JOURNEY MANAGEMENT

To ensure the safe management of vehicle journeys.

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<td>Craig Ullbricht</td>
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2. **SCOPE**

Applicable to journey management of all road going vehicles and mobile equipment utilised at Aluminium South Africa.

3. **OBJECTIVES**

- To ensure the safe journey management for road going vehicles and mobile equipment.
- To ensure compliance with the BHP Billiton Fatal Risk Controls

4. **RESPONSIBILITIES**

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5. **PROCEDURE STATEMENTS**

5.1 **DRIVER AND OPERATOR TRAINING AND AUTHORISATION**

Refer to PR100054 Traffic management

5.2 **RGV AND SME FRC COMPLIANCE**

Refer to PR000184 Road Going Vehicles and PR000187 Surface Mobile Equipment

5.3 **SAFE APPROACH DISTANCE**

- No road going vehicle or mobile equipment on site may approach closer than 5 metres to the back or front of another road going vehicle or mobile equipment unless in a designated parking space.

  ⇒ A vehicle that is required to be closer than 5 metres (for example to perform maintenance) will first stop more than 5 metres away and establish positive contact with the a driver in the other vehicle or equipment and determine that it is safe to approach closer than 5 metres.
• Maintain the recommended minimum safe following distance of three seconds when driving a vehicle or equipment on site.

• This minimum safe distance must be increased at night, during adverse weather or if there are people working in the vicinity (for example road works, grass cutting etc.).

5.4 LOADING, UNLOADING AND LOAD RESTRAINT

5.4.1 Road Going Vehicle Loading and Unloading

• All loading and unloading operations will be risk assessed (refer to PR100034)
  ⇒ Vehicles are to be selected so that they are appropriate for the cargo carried and the loading must be managed so as to mitigate the risk of spillage during transport (see below).
  ⇒ Risk assess requirements to ensure they are appropriate for the cargo carried and allow safe loading, unloading and transport of materials.

• Precautions will be taken to ensure that no one works at a height greater than 2 metres without edge protection or fall arrest or fall restraint equipment (refer to PR000205

• Precautions will be taken to ensure that no people or equipment are present on the opposite side of the vehicle in case any part of the load falls or is pushed off the vehicle during the loading or unloading operation.

• Precautions will be taken to ensure that no one is injured by straps, hooks and tensioners if the strap is thrown over the load.

5.4.2 Mobile Equipment Loading and Unloading

• Follow the loading and unloading procedures for the relevant surface mobile equipment as stipulated in the standard operating procedure of the specific equipment.

5.4.3 Load Restraint

All loads will be restrained so that there is no possibility that the load will work loose during the journey.

• Special consideration will be given to the possibility that items could fly forward or off the vehicle in the event that the vehicle comes to a sudden stop.

• Special consideration will be given to the possibility that a sharp edge on the load could cut a restraining strap and appropriate edge protection will be provided.

• Refer to the appendix and utilize FM000190 to ensure the load is adequately secured.

• Overloading of vehicles or trailers is not permitted.
Maximum load is as per the safe working load stated on the vehicle or trailer by the manufacturer i.e.: no more than 1000 kg may be loaded on to a 1 ton road going vehicle or no more than 500 kg may be loaded on to a 0.5 ton road going vehicle.

- At the side of the vehicle, the load must not extend more than 300mm beyond the wheel base of the vehicle or trailer.
- If the load extends more than 300 mm beyond the back or front of the vehicle or trailer, a red flag measuring at least 500 mm x 500 mm must be attached to the end of the load.
- If the load extends more than 500 mm beyond the back and/or front of the vehicle the vehicle must be escorted on site, and barricading must be placed round the back and/or front of the vehicle when it is parked.

5.5 SPECIFIC JOURNEYS INCLUDING HIGH RISK JOURNEYS

Any journey that poses a high risk must be risk assessed as per PR100034.

5.5.1 Road going vehicle and mobile equipment use

5.5.1.1 Reversing

- Ensure that no person or equipment is behind the vehicle before reversing.
- Ensure a clear pathway before reversing.
- Give a warning blow of the hooter before reversing or entering buildings.

