

LVTA NEWSLETTER

LOW VOLUME VEHICLE TECHNICAL ASSOCIATION (INC)

33 Years 1992-2025

ISSUE 66

JAN 2025 | DEC 2025

TOP STORY:

NEW LVV CERTIFIERS – Keeping NZ Covered

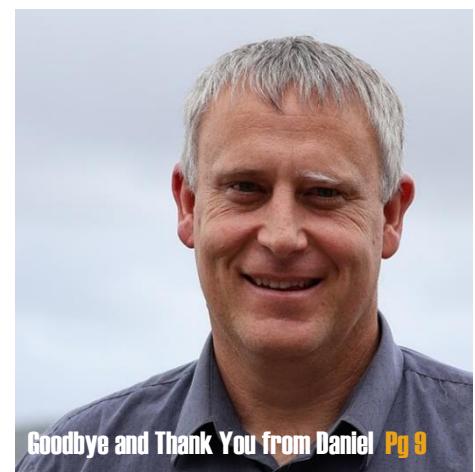




LVV Certifiers - Keeping NZ Covered Pg 4



Christmas Holiday Hours Pg 9



Goodbye and Thank You from Daniel Pg 9

From the CEO

As 2025 draws to a close, and with the holiday season fast approaching, I want to take this opportunity to thank everyone for their continued support, commitment, and contributions to the ongoing improvement of New Zealand's Low Volume Vehicle Certification system.

This year has been another big one for LVVTA - full of challenges, achievements, and progress. I'm incredibly proud of what our team has accomplished, and grateful for the dedication and professionalism they show every day. Their commitment to supporting Low Volume Vehicle Certifiers and the wider vehicle modification community is what keeps our organisation moving forward. A huge thank you also goes to all our Low Volume Vehicle Certifiers for your work during the year.

As some of you will already be aware, after nearly two years as Operations Manager with LVVTA and RepairCert NZ, Daniel Boyd received an offer he couldn't refuse, and left us on the 26th of November to take up the role of Group Manager - Qualifications at MITO. During his time with us, Daniel has been a big part of strengthening our operational systems, and helping drive improvements across both organisations. His leadership, industry knowledge, and practical approach have been greatly appreciated, especially through periods of growth and change. On a personal level, we have enjoyed working with Daniel and are sad to see him go. We wish him all the very best for the future - and hope he finds some time to keep working on his fourth-generation Holden HT restoration project along the way.

On behalf of all of us at LVVTA, I wish you and your families a very Merry Christmas and a happy, safe, and well-earned break. We're looking forward to building on what we've achieved this year and making 2026 another successful year for everyone involved in the LVV certification industry. Take care and stay safe - we look forward to catching up in the New Year.

Ken McAdam, CEO

LVVTA Low Volume Vehicle Technical Association (NZ)

SAFETY ALERT # 01 - 2025 (April 2025)

Helping New Zealanders Build & Modify Safe Vehicles

UNSTEER-BRAND WELDED STEERING RACK AND PINION

Some Unsteer-brand aftermarket manual (non-power) steering racks incorporate welding to the rack shaft. These racks are available online from various off-shore retailers and are also being installed in some Australian-made independent suspension assemblies, such as those from Castlemaine Rod Shop. This welding poses a serious potential safety risk, does not meet LVV requirements, and cannot be LVV Certified.



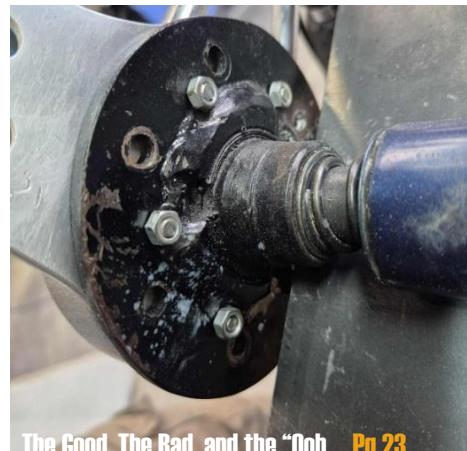
Safety Alert Pg 11



'Helping New Zealanders Build & Modify Safe Vehicles'

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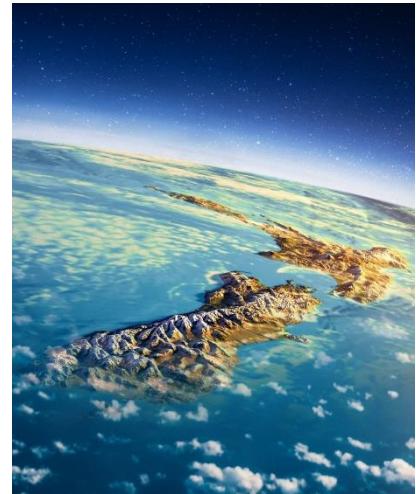
The Good, The Bad, and the “Ooh... Pg 23

News

LVV CERTIFIERS – Keeping NZ Covered

Bringing new LVV Certifiers on board isn't something that happens quickly – it takes time to go through the application, assessment, and appointment process (which involves both NZTA and LVVTA staff) to make sure each person meets the high standards the LVV system depends on. That being the case, we're always thinking ahead to make sure New Zealand stays well covered, both now and into the future. As some of our long serving certifiers move toward retirement or scale back their workload, it's important that we're ahead of the game, so we are already working to identify and develop the next generation of certifiers. Future-proofing the network in this way helps ensure the LVV system remains accessible, consistent, and sustainable for years to come.

Here's a brief overview of the process, and what the last 12 months looked like in terms of LVV Certifier recruitment:



