



Safe Packaging & Handling of Cargo to and from Offshore Locations

Guidelines

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List of Abbreviations

Abbreviations	Definitions
ADR	Accord Dangereux Routiers (European Standard on Dangerous Goods Transportation)
BOP	Blow Out Preventer
BS EN	British Standard European Norm
CCU	Cargo Carrying Unit
CE	Conforms to a European Directive
CoG	Centre of Gravity
CoS	Chamber of Shipping
CSC	Cargo Security Certificate
CTU	Cargo Transporting Unit (also known as CCU)
DfT	Department for Transport
DGR	Dangerous Goods Regulations
DG	Dangerous Good
DNV	Det Norske Veritas
EA	Environment Agency
EWC	European Waste Catalogue
HCA	Helideck Certification Agency Ltd
HLO	Helicopter Landing Officer
HSE	Health and Safety Executive
IADC	International Association of Drilling Contractors (North Sea Chapter)
IATA	International Civil Air Transport Association
ICAO	International Civil Aviation Organisation
IMDG	International Maritime Dangerous Goods Code
IMO	International Maritime Organisation
LMC	Last Minute Change
LOLER	Lifting Operations and Lifting Equipment Regulations
MARPOL	International Maritime Organisation Convention for the Prevention of Pollution from Ships
MCA	Maritime and Coastguard Agency
MCAA	Marine Competent Authority Approval
MEGC	Multiple Element Gas Container
MGN	Marine Guidance Note
MSF	Marine Safety Forum
NOTOC	Notification to Captain
NUI	Normally Unattended Installation

Abbreviations	Definitions
OIM	Offshore Installation Manager
PV	Pressure Vacuum
SADIE	Safety Alert Data Information Exchange
SEPA	Scottish Environmental Protection Agency
SWL	Safe Working Load
TPEC	Temporary Portable Equipment Certificate
TRIC	Task Risk Identification Checklist
OEUK	Offshore Energies UK
UKCS	United Kingdom Continental Shelf
VCOC	Vendor's Certificate of Conformity
WLL	Working Load Limit
WSCA	Well Services Contractors Association

Introduction

This document should not be read in isolation and is supported by additional documents which are referenced in their relevant sections. The main thrust of the document is to provide an overview of the best practices and key processes which are involved in the safe handling of cargo. Alternative practices should only be adopted where they would specifically offer a greater level of safety. Cargo both on and offshore will be subject to inspection checks.

1 Scope and Application

The purpose of this Best Practice document is to assist the following parties involved in the movement of cargo to or from offshore installations.

It recognises the hazards involved in the packaging and handling of cargo during normal operations, and to avoid or reduce the associated risks by the adoption of common industry standards:

- Vendors
- Haulage Contractors
- Logistics Service Providers
- Vessel Operators
- Aircraft Operators
- Offshore Operators

This document applies to the safe packing and handling of cargo to and from offshore locations in support of operations on the United Kingdom Continental Shelf (UKCS) or elsewhere if adopted.

1.1 Users

Users of this document must pay regard to any relevant legislation or authoritative recommendations which have evolved subsequently to the date of publication or during the life of this edition. This document includes references to relevant legislation.

1.2 Investigations

In the absence of appropriate legislation, relevant bodies may use this document to assist in their investigations.

1.3 Digitisation

Safe Packaging & Handling of Cargo to and from Offshore Locations Guidelines aspire to digitise the processes surrounding consignment and onward transportation of cargo to and from offshore assets. Following release of this publication, it is the workgroups intention to reconvene to outline a clear roadmap for digital change. Ultimately, the aim will be to continue offering guidance to industry whilst maintaining safe operations, increasing efficiency and acting in an economically and environmentally prudent manner.

2 Responsibilities and Duties

All parties involved in the supply chain have an obligation to ensure that cargo is properly packaged, prepared and secured for the duration of its journey to or from the offshore location, this includes the following:

- Vendors
- Haulage Contractors
- Logistics Service Providers
- Vessel Operators
- Aircraft Operators
- Offshore Operators

Successive parties in this chain are responsible for maintaining the integrity of the cargo.

To ensure compliance with this document, scheduled Safe Cargo Handling Audits may be undertaken by any of the parties listed above. An audit questionnaire is available within this document.

Vendors and their subcontractors are responsible for ensuring that cargo is prepared for shipment throughout its entire journey in compliance with relevant legislation and this document.

Cargo Summary Tickets (see Appendix 10.1) must be fully completed at the start of the cargo's journey. The Cargo Summary Tickets must be completed and signed by the person responsible at the vendor's premises, this encompasses both packing and preparing the cargo for its journey to or from the offshore location. Where there are multiple truckloads, one copy is to accompany each truck with the relevant items highlighted.

Vendors and their subcontractors must ensure that all applicable documentation accompanies the shipment, e.g. Temporary Portable Equipment Certificate (TPEC), Vendor's Certificate of Conformity (VCOC) or equivalent.

Non-conformance with this document WILL result in cargo being rejected.

2.1 Haulage Contractors

2.1.1 General

Haulage contractors are responsible for ensuring that drivers have the necessary competency levels for the task to be undertaken and that vehicles plus accessories are fit for the intended purpose.

They must therefore ensure that:

- Vehicles are suitable for the intended purpose, display the appropriate hazard warning panels and carry the requisite firefighting equipment.

- Drivers are provided with all other safety equipment that may be required in the event of an emergency involving the goods being transported. Such equipment may include, but is not restricted to, first aid equipment, protective clothing, etc.
- During loading or discharge of cargo the driver, in conjunction with the plant operator, agrees the location of the haven and remains there until the operation is completed. Drivers should not remain in their cabs if this can be avoided. No person should be in the loading / unloading area if they are not needed. However, there are times when the driver may be required to act as a 'spotter' to assist the forklift driver. The driver will position himself toward the back of the trailer (away from danger) and highlight any snagging hazards during offload of cuttings bins or gas racks. This follows incidents where these items are pulled off trailers because of snagging.
- Drivers are provided, by customer / vendor in writing, with the mandatory transport information about the goods to be carried. Additionally, if the goods are classed as dangerous, they must have a good understanding of the nature of the hazards and appropriate action to be taken in an emergency and must possess an ADR qualification.
- Drivers must not accept any cargo manifested for offshore without the appropriate documentation, and particularly Cargo Summary Tickets.
- There is a storage space in the cab for this detailed information.
- Drivers are trained to use the emergency equipment provided.
- Drivers are adequately trained and instructed regarding their duties under ADR Regulations and, if required, are in possession of a valid certificate of training relevant to the task being performed.
- Further guidance can be obtained in Dangerous Goods in Cargo Transport Units HSG 78.

Note: The contractor must ensure compliance with the Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations [SI 2007/1573], including the provision of a competent attendant where appropriate

2.1.2 Dangerous Goods

Drivers must:

- Ensure that information about previous loads or substances carried has been destroyed, removed, or kept in a securely closed container.
- Keep the written information about the dangerous goods readily available throughout the journey.
- Ensure precautions are available against fire, explosion, or any other incident throughout the journey. This includes checking the fire extinguishers, normally daily.
- Ensure appropriate hazard warning placards are available, accessible, and legible.
- Ensure loads are properly secured on the vehicle (Department for Transport Code of Practice Safety of Loads on Vehicles 3rd edition provides guidance).

- Leave unattended vehicles only in a designated parking area.

2.1.3 Securing and Safety of Loads

The driver is responsible for the safety and security of any load whilst it is on the vehicle and as far as reasonably practical should ensure that there are no loose objects on any cargo carried.

Safety and security of cargo being returned to vendors is the responsibility of the logistics service provider. Where several cargoes are carried on the same vehicle factors to be considered in planning the route must include:

- Compatibility of materials carried
- Order of discharge

Forward planning will minimise risks associated with off-loading vehicles.

The method of securing the cargo on the vehicle will depend on the load being carried. When containers are being carried the following factors shall be taken into consideration:

- Twist locks are the preferred means of securing the items.
- Where twist locks are not used, a minimum of two restraints per container must be used, ensuring the combined Safe Working Load (SWL) of the restraints in the configuration applied exceeds the weight of the cargo. Haulage Contractor may apply a third restraint to a unit that encroaches within the last 3ft of the trailer.
- Local rules which have been subject to thorough Risk Assessment may, however, be applied to site transportation.
- Container door(s) should be closed, and the closing mechanism secured so that it cannot inadvertently open during handling and transport.
- Empty Cargo Carrying Units (CCUs) specifically designed for the purpose may be stacked for road transport when compatible. Attention is drawn to the possibility that units that appear similar may not be compatible, and due care should be taken. Where CCUs are not designed to be stacked but nevertheless require road transportation in a stacked manner, a Risk Assessment must be performed which should include, but is not limited to:
 - a. the CCU is empty
 - b. no metal-to-metal contact
 - c. substantial dunnage is used
 - d. strapping is more than the normal requirements
 - e. where necessary, trailer stanchion pins are fitted

Lashing material will depend on the weight to be secured. Polyester cargo restraints will be sufficient for most of the cargo, but extremely heavy loads may have to be secured using high tensile chains and ratchet style load binders.

To minimise hazards to other road users, lifting sets should always be adequately secured while cargo is being transported. Where container lifting arrangements include a fifth leg, it shall also be secured.

When transporting tubulars, they should, wherever possible, be “butted up” to trailers with steel headboards. The load shall be suitably secured, not exceeding the height of the headboard. To ensure stability of the load, trailer pins should be fitted at the sides of the trailer and secure wedges employed where necessary. As each tubular bundle is landed the slings should be stowed in a manner that they are accessible, but not in a position to be crushed by another bundle of tubulars.

The weight of all items of cargo being carried must be known. Consignees should be notified in advance of any items (7 Tonne or over) defined as heavy lifts in order that the necessary arrangements for transporting and receiving the cargo can be made.

Unstable objects will require special arrangements; securing arrangements for such items should not be removed until the lifting equipment has been attached and tensioned in preparation for removal from the vehicle.

2.2 Logistics Service Providers

Logistics service providers are responsible for the safety of personnel and cargo during quayside operations, and for the safe loading or discharge of vessels whilst in port.

During loading or discharge of cargo the Plant Operator, in conjunction with the Driver, agrees the location of the safe haven and the Driver remains there until the operation is completed.

Logistics service providers shall ensure that the vessel deck area occupied by cargo does not exceed utilisation factors, previously agreed with Vessel Master and charterers.

Loading should be in accordance with the installation’s specific quayside shipping instructions.

Due consideration should be given to known discharge priorities for the cargo on that voyage to prevent “Cherry Picking” at site.

2.3 Vessel Operators

The Master of a vessel is responsible for the safety of the crew and vessel at all times and has authority to decide whether operations affecting the vessel should proceed or be terminated.

The vessel Master is responsible for the safe and correct loading of his vessel. He should liaise with the Logistics Service Provider to ensure that the vessel is loaded correctly and in accordance with the Charterer’s specific requirements.

The Master shall ensure that the deck area occupied by cargo does not exceed agreed utilisation factors.

In conjunction with the base operator, the vessel Deck Crew should ensure the lifting equipment is readily available for handling at point of discharge. The vessel Deck Crew should

make a final visual check to ensure the lift is safe prior to the hook being attached to the load for discharge offshore.

Note 1: It is vital that the Vessel Deck Crew only approach Loads when specifically instructed as safe to do so by the Installation Crane Operator.

Note 2: It is vital that the Crane Operator only raises / lowers Loads when specifically instructed as safe to do so by the Vessel Deck Crew who should confirm they are at a safe haven.

The Logistics Service Provider or Offshore Materials Coordinator must provide the vessel with a copy of the manifest complete with all relevant Dangerous Goods information for each installation to be visited. These documents must be received in sufficient time to permit proper stowage of the cargo for the route envisaged.

The IMDG Code contains internationally agreed recommendations for the safe transport of dangerous goods by sea. Although primarily aimed at vessel operators, the Code requirements affect everyone involved in the transport chain, from the manufacturer of the dangerous goods through to the consumer.

The MCA issues regulations relating to the transportation of dangerous goods on offshore support vessels within the UKCS.

2.4 Aircraft Operators

The Captain of the aircraft is responsible for the safety of the passengers and aircraft at all times and has authority to decide whether operations affecting the aircraft should proceed or be terminated.

The aircraft Captain is responsible for the safe and correct loading of his aircraft. He should liaise with the HLO or onshore equivalent to ensure that the aircraft is loaded correctly.

The HLO or onshore equivalent must provide the Captain with a copy of the manifest, complete with all relevant Dangerous Goods information. These documents must be received in sufficient time to permit proper planning of the flight.

The IATA Dangerous Goods Regulations contain information on the safe transport of dangerous goods by air.

The Captain of an aircraft must be supplied with information concerning any Dangerous Goods placed aboard his aircraft. This is a “Notice to Captain” or “NOTOC”, and this function is carried out by either the operator or an agent.

Note: Offshore, a person providing the information is acting as the helicopter operator’s agent and the captain will need to see and keep a copy of the completed checklist and may need to view a copy of the qualified person’s acceptance certification.

2.5 Offshore Operators

The OIM is responsible for the safety of the Offshore Installation, all personnel on board and for safe cargo handling operations.

Offshore Operators are responsible for ensuring that cargo is prepared for shipment throughout its entire journey in compliance with relevant legislation and this document.

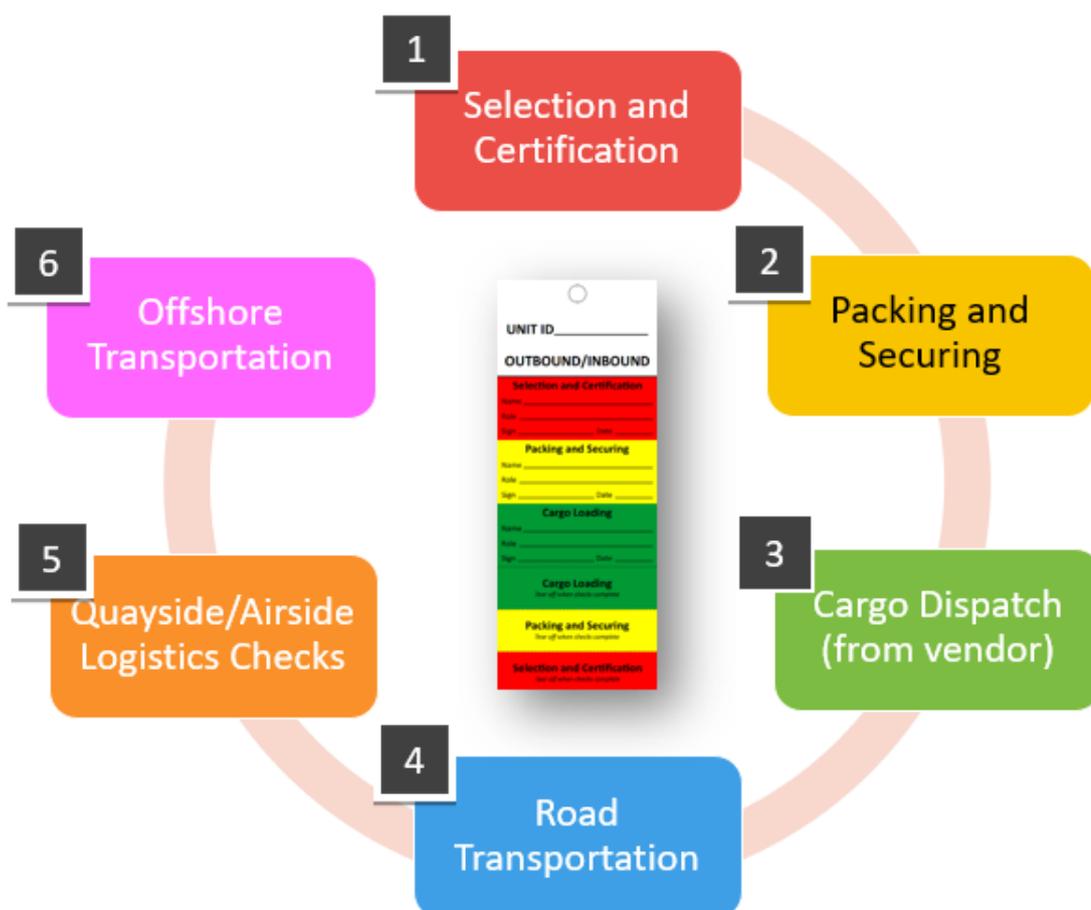
Inbound Cargo shall be fitted with a Transportation Tag and go through an identical process to Outbound Cargo. Each section requiring signature must be populated or the Cargo should be removed from the Inbound Manifest.

Non-conformance with this document can result in cargo being rejected. This may result in delays or other problems in the onward shipment of the cargo.

3 Carriage of Goods

In this section we aim to offer simple guidance within the cycle of getting cargo from onshore to offshore; to simplify the process the section has been split into the following sections:

Figure 1: Cargo Cycle



Personnel involved in any of the processes explained within this section should be familiar with the requirements set out herein. This process governs the shipment of cargo to and from offshore installations. All parties involved in this process are expected to follow the requirements.

