

Finding space on shipbuilding bandwagon

The current alignment of a further acceleration to the schedule for phasing out single-hull tankers with an unprecedented demand for shipyard building berth space for all types of ship will put the tanker industry's ability to carry the world's oil under great pressure.

Shipyards in the Far East are currently enjoying the busiest-ever spree of new ship orders, with interest in new tankers leading the surge. The healthy demand for new vessels in other sectors of shipping, particularly the bulk carrier, container ship and LNG carrier trades, is driving owners of other ship types to get in quick and reserve whatever berth space is available. For an order placed today, whatever the type of ship, delivery within three years is looking increasingly unlikely.

An example of how owners of non-tankers have scrambled to find space on the shipbuilding bandwagon is given by the container ship sector. After holding back in the last quarter of 2002, in anticipation of a drop in ship prices, owners of container ships could wait no longer and so far this year have ordered 70 new ships worldwide. Although the pace of ordering of new LNG carriers has slowed markedly in recent months, a considerable amount of shipyard capacity over the next three years is given over to construction of these high-value, work-intensive ships. The current LNG carrier orderbook stands at 54 vessels, a significant number, considering that there are only 140 LNG carriers in service. Some 48 LNG carriers are due for delivery before the end of 2005.

A further contributing factor is the attractive financing arrangements that are now available to shipowners. Cheap finance is doing nothing to slow the interest in new ships.

Effects of Prestige

Notwithstanding the rush of non-tanker orders, the demand for new tankers is the dominant factor in the current surge of shipyard activity.

In the tanker sector a combination of one of the coldest winters in recent memory, the knock-on effects from the Prestige sinking, the Venezuelan oil strike, nuclear power plant shutdowns in Japan and uncertainties over Iraq sent rates for all types and sizes of tankers soaring in late 2002/early 2003. This, in turn, highlighted the rapidly disappearing gap between the demand for tankers and the availability of the type of ship required by the market.

More than any other factor, the break-up and loss of the tanker Prestige off northwestern Spain in November 2002 is driving the requirement for new tanker tonnage. As highlighted elsewhere in this issue, the Council of Transport Ministers of the European Union agreed on March 27 that Europe will accelerate still further the recently agreed, speeded-up IMO timetable for phasing out older single-hull tankers. Subject to approval by the European Parliament in June, this new timetable could come into effect as early as July 1, 2003. EU member states have also tabled these proposals at IMO for adoption internationally, but even with this rulemaking process placed on a fast track, it will not be possible to implement the requirements agreed at IMO before 2004.

Aside from the regulatory process, commercial pressures are also a factor. As was the case when the tanker Erika sank in similar circumstances in December 1999, some oil company charterers are seeking to distance themselves from older ships, deferring to the public perception that an ageing tanker is an unsafe tanker. A number of charterers have said they will not fix single-hull tankers over the age of 15 years for the carriage of heavy oil.

Numbers game

It is estimated that the proposed new EU requirements for so-called Category 1 pre-MARPOL ships would require the removal of 400 tankers of 40m dwt by 2005, rather than 2007 as currently specified. The new Category 2 ships requirement would necessitate the removal by 2010 of 70m dwt of tanker shipping that would otherwise have been allowed to continue sailing until 2015.

Unique to the EU requirements, i.e. this particular proposal has not been placed before IMO, is an immediate ban on Category 1 single-hull tankers aged more than 23 years and built before 1982. Unless all such tankers are able to find a home outside European waters, this proposal would effectively bring forward to 2003 the need to replace a significant volume of new tonnage.

A recent study by MSR Consult ApS, commissioned by the International Association of Independent Tanker Owners (INTERTANKO), concludes that, with the current competition for berth space, shipyards will not be able to deliver replacement tonnage at the same rate as single-hull tankers are scheduled to be phased out. The report states that in order to replace the single-hull tankers eliminated by the 2003 EU phaseout schedule, current world shipyard output would need to increase by 36%. This is 10% beyond the existing global shipbuilding capacity.

Tanker fleet profile

The world fleet of tankers over 10,000 dwt has remained relatively stable at approximately 3,550 ships over the last five years. The fleet breakdown by size, as at January 1, 2003, is shown in Table 1.

Table 1 World tanker fleet by size

Size range (dwt)	No of ships	Tonnage (m dwt)
10,000-60,000	1,982	60.4
60,000-80,000 (Panamax)	212	14.5
80,000-120,000 (Aframax)	553	53.7
120,000-200,000 (Suezmax)	284	41.8
200,000 + (V/ULCC)	427	124.8
OBOs and O/Os	120	12

Considering the ordering activity of recent months and the number of new ships due for delivery this year, ship scrapping facilities will have to remain very busy over the next few years if this global tanker fleet is to remain of similar overall size. During the first quarter of 2003 owners placed orders for 137 tankers totalling 15.5m dwt, almost five times the number ordered during the same period in 2002 and approximately two-thirds the number of tankers contracted last year. By the end of the first quarter some 4.6m dwt of new tanker tonnage had been commissioned. Altogether, a total of 32.1m dwt of tankers is scheduled for The 2003/2004 tanker newbuilding logbook comprises some 23 VLCCs, 14 Suezmaxes, 28 Aframaxes, 16 Panamaxs and 56 medium-range (MR) products tankers. This MR orderbook is set to replace all tankers in this segment built before 1989, while the Suezmax orderbook will replace all tankers in this segment built before 1991.