Prospective Certifier Preliminary Conversation/Pre-assessments

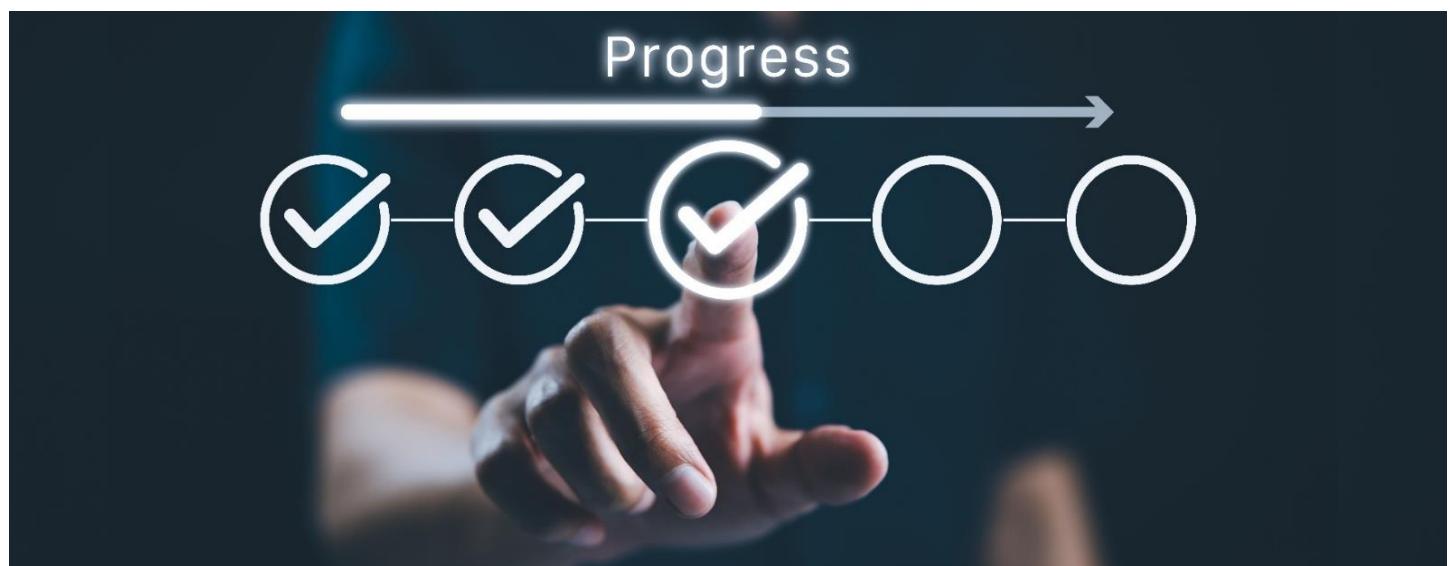
Each potential LVV Certifier starts with an 'on-site' informal conversation and pre-assessment to check they've got the right background, experience, and understanding of the LVV system to move forward, before any formal training begins.

- Total completed: 17
- Passed: 9 (Rotorua, Dunedin 2, Napier, Timaru, Auckland *motorcycles*, Christchurch 2 *including motorcycles*, Gore)
- Unsuccessful: 6 (South Island 3, North Island 3)

Half-Day LVVTA System Familiarisations

Next comes a short familiarisation session at the LVVTA office in Porirua, where candidates are introduced to how the LVV system works – the standards, documentation, and expectations that underpin the role of an LVV Certifier.

- Total completed: 9
- Given the go-ahead to apply: 8 (New Plymouth, Napier, Rotorua, Auckland *motorcycles*, Christchurch *motorcycles*, Dunedin 2, Timaru)
- Applications not yet submitted: 1 (New Plymouth)



Formal Entry Assessments and Induction Training

Those who progress attend a formal assessment and (where successful) the induction programme. This stage takes a deeper look at their technical knowledge, understanding of LVV Standards, and ability to apply procedures correctly and consistently.

- Total completed: 12
- Passed: 7 (Rotorua, Kapiti, Tauranga, Waiuku *Pre-1960 LV1D*, Timaru, Nelson, Auckland *motorcycles*)
- Unsuccessful: 5 (Dunedin 2, Ashburton, Whanganui, Balclutha)

Mentoring and being 'switched on' by NZTA

Successful candidates are then mentored by experienced LVV Certifiers before being switched on by NZTA. This mentoring period allows them to gain hands-on experience, guidance, and feedback to ensure they're fully ready to operate independently within the LVV system.

- Passed - still to complete mentoring: 3 (Timaru, Nelson, Auckland)
- Passed and switched on: 6 (Rotorua, Kapiti, Tauranga *motorcycles*, Waiuku, and two LVV Technical Staff Members, *as backups*)

Follow-ups and Futureproofing

- Modifiers visited: 13
 - Tauranga *motorcycles, potential future applicant*
 - Christchurch *now applied + familiarisation ½ day*
 - Invercargill & Gore 4
 - Whanganui
 - Taranaki 4
 - Dunedin 2

Keep an eye out

LVVTA are still actively looking for LVV Certifiers in Taranaki, Otago, and Southland for cars, and countrywide (except Auckland and Tauranga) for LVV Motorcycle Certifiers – If you, or someone you know, may be interested, have a look at the LVVTA website, and head to the 'Become an LVV Certifier' section for more information.

New LVV Certifiers – Welcome on Board



Welcome to LVV Certifier: Glen Eggleton (Rotorua)

Glen is pretty new to the team, and we don't have any photos of what he's been up to just yet. He's actually a lot happier than he looks – this is what happens when LVV Certifiers let us take the photo of them, instead of sending through a nice one from home...

A bit about Glen - he has been in the motor trade since he was 17 years old, and is somewhere in his fifth year of working at the Toy Shed in Rotorua. Glen completed his auto-electrical apprenticeship in Tauranga, and has built and raced both cars and motorcycles.



Welcome to Motorcycle LVV Certifier: Russell [Roosta] Kenny (Mount Maunganui)

We'll let Russ introduce himself in his own words:

“I'm Russ Kenny, otherwise known as Roosta. I was born and raised in the sunny Bay of Plenty, Tauranga, and Mount Maunganui. My working career started out in the mid-80s as an apprentice mechanic, working on V8s, building drag cars, street machines, hot rods, and really just throwing a v8 at anything we could, just because we could.. over the next few years my focus started shifting from cars to motorcycles, mainly custom Harleys, the noise, the torque, and the style of the 60s and 70s choppers...

So fast forward, I spent my middle years doing the family thing, kids, house and all things grown up, and my passion for motorcycles took a back seat so I could follow a career in hydraulics - while customizing bikes in my garage in the evenings and weekends to learn the trade.

I've been a self-employed hydraulic hose specialist for the past 19 years, with a hydraulics career spanning around 27 years. I decided a couple of years ago to follow my passion - motorcycles - and to open a custom motorcycle shop, working mainly on Harleys, but really anything on 2 wheels. So, I sold my Hydraulics business to make my dream become a reality

I had built a few custom bikes over the years and thought certifying could be something I might be interested in - let's face it, the custom car and motorcycle scene in New Zealand is world renowned.

Hobbies include riding almost anything on 2 wheels, dirt and road, engineering and modifying mainly Harleys, old skool rides, cars, and motorcycles.





