministers, that 4WD Queensland Association, 4WD Australia Association, and Australian Recreational Motorists Association commenced the "Time To Align" campaign, in order to get more political by-in regarding the restrictive nature of 4WD vehicle modifications, and the lack of change and alignment between the ADRs, NCOP, and all state and territories regulators.

We are convinced after 9 years of engaging, TMR will not make any changes to the current QCOP LS9 and LS10 codes, testing and certification processes, without Government intervention.

ARMA recommends the motoring community and motoring industry form Technical Advisory Committed and be integral to reviewing and amending regulations in conjunctions with TMR processes, and approving special modification requests which are outside general regulations.

4WD Queensland Association have discussed our concerns with modifications and the enforcement of Type 2 Illegal Modifications under the Police Anti-Hooning laws, with several ministers, including The Hon Tim Nicholls MP, who provided a written statement:

> "*Mr Brennan has asked I comment on the passage in 2013 of the Police Powers & Responsibilities (Motor Vehicle Impoundment & Other Legislation Amendment Act 2013).*

While of course the Act speaks for itself and the Ministers speech sets out the then Government's reasoning for the Act, it does seem that in this instance the issuing of a so called "anti hooning" forfeiture notice goes beyond what was reasonably contemplated by the legislation."

ATTACHMENT: The Hon Tim Nicholls MP - Anti-Hooning Legislation Goes Beyond What Was Reasonably Contemplated By The Legislation.pdf

ARMA recommends Police Anti-Hooning Laws be amended and remove Type 2 Illegal Modifications, so they are rolled back to the previous vehicle defect process.

ARMA recommends the Government commit TMR to regular reviews of restrictive regulations, standards and red tape, where clear modification and certification details are already provided within the Australian Design Rules, equivalent international standards.

ARMA recommends Government commit TMR to establish a Technical Advisory Committee (TAC) from motoring community and industry groups, to review, advise and approve requirements for department of transport enactment.

Additional transportation safety items

The following are additional safety items for the committee to consider:

Introduce three second warning when traffic lights are about to change from Green

ARMA recommends changing all traffic lights across Queensland, so the Green light blinks for three seconds prior to changing to Amber. Blinking the Green light will provide an additional three seconds for drivers to react to changing traffic conditions, and will provide larger vehicles (such as prime movers) earlier notice, allowing them additional time and increasing their stopping distance before the intersection. Prime movers have ploughed into vehicles at stop lights previously, as heavier vehicles simply cannot react and stop in the short distances of some of the traffic light-controlled intersections, particularly in poor weather conditions or when the road is wet. Making this a standard option on all traffic lights for high speed / risk intersections will provide greater warning and safe stopping distances, minimising the amount of rear end accidents.

Convert all lane merging marking into zipper merging

Merging lanes in traffic should not be difficult, however, too often is the case that motorists speed up in overtaking and merging lanes and cutting other motorists off, poor driver behaviour defeats the purpose of having overtaking and merging lanes to start with.

ARMA recommends converting all merging lane markings, into zipper merging lane markings, so motorists are legally obliged to synchronise and let one vehicle in after the other, preventing bad

driving behaviour. There will be some locations where zipper merging will not be possible, were merging lanes have different speed traffic etc… however, zipper merging should be the default lane merging option for all new traffic projects and general metropolitan / town-based roads.

Standardise colour codes for each fuel type sold at service centres

ARMA recommends the government encourage / enforce specific colour codes for fuel bowsers used across Australia. While most fuel outlets use a black bowser handle for diesel fuel, there is no other common colour codes between different service centre outlets for E10, 91 Ron, 95 Ron and 98 Ron fuels. It is common that vehicle owners accidently fill their vehicles with Premium Unleaded (98), when they are normally use Regular Unleaded (91), as the colour codes for bowsers are different, when they visit a different service station.

If the Federal / Queensland government work with the fuel reseller industry to set a regular colour standard to be used for each type of fuel regularly sold to the general motoring community, then vehicle owners will be less prone to accidently using the incorrect fuel in their vehicles this can save engine troubles and potential mechanical repairs.

Kind regards,

Miles Brennan
Vice President
[redacted]
[redacted]

Australian Recreational Motorists Association

Committee Secretary
Transport and Public Works Committee
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19 April 2021

Inquiry into Vehicle Safety, Standards and Technology, including Engine Immobiliser Technology

Summary of Recommendations from ARMA's Main Submission Document

ARMA does not recommend progressing mandatory remote engine vehicle immobilisation technology as a state responsibility.

ARMA recommends the Queensland Government ensure the policing system and sentencing laws be increased in line with community expectation for repeat juvenile offenders, who know they will get a simple slap on the wrist for their under-age offences. Its time the magistrates and legal system are empowered to provide harder / mandatory punishments, and preventing bail. These children know what they can get away with, its time the system is overhauled and they're held accountable.

If there is a need to invest further in combatting youth crime and dangerous drivers, **then ARMA recommends** funding be withdrawn from remote immobilisation development, and be injected into additional air operations assets, such as an additional QPS helicopter, or rapidly deployable rotary winged Unmanned Aerial Vehicle (UAV), which can be multi-tasked to support other mission critical, or search and rescue operations. An UAV asset will still provide the line-of-sight surveillance of offenders from a tactical position, allowing QPS to discontinue from potentially dangerous high-speed pursuits.

ARMA does not recommend retro-fitting the current in-service vehicle fleet with aftermarket remote vehicle engine immobilisation technology.

ARMA does not recommend the Commonwealth Government or vehicle insurance companies support the implementation of mandatory remote vehicle engine immobilisation technology.

ARMA recommends undertaking a hooning trial using skid pads in several hoon hotspots, as discussed in our accompanying discussion paper - Community Assistance in Addressing Illegal Hooning.

ARMA recommends any vehicle modification which has passed ADR / SSM certification, be available for sale, installation and certification for in-service vehicles, where the vehicle and modification are equivalent to those under the original SSM certification.

ARMA recommends the approval process for all in-service vehicle modifications should be assessed, tested and certified directly by the dually qualified and authorised auto-mechanical engineer, who is engaged to certify the modifications in accordance with relevant modification regulations and standards.

ARMA recommends modifications outside the NCOP / QCOP codes of practice should be allowed for both personal and operational purposes, in line with SSM, ADR and other state approval processes.

ARMA recommends the Transport and Resource Committee review and acknowledge there are no factual statistics or collected evidence which suggests legally modified vehicles and their components are contributing the Queensland's road traffic statistics and are an inherent risk to other road users. Recommend engaging insurance and towing industries for additional information.

ARMA recommends alternate testing criteria be developed by the Australian automotive aftermarket industry, which provides confidence in a modified 4WD suspension fitted with ESC, and is safe for on-road and off-road use. The testing criteria needs to be easily implemented and operated without excessive cost of equipment to the testing company, and on-flow test and certification pricing to the general public. The alternate testing criteria will also need to take into account the ease of access to locations, roads, closed tracks and dedicated facilities, which will be able to cater for the proposed testing to be undertaken.

ARMA recommends approved and authorised auto-mechanical engineers should have the option to choose between any of the equivalent ESC testing and certification standards (UN ECE R13H, GTR-08, or FMVSS-126) which are international equivalents to ADR88/00, for modifications to in-service ESC equipped vehicle. This includes the approved certifier making the assessment whether the testing facility for an international equivalent standard, is suitable to undertake the international ESC certification, rather than the need for each international test facility to become members of NATA for traceability.

ARMA recommends the Queensland Government identifies where the responsibility lays for assessing, mitigating and accepting risk lays in regards to approving vehicle modification regulations, and whether individual bureaucrats are personally liable for motor vehicle accidents by the general public, which may be modified in accordance with an approved department regulation.

ARMA recommends the Queensland Government take a lead on harmonising Australia's in-service vehicle modification regulations, by undertaking a national survey of all national and state incorporated motoring associations and aftermarket industry peak bodies, to identify key stakeholders across the motoring groups and states, and work to understand the current level of modifications available, and what changes to modification regulations are needed to achieve a nationally agreed direction. While this is a longer-term recommendation and activity to achieve a national desired end state, this activity should not prevent other recommendations made by ARMA from being recognised and progressed.

ARMA does not recommend NTC as the national regulator for vehicle modifications regulations.

ARMA recommends the automotive aftermarket industry, engineering associations and motoring communities are involved in communications and decisions to establish a national regulator for vehicle modification regulations.

ARMA recommends a National Technical Advisory Committee (NTAC) be established, comprising representatives from the automotive aftermarket industry, engineering associations and motoring communities, in order to provide oversight to the on-going management of vehicle modifications regulations, which are fed into the national regulator for enablement.

ARMA recommends the current lift combinations as set out in LS9 and LS10, be changed to allow variable lift combinations, and certification against the ADRs, similar to SSM. Where there are any limits set using the metric measurement system, allowance should be made to cater for imperial measurements, as many tyre and suspension systems are built using both systems, and police enforcement should not be critical of 25mm versus the metric conversion of one inch, being 25.4mm.

ARMA recommends the approval process for modifications outside the codes of practice also cater for personal use, not restricted to operational use. TMR advised in writing they were reviewing the wording for personal use; this has not yet occurred.

ARMA recommends updating the TORUM Vehicle Standards legislation, to allow vehicle modifications to be approved and certified using ADRs, as well as the current NCOP and QCOP.

ARMA recommends that modification regulations be amended to allow certified engineers to assess and certify internal roll-cages with “A” pillar support, using the head space requirements in either the ADRs or NCOP.

ARMA recommends Police Anti-Hooning Laws be amended and remove Type 2 Illegal Modifications, so they are rolled back to the previous vehicle defect process.

ARMA recommends the Government commit TMR to regular reviews of restrictive regulations, standards and red tape, where clear modification and certification details are already provided within the Australian Design Rules, equivalent international standards.

ARMA recommends Government commit TMR to establish a Technical Advisory Committee (TAC) from motoring community and industry groups, to review, advise and approve requirements for department of transport enactment.

ARMA recommends changing all traffic lights across Queensland, so the Green light blinks for three seconds prior to changing to Amber. Blinking the Green light will provide an additional three seconds for drivers to react to changing traffic conditions, and will provide larger vehicles (such as prime movers) earlier notice, allowing them additional time and increasing their stopping distance before the intersection.

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Kind regards,

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Press Release

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Status: Approved
Date: 10 September 2018

TIME TO ALIGN: 4WDs Targeted in State Wide Modification Crackdown

Introduction:
4WD Queensland has recently become aware that the Queensland Government has initiated a state-wide crack down on modified 4WD vehicles, coded named "Operation Lift", and in some cases vehicles are being defected and impounded under the Anti-Hooning laws as a Type 2 offence.

Background:
On 12 Sep 2012, a representative of 4WD Queensland submitted E-Petition 1975-12 to the Queensland Parliament in order to address misalignment and other issues with the state's modification legislation. However, being reduced to a maximum 250 words for the petition, and no engagement from either the serving Transport Minister or Department, the response missed the point, and Department introduced additional layers of legislation (QCOP) which further de-harmonised policies of other states.

Ref: http://www.parliament.qld.gov.au/work-of-assembly/petitions/petition-details?id=1975

The Newman government came to power using the "Toughest Anti-Hooning Laws in Australia" as one of their key election promises. Whilst 4WD Queensland supports Anti-Hooning measures, we argued that "Type 2 – Illegal Modifications" should be either removed, or only instigated when a more serious Type 1 offence occurred as a pre-cursor to initial police interaction. Unfortunately, only the QPS were allowed to provide a verbal briefing and questions to the Queensland Parliament's "Legal Affairs and Community Safety Committee" on 13 Feb 2013. The motoring industry and enthusiast community were barred from providing verbal briefings, or to ask additional questions on record of QPS representatives.

Ref: http://www.parliament.qld.gov.au/work-of-committees/committees/LACSC/inquiries/past-inquiries/PPRMVI

We rallied the Newman government regarding the clash of TMR vehicle modification and QPS Anti-Hooning legislation, and where invited by the Transport Minister to attend the department's "Queensland Automotive Working Panel" in order to address some of these

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issues as a community representative. Unfortunately, after several meetings, we were advised by the bureaucrats who managed the working panel "the QAWP is not, and never has been a statutory mechanism for reviewing or approving vehicle legislation, standards, or policies". During the time on the QAWP, it was clear that offroad / recreational driving was a topic they did not want to progress.

We also attempted to engage TMR to become a member of the Motoring Organisation and Car Club (MOCC) meeting which were dealing with Special Interest Vehicles (SIVs – vehicles being over 30 years old). We were advised "At this time there is no capacity for additional members as membership of the MOCC forum is set through the Terms of Reference on an annual basis". Bureaucrats again disregarded the fact that one of 4WD Queensland's military vehicle club has over 500 members.

The Australia Automotive Aftermarket Association (AAAA) has also had significant engagements with TMR (and other states) in order to showcase compliance and safety of Australian industry products. They had several industry vehicles equipped with larger 2in lifts and showcased their high-speed manoeuvrability at Brisbane's Lakeside Park. As this testing did not include larger tyres, the bureaucrats weren't happy with the results, and the AAAA then had to spend over $150,000 to ship several industry vehicles to America for further extensive testing on vehicle lifts, involving 2in suspension and 1in of tyres. On presenting the testing results to TMR and other states, the bureaucrats again weren't happy as they wanted to see test results now which included Electronic Stability Control (ESC). None of these additional requirements were ever specified before any of the earlier testing, TMR just keep changing the goal posts.

Legislation:
The Transport Operations (Road Use Management—Vehicle Standards and Safety) Regulation 2010 (TORUM) simply states all modifications are to comply with:

(a) the National Code of Practice for Light Vehicle Construction and Modification;
(b) the Queensland Code of Practice—Vehicle Modifications.

Ref: https://www.legislation.qld.gov.au/view/html/inforce/current/sl-2010-0192#pt.2-div.3-sdiv.2

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However, all of these Codes of Practice are located either on the TMR website (for Queensland COP), or on the Federal Department of Infrastructure, Regional Development and Cities website (National COP), and makes it difficult for the community to quickly find once source of references for modifications. The NCOP is not a federally approved standard, it was developed over a nine year period by all the state registration authorities, and is located on the federal website as "VSB-14", purely as a single source of storage for all states; after an additional seven years, the NCOP is still not nationally aligned. Further, the QCOP references the NCOP, which in turns refers to Australia Design Regulations (ADR) when more complex modifications are required. This causes no end of confusion, particularly to the younger or less experienced motorists.

As the QCOP is maintained by TMR on their website and only referenced by the TORUM, there is no requirement for TMR to have any changes to these standards, regulations, and guidelines approved by any parliamentary review process - they can be changed in-house and loaded direct to their website at any time.

We are aware Vehicle Standards Instruction (VSI) 19.1 specifies a lift of 75mm is acceptable and requires no formal certification, this is supported by VSI G19.8 (dated Sept 2017). However, these have now been updated on the TMR website to say ESC vehicles are restricted to 50mm, yet there has been no communication to the 4WD community, general public, or parliamentary review, and QPS are using the updated guidelines to defect vehicles, and in some cases, issue Type 2 Anti-Hooning offences or vehicle impoundment.

Earlier G19.1 Standard: https://www.4wdqld.com.au/wp-content/uploads/2018/09/TMR-Early-VSIG19.1.pdf

Further, NCOP and QCOP are classified as "live" documents and will change over time, how can this process be used as baseline for legislation and defecting motorists?

Contentions:
"Operation Lift" is a joint QPS and TMR activity targeting modified 4WDs, however the guidelines / standards regarding ESC's 50/75mm lift have been quietly changed by TMR without

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community or public announcement, there will be some motorists who are oblivious they are now driving illegally modified vehicles.

4WD Queensland re-engaged the Queensland Government and was informed about a month ago that the Transport Minister's office will be coordinating a meeting to discuss these issues.

Additionally, 4WD Queensland has been provided with a DRAFT set of TMR vehicle modification standards (LS9/LS10), which have not been communicated / engage via the 4WD community. These new draft standards are about to be released in a few weeks (straight to their website), and will void many of the QPS defect notices and infringements currently being issued under "Operation Lift".

Draft Standards: https://www.4wdqld.com.au/wp-content/uploads/2018/09/TMR-Proposed-LS9-and-LS10-Drafts-2018.pdf

TMR and AAAA were also in the middle of negotiations regarding additional ESC testing, yet the department moved forward with "Operation Lift" without notice, and the vehicle owners with the exact modification currently being discussed, are now being defected and fined.

Additionally, if TMR and QPS know there are hundreds of thousands of unsafe and illegally modified 4WDs on Queensland roads, despite the additional testing requested of AAAA, surely there's some statistical crash evidence the Government can supply to prove their position that modified vehicles are as unsafe as they claim them to be?

When the state's peak 4WD body and national AAAA are attempting to address issues with the Queensland Government and department bureaucrats, yet the community still gets hit hard with a massive blitz, the community has to wonder about the processes, competence and motives of the people in charge.

Reflection:
Its clear both TMR and QPS have limited understanding on how the 4WD community rely on their vehicles in offroad conditions. This is unfortunate, as the Queensland 4WD community can be one of the best assets to help Government, Police, Fire and Rescue groups when there's a

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need for large volunteer groups or specialist vehicle access and recovery operations. The Association is an accredited RTO and provides basic and advanced training to our clubs and members, which are nationally certified. Vehicle road and safety standards should be inclusive of offroad and recreational environments, not just sealed roads.

While individual state registration authorities struggle to collectively provide motorists with a nationally consistent modification standard, all State, Territory and National 4WD associations have unanimously agreed the most consistent approach to national modification, is to adopt NSW's Vehicle Safety Compliance Certification Scheme (VSCCS). The NCOP and QCOP provide strict limitations based on exact measurements, i.e. 50mm increase in tyre diameter, where the VSCCS is percentage based, i.e. owner can self-install tyres up to 7% increase in diameter, however needs engineering approval if installing tyres of 8% or more. Measurement based modifications are inconsistent across vehicle types, i.e. 50mm suspension increase on Suzuki Jimny is a significant difference to 50mm suspension increase on a Toyota Landcruiser.

Due to each state running their own independent modification schemes, vehicle engineering is not accepted by registration authorities from other states, i.e. Victorian engineering certificates are invalid in Queensland, and interstate transferees such as Defence personnel, have to re-engineer their vehicles whilst moving homes. National vehicle fleet operators also have to cater for each individual government's legislation, making large scale fleet management overly difficult.

Further, vehicles travelling between states are being defected as they don't meet the regulations of the state they're travelling in and they're being defected. We are already losing extensive interstate visitors to our 4WD activities in Queensland, as they know there's a risk of defect, this is a big hit to Queensland tourism and needs to be addressed.

