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TRANSPORT NEWS

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Gauging your Weight

With the introduction of mass management accreditation, it has become a very common practice to use air pressure gauges to measure vehicle weight. There is nothing wrong with such approach, however we have found that many people are not aware that there is a simple calibration process that can produce good accuracy. Next time you need to calibrate a gauge, try the following approach. You should find it simple, and if followed as per our instructions, it will provide you with results that you can rely on. The results will also be acceptable to the regulatory agencies and heavy vehicle accreditation auditors.

The Calibration Process

You will need some graph paper (our sample is on page three) and access to a weighbridge that is currently approved for commercial purposes (Licensed Weighbridge). The process is:

- ❑ Load the vehicle close to the statutory mass limit.
- ❑ Weigh the axle group on the weighbridge
 - Mark the weight on your graph paper – in our example this is 19.4 t
 - Mark the air gauge pressure on the graph paper – in our example this is 375 kPa
- ❑ Load the vehicle close to the increased mass limit
- ❑ Weigh the axle group on the weighbridge
 - Mark the weight on your graph paper – in our example this is 22.7 t (caution: exceeds legal limit).
 - Mark the air gauge pressure on the graph paper – in our example this is 420 kPa
- ❑ Draw a straight line through point A and B as shown in the example.
- ❑ Now you can determine other axle group weights by:
 - Selecting the measured air gauge pressure on your graph paper and drawing a horizontal line from it across your paper.
 - Where this line intersects with the diagonal plot line, drop a vertical line down to the base line of the graph. The intersection point indicates the axle group load at the time.

The Measurement Process

For accurate measurements the following steps need to be taken during gauge calibration and the weighing of axle groups:

- ❑ The vehicle must be stationary.
- ❑ The brakes must be released and not chocked.
- ❑ The wheels must be on level ground; avoid ditches and soft surfaces.
- ❑ The vehicle's air system must be at operating pressure.
- ❑ The vehicle's suspension must be stabilised at normal ride height, that is the suspension is neither inflating nor deflating.

Trucking in Victoria

VICROADS, LIKE THEIR COUNTERPARTS, HAS PUBLISHED A LOT OF USEFUL INFORMATION on their website that relates to the operation of heavy vehicles in Victoria. The following is a summary of some of their website content:

❑ *National Heavy Vehicle Reforms*

This document outlines progress with the implementation of the second package of national heavy reforms and other national reforms in Victoria. The document also details reforms included in the third package. The link for this document is <http://tinyurl.com/4ww7f>.

❑ *National Heavy vehicle Accreditation Scheme (NHVAS)*

NHVAS assists heavy vehicle operators to comply with vehicle mass and maintenance requirements. The information bulletins provide detailed information for truck operators interested in becoming accredited operators. The link for these documents is <http://tinyurl.com/47ena>.

TEAM provides a consulting and auditing service for businesses wishing to join or maintain NHVAS.

❑ *Load Restraint*

Secure restraint of loads on vehicles is important in preventing accidents and injury to people. In April 2004, the revised edition of the national *Load Restraint Guide* was released. The link for more information is: <http://tinyurl.com/59z5l>.

❑ *Chain of Responsibility*

The aim of the chain of responsibility is to ensure that all who bear responsibility for conduct that affects compliance should be made accountable for failure to discharge that responsibility.

To support the enforcement of the chain of responsibility, new inspection and search powers were introduced in Victoria in July 2003.

The link for more information is: <http://tinyurl.com/6dxpe>.

❑ *Height Clearance*

Document one lists the height clearance under overhead bridges to assist operators

of oversize vehicles carrying large individual loads; two contains maps showing where the clearance beneath bridges and overhead wires is known to be 4.6 m or less. The links for these documents is: <http://tinyurl.com/5wfdp>.

❑ *Containers*

The Documents outline the conditions for transporting high and long (up to 14.6 m) containers in Victoria. The link for these documents is: <http://tinyurl.com/7yzt3>.

❑ *Truck stops and rest areas Melbourne/Geelong*

Driver fatigue is the single most significant cause of road crashes involving heavy vehicles. A document is provided to enable drivers to better manage their fatigue. This document identifies truck stops and rest areas in Melbourne and Geelong. The link to the document is: <http://tinyurl.com/6nkqf>.

❑ *Managing driver fatigue*

These documents provide advice for transport operators and drivers about managing fatigue. The link to these documents is: <http://tinyurl.com/4gmjt>.

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Disclaimer

We suggest that our clients do not act solely on the basis of material contained in this newsletter because the items herein are comments of a general nature only and may be liable to misinterpretation in a particular circumstance, also changes to legislation and policy can occur quickly. We therefore recommend that our advice be sought before acting on any of this information.

Example Tri-axle Airbag Suspension Air Pressure Gauge Calibration

- Calibrate gauges regularly – gauge readings drift over time, and air bags grow in use causing them to carry more for the same air pressure.
- Points A and B need to be close to the lowest and highest axle group loads that need to be measured.
- Always use a Licensed Weighbridge when calibrating gauges.
- Have an isolating on/off valve between the gauge and air bags – only have the valve on when reading pressure. This protects the gauge from air pressure fluctuations and it will last longer.

