



**Oil Search**

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# PACKING, MARKING & SHIPPING INSTRUCTIONS

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REV 0.0  
22/05/2018

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# 1 GENERAL

## 1.1 Scope

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The purpose of this document is to specify the packing, marking and shipping requirements for all equipment and material which is to be supplied to Oil Search Limited. Goods shall be packed by supplier for transportation and storage in accordance with internationally recognised good practices and standards applicable to goods of the type to be supplied under the Contract and in accordance with any special requirements as set out in the Contract, so as to reach the point of use undamaged and in good condition and, to the extent not immediately used, shall ensure that the Goods are preserved in good condition until: (i) the Goods are permanently removed from packaging at the point of use; or (ii) the expiry of the Warranty Period, whichever is the earlier.

It is essential that the Vendor recognises that all equipment and material will be transported to and installed in Papua New Guinea (PNG). The road transport section within PNG can cover distances of over 700 km along extremely rough, unsealed roads. The PNG climate is very hot and humid all year round, with significant rainfall and persistent moisture providing challenges for storage and preservation of materials.

A copy of these instructions must be included and shall also apply to each of Vendor's purchase orders directed to sub-Vendors who may be making shipments to OSL's designated delivery point.

## 2. DEFINITIONS

**"Agent"** refers to Oil Search Limited's (OSL) third party freight forwarder, Pentagon Freight Services

**"Company Group"** means the Company OSL, its Co-Venturers, their respective Affiliates and their respective directors, officers, employees and consultants, however for the avoidance of doubt, does not include the Seller Group.

**"Goods"** means all goods, equipment, materials, articles or any other property or parts provided or to be provided to the Company Group by the Seller Group in accordance with the Goods Purchase Order (GPO) and includes, without limitation, all services including design, manufacture, modification, inspection, testing, expediting, quality assurance and control, painting, packing and delivery as specified or required in the GPO.

**"Site"** and **"Delivery Point"** refers to OSL's five (5) final receipt locations in PNG, namely Gobe, Moro, Kutubu, Kopi and Hides Warehouse.

**"Supplier"** means the supplier of goods or services under the GPO, its subcontractors of any tier, their respective Affiliates and their respective directors, officers, employees and consultants.

## 3. EXPEDITING PROCESS

Once a Purchase Order is placed with the Supplier, Pentagon Freight Services undertake the expediting responsibilities on behalf of Oil Search. The status of each Purchase Order is tracked until it is delivered to the nominated place of despatch.

The appointed PFS Expeditor is in regular communication with the supplier of the goods and reports the outcome of the exchange within the OSL expediting log. The log is available to Oil Search for viewing via the online portal.

It is supplier's responsibility to respond to Pentagon's requests for updated information accurately and in a timely manner.

OSL's standard shipping incoterms are either EXW or FCA, the supplier should refer to the Purchase Order for the correct incoterm and abide by these incoterms.

Once a purchase order becomes ready for despatch the supplier should contact the PFS Expeditor via e-mail and;

Upon receipt of the relevant information Pentagon will coordinate the pick up (EXW terms) or receipt into our stores (FCA terms).

## 4. SHIPPING DOCUMENTATION

All material ordered and purchased by Oil Search is being exported to Papua New Guinea.



It is the supplier's responsibility to comply with customs regulation and satisfy the requirements of the Oil Search purchase order terms, the following documentation is required;

- 1 set placed inside of each package (this set travels with the material to the final destination)
- 1 set affixed to the outside of the package (this set is retained by Pentagon when conducting content checks)

**Completed supplier's declaration** (document required to fulfil the transport chain of responsibility obligations, copy of which is provided with the OSL purchase order. The following details are required;

- Collection address (when applicable)
- Detailed Packing note (together with a copy of material test certificate(s) where applicable) detailing the number of the PO, description, code number (if any) and the quantity of Goods consigned
- Additional documentation as detailed in the PO/ Contract or any amendment/ variation
- All documentation necessary to prove the Goods supplied have been inspected and tested and are properly completed and therefore in accordance with the provisions of the PO/ Contract
- Package type
- ISPM status of package
- Weight and measurements of the packages to be collected/shipped
- Packing information (compulsory packaging information section)
- Packing List (1x copy inside packaging, 2x copies affixed to outside of freight)
- Terms of sale (as per PO)
- Copy of Purchase Order
- Mode of transport (as per PO)
- Dangerous goods information (Dangerous Goods Declaration)

The completed supplier's declaration must be signed and dated by the supplier.

