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1998-2023

# GLOBAL TANK CONTAINER FLEET SURVEY

# 2023

# GLOBAL TANK CONTAINER FLEET SURVEY 2023

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*“Inspiring a new generation to join the tank container industry” is one of ITCO’s key objectives. In December 2022, ITCO organised an Awareness Day for 80 students attending the STC Shipping and Transport College in Rotterdam. Hoyer arranged for its training tank and staff to be available – and students (in small groups) were able to learn more about a tank container by viewing it from the inside and on top, which allowed them a very ‘hands-on’ approach.*

## DISCLAIMER

Great care has been taken to ensure the information published in this Survey is accurate, but the International tank Container Organisation accepts no responsibility for any errors or omissions. All responsibility for action based on any information in this Survey rests with the reader. ITCO accepts no liability for any loss of whatever kind, arising from the contents of this Report.

### ITCO – International Tank Container Organisation

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# ITCO 2023 Survey reveals industry growth of 8.65% in 2022 compared to 7.3% in 2021

## Global Tank Container Fleet reached 801,800 by 1 January 2023

The tank container industry has grown significantly in recent years, driven by increasing global demand for bulk liquid and liquified gas transport.

According to this year's ITCO Survey of the Global Tank Container Market, a total of 67,865 tank containers were built in 2022, compared to 53,285 new units in the previous year - an increase of some 14,580 units.

The worldwide tank container fleet grew by 8.65% in 2022, compared to 7.3% in 2021.

This year's Survey estimates that, at 1 January 2023, the global tank container fleet stood at 801,800 units, compared to 737,935 tanks on 1 January 2022.

During the global Covid-19 pandemic, supply chain disruption led to a shortage of tank containers - and, in turn, a demand by operators and BCOs for equipment. This shortage resulted in a record demand for equipment with tank manufacturers, leasing companies and operators all achieving a particularly successful year in 2022.

Instead of disposing of older tank containers (or taking them out of operational circulation), older tank containers have in many cases been repaired and brought back into service. However, as in previous global recessions, growth in the global tank container fleet could mean an oversupply of equipment this year.

The massive disruption and challenges in the supply chain over the past three years have proved that the tank container can play a critical role in the "just-in-time" business philosophy of the major end users - the shippers.

With large numbers of tank containers - which over the last two years were being held on demurrage by chemical companies on a "just-in-case" basis - now being returned empty to operators, pressure is being put on operators and leasing companies to maximise utilisation, and on depots to find storage space.

Over the last year, however, the demand for new tanks resulted in substantial growth in the global tank container fleet - with 2022 being the highest-ever figure in terms of new production.

As in previous Editions, this Survey is intended to analyse the growth in the world's tank container fleet and the development of tank containers manufacturing on a year-by-year basis. It shows how, numerically, the industry continues to be dominated on a global level by a relatively small number of major tank container operators and leasing companies.

The top 10 tank container operators account for over 281,160 tanks, representing over 49% of the global tank container operators' fleet. The top 10 leasing companies account for 299,300 tanks, representing about 83% of the total leasing fleet.

Tank containers owned by shippers, beneficial cargo owners - and a wide range of other industry players - amount to 199,110 tanks. Shippers/BCOs own mostly special tanks, while other industry sectors have a range of standards and specials.

Based on its successful growth in recent years, the industry is continuing to attract smaller players to enter the market - often offering "niche" tank services in niche markets, such as south-east Asia. However, existing operators also report a greater emphasis on the part of shippers to value relationships as a means to forge loyalty, quality and dependable supplies of tanks, moving away from the erratic spot market and on-line price focused competitive bidding.

As in previous years, this Survey lists those companies which are operating or leasing tank container fleets of over 1000 units. Companies with tank container fleets of less than 1000 units, (about 200 companies) have not been named individually, but an "educated estimate" has been made for the combined fleets.

The International Tank Container Organisation would like to take this opportunity to thank the various companies who have contributed to this study. Your input and information, statistics and ideas are very much appreciated.