For inbound cargo, only sections 1-3 are mandated. The above cycle pays attention to the outbound cargo cycle; however, it is of equal importance that inbound cargo is consigned in the same manner to drive a safe consistency in our processes. There are some inbound cargo specifics in section 6 of this document.

3.1 Cargo Tagging Process

A new cargo tag has been introduced to this version of the document. This tag aims to provide all parties in the supply chain with clear guidance and visibility throughout the process.

The cargo tag shall be attached to all cargo travelling outbound and inbound. It is the responsibility of the person selecting the unit to kick off the process. By attaching the tag to the CCU/Lift, it makes clear the stage the cargo is at in the process.

Figure 2: Cargo Tagging

FRONT	BACK
UNIT ID _____	360° Scan
OUTBOUND/INBOUND <small>(Delete as required)</small>	Have you confirmed that this lift (has):
Selection and Certification	No obvious signs of damage Adequate certification Shackles have split pins correctly fitted and secured Destination tape and correct placarding attached
Name _____ Role _____ Sign _____ Date _____	No potential dropped objects All doors, lids, hatches and valves locked in place Ty-wraps / seals fitted to all locking mechanisms Heavy lift / snagging pennants are fitted if applicable
Packing and Securing	Lifts plumb on horizontal axis No controllable snagging hazards
Name _____ Role _____ Sign _____ Date _____	<u>IF YOU HAVE ANY CONCERNS QUARANTINE THE CARGO IMMEDIATELY</u>
Cargo Dispatch	Cargo Dispatch <small>Tear off when checks complete</small>
Name _____ Role _____ Sign _____ Date _____	Packing and Securing <small>Tear off when checks complete</small>
Cargo Dispatch <small>Tear off when checks complete</small>	Packing and Securing <small>Tear off when checks complete</small>
Packing and Securing <small>Tear off when checks complete</small>	Selection and Certification <small>Tear off when checks complete</small>
Selection and Certification <small>Tear off when checks complete</small>	Selection and Certification <small>Tear off when checks complete</small>

Selection and Certification

Personnel responsible for the following:

- Identifying Cargo required for transportation
- Selection of appropriate CCU and / or Lifting Equipment
- Certification status / expiry date of CCU and / or Lifting Equipment
- Remove all old hazard placards and labels
- Completing and attaching Cargo Tag

3.2.1 Common CCU Types

Table 1: Common CCU Types

<p>1</p>	<p>Container – Closed</p> <p>20 x 8</p> <p>10 x 8</p> <p>8 x 6 Maxi</p> <p>6 x 6 Mini (including shelved)</p>	
<p>2</p>	<p>Container – Open</p> <p>20 x 8 open top and half height</p> <p>10 x 8 open top and half height</p> <p>12 x 6 basket</p> <p>Etc.</p>	

<p>3</p>	<p>Gas Cylinder Carrier</p>	
<p>4</p>	<p>Portable Tank</p>	
<p>5</p>	<p>Skip Note: The use of boat shaped skips is not acceptable</p>	

6	Mud Skip/Cuttings Bin	
7	Tubular Handling Systems/Racks	
8	Compactor Unit	
9	List of Non-Standard CCU	<p>Waste Station</p> <p>Fluorescent Tube Containers</p> <p>Temporary Equipment including generators</p> <p>Workshops</p>

		<p>Control Cabins</p> <p>Others available on request. Speak with your CCU provider for more information</p>
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3.2.2 Build Standards

CCUs used for the carriage and handling of cargo to and from offshore installations must conform to one of the following standards. The selection process must consider the weight / dimensions of the proposed cargo; the limitations the selected CCU and any Operational constraints e.g. offshore crane capacity or forklift availability:

- BS EN 12079
- DNV 2.7-1
- DNV 2.7-2
- DNV 2.7-3
- ISO 10855 (Supersedes BS EN 12079)

Note: BS7072 is not a build standard. It is an Inspection / Test Standard that was withdrawn on 15 October 1999.

Since January 2015, containers inspected and certified to BS 7072 shall no longer be used for the carriage of Dangerous Goods. Most OGUK Operators prohibit their use as general use CCU but there may be exceptional circumstance that dictates their use or cargo that cannot meet any of the standards. Transportation Vendors need to check with their specific Client on whether the standard is accepted or not.

CCUs fitted only with corner castings as a means of lifting the container should not be presented for shipment. They are specifically designed for use in general marine transport, loading and unloading in ports and inland waterways, by means of a four-point vertical lifting device e.g. a spreader beam. They are not designed for dynamic lifts at sea.

Check condition of CCU, including operation of doors, door hinges, seals and locks, tie-down points and ensure that there are no signs of excessive corrosion or deformation

3.2.3 Certification Requirements

All offshore containers shall be periodically inspected, examined and if necessary, tested in accordance with the relevant manufacturing standard.

It is the responsibility of the Consignee to identify how long the CCU may be required offshore. If this is likely to extend beyond 30 days, it is their responsibility to request extended certification from the shipping vendor.

The Consigner must ensure they have selected the most appropriate means of transport for their Cargo. They must also ensure that there is at least 30 days certification remaining to prevent expiry during transportation to and from offshore.

Data and Inspection Plate Marking

Each CCU shall be stencilled with data fitted with data and inspection plates. These plates shall be made of corrosion resistant material securely attached externally in a manner designed to avoid unauthorised or accidental removal. The most common examples are shown below.

Data plate in accordance with DNV 2.7-1/BS EN 12079

Figure 3: Inspection Tag

SWIRE ENERGY SERVICES					
INFORMATION / INSPECTION DATA PORTABLE OFFSHORE UNIT DNV 2.7-3					
Operational Class & Type		:	R	/ Type	
Manufacturer		:			
Month & Year of Manufacture:					
Serial No		:			
Certificate No		:			
Tare WT		:		Kg	
Payload Container		:		Kg	
Payload Intermediate Deck		:		Kg	
Max Gross WT		:		Kg ° Sling Angle	
Tare WT		:		Lbs	
Payload Container		:		Lbs	
Payload Intermediate Deck		:		Lbs	
Max Gross WT		:		Lbs ° Sling Angle	
Design Temp		:		°C	
Operational Restrictions		:			
Owner's Name		:			
Owner's I.D		:			
Owner's Telephone Number		:			
TEST & INSPECTION DATE		T	<small>Proof Load Test</small> <small>NDE</small> <small>Visual Examination</small>	VN	<small>NDE</small> <small>Visual Examination</small>
				V	<small>Visual Examination</small>

www.swirees.com

Data plate in accordance with DNV GL 2.7-1/ISO 10855

Figure 4: Inspection Plate

SWIRE ENERGY SERVICES							
OFFSHORE CONTAINER DATA & INSPECTION PLATE							
DNV 2.7-1 / ISO 10855							
Manufacturer	:						
Month & Year of Manufacture	:						
Manufacturer's/Owner Serial No	:						
Certificate No	:						
Tare WT	: Kg						
Payload Container	: Kg						
Payload Intermediate Deck	: Kg						
Max Gross WT	: Kg at ° Sling Angle						
Tare WT	: Lbs						
Payload Container	: Lbs						
Payload Intermediate Deck	: Lbs						
Max Gross WT	: Lbs at ° Sling Angle						
Design Temp	: °C						
TEST & INSPECTION DATE	<table style="display: inline-table; border: none;"> <tr> <td style="text-align: center; vertical-align: middle;">T</td> <td style="font-size: small; vertical-align: middle;">Proof Load Test NDE Visual Examination</td> <td style="text-align: center; vertical-align: middle;">VN</td> <td style="font-size: small; vertical-align: middle;">NDE Visual Examination</td> <td style="text-align: center; vertical-align: middle;">V</td> <td style="font-size: small; vertical-align: middle;">Visual Examination</td> </tr> </table>	T	Proof Load Test NDE Visual Examination	VN	NDE Visual Examination	V	Visual Examination
T	Proof Load Test NDE Visual Examination	VN	NDE Visual Examination	V	Visual Examination		
www.swirees.com							

Data Plate Markings

Upon the satisfactory completion of the inspection of the container, the inspection plate shall be permanently marked. This marking shall consist of the date of inspection together with:

- Suffix T - Indicates proof load test, non-destructive examination, and visual Inspection
- Suffix VN - Indicates non-destructive examination and visual Inspection
- Suffix V - Indicates visual examination only

3.2.4 Selection and Certification Pocket Card

Figure 5: Selection and Inspection Pocket Card - Front

SELECTION AND CERTIFICATION POCKET CARD
Employing Companies have a duty to ensure personnel are trained and deemed competent to carry out these checks
Discuss requirements with Supplier or Shipping Dept and select CCU best suited to your Cargo
NOTE: Boat shaped skips will not be accepted
Confirm CCU / Load is free of any obvious damage
Confirm CCU / Load is free from excess corrosion
Confirm CCU is certified (>30 days validity required for Outbound)
Pre-Use Inspect all Lifting Equipment
Confirm lifting accessories are certified (>30 days validity required for Outbound)
Confirm shackles have split pins fitted / secured
Further Info is available within [INSERT NEW NAME OF GUIDANCE]

Figure 6: Selection and Inspection Pocket Card - Back

SELECTION AND CERTIFICATION POCKET CARD
Employing Companies have a duty to ensure personnel are trained and deemed competent to carry out these checks
Confirm Doors, Hatches, Valves etc. are free of any obvious damage (where applicable)
Confirm any structure, gratings, walkways and ladders etc are free from obvious damage (where applicable)
Confirm any previous Destination Labels are removed (where applicable)
Confirm any previous Product Labels are removed (where applicable)
Confirm any previous Dangerous Goods placards are removed (where applicable)
Confirm CCU / Load including any Forklift Pockets have no potential Dropped Objects
Fit Transport Tag
Complete Red section of Transport Tag and remove tab
Further Info is available within [INSERT NEW NAME OF GUIDANCE]

3.3 Packing and Securing

Personnel responsible for transportation of Drilling Tubulars to reference Lifting Operations Section.

Personnel are responsible for the following where cargo is being transported within a CCU:

- Ensuring the cargo being placed inside CCU is appropriately packaged for the correct mode of transportation and worst weather conditions
- Ensure any dunnage is in good condition
- Packing the CCU
- Securing the Cargo within the CCU
- Installing secondary securing net / tarpaulin (where applicable)
- Securing all door / hatch mechanisms, lids, valves, exhaust vents etc.
- Affixing destination labels if available
- Ensuring product labels are affixed to tanks (where applicable)
- Affixing heavy lift and / or snagging hazard flags (where appropriate)
- Completing Packing and Securing section of Cargo Tag

Guidance on compliance with the above responsibilities is detailed below.

Personnel tasked with the duties of 'Packing and Securing' must receive appropriate levels of theoretical and practical training from their employer. Employers have a responsibility to demonstrate personnel allocated these duties can demonstrate requisite competency.

When loading CCUs, consideration must be given to any Cargo Shipping Matrices (Operator Specific) and the method of unloading at Consignee site considering access/egress, handling equipment availability and manual handling requirements.

The Packer must ensure the following:

- A Cargo Tag has been attached, and the selection and certification section has been signed off
- Check that the units are clean and free of debris prior to loading.
- Nothing is attached to the outside of a CCU that would create a potential dropped object
- Ensure consideration is given to operational constraints i.e. does the receiving site have appropriate mechanical handling aids for unloading cargo
- Where shelved containers are utilised, heavier cargo will always be loaded at the bottom and lighter materials on the shelf ensuring the capacity of the shelf is not exceeded
- Loads are distributed evenly avoiding an offset centre of gravity and uneven lifting of the CCU
- Appropriate dunnage is utilised between Cargo and floor of CCU and no metal-to-metal contact exists
- Cargo is not impeded by internal sea-fastening lugs or any other form of protrusions which may damage the cargo or cause spillage
- Sacked and drummed cargo is palletised, adequately shrink-wrapped and occupies most of space within the container

- Shrink wrap integrity is not compromised i.e. not burst. Shrink wrap is not a means of securing and must be supplemented with securing means described in section 6.3.2
- All other cargo requirements as specified by the Operator have been met in accordance with location shipping matrices
- No equipment is loaded above the height of an open top CCU unless roof bars or adequate Load protection is installed

To mitigate the risk of lifting equipment and /or Load snagging, tarpaulins or nets must be used unless a specific risk assessment has been carried out, demonstrating alternative control measures or justification that snagging prevention cannot be installed.

3.3.1 Packaging

Packaging requirements are operator/supplier specific and should be listed on Purchase Orders, however best practices are recognised in the Oil and Gas Industry Packaging Standards

3.3.2 Cargo Fastening

Goods will experience significant forces because of transportation motion or rough handling during transit. These forces can result in unexpected movements of the goods either during transit or when the package or CCU is subsequently opened.

To prevent Cargo from becoming unsecured during transit, all cargo packaged within a CCU must be lashed securely to avoid movement in transit.

The most appropriate primary method(s) of securing cargo are woven corded banding, ratchet straps or chain binders. Whichever method is chosen, the person packing the CCU must ensure that the capacity of the lashing line does not exceed the capacity of the lashing points.

Lashing arrangements should have a combined capacity equal to or greater than the weight of the cargo and should be applied symmetrically.

Steel banding should not be used due to the hazards presented in handling.

Cargo restraining nets are recommended in all closed CCUs. Ensure that nets are the correct size and type for the CCU and that the fixing points and nets are in good condition. Cargo nets are designed as secondary lashing of equipment and are not to be used as the primary.

Some samples of well fastened cargo are offered below:

Table 2: Good Practice Cargo Fastening

No	Description	Illustration
1.	<p>Small crate packed into a mini container. Good example of securing which included loose item on top being safely secured.</p>	
2.	<p>Half height unit with construction materials well secured and net applied to mitigate potential snagging.</p>	

3.3.3 Labelling

Where possible, all CCUs shall be marked with the destination markers and snagging hazard markers. If destination tape is not available, ensure the destination is clear on the front of the

CCU. The quayside operator will correct missing destination upon presentation at the quayside gantry.

If snagging hazards remain after control measures are implemented and they cannot be removed a Snagging Hazard Pennant must be fitted to the master link / fifth leg.

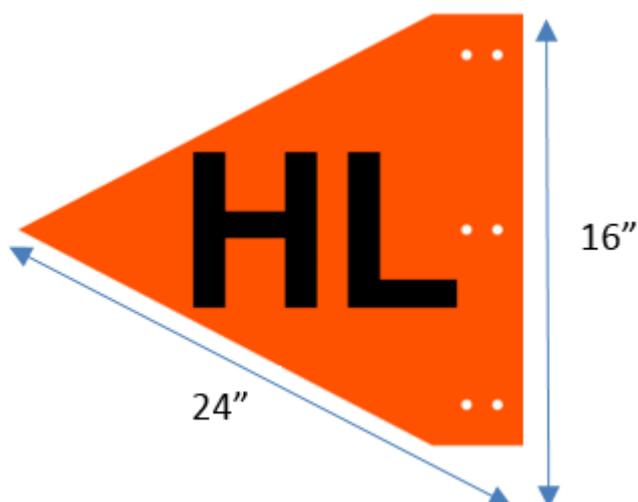
Figure 7: Snagging Label

An Example is shown below:



Heavy Lift Pennants shall be affixed to the master link, or fifth leg should the actual weight of the lift be greater than or equal to seven (7) tonnes. An example of a Heavy Lift Pennant is shown below:

Figure 8: Heavy Label



Where applicable, the CCU shall be also be labelled with appropriate placarding as outlined in the Section 7 Dangerous Goods.

3.3.4 Packing and Securing Examples

Some examples of packing and securing requirements and examples of best practice are shown below:

Table 3: Good Practice Securing Requirements

No	Description	Illustration
1.	<p>All wheeled cargo, irrespective of weight or dimensions, must be raised to ensure they are not in contact with the CCU floor.</p>	
2.	<p>Scaffold tubes and boards must be pre-slung and transported in an open top CCU to facilitate their safe removal / unloading offshore.</p>	

<p>3.</p>	<p>Drummed Cables that cannot be safely handled offshore shall be pre-packaged on plinths as shown.</p>	
<p>4.</p>	<p>Accumulators and cylindrical cargo</p>	
<p>5.</p>	<p>208 litre drums (refer to operator shipping matrix)</p>	

<p>Imperial bulk carriers (IBC) 6. (refer to operator shipping matrix)</p>	
<p>Pup joints, cross overs, etc., 7. should be packed in CCUs when under 18ft in length.</p>	

Operator shipping matrices may insist on all cargo being pre-slung prior to shipment. Please ensure you have reviewed these requirements prior to signing off Cargo Tag.

