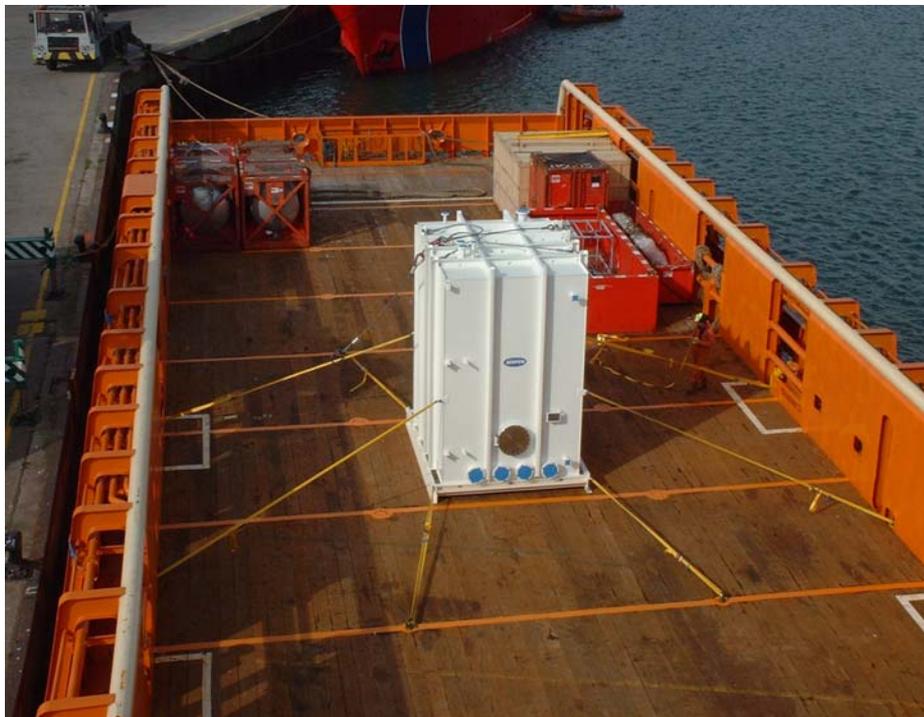


## Best Practice Transportation of Project related Cargo items

### Guidance Note



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## **1.0 INTRODUCTION**

Requirements often exist for items associated with project activities to be shipped to or from various sites, both on- and offshore.

Such items are often of high value, both intrinsically and in consideration of the consequences of any project delay which might result from physical damage or delay in shipment.

By their nature, many of these items may have unusual physical features and / or transportation requirements which may result in particular arrangements having to be made for their safe transportation in a timeous manner.

This Guidance Note has been prepared to summarise the recommendations of the various support teams who may facilitate the handling and shipment of such items in accordance with the projects' requirements.

Whilst primarily relating to transportation to or from offshore installations recommendations in this document may also be relevant to projects involving items being transported to and installed at onshore sites.

## **2.0 PRIMARY REFERENCE**

The primary reference relating to the shipment of any cargo to or from any offshore installations located on the UKCS is "Best Practice for the Safe Packing and Handling of Cargo to and from Offshore Installations" published by Oil and Gas UK (OGUK) (formerly United Kingdom Offshore Operators' Association (UKOOA))

A copy of this document must be included in every project library and consulted when cargo is to be shipped outward or inward.

Electronic copies may be downloaded from the Marine Safety Forum web-site, a link to which is included [www.marinesafetyforum.org](http://www.marinesafetyforum.org).

The remainder of this document includes additional information relating more specifically to the particular requirements of the various support teams who will assist in ensuring the safe and timeous delivery of the equipment to its final destination off- or on-shore.

### **3.0 PROCUREMENT STRATEGY**

It is strongly recommended that within the contracting and operator's organisations the logistics and operational safety support teams are involved at certain stages in the procurement process, as follows:-

#### **3.1 Tendering**

Prior to any invitation to tender or bid for the supply of the equipment being issued the project engineer or relevant buyer should contact the two support teams referred to above to ascertain their particular requirements, if any, to ensure that the item(s) can be safely handled and / or transported throughout the entire journey from point of delivery to final installation on- or offshore.

Information which is of particular interest will include, but is not limited to:-

1. Proposals for transportation modes throughout the journey from the point of receipt to final delivery / installation
2. Proposals for materials handling at each intermodal interface throughout the journey.
3. Proposals for transportation route(s) throughout the journey

Particular requirements identified at this time will be recorded as actions for the project team to include in the outline tender document.