# The Global Tank Container Fleet at the beginning of 2023: Overview

**Table 1: Global Tank Container Fleet (1 January 2023)**

Number of Tank Operators Worldwide	240-plus
<b>Number of Tanks in Operator Fleets (Owned &amp; Leased -in)</b>	<b>568,760</b>
Number of Tank Lessors Worldwide	38-plus
<b>Number of Tanks in Lessor Fleets</b>	<b>360,925</b>
<b>Tanks on Lease to Operators, Shippers and Others Users</b>	<b>323,995</b>
<b>"Idle" leasing company tanks*</b>	<b>36,930</b>
<small>(undergoing M&amp;R, testing, storage)</small>	
<b>Shippers** and Others***</b>	
<b>Total number of Shipper and "Others" (Owned and leased-in)</b>	<b>199,110</b>
<b>Tanks Built in 2022</b>	67,865
<b>Tanks Scrapped in 2022****</b>	4,000

**Total Global Tank Containers 801,800**  
*(Fleet size calculated as follows: Tanks in Operator Fleets + Lessors "Idle" Tanks + Tanks in BCOs/Shippers/"Others" Fleets. Less tanks scrapped)*

**Table 1 shows the estimated global number of tanks by industry sector.**

- The total operator and leasing fleet is based on the industry response to the Survey and other research.
- The leasing fleet is accounted for within both the "operator" and also the "shipper" fleets, except for those tanks which are "idle". (Definition of "idle tanks" - see next column)
- "Shipper" and "others" fleet is estimated in accordance with the methodology detailed on page 13 of this Survey.
- The Survey indicates that there were 801,800 tank containers worldwide at the beginning of 2023 including annual manufacture of 67,865 new tanks in 2022
- Taking into account an estimated 3000 scrapped tanks, the global fleet on 1 January 2023 had grown to 801,800 tanks, compared to 736,935 at the beginning of 2022.
- This represents a growth of 8.65% from 1 January 2022 to 1 January 2023.

## Notes:

### \* Idle Tanks

- Tanks might be "idle" because they are in the process of preparation such as maintenance and testing or in the process of being repositioned to a demand area or remaining as new manufacture stocks.
- Nominal figure of 4000 tanks being disposed in 2022 – similar to 2021, but still relatively low compared to previous years.

### \*\*Shipper (also referred to as "Beneficial Cargo Owner", producer or consignee) fleet

- The "Shipper" fleet comprises tanks owned or leased-in by producers of bulk cargoes, for shipment in tanks – especially chemical and food/drinks companies.
- These tanks may be operated by the shipper themselves, or by an operator on their behalf
- These tanks can be units for specific logistics operations, dedicated services or for use within a company's own production process. They are also sometimes "special" tanks - manufactured or modified to meet a specific need and include tanks designed to transport liquefied and refrigerated gases.

### \*\*\* Others

- "Others" (ie "Other Tank Users") include the many tanks operated by organisations such as military, shipping and barge lines, rail, oil and mining industries, China domestic and companies that use tanks for storage or special transport operations such as bitumen.
- Some of the tanks disposed from operator and lessor fleets might be modified and utilised within this category.

### \*\*\*\* Disposals

- Tank containers are normally depreciated over a residual life of 20-25 years - but often remain in service for a longer period. Operators have recognised that the operational life of the tank can be extended. Evidence indicates that tanks can now last longer
- The service life of the tank can be extended by remanufacture or refurbishment. This is an especially viable option when the price of new tanks is at a higher level.
- Owners might dispose of tank containers for commercial and technical reasons. These might be repurposed into other uses, such as storage.
- Some tanks are sold for re-cycling as scrap metal, especially if the tank is seriously damaged beyond economic repair.
- Scrap might be a viable economic option when the commercial price of scrap stainless steel rises.
- Precise data about tank disposal and scrapping is difficult to research. For this year's survey, we have estimated a nominal figure of 4000 tanks being scrapped in 2022, which is low compared to previous years.

