STATISTICAL PUBLICATIONS

# SHIPPING STATISTICS AND MARKET REVIEW 2016

*Volume 60 - No. 1/2*

## Analytical Focus

- **World Merchant Fleet**
- World Tanker Market
- World Bulk Carrier Market
- World Container and General Cargo Shipping
- World Merchant Fleet by Ownership Patterns
- World Passenger and Cruise Shipping/ ISL Cruise Fleet Register
- World Shipbuilding and Shipbuilders
- Major Shipping Nations
- World Seaborne Trade and World Port Traffic

INSTITUTE OF SHIPPING ECONOMICS AND LOGISTICS

# ISL Shipping Statistics and Market Review (SSMR)

## *Volume 60 - 2016*

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## New ISL Publication – ISL Shipping Statistics Yearbook 2015

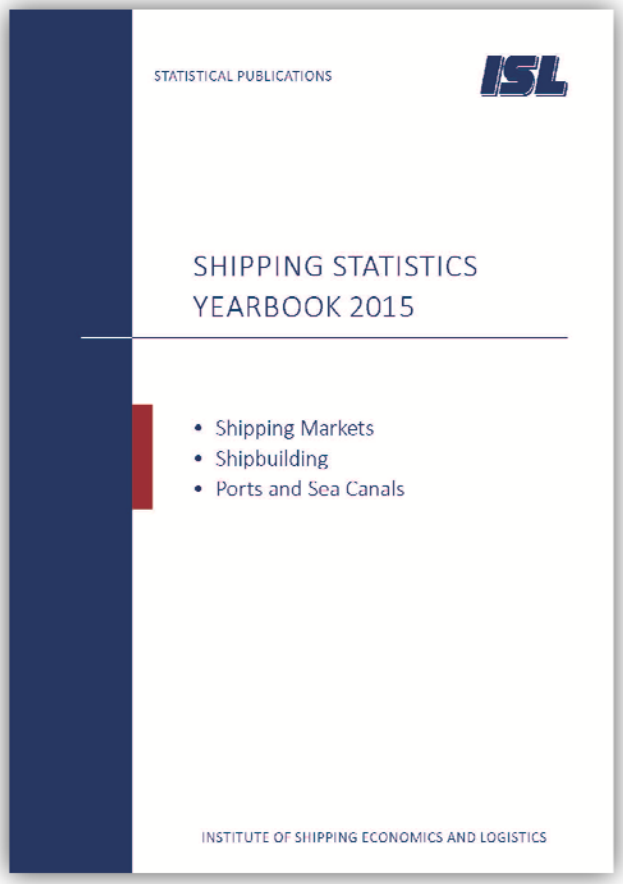
The shipping industry needs various information to evaluate market dynamics. The conceptual approach of the ISL SHIPPING STATISTICS YEARBOOK which goes back to the year 1986 is designed to inform on developments in shipping, world trade, seaborne trade, commodity markets, ocean freight and charter rates, individual profiles of shipping and shipbuilding countries, as well as on world port developments. ISL provides the yearbook for many years as a source for market analysis.

The various development indicators are presented within three main sections:

- The Shipping Market
- Shipbuilding
- Ports and Sea Canals

Moreover the Yearbook comprises an indepth analytical comment.

The ISL Yearbook is a unique, worldwide distributed statistical source and designed to particularly meet the requirements of shipowners, shipbuilders/repairers, port authorities, brokers, banks, transportation consultants, universities and research institutes.




The ISL Shipping Statistics Yearbook 2015
(ISSN 0721-3220; 442 pages) is available from our webshop:
http://www.isl.org/shop/

| | |
|---|---|
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## WORLD MERCHANT FLEET 2015/2016

### World Merchant fleet at a Glance

At the start of 2016, world shipping and shipbuilding are now in their eighth year of crisis and overall, 2015 has been another bad year for the shipping industry. Bulker carriers and container vessels have been suffering from massive overcapacity, while tankers have been surprisingly busy supported by unreasonably low oil prices. Despite the overcapacity, IMO-tier III triggered a short-lived run for boxhsip orders. Other than that, only tankers and cruise ships registered noticeable amounts of newbuilding activity, whilst the global economic expansion continued to slow down.

It is worth mentioning that 2015 was one of the best years for the tanker market ever. In contrast, 2015 was a very bad year for the bulk carrier market and it ended even worse.

After a record of new capacity entering the container fleet in 2015, the container shipping industry still suffers of an over-capacity. As a result, the fleet of idled container ships has hit a new six-year high with an increasing number of larger vessels out of work at the end of 2015.

The growth of the world merchant fleet has slowed. At the start of 2016, the world merchant fleet (*ships of 300 gt and over*) consisted at 51,404 vessels with a combined tonnage of 1.72 billion dwt, a year-on-year increase of 3.3 per cent in terms of tonnage, and by 1.9 per cent in terms of vessel number. This is the lowest increase since more than a decade (*see Fig. 1*). For the first time since the peak of the shipbuilding cycle, the average age of the world merchant fleet is (slightly) rising, as a result of fewer deliveries since 2014.

At the start of 2016, the global order book comprised 3,880 merchant vessels (295 million dwt), a year-on-year decline of 3.9 per cent in dwt terms. The decrease is primarily due to low ordering volumes in the dry bulk carrier sector (-25.4 per cent). The global order book equalled 17.2 per cent of the total merchant fleet at the end of 2015 (tankers: 20.1 per cent, fully cellular container vessels: 17.7 per cent, dry bulk carriers: 16.4 per cent).

