Centurion Freight Preparation Standard

CEN-OPS-STD-252

Contents

1. INTRODUCTION

Centurion is committed to providing and maintaining a safe working environment and methods to the highest standards of work health and safety for all workers. Centurion will conduct operations in such a manner so as to meet and exceed recognised legislative safety and health requirements and Chain of Responsibility Law. In addition to our commitment to safety, core values of Centurion highlight the professional integrity of its people and the unparalleled service for transporting freight. This Standard is derived from legislative provisions and guides providing a comprehensive safety package for the safe transport of freight. It is important to ensure all freight is packaged to a standard, which will ensure it arrives at its final destination in the same condition as it was delivered to Centurion. Inadequate packaging can present a hazard to supply workers, transport providers who handle the freight, other road users and the general public.

With this in mind, freight must be presented in such a manner that it:

- Can withstand road transport over long distances and rough terrain
- Can be safely lifted on and off transport vehicles
- Minimises the risk of injury to those involved in freight handling, other road users or the general public
- Minimises the risk of damage to that particular item
- Minimises the risk of damage to other freight.

2. SCOPE AND APPLICATION

This Standard covers the minimum requirements for the presentation and packaging of inbound and outbound goods, and equipment for delivery into or within Australia. It is the consignor's responsibility to comply with this Standard and the specific requirements of the relevant Australian/ New Zealand Standards and legislation for the goods, equipment or materials being transported.

The purpose of this Standard is to articulate the requirements for Centurion freight preparation and distribution. This Standard is a three-part document and provides:

A. Specific details on packaging, marking and acceptance of consignments
B. Images of both conforming and non-conforming packaging
C. Packaging requirements to ensure identified products are correctly restrained for loading/unloading operations with forklift and for safe transport.

This includes the approach taken with regards to:

- Compliance with legal obligations of consignors/receivers and loader/packers under Chain of Responsibility legislation; and
- Duty of care as defined by the relevant Australian State/Territory Work Health and Safety Act.

The scope of this document covers all freight that suppliers submit to Centurion for transport to the end user. It is to be read and followed by suppliers, particularly by workers involved in packing and securing items for transportation. Central to this document is the acceptance of the accountability of all parties in managing risks and the demonstration of a duty of care.

Variations to this standard can be made with the approval of a General Manager.

2.1. Aim

The aim of this Standard is to:

- Protect workers, the environment and members of the public from the risk of incidents occurring as a result of non-compliance by suppliers of goods with existing relevant Australian & New Zealand Standards, Legislation and guidelines
- Take all reasonable steps to ensure that Centurion's workers, when consigning goods from suppliers, comply with this Standard
- Ensure that Drivers, including subcontractors comply with all heavy vehicle laws, including those relating to mass, dimension and load restraint
- Take all reasonable steps to ensure suppliers of goods and services comply with the above
- Assist Centurion and suppliers to comply with the Chain of Responsibility Laws.

Compliance with this document will also reduce delays in receipts' processing and Delivery in Full on Time (DIFOT). This, in turn, means that invoice payments will not be unduly delayed and expediting/late reminder/delivery disputes will be avoided.

3. CHAIN OF RESPONSIBILITY (COR)

Chain of Responsibility legislation states that all parties in the road transport supply chain - including the Consignor, Consignee, Packer, Loader and Receiver, as well as the Driver and Operator - must take proactive steps to prevent a breach of the road transport, fatigue, speed, mass, dimension and load restraint laws.

Amongst other aims, COR legislation aims to improve road safety and minimise negative impacts on the environment, road infrastructure and traffic management associated with breaches of heavy vehicle road laws. By recognising the parties within the chain and making these parties responsible for their actions the COR legislation aims to encourage 'effective and efficient compliance with heavy vehicle road transport law.'

If a person plays a role in the transport of goods (or passengers) by road, then they are part of the 'Chain of Responsibility'.

Individuals and corporations are responsible for the processes that they are able to control.

Under the COR laws, all parties with some control in the transport chain have legal responsibilities to ensure compliance with relevant road laws, including compliance with mass, dimension and load restraint obligations. This includes people involved in consigning, loading, packing and receiving freight (or

managing those activities), as well as drivers of those vehicles (including, for example, in relation to speeding and fatigue management).

This document is aimed specifically at consignors (including supplier, packers and loaders and their supervisors) for consignments travelling via Centurion. Compliance with this Standard does not, in isolation, cover all components of COR legislation.

4. PART A – DOCUMENTATION

Transport documentation must be securely attached to the outside of all packaged items in a weather-resistant, sealed envelope or, to the goods, if packing is not required and must not be obscured. (Where a windowed envelope is used, the delivery address must remain visible.). Freight containers must have packing lists inside weather-resistant envelopes, attached to the internal wall. Where packing is required, duplicate copies of transport documentation, delivery dockets/invoices should also be placed inside the packaging in the event the external documents are misplaced. Each purchase order must be packaged separately. If a unit of equipment has to be shipped in more than one package, then the documents for the equipment must be forwarded with the first package and must indicate the number of packages to be expected.

4.1. Centurion Pick-Up Policy

When a consignor identifies the requirement for a Centurion consignment pickup, the booking process is followed.

- Consignors are required to log into http://www.centurion.net.au/ols to raise an online connote and complete the following information:

- Consignor's Details, Consignee's Details, Cargo type (including declaring if consignment is classed as Dangerous Goods)
- Cost Code/Purchase order/work order/reference number/account number
- Description of freight
- Weight in kilograms, length x width x height in millimetres; and quantity
- SDS paperwork (If applicable)
- What service is required – services are:
    - Same day car to site
    - Same day air
    - Road Express
    - General

On completion of providing above details, Consignor's should then select if a 'PICKUP' is required. PICKUP details must then be included in the 'PICKUP' section to ensure the pick-up occurs at the correct time.

If the packaging does not meet Centurions Freight Preparation Standard, freight will be rejected at pickup.

Freight is subjected to freight compliance checks on arrival. If freight is deemed non-compliant the consignment will be rejected if appropriate / safe to do so.

4.2. Centurion Con Notes

Connotes must be provided on arrival, by the Consignor or their agent, Connotes will not be completed by Centurion workers. The following information must be shown on the Centurion connote with respect to each package:

- Consignor's details, consignee's details, cargo type (including declaring if consignment is classed as dangerous goods). DG information must be entered in full and accurate to consignment.
- Order number and description of freight
- Weight in kilograms, length x width x height in millimetres and quantity
- SDS paperwork (if applicable)
- Dangerous goods information must be included on all con notes.

Note: The notation of 'Mixed Load' is not adequate and does not provide required details for data entry and Manifesting. Details must as a minimum include:

- Identification / UN number
- DG class
- Total DG qty
- Type of DG package (battery, cylinder, drum etc)
- Packaging group, and
- Number of packages.

The consignment note image below explains in detail areas that are required to be completed.

Centurion Transport
13 Yagne Close
Perth Airport, W.A., 6105

View Image | View Consignment Labels | View Consignment Details: [redacted]

Consignment: OLS3688250
Charged To: XXXXX

Created: 22/2/2023
Quote #:
Order #: XXXXXXXXXX
Show Related Docs
Cost Code:
Work Code:

Trailer:

Desp. Date: n/a
Manifest No:
Subc Trip:
Produce No:

Consignor: SENDER NAME
SENDER ADDRESS,
PERTH 6000
PERTH
* Insurance is the responsibility of the consignor.

