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### New VIRM and amendments

You should by now have received your new three volume edition of the *VIRM: In-service certification (WoF and CoF)* and also an urgent update to it (with the coloured pages). If you haven't received either of these please call 0800 587 287 and press option 4, or email [dvcupn@nzta.govt.nz](mailto:dvcupn@nzta.govt.nz).

The VIRM is also available on the NZTA website at:  
[www.nzta.govt.nz/resources/virm-in-service-certification/index.html](http://www.nzta.govt.nz/resources/virm-in-service-certification/index.html)

The next scheduled 'proper' amendment is due in September this year.

For those of you who are also entry certifiers, amendment 2 to the *VIRM: Entry certification* came into effect on 30 April 2010. Contact the phone number or email address above if you haven't received your copy.

## Rough-terrain vs all-terrain cranes



Rough-terrain crane

Rough-terrain cranes are CoF and entry certification exempt, and are registered on an MR2B as a mobile machine. A rough-terrain crane is designed principally for off-road use. It runs on wheels without cushioning suspension and is incapable of travelling at highway speeds (highway speed is considered to be greater than 50kph).

All-terrain cranes require a CoF and entry certification (class NA, NB or NC) and are registered on an MR2A as a special purpose vehicle. An all-terrain crane is designed for both on and off-road use. It runs on wheels with cushioning suspension and is capable of travelling at highway speeds.

For example the Franna AT-15, pictured below, can travel at 85km/h and has suspension – it is an all-terrain crane, while the Tadano GR-600XL-1, pictured above, has no cushioning suspension and can travel at a maximum of 40km/h – it is a rough-terrain crane.



All-terrain crane

# Disc brake rotor pass/fail criteria

Vehicle inspectors are often required to make a call on whether to pass or fail disc brake rotors which have signs of cracking.

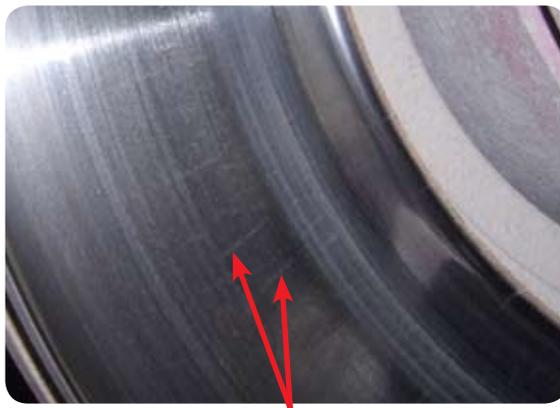
Making the wrong decision or not identifying that cracks exist can have repercussions for the operator and other road users.

Reason for rejection 22 on general vehicle page 8-1-3 of the *VIRM: In-service certification (WoF & CoF)* says to reject a vehicle if a brake disc or drum is:

- a) worn beyond the manufacturer's specification (where visible without removing components)
- b) **fractured or otherwise damaged** (where visible without removing components)
- c) contaminated by brake fluid, oil or grease.



You can see the degree of cracking in the three photos shown. The cracking in the bottom left image is acceptable, but the two right-hand photos show excessive cracking and must be rejected.



Minor heat cracking - acceptable



Cracking through rotor surface area - unacceptable

## Tie rod ends

As there have been a couple of recent instances where tie rod ends on heavy vehicles have failed, fortunately at low speeds, we thought we'd take this opportunity to keep you up with the play.



Failures were investigated and it was found that the joints involved showed advanced signs of wear as can be seen in the photo.

The situation has highlighted the need to ensure correct methods are used when carrying out this important checking function both when servicing the vehicle and at CoF.

Therefore it is recommended that:

1. axle manufacturers test/checking procedures are followed (some require more checking than a rock on the steering wheel to assess wear)
2. where a vehicle has been fitted with an "Auto Grease" system which includes the tie-rods, the

operator should be reminded to have the system checked to ensure the joints are receiving the appropriate amount of lubricant

3. where a cracked or torn boot is identified the operator should be informed and warned of the potential danger in not having them replaced
4. extra attention is required when it is suspected that high-pressure under-body washing facilities are used as this can damage boots and/or wash out the grease resulting in dry bearing surfaces and excess wear.

# Electronic distance recorders

Electronic distance recorders for road user charges (RUC) are becoming more prevalent on vehicles as an alternative to the RUC paper licence and the mechanical hubodometer.

## What is an electronic distance recorder?

An electronic distance recorder is a unit wired into the vehicle that:

- measures, collects and reports information relating to the distance travelled and location (eg on-road versus off-road travel) for a specific vehicle
- has an electronic display panel that shows the distance travelled and RUC licence information for a specific vehicle
- forms part of an total end-to-end RUC management system including an online licence purchase system.

## How does an electronic distance recorder work?

An electronic distance recorder collects information from external (a Global Navigation Satellite Systems signal) and internal vehicle sensors (eg an accelerometer and a derivative of wheel revolutions). These data streams are then cross checked by the unit to ensure accurate measurement of the distance travelled by the vehicle.

Electronic distance recorders are connected to the server of an electronic service provider and are able to send and receive vehicle and licence information by secure electronic means.

## How does the electronic display work?

The electronic display panel is permanently mounted to the vehicle in an outward facing position and continuously displays distance and RUC licence information.

Transport operators purchase a RUC licence online, through the website of your contracted service provider and have the licence information transmitted to the in-vehicle display immediately.

## Can operators still use hubodometers and paper licences?

Yes. Use of an electronic RUC system is on a voluntary basis.