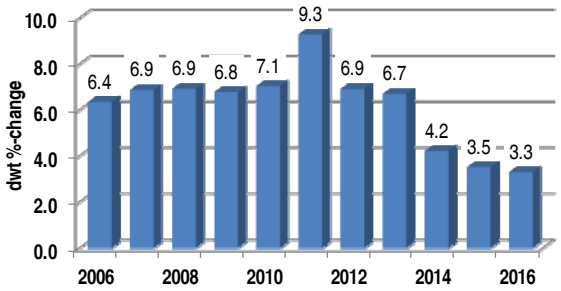
While demolition activity remained high in 2015 with 37 million dwt, a total of 1,569 vessels of a combined 95 million dwt have been reported delivered in 2015, a marginal increase in dwt terms compared to 2014, but far away from the peak of the shipbuilding cycle with on average 145 million dwt deliveries between 2009 and 2012.

Greece and Japan remain the two largest ship-owning countries by capacity, controlling almost 33 per cent the world's tonnage at the start of 2016.

### Bulker market: Delivery wave flattened out

Today, dry bulk carriers account for the greatest part in the world merchant fleet with a dwt-share of 43.9 per cent, this is the result of high growth rates up to 15 per cent between 2011 and 2013. But 2015 saw a twelve-year low in fleet growth with only 1.9 per cent, as deliveries of new bulk carriers amounted to only 47 million dwt and scrapping volume reached at least 30 million dwt, which

***Fig. 1:*** **World merchant fleet – Annual tonnage changes 2006 – 2016 (dwt- per cent)**




*Source: Up to 2011 based on IHS Fairplay, since 2012 on Clarkson Research Services Limited (CRSL). Please see disclaimer*

***Tab. 1*** **World merchant fleet by ship type as of Jan.1st, 2012 and 2016**

| Ship type | No of ships 2016 | mill dwt 2016 | dwt-% share of total 2012 | dwt-% share of total 2016 | Av. growth '12-'16 (%) No of ships | Av. growth '12-'16 (%) dwt |
|---|---|---|---|---|---|---|
| **Tankers** | 14039 | 600.1 | 37.2 | 35.0 | 2.2 | 2.9 |
| - Crude and products | 7065 | 443.9 | 28.3 | 25.9 | 1.8 | 2.1 |
| - Oil/Chem. & chem. tankers | 5204 | 101.7 | 5.8 | 5.9 | 2.3 | 5.0 |
| - Gas tankers | 1770 | 54.5 | 3.1 | 3.2 | 3.1 | 5.5 |
| **Bulk/OBO carriers** | 10919 | 752.9 | 41.6 | 43.9 | 3.8 | 5.8 |
| - Bulk carriers | 9541 | 674.4 | 37.5 | 39.3 | 4.2 | 5.7 |
| - other bulk carriers | 1378 | 78.5 | 4.1 | 4.6 | 1.6 | 7.4 |
| **Container ships** | 5239 | 244.2 | 13.6 | 14.2 | 0.8 | 5.6 |
| **General cargo ships** | 16892 | 112.3 | 7.2 | 6.5 | -0.3 | 2.1 |
| - Conventional cargo ships | 12285 | 51.6 | 3.7 | 3.0 | -0.9 | -0.7 |
| - Special cargo ships | 1522 | 36.4 | 1.8 | 2.1 | 4.8 | 8.6 |
| - Car carriers | 785 | 12.4 | 0.8 | 0.7 | 2.3 | 2.8 |
| - Reefer ships | 781 | 4.4 | 0.4 | 0.3 | -3.7 | -4.1 |
| - Cargo RoRo ships | 1519 | 7.5 | 0.5 | 0.4 | 1.0 | -1.1 |
| **Passenger ships** | 4316 | 6.5 | 0.6 | 0.4 | 2.2 | 1.8 |
| - Pure passenger ships | 1675 | 2.2 | 0.1 | 0.1 | 2.1 | 3.1 |
| - Cargo/RoRo passenger ships | 2641 | 4.3 | 0.3 | 0.3 | 2.3 | 1.2 |
| **Total** | **51405** | **1716.1** | **100.0** | **100.0** | **1.5** | **4.4** |

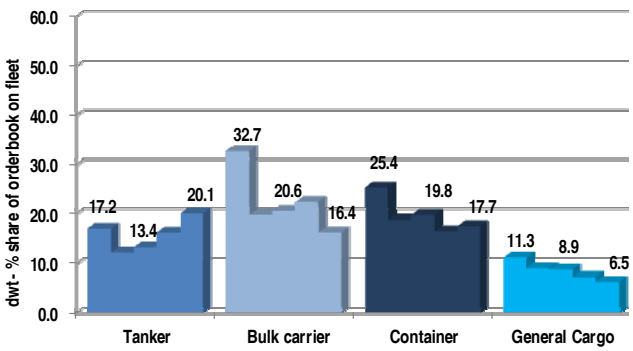
*Source: Based on Clarkson Research Services Limited (CRSL). Please see disclaimer*

