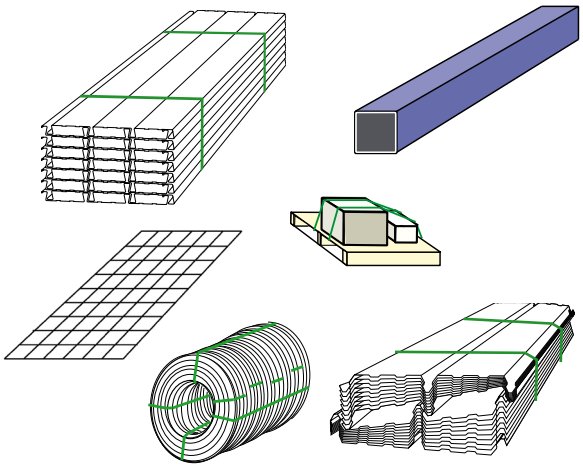
Transport Safety Guideline

Heavy Vehicle Customer Pick Ups

1. This Guideline applies for:

- Customer collected goods that are transported by road.
- Customer pick ups using vehicles with gross vehicle mass of *greater* than 4.5 tonnes.
- Refer to national regulations or state specific gazette notices for specific heavy vehicle mass and dimension limits.



2. Site Requirements

- To enter site buildings and yards, the following PPE is typically required. Each location will have specific requirements that must be followed. Sites generally have some PPE that may be loaned for the duration of picking up goods. If a driver or customer does not have all appropriate PPE, they must follow the directions of site staff.

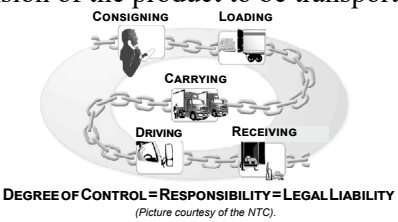
- Customers must stay with their vehicle at all times and take direction from the loading staff. When being loaded, they must stay in the green designated area (see Section 4, Loading Exclusion Zones).
- Customers unable to restrain products to their vehicles or trailers from the ground must use available height safety equipment to safely conduct the task.
- Customers must observe all site speed limits, traffic signs and staff directions.

- In the event of an emergency or evacuation, stay within the customer pick up area, where safe to do so and await instructions of site staff.

3. The Chain of Responsibility (CoR)

Customer requirements:

- Ensure the vehicle supplied is suitable for the mass and dimension of the product to be transported.
- Apply the necessary load restraint as listed in Table 1.



(Picture courtesy of the NTC).

Loader obligations:

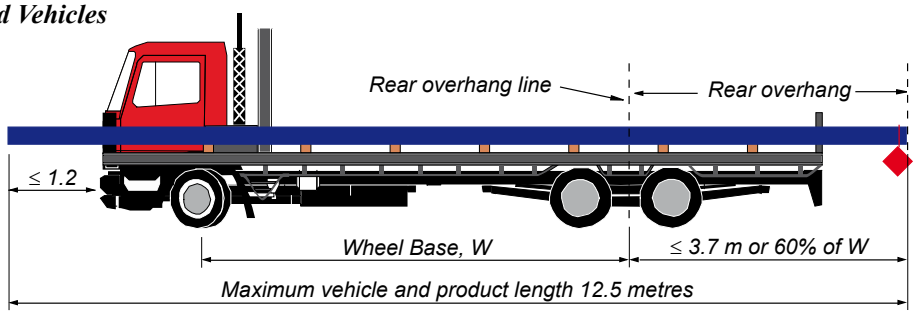
- Ensure the products are appropriately packaged.
- Ensure the products are placed within the legal mass and dimension limits of the vehicle.
- Guide customers where required to ensure adequate load restraint is applied.