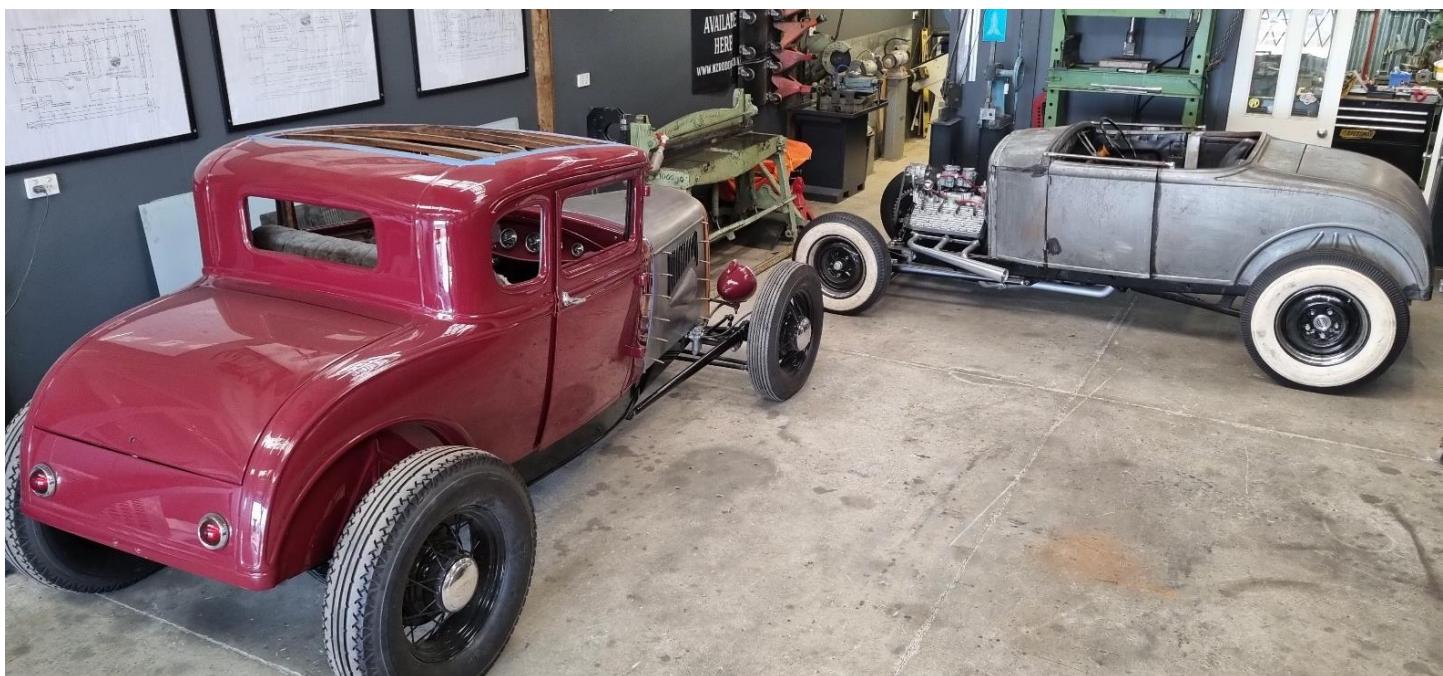
Welcome to Pre-1960 LV1D LVV Certifier: **Luke Ennion (Waiuku)**

Luke started his first project (a Mk2 Cortina) while still at school, followed by a T-bucket that he built while completing his boilermaker apprenticeship. He worked at NZ Steel while continuing to build hot rods part-time from home.

In 2017, Luke founded Franklin Speed Shop Ltd, specialising in the building and maintenance of traditional hot rods and customs. He has built numerous pre-'60s hot rods and pickups, carried out repair work, and guided owners through the VIN process.

The shop soon became a true family venture, with his wife Theresa working alongside Luke on the shop floor, in the office, and art studio.

With the arrival of their two children, Theresa has temporarily stepped back from the day-to-day operations - both kids are growing up around the business—and will hopefully continue the family's passion for hot rodding.



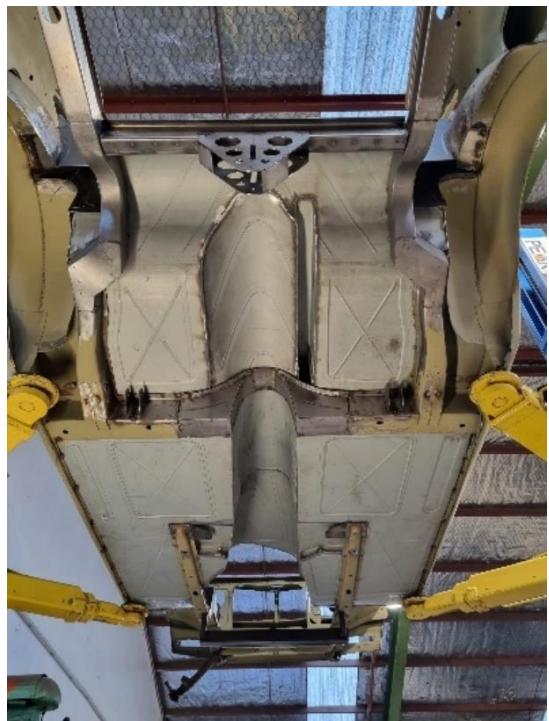


Welcome to LWV Certifier: Matt Lauder [Kapiti Coast]

Matt lives on a lifestyle block on the Kapiti Coast with his wife and the newest addition to their family.

Matt has spent 15 years in the motor industry building and modifying a wide range of circuit, rally, drift, and road cars. He owns and operates his own automotive fabrication business, (Lauda Created) and has built and competed in his own drift cars, but his focus has since shifted toward his business, family, and mountain biking – when time allows.

He's passionate about building cars and really enjoys helping people have something awesome that makes them happy, and that "we can both be proud of".



Closed for Christmas

Christmas Holiday Hours

We're closing the LVVTA office to put our feet up for a couple of weeks over the holiday period, and we hope you get a chance to do the same – Merry Christmas, and see you next year!

CLOSING

Friday 23 December, 12pm

REOPENING

Monday 5 January, 8am



LVV People

Goodbye and Thank You from Daniel

“ As I approached the end of my time with LVVTA, I found myself looking back over the past two years more often than I expected.

