



Goods in Transit Packaging Guidance

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Note: Details of the amendment history of this document are maintained and available in the Document Management System.

Distribution List

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This guidance sets out the expectations of CNOOC Petroleum Europe Limited [CPEL] for the packaging of goods to be transported to and from CPEL offshore locations.

The guidance contained within this document was originally developed by ASCO UK, Peterhead.

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1.0 Purpose

The intent of this guidance is to ensure that goods transported to and from CPEL offshore locations do not pose risk of harm to handlers due to inadequate packaging and arrive at destination in the condition expected.

2.0 Scope

This guidance shall apply for goods transported to and from a CPEL offshore Installation.

3.0 Packaging

3.1 General Requirements

3.1.1 Safety

Packaging shall be of a type and constructed so that they do not pose risk of harm to handlers or other persons in the vicinity. This includes risk from exposed sharp edges, entanglement or suffocation in exceptional circumstance.

3.1.2 Construction

Packaging shall be suitable to withstand the effects from exposure to environment at all stages of transportation including on shore.

3.1.3 Integrity

Packaging shall be able to withstand all reasonably expected handling and retain the packaged goods at all stages of transportation including on shore.

3.1.4 Cost

Packaging shall be appropriate given the sensitivity, fragility and cost of contained packaged goods.

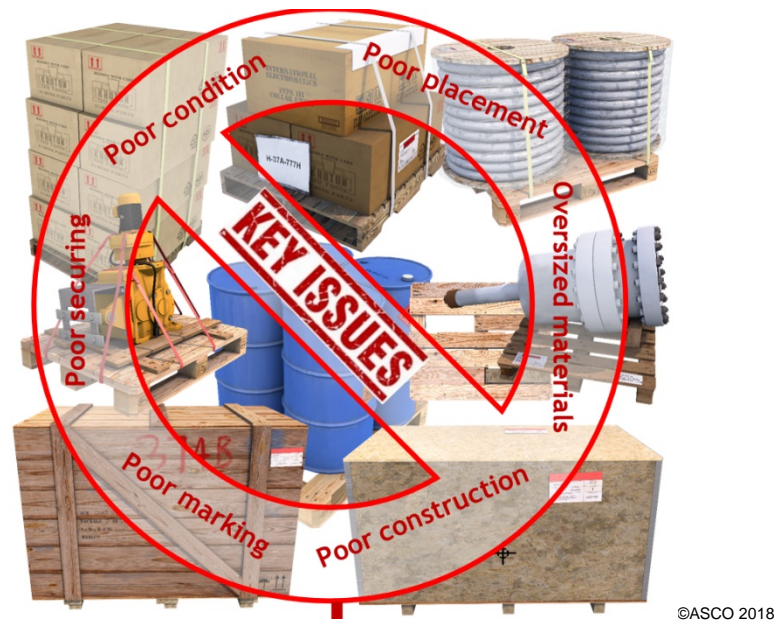
3.1.5 Environmental

Packaging shall not place unnecessary or excessive burden on environment.

3.1.6 Handling

Packaging shall be of a form to prevent unnecessary delay in application or removal.

3.2 General Hazards



4.0 Liability

The sender of the material must ensure that packaging is in accordance to this guidance and may be liable for any damage occurring to the materials in relation to packaging or the cost of work necessary to remedy non-conforming packaging.

If there is official certification covering cargo handling / test certificate these will be issued to the customer and their representatives (e.g. third-party logistics company) before transportation begins.

The materials are ready for shipment if the following is performed in accordance with this packaging standard and international regulations:

- ✓ Labelled appropriately;
- ✓ Marked accordingly the content;
- ✓ Paperwork is completed and attached;
- ✓ Not exceeding maximum weight;
- ✓ Material is packed safely;
- ✓ The package complies with this standard;
- ✓ The materials are secured and;
- ✓ Packaging, marking and shipping instructions are met.

5.0 Safety

SAFE PACKAGES AND PACKING PRACTICE

✓ *New pallet of standardized design:*



✓ *New pallet without damage:*



✓ *All bearers in place:*



✓ *Only approved parts are used for construction/repair:*



UNSAFE PACKAGES AND PACKING PRACTICE

✗ *Poor design. Support bottom deckboard is missing:*



✗ *Old repaired pallet with damaged areas:*



✗ *The pallet with missing bearers:*



✗ *Non-approved parts are used for construction/repair of the pallet:*



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SAFE PACKAGES AND PACKING PRACTICE

✓ All parts are fastened correctly:



✓ Boxes secured properly: banded together and strapped to the pallet:



✓ Small cable drum secured and transported on a pallet:



✓ Properly secured bags:



UNSAFE PACKAGES AND PACKING PRACTICE

✗ Protruding fastenings:



✗ Boxes poorly secured on the pallet:



✗ Small cable drum transported without a pallet:



✗ Bags not secured:



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SAFE PACKAGES AND PACKING PRACTICE

✓ Properly secured bundles:



✓ Industrial equipment packed in crate for transportation:



✓ Palletised and secured barrels:



✓ Long equipment appropriately crated:



UNSAFE PACKAGES AND PACKING PRACTICE

✗ Bundles not secured:



✗ Industrial equipment placed on a pallet without protection:



✗ Transported barrels are not secured on the pallet:



✗ Materials extend over the footprint of the pallet:



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SAFE PACKAGES AND PACKING PRACTICE

- ✓ *Electronic equipment strapped onto the pallet and protected from moisture:*



- ✓ *Standardised crates made of wood:*



- ✓ *Undamaged crates in good condition:*



UNSAFE PACKAGES AND PACKING PRACTICE

- ✗ *Electronic equipment not secured on the pallet and open to the elements:*



- ✗ *Inferior materials (chip board) used for construction of crate:*



- ✗ *Decayed and deteriorated crate due to aging of wood and exposure to moisture:*



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**SAFE PACKAGES AND
PACKING PRACTICE**

- ✓ *Properly stacked boxes on the pallet:*



- ✓ *Materials are properly placed on the pallet and do not overhang pallet footprint:*



- ✓ *Crates are properly marked in accordance with following standard:*

**UNSAFE PACKAGES AND
PACKING PRACTICE**

- ✗ *Unproperly stacked (in pyramid shape) boxes on the pallet:*



- ✗ *Materials are misplaced and overhang the footprint of the pallet:*

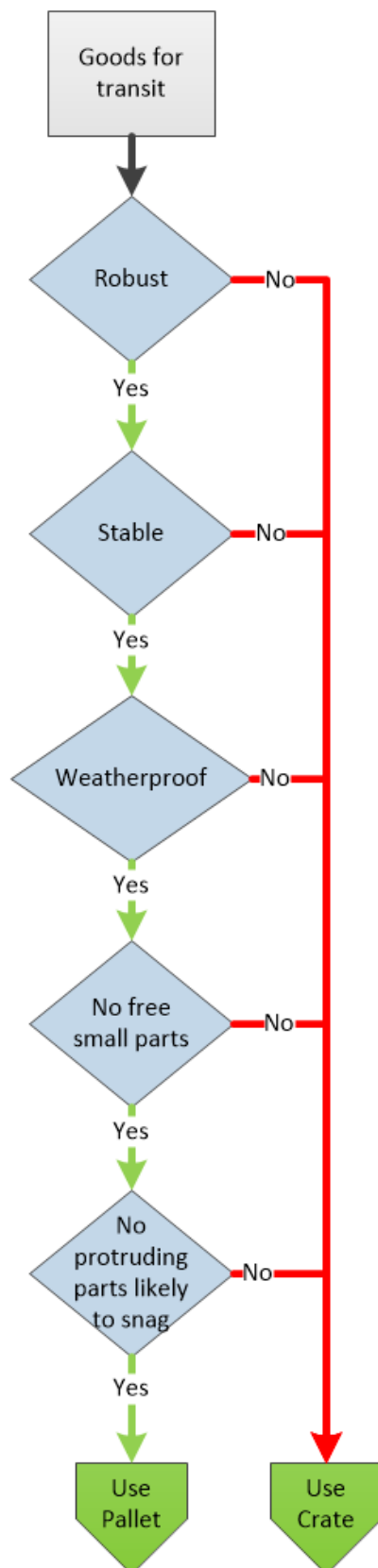


- ✗ *Missing, insufficient or illegible markings:*



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6.0 Packaging Selection



7.0 Design Considerations (Checklist)

The following shall be taken into consideration when determining the adequacy of the transport package

Requirement	Result
Allows for static loads occurring during transport .	
Allows for static loads occurring during handling .	
Allows for static loads occurring during storage .	
Allows for dynamic loads occurring during transport .	
Allows for dynamic loads occurring during handling .	
Allows for dynamic loads occurring during storage .	
Comply with the requirements of the transport operator.	
Comply with the requirements of the country of destination.	
Comply with the requirements of and the additional guidance from the customer.	
The construction allows handling by crane.	
Construction of packing allows handling by fork-lift truck.	
Construction of packing allows its securing for transportation.	

8.0 Wood Integrity

Wood used in packages shall be treated and meet ISPM15 which should be readily identifiable through correct marking.

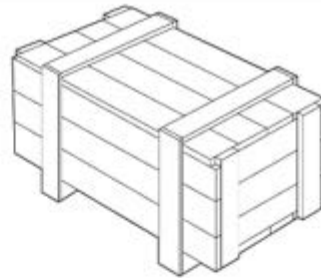
The sender should ensure that there is no excessive moisture within wood or exposure to humid atmospheres to avoid creating an environment where mould fungi develops. Often wood will discolour through spalting (e.g. sap stain or blue stain) which penetrates the wood causing permanent staining. Often the damage is only at the surface, but if allowed to penetrate the wood the tensile strength of the wood can be reduced significantly. The onset of mould fungi can be mitigated by taking preventative actions in accordance with BS EN 13183-2, BS EN 1133-8:

- Stacking with thin spacers between each board or batten to allow free passage of air and dispersal of humidity until timber is at or below 20% moisture content. It is recommended that when close pilling this is done under cover to reduce impact of precipitation;
- Kiln drying to 20% moisture content and storing under cover;
- Constant measurement of moisture content by an electrical moisture meter recommended for packing work.

