

# LVVTA 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**





## 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**







Low Volume Vehicle Technical Association (NZ)

**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 offshore 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.

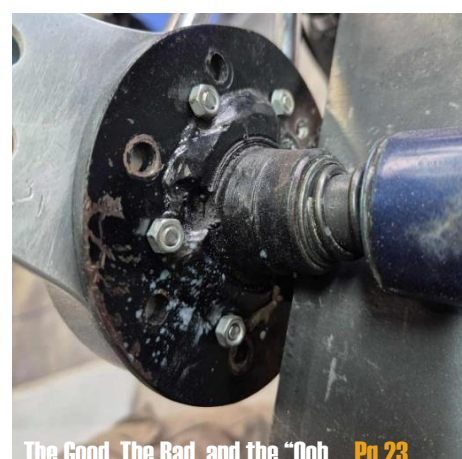
Safety Alert Pg 11



# 'Helping New Zealanders Build & Modify Safe Vehicles'

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## 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

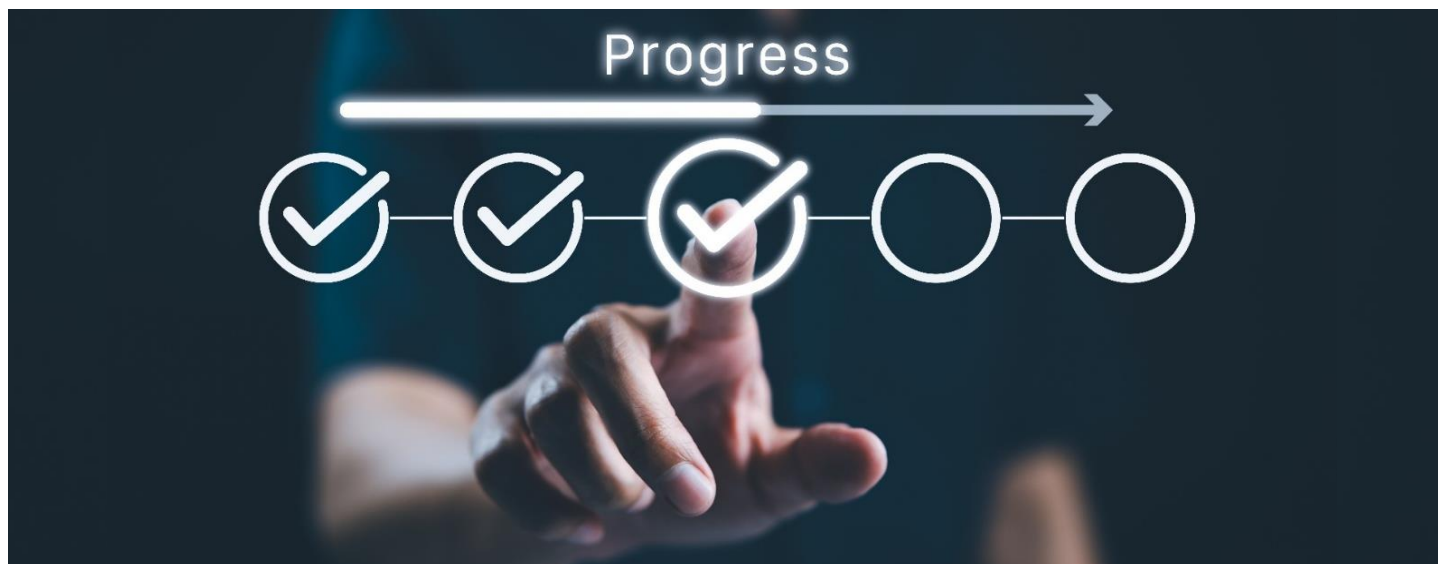
Each potential LVV Certifier starts with an 'on-site' informal conversation and pre-assessment to check they've got the right background, experience, and understanding of the LVV system to move forward, before any formal training begins.

- 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.