Stepping down from my role at LVVTA (and RepairCert NZ) was not an easy decision, but it comes with a great deal of reflection, gratitude, and optimism for the future of LVVTA.

I've had the privilege of working alongside an exceptional team—people who are deeply committed to vehicle safety, technical excellence, and supporting LVV Certifiers, and New Zealand's vehicle enthusiast community. Being part of an organisation dedicated to protecting both innovation and safety has been an honour; it has been a pleasure to work alongside you all.

From tackling complex certification challenges to collaborating with certifiers, builders, and everyday car lovers, my time at LVVTA has been marked by constant learning, memorable conversations, and countless examples of Kiwi ingenuity. I'm grateful for every opportunity this role has given me.

I want to extend a sincere thank-you to my colleagues, our certifier network, industry partners, and the many individuals who have made this work both meaningful and enjoyable.



Your support and shared passion have shaped my experience in ways I'll always value. Leaving isn't easy - it feels a bit like walking away from a family. As I move onto new challenges, I leave with full confidence in the LVVTA team and the important work they continue to do. I look forward to seeing the organisation evolve and achieve even greater things in the years ahead. Here's to what comes next – season's greetings and Merry Christmas to you all. **Daniel Boyd.**

Welcome to New Board Member

Simon Howard

Simon is a founding member and CTO of Bastion Security, a NZ-based cyber security consultancy with offices across NZ and Australia. He has over 20 years of experience in the IT industry, starting life as a C programmer and then moving into security engineering, architecture, penetration testing, and strategy. Simon also co-founded and assists with running one of Australasia's largest hacker conferences, Kawaiicon.

With a keen interest in all things automotive, Simon's daily driver is a super-charged Nissan 350Z, and he also owns a resto-modded Datsun 120Y which was the star of a short film called Datsun. Simon is currently studying a diploma in mechanical engineering via the Open Polytechnic; his goal is to understand the fundamentals of building things well.

Simon is keen to see the LVVTA maintain its relevance by assisting with strategy and ensuring sound governance of technology and processes. He wants to ensure the certification process is accessible and suitable for the next generation of car modifiers.



LVV Staff Projects

Andrew's getting excited to work on his drag car once again after being put on hold for some 5+ years - the 1975 Mitsi Galant he bought 25 years ago, is now clad over the chromoly space frame he built, with one goal in mind - to be quick! He's just received his new (to him) Lenco air-shifted 5-speed racing transmission (an early Christmas present to himself), and with his near finished house reno's, 2026 may see him having more time to get this project progressed.



Justin's been working towards getting his turbocharged VX Commodore back on the road after some engine issues around 17 years ago saw it relegated to the back corner of the garage.

The LS1 has been given a new lease on life thanks to the team at Llama Engineering, and the last few reliability tweaks are underway with the STS rear mount turbo setup ready for a dyno run and some summer cruising.



Marty's continuing with the restoration of his XY Fairmont, although other poor automotive-related financial decisions have slowed its progress somewhat. As well as fixing the rust, the 351 Cleveland and FMX combo are due for a freshen up, and will likely end up rebuilt close to factory GT specification.

Despite pressure from the office, Marty has so far resisted the temptation to fit the Summernats-spec Simmons and twin coffee pot intake.



Brewtown

LVVTA and RepairCert NZ staff had the chance for a bit of team building in July, with the first mid-year staff event, held at Brewtown in Upper Hutt. There, mini golf and escape rooms were the order of the afternoon, with the impromptu flatulence of certain nameless RepairCert NZ staff members in one room providing an added incentive to get out. All crop dusting aside, everyone enjoyed themselves and hopes are high for another event next year.



Back: Leon, Linda, Nikki, Perry (RCNZ), Daniel, Brendon, Tony, Cody, Justin, Mike (RCNZ), Shelley (RCNZ), and Dylan.

Front: Marty, Frances, and Andrew.

Insert: One of these is Dylan.

Documents and Systems



SAFETY ALERTS ISSUED THIS YEAR

01–2025 – Unisteer-brand Welded Steering Rack and Pinion



Safety Alert # 01–2025 – Unisteer-brand welded steering rack and pinion

This Safety Alert covers steering racks provided by American company Unisteer, which incorporate a rack shaft that has been cut down and joined by welding. This does not meet LVV requirements, and cannot be LVV certified.

These racks are easily identifiable by their three-bolt mounting flange, and any rack of this style must be fully stripped for inspection by the LVV Certifier.

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

SAFETY ALERT
01 – 2025 (April 2025)

Helping New Zealanders Build & Modify Safe Vehicles

UNISTEER-BRAND WELDED STEERING RACK AND PINION

Some Unisteer-brand aftermarket manual (non-power) steering racks incorporate welding to the rack shaft. These racks are available online from various sellers and are often not installed in some Australian-made independent vehicles, such as those from Holden and Ford. The welding poses a serious potential safety risk, does not meet LVV requirements, and cannot be LVV Certified.



Findings
These racks are supplied by American company Unisteer and appear to be modified versions of their short Cross Member rack, design number 1530. The original design does not incorporate welding to the rack shaft by welding an extension onto the shaft and lengthening the outer housing tube to match.

The presence of a butt-welded steering rack shaft is a serious concern, as the weld is not visible during an LVV inspection. The lack of visibility makes it difficult for the LVV Certifier to detect the weld, making detection difficult and increases the risk of unsafe components being unknowingly certified. LVVTA has found multiple examples of these racks, along with the obvious, heat-affected zone around the weld, has found instances of the shaft being cut down and joined by welding, and the weld being machined downwards.

The affected steering racks can be identified by their unique three-bolt mounting flange. Any rack and pinion assembly with a welded rack shaft is potentially unsafe and cannot be LVV Certified.

Guidance for Affected Owners and LVV Certifiers
Any rack of this style must be stripped for a full inspection of the rack shaft. Where a welded shaft is identified, either a new one-piece rack shaft must be installed, or a different steering rack must be used.

FOR FURTHER INFORMATION PLEASE CONTACT YOUR LVV CERTIFIER, OR LVVTA.

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INFORMATION SHEETS - NON-TECHNICAL ISSUED THIS YEAR

- # 03-2025 Changes to Objective Noise Testing (ONT)
- # 04-2025 New Motorcycle ONT Documents
- # 05-2025 Chapter 19 Vehicle Operation – Updated CCM Chapter
- # 06-2025 Release of Motorcycle Construction Manual Chapters
- # 07-2025 Release of Operating Requirements Schedule Chapters

Information Sheet # 03-2025 Changes to Objective Noise Testing

As of October 2025, instead of a physical certificate and label, vehicles which pass an ONT are fitted with an Electronic Data Plate. This Information Sheet covers the reasons for the changes, the new process for ONTs, the information and photographs needed, and when to fit an ONT to a vehicle.

