KNICKERBOCKER MARITIME

42-30 DOUGLASTON PARKWAY, NO. 5D • DOUGLASTON, NEW YORK 11363

TEL: +1 (917) 930-6129 • FAX: +1 (775) 264-0655 • E-MAIL: INFO@KNICKERBOCKER-MARITIME.COM

WWW.KNICKERBOCKER-MARITIME.COM

4 May 2003

TECHNICAL SHIP MANAGEMENT'S EFFECT ON OWNER'S PROFITABILITY

The technical ship management function is critical aspect to maintaining a profitable and well respected shipping venture. Ship managers control or influence a large part of shipping expenses, but ship managers have the most dominant influence on overall expenses. This team also affects the quality of charters, the quality of crew, the quality of suppliers and the owner's reputation. The owner's reputation affects the cost of capital.

Ship Management Business Proposition

In order to understand the ship manager's invoice, it is important to understand what the technical ship manager's business proposition is and how the ship manager is compensated. This brings to light what the ship manager can legitimately charge and the areas that an owner must be vigilant to avoid overcharging or fraud.

A typical ship manager can basically only sell their time and services and subsequently charge an annual fee plus extraordinary costs on a standard contract such as the BIMCO Ship Management form. They have essentially no risk when it comes to liability: The ship manager has limited liability--even in cases of gross negligence. Ship managers that have an equity position has a different perspective on the business proposition and have much greater liabilities than "pure" ship managers. Vessel operating costs and costs associated with managing the vessel above the ship manager's standard services are usually charged to the vessel/vessel owner. Thus, ship managers that have no equity position or not otherwise tied to the performance of the vessel are competing against other ship managers for quality of service. The true operating costs of the vessel are of little consequence because they are passed through and paid with the owner's funds (it is virtually unheard of for a manager to front an owner funds for any operating costs).

A ship owner has an entirely different business proposition—chartering the vessel for more than the combined capital costs (CAPEX) and operating expenses (OPEX). Thus, a penny saved is a penny earned. Shipping, like most other mature industries, is highly competitive with little separation between the highly profitable titans and the failing enterprises.

Table 1 shows an example of how the costs are compared for a typical ship owner and a typical ship manger assuming 30 vessels in the fleet, international trading dry bulk or tankers that have been substantially written down. The owner overhead is comprehensive because it accounts for a high rent, staff compensation and other GA services.

Table 1: Relative Costs for Owner and Ship Manager

Owner		**Manager**	
CAPEX	$64,800,000	Salaries	$5,100,000
OPEX	$48,600,000	Services	$500,000
Overhead	$7,500,000	Rent	$460,000
Daily Cost	$335,833	Daily Cost	$16,833

- CAPEX: Substantially written down vessels, 6,000 $/day per vessel
- OPEX: 4,500 $/day per vessel (includes ship management fee)
- Owner Overhead (including rent, staff compensation, IT and other GA services).
- Rent: Taken at 30 $/sq ft which is average for Class A, midtown Manhattan.

As the table illustrates, the ship manager's sense of "cost" is very different from the ship owner's sense of cost. Furthermore, pushing the ship manager for a significant reduction in, say rent, of 20% will affect the owner's daily cost by less than 250 $/day or 0.074%. Likewise, a ship manager claiming significant internal cost reductions as a selling point must be evaluated in context of the other costs a shipowner faces.

The next consideration is operating leverage and how that applies to ship managers and subsequently the owner's expense/profit line. If operating leverage is defined as the very large profit margin for taking on a small piece of additional business (say 50% profit margin over the baseline profit) because it is on the back of a substantial infrastructure, then ship owners have a substantial operating leverage advantage over ship managers. Ship managers have a true operating leverage in a small area of between 25 and 50 ships. Above this portfolio size, ship managers have incremental gains that diminish to practically zero above 75-100 ships (depending on how efficient the ship manager's internal operation is).

Nevertheless, the ship management function must accomplish the same results whether it is internal or outsourced. The ship management function controls or influences 40% of the total shipping enterprise with a cost to the owner of 5% of the shipping enterprise: This is one of the most compelling reasons why excellent ship management is worth the fee (outsourced) or cost (internal).

