

Centurion

Freight Preparation Policy - Part C

Freight Preparation Companion

Revision

Revision No	Revision Date	Reviewed by	Nature of Amendment
0	28/11/2011	M Gale	Draft.
1	05/12/2011	M Gale	Implemented and distribution of document.
2	20/05/2013	M Gale	Addition of further images to assist in packaging by vendors
3	28/08/2013	M Gale	Amendment of drum packaging
4	02/09/2013	M Gale	Insertion of supplied chain for transport
5	18/11/2014	S Uren	Minor Formatting

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1 Forward

The following companion is a guide for best practise with packaging identified products to ensure safe travel to destination by Centurion and should be used in consultation with the Centurion Freight Preparation Policy Parts A and B .

Under Chain of Responsibility, Centurion reserves the right to quarantine any freight that is deemed / identified as unsafe to travel or in contradiction to the Freight Preparation Policy.

2 Commonly Detected Packaging Issues

Two of the most common issues with freight identified as unsuitable/unsafe for transport are pallet selection and applied restraint.

2.1 Pallet Selection

Selecting a stable foundation for loading freight is essential for freight to safely reach its destination and is a common area of failure.

Images below identify these common issues and failings:



Applying straps/restraint over top slats without loaded weight lifts the slat, voiding the restraint.



The selected pallet Safe Work Load (SWL) must be capable of successfully supporting the loaded weight. When selecting pallets, consideration should be given for item centre of gravity, height and distribution on pallet.

The use of flimsy pallets / small skids for heavy freight often fail resulting in damage/resupply, packaging costs and incurred pickup delivery fee's.



Careful consideration on pallet selection must be applied before submitting freight for transport.

2.2 Freight Restraint

Common areas of failure include:

- Reliance of plastic shrink-wrapping as a sole method to restrain heavy items:
 - Plastic shears during transport voiding restraint,
 - Items are able to dislodge from plastic and fall from trailers or during unloading operations - presenting issues to other road users and client personnel operating forklifts, and
 - Coloured plastic (black in particular) does not allow visual confirmation that freight is secure to pallet and/or if Dangerous Goods are present.



3 Chain

Chain is commonly submitted for transport on pallets fitted with a cardboard sheet and strapped with shrink wrap. The weight of chain, and in transport vibration, often causes the links to wear away the cardboard bottom and fall through the pallet slats. Chain also escapes from under the plastic and presents issues with loading/unloading.



Transportation of chain is more effective if placed in steel drums or wooden crates and then the drum or crate is strapped to the pallet to ensure secure.

Another effective method is to have a board place on the pallet and chain situated within the protection of a wooden collar.

4 Dangerous Goods

Dangerous goods are delivered in all types of quantities and sizes which understandably, makes difficult to adequately restrain on pallets.





5 Drums

5.1 Strapping

These specifications are for the packaging of 209 litre drums for transport.

Drums must be restrained on hardwood pallets.

The strapping used must be suitable to restrain the drum in place on the pallet.

The strapping must be positioned to prevent movement of the drums and prevent the board of the pallet being dislodged due to vibration or from applied restraint lifting boards / slats.

The images below identify the use of wooden slats on the top of drums. This practise allows tension to be distributed along the drums - further restraining the freight and avoids metal strapping from slipping on drum lids and seams.



5.2 [Plastic Shrink Wrapping](#)

The use of plastic wrapping of heavy drums is not acceptable and does not effectively restrain 205litres



Plastic is normally applied too low and does not account for centre of gravity and internal product.

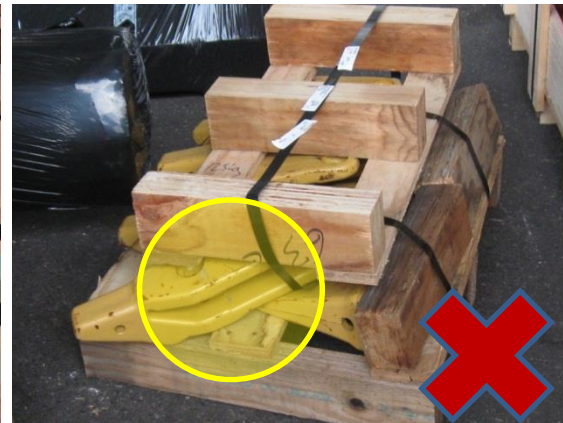


Plastic shrink wrap lifts the top slats and voids restraint.

