

ANNEX H

PACKING, MARKING AND SHIPPING REQUIREMENTS

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1. General Requirements

The Contract Equipment and Technical Documentation shall be carefully packed, marked and shipped in accordance with this document to ensure the equipment is delivered undamaged and able to be safely stored for an extended period not exceeding three (3) months in the storage area at the Construction Site (likely to be undercover, but not necessarily indoors).

The Seller shall ensure that all Subcontractors are familiar and comply with the requirements detailed in this document.

2 Marking

2.1 General

The Seller shall ensure that all packages delivered under the Contract are marked in a professional manner. Stencils shall be used to produce clear legible markings. Materials used for marking shall be waterproof and resistant to fading when stored in an open area. All stenciled characters shall be conspicuous, with a minimum height of 50 mm and capital letter shall always be used. Pre-printed signs are only to be used with the Engineer's prior approval in writing.

If the above markings are too large for some packages, they may be scaled down to an acceptable size but they shall still remain legible.

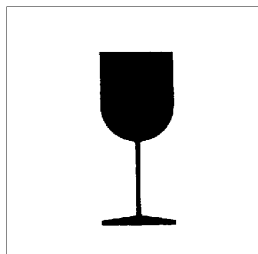
The following information shall be marked in English on at least two sides of each crate or package and in the order shown:

PO/CONTRACT:	<i>Contract number</i>
SHIP TO:	<i>Buyer's company name</i>
	<i>address</i>
	<i>city, state zip code</i>
	<i>U.S.A.</i>
CASE NUMBER:	<i>xx OF yy</i>
GROSS WEIGHT:	<i>xxxxxx KG (yyyyy LB)</i>
NET WEIGHT:	<i>xxxxxx KG (yyyyy LB)</i>
SHIPPED BY:	<i>Seller's Company Name</i>
	<i>Country</i>
<i>MADE IN country of origin</i>	

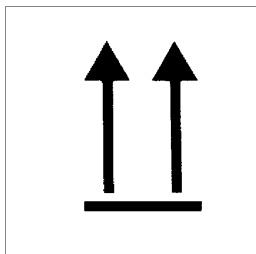
2.2 Special Handling Instructions

In accordance with the individual characteristics and requirements of the items and materials to be shipped, packages shall be conspicuously marked in the English language with "Handle with Care", "Right Side Up", "Keep Dry" and alike, using the appropriate international standard symbols to prevent possible damage.

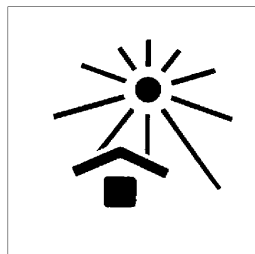
On each package that requires special handling, the following ISO symbols, as appropriate shall be used. All symbols shall be shown right way up, and on two sides of each crate or package.



**FRAGILE
HANDLE W/CARE**



THIS WAY UP



**KEEP AWAY
FROM HEAT**

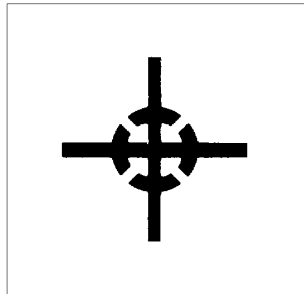


KEEP DRY

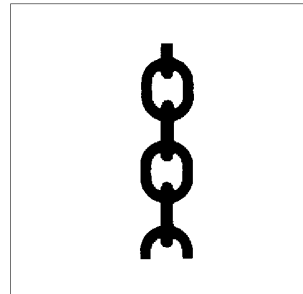
2.3 Center of Gravity

Should the goods weight two (2) metric tons (4400 lb) or more the Seller shall ensure that the center of gravity and hoisting position are marked on two sides of each case to properly execute and facilitate the loading, unloading and handling.

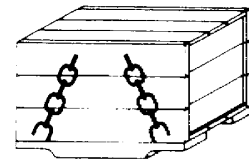
The following symbols shall be used:



CENTRE OF GRAVITY



SLING HERE



EXAMPLE OF DISPLAY:

2.4 Goods Without Packing

The above mentioned markings (points 2.1, 2.2 and 2.3) shall be indicated on those goods without packing with rust-resistant metal labels (or comparably resistant materials) using indelible paint, such labels shall be properly secured on both sides or both ends of the goods.

2.5 Hazardous, Dangerous and Radioactive Goods

The hazardous, dangerous and radioactive goods shall be marked in accordance with Clause 2.2.8 of the Contract document and with the international recognized standard symbols or figures.