3.3.5 Packing and Securing Pocket Card

Figure 9: Packing and Securing Pocket Card - Front

PACKING AND SECURING POCKET CARD	
Employing Companies have a duty to ensure personnel are trained and deemed competent to carry out these checks	
	Confirm CCU / Load is free of any obvious damage
	Confirm Drainage holes are clear on open top CCU(s)
	Confirm Items are packed for worst weather conditions
	Confirm Items are secured for worst weather conditions with ratchet straps or cord equivalent
	Confirm packed Cargo is free from snagging hazards
	Where snagging cannot be eradicated, confirm a "Snagging Hazard" pennant is fitted
	Confirm Doors, Hatches, Valves etc securing mechanisms are correctly engaged and have secondary securing fitted
	Confirm cargo net / tarpaulin is fitted to open top CCU(s) (where applicable)
Further Info is available within [INSERT NEW NAME OF GUIDANCE]	

Figure 10: Packing and Securing Pocket Card - Back

PACKING AND SECURING POCKET CARD
Employing Companies have a duty to ensure personnel are trained and deemed competent to carry out these checks
Confirm dangerous goods cargo is documented and unit is correctly placarded on all four sides (where applicable)
Confirm chemical tanks have a product label affixed (where applicable)
Confirm destination labels affixed (where applicable)
Confirm CCU / Load has been checked for potential dropped objects
Confirm actual weight does not exceed allowable MGW
Confirm heavy lift pennant is fitted to cargo equal to or greater than 7 Tonnes
Confirm Tubulars are slung correctly, bull-dog clamps are fitted and torqued to manufacturers values
Complete Orange section of Transport Tag and remove tab
Further Info is available within [INSERT NEW NAME OF GUIDANCE]

3.4 Cargo Dispatch (From Vendor Premises)

This section included the requirements of receipt and dispatch facilities operated by the logistics providers.

Personnel responsible for Cargo Dispatch shall ensure the following:

- A 360 degree walk around the load ensuring the below point have been addressed
- Cargo Tag is affixed, and preceding sections have been completed

- Final check of locking and secondary securing mechanisms has been conducted
- CCU number matches manifest, certification and documentation
- Dangerous Goods placarding is affixed and matches manifested description
- Split pins have been fitted to shackles
- There is no obvious damage to CCU
- Open CCU's have tarpaulin or net installed
- Check has been completed for potential dropped objects
- Check that lifting sets are protected from potential snagging points
- Where accessible confirm Cargo is secure within the CCU
- Ensure Product Labels are affixed to Tanks (where applicable)
- Heavy Lift Pennant has been attached (where applicable)
- Cargo Dispatch section of Cargo Tag has been completed

Guidance on compliance with the above responsibilities is detailed below.

Personnel responsible for transportation of Drilling Tubulars to reference Lifting Operations Section 8.6.

Prior to cargo being transported from the vendor's premises to the Shore Base for shipment offshore, the vendor / supplier shall ensure that a person is nominated to act as a Load Checker.

The Load Checker's responsibility is to ensure that all cargo is inspected to ensure that it is packaged in accordance with this document and is safe and secure for onward transportation.

3.4.1 Dropped Objects

Dropped objects are a major health and safety issue within the industry.

A dropped object is defined as any loose item found on cargo which is not properly restrained and therefore has the potential to fall off whilst in transit.

Common examples of potential dropped objects are hand tools which have been used in preparation of the lift, debris, stones, and even ice.

The law of physics dictates that even the smallest nut can have a devastating effect when it falls from height on to a person handling cargo on the deck of a supply vessel. Similarly, a loose object falling from a travelling truck could have disastrous results to other road users.

Specific information regarding dropped objects in industry can be found on the below link: <https://www.dropsonline.org/assets/documents/DROPS-Backload-Booklet-2-Feb-2015-lo-res.pdf>

Securing of Doors

CCU doors opening during lifting operations is possible. A detailed study found that during these operations due to CCU contact with other lifts and vessel crash rails the tie-wraps being

used to secure the door handle locking mechanism were being torn off when doors were impacted allowing them to open regularly.

As a minimum, hi-visibility tie-wraps with a minimum of 6mm diameter should be used to secure doors but it should be noted that various operator trials have resulted in a dramatic reduction in instances of doors swinging open during lifting operations through use of wire cable locks similar to the type shown here.

Figure 11: Wire Cable Lock



It should be noted that various items of cargo may have smaller doors (tool cabinets etc) with the potential to swing open allowing contents to fall out. If these cannot be adequately secured for safe lifting and transportation, then consideration should be given to removing the contents and shipping by a safer means.

Checking for Potential Dropped Objects

The following checks should be taken to mitigate the risk of potential dropped objects:

- Check all forklift pockets (transverse and longitudinal) for loose objects or debris
- Check top of all lifts
- Check all horizontal and vertical surfaces including grating floors e.g., gas racks
- Check within and around the structure of open framed lifts
- Check tanks to ensure all valve caps are closed and secured
- Check bundles of pipe externally and internally and that protectors are properly fitted
- Ensure thread protectors and endcaps are securely fastened
- Ensure contents are properly secured to prevent items escaping during transit

Any potential dropped objects that are found must be removed prior to transportation

Further checks may be required for specific items of cargo to ensure that they are safe for onward transportation.

DO

- Ensure resources have completed practical training and have the knowledge/experience for cargo inspection
- Ensure that there is appropriate access to each lift due for cargo inspection

- Ensure there is ample time and resources allowed to complete a full pre-lift inspection
- Allow for special consideration should be given to those lifts that are more complex and specialised lifts
- Allow for special consideration for environmental factors/adverse weather such as snow, ice, wind, poor visibility
- Quarantine and report any non-compliances immediately so that corrective actions can be completed
- Exercise stop-work authority when an unsafe condition could result. It is your responsibility, and you have the authority to do so
- Have effective task planning which will include lift planning and communicate to the involved parties
- Subject lifting gear to frequent scrutiny to discover any possible defects
- Maintain good housekeeping
- Expect the unexpected

DO NOT

- Allow any cargo to be transported if the cargo inspection procedure has not been completed
- Lift any load that exceeds the safe working load capacity/ design limits of the equipment
- Carry out any cargo movement with equipment that is not fit for purpose
- Drag slings
- Stand under a suspended load
- Be complacent when completing any cargo inspections
- Complete a cargo inspection if you do not have the required knowledge and training

Dropped Objects in Specialised and Complex Cargo

Specialised equipment usually operated by technical personnel can have several moving parts which can become potential dropped objects. In most cases, inspection requires technical knowledge and expertise to prepare the equipment for shipping.

The equipment owner or responsible person should ensure that the equipment is inspected according to their checklists before technical operators depart from the operation.

It is best practice to complete a detailed hand over of the equipment status to cargo handling personnel to prevent any equipment being mistakenly shipped before final cargo inspections are complete.

The equipment should be appropriately tagged by the equipment Owner / Responsible Person to verify that the equipment has been “technically” declared fit for travel. Final cargo inspections are still required to be completed before shipment.

Table 4: Fit for Travel

No	Description	Illustration
1.	Lighting brackets, cable trays and additional framework within the roof structure of this unit.	
2.	Additional “removable” parts secured to the container, hoses, fasteners, equipment ID tags, flanges and grating within these unit.	

Items Appearing “Camouflaged”

Be aware that in some cases, potential dropped objects can become almost impossible see. Therefore, it is imperative that all pre inspection cargo checks must be rigorous to ensure that these hazards are removed entirely.

Table 5: Dropped Object Checks

No	Description	Illustration
1.	<p>A pry bar lies on the roof of a mud skip, and could be mistaken for part of the mud skip latch assy. The bar is around 12 inches long and weighs 1 kg.</p>	
2.	<p>A hacksaw blade blends perfectly to the bottom of this mini container. It is almost a perfect match to its environment.</p>	

More Information on the Dropped Objects Prevention Scheme

To access detailed information and best practices regarding dropped objects please visit the following web site www.dropsonline.org

Table 6: Dropped Objects

No	Description	Illustration
1.	This picture was from an actual event where a dropped object from Offshore fell from a travelling truck and went through the windscreen of a car, it narrowly missed the mother and landed beside the child in the child seat on the back seat of the car.	

3.4.2 Further Cargo Checks Prior to Dispatch

The driver transporting the load shall be allowed to view the items to be loaded when a complex load is to be undertaken, to allow the driver the opportunity to decide on how the load is to be placed / orientated on the vehicle.

Prior to loading on to transport, check all locking mechanisms are fully engaged and secured against opening during handling and transport. This should be confirmed by fitting a high visibility coloured tie wrap mentioned previously. For the avoidance of doubt, the above criterion applies to doors, lids, hatches, valves.

When suspended, the lift must be level in both axes, <3% of length/breadth (equivalent to 6" in 20', 18" in 50').

Once the load checker is satisfied that the cargo is packaged properly and safe and secure for shipment, the Load Checker shall remove the remaining tab from the Cargo Tag and arrange loading for onward transportation.

3.4.3 Completing the Cargo Summary Ticket (CST)

A copy of the Cargo Summary Ticket can be viewed at Appendix 10.1.

The Cargo Summary Ticket provides a means for vendors to consign their cargo and shall accompany the consignment for its onward journey. It is the responsibility of the load checker to complete and sign off the Cargo Summary Ticket prior to dispatching the cargo on to the road.

All Cargo arriving quayside for onward transportation shall be pre-notified. Each Operator and Logistics Provider has specific requirements for doing this. Guidance should be sought on the process steps to be undertaken prior to dispatch from the Vendor's premises.

Specific requirements exist for the pre-notification of dangerous goods (class 1 and class 7 in particular). These requirements can be viewed in Dangerous Goods Section 7.

Please note that the Cargo Summary Ticket has been updated to remove the legacy 17-point check list. This is replaced with the contents of this document coupled with a sign off by the load checker prior to dispatch.

3.4.4 Cargo Dispatch Pocket Card

Figure 12: Cargo Dispatch Pocket Card - Front

VENDOR PREMISES DISPATCH POCKET CARD
Employing Companies have a duty to ensure personnel are trained and deemed competent to carry out these checks
Confirm CCU / Load is free of any obvious damage
Confirm CCU has >30 days certification
Confirm CCU / Load has no potential Dropped Objects
Confirm CCU Forklift Pockets are clear
Confirm shackles have split pins fitted / secured
Confirm lifting equipment is free from obvious damage and any snagging hazards
Confirm destination labels are visible on the unit
Confirm a "Snagging Hazard" pennant is fitted (where applicable)
Further Info is available within [INSERT NEW NAME OF GUIDANCE]

Figure 13: Cargo Dispatch Pocket Card - Back

VENDOR PREMISES DISPATCH POCKET CARD
Employing Companies have a duty to ensure personnel are trained and deemed competent to carry out these checks
Confirm DG labels are visible on all four sides (where applicable)
Confirm Tarpaulin / Cargo Net is secure (where applicable)
Confirm doors, locks and seals are free of any obvious damage (where applicable)
Confirm door securing mechanisms are fully engaged and secondary securing is fitted (where applicable)
Confirm access panel securing mechanisms are correctly engaged and have secondary securing fitted (where applicable)
Confirm all Valves are closed and have secondary securing fitted (where applicable)
Confirm the CCU / Load lifts evenly on both horizontal axis
Complete Green section of Transport Tag and remove tab
Further Info is available within [INSERT NEW NAME OF GUIDANCE]

3.5 Road Transportation

Personnel transporting cargo have specific requirements to follow Department for Transport regulations and guidance. The below is intended to summarise and supplement the legislation.

Personnel responsible for Road Transportation shall ensure the following:

- A 360 degree walk around the load ensuring the below point have been addressed
- A manifest pack has been produced by the vendor and includes a delivery note, MSDS and Dangerous Goods paperwork (where applicable) and any accompanying certification
- Securing devices are available and certified for use
- Driver is aware of any rated capacity limit to be taken into consideration when calculating the number and type of any load securing equipment
- Vehicle can transport the item (there is sufficient room on the vehicle and vehicle can transport the goods without exceeding any limit either in gross or specific axle weights)

- Sufficient information, instruction, training is available to correctly identify calculate and apply suitable and sufficient load securing devices and any additional control methods required to ensure the safety of the item and other road users
- A vendor representative is identified upon arrival and available to rectify any issues with the load
- Load is secured to the legal requirements as a minimum (100% forward 50% to the rear and the sides and 20% downward)
- Straps and chains are not used in combination to secure a single load item
- Any weight restrictions in place are not exceeded (gross or axle)
- A check for potential dropped object's is undertaken
- Fifth legs on CCUs are secured
- The load securing devices continue to be effective at regular intervals throughout the journey
- The height of the load is displayed inside the cab and referred to throughout the journey

3.5.1 Abnormal Load

Abnormal loads are ever present in our Industry. The below is included for reference. All cargo classified as “abnormal” must be discussed with your transport company/haulier at the earlier opportunity to avoid delay.

Table 7: Abnormal Load Chart

Abnormal Load Chart

Width						
Width (m)	Width (ft)	Notify Police	2nd Man	Days Notice	Police Escort	Relevant Information and Notifications
3	9' 10"	Yes	No	1	No	
3.51	11' 6"	Yes	Yes	1	No	
4	13' 2"	Yes	Yes	2	Yes	Required through Aberdeen
4.1	13' 6"	Yes	Yes	2	Yes	
4.3	14' 2"	Yes	Yes	2	Yes	All Grampian
4.45	14' 6"	Yes	Yes	2	Self/Police	Self/Police escort on: A90 between Aberdeen & Tayside A96 between Aberdeen & Balmedie A96 Aberdeen & Inverurie
5.00 to 6.096	16' 5" to 20'	Yes	Yes	14 days	Yes	VR1 Required: From Scottish Executive Development Department
6.096	20'	Yes	Yes	6-8 weeks	Yes	Special Order Required
Length						
Length (m)	Length (ft)	Notify Police	2nd Man	Days Notice	Police Escort	Relevant Information and Notifications
18.3	60'	Yes	No	1	No	STGO - Rigid/Trailer & or Projections
18.75	61' 6"	Yes	Yes	1	No	C&U Regs - Rigid & Load or Semi-trailer & Load
25.9	85'	Yes	Yes	2	Yes	All Grampian - Except A90 between Aberdeen & Tayside
30	99' 6"	Yes	Yes	6-8 weeks	Yes	Special Order Required
30.48	100'	Yes	Yes	6-8 weeks	Yes	Special Order Required
Height						
Height (m)	Height (ft)	Notify Police	2nd Man	Days Notice	Police Escort	Relevant Information and Notifications
5.03	16' 6"	Yes	Yes		No	If overhead lines require adjusted or over 5.03m advise SDD Hauliers shall survey route and advise the relevant Utility Service
Weight						
Weight (Tonnes)	Weight (tons)	Notify Police	2nd Man	Days Notice	Police Escort	Relevant Information and Notifications
40	39.3	No	No	2	No	(C&U) Regs 4 axle rigid / 5 axle artic combination
41-44	40.33-43.3	No	No	2	No	(C&U) Regs must be at least 6 axle combination
44-46	43.3 - 45.2	No	No	2	No	(STGO) Category 1 - sign boards
46-80	45.2 - 73.7	No	No	2	No*	*escort only if exceptionally slow moving (STGO) Category 2 - sign boards
80-100	73.7 - 98.4	Yes	No	2	Yes*	*escort only if exceptionally slow moving (STGO) Category 2 - sign boards
80-150	73.7 - 147.6	Yes	No	10-14 days	Yes**	**escort over 100 tonnes only
150	147.6	Yes	No	6-8 weeks	Yes	**escort over 100 tonnes only At all times. Special Order 0131-244-4363 (STGO) Category 3 - sign boards
Notes and Contacts						
Contacts			Telephone		Comments	
BT			01604 255 269			
Hydro Electric			0800 300 000		Ask for Supply Restoration	
Scottish Executive Development Department			0131 244 4369			
Police Scotland Abnormal Loads and Recovery			01592 418 859		OSDAbnormalLoadsScotland@scotland.pnn.police.uk	
Escortable abnormal loads will not be moved during: hours of darkness, poor visibility or rush hour traffic. Nor will they be moved without Police Permission Notifications Leadtime: Escortable - 2 Days, Non-Escortable 1 Day						

3.5.2 Securing Loads

The method of securing the cargo on the vehicle will depend on the load being carried. When containers are being transported on UK roads the following factors shall be taken into consideration:

- Twist locks are the preferred means of securing the items.
- Where twist locks are not used, a minimum of two restraints per item must be used. The driver should use the information provided on the label of the securing device when calculating the number required. Haulage Contractor may apply an additional securing restraint to a unit that encroaches within the last 3ft of the trailer.

Empty Cargo Carrying Units (CCUs) specifically designed for the purpose may be stacked for road transport when compatible. Attention is drawn to the possibility that units that appear similar may not be compatible, and due care should be taken. Where CCUs are not designed to be stacked but nevertheless require road transportation in a stacked manner, a Risk Assessment must be performed which should include, but is not limited to: The company stacking the CCU's will be responsible for ensuring they are suitable to stack (not the haulier)

- the CCU is empty
- no metal-to-metal contact exists
- where applicable, dunnage is used
- additional restraints are added as agreed with the haulier
- where necessary, trailer stanchion pins are fitted

Lashing material will depend on the weight to be secured. Polyester cargo restraints will be sufficient for most of the cargo, but extremely heavy loads may have to be secured using high tensile chains and ratchet style load binders. (Never substitute a webbing sling for a chain or chain for a webbing sling due to the differences in elongation whilst under load).

3.5.3 Quayside Contractor Requirements

Logistics service providers are responsible for the safety of all on site personnel and cargo during quayside operations, and for the safe loading or discharge of vessels whilst in port.