<table>
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<td>Ensure that the reverse alarm is in operation and give a warning blow of the hooter before reversing</td>
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5.5.1.2 Refuelling

- No equipment carrying hot metal, anodes or hot ladles is to enter the refueling bay.
- Drive the vehicle to the dedicated refueling point.
- Ensure that the vehicle is in neutral, handbrake applied and the engine is off.
- Apply the chock blocks.
- Remove the fuel cap.
- Take care not to spill any fuel whilst refueling.
- Ensure that the diesel cap is firmly tightened.
- Do not use a mobile phone whilst refueling.
5.5.1.3 Boarding and Disembarking

Always maintain hand holds / rails and face the vehicle whilst mounting or disembarking from vehicles and mobile equipment.

5.5.1.4 Collision Avoidance

- No overtaking is allowed on site
- Follow all traffic regulations and signage
- Departmental champions are to continuously evaluate collision avoidance technology and ensure that we make the best possible use of this equipment.

5.5.1.5 Abnormal Conditions

- Risk assessments shall be carried out by the safety coordinators to determine the impact of abnormal weather conditions on the safety of the personnel and equipment.
- The relevant safety coordinators and specialists will be responsible for deciding on the “go / no go” criteria.

5.5.2 Hot metal route on site

The hot metal route is identified with a red painted line on each side of the road and at regular intervals a red triangle with an exclamation mark.

As far as possible, pedestrians should avoid walking on the hot metal route. If it is necessary to cross the hot metal route this should be done at a pedestrian crossing after ensuring that the road is clear.
5.5.3 Hot metal route off site

The hot metal route off site is not demarcated in any way and the route is shared with other commercial and domestic traffic.

The driver is expected to have completed a defensive driving course and display extreme caution at all times.

The normal route is as shown on the map below:

If the route needs to be varied, the risk assessment must be reviewed.

5.5.4 Hot metal transport off site

Hot metal transfer off site will be as per SO000093

5.5.5 Hot metal transport on site

Hot metal transfer on site will be as per SO000087

5.5.6 Shuttle Bayside to Hillside

The normal route for the shuttle is indicated on the map below.
The driver is responsible for monitoring the condition of the road, and if for any reason the route needs to be changed, this should be done in consultation with the responsible Specialist Contractor Management.

In the event of a Foskor gas release Civil Defence is responsible for closing the road. The driver is responsible for ensuring that all shuttle windows are closed, the air conditioner is switched off and the shuttle is driven to a safe place, as detailed in the risk assessment.

5.5.7 Shuttle Bayside on site

The normal route stops for the shuttle are as shown on the picture below.

The driver is responsible for monitoring the road, and if for any reason the route needs to be altered this must be done in consultation with the responsible Specialist Contractor Management.

No passenger may leave or join the shuttle while it is in the area marked in yellow.
5.5.8 Anode transport

Anode transport will be as per SO000729.

5.5.9 Pitch transport on and off site

Pitch transport will be as per SO000890

5.5.10 Deliveries to and collections from site

- All RGV making a delivery or collection on site will be checked by security as detailed above, and provided they pass the inspection they will all be directed to the canteen or warehouse.

- Vehicles that do not pass the inspection will be directed to wait at the drop off zone or warehouse parking, until arrangements are made for safe removal from site or a risk assessment is completed and alternative risk controls are put in place so that the vehicle may safely access site and complete the delivery.
  ⇒ Reversing at the security weighbridge should be avoided, vehicles may be allowed to turn at the warehouse parking area.

- Vehicles for the canteen will be directed to follow the orange route and they will be marked with an orange sticker on the windscreen.

- All other vehicles will be directed to the warehouse (including those making deliveries to other areas of the plant.) They will be marked with a blue sticker on the windscreen.

The driver will be instructed to stay on the designated route and to obey all road markings and signs, and informed about the risks of interacting with the hot metal transport vehicle and mobile equipment.