We need a national scheme where a consumer can purchase a new vehicle in Perth, ship it to Adelaide for engine modifications, send on to Melbourne for motor work, pop it over to Sydney for suspension and wheels, then walk into a Queensland TMR office with all the certifications and get the vehicle registered; this is the 21st century.

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Our "Time To Align" campaign shouldn't be limited to just modifications, but road rules, license tests, speed limits, L/P plate standards, and road signage. Why are we re-inventing the wheel in each state?

Guidance on "Operation Lift":
Unfortunately, as we've not been engaged by either TMR or QPS regarding "Operation Lift" and both AAAA and ourselves were making progress to address these issues via government departments, 4WD Queensland can only provide advice given the inconsistencies with VSI-G19 and the forthcoming DRAFT LS9 and LS10 standards which are about to be released.

We ALWAYS recommend if you believe you have been given a defect or infringement notice which is contrary to legislation, standards, or an official website, then you should challenge its legitimacy. Note, paying a fine issued incorrectly is admitting guilt and will stay on your record for future legal proceedings.

We therefore recommend:

- Any vehicle owner who has been issued any defect or infringement notice where your vehicle has a maximum combination lift of 25mm tyres, and 50mm suspension fitted with ESC, to write to the "Officer In Charge" of the police station where the notice was issued, and ask for the infringement to be reviewed given TMR website gave guidance this was acceptable and has been updated without informing the general public (see reference above).

- Any vehicle owner who has been issued any defect or infringement notice where your vehicle has a suspension lift up to 75mm, to write to the "Officer In Charge" of the police station where the notice was issued, and ask for the infringement to be reviewed given TMR is about to release new LS9/LS10 modification standards, allowing this lift. While you may have been issued a ticket where LS9/LS10 is currently 50mm maximum at the time, the fact it is due to change should have been considered / implemented before commencing "Operation Lift"; it would be unfair to release this after a defect.

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- Any vehicle owner who believes they were incorrectly issued an infringement notice for other reasons, i.e. change to other TMR website, we recommend contacting TMR and re-validating the infringement is issued correctly.

- For all vehicle owners who knowingly drove a vehicle with modifications over the limit, pay your fine.

Recommendations:

- The Queensland Government cease "Operation Lift" until 4WD Queensland and AAAA issues are addressed.

- The Queensland Government recognise the inconsistencies in different versions of VSI-G19 and commence revocation of incorrectly issued defects and infringement notices.

- The Queensland Government recognise TMR are due to release LS9/LS10, provide community engagement and commence revocation of issued defects and infringement notices which would be void by new modification codes.

- The Queensland Government remove Type 2 "Illegal Modifications" from Anti-Hooning laws.

- Seek to align with NSW VSCCS scheme, with longer term approach to a national standard.

- Establish a community-based approach to 4WD modifications and enforcement.

- 4WD Queensland invite QPS and TMR representatives and ministers, to the up and coming 38th Annual Corroboree scheduled in Warwick over the Sep / Oct long weekend to learn / engage in community 4WDing.

========== PRESS RELEASE ENDS ==========

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ABOUT FOUR WHEEL DRIVE QUEENSLAND

4WD Queensland was formed in 1976 when members from various 4WD clubs across Queensland, got together in an effort to unite the voice of four wheel drivers in promoting recreational four wheel driving.

Although 4WD QLD predominately seeks to promote the requirements and interests of our affiliated clubs and their members, as the peek 4WD motoring body in QLD, we also represent the interests of all 4WD owners and operators throughout the state, when common issues benefit or tarnish both the association and general 4WDing community

Policy Position

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Status: Approved
Date: 16 October 2018

REFERENCE: 4WD Queensland's Policy Position on LS9 and LS10 Modification Codes

Introduction:
4WD Queensland has been working prior to the introduction of Queensland Code of Practice (QCOP) modification standards in 2012 to address the misalignment of vehicle legislation between states, and also regarding the introduction of Anti-Hooning laws in 2013, where unsuspecting motorists can be targeted with the Type 2 Illegal Modification offences, due to conflicting information from Department of Transport and Main Roads (TMR) website.

In Sep 2018, we inadvertently found out TMR were planning to release updates to QCOP LS9 and LS10 suspension codes, which were not practical for the wider 4WD community, however there was no prior engagement or discussions with 4WD Queensland to provide input or review.

Four wheel drivers need to be able to carry out modest modifications on standard vehicles, with no anticipated adverse impact on road safety, in order to:

- Improve ability to safely negotiate various types of terrain, in fair, and uncertain weather conditions;
- avoid becoming immobilised or stranded in remote areas; and
- minimise the need to undertake high energy / high risk recovery methods (e.g. snatch recovery), were people have died in recent incidents.

Recent action by the TMR and police in Queensland has highlighted the need for clear nationally consistent regulations relating to 4WD vehicle modifications.

In two recent community polls with several thousand respondents:

- 95% of respondents want a nationally based modification solution; and
- 94% of respondents want "Variable Lift Combinations", as opposed to the fixed 25mm / 75mm / 50mm limits currently proposed by TMR.

As there is disparity between TMR's proposed LS9 and LS10 specifications and those required of the wider Queensland 4WD community, the following represents 4WD Queensland's policy position on modifications, certification, and Type 2 Illegal Modification offences:

Policy Position

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QCOP changes to LS9 and LS10 modification codes:

- 75mm (self-certified): Up to 25mm lift in tyres and 50mm lift in suspension for both Electronic Stability Control (ESC) and Non-ESC MC category (4WD) vehicles - does not require vehicle to undertake certification processes;
- 100mm (mechanically-certified): Up to 50mm lift in tyres and 50mm lift in suspension (or 25mm / 75mm respectively) for both ESC and Non-ESC MC category (4WD) vehicles - requires vehicle to be inspected and issued a certificate to validate steering / wheel alignment and suspension geometry are within mechanical specifications, and speedometer recalibration (if required);
- Introduction of "Variable Lift Combinations" allowing mixed limits as a certifiable option (50mm lift tyres & 75mm lift suspension = 125mm without body blocks) for ESC and Non-ESC vehicles, following appropriate test procedures;
- 150mm Plus lifts to be engineered / approved directly by Approved Persons and Auto Mechanical Engineers - similar to NSW's Vehicle Safety Compliance Certification Scheme (VSCCS), following appropriate test procedures;
- Abolishing QCOP legislation, and adopt NSW's Vehicle Safety Compliance Certification Scheme (VSCCS), allowing Approved Persons and Engineers undertaking vehicle modifications and appropriate certifications based on their mechanical and engineering skillsets; and
- Any legislation to be applied in Queensland to be first reviewed with 4WD Queensland as the peak body representing all state 4WD owners, together with other motoring bodies and industry working groups.

NOTE: All state and territory 4WD associations have unanimously agreed that NSW's VSCCS scheme should be adopted as the basis for a national modification framework. Aligning with NSW is our immediate short term option, rather than aligning with National Code of Practice (NCOP).

Policy Position

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We expect all vehicle modification planning and implementation should comply with the following principles:

- **Safe**: All modifications for in-service road registered vehicles, must be safe and ensure vehicles undertake valid testing and certification they are not a danger to its occupants or other road users;
- **Practical**: All modification testing needs to be practical, i.e. mandating engine swap emission testing for a vehicle in Cairns, when there's only one test facility in Brisbane is impractical; and
- **Affordable**: All modification testing and certification processes should be affordable for every day motorists, otherwise people will bypass testing and certification if it is too expensive. i.e. destructive bulbar testing for individual, or low volume custom builds; this does not foster innovation or competition in smaller industry groups.

Training and community education:
TMR should develop a series of 4WD based training and communication videos under their "Drive to Survive Campaign"; these could include:

- **Beach driving**: tyre pressure adjustment, vehicle set up (appropriate range, gear, traction control off) and driving to conditions (e.g. slowing for washouts, undulating terrain); and
- **Steps for safe vehicle recovery**: Correct equipment, equipment inspection, anchor points, driver communication, safe standing distances.

NOTE: 4WD Queensland is a Registered Training Organisation (RTO) conducting basic and advanced 4WD training courses, and happy to provide any assistance in developing 4WD safety campaign videos for the Queensland Government.

Changes to "Police Powers and Responsibilities (Motor Vehicle Impoundment) and Other Legislation Amendment Bill 2013":

The "Type 2 - Illegal Modification Offence" is being misused to target motorists who are simply driving down the road, without displaying any anti-social / hooning behaviour, and may be unaware they potentially have illegal modifications.

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The Anti-Hooning laws were brought in to deal with anti-social driving behaviour, and many public submissions noted the "Illegal Modifications" should be reviewed due to this reason. Unfortunately, only QPS were allowed to brief the parliamentary "Legal Affairs and Community Safety Committee" (13 Feb 2013) in person, the general public were not allowed to provide briefings or ask questions of the committee or QPS during the proceedings. As per the misguidance on TMR's website, people have fitted larger tyres to ESC equipped vehicles, technically making them illegal and subject to Type 2 offences. This is a departmental issue which the Minister for Transport admits in parliament, however those motorists who were issued with Anti-Hooning offences should have them revoked. Additionally, TMR acknowledged in the recent industry forum that people who purchase second hand vehicles from used car yards or other private motorists, have no assurance that any modification fitted meets state requirements, despite having a valid roadworthy certificate for the vehicle's sale. TMR have no solution to address this.

Our guidance on the Type 2 - Illegal Modification Offence is to:

- Remove entirely and revert back to standard defect notifications which were suitable prior to the change in legislation; or
- Retain the Type 2 offence and ONLY allow them to be used if a more severe, Anti-Hooning offence occurs, which then triggers "Illegal Modifications" offence.

NOTE: 4WD Queensland recently contacted multiple Approved Persons and Auto Mechanical Engineers, who stated they fully support the introduction of "Variable Lift Combinations", and TMR held a (colloquially) "closed mindset" to fostering engineering experience from the Queensland aftermarket industry. We are of the opinion TMR are working towards their own agenda, as opposed to meeting industry and community expectations; this should be reviewed.

========== ENDS ==========

Policy Position

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BUILD A BETTER AUTO BUSINESS AT THE 2019 AUSTRALIAN AUTO AFTERMARKET EXPO

In a little under six months' time, we will open the doors on the 2019 Australian Auto Aftermarket Expo which will be held from Thursday 4th - Saturday 6th April at the Melbourne Exhibition Centre

The Expo is the single largest event of its kind in Australia featuring the very latest in automotive parts, accessories, workshop tools and equipment.

Attracting more than 350 exhibitors and 10,000 domestic and international trade visitors, the 2019 Expo will showcase a comprehensive range of automotive aftermarket parts, accessories, tools and equipment from the industry's leading companies and brands. The Expo will also offer a comprehensive free seminar and education program on the latest industry trends and business improvement techniques and provide a hub for networking and business development.

The Auto Expo will be again run in conjunction with the Collision Repair Expo, Australia's only trade event dedicated to the specialist needs of the collision repair industry. Held over nearly five acres of exhibition space, the combined events will provide a window on the world of tomorrow's automotive aftermarket accessories, replacement parts, workshop equipment, repair, service and maintenance products.

We will again be running the Australian Auto Aftermarket Awards program in conjunction with the Expo to recognise innovation and outstanding contribution to the development of the Australian Automotive Aftermarket Industry.

Run biennially, these awards acknowledge organisations and individuals, within the industry, who set the benchmark for excellence across a wide variety of marketing, manufacturing, products and service award categories. The Awards will be presented at a breakfast and gala dinner to be held at Crown Casino on Thursday the 4th of April 2019. The Award categories and criteria are currently being finalised and a call for entries will be circulated to all AAAA members over the coming weeks.

We have experienced unprecedented demand for exhibition space with more than 90 percent of available space already sold, so if you are planning to exhibit and haven't yet locked in a stand please contact Nina Roberts at IEC on 03 9596 9205 or email nina@iecgroup.com.au

Entry to the Expo and seminar sessions is free of charge to all trade visitors and for those travelling from interstate we have negotiated preferential accommodation rates at a range of nearby hotels. For details, go to https://ep.ozaccom.com.au/public/AAA19/accommodation-.aspx

For further information and to register to attend the Expo, please visit www.aftermarketexpo.com.au

SPECIAL UPDATE: CHANGES TO VEHICLE LIFT LAWS IN QUEENSLAND!

As many people would be aware through recent media reports and social media activity, earlier this month without any prior notice the Queensland Police launched a blitz titled 'Operation Lift' on raised 4WD vehicles which included issuing fines, defect notices and impounding vehicles

The information included in the defect sheets being used by the Police stated that any vehicles fitted with ESC that had been raised over 50mm with a combination of suspension and tyre lift required an ESC test and certification, which differed from previous advice issued by the Queensland Department of Transport and Main Roads (TMR) which allowed an uncertified lift of up to 75mm. Both New South Wales and Victoria allow a maximum 75mm uncertified lift in their regulations which allows for a combination of 50mm in suspension and 25mm in tyre.

We had raised our concerns with TMR's change in interpretation of the rules on numerous occasions over the past year both with the Department directly and via letters to the Queensland Transport Minister in December 2017 and March 2018. We were still in negotiations with the Department around the potential to provide test evidence to support our position when 'Operation Lift' was launched.

In response to this police operation, we issued a media release on the issue together with a call to action on our social media sites. With the support of the AAAA membership, 4WD Queensland and a range of other 4WD media and user groups, we were able to mobilise huge numbers of vehicle owners from around the country to raise their concerns directly with the Department and Minister.

As a result of this unprecedented response by the 4WD community, on the 20th of September the Queensland Minister for Transport and Main Roads, the Honourable Mark Bailey, announced reforms to the LS9 and LS10 codes within the Queensland Code of Practice. These reforms will allow a lift of 75mm on an ESC equipped vehicle under their owner certification rules so there will be no requirement for an ESC test and certification. In addition, they will increase the overall vehicle lift allowable from 125mm to 150mm for vehicles that have undergone certification to align with other state jurisdictions.

We welcome this intervention by the Minister on this important issue that has a direct impact on tens of thousands of Queensland vehicle owners who have made safe and responsible modifications to their vehicle and we look forward to working with our industry and TMR to ensure safe and compliant vehicles on Queensland roads.

GRAHAM SCUDAMORE-SMITH
President

STUART CHARITY
Executive Director

Queensland 4WD Vehicle Modification Laws

The Australian Automotive Aftermarket Association (AAAA), the nation's peak body representing the 4WD modification industry.

AAAA Policy Position - 19 October 2018

Background:

The following information is provided regarding the AAAA Policy position on the Queensland Code of Practice on Light Vehicle Modifications – LS9 and LS10.

Lower lifts (up to 75 mm):

An uncertified 75mm combined lift (50mm suspension and 25mm tyre) for vehicles equipped with Electronic Stability Control (ESC) is a modest lift that many 4WD owners undertake to ensure that their vehicle is better suited to carry increased weight, tow a boat or caravan and travel to regional and remote areas safely and reliably.

As any 4WD suspension specialist or automotive engineer will attest, a 50mm + 25mm lift is very conservative. Many 4WD owners that undertake a suspension lift of up to 50mm will most likely also change the tyres because most vehicles are sold with urban tyres and if these cars are intended to be driven in rural conditions, larger diameter 'all terrain' tyres will be required. In many circumstances a 75mm combined lift increases the performance and safety of the vehicle and testament to this is the fact that most emergency vehicles have ESC along with 75mm lift modifications.

The NSW Government recently revised their lift laws and maintained that a 75mm lift will continue to be allowed without certification for vehicles with ESC. Victoria also has the same law. We welcome the decision by the Queensland Government to adopt this position into QLD Law for ESC Vehicles.

Higher Lifts (75 mm to 150 mm):

While we certainly welcome the decision by the QLD Government to increase the maximum overall lift allowable from 125 mm to 150 mm (with engineering sign off/certification), we are of the view that two outstanding matters require an open and transparent conversation with industry:

1. Variable Lift Combinations versus Fixed Combinations: Our position is that the lift combination should be appropriate to the specific vehicle make and model and factor in the intended end use of the vehicle. The combination of tyre, suspension and body lift should be designed to ensure that the vehicle maintains ADR compliance and is safe and fit for purpose.

We believe that a 'one size fits all' approach using fixed combination parameters that apply regardless of the vehicle model and circumstances is not appropriate and may negatively impact on vehicle safety outcomes. The certifying engineer is in a position to exercise their expert experience and judgement in this matter: the engineer is able to request additional test evidence and to assess the original vehicle configuration and interrogate the issues relating to the end use of the vehicle. Our view is that the certifying engineer is the qualified individual that should sign off on the vehicle and lift combination as appropriate, compliant, fit for purpose and safe.

We note that the current proposal is for TMR is to sign off on any variable lift combinations centrally. We are concerned about this option as an approval process: we do not expect that this process would occur within a reasonable timeframe and we are unsure what criteria TMR would use to make their decision. Surely the engineer working at the coalface is in a better position to assess what is safe and appropriate than a desk based assessment made by a TMR officer?

2. Test Protocols: We have previously raised concerns about the accessibility of testing facilities, the cost of these tests and finally, the level of testing required. We do note that TMR at the recent industry forum announced that a number of businesses had approached the government indicating their willingness to invest in the equipment required to offer ESC testing facilities in QLD - however our concerns are not restricted to the number and accessibility of service providers.

   A full ESC 'sine with dwell' test takes a week to complete, requires the vehicle to be partially disassembled and requires an investment of approximately $15,000 per vehicle which is clearly cost prohibitive. We also believe that this type of testing is completely inappropriate for the validation of individual vehicles and constitutes regulatory over-reach.

   The AAAA, together with representatives from the suspension industry would like to participate in an open, transparent and mutually respectful conversation about the level of testing and evidence that is appropriate to validate the ongoing compliance and safety of vehicles lifted over 75mm. We don't currently have confidence that higher lifts on ESC vehicles will be able to undertaken in a timely and cost effective manner under the proposed scheme as it stands. The test protocol must be predictable, accessible and appropriate.

Concluding Remarks:

The first priority of our industry is vehicle compliance and safety. If vehicle modification rules are clear and based on common sense, they will operate effectively for the industry, consumers and the government. If the rules are not clear, testing is not accessible, or represents over-reach, then it follows that modifications will be conducted outside of the mainstream professional providers, most of whom are our members. We are an industry that complies with relevant laws and regulations – we do not encourage modifiers or consumers to modify

vehicles to a standard that is outside of the law. If standards are not appropriate, modifications will happen outside of our membership base and outside of our ability to encourage professional standards. AAAA members are part of the solution and not part of the problem.