Information Sheet # 04-2025 New Motorcycle ONT Documents

To accompany the changes to the ONT system detailed in Information Sheet 03-2025, and the development of the Motorcycle Construction Manual, a separate Information Sheet has been released detailing the changes to the ONT system for motorcycles. This includes the release of the motorcycle-specific Exhaust Noise Chapter of the Motorcycle Construction Manual, which contains dedicated exhaust noise testing requirements for motorcycles, and specific noise limits for class LC and LD vehicles.

Information Sheet # 05-2025 Chapter 19 Vehicle Operation – Updated CCM Chapter

This Information Sheet outlines the changes to NZCCM Chapter 19, which are explained on the following page, under 'New Zealand Car Construction Manual Updates'.

Information Sheet # 06-2025 Release of Motorcycle Construction Manual Chapters

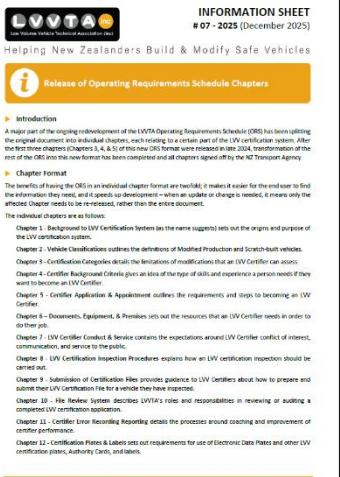
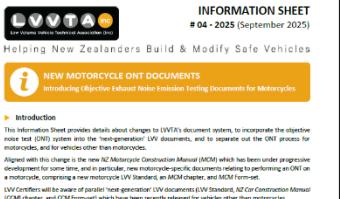
After a period of 'road testing' by LVV Certifiers, the first six chapters of the Motorcycle Construction Manual have been finalised and are ready for public release. This Information Sheet details the chapters that have been released, and the topics they cover.

Information Sheet # 07-2025 Release of Operating Requirements Schedule Chapters

This Information Sheet explains the changes made to the format of the Operating Requirements Schedule (ORS), the reasons behind the changes, and the topics that each chapter covers.

For all LVVTA Information Sheets, visit the LVVTA website Documents Area:

www.lvvta.org.nz/documents#infosheets



INFORMATION SHEETS - TECHNICAL ISSUED THIS YEAR



01-2025 High-sided Race Seats and Three-point Seatbelts

02-2025 Positioning of Wheelchair, Restraints, and Seats in Vehicles not Subject to PSV Rule



Information Sheet # 01-2025 High-sided Race Seats and Three-point Seatbelts

One of the items to come out of the 2024 LVV Certifier National Conference was feedback about high-sided race seats in vehicles with three-point (lap and diagonal) seatbelts. Because of how these seats are designed and their intended use with race harnesses, they often do not allow for proper routing of normal three-point seatbelts – vastly increasing the risk in a crash of an occupant not being properly restrained.

This Information Sheet outlines the expectations around seatbelt routing where high-sided race seats are used, and why some fixed-back bucket seats simply can't be used with three-point seatbelts.



Information Sheet # 02-2025 Positioning of Wheelchairs, Restraints, and Seats in Vehicles not Subject to PSV Rule

Questions from the wider disability transportation modification industry have prompted the need to clarify requirements around placement of wheelchairs and restraints in disability vehicles. This Information Sheet also clarifies the expectations around access to restraints in vehicles, loading procedures, and whether seats can be folded to provide access.



OPERATING REQUIREMENTS SCHEDULE CHAPTER UPDATES

As part of the ongoing overhaul of the LVV Operating Requirements Schedule (ORS), it is now being split into a series of individual chapters. All of these chapters (other than Chapter 13) have now been signed off by NZTA, released publicly, and are available to download for free from the Documents section of the LVVTA website.



NEW ZEALAND CAR CONSTRUCTION MANUAL UPDATES

Chapter 19 – Vehicle Operation



NZCCM Chapter 19 Vehicle Operation has been overhauled, and sent to LVV Certifiers for feedback prior to public release. As part of the 'Next-generation' document format, the brake testing requirements have been moved from the Braking Standard into this chapter.

Chapter 19 deals with the road and brake testing requirements for vehicles undergoing LVV certification, and sets out the level of brake testing needed for certain modifications.

INFORMATION SHEET
01 - 2025 (March 2025)

Helping New Zealanders Build & Modify Safe Vehicles

i HIGH-SIDED RACE SEATS AND THREE-POINT SEATBELTS

Issues with the fitment of high-sided race seats to passenger vehicles are being noted with increasing frequency on some vehicles going through LVV certification, particularly regarding the routing of a vehicle's three-point belt. This is due to the fact that the high-sided race seats are designed to be used with a race harness, which has had due attention paid to it - there is a perception that three-point seatbelts and high-sided race seats will usually be a compromise, and depending on the type of seat (and the vehicle it is fitted to), requirements may not always have been applied correctly.

For this Information Sheet is focused on the fixed-back, high-sided race seats normally found in motor-sport vehicles, which are designed to be used with a full harness. Information Sheet # 02 - 2025 Aftermarket Seats - General Information further details issues around fitting high-sided race seats into a vehicle, and should be read in conjunction with this Information Sheet.

► **Applicable Requirements:**

There are two pertinent requirements relating to seatbelt routing when using high-sided race seats. LVV Standard 175-00 Seats and Anchorage requires that:

2.107 The seatbelt buckle of a seatbelt fitted to a low-profile vehicle must be located so as to be able to be readily reached by the occupant of the seat, and the buckle must be fastened for re-use, and on a lap and diagonal seatbelt, the buckle must be situated on or just below the hip area.

2.109 A seatbelt must be a full contact seatbelt, the occupant of the seat must not be held away from the occupant by interior trim or the seat structure, such as the deep sides of a seatbelt.

Image 1: This fixed-back race seat does not meet either of the requirements for fitting a three-point seatbelt to it.

NOTE: A seat designed for use with a full harness, has higher side profile than a standard vehicle seat. If a seatbelt is not able to be fitted to a high-sided race seat, or prevent proper fit of the seatbelt to the occupant, and as such is not suitable for use with a lap and diagonal seatbelt.