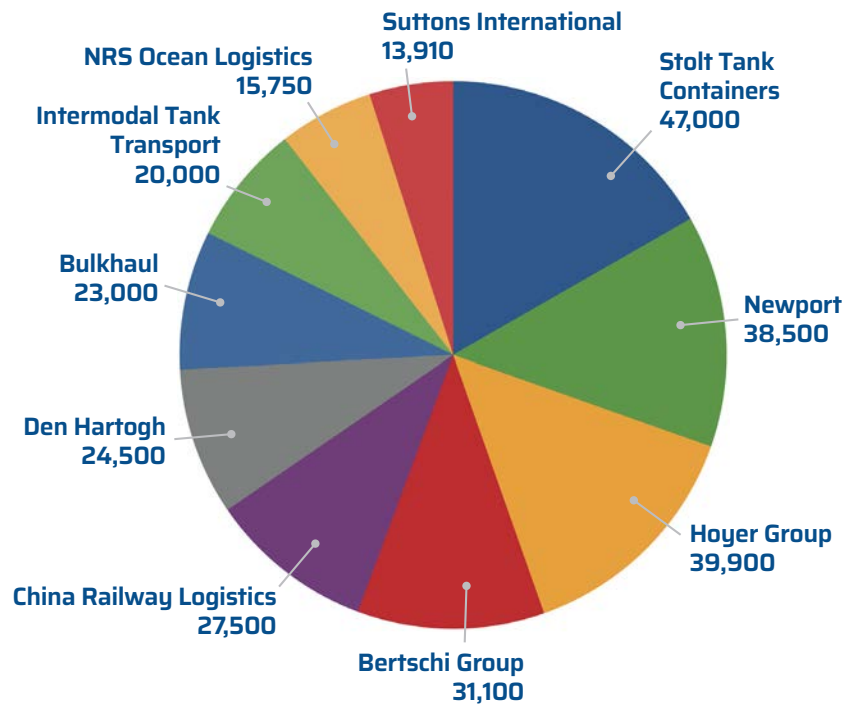
# Top Ten Tank Container Operators

There are over 240 operators of tank containers known to ITCO, ranging from very large global companies to relatively small niche and regional players.

Shown by Figure 1, at 1 January 2023, the top ten operators accounted for over 281,160 tanks representing over 49% of the global tank container operators' fleet (568,760 tanks).

At the same time last year, the top 10 operators accounted for 266,665 tanks representing over 54% of the global tank container operators' fleet (489,895 tanks)