3. Preparation Before Packing

The Seller shall ensure that prior to packing all items are prepared, protected and marked in accordance with the following:

3.1 Equipment Protection

All exposed machined steel or iron surfaces shall be treated with approved rust and corrosion inhibitor before any protective wrapping or covering is applied to prevent physical damage. All machined shafts shall be coated with the same approved rust inhibitor prior to lagging, battening with timber and securing with wire or steel strap.

All terminating flanges shall be protected by bolting timber, plastic or metal blanks to the flange; thermo-welds and threaded end connections shall also be capped or plugged.

3.2 Contents

All equipment shall be shipped in complete sets. Any special tools, accessories and the easily worn out spare parts shall be dispatched together with the main machine concerned, while the additional spare parts shall be dispatched, where possible, with the main machine concerned but in separate boxes.

3.3 Disassembly Marking

Large equipment requiring disassembly before transport shall be clearly match-marked prior to disassembly to facilitate re-assembly on site.

Matching marking shall be identical for each side of the equipment separation and shall also be non-repeating for the entire lot of the equipment. All match-marks to be used shall be enclosed with the shipment.

Loose accessories in each package shall be identified individually by a rust-resistant metal (or comparably resistant) label indicating in English the contract number, name of main equipment, name of accessories, quantity and its position

number on assembling drawings. Spare parts and tools shall be marked, in addition to the above particulars, with the words "Spare Parts" or "Tools".

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

3.4 Bolts, Nuts and Washers

Bolts, nuts and washers shall be grouped by size, type and number and shipped in separate sealed packages. The mixing of varying sizes or types will not be permitted. All bolts, nuts and washers are to be provided in waterproof bags or containers suitable for its handling on a construction site and each pack shall have a label properly secured identifying the contents. Large quantities of bolts, nuts and washers shall be packed into non-returnable waterproof plastic or steel drums with lids. Weld rods shall be vacuum packed in non-corrosive and waterproof metal cans.

3.5 Fragile Components

All instruments, protection relays or other fragile parts shall be removed, placed in sealed plastic bags and packed in expanded polystyrene or similar approved shock-absorbing material in timber boxes. All fragile components shall be properly secured or protected to prevent damage during shipment and shall be packed in separate crates and not with heavy items.

4. Packaging and Crating of the Contract Equipment

As a minimum the following requirements shall be followed by the Seller, however the Seller shall be free to adopt his own standards if they are better for the purpose intended. The Seller shall provide to the Engineer such standards for review not later than two (2) months before the first shipment.

4.1 Cases

All packing shall be in cases of solid timber and close jointed (i.e. not partially open crate construction) unless otherwise specified or approved by the Engineer. All cases shall be constructed for lifting by forklift truck and/or crane with slings but without the use of spreader bars. Cases may be consolidated into containers for shipment, however the requirements for the individual cases outlined herein shall still apply.

The cases shall be of a strong construction to enable them to withstand the possibility of any case being the lowest package in a multiple stacking situation.

Contents shall fit snugly inside the case and shall be restrained from movement by being properly bolted, if possible, to the base and braced by padded battens fixed firmly to the case through framing or uprights. Where metal or prepared paintwork may come into contact with the case timbers, it shall be protected from the abrasion by felt pads, foam rubber, plastic or cardboard. All cantilevered or similarly attached portions of equipment shall be supported to resist additional loads imposed during transport.

The inside of the packing cases shall be lined with an approved seaworthy packing paper. All equipment shall be wrapped with a rust-inhibiting 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 shall be covered with a layer of bituminous felt to prevent water seepage into the case.

Sharp corners of the contents and protuberances shall be wrapped in felt tape into position, to prevent damage to the protective wrapping or covering.

For further protection, a suitable desiccant shall be placed in each box in sufficient quantity to inhibit corrosion of the shipped goods.

4.2 Mechanical Equipment and Structural Material

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

Mounted motors in equipment shall be specially supported for transport to prevent damage to the rotor, stator end plates and shafts.

Structural steelworks dismantled for transport shall be marked to facilitate re-assembly on site.

Prepared and/or painted surfaces shall be fully protected by the use of a suitable packaging material between the lifting tackle and the work whilst loading is being carried out, to minimize damage to both the surface and the protective finish.

Projections from steelwork and prefabricated pipe work, such as lugs and splice plates which may suffer damage during transport shall be reinforced with timber packing pieces.

Steel members and prepared pipes shall be packed with adequate dunnage underneath and between members to protect the surfaces against movement during transport.

