



SHIPBREAKING BY GAS CUTTING IN BHATIARY YARD 01, CHITTAGONG BANGLADESH.



# TURNING SHIPS INTO



BY NICHOLAS NEWMAN (ENGLAND)

## THE PROBLEM OF SHIP DECOMMISSIONING

Every year, hundreds of ships, big and small, are decommissioned, scrapped or recycled. In fact, ship decommissioning is a big business, employing thousands of people worldwide. This industrial process is similar to that of what takes place at a car scrap yard, but on a much bigger scale. In the case of a vessel, it is about the breaking up of a ship at the end of its operational lifespan. At a ship braking yard, a vessel is taken apart; this includes removal of useful machinery such as engines, navigation equipment and cranes. Much of the equipment will be broken down for parts, refurbished and sold on the second-hand component market, to be reused on other vessels. The rest will be broken down into its primary materials and recycled into other products, such as the steel plate melted down to make new steel plate and the aluminium to make new cans.

## DRIVERS FOR SCRAPPING

When a ship comes to the end of its operating lifespan, it is often cheaper for a ship owner to dispose of a vessel, either by sinking it or selling it to a scrap, than refurbish and upgrade it. Unfortunately, it is very rare for a vessel to enjoy retirement as a maritime museum such as the **Cutty Sark** in London, the **Queen Mary** in Los Angeles or the **Midway** in San Diego.

RMS **QUEEN MARY** HAS BEEN RETIRED TO LONG BEACH, CALIFORNIA AS A TOURIST ATTRACTION.



## OPERATIONAL ISSUES

Scrapping ships is a good way to eliminate the high operational costs of old vessels, but also help fund the construction of new vessels. It is also a good way to deal with market overcapacity, as it helps cut operational costs of the business. For example, such overcapacity in the market resulted in a ship built in January 2010, the container ship **Hammonia Grenada** for about \$60m, sold for scrap in 2017, for around \$5.5m.

## ENVIRONMENTAL REGULATIONS

In addition, the introduction of environmental regulations, for example some ships are going to scrap, because it is not worthwhile to make such vessels IMO 2020 compliant by fitting new scrubbers to their engine exhausts. The new guidelines, called IMO 2020, will limit the Sulphur content of "bunker" fuel on ships to just 0.5 per cent, down from the current 3.5 per cent. The IMO has indicated over the coming decades that emissions from vessels will



be further cut. Also, some areas of the world are banning HFSO (high sulphur content oil) fuelled vessels from entering its ports, such as Norway banning HFSO equipped with scrubber's ships entering its fjords, in order to protect the environment.

### MARKET DEVELOPMENTS

But others go to scrap due to market developments, such as the upgrading of the Panama Canal and Suez Canal. In the case of the Panama Canal, new locks, with gates weighing 700 tonnes or more, were installed to take Neo-Panamax vessels. In size, such mega vessels are the equivalent to the width and length of three football pitches laid end-to-end and can carry about 13,000 twenty-foot equivalent container units (TEU). Because of this, demand for smaller Panamax vessels, that previously could operate through the Panama Canal, has declined, as Asian shippers, instead, switch to larger vessels, with cheaper logistics costs to reach East Coast American ports.

However, it is not only ships that are sent for decommissioning, but also offshore oil rigs once an oil field comes to the end of its operating lifespan. A good example of this is the North Sea, where several hundred oil platforms will be dismantled over the next decade. Some of these structures are as tall as the Eiffel Tower.

### THE ADVANTAGES OF CASH SALES TO SHIP OWNERS

Ship owners and operators rarely enter into direct contact with the beaching yards. Instead, cash-buyers first pay ship owners up-front before the ship reaches its final

**TABLE 1**

	Ships dismantled off beach	Ships dismantled on beach
EU and Rest of the world	9	
Turkey	35	
China	5	
Bangladesh		30
India		35
Pakistan		8
<b>World Total</b>	<b>49</b>	<b>73</b>

SOURCE: [HTTPS://WWW.SHIPBREAKINGPLATFORM.ORG/PLATFORM-PUBLISHES-SOUTH-ASIA-QUARTERLY-UPDATE-20/](https://www.shipbreakingplatform.org/platform-publishes-south-asia-quarterly-update-20/)

destination to be dismantled, and then re-sell the ship to the breaker that can offer the highest price, thereby making a profit with the price difference.

By using cash-buyers, ship owners seek to avoid legal, financial, and other risks related to selling a ship for breaking to a beaching yard. They can also claim not to be responsible for the demolition of the ship if criticized for the poor standards under which their vessel is broken, including accidents and pollution. Indeed, one of the most used excuses, when a ship owner is confronted with having sold a ship to a beaching yard, is: "But, I only sold my ship to another owner – that owner alone chose to scrap the ship at a beaching yard".

