

LOGISTICS



# FREIGHT PREPARATION HANDBOOK

# Overview

To effectively service our operating assets, Woodside's supply chain is required to use multiple modes of transportation over long distances. This ultimately requires our materials to be stored, and handled, in extremely harsh environments.

Poor freight preparation can result in risks to suppliers, transport providers, warehouse personnel, other parties and the environment, and may result in deliveries of damaged and unusable materials.

Woodside's objective is to support safety of people, protection of the environment and operating equipment, and to improve productivity through the end-to-end supply chain.

This handbook summarises key practices conducted by all parties which should be applied to the preparation of freight for delivery to and from Woodside assets.

These work practices, together with competent personnel, will help ensure that all materials are delivered in first-rate operational condition while also diminishing risks to people, the environment and assets.

This handbook provides information about Woodside's expectations for participants in the logistics chain. Woodside relies on you applying the freight requirements standard and good industry practice to support safety, protection and productivity.

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It is crucial to have goods delivered to the final destination in a good condition, safely and efficiently.



Unsafe consignments

Damaged and incorrect goods are subject to rejection for replacement.



Figure 1: Example of an inadequately packed fragile parcel damaged in transit



Figure 2: This is unsafe. Heavy roller pins have had restraints applied over the pallet top slats, and not the pallet under-bearers.

## RESPONSIBILITIES

In a logistics chain, everyone involved is part of the 'Chain of Responsibility' (COR). This includes consigners, packers, loaders, drivers, customers and their management.



On behalf of the consigner, the packer has a responsibility to confirm that all materials are packed in a secure and safe manner.

- ✓ Prepare freight for the full journey.



- ✓ Label all freight correctly.
- ✓ Mark Dangerous Goods correctly.
- ✓ Complete all paperwork.
- ✓ Balance all loads properly.
- ✓ Do not exceed weight limits.
- ✓ Secure loose items that could detach in transit.

## SECURE LOOSE ITEMS

There has to be no loose items or parts, such as bolts, which could detach from a package and cause injury or damage.



## DOCUMENTATION

- ✓ Check Packing List against Purchase Order (PO).
- ✓ Attach relevant documents to packages.
- ✓ Do not pack items from different POs in same package/pallet.
- ✓ Attach instructions to largest package in consignment. These include:
  - » Transport/handling
  - » Assembly
  - » Dangerous Goods
  - » Installation
  - » Preservation



**Ensure documents are ready on time and insert duplicate copies inside the packaging.**

### Key documents

- ✓ Packing List (slip)
- ✓ Commercial Invoice
- ✓ Instructions
- ✓ International Freight document, if applicable



*Figure 3: Example of a Packing Slip inside a weather resistant pocket*

## PACKING

- ✓ Pack for end-to-end logistics chain.
- ✓ Pack for differing methods of handling, stacking and lifting.
- ✓ Protect fragile equipment.
- ✓ Ensure goods and packing areas are clean.
- ✓ Pack materials so that weight is evenly distributed.



Ensure goods firmly packed in packaging (Figure 4).

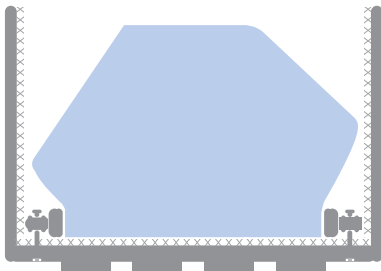


Figure 4: Securing packaging with bolted chocks



Figure 5: Impact and tilt sensing devices

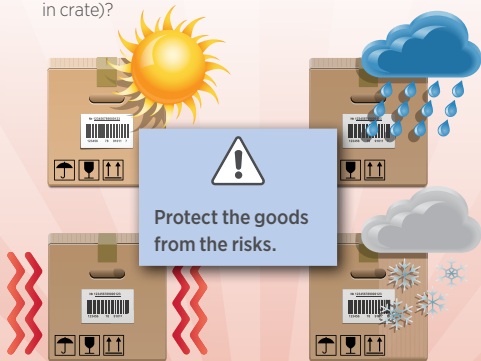


Figure 6: Dunnage bags in container

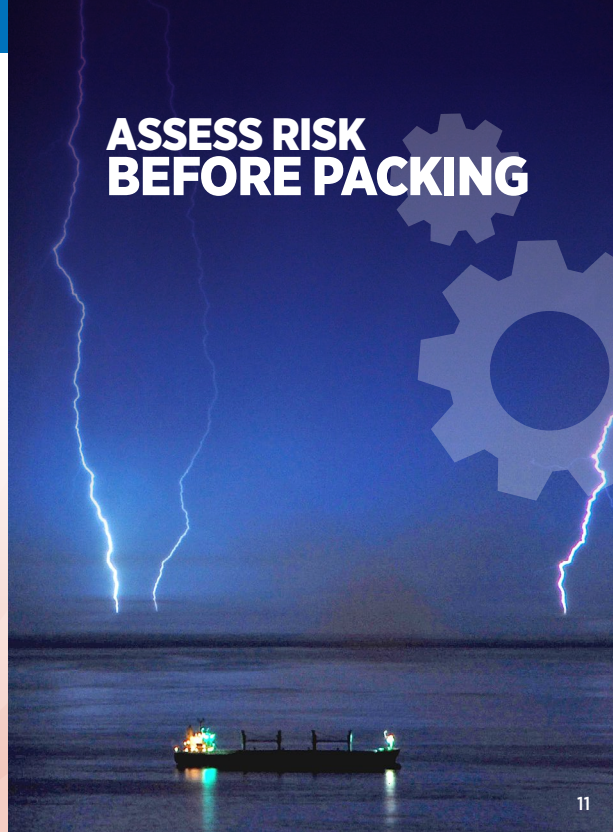
Dunnage is any material in various forms, used to secure and protect good from damage during storage and transport.