***Tab. 2:*** **Total order book by major ship types as of January 1st, 2012, 2015 and 2016**

| Ship type | 2012 No of ships | 2012 mill dwt | 2015 No of ships | 2015 mill dwt | 2016 No of ships | 2016 mill dwt | dwt-% change '15/'16 |
|---|---|---|---|---|---|---|---|
| Tankers | 1104 | 92.2 | 1337 | 94.9 | 1411 | 120.8 | 27.3 |
| Bulk carriers | 2302 | 196.6 | 1948 | 165.9 | 1517 | 123.8 | -25.4 |
| Container ships | 623 | 49.8 | 440 | 38.0 | 455 | 43.3 | 13.9 |
| General cargo ships | 701 | 11.7 | 369 | 8.1 | 378 | 7.3 | -10.2 |
| Passenger ships | 74 | 0.5 | 101 | 0.6 | 119 | 0.4 | -26.9 |
| **Total** | **4804** | **350.8** | **4195** | **307.4** | **3880** | **295.5** | **-3.9** |

*Source: Based on Clarkson Research Services Limited (CRSL). Please see disclaimer*

***Fig. 2:*** **Share of the ordered tonnage on the existing merchant fleets by type as of January 1st, 2012-2016**




*Source: Based on Clarkson Research Services Limited (CRSL). Please see disclaimer*

reflects the poor market conditions in the bulker segment.

As already pointed out, trade growth could not keep up with the supply of transportation capacity in any shipping sector, especially in transporting dry bulks. The rather moderate development of the Chinese economy dampened demand growth. The small 2 per cent growth of the seaborne iron ore trade and the negative development of the coal trade (-5.2 per cent) exacerbated the overcapacities of the already ailing bulk carrier market.

As a consequence, dry bulk earnings have hit rock bottom, probably not covering the operating expenditure most of the time and there is no sign of recovery in the near future. Rates for larger ship sizes developed worst throughout the second half of 2015. Much like in the container shipping industry, the market participants were hoping for a noticeable demand increase, which simply did not occur.

The Baltic Dry Index was around 20 times higher in early 2008. In February 2016, the Baltic Dry Index crashed to 307 points, the lowest figures since our start of recording the BDI in 2001. From its highest post-crisis level in late 2013 the index has lost 85.9% of its value. Moreover, there is still a bulk of new transport capacities in the order books and the reduction of the Chinese GDP growth (and forecasts) paint a rather bleak future.

Newbuilding activities in the dry bulk sector reflects the poor market conditions: Ordering volume in 2015 declined especially in the bulk carrier sector with only 258 bulkers (18 million dwt), the lowest level of bulker ordering since 2001. For comparison: In 2013, more than 1,100 dry bulk carrier orders had been placed. At the start of 2016, the bulk carrier order book as a percentage of the bulk carrier fleet stood at 16.4 per cent, compared to 22.5 per cent a year earlier.

Bulk carrier newbuilding prices, especially for larger vessels, were nearly on the same (low) level as at the beginning of 2014, of course a reaction to the weak demand and low commodity prices.

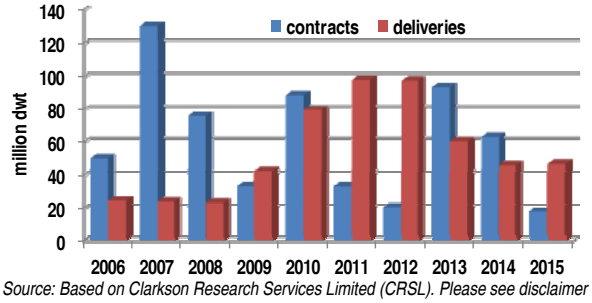
**Tanker market: Riding the wave**

Currently, the tanker market benefits from the collapsed crude oil prices, and ongoing high OPEC production. Though fleet growth exceeds demand, the supply side is reduced by using larger units as storage units as long as crude oil prices remain low. Backed by above average trade growth, tanker rates soared to the highest levels since 2008/2009.

From the total of 10.77 billion tonnes in world seaborne trade in 2015, about 30.3 per cent are attributable to liquid bulks. Ten years ago, this share was some ten per cent higher. Backed by low prices, the crude oil trade grew by a strong 3.8 per cent in 2015, the oil products trade even increased by 6.3 per cent.

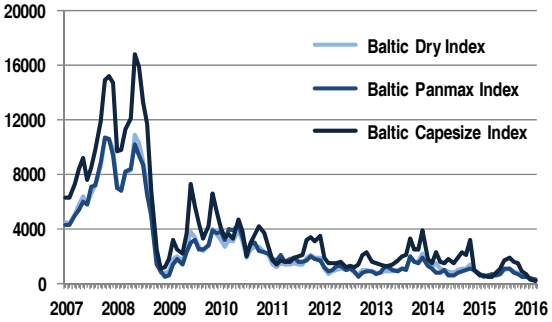
The strong demand growth fuelled the charter rate rally for tankers that had already started some two years ago. According to Fearnleys, VLCC tankers showed time charter rates in a range of 52,000 US$/day at the turn of the years 2015/2016 while Suezmax tankers showed time charter rates in a range of 36,500 US$/day during January 2016. Though still well below the historical peak in late 2004, owners earned more than twice the rates observed

