Shipping Fleet Statistics: methods and quality

Introduction

Department for Transport statistics on UK and world shipping fleets are generally published annually, at the same time as the Department's final UK port traffic statistics (normally in September). All results are published on the DfT Statistics web site (www.dft.gov.uk/statistics).

Since the statistics are derived from a commercial source outside of the Department for Transport's control, the statistics are not classed as National Statistics.

For fleet data up to and including 2009, tables were primarily published as part of the *Maritime Statistics* compendium. The last edition of this compendium (published in electronic format) was Maritime Statistics 2009, published in September 2010.

All maritime statistics previously included in the compendium are now published through their own series (Port Freight, Sea Passengers or Shipping Fleet) on the DfT web site. An index is available on the web site to help users locate tables in the new setup.

The release of Shipping Fleet tables for 2010 was delayed in order to take into account changes in underlying definitions. Data for 2010 on this new basis were published in July 2012, in the form of the new Shipping Fleet release series on the DfT web site. At the same time, revised data for 2009 on the new basis were also produced. Data for 2011 are due for release in September 2011, reverting to the former timetable.

Definitions and notes to tables

Source

The fleet statistics presented in these tables for 1986 onwards have been derived from information supplied to DfT by IHS Global or its predecessor companies (Lloyds, Lloyds Register Fairplay). Statistics up to 1988 were derived from Lloyd's 'General Ship File'. Statistics from 1989 were derived from Lloyd's 'Ship Particulars File'.

Since the statistics are derived from a commercial data source they are considered to be outside the scope of National Statistics.

Until the end of 1986, United Kingdom registered fleet figures were derived from DfT records of trading vessels of 500 gross tons or over registered at ports in the United Kingdom, the Channel Islands and the Isle of Man. A different ship type classification was also in use. For 1986, for purposes of comparison, table fle0301 includes figures from both sources giving the composition of the fleet on the basis of both the 'old' and 'new' ship type classifications.

Note that the UK Ship Register is managed by the Maritime and Coastguard Agency (MCA). However, for consistency with data for other fleets, the UK registered fleet statistics presented in these tables are based on IHS Global data. These figures may differ slightly from, and be less up-to-date than, the definitive UK Ship Register information held by the MCA.

Coverage

Different sub-series of the shipping fleet tables, denoted by the first 2 digits of the table reference, cover different types of shipping fleet, as follows:

Table prefix	Coverage
fle01**	Varies - special purpose tables
fle02**	UK owned vessels
fle03**	UK (& Crown Dependency) registered vessels
fle04**	Red Ensign Group fleets (by country of registration)
fle05**	World fleets (by country of registration)
fle06**	UK beneficial owned vessels
fle07**	UK managed vessels

Vessels

The statistics generally include all known sea-going ships (and a few non-seagoing vessels) of 100 gross tons (gt) and above. United States reserve fleet and Great Lakes fleet are included but most naval vessels are excluded.

Some tables present results for vessels of 500 gross tons and above only. This is generally for consistency with data which has historically been available. Vessels under 500gt are relatively small and so the higher cut-off will only make a modest difference to tonnage totals, but a larger difference in terms of vessel numbers.

Vessel types

The ship type classifications used are mainly based on levels 3 and 4 of the 1994 revision of the International Classification of Ship Types (ICST), as shown in Table 1 below.

The ICST classification was developed by an ad-hoc group of users of ship statistics, working informally with the United Nations Conference on Trade and Development (UNCTAD), the Statistical Office of the European Communities (SOEC) and Lloyd's.

Prior to 2009, ships were coded to the ICST classification by DfT from more detailed ship type information provided by Lloyds/IHS. This method was generally reliable, but in some cases where multiple ship types were recorded for the same vessel, the attribution to an ICST class depended on the order in which the ship types were coded.

From 2009 the underlying information used to classify ship types has been the newer Statcode5 system developed by IHS. This is still recoded to produce the classifications published by DfT, but the recoding much simpler, and involves only unique, 1-to-1 relationships. The classifications used still match ICST as far as possible, but with some slight changes to minimise the sub-division of Statcode categories.

Further details of the post-2009 classifications are shown in Table 2 below.

Trading vessels

Trading vessels are those which carry cargo or passengers for commercial purposes. This is an important distinction because while trading vessels account for the vast majority of UK registered or owned shipping tonnage, they account for a much smaller proportion of vessel numbers.

Other vessel types, including dredgers, fishing vessels, offshore industry vessels, tugs and research vessels are deemed to be 'non-trading'.

From the adoption of Statcode5 in 2009, 'trading' vessels correspond directly to the 'Cargo carrying' category A in Level 1 of Statcode. All other categories in Level 1, B through Z, are 'non-trading'.

For more details, see Table 2 below.