SUPPLIER'S DECLARATION - GOODS DESTINED FOR EXPORT									
Supplier				 <h2 style="margin: 0;">Oil Search</h2>					
CTC NAME:									
TEL:		EMAIL:							
Consignee									
OIL SEARCH (PNG) LIMITED				PENTAGON FREIGHT SERVICES PTY LTD					
P.O. BOX 842, PORT MORESBY				51 CHARLES ULMPLACE					
GROUND FLOOR, HARBOURSIDE EAST BUILDING				EAGLE FARM, QLD 4009					
STANLEY ESPLANADE, NCD, PORT MORESBY, PAPUA NEW GUINEA				TEL: +61 7 3621 7100					
TEL: 675 3225599				FAX: 675 3225566		FAX: +61 7 3868 3676			
Special instructions/notify party				PICK UP REQUIRED: YES <input type="checkbox"/> NO <input type="checkbox"/>					
PENTAGON FREIGHT SERVICES PNG LTD				DATE AND TIME AVAILABLE:					
				Pick up address (if different from supplier's address)					
Supplier's ref:	No. Of Pieces	Package type (carton/pallet/crate/container,etc.)	DG (Y/N)	ISMP15 (Y/N)	Weight (kg)	Length (L) (cms)	Width (W) (cms)	Height (H) (cms)	
Documents attached:		Commercial invoice <input type="checkbox"/>	Packing list <input type="checkbox"/>	Certificate of origin <input type="checkbox"/>	MSDS/DG Cert <input type="checkbox"/>	Other <input type="checkbox"/>			
COMPULSORY PACKAGING INFORMATION:									
Any timber used in packaging <b>must</b> comply with the ISPM15 regulations for the Country of Destination.									
Has wooden packaging been used to pack this consignment?				YES <input type="checkbox"/>	NO <input type="checkbox"/>				
Is wooden packaging used ISPM Compliant				YES <input type="checkbox"/>	NO <input type="checkbox"/>				
TERMS OF SALE:									
EXW <input type="checkbox"/>	FCA <input type="checkbox"/>	FOE <input type="checkbox"/>	CFR/CPT <input type="checkbox"/>	DA <input type="checkbox"/>	DA <input type="checkbox"/>	DD <input type="checkbox"/>			
MODE OF TRANSPORT:									
AIR <input type="checkbox"/>	SEA <input type="checkbox"/>	ROAD <input type="checkbox"/>							
AIRPORT/PORT OF DESTINATION:									
DANGEROUS GOODS DECLARATION:									
<input type="checkbox"/> <b>NONE</b> of the cargo detailed in this declaration is classed as dangerous goods <input type="checkbox"/> We confirm that cargo detailed in this declaration is classed as dangerous goods, however HAS NOT been packed for air transport in accordance to IATA regulations/ for sea transport in accordance to IMDG regulations <input type="checkbox"/> We confirm that cargo detailed in this declaration is classed as dangerous goods and has been packed for air transport in accordance to IATA regulations/ for sea transport in accordance to IMDG regulations									
IF DANGEROUS GOODS - PLEASE PROVIDE THE FOLLOWING INFORMATION:									
UN NO:		IMDG CLASS:		FLASH POINT:		PKG GRP:			
Signature:		Name:		Title:		Date:			
PENTAGON FREIGHT SERVICES PTY LTD									

**Commercial invoice** (1x copy inside packaging, 2x copies affixed to outside of freight) prepared on supplier's letterhead. The commercial invoice is required to complete the export customs clearance and should contain at least the below mandatory information:

- Name of the supplier + ABN number
- Name of consignee/ship to address/delivery address
- OSL PO number and project name
- Currency of invoice
- Itemised list of fully described with its name material supplied for export inclusive of quantities as well as unit value and total value
- Total value of order
- Signature and date

Only commercial value of material should be shown on the CI. Non-physical charges such as testing are not part of the commercial value and should not be declared on the invoice.