While it is not possible to cater to every scenario, and to point the suitability of a seat to a particular occupant becomes a matter for the vehicle owner to assess, the purpose of this Information Sheet is to clarify the expectations regarding high-sided race seats and LVV requirements. Note that a seat that is on adjustable numbers, all seatbelt positioning requirements specified within this Information Sheet (like those in LVV Standard 175-00 Seats and Anchorage) are specified with the seat at the mid-point of its fore-aft extension.

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INFORMATION SHEET
02 - 2025 (July 2025)

Helping New Zealanders Build & Modify Safe Vehicles

i Positioning of Wheelchairs, Restraints, and Seats in Vehicles not Subject to PSV Rule

Differing interpretations of the wheelchair positioning, access, and aisle spacing requirements in LVV Standard 45-00 Disability Transport Systems, and the application of LVV Standard 185-00 Seats and Anchorage to disabled vehicles, has led to some confusion around the placement of wheelchairs in vehicles used to transport people with disabilities. This Information Sheet aims to outline some basic parameters around wheelchair and access requirements in vehicles, and provide some reasoning behind these requirements. This is needed in order to achieve consistency in the application of these requirements.

Note that this Information Sheet relates to vehicles that are not subject to the Passenger Service Vehicle (PSV) Rule. Vehicles subject to the PSV Rule must meet set requirements that are over and above those specified for private vehicles, which take precedence over LVV requirements where there is a conflict. A vehicle must comply with the PSV Rule if it is used to transport passengers for hire or reward. Vehicles subject to the PSV Rule are outside the scope of this Information Sheet.

► **Key Points for Wheelchairs**

While there are two scenarios outlined (and the line can be blurred when two visually similar vehicles do not meet different requirements dictated by their end use), wheelchair access and spacing requirements do not need to meet LVV requirements unless the vehicle is subject to the PSV Rule. There is a clear and deliberate difference between these two areas, and the following points are intended to clarify the requirements for wheelchair flexibility and vehicle choice for the disabled community. Non-PSV can be more tailored to the unique needs of the user, rather than a PSV.

1. Two LVV seat and seat Anchorage Standard specifies that 300mm of aisle space is only necessary if there are obstacles or obstructions that prevent the occupant from using the majority of the height of the seat.

2. Because of variables inherent in the design of vehicle layouts, like the type of wheelchair fitted, the types of restraint, number of doors, number of seats, or the vehicle's loading procedure, it is not practicable to implement a single set of aisle and wheelchair access requirements for all vehicles. The Disability Transport Systems Standard is 300mm over the majority of the height of the aisle. Wheelchair restraints are permitted to encroach further than this 300mm minimum.

3. Where there is not 300mm over the majority of the height, a wheelchair can be accommodated if the aisle space is not obstructed by the height of the seat, and the occupant can be seated in the aisle space, without having to move the wheelchair to enable access past the wheelchair position.

4. Where there is not 300mm over the majority of the height, a wheelchair can be accommodated if the aisle space is not obstructed by the height of the seat, and the occupant can be seated in the aisle space, without having to move the wheelchair to enable access past the wheelchair position.

5. If the removal of a restraint is required to permit access to another restraint or seating position, this can be accepted, however the loading procedure must describe the order of passenger entry/exit and wheelchair position, and the order of loading and unloading passengers, and be readily available in the vehicle for caregivers or operators.

This may not apply to all vehicles modified for people with disabilities, however for vehicles with less space available, the points above may permit a vehicle layout that would not otherwise have been possible.

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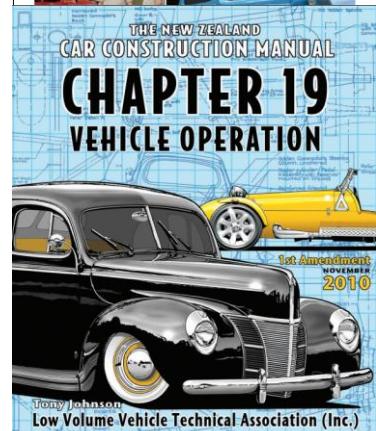
INFORMATION SHEET
1 - 2025 (October 2025)

Helping New Zealanders Build & Modify Safe Vehicles

i LVV Operating Requirements Schedule

Chapter 1 Background to the LVV Certification System

Version 1.1 | Effective from 1 October 2025



How-to Videos

Electric Power Assisted Steering (EPAS)



Cody Nicholson and Andrew McGregor presented an instructional video on electric power-assisted steering (EPAS) systems, based on the information presented to LVV Certifiers at the 2024 National Conference. The response the video received was overwhelmingly positive – so much so that we're aiming to have another instructional video released soon – see below.

In the Pipeline – High-sided Race Seats



The topic of high-sided race seats was showcased during our 2024 LVV Certifier Conference, in which LVV Certifiers could physically see and discuss the various configurations and compatibility issues that such seats present in a non-motorsport Low Volume Vehicle.

Since the success of the EPAS video (released May 2025), the team wanted to keep the momentum going, so to complement LVV Information Sheet 01-2025 High-sided Race Seat and Three-point Seatbelts, filming commenced in late November. By the time you read this, the High-sided Race Seat video may already be live, so keep an eye out on our social media platforms, and don't forget to follow, like, and subscribe for all future posts.



Image 1: This fixed-back race seat shows some of the issues with mounting a three-point seatbelt across a sports seat.

LVVTA Events

Hardpark 2025

Back in January, Andrew McGregor and Cody Nicholson represented LVVTA at the 2025 Hardpark show in Upper Hutt. They brought along the EPAS (Electric Power-Assisted Steering) demonstration rig, which was busy all day showing people the strength of an electric power steering unit and how important correct mounting is for an EPAS column. In addition to the practical demonstration, the LVVTA display tent was joined by two modern classics – an R32 Skyline GTR and a Lancer Evo VII, both kindly on loan for the day from Corey at Te Pene Motors.



One lucky showgoer walked away with \$270 off their LVV certification. In what was probably the largest Hardpark turnout yet, it was great to see the variety of vehicles on show and talk to people about the LVV certification system. We'll see you all at Hardpark 2026!