Prior to the 2009 revision, there was not always a direct correspondence between DfT ship type and trading status. This is because DfT ship type was based on the 'Main Ship Type' recorded by IHS, while trading status was partly based on main ship type, but also took into account the 'sub types' also recorded by IHS. Either a non-trading main ship type or a non-trading sub type could result in a ship being classified as non trading.

Registry, or 'flag'

International law requires that every merchant ship be registered in a country, called its flag state. Registry (or 'flag') refers to the country in which a ship is registered. The breakdown of flags and flag groups by country is as follows:

UK	Great Britain and Northern Ireland
Crown Dependencies	Isle of Man and the Channel Islands
Overseas Territories	Anguilla, Bermuda, British Virgin Islands, Cayman Islands, Falkland Islands, Gibraltar, Montserrat, St Helena, Turks and Caicos Islands, (and, prior to 1997, Hong Kong)
European Union (at 1 Jan 2007)	United Kingdom (inc. Isle of Man & Channel Islands), Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark (inc. DIS, Faeroes and Greenland), Estonia, Finland, France (inc. French Antarctic Territory, French Guiana, French Polynesia, Guadeloupe, Martinique, Mayotte, New Caledonia, Reunion, St Pierre & Miquelon and Wallis and Futuna Islands), Germany, Greece, Hungary, Italy, Latvia, Lithuania, Luxembourg, Netherlands (inc. Netherlands Antilles and Aruba), Malta, Poland, Portugal (inc. Madeira, MAR, Azores and Macao), Republic of Ireland, Romania, Slovak Republic, Slovenia, Spain (inc. Canary Islands and CSR) and Sweden
Canada	Canada (inc. Great Lakes fleet)
Norway	Norway (inc. NIS)
USA	USA (inc. Great Lakes fleet, American Samoa, Virgin Islands of the USA, Northern Mariana Islands, Guam, Puerto Rico and USA reserve fleet (except for mid-year 1998))

Red Ensign Group

The Red Ensign Group consists of the United Kingdom, the Crown Dependencies (Isle of Man, Guernsey and Jersey) and the UK Overseas Territories (Anguilla, Bermuda, British

Virgin Islands, Cayman Islands, Falkland Islands, Gibraltar, Montserrat, St Helena and the Turks & Caicos Islands) which operate shipping registers from their jurisdiction. Any vessel registered in the UK, a Crown Dependency or UK Overseas Territory, is a "British ship" and is entitled to fly the Red Ensign flag.

UK ownership (or direct ownership)

UK owned (or directly owned) ships, wherever the ship is registered, are those for which the nationality of the owner is United Kingdom (not including the Crown Dependencies). Where a vessel is owned by a company, its nationality is deemed to be that of the country in which the company is incorporated.

The owner or direct owner of a ship is also referred to as the 'registered owner' of the ship. This should not be confused with the registration of the ship under a particular flag (see above).

Note that the registered owner of a vessel may be a company set up for administrative convenience, or a bank or finance company from which the vessel is leased back by its operator.

UK parent ownership

UK parent owned ships are those for which the nationality of the company having the controlling interest in the direct owner is United Kingdom.

For coding purposes, this is taken to be the 'Country of Control' of the registered owner of the vessel, as identified by IHS.

Note that in cases where the registered owner of a ship is a bank or finance company, the specific measure of parent ownership used here will identify the parent, or controlling interests behind that bank or finance company, rather than the controlling 'shipping' interest (see UK beneficial ownership below).

UK beneficial ownership

This is similar to UK parent ownership described above, except that in cases where the registered owner of a ship is a bank or finance company, the nationality of the 'group beneficial owner' rather than that of the bank or finance company is used. The 'group beneficial owner' is the organisation with the controlling shipping interest in the vessel, as identified by IHS. The purpose of this definition is to strip out the potentially distorting effect of institutions which are simply financing vessel purchases, but not actively managing them in any operational sense, and which may well be based in a different country from those who are.

UK management

UK managed ships are those for which the nationality of the company responsible for the day to day running of the ship is UK.

For coding purposes, this is taken to be the country of domicile of the ship manager, as identified by IHS.

Units of measurement

Under the International Convention on the Tonnage Measurement of Ships, 1969, **gross tonnage (gt)** is defined as the following function of the total volume of all enclosed spaces in the ship (V), in cubic metres:

$$GT = K_1 V$$

$$\text{where } K_1 = 0.2 + 0.02\log_{10}V.$$

Although the Convention is fully in force, the old 'gross registered tons' measure may still be the measure recorded on Lloyd's Register-Fairplay World Fleet Database in a small proportion of cases. This was directly related to the capacity of the space within the hull, and of the enclosed spaces above the deck, which were available for cargo, stores, passengers and crew, with certain exceptions. In practice, old and new tonnage measures are fairly similar, except for ships with substantial exempt spaces under the old system, such as Ro-Ro vessels.

