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## Measures to augment safe cargo handling during road transportation

### Overview

The speed and operational flexibility of trucks render road transportation a more convenient and preferable means of moving cargo, compared to other modes of transport. However, cargo damages and losses are common occurrence in road transport, which can be controlled to a large extent.

We at Liberty Videocon General Insurance value the importance of safe handling and movement of cargo by road; and intend to suggest some safety measures for the same. We sincerely hope that the measures suggested in this document will help follow safe practices for cargo movement in trucks.



### Case Study

#### Trailer falls 50 ft off bridge, driver dies

A trailer fell 50 ft off a bridge on the Panvel-Uran Road. The trailer was ferrying 24 tonnes of aluminium blocks from JNPT in Uran to Silvasa via Kalamboli. The police suspect that the driver may have dozed off and lost control of the speeding vehicle.

#### Preventive Measures:

- Check the driver's fitness and physical ability to drive.
- Plan enough time for drivers to have a rest and to relax between journeys (tour orders); drivers must be fully rested before working.
- Prevent time pressure.
- Plan to have two drivers, so they can take turns to drive on long journeys.

#### Collision of trucks, both drivers killed

Two truck drivers were killed on the spot when their trucks collided head-on on the Pune-Mumbai Expressway near Khopoli. The driver of the truck, which was laden with tiles and was heading towards Mumbai, lost control over the vehicle on a slope near Khopoli. As the truck was speeding, it jumped the median, entered the opposite lane and collided head-on with another truck laden with peas heading towards Pune.

#### Preventive Measures:

- Regular vehicle inspection and maintenance is necessary.
- Special training and instruction for drivers should be provided.
- There should be provision of speed governors.

#### Driver turned over with his truck while unloading waste paper

The driver drove a heavy goods vehicle loaded with waste paper. He had to transport the waste paper to a recycling company. While unloading the cargo, the driver forgot to move out the support legs and the vehicle lost its balance and turned over.

#### Preventive Measures:

- Loading and unloading activities should be supervised by a skilled person.
- Training and informing drivers about safe procedures for loading and unloading.
- Using support legs on hard ground.

## Precautions and measures to be taken to prevent damage and losses of cargo during road transportation

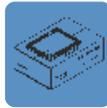
### Adequate Packing

Adequate packing is designed to meet conditions of transportation, handling and storage to achieve delivery of goods in sound condition. It requires special consideration as to adequacy, including cushioning, strapping, rust prevention, unusual stresses and strains, cargo's sensitivity to humidity and temperature, weather perils, etc.



### Pre-Booking Cargo Inspection

The carrier should inspect the cargo prior to issue of 'Goods Consignment Note' to ascertain the nature of the goods and the suitability of packing to withstand the rigours of transit.



### Vehicle Inspection

Proper inspection of the truck should be undertaken to ensure that the vehicle is road-worthy and capable of undertaking the journey, before the vehicle is loaded with the cargo.



- Drivers background check should be done.
- Vehicle should be provided with speed governors.

### Loading and Stacking of Cargo

The following need to be ensured:

- The friction between the load and the vehicle platform offers some resistance against movement of the load. The frictional restraint can be increased by keeping the platform surface clean, dry, and free from grease or other slippery substance.
- The platform must be without any broken boards, protruding nails or anything that can damage the cargo.
- The front of the load should be abutted against the headboard of the truck.
- In case of containers or swap bodies, that all twist locks and fittings are intact and in serviceable condition.
- Adequate number of lashing points are available on the vehicle and the load is distributed to keep the centre of gravity as low as possible. The load also must be restrained in such a way that it cannot move relative to the vehicle.
- Stout and strong blocks, wedges or scotches may be secured to vehicle platform and used to prevent individual items from moving horizontally.
- Over dimensional load may affect the stability of truck. Such cargo should be carried on a low platform. The overall height of the loaded vehicle must be



checked to ensure that it is less than that of any overhead obstruction likely to be encountered en-route. The overhanging portion of the cargo should be marked by red flags or lights to give sufficient warning to the public. Overhang should be limited to prevent toppling of the cargo.

- In case of items such as overweight cargo, it should be ensured that the trailers used are fitted with hydraulic suspension systems which act as shock absorbers.
- In case of very long consignments, it will be advantageous to use two trailers with turn-tables. These turn-tables allow for turning each trailer independently on curves without causing any strain to the cargo.
- Loose bulk loads should not be stowed higher than the sides of the body of truck.
- While loading drums or other liquid containers, the floor of the truck may be covered with cardboard or the drums can be placed on the wooden pallets.
- It is advisable to get the route survey done for OWC / ODC.

### Weather Protection

- Sound tarpaulins must be used to provide protection to cargo from weather. The tarpaulins must be well secured so that they do not loosen or give way during transit. Where more than one tarpaulin sheet is required to cover the load, they should be placed to cover the rear portion first so that overlapping portion of the sheets does not face forward allowing penetration of rain through the overlap.
- Indelible inks, paint and water repellent labels should be used to eliminate obliteration of marks, shipping instructions and handling symbols.



### Cargo Shortage

The shortage of cargo arises mainly on account of wrong delivery, detachment of address, obliteration of shipping marks and numbers leading to difficulty in identifying the cargo and pilferage or theft.

### Measures

- Use specifically patterned gummed sealing tapes, which enable quick detection of tampering.
- Use stretch / shrink-wrapping, strapping and banding.
- Use coded markings. Descriptive labeling, illustrations or prominent display of trademarks, logos, and corporate names simplify the pilferer's

task. Codes should be changed frequently to avoid cargo handler's familiarity with them.

- Unitize multiple or non-uniform parcels to keep your shipment together and discourage pilferage.
- Carelessness in loading at booking centres or at transshipment points may be the main cause of arrival of cargo at wrong destinations. Conduct systematic storage and verify marks and numbers at the time of loading to avoid misplacement and dispatching of cargo to wrong destinations.
- Quite a few thefts are attributable to connivance of vehicle drivers with antisocial elements. Verify credentials of the truck driver and have GPS system installed in the trucks.
- In addition to the foregoing physical security guidelines, the shipper should insist on prompt pick-up and delivery of cargo. The longer a shipment stays in a pier shed or staging-marshalling yard, the more it is exposed to loss.
- Containerized shipments should have the container sealed after loading and any subsequent openings during transit.



### Unloading Operations

Unloading of cargo must not be rushed through and should be supervised by trained people.

The packaging marks on the outer packages indicate various modes of handling them. It is critical when packages are handled during unloading, all such packaging marks and signs are understood and thence handled with utmost care and caution.



### Trivia



India has the 3rd longest road network in the world, about 4020 thousand kms. With its longest road network, USA stands on the first position with around 6506 thousand kms, followed by China which has the 2nd largest road network with about 4237 thousand kms. Brazil and Japan have the 4th and the 5th longest road network, with 1751 thousand kms and 1210 thousand kms respectively.