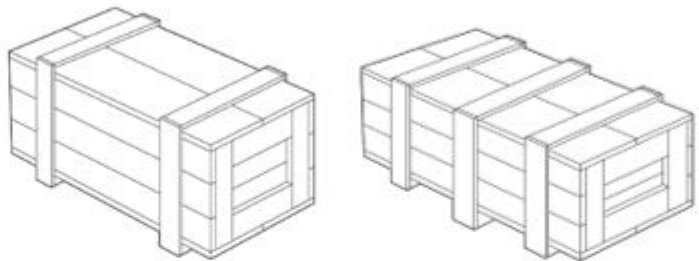
9.0 Crates

Only wooden crates and boxes constructed in accordance to BS1133-8:2011 shall be used

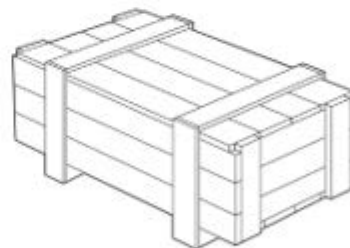
✓ *Style 1 - Girth Battened case:*



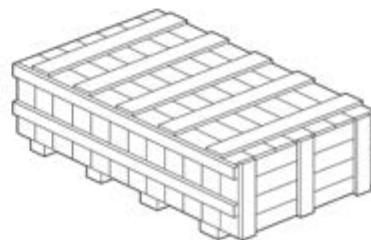
✓ *Style 1 - Girth battened case with panelled ends:*



✓ *Style 2 - Girth Battened case / girth battened with panelled:*

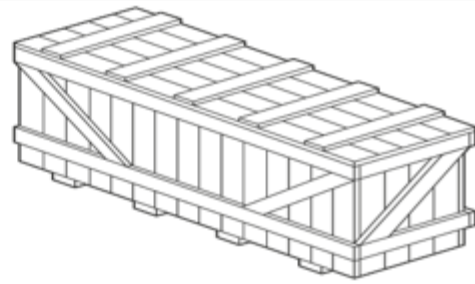


✓ *Style 3 - Horizontally battened case, vertically battened end:*

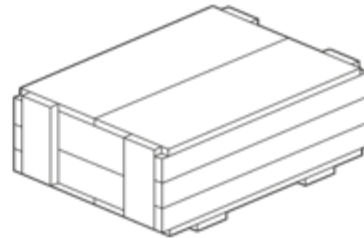


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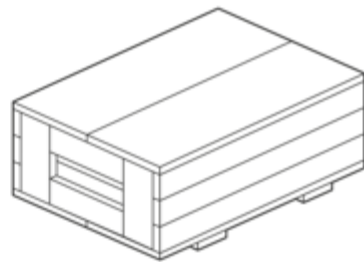
✓ *Style 4 - Horizontally
battened case, diagonally
braced:*



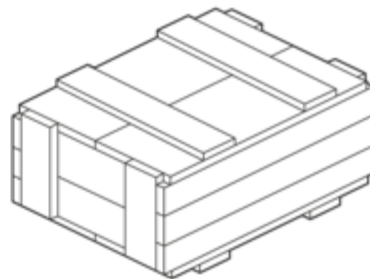
✓ *Style 24 - Battened end
box:*



✓ *Style 25 - Panelled end
box:*



✓ *Style 26 - Battened top and
base box:*



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9.1.1 Wooden Crate Construction

For the construction of wooden crates, it is recommended that:

- Screws are used as the package may be required to be opened and closed for inspection several times prior to the utilisation of the packed material;
- Screws with smooth shanks and tapered points should be used.

GOOD CRATE CONSTRUCTION

✓ Construction with screws:



✓ Standard design:



✓ Wood battens:

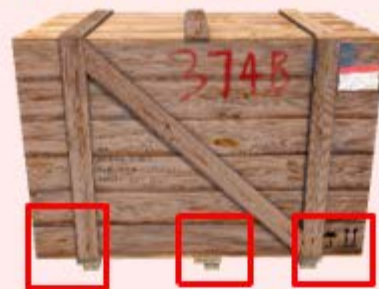


POOR CRATE CONSTRUCTION

✗ Construction with nails:



✗ Non-standard blocks are used for the crates' bottom support:



✗ Chipboard wood panels:



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9.1.2 Access for large crates

For larger crates which cannot easily be opened, access arrangements which do not impact on the integrity of the crate shall be incorporated.

GOOD practice

- ✓ *Large* crates that can't be opened is equipped with an access door



- ✓ A plastic window could be installed to monitor various sensors such as humidity sensors:



POOR practice

- ✗ Same crate without a door and hatch



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10.0 Crate Pre-Use Inspection (Checklist)

Requirement	Result
Is the wood utilised of appropriate thickness?	
Are all the wood sides of equal thickness, as specified in the purchaser's specifications?	
Are the lifting points indicated and provided for MHE?	
Is the crate properly covered with waterproof protection?	
Is there any damage to the crate?	
Is material properly labelled (label and Pictures)?	
Is the crate properly marked up as per marking policy instructions?	
Is the crate clean and free from contamination?	

11.0 Securing Goods Within a Wooden Crate or Box

Goods shall be well secured within packaging to prevent movement likely to lead to:

- damage to equipment;
- damage to packaging;
- destabilising the load

. Appropriate methods must be used to prevent the item from shifting inside the packed unit:

- Projecting parts should be separated and protected;
- Equipment should be bolted or screwed to the crates body to ensure stability of the load;
- Fragile elements should be separated and protected with bubble wrap;
- Appropriate dunnage methods are used to fill in the empty space and ensure materials integrity.

GOOD SECURING OF MATERIALS WITHIN CRATE

✓ *Equipment bolted/screwed to the crate:*



POOR SECURING OF MATERIALS WITHIN CRATE

✗ *Unsecured material can shift and change the centre of gravity of the crate:*



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GOOD SECURING OF MATERIALS WITHIN CRATE

- ✓ Industrial equipment is crated projecting parts are separated and secured to prevent any incident when opening the crate:



- ✓ The cart is crated, projecting parts are separated and secured to prevent any incident when opening the crate:



POOR SECURING OF MATERIALS WITHIN CRATE

- ✗ Industrial equipment with projecting parts is palletised, projecting parts are not separated and not secured to prevent any incident when opening the crate:



- ✗ The cart is palletised, projecting parts are not separated and not secured:



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12.0 Crates/ Wooden Box Management (Checklist)

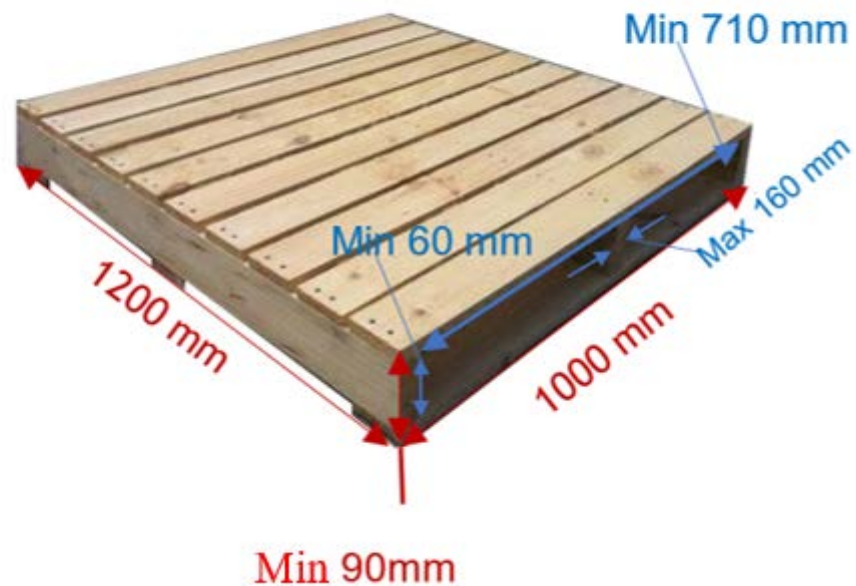
Requirement	Result
Construction:	
Crate/ box is constructed in accordance with BS1133-8:2011.	
Inner Pack:	
Crate/box has been inspected before use.	
Materials are protected from moisture: valuable goods are packed in a vapor-proof wrapping, heat-sealed or zipped, and preferably with appropriate desiccant or another drying agent	
The crate is optimally sized to suits the contents.	
Internal dividers are utilised on fragile products which are likely to sustain damage during transportation.	
Projecting parts are separated to prevent any incident when opening the crate.	
Materials are secured within the crate	
Temporary protection in case outside storage is unavoidable:	
Top cover is ventilated.	
White plastic tarpaulin is used for protection against weather and environmental conditions.	
The tarpaulin is white, to prevent the crates/box becoming too warm in the sun, since humidity increases with a rise in temperature.	
Load Stability	
Crates that have unstable loads have bases designed to prevent tipping.	
Unstable loads have an oversized base to compensate for the instability created by a displaced centre of gravity.	
Package destinations requirements:	
The crate is designed to consider ease in opening (screws are recommended rather than nails)	
The crate is designed to consider ease in product removal.	
The crate is designed to consider ease of recycling, reuse, or disposal.	
Lid securing:	
The lid is screwed and double secured with straps.	
Labelling:	
The crate is correctly labelled	

13.0 Pallets

13.1 Construction

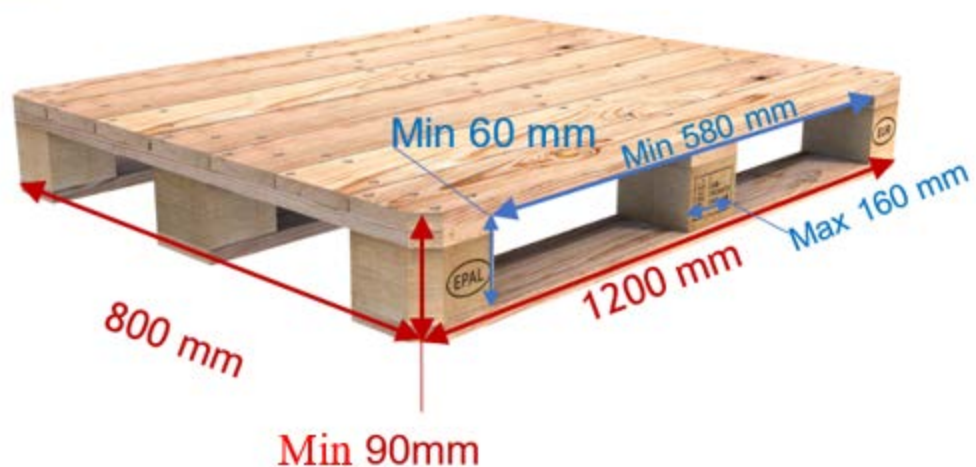
Wooden pallets to be constructed in accordance with BS1133-8:2011 and ISO 6780; assembly shall meet ISO 18334:2010

✓ *Example of a standard pallet:*



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✓ *Euro pallet:*



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GOOD PALLET CONSTRUCTION

✓ *Close board battened pallet:*



✓ *Pallet made of wood:*



✓ *Standard vertical entry clearances:*



✓ *New pallet of standardized design:*

**POOR PALLET CONSTRUCTION**

✗ *Wide battened pallet:*



✗ *Pallet with chip board blocks:*



✗ *No entrance clearance:*



✗ *Bottom deck board is missing:*



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GOOD PALLET CONSTRUCTION

✓ *New pallet without damage:*



✓ *All parts are in place and fixed properly:*



✓ *Only approved parts are used for construction:*



✓ *All parts are fastened correctly:*



POOR PALLET CONSTRUCTION

✗ *Old repaired pallet with damaged areas:*



✗ *The pallet with missing bearers:*



✗ *Non-approved parts are used for construction/repair of the pallet:*



✗ *Protruding fastenings:*



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14.0 Pallet Suitability (Checklist)

Requirement	Result
Construction	
Pallets are constructed in accordance with BS 1133-8:2011 and ISO 6780:2003.	
Pallet deck is close boarded.	
No chip wood is used for pallet construction.	
Ensure flat pallet.	
Vertical deviation from the target horizontal plane of the pallet deck do not exceed 7 mm.	
Opening height of the pallet will not be less than 60mm.	
Pre-use Inspection	
In 2-way perimeter base pallets ensure every based board is fastened at each end with two or more nails of correct length and diameter with adequate distance from edge.	
Are the stringer boards made of solid timber without excessive knots?	
Are the stringer boards of equal thickness, as specified in the purchaser's specifications?	
Are the deck boards, stringer boards and base boards to the required thickness and width?	
Are the deck boards made of solid timber, without excessive knots?	
Ensure base boards are not split or damaged.	
Ensure bearers or blocks are not damaged.	
Ensure there are no projecting nails or nails projecting through deck boards.	
Ensure there are no split boards.	
Ensure pallet construction is square to avoid racking issues.	
Ensure pallet is clean and free from contamination.	