4. Truck Mass & Dimension Limits

4.1. Length Limits:

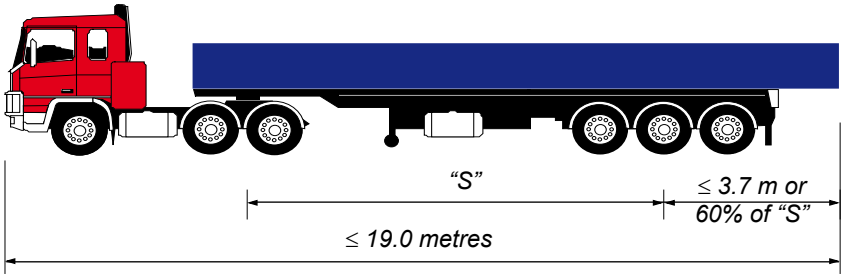
All states and territories of Australia have the same general dimension limit requirements.

4.1.1. Rigid Vehicles



* Driver's vision must not be obstructed;

4.1.2. Articulated Vehicles - for vehicles greater than 19 meters refer to state specific published gazettes.

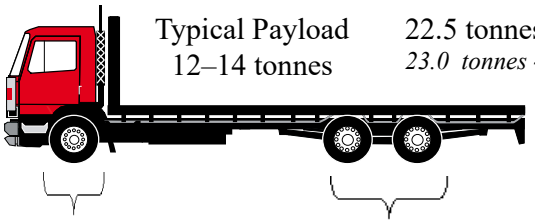


4.2. Height Limits:

Vehicles and their load may not exceed a total height of 4.3 meters. Specific vehicle types or permits may be used for loads up to 4.6 meters on approved routes.

4.3. Mass Limits:

- General Mass Limits apply in all states and territories in Australia.
- Concessional Mass Limits applies to transport companies who are accredited under the National Heavy Vehicle Accreditation Scheme (NHVAS) mass management module.

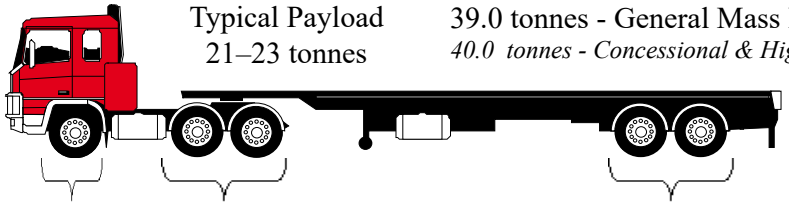


Typical Payload
12–14 tonnes

22.5 tonnes - General Mass Limit
23.0 tonnes -Concessional & Higher Mass Limit

GML	6.0 t	16.5 t *
CML & HML	*6.0 t*	*17.0 t*

* less if not all duel tyres



Typical Payload
21–23 tonnes

39.0 tonnes - General Mass Limit
40.0 tonnes - Concessional & Higher Mass Limit

GML	6.0 t	16.5 t	16.5 t
CML & HML	*6.0 t*	*17.0 t*	*17.0 t*

5. Loading

5.1. Vehicle:

Loads can move in transit if not properly restrained and/or contained. It is recommended that vehicles are equipped with some or all of the following to help prevent any product, packaging or timbers to dislodge from the vehicle during transport.

- Designed headboards, tail boards, side pins and/or side gates (see Figure 5.1).
- Vehicles with gates all round i.e. front and rear loading racks with drop-in side gates.
- Vehicles with curtain sides e.g. tautliners.

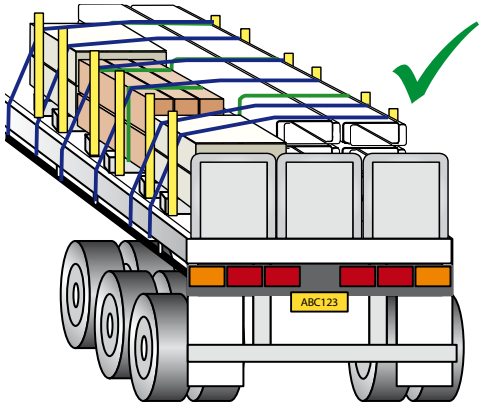


Figure 5.1: Specialised trailer with headboard (not shown), side pins and tail gate effectively containing load (in conjunction with load restraint).

