Supplying the Shipbuilding and Shipping Industries

By Hayden Stewart

"Exporting to Japan is not difficult," smiles Jack Berglund, the commercial marketing manager of Alabama, U.S.–based Atlantic Marine.

After unloading cargo in the eastern United States, many Japanese shipping lines have their vessels maintained at Atlantic Marine's shipyard or another firm's facility in the North or South Americas.

Atlantic Marine's business with Japanese companies has increased 300% over the past few years. Says Berglund, his company has won the confidence of Japanese lines with its honesty, quality, location and good price.

Atlantic Marine is not the only foreign company expanding its business with Japanese shipping lines and shipbuilders. Many are doing so.

Japan has long been a leading maritime power, but Japanese firms have only recently begun to stress the importance of international alliances. Price competition with rivals in Asia and exchange rate fluctuations are driving this change of heart.

Shipyards in Japan produce more ocean–going vessels than firms in any other country. But their market share and profits are now endangered by the yen's instability and aggressive competition in South Korea. In order to cut prices, they are improving productivity and purchasing less expensive ship machinery—components such as engines, pumps, deck apparatus and navigational equipment. Industry insiders expect many of these purchases to take place overseas.

Japanese shipbuilders include Mitsubishi Heavy Industries, Hitachi Zosen, Mitsui Shipbuilding and Engineering, Kawasaki Heavy Industries, Ishikawajima–Harima Heavy Industries, Sumitomo, Fuji Heavy Industries and nearly two dozen midsize firms.

Japan is also home to five world–class shipping lines that carry oil, containers, cars, raw materials and other products from country to country. Price competition and exchange rates are similarly pushing these firms into the arms of foreign companies.

The five major shipping lines comprise Nippon Yusen K.K., Mitsui O.S.K. Lines, Kawasaki Kisen Kaisha, Navix Line and Showa Line.

Shipping lines

Japanese shipping lines are a major force within their industry, but Kato Toshifumi, deputy general manager of planning for Mitsui O.S.K. Line (MOL), reports that his company and others are struggling to match the prices of Asian firms. "We must be internationally competitive," he says. "Otherwise, we will cease to exist."

Matching Asian prices is not easy for Japanese companies, concedes Kato. He points out that MOL and other domestic lines must pay higher prices for employee and office buildings than shipping lines in Taiwan, South Korea, and other countries.

Currency fluctuations can exacerbate problems. This vulnerability was evident when Japan's currency reached an exceptional high of ¥80 to the dollar. At this time, all lines reported lower profits and a few sank into the red.

Although Japanese firms are profitable at current exchange rates, they will have trouble remaining cost–competitive with Asian shipping lines over the long run. Japanese firms must cut their costs and construct a system that is free from the effects of future exchange rate fluctuations. Says Akiharu Wakasa, who is general manager of Nippon Yusen K.K. (NYK), "72% of our revenue is in dollars, compared with only 66% of our costs. Because of this 6% gap, we lose ¥300 million per year for each ¥1 that the Japanese currency gains against the dollar."

Current efforts to reduce costs and exposure to currency fluctuations include the formation of international alliances for container shipping, maintaining vessels overseas, hiring foreign crews, and registering vessels in foreign countries.

Some Japanese and foreign lines are merging their container shipping divisions.

MOL's Kato reports that container shipping is currently a weak business, so firms are coordinating routes and sharing ships to improve efficiency and cut costs. MOL's container division has formed such an alliance with American President Lines, International Shipping, Nedloyd Lines and Orient Overseas Container Lines.

Divisions of NYK and Kawasaki Kisen Kaisha have entered similar consortia.

In addition to forging international alliances, shipping lines are maintaining vessels overseas. Instead of bringing ships back to Japan for repairs, shipping lines usually visit an overseas facility which is convenient and generally charges less for maintenance than a domestic yard.

The proof is in the numbers. In 1981, Japanese repair facilities signed 324 contracts. During an average year, they now sign fewer than 150—including contracts for periodic inspections that are required by Japanese law.

Cutting yen–based costs has led to even more severe measures than forging international alliances and maintaining vessels overseas: Japanese lines are registering vessels in foreign countries. Panama and Liberia are the favored location for "flagged–out" vessels.

