

# Hong Kong Treaty to Impact Future Builds

## SYBASS & THE SHIP RECYCLING CONVENTION

Pieter Kuiper (ARN Advisory), Chris van Hooren (SYBAss) and Robert van Tol (SYBAss) discuss an important recent development that links the shipbuilding industry to its distant relative, the ship-scraping industry.



Health and safety issues in the ship-scraping industry were traditionally located in a field of activity that was not connected to that of shipbuilders. However, 11 May 2009 saw the adoption of the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships. When this convention comes into effect, it is set to have a major impact on shipbuilders, both new build and refit, and owners/operators.

When this will actually happen depends on the speed at which member states of the International Maritime Organization (IMO) ratify it. The aim of the convention is to reduce the environmental impact of recycling, and the labour safety problems related to it. One of the main issues addressed is the mapping of onboard hazardous materials, which has a direct impact on shipbuilders.

### HIGHLIGHTS OF THE CONVENTION

The Hong Kong Convention is a treaty within the IMO. The convention addresses “the environmental, occupational health and safety risks related to ship recycling”. The principle behind the convention is that wherever possible, the use of hazardous materials should be avoided. Where this proves impossible, the “types of materials, their amounts and their locations on the ship should be transparent”.

If the convention comes into force, all new ships larger than 500gt, and all ships destined for scrapping, must be provided with an Inventory of Hazardous Materials. This requirement applies not only to large commercial ships, but also to superyachts. Without a certified Inventory of Hazardous Materials, a ship will not be allowed to trade (or in the case of a superyacht, to be chartered). Five years after the convention becomes effective, all existing ships will need to have an inventory, to be updated when refitted. >>

## INDUSTRY DEVELOPMENTS | SHIP RECYCLING CONVENTION

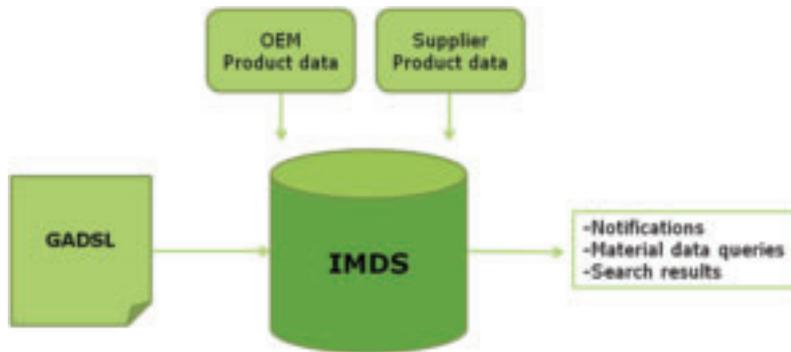


Figure 1 – Overview of the IMDS system

The convention will become effective two years after it has been ratified by 15 states. These states must represent at least 40 per cent of the gross tonnage of the world's merchant shipping fleet, and their combined annual ship recycling capacity must be at least three per cent of that fleet. It is currently impossible to say when the above-mentioned milestone will be passed; some experts mention 2013, while others say 2015–17. However, it is possible the convention will eventually not be ratified at all.

## DEALING WITH THE REQUIREMENTS FOR NEW SHIPS

The Superyacht Builders Association (SYBAss) has risen to the challenge presented by the proposed new legislation. SYBAss, uniting and representing the world's leading builders of large yachts, decided to collectively investigate the potential effects of the convention. Leaving a customer with even a minimal chance of non-compliance is undesired. Especially in the case of custom-built superyachts, the preferences of the client are the highest priority. This is something that complicates materials registration. Although superyachts are hardly ever scrapped and live much longer than merchant ships, all sorts of materials may be used during their new built and frequent refits.

This is, however, not totally new to our industry. Various classification societies already offer formats for

documenting information, with regard to materials known to be potentially hazardous that are utilised in the construction of a ship, its equipment and systems. These documents should be maintained throughout the life cycle of the yacht. In the case of the convention, however, obtaining such a material inventory would be a difficult challenge for the superyacht industry.