***Fig. 3:*** **Dry Bulk carriers: New orders and deliveries, 2006–2015**



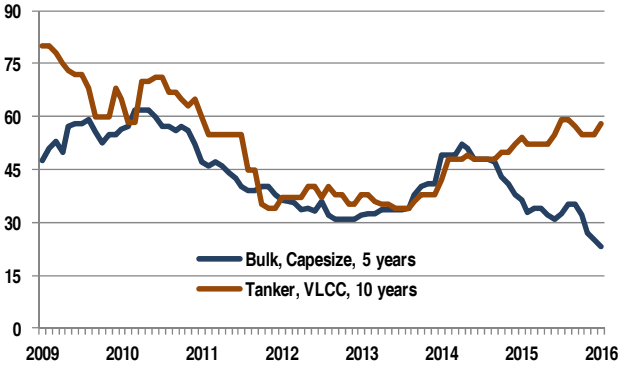

*Source: Based on Clarkson Research Services Limited (CRSL). Please see disclaimer*

***Fig. 4:*** **Monthly development of Baltic indices 2007-2015**



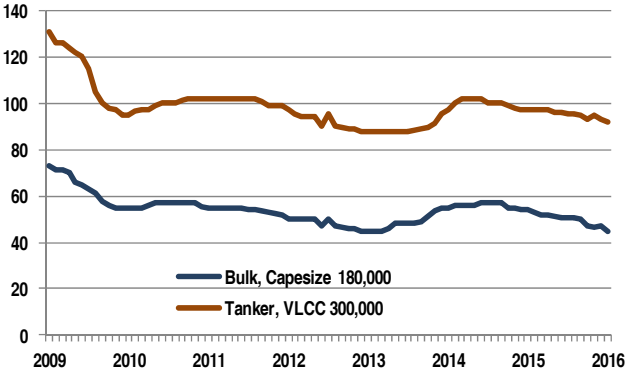

*ISL Bremen, based on the Baltic Exchange*

***Fig. 5:*** **Development of second hand prices of tankers and bulk carriers from January 2009 – January 2016 (in mill US $, end of month)**




*ISL Bremen, up to 2014 based on R.S. Platou, since 2015 on Clarkson Research Services Limited (CRSL). Please see disclaimer*

***Fig. 6:*** **Development of new building prices of tankers and bulk carriers from January 2009 – January 2016 (in mill US $, end of month)**




*ISL Bremen, based on Fearnleys weekly*

during 2012 and 2013.

Whether it is due to the unexpected cash flow or due to a confidence that oil prices will remain low and demand high for a longer period of time, the tanker sector accounted for almost half of the ship capacity ordered during 2015 (45 per cent). As are result, the tanker order book rose to nearly 20 per cent of the existing fleet in terms of capacity. Market observers expect that rates will drop significantly during the years to come as a result of the large number of deliveries.

Already about 25 million dwt of new tanker tonnage entered in operation in 2015, up 18 per cent year-on-year. Thus, the total tanker fleet increased by 3.6 per cent to 600 million dwt at the start of 2016.

In the long run, development in the products market will gain importance as pipeline transports of crude oil increase and refineries are built closer to the production wells.

**Container market: Glut of new capacity**

A record of new capacity (1.6 million TEU) entered the container fleet in 2015 (900,000 TEU of which have been ULCSs), while only 193,000 TEU were removed from the market. In terms of TEU, the fully cellular container fleet increased by 8.4 per cent in 2015, compared to 6.3 per cent a year earlier. The container shipping industry suffers from an over-capacity which will worsen next year, as the container ship order book amounts to 454 ships with 3.8 million TEU, equivalent to 19 per cent of the container fleet.

High levels of idle container vessels are having effects on time charter rates. According to AXS Alphaliner, at the end of January 2016, around 330 ships totalling nearly 1.4 million TEU were idle, having increased more than one million TEU during the last year, reaching almost the previous record of 1.5 million TEU (December 2009).

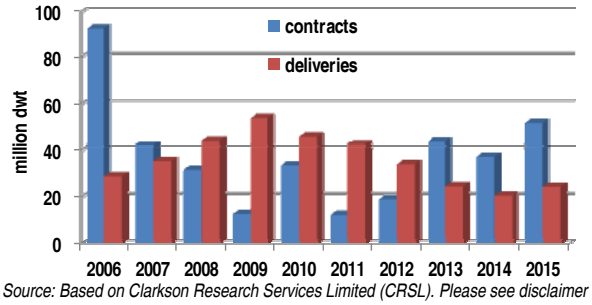
Consequently, container time charter rates declined noticeably since mid of 2015, with the HARPEX Containership Index falling by 43%. Similar to 2014, the growth of container trade could not keep step with fleet growth. New orders doubled to almost 2.1M TEU in 2015, reducing hope for an immediate market recovery.

It is noteworthy, that despite overcapacity in the sector, ordering activities in the container sector increased by 84 per cent compared to 2014, with 224 vessels of a combined capacity of 2.1 million TEU. 2015 saw a new wave of orders for ultra large container vessels, and the first vessels with nominal capacities exceeding 20,000 TEU have been ordered: In April 2015, Samsung Heavy Industries set a new record for the world's largest container ship order, with the signing of a deal to build six 21,100 TEU container ships.