4.3 Electrical Equipment

All switchboards, motor control centers, enclosures and similar electrical equipment shall be packed in cases with a base adequate for lifting by a forklift. The equipment shall be bolted through the case onto solid bearers of 100 x 50 mm section to enable the lifting by forklift.

All equipment which may come loose in transit, in particular heavy items such as current and voltage transformers, circuit breakers and block resistors, shall be removed and separately packed to prevent vibrating loose in transit, resulting in damage to itself and/or other components.

All parts which may be shipped in a sealed bag shall have a desiccant fastened inside the enclosed space in additions to the desiccant for the case packing.

4.4 Packaging Standards

In addition to this document the latest edition of the "Packaging Guidelines" published by the Registered Federal Association for Wooden Packages, Pallets and Export Packaging (HPE) shall apply.

The HPE packaging guidelines form part of the requirements for the Contract Equipment and shall be properly implemented by the Seller.

Should any term, condition, specification or requirement indicated in this document conflict with any term, condition, specification or requirement written in the HPE Packaging Guidelines; then the most stringent shall be applied.

4.5 Wood Packing Treatment

All wood packing material (including dunnage) shall be properly treated and marked to fully comply with the applicable statutory regulations at or in the country of the Construction and, if required, the Seller shall provide to the Engineer the documented evidence of compliance.

4.6 Documents for Packages

The Seller shall include the detailed packing lists with each shipment, as follows:

- One (1) copy of the packing list shall be placed in a sealed, waterproof package and attached to each box, case, crate or pallet bundle containing the equipment (in a conspicuous but safe place where it may be seen but not accidentally removed); and
- One (1) copy of the packing list for shall be placed in a sealed, waterproof package and packed with the equipment inside each box, case, crate or pallet bundle to case.

NO ORIGINALS SHALL BE SEND OR ENCLOSED WITH THE SHIPMENT OR SENT THROUGH THE SELLERS FORWARDER OR SHIPPING AGENT.

The Engineer will indicate the exact wording to be used by the Seller and any other requirement for the shipment related documentation (i.e. invoices, packing lists, bills of lading, certificates of origin, etc.)

5 Shipping Procedures

The Seller shall inform the Engineer via email or fax of every single shipment made, indicating the transport or courier company, the goods shipped and the estimated date of arrival.

In accordance with terms of the Contract, the Seller shall prepare and submit to the Engineer the required documents related to the shipment. If partial shipments are made, these documents must be prepared for every single shipment. The documents should be clearly marked with the legend "Partial Shipment".

To facilitate the planning and monitoring of shipments, each shipment shall be numbered consecutively starting from 1.

6. Maximum Weight

The maximum permissible weight for any one crate, bundle or assembly (single lift) will, unless previously exempted in writing by the Engineer, shall be of 19950 metric tons (44000 lb).

7. Tools and Items for Erection, Training and Commissioning

All tools and any items required by the Seller for the erection, training and commissioning and for temporary use on the Project, which will be returned once the work is complete, need to be treated as an independent shipment, specially if coming from a foreign country. THEREFORE, THESE TOOLS AND ITEMS MUST BE SHIPPED (AND IF APPLICABLE IMPORTED) SEPARATELY FROM THE CONTRACT EQUIPMENT AND MUST HAVE THEIR OWN SHIPPING DOCUMENTS.

The Seller must notify the Engineer prior the shipment, the details of these type of goods (description, use, value, etc.) and the Engineer will inform the Seller on how to proceed for their shipment.

8. Shipment of Technical Documentation

The Technical Documentation to be delivered by the Seller shall be properly packed to withstand long distance transportation, numerous handlings and be protected against dampness, moisture and rain. The weight of each package case shall not exceed 50 kg (110 lb). The exterior surface of each package shall be marked with "Technical Documentation" and with the following:

- Contract Number
- Shipping mark
- Destination
- Documentation and Item No. according to the documentation delivery schedule.
- Case XX of YY
- Gross and net weight (kg)

Two copies of the documentation transmittal shall be enclosed in each parcel of the Technical Documentation.

One (1) copy of packing list shall be placed in a sealed, waterproof package and attached to each parcel containing the technical documentation (in a conspicuous but safe place where it may be seen but not accidentally removed).

The binding methods and inner packing of the Technical Documentation to be supplied by the Seller are as follows:

- Written documents: bound into volumes or folder-held
- Hardcopy drawings: folded as sets or folder-held (with drawing list attached)
- Transparent drawings: tube-held
- CD or similar media: impact protected folders or envelopes