15.0 Load Bearing Wooden Pallets

- Standard or euro pallet is used where possible;
- The material's weight does not exceed the admissible load bearing of the pallet;
- All materials above the admissible load level are crated appropriately.

Pallet Type	Pallet Profile (mm)	Loading: Dynamic / Static (Kg)
Standard Pallet	1200 x 1000 x 90	1000 / 1500
Euro Pallet	1200 x 800 x 90	1000 / 1500

<p>APPROPRIATE LOAD</p> <p>✓ The material's weight (200 kg) does not exceed the maximum load limit (1,000/ 1,500 kg) for the pallet:</p>  <p>200kg < 1000 kg</p>	<p>LOAD EXCEEDS LIMIT</p> <p>✗ The material's weight does exceed the maximum load limit (1,000/ 1,500 kg) for the pallet:</p>  <p>1567kg > 1000 kg</p>
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15.1 Material Placement on Pallets

<p>GOOD MATERIAL PLACEMENT</p> <p>✓ Material stored on a pallet should fit the footprint of the pallet:</p>  	<p>POOR MATERIAL PLACEMENT</p> <p>✗ Material stored on a pallet should not overhang the foot print of the pallet:</p>  
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GOOD MATERIAL PLACEMENT

- ✓ *Material stored on a pallet should fit the cube space of the pallet:*



POOR MATERIAL PLACEMENT

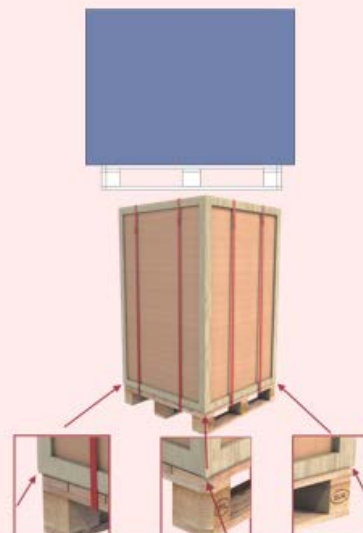
- ✗ *Material does not fit the cube space of the pallet as the elevation is incorrectly positioned. Front elevation showing load instability:*



- ✓ *Material stored on a pallet should not overhang the footprint of the pallet:*

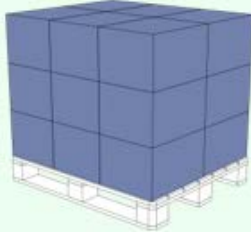


- ✗ *Material does not fit the foot print of the pallet and there is an overhang:*

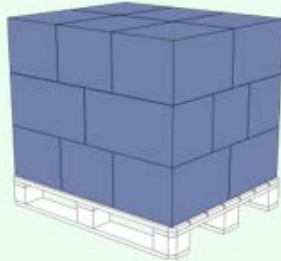


GOOD MATERIAL PLACEMENT

- ✓ *Column Stack should be utilised to prevent materials damage and ensure the strength of the packaging.*



- ✓ *Interlocking stack should be utilised to prevent materials damage and ensure the strength of the packaging:*

**POOR MATERIAL PLACEMENT**

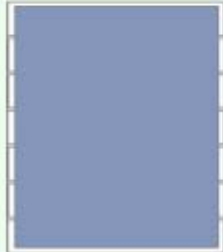
- ✗ *Pyramid Stack does not ensure the strength of the overall packaging and can lead to damage:*



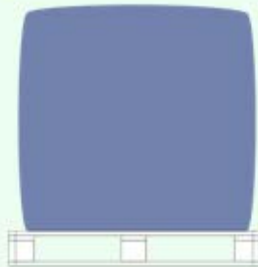
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GOOD MATERIAL PLACEMENT

- ✓ Material stored on a pallet should not be misplaced and overhang the footprint of the pallet:



- ✓ Aggregate material should be placed on the pallet in way to avoid load settling overhang:

**POOR MATERIAL PLACEMENT**

- ✗ Plan view showing load misplacement:



- ✗ View showing load settling:

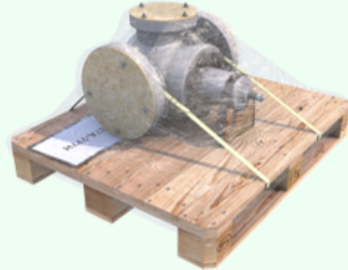


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15.2 Securing Unique Materials to Pallets

GOOD MATERIAL SECURING

- ✓ *Banding or cord strap should be used to secure the load to the pallet:*



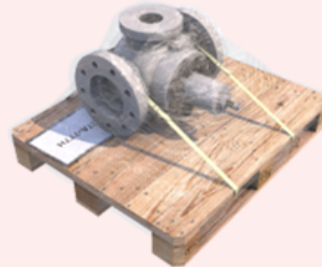
- ✓ *Blocking (Corner or edge boards or wooden chocks) should be placed tightly against the object being secured, to prevent any movement;*
- ✓ *Fasteners should be used to secure the blocking and item to the pallet*



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POOR MATERIAL SECURING

- ✗ *Blocking (Corner or edge boards or wooden chocks) are not placed tightly against the object being secured, to prevent any movement:*

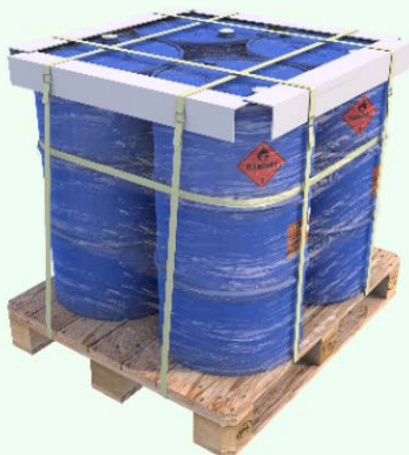


- ✗ *Material not secured to the pallet:*



GOOD MATERIAL SECURING

- ✓ *Oil barrels should be banded and secured on the pallet. Top load protector pads should be utilised to reduce damage to the top of the barrels:*



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POOR MATERIAL SECURING

- ✗ *Oil barrels are not banded and not secured on the pallet. Top load protector pads have not been utilised to reduce damage to the top of the barrels:*



GOOD MATERIAL SECURING

- ✓ The spools and reels should be lashed down into place with strapping followed by shrink wrap for extra security:
- ✓ Spool secured on the pallet



POOR MATERIAL SECURING

- ✗ Spool on a pallet without strapping



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- ✓ Top and bottom load protector pads should be utilised to reduce damage to the top and the bottom of the shipment:
- ✓ Banding should be utilised to secure multiple boxes under the plastic wrap;
- ✓ Banding should be above the plastic wrap;
- ✓ Banding should be utilised twice on each side of the load under and above the plastic wrap;
- ✓ Shrink wrapping is used to protect boxes from moisture



- ✗ No load protector pads:



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16.0 Securing Materials to Wooden Pallets (Checklist)

Requirement	Result
Banding and strapping (For more guidance refer to BS EN 13394; BS EN 13891)	
A strap is chosen of an appropriate breaking strength	
Polyester straps should be used. Metal straps are prohibited	
Strapping is used to secure multiple boxes together under the plastic wrap;	
Strapping is used twice on each side of the load under and above the plastic wrap;	
Blocking	
Corner or edge boards or wooden chocks are placed tightly against the object being secured, to prevent any movement;	
Fasteners are used to secure the blocking and materials to the pallet	
Top and bottom load protector pads	
Bottom load protector pads are utilised to reduce damage to the bottom edges of the shipment	
Top load protector pads are utilised to reduce damage to the top edges of the shipment	
Shrink wrapping	
Shrink wrapping is used to protect boxes from moisture and for extra security	

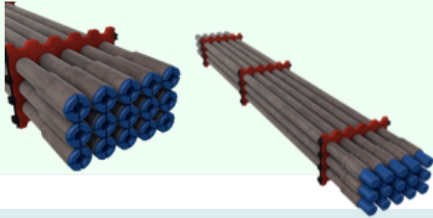
17.0 Pallet Inspection During Use (Checklist)

Requirement	Result
Based board is properly fastened.	
Timber board is in good conditions.	
No damage.	
Pallet is loaded to achieve maximum stability and safety.	
The load height does not exceed the longest base dimension of the pallet (1200 mm).	
Load is wrapped and banded, to provide greater security and to minimise the movement of goods.	
Pallet boards are used where appropriate to secure multiple items requiring banding.	
Special care is taken when using strapping to secure material to a pallet, as deck boards can be pulled from the bearer. Appropriate location is found for strapping	
Comply with the requirements of and the additional guidance from the customer.	
The construction allows handling by crane.	
Construction of packing allows handling by fork-lift truck.	
Construction of packing allows its securing for transportation.	

18.0 Bundles

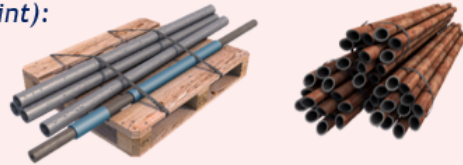
GOOD PACKING OF PIPES

- ✓ Pipes are bundled by cleats and fitted with plastic protectors:



POOR PACKING OF PIPES

- ✗ Pipes are not bundled or transported on the pallets (not secured and overhang the pallet footprint):



- ! Bundles should be treated as individual packages and marked accordingly.

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GOOD PACKING OF STRUCTURAL STEEL

- ✓ The bundle contains single shape items only. The bundle of length more than 120 cm is secured on a wooden skid base:

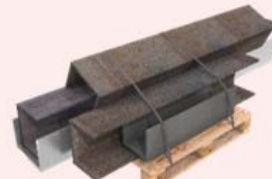


- ✓ Items of different length: each item independently secured to a skid:



POOR PACKING OF STRUCTURAL STEEL

- ✗ The bundle of length more than 120 cm should not be secured on multiple wooden pallets:



- ✗ The bundle should not be transported without securing on a pallet or a skid base:



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19.0 Pipe Bundle Inspection and Packaging (Checklist)

Requirement	Result
Inspections:	
Is bundled by strapped cleats of suitable dimensions above and below the bundle.	
Additional protection is utilised for coated pipe to prevent abrasion or impact damages.	
Pipes are fitted with plastic plugs or plastics end caps to ensure the ends of individual pipe lengths are sealed.	
No tape covering is applied.	
Packaging:	
The bundle contains single shape items only.	
The bundle contains similar lengths and sizes items only.	
Non-hydroscopic shock absorbing sheeting is placed between all surfaces of items/abrasion protection is required.	
Wood pieces of adequate thickness and dimensions are placed in between each layer of stacked structural steel, to prevent sliding.	
The items are tightly bundled with heavy-duty wide metal or polyester straps.	
The size of bundles does not exceed allowable. Typical restrictions are 2 tonnes, 12 m in length and 2.4 m in width. The sender should insure that delivery of bundles exceeding typical restrictions are prior agreed with the recipient and materials management company.	
Soft structural steel items which can be crushed, bent, distorted or damaged during transportation shall be crated (see section 10) and wood chocks used to ensure stability, cloth to protect paintwork, thread protectors and end protectors shall be used on tubulars.	
The bundle of length less than 120cm	
The bundle of length less than 120 cm should be palletised	
The bundle of length more than 120cm	
The bundle of length more than 120 cm should be secured on a wooden skid base of appropriate size and length constructed in accordance with BS1133-8	
Mixed length items	
When items of different length need to be transported as one delivery, each item independently should be secured to a pallet/skid or within a wooden crate or half height	
Bundle Securing:	
The bundle is strapped down to the skids/pallet with heavy-duty polyester straps of appropriate strength. The first pair of straps tying items in a bundle. The second pair of straps secures the bundle onto the skids.	