Far East focus

The MSR Consult report points out that the world's shipyards currently have an aggregate utilisation rate of 80%. The big Far East yards in Korea, Japan and China, which account for the vast majority of new ship output and where ships can be built comparatively cheaply and quickly, have a higher than average utilisation rate.

With the recently merged Japanese shipbuilding conglomerates reporting full orderbooks into late 2005 and early 2006, Korean yards have been the principal recipients of the first quarter 2003 ordering frenzy. Now, Korean yards, too, are unable to promise a delivery date before late 2005, unless the owner is willing to pay a premium for an earlier handover or the newbuilding is the confirmation of an earlier option.

The frenzied activity is also benefiting Chinese shipyards. Of the latter, those that have made major investments in modernising their facilities in recent years are enjoying particular success in converting tenders into firm orders.

Korea vanguard

Korea confirmed its position as the world's leading shipbuilding nation, securing a record \$5.36bn worth of new ship orders during the first quarter of this year. The 4.3m gross tons (gt) of new orders was four times the amount Korean yards recorded in the first quarter of 2002 and equivalent to 53% of all orders placed last year. Korean yards are expected to win 7.7m gt of new orders in 2003, of which 7m gt will be export orders.

Last year Korean shipbuilders won \$10.5bn worth of new orders, with crude oil and product tankers accounting for over 60% of the ships contracted in that country's yards.

Yard performance

After having its role as the world's leading shipbuilder threatened by Daewoo for a few months in 2002, Hyundai Heavy Industries (HHI) of Korea pulled away towards the end of the year to ensure its premier status was maintained. Orders for 14 oil tankers worth \$800m in the remaining weeks of the year helped boost the 2002 order portfolio.

This success was continued into the new year, with HHI winning orders worth \$1.4bn during the first 10 weeks of 2003. Hyundai is now targeting \$7.33bn of new orders for the whole of 2003, some 23% ahead of the estimate made in the latter half of last year. The shipbuilder has an orderbook of 128 ships worth \$6.9bn, equivalent to 30 months' work. HHI has built more than 1,000 ships, equivalent to 77.5m dwt, over the last 30 years.

Daewoo Shipbuilding and Marine Engineering (DSME), the world's second largest shipbuilder, took \$1.6bn worth of the first quarter 2003 Korean orders, including contracts for 15 double-hull tankers and an oil platform. The latter was Daewoo's largest ever order. The yard is confident of securing orders worth \$3bn this year, with oil tankers expected to be a dominant feature of the 2003 orderbook.

Samsung Heavy Industries also reports a successful first 10 weeks to the year, having recorded orders for 20 oil tankers, LNG carriers and container ships worth a total of \$1.1bn. The Samsung backlog of orders now stands at 110 vessels, enough to keep the company busy for 30 months.

Korea's three medium-sized yards - STX Corporation, Shina Shipbuilding and Hyundai Mipo - are currently enjoying particular success in the tanker sector. Hyundai Mipo secured orders for 40 ships worth \$1.1bn in 2002, the vast majority of which were product and chemical/product tankers. The Shina orderbook comprises chemical/product tankers of 25,000 and 37,000 dwt virtually exclusively for European owners. STX builds product tankers, primarily of 35,000 dwt and 45,000 dwt but also occasionally to its 74,000 dwt Panamax design. At one point in 2002 its orderbook stood at 27 ships and the yard is currently delivering vessels at the rate of one per month.

Japan restructures

Japanese yards, too, enjoyed a healthy level of ordering in the first quarter of 2003, the 1.59m gt of new ships being 34% more than in the first quarter a year earlier. In

fact, relatively few orders for new ships were placed anywhere in the first quarter of 2002, as shipowners sought to come to terms with the uncertainties created by the September 11 attacks. However, the last nine months of the year represented a busy time for Japan's shipbuilders, not only in terms of new orders but also the restructuring and consolidation of their industry.

Hitachi Zosen Corp and NKK Corp combined their shipbuilding divisions to form Universal Shipbuilding Corp in 2002, while the shipbuilding arm of Kawasaki Heavy Industries was spun off to create Kawasaki Shipbuilding Corp. Meanwhile, IHI Marine United Inc was established from the merger of Sumitomo Heavy Industries shipbuilding division with the shipbuilding and offshore businesses of Ishikawajima-Harima Heavy Industries (IHI).

