



THE HEAVYLIFT ENGINEER

fig. 01/ lift ashore of module

WHAT TYPE OF HEAVY LIFT PARTNER DO YOU NEED

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Full handover to a single contractor, a fully self-managed project or another option? There is a broad range of classes of heavylift partner to choose from, each with their own strengths and weaknesses. When deciding it pays to understand the categories of contractor available and which category will be the "best fit" for your needs. The following is a broad categorisation of contractors and of course there will be differences between each individual supplier within the same category

Global Heavylift Equipment Owners

This is perhaps the best known class due to the visibility of their equipment. These equipment owners have, in most cases,

evolved from a heavy haulage or heavy crane background and have reinforced their equipment offering by added jacking, skidding, gantry systems, lifting equipment and even some marine plant over the intervening years.

The larger, global organisations tend to be very technically competent in the land based heavylift aspects of what they offer, although some do have marine experience as well. These owners normally take on the full land based scope of a project, primarily from their own equipment base, and then often subcontract marine based scopes. For very large trailer requirements, it is not unusual for these owners to cross hire equipment from each other to cover peak

demands. Mobilisation of equipment between their regional operations to cover shifting demands of equipment around the world can also occur. The primary interest of these owners is hiring equipment which they own, as part of your project delivery. These owners have a very strong service offering for the large heavylift projects such as refinery or power station builds. There is less interest from these owners in FEED studies (except when there is equipment hire possibilities), marine transport led projects (again except when equipment hire is possible), cargo integrity checks, and warranty or third party reviews.

Local and Specialist Heavylift Equipment Owners

This covers smaller, local companies as opposed to regional offerings from the global operators. They could be considered as versions of the global players, perhaps 40 or 50 years earlier in their evolution. They typically have slightly more specialised equipment or manage more niche projects. They can have a wide variance in technical and operational manning capabilities and investigation will usually reveal where their strengths and weaknesses lie. They would not normally be capable of the very large projects but can offer economical solutions for discrete, smaller lifts and site moves due to typically lower overheads.

Global Freight Forwarders

This category covers large, global organisations with a worldwide footprint including a presence in all major regions of the world. Freight forwarders usually have strong links with air freight and marine brokers as well as being very competent in

the management of customs requirements. Some freight forwarders have in-house technical capabilities and often supplement this with third party assistance when required.

Normally freight forwarders do not own their own heavylift equipment, however some of

the larger organisations may have separate asset owning divisions which provide access to vessels and road haulage equipment.

Shipbrokers

Shipbrokers can assist when it comes to sourcing the most suitable ship, tug or barge for your heavylift project. To source the vessel, they may use the open spot market or utilise existing relationships or partnerships with specific shipowners. They, typically, have good connections with various ship owners and know where their vessels are and what space they have onboard at any given time.

Brokers have a very good understanding of maritime contracts and will be able to advise on appropriate terms to utilise when booking a vessel, if they are acting on your behalf rather than the ship owner's. It is important to understand this point at the outset of a project as you may need a broker acting on your behalf during any negotiations.

Shipbrokers normally do not work on fixed price contracts nor do brokers offer any technical assistance, other than technical support offered by a shipowner as part of their freight rate, which can vary dramatically between owners.

Technical Authorities

Technical authorities are support contractors offering engineering and operational services within the heavylift industry.

Technical authorities can usually be split into two groups:

- 1) Marine Warranty Surveyors
This group normally act on behalf of underwriters who carry responsibility for insuring cargo. The marine warranty surveyors ensure that, to the best of their abilities, the operation is executed in a safe and controlled manner. This includes ensuring that sea fastenings and stability of the vessel is acceptable. In addition, the

surveyors ensure that trailer arrangements and crane lifts are carefully managed and technically sound. Marine warranty surveyors can also offer these services to clients directly and can act as a third party reviewer that offers assurance on technical and operational proposals. Marine warranty surveyors would not normally execute any heavy lift operations. Their responsibility would normally be limited to third party design checks and on site oversight only.

2) Independent Technical Design Houses
This group covers a wide range of boutique consultancies that offer heavy lift design and support services. These houses tend to have specialities in certain fields such as craneage, marine operations, or trailer operations but in some cases have a strong offering across all fields. Independent technical design houses can also offer on site support and oversight of the actual execution of the operation in question. These houses tend not to offer actual prime contracting services and instead rely on the client to take control of the commercial aspects of sourcing and hiring of all required equipment.

Project Management Consultants

Project management consultants, as the name suggests, offer project management services and draw together the various aspects of a project, usually on a fee based structure (either hourly paid or fixed price fee). Contracts for execution of the project would be placed (by the client) with each of the contractors direct. Responsibility for management of the procurement process would either rest with the client, or in a more limited capacity, with the project management team.

Using a project management team that does not have considerable experience of heavy lift projects can result in several operational challenges. There are instances where the responsibilities demonstrated by the project management team do not appear to align with the requirements of the client. This is usually due to a lack of

management of the interface between the various contractors. This interface control is critical in the execution of a safe and well managed project.

Prime Heavylift Contractor/Technical Authority Hybrid

This is a hybrid merging the key offerings of all of the above categories into one. A prime heavy lift contractor may not be an equipment owner, however this contractor takes responsibility for all aspects of the project and offers a single fixed price for the work that they are responsible for managing and delivering against. It is imperative that the prime contractor has the following key features for the successful delivery of a heavy lift project:

- 1) a solid tendering and procurement process.
- 2) experienced project management staff with robust controls.
- 3) experienced operational and site teams including trailer experts, qualified crane/lift engineers, naval architects and marine superintendents.
- 4) in-house chartering experience.
- 5) a broad technical capability that can cope with a wide variety of heavy lift challenges from mooring studies, FEA, vessel and trailer stability and crane studies.
- 6) a well connected and diverse equipment supply chain that can be brought to bear on any challenge the heavy lift project faces.

Hopefully this article has offered an insight into the different types of heavy lift partner available. Understanding what services & equipment are available is the first step to a good heavy lift partnership.



fig. 02/ arrival of floating crane to quay for lifting heavy reels