6 Ground Engaging Tools (GET)

Heavy GET items need to be securely strapped to suitable pallets to ensure safe for transport and multiple handling.

NOTE: Sole use of plastic wrap/shrink wrapping is not an accepted method of restraining these goods to pallets. Freight must have either metal or plastic strapping applied otherwise freight will be rejected and will not travel. This is due to the high potential for these heavy items to vibrate loose during transport.

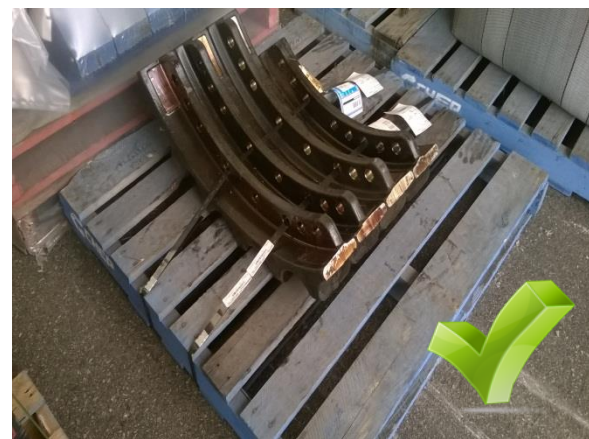




Restraint applied over top of freight allows heavy item to slide or walk from pallet



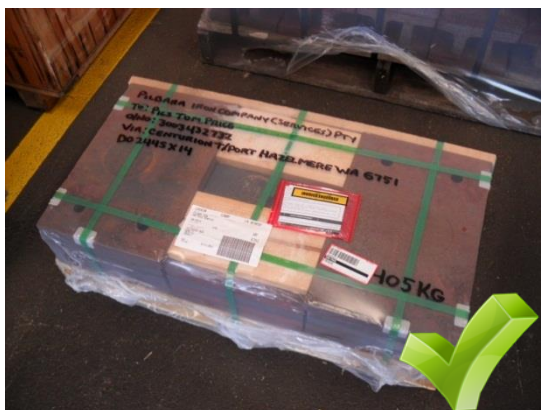
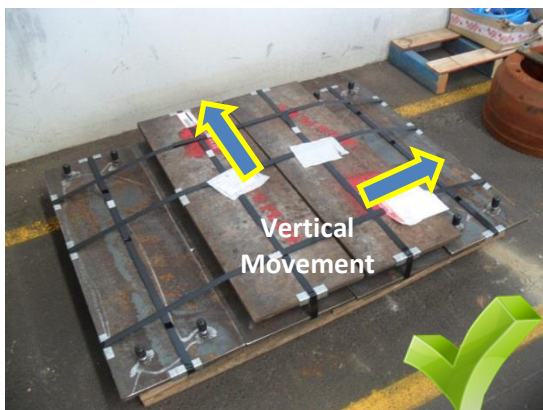
Preference is to have restraint through item keyholes to provide additional restraint

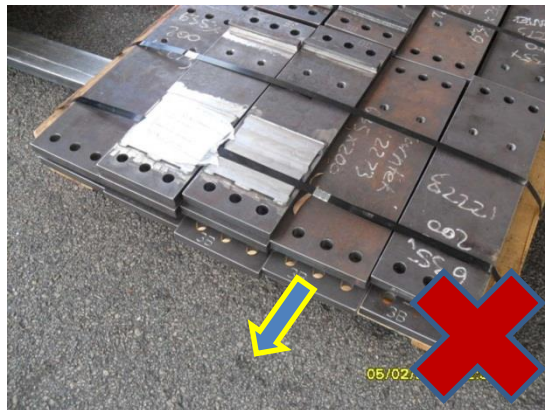
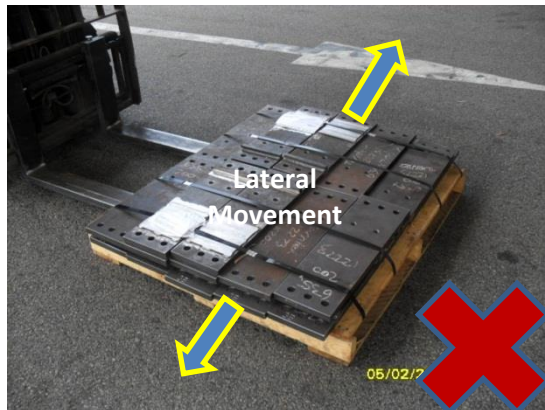