Any sub-components of larger units, for example tools included to service the material supplied etc should be individually listed on the commercial invoice and declared by their unit value.

Material returning to Papua New Guinea after repair should be declared by the commercial value, with value of the repair separately noted in the body of the commercial invoice.

**MSDS sheet** issued within the last 5 years and required for any material classed as hazardous or dangerous substance and for any battery content.

**MO41** document issued by DG authorised and trained personnel for any material classed as dangerous for transportation.

## 5. MARKING STANDARD

It is the Supplier's responsibility to ensure that all packages despatched to the Site are marked in a professional manner. Stencils must be used to produce clear legible markings. Materials used for marking must be waterproof and resistant to fading when stored in an open area. All stencilled characters must be conspicuous and a minimum of 50 mm high. Capital letters must be used.

If the above markings are too large for some packages they may be scaled down to a more suitable size, however they must remain legible.

All marks, tags and labels shall be in the English language.

### 3.1 Marking

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The following information shall be marked in English on two opposing sides of each crate or package and in the order shown:-

- Oil Search (PNG) Limited
- Project Name and Number
- Goods Purchase Order (GPO) Number
- Description of item
- Case Number. i.e. 1 of 4, etc.
- Gross and net weight (kg)
- Measurement (Length x Width x Height in mm)

<p><b>Project name and no:</b>          .....          .....</p> <p><b>Purchase Order No.:</b>.....          .</p> <p><b>Box:</b>..... of .....</p>	<p><b>Dimensions</b> ----- x ----- x -----          (Length) x (Width) x (Height)          (in Centimetres / Metres as appropriate)</p> <p><b>Volume:</b>.....Cubic Metres</p> <p><b>Weight:</b></p> <p><b>Gross:</b>..... kgs  <b>Tare:</b>..... kgs  <b>Nett:</b>..... kgs</p>
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### 3.2 Special Handling Instructions

In accordance with the characteristics and different requirements in shipping individual items of equipment and materials, packages must be conspicuously marked with “Fragile”, “Handle with Care”, “Right Side Up”, “Keep Dry”, etc., in English and with the appropriate international standard symbols, to prevent possible damage. Indoor or outdoor storage is to be noted on package.

On each package that requires special handling, the following ISO symbols, as appropriate must be used. All symbols must be shown right way up, and on two opposing sides of each crate or package.



### 3.3 Dangerous Goods/ Hazardous Cargo

All dangerous, hazardous or restricted materials must be clearly identified and properly described, packaged, marked and labelled in accordance with the dangerous goods regulations.

The supplier must ensure that the Material Safety Data Sheets (MSDS) and a Multimodal Dangerous Goods Form (MO41) are supplied to the Pentagon/Agent at the time of collection.

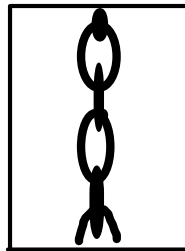
The responsibility to pack and document Dangerous Goods shipments lies with the supplier (only when certified). It is an offence not to declare hazardous cargo, or to move hazardous cargo without the correct documentation.

### 3.4 Centre of Gravity

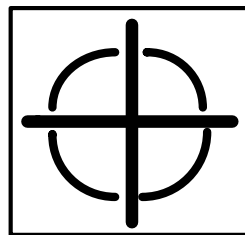
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Should the Goods weigh two (2) metric tonnes or more, the Supplier must ensure that the centre of gravity and hoisting position/certified lifting points are clearly marked on two sides of each case so as to facilitate loading, unloading and handling.