## Both the material phase-out and the completion of an inventory of hazardous materials would be greatly helped by the setting up of a standardised information stream.

An industry that has resolved the issue of mapping hazardous materials is that of automobile manufacturing and recycling. SYBAss therefore chose to team up with ARN Advisory\* in determining the impact of the convention on superyacht shipyards.

SYBAss and ARN Advisory investigated the situation at several superyacht shipyards and spoke with authorities in this field. In addition, extensive desk research was carried out, and a Dutch merchant shipyard that has done a pilot project on convention-compliant shipbuilding was interviewed. The message is that there is still a lot of uncertainty and doubt if this convention will eventually be ratified at all.

The information obtained was distilled into the following observations:

- It is currently impossible for a shipyard to identify all the materials and substances in a ship;
- It is not possible to completely avoid the use of prohibited materials. For example, some adhesives inevitably contain traces of PCBs as a result of their production process;
- It appears to be impossible to obtain a complete list with material declarations from all suppliers involved in the building of a ship.

When it would enter into force, the Hong Kong Convention will have two major consequences for shipyards:

- Some materials that are occasionally used in current manufacturing processes will no longer be allowed (or their use will be severely restricted);
- A substantial administrative effort will be required to get all the necessary material information from the complete supply chain.

Since ratification of the convention by all 15 states remains uncertain, there are no urgent precautions suggested. However, appendix 1 of the convention contains requirements for existing yachts. According to the convention, existing yachts have to comply within five years after ratification. The yachts that are currently being built will be existing yachts when the convention enters into force. It could be worthwhile for shipyards to check the requirements of appendix 1 for their new builds. Note that in most cases new yachts already comply with requirements listed in appendix 1 due to building requirements by existing legislation.

## BENCHMARK

Both the material phase-out and the completion of an inventory of hazardous materials would be greatly helped by the setting up of a standardised information stream.

This standardisation of material information could start with an

\* ARN Advisory is an organisation that helps companies by providing specific know-how on, practical advice about and effective solutions to sustainability and recycling issues in the mobility sector.

individual shipyard. When more shipyards start to ask for the same information in the same format, it would be feasible to streamline information. In the car industry, a system (the International Material Data System, IMDS – see figure 1, previous page) is used.

Here, all of the tens of thousands of Tier 1, Tier 2 and other suppliers can enter the information on the substances used in the parts or systems they deliver. All IMDS participants can read material data sheets published in the system. Assemblers can use the information in this system to obtain an exact inventory of all the substances in the products they assemble. IMDS was developed by Porsche, Audi, VW, Opel, Volvo, BMW and Daimler.

Since the launch of the system, other manufacturers have joined it. IMDS enables the manufacturers and their suppliers to meet the large number of substance-related obligations imposed on car manufacturers by laws, regulations and international standards. However, since cars are ultimate series productions and the ship industry produces custom-built ships or smaller series of ships, such a system may be too large to suit the ship industry's requirements.

Information standardisation will also be an important factor in precluding repeated data handling during the building process. One significant advantage of standardisation is that it makes it easier to avoid mistakes in the building process. Getting a grip on this factor is an attractive aspect of this otherwise legislation-driven situation.

Although its final ratification is uncertain, the Hong Kong Convention already demands a shipyard's attention. The superyacht industry has assessed the opportunities and problems

associated with the convention. Streamlining material information flows is a difficult task; however, it will not only help to solve the problem, but also have positive side effects. Nevertheless, this streamlining does not seem to provide the final solution for the total avoidance of prohibited materials and the total coverage of all purchases with material data sheets. In fact, it is an open question whether this will ever be possible. ■

**Sources:**

- MEPC – Revised draft guidelines for the development of the Inventory of Hazardous Materials
- Private conversations with shipyards
- International Maritime Organization

**Image: Caroline Hillier/Superyacht Images; figure opposite supplied courtesy of SYBAss**

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