**Demolition market: ever younger units scrapped**

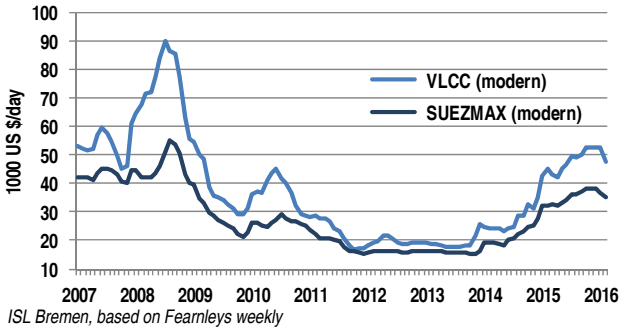
After a decline of 25 per cent in 2014 to 33 million dwt, demolition volume has picked up in 2015 backed by firm scrapings of bulk carriers. A total of 759 merchant vessels of a combined 37 million dwt were reported sold for demolition (so far). Bulkers topped the demolition tables, with an 80 per cent share of the year's demolition volumes. In all, 415 dry bulk carriers of a combined 30 million dwt were demolished, thereof 93 Capesize bulkers

***Fig. 7:*** **All tankers: New orders and deliveries, 2006– 2015**



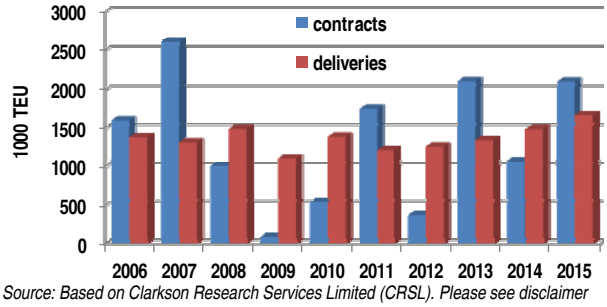

*Source: Based on Clarkson Research Services Limited (CRSL). Please see disclaimer*

***Fig. 8:*** **Time charter rates for tankers 2007 - 2016**



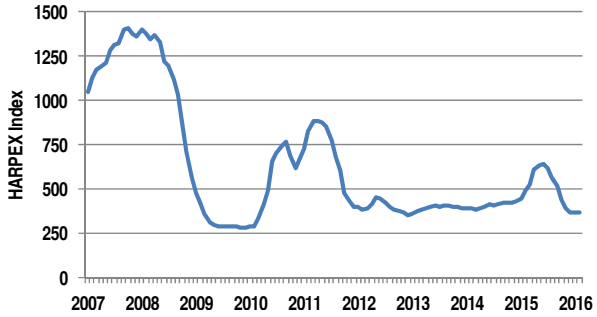

*ISL Bremen, based on Fearnleys weekly*

***Fig. 9:*** **Fully cellular container ships: New orders and deliveries, 2006– 2015**




*Source: Based on Clarkson Research Services Limited (CRSL). Please see disclaimer*

***Fig. 10:*** **Monthly HARPEX Container charter rate index 2007 up to January 2015**




*ISL Bremen, based Harper Petersen & Co., Hamburg*

***New Data Source:***
*Please note: All fleet related data since 2012 are now based on data provided by Clarkson Research Services Limited (CRSL).*

***Single shipping markets:***
*In-depth analyses are presented in the next SSMR issues, namely in No 2 (Tanker fleet), No 3 (Bulk fleet), No 5/6 (General cargo and container shipping) and No 8 (Passenger/Cruise fleet) merchant ships.*

***Explanatory note***
*The compensated gross tons (cgt) is calculated by multiplying the tonnage of a ship by a coefficient, which is determined according to type and size for a particular ship. Cgt is used as an indicator of the volume of work that is necessary to build a given ship.*

(15.5 million dwt). In contrast, only 93 tankers (2.5 million dwt) were sent to ship breaking yards, the lowest level of the past 20 years. Containership demolition activity has been weak in 2015. Only 90 fully cellular container vessels with a combined capacity of 193,000 TEU have been sold for demolition, a decline of 49 per cent year-on-year. It seems that carriers had been hoping for the markets to pick up in the first half of the year and then let go of their hopes and their ships in the second half.

The average age of demolished ships fell to 26 years. Fully cellular container ships and capesize bulker have been as young as 21 years.

Bangladesh, India, Pakistan and China accounted for 33, 23, 21 and 16 per cent, respectively, of the world's total recycling activity. Chinese and Greek owners accounted for 44 per cent of global demolitions in 2015 (16 million dwt).

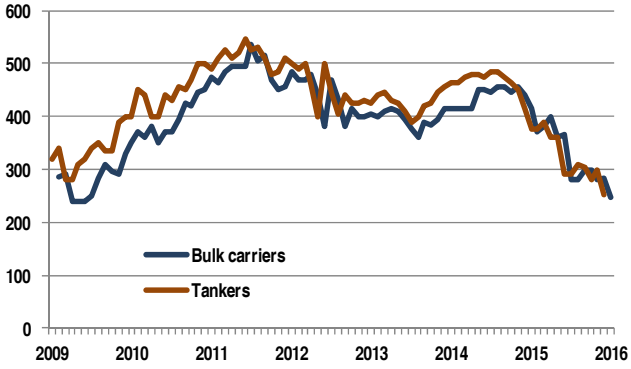
Scrapping yards in the most important region Indian subcontinent had to pay US$ 253 and US$ 348 on average in early 2016 per ldt for tankers and bulk carriers, respectively. This is 40% below the level of early 2015.