7 Plate Steel

Packaged sections of plate steel need to have sufficient applied restraint to prevent **lateral** and **vertical** movement.

NOTE: Sole use of plastic wrap/shrink wrapping is not an accepted method of restraining these goods to pallets. Freight must have either metal or plastic strapping applied otherwise freight will be rejected and will not travel.





8 Hoses

All supplied hoses for transport required to be strapped / restrained to pallets for transport. The image below identifies hoses incorrectly secured and covered in plastic which have dislodged during transit to the North West.



Hoses should be banded together with the use of either metal or plastic banding and restrained under the pallet bearers to ensure safe transport.



9 Products Containing Oil / Chemicals

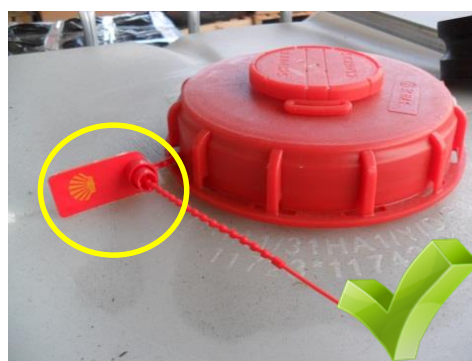
All freight designated for travel by Centurion must be certified oil free, banded and all outlets/drainage/discharges adequately prepared for freight to ensure no leakage of oil or fluids.

All occurrences of leaking freight will be highlighted to vendor and all associated environmental clean-up costs charged to vendor.



Note: The Centurion facility does not have the ability for vendors to decant products if containing vessels are damaged. Damaged vessels will require to be picked up by an approved chemical courier for transport back to vendor's premises for rectification.

Caps on IBC's should be secured with either security tags or cable ties to ensure lids remain on bladder.

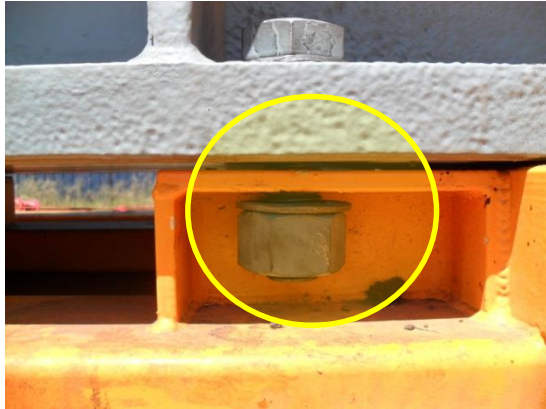


10 Equipment in Transport Frames

Tie down points for Heavy mining Equipment requires being clearly identifiable.

Bolts, nuts (preferable nylok nuts should be used) to prevent vibrating loose during transport need to be tightened to ensure equipment is restrained to frames.

Transport frames need to be suitable for the designated freight and able to accommodate loaded weight.



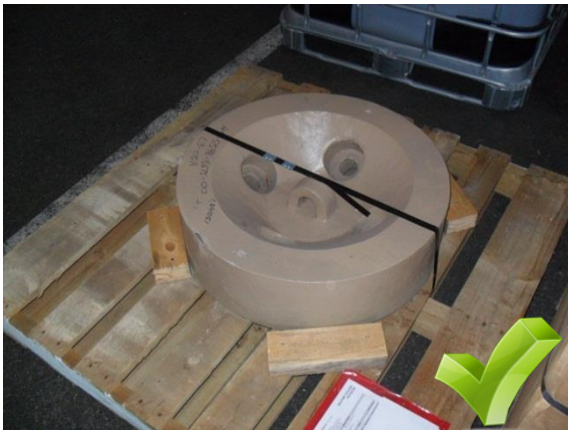
It is a requirement that all pulleys for Rio Tinto be provided in metal transport frames. One time / wooden frames are not deemed acceptable by Rio Tinto for the transport and safe handling of these cylindrical items.