Consignee: RECEIVER NAME
RECEIVER ADDRESS,
KARRATHA 6714
KARRATHA

Sender Info: Contact Name: SENDER NAME
Phone Number: SENDER PHONE
Company Name: SENDER NAME

Receiver Info: Contact Name: RECEIVER NAME
Phone Number: RECEIVER PHONE
Company Name: RECEIVER NAME

Pickup Info: Pickup Number: n/a
SENDER ADDRESS
PERTH 6000
GENERAL -

Pickup Available From: Pickup Date not yet set
Pickup Cut-Off Time: Pickup Date not yet set
ARR. LDG PT Time: ___ : ___
DPT. LDG PT Time: ___ : ___

Contact: SENDER NAME
SENDER PHONE (Phone)
example@example.com.au

Driver ID : _____
Print Name : _____
Driver Sig: _____
Consignor Sig: _____

CTC Info: Rcd By: _____
Sig. : _____
Condition of Goods:

Time : ___ : ___
Date : ___ / ___ / ___

Apparently Good | Insufficiently Protected | Badly Damaged | Suspected for Damage

Status:

Con-note
OLS3688250

Cargo Type: GENERAL

Qty	S.Ref	Int.Ref	Description	Weight	Length	Width	Height	M³
1	XXXX	XXXX	FREIGHT DESCRIPTION	10	150	150	150	0.00

U.N.	D.G. Name	Grade	Class	S. Risk 1	S. Risk 2	Group	Type	Qty	Vol.	U.o.M
1950	AEROSOLS	49	2			N/A	Aerosol Can	1	430	G

View Pickup: No Pickup for this consignment.
* We are not common carriers. All work is carried out subject to Transport Conditions.

4.3 Safety Data Sheets (SDS)

Consignor(s) responsible for the packaging of any goods or materials requiring an SDS are to ensure a copy of the SDS is attached to the item prior to despatch.

When Consignor(s) submit a consignment which includes multiple pallets; each pallet must have relevant SDS's included with/ attached to the palletised goods.

Note: It is not practical to supply one SDS per delivery, if consignments are destined for different regions / sites.

5. MARKING

The Consignor must ensure that all packages for despatch are marked in a clearly legible manner. To avoid confusion, markings and references from previous freight movements must, where practicable, be covered, made illegible or removed.

Items that will be handled as parcel freight must be clearly marked, in English on at least one side.

All items packaged in boxes or crates, palletised goods and unit items must be clearly marked, in English on two sides, as follows:

- Purchase order number (as quoted to be marked externally on all packages)
- Consignee / receiver address
- Item description
- Supplier name
- Case/box/package number (for example, 1 of 4)
- Dimensions: length x width x height (metric)
- Weight (kg)
- Dangerous goods classification (if applicable) and labelled with the corresponding DG diamond.

Fragile or heavy (over 15kg) items must be clearly marked or labelled 'fragile' or 'heavy' and 'handle with care' for ease of handling. Where items are above 1.5m high, markings must be in a position so as to permit visibility to forklift operators. The marking shall be durable, waterproof, fade resistant and able to withstand prolonged storage in bright sunlight and harsh conditions. The colour shall be in sharp contrast to the background on which it is marked.

Any tags used shall be non-rusting or durable plastic to avoid wear and tear.

6. PACKING

6.1. General

Prior to packing, the Consignor must ensure that all items for the Purchase Order are prepared, protected and marked in accordance with the following clauses listed. All packaging must be capable of withstanding both metro and regional road transport.

All packaging must be suitable for multiple handling movements. Freight can be unloaded and reloaded as it is consolidated and/or transported through regional or capital city depots.

All packaging must be capable of being safely lifted on and off transport vehicles and being safely transported without rolling, tipping, sliding or spilling. All packaging materials should be environmentally friendly. Substitutes for polystyrene foam and plastic beads are to be used whenever possible.

Packaging methods used must ensure safe delivery of the goods to the Client. They must take into account the value of the item and the weight and size limits of freight that can be transported.

If the item is deemed to be unsafe for a single person to lift by hand it will need to be packaged to suit either a forklift or crane lift.

All items that require mechanical lifting must have forklift access points, lifting lugs that must be approved or have suitable access for slings.

- For standard forklifts - access points must be sufficient to allow the use of tines that are 210mm wide x 80mm high.
- For 16 tonne forklifts - access points must be sufficient to allow the use of tines that are 250mm wide x 120mm high.

Where multiple items are packaged in one package (carton, crate or skid), heavy items must be packed at the bottom of the packaging. Supplier is to ensure that items are not crushed by the weight of those packed on top.

Heavy or large / awkward items that do not fit in a case/box/crate must be strapped with steel or plastic strapping to a skid or pallet and the straps must be as close to the freight as practicable

The handling unit must be strong enough to support the weight of the item and multiple handling movements

The Consignor is to ensure that the weight of the consignment is centralised to the handling unit as much as practicable.

Securing devices applied to packed items shall not abrade or otherwise damage the equipment and/or materials – no plastic on sharp edges. Consignments of multiple packages wherever possible must be either:

- Placed in a secure cage; or
- Palletised for ease of handling

Shrink/ stretch wrapping of items onto a pallet for unitising can be utilised as part of the load restraint system provided it is of sufficient strength or sufficiently layered to withstand the forces indicated by the Performance Standards. All goods must be securely restrained to pallets to ensure safe transport to end destination.

It's preferred that clear plastic shrink/ stretch wrapping be utilised, to unitise freight, to ensure the freight inside is visible:

- A visual inspection can be performed to confirm adequate restraint has been applied for transport
- Transport bolts are fitted for large / heavy items and secured
- Dangerous goods / hazardous chemicals are packaged according to the ADGC and are not leaking or damaged.

Two straps or bands must be applied over all palletised loads that are shrink/stretch wrapped, where the shrink/ stretch wrapping is not able to withstand the forces indicated by the Performance Standards e.g.:

- Cut, torn or distorted
- Wrapping layers are insufficient for the weight and interlayer friction of the product
- Wrapping has not been extended down to include the pallet for low friction layers

Further general packaging requirements can be viewed in Part C. This includes specific packaging instructions required for the transport of:

- Dangerous Goods
- 209L Drums (full and empty)
- Hoses
- Products containing oil/chemicals
- Tyres
- Wet Cell Batteries
- Wheeled Cases/Consignments
- Windscreens

Any consignment deemed non-compliant will be rejected where safe to do so; or quarantined to await rectification. A Non-Compliant Freight Report will be completed and issued to the Supplier detailing the non-compliance and status of the consignment.

CENTURION

Non-Compliant Freight Report

Consignment Details	
Date	Consignment Number
Customer	Purchase Order Number
Vendor	Dangerous Goods Yes

Questions below answered "NO" are deemed non-Compliant resulting in the consignment being rejected.
Consignment delivered in full Yes
Consignment received in good condition Yes
Is DG paperwork correct / accurate Yes
Does DG freight have correct stickers / labels Yes
Are goods adequately packed and secured
Goods have been packed into/onto handling unit correctly Yes
Goods are adequately restrained and weight distributed evenly No
Goods are not over-hanging forklift entry points Yes
Consignment is delivered free of any loose/unsecured items Yes
Appropriate Packaging Type
Consignment delivered free of any damage to handling unit Yes
Goods are packed to a suitable packaging type (pallet / crate / steel transport frame etc.) Yes
The handling unit is strong / robust enough to support the weight of the consignment for delivery to end user Yes
Consignment can be unloaded safely Yes

6.2. Consignments Quarantined

All consignments that do not meet the requirements of this Standard will be subject to rejection on arrival.