20.0 Saddles & Transportation Cradles (Checklist)

Requirement	Result
Designed to accommodate shipment by road, ocean, rail and air.	
Designed to withstand shunting, dynamic load and load spreading.	
Design allows to remove the material from a road vehicle and setting down the material on stools (minimise any unnecessary lifting).	
Stable and compatible with the transport equipment.	
Withstands the weight of the load.	
Any necessary securing points required for transportation lashings are incorporated.	
The cradle's axle has retaining clamps to hold a drum in the cradle.	
Cradles supported drums and reels over 5 tonnes and below 12 tonnes are distributing the forces around the side walls (rim) of the drums, whilst distributing the load through the platform of the transport in as large an area as possible.	

21.0 Different Fabrications

GOOD PACKING OF FABRICATIONS

- ✓ The pipe spool of length more than 120 cm is secured within a crate, blocking is placed tightly against the object being secured, to prevent any movement.



POOR PACKING OF FABRICATIONS

- ✗ The pipe spool of length more than 120 cm is secured on multiple wooden pallets and overhang the pallets:



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GOOD PACKING OF FABRICATIONS

- ✓ The pipe spools are secured within a crate, dividers are used to ensure the load stability:



POOR PACKING OF FABRICATIONS

- ✗ The pipe spools are not secured on the pallet:



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- ✓ Small bolts are packed in the hessian sack and secured with the polyester strap



- ✗ Small bolts are packed in the hessian sack and secured with a metal metal strap which cause damage of the sack and protruding of the bolts.



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22.0 Fabrication Packing Guidelines (Checklist)

Requirement	Result
All fabrication below 25 kg should be packed in suitable corrugated wall boxes as detailed in this guidance	
Small bolts could be packed in hessian sacks and secured with a polyester strap only, since metal straps and wire protrude and cause damage of the sack.	
Large fabrications with length less than 120 cm should be palletised.	
Large fabrications such as pipe spools with length more than 120 cm should be secured on a wooden skid base of appropriate size and length constructed in accordance with BS1133-8.	
Very large and awkward fabrications should be pre-slung with webbing slings to prevent damage and for ease of decanting	

23.0 Cable Drums

GOOD PACKING OF CABLE DRUMS

- ✓ The cable drum has timber battens that follow the full circumference of the drum. Fully closed and weather proved;
- ✓ The cable drum with a weight exceeding 5 tonnes is constructed of steel;
- ✓ The drum is mounted in purpose-built steel cradles with a steel axle through each drum:



POOR PACKING OF CABLE DRUMS

- ✗ The drum has not been mounted in purpose-built steel cradles with a steel axle through each drum;
- ✗ Cable drums do not have timber battens that follow the full circumference of the drum:



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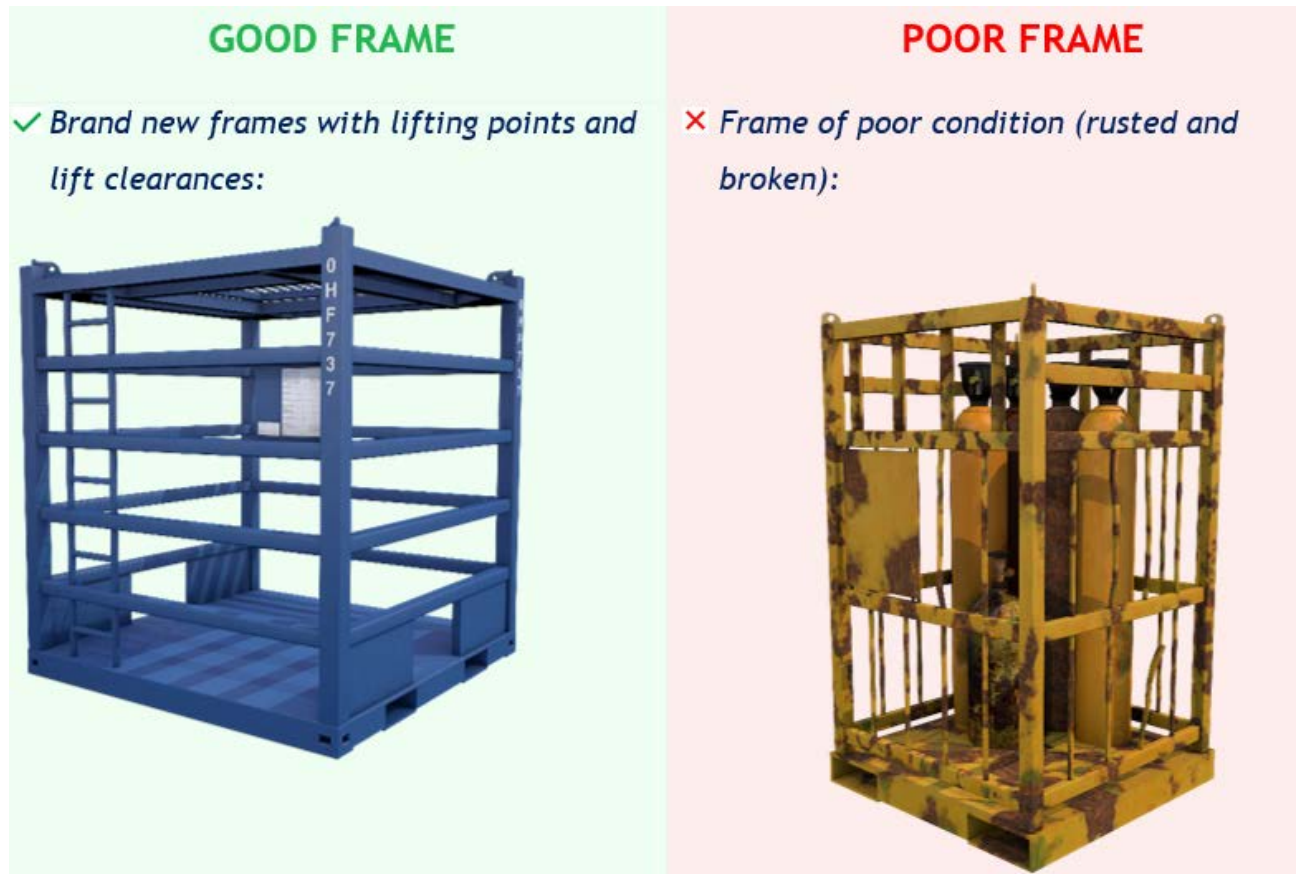
! Drums and reels exceeding 12 **tonne** should be transported on steel frames.

24.0 Cable Drum Inspection (Checklist)

Requirement	Result
Cable drums have timber battens that follow the full circumference of the drum.	
Cable drums with a weight exceeding 5 tonnes are constructed of steel.	
Drums and reels exceeding 12 tonnes should be transported on steel frames.	
The internal end of the cable is secured firmly to the drum to prevent it breaking loose during transport.	
Drum of electric logging cable, drilling line are mounted in purpose-built steel cradles with a steel axle through each drum.	
Fully closed and weather proof.	
Cable ends are sealed to prevent ingress of moisture.	
Each cable drum contains a tag securely attached thereto, bearing:	
Comply with the requirements of and the additional guidance from the customer.	
PO number.	
Item number.	
Stock number.	
Length of cable.	
Size conductors.	
Insulation voltage rating.	
Size or cores and drum number.	
Transportation orientation is marked on both sides of the drum.	

25.0 Transport Frames

Large and complex items shall be transported on and/or in metal frames with agreement of all parties.



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26.0 Transport Frame (Checklist)

Requirement	Result
Design of frames allows for handling using certified lifting gear (crane and fork-lift truck).	
Frame is in good condition.	
Fork introduction point: 75 cm for fork specific introduction point.	
The package of the material transported within the frame fully satisfy the requirements of this standard.	
All access gates/doors are maintained in good condition to avoid injury to hands/fingers	

27.0 Electronic Equipment Packaging

GOOD PACKING OF ELECTRONIC EQUIPMENT

- ✓ Small printer should be packed in bubble wrap prior packed in a box. The box should be secured to a pallet.



POOR PACKING OF ELECTRONIC EQUIPMENT

- ✗ Printers should not be palletised without packing in a box



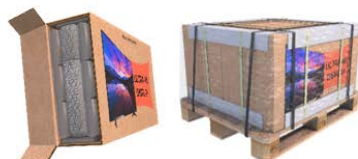
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GOOD PACKING OF ELECTRONIC EQUIPMENT

- ✓ Printer is packed in double wall carton collapsible box; air bags are used as cushioning. The box is palletised.



- ✓ TV is packed in double wall carton box; air bags are used as cushioning. The box is palletised.



POOR PACKING OF ELECTRONIC EQUIPMENT

- ✗ Printer, TV and any other electronic equipment should not be palletised without packing in double wall box and air bags@



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28.0 Electronic Equipment Packaging Requirements (Checklist)

Requirement	Result
Equipment is packed in double wall carton box	
Empty space within the box is filled with dunnage	
Bubble wrap, air bags or crumpled paper is used as dunnage	
The double walled box is used	
Box to box package method is used where appropriate	
Large equipment such as printers/ copy machines, are packed in a collapsible box (see examples below) to ease opening and access	
When shipping multiple items, boxes are palletised, banded together, secured to the pallet and protected from moisture with plastic wrap	

29.0 Dangerous Goods (Checklist)



ENSURE PACKING OF DANGEROUS GOODS FOLLOW LAWS COVERING THE TRANSPORTATION OF DANGEROUS GOODS AND REGULATIONS/ORDINANCES ENACTED BY CARRIERS.



! The supplier/packing contractor has sole responsibility for ensuring that the instructions provided are duly followed and will be held liable for any consequences resulting from non-fulfilment of these instructions.

! Dangerous goods should be packed and consigned only by a trained and competent specialist

Requirement	Result
IATA Dangerous Goods Regulations (DGR), English version.	
International Maritime Dangerous Goods Code (IMDG Code).	
European agreement concerning the international transport of dangerous goods by road (ADR).	
"RID" Regulations for the international transport of dangerous goods by rail in line with the standard provisions specific to the contract for the international transport of goods by rail (CIM).	
Country-specific regulations are applied.	
Appropriate goods classification is included in the packing lists.	
If dangerous goods are crated, the relevant markings are applied	

30.0 Preservation



ENSURE THE ULTIMATE INTEGRITY OF THE ORIGINAL PRESERVATION PACKAGE UNTIL THE MATERIALS ARE RECEIVED BY THE CLIENT.