**Figure 1: Top Ten Tank Container Operators (at 1 January 2023)**

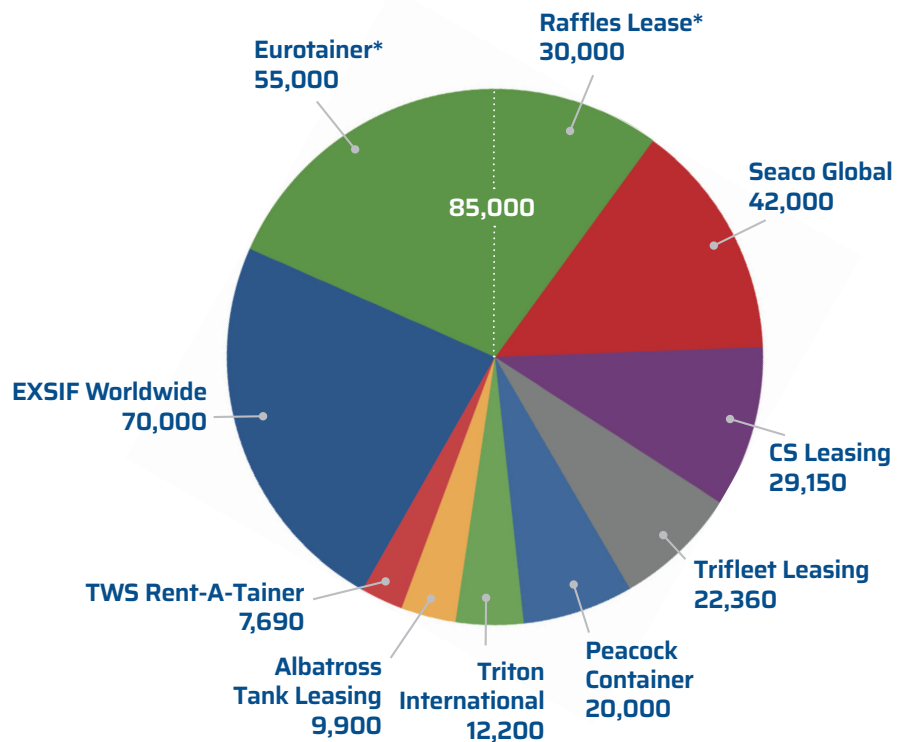


# Top Ten Leasing Companies

At least 38 companies worldwide provide tank container leasing services. These range from large global lessors to regional and local companies.

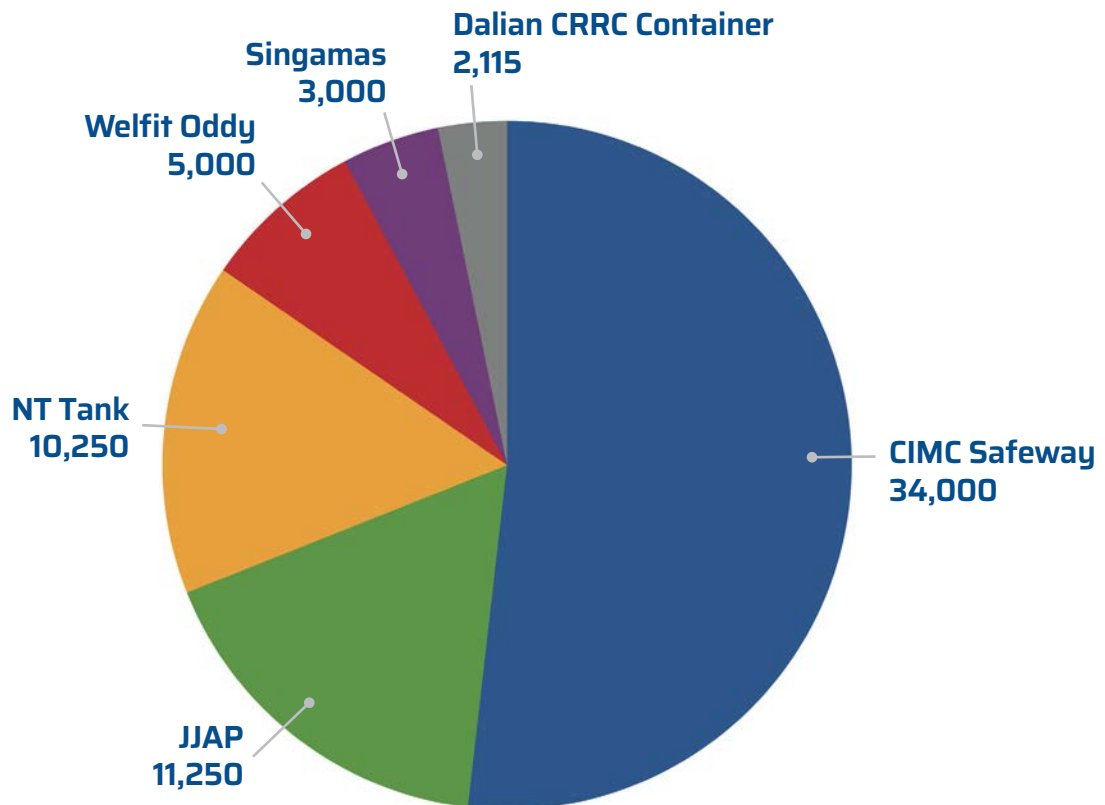
As shown in Figure 2, at 1 January 2023, the top 10 lessors accounted for 299,300 tanks, representing 275,050 tanks, representing about 83% of the total leasing fleet (360,925 tanks).