Where it is not safe to transport non-compliant freight back to the Consignor, the freight will be rectified; the following options are available:

- Consignments may be returned to the Supplier by Centurion (incurring cost of return) if it is safe to travel or can be picked up by supplier to rectify at their facility (again, if consignment is safe to travel).
- Supplier can attend Centurion site (through agreement with Centurion Yard Supervisors / Managers) to undertake repackaging to rectify. All visitors must sign in at the Administration Centre prior to proceeding into Centurion's Yard and will be required to be escorted at all times. It is the

Consignor's responsibility to provide all equipment and consumables required to rectify consignment issue and provide mandatory PPE. For all restraint / banding requirements, mandatory PPE is to be worn at all times. This includes Australian Standard approved steel cap footwear, safety spectacles, gloves and a high visibility vest. Relevant task specific Safe Work Procedures are to be produced on request.

- Centurion can provide contact details for an authorised company to undertake rectification of packaging, including restraint, packaging and palletising and or item crating.
- Centurion can rectify packaging issues at the supplier's expense.
- Due to the volume of freight received at Centurion, suppliers should allow 48hrs for return paperwork to be completed prior to pick up. Centurion can be contacted on 08 9278 3000 to confirm the consignment has been processed and ready for pick up.

For all supplier pickups for quarantined pallets - drivers are to ensure they have a contact on site, and a reference number for easy identification of the consignment that is to be picked up to be rectified.

It is the responsibility of the Supplier to correct any packaging issues identified. This can be done in consultation with Centurion where is it suitable to do so.

Note: Under Chain of Responsibility, consignments that are not deemed safe for transport will be rejected by the driver at the collection point.

6.3. Packaging Methods

Cases, Boxes and Crates

All boxes and crates must be suitable for lifting by forklift, the design must take into consideration the method of lifting. Where slings are to be used on crates, particularly those weighing over 300kg, the top edges must be sufficiently reinforced to withstand loads applied by slinging.

Where timber is used, either internally or externally, it must be free of bark and insect infestation. Plastic or steel cases, boxes or crates are a preferred option.

Contents must, for purposes of handling and transportation, fit snugly inside the case/box/crate and must be restrained from movement by blocking. Where metal or prepared paintwork may come into contact with the box/crate timbers, it must be protected from abrasion by felt pads, foam rubber, plastic or cardboard.

All timber cases/boxes/crates must have an SWL exceeding the weight of the item.

Timber Boxes/Crates

All timber boxes/crates must be of close-jointed, solid timber, preferably hardwood, suitable to adequately support the item. Boxes/crates must be fully closed (for example, not partially open-topped construction) and the base of all crates must be constructed for lifting by forklift.

Timber boxes/crates must be secured with straps capable of bearing the unrestrained weight of the item. Straps must be secured in a manner consistent with the strapping material type. For example, metal

straps must utilise crimped steel seal or nylon and propylene straps must be secured using either crimping or appropriate heat technology.

Wherever possible, screws, not nails, should be used when sealing timber boxes/crates.

All enclosed boxes/crates must be presented with a photo of the item restrained inside, attached to the outer packaging and labelled with the gross weight.

Cages

Where the number of items in a cage is insufficient to effectively block the items from moving, then the items must either be restrained to the base of cage by way of straps or by blocking, using timber or similar to prevent movement.

6.4. Equipment Protection

Equipment must be suitably protected and packaged to prevent damage during transport and be protected from climatic damage during transport. If there are specific packaging requirements these are to be placed on the outer packaging. In the event of no specific requirements the following guidelines apply:

- To prevent doors opening in transit, all doors are to be key locked, padlocked or restrained with strapping in a closed position. Keys must not be left in locks during transport.
- Where possible, goods containing oils or lubricants such as gearboxes, hydraulic components or transmissions, should be drained before transport, and carry a tag stating "NO OIL".
- Goods contaminated with grease, waste oil, solid lubricants or other process contaminants and that are being consigned from mine sites must be cleaned before transport to prevent environmental damage during the entire supply chain.

6.5. Fragile/Sensitive Components

The sensitive nature of the freight must be clearly marked on the outside of the packaging.

6.6. Freight Containers

Containerised items must be blocked, bracketed and/or bolted to prevent movement within the container. Items that cannot be anchored or blocked, or where size or weight prohibits containerisation, must be packed and shipped separately.

All containers must have a Container Weight Declaration for transport purposes and a photo of the items restrained inside the container.

Suppliers must ensure that all containers carry a current container safety compliance (CSC) plate to ensure that their structural integrity meets the standards laid down by the Institute of International Container Lessors (IICL). Contractors providing second-hand containers as part of their equipment package must have the containers examined by a surveyor and repaired as necessary to Standard ICL 4 to confirm its structural and weather tight integrity.

For further information refer to the IMO/ILO/UN ECE Guidelines for Packing of Cargo Transport Units.

Prior to international shipping of containers, the Consignor must provide a packing plan to the Freight Forwarding agent for review.

6.7. Palletised Items

Pallet transfers will only occur for Chep and Loscam pallets for which a Transfer Document is supplied. Centurion does not do pallet exchanges.

Items conducive to damage from moisture, dirt and dust and which can be conventionally secured to a pallet to facilitate handling, must be packed in this manner.

Pallets must be suitable to adequately support the item and with an SWL (Safe Work Limit) exceeding the weight of the item. Pallets must be two-way, flush sided and fitted with bottom boards.

Items that require mechanical lifting during handling must be packaged to a handling unit suitable to the freight profile and weight. Handling units are to be used for items that:

- Cannot be handled manually by one person or/are designed to be lifted by a forklift;
- Any singular item in excess of 25kg, or any item which exceeds 1200mm of any dimension);
- Have dimensions that allow stable loading on the pallet; and
- Do not exert excessive point loads on the pallet.

Palletised items must be correctly restrained on the pallet to prevent movement. Damaged pallets, where restraints have been applied over pallet top slats, will be rejected on delivery. Cylindrical items and items likely to roll or fall must be chocked and strapped with plastic straps capable of bearing the unrestrained weight of the item to the pallet. Chocks should be fixed directly onto the pallet. This includes items / crates packed on casters or wheels and require fixing to eliminate roll, refer to Part C for examples. The strapping must ensure complete security and no risk of items falling off the pallet. Caster wheels should not protrude through the boards as damage may occur when lifting with a forklift.

Securing freight to pallet bearers avoids tension of banding breaking the pallet top slats:

Hardwood pallets remain the primary method for transporting all oil, gas and mining freight due to sturdy nature.

Loads must not overhang the forklift entry points of the pallet.

Individual contents of each pallet must be clearly marked.

Where timber is used, either internally or externally, it must be free of bark and insect infestation.

Where possible steel pallets and skids should be used for the packaging of large and heavy items.

