

**FINAL**

## **Heavy Lift Cargo: Method Statement** **By Barry Tarnef**

### **Background**

A *method statement* or *work method statement* is a document that provides detailed, step-by-step instructions on how to safely perform a work-related task. It is designed to outline the hazards likely to be encountered while undertaking a task or process as well as give detailed guidance to help mitigate the risks.

In the ocean cargo sector, a method statement should be developed for heavy lift or project cargo shipments for the power, petro-chemical, offshore and other industrial applications for outsized equipment. These types of cargo will also normally involve specialized transport conveyances such as geared semi-submersible vessels, deck-strengthened barges, heavy lift air cargo freighters, rail flatcars and multiple axle tractor and trailers which should be considered in the development of the method statement. The manufacturer-shipper may prepare the method statement but more often this is done by specialist freight forwarders or third party logistics providers.

### **Scope**

A major element of the marine method statement is the health, safety and environmental risk assessment within each of the following components of cargo transport:

- Lifting - equipment and operator certification and overall suitability, operational limits such as wind speed, visibility and weather conditions
- Stowing - location, allowable deck load, and cargo and conveyance stability
- Securing – use of friction material, sea fastening practices and lashing design along with motion and acceleration forces calculations
- Transporting - routing, timing, maximum conveyance speed and safe harbor designation

### **Discussion**

Method statements vary in scope, depth and quality. Moreover, they can take a variety of forms. Method statements should be provided well in advance of the planned shipment; and the parties should, as practical, meet to discuss the plans and ensure that all of the steps are appropriate. A typical format will include the following:

***Distribution/Communication List:*** Names and titles of the relevant parties such as project and transport managers of the manufacturer-shipper, project and health, safety and environmental managers from the freight forwarder/3PL, subcontractor management, if applicable, and marine warranty surveyor (s) if assigned. Representatives from the marine terminal at the port of loading, transport companies, stevedores, crane operator,

sea fastening/lashing company, consignee and customs broker as well as their contact details (office/mobile phone and email) may also be included.

***Executive Summary-*** This is a high level summary of equipment to be deployed, the number and length of transport runs, route outline, provision of escorts and delivery times.

***Introduction:*** This provides the purpose of the document as well as a general description of the handling and transport of specified cargo from origin to destination (the starting and ending points are directly related to the agreed upon terms of sale between the seller and buyer so the activities may commence later than the fabrication facility or stop earlier than the installation site). Procedures are defined and regulations enumerated in this section so that compliance can be monitored to ensure an acceptable level of safety for people, property and the environment.

***Cargo Description:*** This provides a detailed description of the items including their dimensions, gross weight and shipping marks as well as specific reference to any special handling/cautions, such as center of gravity, lifting points, and other unique characteristics. If any of items has protective packaging such as crating a description should be inserted here.

***Schedule:*** The number of shipments, place of loading and discharge, transport schedule with dates and shipment of main (critical items) components.

***Project Organization:*** Overall activities itemized (by location) and a chart of personnel involved with roles, responsibilities and interfaces mapped. Activities could include loading and transport from factory/plant to port of loading, storage at load port, transfer from storage location to pier/quay, loading onboard vessel, securing/seafastening (welding, lashing, dunnage, etc.), ocean transport, discharging from vessel (including cutting welds and removing lashing and other cargo securing devices), transfer from pier/quay to temporary staging site at marine terminal, loading to inland (barge, railcar or truck) at discharge port, delivery to site and lifting on site.

***Description of Work Method Activities:*** Details of each of the activities mentioned in project

***Cargo Handling:*** A complete explanation of what is involved in handling the cargo. For instance, if a large generator is involved, this section of the method statement will indicate the number and type (shore vs. vessel; floating vs. stationary) of cranes and gear (slings, spreader bars, shackles, hooks, etc.) to be used along with what party will supply the handling equipment.

***Transport:*** Conveyance description including relevant particulars such as gross register tonnage, number and size, including openings of cargo holds

**Inspection E-route:** The frequency and manner of inspection of cargo and its securing while in transit

**Permits:** Registration with local authorities and permits, police escorting requirements and road closure details

**Risk Assessment:** This section highlights the known or anticipated route hazards, underground and above ground services, overhead obstacles, clearance issues and weather conditions

**Point of Acceptance:** The procedures and steps that take place upon arrival at the site

**Site Familiarization:** The transportation provider's knowledge of the site including awareness of rules

**Planning:** Offsite coordination of conveyance movements, police involvement, notification of delivery to site, weather windows, and clear corridors on local roads and on site

**Lifting:** Transfer of components from conveyance to hard standing areas at loading, transshipment, unloading and final destination points, lift plans, safe working loads, maximum safe wind speeds, load bearing capacity of hard standing area, exclusion zones, and authorized personnel

**Health, Safety and Environment:** A description of site rules as well as personal protective equipment (PPE) requirements, work permits, hours and any limitations

**Interim Reporting:** The reporting protocol for shipment location, status and any deviations

**Incident Reporting:** Contact (s), phone number (s) along with transport-route based repairs, breakdown and recovery procedures and protocol for managing incidents and any non-conformance events

**Maintenance Records:** Logs and maintenance records

**Task Specific Elements:** How safety systems of work have been defined for enumerated activities as well as addressing anything unusual

**Reference Documents:** Documents necessary to perform the work are identified.

**Record of Change Orders:** Revision numbers, date, affected pages, description of changes and requisite approvals. If/when changes are made; the risk assessment will also be revisited and revised as needed to ensure control measures are appropriate.

**Signatures:** Formal acceptance of the method statement

## **Final Thoughts**

After the completion of the move, the method statement should be revisited to determine what changes, if any, had to be made or any issues that arose during any of the processes. Experiences from real-world situations can allow for improvements on the developments of plans for subsequent shipments.

*Barry Tarnef, a vice president and senior risk specialist, loss control services, for the Chubb Group of Insurance Companies, can be reached at [btarnef@chubb.com](mailto:btarnef@chubb.com)*