***Tab. 3:*** **World merchant fleet's additions by major ship types during 2011, 2014 and 2015**

| Ship type | 2011 | | 2014 | | 2015 | | | dwt-% change '14/'15 |
|---|---|---|---|---|---|---|---|---|
| | No | mill dwt | No | mill dwt | No | mill dwt | dwt %-share | |
| Tankers | 605 | 42.2 | 423 | 20.7 | 447 | 24.6 | 26.0 | 18.5 |
| Bulk carriers | 1184 | 98.1 | 584 | 46.2 | 614 | 47.0 | 49.7 | 1.9 |
| Container ships | 189 | 14.5 | 204 | 17.4 | 208 | 18.8 | 19.9 | 8.4 |
| General cargo ships | 580 | 6.8 | 275 | 4.2 | 225 | 4.0 | 4.2 | -5.2 |
| Passenger ships | 83 | 0.2 | 84 | 0.1 | 75 | 0.1 | 0.2 | 25.2 |
| **Total** | **2641** | **161.7** | **1570** | **88.6** | **1569** | **94.6** | **100.0** | **6.8** |

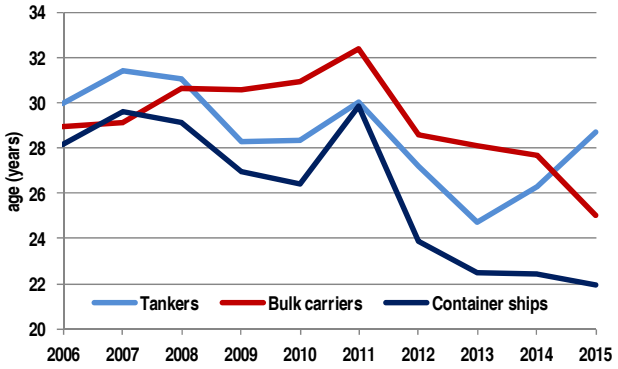
*Source: Based on Clarkson Research Services Limited (CRSL). Please see disclaimer*

***Fig. 11:*** **Development demolition prices of tankers and bulk carriers from January 2009 – January 2016 (US $, per LDT, end of month)**



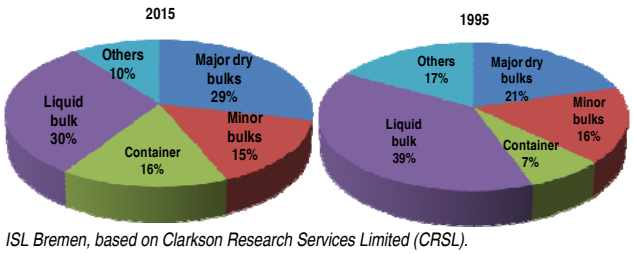

*ISL Bremen, up to 2014 based on R.S. Platou, since 2015 on Clarkson Research Services Limited (CRSL). Please see disclaimer*

***Fig. 12:*** **Average age of reported broken-up ships by selected ship types 2006 – 2015 (in years)**




*Source: Up to 2011 based on IHS Fairplay, since 2012 on Clarkson Research Services Limited (CRSL). Please see disclaimer*

***Fig. 13:*** **Share of selected commodity groups on world seaborne trade in 2015 and 1995 (per cent of total volume)**




*ISL Bremen, based on Clarkson Research Services Limited (CRSL).*

## ISL Monthly Container Port Traffic Indices 2013 - 2015 (Table 6.3)

ISL's Monthly Container Port Traffic Index is based on monthly container traffic of the world's top container ports. In total, the ports reflected in the index handled approx. 418 mill TEU in 2015, equalling 70 per cent of world container traffic. The monthly TEU volumes per port are available since 2000. The different regions are represented by the following ports:

