

LOW VOLUME VEHICLE TECHNICAL ASSOCIATION (INC)

LVVTA NEWSLETTER

30 Years 1992-2022

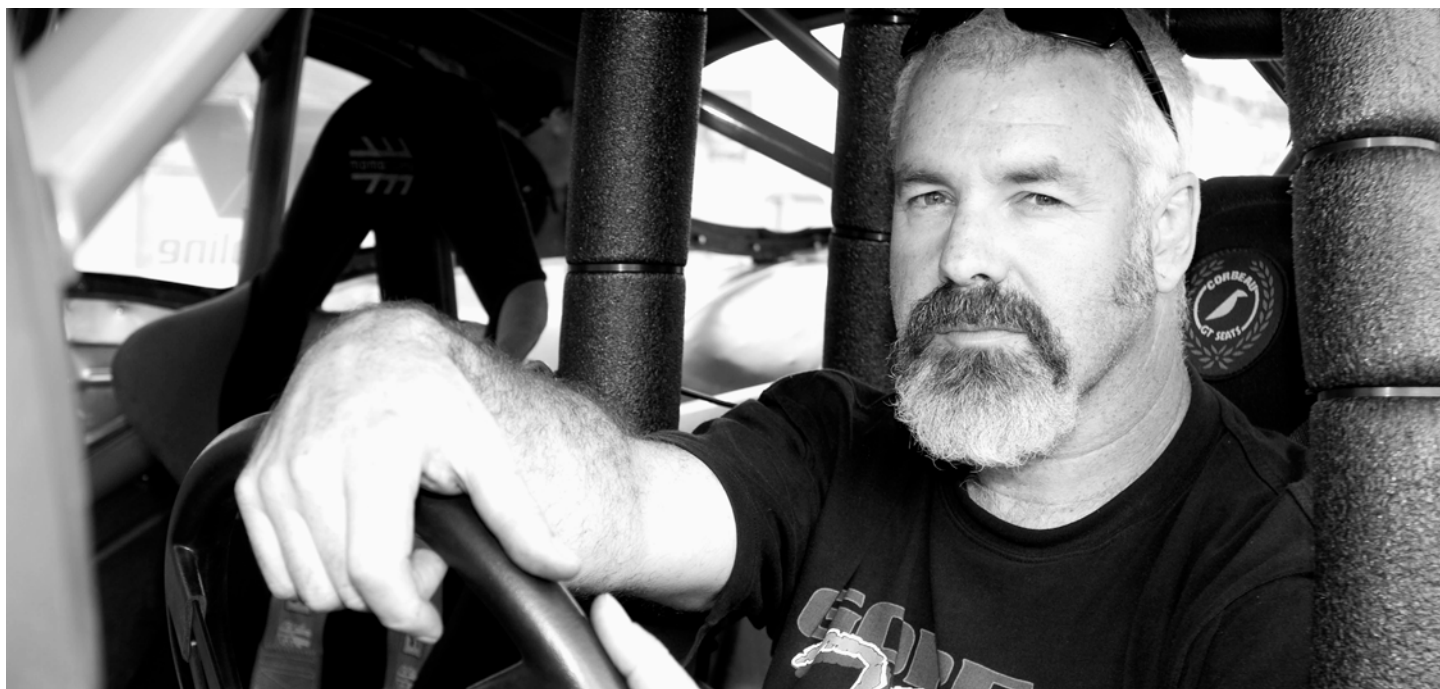
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TOP STORY:

**JUDGES CONFIRM THAT PUBLIC SAFETY
COMES FIRST.**





From the CEO

The Un-aging Population (LVV Certifiers)

The demographic of LVV Certifiers is wide ranging, especially with respect to age. It started with the 'old guard' who were young hot rodders in their late 20s and early 30s back in 1990 when this all began, and were shoulder-tapped to become the pioneers of the low volume vehicle certification system. Fast-forward (really fast!) 33 years to 2023, and a dozen of that original intake are still on the job - now approaching, or even past, normal retirement age.

We're not at risk of a mass-exodus though. These 'once-were-motor-mechanics' love their LVV certification environment, getting to see the genius-level work clever New Zealanders are doing in their workshops and home garages, constantly learning (on top of the massive expertise they've already accumulated), and also getting to

test-drive the most amazing cars in the country. A great bonus is that they don't suffer physically from LVV certification as they did when they were on the tools, from lifting gearboxes in and out of cars, and bending over into engine bays like a half-shut pocket-knife. In other words - it's a great gig. In fact, a survey we undertook a few years ago showed an intention amongst the majority of the old guard to continue helping the vehicle modification and construction sector well past age 65.