During loading or discharge of cargo the Quayside Contractor Representative, in conjunction with the Driver, agrees the location of the Safe Haven and the Driver remains there until the operation is completed.

3.5.4 Road Transportation Pocket Card

Figure 14: Road Transport Pocket Card - Front

ROAD TRANSPORT POCKET CARD
Cargo Checks to be carried out by competent person insert some more words RE expectations
Driver is standing in safe area whilst truck is being loaded
Twist locks have been used wherever possible
The load is secured to the legal requirement
Any securing equipment used has been inspected, is fit for purpose and free from damage
Straps and chains are not used in combination to secure a single load item
Weight restrictions in place are not exceeded (gross or axel)
A 360 degree check of load has been carried out after loading
Any potential dropped objects have been identified and removed
If Dangerous Goods are present, the driver has adequate certification and has carried out all obligations of ADR
Further information on transport requirements can be viewed in the Department for Transports publication - Code of Practice, Safety of Loads on Vehicles
Further Info is available within [INSERT NEW NAME OF GUIDANCE]

Figure 15: Road Transport Pocket Card - Back

ROAD TRANSPORT POCKET CARD					
Width (m)	Width (ft)	Notify Police	2nd Man	Days Notice	Police Escort
3	9' 10"	Yes	No	1	No
3.51	11' 6"	Yes	Yes	1	No
4	13' 2"	Yes	Yes	2	Yes
4.1	13' 6"	Yes	Yes	2	Yes
4.3	14' 2"	Yes	Yes	2	Yes
4.45	14' 6"	Yes	Yes	2	Self/Police
5.00 to 6.096	16' 5" to 20'	Yes	Yes	14 days	Yes
6.096	20'	Yes	Yes	6-8 weeks	Yes
Length (m)	Length (ft)	Notify Police	2nd Man	Days Notice	Police Escort
18.3	60'	Yes	No	1	No
18.75	61' 6"	Yes	Yes	1	No
25.9	85'	Yes	Yes	2	Yes
30	99' 6"	Yes	Yes	6-8 weeks	Yes
30.48	100'	Yes	Yes	6-8 weeks	Yes
Height (m)	Height (ft)	Notify Police	2nd Man	Days Notice	Police Escort
5.03	16' 6"	Yes	Yes		No
Weight (Tonnes)	Weight (tons)	Notify Police	2nd Man	Days Notice	Police Escort
40	39.3	No	No	2	No
41-44	40.33-43.3	No	No	2	No
44-46	43.3 - 45.2	No	No	2	No
46-80	45.2 - 73.7	No	No	2	No*
80-100	73.7 - 98.4	Yes	No	2	Yes*
80-150	73.7 - 147.6	Yes	No	10-14 days	Yes**
150	147.6	Yes	No	6-8 weeks	Yes

3.5.5 Quayside Contractor

The quayside Contractor is responsible for ensuring that all cargo coming on site is safely inspected and any hazards are removed prior to offload. The below outlines the requirements.

3.5.6 Gantry Inspection

On receipt of cargo and prior to it being transferred to the quayside for loading onto a supply vessel, the Cargo Inspector shall carry out a Pre-shipment Inspection to ensure that it is secured properly, there are no visible dropped objects or snag hazards, and the integrity of the CCU / Load and Lifting Set are satisfactory. Should the cargo be non-conforming, the offending load shall be quarantined until resolved.

Personnel responsible for the following where practically possible:

- A view of the load on various levels as it arrives for gantry inspection
- Cargo Tag is affixed, and preceding sections have been completed (where visible)
- CCU number matches manifest, certification and documentation
- Dangerous Goods placarding is affixed and matches manifested description
- Split pins have been fitted to shackles
- There is no obvious damage to CCU
- Open CCU's have tarpaulin or net installed
- Check has been completed for potential dropped objects
- Check that lifting sets are protected from potential snagging points
- Where accessible confirm Cargo is secure within the CCU
- Ensure Product Labels are affixed to Tanks (where applicable)
- Heavy Lift Pennant has been attached (where applicable)
- All sections of CST have been completed

Figure 16: Gantry Pocket Card - Front

QUAYSIDE ARRIVALS POCKET CARD
Employing Companies have a duty to ensure personnel are trained and deemed competent to carry out these checks
Confirm Transport Tag is fitted and all sections are complete
Confirm CCU / Load is free of any obvious damage
Confirm CCU / Load is free from excess corrosion
Confirm CCU has >30 days certification
Confirm CCU / Load has no potential Dropped Objects
Confirm CCU Forklift Pockets are clear
Confirm shackles have split pins fitted / secured
Confirm lifting equipment is free from obvious damage and any snagging hazards
Further Info is available within [INSERT NEW NAME OF GUIDANCE]

Figure 17: Gantry Pocket Card - Back

QUAYSIDE ARRIVALS POCKET CARD
Employing Companies have a duty to ensure personnel are trained and deemed competent to carry out these checks
Confirm destination labels are visible on CCU / Load
Confirm a "Snagging Hazard" pennant is fitted (where applicable)
Confirm DG labels are visible on all four sides (where applicable)
Confirm Tarpaulin / Cargo Net is secure (where applicable)
Confirm doors, locks and seals are free of any obvious damage (where applicable)
Confirm door securing mechanisms are fully engaged and secondary securing is fitted (where applicable)
Confirm access panel securing mechanisms are correctly engaged and have secondary securing fitted (where applicable)
Confirm all Valves are closed and have secondary securing fitted (where applicable)
Further Info is available within [INSERT NEW NAME OF GUIDANCE]

3.5.7 Cargo Non-Conformance

Cargo non-conformances shall be managed and reported by the gantry inspector and recorded in Logistics Contractor systems. It is the Logistics Contractors responsibility to report these non-conformances to the offenders and via the Operators requesting the shipment of the cargo. Trending results will develop a continuous improvement culture throughout the supply chain and ultimately improve safety performance.

3.5.8 Goods Receipting and Final Inspection

Operator specific requirements exist for assimilation in Company or Contractor systems. Ensure you are aware of the specific process steps to be completed prior to loading cargo for Offshore Transportation.

3.5.9 Quayside Load Handler

This step is performed by the quayside banksman slinger as the lift is being prepared for loading on to the vessel. This is the last step in the process prior to the materials arriving offshore.

Personnel responsible for the following:

- A 360 degree walk around the load ensuring the below point have been addressed
- Final check of locking and secondary securing mechanisms has been conducted
- Ensure lifts are free from potential dropped objects and the forklift pockets have been checked
- CCU number matches manifest, certification and documentation
- Dangerous Goods placarding is affixed and matches the load list provided by shipping
- When suspended, the lift must be level in both axes, <3% of length/breadth (equivalent to 6" in 20', 18" in 50')
- The total weight does not exceed the maximum gross weight of the CCU

3.5.10 Quayside Load Handler Pocket Card

Figure 18: Quayside Load Handler Pocket Card - Front

QUAYSIDE DISPATCH POCKET CARD
Employing Companies have a duty to ensure personnel are trained and deemed competent to carry out these checks
Confirm CCU / Load is free of any obvious damage
Confirm CCU has >30 days certification
Confirm CCU has no potential Dropped Objects
Confirm CCU / Load Forklift Pockets are clear
Confirm shackles have split pins fitted / secured
Confirm lifting equipment is fitted correctly, not twisted, free from obvious damage and any snagging hazards
Confirm doors, locks and seals are free of any obvious damage (where applicable)
Confirm a "Snagging Hazard" pennant is fitted (where applicable)
Further info is available within [INSERT NEW NAME OF GUIDANCE]

Figure 19: Quayside Load Handler Pocket Card - Back

QUAYSIDE DISPATCH POCKET CARD
Employing Companies have a duty to ensure personnel are trained and deemed competent to carry out these checks
Confirm dangerous goods cargo is documented and unit is correctly placarded on all four sides (where applicable)
Confirm chemical tanks have a product label affixed (where applicable)
Confirm destination labels affixed (where applicable)
Confirm CCU / Load has been checked for potential dropped objects
Confirm actual weight does not exceed allowable MGW
Confirm heavy lift pennant is fitted to cargo equal to or greater than 7 Tonnes
Confirm Tubulars are slung correctly and bull-dog clamps are fitted
Confirm the CCU / Load lifts evenly on both horizontal axis
Further Info is available within [INSERT NEW NAME OF GUIDANCE]

3.6 Vessel Loading

Whilst planning stowage arrangements, Quayside Contractors in conjunction with the supply vessel crew should consider the potential for CCUs to snag on vessel structures. All attempts should be made to ensure that CCU's which are narrow enough to fit into a vessel safe haven are stowed away from the vessel safe havens. Also, ensure that small cargo is stowed away from tall cargo as they have the potential to snag on the tall cargo when being lifted. This requires a safe system of work to be developed which facilitates close communication between the Shore Base service provider, quayside personnel and the vessel crews.

Good practice has also shown that loading of CCUs onto Offshore Support Vessels with doors facing inboard greatly reduces the likelihood of door handle mechanisms snagging and unlocking. This practice also affords the vessel crew an opportunity to ensure that the door handle mechanism and securing is in place prior to connecting to the crane for lifting.

Prior to loading individual tubular cargo, bedding rope must be placed at appropriate positions on the vessels intended loading area. The minimum of two certified securing arrangements must be placed at equal distance approximately 25% from the ends of the intended stow. The length and/or height of securing arrangements must be sufficient to ensure that the entire tubular stow is secured. The use of tubular handling systems is considered best practice. There

are several systems available on the market. Close collaboration on selection and use is recommended with your Logistics Contractor.

Smaller individual joints or pup joints that cannot be stowed between securing arrangements and are less than 60% overall length of average joint, must be secured as a separate item or shipped in cargo baskets.

Specifically, for vessel loading, only tubulars of the same diameter are to be stowed together and wherever possible should be of similar length to ensure the tubulars are properly secured and positioned between the securing arrangements.

Should any lifts be marked as having a snagging hazard, then the Logistics Contractor shall ensure these have been discussed with the vessel captain/delegate prior to the deck plan being finalised.

3.7 Inbound Cargo Specifics

Materials Controllers and Deck Crew must ensure all the requirements are met matching the requirements for outbound Cargo. This should be achieved by following the pocket cards available within each section.

The process of returning cargo shall mirror the process for outgoing cargo. The value of the cargo may have changed but the associated hazards have not.

There are a few exceptions to this, and they are outlined below:

3.7.1 Inbound Cargo Certification

The requirement for 30 days minimum certification does not apply. The process of selection shall ensure that the required CCU is still in date.

There is no requirement for physical documentation to accompany the CCU or the accessories onshore, but the Consigner must ensure that there is a system / process that can verify the equipment is certified for use unless the CCU, or accompanying accessories, have been examined specifically for the purposes of return to beach.

3.7.2 Cargo Certification Expiry whilst Unit(s) Offshore

Owners and users of CCUs and similar equipment should ensure that precautions are taken to prevent the validity of the unit expiring whilst in use. However, circumstances do occur when, for a variety of reasons, certification may expire while cargo is still onboard. This leaves the Consignee with only two options:

Option 1 (Undamaged Cargo suitable for Recertification):

A suitably qualified competent person must be mobilised to inspect the item(s). Recommendations made by this competent person as conditions of transporting the item(s) onshore and onward to any destination must be complied with.

Extract from EN12079 - Competent Person Definition:

With respect to containers the inspector should have as a minimum, a knowledge and adequate practical experience of:

- Recommended Knowledge and Experience for Staff Responsible for the Inspection of Offshore Containers and Lifting Sets
- The statutory requirements related to offshore containers
- The provisions of the relevant container standard
- The various types of offshore containers in service
- The correct method of slinging and handling offshore containers
- The load stresses/strains affecting containers when handled in adverse offshore conditions, particularly those affecting lifting points
- Methods of testing containers
- Defects likely to be found in containers and acceptable levels of wear, distortion, and determination in relation to the safe use
- Weld methods procedures, methods, and qualifications of welders
- The various methods to non-destructive examinations (NDE) and a good understand of how they work and their limitations
- The visual inspection as required by this standard and the signs of weakness and defects to look for
- Recommended Knowledge and Experience for Staff Responsible for the Inspection of Lifting Sets

Option 2 (Damaged Cargo unsuitable for Recertification):

Place the damaged Cargo inside a suitably rated CCU for onshore transportation to Consignee

Regardless of the Option chosen, an inspection report including any limitations of use (where applicable) must accompany the item(s) to the end destination.

3.8 Airside Specifics

The primary route for the carriage of goods to and from offshore installations is by sea. By exception, due to operational circumstances, it may be necessary to transfer goods by air. Due to the limitations on payload and space, authorisation must be sought via the Operator aviation team prior dispatch of freight.

Each Operator has in-house processes to follow in the consignment of air freight.

In line with the helicopter operator procedures and The Department for Transport (DfT) guidelines, all freight being shipped offshore via helicopter is required to be classified as “known cargo” and must be accompanied by a correctly completed Cargo Security Certification (CSC).

- Freight can only be classified as “known” after it has undergone x-ray screening or hand-search procedures by DfT level 1 or 2 trained personnel and is securely segregated, stored and transported in line with DfT regulations.
- The CSC declares the method of security screening that has been applied to the freight and needs to be completed by the person carrying out the security search. Cargo which is not accepted will be rejected prior to mobilisation.

Generally, consignment shall be presented with the below points in mind:

- The product should be securely and correctly packaged ensuring polystyrene chip packaging, other loose packaging and hessian sacks are not used. These items have the tendency to get picked up by winds/down draught leading to risk of being sucked into machinery. Bubble wrap or foam lined transit cases are good alternatives
- Items over 25Kg (55Lbs) shall be discussed with the aviation team and fully risk assessed prior to loading.
- Items over 11Kg (24Lbs) shall be marked as “HEAVY”
- All sharp and protruding objects should be removed
- Delivery paperwork shall accompany the goods
- Dangerous goods, including lithium batteries, shall be consigned in accordance with the IATA regulations
- Consideration is given to how offshore will manually handle the items. Heli-lifters are considered a good lifting aid in support of these activities

Please note that some helicopter Operators may restrict simultaneous carriage of passengers and cabin freight in the same aircraft

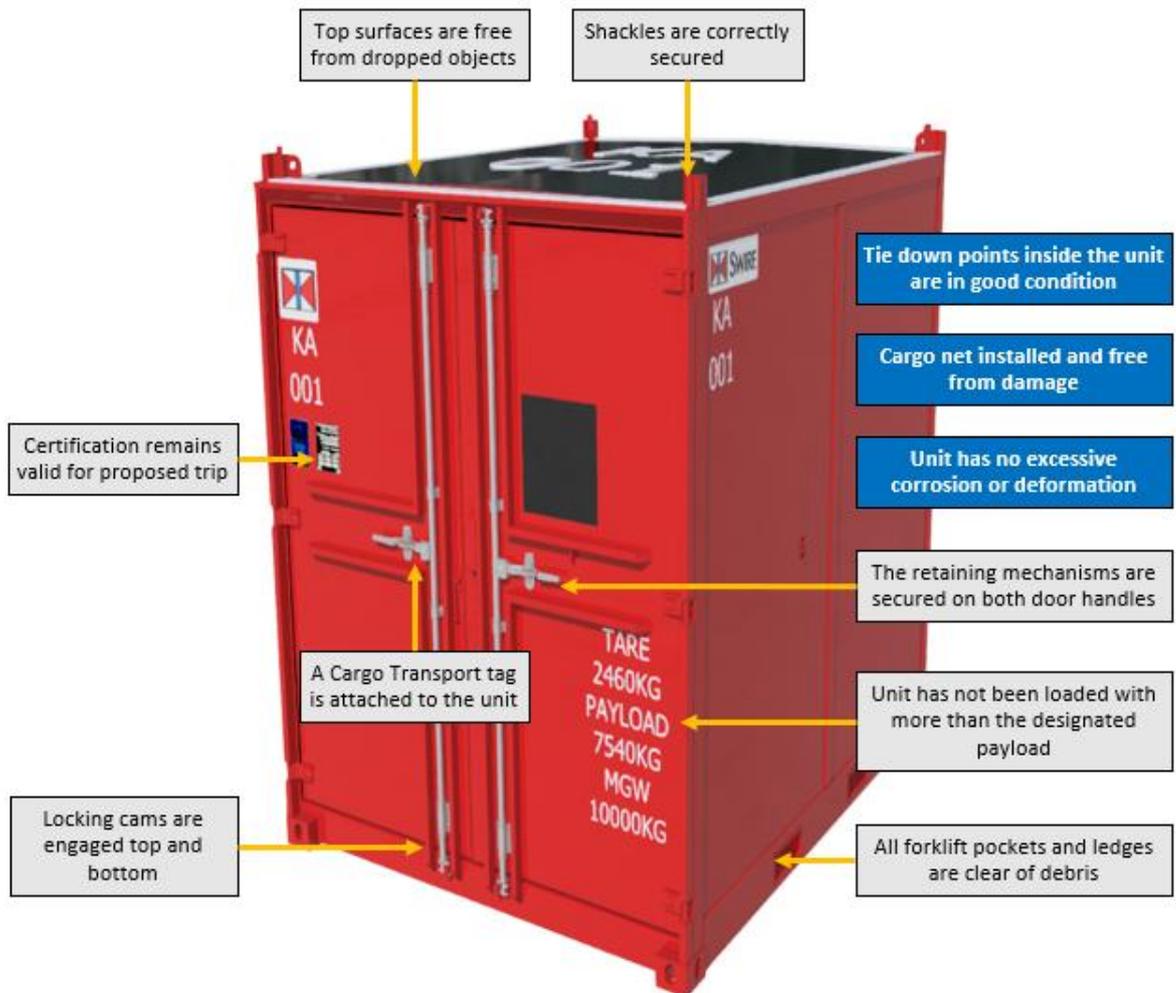
3.9 Cargo Checks – Pocket Lists

Where Cargo is identified as Dangerous Goods, section **xx** of this document must be referenced and followed in addition to this section.