The driver will be required to use standard PPE as defined in PR000244. (ie wearing PPE jacket, pants and boots, and have in the vehicle safety glasses and a hard hat, to be worn when exiting the vehicle.

- Drivers are exempt from the need to carry a respirator as they can take refuge in the vehicle cab in the event of a Foskor incident.

5.5.11 Deliveries to and collections from departments

RGV making deliveries to departments will be directed to the warehouse first.

- The warehouse staff will check the vehicle for FRC compliance and determine whether or not the driver has completed site induction.

- If the vehicle is FRC compliant and the driver has completed site induction the warehouse staff will allow the driver to proceed to the relevant department.

- If the RGV is not FRC compliant and / or the driver is not inducted the warehouse staff will place a second sticker on the vehicle with the letter V and a number to indicate that the vehicle is visiting site.
⇒ The relevant department will be asked to provide an escort vehicle to take the visitor to and from the department.
⇒ The warehouse will request the escort driver to sign the RGV in and out of the warehouse.

5.5.12 Deliveries to the canteen

- The process to follow for deliveries to the canteen is detailed in the section on deliveries to site.

5.5.13 Movement of lifting equipment

5.5.13.1 Movement of cherry pickers and elevated work platforms

- Cherry pickers and elevated work platforms must be escorted when they are moved if there is a risk of them interacting with pedestrians, other RGV or mobile equipment.
⇒ The function of the escort is to ensure that other road users are aware that a piece of equipment which has low maneuverability, low speed and limited visibility is on the move, and take appropriate avoiding action.
⇒ Depending on the distance and the risk, the escort may be carried out by a flagman on foot or by another vehicle.
  - If the escort is a flagman controls must be introduced to prevent a collision between the flagman and other road users.
  - If the escort is another vehicle it must carry a red strobe light as well as the standard orange strobe so that other road users are aware the vehicle is performing an escort function.

5.5.13.2 Forklifts

In general, forklifts should not be used to transport loads over long distances outside of the potrooms.
- If a forklift is to be used to carry a load more than 500 metres, the task must be risk assessed.
- The risk assessment must address the ergonomics if the driver will have to drive in reverse for a distance exceeding 100 metres.
- If the load restricts visibility, the forklift must be escorted by a flagman.

5.5.13.3 Mobile cranes

Mobile cranes used on site must comply with PR000184, PR000187 and PR100033 as appropriate.
• Mobile cranes that have restricted visibility due to the location of the cab relative to the boom, the size or location of the lifting equipment, or the location of any load carried must be escorted by a flagman or vehicle.

⇒ Extreme care must be exercised to ensure that no one moves into the path of the crane while it is in motion.

5.5.14 Operation of vehicles and equipment near height restrictions

• A minimum separation distance of 3 metres shall be maintained for all high voltage, bare wire conductor and power lines.

• The driver will determine a proposed route for transport of high loads. If he is unfamiliar with the travel route, he shall first drive the route in a light vehicle accompanied by a responsible person.

• The operator shall first assess that the height of high equipment is less than maximum permissible clearance height along the proposed route.

• No equipment will travel under a power line unless there is a height restriction sign posted before the crossing and maximum permissible vehicle height displayed.

• Any equipment that needs to be used in the close vicinity of power lines and pose a threat of contacting the power lines shall have solid rubber tyres to prevent explosion of the tyres.

5.5.15 Operation of vehicles and equipment in a magnetic field

• Due consideration must be given to the effects of the magnetic field in and near Reduction and the Substations, on the operation and reliability of vehicles and equipment.

• Examples of some problems that have been experienced include:

⇒ Stalling at stop streets or when slowing down
⇒ Hydraulic valves closing or becoming inoperative
⇒ Relays operating without an initiating signal

• The effect of the magnetic field is to be mitigated via the risk assessment, refer to PR100034.

• In the event of a failure of equipment due to the magnetic field, the breakdown process must be followed as described below.

5.5.16 Ad hoc journeys off site

• The driver is responsible for planning the route beforehand, including breaks for fatigue and fuel etc. Refer to FM000149 and FM000150.

