Loading & Load Restraint Procedure

Paper Reels
Training Overview

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- Pattern of the Load
- Method of Loading
- Load Restraint
- Restraint Equipment Required
- Fitting Load Restraints
- Replacing Equipment
- Checking the Load
# PPE Requirements

<table>
<thead>
<tr>
<th>Activity</th>
<th>High Visability Vest</th>
<th>Eye Protection</th>
<th>Gloves</th>
<th>Hard Hat</th>
<th>Safety Footwear</th>
<th>Hearing Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Driving</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
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<tr>
<td>Loading / Unloading Paper Reels</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>If required by site</td>
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<tr>
<td>- Tightening / loosening curtain ratchet</td>
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<td>- Pulling back / replacing curtains</td>
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<tr>
<td>- Handling straps and ratchets</td>
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Weight of Load

1. Prior to loading, trucks are to obtain a tare weight docket from the on-site weighbridge and present this to the Visy loading personnel.

2. The Visy loader is to calculate the permissible load by subtracting the tare from the Gross permitted for the vehicle type (42.5t for conventional 6 axle semi-trailers and 62t for 9 axle B-doubles.).

3. The permissible load is loaded onto the vehicle and secured (using the steps below) from the available reels, using Millwide to progressively calculate the weight.

4. Do not exceed the calculated permissible load.
A suitable layout from the loading patterns, included in this document, must be chosen by the driver and loader to ensure correct axle group loads weights for different reel sizes. If the load does not fill the complete length of the trailer then it usually requires slightly more on the tri-axle rather than on the drive axles.

Loaded trucks are then to travel over the on-site weighbridge, together with paperwork, to check both gross weight and axle groups. A tear off record of the gross weight is collected and left with the gatehouse.

Vehicles that exceed the legal permitted Gross Combinations Mass will be prevented from leaving and returned to the Reel Store for unloading to the correct weight.
Pattern of Load

Loading patterns have been developed and tested to ensure that the load patterns can:

- Spread the load across the trailers to support vehicle stability,
- Obtain correct axle weights and gross weights
- Ensure that the load can be properly restrained with friction and physical restraint using straps/chains and trailer headboards.
Pattern of Load

- It is the responsibility of the transport driver to:
  - Ensure that the size, nature and position of the load does not adversely affect the normal laden vehicle steering, cornering or braking.
  - Ensure that the load pattern selected and the placement of paper reels is appropriate for axle weight and GCM regulations compliance.
  - Periodically check during each trip to ensure that the load has not shifted and that it remains properly restrained.

- It is the responsibility of the person loading and the transport driver to:
  - Ensure that the vehicle is suitable for the intended load.
  - Ensure that the load is correctly positioned on the vehicle in an agreed location. If the loader and the driver cannot agree on the load pattern/reel location the matter is to be referred to the relevant supervisor or Despatch Manager at each site.
Loading Patterns
Method of Loading

- Reels are loaded commencing at the front of the trailer, placing the first reel against the headboard of the trailer and subsequent reels as shown on the loading pattern being used.
  - Note that subsequent reel when loaded must be placed tight against the reel in front (and the false headboard where used).

- Where axle loadings and weight distribution dictate (after discussion with the transport driver), a second group of reels may be placed towards the rear of the trailer in the best position to obtain correct axle weights. Load this group by commencing at the rear of the trailer and placing subsequent reels tight against the reels behind (towards the rear of the vehicle).
Method of Loading

- Where multiple reels are in a reel stack ensure that there is no material between the reels and that the reels are directly on top of each other (not offset). Where possible alternate the position of reels in alternate reel stacks to ensure that the join in each reel stack is not at the same level as in the adjacent reel stacks.

- Once loading has been completed the transport driver must fit the load restraints as required.

- Load method and securing method must comply with the requirements contained in the following sections.
Load Restraint

- The purpose of a load restraint system is to ensure that under expected operating conditions:
  - A load or part of a load does not become dislodged from a vehicle.
  - A load does not move, so that the vehicle stability and weight distribution are not affected.
Load Restraint – 5 Areas

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.

5. Use appropriate driving methods
   - If the load is correctly restrained it will not shift or fall off in all expected driving conditions, including a full braking stop.
   - Because a loaded vehicle might drive differently, the driver must take into account any changes in the vehicle’s stability, steering and braking caused by the size, type and position of load.
   - The driver should check the load and its restraint during the journey. Loads that can settle must be checked regularly.
Performance Standards

- The load restraint system will meet the Regulation Performance Standards (Load Restraint Guide – 2004), if the load doesn’t shift when subjected to forces illustrated below.

(W = Weight of the load)

Fig. A.8 LOAD RESTRAINT FORCES
Restraint Equipment Required

- Straps and Ratchets ✓
- T-bars ✓
- Angles (edge protection) ✓
- Cardboard (product protection) ✓
Straps and Ratchets

- Sufficient straps are required to strap across the top of all reels on the vehicle, a minimum of one strap per reel is required.

- Straps 50mm or wider are required to be used with either hand tensioners or track mounted under-floor winches, all equipment must be in a fully serviceable condition.

- All webbing must have a minimum lashing capacity of 2000kg as per AS/NZS 4380 – 1996. Knots in webbing are unacceptable. Rope is unacceptable. Winches are to be connected to the tie rail.
Strapping Example
Belly Strapping

- Where there is a gap in the load, the front two reels of the rearward group are to be belly wrapped together with inline winch webbing rated with a lashing capacity of at least 2000 kg.

- Over the top restraints are at a minimum to be under-body webbing winch restraints with an average tension of 300 kg.
Belly Strapping Example
T-bars

- If the trailer has been fitted for T-bars then these must be used.

- T-bars are a secondary load restraint method that must be used in conjunction with straps.
T-bar Example
Angles (Edge Protection)

- Edge protectors MUST be used where every webbing strap goes over the top of a paper reel to both protect the paper reel and assist holding the strap in place. Additional protection of sleeves or carpet / rubber is to be used where webbing straps go over sharp edges on the truck.

- Approved edge protectors are steel angles preferably ones with handles and slots to assist placement without the use of ladders. Plastic angles must not be used as research shows that they slip on the paper reel.
Angles Example
Cardboard

- Cardboard MUST be used between reels and trailer surface. This helps prevent rubbing and deterioration of the reels surface which can result in potential claims from customers.

- Waste cardboard is available in most reel warehouses for this task. Take care when placing it in position, use tape and wedging rather than holding it while adjacent reels are placed in position.
Cardboard Example
Fitting Load Restraints

1. Cardboard is to be placed on the floor of the truck prior to putting the reels into position according to the selected load pattern.
2. Commence placing the reels on the truck starting at the front.
3. When all reels are in position, straps are to be placed over the top of each reel/reel stack (or pair of reels/reel stacks) using the approved edge protectors.
4. The straps are to be tensioned using hand ratchets wound as tight as possible.
5. T-bars are to be fitted into the trailer floor.
6. Where required according to the pattern, a bridle strap or belly strap is to be fitted to the front reel (or groups of reels) of any reel group that does not abut the headboard.
Replacing Equipment

- All load restraint equipment, when not in use, must be put away and kept secure at all times. T-bars and angles are to be kept in the toolbox. Or, T-bars can be left in position when the trailer is empty. Straps and ratchets can be left at the base of the trailer.
Checking the Load

- Avoiding Load Shift:
  - Do remember that loads can settle and shift during a journey, causing lashings to slacken
  - Do check your load before moving off
  - Do check your load every time an item is added or removed during the journey
  - Do check your load periodically and at routine stops
  - Do check your load after emergency braking or swerving
Questions??