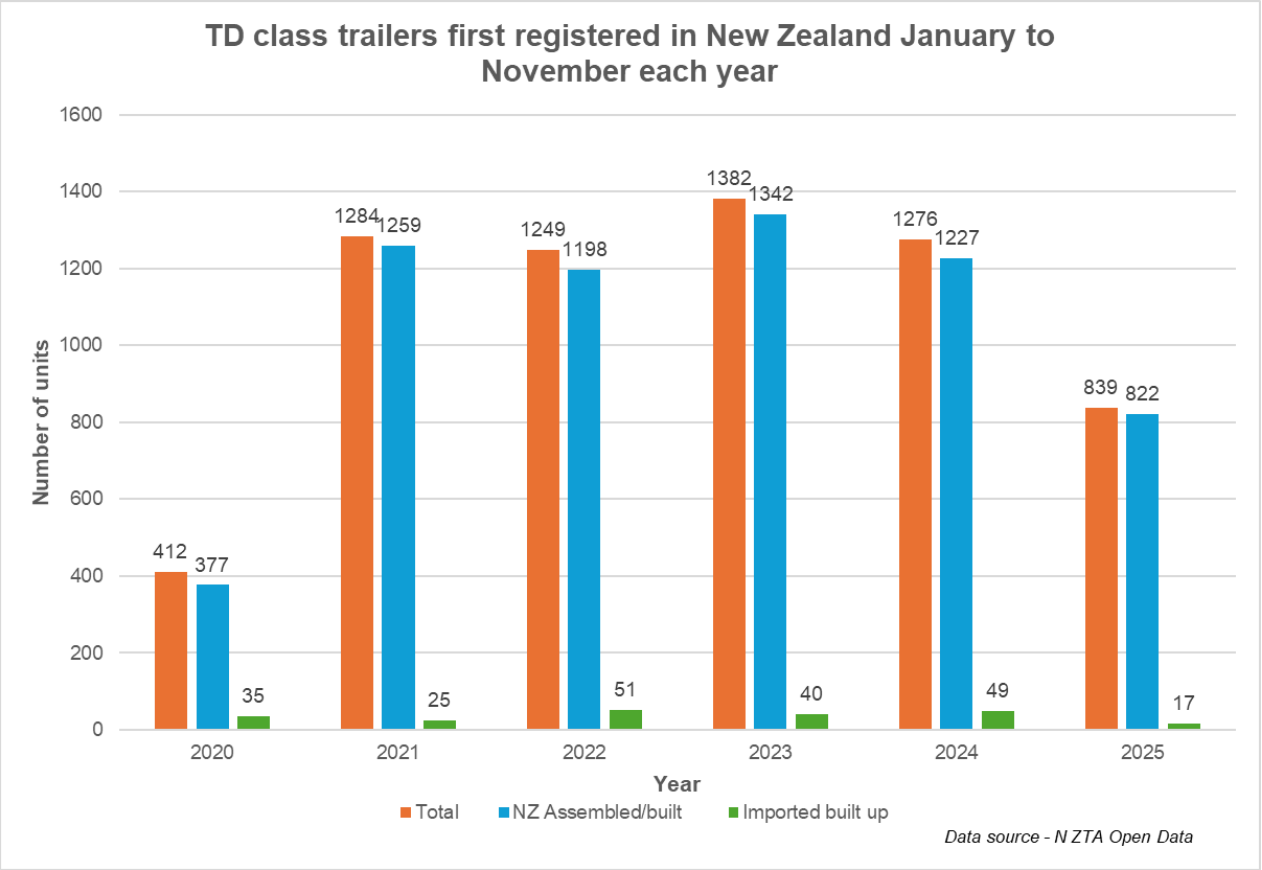
Technical Torque #27

Importing Heavy Trailer (Class TC and TD) – Steve Bullôt

After making a bumpy recovery from 2020's Covid inspired slowdown in new TD class heavy trailers the market is now indicating a further slowdown. As shown in this graph, the number of new imported fully built-up trailers, in particular, is slowing. Despite this there has been a noticeable increase in operators investigating the import of heavy trailers from various jurisdictions, most commonly Australia or China. While the reasons for importing trailers are varied the most common reasons cited are cost and a reduced lead time, but beware, the convenience and savings made often come with downstream costs including compliance issues and lack of warranty support.



Note that some trailers registered as NZ builds, (manufacturer; Homebuilt) are overseas imports, either built up or kitset, but registered with a NZ VIN.

Importing trailers is very different from importing prime movers in that trailers are often imported individually and directly by the end user rather than in numbers by the manufacturer's representative who can be expected to have dealt with all the compliance requirements before the vehicle reaches the end user.