We request that ongoing discussions with TMR are based on mutual respect and that our industry is recognised as a constructive and integral part of the road safety equation. Industry forums and our ongoing dialogue should respect the TMR role as the regulator and also respect our role as designers of professionally engineered and tested products. We comply with the law, we encourage our customers to comply with the law – but we also expect to be consulted on these regulations in a manner that respects our intent and our expertise.

Australian Automotive Aftermarket Association (AAAA)
Automotive Products Manufacturers & Exporters Council (APMEC)
4WD Industry Council of Australia
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Clayton VIC 3168 Australia
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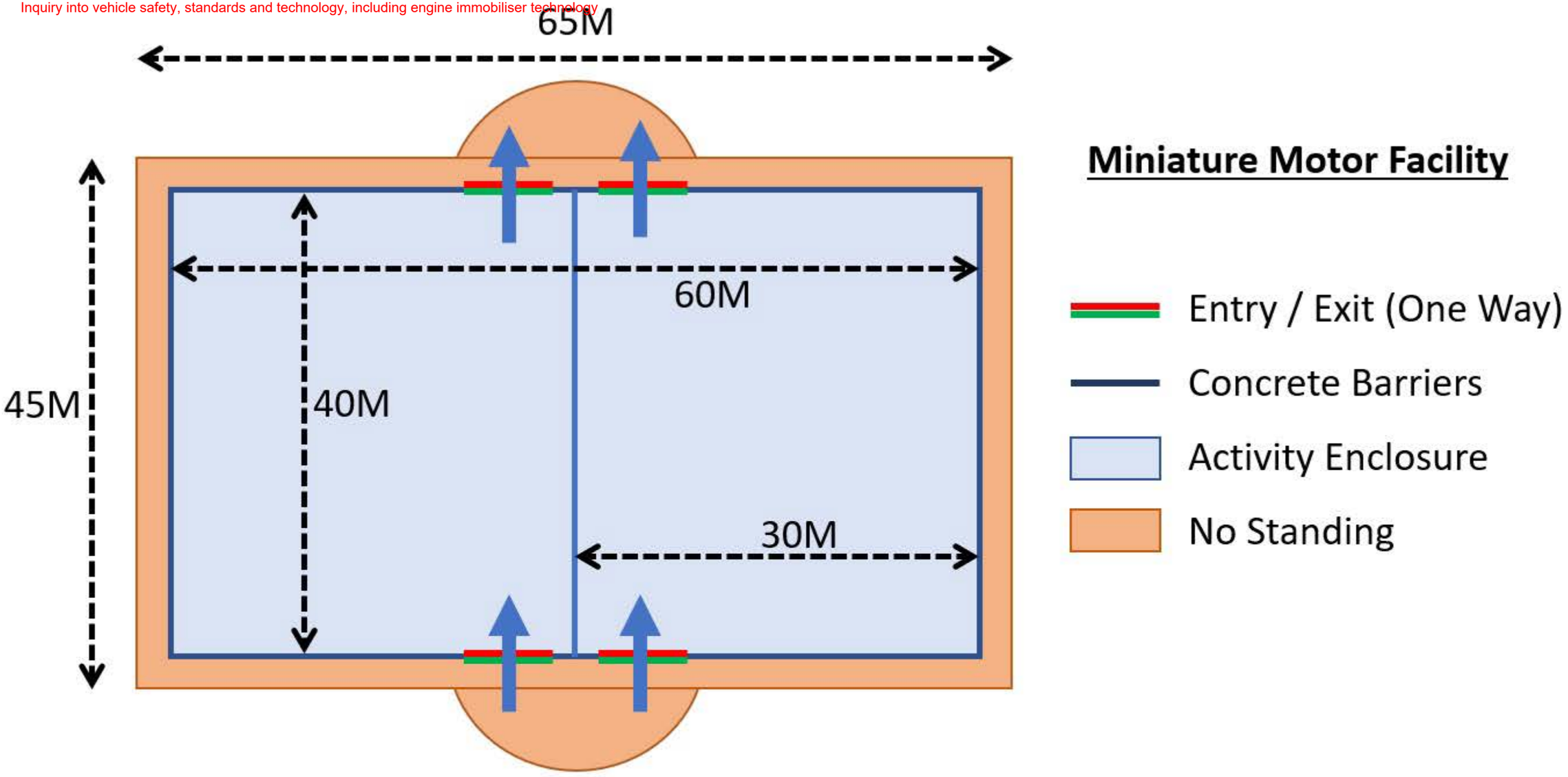
www.aaaa.com.au



Note: Vehicle car park will be located a short distance next to facility, all road rules apply in car park, and roads into / out of the motor facility.
Industrial bins will be located near motor facility, so shredded tires and other rubbish can be disposed without environmental damage.
Solar powered / rechargeable LED lighting positioned in each corner for night visibility.

Community Input

Contact:	Miles Brennan	**Status:**	Approved
Phone:	[redacted]	**Date:**	6 October 2020
Email:	admin@arma.net.au	**Page:**	1 of 8

Queensland 2020 Election Briefing Notes
Motoring Community Input to Address Illegal Hooning

Dear Queensland Political Parties et el,

Background:
In the last 30 years, Queenslanders have lost access to almost 100 recreational motoring facilities, such as speedways, kart tracks, raceways, motorcycle parks, and international raceways. The majority of these motorsport closures are a result of housing developments and population encroaching towards them, and noise complaints putting significant pressure on councils, where some facilities are forced to close, or restriction operational hours. Archerfield speedway and Lakefield raceway are currently under increasing pressure, due the noise from the speedways being a significant complaint by expanding developments and population.

Reference: http://www.speedwayandroadracehistory.com/queensland.html

Australians have a love affair and enjoyment of motorsport and outdoor recreational activities, and while there are many affiliated motoring clubs throughout the Queensland community doing the right thing, there are still people among the population that take it upon themselves to undertake illegal hooning activities in public places, placing themselves and other community members at risk.

In the 2012 Queensland state election, the Newman Government introduced the toughest anti-hooning legislation in Australia as an election commitment, however this was not new development in government legislation and police powers; hooning legislation has been going through the Queensland Government and Queensland Police Service for many years, however illegal hooning is still occurring.

Reference:
https://www.parliament.qld.gov.au/documents/explore/ResearchPublications/ResearchBriefs/2002/2002018.pdf

There will always be people in all sections of the community that do the wrong thing, bringing disrepute upon the community as a whole, and the ever-increasing restrictions and hooning legislation being introduced, is having adverse impacts on the good people in the community who

Community Input

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are doing the right thing – i.e. Queensland Police anti-hooning legislation for illegal modification offence (Type 2) is being used against all motorists who have modifications on their vehicles which are not certified, or are in doubt. If a driver has tyres which are too large and just driving down the road (without driving in any anti-social manner), they will be given a Type 2 hooning ticket for illegal modifications. The Newman hooning legislation was meant to target true anti-social behaviour and those driving in a release manner, however they are being misused on motorists who are driving responsibly and safely, yet they may have a modification on their vehicle which is out of compliance – this in not a hooning issue.

Discussion:
Illegal hooning is dangerous, has the potential to harm innocent people, and is one of the largest complaints by residents across Brisbane. The Queensland motoring communities do not endorse, nor tolerate, illegal hooning by their members, in public, or at their sanctioned events.

However, with the lose of almost 100 recreational motoring facilities across Queensland, this minimises the locations were people can take their motor vehicles and have a drive around a circuit, or use the skid pans to conduct burnouts in a safe location / environment.

One of the most successful, and well-run motoring events in Australia, is Summernats, held in Canberra each year. This activity brings motorists from all parts of Australia to show case their motor vehicles, their industry skills, and the hold a burnout event with hundreds of competitors and vehicles.

Summernats attracts thousands of tourists to Canberra, bringing in excess of $20 million in economic benefit to the ACT economy. It has increasingly been promoted as an event for families. The Summernats spectator attendance record was set in 2017 with 119,184 attendees.

We know that hooning can be conducted safely in the right environment, therefore we suggest the Queensland Government take a different approach to illegal hooning, by providing a safe location for people to actively participate in burnouts and similar events, in locations which are well far enough away from housing and industrial estates, that they don't become a noise issue.

Hooning trial:
We propose the Queensland Government identify several hooning hotspot locations, with the intent to build a miniature motor facility in a nearby quiet location, and is large enough for two burnout pads to be built side-by-side. Each pad would be approximately 40m x 30m and surrounded by

Community Input

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concrete barriers to separate active vehicles on each individual pad, and to also ensure any observers were located behind a concrete barrier in the event a vehicle loses control.

Any motor vehicle entering the motor facility must enter through a designated entry gate, and leave through a second designated exit gate – these gates are to be one-way only. While a motor vehicle is located on the motor facility (between the gates), the drivers are allowed to drive with excess tyre spin, generation of tyre smoke, and high revving engine noise, which is typical of hooning activities.

Vehicles and motorists undertaking hooning activities on the pad, will not be required to comply with TMR / QPS road laws, however driver and occupants must wear seat belts at all times, and remain inside the vehicle. BAC must be 0.00% for any driver entering the motor facility.

QPS are encouraged to attend the motor facility and associated vehicle parking areas, but are discouraged from issuing traffic infringement notices to vehicles and drivers in these locations. In order to trial hooning reform and change poor driving behaviour, motorists should be encouraged to attend the designated motor facility, without fear of being ticketed. However, whilst a vehicle and motorist are transiting to and from the facility and car parking area, then all road rules and police enforcement should apply.

The facilities should also provide a dedicated area for food trucks and mobile eateries to park, as this will provide a more social atmosphere, attracting more social / responsible members of motoring community.

Industrial waste bins should be provided, as some vehicle owners will do continuous burnouts until their tyres are completely shredded, and they the known to remove the tyres from their vehicles and leave them dumped in the bush.

While there may be opposition to setting up such areas which allow people to conduct hooning activities without fear of receiving a traffic infringement or hooning offence from the QPS, it also provides an area of fixed size, where the maximum speed of a vehicle in any direction is restricted much more than that of any public road, this minimises some of the risks related to high speed types of accidents if the participants were illegally hooning in other areas. This type of controlled hooning environment won't be totally without risk, accidents and possibly even deaths, however there would be considerably less vehicle accidents, amount of vehicle damage, and number of deaths than on the open road.

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International gymkhana circuits:
We also propose the Queensland Government build a series of four international level gymkhana circuits and motorsport facilities between Brisbane and Cairns, to encourage growth and further access to motorsports throughout Queensland. There are many motoring groups throughout Queensland who currently undertake gymkhana activities, however the facilities are scarce and too small to generate a state or national based competition.

Building an international level gymkhana circuit based on the European style "Gymkhana GRiD" would allow local motoring clubs to use a circuit which is more suited to their requirements, and also open opportunities for international events to include Queensland as one of the tracks on the international gymkhana circuit. The layout of the circuit is based on an area 300m x 200m = 60,000m2.

While the circuit is not being used exclusively for gymkhana events, the circuit area can be easily re-partitioned into halves or quarters by the use of concrete barrier blocks and a forklift, which would provide several independent motorsport areas for other motoring activities, such as:

- Vehicle skid pans
- Junior motorcycle circuit
- Motor cycle drift circuit
- Motor vehicle drift circuit
- Motorcycle stunt riding
- Motorcycle gymkhana circuit
- Motoring enthusiast meet and great
- Go karting circuit
- Circuit for road based remote controlled vehicles (with raised operator control deck)
- Advanced driver training activities (wet / controlled braking)
- Airstrip for remote control rotary wing aircraft
- Modified vehicle certification testing area

Reference: http://gymkhanagrid.com/

Queensland "Month of Motoring":
If the Queensland Government was to invest in four international gymkhana circuits and motorsport facilities, distributed at locations along the Queensland coast, then with the assistance of the

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motoring communities / automotive aftermarket industries, we could run a "month of motoring" event, were major motoring activities are held at each of the circuits, over four consecutive weekends, drawing visitors, competitors and industry groups into each circuit at a time, as the events move up the coast.

The month of motoring would draw tourism into Queensland and up the coast, and inject millions of dollars into the local economies. As the activity matures, it will draw international competitors and automotive aftermarket groups into the Australian market, through the Queensland activities.

Investing in local motorsport groups, events and tourism, will place Queensland as the leader in Australian motorsport activities and automotive aftermarket opportunities.

Community based policing:
ARMA believes the government should focus more on community-based policing activities, where there is a shared collaboration and respect between the police service and motoring communities. Many of the community-based approaches have been lost over the years, only 20 years ago, off-duty Queensland police officers used to run drag races down at the Gold Coast once a month, in order to provide an outlet for young motoring enthusiasts, and to build a repour between the groups. QPS had their own drag cars they used to race the public.

Western Australian police still run their "Beat the Heat" community engagement event, by meeting and racing young enthusiasts through semi-competitive motorsports, with the goal of reducing the incidence of illegal street racing and associated trauma.

"Beat the Heat" is a USA based program, which has gathered support and moment worldwide, in a hope this style of interaction will bring about changes in attitudes, that will encourage responsible driver behaviours and acceptance of the road rules in the community.

Reference: http://www.beattheheatwa.org.au/

Queensland has a great opportunity to build a program based on "Beat the Heat" (or similar), using all of the motorsport areas to run joint community programs. This would also allow Queensland Police Service to lay out the challenge to all other interstate police services during the Month of Motoring, so see which police service packs the *most heat on the street*.

Community Input

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Recommendations:

Remove "Illegal modifications" as a Type 2 hooning offence, as motorists are being issued with hooning offences when they just driving down the road, not driving dangerously, or displaying anti-social behaviour.

Establish a hooning trial in certain hotspots, by building a series of miniature motor facilities, where people can do burnouts and skids in a controlled environment.

Build a series of international level gymkhana circuits and motorsport facilities between Brisbane and Cairns to promote motorsport, host a Month of Motoring as a major Queensland tourism opportunity, and seek to host some of the international gymkhana events.

Foster community-based policing by allowing off-duty police officers to help co-host events on the motoring facilities, in collaboration with motoring community leaders / groups.

Allow automotive aftermarket manufacturers to also use the motoring facilities for certification testings, such as swerve and brake testing areas.

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Additional transportation issues for review:
Change all QLD traffic lights so the Green light blinks for 3 seconds prior to changing to Amber – this blinking will provide an additional 3 secs for drivers to react to changing traffic conditions, and will provide larger vehicles (such as prime movers) additional stopping distance. Prime movers have ploughed into vehicles at stop lights previously, as they cannot react and stop in the short distances of some of the traffic light-controlled intersections. Making this a standard option on all traffic lights and intersections will provide greater warning and safe stopping distances.

Legalise flashing lights to notify of police presence – it is currently an offence to flash your headlights to warn on-coming motorists there is a police presence ahead. It is natural of any species to warn when there is danger, however when motors flash and warn of police presence, its not from danger, it is so they slow down and help prevent them getting a speeding ticket. There is a greater social and road safety benefit from allowing motorists to flash on-coming traffic, as general motorists who do flash, sometime flash for several kilometres beyond the police presence, meaning many more drivers will tend to slow down if they are speeding. Additionally, if motorists do flash each other without any police presence, then many motorists will slow down, thinking there are police ahead. If the focus on speed cameras / police radars is to reduce speed and not revenue raise, then allowing motorists to flash using their headlights provides a greater opportunity to warn people to slow down, more than the motorist receiving a speeding ticket in the mail 6 weeks after going through a hidden speed trap. We also recommend less unmarked vehicle for road policing command and general duties, and use more marked cars to create more of a police presence.

Convert all lane merging marking into zipper merging – Merging lanes should not be difficult, however, too often is the case that motorists speed up in overtaking and merging lanes and cutting other motorists off, that poor driver behaviour defeats the purpose of having overtaking and merging lanes to start with. We recommend converting all merging lane markings into zipper merging lane markings, so motorists are legally obliged to alternate and let one vehicle in after the other, preventing bad driving behaviour. There will be locations where zipper merging will not be possible, were merging lanes have different speed traffic etc… however, zipper merging should be the default lane merging option for all new traffic projects.

Community Input

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Overhaul TMR's Special Interest Vehicle Registration Scheme (similar to NSW/VIC/SA/WA):

Reference: https://www.whichcar.com.au/news/concessions-for-classics-wa

WA Transport Minister Rita Saffioti grew up with cars like Claude Dalese's Monaro. "We want to cut red tape and see more classic cars out of the garage and on our roads," she says. "The scheme is intended to reduce financial burden on classic vehicle owners and to encourage club membership, while stimulating spending in the automotive industries."

- 90 days general use (personal or club) – at 75% discount to standard registration and CTP insurance fees
- Applicable vehicles (car / truck / motorcycle) are based on rolling 30-year eligibility, and must be a member of an incorporated motor vehicle club
- Motor vehicles classes can comprise of classics, street rods, street machine, light trucks (pickups), modified, 4WDs, or motorcycle
- Not billed annually, rather it will be billed in 90-day blocks – when the 90 days have been used, they purchase another 90-day block of discounted registration
- No special registration plates required, use simple tag which fits on number plates
- Create a mobile phone application, then users sign-in to the TMR application on one of the 90 days they choose to drive the vehicle, then they are "logged on" to drive until midnight.
- No need for clubs to have sanctioned trips, or to worry about ad-hoc / impromptu trips…. As long as they daily credits available from their 90-day block, just log in to application and go.

Queensland Government

Minister for Transport and Main Roads

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16 November 2018

Dear Writer

Thank you for your correspondence to the Honourable Mark Bailey MP, Minister for Transport and Main Roads, about vehicle modifications, specifically vehicle lifts. The Minister has asked that I respond on his behalf.

Recent enforcement activities led by the Queensland Police Service (QPS) which focused on high-lift vehicles, have raised awareness of the legal requirements for modifying four-wheel drive vehicles (4WD) in Queensland. It is important to note that QPS operations have focused on vehicles well outside the current Queensland Code of Practice (QCoP) and National Code of Practice (NCoP) rules.

The Department of Transport and Main Roads (TMR) has been working with 4WD enthusiasts, the automotive industry and road authorities in other jurisdictions to introduce changes to QCoP, which sets rules for vehicle lifts in Queensland.

As a result of consultation, Minister Bailey recently approved changes to QCoP that include allowing the maximum certifiable lift in Queensland to increase from 125 mm to 150 mm, which is consistent with NCoP.

Minister Bailey also approved vehicle owners to raise their vehicles up to 75 mm, for vehicles with electronic stability control (ESC), incorporating a maximum 50 mm suspension and/or 25 mm tyre increase, without certification. This change is in line with the rules that apply in both, New South Wales and Victoria.