Pallets are not to be modified to suit freight. In particular, the joining of pallets together via means of wood or metal, although practical to cater for oversized freight, voids all SWL reference and is not suitable to safely conduct forklift operations. Purpose built oversize pallets are to be used for ALL consignments which are not suited for a standard pallet.

6.7.1 Skids

Skids are small pallets without under rails and are usually made of wood.

Items over 1.0 m high need to be carefully assessed for stability. Some items will be unloaded on uneven ground which may increase the risk of the item becoming unstable during handling. It is essential that each individual load be assessed to ensure compliance.

Damaged packaging will be subject to rejection.

6.8. Flexible Intermediate Bulk Container (FIBC)/Bulka Bags

FIBC are to be appropriately secured to pallets for transport. The bottom of the bags is to be protected from potential damage caused by the pallet, with the use of a protective barrier such as cardboard or corflute.

Ammonium Nitrate FIBCs are currently exempt from this requirement and are able to be transported without being placed on pallets.

6.9. Bundling

Each bundle must be treated as an individual package and marked accordingly.

All items must be segregated in accordance with length and size and bundled into units using steel/plastic straps capable of bearing the unrestrained weight of the item.

6.10. Special Handling Instructions

Packages must be conspicuously marked with: “Handle with Care”; “Right Side Up”; “Keep Dry” and others in English and with the appropriate international standard symbols to prevent possible damage.

Pictorial markings complying with AS 2852 Packaging – Pictorial marking for the handling of packages must be used to fully convey information regarding specific handling requirements.

Lifting and slinging requirements must be clearly marked on goods.

6.11. Centre of Gravity

Equipment and materials must be packed to ensure an even weight distribution within the package.

Where this is not possible, particularly in the instance where a case/box/ crate conceals the internal goods, the Consignor must ensure that the centre of gravity and hoisting position are marked on two sides to ensure loading, unloading and handling can be done in a safe manner. For example, top-heavy containers or unbalanced loads must be clearly marked with centre of gravity including sling marks to facilitate safe loading, unloading and handling.

7. FREIGHT IN FRAMES

Purpose-built transport frames must be designed, checked and manufactured to Australian Standard AS4991 (Lifting Devices). They must also incorporate load restraints and lashing points as described in the NTC Load Restraint Guide. Spreader beams or transport frames incorporating lifting beams must also conform to AS1418 (Cranes Hoists & Winches).

Wherever possible manufacture and structural integrity of all transport frames must conform to AS3990 (Mechanical Steelwork) including non-destructive testing of lifting lugs.

If frames appear not to have been manufactured to the above standards, or there is doubt regarding the adequacy of a transport frame, Centurion will reject the consignment and return to supplier pending frame verification certificate.

7.1. Modifications to Frames

No modifications must be carried out to Original Equipment Manufacturers (OEM) frames other than by the OEM themselves.

Frames that are delivered which appear to be modified will be rejected unless documentation is provided to confirm SWL, test certificates and formal engineering compliance documentation.

7.2. Single-Use Frames

Packing that typically accompanies equipment delivered from overseas OEM to local Suppliers in containers will not normally suffice for long distance road haulage.

If the Consignor chooses to use a single-use frame, it must be built to a standard that will safely transport goods, from point of origin, to final destination. If a suitable single-use frame is not available, a multiple-use frame must be used.

7.3. Multiple-Use Frames

Whenever an item is placed in a frame, an independent inspection is to be carried out by a Supervisor, or person deemed to be competent, to ensure that the item has been prepared correctly for transport and the item is secure.

Suppliers using frames intended for multiple use must maintain a Transport Frame Procedure that should, as a minimum, include the following information:

- design standard;
- frame register;
- engineering calculations;
- engineering drawings; and
- tag system (for repair agency and business unit use).

All transport frames must be engineered and fit for purpose. Inspection regimes for frame integrity must be implemented by the Supplier and should be subject for audit purposes on request, to ensure conformance.

Freight retained in supporting frames should be secured using washers combined with an appropriate minimum torque on the stud or nut to retain the item in the frame.

Nylok nuts, castellated nuts or similar must be used to ensure the retaining nuts do not vibrate loose in transit.

Lifting and tie-down points must be clearly indicated on the frame.

Refer to Section 29 Equipment in Transport Frames, for further guidance.

8. MULTI-COMPONENT FREIGHT

Any freight that consists of multiple components, can present additional risk if not packaged effectively. Each component must be suitably secured to the main item to prevent movement or dislodgement during handling and transport.

If it is not possible to effectively secure the component, then the item shall be removed and packaged separately for transport

It is the supplier/consignor's responsibility to ensure that the methods used to secure the freight components are sufficient.

Where non-compliant packaging is identified, a Non-Compliant Freight Report (example below) shall be raised, on Go Canvas by the Receiver.

9. DANGEROUS GOODS

The packaging and transport requirements for the carriage of dangerous goods by road, rail and air shall be in accordance with the latest issues of the relevant Dangerous Goods transport legislation and codes.

All Dangerous Goods shall be identified by correct proper shipping name, labelled, packaged and packed in full compliance with the directives of the relevant Authority.

10. BATTERIES

Presentation of batteries for transport is required to be in accordance with the ADGC:

- Correct marking of packages and items.
- Correct dangerous goods transport docket.

Batteries are be shipped in original packaging or restrained to a pallet/ skid. Steel banding is not to be used, nor are multiple batteries to be stacked without a non-conductive/ load spreading medium between each layer.

Battery terminals are to be covered to prevent arcing.

10.1. Lead Acid Batteries - Damaged

Where battery segregation boxes are used for the return of lead acid batteries, a non-conductive/ load spreading medium is to be used between each layer.

10.2. Lithium Batteries - Damaged

Due to the increased fire/ explosion/ fume risk, damaged lithium batteries offered for transport will require the following:

- UN Specification package to a PG II Standard as specified in Packing Instructions P908 or LP904

In addition:

- Each battery, cell or piece of equipment must be individually packed in inner packages and placed into an approved outer. The inner or outer package must be leak-proof to prevent potential leakage.
- Each inner package must be surrounded by sufficient non-combustible, non-conductive thermal insulation to protect against a dangerous evolution of heat; and
- Leaking cells or batteries must have sufficient inert absorbent material added to inner or outer packaging to absorb the release of electrolyte.

Marking required on packages:

- UN number and proper shipping name (see top left corner of page)
- “LITHIUM BATTERIES FOR DISPOSAL” or “LITHIUM BATTERIES FOR RECYCLING” as applicable

Damaged lithium batteries are only to travel on flatbed or drop deck trailers, never in a tautliner.

11. INTERMEDIATE BULK CONTAINERS (IBC)

All IBCs are to be inspected for damage and/or leaks prior to acceptance. This check is to ensure that the IBC is fit for the transport environment. The following are to be checked:

If the IBC contains dangerous goods;

- IBC containers made of plastic may be used for the transport of dangerous goods for a maximum of five years from the date of manufacture (ADR). After 2.5 years, a first intermediate inspection by a certified company is required. For certified visual inspection requirements for other IBCs refer to the ADGC.
- Two dangerous goods placards (Emergency Information Panels) are fitted to opposite sides.

Filler cap is secured with a cable tie and a breather cap is fitted.

Plastic bladder is not compromised, there is no bulging or leaks.