Flagging–out also allows shipping lines to hire lower–wage foreign crews who do not require working visas, and to pay lower taxes, too.

Over the past 10 years, the number of Japanese–flagged ships has shrunk from more than 1,000 to fewer than 200. And the number of Japanese seafarers has fallen in tandem from 28,000 to slightly more than 7,000.

Domestic interests have fought these

cutbacks, but even opponents of flagging–out see little chance of reversing this trend. "When I began my career 25 years ago as a third class officer, I earned about US$100 per month," recalls Yuji Iijima, director of international affairs at the All Japan Seamen's Union. "Today, a similar Japanese seafarer earns about US$4,000 per month."

Even though they tend to be very productive, such wages made Japanese workers too expensive. NYK's Wakasa estimates that a crew of 11 Japanese nationals costs US$2,000,000 per year, but an equally effective one of 23 Philippine seafarers costs US$500,000 per year.

Neither a modest reversal of the strong yen nor rising productivity among Japanese workers could bridge this gap, so the Ministry of Transportation and the All Japan Seaman's Union are pressing the Ministry of Finance to grant subsidies and tax breaks to Japanese–flagged ships with Japanese workers.

The MOF appears unwilling to grant an expensive rescue package, however. Insiders point out that its recent efforts to deregulate the economy are accelerating flagging–out.

Shipbuilders also navigate troubled seas

Similar to the case of Japanese shipping lines, shipbuilders in this country are eager to work with foreign companies who can help them remain internationally competitive.

Between the mid–1950s and mid–1960s, Japanese companies first produced a larger quantity of vessels than builders in the United Kingdom, who had previously dominated the industry. And from the late 1960s until the mid–1980s, Japanese firms produced 50% of the world's commercial ships.

South Korean firms are increasingly challenging Japanese shipbuilders, however. Hyundai Heavy Industries, Daewoo Shipbuilding & Heavy Machinery and Samsung Heavy Industries have already transformed South Korea into the world's second–ranked supplier—commanding 20–30% of the world market.

Japanese shipbuilders have simultaneously seen their market share sink to around 30–40%. Many insiders fear that this figure could fall still further as operational capacity increases not only in South Korea but other Asian nations including China.

Due to rising capacity in Asia, industry insiders are also worried about prices for new ships.

Prices for new ships are just now stabilizing. The industry–wide recession which spanned most of the 1980s ended only recently when shipping lines began to replace vessels which they purchased as long as 20 years ago. A boom in replacement demand is expected to last from now until early in the next century. Although stabilizing, rising capacity has prevented prices from recovering significantly to date.

The yen's value is the other question facing Japanese shipbuilders. Current exchange rates favor domestic firms, but a return to earlier values would damage their competitiveness.

When the yen's value peaked last year, the general manager of Mitsui Engineering & Shipbuilding's Coordination Department, Shoichi Yabuki, reported that "We are suffering very much."

But Japanese firms face competitive pressure at even more recent values. According to Sato Akira, an analyst with Nomura Research Institute, if US$1=¥100=780 Won, a South Korea–made ship is 6% cheaper than a comparable Japan–made one.

A resurgence of the yen would threaten Japanese companies, according to Sato's calculations. Although he does not predict such a dire outcome, Sato explains the worst–case scenario: "If Japanese shipbuilders become less cost–competitive as a result of the stronger yen, and if competitors in other nations aggressively expand their capacities, the likely boom in shipbuilding from replacement demand in the mid–1990s will probably benefit companies overseas and not Japanese shipbuilders. And if this happens, it is possi-

Japanese–owned vessels like this one are no longer just loading and unloading cargo at overseas ports, but stopping for maintenance, too.

ble that from 2005 on, when the boom in replacement demand is over, Japan will cease to be a major player in the world shipbuilding industry."

Despite still low prices for new ships and the threat of a resurgence in the yen's value, most Japanese shipbuilders expect to maintain their long–term competitiveness.

Efficient manufacturing partly offsets the high cost of building ships in Japan. Although South Korean shipyard workers earn only 50% the salary of their Japanese counterparts, their hourly output is only 60% of the average of Japanese workers. Sato calculated this data based on studies of the labor hours required to build similar ships in Japan and South Korea.