3.9.1 Closed Container

Figure 20: Closed Container

Competent person shall ensure:

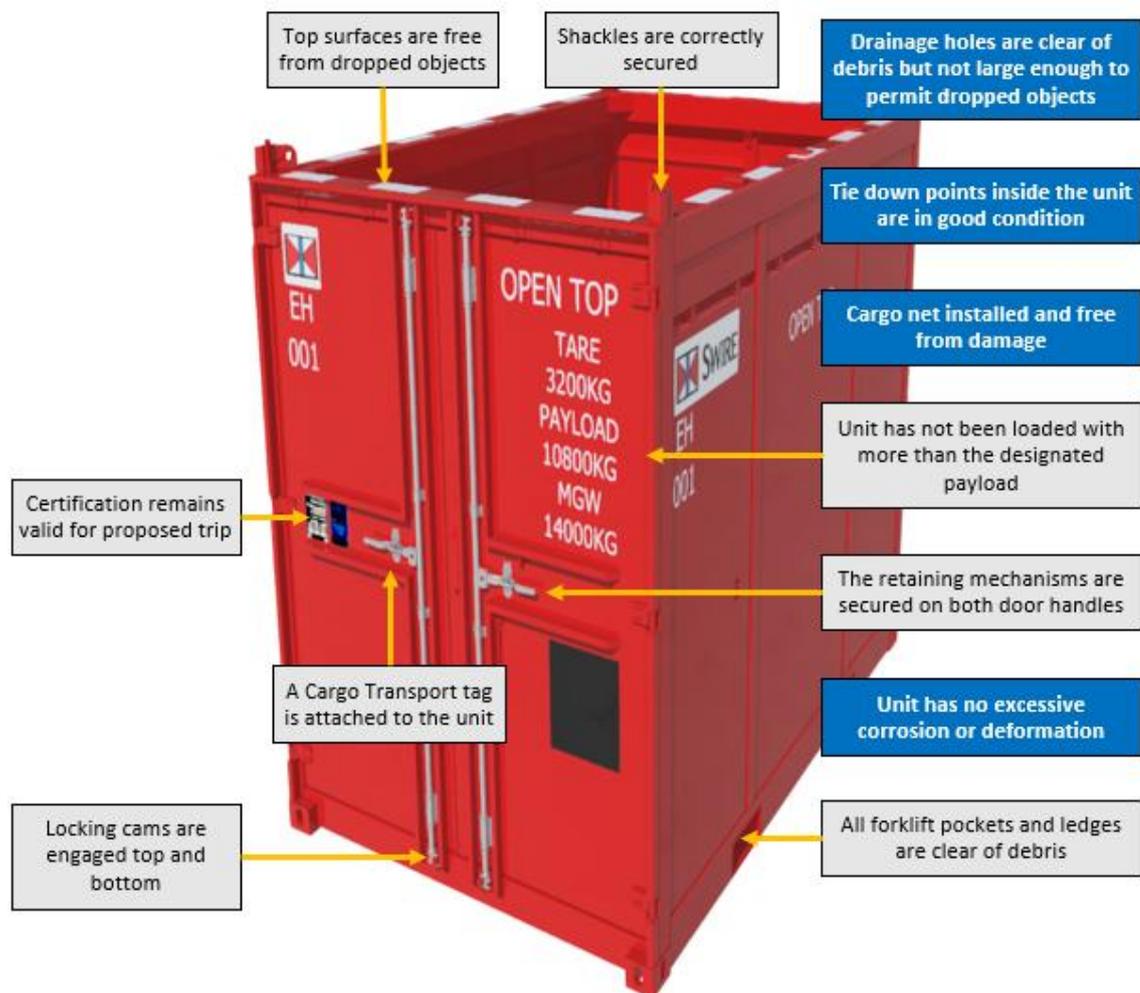


3.9.2 Open Top/Half Height Container

Figure 21: Half-height Container

Competent person shall ensure:

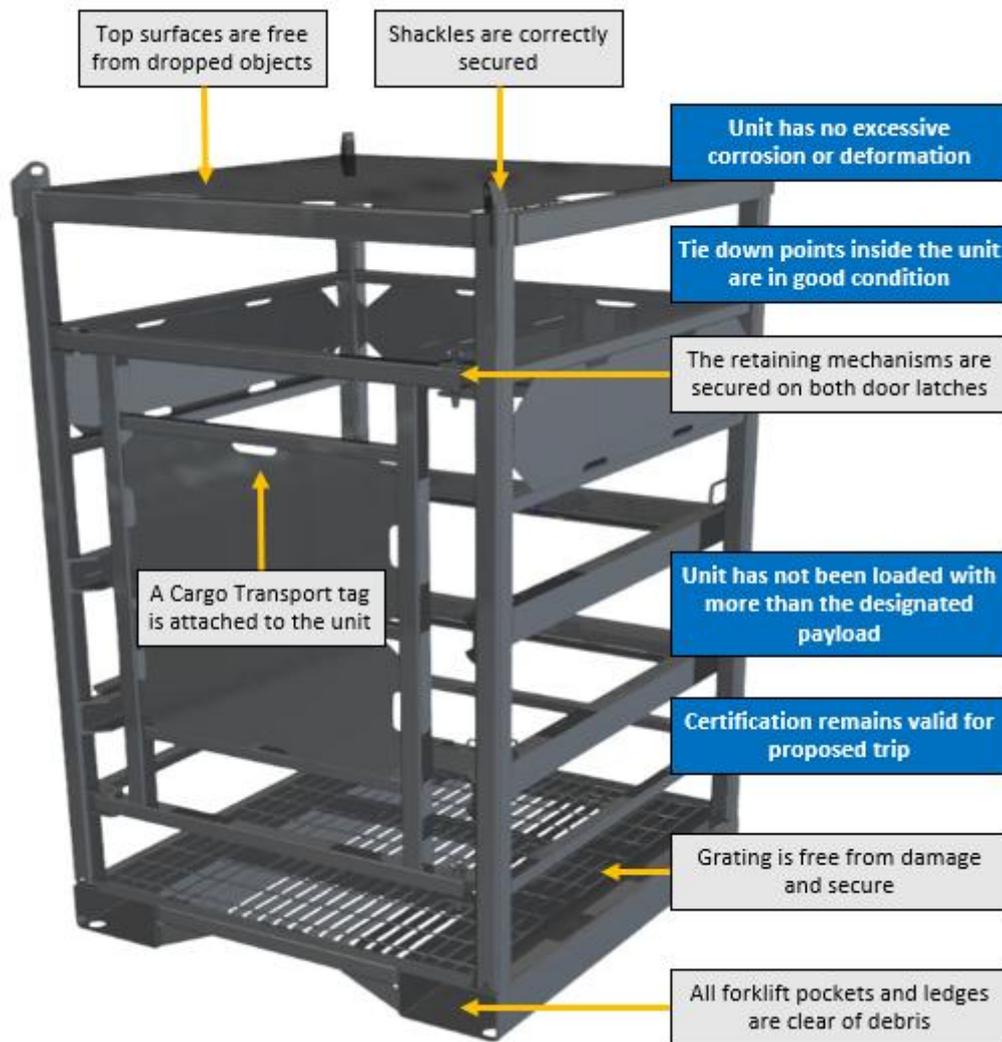
Life rafts are now shipped in open top units, contradictory to the dangerous goods legislation. When this document was first published in 2001, dispensation from the HSE was received for this practice.



3.9.3 Gas Rack

Figure 22: Gas Rack

Competent person shall ensure:



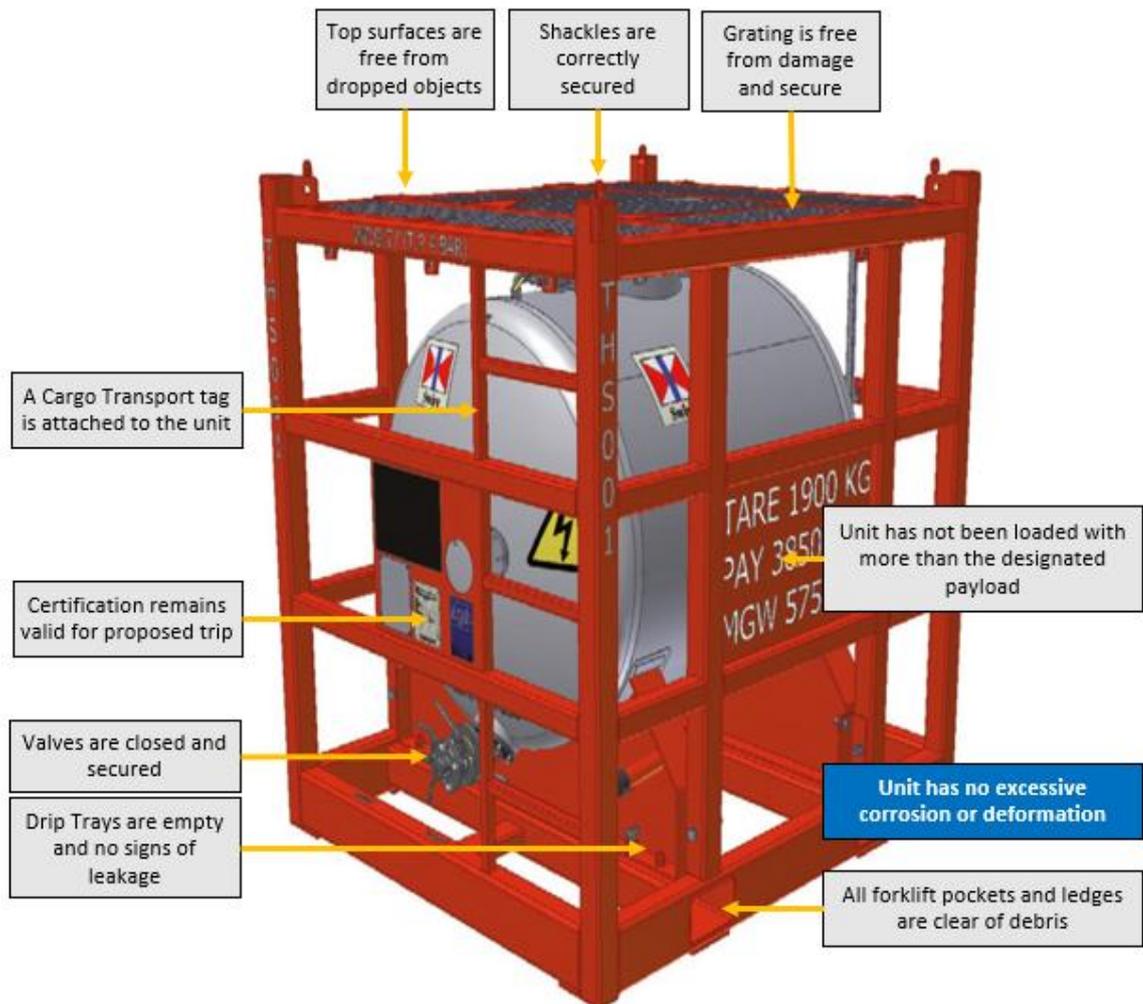
Additional points to note:

- Gas rack should not contain mixed bottle types
- All gas bottles shall be fitted with valve protectors

3.9.4 Portable Tank

Figure 23: Portable Tank

Competent person shall ensure:



Additional points to note:

- Tanks can differ in shape, size, and application
- Vents, valves, hatches, and ladders may be situated on different parts of the tank
- Double checks for potential dropped objects are recommended

3.9.5 Skip

Figure 24: Skip

Competent person shall ensure:



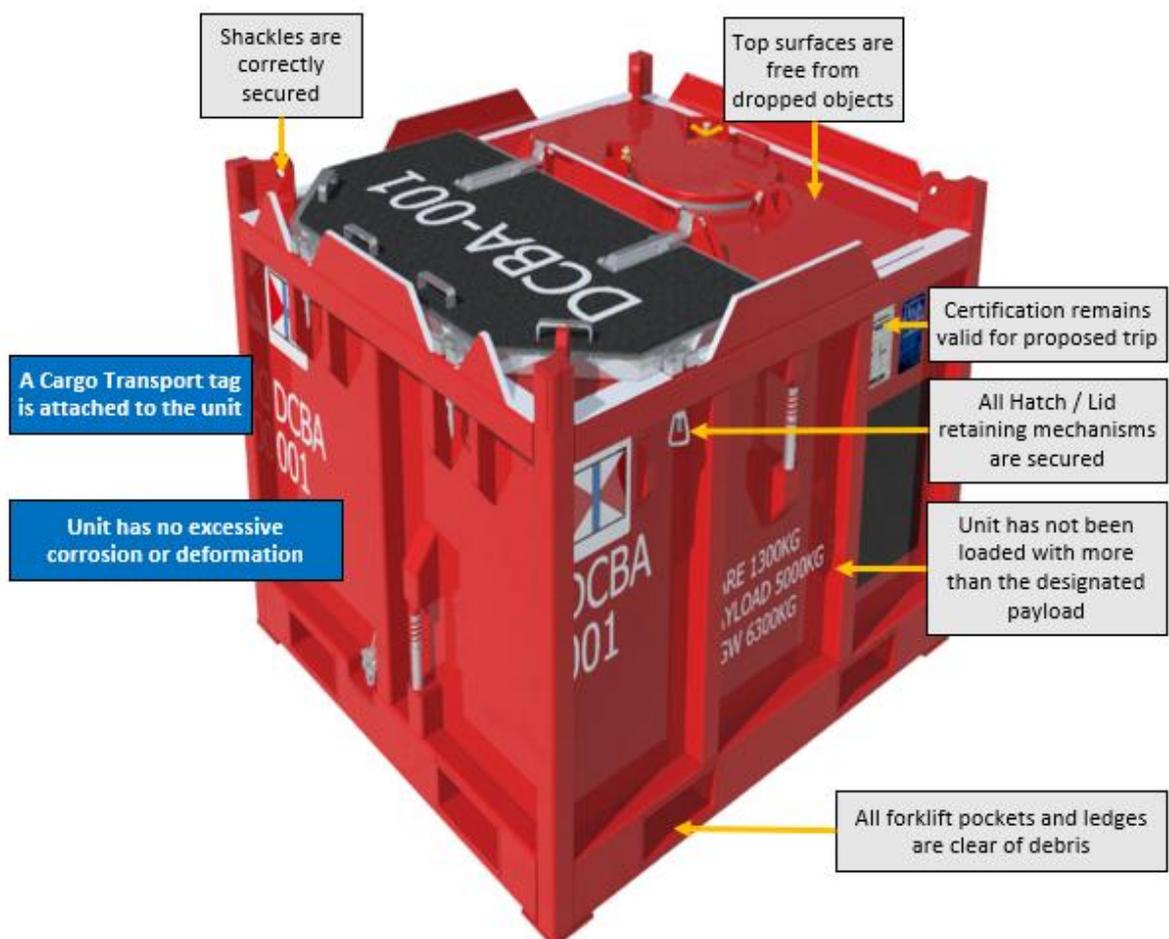
Additional points to note:

- Units can be stacked on transport when empty and compatible
- Can be used for waste and cargo

3.9.6 Mud Skip/Cuttings Bin

Figure 25: Mud Skip/Cuttings Bin

Competent person shall ensure:



Additional points to note:

- Units can be stacked on transport when empty and confirmed as suitable for stacking by the Equipment Owner

3.9.7 Compactor

Figure 26: Compactor

Competent person shall ensure:



4 Carriage of dangerous goods (introduction)

The regulations which govern the transport of dangerous goods come from the United Nations (UN) and member countries are obliged to comply. These rules: particularly for air and sea, are well established and applicable in all parts of the world.

For road and rail, the rules, although traceable to the UN, are regional and reflect regional and individual country concerns. They are all brought into force in the United Kingdom by Statutory Instruments.

The object of these rules is to ensure the safety of persons, property and the environment during transport whilst facilitating the free movement of dangerous goods. At the heart of achieving this is the adoption of the principle that compliance and implementation equals safety. Other operational rules must not compete or conflict with the dangerous goods rules.