**Figure 2: Top Ten Tank Container Leasing Companies (at 1 Jan 2023)**



(\*Same owner)

## Top Tank Container Manufacturers



**Figure 3: Production figures of the top 6 Tank Container manufacturers in 2022**

- In 2022, the combined number of tank containers produced by all of the world's manufacturers totalled over 67,865 new units.
- Tank Container manufacturing is concentrated in China. The only other large volume manufacturer is based in South Africa.
- The leading Tank Container Manufacturers producing the highest number of tanks are as follows: CIMC, NT Tank, JJAP, Welfit Oddy, Singamas and Dalian CRRC. These top six represent 97% of global manufacture.
- The majority of units produced by these top six companies are standard industry tanks range. Nevertheless, there are at least 10 further companies building a wide range of specialised tanks, including swap-tanks, semi-specials, gas and cryogenic tanks.

**Table 2: Annual Global Tank Container Growth (1 Jan 2013 - 1 Jan 2023)**

Players/Tank Type	Year	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
	<b>Operators - Number</b>		<b>240</b>	235	230	218	212	210	209	205	194	176
Total Operators Fleet (Owned and leased-in)		568,760	489,895	443,110	418,500	381,750	365,000	342,500	329,080	305,700	265,550	228,460
<b>Leasing Companies - Number</b>		<b>38</b>	37	37	37	35	36	36	36	33	34	27
"Idle" Leasing Company Tanks		36,930	38,755	44,400	45,840	42,785	32,000	28,500	20,175	23,400	17,650	15,000
<b>On-lease to Operators, Shippers, Others</b>		<b>323,995</b>	284,195	272,310	259,775	243,200	213,000	186,765	181,575	171,600	158,850	135,400
Total Lessor Fleet		360,925	322,950	316,710	305,615	286,000	245,000	215,265	201,750	195,000	176,500	150,400
<b>Shipper / Others</b>												
Total (Owned and Leased)		199,110	211,285	199,140	188,010	180,165	155,000	137,400	110,950	107,460	103,000	94,800
<b>Manufactured (in the previous year)</b>		<b>67,865</b>	53,285	35,800	54,650	59,700	48,500	44,500	43,780	48,200	42,620	39,700
<b>Disposal*</b>		<b>3000</b>	3,000	1,500	7,000	7,000	4,500	4,500	2,000	5,000	1,000	-
<b>Grand Total</b>		<b>801,800</b>	<b>737,935</b>	<b>686,650</b>	<b>652,350</b>	<b>604,700</b>	<b>552,000</b>	<b>508,000</b>	<b>458,200</b>	<b>427,560</b>	<b>385,200</b>	<b>338,260</b>
<b>Growth % compared with preceding year**</b>		<b>8.65</b>	7.3	5.26	7.88	10.81	8.66	8.5	7.16	10.99	13.87	n/a

## Notes:

**\* Disposals:** This year, we are again looking more closely at the disposal of older tanks, as some equipment built over 20 years has started to move towards the end of their operational lives. Up until now this has not been a big issue, but unlike box containers, the tanks normally have a much longer life span. We had started to see more of the older tank containers being scrapped because of age related problems, or with too heavy a tare weight or smaller capacity barrels or too expensive to repair etc.

In its research for this edition of the fleet survey, ITCO has added a question to our members requesting data to include how many tanks have been scrapped from their fleets. In addition we have the input from a new ITCO member, who is in the business of scrapping old tanks.

We believe this data will prove very useful for our members who are now being requested to provide information on the sustainability of tank containers.

During the past year, because of the pandemic, we have noted that older, smaller capacity, tank containers are not being scrapped at the previous rate. In many cases, they are being repaired and put back into service because of the high demand for the equipment. In addition many of them may even be re-manufactured if the price of new tanks continues to increase at the current high level through this current year.