TMR is also considering other potential changes to QCoP that were discussed in a forum attended by industry and 4WD groups on Monday 24 September 2018. Feedback from the forum on how best to manage lift requirements for ESC vehicles, including testing to ensure ESC continues to function at increased height, was helpful in clarifying options. TMR is currently considering all testing options including those that were discussed on the day and will be liaising with other jurisdictions to ensure as far as practicable a consistent outcome around Australia that maintains road safety as a first priority.

The changes to QCoP approved by Minister Bailey came into effect on 26 October 2018, and strike a balance between road safety and allowing 4WD enthusiasts flexibility to manage their driving needs appropriately. These documents can be found on TMRs website at www.tmr.qld.gov.au by clicking on (1) ‘Safety’, (2) ‘Vehicle standards and modifications’ and (3) ‘Light vehicles’.

Thank you for your interest in vehicle lifts and I trust this information is of assistance.

Yours sincerely

IAN HUTCHEON
ACTING CHIEF OF STAFF

Queensland Government

Media release

Minister for Transport and Main Roads
The Honourable Mark Bailey MP

20 September 2018

Greater consistency on lift laws for Queensland 4WD Owners

Queensland vehicle lift modification laws will change to be more consistent with other jurisdictions for 4WD motorists across the country after consultation with 4WD groups over the last few months.

Transport and Main Roads Minister Mark Bailey said he was pleased to announce the first major changes for Queensland's 4WD lift laws since the Newman Government lift laws were introduced in 2012.

"Next month we will be changing sections of the Queensland Code of Practice, which governs vehicle lift rules," Mr Bailey said.

"These changes, which follow consultation between my department and industry, will raise the maximum lift certifiable in Queensland from 125mm to 150mm.

"Importantly, this will make Queensland's maximum lift, with certification, consistent with the National Code Practice and other states.

"For vehicles with Electronic Stability Control (ESC), vehicle owners will be able to raise their vehicles up to 75mm (incorporating a maximum of 50mm suspension and 25mm tyre increase) without certification.

"Queensland already allows such a lift for non-ESC equipped vehicles.

"The move to 75mm without certification, for ESC vehicles will ensure consistency with the rules in NSW and Victoria."

Mr Bailey said Transport and Main Roads would continue to consult with industry on other aspects of the code, including how to best maintain ESC functionality.

"Our aim is to balance road safety with allowing 4WD enthusiasts the flexibility to manage their driving needs," he said.

The final version of the new Queensland Code of Practice will be released in October.

For more information, contact Transport and Main Roads on 13 23 80.

ENDS

Vehicle standards information

PUBLISHED 8 NOVEMBER 2013 | REV. 3
Supersedes VSI No. 6 | Rev. 2.1 | 1 November 2007

6

Light vehicle modifications

A guide to modifications requiring certification under the *Vehicle Safety Compliance Certification Scheme*

Purpose

This Vehicle Standards Information (VSI) No. 6 is intended to help vehicle owners and modifiers determine what modifications to vehicles up to and including 4.5 tonnes gross vehicle mass require certification.

Introduction

Vehicle owners sometimes modify their vehicle to give it a distinctive appearance, improve its performance, add features, change the engine, change the suspension, add a long-range fuel tank, or for a combination of reasons. Others modify their vehicles so that they are better suited to a specialised purpose.

Vehicle owners who intend to modify their vehicles need to follow the standards and guidelines that apply to the modification of vehicles for use on roads and/or road-related areas. This will ensure that each completed vehicle is safe for use and that the level of safety afforded by a vehicle to its passengers and other road users is not compromised by any modification/s.

Certification of significant modifications

When modifications to a vehicle are significant, the vehicle will require a compliance certificate issued by a person accredited as a licensed certifier on the Roads and Maritime Services (RMS) Vehicle Safety Compliance Certification Scheme (VSCCS).

To make it clear to vehicle owners and modifiers when a modified vehicle requires a compliance certificate, a new legal document has been developed. The document, the *Vehicle Safety Compliance Certification Scheme Declaration of Modification or Class of Modification Order 2013* (the Order) contains a list of modifications that require certification.

This VSI No. 6 is intended to clarify technical content of the Order. It provides examples and tips when modifying a light vehicle, and will assist you in determining whether your vehicle requires certification. Following these guidelines will assist you in ensuring that your vehicle meets all applicable New South Wales regulations and that its safety levels are maintained.

This VSI No. 6 should be read in conjunction with the Order.

Roads and Maritime Services

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Compliance with vehicle safety standards

VEHICLE STANDARDS LEGISLATION

Vehicles registered in NSW must (unless exempted) meet Schedule 2 of the Road Transport (Vehicle Registration) Regulation 2017, including compliance with the design standards set out in the applicable Australian Design Rules (ADRs). A vehicle that is modified and certified according to the Order must continue to meet the applicable requirements as set out above.

AUSTRALIAN DESIGN RULES

Any modification to a vehicle (whether or not listed in the Order) has the potential to affect one or more ADRs. Unless exempted by RMS (or ADRs do not apply to that vehicle), any modification that affects an applicable ADR will require certification; for example, a pole-mounted information technology (IT) screen is likely to affect one or more ADRs, and if this is the case, a VSCCS certificate will be required for the modification.

CODE OF PRACTICE FOR LIGHT VEHICLE MODIFICATIONS

Vehicle Standards Bulletin (VSB) No.14 *National Code of Practice for Light Vehicle Construction and Modification* outlines the minimum design, construction, installation and performance requirements for modifications to light vehicles, for building individually constructed vehicles (ICVs) and for the certification of certain imported vehicles. Following the guidance provided in VSB 14 will help ensure that work undertaken will meet the standards set down in NSW regulations. Most of the modifications listed in the Order have corresponding practical guidance in VSB No.14.

VSB No.14 is available on the [Commonwealth] Department of Infrastructure and Transport website – see page 18 for contact details.

Does your vehicle modification require certification?

The tables on pages 3 – 16 of this VSI No. 6 list the significant modifications included in the Order, and provide additional information to help determine what modifications require certification. The item numbers in the tables match the item numbers in the Order.

Be aware that while some of the listed modifications apply to specific vehicle types (eg items 49 to 52 apply specifically to motorcycles), the significant modifications shown in the tables may apply to all vehicle types.

Modifications that do not require certification

A vehicle that is modified by incorporating optional components offered by its manufacturer, or otherwise modified so that it continues to comply with the manufacturer's specifications, does not require certification. To check if the modification complies, contact the vehicle manufacturer to determine the vehicle's original specifications and/or options.

Other modifications that do not require certification are:

(a) Replacement of parts or components by identical parts or components.

(b) Replacement parts or components with parts or components with equivalent functional performance.

(c) Optional parts or components as prescribed by the vehicle's manufacturer.

Items (a), (b) and (c) above apply to all of the systems described in the tables on following pages 3 - 16.

Seek advice

The examples of modifications 'requiring' or 'not requiring' certification provided in the following tables do not cover all situations. It is recommended that before undertaking any modification/s to your vehicle, you seek advice regarding the impact they may have on your vehicle's continuing compliance with ADRs and the Regulation. If you have any doubt about whether or not your intended vehicle modification/s may require certification, you should contact RMS Technical Enquiries or a VSCCS licensed certifier for more information – see page 18 for contact details.

Significant modifications requiring certification

ENGINE	
Item	**Modification**
1	An engine that is not of an original family of engine for the series of models, or any engine more than 20% larger than the largest original optional engine for that series. **Examples requiring certification:** • Replacement of 2.0 litre Honda engine with 2.0 litre Mitsubishi engine. • Replacement of 2.0 litre engine with an engine capacity greater than 2.4 litres. **Example not requiring certification:** • Replacement of a 2.0 litre engine with an engine of 2.4 litres capacity or less and from the same vehicle series.
2	Fitting of turbochargers or superchargers not originally offered by the engine or vehicle manufacturer, or increasing the original power output by more than 20%. **Examples requiring certification:** • Fitting a turbocharger/supercharger to any vehicle of a make and model not offered with a turbocharger/supercharger by the manufacturer. • Modifications to a vehicle with a power output of 100 kilowatts, which results in a power output of greater than 120 kilowatts.
3	Conversion to an electric motor or hybrid driveline other than drivelines offered by the first manufacturer as standard or optional. **Example requiring certification:** • Converting a petrol driveline to an electric driveline on any vehicle of a make and model not offered with an electric driveline by the manufacturer. **Example not requiring certification:** • Converting a petrol driveline to an electric driveline, where the manufacturer offers an electric driveline in a variant of that make and model. **Note:** Petrol and hybrid vehicles may have different body designs. If you are going to convert from a petrol to a hybrid driveline and you are modifying the vehicle body, certification is required. **Tip:** Contact the vehicle manufacturer to confirm the original vehicle's optional engines.

ENGINE (continued)	
Item	**Modification**
4	Modification of an electric motor or hybrid driveline resulting in an increase in the maximum power output of more than 20% than offered by the first manufacturer as standard or optional. **Example requiring certification:** • Modifications to a vehicle with a power output of 80 kilowatts which results in a power output greater than 96 kilowatts.
5	Modification to engines and/or exhausts that impacts* the emissions levels applicable to those ADRs specified for the vehicle. * 'impacts' means an increase in emissions levels specified in the ADRs. **Examples requiring certification:** • Fitting non-original valve train components. • Fitting non-original or non equivalent carburettors or fuel injection equipment. • Removal of bypass or emission control equipment including exhaust gas recirculation (EGR), positive crankcase ventilation (PCV), catalytic convertors, engine management sensors. • Fitting non-original or non-equivalent air intake manifolds. • Replacing original engine control unit. **Note:** Fitting pressure relief valves or other devices that vent directly to atmosphere is not allowed. **Examples not requiring certification:** • Alternative exhaust systems that retain the original or equivalent emission control equipment eg headers, mufflers, complete exhaust systems. • Alternative engine intake and filtration systems that retain the original emission control equipment eg replacement filter elements/assemblies, intercoolers, cold air intakes, snorkels. • Oil separation systems where no part of the PVC system vents to atmosphere. **Note:** If non-original components such as camshafts, carburettors or engine control modules (ECM) are fitted in an ADR emissions complying vehicle, it must be demonstrated that emission levels are retained. **Tip:** To confirm vehicle emissions are within acceptable standards certifiers may require RMS emissions testing. These are conducted free of charge at RMS Heavy Vehicle Inspection Station (HVIS) Botany or Penrith – contact the RMS HVIS on 1300 364 847 to make a booking. Alternatively, a 4 or 5 gas analyser test may be conducted at a vehicle repairer.

TRANSMISSION AND DRIVELINE

Item	Modification
6	Fitting of any manual or automatic transmission or transaxle which does not fit within the original transmission tunnel and also bolts directly to the engine, original transmission mounting(s) and original tailshaft and/or driveshafts. **Example requiring certification:** • Fitting a manual or automatic transmission and/or transaxle which requires modification of the floor or the cross-members of the vehicle in any way. **Example not requiring certification**: • Fitting a manual or automatic transmission and/or transaxle which fits within the original transmission tunnel and bolts to the engine directly, or by the use of an adapter plate.
7	Alterations of gearbox speedometer drive ratio or final drive gear ratio if speedometer accuracy is affected. **Example requiring certification:** • Fitting a 3.45 ratio differential into a vehicle originally fitted with a 2.77 ratio differential. **Examples not requiring certification:** • Alteration of gearbox ratio if final drive ratio not affected. • Where speed sensing is independent of driveline. • Where change of final drive ratio includes speedometer correction device or matching speedometer drive and driven gears. **Tip:** To confirm the vehicle's speedometer is accurate, an accuracy test should be conducted.
8	Fitting of any drive axle assembly (including differential and brakes) from a different make or model vehicle. **Example requiring certification:** • Fitting a Ford 9 inch differential into a Commodore. **Example not requiring certification:** • Fitting aftermarket internal drive axle components eg differential locks.
9	Any modification to transmission/driveline involving fabrication of components. **Example requiring certification:** • *Any* modification to the transmission or driveline of a vehicle which involves the fabrication of components such as mounting cross-members and/or structural components. **Examples not requiring certification:** • Non structural transmission or driveline components that have been fabricated eg transmission sump, cooling system, oil cooler. • External reinforcements eg driveline braces or stiffeners, driveshaft hoops.

TRANSMISSION AND DRIVELINE (continued)	
Item	**Modification**
10	Addition of axles (eg 'lazy' axle conversions and tandem drive conversions). **Example requiring certification:** • Fitting an additional rear axle (dual rear axles) to a single rear axle ute.

STEERING	
Item	**Modification**
11	Any modification to the steering involving fabrication of components, modification of mountings, or fitting steering components not original for the vehicle series. **Examples requiring certification:** • Modification of steering system with fabricated components. • Fabrication or modifications to steering components and/or mountings. • Conversion from steering box to steering rack. **Examples not requiring certification:** • Fitting a bolt-on uprated steering damper. • Replacement of vehicle's steering components with aftermarket components designed for the same make and model. **Notes regarding vehicles modified for persons with disabilities:** • Steering aids (excluding spinner knobs), or other modifications that assist persons with disabilities require certification. • If any modification (eg installation of a spinner knob) affects supplementary restraint systems, or any ADRs are affected, the vehicle will require a written exemption from RMS. **Tips:** • Refer to VSI No.21 *Vehicles modified for people with disabilities* for more information. • Contact RMS Technical Enquiries for information regarding exemptions.

SUSPENSION

Item	Modification
12	Altering vehicle ride height by more than one third of the manufacturer's suspension travel in the direction of the ride height change. **Examples requiring certification:** • Conversion from coil to leaf springs. • Any modification to the suspension configuration. • Fitting a suspension of a different design eg from a different make and model (eg from coil springs to leaf springs). • Fabrication of suspension mounting points. **Examples not requiring certification:** • Modification of suspension with components or parts which meet or exceed the original vehicle manufacturer's specifications. • Fitting uprated roll (sway) bars, shock absorbers, springs, struts or manufacturer's options for that particular year make and model.

WHEELS AND TYRES

Item	Modification
13	Replacement of tyres that change tyre overall diameter by more than 7% of the overall original diameter*. * 'overall original diameter' means the maximum outside diameter of the largest tyre specified by the vehicle's original manufacturer as an option for the vehicle, as shown on the vehicle's tyre placard. **Example requiring certification:** • Replacing 215/65R17 (712 mm overall diameter) tyres with 265/65R17 (776 mm overall diameter) tyres, an increase in overall diameter of 64 mm, or 8%. **Example not requiring certification:** • Replacing 215/65R17 (712 mm overall diameter) tyres with 235/65R17 (738 mm overall diameter) tyres, an increase in overall diameter of 26 mm, or 4%. **Tip:** To determine if the tyres you have selected require certification you need to look at the tyre placard fitted to the vehicle by the manufacturer. Sometimes the tyre placard will show more than one tyre size, allowing optional tyres of that size to be fitted. If one of the tyre sizes marked on the placard (eg 215/65R17) matches the marking on the tyre sidewalls, certification is not required.

WHEELS AND TYRES (continued)	
Item	**Modification**
14	Replacement of wheels where the rim width exceeds the largest wheel combination specified by the manufacturer by greater than 25 mm. **Example requiring certification:** • Fitting a wheel with a width of greater than 225 mm, when the greatest wheel width specified by the manufacturer is 195 mm. **Example not requiring certification:** • Fitting a wheel with a width of 205 mm, when the greatest wheel width specified by the manufacturer is 195 mm. **Tip:** Refer to VSI No.9 *Guidelines for alternative wheels and tyres* for more information.
15	Replacement of wheels and tyres where the wheel and tyre combination does not comply with the manufacturer's minimum load carrying capacity specifications. **Example requiring certification:** • Fitting car tyres to a van or any goods-carrying vehicle for which 'light truck' rated tyres are specified. **Tip:** The manufacturer's minimum load carrying specifications will be detailed on the tyre placard fitted to the vehicle.

BRAKES	
Item	**Modification**
16	Fitting of disc or drum brakes that are not a manufacturer's option for that series. **Example requiring certification:** • Replacement of front-wheel drum brakes with disc brakes on a vehicle not optioned with front disc brakes by the manufacturer eg fitting disc brakes from a VT model Commodore to a base model LC Torana originally fitted with drum front brakes. **Example not requiring certification:** • Replacement of front-wheel drum brakes with disc brakes on a vehicle available from the manufacturer with front disc brakes as an option where all the parts from that option are fitted eg fitting a base model LC Torana which has drum front brakes with the disc front brakes originally supplied to the GTR model LC Torana.

BRAKES (continued)	
Item	**Modification**
17	Substitution of brake master cylinders, wheel cylinders, callipers and other components with components not equivalent to original for the braking system configuration. **Examples requiring certification:** • Replacing a single master cylinder on a dual circuit brake system with a twin master cylinder from a single circuit brake system, or vice versa. • Fitting part, or all of, the braking system from a VB Commodore to an EH model Holden. • Replacing single-piston callipers with multiple-piston callipers. • Fitting a master cylinder that is not an original option for that vehicle.
18	Fitting or modification of brake balance and pressure limiting devices not equivalent to original for the braking system configuration. **Examples requiring certification:** • Modifying or removing brake balance and limiting devices eg brake proportioning valves fitted by the manufacturer. • Replacing brake balance and limiting devices fitted by the manufacturer with devices which do not meet the manufacturer's original specifications. **Example not requiring certification:** • Replacing brake balance and limiting devices with devices which meet the manufacturer's original specifications.
19	Relocation of the brake pedal position for left-hand or right-hand drive or fitting of an additional brake pedal. **Examples requiring certification:** • Relocation of brake controls for a left-hand drive to right-hand drive, or fitting an additional brake pedal or control. • Fitting dual controls. **Note:** Converting a right-hand drive vehicle to left-hand drive is not allowed.
20	Fitting or modification of trailer brakes to trailers. **Example requiring certification:** • Fitting or modifying brakes on commercially available, ie proprietary branded, manufactured trailers. **Example not requiring certification:** • Fitting or modifying brakes on home-made trailers not exceeding 4.5 tonne aggregate trailer mass (ATM) that are built to the requirements of VSB No.1. **Tip:** In addition to VSB No.14, refer to VSB No.1 *Building small trailers* for information regarding construction of trailers not exceeding 4.5 tonnes aggregate trailer mass (ATM).