Some common forms of movement with product are;

- Forwards movement with lightweight/difficult to restrain product.
- Sideways toppling of oddly shaped profiles with a leaning stack (see Figure 5.2) and compressible loads (see Figure 5.3).

In both instances, headboards, side/centre pins and tailboards will help contain the product in addition to the load restaint.

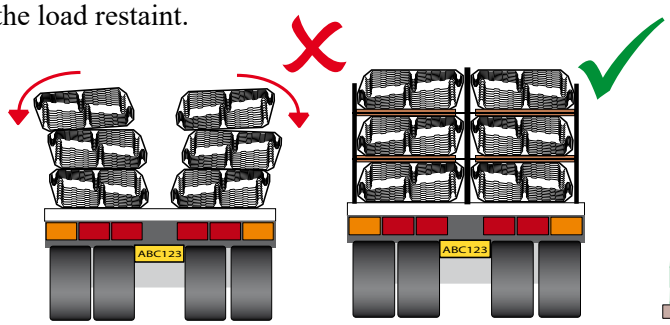


Figure 5.2: Side and centre pins will assist in the safe loading/unloading as well as safe transport for products prone to sidways toppling. ***Note: restraints not shown for clarity.***

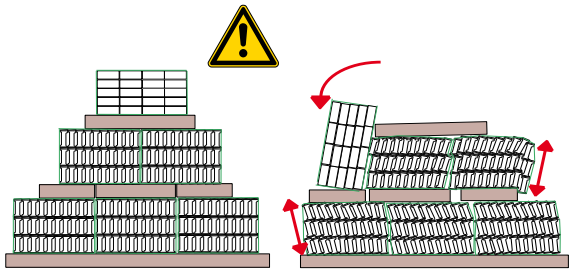


Figure 5.3: Products with high compressibility will tend to move and shift if not well restrained and supported. In such cases, side gates/pins as well as full width dunnage will prevent product from dislodging from the vehicle.

5.2. No Gaps:

Spacing or 'Gaps' across the trailer may close during transport, allowing the restraints to lose tension.

- Use vertical dunnage (or centre pins) where pack spacing is required (see Figure 5.4).
- There is no down force applied to packs where there is a gap between layers (see Figure 5.5). Use criss-crossed bearers to bridge gap or reconfigure load to prevent gaps.

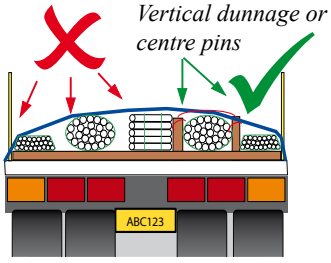


Figure 5.4: Products loaded with gaps should be spaced with vertical dunnage.

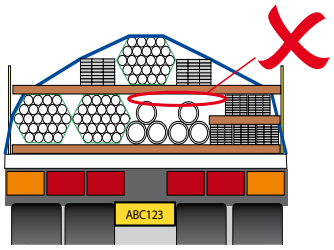


Figure 5.5: Dunnage that bridges products may break and transfers no down force from the restraints.

5.3. Friction:

Low friction increases the risk of product sliding! Prevent low friction situations:

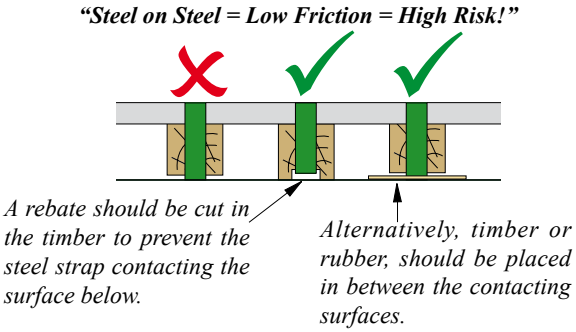


Figure 5.6: Eliminate low friction situations.

