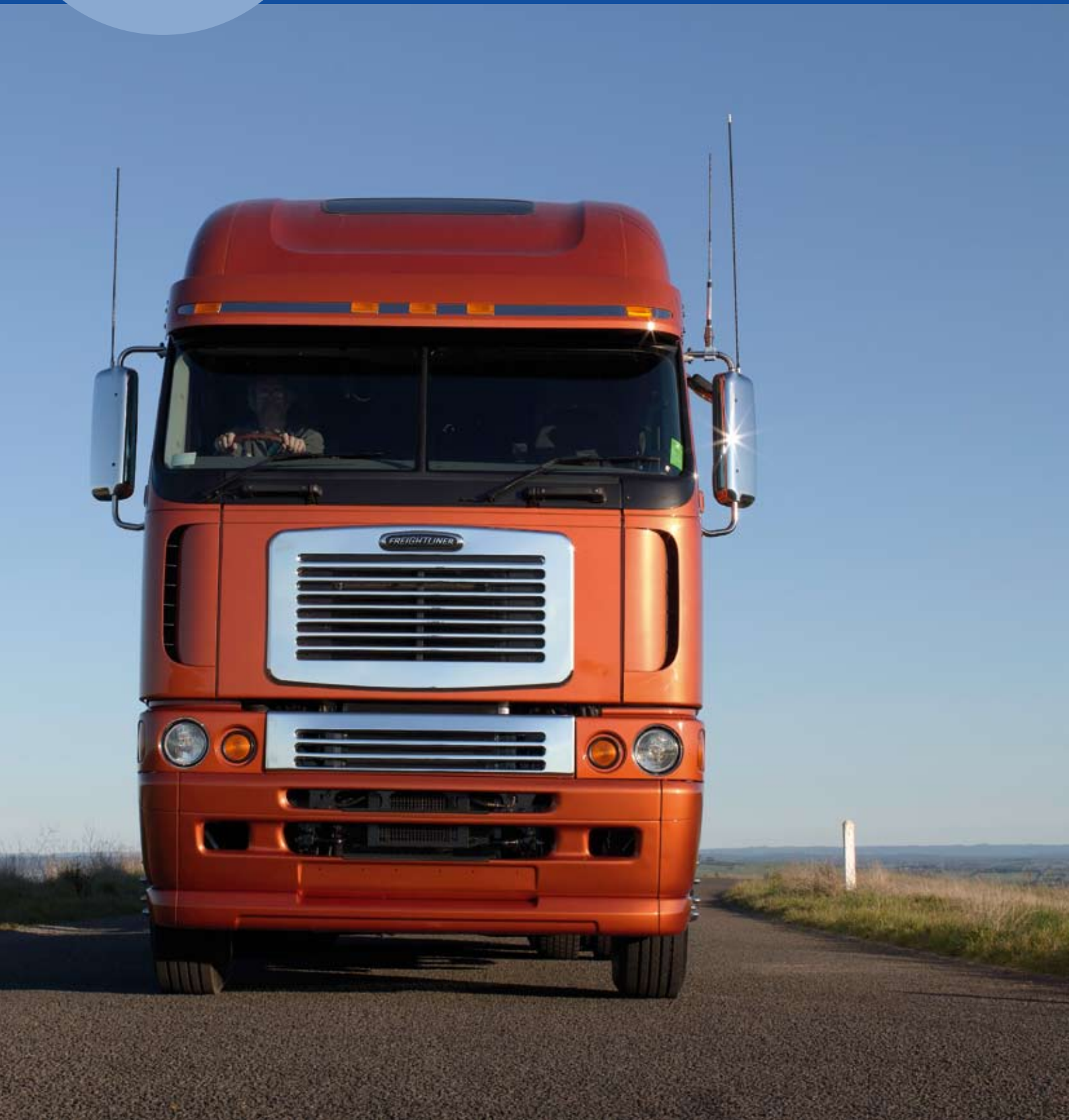
vicroads

information bulletin

6.5 Tonnes Steer Axles

January 2007



Introduction

Victoria is facilitating the adoption of the latest environmental and safety technologies in trucks by implementing a national reform that increases the allowable mass on steer axles. These technologies include exhaust emission technology, front underrun protection devices and stronger, safer cabins.