Where Ship Management Affects the Owner's Balance Sheet

The efforts of ship managers ultimately affect the owner's financial performance. The obvious ways include keeping operating expenses reasonable and keeping the ships operating with no "unplanned offhire"—a euphuism for breakdowns, port state control or other incident which takes the vessel off charter which was not planned by the owner, charterer or ship manager. The less obvious ways the ship manager affect the ship owner's financial performance include better rates for insurance/P&I coverage, reduced planned offhire times (e.g. drydockings) and preservation of the ship's value. Examples of poor management might include an owner allocating 10 days per year for unplanned offhire instead of the zero days consistently achieved by first class managers. Another example of excellent ship management would be reduced planned offhire in way of drydocking—an average manager might require 30 days for a complete shipyard period, whereas an excellent manager can accomplish a special survey/shipyard period in as little as 10-15 days. For a VLCC earning 45,000 $/day, the poor management would cost 450,000 $/year of revenue from "unplanned offhire" (plus the very expensive repairs for emergency work) whereas an excellent manager would gain about 360,000 $/year in additional charter time for more efficient shipyard periods. Although the operating expenses could nominally be the same between the excellent and the poor manager, these two areas correspond to a difference of around 800,000 $/year (2,250 $/day) when the drydocking is allocated over a 30 month period for the ship owner's income.

Chart 1 shows the relative OPEX differences between the "The Excellent, The Good and The Poor" ship managers. This is followed by a discussion on the effects for a shipowner and how it affects the shipowner's business of attracting capital, attracting good charters and attracting good suppliers of services and materials.

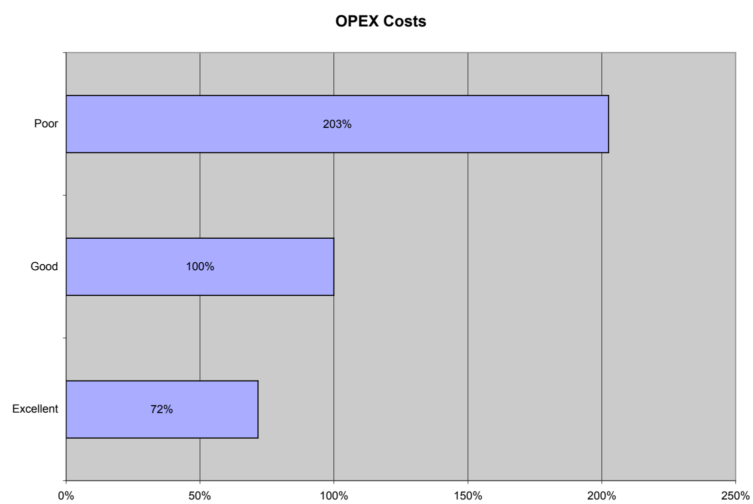


Chart 1 shows the relative differences on a gross scale. A closer review will show differences on a departmental level and how they correspond. This chart shows the direct and indirect effects of excellent, satisfactory and poor ship management practices in the relative extremes. That is, the excellent ship manager is excellent in all areas and the poor ship manager is poor in all areas.

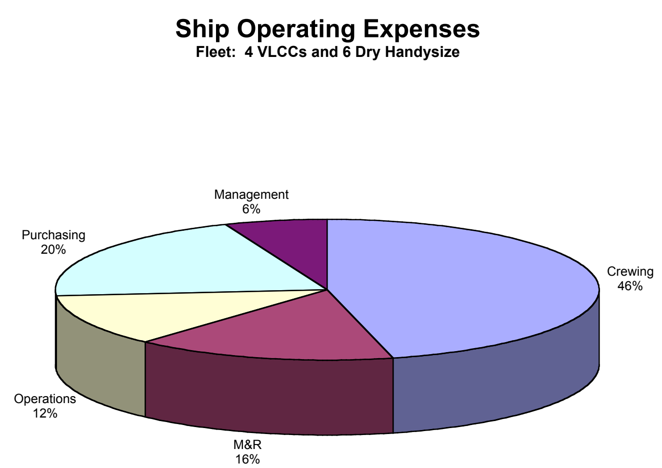
An example portfolio of 10 ships comprised of 4 VLCCs and 6 dry handysize bulk carriers provides a good example of how the operating costs are divided and the relative effects of an excellent, satisfactory and poor ship management practices. Table 2 and Chart 2 show these expenses for a satisfactory ship manager.

Table 2: Example Daily Operating Costs of Sample Vessels and Composite Fleet

Category	VLCC		Dry Handy		Composite (per vessel)	
Number	4		6		10	
Crewing	$3,200	40%	$2,038	56%	$2,503	46%
M&R	$1,356	17%	$500	14%	$842	16%
Operations	$1,100	14%	$350	10%	$650	12%
Purchasing	$2,000	25%	$500	14%	$1,100	20%
Management	$417	5%	$278	8%	$334	6%
Total	$8,073		$3,666		$5,429	