⇒ Fatigue breaks should be taken at least every two hours, however due care must be exercised to ensure that stopping places are safe.

⇒ Identify risks (distance, time of day, road condition, weather conditions, type of vehicle, traffic, pedestrians, hijackings, etc);
• The driver must inform a responsible person of the plan.
• Driving at night or in the hours of darkness should be avoided where possible
  ⇒ If under extenuating circumstances driving at night or in the hours of darkness
    is required, the activity shall be preceded by an approved risk assessment which
    shall consider driver fatigue. The frequency of driver rest breaks should be
    reassessed when travelling at night.
  ⇒ Drivers shall exercise extreme caution when driving at night due to the
    presence of livestock, wildlife and other hazards along the roadway.

5.5.17 Combining Air and Road Travel

• The risks associated with fatigue and driving at night must be considered when
  planning combined air and road travel. If there is a possibility of fatigue and or
  driving in the dark due to the length or timing of the trip, alternative arrangements
  must be made. Possible alternatives include:
  ⇒ Booking hotel accommodation close to the airport.
  ⇒ Utilising a shuttle bus or public transport.
  ⇒ Hiring a car with a driver.
  • If an external driver is utilised steps must be taken to ensure that the driver
    is licensed, not fatigued, and is not under the influence of drugs and
    alcohol.

5.6 PRE-OPERATIONAL CHECKS

A daily road going vehicle safety and pre operational written and dated checklist
(FM000167) is to be completed by the driver before use of the vehicle. A copy of the
checklist is to be verified and signed by the supervisor during the shift.
• This checklist or a copy shall be available inside the vehicle at all times.
• Checklist books must be kept for a minimum period of three months.
• Contractors must complete the vehicle checklist before arriving at the site.
A daily road going trailer safety and pre operational checklist (FM000185) is to be
completed by the vehicle driver before use of the trailer.
Contractors must complete the trailer checklist before arriving at the site.
• This checklist or a copy shall be available inside the towing vehicle at all times.
• Checklists must be kept for a minimum period of three months.

5.6.1.1 Pre-Operational Check Non Conformance

If a non conformance on the check list would render the vehicle or trailer unsafe, the
driver must immediately:
• Inform their supervisor,
• Log a non conformance or maintenance notification on the system and record the
  number on the checklist.
Examples of safety related non conformances are:

- Missing safety equipment
- Blown headlight bulb
- Long travel on the brake pedal, etc.

If the vehicle or trailer must be removed from site for repair, suitable arrangements must be made to ensure the safe transport of such a breakdown. For example, a tow truck or low bed trailer must be used. Refer to SO000506.

If the non conformance is not safety related the driver must look back at the previous copy of the checklist and determine if the non conformance has already been logged on the system.

An example of a non conformance that is not safety related is:

- Minor accident damage that does not affect the handling of the vehicle or trailer.

(Note that any accident damage on the vehicle or trailer including minor bumps, scratches, scrapes etc. must be reported and recorded as a non conformance.)

If the driver is in any doubt as to whether the non conformance is safety related, the driver must discuss the issue with their supervisor and the supervisor must countersign the checklist.

5.7 VEHICLE INCIDENT

If a vehicle or mobile equipment collides with another vehicle, mobile equipment, or a structure, arrangements must be made by the relevant supervisor to test the people involved in the incident for alcohol and other drugs as per PR000229.

In the event of an incident the driver must, as soon as possible,

- Stop the vehicle, if possible in a safe location, and activate the hazard warning lights.
- Inform Security on 9111 or by radio.
- If the vehicle is in an unsafe location (for example on the hot metal route) request that Security provides barricading and a flagman.
- Set out the emergency roadside triangles, suggested placing is:
  - One to be placed on the road 20 metres in front of the vehicle
  - One to be placed on the road 20 metres behind the vehicle
- Inspect the vehicle to determine whether or not it is safe to continue to use the vehicle thereafter.
- Follow SO000506 in the event the vehicle needs to be towed or recovered.