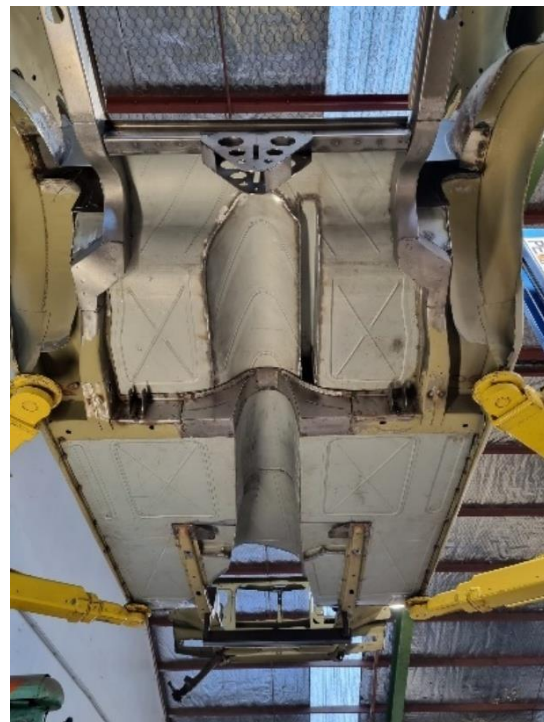
## Welcome to LVV Certifier: Matt Lauder (Kapiti Coast)

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](http://www.lvvta.org.nz/safetyalerts.html)**

Low Vehicle Technical Association (NZ)

**SAFETY ALERT**  
# 01 - 2025 (April 2025)

Helping New Zealanders Build & Modify Safe Vehicles

**UNISTEER-BRAND WELDED STEERING RACK AND PINION**

Some Unisteer-br and aftermarket manual (non-power) steering racks incorporate welding to the rack shaft. These racks are available online from various offshore 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.

**Findings**  
These racks are supplied by American company Unisteer and appear to be modified versions of their short Cross Steer rack, designed for 1200-1300 Ford with a cross-steer setup. The modification extends the rack 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 modification is not visible during an LVV Certification inspection unless the rack is dismantled, which is not normally part of an inspection. This makes detection difficult and increases the risk of unsafe components being unknowingly certified. LVVTA has inspected multiple examples of these racks and along with the obvious heat-affected zone around the weld, has found inconsistencies in the weld quality, misaligned and bent rack shafts, and ground and machined down welds.

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.

LVVTA | P.O. Box 10-400, Porirua 5040 | 0800 8 138 4340 | [info@lvvta.org.nz](mailto:info@lvvta.org.nz) | [www.lvvta.org.nz](http://www.lvvta.org.nz) | Page 5 of 5

## 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.lvvtta.org.nz/documents#infosheets](http://www.lvvtta.org.nz/documents#infosheets)

**INFORMATION SHEET**  
# 03 - 2025 (August 2025)

Helping New Zealanders Build & Modify Safe Vehicles

**CHANGES TO OBJECTIVE NOISE TESTING**

**Introduction**

Since the introduction of the LVVTA-managed Objective Noise Testing (ONT) system in 2006, vehicles which fail a quick noise check as part of a Motorist of Fitness (MoF), or that are ordered off the road with a green or pink sticker by the NZ Police, have been required to undergo an ONT by an LVV Certifier. The need for such systems arose out of public pressure early in the new millennium about 'vehicular noise' causing the streets in many vehicles late at night. Land Transport NZ, the New Zealand Transport Agency, was called in to the time, named LVVTA, with developing, designing, and implementing a verifiable system on their behalf, to release and 'harm' the noise noise of a vehicle's exhaust, and safety that the noise of testing is not compliant with the decibel limit set out in Land Transport Rule: Vehicle Equipment 2004. The system needed to be impartial, and workable for every type of vehicle - noise is subjective, and the human ear is naturally more sensitive to some frequencies than others.

**Changes to the ONT System**

The ONT involves a metered test of a vehicle's noise output at a specified engine RPM by an LVV Certifier. Until now, if a vehicle passed an ONT, the meter was issued with an ONT Certificate stating that at the time of testing, the vehicle complied with noise limits, and recording details of the vehicle's current system. The vehicle's exhaust system was also fitted with an effective test with a unique control link, which identified as the system that was on the vehicle when it underwent the ONT. From a vehicle is presented to the LVV Certifier with an ONT that is issued that vehicle has passed the test, it must not undergo the ONT.

With robust and simple, the original system has been replaced with a new system that is more accurate to some frequencies than others. The new system is more accurate to some frequencies than others.

**Information Sheet # 04 - 2025 (September 2025)**

Helping New Zealanders Build & Modify Safe Vehicles

**NEW MOTORCYCLE ONT DOCUMENTS**

**Introducing Objective Exhaust Noise Exhaust Testing Documents for Motorcycles**

**Introduction**

This Information Sheet provides details about changes to LVVTA's document system, to incorporate the objective noise test (ONT) system into the 'new generation' LVV documents, and to separate out the ONT process for motorcycles, and for vehicles other than motorcycles.