GOOD CONDITION OF THE PRESERVATION PACKAGE

- ✓ *Foil bag is hermetically closed, integrity of the foil bag is not destroyed:*



- ✓ *Equipment preserved in the foil bag within a crate, integrity of the foil bag is not destroyed:*



POOR CONDITION OF THE PRESERVATION PACKAGE

- ✗ *Integrity of the original preservation package should not be destroyed until the materials are received by the client*



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GOOD MOISTURE PROTECTION

✓ Flange protection with wood introduced and load on the pallet is protected from moisture and dust with plastic wrap:

1. The shrink-wrap should be tied to the bottom of the pallet;
2. The wrap should be spiralled around the shipment in an upward direction making sure the film overlaps;
3. At the top of the load, the film should be stretched diagonally over the corners and then spiral back down to the bottom leaving a slight overlap at the pallet base. As a minimum, there should be 3 layers of shrink wrap:



✓ Flange protection is introduced, silica gel is placed into the crate and overhead protection (plastic film) is utilised to protect materials from moisture:

**POOR MOISTURE PROTECTION**

✗ Load on the pallet is not protected from moisture and dust with plastic wrap:

✗ The shrink-wrap is not utilised to the protect the materials:



✗ Silica gel and overhead protection are not utilised to protect materials from moisture:



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GOOD MOISTURE PROTECTION

- ✓ VCI paper is used to increase the effectiveness of the moisture protection applied to the equipment:

**POOR MOISTURE PROTECTION**

- ✗ Manometers are not protected with VCI paper:



- ✗ Broken VCI does not provide moisture and corrosion protection:



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31.0 Preservation (Checklist)

The sender should ensure that when preservation methods are not specified by manufacturer, materials stored in a crate or on a pallet are protected from dust and from corrosion caused by wood moisture, vapor and atmospheric precipitation.

Requirement	Result
Preservation packaging integrity:	
The sender should ensure the ultimate integrity of the original preservation package until the materials are received by the recipient.	
All packages shall, on delivery to the next phase be checked with respect to the condition of the preservation packaging.	
Any defects of the preservation package identified should be communicated to the recipient.	
Personnel in the recipients' warehouse should ensure the ultimate integrity of the initial preservation foil/film during the pre-determined storage period, until the initial preservation foil/film is requested to be removed for the preservation maintenance as per the owners requirements once the initial preservation period set by the manufacturer is expired	
Moisture, corrosion and dust protection check list:	
Is equipment hermetically sealed with the polythene?	
Are desiccant packs introduced into the pack to absorb moisture?	
Is overhead protection introduced (e.g. internal plastic, roof cover, bituminized paper)?	
Are corrosion preventative sprays introduced or brush-on compounds for less sensitive equipment such as steel castings?	
Is vapour corrosion inhibitor (VCI) paper or clear polyethylene bag used to increase the effectiveness of the moisture protection for items such as items such as bolts, nuts, washer, etc without plating?	
Is flange protection with wood introduced?	
Are items which requires dipping method rust protection additionally packed into a polyethylene bag?	
Are wires, hinges, etc. greased appropriately?	

32.0 Dunnage

✓ Bubble wrap:



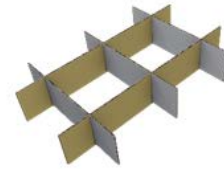
✓ Airbags:



✓ Paper and Carboard:



✓ Corrugated Inserts:



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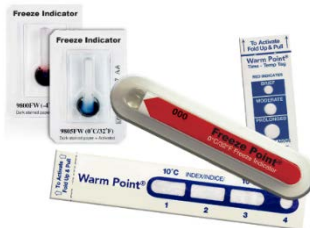
33.0 Packages Mishandling Monitoring During Transportation



Impact Indicators of suitable range should be used to detect and record mishandling and detect the impact of the fragile, sensitive, perishable, or calibrated materials during the materials transportation. Impact detectors will record impact and mishandling of fragile, sensitive or calibrated products during transportation.



Tilt Indicators of suitable range should be used to detect unacceptable tilting on materials that must remain upright during the transportation.



Temperature Indicators of suitable temperature range should be used to detect the material's exposure to temperature levels above or below a predetermined level, during the transportation.

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34.0 Lashing (Checklist)

The lashing could be used to secure dimensional and heavy materials on the pallet, metal frames and to secure crates.

The senders should ensure that the lashing equipment satisfy the following standards:

- Web lashings BS EN 12195 Part 2
- Lashing chains BS EN 12195-3
- Wire lashing ropes BS EN 12195-4

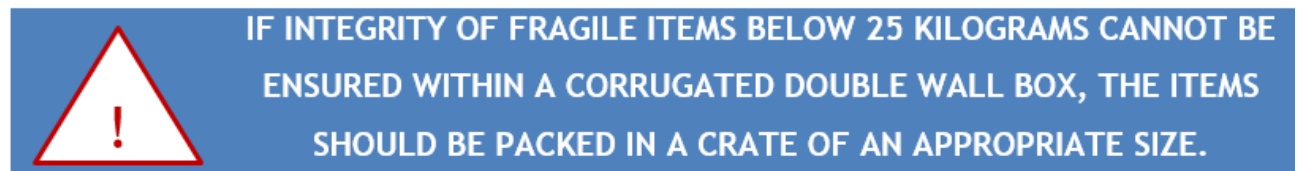
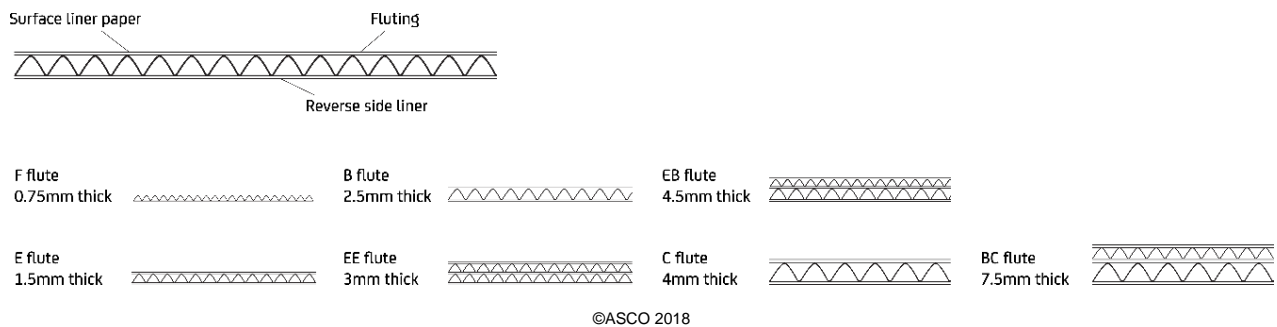
Requirement	Result
The lashing equipment is chosen appropriately as per the lashing capacity (see BS EN 12195).	
The lashing equipment is marked and labelled as per BS EN 12195.	
The lashing equipment does not have visible defects, such as fraying of the strands, or steel deformation.	
Lashings of the same marking are applied in pairs and in parallel.	
Webbing assembled in accordance with BS EN12195-2.	
The tensioning device (ratchets) are selected as per BS EN12195-2.	
Where a tension force indicator is fitted, the indicated values are easily readable.	



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35.0 Corrugated Wall boxes (Materials under 25kg) (Checklist)

Small items of gross weight below 25 kilograms should be packed into the double wall corrugated boxes of appropriate size.

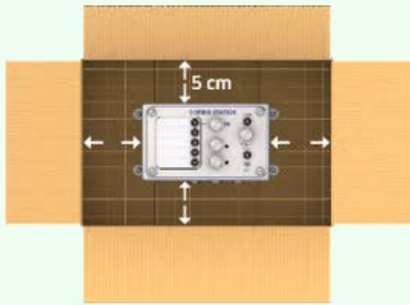


Requirement	Result
Constructed in accordance with BS 113.7.5 or equivalent	
Passed the Edge Crush Test or Bursting test	
Carry the Box Manufacturer's Certificate detailing its specifications and results of Edge Crush Test or Bursting test	
The maximum load limit is specified in the Box Manufacturer's Certificate)	
Have the strength to ensure the integrity of the contents	
Withstand the rigors of the shipping process	
Ensure stacking	
All carton parts are stitched or glued	

36.0 Packaging in Carton Boxes

GOOD CORRUGATED BOXES PACKAGING

- ✓ The minimum distance between the external walls and the item is 5 cm all around:



- ✓ Fragile materials shall be packed by box in box method and appropriate dunnage shall be used:



- ✓ All box's seams should be sealed with pressure sensitive tape in the following way:



POOR CORRUGATED W BOXES PACKAGING

- ✗ The minimum distance between the external walls and the item should not be less than 5 cm all around:



- ✗ Fragile equipment packed in one box with no appropriate dunnage:



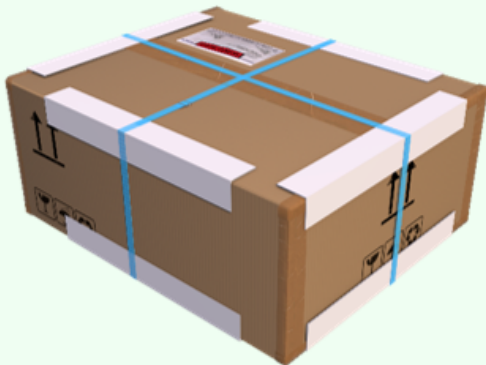
- ✗ Not all seams are sealed:



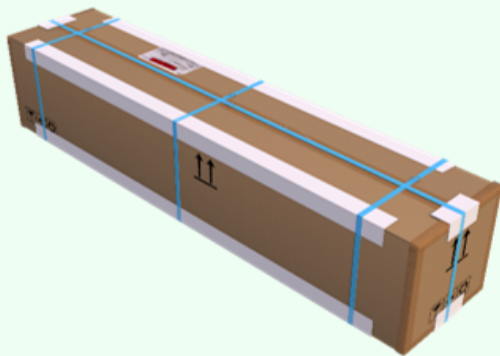
GOOD CORRUGATED BOXES PACKAGING

✓ *Correct reinforcement with polyester strapping:*

1. Protecting pads to protect edges are used;
2. A minimum of two crossing bands are used:



✓ *The box exceeding 760 mm in length has additional bands placed around: one in the centre and one within 150 mm of ends*



POOR CORRUGATED W BOXES PACKAGING

✗ *Reinforcement with polyester strapping without protecting pads leads to a box damage:*



Masking tape and twine are not allowed for box sealing

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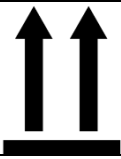

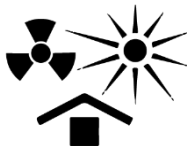




37.0 Packing in Carton Boxes Requirements (Checklist)








Requirement	Result
Box selection	
A double wall box should be chosen for materials packing, of weather proof design where appropriate.	
The chosen type of the flute should ensure appropriate load bearing and the integrity of materials.	
The results of the crush tests should ensure appropriate load bearing and the integrity of materials.	
The chosen size of box should ensure the appropriate load bearing, the integrity of materials and appropriate packing method.	
Preservation	
Appropriate moisture protection should be used.	
Appropriate corrosion protection should be used.	
Packing requirements for different items	
UV protection should be used for items such as elastomers.	
O-rings, gaskets and seals should be packed 10,25, 50 items per box.	
Multiple items should be wrapped individually.	
Shelf life should be marked on the wrap/package for an individual item where appropriate (ea. for elastomers, chemicals, etc.).	
The integrity of fragile materials should be ensured within the box.	
A laminated bag should be used if possible, where potential damage exists.	
Fragile materials should be packed by "box in box" method.	
The outer box should be at least 15 cm larger in each dimension that the inner box.	
The empty space between outer and inner box should be field in with dunnage.	
Material placement in box	
Materials are distributed equally within the box towards the centre of the box.	
The minimum distance between the external walls and items is 5 cm left.	
Empty space within the box is filled with appropriate.	
Box sealing	
All box's seams should be sealed with pressure sensitive tape.	
Where strapping is requiring, the top and bottom protector pads are used to ensure the box integrity.	

