Transport Safety Pack

BASICS OF LOAD RESTRAINT GUIDE

Every year many Australians are injured and killed in crashes caused by unrestrained loads when:

- Heavy objects fall from vehicles on to other vehicles or pedestrians.
- Drivers swerve to avoid falling or fallen items from vehicles.
- Spillage on roads from lost loads causes vehicles to skid and lose control.
- Unrestrained loads crash into vehicle cabins during emergency braking.
- Vehicles overturn because of loads shifting while cornering.

With proper loading techniques, injuries caused by unrestrained loads can be avoided.

A load that is restrained so it doesn't shift is required to withstand forces of at least:

- 80% of its weight in the forward direction;
- 50% of its weight sideways and rearwards,
- 20% of its weight vertically.

There are four rules that you must follow to load your vehicle safely.

1. Choose a suitable vehicle - the vehicle must be suitable for the type and size of load.

2. Position the load correctly - the load must be correctly positioned on the vehicle.

3. Use suitable restraint equipment - the load restraint equipment and the vehicle body and attachments must be strong enough for each type of load carried and must be in good working condition.

4. Provide adequate load restraint - every load must be restrained to prevent unacceptable movement during all expected conditions of operation.

LOAD RESTRAINT FORCES

A key point to remember is that any load that is properly restrained will not come off a vehicle in normal driving including during severe braking, swerving and cornering.

10 Things to Know About Loads

1. There is often a greater chance of losing a load when braking at low speed than at high speed as it is easier for the brakes to grab at low speed.

2. The weight of the load alone cannot provide enough friction to restrain it during normal driving. Restraints must be used.

3. A heavy load is just as likely to fall off as a light load. The same forces of gravity are acting on both loads.

4. Most headboards and loading racks are not strong enough to fully restrain heavy loads.

5. Most load restraint accidents occur at low speed in city areas and often only after a short distance.

6. When a load settles, the lashings loosen and cause a reduction in tension. Always check the tension in lashings soon after driving off and regularly during the journey.

7. Beware of loads on low friction or smooth surfaces. Loads on checkerplate decks are just as slippery as smooth flat steel decks.

8. The most cost-effective method to tie down many loads is to put a tough rubber load mat underneath the load - this can more than half the number of lashings needed.

9. In some cases, if the load and deck are both slippery, it could be necessary to use four 50 mm webbing straps (each 2 tonne lashing capacity) to tie down a half tonne load.

10. If you have enough tie down lashings and the load does not shift when cornering or braking, the tension in the lashings always stays the same. It does not increase even under heavy braking because the load has not moved.

The Law

The law in Victoria requires that:

- A load on a vehicle must not be placed in a way that makes the vehicle unstable or unsafe.
- A load on a vehicle must be secured so that it is unlikely to fall or be dislodged from the vehicle.
- An appropriate method must be used to restrain the load on a vehicle.

Comparable requirements apply in all States and Territories and you are advised to check the relevant legislation for your State.

Further information

The National Transport Commission's Guide to Load Restraint provides detailed information about Load Restraint. Contact the VicRoads Book Shop Tel (03) 9854 2782 to obtain a copy.

- Visit www.vicroads.vic.gov.au
- Visit www.ntc.gov.au

This safety guide has been produced by the Transport Industry Safety Group with the support of VicRoads and the NTC to improve the safety of transport workers. It is one of 18 Safety Guides and other important information including the TISG's 'A Guide to Occupational Health and Safety Transport Industry' that can be downloaded from www.vta.com.au

TRANSPORT SAFETY GROUP

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