Deadweight tonnes (dwt) is the weight of cargo, stores, fuel, passengers and crew carried by the ship when loaded to her maximum summer loadline. Up to 1986, statistics were compiled for imperial deadweight but from 1987 metric units are used (one deadweight ton (imperial) = 1.016 deadweight tonnes).

Table 1: International Classification of Ships by Type (ICST(94))

Level 4		Level 3		Level 2	Level 1	Level 0
Crude oil tanker Crude/products tanker Oil products tanker Oil/chemical tanker		Oil tanker	1	LIQUID	MERCHANT SHIP STRUCTURES	MARINE STRUCTURES
Chemical tanker		Chemical tanker	2			
LNG carrier LPG carrier Other liquefied gas carrier		Liquefied gas carrier	3			
Single hull Double hull Double-sided Double-bottomed Other tank barge		Tank barge	4			
Asphalt, bitumen carrier Molasses tanker Vegetable oil tanker Other tanker nei		Other tanker	5			
Ore/bulk/Oil Ore/Oil Bulk/Oil		Bulk/oil carrier	6	DRY BULK		
Ore carrier Bulk/container carrier Other bulk carrier		Bulk carrier	7			
Container (FC)		Container (FC)	9	OTHER DRY CARGO		
Barge carrier Chemical carrier Irradiated fuel carrier Livestock carrier Vehicle carrier Other specialised carrier		Specialised carrier	8			
Reefer	12	General cargo				
Ro-Ro passenger	10					
Ro-Ro container	11					
Other Ro-Ro cargo						
Gen cargo/passenger	13					
Gen cargo/single deck	14					
Gen.cargo/container	15					
Gen cargo/other multi deck						
Deck barge Hopper barge Lash/seabee barge Open dry cargo barge Covered dry cargo barge Other dry cargo barge		Dry cargo barge	16			
Cruise	17	Passenger		MISCELLANEOUS TYPES		
Other passenger	18					
Fish processing		Fish processing and catching	19			
Fish catching						
Off-shore drilling		Offshore production and support	20			
Off-shore support						
Tug		Tow-boat (tug in MS)	21			
Push-boat						
Research/Survey	22	Other types				
Dredger	23					
Other nei	24					
NAVAL (MILITARY CRAFT)						
NON-SHIP STRUCTURES						

Note: Shaded cells indicate the main groupings used in this report

Table 2: DfT Ship Classifications based on Statcode5 (used from 2009)

Derived DfT classifications			IHS Statcode5 classification system *(only minimum detail necessary to identify DfT categories shown)*				
Trading status	Summary group	Ship type	Level5	Level4	Level3	Level2	Level1
Trading	Tanker / liquid	Oil tanker			A13 Oil	A1 Tankers	A Cargo Carrying
		Oil-chemical tanker		A12B Chemical/Oil Products Tanker	A12 Chemical		
		Chemical tanker			A12 Chemical		
		Liquid gas tanker			A11 Liquefied Gas		
		Other tanker			A14 Other Liquids		
	Dry bulk	Bulk-oil carrier			A22 Bulk Dry / Oil	A2 Bulk Carriers	
		Bulk carrier					
	Other dry cargo	Specialised Carrier		A35B Vehicles Carrier	A35 Ro-Ro Cargo	A3 Dry Cargo/ Passenger	
					A38 Other Dry Cargo		
		Container [FC]	A33A2CC Container Ship (Fully Cellular)	A33A Container Ship	A33 Container		
		Refrigerated cargo			A34 Refrigerated Cargo		
		Ro-Ro passenger			A36 Passenger/Ro-Ro Cargo		
		Ro-Ro container	A33A2CR Container Ship (Fully Cellular with Ro-Ro Facility)	A33A Container Ship	A33 Container		
				A35C Container/Ro-Ro Cargo Ship	A35 Ro-Ro Cargo		
		Ro-Ro other cargo			A35 Ro-Ro Cargo		
		General cargo-passenger		A33B Passenger/ Container Ship	A33 Container		
					A32 Passenger / General Cargo		
		General cargo			A31 General Cargo		
	Passenger	Cruise		A37A Passenger (Cruise) Ship	A37 Passenger		
		Passenger		A37B Passenger Ship			
Non-Trading	Miscel-laneous	Bunkering tanker		B35E Bunkering Tanker	B35	B3 Miscellaneous	B Work Vessel
		Fish catching			B11 Fish Catching	B1 Fishing	
		Other Fishing			B12 Other Fishing		
		Offshore supply			B21 Offshore Supply	B2 Offshore	
		Offshore (except supply)			B22 Other Offshore		
		Towing/Pushing			B32 Towing / Pushing	B3 Miscellaneous	
		Research			B31 Research		
		Dredging			B33 Dredging		
		Other Work Vessels			B34 Other Activities / B35		
		Non-seagoing ships					W Non-Seagoing Merchant Ship
		Non Merchant ships					X Non Merchant Ship
		Non Propelled Vessels					Y Non Powered Vessel
		Non Ship Structure					Z Non Ship Structure