These technologies are expected to add weight on the steer axle. Hence, the mass limit on steer axle has been increased sufficiently to accommodate this additional weight.

From 1 January 2007, trucks fitted with all these technologies are able to have an additional 0.5 tonne on the steer axle, increasing the steer axle mass limit up to 6.5 tonnes. The 0.5 tonne increase will also apply to the total mass of the truck or truck combinations.

This initiative provides significant benefits to the community, truck drivers and other roadusers. It will provide cleaner air, and better protection for truck drivers and other road users in the event of a crash.

Conditions of Operation for 6.5 Tonnes on Steer Axles

Trucks are able to operate up to 6.5 tonnes on the steer axle if the trucks have all of the following:

1) An engine complying with the emission control requirements of ADR 80/01 (Euro 4 engine) or later version of ADR 80;

2) A front underrun protection device that complies with UN ECE Regulation No. 93;

3) A cabin that complies with UN ECE Regulation No. 29;

4) Appropriately rated tyres, axle, and suspension, to allow 6.5 tonnes on the steer axle; and

5) A Gross Vehicle Mass (GVM) of 15 tonnes or more.

Access

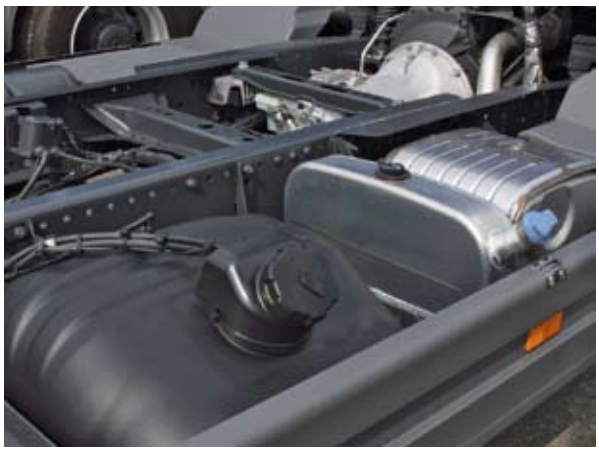
Vehicles operating at the increased steer axle and vehicle mass may travel on the same roads that they were approved to travel on before the 0.5 tonne increase. However, a vehicle must not travel on a road or bridge if its mass would exceed the signed mass limit.

That is, vehicles that had general access to the road network continue to have general access. Those vehicles on specific approved roads, such as B-doubles and semi-trailers with tri-axles at Higher Mass Limits, must only travel on those approved routes.

