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How to solve the problem of supplier modifiers

specific alteration to one model truck. I estimate that less than ten per cent of new modified vehicles are certified via the SSM path.

The SSM path is impractical for one-off vehicles because the process is onerous and time consuming; and because it only applies to one vehicle model. The industry gets around the certification problem for modifications on new vehicles by having the modified vehicle approved by an engineering signatory (Approved Vehicle Examiner – AVE) after it is registered, but before it is handed over to the customer. This is a fiddle to get around a legal problem.

For most rigid vehicles a body builder will construct and attach a body. The body might be a tray, a closed-sided or open-sided van, a tilt tray or a tip-truck body. These modifications are substantial. They change the description of the vehicle on the registration file.

No one seems to have estimated the size of the modification market. The Table below gives my 'back of envelope' estimates for new vehicles only. The total annual value of the modifications shown in the Table is \$375 million. The

modification industry is larger than this because many vehicles are repurposed after their first use. They are not counted in Table 1. The heavy vehicle modification industry is significant economically and should be considered by government when it sets rules.

The Heavy Vehicle National Law (HVNL) applies to in-service vehicles. That is, vehicles that are registered and in use. The HVNL requires that 'modifications' be approved. The HVNL defines a modification as a change of vehicle specification. The implication is that if the vehicle is altered from the specification that was approved by the Federal Regulator, the modification must be approved either by an Approved Vehicle Examiner (AVE) or by the National Heavy Vehicle Regulator (NHVR). The NHVR's ability to approve modifications is not done for routine modifications — an AVE is needed.

AVEs are individuals who are accredited by state road agencies. There is no national AVE scheme. Usually, AVEs have engineering qualifications. Sometimes trade qualified people can be AVEs for specific modification codes that are



A new fifth wheel being installed on a new prime mover by a third-party installer. This work is a modification.

relevant to their work, although this is uncommon except in Queensland. There is a glaring problem with arrangements for approval of modifications. 'Supplier Modifiers' who supply the equipment they install cannot approve installation work that they do because they are not AVEs. Often these companies are the local representative of the equipment manufacturer, or they may be the local body builder. For example, a company that manufactures and supplies fifth-wheel couplings cannot approve its own installations. This company can specify and supply the attachment hardware, provide the baseplate, and write the installation procedure, but it cannot approve the installation. Supplier Modifiers are involved in most of the modifications on new vehicles. You might say, Supplier Modifiers should have AVEs on staff! This is easier said than done. The road agency needs to approve the AVE and the AVE must have professional indemnity insurance. This is an added business challenge, and for what good? The installation of a truck component by the company that supplied it to the Australian market is a low-risk activity. The requirement that it be approved by an AVE adds significant cost. These additional costs apply for example, to companies that supply and install mechanical couplings, brake control systems, Vehicle Stability Control Systems,

axles and bodies. Note that only the attachment of the body, and not the body itself, needs to be approved. There is a new Federal certification system called ROVER (Road Vehicle Regulation System). It will soon replace the old system which is RVCS (Road Vehicle Certification System). Both these systems allow a Supplier Modifier, or any other modifier to obtain a Second Stage Manufacturer's approval. The modifier is not required to provide details about the modification to the Federal regulator. No independent vehicle approval is required. The Federal system assumes that the Second Stage Manufacturer is competent. In contrast, if the same work is done to an in-service vehicle, the work must be approved by an AVE. There is a solution to this costly inconsistency. It requires a change to the Heavy Vehicle National Law. The change is simple. A new clause – call it 86A is required. Here is my suggestion:

86A Approval of modifications by approved Supplier Modifiers

- (1) A Supplier Modifier is an entity that supplies parts and sub-assemblies that it uses to substantively modify a heavy vehicle.
- (2) The Regulator can accredit a Supplier Modifier to approve the modification of a heavy vehicle that the Supplier Modifier conducts using the parts and sub-assemblies that it supplies and

- installs on that heavy vehicle.
- (3) The Supplier Modifier shall have documented installation procedures and quality-assurance procedures that if followed will result in the modification being safe.
- (4) The Supplier Modifier shall ensure that modification of the heavy vehicle is done according to its documented installation procedures and quality-assurance procedures.
- (5) The Supplier Modifier shall affix a plate to the modified vehicle that identifies the modification and that declares it followed safe installation procedure and that the modification is safe.

It is a good time to consider changes to the HVNL. The National Transport Commission (NTC) is conducting a major review. The NTC will make recommendations to the Transport and Infrastructure Council (the ministers) in early 2021. There are 67 public submissions that have been made to this review that can be found at <https://www.ntc.gov.au/submission/529>. There are some great suggestions in these submissions. I want to highlight one, which is the establishment of a 'National Heavy Vehicle Safety Office'. Australia needs a National Heavy Vehicle Safety Office so that our industry can better understand and respond to safety threats. This Office would investigate some common incidents, such as rollovers, brake fade crashes and wheel-end fires to determine common causes. It would also investigate selected major crashes and workplace deaths. It might assist coroners to understand the factors that led to a major collision. This Office would publish its reports and take notice of public comments. It would make recommendations to the Transport and Infrastructure Ministers Council for rules changes and blackspot prevention. I believe a National Heavy Vehicle Safety Office could help our industry produce a substantial safety improvement in the road transport sector.

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Nature of the new vehicles	Annual number of sales	Estimated proportion modified after build	Common modifications	Average value of the modification
MEDIUM RIGID TRUCKS (4.5T – 12T)	5300	90%	FIXED OR TILT TRAY. OPEN OR CLOSED VAN.	\$10,000
HEAVY RIGID TRUCKS (>12T)	3700	90%	FIXED OR TILT TRAY. OPEN OR CLOSED VAN. TIP-TRUCK BODY PLANT EQUIPMENT.	\$30,000
SPECIAL PURPOSE HEAVY VEHICLES	1100	100%	ELEVATED WORK PLATFORMS. CONCRETE PUMPS. CONCRETE AGITATORS.	\$150,000
MEDIUM TRAILERS (4.5 – 12T)	900	10%	FREIGHT HANDLING EQUIPMENT.	\$5,000
HEAVY SEMI-TRAILERS (>12T)	8500	10%	VEHICLE LOADING CRANE OR EQUIPMENT. PLANT EQUIPMENT.	\$50,000
HEAVY DOG TRAILER	750	5%	AFTERMARKET BODY FIT.	\$50,000
PRIME MOVERS FOR SINGLE TRAILERS	1730	50%	FIFTH WHEEL AND TURNTABLE FITMENT.	\$5,000
PRIME MOVERS FOR MULTI-COMBINATION	3700	50%	FIFTH WHEEL AND TURNTABLE FITMENT.	\$7,500

Table 1 My estimates of the modifications done to new trucks and trailers.