We're aware, however, that these guys will inevitably retire over the coming years, so for the past decade there has been a strong emphasis on bringing in the 'next generation' of LVV Certifiers. Our aim is to find guys predominately in their late 30s to early 40s, who will (just as the old guard did 30 years ago) have lots of real-world practical experience, but also have two or three decades to give to the LVV certification system. Over the past decade we've brought in a significant number of new LVV Certifiers, with four coming on board in the last twelve months alone. Our emphasis on the next

generation of LVV Certifiers continues, and as this newsletter goes to print, we are working with two more whom we aim to have appointed by the end of the year. In another five years, the average age of the LVV Certifiers will be considerably lower than it was ten years ago, however it will not be reduced by such a degree that the critical experience needed to be a good LVV Certifier is compromised.

Finding people at the right age with the right experience, right skills, right ethics, and right bedside manner to become LVV Certifiers will be an increasingly difficult challenge as the years go by, as solid practical apex-level car builders and modifiers become increasingly thin on the ground. But, given the importance of having the right people to ensure the LVV certification system works well, continuing to find, train, and support the next generation of LVV Certifiers will always be a very high priority for LVVTA.

Tony Johnson, CEO. ■



'Helping New Zealanders Build & Modify Safe Vehicles'

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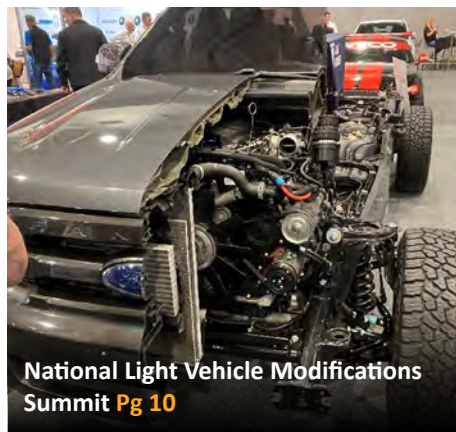
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News

Waka Kotahi NZ Transport Agency Fees and Funding Review Outcome

The New Zealand Transport Agency (now known as Waka Kotahi) was established as a new Crown entity in 2008, merging Land Transport New Zealand and Transit New Zealand. For the first time since its establishment, the fees and funding structure across the whole organisation has undergone a major review, with the objective of developing a more stable financial platform from which to be a better regulator than it had in the past, and to ensure that the fees being applied across all of their regulatory responsibilities are fair.

This review has resulted in some fees being reduced (some even removed completely), while other fees will increase. LVVTA and RepairCert NZ have been involved in the consultation process during the past year, and made a submission advocating for a system that would provide the best outcome for Waka Kotahi (they need sufficient funding to do their job well), and which won't adversely impact LVV Certifiers and Repair Certifiers. The changes to the Waka Kotahi fees and funding structure for the future have been announced, and they take effect on 1 October 2023.

There are two areas of fee changes that will be of interest to LVV Certifiers and Repair Certifiers.

The first is an increase in the Crown Regulatory Fee that's applied to each certification for all Specialist Certifiers (LVV, Repair, and Heavy). This is collected from LVV Certifiers by LVVTA as part of the 'plate fee' and forwarded to Waka Kotahi, and it is collected from Repair Certifiers through the fee they pay for their LT307/LT308 forms.

For LVV certifications, the fee is increasing from the current amount of \$15.92 to \$38.99 (a 145% increase of \$23.07). For Repair Certifiers, the increase is much greater, going from \$4.42 to \$37.82 (a 756% increase of \$33.40). The bigger jump for repair certifications reflects the substantially increased resource that has been applied to the repair certification system by Waka Kotahi in recent times. Heavy certification is experiencing a similarly large increase.

The second, other big change, is the removal of application fees to become a Specialist Certifier. Waka Kotahi has the view

that removing the fees will encourage industry growth into the future. So, from 1 October 2023, Specialist Certifiers will not have to pay the current application fee of \$1,644.00.