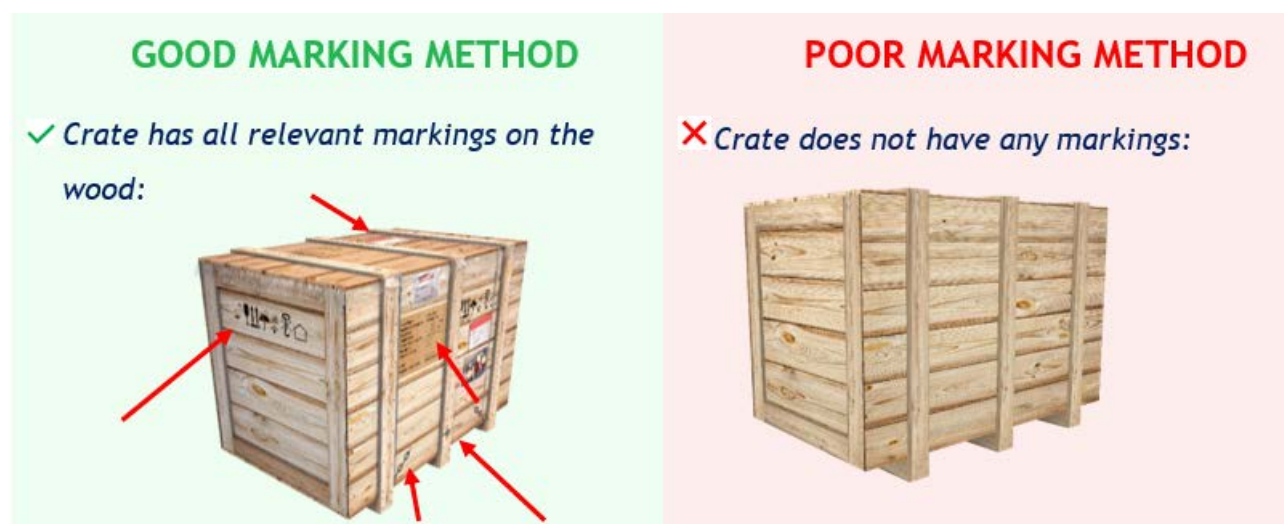
Requirement	Result
Box reinforcement	
Reinforcement with polyester strapping shall be applied for valuable goods and dimensional boxes.	
Marking	
All appropriate international markings shall be applied	
Box labelling	
Boxes shall be suitable labelled in accordance to this guidance	

38.0 Marking, Labelling and Attached Document

38.1 International Marking

Name	Marking	Description
Fragile, Handle with care		The symbol should be applied to easily broken cargo. Cargo marked with this symbol should be handled carefully and should never be tipped over or compressed by slinging.
Use no hooks		Any other kind of point load should also be avoided with cargo marked with this symbol. The symbol; does not automatically prohibit the use of the plate hooks used for handling bagging cargo.
Top		The package must always be transported, handled and stored in such a way that the arrows always point upwards. Rolling, swinging, secure tipping or tumbling or other such handling must be avoided. The cargo need not, however, be stored "on top".
Keep away from heat (solar Radiation)		Compliance with the symbol is best achieved if the cargo is kept under the coolest possible conditions. In any event, it must be kept away from additional sources of heat. It may be appropriate to enquire whether prevailing or anticipated temperatures may be harmful. This label should also be used for goods, such as butter and chocolate. Which anybody knows should not be exposed to heat, in order to prevent losses.
Protected from heat and radioactive sources		Stowage as for the preceding symbol. The cargo must additionally be protected from radioactivity.
Sling here		The symbol indicates merely where the cargo should be slung, but not the method of lifting. If the symbols are applied equidistant from the middle or centre of gravity, the package will hang level off the slings and of identical length. If this is not case, the sling equipment must be shortened on one side.
Keep dry		Cargo bearing this symbol must be protected from excessive humidity and must be stored under cover. If particularly large or bulky packages cannot be stored in warehouses or sheds, they must be carefully covered with tarpaulins.
Centre of gravity		This symbol intended to provide a clear indication of the position of the centre of gravity. To be meaningful, this symbol should only be used where the centre of gravity is not central. The meaning is unambiguous if the symbol; is applied unto two upright surfaces at right angles to each other.
No hand truck here		The absence of this symbol on packages amounts to permission to use a hand truck on them.

Name	Marking	Description
Stacking limitation		The maximum stacking load must be stated as "...kg max". Since such marking is sensible only on packages with little loading capacity, cargo bearing this symbol should only be stowed in the uppermost level.
Clamp here		Stating that package may be clamped at the indicated point is logically equivalent to a prohibition of clamping anywhere else.
Temperature limitations		According to regulations the symbol should either be provided with the suffix "...0C" for a specific temperature or, in case of a temperature range, with an upper ("...0C max. ") and lower ("...0C min.") temperature limit. The corresponding temperatures or temperature limits should be noted on the consignment note.
Do not use forklift truck here		This symbol should only be applied to the sides where the forklift truck cannot be used. Absence of the symbol on other sides of the packages amounts to permission to use forklift trucks on these sides.
Electrostatic sensitive device		Contact with packages bearing this symbol should be avoided at low levels of relative humidity, especially if insulating footwear is being worn or the ground/floor is nonconductive. Low levels of relative humidity must in particular be expected on hot, dry summer days and very cold winter days.
Do not destroy barrier		A barrier layer which is (virtually) impermeable to water vapor and contains desiccants for corrosion protection is located beneath the outer packaging. This protection will be ineffective if the barrier layer is damaged. Since the symbol has not yet been approved by ISO, puncturing of the outer shell must be avoided for any packages bearing the words "Packed with desiccants".
Tear off here		This symbol is intended only for the receiver.



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39.0 Marking for Crated Items (Checklist)

Requirement	Result
Marking Method	
Marking for crated equipment are applied in English with (black) non-fading paint using a block-lettering stencil.	
Marking are legible, permanent and not obscured.	
Lettering, minimum 100 mm unless otherwise approved.	
All marking is clearly marked on 2 adjacent sides and top of the crate.	
All others relevant international standard marking is placed on 2 adjacent sides and top.	
Small crates are marked on two sides and the top with lettering appropriate to their size.	
All markings must be applied on to the wood of the crate e.g. markings/COG, lifting points etc.	
Marking Contents	
Lifting or sling points.	
Centre of gravity (CoG).	
Wood treatment markings.	
Relevant international standard marking	
Storage conditions (if necessary).	
Sender details: - Company name. - Asset name. - Contact name. - Contact telephone; Contact e-mail.	
Customer name in the format: - Company name. - Destination name (Platform, asset etc.). - Name of who the item is for (e.g. buyer or engineer) (when possible). - Contact telephone; Contact e-mail.	
Complete delivery address with contact and phone number.	
PO number.	
Material master number (Unique ID).	
Custom code/ country of origin/ FCG or SEU.	
Quantity of items in package.	
Number of the package (i.e. 1 of X).	
Gross weight in pounds (lbs) and kilograms (kgs).	
Net weight in pounds (lbs) and kilograms (kgs).	

Requirement	Result
If dangerous goods are packed in the crate, appropriate marking is indicated on the packaging	
UN number (UN= United Nations).	
Class, code number.	
Technical designation.	
Reference to marine pollutant.	
Characteristics of the dangerous goods.	
The MSDS and DG declaration are attached to the crate body and a second copy with the paperwork.	



If the CoG cannot be marked due to its location on the unit and a plywood panel cannot be affixed to allow for marking its location, a print sealed in plastic, affixed to the package in a visible location will be required for all unstable materials.

40.0 Labelling and Marking of Pallets (Checklist)

Requirement	Result
Marking contents	
Lifting or sling points.	
Centre of gravity (CoG).	
Wood treatment markings.	
Relevant international standard marking (see 24.1 above)	
Storage conditions (if necessary).	
Sender details: - Company name. - Asset name. - Contact name. - Contact telephone; Contact e-mail.	
Customer name in the format: - Company name. - Destination name (Platform, asset etc.). - Name of who the item is for (e.g. buyer or engineer) (when possible). - Contact telephone; Contact e-mail.	
Complete delivery address with contact and phone number.	
PO number.	
Material master number (Unique ID).	
Custom code/ country of origin/ FCG or SEU.	
Quantity of items in package.	
Number of the package (i.e. 1 of X).	
Gross weight in pounds (lbs) and kilograms (kgs).	
Net weight in pounds (lbs) and kilograms (kgs).	
If dangerous goods are packed onto the pallet, appropriate marking is indicated on the packaging:	
UN number (UN= United Nations).	
Class, code number.	
Technical designation.	
Reference to marine pollutant.	
Characteristics of the dangerous goods.	
The MSDS and DG declaration are attached to the labels and a second copy with the paperwork.	

41.0 Labelling and Marking Of Carton Boxes (Checklist)

Requirement	Result
Marking contents	
Relevant international standard marking (see 24.1 above)	
Storage conditions (if necessary).	
Sender details: - Company name. - Asset name. - Contact name. - Contact telephone; Contact e-mail.	
Customer name in the format: - Company name. - Destination name (Platform, asset etc.). - Name of who the item is for (e.g. buyer or engineer) (when possible). - Contact telephone; Contact e-mail.	
Complete delivery address with contact and phone number.	
PO number.	
Material master number (Unique ID).	
Custom code/ country of origin/ FCG or SEU.	
Quantity of items in package.	
Number of the package (i.e. 1 of X).	
Gross weight in pounds (lbs) and kilograms (kgs).	
Net weight in pounds (lbs) and kilograms (kgs).	
Number of the package (i.e. 1 of X).	
Gross weight in pounds (lbs) and kilograms (kgs).	
Net weight in pounds (lbs) and kilograms (kgs).	
If dangerous goods are packed in the carton, appropriate marking is indicated on the packaging:	
UN number (UN= United Nations).	
Class, code number.	
Technical designation.	
Reference to marine pollutant.	
Characteristics of the dangerous goods.	
The MSDS and DG declaration are attached to the labels and a second copy with the paperwork.	

42.0 Label Quality, Size and Its Placement (Checklist)



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Requirement	Result
Printed labels to be approved by a CPEL.	
Labels are printed on white background, minimum A4 size, font colour BLACK., waterproofed (i.e. fully laminated).	
Easily read from the 3 meters distance.	
Securely fixed to the package in a minimum of four positions — ends and sides and top — where appropriate to the size of the package / case.	
Labels are wrinkle free.	
Labels are water proof.	