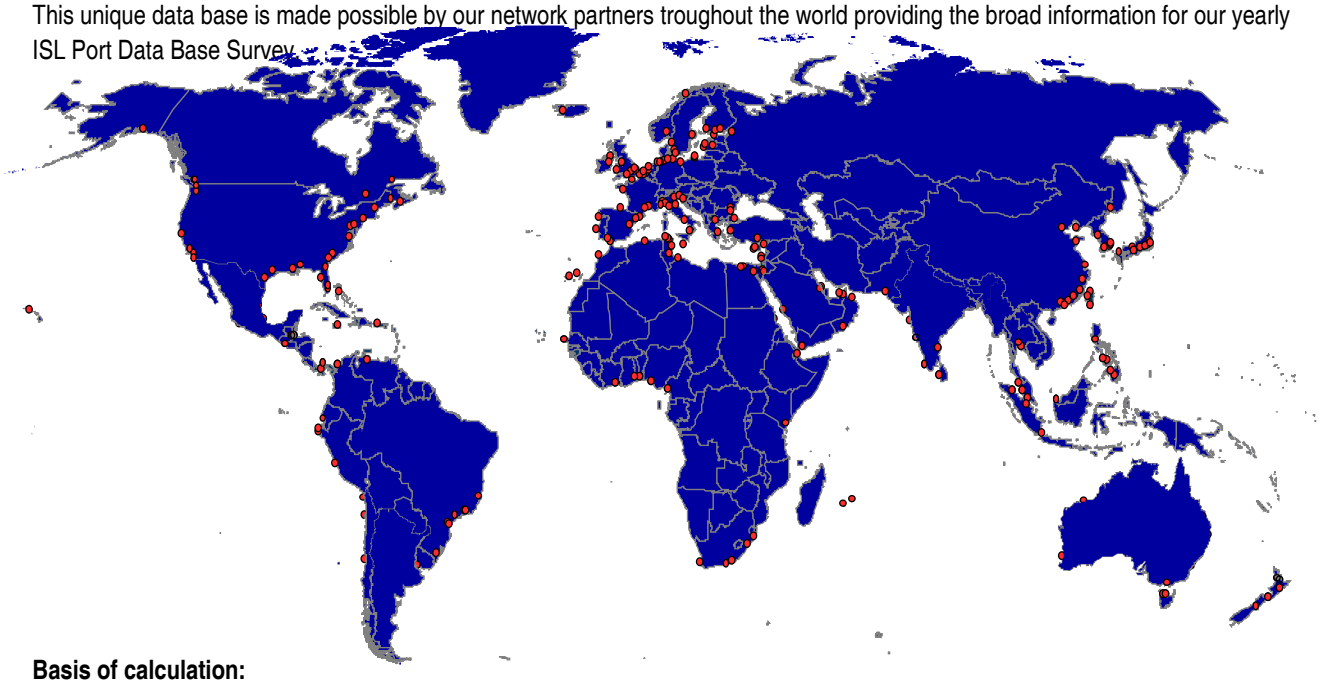
| | |
|---|---|
| **Japan, S. Korea,** | Busan, Gwangyang, Incheon, Kaohsiung, Keelung, Kobe, Nagoya, Osaka, Taichung, Tokyo, Yokohama |
| **China:** | Guangzhou, Hong Kong, Ningbo, Qingdao, Shanghai, Shenzhen, Tianjin, Xiamen |
| **Other Asia:** | Bandar Abbas, Bangkok, Colombo, Dammam, Jeddah, Laem Chabang, Nhava Sheva, Singapore, Salalah |
| **North-America Pacific:** | Long Beach, Los Angeles, Oakland, Seattle, Tacoma, Vancouver |
| **North-America Atlantic:** | Charleston, Houston, Montreal, New York/ New Jersey, Port of Virginia, Savannah |
| **North Europe:** | Antwerp, Bremen / Bremerhaven, Dublin, Gdansk, Hamburg, Helsinki, Klaipeda, Kotka, Le Havre, Lissabon, Rotterdam, St Petersburg, Tallinn, Zeebrugge |
| **Mediterranean:** | Alexandria, Ambarli, Ashdod, Algeciras-La Linea, Barcelona, Beirut, Genoa, Haifa, Marseilles, Mersin, Port Said, Valencia |
| **Other Regions:** | Balboa Panama, Brisbane, Buenaventura S.A., Buenos Aires, Callao, Cape Town, Durban, Guayaquil, Itajai, Kingston, Lazardo Cardena, Manzanillo Mx, MIT Panama, Melbourne, Montevideo, Ngqura (South Africa), Paranagua, San Antonio, Santos, Sydney, Valparaiso, Veracruz Mx |

***(Source: ISL Port Data Base 2016)***

## The ISL Port Data Base

*the most comprehensive data base in port traffic*

The ISL Port Data Base contains structured, comparable data on shipping, cargo and container traffic for more than 400 leading world ports since 1980. The data is constantly updated and completed, including today about 200 items per port and per year. This unique data base is made possible by our network partners troughout the world providing the broad information for our yearly ISL Port Data Base Survey.



**Basis of calculation:**

Our basis for customised extracts from the Port Data Base is as follows: € 60 - basic fee, plus € 0.60 per item.
The basic fee includes the setting up of a suited layout the addition of the necessary explanatory remarks and footnotes as well as the transmission of the data by E-Mail or by fax. By subscribing to a specified analysis on a yearly basis, you will save the basic fee and get an additional 20 per cent off the other costs starting the second year. Apart from customised database extracts, we provide standardised port profiles and rankings. Please contact us for contractual information.

**Contact and Enquiries:**

Dieter Stockmann, Port Data Manager
Phone +49/4 21/2 20 96-33
eMail portbase@isl.org
Web http://www.isl.org/infoline/

## Fleet and New Construction Data

**Country of registration and country of control**
Country of registration indicates the country of the port of registry of a country (flag). The country of control is defined as the "Real Nationality", i.e. the home country of the interests behind the primary reference company. None of the information regarding ownership is intended to confirm or otherwise the legal status of the companies or the ships associated with them

**Denmark** includes Faeroes, Greenland.

**France** includes New Caledonia, French Polynesia, Réunion, Wallis and Futuna Islands.

**Netherlands** includes Netherlands Antilles, Curacao.

**Portugal** includes Madeira.

**Spain** includes Canary Islands.

**UK** includes Isle of Man and Falkland Island.

**US** includes Puerto Rico.

## Clarkson Research Services Limited Disclaimer

*"The statistical and graphical Data contained under the heading is drawn from the Clarkson Research Services Limited ("CRSL") database and other sources. CRSL has advised that: (i) some Data in CRSL's database is derived from estimates or subjective judgments; and (ii) the Data in the databases of other marine data collection agencies may differ from the Data in CRSL's database; and (iii) whilst CRSL has taken reasonable care in the compilation of the statistical and graphical Data and believes it to be accurate and correct, data compilation is subject to limited audit and validation procedures and may accordingly contain errors; and (iv) CRSL, its agents, officers and employees do not accept liability for any loss suffered in consequence of reliance on such Data or in any other manner; and (v) the provision of such Data does not obviate any need to make appropriate further enquiries; and (vi) the provision of such Data is not an endorsement of any commercial policies and/or any conclusions by CRSL".*

## Broken-up Tonnage

includes ships sold for breaking. Figures on broken-up tonnage are not revised if vessels reported for breaking are trading again.

## Merchant Ship Type Structures

Based on „An International Classification of Ships by Type" (ICST (1994)

Definition of terms used in merchant ship structures type classification.