Click on the following link to access the regulatory area of the Waka Kotahi website for more information about the changes:

[Changes to regulatory funding, fees and charges | Waka Kotahi NZ Transport Agency \(nzta.govt.nz\)](https://www.nzta.govt.nz/regulatory/changes-to-regulatory-funding-fees-and-charges/)

All fees mentioned are inclusive of GST. ■



Updated Proposed changes to land transport regulatory fees, charges and funding

Consultation document
April 2022



Waka Kotahi NZ Transport Agency Proceeds with First Prosecution



The Waka Kotahi NZ Transport Agency (Waka Kotahi) Safer Vehicles team has recently shown that it is taking fraudulent behaviour seriously, and is prepared to do more

than just revoke an authority when there's a risk to public safety. The following statement is copied from the June edition of the Waka Kotahi Te Pae Kaa Kaa - news and updates:

'A person who pleaded guilty to a charge involving fraudulently accessing the Motor Vehicle Register will soon be sentenced. This is the first prosecution undertaken by the Waka Kotahi Safer Vehicles team. This strong action has been taken to protect the safety of vehicle owners, and those who are carrying out their vehicle inspection appointments correctly.'

The full June update can be accessed here: [Te Pae Kaa Kaa - June 2023 edition](#).

This new stance will certainly send a clear message to people appointed by Waka Kotahi as Vehicle Inspectors or Specialist Certifiers who are willing to engage in fraudulent activities. ■

Judges Confirm that Public Safety Comes First



At the LVVTA AGM on 22 June 2023, members welcomed Court of Appeal¹ and Supreme Court judgments which confirm that any duty of care on LVVTA's part is to public safety rather than to look after the commercial interests of a company modifying motor vehicles.

In 2019 UDM² alleged that LVVTA and Waka Kotahi NZ Transport Agency (Waka Kotahi) owed UDM 'a duty of care' to avoid commercial losses relating to UDM ceasing vehicle production following its own unsafe vehicle modifications. UDM's claim has been struck out by the Courts.

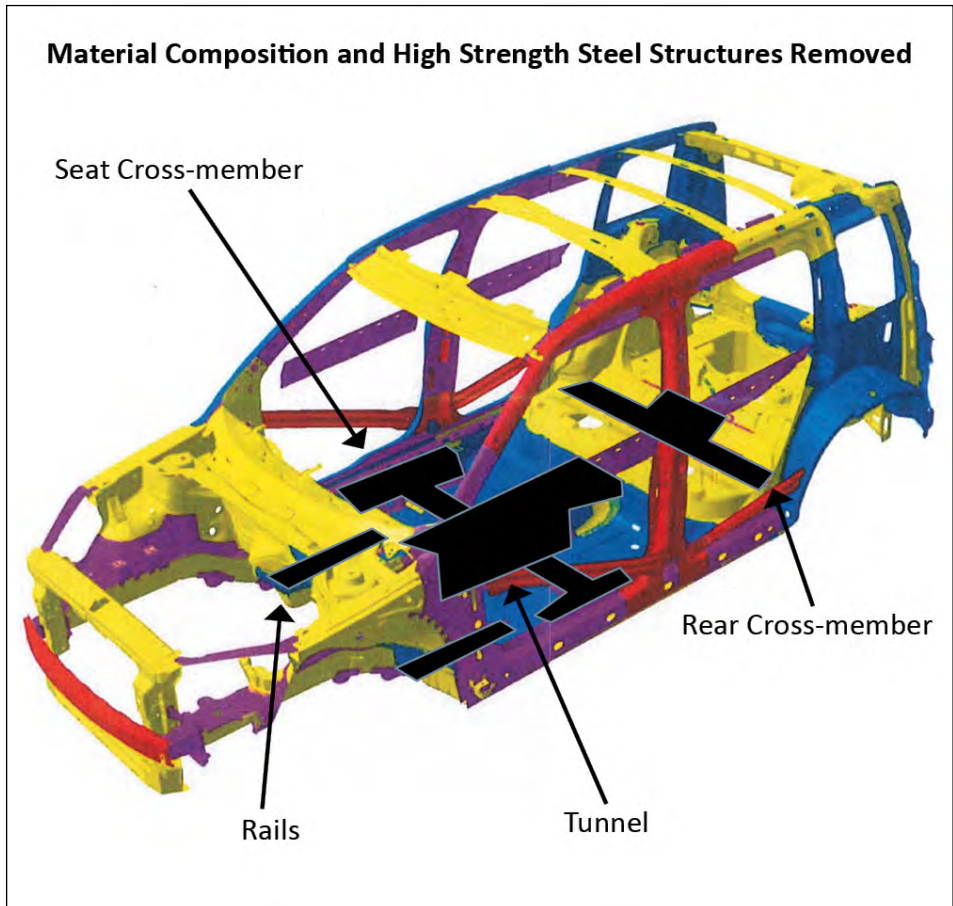
Robert Buchanan, Chair of the LVVTA said the ruling *"should give added confidence to all transport regulators throughout New Zealand to 'do the right thing' while exercising their responsibilities to protect the public."*