11 Rollers & Cylindrical Items

Rollers should not be stacked in high levelled 'pyramid' configurations and be restrained to prevent **lateral** and **vertical** movement.



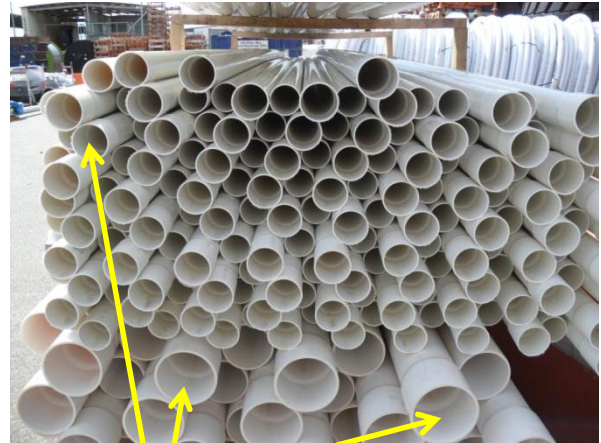


12 Steel, Poly Pipe and Lumber

All bundles of steel and poly pipe need to be strapped together to ensure safe for loading. Noting common lengths of these products, it is not practical or essential to provide this type of freight palletised. Freight needs to be elevated with dunnage to allow forklift access.

Large bundles can be removed at delivery and placed on wooden dunnage prior to loading onto trailers.





When submitting lengths of pipe for transport, no smaller gauge pipe is to be placed internally into larger sections of pipe. This practice does not allow for correct load restraint, does not restrict pipe movement and can have disastrous consequences if for example the item in question was heavy round bar.

13 Tyres

All supply of tyres from vendors requires to be adequately restrained to pallets. The practise of securing tyres with the use of plastic wrap does not effectively restrain goods and presents hazards in the loading / unloading and during the transport phase.



Example: The above image depicts consignments that are to be transported to North Western Australia. The images below indicate how these consignments arrive when only plastic wrap used as a primary restraint.



Tyres for transport need to be either delivered / restrained in approved tyre stillage's (below):



Or adequately strapped to pallets to prevent movement (below):



14 Restraint Issues (General)

The following images identify both good and unacceptable packaged freight. All non-conforming freight in these cases have been quarantined and deemed not suitable for transport requiring vendor to rectify.





15 Wet Cell Batteries

Batteries are to be suitably restrained to pallets to prevent movement and damage during transport and forklift loading / unloading operations.

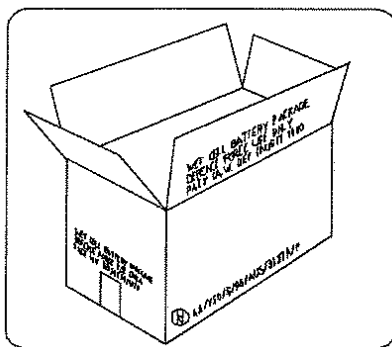


Strapping with plastic strapping only should be sufficiently applied to prevent movement and possible dislodgement from pallet.

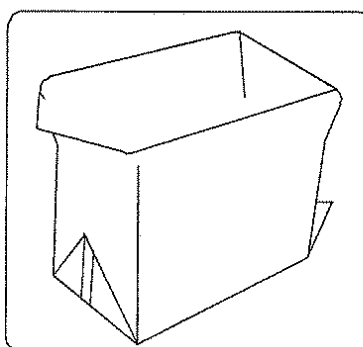


15.1 Individual Batteries

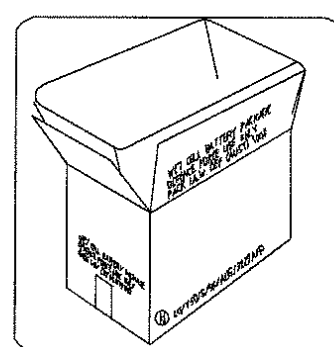
Following procedure identifies process for supply of individual batteries which is effective in ensuring acid is contained within packaging.