**Tanker:** Single-deck vessel constructed and arranged for the carriage of liquid cargoes in tanks integral to the hull and include crude oil or non-hazardous (IMO code) refined products.

**Chemical tanker**: Vessel constructed and arranged for carrying hazardous (IMO code) cargoes in special tanks.

**Liquid gas tanker**: Vessel constructed and arranged for the carriage of liquefied gases either in integral tanks or independent
tanks under pressure or refrigerated.

**Dry Bulk**: Dry cargo vessel. One deck, machinery aft with topside tanks capable of carrying a variety of self-trimming cargoes.

**Ore Carrier (Bulk Carrier)**: Dry cargo vessel, one deck, strengthening for ore cargoes.

**Ore/Bulk/Oil Carrier (OBO)**: Bulk carrier arranged for the carriage of either bulk dry cargoes or liquid cargoes in the same cargo spaces but not simultaneously.

**General Cargo**: Single or multi-deck general dry cargo vessel with facilities for loading/ discharging cargo.

**Specialised Carrier (Special Ship)**: Dry cargo vessel specially designed for the carriage of particular cargoes, incl. car-carriers.

**Reefer**: Specialised dry cargo vessel with 80 % or more insulated cargo space.

**RoRo Cargo/RoRo Passenger**: Vessel arranged for Roll-on Roll-off loading / discharging of vehicles (road and/or rail) as cargo and / or passenger conveyances.

**Container Ship (Fully Cellular Container Ships)**: Vessel fitted throughout with fixed or portable cell guides for the carriage of containers above and below the weather deck.

**Passenger**: Vessel which carries more than 12 fare paying passengers whether berthed or unberthed (ferries).

## Basic Ship Type Structure and ISL Ship Type Aggregates

| MERCHANT SHIP | | STRUCTURES | ISL SHIP TYPES<br>Special Fleet Report | <br>Broken-up tonnage etc. |
|---|---|---|---|---|
| **LIQUID** | **Oil tankers** | - Crude oil tankers<br>- Crude/products tankers<br>- Products tankers | Oil tankers<br>"<br>" | Tankers<br>"<br>"" |
| | **Oil / Chemical tankers** | - Oil chemical tankers<br>- Chemical tankers<br>- Other tankers | Oil / Chemical tankers<br>"<br>" | Tankers<br>" |
| | **Liquid gas tankers** | - LNG carriers<br>- LPG carriers<br>- Other liquid gas carriers | Liquid gas tankers<br>"<br>" | Tankers<br>"<br>" |
| **DRY BULK** | **Bulk carriers** | - bulk carriers<br>- other bulk carriers incl. ore carriers<br>- Ore/bulk/oil carriers<br>- Ore/oil carriers<br>- Bulk/oil carriers | Bulk carriers<br>" | Bulk carriers<br>"<br>"<br>"<br>"<br>" |
| **OHTER DRY CARGO** | **General cargo ships** | *of which*<br>- Conventional Cargo ships<br>- Special ships<br>- Pure car carriers<br>- Reefer ships<br>- RoRo cargo ships | General cargo ships, *of which*<br>Conventional Cargo ships<br>Special ships<br>Pure car carriers<br>Reefer ships<br>RoRo cargo ships | General cargo ships, *of which*<br>Conventional Cargo ships<br>(a)<br>(a)<br>(a) |
| | **Container ships** | - Fully cellular container ships | Fully cellular container ships | Fully cellular container ships |
| | **Passenger and passenger cargo ships (b)** | *of which*<br><br>- Passenger ships<br>- Cargo/RoRo passenger ships | Passenger and cargo passenger ships, *of which*<br>Passenger ships<br>Cargo/RoRo passenger ships | Passenger ships<br><br>"<br>" |

(a) Included in General Cargo Ships.
(b) Including ships (berthed and unberthed) for passenger transport and passenger carrying vessels like general cargo passenger ships, ro-ro passenger ships (ferries).

For further explanation (**e.g. Trade and Traffic Statistics**) please visit: www.isl.org/infoline

## ISL Institute of Shipping Economics and Logistics

Founded as an independant and private non-profit foundation in 1954 in Bremen / Germany, the Institute of Shipping Economics and Logistics (ISL) has become one of Europe's leading research and consulting organisations in the maritime sector during the past 60 years. Qualified employees, equipped with state of the art technology and compatible instruments, work in inter-disciplinary teams on applied research and development projects in the departments Logistic Systems, Maritime Economics and Transport as well as Information Logistics. Due to its professional capability, superb reputation and exhaustive connections to politics and industry, ISL will continuously contribute to the advancement of added value as well as to the maritime and logistics industry as to science in future.

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Furthermore, the portal of the ISL InfoLine offers various databases used for market analyses, statistical publications, information services and customers' enquiries. The focus here is on the ISL Port Database.

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The ISL InfoCenter is the leading institution in Europe for information and documentation in maritime economics and logistics. It offers professional services about industries, markets and companies within the knowledge areas of shipping, shipbuilding and ports, transport and logistics as well as economic and trade.

The ISL Library, which exists since 1954, is one of the biggest libraries in the area of maritime economics and logistics with a total stock of about 131,000 books (as of 2016), of which are 32,500 monographs and 32,000 annual publications. Furthermore 230 professional journals are kept regularly. In addition, digital publications within the creation of an eLibrary play an increasingly important role. The ISL Library is open to the public and the use is free of charge.

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