Aligned with this change is the new NZ Motorcycle Construction Manual (MCM) which has been under progressive development for some time, and in particular, new motorcycle-specific documents relating to performing an ONT on a motorcycle, comprising a new motorcycle LVV Standard, an MCM Chapter, and MCM Formset.

LVV Certifiers will be aware of parallel 'new generation' LVV documents (LVV Standard, NZ Car Construction Manual (CCM) Chapter, and CCM Formset) which have been recently released for vehicles other than motorcycles.

**New Documents**

NZ Motorcycle Construction Manual (MCM)

The new MCM has been in development for some time, and the individual MCM chapters will be released progressively as they are developed. There are six other MCM chapters in development, scheduled for release in the coming months.

The MCM will be a parallel document to the existing CCM, designed - as the same applies - to guide New Zealanders in the safe modification and construction of motorcycles, and to provide LVV Certifiers with inspection documents, including corresponding MCM Formsets. The format, chapters, and numbering of the MCM is very closely aligned with the updated 'new generation' chapters of the CCM.

New MCM Chapter: LVV Standard, & MCM Formset

From 1 October, when LVV Certifiers perform an ONT on a motorcycle, they will refer to the new Chapter 12 (Part 2) - Exhaust Noise & Gas Emissions of the MCM for the specific chapter and testing process applicable to motorcycles, which is a new chapter, and the specific chapter and testing process applicable to motorcycles, which is a new chapter, and the specific chapter and testing process applicable to motorcycles, which is a new chapter.

**Information Sheet # 05 - 2025 (December 2025)**

Helping New Zealanders Build & Modify Safe Vehicles

**Chapter 19 Vehicle Operation – Updated CCM Chapter**

**Introduction**

LVVTA has updated the New Zealand Car Construction Manual (NZCCM) Chapter 19 (Vehicle Operation). As detailed within LVVTA Information Sheet #03-2025 (Exhaust Noise), the LVVTA Technical Documents, the main reason for the LVVTA Technical Documents system update is to create a clear distinction between the purpose of the LVV standards and the corresponding NZCCM chapters. While the LVV standards and NZCCM chapters will still be related, the distinction will reduce duplication, increasing the frequency of LVV standards improvements, and ensure the LVV Certifiers or the NZCCM chapters to be updated independently of each other.

From the end of last year, the structure of the 'New Generation' LVV technical documents will reflect the function of the LVV standards to lay out the legal framework for vehicle modification and construction requirements, and use the NZCCM chapters to show modification and building how compliance with the LVV standards can be met in a practical and achievable manner. In the case of Chapter 19, this involves the requirements for road testing, brake testing, and suspension. Unlike the rest of the 'New Generation' document system, though, there isn't a corresponding LVV Standard to go with the new Chapter 19.

LVV Standards provide an alternative method of compliance with the applicable Land Transport Rule, and as there isn't a Land Transport Rule that directly relates to vehicle operation, compliance there isn't an LVV Standard for this. Instead, how a vehicle drives, however, is needed to demonstrate compliance with several other LVV Standards - particularly those relating to Braking, Steering, and Suspension.

**Chapter Updates**

All changes to Chapter 19 (Vehicle Operation) are indicated throughout the Chapter by grey-shaded text. The Chapter has incorporated parts of the existing LVV Braking Systems Standard, specifically those related to brake testing. As well as the 2006 Motor Vehicle Testing Formset has been retained, and the Chapter 19 (Vehicle Operation) Formset should instead be used.

**Read Section Requirements**

**Information Sheet # 06 - 2025 (December 2025)**

Helping New Zealanders Build & Modify Safe Vehicles

**Release of Motorcycle Construction Manual Chapters**

**Introduction**

After a period of careful development and consultation with both LVV Certifiers and industry, LVVTA can now announce the public release of the first six chapters of the NZ Motorcycle Construction Manual (MCM). This new document is intended to be a parallel to the established Car Construction Manual (CCM), and as further MCM chapters are released the requirements for motorcycles within each Chapter will expand. The release of the MCM marks the first time a dedicated framework of requirements for modifying a motorcycle has become available. Further MCM chapters will be released as they are completed, until an entire equivalent Construction Manual exists, comparable to the existing Car Construction Manual. The release of the MCM has been a long time coming, and its release publication the NZCCM, will prove a vital resource for anyone building or modifying a motorcycle.