4.1 Legislative Requirements

International Maritime Organisation Dangerous Goods Code (IMDG) – International Maritime Dangerous Goods Code (Amendment 39 Volume 1 and Volume 2)

International Air Transport Association (IATA) – Dangerous Goods Regulations (Edition 60)

Agreement of Dangerous Goods by Road (ADR) – www.adrbook.com (2017)

4.2 Training

Companies which are involved in the transport of dangerous goods must ensure that any person who has a part to play in implementing these obligations receives appropriate training. All training must cover three areas: general awareness, function specific and safety elements. Some of the training companies, materials, instructors, and examinations require specific accreditation not just industry approval. Such training is to be provided before assuming the responsibility of participating in the transport of dangerous goods. It is mandatory that refresher training is conducted every 2 years for IATA and IMDG requirements.

See sections: IATA 1.5.0.3 and IMDG 1.3.1.1.

4.2.1 ADR Recommended Training

Persons whose duties concern the carriage of dangerous goods by road shall have received training in the requirements governing the carriage of such goods appropriate to their responsibilities and duties according to Chapter 1.3 of the ADR regulations. This requirement shall apply to individuals such as personnel who are employed by the road vehicle operator or the consignor, personnel who load or unload dangerous goods, personnel in freight forwarding or shipping agencies and drivers of vehicles other than drivers holding a certificate in accordance with 8.2.1 of the ADR regulations, involved in the carriage of dangerous goods by road.

4.2.3 IATA Recommended Training

Table 9: IATA Recommended Training

Aspects of transport of dangerous goods by air with which they should be familiar, as a minimum	Shippers and packers		Freight forwarders			Operators and ground handling agents						Security screeners
	1	2	3	4	5	6	7	8	9	10	11	12
General philosophy	X	X	X	X	X	X	X	X	X	X	X	X
Limitations	X		X	X		X	X		X	X	X	X
General requirements for shippers	X		X			X						
Classification	X	X	X			X						
List of dangerous goods	X	X	X			X				X		
General packing requirements	X	X	X			X						
Packing instructions	X	X	X			X						
Labelling and marking	X	X	X	X	X	X	X	X	X	X	X	X
Shipper's Declaration and other relevant documentation	X		X	X		X	X					
Acceptance procedures						X						
Recognition of Undeclared Dangerous Goods	X	X	X	X	X	X	X	X	X	X	X	X
Storage and loading procedures					X	X		X		X		
Pilots' notification						X		X		X		
Provisions for passengers and crew	X	X	X	X	X	X	X	X	X	X	X	X
Emergency procedures	X	X	X	X	X	X	X	X	X	X	X	X

KEY

1. Shippers and persons undertaking the responsibilities of shippers', including operator's staff acting as shippers, operators staff preparing dangerous goods as Company Materials (COMAT)
2. Packers
3. Staff of freight forwarders involved in processing dangerous goods
4. Staff of freight forwarders involved in processing cargo (other than dangerous goods)
5. Staff of freight forwarders involved in the handling, storage and loading of cargo
6. Operator's and ground handling agent's staff accepting dangerous goods
7. Operator's and ground handling agent's staff accepting cargo (other than dangerous goods)
8. Operator's and ground handling agent's staff responsible for the handling, storage and loading of cargo and baggage
9. Passenger handling staff
10. Flight crew members and load planners
11. Crew members (other than flight crew members)
12. Security staff who deal with the screening of passengers and their baggage and cargo

IATA Additional Information

Additional information on training requirements can be found in Section 1.5 of the IATA Dangerous Goods Regulations.

4.3 Identification and Classification

All articles or substances considered as dangerous goods must be identified, classified, and assigned to one of the Proper Shipping Names (PSN) used in the transport of dangerous goods. This information can be found in one of the 3 documents listed in 8.1 of this section.

Within these regulations you can also find information such as the UN number and how the consignment should be packed and labelled with accompanying dangerous goods declaration requirements. These requirements will differ depending on the mode of transport being used.

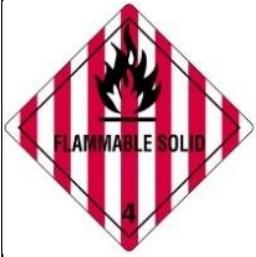
To identify if an item is classified as dangerous goods, first consult section 14 of the Material Safety Data Sheet (MSDS). Where possible, the most up to date copy of the MSDS should be provided. Here you will find key information, including the UN number, classification and

packing groups requirements specific to each method of transportation (road, sea and air). If at any point you are unsure of the requirements, stop and consult a trained dangerous goods professional.

Dangerous goods are split into 9 classifications as shown below. They are further sub divided depending on the hazard presented.

Table 10: Dangerous Goods Classification

	<p>Class 1 – Explosives</p> <p>**Division will be listed</p> <p>*Compatibility group will be listed</p>
	<p>Class 2.1 – Flammable Gases</p>
	<p>Class 2.2 – Non-Flammable, Non-Toxic Gases</p>
	<p>Class 2.3 – Toxic Gases</p>

	<p>Class 3 – Flammable Liquids</p>
	<p>Class 4.1 – Flammable Solids</p>
	<p>Class 4.2 – Spontaneously Combustible</p>
	<p>Class 4.3 – Dangerous When Wet</p>
	<p>Class 5.1 – Oxidizing Substances</p>

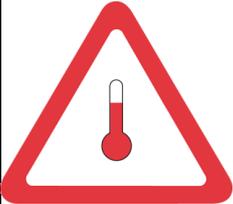
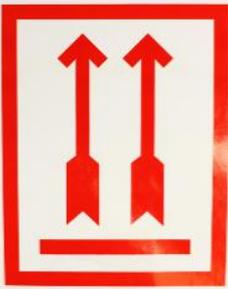
	<p>Class 5.2 – Organic Peroxides</p>
	<p>Class 6.1 – Toxic Substances</p>
	<p>Class 6.2 – Infectious Substances</p>
	<p>Class 7, Category I – Radioactive Materials</p>
	<p>Class 7, Category II – Radioactive Materials</p>

	<p>Class 7, Category III – Radioactive Materials</p>
	<p>Class 7, Fissile Material – Radioactive Materials</p>
	<p>Class 8 – Corrosives Substances</p>
	<p>Class 9 – Miscellaneous Dangerous Substances and Articles, Including Environmentally Hazardous Substances</p>
	<p>Class 9 - Miscellaneous Dangerous Substances and Articles, Including Environmentally Hazardous Substances (Lithium Batteries)</p>

Other common labels are shown below:

Table 11: Further Common Labels

PLACARD	DESCRIPTION
	<p>Environmentally Hazardous Substance (Marine Pollutant). Used where >5L or >5Kg only</p>
	<p>Limited Quantities</p>
	<p>Excepted Quantities</p>
	<p>Lithium Batteries</p>

	<p>Magnetised Material</p>
	<p>Cargo Aircraft Only</p>
	<p>Radioactive Material, Excepted Package</p>
	<p>Elevated Temperature</p>
	<p>Package Orientation Marker</p>

4.4 Placarding / Labelling

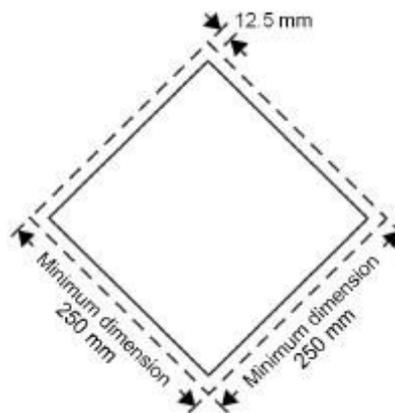
4.4.1 IMDG

For CCUs (including containers and portable tanks) placards (250mm x 250mm) representing the hazards should be on all four sides.

There are specific requirements for limited quantities. If containing dangerous goods in limited quantities the container must be placarded with the limited quantities mark. However, if the container contains both a load of dangerous goods in limited quantities and dangerous goods other than limited quantities the container must be placarded only with the placards for the non-limited quantities unless this would mean no placards at all. In this case the placards for the limited quantities must be shown.

The below specification outlines the requirement of placarding for IMDG (See Section 5.3) and ADR.

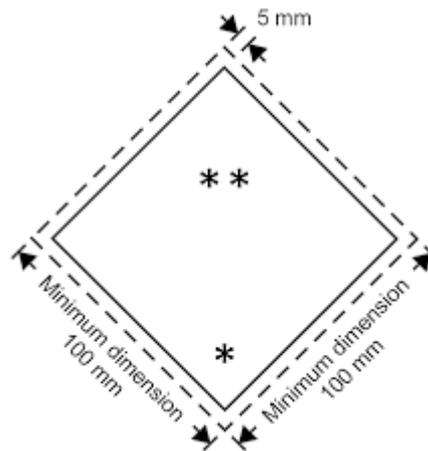
Figure 27: IMDG Placard



4.4.2 IATA

The below specification outlines the requirement of labelling for IATA.

Figure 28: IATA Labelling



4.5 Dangerous Goods Documentation

For every dangerous article consigned as freight, the consignor shall ensure an up to date copy of the Material Safety Data Sheet is included with the delivery documentation. The Dangerous Goods Declaration shall match the requirements of the MSDS considering any special provisions.

For sea journeys in the offshore industry the transport of dangerous goods requires two documents: the dangerous goods note (sometimes called the dangerous goods declaration) and the vehicle/container packing certificate. They are generally incorporated into one document. Unlike for air which is heavily prescribed the dangerous goods note may be in any form provided that it contains all the information required by the IMDG code and for some of the information in the order required with no other information interspersed. The approved templates contained within the IMDG and IATA regulations are appended herein.

4.5.1 Multimodal Shipper's Declaration for Dangerous Goods

MULTIMODAL DANGEROUS GOODS FORM

This form may be used as a dangerous goods declaration as it meets the requirements of SOLAS, chapter VII, regulation 4; MARPOL, Annex III, Regulation 4

1 Shipper/Consignor/Sender	2 Transport document number			
	3 Page No of	4 Shipper's reference		
		5 Freight Forwarder's Reference		
6 Consignee	7 Carrier (to be completed by the carrier)			
	<p>SHIPPER'S DECLARATION</p> <p>I hereby declare that the contents of this consignment are fully and accurately described below by the Proper Shipping Name, and are classified, packaged, marked and labelled/placarded and are in all respects in proper condition for transport according to the applicable international and national governmental regulations.</p>			
<p>8 This shipment is within the limitations prescribed for:</p> <p>(Delete non-Applicable)</p> <table border="1" style="width: 100%;"> <tr> <td style="width: 50%;">Passenger and Cargo Aircraft</td> <td style="width: 50%;">Cargo Aircraft Only</td> </tr> </table>	Passenger and Cargo Aircraft	Cargo Aircraft Only	9 Additional handling information	
Passenger and Cargo Aircraft	Cargo Aircraft Only			
10 Vessel	11 Port/Place of loading			

12 Port/Place of discharge	13 Destination			
14 Shipping Marks	*Number and kind of packages: description of goods		Gross mass (kg)	
Net mass (kg)	Cube (m³)			
15 Container identification number / vehicle registration no.	16. Seal number(s)	17 Container / Vehicle size & type	18 Tare mass (kg)	19 Total gross mass (including tare) (kg)
<p>CONTAINER/VEHICLE PACKING CERTIFICATE</p> <p>I hereby declare that the goods described above have been packed/loaded into the container/vehicle identified above in accordance with the applicable provisions **</p> <p>MUST BE COMPLETED AND SIGNED FOR ALL CONTAINER / VEHICLE LOADS BY PERSON RESPONSIBLE FOR PACKING / LOADING</p>		<p>21 RECEIVING ORGANISATION RECEIPT</p> <p>Received the above number of packages/containers/trailers in apparent good order and condition, unless stated hereon:</p> <p>RECEIVING ORGANISATION REMARKS:</p>		
20 Name of Company		Haulier's Name	22 Name of company (OF SHIPPER PREPARING THIS NOTE)	
		Vehicle Registration No.		
Name/status of declarant		Signature and date	Name/status of declarant	

Place and Date		Place and date
Signature of declarant	DRIVER'S SIGNATURE	Signature of Declarant

Additional Information

*The above document must include: Un Number, proper shipping name, hazard class, packing group (where assigned), marine pollutant and observe the mandatory requirements under applicable national and international governmental regulations.

4.5.2 Shipper's Declaration for Dangerous Goods by Air

Shipper	Air Waybill No Page of Pages Shipper Reference Number <i>(Optional)</i>	
Consignee	<i>For optional use for Company logo name and address</i>	
<i>Two completed and signed copies of this Declaration must be handed to the operator.</i>		WARNING Failure to comply in all respects with the applicable Dangerous Goods Regulations may be in breach of the applicable law, subject to legal penalties.
TRANSPORT DETAILS		
This shipment is within the limitations prescribed for:	Airport of Departure:	

(delete non-applicable)

PASSENGER AND CARGO AIRCRAFT	CARGO AIRCRAFT ONLY					
Airport of Destination:	Shipment type (delete non-applicable):					
	NON-RADIOACTIVE	RADIOACTIVE				
NATURE AND QUANTITY OF DANGEROUS GOODS						
Dangerous Goods Identification						
UN or ID No	Proper Shipping Name	Class or Division (Subsidiary Risk)	Pack-ing Group	Quantity and type of packing	Packing Instructions	Authorisation

Additional Handling Information	
I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. I declare that all of the applicable air transport requirements have been met.	Name/Title of Signatory
	Place and Date
	Signature (<i>see warning above</i>)

4.6 Transportation

4.6.1 Dangerous Goods by Sea

The organisation which takes the UN rules and applies them to transport of dangerous goods by sea is the international maritime organisation (IMO) which reviews and re-issues international maritime dangerous goods code (IMDG code).

The maritime and coastguard agency (MCA) has a responsibility for monitoring compliance with the IMDG code. Part of their responsibilities are to produce merchant shipping notices (MSN) and marine guidance notes (MGN). Some of the key notices applicable to the safe packing and handling of cargo to and from offshore location are listed below.

Table 12: Notices

Notice ID	Notice Title
MGN 282 (M)	Dangerous goods: guidance in the carriage of packaged dangerous goods on offshore supply vessels
MGN 283 (M)	Dangerous goods - guidance on the back loading of contaminated bulk liquids from offshore installations to offshore supply/support vessels
MGN 242 M+F)	Format and procedures for reporting safety incidents
Further information on the above Marine Guidance Notes can be viewed at https://www.gov.uk/government/collections/marine-guidance-notices-mgns	

The IMDG code has some specific rules regarding the segregation of full class dangerous goods. They are stricter than under ADR for road. A container might be able to arrive at the quayside but get no further till any offending dangerous goods are removed. There are tables which are used to ensure that segregation is acceptable. Two are produced here.

Further information is available on Limited Quantities in IMDG Section 3.4.4.2 and segregation group codes in 7.2.5.2.

4.6.2 Dangerous Goods by Air

The organisation which takes the United Nations rules and applies them to transport of dangerous goods by air is International Civil Aviation Organisation (ICAO). Implementing the applicable technical standards are facilitated by the trade body, International Air Transport Association (IATA) through the annual publication of its Dangerous Goods Regulations. In the UK the competent authority is the Civil Aviation Authority (CAA).

At the time of presentation for air transport, the consignor must be able verify that all the relevant requirements listed throughout this document have been met.

When a shipment is received at the airport it must be received by following strict procedures for acceptance, stowage, and loading. Further documentation is required including a checklist for acceptance and a manifest to the captain of the aircraft, sometime referred to as NOTOC. These requirements will be managed by a freight forwarder with known consigner status or by the aircraft operator themselves.

the HLO and helideck crew shall have enhanced acceptance awareness and loading responsibilities. The Helideck Certification Agency (HCA) monitors compliance also in this area.

Prior notification of a dangerous goods shipment must be made to the helicopter operator with details of the shipment provided. This could be achieved by a copy of the proposed shipper's

declaration. The package and documentation must be checked and signed on behalf of the helicopter operator.

Packages should be examined for any signs of damage prior to loading. Any damage found shall result in the consignment being rejected.

Once the stowage position has been agreed and consideration given to segregation the NOTOC should be completed and signed.

All the paperwork should then be handed to the pilot as required. When the helicopter has departed all stations *en route* and the destination must be notified of the presence on board the flight of the dangerous goods. This could be done by emailing a copy of the NOTOC to all destinations. The paperwork should be kept for a minimum of three months.

4.6.3 Segregation and Compatibility

MGN 282 - MARINE GUIDANCE NOTE - Dangerous Goods - Guidance in the Carriage of Packaged Dangerous Goods on Offshore Supply Vessels

MGN 340 - MARINE GUIDANCE NOTE - International Maritime Dangerous Goods (IMDG) Code and Cargoes Carried in Cargo Transport Units

International Marine Dangerous Goods – IMDG Code Dangerous Goods Segregation Chart

4.7 Additional Information for Industry

4.7.1 Dangerous Goods in Machinery

All machinery needs to be consigned to the correct Proper Shipping Name (PSN) that most describes the goods that are being transported. Such UN Numbers that may be used are as follows:

- UN3528
- UN3529
- UN3530
- UN3166

Details laid out in the packing instructions and special provisions assigned to each UN Number describe what can be classified as machinery.

Small quantities of dangerous goods can be shipped in machinery under UN3363, but the requirements of special provision 301 must be met.