BODY AND CHASSIS

Item	Modification
21	Fitting wheel tubs where the modification(s) involve the alteration or movement of structural members, subframe or chassis sections. **Examples requiring certification:** • Fitting wheel tubs where the modification involves the alteration or movement of structural members, subframe or chassis sections. • Fitting wheel tubs where the modification involves removal of chassis cross-members. • Fitting wheel tubs where the modification involves removal of a section of the floor in a monocoque-type vehicle. • Fitting wheel tubs where the modification involves cutting, notching, extending or shortening the chassis. **Example not requiring certification:** • Fitting wheel tubs where structural modification of the vehicle is not required.
22	Fitting of fibreglass body panels where the original panels were welded on or where structural integrity is affected. **Examples requiring certification:** • Fitting fibreglass body panels where the original panels were welded on. • Fitting fibreglass body panels causing any change to the structure or the body of the vehicle. **Example not requiring certification:** • Replacing original bolt-on mudguards, bonnet, or boot lid with identical fibreglass panels.
23	Change of body style (eg convertible conversions; panel vans to utilities; sedans to coupes and 'tudors'; 'chop top' conversions; and tilt front conversions) or changes to body that affect structure. **Example requiring certification:** • Conversion from a sedan or a coupe to a convertible. **Example not requiring certification:** • Fitting a fibreglass canopy on the back of a ute where the original structure is unaltered.
24	Extension of cabins with additional seating (eg crew cabin). **Example requiring certification:** • Extending the cabin of a Toyota Hilux single-cab ute and fitting a second row of seats. **Note:** A cabin is a safety structure and you cannot change it without affecting the structure of the vehicle.

BODY AND CHASSIS (continued)	
Item	**Modification**
25	Replacement of vehicle bodies (eg re-bodied vehicles). **Example requiring certification:** • Replacing the body of a monocoque constructed vehicle. **Example not requiring certification:** • Replacing the body of a vehicle that has a full chassis with a 'like for like' body.
26	Reinforcement of the chassis (eg boxing chassis or fitting ¾ chassis/body reinforcing kits). **Example requiring certification:** • Fitting additional structural members to a chassis. **Example not requiring certification:** • Fitting a strut tower brace.
27	Structural alterations to vehicle chassis that result in a change to the manufacturer's wheelbase specifications, notwithstanding normal suspension travel. **Examples requiring certification:** • Chassis modifications that alter the vehicles wheelbase. • Fabrication of suspension mounting points. **Example not requiring certification:** • Alterations of a vehicle's original wheelbase due to suspension travel.
28	Installation of a sun roof (that is not fitted by a manufacturer) where it affects the vehicle's structural integrity. **Example requiring certification:** • Fitting a sunroof where it is necessary to remove or modify a section of roof reinforcing. **Example not requiring certification:** • Fitting a sunroof where the roof structure is not affected.
29	Fitting of an alternative transmission tunnel or modification to an existing transmission tunnel, resulting in a configuration not originally optional for the series or equivalent. **Example requiring certification:** • Replacing the transmission tunnel to fit a manual or automatic transmission and/or transaxle.

BODY AND CHASSIS (continued)	
Item	**Modification**
30	Conversion of a vehicle to campervan/motorhome. **Example requiring certification:** • Conversion of a bus or ute to a motorhome by structural modifications or modifications that affect the vehicle's ADR category. **Example not requiring certification:** • Slide-on campers attached to tray bodies or utes. **Note:** 1. Structural modifications may include; a 'pop-top' roof, and cabin modifications. 2. Campervans and motorhomes converted prior to first registration require Federal approval which is known as 'second stage compliance'.
31	Attachment of tow coupling (including fifth wheel type) and fittings that are not certified as ADR compliant by the tow coupling manufacturer (where applicable) or the fitting of any tow coupling not attached to vehicle manufacturer's original mountings. **Examples requiring certification:** • Fitting a tow coupling or fifth wheel coupling to mounting points not specified for that purpose by the vehicle's manufacturer. **Example not requiring certification:** • Fitting an aftermarket towbar or fifth wheel coupling designed for that make and model and installed to the vehicle manufacturer's specifications. **Note:** Tow couplings and fittings are certified by their manufacturer and a plate will be positioned on the towbar that indicates this.
32	A-frame towing equipment. **Example requiring certification:** • Fitting A-frame towing equipment. **Tip:** Refer to VSI No.41 *Guidelines for A-frame towing* for more information.
33	Fitting of body mountings, a body lift kit or mounting points other than those designed by the vehicle manufacturer. **Example not requiring certification:** • Fitting optional body lift kits or mountings that are designed for that make and model of vehicle and meet or exceed manufacturer's specifications.

BODY AND CHASSIS (continued)	
Item	**Modification**
34	Installation of powered goods loading device. **Example requiring certification:** • Fitting any powered goods loading device if cutting or welding of the chassis is required, or if the vehicle structure will be altered. **Example not requiring certification:** • Fitting a powered hoist to a vehicle provided it does not require cutting or welding of the chassis, or alters the vehicle's structure. **Note:** 1. The vehicle manufacturer, and the manufacturer of the loading device, should be consulted and their recommendations on special mounting requirements obtained before a loading device is installed. 2. If considering drilling a vehicle's chassis, first check with the vehicle's manufacturer to determine if this is acceptable for the particular vehicle.
35	Construction and or modification of a tow truck including lift equipment and tilt tray. **Examples not requiring certification:** • Modification of lift equipment not requiring modifications to the chassis or cross members. • Modifications that don't have an effect on the lift capacity. **Note:** A tow truck assessment form must be completed and submitted if the tow truck is fitted with a partial lift device. Contact RMS Technical Enquiries on 1300 137 302 for more information.
36	Replacement of tow truck lifting components with specifications differing from original manufacturer. **Example requiring certification:** • Replacement of lifting components with components of specifications that are different from those specified by the original manufacturer. This equipment must be certified or re-certified.
37	Design and capabilities of a tow truck including testing/certifying and rating of lifting/towing components. **Example requiring certification:** • Modifications which affect the design and capabilities of a tow truck, including testing/certifying and rating of lifting/towing components. This equipment must be certified or re-certified.

BODY AND CHASSIS (continued)	
Item	**Modification**
38	Installation of wheelchair loader. **Example requiring certification:** • Fitting a wheelchair loader which requires modifications to, or interferes with, the design of the vehicle and its structural members, doors and/or emergency exits. **Note**: Wheelchair loaders must comply with *AS/NZS 385.Parts 1 and 2 - Hoists and ramps for people with disabilities - vehicle mounted.*
39	Change in seating capacity resulting in re-classification of the vehicle category. **Examples requiring certification:** • Altering the seating capacity of a bus from 14 seats to 12 seats. • Conversion of a panel van into a small bus or a 'people mover'.

SEATS AND OCCUPANT PROTECTION

Vehicle manufacturers achieve a high level of vehicle safety by ensuring that the fitting of seats, seat mountings, seat belts and seat belt mountings meet the requirements of the Australian Design Rules (ADRs). Any modifications to these key safety components will require certification to ensure compliance with the ADRs is not compromised.

Item	Modification
40	Fitting of seats to non-original seat anchorages. **Example requiring certification:** • Fitting seats using anchorages not originally supplied by the manufacturer.
41	Fitting of seats to original anchorages that are ADR compliant, where the seats are not ADR compliant to the make and model of the vehicle. **Example requiring certification:** • Fitting non-ADR compliant seats to original ADR compliant anchorages.
42	Fitting of or alterations to seat anchorages or seat belt anchorages. **Examples requiring certification:** • Any modifications to seat anchorages or seat belt anchorages. • Any modification to seat belt location.

SEATS AND OCCUPANT PROTECTION (continued)	
Item	**Modification**
43	Fitting of a non-original seat belt. **Example requiring certification:** • Replacing a 'lap-only' type seat belt with a 'lap-sash' type seat belt. **Example not requiring certification:** • Fitting an alternate or optional complying aftermarket seat belt for that vehicle series.
44	Mounting of seat belt anchorages integrally on a seat where that anchorage is not originally provided by the manufacturer. **Example requiring certification:** • Replacement of a floor-mounted seat belt with a seat-mounted seat belt.
45	Roll bar installations. **Example requiring certification:** • Installation of a roll bar which interferes with seat belt or child restraint anchorages, curtain airbags or any secondary restraint system, or impinges on the head impact area, the entry and exit to the vehicle, or visibility.
46	Wheelchair restraint and wheelchair occupant restraint installations. **Example requiring certification:** • Installation of wheelchair restraints and wheelchair occupant restraints. **Tip:** Refer to VSI No.21 *Vehicles modified for people with disabilities* for more information.

FUEL SYSTEM	
Item	**Modification**
47	Fuel system modifications affecting emission ADRs. **Example requiring certification:** • Modifications that change a vehicle's fuel system or components from its original design. **Example not requiring certification:** • Conversion from petrol to LPG, natural gas or dual fuel by an approved gas installer. **Tip:** To confirm vehicle emissions are within acceptable standards certifiers may require RMS emissions testing. These are conducted free of charge at RMS Heavy Vehicle Inspection Station (HVIS) Botany or Penrith – contact the RMS HVIS on 1300 364 847 to make a booking. Alternatively, a 4 or 5 gas analyser test may be conducted at a vehicle repairer.

FUEL SYSTEM (continued)	
Item	**Modification**
48	Fitting/adding an alternative fuel tank or repositioning an existing fuel tank to non-original mounting points. **Example requiring certification:** • Fitting an alternative fuel tank or repositioning of an existing fuel tank to non-original mounting points. **Example not requiring certification:** • Fitting a replacement fuel tank of equal capacity using the original manufacturer's mounting points.

MOTOR CYCLES	
Item	**Modification**
49	Fitting of or modification to front forks other than those provided by the manufacturer. **Examples requiring certification:** • Conversion from telescopic forks to leading link forks. • Extensions to front forks. **Examples not requiring certification:** • Replacement or modification of the front forks with forks of equivalent performance to those specified by the manufacturer. • Modification to the spring and dampening rate at which the shock absorbers perform.
50	Addition of a side-car and associated modifications. **Example requiring certification:** • Fitting a side-car and associated modifications.
51	Modify frame. **Example requiring certification:** • Structural modifications to the frame of a motor cycle. **Example not requiring certification:** • Relocation of the foot pegs without structural modifications.
52	Attachment of tow coupling and fittings other than those provided by the original manufacturer. **Example not requiring certification:** • Fitting a towbar to manufacturer's specifications. **Note:** Tow couplings and fittings are certified by their manufacturer and a plate will be positioned on the towbar that indicates this.

Additional information for light vehicle modifications

Australian Design Rules (ADRs)

The ADRs are a series of vehicle construction and performance requirements that have been prepared for the purpose of:

- Reducing the possibility of accidents occurring, through such measures as improved lights and signals, windscreen washers, wipers and demisters, safety rims and rear vision mirrors.
- Mitigating the effects of accidents that do occur, through such measures as seat belts, air bags, energy absorbing steering columns and instrument panels, anti-burst door latches and head restraints.
- Reducing the undesirable effects of motor vehicles on the environment by limiting the noise and pollutants emitted.

In New South Wales, the Road Transport (Vehicle Registration) Regulation 2017 requires that vehicles manufactured after particular dates meet the requirements of relevant ADRs and continue to comply with those ADRs or later versions of those ADRs.

ADRs are administered by the [Commonwealth] Department of Infrastructure and Transport – see page 18 for contact details.

Road Transport (Vehicle Registration) Regulation 2017 (the Regulation)

Schedule 2 of the Regulation sets standards for the construction and performance of motor vehicles, trailers and combinations that are registered for use on roads or road-related areas in NSW.

The standards set by Schedule 2 are intended to:

- Promote, throughout the life of motor vehicles, trailers and combinations, their safe use and efficiency and protection of the environment.
- Reduce the cost of transport administration.

The Regulation is issued under NSW legislation – see page 18 for contact details.

Vehicle Safety Compliance Certification Declaration of Modification or Class of Modification Order 2013 (the Order)

This document declares what modifications, or classes of modifications to a vehicle, are deemed to be modifications which:

- May pose a risk of harm to any person or affect the safe operation of a vehicle.
- To which Part 5 of the Road Transport (Vehicle Registration) Regulation 2017 applies.

The Order is published in the NSW Government Gazette – see page 18 for contact details.

FURTHER INFORMATION

Roads and Maritime Services (RMS)
www.rms.nsw.gov.au | T 13 22 13 for details of your nearest motor registry

- VSI No. 9 *Guidelines for alternative wheels and tyres*
- VSI No. 21 *Vehicles modified for people with disabilities*
- VSI No. 41 *Guidelines for A-frame towing*

RMS Technical Enquiries
PO Box 1120, Parramatta NSW 2124
E tech-enq@rms.nsw.gov.au | T 1300 137 302 | F (02) 8837 0037

- Vehicle construction and registration requirements in NSW
- Tow truck assessment form

RMS Vehicle Safety Compliance Certification Scheme (VSCCS)
www.rms.nsw.gov.au/vsccs | E vsccs@rms.nsw.gov.au | T 1300 336 206

- VSCCS Bulletin No.1 *Licensed certifiers*
- VSCCS Bulletin No.2 *Modified or individually constructed vehicles - means to demonstrate compliance with Third Edition Australian Design Rules*
- VSCCS information and/or feedback

New South Wales Legislation
www.legislation.nsw.gov.au | T 02 9321 3333

- Road Transport (Vehicle Registration) Regulation 2017

New South Wales Government Contact Centre
www.nsw.gov.au/gazette/index | T 133 679

- NSW Government Gazette

Department of Infrastructure and Transport
GPO Box 594 Canberra ACT 2601
www.infrastructure.gov.au | T (02) 6274 7111

- VSB No. 1 *National Code of Practice – Building Small Trailers*
- VSB No. 14 *National Code of Practice for Light Vehicle Construction and Modification*
- Australian Design Rules

Transport Roads & Maritime Services

Vehicle standards information No. 9

Guidelines for alternative wheels and tyres

Purpose

This Vehicle Standards Information (VSI) No. 9 is intended to provide vehicle owners, operators and licensed certifiers with guidelines for fitting alternative wheels and/or tyres to those supplied as original equipment by the vehicle's manufacturer.

This VSI No. 9 applies to light vehicles up to and including 4.5 tonnes gross vehicle mass (GVM).

Introduction

Fitting the correct wheels and tyres is vital to your vehicle's safety. Since 1971, strict design standards have been progressively introduced to specify safer wheel rims, tyre strength, air pressures, speed ratings, and allowable combinations of wheel and tyre sizes.

Tyres fitted to your vehicle must meet the construction standards set out in Australian Design Rules (ADR) 23. In addition to complying with ADRs, vehicles registered in NSW must be fitted with wheels and tyres that conform to dimensional standards specified in the Tyre and Rim Association of Australia's latest annual '*Standards Manual'* publications, and meet other applicable rules of the Road Transport (Vehicle Registration) Regulation 2017.

All vehicles manufactured since 1973 are fitted with a tyre placard, usually located in the glove box, the engine bay or on a door pillar. It specifies the wheel and tyre combinations recommended by the manufacturer, and the tyre's load capacity, speed rating and recommended inflation air pressure.

Changes to your vehicle's wheels and tyres can alter its behaviour on the road so there are limits to the changes that are permitted. This VSI specifies these limits but it is still your responsibility to ensure your vehicle remains safe to drive. Significant modifications to your vehicle's wheels and tyres need to be assessed and certified by a licensed certifier to ensure your vehicle still complies with applicable NSW vehicle standards. Refer to page 6 for more information. If you are unsure about how a proposed change might affect your vehicle or if it is a significant modification, you should consult a licensed certifier. Refer to page 6 for more information.

If the alterations go beyond the guidelines outlined in this VSI, you could be stopped by police and issued with a fine and a defect notice for your vehicle. Non-standard modifications can also be detected at a routine vehicle safety-check inspection, sometimes called a 'pink slip'. This may cause your vehicle to fail the inspection.

It is also advisable that you check with your vehicle's manufacturer and your insurance company before changing your wheels or tyres outside the limits set by the tyre placard, as it might invalidate the manufacturer's warranty and void your insurance cover.

Wheels

REQUIREMENTS FOR ALTERNATIVE WHEELS

When alternative wheels and tyres are fitted to a vehicle, the following requirements must be met:

- You must not fit wheels with rim widths less than the minimum width fitted by the vehicle manufacturer for the particular model.
- The alternative wheel must not increase wheel track of passenger cars (or derivatives) by more than 25 mm beyond the maximum specified by the vehicle manufacturer. The wheel track of off-road four wheel drive vehicles and goods vehicles (MC, NA, or NB ADR category) must not be increased by more than 50mm beyond the maximum specified by the vehicle manufacturer for the particular model.
- Where non-original axle or suspension components are fitted, the wheel offset in relation to the axle or stub axle assembly used shall not be increased by more than 12.5 mm each side of the vehicle based on the specifications for the axle components.
- The wheel and tyre must be contained within the bodywork or mudguards, including any flares, when the wheels are aligned straight. The wheel and tyre must not contact any part of the body or suspension under all operating conditions, including when the front wheels are steered to full lock with the suspension fully compressed.
- All wheels fitted to an axle must be of the same construction, diameter, offset, width and mounting configuration, except for spare wheels used in an emergency situation. The wheel must not prevent the wheel nuts from fully engaging their studs.
- The wheel rim must not have a circumferential weld other than that which attaches the rim to the wheel centre.
- The wheel must be designed for the particular hub/axle in respect to bolt pitch circle diameter and wheel nut tapers. Wheels with slotted stud holes must not be used.
- Speedometer accuracy must be maintained and adjusted where necessary.
- Wheel spacers or adaptors must not be used for wheel conversions between the wheel mounting face and the wheels unless fitted as original equipment by the vehicle manufacturer.

Some modifications may require certification by a licensed certifier to ensure your vehicle still complies with applicable NSW vehicle standards. Refer to page 6 for more information.

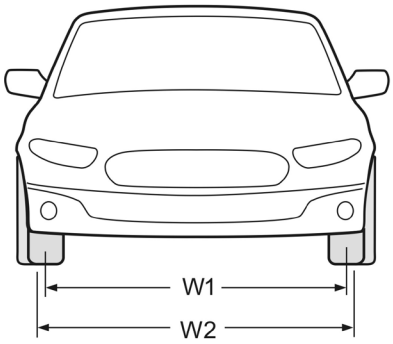
VEHICLES WITH DIAGONALLY SPLIT BRAKE SYSTEMS

Except where the original manufacturer allows, front and rear wheel widths must be the same. The front wheel offset and front wheel track must remain as original.