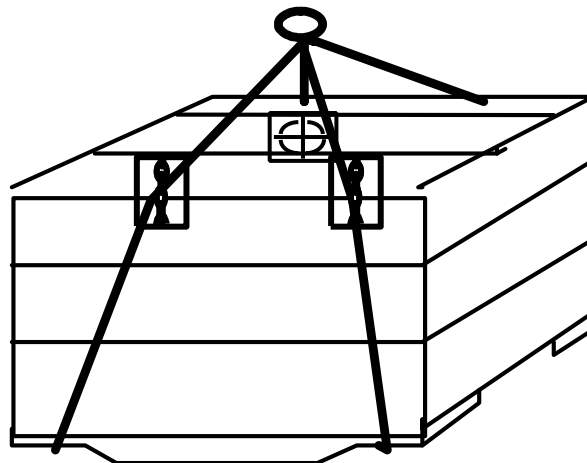
The following symbols shall be used:



SLING HERE



CENTRE OF GRAVITY



EXAMPLE OF DISPLAY

Handling procedure and lifting diagram must be provided for large units.

### 3.5 Lifting Management

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All lifts shall be in accordance with Oil Search Limited installation and testing requirements as described in Procedure - Lifting Management (HSOSH-PR-030). It is supplier's responsibility to provide a handling and lifting procedure for large units.

### 3.6 Goods Without Packing

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The above-mentioned markings must be indicated on those Goods without packing, with metal labels secured to the Goods, or with indelible paint on both sides or both ends of the Goods.

## 4. PREPARATION BEFORE PACKING

### 4.1 General

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The Supplier must ensure that all items for the GPO are prepared, protected and marked in accordance with Sections 3, 3.1 to 3.4 and 4.2 to 4.6, prior to packing.

### 4.2 Equipment Protection

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All exposed machined steel or iron surfaces must be treated by the Supplier with a recognised corrosion inhibitor before any protective wrapping or covering is applied to prevent physical damage.

All terminating flanges must be protected by bolting timber or metal blanks to the flange. All thermowells and threaded end connections must be capped or plugged. All stainless-steel terminating flanges shall be protected by fixing timber blanks to the exposed flange surfaces with nylon straps or similar.

### 4.3 Contents

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All Goods must be shipped in complete sets. All special tools for erection, accessories, and commissioning spare parts must be despatched along with the Goods. Any additional operational spare parts must, where possible, also be despatched with the main equipment, however they are to be contained in separate packaging.

### 4.4 Marking Items

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Large equipment requiring disassembly before transport must be clearly match-marked prior to disassembly to facilitate reassembly on Site.

Loose accessories in each package must be identified individually, by a metal label indicating the GPO number, tag number or name of Goods, name of accessories, quantity and its position number on assembly drawings in English. Commissioning spare parts and tools must be marked, in addition to the above particulars, with the words “Commissioning Spare Parts” or “Tools”. The same marking must apply to operational spare parts and tools.

Each unit (eg, assembly, sub-assembly or part) must also be marked clearly by its assembly, sub-assembly or part number and description in accordance with the relevant drawings.

### 4.5 Fasteners

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Bolts, nuts and washers must be identified by size, type and number and supplied in separate packages. The mixing of varying sizes will not be permitted. All fasteners are to be provided in waterproof bags or containers suitable for handling on a construction site. Bags and containers must be sealed and a metal label secured, identifying the contents. (Refer to Clause 3.1). Large quantities must be packed into non-returnable waterproof plastic or steel drums, with lids secured.



## 4.6 Fragile Components

All instruments, protection relays or other fragile parts must be removed, placed in sealed plastic bags and packed in expanded polystyrene or similar shock absorbing material in timber boxes. All fragile components must be securely supported to prevent damage in transit and must be packed in separate crates and not with heavy items.

## 5. PACKAGING AND CRATING

For the purposes of this document, the following definitions of packaging types are used:

“**Cases**” - fully enclosed packaging

“**Crates**” - open slatted packaging

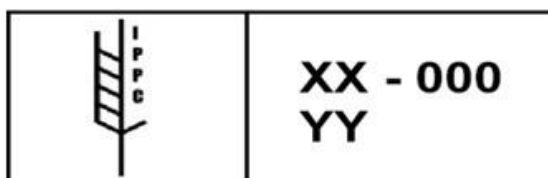
“**Pallets**” have a base size no larger than 116.5cms x 116.5cms

“**Skids**” have a base size larger than the pallet size

The supplier shall, unless otherwise approved by OSL, arrange suitable packing for all purchase orders, following the minimum packing requirements;

- (a) All material shall be strongly packed for shipment in accordance with the best commercial practice. Palletised crates for fork lift loading and unloading are preferred. All packaging materials, wooden crates, pallets (timber pallets are preferred) and containers must meet any import quarantine regulations applicable for PNG and Australia. All timber packaging and dunnage materials must be ISPM 15 export compliant and free of bark & borers. Timber packaging and dunnage materials must have the official ISPM 15 logo / icon stamped / marked on the timber for it to be ISPM15 compliant.