Unsafe Vehicle Modifications

During 2013, a company called UDM carried out modifications to eight new Skoda Yeti vehicles for wheelchair users. The vehicles were found to be non-compliant and unsafe, and featured a wide range of serious engineering deficiencies. There were almost 400 compliance and safety-related faults and questions identified across the eight affected vehicles. Some safety-critical modifications incorporated unproven materials without any testing to validate their fitness for purpose.

Despite extensive engagement and support from LVVTA and Waka Kotahi, UDM were unable to satisfy the concerns raised. Waka Kotahi took the vehicles off the road late in 2013.

After UDM carried out substantial repair work, Waka Kotahi provided individual exemptions to allow the eight vehicles to go ►



Above: This image shows the different steels used in the manufacture of the Skoda Yeti. The areas shown in purple, blue, and red are all made from high-strength steel, and are heavily relied upon for the vehicle's overall structural rigidity and safety. The high-strength steel load-bearing elements including the subframe (chassis rails), cross-members, and tunnel (all shown in black), along with the high-strength steel passenger area floor, were all cut during the modification process and replaced with aluminium sandwich panel.



Above: The factory floor, cross members, transmission tunnel, and subframe (chassis) rails were removed.

back on the road, however Waka Kotahi made it clear to UDM that no further vehicles could be modified without meeting LVVTA's required technical standards. UDM then elected not to modify any more vehicles and closed its manufacturing facility.

Legal Action Against LVVTA Fails

In 2019 (six years after ceasing production) UDM sued LVVTA and Waka Kotahi, alleging that UDM was owed 'a duty of care' by LVVTA and Waka Kotahi, as regulators of the LVV certification system, and claimed for damages for alleged losses relating to the ceased production of its modified disability vehicles.

LVVTA and Waka Kotahi applied to have UDM's claim 'struck out' (i.e., that the case should be dismissed without going to a trial) on the grounds that the claim failed to disclose any reasonable cause of action and was baseless. The application was heard at the Court of Appeal, which agreed that the claim should not proceed.

In striking out UDM's claim, the Courts have confirmed that any duty of care on Waka Kotahi and LVVTA's part is, in fact, to public safety rather than to protect the commercial interests of a company modifying motor vehicles.

The Court, having carefully considered the roles of Waka Kotahi as the 'regulator', and that of LVVTA as effectively a 'co-regulator', said "*The purpose of the regulatory regime here is not to protect the economic interests of LVV manufacturers and producers, but rather the interests of the public in road safety*".

Tony Johnson, LVVTA's Chief Executive Officer, describes the outcome as significant for the LVV certification system. He says "*LVVTA plays a critical road safety role for New Zealanders, and it's reassuring to have our unwavering focus on good engineering practice vindicated by the Court.*" ►

Robert emphasises the importance of this judgment for all transport regulators, “as it confirms that any regulator should be able to make decisions in the best interests of public safety.”

About LVVTA

The Low Volume Vehicle Technical Association (LVVTA) enhances road safety for New Zealanders by developing and administering standards for modified and individually constructed vehicles, and the associated low volume vehicle certification system. This system enables enthusiasts and the vehicle modification industry to continue to modify and build vehicles with public safety at the heart of the system.

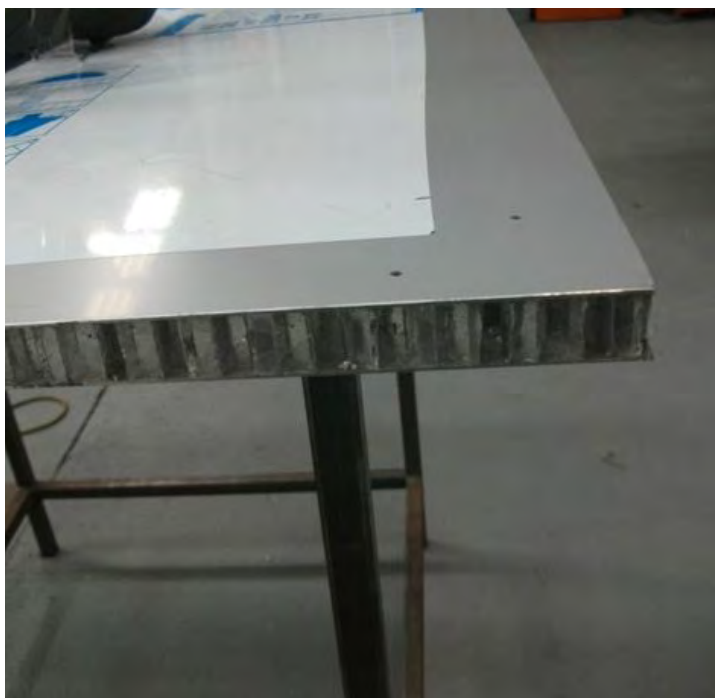
LVVTA is an association of member associations, ranging from classic and sports cars to motor homes and disability vehicles. It has a combined total membership of around 160,000 members.