5.7.1 Company driver

Inform their supervisor immediately and, in consultation with the supervisor, determine an appropriate course of action.
During the course of the shift, the driver must load a non conformance for the incident.

5.7.2 Contractor driver

Inform the Company responsible supervisor immediately and, in consultation with the supervisor, determine an appropriate course of action.

During the course of the shift, the Hillside supervisor must load a non conformance for the incident.

5.7.3 Vehicle incident investigation

As soon as possible after the event, the responsible department management team must appoint a suitably qualified person to carry out an investigation into the incident.

The report must be submitted to the responsible department management team.

- If the incident had the potential to be a level 4 event, the full ICAM process must be followed.

5.7.4 Breakdown

Refer to SO000506.

In case of a breakdown, security shall be informed immediately on 035 908 9111 or 035 999 2777 and the relevant service provider shall be called.

- Switch on hazard lights.
- Set out the emergency roadside triangles, suggested placing is:
  - One to be placed on the road 20 metres in front of the vehicle,
  - One to be placed on the road 20 metres behind the vehicle,
- If possible, the vehicle should be removed to a safe area to avoid further risks or hazards after completing a risk assessment / JSA as per PR100034.

If repair work has to be done at the point of breakdown, the following controls shall be in place:

- A risk assessment / JSA must be completed as per PR100034.
- Barricades such as road marking cones or concertina barricades and a flagman to direct traffic shall be used when necessary.

5.8 PEOPLE REQUIREMENTS

The drivers of road going vehicles and mobile equipment operators may be tested for drugs and alcohol as per the drug and alcohol testing procedure (refer to PR000229).

The drivers of road going vehicles and mobile equipment operators shall comply with the requirements of the fatigue management procedure (refer to PR000217).
Behaviour based observations shall be conducted during the operation of road going vehicles and mobile equipment. Based on the results of these observations, any additional specific retraining shall be carried out.

5.9 MONITORING DRIVER BEHAVIOUR

Driver behaviour will be monitored as part of field leadership as detailed in PR100089. If necessary PR000343 will be followed to resolve transgressions.

6. FLOWCHART

None

7. DEFINITIONS AND ABBREVIATIONS

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<td>A vehicle owned, hired or leased by Hillside Aluminium</td>
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<td>GVM</td>
<td>Gross Vehicle Mass</td>
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<td>IVMS</td>
<td>In vehicle monitoring system</td>
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<td>Employee responsible for the vehicle, or to whom the vehicle is allocated</td>
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8. REFERENCES

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<td>FM000190</td>
<td>RGV loading checklist</td>
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<td>Driver Authorisation</td>
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<td>Working at Heights</td>
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<td>Fatigue Management Plan</td>
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## 9. APPENDICES

### 9.1 LOAD SECURING DO AND DON’T

<table>
<thead>
<tr>
<th>DO’S</th>
<th>DON’T’S</th>
</tr>
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<tbody>
<tr>
<td><strong>VEHICLE SELECTION</strong></td>
<td></td>
</tr>
<tr>
<td><a href="#">Correct Choice of Vehicle</a></td>
<td><a href="#">Vehicle Too Small</a></td>
</tr>
<tr>
<td><strong>POSITIONING THE LOAD / ARRANGING LOADS ON VEHICLES</strong></td>
<td></td>
</tr>
<tr>
<td><a href="#">Correct Load Position</a></td>
<td><a href="#">Incorrect Load Position</a></td>
</tr>
<tr>
<td><a href="#">Good Weight Distribution</a></td>
<td><a href="#">Insufficient Weight on Drive Axles</a></td>
</tr>
<tr>
<td><a href="#">Dunnage Position: No Effect on Axle Loads</a></td>
<td></td>
</tr>
<tr>
<td><a href="#">Correct Load Position</a></td>
<td><a href="#">DANGEROUS LOAD POSITION</a></td>
</tr>
<tr>
<td><a href="#">Stable Load</a></td>
<td><a href="#">Unstable Load</a></td>
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<th>TITLE</th>
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<td>PR000229</td>
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</tr>
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</tr>
<tr>
<td>PR000502</td>
<td>Local and International Travel and Accommodation</td>
</tr>
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<td>SO000087</td>
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<tr>
<td>SO000729</td>
<td>Anode Pallet Transport</td>
</tr>
<tr>
<td>SO000890</td>
<td>Liquid Pitch Transport</td>
</tr>
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</table>
LASHING ATTACHED TO PREVENT TIPPING