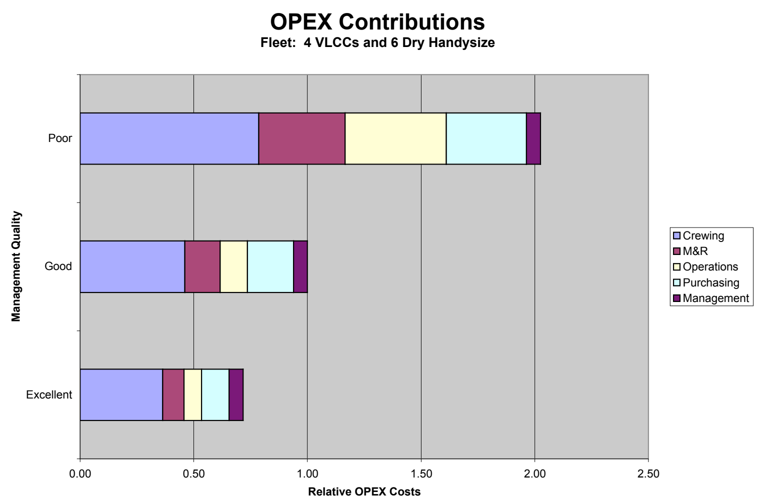
For the purposes of simplification, Drydock and Special Survey are included in the Maintenance and Repair category. Lube Oil is included in the Purchasing category. Insurance, including Hull and P&I is not included in the expenses because it is assumed the owner is directly engaged with this line item.

From the preceding charts, it is readily apparent that crewing is the dominant influence on controlling operating expenses. Motivated, well trained, experienced crews that are organized and efficiently managed are the keys to keeping all other costs controlled and—more importantly—predictable. The crew, while managed and organized by the ship manager, is generally responsible for the direct and indirect control of operating expenses related to crewing and other areas.



But the part that cannot be overstressed is that crewing process of the ship management function can only show its excellence when it is tightly integrated into the total ship management function. The big savings comes in way of indirect cost control. The indirect costs are classified as those that are not directly in the Crewing budget, such as travel, wages or irrecoverable expenses—which are generally handled quite well by most reasonably good ship managers. The indirect costs are the ones that appear in other budget items such as Purchasing or M&R because of poor ordering practices (placing purchase requisitions too late for economical price and delivery) or poor tank work requiring an immediate reblasting and recoating. The crew that is well trained and loyal to the company will avoid these bad practices for many reasons: they are aware of the ordering cycle and lead times and they do good tank work the first time to avoid redoing the same tank only a few months later.

The areas of operations and M&R just about equal in controlling operating expenses, but we will examine the items separately.



The ship manager is principally responsible for the direct and indirect actions in Operations. Operations is the one area where coordination separates the excellent from the poor. A good Operations department ensures efficient use of helicopters, minimum number of launches, coordinated storings, well timed vetting inspections and the like. A satisfactory ship manager can typically coordinate well enough to keep last minute issues from becoming very expensive from a cost and delay point of view (although ship managers do not see the charter cost of delays, the owner is quite aware of the lost hire time).

Maintenance and Repair is an area where excellent ship managers truly separate themselves from satisfactory or poor ship managers. This area gains excellence by keeping the ship's crew productive and not performing repetitive or unnecessary work. The M&R department can keep the costs to a minimum by proper scheduling of surveys and repair work, providing enough lead time to order spares or other long lead items and delivering to low cost ports. The M&R department, is also primarily responsible for maintaining the value of the vessel by first class M&R efforts—in some cases, the M&R function can add value to a vessel by improving its hull condition (coatings, corrosion control or addressing known structural problems) and/or the machinery condition by retrofits or bringing poorly performing equipment to standards. Maintenance and Repair is also heavily influenced by the crew: a great crew can accomplish a surprising amount of work when they are familiar with each other and the vessel.

Procurement is a smaller expense with that is influenced in equal parts by the crew and the ship manager. Procurement is an area where improvements from standard are hard to obtain, but expenses above the standard are frequent. Procurement problems stem from areas such as poor ordering practices of the crew and home office, poor interaction with the suppliers, poor choice of suppliers and badly coordinated deliveries (high cost ports, disjointed deliveries, etc.). Excellent purchasing is characterized by good ordering practices (clear orders with sufficient lead time), good selection of suppliers with close relations and excellent coordination with others for delivery to the vessel.

The insurance, including P&I, reflects the fleet composition, size and claims records. This implies that a well run vessel, with no incidents triggering a claim, will have a lower premium. Furthermore, particularly with P&I, the perceived quality of the ship manager has a significant effect on the premium.

Sample of Relative Costs

With the differences in operating costs outlined, it is possible to see how they can be applied in the larger picture that the ship owner operates. One example is presented showing the CAPEX and OPEX for a modern VLCC. These are compared with some of the items the ship owner is aware of, such as offhire and better charter rates for better operated tonnage. Again, this illustrates the extremes of ship management.