**\*\* Growth:** Percentage growth is reported showing the growth for the year compared with the preceding Survey.

**Table 2** summarises ITCO Surveys completed since 2013. The estimated growth in 2022, compared with 2021 is about 8.65%. The 2014 and 2015 "shipper & others owned fleet" has been adjusted, to reflect a static position, but the leased part of the fleet shows a percentage increase in line with the methodology.

**Table 3: Tank Container Production and World Fleet (1991 - 2023)**

Year	Production	Fleet at 1 January (of year shown)
1991	6,500	
1992	8,000	67,000
1993	9,000	73,000
1994	11,000	81,000
1995	12,500	88,800
1996	14,000	97,800
1997	15,000	110,650
1998	13,000	121,960
1999	9,500	129,640
2000	10,500	136,440
2001	9,500	144,140
2002	9,000	149,240
2003	11,000	157,400
2004	13,000	164,000
2005	14,500	172,000
2006	16,000	178,400
2007	14,000	190,000
2008	15,000	206,000
2009	20,000	220,000
2010	25,000	236,000
2011	28,000	257,000
2012	39,700	282,000
2013	42,620	338,260
2014	48,200	385,200
2015	43,780	427,500
2016	44,500	458,200
2017	48,500	508,000
2018	59,700	552,500
2019	54,650	604,700
2020	35,800	652,350
2021	53,285	686,650
2022	67,865	737,935
2023		801,800

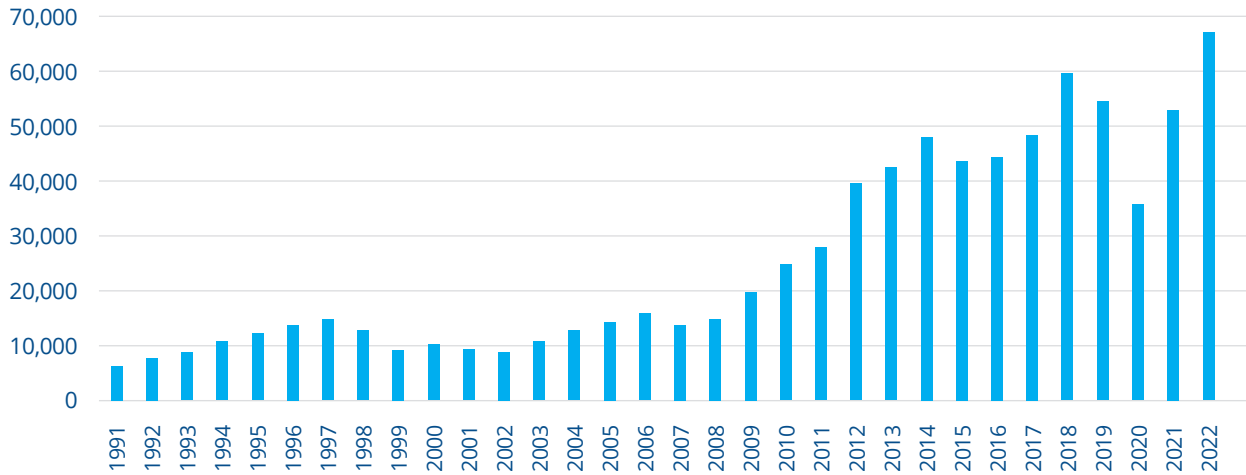
*Data Source: tank container manufacturers, operators and leasing companies.*