Robert Buchanan is Chair of the LVVTA board, and has had a life-long career in public law.

Tony Johnson was instrumental in establishing LVVTA in 1992 and has been its Chief Executive Officer for over 20 years. ■

¹ LVVTA Inc & Anor v Drive NZ Classic Ltd [2022] NZCA 405 [26 August 2022]; Drive NZ Classic Ltd v LVVTA Inc & Anor [2022] NZSC 146 [15 December 2022].

² Drive Classic NZ Ltd, known as U-Drive Mobility or ‘UDM’.



Above: This image shows a sheet of aluminium sandwich panel, which was used to replace the pressed-steel floor, and the high-strength steel chassis rails, tunnel, and cross-members.



Above: The new aluminium sandwich panel floor, looking toward the front of the vehicle, creating a smooth unobstructed path for a wheelchair occupant.

Documents and Systems



SAFETY ALERTS RECENTLY ISSUED

01 - 2023 Copies of ‘Astro Supreme’-brand Wheels

02 - 2023 Aftermarket Tubular Suspension Arms with Cantilever-style Ball Joints



For all LVVTA Safety Alerts, visit: www.lvvta.org.nz/safetyalerts.html

Safety Alert #01-2023 Copies of 'Astro Supreme'-brand Wheels



This Safety Alert accompanies the re-issue of Information Sheet

#01-2011 'Supreme'-brand

Aftermarket Wheels, and highlights the safety risk associated with non-compliant and unsafe aftermarket copies of the 'Astro Supreme' wheel, several of which have failed in use overseas.

These wheels are a replica of the original 'Astro Supreme' in appearance only, and are not constructed in the same way as the original wheel. The copied wheels use steel lugs welded to the wheel spokes to attach them to the barrel, which have in several instances cracked and failed due to the poor welding method used. These wheels are unsafe, and cannot be LVV certified except under certain, specific circumstances. ■



Left: Front face of typical copy of an Astro Supreme-brand wheel. **Right:** Weld failures on a copy of an Astro Supreme-brand wheel. **Image Source:** Photos kindly supplied by Vahry Photography, Parnell, Auckland.

Safety Alert #02-2023 Aftermarket Tubular Suspension Arms with Cantilever-style Ball Joints