### For more information

Visit the NZ Transport Agency website: at [www.nzta.govt.nz/resources/electronic-distance-recorders-q-a/](http://www.nzta.govt.nz/resources/electronic-distance-recorders-q-a/) or call our contact centre on 0800 655 644.

# EROAD ehubo approved

On 22 February 2010, the EROAD eHubo device was approved by the Secretary for Transport as an electronic distance recorder for use as an alternative to a mechanical hubodometer.

For a prime mover, the EROAD eHubo will be inside the vehicle, facing outwards, on the passenger side, where a RUC licence would normally be (bottom left).

For trailers the location may vary due to trailer design characteristics. The screen and functionality is exactly the same, however, the casing is larger, providing additional protection to the externally mounted device (bottom centre).

For CoF purposes, vehicles inspectors are to treat the EROAD eHubo as if it were a mechanical hubodometer. When entering

the details into LANDATA, please note the following:

- The hubodometer make code for the EROAD eHubo is 50
- The hubodometer reading is the largest-sized numbers at the top of the display screen ('0999999.0' in the examples below)
- The hubometer serial number is on the unit casing (rather than the display screen) next to the power light ('NZ1111111' in the examples below)

Questions have been raised about the application of lighting requirements in the *In-service VIRM* to this device as the display is 'back-lit' and there are green and blue lights which face forwards.

Section 10.8 of the Vehicle Lighting Rule contains provisions for illuminated vehicle-mounted signs. The eHubo is considered a variable message sign as provided for under clause 10.8 (c) (ii), permitted by any other enactment (specifically the Road User Charges Regulations 1978, under which these devices are approved).

As far as lighting requirements are concerned, when conducting vehicle inspections, the eHubo unit is to be regarded as an **illuminated vehicle-mounted sign** (variable message signs permitted by other legislation) which are listed under Other lighting equipment not requiring inspection in Table 4-15-1, section 4-15 Cosmetic lamps of the *In-service VIRM*.



# NZTA website

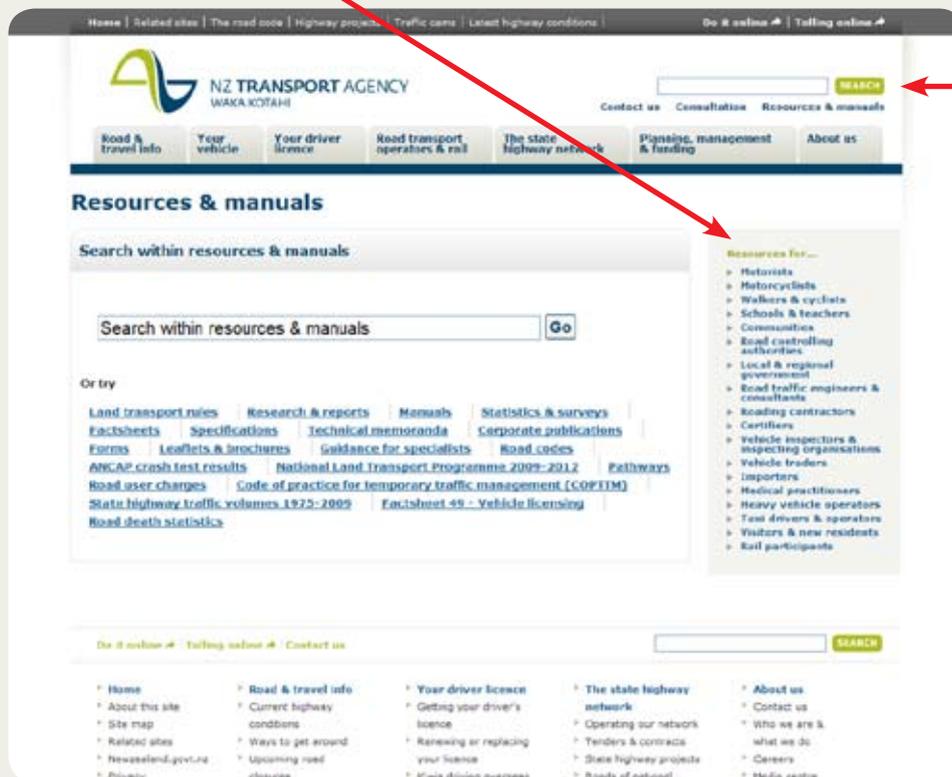
The new NZTA website recently went live. It combines the elements of the old Land Transport NZ and Transit sites and gives users of the site a different experience with a fresh new online brand, new navigation, a much improved search engine and restructured and focused content.

## Documents have moved

You may have bookmarked/added to favourites various links to documents and information on the old website - links which will no longer work.

With our new and improved search engine you can just type in the search box and one of the top results should be what you are looking for.

Another good place to start is to go to the resources and manuals page ([www.nzta.govt.nz/resources/index.html](http://www.nzta.govt.nz/resources/index.html)) and click the link on the right-hand side that is relevant to you.



## Our contact details

For general enquiries, or contact information about the NZ Transport Agency please check our website [www.nzta.govt.nz](http://www.nzta.govt.nz) or email us at [info@nzta.govt.nz](mailto:info@nzta.govt.nz)

**UNISYS** 0800 243 687  
(for problems with user access codes and passwords)

**TRC** 0800 108 809  
(for phone inquiries from members of the public)

We welcome your feedback. Please send any comments to:

Vehicles Unit  
NZ Transport Agency  
PO Box 5084  
Wellington 6145

Email: [feedback@nzta.govt.nz](mailto:feedback@nzta.govt.nz)