Table 3: Overall Gains/Losses for a Ship Owner based on Ship Management (all costs in USD/day)

Item	**Excellent**	**Good**	**Poor**
CAPEX	$22,871	$23,714	$24,578
OPEX	$5,785	$8,072	$16,346
Insurance	$350	$400	$500
Unplanned Offhire	$0	$0	$1,111
Planned Offhire	-$694	$0	$1,667
Owner's Overhead	$657	$657	$657
Charter Rate	$50,000	$45,000	$40,000
Total Cost	$28,969	$32,843	$44,860
Gross Profit	$21,031	$12,157	-$4,860
Gross Profit	42%	27%	-12%

This example, while extreme in its portrayals of excellent compared to poor ship management, shows a difference of a company losing money and a company which is enjoying an excellent profit on a vessel which, in all other respects, is identical.

How to Select a Ship Manager or Design an Internal Team

This section covers some of the important items to look for in a ship management team, regardless of whether the ship management is outsourced or internal.

The most important element for the owner to establish is the operating style that is most appropriate to the vessel, trading pattern and the owner's own comfort. Major considerations include the following:

- Geography of the trade pattern, for instance worldwide tramping, regional coverage, liner or regular trades.
- Centralized vs. Decentralized: Some ships can be very effectively managed with a decentralized structure. Others cannot. Determine which structure is correct either on a per ship or fleetwide basis as early as practical.
- Specialized or general fleets/services: Many owners have a single vessel type (e.g. all Aframax crude tankers) or a mix of vessels that might include tankers, bulkers, container ships and possibly offshore installations. This will dictate whether or not to engage multiple specialized ship managers for outsourced work or sole source to a full service manager.
- Determine how much outsourcing the ship manager does and to whom: Many third party ship managers subcontract specific services to other specialists. The most common is the use of a specialized crewing manager. An owner should determine how much subcontracting he is comfortable with and determine what the risks and benefits of this approach provides.

Obtain a sense of operating style and stability from a variety of sources, including standard metrics. High crew turnovers are not good. Excessive sole sourcing of shipyards or suppliers on very long terms (multi-year) is an indication of potential trouble: likewise with 100% spot M&R/purchasing. Review the controlled fleet for port state control and incident records.

References

The best possible way to get a subjective sense of how the ship manager—internal or external—is to get references from a variety of sources. These include suppliers, shipyards, individual crew members, insurance brokers, P&I clubs, port agents, charterers and other owners. Recheck the references frequently and follow up on why references are good or bad.

Quotations

Obtain multiple quotes from various ship managers and ask yourself what is missing or included in each quotation. Do they include everything such as a Drydock and Special Survey allocation? Do they provide realistic numbers?

Ship owner control on ship manager

A ship owner is bound to get less than stellar results without good control over the ship manager. This applies equally to both third party and internal ship management teams. The following can provide a good basis for maintaining the necessary level of control.

Reporting: Reporting of all happenings with the ship in clear, organized and detailed manner will provide a constant flow of information to frequently evaluate the management and the fleet.

Excellent reporting will also allow for the owner to identify problems before they occur and to consistently improve the operation. Poor reporting is often a source of confusion and an indication of poor organization within the ship management group.

Owner's Representative: The ship owner, especially in cases where third party management is used, must have a representative that understands ship operations on all levels. This representative must also be entrusted and willing to constantly follow up on the manager and directly with the vessel. The owner's representative must be willing to visit the ships take an active role in inspections, audits and witnessing all manner of operations. A good owner's representative also provides a morale boost to the crew because it indicates to the crew that the owner cares about ship and all that happens onboard and around.

Close Contact: The ship owner must maintain close contact at all times with the manager and the vessels. This serves as a constant reminder to the manager and the crew that the owner is aware of the activities.

Ability to change management: Changing ship managers is a difficult and costly excercise for all parties. There are transfers of records, audits/reaudits related to class, ISM and a whole host of other issues. But a ship manager who senses that an owner is reluctant to change management teams is automatically placed in a position of not having to provide excellent service. An owner must make it abundantly clear that the ship can and will be moved to other managers if the present system provides less than satisfactory results.

Constant References: Consistently check references from a variety of sources to ensure the manager is providing the expected level of service. Consistently cross check the references to ensure validity.

Conclusions

Ship management is a frequently overlooked aspect of shipping. Yet, ship managers control or influence some of largest costs associated with owning and operating a ship. Furthermore, ship managers control or influence the costs most subject to wide variations.

Summarizing:

Good Ship Manager: Predictable costs, reasonably competitive costs, maintenance of owner reputation and piece of mind for the owner.

Poor Ship Manager: Unpredictable costs, high operating costs, detraction from the owner's reputation and many restless nights for the owner.

Excellent Ship Manager: Predictable costs, highly competitive costs, improvement of owner reputation and piece of mind for the owner.

File: *Macintosh HD:Users:peterwallace:Data:Knickerbocker Maritime:007 Marine Money:Ship Management Article.doc*