## Risk assessment

- ? Is end destination an offshore facility?
- ? What are likely weather and transport conditions?
- ? What materials handling (including storage) is expected?
- ? How vulnerable are the goods?
- ? Are goods prepared for sea freight suitable for transport on other modes as well as by ship?
- ? Before marine transportation to offshore environments, ask "Have we eliminated risk of dropped objects?"
- ? Is packaging suitable for air transport (freight secured in crate)?



# ASSESS RISK BEFORE PACKING



## Packaging materials



The right packaging material has to be safe, protect goods and be practical to handle.

External packaging includes:

- ✓ Boxes, cases and crates
- ✓ Containers
- ✓ Pallets
- ✓ Baskets and cages
- ✓ Transport frames

## POLYSTYRENE BEADS

Polystyrene beads are not acceptable as dunnage. Polyethylene air cap sheets (bubble wrap) and corn starch beads are acceptable alternatives.



Timber packaging has to be in good condition, free of bark and insect infestation, and to have a working load limit (WLL) exceeding the weight of the goods.



Figure 7: Examples of timber packaging



## Boxes, cases, crates

- ✓ Constructed for lifting by forklift from two sides.
- ✓ Allow for slings on large items.
- ✓ Use secure strapping (that can bear the unrestrained weight of materials).
- ✓ Material cannot protrude.



Figure 8: Slingable crate

## Containers

- ✓ Freight containers have to comply with standards.
- ✓ Protect the contents against condensation.
- ✓ Consider how contents can be unpacked safely.



**Pack materials firmly in containers, to prevent movement.**



Figure 9: Freight and offshore containers

## Pallets

- ✓ Australian sourced pallets have to be hardwood (pine is not acceptable).
- ✓ Pallets are to be in good condition and have a load capacity of 2,000 kg.
- ✓ For international shipments, all timber pallets have to be ISPM15 certified. Consignments that will be further transported within Australia have to comply with Australian pallet requirements.

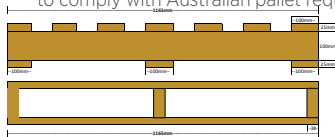


Figure 10: Standard two-way skidded Australian pallet

## PALLETS

All pallets are to be in good condition and fit-for-purpose, and hardwood when sourced in Australia.



## Packing pallets

- ✓ Do not exceed the load capacity.
- ✓ Do not let load overhang the forklift access.
- ✓ Separate and secure items firmly on pallet.
- ✓ Polyester straps are preferred, although metal straps may be used.
- ✓ It is not desirable to stack pallets.



**Secure strapping over belly of material and around stringer of pallet.**

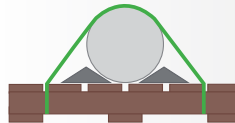
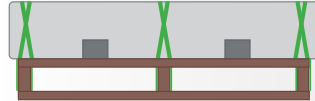


Figure 11: Strapping should pass the stringer of the pallet

## Transport frames



...to be considered where equipment is too large, heavy or not suitably shaped for palletising.

- ✓ Discuss use with Woodside representative.
- ✓ Include in price of supply.
- ✓ Ensure correct transport frame is used.
- ✓ Ensure frame is in good condition and equipment is secured correctly.
- ✓ Independent check before loading onto transport.



Figure 12: Transport Frame used for subsea equipment for the Greater Western Flank (GWF) Project

## Are you packaging any of these materials?

### PIPE, TUBE AND DRILL CASING

- ✓ Protect overall structure, pipe ends (caps) and coatings
- ✓ Pipes up to 225 mm to be in frames, containers or bundled together correctly
- ✓ No overhangs are permitted

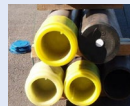


Figure 13: Plastic plugs for end protection of pipes

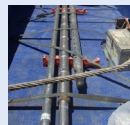


Figure 14: Correctly packed and strapped tubes



Figure 15: Strapped cleats system (wine racks) for bundling pipes together securely

## Continued...

### PIPE, TUBE AND DRILL CASING



Figure 16: Use of steel headboard for secure transport of pipes

### HOSES



Figure 17: Correct packaging of hose

### EXOTIC/ SPECIAL METALS

- ✓ Protect from iron and other metals, magnets etc

## Continued...

### PRESSURE RELIEF DEVICES (PRDS)

- ✓ Depressurise, drain, decontaminate and tag
- ✓ Pack upright in packing case

### ACCUMULATORS

- ✓ Pre-charge to maximum 3 bar before transport

### BEARINGS

- ✓ Take precautions, including instructions for removal of false bearings

### FLANGES


- ✓ Protect sealing faces

## FLANGES

Protect all flange sealing faces.



