








<p><b>Department</b> Cast Products</p> <p><b>Approver's Title</b> Cast Products Manager</p> <p><b>Author's Title</b> Process Superintendent Casting</p>	 <p><b>TOMAGO ALUMINIUM</b> Company Pty. Limited</p> <p><b>STANDARD OPERATING PROCEDURE MANUAL</b>  <b>PRODUCT LOADING AND WEBBING RESTRAINT</b>  <b>LONG &amp; SHORT BILLETS</b>  <b>LOADERS AND DRIVERS</b></p> <p><i>Controlled copy on day of printing 5/08/2020 only</i></p>	<p>Document No: SOP40a DMS: 120000004780 Version 03</p> <p>Original date: July 2008 Previous date: 29/05/18 Issue date: 31/07/20</p> <p>Page 1 of 2</p>
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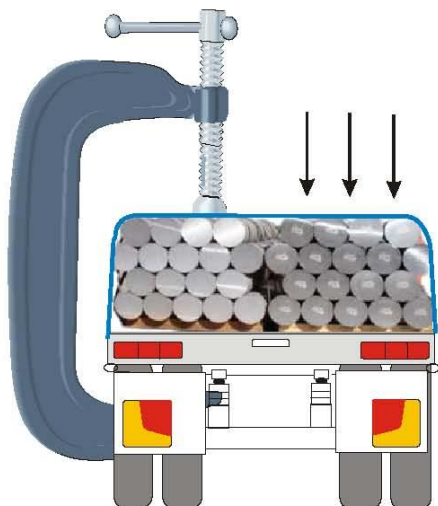
<p><b>VEHICLE</b></p> 	<ul style="list-style-type: none"> <li>• Use suitable vehicles, prime-movers &amp; B Doubles as specified.</li> <li>• Do not overload the vehicle, see approximate load weight spacings over page.</li> <li>• Ensure the vehicle floor is clean and free from debris.</li> <li>• Ensure all fittings &amp; restraint equipment are serviceable &amp; in good order.</li> </ul>
<p><b>RESPONSIBILITY?</b></p>	<ul style="list-style-type: none"> <li>• Who is the person in charge and responsible for loading/unloading?</li> <li>• Both the loader &amp; driver must know the person responsible for this task.</li> <li>• Take care in respect to 'Working at Heights', always follow site safety rules.</li> <li>• Ensure only sound packs are loaded and placed correctly. Report any failures.</li> </ul>
<p><b>LOAD PLACEMENT</b> (A LOADER RESPONSIBILITY)</p> 	<ul style="list-style-type: none"> <li>• Place product as directed by the transport driver, as close as possible to headboard.</li> <li>• Remember to load within legal axle weight limits. Follow the driver's directions.</li> <li>• <b>The driver may request a product placement position be adjusted.</b></li> <li>• Long billet no more than 4 high x 2 wide – Short billet no more than 1 high x 2 wide.</li> <li>• Across load - all pack placement to be against the other – NO GAPS.</li> <li>• Long-ways – keep groups as close as possible, while meeting axle limits.</li> </ul>
<p><b>LOADING &amp; UNLOADING</b></p> 	<ul style="list-style-type: none"> <li>• Ensure the forklift or loader has sufficient load-centre lifting capacity for each lift.</li> <li>• Keep all other persons well clear and always within your line of sight.</li> </ul>
<p><b>RESTRAINT EQUIPMENT</b> (A DRIVER RESPONSIBILITY)</p>  <p>A typical webbing tag with required markings, as per Aust Standard 4380</p> <p><b>4344 - 4.0</b></p> <p><b>4344 is the Aust Std No, 4 represents 4000 kg LC</b></p>	<ul style="list-style-type: none"> <li>• All webbing or chain lashing assemblies are marked with the manufacturer's minimum load rated lashing capacity (LC) of not less than 4000 kg LC (Reference; AS/NZS 4344 for chain and AS/NZS 4380 for webbing)</li> <li>• The LC is limited by the lowest LC component in the system assembly.</li> <li>• <b>Long Billet group &gt;1m = 5 straps for a group of 2 wide &amp; no more than 4 high.</b></li> <li>• <b>Short &lt;1m = 1 strap is required for each row of 2 wide across the trailer floor.</b></li> <li>• Place winch &amp; anchor hooks just rear of floor cross-bearers. (see over page)</li> <li>• Always apply firm pre-tension of the webbing without overstressing equipment.</li> <li>• Always use 'geared' webbing winches (as fitted) when using webbing straps.</li> <li>• <b>Tension wrench to a minimum of 200ft lb or 298Nm, using the geared webbing winch fitted to the under floor track</b></li> </ul>

<p><b>SUMMARY CHECK-LIST</b></p> 	<p><i>Do not – allow any person to be on your 'blind' side when loading or unloading.</i></p> <p><i>Do not – overload any vehicle.</i></p> <p><i>Do not – take risks, eg; mixing different sizes in the same load group.</i></p> <p><i>Do not – forget the forklift load guard may reduce access to some load positions?</i></p> <p><i>Do not – forget to 'ASK' or 'CHECK' if you are not sure'.</i></p> <p><i>Do not – load or carry any packs if the straps are broken or loose.</i></p>
	<p><i>Do – ensure the load rows are grouped to ensure best load weight distribution.</i></p> <p><i>Do – check the load during the trip, especially after any heavy braking.</i></p> <p><i>Do – check all restraint equipment &amp; timbers are in good working order.</i></p> <p><i>Do – report any packs where the straps or bearers have slipped or broken.</i></p> <p><i>Do – ensure maximum legal axle group loadings are NOT exceeded.</i></p> <p><i>Do – follow all the <a href="#">site safety rules and procedures</a> eg; your <a href="#">PPE &amp; Standing Areas</a>.</i></p>

***"All persons handling, loading or transporting loads have a duty to do so carefully and safely"***

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## How Many Lashings?



The "critical lashing feature" for all items is the "clamping effect" for the total block of weight across a load.

Each 75mm or 100mm lashing (stamped 4t LC) provides a minimum of 4000kg LC. (Assembly LC is 4000kg)

Each pack group of Short Billet to have 1 strap lashed over the top of the group.

Each pack group of long billet to have 5 straps firmly tensioned using a geared ratio winch (as fitted)

Each lashing is tensioned up as firmly as possible using the geared webbing winch fitted to the under floor track. The combined total of all "clamping" of each lashing is over 1000kg and will exceed 20% of that group of packs weight.

## Forward & Lateral Direction Lashing & Restraint - Short & Long Billets

### LONG Up to 16000kg (Max)

2 rows across = approx. row weight 3-5000kg

- No more than 4 high depending on weight
- Use 4 x 75 or 100mm x 4t webbing straps
- Use high tension geared winches as fitted

### SHORT Up to 3450kg (max)

Groups/Rows up to 3450kg total weight

- use 1 x 75mm or 100mm x 4t webbing strap



Total lashing may appear to be excessive, against LRG tables but additional pretension & LC is recommended for both long & short billets.

The forward direction restraint required is 80% for each of the groups load weight.