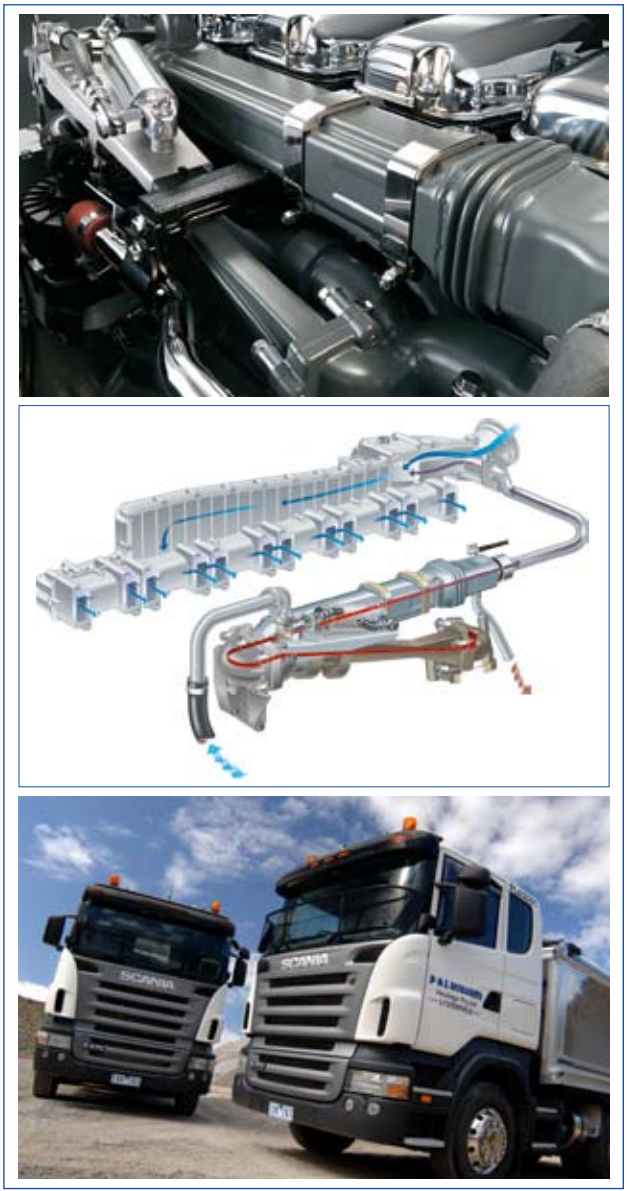
Emission Standards

From January 2007, it will be mandatory for all new model trucks to meet ADR 80/01 and ADR 80/02 and from 2008 this will apply to all new trucks. These ADRs introduce stricter exhaust emission requirements for trucks, equivalent to European emission standard Euro 4 and the corresponding United States EPA 2004.

The new emission standards are expected to reduce air pollution, including hydrocarbons, oxides of nitrogen (NO_x) and particulate matter (PM_{10}), created by trucks. Examples of technologies fitted to trucks to meet the new standard are Selective Catalytic Reduction or Exhaust Gas Recirculation.



Vehicles fitted with Selective Catalytic Reduction emission technology may require an Adblue™ tank or tank for urea



Vehicle engines fitted with Exhaust Gas Recirculation emission technology

Front Underrun Protection Devices

Currently only 26 metre B-doubles are required to have Front Underrun Protection Devices (FUPDs) and stronger cabins, however this will be extended to trucks operating above 6.0 tonnes and up to 6.5 tonnes on the steer axle.

Under UN ECE Regulation No. 93, FUPDs are designed to ensure that the safety features of passenger cars, such as air bags and crumple zones, are activated during a collision. It also aims to minimise injury by preventing cars from going underneath the front of trucks.

UN ECE Regulation No. 93 requires that the FUPD must:

1. Have a ground clearance of no more than 400mm; and
2. Be the full width of the vehicle, specifically that:
   - It is not more than 100 mm from the outermost points of the steer axle tyres; or
   - It is not more than 200 mm from the outermost points of the steps to the driver's cabin.

A front underrun protection device can either be:

- ❒ Integrated into the vehicle body;
- ❒ Integrated into the body with a compatible bull bar attached; or
- ❒ A specially designed bullbar.

It is important that bullbars or protrusions do not interfere or compromise Front Underrun Protection Devices. Any truck modified by the fitting of an additional device (such as a bullbar) that is not an approved FUPD must be approved by the vehicle manufacturer, competent entity, or an engineering signatory (such as Victorian Vehicle Assessment Signatory Scheme). In the case where a bullbar is fitted to a vehicle with FUPD, then the bullbar must be plated to identify that it is compatible with the FUPD.

Stronger, Safer Cabins

The cabin strength requirement is intended to provide a safer environment for truck drivers and passengers.

A truck manufactured with a cabin that complies with UN ECE Regulation No. 29 is able to withstand a series of impact tests against the front, rear and roof of the cabin.

Compliance Plate

Trucks meeting the conditions to operate at 6.5 tonnes on the steer axle must have a compliance plate installed by the manufacturer confirming that the truck complies with the exhaust requirements of ADR 80/01 and ADR 80/02, and cabin strength and front underrun protection requirements.

Where a truck is manufactured and compliance plated for meeting ADR80/01 and the ECE 29 cab strength requirement, but not with the ECE 93 front underrun protection, it is not entitled to exceed 6.0 tonnes on the steer axle. If an approved ECE 93 front underrun protection device is subsequently fitted and approved by a Competent Entity, and fitted with a compliance plate to identify it as meeting the ECE 93 requirement for FUPD, the truck would then be entitled to carry up to 6.5 tonnes on the steer axle.