But industry insiders acknowledge that ship owners know that a cash-buyer is either working for the scrap-dealer or is the scrap-dealer. Usually the best prices for vessels to be scrapped are in South Asian yards.

Usually there are two options for cash buyers intending to scrap a vessel; the first is to buy it at an agreed location, usually close to the

yard, from where the ship is towed to the yard. The second option, after purchase, is to collect the vessel, then crew and sail the ship to the yard in question.

### WHO ARE THE LEADING CASH-BUYERS

The world's leading cash buyers of ships and offshore assets are Global Marketing Systems (GMS) based in Dubai; Singapore-based Wirana; and Hong-Kong-based Best Oasis. For example, according to the GMS website, it has negotiated the purchase of over 3,500 ships for recycling since its establishment in 1992.

### THE MARKET FOR SCRAPING

In 2018, according to data released by the NGO Shipbreaking Platform, 744 large ocean-going commercial vessels were sold to the scrap yards. At least, 518 were broken down on tidal mudflats on the shores of Bangladesh, India and Pakistan. These three South Asian countries accounted for at least 90.4 percent of the gross tonnage dismantled globally. At current rates, these yards are able to offer between \$425 and \$450 per light displacement ton (LDT), a measure of steel content. See Table 1.

CHITTAGONG  
SHIPBREAKING  
YARD.





### WHY ARE SOUTH ASIAN YARDS POPULAR

There are a number of reasons why South Asian yards are popular, as compared to European yards.

The choice of the dismantling site is influenced, in particular, by the metal price that a facility can offer to the ship-owner or to the intermediary cash-buyer. This price, in turn, depends on the demand for recycled steel in the area concerned and on the costs of the recycling operations. South Asian yards can offer better metal prices for ships, than can expensive to operate European yards, because of lower wages and infrastructure costs. The current scrap value South Asian yards are offering for the dry bulk carriers, ranges from \$430/ Light displacement (ldt) to \$470/ldt for small tonnage vessel to big tonnage vessels respectively.



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### WHY BEACH SCRAPPING IS A PROBLEM

According to the ILO, ship dismantling is regarded to be one of the most dangerous professions in the world, as it involves a great amount of risks and hazards.

This is because there are a high number of work-related deaths, injuries, and work-related diseases. For example, many ships contain dangerous substances such as asbestos, petrochemicals byproducts, lead, mercury, Polychlorinated Biphenyls, radium, poisons, and heavy metal machinery, which are extremely harmful to humans and the environment. In addition, the task of ship-breaking is a complex and difficult task, given that ships are not designed to be dismantled and recycled. In South Asian yards, there is little in the way of promoting a proactive health and a safe environment for employees. In fact, many such yards lack formal waste management systems or facilities to prevent pollution, resulting in

significant damage to surrounding communities, sea life, agriculture, flora and fauna.

Also, due to the informal nature of the employment, workers often lack any professional training, protective clothing or even protective equipment like hard hats and goggles. Meanwhile, the lack of adequate safety monitoring and implementation of an adequate ship recycling plan causes many problems for both workers and the environment.

According to World Maritime News, in the first ten months of 2018, some 24 deaths and 9 injuries were recorded at beaching yards in South Asia, NGO Shipbreaking Platform said, citing data from its sources. For example, in 2018, a Dutch maritime court found ship-owner Seatrade criminally liable for selling ships to a yard that uses scrapping methods that "endanger the lives and health of workers and pollute the

environment". It levied a \$925,000 fine, plus a one-year ban on employment in the shipping industry for two Seatrade directors. Another Dutch ship-owner, Holland Maas Scheepvaart Beheer II BV, paid, in January 2019, Dutch prosecuting attorneys a combined fine and settlement amounting to about \$3.5 million for beaching one vessel in India - about \$1 million more than the total amount the firm received from the sale.

### THE GROWING NEED FOR SUSTAINABLE SCRAPPING

Because of growing concern at the work and environmental damage that traditional beach scrapping is causing the public, there has been action taken by investors, regulators, and the industry to encourage sustainable ship scrapping.

### INVESTOR ACTION

In terms of investor actions, in 2018, the Norwegian sovereign wealth fund, decided to sell its shares in several Asian based shipping

lines including Evergreen, Korea Line, Precious Shipping and Thoresen Thai Agency, because of concerns about the way they dispose of their vessels.

In addition, leading shipping finance houses ABN AMRO and ING, Sweden's Nordea NDA ST, Norway's DNB (DNB OL) and Denmark's Danske Bank are taking a hard look at how their clients recycle their vessels.

As for shipping industry action, for example, the Danish shipping line Maersk has introduced new ethical guidelines, only dealing with scrap yards that meet its sustainable standards on ship decommissioning.