An ISPM 15 compliant mark must include:



- **IPPC** certification symbol.
- **XX**: represents the two letter ISO country code.
- **000**: represents the unique certification number issued by AQIS to the wood treatment provider or wood packaging manufacturer. Inclusion of this certification number ensures that the wood packaging material can be traced back to the treatment provider and/or manufacturer.
- **YY**: is the treatment abbreviation where:
  - **HT** is the code for heat treatment to a minimum of 56° C for a minimum of 30 minutes.
  - **MB** is the code for methyl bromide fumigation.

Official approved fumigation certificates of treatment must be obtained by the supplier, prior to shipment, and forwarded with the relevant customs documentation.

Goods for more than one Contract / Purchase Order must not be consolidated in any one package.

### OCEAN SHIPMENTS:

All material scheduled to be shipped via ocean freight must be export packed to withstand the imperils associated with handling at ocean terminals and exposure to the elements during the ocean and inland transportation to the Project site.

The supplier must adopt best practise to ensure all packages can be safely handled and stowage into an ISO 20ft container ensuring optimum use of the cubic capacity, in this regard specific attention shall apply to the width of the materials. Oversize and overlength materials must be placed on timber runners and be sturdy enough to allow for sliding in and out of the container.

ISO 20ft container internal dimensions are 5.8 m x 2.2 m x 2.2 m.

#### **AIR SHIPMENTS:**

All material scheduled to be shipped via air freight must be export packed in accordance with airline industry standards. The packing must offer maximum protection, ease of handling and remain within the limitation of the airline shipping units. Standard international air freight shipments should not exceed L 316cm x W 220cm x H 160cm. Shipments outside of these dimensions are considered out of gauge and shall exceed the carriers' capacity. In such cases, the supplier should contact Pentagon to discuss the possible options and packing prerequisites.

Any material packed for air freight should not overhang the edges of the pallet or skid, and all sharp edges should be safely secured or capped.

#### **Moisture Control**

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Waterproof case liners shall be used if the goods are susceptible to damage from moisture.

Equipment such as electronic or office machines, precision instruments, etc., shall be packed in an interior moisture-vapour proof barrier with silica gel, or a comparable desiccant, to absorb moisture within the package.

Openings in electric motors, generators and other electrical equipment shall be sealed with waterproof tape or in some equally efficient manner.

Machined steel or iron surfaces shall be protected by the application of suitable rust-preventative oil (either light film or hard drying) if the nature of the item permits removal of the oil with a petroleum base solvent.

#### **Preservation and Packaging**

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In conjunction with, or in the absence of any Oil Search technical specification issued with Purchase Order documents, the following shall apply:

- Equipment and materials shall be adequately preserved for shipping and subsequent storage – relevant to the conditions – prior to packing the material.
- Surface preservation and protection treatments for all materials and equipment shall be applied in accordance with sound shipping and engineering practice.
- Special attention shall be given to fragile items by pre-packing in foam, plastic cushioning or some equally efficient cushioning material. Shredded newsprint, popcorn, straw, or new or used rubber tyres cannot be used.

## 5.1. Cartons

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Cardboard cartons can be used for packaging where applicable. Supplier to ensure that cardboard packaging is air/ sea worthy and in accordance with internationally recognized good practices and standards. Supplier to ensure that goods supplied under the contract are in accordance with any special requirements as set out in the Contract, so as to reach the point of use undamaged and in good condition and, to the extent not immediately used, shall ensure that the Goods are preserved in good condition

## 5.2 Pallets

Materials impervious to damage from moisture, etc., and which can be conveniently secured to a pallet to facilitate handling shall be packed in this manner. Items shall be strapped together, covered with a cap of lumber for protection and shall be secured to the pallet with a minimum of two (2) 3cm wide straps. Pallets must be made of timber, with all pallets and lumber caps ISPM 15 export compliant and free of bark & borers. All timber must be and stamped / marked with the official ISPM15 logo.