42.1 Non-Dangerous Goods Label Template (Example)

Sender details:	
- Company Name:	
- Address:	
- Asset Name (sent from):	
- Contact Name:	
- Contact Telephone:	
- Contact e-mail:	
- Complete sender address	
Customer details:	
- Customer name (Company Name):	
- Destination name: platform, asset etc.:	
- Contact Name of who the item is for (e.g. buyer or engineer) (when possible):	
- Contact Telephone:	
- Contact e-mail:	
- Complete delivery address:	
P.O. number:	
Material master number (Unique ID):	
Country of origin:	
Custom code:	
Custom status: FCG or SEU	
Quantity of items in package:	
Number of the package (i.e. 1 of X):	
Gross and Net weight in pounds (lbs) and kilograms (kgs):	
Dimensions (metric)	
Storage conditions (if necessary):	
Preservation requirement (if applicable)	
Recommended action (i.e. return, repair, disposal)	

42.2 Dangerous Goods Label Template (Example)

Sender details:	
- Sender Name:	
- Address:	
- Asset Name (sent from)	
- Contact Name:	
- Contact Telephone:	
- Contact e-mail:	
Customer details:	
- Customer name (Company Name):	
- Destination name: platform, asset etc.	
- Contact Name of who the item is for (e.g. buyer or engineer) (when possible):	
- Contact Telephone:	
- Contact e-mail:	
- Complete delivery address:	
P.O. number:	
Material master number (Unique ID):	
Country of origin:	
Custom code:	
Custom status: FCG or SEU:	
Quantity of items in package:	
Number of the package (i.e. 1 of X):	
Gross and Net weight in pounds (lbs) and kilograms (kgs):	
Dimensions (metric)	
Storage conditions (if necessary):	
Preservation requirement (if applicable)	
Recommended action (i.e. return, repair, disposal)	
UN number:	
Class, code number:	
Technical designation:	
Reference to marine pollutant:	
Characteristics of the dangerous goods:	
<i>Note: Ensure that the MSDS and DG declaration are attached to the goods and a second copy with the paperwork.</i>	

43.0 Attached Documents (Checklist)

All required markings and additional documents shall be attached to the crate/box before releasing for transit.

Requirement	Result
Attached documents	
Delivery note	
Description of contents.	
P.O. numbers of each line items in package.	
Materials master numbers of each line items in package.	
Country of origin.	
Recipients name in the format (otherwise marked as CPEL and destination Installation or facility: - Recipient - Platform - Name of recipient (e.g. buyer or engineer) (when possible).	
Number of packages.	
Printed picture of the item.	
If item is crated, picture of the packed item in the crate (from the top).	
Dangerous goods must be supported with the following documents:	
MSDS & Declaration attached to the goods with label and a second copy with the paperwork.	

44.0 Marking of Individual Components (Checklist)

Individual components shall be suitably marked before shipping.

Requirement	Result
All individual components contained in one packing unit are marked separately.	
All markings are listed in the appropriate packing lists to enable the materials to be identified upon delivery.	
Expiry date should be marked if it is required	

45.0 Security

The Sender shall ensure that materials packages are secured with high security seals if a customer requires to be reassured that the packages with highly valuable goods have not been opened or used during the transportation. The following guideline shall be followed:

- ✓ Highly visible seals with a simple 'pull-to-lock' mechanism should be used for permanently sealing bags, boxes or crates.
- ✓ The seals should be made from tough polypropylene and be weatherproof and suitable for overseas, offshore shipping or long-term storage.
- ✓ Each security seal should be individually marked with a sequential serial number for ease of tracking and tracing during the transportation.



46.0 Checklists

46.1 Adequacy of transport packaging (Section 7)

Requirement	Result
Allows for static loads occurring during transport .	
Allows for static loads occurring during handling .	
Allows for static loads occurring during storage .	
Allows for dynamic loads occurring during transport .	
Allows for dynamic loads occurring during handling .	
Allows for dynamic loads occurring during storage .	
Comply with the requirements of the transport operator.	
Comply with the requirements of the country of destination.	
Comply with the requirements of and the additional guidance from the customer.	
The construction allows handling by crane.	
Construction of packing allows handling by fork-lift truck.	
Construction of packing allows its securing for transportation.	

46.2 Crate Pre-Use Inspection (Section 10)

Requirement	Result
Is the wood utilised of appropriate thickness?	
Are all the wood sides of equal thickness, as specified in the purchaser's specifications?	
Are the lifting points indicated and provided for MHE?	
Is the crate properly covered with waterproof protection?	
Is there any damage to the crate?	
Is material properly labelled (label and Pictures)?	
Is the crate properly marked up as per marking policy instructions?	
Is the crate clean and free from contamination?	

46.3 Crates/ Wooden Box Management (Section 12)

Requirement	Result
Construction:	
Crate/ box is constructed in accordance with BS1133-8:2011.	
Inner Pack:	
Crate/box has been inspected before use.	
Materials are protected from moisture: valuable goods are packed in a vapor-proof wrapping, heat-sealed or zipped, and preferably with appropriate desiccant or another drying agent	
The crate is optimally sized to suits the contents.	
Internal dividers are utilised on fragile products which are likely to sustain damage during transportation.	
Projecting parts are separated to prevent any incident when opening the crate.	
Materials are secured within the crate	
Temporary protection in case outside storage is unavoidable:	
Top cover is ventilated.	
White plastic tarpaulin is used for protection against weather and environmental conditions.	
The tarpaulin is white, to prevent the crates/box becoming too warm in the sun, since humidity increases with a rise in temperature.	
Load Stability	
Crates that have unstable loads have bases designed to prevent tipping.	
Unstable loads have an oversized base to compensate for the instability created by a displaced centre of gravity.	
Package destinations requirements:	
The crate is designed to consider ease in opening (screws are recommended rather than nails)	
The crate is designed to consider ease in product removal.	
The crate is designed to consider ease of recycling, reuse, or disposal.	
Lid securing:	
The lid is screwed and double secured with straps.	
Labelling:	
The crate is correctly labelled	

46.4 Pallet Suitability (Section 14)

Requirement	Result
Construction	
Pallets are constructed in accordance with BS 1133-8:2011 and ISO 6780:2003.	
Pallet deck is close boarded.	
No chip wood is used for pallet construction.	
Ensure flat pallet.	
Vertical deviation from the target horizontal plane of the pallet deck do not exceed 7 mm.	
Opening height of the pallet will not be less than 60mm.	
Pre-use Inspection	
In 2-way perimeter base pallets ensure every based board is fastened at each end with two or more nails of correct length and diameter with adequate distance from edge.	
Are the stringer boards made of solid timber without excessive knots?	
Are the stringer boards of equal thickness, as specified in the purchaser's specifications?	
Are the deck boards, stringer boards and base boards to the required thickness and width?	
Are the deck boards made of solid timber, without excessive knots?	
Ensure base boards are not split or damaged.	
Ensure bearers or blocks are not damaged.	
Ensure there are no projecting nails or nails projecting through deck boards.	
Ensure there are no split boards.	
Ensure pallet construction is square to avoid racking issues.	
Ensure pallet is clean and free from contamination.	

46.5 Securing Materials to Wooden Pallets (Section 16)

Requirement	Result
Banding and strapping (For more guidance refer to BS EN 13394; BS EN 13891)	
A strap is chosen of an appropriate breaking Strength	
Polyester straps are chosen over metal straps which are prohibited	
Strapping is used to secure multiple boxes together under the plastic wrap;	
Strapping is used twice on each side of the load under and above the plastic wrap;	
Blocking	
Corner or edge boards or wooden chocks are placed tightly against the object being secured, to prevent any movement;	
Fasteners are used to secure the blocking and materials to the pallet	
Top and bottom load protector pads	
Bottom load protector pads are utilised to reduce damage to the bottom edges of the shipment	
Top load protector pads are utilised to reduce damage to the top edges of the shipment	
Shrink wrapping	
Shrink wrapping is used to protect boxes from moisture and for extra security	

46.6 Pallet Inspection During Use (Section 17)

Requirement	Result
Based board is properly fastened.	
Timber board is in good conditions.	
No damage.	
Pallet is loaded to achieve maximum stability and safety.	
The load height does not exceed the longest base dimension of the pallet (1200 mm).	
Loads is wrapped and banded, to provide greater security and to minimise the movement of goods.	
Pallet boards are used where appropriate to secure multiple items requiring banding.	
Special care is taken when using strapping to secure material to a pallet, as deck boards can be pulled from the bearer. Appropriate location is found for strapping	
Comply with the requirements of and the additional guidance from the customer.	
The construction allows handling by crane.	
Construction of packing allows handling by fork-lift truck.	
Construction of packing allows its securing for transportation.	

46.7 Pipe Bundle Inspection and Packaging (Section 19)

Requirement	Result
Inspections:	
Is bundled by strapped cleats of suitable dimensions above and below the bundle.	
Additional protection is utilised for coated pipe to prevent abrasion or impact damages.	
Pipes are fitted with plastic plugs or plastics end caps to ensure the ends of individual pipe lengths are sealed.	
No tape covering is applied.	
Packaging:	
The bundle contains single shape items only.	
The bundle contains similar lengths and sizes items only.	
Non-hydrosopic shock absorbing sheeting is placed between all surfaces of items/abrasion protection is required.	
Wood pieces of adequate thickness and dimensions are placed in between each layer of stacked structural steel, to prevent sliding.	
The items are tightly bundled with heavy-duty wide metal or polyester straps.	
The size of bundles does not exceed allowable. Typical restrictions are 2 tonnes, 12 m in length and 2.4 m in width. The sender should insure that delivery of bundles exceeding typical restrictions are prior agreed with the recipient and materials management company.	
Soft structural steel items which can be crushed, bended, distorted or damaged during transportation shall be crated (see section 10) and wood chocks to ensure stability, cloth to protect paintwork, thread protectors and end protectors shall be used.	
The bundle of length less than 120cm	
The bundle of length less than 120 cm should be palletised	
The bundle of length more than 120cm	
The bundle of length more than 120 cm should be secured on a wooden skid base of appropriate size and length constructed in accordance with BS1133-8	
Mixed length items	
When items of different length need to be transported as one delivery, each item independently should be secured to a pallet/skid or within a wooden crate or half height	
Bundle Securing:	
The bundle is strapped down to the skids/pallet with heavy-duty wide metal or polyester straps of appropriate strength. The first pair of straps tying items in a bundle. The second pair of straps secures the bundle onto the skids.	

46.8 Saddles & Transportation Cradles (Section 20)

Requirement	Result
Designed to accommodate shipment by road, ocean, rail and air.	
Designed to withstand shunting, dynamic load and load spreading.	
Design allows to remove the material from a road vehicle and setting down the material on stools (minimise any unnecessary lifting).	
Stable and compatible with the transport equipment.	
Withstands the weight of the load.	
Any necessary securing points required for transportation lashings are incorporated.	
The cradle's axle has retaining clamps to hold a drum in the cradle.	
Cradles supported drums and reels over 5 tonnes and below 12 tonnes are distributing the forces around the side walls (rim) of the drums, whilst distributing the load through the platform of the transport in as large area as possible.	

46.9 Fabrication Packing Guidelines (Section 22)

Requirement	Result
All fabrication below 25 kg should be packed in suitable corrugated wall boxes as detailed in this guidance	
Small bolts could be packed in hessian sacks and secured with a polyester strap only, since metal straps and wire protrude and cause damage of the sack.	
Large fabrications with length less than 120 cm should be palletised.	
Large fabrications such as pipe spools with length more than 120 cm should be secured on a wooden skid base of appropriate size and length constructed in accordance with BS1133-8.	
Very large and awkward fabrications should be pre-slinged with webbing slings to prevent damage and for ease of offload	

46.10 Cable Drum Inspection (Section 24)

Requirement	Result
Cable drums have timber battens that follow the full circumference of the drum.	
Cable drums with a weight exceeding 5 tonnes are constructed of steel.	
Drums and reels exceeding 12 tonnes should be transported on steel frames.	
The internal end of the cable is secured firmly to the drum to prevent it breaking loose during transport.	
Drum of electric logging cable, drilling line are mounted in purpose-built steel cradles with a steel axle through each drum.	
Fully closed and weather proof.	
Cable ends are sealed to prevent ingress of moisture.	
Each cable drum contains a tag securely attached thereto, bearing:	
Comply with the requirements of and the additional guidance from the customer.	
PO number.	
Item number.	
Stock number.	
Length of cable.	
Size conductors.	
Insulation voltage rating.	
Size or cores and drum number.	
Transportation orientation is marked on both sides of the drum.	