It is also recommended that the tender document includes a specific section relating to transportation and materials handling requirements..

Particulars of a nominated address with suitable facilities for receiving the item(s) on delivery should also be included.

#### **3.2 Purchasing**

Compliance with the specific sections in the tender document relating to transportation and materials handling should be verified by the relevant support teams before placing any order.

A hold point will exist immediately prior to order confirmation to ensure that the actions identified in the tendering stage have been adequately addressed.

### **3.3 Delivery**

On delivery, a check will be made of all relevant documentation, including certification, to ensure that it is valid and correct.

To facilitate such checks it is advisable that, where available, documents are submitted for review as they become available.

## **4.0 SUPPLEMENTARY INFORMATION**

As noted in the introduction this document relates principally to the outward transportation and, where relevant installation of items at offshore sites. Inward transportation from such sites is also included.

Information in this section relates to such activities and summarises the information required by the relevant support teams to facilitate safe and timeous operations.

It should be noted that this summary is of a general nature and particular requirements will depend on the specific circumstances of each project.

### **4.1 Date of Intended Shipment**

The specialist support team(s) should be included at an early stage in project, when the general nature of the item(s) involved and schedule are being developed.

The support teams should be advised when the final delivery date has been confirmed, such information being forwarded at least two weeks prior to the actual date.

### **4.2 Project Schedule**

As above, the specialist support team(s) should be included from the early planning phase when the project schedule is being developed.

Thereafter, they should be kept advised of any changes to in the key project dates.

In the context of this document such information may include:-

1. Date(s) when lifting and / or materials handling arrangements may be inspected.
2. Date(s) when preparations for transportation may be inspected.

In some instances these dates may constitute “hold points” in the project programme.

### **4.3 Physical Description of the Cargo to be Shipped**

A full description of the cargo to be shipped should be included.

This description should include but not limited to:-

1. All significant dimensions.
2. Drawings and / or pictures of the pieces
3. Weights and centre of gravity
4. Details of suitable sea fastening points
5. Details of hard points which may be suitable for bracing the item(s) into a container.

#### **4.4 Condition and / or Requirements during Shipment**

A full description of the condition of the cargo and / or any particular requirements during shipment should be included.

This should include but not limited to:-

1. Lifting arrangements

A full description of the lifting arrangements, including drawings, must be included.

These drawings to include all lashing and sea fastening points

Original certificates of all lifting elements installed on the item(s) must be made available before it will be lifted off any transportation at any premises operated either by the contracting or operator's organisation.

2. Any items which may have loose internal components which will require special consideration.

It should be noted that some internal items remain attached during transportation may require additional support. Such items are likely to require particular attention.

3. Any items which may have special support or foundation requirements during transportation, including those where parts extend below foundations.

Particulars of any point loadings on supporting structure should also be included.

It should be noted that most supply vessels currently in service have a deck load capacity of c. 5 tonnes / square metre. Special arrangements will be required if greater bearing capacity is required.

4. Any item which may require additional deck space to kept clear for access or due to its fragile nature etc.
5. Any items which may contain stored or restrained energy during transportation.
6. Any pressurised vessels may be of particular concern.

7. Any items containing liquid, particularly if this is flammable, toxic or a potential pollutant.

Full details of the material should be included.

8. Any items containing liquids having a free surface during transportation or handling.
9. Any items which include live electrical supplies, etc. during transportation.
10. Any items which may require special protection and / or handling during transportation.
11. Any items requiring supply of special services during transportation.

If electrical supply required, then description of current required must be provided. Please note that most vessels have a 240v. x 60 Hz. domestic supply, though other current characteristics may be available.

#### **4.5 Pre-Shipment Physical Inspection**

Following review of the above information representative(s) of the relevant support team(s) may wish to inspect the cargo before shipment.

To facilitate such inspections the following should be included:-

Particulars of the items' current location(s).

Contact details at each location.

#### **4.6 Description of Operations prior to or following Shipment**

A summary of operations prior to or following shipment should be included.

This should include details relating to the following:-

1. The premises from which the item(s) are being delivered from or are to be returned to.
2. The party responsible for arranging transport.

If there is an expectation that this will be arranged by the Marine Logistics Team this must be clearly stated.

3. Any particular transportation restrictions.

Out-of gauge and / or heavy loads may well require police permission and escort.