All pallets are non-returnable.

Pallet dimensions must be able to facilitate parallel stuffing within a Standard ISO 20ft. sea container. The maximum base of the pallets should be no more than 116.5cm x 116.5cm to facilitate the side by side stowage.

All material shall be strapped securely using an appropriately rated nylon or woven strap. Steel strapping may be used on bundles of steel if required. All strapping shall be secured with crimped steel seals. Extra care must be taken to prevent straps causing damage to the consignment, for example cutting through cardboard cartons stacked on the pallets. Plastic 'Angle Protectors' can be used to protect the cardboard cartons if necessary.

Materials should be stretch wrapped to the pallet with a minimum of 2 layers per pallet. Black stretch wrapping is preferred.

A waterproof envelope must be attached to the pallet with a copy of the packing lists enclosed. The individual contents of the pallet must be indicated on the packing list.

Note; sensitive electronic equipment, fragile materials, and materials of high value should NOT be palletised.

## 5.3 Cases

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(a) Packing must be in cases of solid timber and close jointed, i.e. not partially open crate construction and the base of all cases must be constructed for lifting by fork-lift truck unless otherwise approved by the Agent/customer. The timer should be joined by using the appropriate screws, and not nails.

(b) Due to the container size and door limitation, maximum physical limits of external dimensions (including packaging) for wooden cases are:

Width 2.1 m;

Height 2.2 m;

Length 11.8 m;

Weight 19 Tonnes (metric). \*\*\* adjusted down from 20 Tonnes to take into consideration the maximum lifting capacity of the side loader trucks – 24 Tonnes. Net weight of the container must be considered.

The Supplier must advise the Company Group, in writing of any piece that may exceed or is in close proximity to the limitations prior to manufacture.

(b) Cases of a length exceeding 2 metres should have a base fitted with running boards, allowing for easy sliding into a standard container. An example of a base fitted with the running boards (circled in red) is shown below:



(d) Where special pre-sliding is supplied, all pre-sliding chains, rings, eyes and hooks must be certified and marked to meet regulations of the export country. Certificates must be included with the shipment and included in the documentation pack. All pre-sliding loads must be clearly marked with weights and dimensions and centre of gravity. Lifting diagrams must be supplied where necessary.

(e) Internal contents must fit securely inside the case and must be restrained from movement by being suitably bolted, to the base and braced by padded battens fixed firmly to the case. Where metal or prepared paintwork may come into contact with the case timbers, it must be protected from abrasion by felt pads, foam rubber, plastic or cardboard.

(f) All cantilevered or similarly attached portions of Goods must be supported to resist abnormal loads imposed during transport. Any materials bolted externally to packages (electrical boxes etc) must be supported in such a way that vibrations cannot loosen or wear through securing bolts.

(g) The inside of the packing cases must be lined with an approved seaworthy packing paper. All equipment must be wrapped with a rust inhibitive paper with the moisture repellent face toward the packing case and the moisture absorbing face towards the shipped Goods.

The underside of the lid of the packing case must be covered with a layer of bituminous felt to prevent water seepage into the case.

For further protection an approved desiccant must be placed in each box in sufficient quantity to inhibit corrosion of the shipped Goods.

(h) An inspection panel is required for easy access and inspection of the Goods. Cut out a square section (300 mm x 300 mm) from the front section and replace with a cover (screwed) marked with the words "Inspection Cover". This will allow custom agents and Quality Assurance Inspectors to unscrew and check the inside of the crate without dismantling.

Goods for more than one Contract / Purchase Order must not be consolidated in any one package.