**Six Chapters Released**

The first six chapters released are: Chapter 5 (Frame Modification and Construction), Chapter 9 (Engine and Drivetrain), Chapter 10 (Fuel System), Chapter 11 (Body Modification and Construction), Chapter 14 (Swingarm), and Chapter 15 (Braking and Suspension). These chapters were released to LVV Certifiers in June 2024, and have been 'road tested' in their draft form by LVV Certifiers since then.

Some of the requirements in the new MCM chapters have been derived from those in the associated CCM chapters, with some specifically developed for motorcycles. All of the requirements (like the rest of the LVV system) are based on time-proven best practice and sound engineering principles.

The requirements in these six chapters will be followed when modifying or inspecting a motorcycle. Where there is not a specific MCM chapter for a particular aspect of a modified motorcycle, the relevant CCM chapter must be used and interpreted by the LVV Certifier for a motorcycle context.

**LVV Standards**

**Information Sheet # 07 - 2025 (December 2025)**

Helping New Zealanders Build & Modify Safe Vehicles

**Release of Operating Requirements Schedule Chapters**

**Introduction**

A major part of the ongoing development of the LVVTA Operating Requirements Schedule (ORS) has been updating the original document into individual chapters, each relating to a specific LVV certification system. After the first three chapters (Chapters 1, 4, & 5) of the new ORS format were released in late 2024, transformation of the rest of the ORS into this new format has been completed and all chapters signed off by the NZ Transport Agency.

**Chapter Format**

The benefits of having the ORS in an individual chapter format are twofold: it makes it easier for the end user to find the information they need, and it speeds up development - when an update or change is needed, it means only the affected chapter needs to be re-released, rather than the entire document.

The individual chapters are as follows:

- Chapter 1 - Background to LVV Certification System (the name suggests) sets out the origins and purpose of the LVV certification system.
- Chapter 2 - Vehicle Classifications outlines the definitions of Modified Production and Scratch-built vehicles.
- Chapter 3 - Certification Categories details the intentions of modifications that an LVV Certifier can assess.
- Chapter 4 - Certified Background Criteria gives an idea of the type of skills and experience a person needs if they want to become an LVV Certifier.
- Chapter 5 - Certifier Application & Appointment outlines the requirements and steps to becoming an LVV Certifier.
- Chapter 6 - Documents, Equipment, & Premises sets out the resources that an LVV Certifier needs in order to do their job.
- Chapter 7 - LVV Certifier Conduct & Service contains the expectations around LVV Certifier conduct of interest, communication, and service to the public.
- Chapter 8 - LVV Certification Inspection Procedures explains how an LVV certification inspection should be carried out.
- Chapter 9 - Subdivision of Certification Files provides guidance to LVV Certifiers about how to prepare and assess their LVV Certification File for a vehicle they have inspected.
- Chapter 10 - The Review System describes LVVTA's role and responsibilities in reviewing or issuing a completed LVV certification application.
- Chapter 11 - Certifier Error Reporting Reporting details the processes around catching and improvement of certifier performance.
- Chapter 12 - Certification Plates & Labels sets out requirements for use of Electronic Data Plates and other LVV certification plates, Authority Cards, and labels.

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## 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

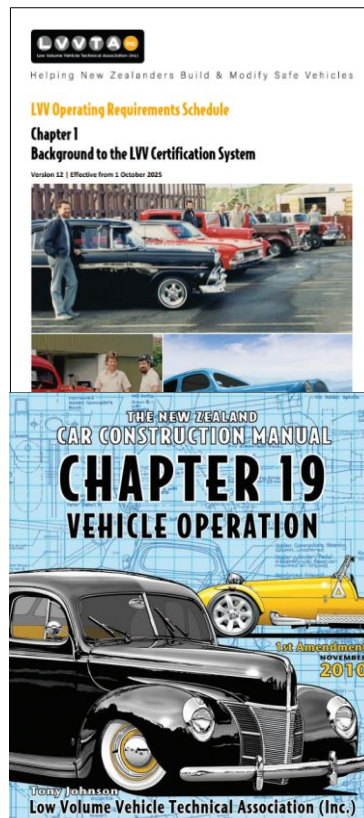
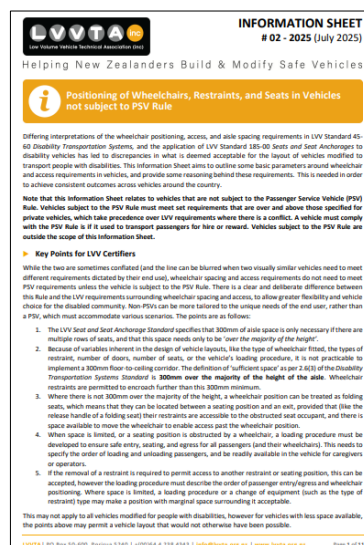
As part of the ongoing overhaul of the LVV Operating Requirements Schedule (ORS), it is now being split into a series of individual chapters. All of these chapters (other than Chapter 13) have now been signed off by NZTA, released publicly, and are available to download for free from the Documents section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