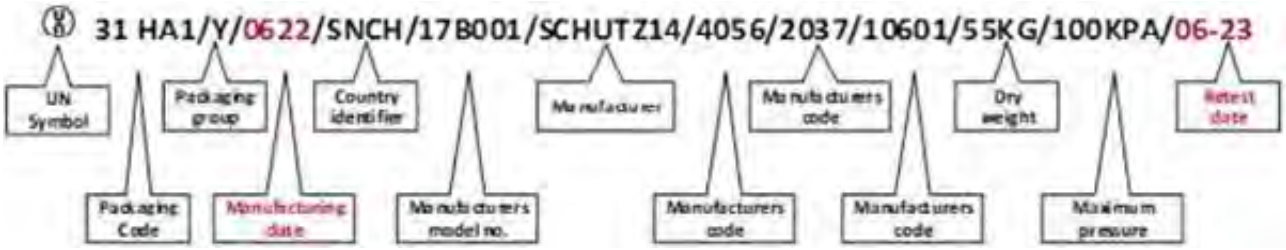
Steel frame is not damaged.

IBC feet and bottom rail are in place, not loose and capable of bearing the weight of the IBC.

Outlet cap is fitted, no leaks and the valve is closed.

A secondary means of securing the valve closed is used e.g. cable tie.

The upper cross bars are not damaged and are in place.



Plastic IBC Manufacture and Test Date Location (Primary Markings)

Plastic IBC Component Check

12. LOAD RESTRAINT

Correct restraint of packages and items onto transport vehicles is critical.

The NTC Load Restraint Guide shall be used as a reference to assist with material specific packaging and restraint guidelines.

Load restraint equipment such as ratchet load binders, chains, gates and hurdles must be compliant and in suitable condition to perform the task. Dunnage is to be used to assist with the restraint of items. Loose dunnage is to be placed in an approved dunnage cage.

Due to safety risks associated with the use of 'over centre' load binders (dog and chain), this type of load restraint equipment must not be used. Ratchet tie down devices such as the "Ausbinder" or "Ev-Cam" should be used in their place.

Any length of steel should be correctly secured to its own dunnage for ease of loading and transportation.

13. REFERENCED DOCUMENTS

Document Reference	Comments/Details
AS2852-2004 (R2016)	Packaging – Pictorial marking for the handling of packages
AS4068	Flat pallets for materials handling

Document Reference	Comments/Details
AS4762	General purpose flat pallets – Principal dimensions and tolerances (International Pallet sizes)
AS2400.1-1995 (R2016)	Packaging-Part1: Glossary of packaging terms
AS2400.6-1986 (R2016)	SAA Packaging code-Part 6-Paper and Paperboard
AS2400.7-1990 (R2016)	Packaging-Part 7: Timber boxes
AS2400.10	Packaging-Part 10: Protection against shock and vibration (cushioning)
AS2400.18-1983 (R2016)	SAA Packaging code-Part 18-Use of desiccants in packaging
AS4991-2004	Lifting Devices
AS1418.1 (2002)	Cranes, Hoists and Winches – General Requirements
	Relevant Australian State/Territory and New Zealand Work Health & Safety Regulations
LRG	National Transport Commission – Load Restraint Guide
ADGC	Australian Dangerous Goods Code for the Transport of Dangerous Goods by Road & Rail (
	IATA Dangerous Goods Regulations (DGR)
NZ55.020	Packaging and Distribution of Goods
NZ55.040	Packaging Materials and Accessories
NZ55.180.10	General Purpose Containers
NZ55.180.20	General Purpose Pallets
NS55.180.99	Other Standards related to freight distribution of Goods
NZ53.020	Materials Handling Equipment
NZ544	Load anchorage points for Vehicles
	The IMO/ILO/UN ECE Guidelines for Packing of Cargo Transport Units

14. TERMS AND DEFINITIONS

Term	Definition
Bearer	A member separating the top and bottom decks of a pallet and providing space for entry of tines (forks).
Blocking	A method of interior packaging that builds up irregularly shaped articles to a regular shape to protect projections from damage, to reinforce weak parts and to maintain objects in fixed positions during transit, by bracing them against each other or against the sides of the container. An undesired adhesion between touching layers of material, such as might occur due to the effects of pressure, and sometimes temperature, during storage or use.
Bonded rubber units	Solid rubber mouldings to which are bonded two metal parts for securing the rubber to the inner and outer frame of a packing case or crate in suspension packaging.
Box	A rigid timber package which has panels on all six sides, with gluts underneath to enable handling using a forklift. The box must be strong enough to handle normal road conditions.
Crate	A rigid timber package which has panels with slats on all six sides, with gluts underneath to enable handling using a forklift. The crate must be strong enough to handle normal road conditions.
Climatic damage	Damage caused by the effects of climate (for example, temperature, humidity, rain, wind or water immersions, solar radiation, sand, dust or salt spray and corrosive atmospheres).
Pallet - two-way	A pallet with bearers that permits the entry of tynes from two opposite directions only.
Quality assurance	All activities and functions concerned with the attainment and proof of the required quality.
Safe Working Load (SWL)	Is the breaking load of a component divided by an appropriate factor of safety giving a “safe” load that can be carried or lifted.
Working Load limit (WLL)	The maximum load that an item can lift in a particular configuration or application.

15. DOCUMENT CONTROL

15.1. Summary Information

Aspect	Details
Document Name	Centurion Freight Preparation Standard
Document Reference	CEN-OPS-STD-252
Document Owner	Spencer Dewar
Published Date	21/11/2025
Next Revision Date	21/11/2027
Classification	Internal Use
Developed by	Luke Holden

15.2. Revision History

Revision	Date	Changes
1.0	05/12/2011	Implemented and distribution of document
2.0	16/05/2012	Document control modifications
3.0	18/11/2014	Minor formatting
4.0	01/06/2016	5.1 amended to include specific weight
4.0A	05/09/2016	Added section 5.9 FIBC
4.0B	30/01/2017	Added Chapter 7 – Multicomponent Freight. Amended Appendix 1 – Freight Preparation Checklist, now with multicomponent items
5.0	07/06/2018	Whole document review and update
6.0	22/03/2021	Removed Appendix 1 – not document controlled item. Document reviewed and supersedes previous policy
7.0	27/02/2023	Review and update
8.0	29/05/2023	Amended para 35 Tyres. Revised tyre stacking requirements
9.0	10/10/2023	Added damaged lithium batteries (para 9) and IBC (para 10)
9.1	06/05/2024	Added line to Scope and Application

Revision	Date	Changes
9.2	14/11/2024	Added section 39
10.0	4/07/2025	Updated requirements restraint of gas cylinders and freight covered in black/ vision impairing shrink/stretch wrap

16. PART B – EXAMPLES OF ACCEPTABLE FREIGHT PREPARATION

A well packaged consignment on a good sturdy pallet. Metal banding is under the pallet, under bearers and goods are covered in plastic shrink wrap for further protection.

Wooden crates are acceptable as long as the items inside are properly blocked and do not exceed the weight capacity of the crates.

These drums are well packed, the banding prevents movement during transit and handling. Further drum packaging techniques are shown in Section 21.1.

A very well packaged consignment, alternators have been bolted to the metal pallet and the cartons metal strapped. Can be easily loaded and unloaded.