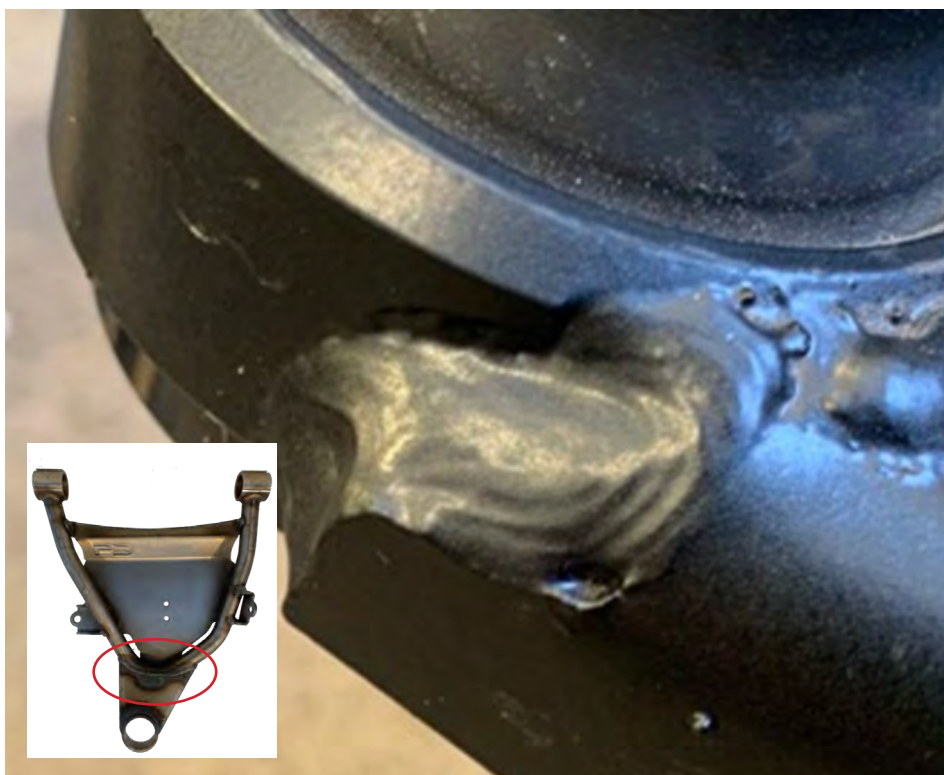


This Safety Alert highlights safety risks associated with poorly designed suspension arms from various American manufacturers, and provides guidance to

affected vehicle owners and LVV Certifiers about the rectification process to enable these components to be LVV certified.

There have been several different types of suspension arms supplied to LVVTA so far, and with input from the Technical Advisory Committee (TAC), and independent engineering firms, designs to strengthen the attachment of the cantilevered ball joint mounts have been developed. ■

Inset Image: A PBFab (Porterbuilt) Chevrolet C10 lower arm showing the cantilever-style ball joint platform design. **Main Image:** This is an example of a poor weld including craters and incomplete welds at the ball joint end housing.





INFORMATION SHEETS RECENTLY ISSUED

01 - 2023 Copies of 'Astro Supreme'-brand Wheels

02 - 2023 Aftermarket Tubular Suspension Arms with Cantilever-style Ball Joints



For all LVVTA Information Sheets, visit: www.lvvta.org.nz/documents.html#infosheets

Information Sheet #01-2023 Copies of 'Astro Supreme'-brand Wheels



This Information Sheet is a re-issue of Information Sheet #01-2011 'Supreme'-brand Aftermarket Wheels,

which accompanies Safety Alert

01-2023 Copies of 'Astro Supreme'-brand Wheels, and has been re-issued in order to better clarify which copies of the Astro Supreme-brand wheels are unsafe and cannot be LVV certified.

The Information Sheet expands on the poor construction methods employed by makers of the wheel copies, to attach the spokes to the barrel, and provides LVV Certifiers and the public with guidance on how to identify an affected wheel. LVV certification must be refused to any vehicle fitted with these copies of the 'Astro Supreme' wheel, with the sole exception being where fitted to the rear axle of a trike, and the fitment in this case must meet specific criteria. ■



Image 1: Front face of typical copy of an Astro Supreme-brand wheel. **Image 2:** 'DOT' compliance marking is evident on rim, but that applies only to the rim itself, not the manufactured wheel. **Image 3:** View of back-face of a poorly designed and assembled 'Supreme' type wheel. **Image 4:** Weld failures on a copy of an Astro Supreme-brand wheel. **Image Source:** Photos kindly supplied by Vahry Photography, Parnell, Auckland.

LVV Certifiers Needed

We know that LVV Certifiers are in the best position to identify the next generation of LVV Certifiers.

So, if there is anyone you know that may be interested in becoming an LVV Certifier put them intouch with LVVTA.

LVV Certifiers are needed in the following areas:

Taranaki | Tasman



Information Sheet #02-2023 Aftermarket Tubular Suspension Arms with Cantilever-style Ball Joints



This new Information Sheet accompanies Safety Alert #02-2023 Aftermarket Tubular Suspension Arms

with Cantilever-style Ball Joints. The Information Sheet expands on the concerns highlighted in the associated Safety Alert, and explains the issues with the design of this type of suspension arm, the quality defects, and manufacturing faults found on arms that have been inspected. It also gives guidance to owners of affected vehicles, and outlines the obligations of an LVV Certifier if presented with a vehicle fitted with these cantilever-style suspension arms.

As part of the assessment process, an accompanying Information Sheet will be developed, which will describe the rectifications needed in order to bring the suspension arm into line with LVV requirements. ■



Image 1: A PBFab (Porterbuilt) Chevrolet C10 lower arm showing the cantilever-style ball joint platform design. **Image 2:** This is an example of a poor weld including craters and incomplete welds at the ball joint end housing. **Image 3:** This is an example of a Chevrolet C10 truck Ridetech lower control arm, with a visible bend or sag in the air bag mounting platform.