#### **5.4 Sacks (additional chapter)**

If sacks are to be utilised for packaging the product, the supplier must ensure the sacks are waterproof and of sufficient quality and strength to hold the materials during multiple handling processes. All individual sacks must be tagged or branded with the Purchase Order Number, Purchase Order Item Numbers and content details. Smaller sacks (25kgs, 50kgs, 100kgs) should be palletised prior to releasing (with no overhang). Large sacks, with their own lifting lugs (such as 1000kgs bulker bags) can be supplied loose.

#### **5.5 Steel drums (additional chapter)**

Non-returnable water-tight steel export drums may be used. Further consolidation onto pallets shall be required for ease of handling. Double centred pallets, or pallets with thicker boards underneath to support the load are preferred for palletising steel drums. When palletised, drums must be strapped with 4 straps running over the load of the drums (2 running from left to right and 2 running from front to back) and belly strapped around. Export shipping marks and packing lists are required and all individual steel drums shall be tagged or branded with the Purchase Order Number, Purchase Order Item Numbers and content details.

#### **5.6 Bundling**

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Each bundle shall be treated as an individual package and marked accordingly. All items shall be segregated to length and size and bundled using minimum 3cm wide straps. Large bundles require skidding for the purpose of loading and lashing in a standard 20 ft container, and skids must have runner boards allowing for sliding in and out of the container. Supplier shall be responsible for ensuring the size, weight of bundles and the number of straps used meets all safety regulations.

#### **5.7 Pipe**

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Coated pipe or other fragile pipe materials shall be supplied with maximum protection. Supplier must advise the tier restrictions of the product and submit a packing specification to OSL and Pentagon for review. Pipe lengths must be crated, skidded or bundled to optimise 20ft / 40ft container stowage. All timber used must be strong enough to allow for sliding the material into a container.

Bevel end protectors shall be applied to all exposed pipe ends for transit protection. The supplier must ensure that all pipes are wrapped to prevent rubbing, and protected from damage on external load bearing surfaces and restraining devices. Different sizes of pipe shall not be nested.

### **5.7.1 Carbon Steel Pipe**

Each length of pipe of 150 mm or larger diameter shall be treated as an individual package, and packed and marked accordingly.

Pipe smaller than 150 mm shall be bundled and packed in accordance to requirements noted in chapter 5.7.

### **5.7.2 Stainless Steel Pipe**

Pipe up to and including DN350 mm shall be shipped wrapped in Polythene, and packed in wooden cases.

Pipe DN400 mm or over shall be wrapped in polythene and protected with wooden slats along the length of the pipe and wooden end protectors. All banding and nails shall be stainless steel.

Alternatively, pipe may be shipped in open top containers providing it is wrapped in plastic, with end caps fitted and properly secured inside the containers.

### **5.3.4.3 Pipe Spools**

Pipe spools with flanged ends shall be packaged to protect against damage in transit. In particular, when two or more spools are packed together, measures must be taken to prevent the spools from contact during transit.

## **5.8 Pipe Fittings**

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All stainless steel and small bore carbon steel fittings shall be shipped in cases. Large bore carbon steel (DN400 mm and over) may be shipped in crates with runner boards for allowing sliding in and out of a 20 ft container. Carbon steel fittings may be nested provided the inside fittings are wrapped to permit them to slide out easily when being unpacked. Stainless steel fittings shall not be nested and shall be fitted with end caps. Bevel end protection is required and the fittings shall be adequately secured to prevent movement.

## **5.9 Structural Steelwork**

Steelwork dismantled for transport must be identified, either by way of steel tags or by marking the steelwork members, with the appropriate drawing number clearly visible, and match marked to facilitate reassembly and fit-up on Site.

Steelwork shipped loose must be identified, either by way of steel tags or via stencilling/markings directly onto the steel member, with its drawing number for identification to facilitate assembly on Site.

Prepared and/or painted surfaces must be fully protected by the use of suitable packaging material such as felt etc. between lifting tackle and the work whilst loading is being carried out, to minimise damage to both the surface and the protective finish.

Projections from steelwork such as lugs and splice plates which may suffer damage during transport are required to be reinforced with timber packing pieces.

Structural steel must be loaded in such a way so as to minimise or eliminate the requirement for manual handling.