The compliance plate must be attached in a position that is easily accessible to, clearly visible and readable by, a Police Officer or an authorised officer.

Ineligible Vehicles

Twin-steer trucks, buses and coaches may have an ADR 80/01 engine, a FUPD and stronger cabins, but are not included in this initiative.

Future Developments

The current increase in steer axle mass is intended to accommodate all vehicle safety and environmental technologies required in the short to medium term. These include Australian Design Rule 83/01, which requires a mandatory reduction of heavy vehicle noise in 2008, exhaust emissions requirements that supersede ADR 80/01 and ADR 80/02, and energy absorbing FUPDs.

The increase in mass limit will result in increased road wear and higher road maintenance costs. These costs may be factored into future heavy vehicle charges.

Documentation

You must carry in the driving compartment of your vehicle this information bulletin and other applicable bulletins such as:

- The VicRoads information bulletin, *B-doubles & Higher Mass Limits Trucks*;
- The VicRoads publication, *Local Roads Approved for B-double and Higher Mass Limits Trucks*;
- Any permit issued by VicRoads for B-double or Higher Mass Limits vehicle to travel on specific roads;
- For vehicles permitted to exceed 4.3 metres high, a copy of the current edition of the VicRoads information bulletin, *Height Clearance on Roads*.

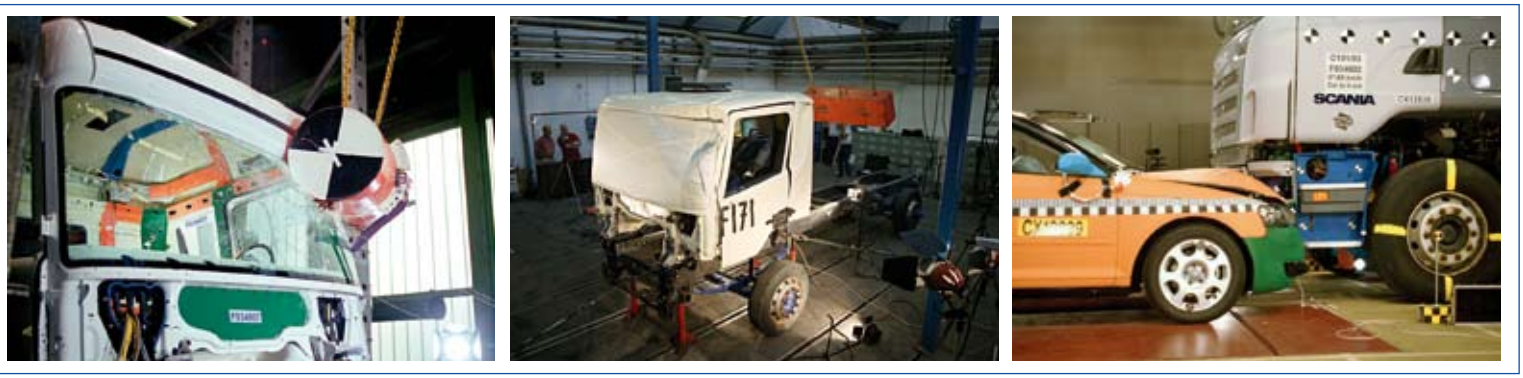
Other bulletins for specific vehicle types may be relevant and it is the responsibility of the driver to carry all the applicable documentation.

Further Information/Contacts

For further information, contact VicRoads Permit Issuing Officers on (03) 9881 8853 or (03) 9302 8405.

VicRoads website: www.vicroads.vic.gov.au
Email: cvo@roads.vic.gov.au

Information regarding the United Nations Economic Commission for Europe Standards can be found on the website: www.unece.org/trans/



Trucks undergoing cabin strength testing FUPD

Victoria
The Place To Be

VicRoads Publication Number 01717

vicroads
www.vicroads.vic.gov.au