These drill rods are suitably packed for transport and handling.

Well secured with metal banding that goes under the bearers of the pallet. The consignment has been protected to prevent the metal banding causing any damage.

Consignment within SWL for 2 tonne pallet and well restrained with metal banding employed under the pallet under bearers.

Heavy rolls effectively strapped under pallet bearers.

Hoses supplied on sturdy oversize pallet, suitably strapped with ends protected with plastic wrap.

17. EXAMPLES OF UNACCEPTABLE FREIGHT PREPARATION

These rams should have been placed in transport frames.

Rope is not to be utilised to secure freight under any circumstance.

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

The below engine is secured through the pallet top slats, lifting slats and de-tensioning banding. This has the potential to completely lift slat during transport voiding the restraint and becoming a dangerous missile hazard.

These heavy roller pins have had restraints applied over the pallet top slats and not the pallet under bearers.

It's very important that the skid/pallet is capable of carrying the weight of the consignment.

This bag contains mixed fittings and was unmarked.

These drums are restrained by one simple band encompassing the load and held by plastic shrink wrap. The plastic on the pallet corners is already lifting voiding the employed restraint method. Drum restraining is further detailed in Part C.

Plastic wrap is not an adequate form of restraint. Further packaging in accordance with Part C will ensure batteries do not dislodge/spill acid.

This battery, although packaged, has been mishandled during the delivery process and has not been restrained upright. The acid from this wet cell battery has leaked causing further damage to other freight. Instructions for packaging batteries are contained in Part C.

Note: Metal strapping is not to be used for securing batteries to pallets due to the potential of energising the battery if in contact with terminals.

Goods on pallet not restrained. The use of black shrink wrap as a unitising/ restraint method has failed, as it has lifted from corners exposing freight items and allowing free movement.

Applied metal banding to consignment has restricted movement of heavy pins in one direct but has no formal restraint laterally to block pins from movement.

Item below is too heavy for the supplied skid and has collapsed under the weight of the item.

Soft pine skids do not effectively hold up for transport. All remanufacture wood products for crates, pallets and skids should be scrutinised prior to submission of freight.

18. PART C – COMMONLY DETECTED PACKAGING ISSUES

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

18.1. 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 fees.

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

18.2 Freight Restraint

Common areas of failure include:

- Reliance on plastic shrink/ stretch wrapping as a sole method to unitise and restrain heavy items:
  - Plastic shears during transport voiding restraint; strength cannot be readily identified:
  - Plastic shrink/ stretch wrapping used to unitise inappropriate loads e.g. with sharp edges, not all items unitised
  - Items are able to dislodge from plastic shrink/ stretch wrapping and fall from trailers or during unloading operations - presenting issues to other road users and client personnel operating forklifts
  - Not correctly applied (doesn't cover the pallet)

19. BEDS/MATTRESSES

Mattresses and ensembles are to be strapped to a skid or oversize pallet and be stretch wrapped, or otherwise protected from dust and weather. Hand loading individual mattresses or bases is not acceptable.

20. CHAINS

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.

21. CHUTES

It is preferable that chutes are packaged in purpose-built steel transport frames. Where this is not possible, the use of pallets or custom-made skids may be acceptable where the pallets/skids are capable of withstanding the weight of the freight, the chutes are appropriately blocked with dunnage to ensure they don't roll out of position and load restraint can be effectively applied for transport i.e. attachment points available.

22. COOLING ROOM PANELLING

Due to the inherent fragile nature of cooling room paneling, the paneling should be crated to ensure it is protected from damage during handling and transport, and to allow the material to be secured to the transport trailer via restraint straps.

23. DRUMS, BUCKETS AND CONTAINERS

Freight is delivered in all types of quantities and sizes; some freight is difficult to adequately restrain on pallets. Drums, buckets and containers are to be strapped to pallets, the use of stretch wrap only to secure the freight to the pallet not adequate for transport.

23.1 Large Drums

These specifications are for the packaging of 209 litre drums for transport.
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 boards from 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 practice allows tension to be distributed along the drums - further restraining the freight and avoids metal strapping from slipping on drum lids and seams.

23.2 Plastic Shrink Wrapping

The use of plastic shrink/ stretch wrapping for heavy drums is not acceptable and does not effectively restrain 200 litres.

Plastic shrink/ stretch wrapping is often applied too low and does not account for centre of gravity and contents.

Plastic shrink wrap lifts the top slats and voids restraint.

24 GAS CYLINDERS

Gas cylinders must be restrained within a cage, preferably in a gas industry cylinder stillage and standing upright, for transport.

24.1 Gas Cylinders in Cages

The cage must be in good condition with a working locking mechanism.

Cylinders must be restrained within a cage, even when it is full, to restrict upward movement of items, preventing them from dislodging.

Cylinders must not be double stacked within a cage, unless:

- The cylinder is designed to allow this and the base of the cylinder in the top layer engages into the valve shroud of the cylinder underneath.
- Both layers can be restrained in accordance with the Load Restraint Performance Standards.

Where a cage is wrapped in shrink or stretch wrap (usually for the purpose of applying labels), the cage must be placarded.

24.2 Gas Cylinders in Stillages

The gas stillage must be appropriate for the cylinders being transported. Cylinders with domed bases must only be transported in a cage or a manifold.

All cylinders must be secured entirely within the frame of the gas stillage and, no more than 45% of the cylinder height is to project above the gas stillage.

All cylinders must be restrained within the gas stillage using a lashing method:

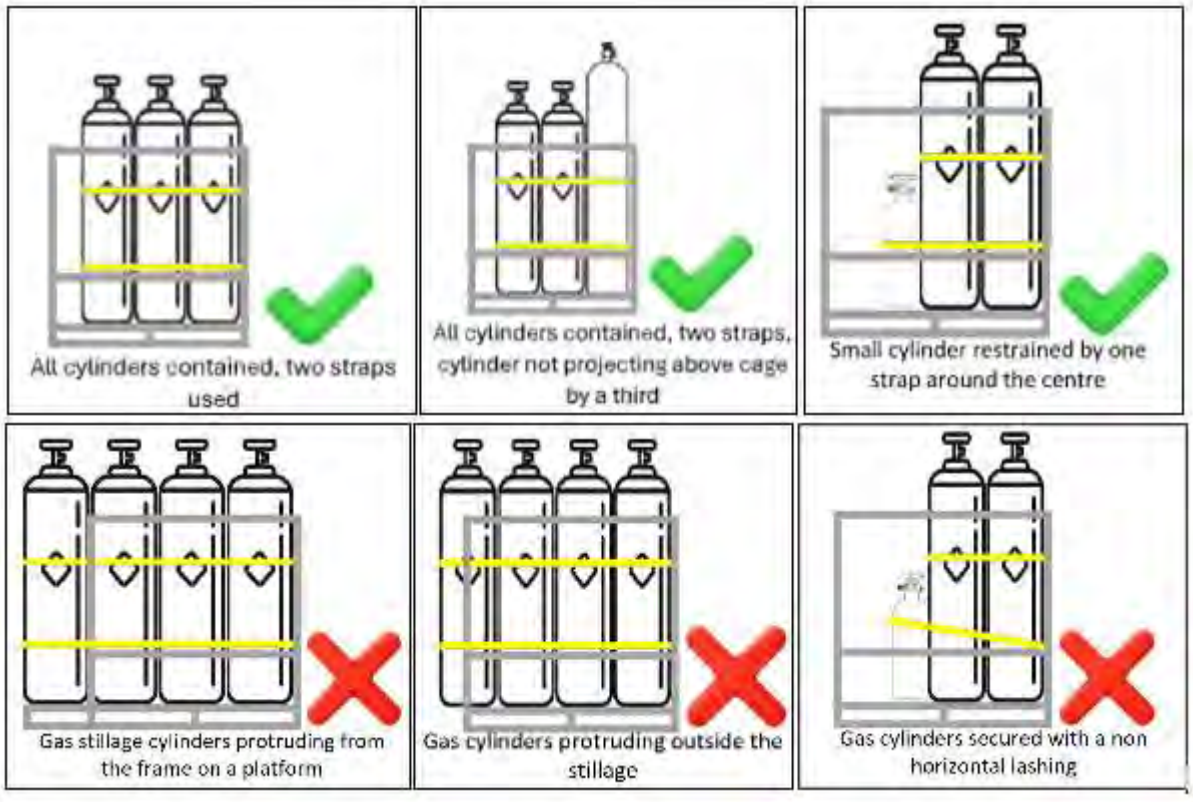
- A minimum of two load straps are to be used to restrain tall cylinders in the stillage. For short cylinders, one load strap may be used, however it must go around the centre of the cylinder.
- All load straps are to be horizontal.
- All load straps are to be serviceable.
- Where the stillage is not full, load straps may be lashed around the rear of the stillage to anchor the strap close to the cylinders.