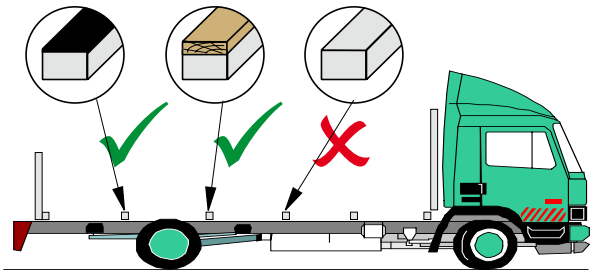


Figure 5.7: ***Steel base dunnage or steel frames should be rubber coated or timber faced*** *to prevent steel on steel contact.*

5.4. Dunnage:

Rectangular (non-square) dunnage on the short edge is a risk as it can roll over! (see Figure 5.9). Prevent this by using square dunnage, placing rectangular dunnage on its long edge or using criss crossed dunnage (see Figure 5.8).

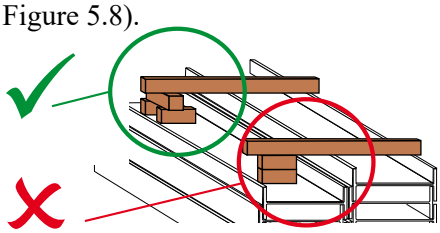


Figure 5.8: Use criss crossed dunnage (pig sty) or pallets within the load to level the layers.

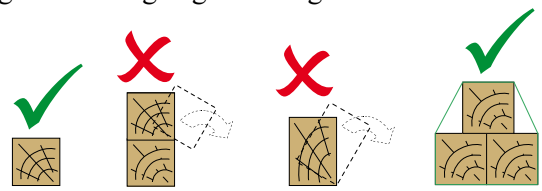
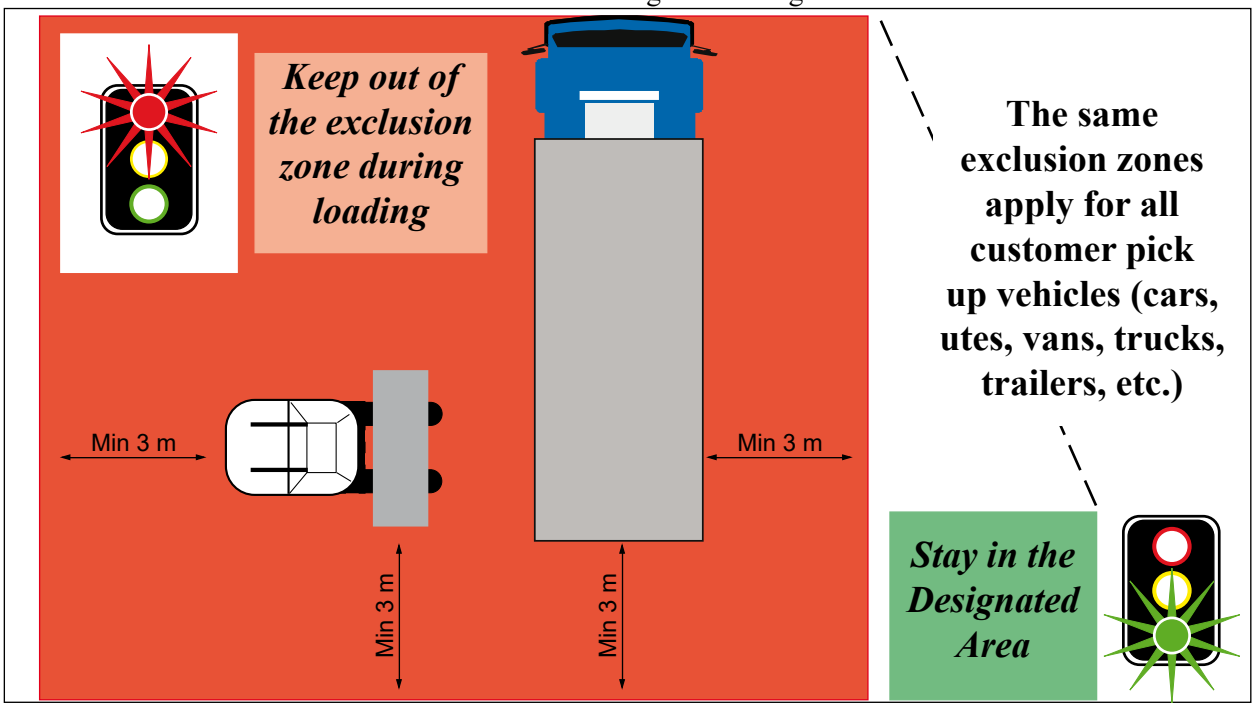