### REGULATOR ACTION

As for regulator action, the EU introduced Article 32(1) of Regulation (EU) No 1257/2013 on ship recycling. This means that, since 31 December 2018, all large commercial seagoing vessels flying the flag of an EU Member State must be only recycled only in safe and sound ship recycling facilities included in the European List of ship recycling facilities ('the European List'). At present, just over a third of the world's ships fall in this category. Amongst the yards on the European List include, NV Galloo Recycling Ghent in Belgium, FAYARD A/S in Denmark and Able UK Limited in the UK. At the time of writing, some 34 shipyards, including 30 facilities located in 12 Member States of the European Union and in Norway, three facilities in Turkey and one facility in the United States of America, were on the European List.

However, European ship-owners can avoid European Ship Recycling Regulation, by flagging out, or by delaying their final voyage to the recycling yard until the ship is away from EU waters, and/or maybe by selling on the basis of "as-is where-is."

In addition, the European Union Waste Shipment Regulation (EC) No 1013/2006 transposes the Basel Convention and the Basel Ban Amendment into European Union law. It bans all exports of hazardous waste to non-OECD countries and all exports of waste for disposal outside the EU/EFTA.

### WHAT OTHER LEGISLATION IS IN PLACE?

Apart from European Regulations of sustainable ship recycling, there are three key regulations that affect the scrapping of ships; these are the ILO GUIDELINES, Basel Convention and the Hong Kong Convention.

### ILO GUIDELINES

The International Labor Organization (ILO) has called shipbreaking one of "the most dangerous occupations" in the world. In March 2004, the ILO unanimously endorsed, at its 289th session, a set of criteria to govern the disposal of ships.



The criteria are outlined in "Safety and Health in Shipbreaking: Guidelines for Asian Countries and Turkey". These Guidelines are directed at those who have responsibility for occupational safety and health in shipbreaking operations, including employers and national authorities. The ILO offers advice on the safe planning and implementation of shipbreaking processes and identifies the specific obligations and responsibilities of various stakeholders involved in protecting workers from work-related injuries and diseases, ill health, and incidents.

### BASEL CONVENTION

The Basel Convention, also known as the Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal was agreed at Basel on 22 March 1989. It is an international treaty signed and ratified by 186 states (out of 193 UN members' states). However, US and Haiti, has signed the treaty, but not ratified it.

The treaty is designed to regulate – and to some extent discourage – cross border movements of hazardous wastes, by subjecting each such movement to the prior informed consent of the competent regulators in:

1. The state of export of the waste.
2. The intended state of import.
3. Any transit states.

In fact, movements of hazardous waste carried out without such consent constitute illegal traffic under the Basel Convention.

In effect, it was designed to encourage governments, scrapyards operators and vessel owners to act responsibly in the dismantling of ships. As a recent development, the Basel Convention is closely working with the International Maritime Organization (IMO) to ascertain dedicated observance of improved rules and regulations in order to prevent the environment from irreparable harm.

### ABOUT THE HONG KONG CONVENTION

The Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009 (the Hong Kong Convention), was adopted at a diplomatic conference held in Hong Kong, China, from 11 to 15 May 2009, which was attended by delegates from 63 countries.

The Convention is aimed at ensuring that ships, when being recycled after reaching the end of their operational lives; do not pose any unnecessary risks to human health, safety and to the environment. Under the Hong Kong Convention, vessels sent for recycling are required to carry an inventory of all hazardous materials on board. Ship recycling facilities are required to provide a 'Ship Recycling Plan', specifying how each vessel will be recycled, based on its particular characteristics and its inventory of hazardous materials.

According to the IMO, the Hong Kong Convention's entry into force is expected 24

months after ratification by 15 states, representing 40% of world merchant shipping by gross tonnage, with combined maximum annual ship recycling volume not less than 3% of their combined tonnage.

In November 2019, the Indian government proposed legislation to ratify the Hong Kong Convention. If passed in both house of Parliament, India will become the 14th country to join the IMO treaty. When the Hong Kong International Convention for Safe and Environmentally Sound Recycling of Ships, 2009 comes into force, its provisions will be implemented under the provisions of the Recycling of Ships Bill, 2019, the Indian government has reported.

### WHAT NEXT?

One thing is clear, as new recycling legislation comes into force at international, regional and local level, it is time that ship owners, get prepared for a new business environment where sustainable green ship recycling is the norm. In addition, due to the increasing costs of ship recycling in a sustainable manner, perhaps a new version of funding ship decommissioning should be set up. Such as has been promoted by London based firm Quatre Ltd for the decommissioning of the oil industry, which markets an investment and insurance package in which oil and gas companies, can securely and efficiently, set aside an amount each year to fund future liabilities, providing stakeholders with the assurance that future decommissioning and reinstatement liabilities will be met in full. ●



JAFRABAD CHITTAGONG SHIPBREAKING.