Lifting structural steel with fabric slings in lieu of steel slings or chains is preferred, providing that it is approved by the relevant standards and regulations.

## 5.10 Flanges

All flanges shall be shipped in cases and with the flange faces protected. For small bore flanges this may be by means of pieces of hardboard / masonite taped securely to the face of each flange. For large bore flanges, plywood shall be secured to the faces by bolting.

It is important to remember the extremely moist conditions the consignment will be subjected to. Wood / plastic covers generally provide adequate impact protection during transit, in addition the faces **must** be sealed from moisture to prevent corrosion and pitting. The supplier must pay consideration to these requirements.

Large bore carbon steel flanges (DN400 mm and upwards) may be shipped on pallets in containers. The flanges shall be bolted through to the base of the pallet with bevel and faces protected with plywood.

## 5.11 Valves

All flange faces on valves must be protected by the bolting of timber blanks to the valve flange, and all ports must be sealed. Small valves must be packed in cases. Large valves must be securely fitted on a heavy duty timber pallet or packed into cases.

Valve actuators shall be adequately supported to relieve the valve, and actuator mounting brackets and bolts from transport loads.

## 5.12 Electrical Equipment

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### **Electrical Switchboards, Motor control Centres and Similar Electrical Equipment**

All switchboards, motor control centres and similar electrical equipment must be wrapped in plastic and enclosed in full timber cases with a substantial base adequate for lifting by fork lift vehicle. The equipment must be bolted through the case onto solid bearers of a minimum of 100 mm x 50 mm section to enable ready lifting by forklift truck. All switchboards and similar equipment will be stored indoors at Site.

All equipment which is destined by its nature to be despatched loose in transit, particularly heavy items such as current and voltage transformers, circuit breakers and block resistors, must be packed securely and separately by the Supplier to ensure that they cannot damage other items of equipment.

### **Instruments and fragile components**

All ports on instruments must be sealed with plugs. All flange faces on instruments must be protected. All instruments, protection relays or other fragile parts must be removed, placed in sealed plastic bags and packed in expanded polystyrene or similar shock absorbing material in timber boxes. All fragile components must be securely supported to prevent damage in transit and must be packed in separate crates and not with heavy items.

### **Computers and Electronic Devices**

Computers and electronic equipment is to be despatched as a complete unit. Any circuit boards and heavy items such as power supplies that are likely to shake loose or be damaged during transport



are to be removed from their racks and packed separately. Units must be packed in cases to provide adequate mechanical protection. Secure attachment consists of strapping or bolting.

#### **5.13 Mechanical equipment and structural material**

Special care must be taken to prevent brinelling of bearings and to protect all machined surfaces. Shafts must be blocked on centering brackets or false bearings used to relieve bearings of load during transportation.

Vertically mounted motors in equipment must be specially supported for transport to prevent damage to the rotor and stator end plates.

Gearboxes and similar equipment must be drained of oil, or filled with corrosion inhibiting oil, prior to being despatched.

Stainless steel sheet and piping must be stored separately without contact with other steel.

## **6. SUPPLIER'S CONTAINER LOADS**

All supplier container loads must be preapproved by Oil Search. When undertaking container loads the supplier must advise Oil Search and Pentagon the provisional date of loading 1 week in advance.

The supplier must adhere to OSL's and Pentagon's inventory processes when loading and lashing containers (procedures available upon request). Containerised items shall be blocked, bracketed and/or bolted to prevent movement within container.

Container manifest inside waterproof envelopes must be attached to the internal right-hand wall of the container close to the door. The contents of the container must correspond with the container manifest, with the container serial number and door seal number recorded on all manifest copies.

Photographs of the materials fully lashed and braced must be provided to Pentagon for review.

A Marine Surveyor may also be appointed to witness and approve the lashing methods, therefore it is important sufficient notice is supplied.

## **7. INSPECTION**

Inspection for critical orders shall be conducted by Third Party Inspector, if required, at the Suppliers works in accordance with all documentation specified in PO.

For routine purchases, Inspection shall be carried out at OSL warehouse along with respective end users.

Inspection of packaging and documentation prior to dispatch is mandatory and shall be carried out by PFS