Chrome Showcase



Among the thousands of attendees of the Chrome Showcase at Auckland Showgrounds on September 27th & 28th were LVVTA staff Cody Nicholson, Andrew McGregor, and Justin Hansen. They were joined by Auckland-based LVV Certifier Scott Tristram to answer technical queries, and educate showgoers about the LVV system. The show was huge – reminiscent of the Auto Salon-era of the early '00s in terms of the variety, quality, and sheer number of vehicles on display. Hard copies of the NZ Car Construction Manual were given out each day to lucky winners, with an impressive amount of interest and entries into the draw. There was a steady stream of people through the LVVTA display over the two-day show, and it was great to be able to chat to new people and raise awareness of the LVV system.



NZ Cobra Club Visit



In February, LVVTA played host to various members of the NZ Cobra Club, who dropped in as part of their summer tour of the lower North Island. Andrew 'EPAS' McGregor carried out an impromptu demonstration of the electric power steering rig for club members, which was well received. While from the outside all of the Cobras appeared similar (aside from one GT40-shaped interloper), they ranged across the spectrum of kit manufacturers – from Almac to Factory Five.



New Zealand Cobra Club



Show Your Ability

In April, Marty Boyle and Dylan Mathieson went along to the Show Your Ability show in Palmerston North to have a look at the latest offerings in the world of technology for people with disabilities. The highlight of the show was an electric wheelchair that could be driven using Google Glasses – wherever you looked, it went. The show covered a wide variety of gadgets to help people, from wheelchairs to specially-adapted vehicles to hospital beds. The thought and ingenuity that goes into the technology available now to help people with disabilities is truly impressive, and Show Your Ability was an excellent showcase for it.



LVVTA Training

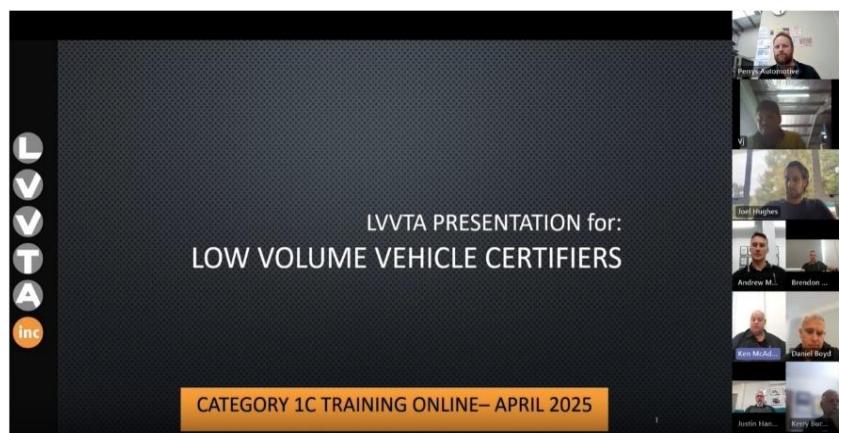
Several training sessions for LVV Certifiers were carried out in 2025 – two targeted training sessions for specific LVV certification categories, and the (now annual) National Conference.

LV1C Modified Production – Structures

LVVTA pioneered the first half-day virtual training session for LVV Certifiers early in 2025, targeted at those certifiers who wanted to gain category LV1C.

This was led by Cody Nicholson and Andrew McGregor, who ran certifiers through a comprehensive overview of the requirements around structural vehicle modifications and how to assess them.

Like anything new, there were a few technical issues early on – but on the whole feedback from certifiers was positive, and it's likely that LVVTA will carry out further online training sessions in the future.



Disability Transportation



Training around disability vehicle modifications was held in June this year, and mostly focused on category LV3A Disability Adaption - Limited. A group of LVV Certifiers from around the country congregated at LVVTA headquarters for a day-long crash course hosted by Dylan Mathieson and Marty Boyle, on the wide-ranging and varied modifications that are carried out on vehicles to enable people with physical disabilities to be transported safely.

The second day involved a trip to Carterton, to visit specialist disability vehicle modifier Braiden International Ltd. There, certifiers were shown around the various stages of fitting out Braiden's signature range of Mercedes Sprinter vans, including fitment of hoists and restraints, tracking, and flat floor conversions for drive-from-chair setups. As the disability vehicle sector grows further and further, there is an increasing demand for LVV Certifiers to assess these modified vehicles.



National Conference

Building on the success of last year's event, the second LVV Certifier National Conference was held on September 12, when LVV Certifiers from around the country gathered in Porirua for a mix of workshop and classroom-based training. Justin Hansen conducted a session on airbag suspension systems, including feedback from certifiers on how technologies have changed since the requirements were written, what's common in air suspension now, and how best to update the requirements to suit modern systems. Based on the outcomes of this session, the Suspension Systems Chapter of the NZCCM will be updated to include requirements which reflect these modern trends and practices.

Andrew McGregor led certifiers through a crash course in physics, starting with basic principles and finishing with the effects of twist and torque on a perfectly scaled RHS chassis. This was a great visual tool to show where a chassis will flex, and clearly demonstrated how important crossmembers are in a ladder frame chassis. It was also a reminder for certifiers to look at the bigger picture – the effects that a modification can have on a vehicle are sometimes not localised to one particular area.

Ken McAdam led certifiers through the usual procedural and classroom-based part of the day, covering recent Certifier Updates and providing a general update on the LVV system.

The day finished with a presentation from Glen Marshall of the NZ Police Serious Crash Unit (SCU), on the processes and the level of investigation that occurs after a serious crash, and some sobering stories about what the SCU has to face. It was a reminder of what can happen when things go wrong, and that sometimes small decisions can have big consequences.

Feedback from certifiers continues to be positive about the National Conference format, especially the opportunities it presents to meet people from around the country and swap information. The 2026 conference is already in the planning stages, so watch this space!



Above: 'Houdini' Hansen revealing what's under his blanket.
Left: Attendees and staff alike were wowed throughout the day by the quality of food prepared by Nikki and daughter Sam. Last year was hard to top, but this year was even better!
Below: LVV Certifiers discuss torsional stresses in Andrew's chassis model.