Ongoing improvements at Japanese yards should maintain this competitive edge. For instance, Kanai Kazuyuki, a spokesman with Ishikawajima–Harima Heavy Industries (IHI), reports that his company has recently installed new machinery to further automate cutting steel and painting.

Shipbuilders are also trying to purchase ship machinery and raw materials for less money than before. Sales manager Wada Ritsu of Anritsu, a leading maker of maritime communications equipment, concedes that prices have fallen by as much as 50% for some of the goods which his company makes.

Importing is another means of reducing costs, but shipbuilders are unlikely to buy some ship machinery and raw materials, such as steel, overseas.

Buying foreign steel is not cost–effective, reports IHI's Kanai. Shipbuilders here can purchase steel in small quantities from local mills. Small shipments allow IHI to pay for the material in cash and use it within four days. By contrast, importing obliges IHI to buy a large quantity of steel, borrow money from the bank, and maintain storage facilities.

Instead of raw materials, shipbuilders have unveiled plans to import equipment. For instance, Mitsubishi Heavy Industries (MHI) made the following announcement in 1994: "A year or two ago, we imported about 10% of our equipment for a new ship on average. We expect this figure to reach 20% in the near future, and ultimately as high as 30%."

Foreign companies welcomed these announcements, which represented a sea change from the days when they played only a small role in Japanese shipbuilding. Nonetheless, foreign companies must work hard to overcome non–price factors and the yen's current weak value.

Japan Ship Machinery Exporters Association reports that imports of equipment rose by 13% to ¥16.5 billion in 1994: "However, since domestic products are stronger in non–price factors of competition, including delivery punctuality, inventory management and post–delivery, the share of imports was no more than 2–3% of total Japanese demand for ship machinery and equipment."

The yen's recent depreciation makes matters worse, says Yukio Uemura at Fuji Trading Co., which represents several foreign firms including Atlantic Marine. "The break–even level for most imported products is around ¥110," he says. But this figure varies with the quality of imported components and whether foreign suppliers provide the non–price services which Japanese shipbuilders and shipping lines expect.

Satisfying the non–price requirements of Japanese shipbuilders can be difficult without a representative in Japan. IHI's Kanai recalls when his company received an order for ocean–going vessels from a U.S.–based line. This firm asked IHI to use a number of U.S.–made components. IHI honored the request. However, it was not easy. The Japanese shipbuilder had to order the products and receive technical specifications by phone and fax. Although he would not comment on the outcome of this particular order, Kanai says that poor communication often leads to discrepancies between the order and product received. Builders must then spend money and time to modify aspects of the design.

Japanese shipping lines may also discourage shipbuilders from using foreign equipment, because they also fear poor service. A spokesman with a Swedish equipment supplier reports that his company's sales to Japan consist primarily of equipment for installation in ships which European lines have ordered from Japanese shipbuilders. "Selling to Japanese lines is very difficult," he says. The primary reason is that the Swedish company does not have an office in Japan to accept orders for spare parts and cannot easily deliver spare parts to locations here and elsewhere in Asia.

Increasingly more foreign firms are making a commitment to the Japanese market, however. Finland–based MacGREGOR is one such company. It recently launched a joint–venture here with Kayaba Industries, MacGREGOR–Kayaba.

MacGREGOR's vice president of communications, Berit Virtanen, reports that his firm can guarantee quality services to Japanese shipyards and shipping lines. For instance, the former can expect accurate detailed drawings and punctual delivery, while the latter can rely on MacGREGOR's 50 service centers around the globe, including three in Japan.

The Finnish firm now occupies 35% of the Japanese market for some types of cargo handling products.

The situation is similar for Sweden–based Alfa Laval, which occupies about 30% of the Japanese market for its product. According to Yono Kiyoharu, a manager with the company's local sales office, Alfa Laval not only has a local sales office which offers technical support, but its warehouse in Singapore can ship any spare part to Japan within 48 hours.

Despite the yen's recent depreciation, Japanese shipping lines and shipbuilders still face stiff competition and need to prepare for future fluctuations in the yen's value. If foreign suppliers of goods and services can help them to cut costs and limit their exposure to currency markets, Japanese companies are eager to work with them. JJTI

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