## 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.



## 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.



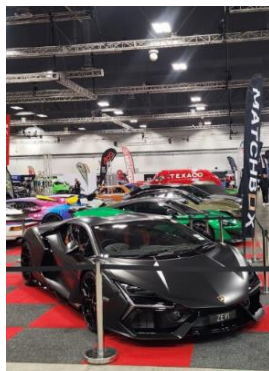
One lucky showgoer walked away with \$270 off their LVV certification. In what was probably the largest Hardpark turnout yet, it was great to see the variety of vehicles on show and talk to people about the LVV certification system. We'll see you all at Hardpark 2026!



# 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

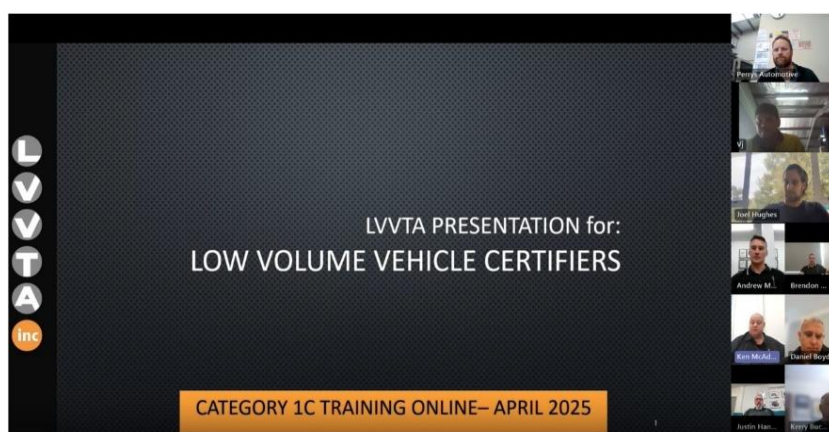
Several training sessions for LVV Certifiers were carried out in 2025 – two targeted training sessions for specific LVV certification categories, and the (now annual) National Conference.

## 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

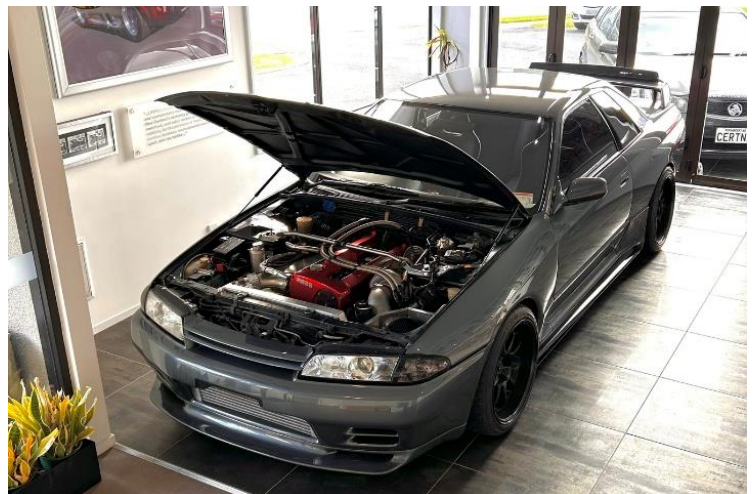
Several different cars have graced the LVVTA showroom this year, across the spectrum of modified vehicles in NZ.



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.