WHEEL TRACK AND WHEEL OFFSET

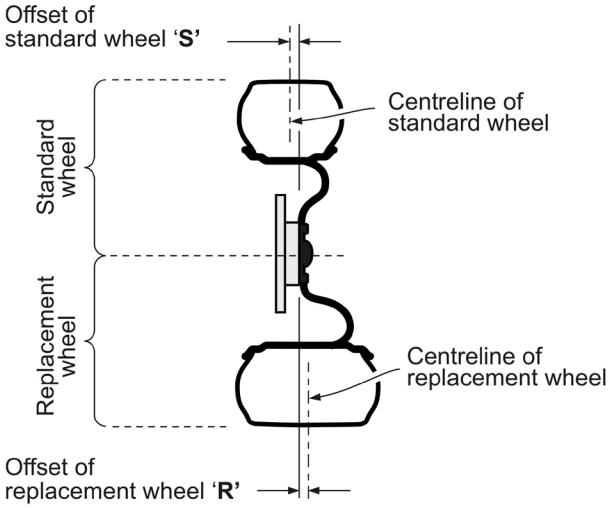
- **Wheel track** is the distance between wheels on the same axle, measured between the rim centrelines. Usually, a vehicle's front and rear wheel tracks are different.
- **Wheel offset** is the distance between the centreline of the wheel and the hub mounting surface.
- If you fit wider wheels you will probably increase the wheel track, and this is usually associated with a change in wheel offset, increasing the loads on bearings, axles, suspension joints and steering tie rods.
- Wheel offset must not exceed the limits set by the vehicle manufacturer.

FIGURE 1: WHEEL TRACK AND WHEEL OFFSET



W1: Wheeltrack with standard wheels

W2: Wheeltrack with wider wheels fitted



In this example, the change in offset is 'S' + 'R'

Tyres

Never mix tyre types or sizes on an axle, unless when using an emergency spare tyre. Never mix radial tyres (where the cord plies are arranged 90° to the direction of travel) with cross-ply tyres (where the cord plies are arranged in a criss-cross pattern) on one axle. If you have only two radial tyres, they must be fitted to the rear wheels.

All road tyres must have tread patterns to assist with expelling moisture on the road surface so that adhesion and traction are maintained in wet conditions. However, they must not have cleats or other hard gripping devices that could damage road surfaces.

Some tyres have directional tread patterns. They have arrows on the side walls showing the direction they are designed to rotate and the tread patterns generally form a 'v' point shape. Directional tyres can be swapped between the front and rear axles, but on one side only.

Some tyres have symmetrical tread patterns. They have the same patterns on both the outer and inner tread. These tyres can be fitted in any direction and can be swapped to either side of the front and rear axles.

Some tyres have asymmetrical tread patterns. They have different patterns on the outer and inner tread. The outer tread usually has larger grooves for better water dispersion and increased wet handling while the inner tread usually has smaller grooves to increase contact area and improve grip. These tyres can be fitted in any direction, and can be swapped to any sides of the front and rear axles, but the tyre side walls marked 'Outside' must always face outwards.

Ensure you check the manufacturer's directions on using the tyres fitted to your vehicle correctly.

Any damaged tyre including the spare tyre should be repaired or replaced immediately.

If you require more technical information about your tyres refer to the Tyre and Rim Association of Australia's latest annual '*Standards Manual'* publications.

TYRE LOAD RATING

All replacement tyres must have a load rating equal to or higher than the rating of the original tyres fitted by the vehicle manufacturer. This information is available from the tyre placard or the vehicle manufacturer.

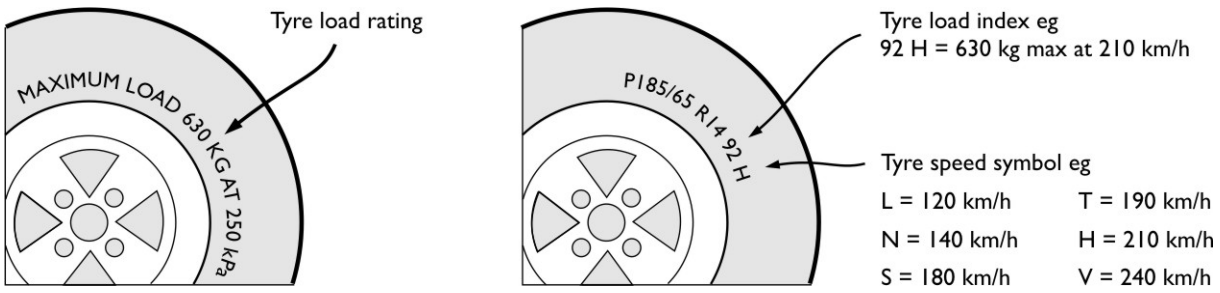
The tyres themselves must have the following markings where applicable to the type of tyre:

- Manufacturer's name or mark
- Tyre designation, for example "P" for passenger car tyres

- Tyre size in combination of metric and imperial numbers, for example 205/55 R16, refers to tyre width of 205mm, tyre height to width ratio, or aspect ratio of 55%, and rim outer diameter of 16 inches.
- Tyre construction information, for example “R” for radial-ply tyres
- Tyre speed rating symbol, for example “V” for a maximum speed up to 240km/h
- The load capacity index, for example “62” refers to a maximum mass of 265kg the tyre can carry
- The date of manufacture , for example “3015” refers to week 30 of the year 2015
- The letters “M+S”, “M.S” or “M&S” for a snow tyre
- The symbol  for a winter tyre
- The word "TUBELESS" if the tyre is designed for use without an inner tube
- The word "REINFORCED" or the words "EXTRA LOAD" if the tyre is a reinforced tyre designed for heavier loads compared to a standard tyre of the same size
- The words "TEMPORARY USE ONLY" in the case of temporary use spare tyres
- A run flat symbol or the letters “SSR” if the tyre is a "run flat" or "self-supporting" tyre.

The markings must be on both side walls in the case of symmetrical tyres, and at least on the outer side wall in the case of asymmetrical tyres. An example of basic tyre markings is shown in Figure 2.

FIGURE 2: TYRE MARKING

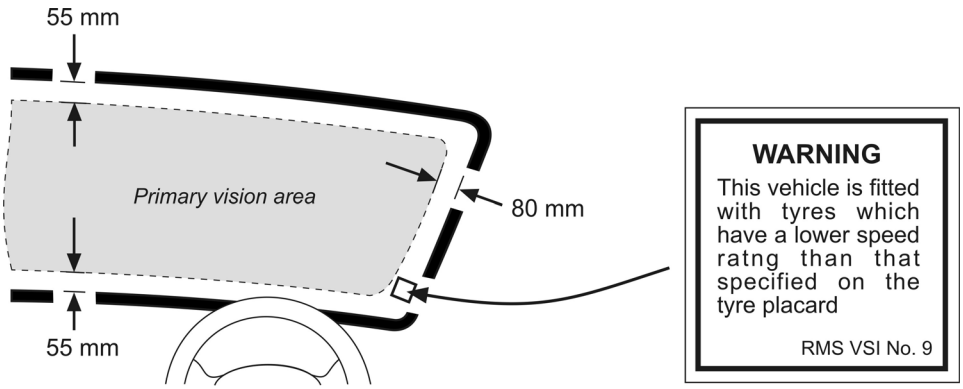


TYRE SPEED RATING

The speed rating of tyres fitted should be equal to or higher than the rating of the original tyres fitted by the vehicle manufacturer. However:

- If the speed rating of the tyres specified for your vehicle is higher than 180 km/h, you may fit tyres with a lower speed rating, but not lower than the vehicle’s top speed
- If the replacement tyres fitted have a speed rating less than that shown on the vehicle’s tyre placard, it is recommended that a warning label be affixed to the vehicle as shown in Figure 3. Usually, the tyre dealer attaches the label.

FIGURE 3: WARNING LABEL



The label should be:

- At least 40 mm x 40 mm in size, made of durable material, with not less than 2 mm high black lettering on an orange coloured background
- Located in an area conspicuous to the driver. This is usually on the inside of the windscreen, outside of the primary vision area. The primary vision section of the screen is the area the driver normally looks through when driving the vehicle.

RETREADED TYRES

The Road Transport (Vehicle Registration) Regulation 2017 requires all retreaded tyres fitted to vehicles to comply with the provisions of the applicable Australian Standard. Tyres retreaded after 29 June 1998 must comply with the provisions of Australian Standard AS 1973-1993 *"Pneumatic tyres - Passenger Car, Light Truck and Truck/Bus - Retreading and Repair Process"*. In accordance with this standard, the tyre must have markings specifying the identity of the retreader, the date it is retreaded, the words 'RETREAD' or 'REMOULD' as applicable, and the tyre's speed limit.

REGROOVED TYRES

Regrooved tyres must not be fitted to a vehicle unless the tyres were constructed with an extra thickness of rubber designed for re-cutting or regrooving and are labelled accordingly on the sidewall.

COLOURED WALL TYRES

Coloured wall tyres have a coloured band on the outer walls to replicate classic vehicle looks. There are three ways to colour tyres:

1. Manufactured 'coloured wall' tyres

These tyres have a layer of coloured rubber material included in the tyre manufacturing process. Such tyres are manufactured to meet the standards and regulation applying to them, but these tyres are usually manufactured in sizes to suit classic vehicles and therefore may not suit newer and heavier vehicles. If you intend to fit your vehicle with coloured wall tyres, you must ensure the tyres are the correct size, speed and load ratings specified for the vehicle.

2. Tyres with additional 'coloured wall' bands

These additional coloured bands are commonly called 'Porta walls'. They consist of a coloured band that is attached with adhesives to the sidewall of the tyre, covering the sidewall to the bead area under the rim. If fitting bands, ensure:

- The original mandatory markings and specifications for the tyre are not obstructed
- The addition of the coloured band does not reduce the tyre's integrity; for example, by interfering with the original tyre beads and causing them to lose proper seal with the rim edges.

3. Modified 'coloured wall' tyres

These tyres are not legal in NSW. They usually have sidewalls that are ground or buffed to provide a base for coloured paint to be applied. Any grinding or buffing to parts of the tyre is a safety concern as it has the potential to induce weak spots within the tyre wall structure. These imperfections may induce cracks and splits sooner than in an unmodified tyre. Additionally, the ground/buffed tyres may no longer meet the standards and regulation applying to them when they were first manufactured due to, for example, the loss of required markings.

RUN FLAT TYRES

A run flat tyre has a stronger sidewall structure and if punctured it is claimed to be able to adequately support the vehicle for a short distance, usually to a maximum speed of 80km/h. A vehicle equipped with run flat tyres must be fitted with an onboard Tyre Pressure Monitoring System (TPMS) to inform the driver if the tyre has a puncture. If a TPMS is fitted to your vehicle, ensure that you are familiar with its use and care specifications.

SPACE SAVER SPARE WHEELS

Some vehicles are supplied with a temporary-use, space-saver spare wheel.

Space-saver wheels should only be used in emergency situations and for as short a distance as possible. Typically, they are rated at a maximum speed of 80km/h. When your damaged tyre is repaired or replaced, you should fit it on the vehicle immediately.

Significant modifications requiring certification

Some modifications require a compliance certificate from a licensed certifier.

If you intend to modify the axle or suspension, or fit certain non-original components, a compliance certificate from a licensed certifier will be required.

If the licensed certifier is satisfied that the modifications are safe for your vehicle, you will be issued with a compliance certificate. It is recommended that a copy of the compliance certificate is carried in the vehicle and presented to an authorised Roads and Maritime Officer or NSW Police Officer on request.

For information on when a compliance certificate is required (for example fitting replacement tyres that increase or decrease tyre diameter by more than 7% of the overall original tyre diameter), see VSI No.6 '*Light vehicle modifications*', or Vehicle Standard Bulletin (VSB) No. 14 'National Code of Practice for Light Vehicle Construction and Modification'. Refer to page 7 for information on obtaining a copy.

For information on finding an accredited licensed certifier on the Roads and Maritime Services Vehicle Safety Compliance Certification Scheme (VSCCS) refer to VSCCS Bulletin No. 1 'Licensed Certifiers'. Refer to page 7 to obtain a copy.

FURTHER INFORMATION

Roads and Maritime Services
www.rms.nsw.gov.au | T 13 22 13

- VSI No. 6 'Light vehicle modifications' accessible at http://www.rms.nsw.gov.au

Roads and Maritime Technical Enquiries
PO Box 1120, Parramatta NSW 2124
E technical.enquiries@rms.nsw.gov.au | T 1300 137 302 | F 02 8849 2754

- Vehicle construction and registration requirements in NSW

Roads and Maritime Vehicle Safety Compliance Certification Scheme (VSCCS)
www.rms.nsw.gov.au/vsccs | E vsccs@rms.nsw.gov.au | T 1300 336 206

- VSCCS Bulletin No.1 *'Licensed certifiers'* accessible at https://www.rms.nsw.gov.au/documents/

NSW Legislation
www.legislation.nsw.gov.au
Road Transport (Vehicle Registration) Regulation 2017 accessible at https://www.legislation.nsw.gov.au/

Department of Infrastructure and Regional Development
GPO Box 594 Canberra ACT 2601
www.infrastructure.gov.au | T 1800 815 272 F (02) 6274 6013

- VSB No. 14 *'National code of practice for light vehicle construction and modification'* accessible at https://infrastructure.gov.au/roads/vehicle_regulation/

QUEENSLAND POLICE SERVICE

RIGHT TO INFORMATION & PRIVACY
200 Roma Street, BRISBANE QLD 4000
GPO BOX 1440, BRISBANE QLD 4001

Telephone: (07) 3364 4666 Facsimile: (07) 3364 4675 Email: rti@police.qld.gov.au

Our Ref: RTI/26811
Your Ref: NA

21 August 2019

4WD Queensland Association
Miles Brennan
P.O. Box 174
BRISBANE MARKETS QLD 4106

Dear Mr Brennan

Re: Application under the *Right to Information Act 2009*

I refer to your application for access to documents under the *Right to Information Act 2009* (Qld) (RTIA) received by the Right to Information and Privacy Unit, Queensland Police Service (QPS) on 3 May 2019, in in which you seek access to the following information:

- SOPs etc for just the current instructions contained in the QPS OPMs and Traffic Manual or to those issue by the QPS Road Policing Command

From the terms of your request, I am satisfied that the documents to which access is sought does not concern your personal information. Accordingly, your application will be dealt with under the RTIA.

FEES AND CHARGES

Application Fee

I acknowledge receipt of the non-refundable application fee of $49.70. No further fees or charges are payable.

SEARCHES

Following receipt of your application, searches were conducted for documents relevant to your request. As a result of those searches, 3780 documents were located and a determination made concerning them.

DECISION

As a delegated officer under section 30 of the RTIA, I have made a decision on your application.

I have determined to **refuse access** to 3780 documents considered exempt pursuant to the provisions of sections 47(3)(b), 48 and Schedule 4, Part 4, section 3(a) and (b) of the RTIA.

REASONS FOR DECISION

Section 47(3)(b) - Grounds on which access may be refused

Section 47(3)(b) of the RTIA provides that access to a document may be refused to the extent to which the document contains information the disclosure of which would, on balance, be contrary to the public interest under section 49.

Section 49 – Contrary to public interest

Disclosure under the RTIA is subject to exemptions and public interest factors. In this case, I have determined that disclosure of some of the matter in issue would be contrary to the public interest pursuant to section 49 of the RTIA.

Section 49(1) of the RTIA states:

> *If an access application is made to an agency or Minister for a document, the agency or Minister must decide to give access to the document unless disclosure would, on balance, be contrary to the public interest.*

Section 49(1) creates a presumption in favour of disclosure; that is, information must be disclosed unless disclosure would be contrary to the public interest. Section 49(2) of the RTIA sets out the steps, and, in schedule 4, the factors, Parliament considers appropriate for deciding whether disclosure of the information in question would, on balance, be contrary to the public interest.

Section 49(3)(a) – Irrelevant factors

In accordance with section 49(3)(a) of the RTIA, I have rejected all of the factors outlined in Schedule 4, Part 1 as being irrelevant to my determination.

Section 49(3)(b) – Relevant factors in favour of disclosure

In accordance with section 49(3)(b) of the RTIA, I have taken into account relevant factors favouring disclosure outlined in Schedule 4, Part 2, including particularly:

> *(2) Disclosure of the information could reasonably be expected to contribute to positive and informed debate on important issues or matters of serious interest.*

Section 49(3)(c) – Relevant factors favouring non-disclosure

In accordance with section 49(3)(c) of the RTIA, I have taken into account relevant factors favouring non-disclosure outlined in Schedule 4, Part 3 and 4, including particularly:

Schedule 4, Part 3 provides:

> *(2) Disclosure of the information could reasonably be expected to prejudice the private, business, professional, commercial or financial affairs of entities.*
> *(7) Disclosure of the information could reasonably be expected to prejudice security, law enforcement or public safety*
> *(15) Disclosure of the information could reasonably be expected to prejudice trade secrets, business affairs or research of an agency or person.*
> *(17) Disclosure of the information could reasonably be expected to prejudice the competitive commercial activities of an agency.*

(19) Disclosure of the information could reasonably be expected to prejudice the management function of an agency or the conduct of industrial relations by an agency.
(20) Disclosure of the information could reasonably be expected to prejudice a deliberative process of government.
(21) Disclosure of the information could reasonably be expected to prejudice the effectiveness of testing or auditing procedures.

Schedule 4, Part 4, section 3 provides:

Disclosure of the information could reasonably be expected to cause a public interest harm if disclosure could–
(a) prejudice the effectiveness of a method or procedure for the conduct of tests, examinations or audits by an agency; or
(b) prejudice achieving the objects of a test, examination or audit conducted by an agency…

Balancing factors for and against disclosure

I have weighed the public interest factors in favour of disclosure and non-disclosure, including taking into account the matters identified within sections 49(3)(d),(e),(f) and (g) of the RTIA. I note that section 49(1) of the RTIA creates a presumption in favour of disclosure. However, in this instance, I consider that the public interest considerations favouring disclosure outweigh the public interest considerations in favour of non-disclosure.

Section 75 of the RTIA permits this Unit to release the located documents to you subject to the deletion of information the release of which would be contrary to the public interest. Accordingly, all documents located are are contrary to the public interest.

It should also be noted that release of documentation under the RTI & IP Acts is essentially release to the *world at large*, in that there is no provision for disclosure subject to any condition, republication of the accessed documents or dissemination of the information contained in the documents. Once this unit releases material there can be no limitation to further disclosure by the applicant. This is not to suggest that you would indiscriminately disclose documents of this nature; however the prospect of unauthorised or accidental disclosure by the applicant is also a public interest factor that I must consider.