Figure 5.9: ***"Rolling Dunnage = Hidden Danger!"*** *Rolling dunnage can fall over and release the tension on the lashings. Strapped pyramid dunnage is ideal for rolled form products.*

5.5. Loading Exclusion Zone:

- Customers must **stay in the designated green area** whilst being crane or forklift loaded. They must remain out of the exclusion zone until the loading staff have given the all clear to enter.



5.6. Short Packs:

Packs too short to be restrained by two lashings may twist and become unrestrained during vehicle braking or an incident.

- ✓ Strap the product or bundle of product to a pallet (see Figure 5.9); or
- ✓ Load on anti-slip covered dunnage.
- ✓ Pack must be blocked against an 'engineered headboard' or other blocked products.
- ✗ Do **NOT** place short packs behind the opening of an extended trailer.
- ✗ Do **NOT** double or triple stack short packs.

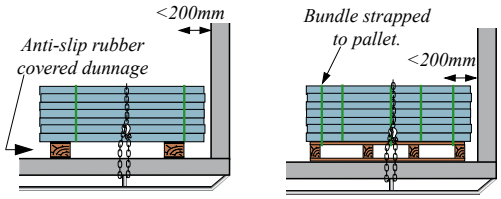
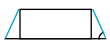


Figure 5.9: Short products strapped to a pallet, or placed on rubber dunnage, and placed against a headboard.

6. Load Restraint Requirements

- **Loads must be restrained to prevent unacceptable movement during all expected conditions of operation.** In particular the load must be restrained to be able to resist specific forces in different directions of movement. Refer to the "Load Restraint Guide", National Transport Commission.
- Recommend a minimum 2 lashings per stack or 1 lashing per 1.5 metres along load for lightweight packs e.g. roofing, rainwater goods.
- Load shorter products on top of longer products to maintain the stability of the load.
- Ensure packaging is intact and multiple smaller items are consolidated.
- Light products placed within a trailer or ute tray can be considered contained if the side walls are more than 250mm high and they cannot fly out during transport. Heavy packs require restraining as per Table 1.
- **No steel on steel** or **steel on plastic contact**. Place products on timber, rubber or other high friction surfaces.
- Ensure protective material is used between lashings and product to prevent damage from sharp edged loads.
- **BlueScope personnel have the right to refuse to load** if they are not satisfied all of the requirements of the Chain of Responsibility are met.

Table 1 - Lashing Requirements - Mixed Loads*

Lashing Angle to Horizontal 	8mm Chains	2.0 t (min) Webbing		Other Requirements (all angles)
		Standard	H/Tension	
> 60°	1 Chain per **2.1** tonne	1 Webbing per **0.86** tonne	1 Webbing per **1.7** tonne	**Minimum 2 lashings per stack.** **Minimum 2 belly wraps or chokes per stack when used.**
45 to 60°	1 Chain per **1.7** tonne	1 Webbing per **0.7** tonne	1 Webbing per **1.4** tonne	
30 to 45°	1 Chain per **1.2** tonne	1 Webbing per **0.5** tonne	1 Webbing per **1.0** tonne	

**Assumptions: Unblocked Load- no movement forwards or sideways - Static Friction μ_s= 0.5, Chain pretension = 750 kgf, Standard Webbing pretension = 300 kgf, High Tension Web Binders pretension= 600 kgf.*