Cylinders are to be nested if not in full rows.

All cylinders must have appropriate contact with the adjacent cylinders/gas stillage frame.

Where different sized cylinders are within a gas stillage, they must be configured descending in height from the rear of the stillage.

Cylinders are only to be stacked if the base of the cylinder in the top layer engages into the valve shroud of the cylinder underneath.




Straps not horizontal


Gas cylinder without appropriate contact with adjacent cylinders


Cylinders not in descending order, strap not around centre, cylinders not contained within stillage


Load straps anchored close to cylinders in partly filled stillage


Cylinders nested, in descending order, strap around centre of small cylinders, straps anchored

25 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 shrink/ stretch wrapping is not an accepted method of restraining GET 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

26 PLATE STEEL

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

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


Lateral
Movement

27 HOSES

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

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

28 PRODUCTS CONTAINING HYDROCARBONS/ CHEMICALS

All freight designated for travel by Centurion must not have any hydrocarbons/ chemicals adhering to the outside of the container and all outlets/drainage/discharges must be adequately prepared for freight to ensure no leakage of oil or fluids.
All occurrences of leaking freight will be reported to the Supplier and all associated environmental clean-up and disposal costs charged to the Supplier.


Note: Centurion facilities do not have the ability for Suppliers to decant products if packaging is damaged. Damaged vessels must be picked up by an approved chemical courier for transport back to Supplier's premises for rectification.
Caps on IBC's should be secured with either security tags or cable ties to ensure lids remain on the bladder.


Outlet valves on IBCs must have secondary containment e.g. camlock cap or plug, screw caps.

29. EQUIPMENT IN TRANSPORT FRAMES

Tie down points for heavy mining equipment must be clearly identifiable.
Bolts, nuts (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 have a SWL sufficient for the equipment.

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.

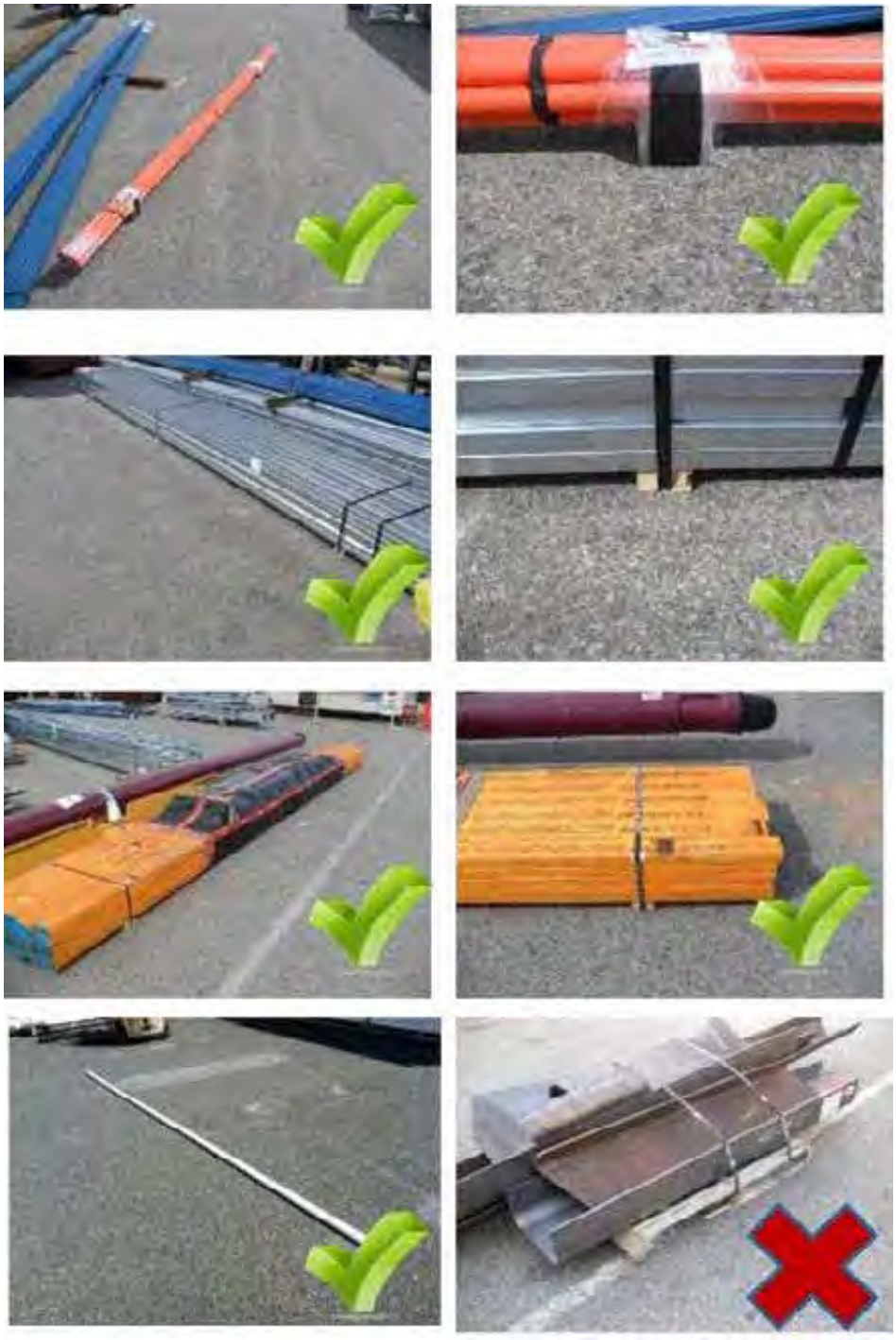
30 ROLLERS AND CYLINDRICAL ITEMS

Rollers should not be stacked in high levelled ‘pyramid’ configurations, they must be restrained to prevent lateral and vertical movement.