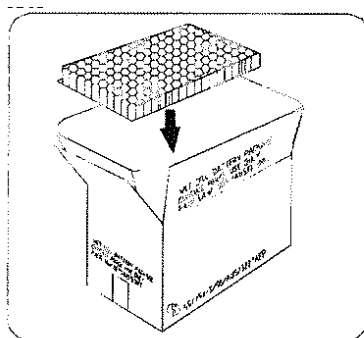
Setup fibreboard box



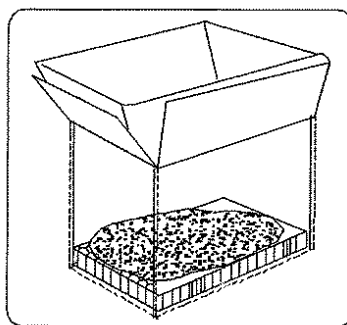
Setup approved Dangerous Goods box liner



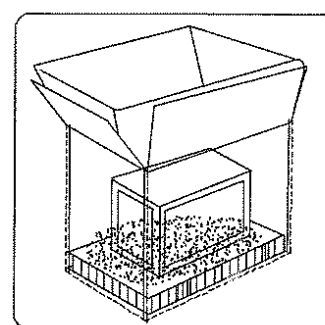
Insert Liner into box



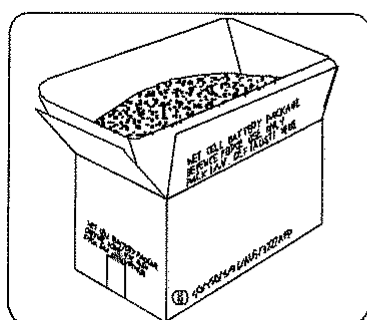
Insert cushioning pad/device into liner/box



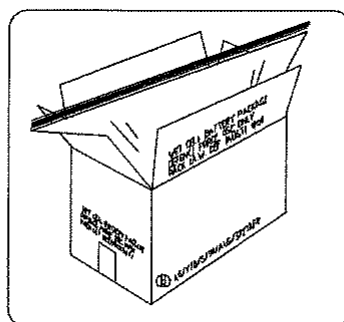
Partially fill with vermiculite or similar absorbent product



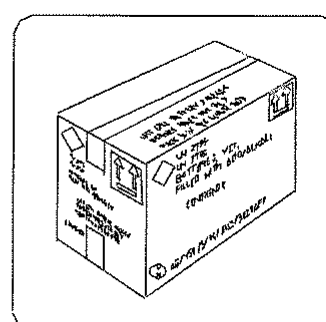
Place wet cell battery in centre of box



Completely fill box with vermiculite or similar absorbent product



Close liner with adhesive tape



Seal packaged box with adhesive tape

16 Wheeled Cases / Crates

All freight that is delivered on wheels requires to be restrained to prevent free movement.



The above example highlights how to effectively limit movement from items supplied on wheels.

These items must be stabilised for transport and the use of pallets underneath loads, with applied straps under the under bearers, is a perfect example on how to limit movement for safe transport.



17 Windscreens

Due to the fragile nature of windscreens, these need to be supplied on acceptable pallets and adequately restrained to ensure safe transit. The image below identifies a windscreen packaged for transport on a pallet deemed unsuitable and although has restraints to hold in place on pallet, are loose. The potential for this item to be damaged in transport is high.



The use of plastic carton protectors will allow further tension on the restraint to be applied and ensure windscreens are restrained in the upright position. The image below depicts how these protectors are applied.



18 Mantles

Mantles are delivered to Centurion positioned on flat racks (as per Image A below) however; items are normally removed as vendors require the flat racks to be returned.



Image A



Image B

Due to the size and weight (normally in the vicinity of 12-13 tonne) of these items – the provided wooden frame is not an effective base for safe transport to clients and presents handling issues at the customers end.

Clients and vendors are to be contacted to address and ensure supply of mantle in flat rack to final destination.