4.7.2 Radioactive

Radioactive sources are used in a variety of operational circumstances. In addition, radioactive waste is generated by the process of extraction. This contaminates pipe and other equipment as well as water and other materials.

The transport of class 7 radioactive material has extra requirements, and special guidance should be sought when consigning class 7 radioactive.

5 Lifting

5.1 Lifting Operations

Lifting operations performed within the territorial waters of Great Britain and in designated areas of the UK Continental Shelf shall comply with the requirements of the Lifting Operations and Lifting Equipment Regulations [SI1998/2307] (LOLER). Further guidance on how to comply with these Regulations is offered in the HSE LOLER Approved Code of Practice (L113) and HSE Technical Guidance in the Safe Use of Lifting Equipment Offshore (HSG221).

These Regulations stipulate that the employer, Duty Holder for offshore locations, is responsible for all lifting operations performed on its facility and as such should have documented procedures in place.

The following guidance is intended to offer minimum requirement to assist personnel when planning or executing lifting operations and not to replace the procedures put in place by the Duty Holder.

“Duty Holder” means:

- In relation to a fixed installation, the Operator
- In relation to a mobile installation, the Owner

5.2 Planning the Lifting Operation

All lifting operations must be planned and supervised by a competent person to ensure the lifting equipment is suitable and the load remains stable throughout the operation. This is achieved by the creation of a documented lift plan or safe system of work.

The complexity of the lift plan will depend upon the complexity of the lifting operation. This plan must be in place before the lift starts and should cover the whole process, identify the precautions necessary to eliminate or control all foreseeable risks, and identify the appropriate resources (including people) necessary for safe completion of the operation.

The individual tasked with planning the lifting operation shall be selected based on the complexity of the operation. The plan shall be developed by a person(s) with adequate training, knowledge, skills and expertise suitable for the level of the operation and approved by the site LOLER competent person.

Factors to include may be all or any of the following:

- working under suspended loads
- visibility
- attaching / detaching and securing loads
- environment
- location

- overturning
- proximity hazards
- derating
- lifting people
- overload
- pre-use checking

5.2.1 Supervising the Lifting Operations

The degree of supervision necessary during the lifting operation shall be proportionate to the risk. For routine lifting operations supervision may be undertaken by the team performing the lift, i.e. the Banksman. For non-routine lifting operations, the level of supervision should be determined by the site LOLER Competent Person.

5.2.2 Competence and Training

Reference must be made to the Duty Holder's LOLER compliance document which shall detail the level of both training and competence for lifting personnel.

5.2.3 Classifying the Lifting Operation

The specific method of classifying a lifting operation is at the discretion of the Duty Holder and as such should be stated in their documented procedures. An approach often adopted is to classify the lifting operations as either routine or non-routine.

- Routine lifting operations are those that are frequently undertaken and shall include all normal cargo operations.
- Non-routine lifting operations are those that are not frequently undertaken and are more of complex due the load, load path, or environment.

It is important that the LOLER Competent Person continually reviews the operation, as there may be factors that could change the operation from being a routine into a non-routine activity, i.e. environmental conditions.

5.3 Undertaking the Lifting Operation

Prior to performing any lifting operation certain precautions must be taken. Responsibilities for these precautions shall be allocated to nominated person(s) as part of the toolbox talk when the full details of operation are discussed (lift plan and risk assessment).

The nominated person(s) shall:

- Ensure the Load never travels over personnel.
- Ensure that a clear and effective communication system is employed and understood by all personnel involved with the lifting operation.

- Ensure there is adequate lighting in the pick-up and lay-down areas and effective and unobstructed access ways and escape routes exist.
- Ensure the lifting equipment is certified for current use.
- Ensure any restrictions to the lift are removed, e.g. hold-down bolts, sea fastenings.
- Confirm that the appropriate rigging for the lift is correctly installed, and the lifting sets are not twisted or snagged.
- Ensure shackle bolts are tight and adequately secured.
- Ensure pick-up and lay-down areas are within the allowable crane radii for the load to be lifted.
- Confirm the weight of the load.
- Ensure the hook is positioned above the load's centre of gravity.
- Ensure only one CCU is lifted at any one time.
- Ensure slings of equal length are used when handling tubulars.
- Ensure the load lifts horizontally.
- Ensure that the operation is controlled from a position with an unobstructed view

If at any point during crane operation the Banksman's view becomes obstructed the operation must be stopped while the Banksman repositions.

If at any point during the operation the load's stability or security becomes a concern the operation must be stopped and the LOLER Competent Person responsible for planning lifting operations consulted.

5.4 Pre-Use Inspection and General Precautions

In every case where, lifting equipment is to be utilised it must be checked for defects in arrangements and/or physical damage, before use by the person in direct charge of the operation to comply with LOLER.

The employer must ensure that their personnel have received appropriate training and instruction to carry out these checks. Trained personnel must be able to identify damage to the elements of the equipment and accessories, distortions and other obvious faults that could affect the safe operation and use of the equipment.

5.4.1 CCU Lifting Sets

The lifting set shall be specially designed and approved for use with the CCU taking account of the dynamic amplification experience during offshore lifting.

The lifting set may be either a wire rope sling or a welded chain sling. Each type has advantages and disadvantages. It is important that users understand the features and risks associated with each. Wire slings are preferred in the UK sector and chain slings are preferred in the Norwegian sector.

The preferred style of shackle is the bow or anchor type fitted with a safety pin, which is, bolt, nut, and split pin. The bolt or pin shall be of the same material as the body of the shackle.

Appropriate securing arrangements must be used to for the type of shackle (split pins, wire housing, etc.). R clips should not be used for this purpose.

Screw pin type shackles will only be accepted if they have been secured with a steel serving / seizing wire. No alternative solutions will be accepted.

The crane hook link (master-link) must have a minimum dimension of 270mm x 140mm to minimise the risk of trapped fingers when attaching the hook to the lifting arrangements.

Where possible, lifting arrangements for all cargo should be consolidated into a single lift point terminating in either a master link or master link assembly to minimise handling requirements, multiple terminations are not normally acceptable and may require duty holder approval.

5.4.2 Wire Slings – General Precautions

General precautions when using wire slings include:

- All sling legs, which are connected directly to master-links or to shackles, should have thimbles fitted to reduce the bend radius on the wire and increase their serviceable life.
- To avoid out-of-plane forces, the maximum number of lifting legs allowed on a single master link or ring is two. It is permissible to have a third leg on this ring, but only if it is to be used as a top lifting leg. Three and four leg lifting slings should be fitted to a master link assembly, i.e. a main lifting ring with two sub-links.
- CCUs should be fitted with either a four or five leg lifting assembly with master link, depending on CCU type. The fifth leg is designed to hang over the side of the unit to assist in its hook-up, eliminating the need for personnel having to climb on top of containers to attach or release the crane hook.
- This fifth leg is not a design requirement, but it is a preferred option and, if fitted, should "fall short" of the height of the CCU to facilitate connection and release of the hook. If the dimensions of the CCU are such that the fifth leg would present a snagging hazard at other stages of the supply chain, the fifth leg should be omitted.
- There is a recommended minimum wire rope diameter of 13mm allowed for wire rope slings. Operationally, it may be necessary to use wire rope of a smaller diameter however, wire rope of a smaller diameter is susceptible to impact damage, and appropriate checks should be carried out.
- Pre-Use Inspection
 - Check that the SWL is adequate for the load.
 - Check that the sling has a plant number / ID mark.
 - Examine each individual leg along its entire length and check for:
 - a. Wear
 - b. Corrosion

- c. Abrasion
- d. Mechanical Damage
- e. Broken Wires
- f. Internal Deterioration (only if wire rope is suspect e.g. excessive external corrosion).

Check that the end of the loop does not terminate inside the ferrule (i.e. the rope end should protrude slightly but no more than 1/3rd of the diameter) unless the ferrule is of the longer tapered design which has an internal step.

The ferrule should be free from cracks or other deformities.

Examine each thimble and check for correct fitting, snagging damage and elongation (stretched thimbles / eyes could indicate possible overload).

Examine wire rope around thimbles as it is often abraded due to sling being dragged over rough surfaces.

Examine master-link and master link assembly and check for wear, corrosion and cracking.

Check that the sling set is correctly fitted, e.g. no twists in the legs.

If fitted with hooks, check for wear, corrosion and cracking and ensure safety latch functions.

5.4.3 Chain Slings – General Precautions

General precautions when using lifting arrangements made up using chain slings include:

- Chains and components employed in the make-up of the arrangements are constructed from alloy grade 8 (or better) and have properties suitable for working in extremely cold conditions (-20 °C).
- All connections are compatible and fit for the purpose intended.
- Pre-Use Inspection
- Check that the SWL is adequate for the load.
- Check that the sling has a plant number/ID mark.
- Visually examine the chain sling along its entire length and check for:
 - a. Distortion in chain links (nicks, bends, twists, elongated links)
 - b. Wear between chain links
 - c. Wear between chain links and load pins
 - d. Heat damage
 - e. Chemical damage
 - f. Wear, stretch, and twisting on end terminations (including shortening clutches if fitted)
 - g. Function of safety catches (where fitted)
 - h. Security of load pins.

5.4.4 Webbing Slings – General Precautions

Certified webbing (or fibre) slings, with adequate site control, are suitable for lifting operations at the worksite or on board an installation.

Such slings should not normally be used as the primary means of lifting from or to vessels unless the operation has been the subject of a thorough Risk Assessment.

Pre-Use Inspection

- Check that the SWL is adequate for the load.
- Check that the sling has a plant number/ID mark.
- Visually examine web sling along its entire length and check for:
 - a. Cuts or tears
 - b. Burst stitching (especially around the eyes)
 - c. Chemical damage
 - d. Heat damage
 - e. Ingress of foreign bodies into fibres
 - f. Distortion/wear in metal eyes (where fitted).

Note: When checking round slings, should any cuts be found in the outer protective cover, the sling should be condemned i.e. do not use as the inner strength core could be damaged.

5.4.5 Shackles – Pre-Use Inspection

- Check that the WLL is adequate for the load.
- Check that the shackle has a plant number/ID mark.
- Check that pin size and type is correct for the type of shackle.
- Remove shackle pin (if accessible) and examine for wear, deformation, and cracking.
- Ensure it is the correct pin for the shackle.
- Check pin threads for wear/deformation.
- Examine shackle body and check for wear in the crown and pin holes, deformation, and cracking.
- Check alignment of pin holes and ensure the pin fits correctly.
- In the case of safety pin shackles, ensure split pins are fitted.

5.4.6 Master Links and Master Link Assemblies – Pre-Use Inspection

- Check that the SWL is adequate for the load.
- Visually examine master link(s) along its entire length and check for:
 - a. Wear
 - b. Distortion
 - c. Elongation

- d. Cracks
- e. Excessive corrosion

5.4.7 Fabricated Items

Where fabricated items include integrated lifting points and are not supported by a CE declaration of conformity, written documentation from a certifying authority that they are 'fit for the purpose' shall be forwarded to the handling agent.

5.4.8 Transit Slings

Transit slings are used for the transportation of equipment to and from offshore installations and onshore sites and should only be used for this purpose. They should not be used for general lifting purposes, as they are not part of the installation's lifting equipment.

A formal system is required to manage the use of transit slings to ensure that they comply with all relevant legislation and can be identified.

5.4.9 Plastic Coated Transit Slings

Plastic coated transit slings may be used for transporting easily damaged items, subject to thorough Risk Assessment which must consider seasonal factors, such as low temperature cracking of plastic sheathing. These slings must be subject to the same controls as normal transit slings.

5.4.10 Heavy Load Identification

If the load is seven (7) tonnes or over it should be considered as "HEAVY" and identified as such by means of a pennant or flag. This pennant or flag must be attached prior to any transportation to quay side and fitted to the fifth leg or close to the master link assembly of the lifting set.

Although seven tonnes are a normally accepted standard, certain locations may have a higher or lower heavy lift threshold. Location specific information should be provided by the offshore operator.

Care must be taken when shipping to or from small, normally unattended installations.

5.4.11 Snagging Hazard Identification

If the load is at risk of snagging it must be identified as such by means of a pennant or flag [ref. 7.3.3]. This pennant or flag must be attached prior to any transportation to quay side and fitted to the fifth leg or close to the master link assembly of the lifting set.

5.4.12 Use of Tag Lines

If it is considered necessary, tag lines shall only be used after a Risk Assessment has been undertaken.

5.5 Thorough Examination and Inspection of Lifting Equipment

A “thorough examination” is a visual inspection carried out by a competent person [ref. 7.8.2]. The competent person should also decide if any tests are to be carried out enabling them to verify any findings. Lifting Appliances shall be inspected at intervals of no more than 12 months. Lifting Accessories shall be inspected at intervals of no more than 6 months. Any Lifting Equipment used for lifting personnel shall be examined at intervals of no more than 6 months. Lifting equipment may also be examined in accordance with a Written Scheme of Examination.

5.5.1 Written Scheme of Examination

A written scheme of examination may be drawn up by the user or owner provided they have the necessary competence.

The scheme should specify the intervals at which the lifting equipment should be thoroughly examined. Any examination scheme for lifting equipment should consider the lifting equipment’s condition, the environment in which it is used, the number of operations and the nature of load the equipment will be subject to.

If a written scheme of examination is to be used, it is essential that the user or owner can produce the examination scheme if requested by an inspector from the relevant enforcing authority.

If the user or owner is unable to produce the examination scheme, the enforcing authority will assume that the specified examination period laid down in LOLER has been followed.

5.5.2 Colour Coding of Lifting Equipment

Colour codes, although not a requirement of LOLER, are frequently used to indicate the examination status of lifting equipment in use on a particular site.

Where such arrangements are in use the current colour, indicating that the examination certificates of any lifting equipment bearing this colour is “in date”, should be conspicuously displayed immediately adjacent to the work site.

5.6 Tubulars

5.6.1 General Guidance

The following principles apply to both individual and bundled tubulars. However, they do NOT apply where dedicated or bespoke lifting points have been provided as attachment points for the slings.

- Each tubular lift must always be slung with two slings, each of the same length and of the same SWL. The SWL of each sling should be equal to or greater than the Gross Weight of the load. Every tubular lift must lift level.
- Slings should be placed at equal distance (approximately 25%) from the ends of the load with the internal angle at the hook not greater than 90°. They should be double wrapped and choked around the tubular. When it is necessary to bundle tubulars of different lengths, the shortest tubular should be no less than 75% of the length of the longest tubular.
- In the case of slung tubulars, a wire rope grip (DIN 1142 type preferred) or another approved device should be used above the reeved eye that forms the 'choke'. In addition, a tie wrap of robust design should be used on the reeved eye of the sling to prevent the eye from slipping over the rope grip. This arrangement prevents the bundle from coming slack when it is landed.
- Note: The live end of the sling should not be threaded under the first wrap.
- Excessively long tubular lifts may have a tag line attached. This should be subject to a Risk Assessment.
- Care should be taken on removing slings due to possible stowage movement.
- Tubular 'stacks' should be segregated by pipe posts.
- The bottom row of a tubular stow should be individually 'chocked' at positions forward and aft ends of each joint or secured by other mechanical means to stop movement. This also applies if there is only one row of tubulars.
- In preparing tubulars for transportation, it is good practice to pick up the tubular lift for a second time to see if more slack can be taken out using clamps or bulldog clips.
- The offshore operator may have a requirement for tubulars to be loaded in sequence for discharge at the installation. This can only be completed if a Risk Assessment has been conducted, and all tubular requirements are met.
- Ensure thread protectors and endcaps are securely fastened.
- Due care and attention should be taken when loading tubulars to avoid damage to slings.
- All tubulars should be correctly orientated on the trailers and when loading on vessels.
- All back-loaded tubulars should be cleaned or capped to prevent spillage of any contaminant.
- When shipping loose protectors, it is recommended that they be placed in compactor bags or equivalent before placing in CCU. Care must be given to ensure that the compactor bag's SWL is not exceeded.

5.6.2 Access and Egress

- During loading and unloading of bundled tubulars on a vessel, consideration must be given to the Load Handlers and specifically safe means of access and egress to the bundle.

- Samson posts should always be put into deck slots where tubing / drill pipe is bundled. The use of Samson posts is considered good practice if the installation only takes ‘part’ of the load. This also ensures that bundles are kept in “small parcels”.
- Tag lines and industry approved ‘hooks’ for retrieving slings should be used wherever possible preventing Working at Height, reducing the potential of a fall.
- Personnel should never attempt a lift from a bundle of tubulars whilst standing on surrounding tubulars.
- Employers must also ensure that suitable PPE is donned paying particular attention to anti-slip footwear

5.6.3 Individually Slung

- Prior to loading individual tubular cargo, bedding rope must be placed at appropriate positions on the vessels intended loading area. The minimum of two certified securing arrangements must be placed at equal distance approximately 25% from the ends of the intended stow. The length and/or height of securing arrangements must be sufficient to ensure that the entire tubular stow is secured. Examples of certified securing arrangements are lashing chain, webbing, wire, pipe pins/stanchions, stretchers, ratchets, shackles, etc.
- Specifically for vessel loading, only tubulars of the same diameter are to be stowed together and wherever possible should be of similar length to ensure the tubulars are properly secured and positioned between the securing arrangements.
- Smaller individual joints or pup joints that cannot be stowed between securing arrangements and are less than 60% overall length of average joint, must be secured as a separate item or shipped in cargo baskets.