Events

National Light Vehicle Modifications Summit



In June, LVVTA's Certifier Support Officer attended the Autocare 2023 National Light Vehicles Modifications Summit held at the Brisbane Convention & Exhibition Centre. This inaugural summit was organised by the Australian Automotive Aftermarket Association (AAAA) as a way for the Australian aftermarket industry to collaborate and influence national vehicle standards in Australia.

There is quite some concern in Australia that it is getting more difficult (and expensive) to modify and certify light

vehicles, often because of confusing and inconsistent rules and 'excessive' compliance testing. The increasing number of electric/hybrid/fuel cell vehicles combined with developing vehicle technologies, such as Autonomous Emergency Braking (AEB), Lane Departure Warning (LDW) and Blind Spot Detection (BSD) (all part of Advanced Driver Assist Systems [ADAS]), have led to concerns from some that they will find themselves in a situation where they can no longer modify their vehicles. ►

As a quick comparison to the LVV system, we have a national approach so regardless of where you are in New Zealand the applicable rules and requirements are the same, whereas different states in Australia have different requirements - meaning a compliant vehicle in Queensland may not be compliant in Western Australia. As well as not using the same requirements between states, there is also the issue of which parts of a requirement are used, and if it is even law. The Australian Vehicle Standards Bulletin 14 (VSB 14) is the National Code of Practice for Light Vehicle Construction and Modification, which basically sets out the technical requirements that need to be met when modifying or constructing a vehicle. VSB 14, while a National Code of Practice, is not used in its entirety by all states, with some states only using sections of it. Unless referred to specifically in law by a state, VSB 14 remains a code of practice and is not law. For modified vehicles, the same applies to Australian Design Rules (ADRs). ADRs, although 'rules' for vehicles when they are first registered, remain national standards for modified vehicles, and are no more 'rules' than VSB 14, unless of course, a state refers to it in their laws. All a bit too complicated!!

The cost of compliance in Australia is also high when compared to New Zealand, and one of the reasons is the amount of testing an Australian Licenced Certifier must complete before signing off a vehicle. As an example, many vehicles get fitted with ADR compliant modifications, and each and every one of them still needs to be tested in a very specific manner. This is to confirm the vehicle still complies with the ADRs it complied with when first registered in Australia. For vehicles with Electronic Stability Programmes (ESP) this could mean a very specific 'sine with dwell' test that requires time, tools, and space which all adds significant cost to the total expense of modifying a vehicle.

The general feeling was that the AAAA may be able to work with state governments to get better consistency with requirements and potentially reduce compliance costs for vehicles using ADR compliant parts. There was plenty of optimism for the future of modified vehicles, where the increasing number of EVs or safety systems will only change the types of modifications, rather than stop them altogether.

We have it pretty good here in New Zealand, with requirements freely available, consistent across the country, and Waka Kotahi NZ Transport Agency working with us. We should take pride in our system and the freedoms it provides us. ■

Images right: Display vehicle at the National Light Vehicles Modifications Summit - Ford Ranger opened to view internal componentry construction. Time taken to cut open was approximately 200+ hours.



ACC Service Design Workshop

Recently, LVVTA representatives were invited to attend a service design workshop hosted by the Accident Compensation Corporation (ACC). As well as LVVTA staff, ACC-contracted transport assessors and vehicle modifiers were present, plus other key stakeholders both external and internal to ACC. The meeting focused on ways to improve processes around client assessment and vehicle adaption, and featured input from assessors, vehicle modifiers, and regulators to pinpoint where and how systems could be improved. The overall objective was to find ways of streamlining the process and reducing the timeframe between a client's initial application and assessment, and the final delivery of their completed vehicle.

Feedback was initially sought on the current assessment system, and the drawbacks associated with its implementation. There was a wealth of knowledge available from the attendees, most of whom were actively involved in the disability adaption industry, and had significant insight into the ways in which it could be improved. Ideas around system development ranged from a centralised inventory system of vehicles and modification equipment, to changes to procedures related to the LVV re-certification of vehicles, and improving the way in which disability vehicles are recorded for the Clean Car Standard. Attendees worked with ACC on suggestions that could enhance



the current processes and systems, which would benefit all, and more importantly, streamline the process for clients.