STABILISED LOAD

DUNNAGE

SQUARE
RECTANGULAR
RAISED DUNNAGE

SPLIT TIMBER
RECTANGULAR
STACKED

APPLYING TIE-DOWN LASHINGS

OFFSET LOADS (DUNNAGE TO AVOID LOOSEN LASHINGS)

HIGHER TIE-DOWN LASHING – MORE EFFECTIVE (DUNNAGE USED TO INCREASE TIE-DOWN LASHING ANGLE)

LOW TIE-DOWN LASHING – NOT RECOMMENDED

GATES CROSS TIED
STABLE RIGID PACKS

STACKED PACKS
TALL UNSTABLE PACKS

USING LOAD RESTRAINT EQUIPMENT

CORRECT LASHING ATTACHMENT TO TIE RAILS (AT SUPPORT POINT)

INCORRECT LASHING ATTACHMENT TO TIE RAILS

APPLYING CAP TARPALIN
TEMPORARY REPAIRS AND ADDITIONAL LASHING

TORN TARPALIN

TABLES

TIED-DOWN LASHING: PRE-TENSION

<table>
<thead>
<tr>
<th>Lashing</th>
<th>Size</th>
<th>Tensioner</th>
<th>Pre-tension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rope</td>
<td>10 mm &amp;</td>
<td>Single Hitch</td>
<td>50 kg</td>
</tr>
<tr>
<td></td>
<td>12 mm</td>
<td>Double Hitch</td>
<td>100 kg</td>
</tr>
<tr>
<td>Webbing Strap</td>
<td>25 mm</td>
<td>Hand Ratchet</td>
<td>100 kg</td>
</tr>
<tr>
<td></td>
<td>35 mm</td>
<td>Hand Ratchet</td>
<td>250 kg</td>
</tr>
<tr>
<td></td>
<td>50 mm</td>
<td>Truck Winch</td>
<td>300 kg</td>
</tr>
<tr>
<td></td>
<td>60 mm</td>
<td>Hand Ratchet</td>
<td>300 kg</td>
</tr>
<tr>
<td></td>
<td>50 mm</td>
<td>Hand Ratchet</td>
<td>600 kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(push up)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(pull down)</td>
<td></td>
</tr>
<tr>
<td>Chain</td>
<td>7 mm &amp;</td>
<td>Dog</td>
<td>750 kg</td>
</tr>
<tr>
<td></td>
<td>above</td>
<td>Turnbuckle</td>
<td>1000 kg</td>
</tr>
</tbody>
</table>
9.2 LOAD SECURING LEADING PRACTICE

9.2.1 Choose a suitable vehicle for the load

- The vehicle should have adequate fittings to prevent the load moving eg: headboards and cargo barriers.
- The vehicle operator should ensure that all anchor points used to tie down items are adequate.
- Ensure the vehicle has enough space and is designed to take the size and weight of the load, without exceeding the vehicle manufacturer’s design specifications or legal dimension limits for the vehicle.

---

**MAXIMUM WEIGHT RESTRAINED BY ONE LASHING (with no load shift)**

<table>
<thead>
<tr>
<th>FRONT OF LOAD BLOCKED?</th>
<th>NO</th>
<th>YES</th>
</tr>
</thead>
<tbody>
<tr>
<td>HOW MUCH FRICTION?</td>
<td>MEDIUM</td>
<td>HIGH</td>
</tr>
<tr>
<td></td>
<td>(Smooth Steel on Tension) $\mu = 0.4$</td>
<td>(Rubber Load Mat) $\mu = 0.4$</td>
</tr>
<tr>
<td>ROPE - Single Hitch</td>
<td>85 kg</td>
<td>255 kg</td>
</tr>
<tr>
<td>(50 kg average tension)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROPE - Double Hitch</td>
<td>170 kg</td>
<td>510 kg</td>
</tr>
<tr>
<td>(100 kg average tension)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WEBBING STRAP</td>
<td>610 kg</td>
<td>1530 kg</td>
</tr>
<tr>
<td>(300 kg average tension)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHAIN</td>
<td>1275 kg</td>
<td>3825 kg</td>
</tr>
<tr>
<td>(750 kg average tension)</td>
<td></td>
<td></td>
</tr>
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</table>