REVIEW

Your attention is drawn to the ***enclosed*** sheet which details your right of review.

Should you have any further inquiries concerning this matter, please contact T Lemuelu on (07) 3364 4666 quoting reference number RTI/26811.

Yours sincerely

T Lemuelu
Information Rights Officer
Right to Information & Privacy

Reviewing a Decision

If you are dissatisfied or aggrieved with a decision made by the Queensland Police Service under the *Right to Information Act* or *Information Privacy Act* you have the right to have the matter reviewed. You may choose to either have the review conducted by the Queensland Police Service(QPS) by **Internal Review,** or alternatively apply to the Office of the Information Commissioner (OIC) to conduct an **External Review**.

The OIC is the independent statutory authority responsible for overseeing the administration of the *Right to Information Act* and the *Information Privacy Act* in Queensland.

Important: Applications for Internal Review or External Review must be made within twenty (20) business days from the date of the written notice of the decision.

Internal Review:

To apply for an internal review of a decision, you can choose one of the following options:

(a) **Post:**
The Inspector
Right to Information & Privacy
GPO Box 1440, BRISBANE QLD 4001
(b) **Fax:** 07 3364 4675
(c) **Apply online:** https://www.smartservice.qld.gov.au/services/information-requests/review.action

Your internal review application will then be referred to a senior officer for a decision.

External Review:

To apply for an external review of a decision, the application must:

- be in writing
- provide an address
- give details of the decision for review and
- be lodged with the Office of the Information Commissioner by one of the following methods:

You can choose one of the following options:

(a) **In person:** Level 7, 133 Mary St, Brisbane
(b) **Post:** PO Box 10143, Adelaide Street, Brisbane Qld, 4000
(c) **Email:** administration@oic.qld.gov.au
(d) **Apply online:** www.oic.qld.gov.au

Your application for an external review application will then be dealt with by the OIC (see http://www.oic.qld.gov.au for further information).

Vehicle Defect check list

Time_____ Date_____ Location _____ Suburb_____
Vehicle Reg_____ Make and model _____

Owner _____ Lic#_____ State_____

Approval number_____ Build Date_____ RVCS Reference _____

	Front	Rear	Notes
Body Blocks & ESC fitted	Yes / No	Yes / No	If yes, must have mod plate
Published vehicle height	mm	mm	
Measured centre of hub to wheel arch	mm	mm	
Difference	mm	mm	A
Standard Tyre size			If an R is used as standard the replacement is 80
Fitted Tyre size			Ie 205R16 is 205/80x16
Side wall increase	mm	mm	B No more than 25mm
A+B Total lift Via tyres and suspension MAX able to be approved 125mm Total	mm	mm	ESC over 50mm requires mod plate, LS9 Design, LS10 Modification, LT2 lane change test and ESC test report Non ESC over 75mm requires mod plate or use of body blocks in combination lift, LS9 Design, LS10 Modification and LT2 lane change test.
Diameter increase	mm	mm	Diameter increase not over 50mm (4WD)
Wheel Track specified	mm	mm	
Wheel Track measured	mm	mm	
Difference	mm	mm	4wd no more than 50mm, passenger car no more than 25mm
Check for			
Extended Shackles	YES/ NO	YES/NO	
Unequal Lift	YES/NO	YES/NO	Has front been lifted more than rear
Muffler not fitted	YES/NO		
Front windscreen tinted	YES/NO		
Tyre diameter 50mm or lift more than 25mm	YES/NO	YES/NO	Cannot have more than 50mm diameter increase or 25mm tyre lift, whatever occurs 1st
IF YES DVRN and TIN	IF YES DVRN and TIN		
Mod Plate for LS9 – LS10 or other	YES/NO		If fitted and defective, photo of mod plate and vin plate. Email photos and details to AP_Policy@tmr.qld.gov.au

- DTMR inspection centres are happy to clear vehicles classified as MAJOR or DANGEROUS Vehicle
- DVRN is to direct the owner to arrange an inspection with DTMR by **calling DTMR on Ph 132390 WITHIN 14** days and book the vehicle in for Inspection (do not nominate an Inspection Station to produce it to as this will be done by DTMR call centre when they phone).

The DVRN and any associated photographs of the defects is to be emailed to darramvic@tmr.qld.gov.au regardless of where the vehicle is to be produced(DO NOT GIVE THIS EMAIL ADDRESS OUT!!! FOR DTMR AND POLICE USE ONLY)

Non approved modifications TIN 9594- Owner not ensure modification has been approved (If the owner is in vehicle or driver) Interstate vehicle or non-owner driver consider DVRN and defect tin

If missing parts required for vehicle standards can issue TIN for vehicle not comply with vehicle standards.

https://www.tmr.qld.gov.au/Safety/Vehicle-standards-and-modifications/Vehicle-modifications/Vehicle-Inspection-Guidelines

[redacted]

From: DPTI:Vehicle Standards <DPTI.VehicleStandards@sa.gov.au>
Sent: Thursday, 18 April 2019 2:05 PM
To: Miles Brennan
Subject: RE: Modifications to 4WDs

Miles

If the modifications where tested and certified by the CPE and the vehicles was inspected and past then we would accept the vehicle for registration and issue a Certificate of Exemption that specified the modification, and condition and details of the CPE report.

We have mutual recognition of CPEs from other states and we accept there engineering report and certification.

If a vehicles comes from another state and it has been modified and certified in that state then we will certainly accept that engineering report as long as it address all the modification and includes detail and result of the testing that was done on the vehicle, brake and lane change testing.

The vehicles owner would still need to complete an application form and submit that with a copy of the engineering report and if this is ok we will then send out a "Statement of Requirements" and the vehicles presented for an inspection.
If the interstate report does not have sufficient information then the owner has the choice to back to the engineer for that information or see a local CPE to address the shortcomings.

The fitting of a modification is not acceptable we need the engineering report associated with that plate.

If a SA vehicle goes interstate for the modification, the same procedure applies in that the vehicles owner would still need to complete an application form, with an acceptable engineering report and we will send out a "Statement of Requirements" and the vehicles presented for an inspection.

In respect to ESC we leave that to the engineer when they do the testing the same as if a FMVSS system is fitted, the engineer would still be required to test and certify it.

Cheers

davidaand but generally require them to do the testing with it both on and off.

From: Miles Brennan [redacted]
Sent: Thursday, 18 April 2019 11:52 AM
To: DPTI:Vehicle Standards <DPTI.VehicleStandards@sa.gov.au>
Cc: 'President 4WDSA' <pres@4wdsa.asn.au>; [redacted] 'A1 Driving Academy' <a1driving@optusnet.com.au>; 'President 4wdAustralia' <president4wda@gmail.com>
Subject: RE: Modifications to 4WDs

Hi David,

So if 4WD owners in SA undertook modifications which are certified by a Chartered Professional Engineer and they have undertaken all necessary testing, then they would meet or exceed modifications similar to other states.

For example, modifications similar to these from NSW / VIC can be undertaken legally by SA 4WD owners with full CPE engineering:

- NSW VSCCS - Landcruiser 80 with 4"coil 2"block on 35s
  - https://www.youtube.com/watch?v=RnvtoTSdbvk
- VIC VASS - Current Model Jeep JKU Wrangler LT2 Swerve Test on 37s and 3.5" Lift with ESC
  - https://www.youtube.com/watch?v=8TJl4yqvrPE

Some state regulation authorities currently allow “mutual recognition” of interstate modifications which are engineered by an authorised CPE within their own originating state, with full testing. Can you advise how SA handles transfer of modified vehicles from interstate, where modifications which are fully certified and tested in accordance with originating state certification program, and undertaken by a qualified CPE from originating state? For example, some interstate engineers will not provide engineering designs as they are considered Intellectual Property, but they may provide a report, or would SA accept the fact a Blue Plate is affixed to the vehicle with relevant certification paper work?

Additionally, are owners of currently registered SA 4WDs, allowed to driver interstate to Victoria (for example), and undertake additional CPE engineering with full testing in accordance with Victorian / Australian testing and certification procedures, and return to SA and have the new modification accepted by the SA registration authority – would this be automatic, or would there be some paper work and additional documentation required for SA acceptance?

Finally, can you advise the status of modifications on vehicles equipped with ESC. Is this left to CPE to undertake the required testing and certification? Does SA accept US DoT FMVSS 126 (ESC) compliant suspension systems, or is this a CPE engineering process to ensure US DoT certificated modifications meet / exceed ADRs as an alternative standard?

Kind regards,

Miles Brennan
Vehicle Standards & ICT Services

Four Wheel Drive Australia
P.O. Box 174
Brisbane Markets, QLD, 4106

Email: [redacted]
Mobile: [redacted]
Web: www.4wda.com.au
Facebook: https://www.facebook.com/FourWheelDriveAustralia/

From: DPTI:Vehicle Standards <DPTI.VehicleStandards@sa.gov.au>
Sent: Thursday, 18 April 2019 10:44 AM
To: Miles Brennan [redacted]
Subject: RE: Modifications to 4WDs

Miles,

If the modification below are certified by a Chartered Professional Engineer and they have undertaken the testing then we do not set specific limits for the modification.

The engineer would have to do a braking test and a ISO lane change test to verify the stability of the modifications but as the higher the lift affects the stability and safety of the vehicle they would only be prepared to certify a vehicle if they consider it safe and able to pass the testing.

Details of the testing can be downloaded at

https://www.sa.gov.au/__data/assets/pdf_file/0004/7717/MR132-Brake-system-test-procedure-7.16.pdf

https://www.sa.gov.au/__data/assets/pdf_file/0007/8296/MR807-Lane-change-manoeuvre-test-procedures-august.16.pdf

A Fact Sheet on modifications can also be downloaded at

https://www.sa.gov.au/__data/assets/pdf_file/0017/10727/MR1457-Modifications-to-vehicles.pdf

On the website there is information regarding raising of suspension with information regarding what is not allowed.

https://www.sa.gov.au/topics/driving-and-transport/vehicles/vehicle-standards-and-modifications/suspension-modification

Hope this helps and if you have any other questions please let me know.

David

From: Miles Brennan [redacted]
Sent: Wednesday, 17 April 2019 9:52 PM
To: DPTI:Vehicle Standards <DPTI.VehicleStandards@sa.gov.au>
Cc: president@4wda.org.au; pres@4wdsa.asn.au; a1driving@optusnet.com.au
Subject: FW: Modifications to 4WDs

Dear David,

Can you please confirm the details and allowances below are still valid, i.e. have there been any changes to SA modification standards since your correspondence?

You mention 50mm is the maximum allowed lift without certification, however can you advise what the limits are if an authorised and approved auto-mechanical engineer undertakes relevant industry standards modifications and testing, and applies for increased modifications via DTPI processes.

i.e. Can an auto-mechanical engineer undertake:

1. Tyres diameter increases greater than 50mm
2. Suspension ride height increase greater than 75mm
3. Body block ride height increase greater than 50mm
4. A combination of all the above (tyres, suspension, and body blocks) greater than 150mm
5. Increase 4WD ride height on vehicles fitted with ESC technology
6. Increase 4WD track width beyond 25mm either side of vehicle
7. Increase 4WD track width to any limit by using a donor axle

i.e. If engineering is allowed above 50mm, what is the breakup of each of the above, and the maximum combination of the above.

What is the testing and certification process for engineered ride height increases above 50mm?

Kind regards,

Miles Brennan
Vehicle Standards & ICT Services

Four Wheel Drive Australia
P.O. Box 174
Brisbane Markets, QLD, 4106

Email: [redacted]
Mobile: [redacted]
Web: www.4wda.com.au
Facebook: https://www.facebook.com/FourWheelDriveAustralia/

From: DPTI:Vehicle Standards [mailto:DPTI.VehicleStandards@sa.gov.au]
Sent: Tuesday, 9 October 2018 4:32 PM
To: A1 Driving Academy
Cc: pres@4wdsa.asn.au
Subject: RE: Modifications to 4WDs

Derek,

Thanks you for your email asking about the requirements in South Australia regarding modifications to 4wd vehicles and the following is advised.

South Australia does not recognise VSB14 as a legal requirement and it is not called up in any legislation and has no legal standing. It is useful as a guide but it is not recognised as a requirement.

Regarding you question of raising vehicle the ride height of a vehicle can be raised without engineering certification up to 50mm.
This can be done by modified suspension travel, body blocks between the body and chassis or larger diameter tyres (up to 25mm) or a combination of all three up to a maximum of 50mm.

So to answer your questions

1, 50mm without engineer certification, with certification up to the engineer but requires stability and handling testing.
2, as above
3, as above
4, Overall diameter can be increase up to 50mm but more is acceptable with engineering certification and brake testing.
5, GVM can be increased with engineering certification but no increase of GCM or towing capacity.

6, There are a multitude of allowed and not allowed modification and more than I can list here, from superchargers to larger capacity engines, bull bars and fishing rod holders etc. Fact sheets on allowable and not allowable modification can be downloaded at

https://www.sa.gov.au/__data/assets/pdf_file/0020/76070/MR1517-Driving-Lamps-and-Daytime-Running-Lamps.pdf

https://www.sa.gov.au/__data/assets/pdf_file/0011/16976/MR1505-Bull-Bars-Frontal-protection-system-2.14.pdf

https://www.sa.gov.au/__data/assets/pdf_file/0017/10727/MR1457-Modifications-to-vehicles.pdf

https://www.sa.gov.au/__data/assets/pdf_file/0015/6171/MR800-Hazardous-Projections.pdf

It should be noted that where engineering certification is required an application form would also have to be submitted and the vehicle has to pass a roadworthy inspection.

When raising vehicle it should also be noted that the distance from the ground to the bottom of the front or rear mudflaps cannot exceed 300mm so longer one may need to be fitted.

Hopefully this answer most of your questions if you have any other questions please let me know.

David Gunner
Co Ordinator Vehicle Standards

From: A1 Driving Academy [mailto:a1driving@optusnet.com.au]
Sent: Tuesday, 9 October 2018 2:21 PM
To: DPTI:Vehicle Standards <DPTI.VehicleStandards@sa.gov.au>
Cc: DPTI:Minister Knoll <MinisterKnoll@sa.gov.au>
Subject: Modifications to 4WDs
Importance: High

To the gentleman concerned at DPTI that I was speaking to today regarding specifications of 4wds I Have attached a letter outlining our needs

You may note that I have two emails either one will get to me, but for some reason the pres@4wdsa.asn.au will currently not send at the moment.
So feel free to use that or a1driving@optusnet.com.au

Regards

Derek Mikolaj
President
4WD SA
[redacted]

QUEENSLAND GOVERNMENT

The Honourable Scott Emerson MP
Minister for Transport and Main Roads

Level 15 Capital Hill Building
85 George Street Brisbane 4000
GPO Box 2644 Brisbane
Queensland 4001 Australia
Telephone +61 7 3237 1111
Facsimile +61 7 3224 2493
Email tmr@ministerial.qld.gov.au
Website www.tmr.qld.gov

Our ref: MC69150

22 MAY 2013

Mr Dale Shuttleworth MP
Member for Ferny Grove
PO Box 316
Ferny Hills DC Qld 4055

Dear Mr Shuttleworth Dale

Thank you for your email on behalf of Mr Miles Brennan, about the Police Powers and Vehicle Impoundment Bill 2012.

I note you have also written to the Honourable Jack Dempsey MP, Minister for Police and Community Safety, who is responsible for matters relating to *Police Powers and Responsibilities (Motor Vehicle Impoundment) and Other Legislation Amendment Act 2013*.

I trust that Minister Dempsey will respond to the issues raised in your correspondence.

I also note that Mr Brennan identified some technical inaccuracies with the National Code of Practice for Light Vehicle Construction and Modification (NCOP), which he would like reviewed and that he has also expressed concerns that vehicle enthusiasts do not have sufficient input into the NCOP.

I understand Mr Michael Ross, from the Department of Transport and Main Roads Vehicle and Vessel Standards Unit, contacted Mr Brennan and advised him that the NCOP undergoes an annual review process in which all state and territories are involved. Mr Ross offered to meet with Mr Brennan to discuss the inaccuracies in the NCOP and other vehicle standards matters raised in his letter.

In addition, Mr Ross has offered an invitation to the Australian Confederation of Motoring Clubs to attend a Queensland Automotive Working Party (QAWP) meeting. The QAWP was formed during the development of the NCOP and continues to meet to provide input into the review of the NCOP. It is hoped that this meeting will provide an avenue to further explore concerns raised by Mr Brennan and other vehicle enthusiast groups.

I trust this information helps with your response to Mr Brennan.

Yours sincerely

Scott Emerson

Scott Emerson MP
Minister for Transport and Main Roads

Tim NICHOLLS MP
Member for **Clayfield**

Magistrates Court
Brisbane QLD 4000

Re: Miles Brennan
Traffic Infringement A8984592-1

I have known Mr Miles Brennan for approximately 9 months. I know him in his capacity as representative of the motoring organisation "Four Wheel Drive Queensland". I have had one meeting and several conversations with Mr Brennan as well as exchanging quite a few text messages.

I understand Mr Brennan is challenging infringement notices issued to him for alleged offences on 16 June 2018. These allegations pertain to modifications made to Mr Brennan's Jeep Wrangler 4WD.

There has recently been considerable confusion surrounding the interpretation and enforcement of the law and practice of 4WD vehicle modifications in Queensland. This has played out both in and outside Parliament. No doubt, Mr Brennan will expand on this confusing state of affairs and the events creating the difficulties.

Mr Brennan has asked I comment on the passage in 2013 of the Police Powers & Responsibilities (Motor Vehicle Impoundment) & Other Legislation Amendment Act 2013.

While of course the Act speaks for itself and the Ministers speech sets out the then Governments reasoning for the Act, it does seem that in this instance the issuing of a so called "anti hooning" forfeiture notice goes beyond what was reasonably contemplated by the legislation.

Yours sincerely

Tim Nicholls MP
Member for Clayfield

Shop 1, 729 Sandgate Road, Clayfield Qld 4011 PO Box 281, Clayfield Qld 4011
07 3638 9100 clayfield@parliament.qld.gov.au timnicholls.com.au TimNichollsMPQld @TimNichollsMP
Authorised by T.Nicholls. Shop 1, 729 Sandgate Road, Clayfield QLD 4011.