## Continued...

<b>ROTATING EQUIPMENT</b>	<ul style="list-style-type: none"><li>✓ Brace securely, with instructions</li><li>✓ Transport with air ride suspension</li></ul>
<b>ELECTRICAL EQUIPMENT</b>	<ul style="list-style-type: none"><li>✓ Seal to prevent dust and moisture</li><li>✓ Use desiccant</li><li>✓ Transport motors vertically and use shaft lock to prevent damage</li></ul>
<b>SPOOLS</b>	<ul style="list-style-type: none"><li>✓ Secure each item individually to the pallet</li></ul> 

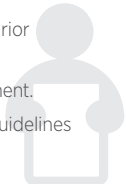
*Figure 18: Correct packaging of spools*

## Prior to transportation



### Ready to despatch?

- ✓ Use a freight preparation checklist.
- ✓ Independent check after packing and prior to loading.
- ✓ Review preparation against risk assessment.
- ✓ Adhere to regulations, standards and guidelines for loading, restraint and transport.



## MARKING OF FREIGHT



- ✓ Mark all packages clearly.
- ✓ Labels, placards and markings have to be durable.
- ✓ Mark parcel freight on at least one side and all other freight on at least two sides.
- ✓ Number packages in a sequence.
- ✓ Use standard symbols in markings.



Figure 19: Marked Crate

## Continued...

### HEAVY, LARGE AND FRAGILE



- ✓ Mark packages over 15 kg with HEAVY
- ✓ Mark centre-of-gravity and slinging point
- ✓ Fragile items have to be clearly marked 'Fragile' or 'Handle with Care'

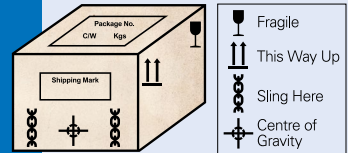


Figure 20: Correct placement of shipping symbols per AS 2852

### BOXES, CASES AND CRATES

- ✓ Mark with gross weight
- ✓ Mark on two opposite sides

### KITS

- ✓ Pack each kit separately
- ✓ Clearly mark each item consistent with bill of materials

## Continued...

### LOOSE AND BUNDLED ITEMS

- ✓ Each bundle has to be marked and treated as an individual package



Figure 21: Markings on drill casing

### DESSICANTS, INHIBITORS AND SEALANTS

- ✓ Ensure details are clearly visible



Figure 22: Dessicant packets



Markings have to be clearly visible to enable effective and safe handling.



## DANGEROUS GOODS

- ✓ Adhere to international and national regulations.
- ✓ Separate from all other materials.
- ✓ Clearly identify as hazardous along with its exact contents and Dangerous Goods Class.
- ✓ Label on all four sides.
- ✓ Packers need to have DG competencies.
- ✓ DG documents, such as a Shippers Declaration and Woodside registered SDS, must travel with goods.

Figure 23: Hazmat labels for land, sea and air transport



## INTERNATIONAL FREIGHT

- ✓ Each consignment has to be compliant in the country of origin, the country of first importation and final destination.
- ✓ International documentation has to state the weight and dimensions of all freight in the manifest.
- ✓ Prepare for biosecurity requirements in: treatment of goods, packaging materials and packing methods.



If protective packaging has been compromised in any way during the receipt inspection process, the purchaser must be contacted in order to determine the future preservation requirement/s.



## Biosecurity Requirements

- ✓ Use packaging materials approved at the destination.
- ✓ All wood packaging has to be in good functional condition showing no signs of decay and be clean and free of biosecurity risk material.
- ✓ Ensure an approved ISPM15 mark is stamped on at least two sides of the box/crate/pallet etc.
- ✓ If freight requires fumigation of containers, a certificate has to be provided by an approved fumigation company.
- ✓ Prepare Packing Declaration.



Figure 24: ISPM15 Marking

- ✓ **XX** = a two letter ISO country code
  - ✓ **000** = National Plant Organisation (NPPO) number given to the producer of the packing
  - ✓ **ZZ** = treatment code: HT for heat treatment, MB for methyl bromide fumigation, KD for kiln dried and DB for debarked
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## Notes

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## Where can I get more information and provide feedback?

The requirements are available as documents in the *Technical Information for Suppliers and Contractors* on the Woodside [Supplier Portal](http://www.woodside.com.au/supplying_to_woodside/Pages/General-Information-for-Suppliers.aspx) ([www.woodside.com.au/supplying\\_to\\_woodside/Pages/General-Information-for-Suppliers.aspx](http://www.woodside.com.au/supplying_to_woodside/Pages/General-Information-for-Suppliers.aspx)).

You may also contact your Woodside company representative.



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