**TYPICAL LASHING CAPACITY**

<table>
<thead>
<tr>
<th>Lashing</th>
<th>Lashing Capacity (LC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 mm synthetic (silver) rope</td>
<td>300 kg</td>
</tr>
<tr>
<td>25 mm webbing</td>
<td>250 kg</td>
</tr>
<tr>
<td>35 mm webbing</td>
<td>1.0 tonne</td>
</tr>
<tr>
<td>50 mm webbing</td>
<td>2.0 tonnes</td>
</tr>
<tr>
<td>Chain*</td>
<td>with claw hooks or 'winged' grab hooks</td>
</tr>
<tr>
<td>8 mm transport chain</td>
<td>2.3 tonnes</td>
</tr>
<tr>
<td>7.3 mm transport chain</td>
<td>3.0 tonnes</td>
</tr>
<tr>
<td>8 mm transport chain</td>
<td>4.0 tonnes</td>
</tr>
<tr>
<td>10 mm transport chain</td>
<td>6.0 tonnes</td>
</tr>
<tr>
<td>13 mm transport chain</td>
<td>9.0 tonnes</td>
</tr>
<tr>
<td>13 mm Grade T chain **</td>
<td>10.0 tonnes</td>
</tr>
<tr>
<td>16 mm Grade T chain **</td>
<td>16.0 tonnes</td>
</tr>
</tbody>
</table>
9.2.2 Position and place the load so that it is secure

- The load should be placed in or on the vehicle in such a way that it does not adversely affect the vehicle’s stability, steering and/or braking performance. The load should not project from the front, sides or rear of the vehicle in a way that could endanger people or damage property.

9.2.3 Select suitable restraint equipment

- Always check that you have sufficient lashings and that they are in a good and serviceable condition by inspecting them before use.
- All items not blocked against the front or sides of the vehicle or contained within the sides of the vehicle must be lashed in place.
- Alternatively small loose items could be restrained using a net or tarpaulin. If small items, such as tools, are carried on a regular basis, fitting of a hard mounted toolbox, fitting a divider or compartment to the vehicle could be considered.

9.2.4 Drive carefully and check lashings

- For items with a large surface area, such as sheets of building material, be aware of the effects that wind can have on the load and vehicle handling, even at low speeds.
- After commencing a journey the load may settle and shift which can cause the load restraints to loosen. Vehicle operators should check the load and the restraint tension shortly after commencing the journey.
9.2.5  Ways of restraining loads

9.2.5.1 Restraining stacked items

- The use of sides on a tray truck is a good way of restraining loads of different sizes.
- No restraint is required if items on the tray are tightly packed together and are no higher than the sides of the tray. Items taller than the sides require lashings.
- To restrain a number of similar items, bundle or group them into a more stable unit as shown below. The bundle can then be restrained as a single item.
- Wherever possible, like size items should be stacked tightly together.
- To prevent items sliding they must be lashed to the vehicle. In addition packing or anti slip matting may be used between items, and between items and the floor.
- Stacks of like sized cartons, small drums, boxes of produce etc can be restrained by the use of top corner protector angles (usually made of pressed metal or plastic). This reduces the possible crushing of the cartons.
- Ensure heavy items are not loaded on top of lighter items.
- Webbing straps provide quick, simple restraints. Such straps vary in strength and clamping capacity, so choose one that best suits the type of load being carried.
- Seats in vans are not adequate for preventing the load moving forward under hard or emergency braking. The use of cargo barriers is recommended to prevent items moving forward and striking the driver and/or passengers.
- Nets or tarpaulins can also be used to restrain light items.
- Long items of steel, especially pipes, can be slippery and difficult to restrain. Wooden dunnage or rubber anti friction matting can prevent slippage of these items. Looping the lashing around several items in a bundle fashion helps prevent items sliding out, either backwards or forwards, from the bundle.
9.2.5.2 Restraining long items using a tailgate

- Loose sheets of building materials, especially those of different widths, should, where possible,
- be restrained by blocking against headboards or tailgates. When the vehicle does not have a
- tailgate, loose items should be restrained in the manner shown below.