Shortly before Universal was given a stock market listing, NKK had handed over to Nippon Oil the 300,000 dwt Tateyama, the first so-called Malacca-max VLCC, i.e. the first VLCC designed specifically to transit the Malacca Strait with the maximum possible cargo volume onboard. The maximum draft allowed for a tanker passing through these waters is 20.85 metres.

IHI Marine United has since developed its own Malacca-max design, this one for a 300,000 dwt tanker with a cargo tank capacity of 350,000 m³ and able pass through the Strait on a draft of 20.5 metres. The ship's gross tonnage is kept below 160,300 to comply with restrictions currently imposed by several Japanese oil terminals.

Cost pressures

The restructuring activity comprises part of an effort by Japanese shipbuilders to cut production costs in the face of stiff competition from Korea. The two countries have vied for the honour of being the world's No 1 shipbuilding nation in recent years, but the recent success of Korea has pushed Japan back into second place.

Japan, in turn, is concentrating its efforts on securing orders for ships at the higher added-value, higher tech end of the spectrum. Mitsubishi Heavy Industries (MHI) and Kawasaki, for example, have targeted the LNG carrier sector and regard VLCCs more as stopgap orders - good to have but meant primarily to cover the lulls in between orders for LNG carriers and cruise ships. MHI is no stranger to VLCCs, having built 100 such tankers in the past.

Kawasaki has also taken the unprecedented step, for a Japanese shipbuilder, of investing in a Chinese yard. It is involved in a 50/50 joint venture with Cosco called Nantong Cosco Kawasaki Shipyard (NACKS). NACKS is located in Jiangsu Province, China's third shipbuilding centre after Shanghai and Dalian.

China on the rise

There is a consensus that it is only a matter of time before China takes on the mantle of the world's leading shipbuilder and, of those optimistic about the future of the nation's yards, most believe it will achieve the top spot well before 2020. China is now the third largest shipbuilder in the world by a wide margin. Last year was characterised by an orderbook that was only large in tonnage terms but also more diversified in terms of ship types than ever before.

Two shipyards in China are able to build VLCCs - Dalian New Shipbuilding Heavy Industries (DNSHI) and the new greenfield complex of Shanghai Waigaoqiao Shipbuilding on the Yangtze River estuary. The latter has been established specifically with VLCC construction in mind, although it is starting off with the emphasis on smaller tankers and bulk carriers. DNSHI delivered the first Chinese-built VLCC, the 300,000 dwt Iran Delvar, to its owner - National Iranian Tanker Co - in 2002.

Also, two further shipyards are currently being provided with new building docks that will enable them to construct VLCCs. These are New Century Shipbuilding (formerly Jingjiang Shipbuilding), on the northern bank of the Yangtze River, and Dalian Shipyard. Dalian expects the first larger tankers to be fabricated in its new dock to be

of the Suezmax size, although it hopes to step up to VLCC construction within a short period of time.

While the Hudong-Zhonghua yard may have the theoretical capability of building VLCCs, the restricted river width at the yard may present problems for such large ships. In any case the yard has set its sights in a different direction and is now in a favourable position to win the imminent order for the first LNG carrier to be built in China.

Other Chinese yards engaged in tanker construction are Shanghai Edward Shipyard, Mawei Shipyard, Sumec Marine, the Jiangnan yard in central Shanghai, Guangzhou Shipyard International (GSI) and Xiamen Shipyard. The emphasis at these yards is on smaller ships such as product tankers.

European chances

Despite the magnitude of the current ordering spree, there has been, as yet, little room on the bandwagon for high-cost European shipbuilders. The march of time has left Europe with a much-reduced number of shipyards where the focus is on craft requiring a high level of technical skill in design and construction - vessels like cruise ships, offshore structures and naval ships. Now, with orders for new cruise and naval ships dwindling, the remaining yards in Europe are coming under increasing financial pressures. The relatively strong euro is not helping matters.

Notwithstanding the ongoing argument about current levels of government subsidy for shipyards, builders in the Far East no doubt benefited from the support given to their industry while it was in its formative stages two decades ago. The mainstream shipyards in Japan, Korea and, more recently, China now operate highly efficient production lines capable, in most situations, of turning out the volume of ships needed to replenish and expand the world fleet.

Croatian exception

Although Asia has the reins for the current shipbuilding bandwagon firmly in its grasp, one country in Europe has achieved a measure of success in the competitive shipbuilding market. Croatia's five shipyards have 44 ships on order totalling 2.3m dwt and are tendering for a number of further newbuilding projects. All the orderbooks are more or less full through to the end of 2005. Three-quarters of the ships on order in Croatia are product and product/chemical tankers.

The current state support scheme, a relatively cheap labour force and a decision to specialise in product tanker construction have helped the nation establish a niche. In most league tables Croatia is placed fourth amongst the world's shipbuilding nations. Four of the five Croatian shipyards are still publicly owned and are likely to be privatised in the not too distant future.