46.11 Transport Frame (Section 26)

Requirement	Result
Design of frames allows for handling using certified lifting gear (crane and fork-lift truck).	
Frame is in good condition.	
Fork introduction point: 75 cm for fork specific introduction point.	
The package of the material transported within the frame fully satisfy the requirements of this standard.	
All access gates/doors are maintained in good condition to avoid injury to hands/fingers	

46.12 Electronic Equipment Packaging Requirements (Section 28)

Requirement	Result
Equipment is packed in double wall carton box	
Empty space within the box is filled with dunnage	
Bubble wrap, air bags or crumpled paper is used as dunnage	
The double walls box is used	
Box to box package method is used where appropriate	
Large equipment such as printers/ copy machines, are packed in a collapsible box (see examples below) to ease opening and access	
When shipping multiple items, boxes are palletised, banded together, secured to the pallet and protected from moisture with plastic wrap	

46.13 Dangerous Goods (Section 29)

Requirement	Result
IATA Dangerous Goods Regulations (DGR), English version.	
International Maritime Dangerous Goods Code (IMDG Code).	
European agreement concerning the international transport of dangerous goods by road (ADR).	
"RID" Regulations for the international transport of dangerous goods by rail in line with the standard provisions specific to the contract for the international transport of goods by rail (CIM).	
Country-specific regulations are applied.	
Appropriate goods classification is included in the packing lists.	
If dangerous goods are crated, the relevant markings are applied	

46.14 Preservation (Section 31)

Requirement	Result
Preservation packaging integrity:	
The sender should ensure the ultimate integrity of the original preservation package until the materials are received by the recipient.	
All packages shall, on delivery to the next phase, should be checked with respect to the condition of the preservation packaging.	
Any defects of the preservation package identified should be communicated to the recipient.	
Personnel in recipients' warehouse should ensure the ultimate integrity of the initial preservation foil/film during the pre-determined storage period, until the initial preservation foil/film is requested to be removed for the preservation maintenance as per the owners requirements once the initial preservation period set by the manufacturer is expired	
Moisture, corrosion and dust protection check list:	
Is equipment hermetically sealed with the polythene?	
Are desiccant packs introduced into the pack to absorb moisture?	
Is overhead protection introduced (e.g. internal plastic, roof cover, bituminized paper)?	
Are corrosion preventative sprays introduced or brush-on compounds for less sensitive equipment such as steel castings?	
Is vapour corrosion inhibitor (VCI) paper or clear polyethylene bag is used to increase the effectiveness of the moisture protection for items such as items such as bolts, nuts, washer, etc without plating?	
Is flange protection with wood introduced?	
Are items which requires dipping method rust protection additionally packed into a polyethylene bag?	
Are wires, hinges, etc. greased appropriately?	

46.15 Lashing (Section 34)

Requirement	Result
The lashing equipment is chosen appropriately as per the lashing capacity (see BS EN 12195).	
The lashing equipment is marked and labelled as per BS EN 12195.	
The lashing equipment do not have visible defects, such as fraying of the strands, or steel deformation.	
Lashings of the same marking applied in pairs and in parallel.	
Webbing assembled in accordance with BS EN12195-2.	
The tensioning device (ratchets) are selected as per BS EN12195-2.	
Where a tension force indicator is fitted, the indicated values are easily readable.	

46.16 Corrugated Wall boxes (Materials under 25kg) (Section 35)

Requirement	Result
Constructed in accordance with BS 113.7.5 or equivalent	
Passed the Edge Crush Test or Bursting test	
Carry the Box Manufacturer's Certificate detailing its specifications and results of Edge Crush Test or Bursting test	
The maximum load limit is specified in the Box Manufacturer's Certificate)	
Have the strength to ensure the integrity of the contents	
Withstand the rigors of the shipping process	
Ensure stacking	
All carton parts are stitched or glued	

46.17 Packing in Carton Boxes Requirements (Section 37)

Requirement	Result
Box selection	
A double wall box should be chosen for materials packing, of weather proof design where appropriate.	
The chosen type of the flute should ensure appropriate load bearing and the integrity of materials.	
The results of the crush tests should ensure appropriate load bearing and the integrity of materials.	
The chosen size of box should ensure the appropriate load bearing, the integrity of materials and appropriate packing method.	
Preservation	
Appropriate moisture protection should be used.	
Appropriate corrosion protection should be used.	
Packing requirements for different items	
UV protection should be used for items such as elastomers.	
O-rings, gaskets and seals should be packed 10,25, 50 items per box.	
Multiple items should be wrapped individually.	
Shelf life should be marked on the wrap/package for an individual item where appropriate (ea. for elastomers, chemicals, etc.).	
The integrity of fragile materials should be ensured within the box.	
A laminated bag should be used if possible, where potential damage exists.	
Fragile materials should be packed by "box in box" method.	
The outer box should be at least 15 cm larger in each dimension than the inner box.	
The empty space between outer and inner box should be filled in with dunnage.	
Material placement in box	
Materials are distributed equally within the box towards the centre of the box.	
The minimum distance between the external walls and items is 5 cm left.	
Empty space within the box is filled with appropriate.	
Box sealing	
All box's seams should be sealed with pressure sensitive tape.	
Where strapping is required, the top and bottom protector pads are used to ensure the box integrity.	
Box reinforcement	
Reinforcement with polyester strapping shall be applied for valuable goods and dimensional boxes.	
Marking	
All appropriate international markings shall be applied	
Box labelling	
Boxes shall be suitably labelled in accordance to this guidance	

46.18 Marking for Crated Items (Section 39)

Requirement	Result
Marking Method	
Marking for crated equipment are applied in English with (black) non-fading paint using a block-lettering stencil.	
Marking are legible, permanent and not obscured.	
Lettering, minimum 100 mm unless otherwise approved.	
All marking is clearly marked on 2 adjacent sides and top of the crate.	
All others relevant international standard marking is placed on 2 adjacent sides and top.	
Small crates are marked on two sides and the top with lettering appropriate to their size.	
All markings must be applied on to the wood of the crate e.g. markings/COG, lifting points etc.	
Marking Contents	
Lifting or sling points.	
Centre of gravity (CoG).	
Wood treatment markings.	
Relevant international standard marking	
Storage conditions (if necessary).	
Sender details: - Company name. - Asset name. - Contact name; Contact telephone; Contact e-mail.-	
Customer name in the format: - Company name. - Destination name (Platform, asset etc.). - Name of who the item is for (e.g. buyer or engineer) (when possible). - Contact telephone; Contact e-mail.	
Complete delivery address with contact and phone number.	
PO number.	
Material master number (Unique ID).	
Custom code/ country of origin/ FCG or SEU.	
Quantity of items in package.	
Number of the package (i.e. 1 of X).	
Gross weight in pounds (lbs) and kilograms (kgs).	
Net weight in pounds (lbs) and kilograms (kgs).	
If dangerous goods are packed, appropriate marking is indicated on the packaging	
UN number (UN= United Nations).	
Class, code number.	
Technical designation.	
Reference to marine pollutant.	
Characteristics of the dangerous goods.	
The MSDS and DG declaration are attached to the crate body and a second copy with the paperwork.	

46.19 Labelling and Marking of Pallets (Section 40)

Requirement	Result
Marking contents	
Lifting or sling points.	
Centre of gravity (CoG).	
Wood treatment markings.	
Relevant international standard marking (see 24.1 above)	
Storage conditions (if necessary).	
Sender details: - Company name. - Asset name. - Contact name. - Contact telephone; Contact e-mail.	
Customer name in the format: - Company name. - Destination name (Platform, asset etc.). - Name of who the item is for (e.g. buyer or engineer) (when possible). - Contact telephone; Contact e-mail.	
Complete delivery address with contact and phone number.	
PO number.	
Material master number (Unique ID).	
Custom code/ country of origin/ FCG or SEU.	
Quantity of items in package.	
Number of the package (i.e. 1 of X).	
Gross weight in pounds (lbs) and kilograms (kgs).	
Net weight in pounds (lbs) and kilograms (kgs).	
If dangerous goods are packed onto the pallet, appropriate marking is indicated on the packaging:	
UN number (UN= United Nations).	
Class, code number.	
Technical designation.	
Reference to marine pollutant.	
Characteristics of the dangerous goods.	
The MSDS and DG declaration are attached to the labels and a second copy with the paperwork.	

46.20 Labelling and Marking Of Carton Boxes (Section 41)

Requirement	Result
Marking contents	
Relevant international standard marking (see 24.1 above)	
Storage conditions (if necessary).	
Sender details: - Company name. - Asset name. - Contact name. - Contact telephone; Contact e-mail.	
Customer name in the format: - Company name. - Destination name (Platform, asset etc.). - Name of who the item is for (e.g. buyer or engineer) (when possible). - Contact telephone; Contact e-mail.	
Complete delivery address with contact and phone number.	
PO number.	
Material master number (Unique ID).	
Custom code/ country of origin/ FCG or SEU.	
Quantity of items in package.	
Number of the package (i.e. 1 of X).	
Gross weight in pounds (lbs) and kilograms (kgs).	
Net weight in pounds (lbs) and kilograms (kgs).	
Number of the package (i.e. 1 of X).	
Gross weight in pounds (lbs) and kilograms (kgs).	
Net weight in pounds (lbs) and kilograms (kgs).	
If dangerous goods are packed in the carton, appropriate marking is indicated on the packaging:	
UN number (UN= United Nations).	
Class, code number.	
Technical designation.	
Reference to marine pollutant.	
Characteristics of the dangerous goods.	
The MSDS and DG declaration are attached to the labels and a second copy with the paperwork.	

46.21 Label Quality, Size and Its Placement (Section 42)

Requirement	Result
Printed labels to be approved by a CPEL.	
Labels are printed on white background, minimum A4 size, font colour BLACK., waterproofed (i.e. fully laminated).	
Easily read from the 3 meters distance.	
Securely fixed to the package in a minimum of four positions — ends and sides and top — where appropriate to the size of the package / case.	
Labels are wrinkle free.	
Labels are water proof.	

46.22 Attached Documents (Section 43)

Requirement	Result
Attached documents	
Delivery note	
Description of contents.	
P.O. numbers of each line items in package.	
Materials master numbers of each line items in package.	
Country of origin.	
Recipients name in the format (otherwise marked as CPEL and destination Installation or facility: - Recipient - Platform - Name of recipient (e.g. buyer or engineer) (when possible).	
Number of packages.	
Printed picture of the item.	
If item is crated, picture of the packed item in the crate (from the top).	
Dangerous goods must be supported with the following documents:	
MSDS & Declaration attached to the goods with label and a second copy with the paperwork.	

46.23 Marking of Individual Components (Section 44)

Requirement	Result
All individual components contained in one packing unit are marked separately.	
All markings are listed in the appropriate packing lists to enable the materials to be identified upon delivery.	
Expiry date should be marked if it is required	