Yale

31 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 tyne access. Large bundles can be removed on delivery and placed on wooden dunnage prior to loading onto trailers. When submitting lengths of pipe for transport, no smaller gauge pipe is to placed internally into larger sections of pipe.



32 TOOL BOXES

Personal tool boxes are to be appropriately packaged by the individual. As a minimum the tool box is to be strapped to a pallet. It is recommended that the tool box be stretch wrapped, or otherwise protected from dust and weather. The tool box must be restrained with heavy duty restraint straps, so it must be able to withstand the force of restraint straps. If made from light gauge steel, then the tool box may require reinforcing to prevent denting from the restraint straps.

33 TYRES

Tyres are to be adequately restrained to pallets. The practice of securing tyres with the use of plastic wrap does not effectively restrain tyres and presents hazards in the loading/unloading and during the transport phase. This includes both pallet and stillage packaging.

Tyres for transport need to be either packaged in purposed built tyre transport stillages or strapped to pallets.
Examples of tyres secured to stillages:


Examples of tyres strapped to pallets to prevent movement:
Preferred method strapping and wrapping with heat shrink with strapping across.


Alternatively, if unable to heat shrink the column of tyres, then the tyres must be plastic shrink/ stretch wrapped then strapped as displayed in the below image.

Tyres can also be strapped to pallets to prevent movement as below. Four (4) straps are required on a vertically stacked pallet with the straps running through the middle of the stack.

- Tyres should be stacked as follows:
- No more than 6 large tyres high
- No more than 1.5 m high for small tyres
- Within the SWL of the pallet used.

Stretch wrapping over the top of the strapping is desired in addition to straps, as this helps to keep strapping in place once restrained to the trailer.

34 RESTRAINT ISSUES (GENERAL)

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

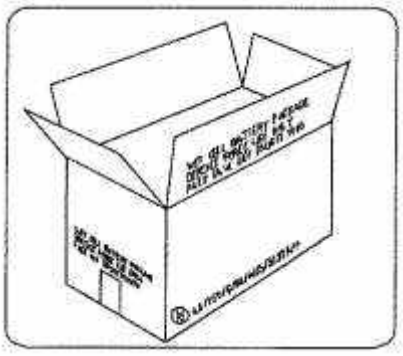
35 WET CELL BATTERIES

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

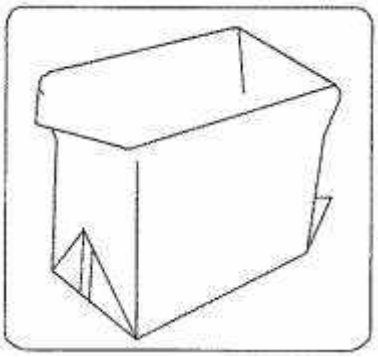
Strapping with plastic strapping only, should be sufficiently applied to prevent movement and possible dislodgement from pallet.

35.1 Individual Batteries

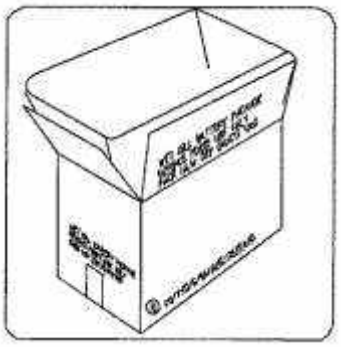
The following procedure identifies the process for supply of individual batteries which is effective in ensuring acid is contained within packaging.



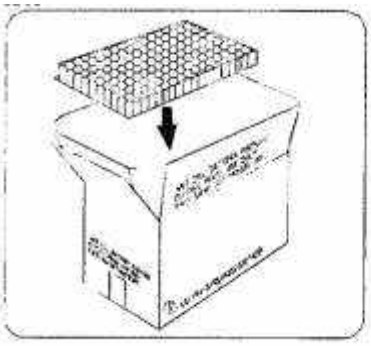
Setup fibreboard box



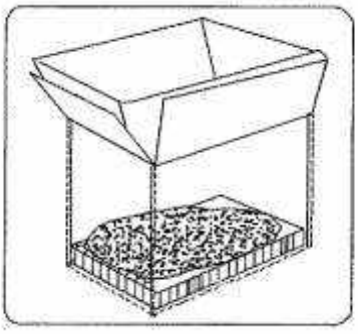
Setup approved Dangerous Goods box liner



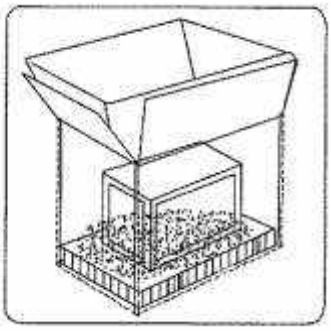
Insert Liner into box



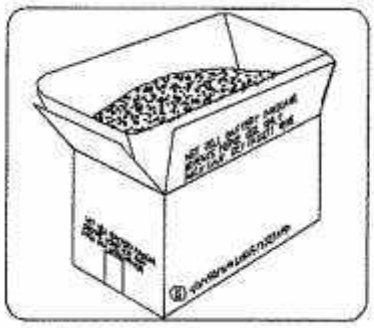
Insert cushioning pad/device into liner/box



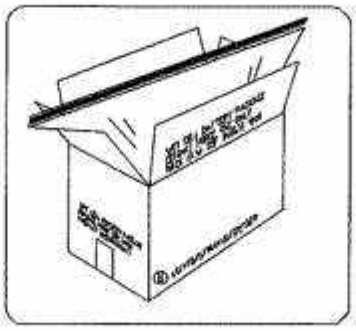
Partially fill with vermiculite or similar absorbent product



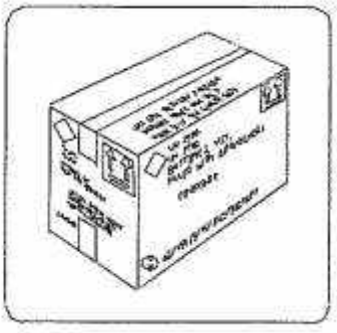
Place wet cell battery in centre of box



Completely fill box with vermiculite or similar absorbent product



Close liner with adhesive tape



Seal packaged box with adhesive tape

36 WHEELED CASES/CRATE

All freight that is delivered on wheels must be restrained to prevent free movement. Wheels must not pass through pallet top boards, as this exposes them to damage from forklift tynes during pallet entry.

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 an example on how to limit movement for safe transport.

37 WINDSCREENS

Due to the fragile nature of windscreens, the potential for them to be damaged in transport is high. Windscreens must be restrained to pallets in an upright rigid position.

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.

38 MANTLES

Mantles are delivered to Centurion positioned on flat racks (as per Image A below) however; items are normally removed as Suppliers 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 and presents handling issues at the receiving location.
Note: Clients and suppliers are to be contacted to address and ensure supply of mantle in flat rack to final destination.

39 VEHICLES

Vehicles to be transported as freight must not constitute a hazard. Vehicles that contain additional items of freight in cargo trays will not be accepted for transport.

This does not include items that are secured to vehicle such as:

- Spare wheels in carriers
- Tool bins/ boxes fitted to the vehicle
- Fire extinguishers