So, before committing to the purchase of an overseas built trailer it is important that the following issues are addressed;

- Obtain drawings and specifications for the proposed purchase from the manufacturer (OEM). Based on this information you can confirm whether the vehicle meets the requirement to fit on New Zealand roads as a standard or pro-forma vehicle as outlined in Land Transport Rule:

Vehicle Dimensions & Mass 2016. You should also insist on a Factory Acceptance Inspection of the vehicle before it is shipped to ensure it is built to drawing. This is critically important if it is the first vehicle you have bought from the supplier. Critical dimensions to check and confirm include;

- Width 2.55m
- Overall length in combination 19-22 metres (includes tractor/prime mover and depends on trailer type and class [std /50Max etc])
- Trailer length 11.5-12.5 metres (depends on trailer type)
- Height 4.3 metres
- Forward distance 8.5 metres (semi-trailer 9.2 metres)
- Rear overhang 4.0 metres or 70% of wheelbase, whichever is less (simple trailer, full trailer, pole trailer with one or two axle sets)
- Rear overhang 4.3 metres or 50% of forward distance, whichever is less (semi-trailer except Class TC caravan semi-trailer)
- Rear overhang 4.0 metres or 65% of forward distance, whichever is less (Class TC caravan semi-trailer)
- Minimum ground clearance Greater of 100mm or 6% the distance between the nearest axle and the point of the trailer where clearance is measured
- Front overhang 2.04 metres ahead of kingpin centre (semi-trailer), ahead of tow coupling (simple trailer), ahead of turntable centre (full trailer), ahead of turntable centre on towing vehicle (Pole trailer).

There are also requirements in a number of other Land Transport Rules that must be met before the vehicle can legally be operated on NZ roads as can be seen below;

- As New Zealand does not recognise any overseas standards for Heavy Trailer brakes the vehicle's braking system must be certified by a New Zealand Heavy Vehicle Brake Certifier (**HVEK**) even if it is carrying an ADR or EEC Whole of Vehicle Approval plate. The best way to do this is for the OEM to send their braking system design along with a drawing showing critical dimensions for review prior to build. The NZ Certifier can then review and make any changes required. These can be incorporated during the build and so that once the vehicle reaches NZ it will be a simple matter to inspect that the brake system has been installed to the agreed design, undergo the required commissioning (End of Line Test) and be certified. This approach has the potential to save both time & money once the vehicle is on the ground in NZ.
- The Heavy Vehicle Rule requires that towing connections carry NZ Certification, however, for semi-trailers, as these vehicles are often built with the Australian market in mind, it is likely that the towing connection is fitted to the Australian Standards (all of **AS/NZS 4968.1, AS/NZS 4968.3 & AS 2174**). In this case Certification should be an easy process with the NZ Certifier only having to verify that the fitting complies to the standard provided that the OEM provides evidence that the standard was complied with and provides copies of the welding certificates of any welders involved. It may be possible to get an exemption from the requirement for certification if the king pin/skid plate is compliant, but this is unlikely if welder certification is not forthcoming.
- Full trailers and simple trailers must meet the Relevant NZ Standard for drawbars (**NZS 5446**). This can be incorporated in the design and certified in NZ on arrival provided the drawbar is manufactured to drawing and welder certs are available.

- Similarly load anchorages must be built to the NZ standard (**NZS 5444**), however, if the welder is 'unknown' (without welding certification), otherwise compliant load anchorages may be certified with a 25% reduction in rating.
- Other trailer types such as Stock Crates (**NZS 5413**) and Loggers (Log Bolster Code) have other specific requirements that must be considered.

- The Compliance Rule has a number of requirements but the ones that affect these projects are;
    - the vehicle must have a 17-digit VIN on the chassis and the NZTA must be supplied the VIN decode information from the OEM so that VIN can be read when the vehicle goes through the Entry process.
    - the vehicle must be issued with a chassis rating by the NZTA. This can be obtained before the vehicle arrives in the country as long as the required information is available; Make/model, VIN, Country of manufacture/Export, year of manufacture, number of axles, axle spacing, forward distance, suspension type.
    - a manufacturer's plate must be fitted with the information as stated above
    - if the vehicle does not carry an **EEC** or **ADR Whole of Vehicle (WoV)** compliance plate then it will have to come with a Statement of Compliance in the format accepted by the NZTA
- Tyres must be to an approved standard with a suitable load and speed rating. This will be checked at Entry.
- The lighting must meet the requirements of the Rule but if the vehicle has an ADR or EEC WoV approval plate that is accepted. Lights are checked for compliance marking at Entry.


Examples of imported trailers; a fully built up TD car transporter and CKD TC boat trailer

Note that this review is based on the requirement to allow the vehicles general access to the New Zealand road network. General access is 44t for a combination vehicle unless it has a High Productivity Motor Vehicle (**HPMV**) permit for the combination (currently under review). If heavier weights/larger vehicles are required outside of the high productivity regime, the operator would have to apply for an **over dimension (OD) or overweight (OW) permit.** Permits are the operator's responsibility and are considered on a case-by-case basis and are usually issued for approved routes by the NZTA.