5.6.4 Bundled

- Certified transportation frames are considered best practice for smaller dimension tubulars.
- Only tubulars of the same diameter should be bundled together and whenever possible should be of similar length.
- The number of tubulars in each bundle should be such that the inside/middle tubulars are gripped and will not slip out of the bundle. Whenever practicable tubulars over 5.5” in diameter should be bundled in ‘odd’ numbers.

5.6.5 Racked

Specially designed tubular racking systems are available which improve operational efficiency and reduce the risks posed by loading, offloading and stowing tubular bundles.

- The walkway provides easy and safe access to the bundles and movement on the vessel.

- The sling termination posts allow slings to be efficiently and safely organised for the smooth loading and offloading of the bundles.
- The landing decks provide clear and protected target areas for landing the bundles.
- The system can reduce loading time at quayside and offshore considerably.
- The system can allow 25% more tubulars to be carried improving deck utilisation.

Table 13: Illustrations of Drilling Tubulars

No	Description	Illustration
1.	Tubing Bundles	
2.	Full Length Tubing Frame	

3	Compact Tubular Frame	
4	Tubular Racking System	

5.7 Special Cargo

All cargo in this category must be considered as non-routine and the lifting operations planned as in Section 10, Lifting and Slings.

It is strongly recommended that, when planning the shipment of special cargo, logistics personnel are involved at the earliest opportunity

5.7.1 Unusual Shape and Weight Distribution

Assessment of unusual cargo

Criterion which must be considered when assessing unusual items of cargo are as follows:

- Items with high and/or offset centre of gravity will be unstable.
- Whether any additional securing arrangements are required.
- Cargo may be shipped or lifted in horizontal position for later up-ending offshore. In these circumstances all aspects of transportation, lifting and installation operations to be subject to a full Risk Assessment being carried out.
- Cargo may require use of lifting beams or frames or asymmetric rigging arrangements.

- During road transportation beams or frames must be removed and stowed as separate cargo items. Where removed and subsequently re-attached for the lifting operations a full Risk Assessment should be performed. Otherwise, they must be secured in a suitable manner to prevent damage.
- Long cargo baskets should lift horizontally

Unusually Heavy Items (>20 tonnes)

- May require stowage in particular part of vessel's deck.
- Should involve discussion between all parties, including vessel Master.
- Must involve assessment of lifting dynamics.
- May involve further reduction in environmental criteria for operation.

Unusually Long, Fragile Items

- May require use of special packing arrangements.
- May require the use of tag lines. If it is considered necessary, it should only be done after a Risk Assessment has been undertaken.
- Items vulnerable to water damage must be suitably protected.

Internal Sea Fastenings in CCUs

Internal Sea Fastening in CCUs involving welding must only be undertaken following engineering review and consultation with the Operator and container fabricator/ owner.

Lift Integrity

Ensure that all securing bolts and fastenings are present and tightened up appropriately.

Fragile Items, pre-assembled and pre-commissioned machinery items requiring to be kept dry

Because of the fragile nature and the high value of these items, they should be transported in a specially designed lifting frame/module. If not, the following points should be considered:

- These items should be crated in a heavy-duty material to reduce the potential for damage.
- The crate should also be made adequately to be able to be lifted from a CCU.
- The crate should come complete with its own lifting arrangements.
- The crate should be labelled to clearly identify the fragile nature of the goods.
- The crate should be loaded into a container ensuring due consideration has been taken for removal when it reaches its destination. The item should then be secured in the container as detailed within these guidelines.
- Consideration should be given to items requiring to be kept dry.

Special Lifts to Normally Unattended Installations (NUIs)

Some NUIs have crane weight restrictions, which mean that placing even the smallest of equipment in a CCU will lead to the SWL of the crane being exceeded. Where such crane

weight restrictions apply, operations must be Risk Assessed, with the following points being considered:

- It may be safer to use fibre slings or suitably coated wire rope slings to lift equipment or place equipment inside and remove equipment from CCUs.
- In the case of scaffolding, if it cannot be loaded into a half height container due to crane weight restrictions then it should be pre-slung and secured using steel banding or other suitable alternatives around the bundle to prevent movement.

Table 14: Illustrations of Special Cargo

No	Description	Illustration
1.	Rig Anchors	
2.	Blow Out Preventer Frames are the preferred means of transportation	
3.	Lifeboat in Transportation Frame	
4.	Fishing Friendly	
5.	Subsea Christmas Tree	

5.8 Load Handling

On occasion, loads will need to be landed in a specific orientation. Ideally, this should be achieved with a 'hands free' approach but this is not always possible. Deck Crews should assess the requirements specific to each individual lift and determine if Tag Lines or Push / Pull Poles would benefit the operation. Both have benefits, but equally, both have their own inherent risks and it's vital these are understood and mitigated against when risk assessing.

5.8.1 Tag Lines

In certain circumstances light, soft lines may be used to assist in the handling of long and/or fragile items of cargo. These are often referred to as tag lines.

It must be recognised that, whilst such aids may assist operations, their use does introduce some additional risks, as described below:

Risks

Additional risks associated with the use of tag lines include the following:

- Potential injuries from dropped objects because of personnel handling cargo are having to work in closer proximity to suspended loads than would normally be the case.
- Potential injuries, resulting from personnel handling cargo being dragged across the handling area, through a heavy load rotating in an uncontrolled manner and the tag line being fouled in limbs or clothing.
- Potential injuries resulting from tag lines being secured to adjacent fixed structures parting and whipping back because of a heavy load rotating in an uncontrolled manner.

Make-up

Make-up of lines includes the following:

- Tag lines must be made up from single, continuous lengths of rope.
- Apart from the knot attaching the line to the cargo, there must be no other joints or knots in the line.
- Tag lines must be of sufficient length to allow personnel handling cargo to work in a safe position well clear of the immediate vicinity of the load. In this regard it is recommended that the length of the line should be not less than one and a half (1.5) times the maximum height above the handling area at which the arrangements will be used.

Safe Use

Whilst in use, precautions should be observed as follows:

- Tag lines are an aid to positioning the load when landing, and as such must only be used when weather conditions would permit the lifting of the item without the use of such arrangements. It must not be assumed that, in conditions more severe than this, the use of tag lines will allow the operation to be completed safely.
- At all times personnel handling tag lines must work at a horizontal distance from the load equivalent to its height above the handling area, maintaining an angle between the line and the horizontal of not more than 45°.
- All sections of the line, including slack, must be kept in front of the body, between the handler and the load.
- Where two or more persons are handling the same line, ALL must work on the same side of the line. Any slack must be kept in front of the group. Tag lines must be held in such a manner that they can be quickly and totally released. They must not be looped around wrists, or other parts of the body.

- Care must be taken when using tag lines whilst wearing gloves to ensure that the line does not foul the glove.
- Tag lines must not be secured or attached in any manner to adjacent structures or equipment. This includes the practice of making a “round turn” on stanchions or similar structures and surging the line to control the load.
- Where pre-installed lines are used, consideration should be given to providing personnel with boathooks or similar equipment to retrieve the lines without having to approach the dangerous area in the vicinity of the suspended load. An example of such circumstances would be when lines are attached to a load on the deck of a vessel, the load being then transferred to an offshore installation.

5.8.2 Push / Pull Poles

Push/Pull Poles, fitted with a boat hook one end and a variation of fittings the other, may also be used to help facilitate ‘hands-free’ lifting.

The hook end can be used at full extension (approximately 2m / 6ft) to retrieve tag lines hanging vertically without a Load Handler having to go too close to a suspended load.

The opposite end can be used to push against suspended loads to guide them, especially when landing loads in tight or congested spaces. This allows the operator to remain a safe distance from the load until it has landed.

Note: When using Push / Pull Poles to orientate Loads, they must never be used above waist height.

6 Waste Management

The primary legislation for waste management offshore is The Merchant Shipping (Prevention of Pollution by Sewage and Garbage from Ships) Regulations 2008 SI 2008 No 3257. The Regulation covers waste produced offshore (fixed or mobile). The OIM of every fixed manned installation or mobile rig is required to provide a garbage management plan on-board showing roles and responsibilities, waste types produced and a waste collection locator plan. The OIM is responsible for displaying signage forbidding waste to be thrown overboard.

All Offshore locations (fixed and mobile) are regarded as a Waste Producer. The subsequent transfer of waste to an onshore receiving facility is controlled mainly by: Special Waste Amended (Scotland) Regulations [SSI 2004/112]; Special Waste Amended (Scotland) Regulations [SSI 2005/22], Hazardous Waste (England & Wales) Regulations [SI 2005/894], Environmental Protection (Duty of Care) Regulations [SI 1991/2839]; Waste Management Regulations [SI 1996/634]. It should be noted that the waste regulated by the Scottish Environmental Protection Agency (SEPA) in Scotland and by the Environmental Agency (EA) for England and Wales requires different paperwork and that the type of paperwork to be used is governed by the port of landing in the UK.

Note: Regulations in Scotland and England/Wales are subject to change outside of the review update of this guideline and it is the “producer’s” responsibility to ensure awareness and compliance.

Each Offshore location is required to prepare and maintain a "Cradle to Grave" Audit Trail of all waste streams generated on the facility. The removal of waste by the Supply Vessel may only take place in compliance with the Regulations. The Supply Vessel is regarded as the ‘Waste Carrier’ and for that reason should hold a Waste Carrier License for moving waste in the UK sector. The Vessel Master is responsible for receiving and discharging waste ‘cargo’ from the Supply Vessel.

The movement of waste from Offshore to final disposal site may require several controlled transfers - this is known as the Waste Handling Chain. Within the Waste Handling Chain, the carrier is required to hold copy of all waste transfers. Exchange of signatures on paperwork (Special/Hazardous Waste) is required to take place for each Controlled Waste Note (as issued and controlled by SEPA/EA) prior to transfer to quayside.

In accordance with the UK Oil and Gas Industry, Operator Policy and UK National Waste Strategy, all waste is reported showing disposal routing with a specific requirement to reduce, re-use and recycle waste where possible. All locations are required to segregate waste to reduce amounts sent to landfill.

The handling of waste from "Cradle to Grave" is controlled via approved licensed services only. Under the Duty of Care, all Waste Producers are required to ensure that their waste streams move and are received under such conditions only. Violation of the Regulations may result in both Company and Individual prosecution by the relevant Regulatory Authority.

CCUs manifested to onshore as “empty” must physically be empty. Any contents must be manifested, regardless of the apparent insignificance, e.g., pallets, wood, rope, bags, paper,

cardboard, packaging. Any hazardous or unidentifiable waste not manifested will be the subject on an investigation.

If possible, shipping waste materials in the same container as non-waste materials should be avoided.

6.1 Controlling Waste Offshore

It is the responsibility of the OIM to ensure that all waste is kept and transferred in a safe and compliant manner. All personnel (including service company personnel and visitors) must follow the Installation Waste Control Policy/ Procedures.

6.2 Special Waste (Hazardous/Harmful)

The preparation of a Special/Hazardous Waste Consignment Note is normally undertaken by the person who prepares the backload manifest. The person preparing the manifest is also responsible for completing the Dangerous Goods (DG) declarations. It is most important that any declared Special/Hazardous Waste is packaged in accordance with applicable Dangerous Goods by Sea Classification code. All waste streams now have an applicable European Waste Catalogue (EWC) code which must appear (as relevant) on waste transfer notes. In addition, normal DG notifications must take place with relevant DG stickers in place as appropriate.

6.3 Recyclable Waste

In general, it is necessary for Offshore Operators to segregate recyclable waste streams. Typical recyclable waste is shown as:

- Paper
- Cardboard
- Timber
- Drums (metal/plastic)
- Scrap Metals
- Cable
- Plastics (wrapping/bottles)
- Fluorescent Tubes
- Batteries
- Solvents
- Drink Cans
- Toner Cartridges
- Ink Cartridges
- Electronic equipment
- Circuit boards

- Paint tins/paint/brushes, etc.
- Oily solids
- Oils / Fuels

Collections are encouraged using clear plastic bags (where appropriate) to assist with easy identification and hazard spotting for handlers. The use of black sacks is not acceptable practice.

Appendices

A References

Approval of Offshore Containers Handled in Open Seas Guidelines MSC/Circ 860
Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations [SI 2007/1573]
Code of Practice for Inspection and Repair of Offshore Containers BS 7072:1989
Code of Practice for the Safe Use of Wire Rope Slings BS 6210:1983
Dangerous Goods in Cargo Transport Units HSG 78
Department of Transport Code of Practice Safety of Loads on Vehicles
Environmental Protection (Duty of Care) Regulations [SI 1991/2839]
Hazardous Waste (England & Wales) Regulations [SI 2005/894]
HCA Procedure for the Shipment of Dangerous Goods from Offshore Installations and Vessels to Onshore by Helicopter
IATA (International Air Transport Association) Dangerous Goods
ICAO Technical Instructions for the Carriage of Dangerous Goods by Air
International Maritime Dangerous Goods (IMDG) Code
Lifting Operations and Lifting Equipment Regulations [SI 1998/2307] (LOLER)
LOLER Approved Code of Practice (HSE Books L113)
Marine Guidance Note MGN 282 (M)
Marine Guidance Note MGN 283 (M)
Merchant Shipping (Dangerous Goods and Marine Pollutants) Regulations [SI 1997/2367]
Merchant Shipping (Prevention of Pollution by Garbage) Regulations [SI 1998/1377]
Offshore Containers, Design, Construction, Testing, Inspection and Marking: BS EN 12079:2006, DNV 2.7-1
Offshore Freight Containers Design and Certification – DNV Certification Notes 2.7-1:1989
Special Waste Amended (Scotland) Regulations [SSI 2004/112]
Special Waste Amended (Scotland) Regulations [SSI 2005/22]
Specification for Wire Rope Slings and Sling Legs for General Lifting Purposes BS 1290:1983
Steel Wire Rope Slings, Safety, Slings for General Lifting Purposes BS EN 13414-1:2003
Step Change in Safety – Design and Handling of Cargo Baskets Guidance
Stowage of Goods in Freight Containers Guidelines BS 5073:1982
Temporary Portable Equipment Certificate [PE001]
Textile slings, Safety, Round-slings, made of man-made fibres, for general purpose use Guidelines BS EN 1492-1 Parts 1 and 2
Transport of Dangerous Goods and Use of Transportable Pressure Receptacles [SI 2004/568]
Transportable Gas Cylinders – Gas Cylinder Identification (excluding LPG) – Part 3 Colour Coding: BS EN 1089 – 3:2011
Transportable Gas Cylinders – Periodic Inspection and Testing of Seamless Steel Gas Cylinders BS EN 1968:2002
Waste Management Regulations [SI 1996/634]
Well Handled – Offshore manual handling solutions HSG 171
Oil & Gas UK Offshore Support Vessel Guidelines

B Internet References

Internet References
UK Statutory Instrument Web site - www.legislation.hmso.gov.uk/stat.htm
British Standards Web site - www.bsonline.bsi-global.com/server/index.jsp
Maritime and Coastguard Agency Web site - www.mcga.gov.uk
Step Change Standard Lifting and Crane Operating Procedures Group - www.stepchangeinsafety.net
Health and Safety Executive Home Page - www.hse.gov.uk/hsehome.htm
Chamber of Shipping - www.british-shipping.org
Offshore Energies UK - Proud champions of the UK offshore energies sector Offshore Energies UK (OEUK)
Marine Safety Forum – www.marinesafetyforum.org/about.asp
Waste Management - Waste Management for Oil and Gas ASCO

C Cargo Summary Ticket

CARGO SUMMARY TICKET										
Activity Details	Offshore Location		Activity ID		Date Required Offshore		Job Owner			
Vendor Details	Name of Party Declaring Export			Contact Details			Vendor Declaration			
				Contact Person			1) I can confirm that the below cargo has been packed and checked in accordance with the most recent revision of The Oil and Gas Best Practice for the Packing and Handling of Cargo to and from Offshore Locations 2) Cargo has been pre-notified to the shipper and all dangerous goods declared in advance 3) All requirements of the followed customs regime have been completed prior to shipment 4) I have followed the operators and shippers process requirements whilst consigning this cargo			
				Email Address						
				Telephone Number						
		Name	Sign	Date						
Cargo Details	Item	Quantity	Description	Unit ID	Weight (Ton)	Dimensions (Ft)	Class/UN	Customs Reference	Delivery Note Number / Reference Number	Purchase Order Number
	Eg	1	MINI CONTAINER	AMB1234	16	6 x 6 x 6	3.1/267	7GB3385665685/DUCR1234	DEL1234	4520455552
	1									
	2									
	3									
	4									
	5									
	6									
7										



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Member companies dedicate specialist resources and technical expertise in providing technical notes in collaboration with OEUK, demonstrating a commitment to continually improving and enhancing the performance of all offshore operations.

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