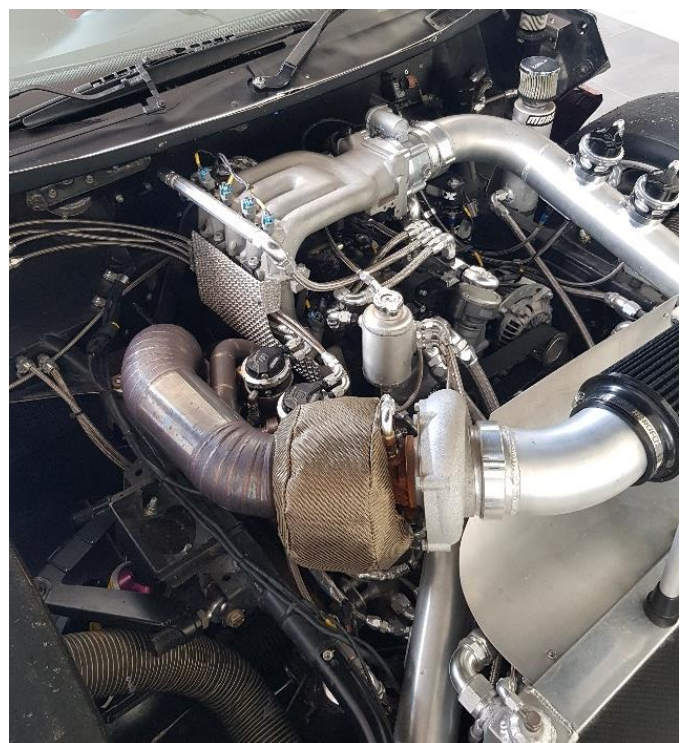
Ian's other car is this brand-new 5 window '32 Ford replica, recently finished by Magoo's Street Rods. Like the '57 this also runs a small block Chev, this time coupled to a Powerglide and backed up by a Winters quick-change diff.



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.

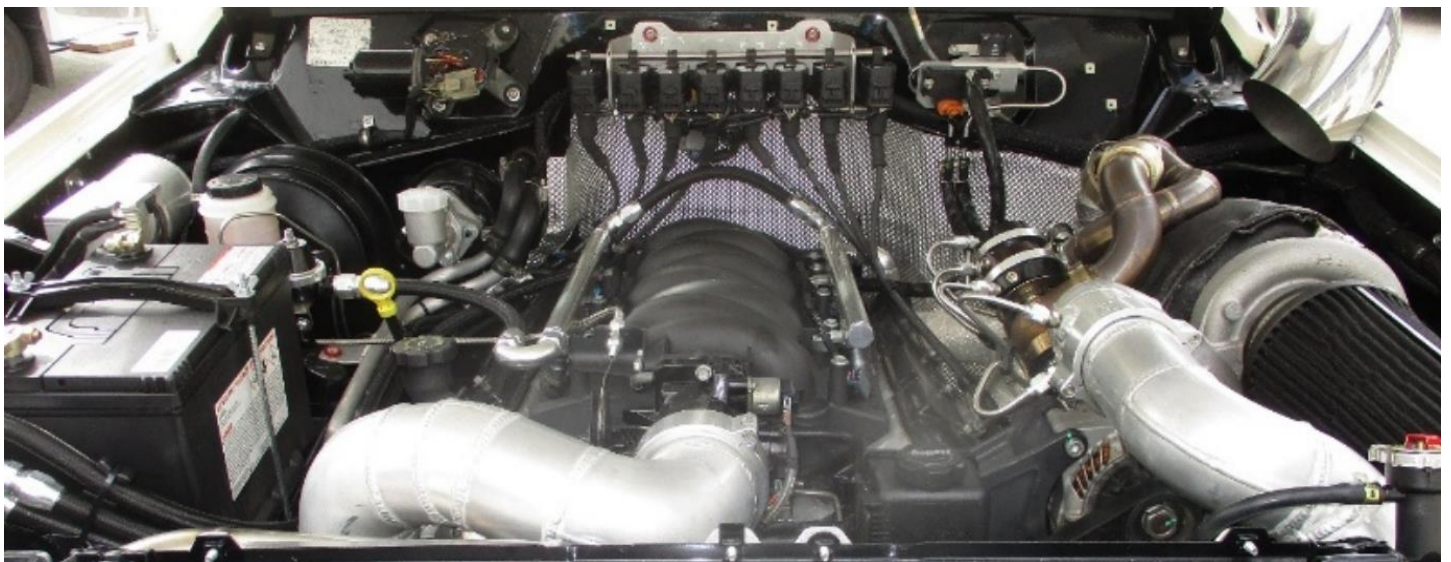


## The Good, the Bad, and the 'Ooh, That's a bit Different'

'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'.