9.2.5.3 Restraining loose items without use of a tailgate

- To prevent greasy or slippery items from moving, dry packing material such as heavy cardboard sheets should be used between items, and also between them and the floor. Alternatively, greasy items can be boxed or blocked.
- High narrow items such as stacks of cartons have the potential to fall forward under heavy or emergency braking. This type of load usually requires more than one lashing, at a suitable angle.
9.2.5.4 Restraining tall items

- Fill spaces and gaps between piles or groups of items with other items, dunnage or packing materials to ensure the load does not move during transit and loosen the lashings.

9.2.5.5 Carrying a mixed load

9.2.6 Loading and restraining items - checks

- Use FM000190
- Do Remember that small items can become missiles during emergency braking.
Do Remember that the size, height and position of your load will affect the handling of your vehicle.

Do Remember that loose loads can settle and shift during a journey, allowing lashings to slacken. Keep your load items tightly packed together, filling empty spaces.

Do Check your load, before moving off and during the journey.

Do Block the load against the front headboard before tying down your load.

Do Check that you have adequate packing and protectors for all loads.

Do Check your load every time you remove or add an item.

Do Check the load after any abrupt manoeuvre or hard braking.

Do Remember long slippery items such as pipes require individual lashing or lashing in groups.

Do Remember that any loads projecting from behind the vehicle may require a warning flag or red light if travelling at night.

Don’t Move your vehicle if any part of your load is not correctly restrained.

Don’t TAKE RISKS.

9.3 AARTO

AARTO (Administrative Adjudication of Road Traffic Offences) was legislated in 1998, and is yet to be implemented.

Under the AARTO legislation, if a person commits a traffic offence on a public road, they will be issued with an infringement notice (a fine) and demerit points on their licence. If they receive 12 or more demerit points, their licence will be suspended for a period.

If the vehicle is owned by a company, the fine will be issued to the company and they will have to nominate the driver of the vehicle.

If the company does not know who was driving the vehicle at that time, and they choose to pay the fine, then they are admitting liability and will receive the demerit points.

The company should not nominate their clients proxy, as they may lose their license and be restricted from driving.

Failure to pay the fine could result in the sheriff carrying out the following actions:

⇒ Seize and sell movable property to defray the penalty
⇒ Seize and deface your driver's licence and/or professional driving permit
⇒ Remove and deface the licence disks of all your vehicles
⇒ If applicable, seize and deface the operator cards of all the vehicles for which you are the registered operator
⇒ Immobilise all your vehicles
⇒ Blacklist the owner of the vehicle at credit bureaus
• Thus, when the AARTO system is implemented, it could have a negative impact on the business. If the company is unable to allocate the demerit points they will have to accept responsibility and depending on the number of vehicles owned by the company, once the company reaches a certain number of demerit points, all company vehicles will be grounded.

• Vehicle users are thus required to disclose certain information so that if they are issued with an infringement notice, it will be allocated to the individual, and not to the vehicle owner or operator. This information is collected on FM100144.

• Vehicle drivers are required to declare any infringement notices (fines) issued in either their private capacity or while driving a company owned, leased or hired vehicle to their line manager within 48 hours, so that the company can make an informed choice on whether or not they should permit that person to continue driving a company owned, leased or hired vehicle. Drivers are required to sign a declaration to this effect when applying for authorisation using FM100144.

• Any person who has accumulated 12 or more demerit points is automatically prohibited from driving a company owned, leased or hired vehicle.