Crashes involving light passenger vehicles with vehicle defects within Queensland, 1 January 2013 to 31 December 2018

Crash Severity	2013	2014	2015	2016	2017	2018
Fatal	5	3	4	3	3	3
Hospitalisation	73	80	85	64	60	44^
Medical treatment	73	72	56	57	46	31^
Minor injury	20	13	18	11	11	8^
Total Crashes	171	168	163	135	120	-

^ *Period reported is 1 January to 31 October 2018*

Light passenger vehicles with vehicle defects involved in crashes within Queensland, 1 January 2013 to 31 December 2018

Crash Severity	2013	2014	2015	2016	2017	2018
Fatal	5	3	4	3	3	3
Hospitalisation	73	80	85	64	60	44^
Medical treatment	73	72	56	57	46	31^
Minor injury	20	13	18	11	11	8^
Total Crashes	171	168	163	135	120	-

^ *Period reported is 1 January to 31 October 2018*

Casualties as a result of crashes involving light passenger vehicles with vehicle defects within Queensland, 1 January 2013 to 31 December 2018

Casualty Severity	2013	2014	2015	2016	2017	2018
Fatality	5	3	5	3	4	3
Hospitalised	94	106	123	89	88	66^
Medically treated	111	109	84	81	68	46^
Minor injury	41	28	30	22	25	24^
Total Casualties	251	246	242	195	185	-

^ *Period reported is 1 January to 31 October 2018*

Light passenger vehicles with defects involved in crashes within Queensland, 2013 to 2017, by crash nature and contributing circumstance

Contributing circumstance	Angle	Fall from vehicle	Head-on	Hit animal	Hit object	Hit parked vehicle	Hit pedestrian	Other	Overturned	Rear-end	Sideswipe
Brakes	10	2	1	0	41	1	3	0	7	40	1
Tyres	18	0	20	0	250	16	2	2	101	27	12
Suspension	1	0	0	0	3	0	0	1	1	1	0
Steering	0	0	3	0	34	1	1	0	4	0	0
Lights (e.g. Headlights)	2	0	1	0	3	0	0	0	3	7	1
Turn signals	3	0	0	0	0	0	0	0	1	0	0
Vision (e.g. broken window)	3	0	0	0	0	0	0	0	0	1	0
Towing attachment	1	0	2	0	3	0	0	1	9	1	2
Structural defect	0	1	0	0	4	0	0	0	2	1	0
Prior crash/breakdown	1	0	0	0	2	1	0	0	0	10	0
Miscellaneous	4	1	3	0	48	26	3	10	7	16	3
Total defective light passenger vehicles	38	4	28	0	373	45	8	14	131	98	18
Total light passenger vehicles	29,562	705	3,386	398	11,422	3,316	2,804	116	2,241	37,307	4,483

Please note: more than one contributing circumstance can be attributed to a single vehicle

Vehicle defects

A vehicle with a defect is any vehicle attributed with one or more of the following contributing circumstances:

- Vehicle – brakes
- Vehicle – tyres (i.e. low tread, puncture/blow out)
- Vehicle – suspension
- Vehicle – steering
- Vehicle – lights (headlights/tail lights)
- Vehicle – turn signals
- Vehicle – vision (broken windscreen/windows)
- Vehicle – towing attachment
- Vehicle – structural defect
- Vehicle – prior crash or broken down (cause but not involved)
- Vehicle defects – miscellaneous

Please note that these contributing circumstances apply to stock or modified parts.

Light passenger vehicle

A unit type grouping that includes the following vehicle (unit) types: car, station wagon, utility and panel van. Excludes motorcycles.

Contributing circumstance

Contributing circumstances are not necessarily the direct/initial cause of the crash and may have contributed to a unit's (motor vehicle, bicycle, pedestrian or animal) involvement in a road traffic crash or the severity of its outcome.

Contributing circumstances are attributed to units involved in the crash (rather than the crash itself) so a single crash may have more than one instance of the same contributing circumstance. In addition, more than one contributing circumstance can be attributed to any unit involved in the crash. Therefore, the total number of contributing circumstances may not equal the total number of crashes/units/casualties involved.

Data availability

The RoadCrash database does not capture crash or vehicle details relating to:

- Specific vehicle modifications
- Tyre/suspension configuration
- Fitted accessories (e.g. light bars or fishing rod holders)
- Mud, rocks or other debris being thrown from vehicle tyres
- Roll cages

We are therefore unable to report on these features, or the modification of these features, in relation to crashes.

Reportable data status

The Department of Transport and Main Roads (TMR) is able to provide full characteristics and details (including contributing factors) of Queensland crash data for:

- Fatal crashes to 31 December 2018
- Non-fatal casualty crashes to 31 October 2018

FACT SHEET – 4WD vehicle lifts 26 October 2018

From 26 October 2018, the Department of Transport and Main Roads (TMR) has increased allowable limits for light vehicle lifts in Queensland to harmonise requirements with other larger jurisdictions and the National Code of Practice VSB-14, as appropriate.

This document is a summary of the revised requirements in Queensland. For a complete list of all requirements, refer to the QCOP which can be found on the TMR website at https://www.tmr.qld.gov.au/Safety/Vehicle-standards-and-modifications/Vehicle-modifications/Light-vehicle-modifications

The raising of 4WD type vehicles (ADR categories NA, MC and NB1) is now permitted up to 75 mm without certification for both vehicles with and without electronic stability control (ESC). In this case, the vehicle can only be lifted by a combination of a maximum 50mm suspension and 25mm tyres. Any lift using body blocks needs to be certified by an Approved Person.

A vehicle lift up to 150 mm is permitted with certification by an Approved Person. Maximum lifts on specific components within the 150mm limit are in the table below. In Queensland lifts on 4WD type vehicles (ADR categories NA, NB1 and MC) can be certified by complying with codes LS9 and LS10 in the QCOP. Lifts on other types of vehicles can be certified by complying with the National Code of Practice VSB-14.

A vehicle lift over 150mm or above the maximum limits in the table below can only be approved by TMR. Applications for lifts above these heights must be submitted to TMR along with the detailed design proposal and supporting engineering report.

The below table summarises the new lift requirements in Queensland.

Vehicles with and without ESC

Certification	Suspension	Tyres	Body blocks	Total lift
Not required	up to 50 mm	up to 25 mm	0 mm	up to 75 mm
Required	up to 75 mm*	up to 25 mm*	up to 50 mm*	up to 150 mm*

Testing requirements for certification	Lane-change test	ESC test
Vehicles without ESC	Required	Not required
Vehicles with ESC	Required	Required – (or letter from manufacturer or certified recalibration is accepted)

*Lifts above these limits require individual approvals from TMR.

For more information please contact TMR Vehicle Standards & Accreditation Section on:
Phone 13 23 80
Email vehiclestandards@tmr.qld.gov.au
Web www.tmr.qld.gov.au

Miles Brennan

From: Miles Brennan [redacted]
Sent: Saturday, 17 April 2021 10:46 AM
To: Miles Brennan
Subject: Fwd: TMR Community Engagement Activities

Forward from phone.

Sent from my iPhone

Begin forwarded message:

> **From:** Keith F Watts [redacted]
> **Date:** 2 October 2015 at 3:05:46 pm AEST
> **To:** admin@ncop.org.au
> **Subject: TMR Community Engagement Activities**
>
> Hi Miles
>
> Thank you for email about participating in alternative Transport and Main Roads motoring forums.
>
> Presently the only other meeting that may be of interest to you is the Transport and Main Roads Motoring Organisation and Car Club (MOCC) forum. Regrettably, at this time there is no capacity for additional members as membership of the MOCC forum is set through the Terms of Reference on an annual basis. However, your details are now on our register for consideration at our annual Terms of Reference and membership review.
>
> In the meantime, if you have any specific concerns or queries, you are more than welcome to take it up with a current MOCC forum representative for them to raise at the next meeting. I have attached the membership list for your information.
>
> I trust this information is of assistance.
>
> Kind regards
>
> **Keith Watts**
> Manager (Vehicle Standards) | Transport Regulation Branch
> **Customer Services Safety and Regulation Division** | Department of Transport and Main Roads
>
> Floor 2 | Transport House | 230 Brunswick Street | Fortitude Valley Qld 4006
> PO Box 673 | Fortitude Valley Qld 4006
> P: (07) 30668367 | F: (07) 30668740
> M: [redacted]
> E: [redacted]
> W: www.tmr.qld.gov.au
>
> ---
>
> **From:** Australian Modification Discussion Forum [mailto:admin@ncop.org.au]
> **Sent:** Monday, 21 September 2015 10:14 PM
> **To:** Keith F Watts [redacted]
> **Subject:** TMR Community Engagement Activities
>
> Hi Keith,
>
> At the end of last year when the QAWP meetings were ceased and closed down, you were going to pass on the details of some other TMR meetings so we could continue to be engaged / informed.

Would you please forward those committee / meeting details so we can organise attendance / engagement.

Additionally, are there any current or planned activities with the national safety / VSB working group which is involving the states. i.e. are any of the NCOP sections up for review? If so, do you have any details on what the current focus is?

Regards,
Miles
[redacted]

<TERMS OF REFERENCE MOCC - attachment 1_current@02.10.2015.pdf>

Miles Brennan

From: Christopher J Comer [redacted]
Sent: Tuesday, 8 November 2016 12:19 PM
To: Miles Brennan
Subject: RE: 4WD Queensland Attendance At Motoring Organisation and Car Club Meetings

Hi Miles

Thank you for your time last Tuesday.

Firstly, I can advise that the next Motoring Organisation and Car Club (MOCC) meeting will not be taking place until next year.

At this time there is no capacity for additional members as membership of the MOCC forum is set through the Terms of Reference on an annual basis. As I mentioned during our conversation, the focus of the MOCC meetings is centred on Special Interest Vehicles (SIV) (street rods and vehicles => 30 years from year of manufacture) and the policy, regulation and guidelines with the requirements for registering vehicles under the scheme.

Miles you mentioned that you have spoken to Vehicle Standards and Michael Ross in particular, and that Michael has asked for some information to be provided outlining your areas of concern, and what you would like to see achieved. It would be appreciated if you could also provide myself with a written overview in order to determine the suitability of raising this an agenda item within MOCC. There may be some areas of interest from a SIV perspective.

Also, please note that capacity may be a factor in whether your concerns can be included as an agenda item. This is due to the fact that there are currently quite a number of representatives at the MOCC forum who also wish to raise agenda items, as well as there being action items from previous meetings which need to be addressed.

I look forward to hearing from you.

Kind regards

Chris Comer
A/Policy Advisor | Transport Access And Use
Transport Regulation Branch | Department of Transport and Main Roads

PO Box 673 | Brisbane Qld 4001
[redacted]
W: www.tmr.qld.gov.au

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From: Miles Brennan [redacted]
Sent: Thursday, 27 October 2016 3:54 PM
To: Christopher J Comer [redacted]
Subject: 4WD Queensland Attendance At Motoring Organisation and Car Club Meetings

Dear Chris,

The management committee for 4WD Queensland is looking to engage Department of Transport and Main Roads on various issues and discussion points, and want to start getting involved/participating in the Motoring Organisation and Car Club (MOCC) working group, and other community engagement activities.

Michael Ross from Vehicle Standards had passed your contact details for MOCC, can you please advise when the MOCC meetings are scheduled and if there are any pre-requisites needed for 4WD Queensland to attend the meetings.

Kind regards,

Miles Brennan
Vehicle Standards & ICT Services

Four Wheel Drive Queensland
P.O. Box 174
Brisbane Markets, QLD, 4106

Email: [redacted]
Mobile: [redacted]

Web: www.4wdqld.com.au
Facebook: www.facebook.com/4wdqld
Twitter: www.twitter.com/4wdqld

Miles Brennan

From: [redacted]
Sent: Wednesday, 12 February 2014 9:59 AM
To: Australian NCOP Discussion Forum
Subject: RE: Queensland Automotive Working Party Draft Minutes from 5 Dec 2013 Meeting

Dear Miles

Thank you for providing your comments on the draft minutes, I am making the necessary changes and will be sending out the revised version shortly.

I regret if there has been any confusion, but the QAWP is not, and never has been a statutory mechanism for reviewing or approving vehicle legislation, standards or policies, and while input and feedback from QAWP members is highly regarded and taken into consideration by TMR, the role of the QAWP is primarily to share knowledge between the participants.

The QAWP was initiated at the request of industry groups when the NCOP was being developed. After the NCOP was implemented the participants of the QAWP agreed it was a good forum to maintain communications between, the automotive industry, QPS, TMR and motoring groups. The focus of the QAWP is still technical in nature with the ongoing NCOP and QCOP interpretation issues, identifying possible improvements and how those improvements can be actioned. The QAWP also discusses matters related to automotive businesses, Approved Inspection Stations and Approved Persons and information on other TMR business is provided to QAWP members as a matter of interest or courtesy. An example of the knowledge sharing is the information sessions being organised by AAAA.

With regards to your first point about recording the meeting, the *Invasion of Privacy Act 1971* does allow for the recording of conversations, but also places restrictions on the recording of private conversations. The difficulty with this is that within a meeting, at times a private conversation may also take place between two people and they may not want recorded. Unfortunately it is a bit of a grey area about what is reasonable to accept as a private conversation under these circumstances.

Your belief that you have a right to record a meeting is not without merit though and as you may recall, Peter Twining and I were happy for you to record the separate meeting we attended with you. However, I am not in a position to say if other QAWP participants are as equally comfortable, and it would be their decision if they continued participating in a meeting they are not comfortable with.

Also, as I am still updating the draft minutes to address your concerns, do you have any objections to my circulating them to the other members for their additional comments if needed?

I look forward to a building a productive working relationship with you, so please call me if you have any questions.

Kind regards,

Keith Watts
Manager (Vehicle Standards) | Transport Regulation Branch
Customer Services Safety and Regulation Division | Department of Transport and Main Roads

Floor 2 | Transport House | 230 Brunswick Street | Fortitude Valley Qld 4006
PO Box 673 | Fortitude Valley Qld 4006
P: (07) 30668367 | F: (07) 30668740
[redacted]
W: www.tmr.qld.gov.au

Advice to Approved Persons

LS9 High Lift – 50mm to 125mm (Design) and LS10 High Lift – 50mm to 125mm (Modification) Modification Codes

The Department of Transport and Main Roads (TMR) regularly conducts desktop audits of modification certificates to ensure compliance with the approved person's (APs) conditions of approval.

Recent audits of modification certificates have identified that there is some confusion about when LS9 design certification is required, including the required testing, before the LS10 high lift modification can be certified.

The following information is provided to clarify these requirements.

When LS9 certification is required

Vehicles manufactured with electronic stability control (ESC)
If the vehicle was manufactured with ESC and modified with a suspension lift above 50mm, or due to a combination of any other lift (tyres and/or body blocks), LS9 design certification is required in addition to LS10 modification certification. You must not certify a LS9 design modification if you have not been approved by TMR for this modification code.

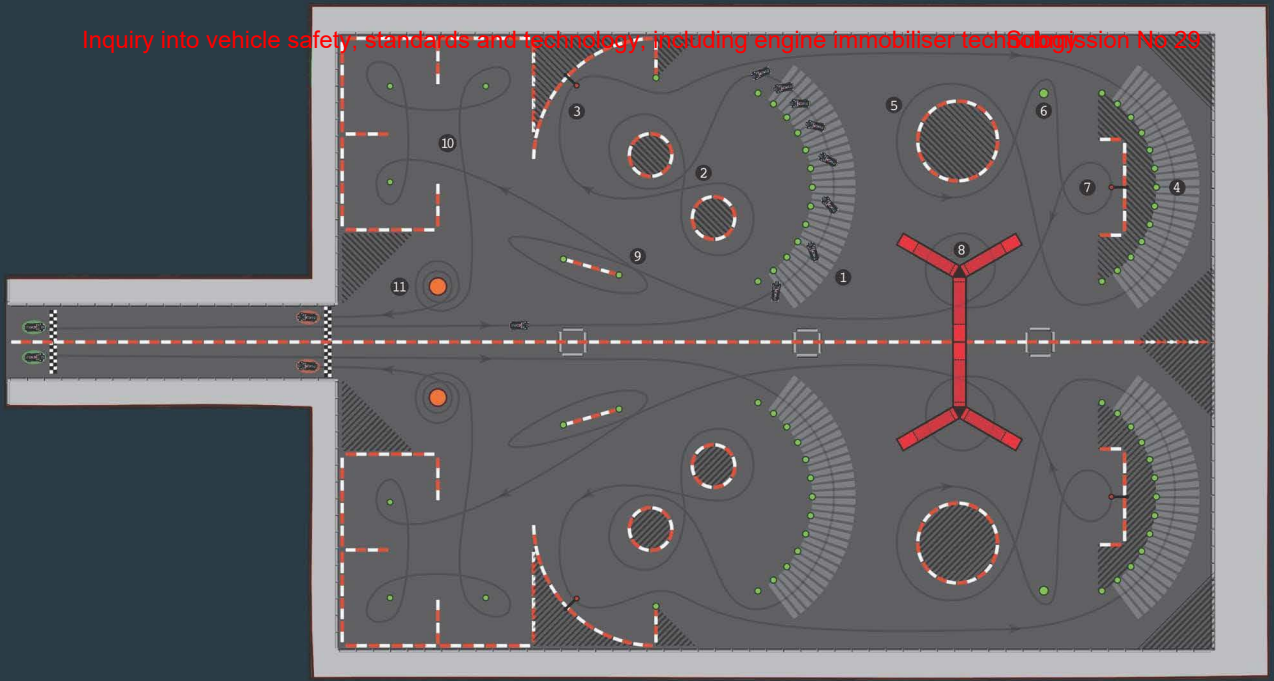
Vehicle modifications with a suspension lift above 50mm, or due to a combination of any other lift (tyres and/or body blocks) are also required to be tested as per below.

Tests required for LS9 certification for vehicles manufactured with ESC
You must carry out an ESC and lane change test in accordance with the Queensland Code of Practice - Vehicle Modifications. The accepted test method is documented within ADR 88, as the Sine with Dwell test. TMR will accept any testing to ECE R13H and FMVSS126 for ESC compatibility. The certification will also require LT2 double lane change to assess the effect of the modification to the vehicle handling.

If you cannot conduct the required ESC and lane change testing, you must not certify the modification unless you have evidence from the vehicle manufacturer, including the VIN number, confirming they have approved this modification

Vehicles manufactured without ESC
Vehicle lifts that do not exceed 75mm through the modification of suspension and tyres (25mm in tyres, 50mm in suspension), do not require certification under LS9. The person approving this modification must ensure the vehicle meets the technical requirements of LS9 and LS10. However, no formal certification under LS9 or lane change test is required.

Vehicle lifts that are achieved by modification of the suspension and body blocks, where the combined lift is greater than 50mm, require certification under the LS9 design code as well as LS10. This condition also requires LT2 double lane change testing to be performed.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