Workshops like these are hugely beneficial in terms of building relationships, and in opening the lines of communication between members of the disability adaption industry and ACC, but they also provide valuable feedback to LVVTA. As a result of the workshop, LVVTA staff have established several action points which have the potential to improve both the delivery of old processes, and develop new processes (through the Electronic Data Plate system) to assist vehicle modifiers in speeding up the delivery of modified disability vehicles. ■

Hardpark Car Show 2023

Earlier this year some of our LVVTA staff attended Hardpark 2023, which is one of several car enthusiast events held yearly in the Wellington region over Wellington Anniversary weekend. Traditionally, Hardpark has been run in the Hutt Riverbank car park and sees anything from a few hundred to over a thousand vehicles attend. Two years ago, Covid challenges meant a move to Brewtown in Upper Hutt and this year, following on from the success at Brewtown, the show was held at Trentham Memorial Park.

LVVTA had several modified and aftermarket components on display; each of these components had features that were outside of the LVV Standards requirements. We had also organised a heavily modified vehicle to be displayed that featured several non-compliant modifications. The components and vehicle generated conversations with show attendees and gave LVVTA staff the opportunity to talk through the various non-compliant issues, giving future modifiers an insight into the wrong way and the right way to modify their vehicles.



Our staff thoroughly enjoyed themselves and the time spent sharing information, and chatting with attendees throughout the day. We look forward to being involved again in the future. ■

LVV People

LVVTA Welcomes New LVV Certifiers



Vijay Dheda (Taupo)

Coming from a family of car enthusiasts, Vijay spent time in his father's panel beating shop before moving onto manufacturing and engineering. He holds a National Certificate in Mechanical Engineering and has been building and modifying vehicles for over 15 years, with a particular passion for motorsport vehicles.

Vijay owns MunkyMetal Worx with his wife Jasmine (where he currently carries out a range of engineering, fabrication and mechanical work) and owns a number of vehicles including older Toyotas and some highly sought after classics, such as an AE82 hatch.

For over 13 years Vijay has been a part of the Taupo Car Club, and is involved with organising events from motorkhanas to national race meetings. He's competed in drag racing, rallying and circuit racing and has held MSNZ Scrutineers and Clerk of Course licenses. ■



Dan Myers (Wellington/Kapiti)

Dan will be no stranger to those who've interacted with LVVTA in the last 14 or so years, having been LVVTA's in-house engineer and resident seat, seatbelt, EV, and Land Rover expert since 2009. Dan left LVVTA in June last year to take on modification-related consultancy work and LVV Certification, which will see him specialising in the LVV certification of seats and seatbelt installations, and disability vehicles. It's also expected that Dan will be appointed for category LV4 (electric vehicles) in the near future. ■



Malcolm Johnstone (Invercargill)

Malcolm is trade-qualified to Level 4 Mechanical Engineering, and has worked for the last 13 years at local business Autofab Ltd. He undertakes numerous general engineering duties, as well as modification work such as re-splining axles, line-boring, narrowing diff housings, and making driveshafts, as well as chassis, steering, braking, and suspension modifications.

Malcolm has completed a bunch of projects over the years and is currently building a '47 Morris E with a 3.8 Holden V6, narrowed Falcon rear end, narrowed Cortina front end, and an extensively modified chassis and body. ■

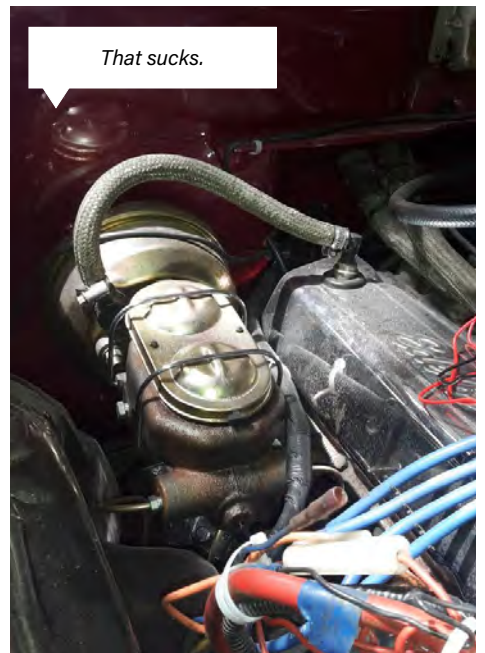
The Good, the Bad, & the Ugly



Homegrown fabrication from the Manawatu.



A stunning NZ built replica.



That sucks.



This is how they upgraded the car's E.C.U. back in the day.



Throw a Rod.



A stunning NZ built replica.



Driving the wheels off it.