Showroom Visitors

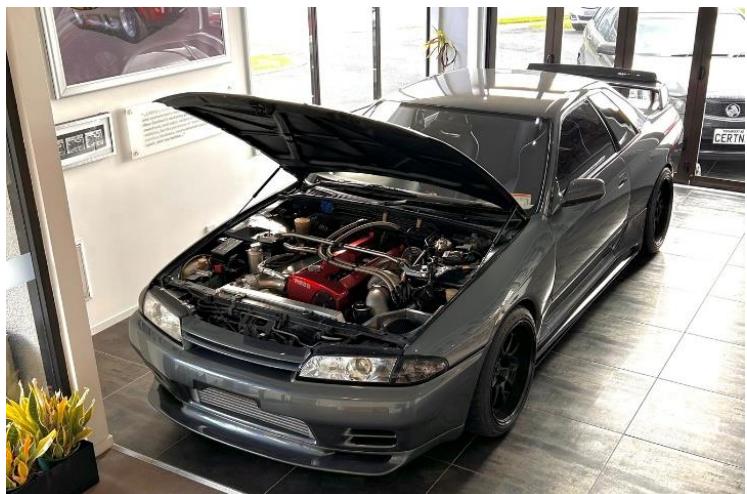
Several different cars have graced the LVVTA showroom this year, across the spectrum of modified vehicles in NZ.



Ian Prisk was kind enough to lend us two of his cars for the showroom this year – firstly, his '57 Bel Air hardtop, which has a warm 350 small block, Ford 9", Wilwood stoppers, and sits on an Art Morrison chassis. Ian has owned the Chev for over 18 years, and it still looks as good as the day it was built.



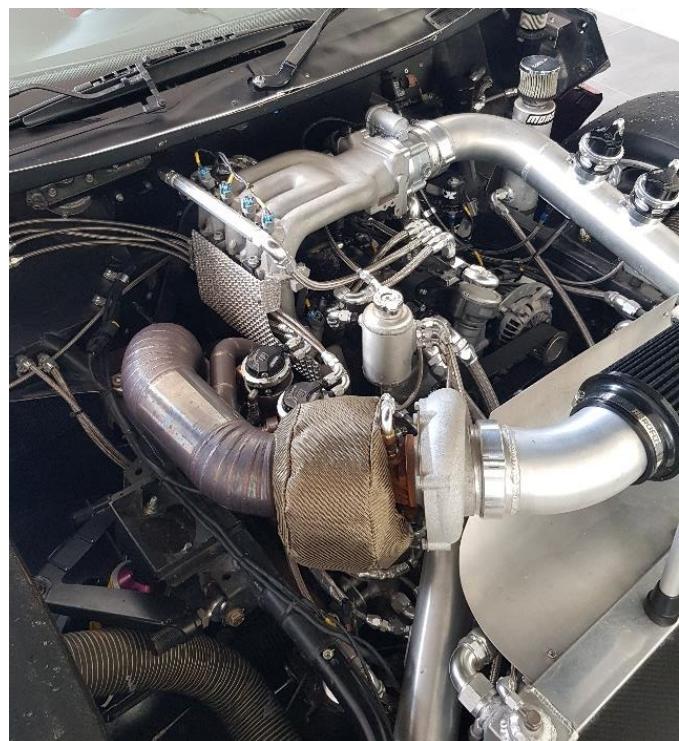
Ian's other car is this brand-new 5 window '32 Ford replica, recently finished by Magoo's Street Rods. Like the '57 this also runs a small block Chev, this time coupled to a Powerglide and backed up by a Winters quick-change diff.



Corey Smith is the proud owner of 'Bambi', this R32 Skyline GTR – so named because of an unfortunate encounter with a deer. The factory RB26 has had a single turbo conversion with twin wastegates, Haltec ECU and dash, and it sits on 18x10 Work Emotion wheels. It makes around 430kW at all four wheels.



Reuben 'Lord' Bemrose recently dropped off his rotary-powered, S14 Silvia-fronted Ferrari 456 GT for our showroom. This fully caged madcap racetrack-dedicated creation features a bridgeported and turbo'd Mazda 13B, coupled to a six speed HGT sequential gearbox with a Tilton triple-plate clutch, huge AP Racing and Alcon brakes, three-way KW coilovers with assorted GKTech suspension arms, and BBS centrelock wheels from a 911 Cup Car.



The Good, the Bad, and the 'Ooh, That's a bit Different'

'LS The World' seems to have been a theme with vehicles that have come across the plating desk in the office this year. Underneath the airbrushed Holden Dealer Team livery of this well-sorted Kingswood ute lurks a turbocharged LS1. We like to think it's the sort of thing Brock would have used to haul parts for the race team back in the day, if he had the choice!



This cut-down Safari sports an LS with a hairdryer. Not only have they eliminated the roof rail rust, but they've done a very nice job of the flat deck conversion, and the turbocharged Chev V8 provides a lot more grunt than the original asthmatic TD42.



Completely at the other end of the spectrum though, if your quarter-of-a-million-dollars' worth of Ferrari is just too pedestrian and commonplace, you can always airbag it and fit it with the full Liberty Walk suite of body kit and overfenders.



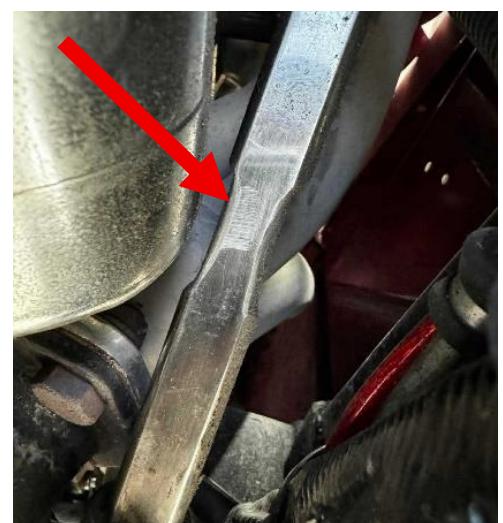
If Ferraris aren't to your taste, there was this very tidy Escort Sport. While it may have started life as a 1300 (and still looks fairly unassuming from the outside), it now has a lairy BDA on twin sidedrafts, a quick rack, Alcon 4-pot calipers and lots of other goodies from the Quaife and Gartrac catalogues.



Usually the doof-doof is mounted inside the car rather than by the exhaust. Perhaps it makes your Corolla sound like a Corvette? Maybe it's to join in with the siren battle kids? We're not sure either.



We usually only see the finished results after the vehicles have been signed off by the LVV Certifier. They deal with things requiring rectification, like this steering shaft, which has been ground away to achieve clearance with parts of the engine. Ordinarily, there are other things that aren't critical to the directional control of the vehicle (like the exhaust system) that should be moved to make the steering shaft fit, rather than weakening the link between your hands and the front wheels!



When it comes to joining two critical components (like the steering wheel boss to the steering shaft), the answer is not 'if in doubt, hit it with the metal glue stick'. And if it doesn't work the first time, it's definitely not 'hit it with the metal glue stick again'.