#### **4.7 Packing Requirements**

Where items can be packed in offshore transportation containers this should be considered as the preferred means of shipment.

However, such arrangements will require the item to be properly secured in the container and shippers should consult the prime reference above for guidance.

Whilst containers holding project cargo may be opened and inspected on delivery to premises operated by the contracting or operator's organisations it is the responsibility of the shipper to ensure that all such cargo is adequately packed and secured in the container.

#### **4.8 Sea-fastening Arrangements**

Some cargo items cannot be "containerized", and must be shipped on the deck of the vessel.

In such instances the item(s) will almost certainly require sea-fastening to prevent movement and / or damage during transportation.

In such instances the following information will be required:-

1. Particulars of arrangements included in the item(s) to facilitate sea-fastening, if any.
2. Preferences for arrangements for sea-fastening, if any.
3. The party responsible for designing and installing the sea-fastenings.

If there is an expectation that this will be arranged by the support teams this must be clearly stated and the relevant cost code provided.

4. Particulars of Marine Warranty Surveyor involvement, including relevant contact details.

#### **4.9 Items shipped inward**

The above guidance applies to items shipped both outward and inward.

However, items being shipped inward may involve some further additional risks which will require particular consideration. These include, but are not limited to:-

1. Heavy and / or bulky items will be very difficult to land and secure on the deck of any vessel, particularly in a seaway.
2. The prediction of weight and / or centre of gravity on any items which have been on an installation for some time may be difficult, leading to lifting and / or handling problems.
3. The shape and / or geometry of an item may lead to difficulties owing to lack of stability when landing onto the vessel.

In this context round items are more problematic than those having a flat base. Provision of additional supports or transportation frame, for such items, are recommended to be installed before discharging onto a supply vessel.

In general, NO item which cannot be loaded into a standard offshore container or a purpose-built transportation frame should be shipped inward from any offshore installation without prior consultation with the appropriate logistics and / or operational safety support teams within the contracting and operator's organisations.

#### **4.10 Sea-fastening in Containers**

Uncontrolled welding involving containers is NOT permitted.

Where it is considered that an item may best be secured within in a container or the container secured on a vessel by welding, the relevant logistics team and the container manufacturer must be consulted.

### **5.0 MARINE WARRANTY / INDEPENDENT VERIFICATION**

In some instances lifting, materials handling or transportation arrangements may require to be reviewed and / or witnessed by representatives of the nominated marine warranty surveyor or other independent verification authority.

Any such requirement must be identified by the project team at an early stage, and the relevant specialist in-house personnel advised accordingly.

### **6.0 FURTHER INFORMATION**

#### **6.1 Weather Conditions for Shipment / Off-load**

Experience has shown that for many of the items to which this guidance relates, it will only be possible for them to be shipped to and / or off-loaded at their final destination in relatively benign weather conditions.

The operator's marine specialist will assess actual and forecast weather conditions and advise project personnel accordingly.

Where practical, operations which require particularly benign conditions will be given priority but it must be recognised that from time to time weather conditions may not be suitable at any time and vessels may return to port with the cargo still on board... In such circumstances the relevant logistics team will agree with the project as to whether the cargo should be discharged or remain on board for the next sailing.

For some particularly weather-sensitive activities projects may wish to consider making arrangements for exclusive use of a vessel to be loaded, sail and remain on location for as long as may be required whilst awaiting suitable conditions under which operations may proceed. On first sight this may seem an expensive option but this must be balanced against potential disruption to the project's own and other operations when using operator's core fleet resources shared with other users.

The relevant logistics team should be able advise upon, and facilitate such arrangements if necessary.

## **6.2 Briefings**

The logistics and operational safety teams, together with the operator's marine specialist will ensure that, within their area of responsibility, the relevant personnel are fully briefed as to any particular precautions which must be observed when transporting project-related cargoes.

## **6.3 Check List for use by Vendors**

A check list which can be forwarded to vendors, etc. is included in Appendix 1 of this document.

## 7.0 CONTACT DETAILS

Typically, contact arrangements for the specialist teams supporting the delivery of project- related cargo items will include representatives from the contracting and / or operator's organisations listed below.

Details for relevant contacts must be obtained and promulgated as required as part of the project planning process.

### 7.1 Logistics and Quayside Support Operations

Contact Information	Particulars
Nominated Person	
Function	
Department	
Telephone, Office	
Telephone, Mobile	
Electronic Mail Address	

Contact Information	Particulars
Nominated Person	
Function	
Department	
Telephone, Office	
Telephone, Mobile	
Electronic Mail Address	

### 7.2 Marine Support specialist

Contact Information	Particulars
Nominated Person	
Function	
Department	
Telephone, Office	
Telephone, Mobile	
Electronic Mail Address	

Contact Information	Particulars
Nominated Person	
Function	
Department	
Telephone, Office	
Telephone, Mobile	
Electronic Mail Address	

### 7.3 Operational Safety

Contact Information	Particulars
Nominated Person	
Function	
Department	
Telephone, Office	
Telephone, Mobile	
Electronic Mail Address	

## **APPENDIX 1 – VENDOR CHECK LIST**

### **VENDOR CHECKLIST**

**Vendor Logistics Checklist:  
(Non-Routine Equipment)**

**Order / Contact Details**

Purchase Order Reference	
Logistics contact name / details	

**Equipment Particulars**

Equipment description	
GA Drawing provided	
Dimensions	
Weight	
Location of C of G	
Lifting Points (number, type, capacity)	
Transport Fastening Points (number, type, capacity)	
Fluids & / or Hazardous substances present	
Pressurized and / or Energized parts present	
Electrical Power present or required	

**Packaging & Loading Arrangements**

Packaging design / type	
Dedicated Lifting gear supplied or offered	
Plant type/capacity for handling throughout journey	
Handling recommendations throughout journey	

**Transport & Delivery Arrangements**

Type / capacity of Transport required	
Notifications required for road haulage, if any	
Transport risk assessment throughout journey	
For Ex Works all known risks to be considered	
Potential changes in C of G due to loading/movement	

**Onward Shipment**

Special precautions for loading / unloading	
Special precautions for transport by sea	

**Documentation**

Lift Plan required for movement/loading	
O&GUK Cargo Handling Guidelines to be available & consulted when planning for each stage of journey	

PROJECT CARGO EXAMPLES



### CROSS INDUSTRY WORKGROUP DETAILS

The cross industry workgroup consisted of members from the following companies:

	<p>Euan Simpson &amp; Ken Noble ASCO Group Regent Centre Regent Road Aberdeen AB11 5NS Tel: 01224 371182 / 587044</p>
	<p>John Bedford BP 1 Wellheads Avenue Dyce Aberdeen AB21 7PB Tel: 01224 832000</p>
	<p>Keith McMurray Baker Hughes Stoneywood Park North Dyce Aberdeen AB21 7EA Tel: 01224 720921</p>
 <i>Britannia</i>	<p>Derek Birse Britannia Operator Ltd Royfold House Hill of Rubislaw Aberdeen AB15 6GZ Tel: 01224 327100</p>
	<p>Anna Marie McGartland ConocoPhillips Rubislaw House Anderson Drive Aberdeen AB15 6FZ Tel: 01224 205000</p>
	<p>Manny Robertson Maersk Oil North Sea UK Ltd Crawpeel Road Altens Industrial Estate Aberdeen AB12 3LG Tel: 01224 242000</p>
	<p>David Morrison Nexen Petroleum U.K. Limited Nexen House Hareness Road Altens Industrial Estate Aberdeen AB12 3LE Tel:01224 371100</p>

	<p>Mike Close GL Noble Denton No 1 The Exchange, 62 Market Street, Aberdeen AB11 5PJ, Tel: 01224 289100</p>
	<p>Keith Dawson Peterson SBS Nautilus House 35 Waterloo Quay Aberdeen AB11 5BS Tel: 01224 288100</p>
	<p>Sandy Bruce and Kenneth Lawtie Shell UK Exploration and Production 1 Altens Farm Road Nigg Aberdeen AB12 3FY Tel: 01224 882000</p>
	<p>Neil Moir Swire Oilfield Services Swire House Souter Head Road, Altens Aberdeen, Scotland, AB12 3LF Tel: 01224 872707</p>
	<p>Paul Logue Talisman Energy (UK) Ltd Dales Base Dales Industrial Estate Peterhead AB42 3JF Tel: 01224 871267</p>
	<p>Glen Bryant Total E&amp;P UK plc. Crawpeel Road Altens Industrial Estate Aberdeen AB12 3FG Tel: 01224 297000</p>
	<p>Ali Davis Weatherford (UK) Howemoss Terrace Kirkhill Industrial Estate Dyce Aberdeen AB21 0GR Tel: 01224 796900</p>