**Table 3 shows:**

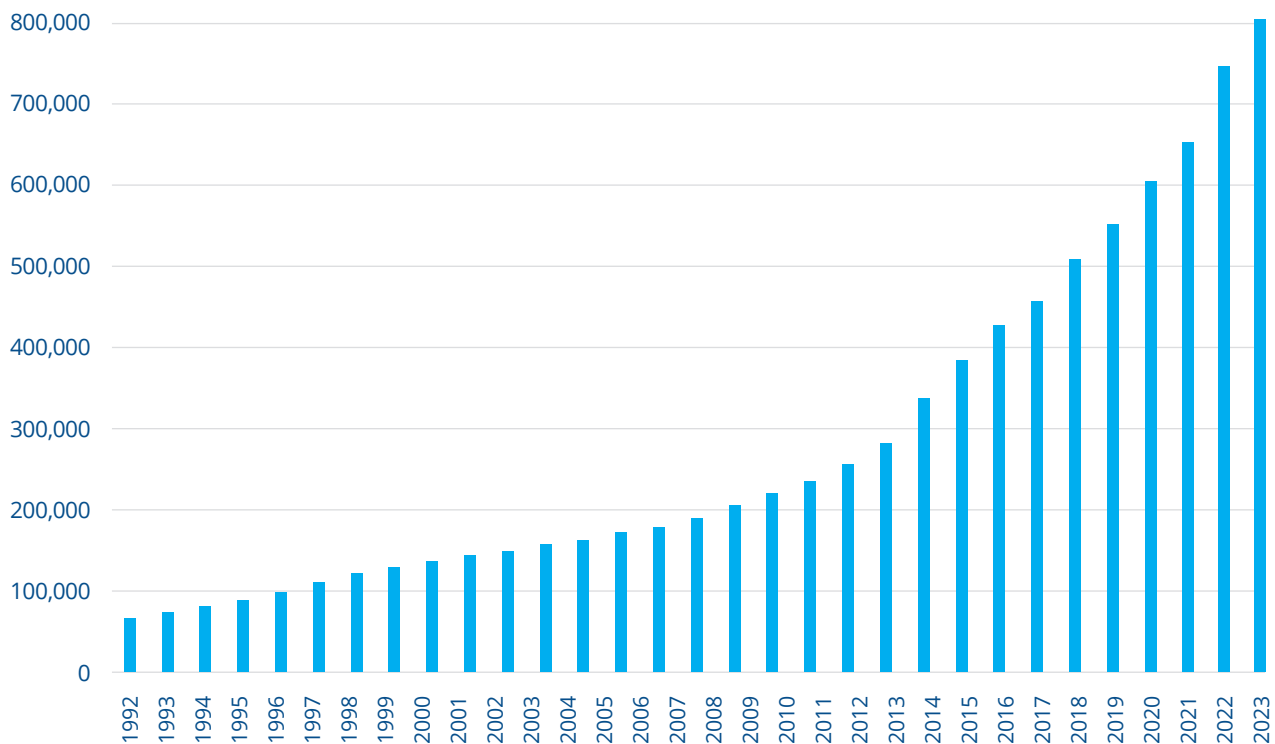
1. The estimated annual tank production since 1991. The ability to increase economic production of new manufactured tanks has been one of the drivers of the tank container industry growth.
2. The estimated global tank container fleet since 1992
3. A figure of 4000 tanks being disposed in 2022 from the world fleet



**Figure 5: Tank Container Production (1990 to 2022)**



**Figure 6: Total Fleet size (at 1st January of each year)**



# Global Tank Container Fleet: Tank Operators Fleet at January 2023

**Tank Container Operators** are third party logistics companies that provide a door-to-door service to shippers and others that require transport of bulk liquids, powders or gases. The fleet listing for each company includes all tanks operated by that company, regardless of whether the tanks are owned outright, managed, leased or any other financial structure used to acquire the asset.

**Table 4: Tank operators' fleets (at 1 January 2023)**

*Criteria: Companies with over 1000 tanks in their fleet*

OPERATOR	Head-quarter	Fleet	OPERATOR	Head-quarter	Fleet
Agmark Logistics	USA	1,600	Intermodal Tank Transport	USA	20,000
Alfred Talke	Germany	1,200	JOT Japan Oil Transport	Japan	9,000
ATI Freight	UAE	1,200	Katoen Natie	Belgium	2,750
Baltica Trans Logistics	Russia	1,500	Kube & Kubenz	Germany	1,100
Bertschi Group	Switzerland	31,100	Lanfer	Germany	8,500
Bolt	Singapore	2,500	Legend	Singapore	11,000
Bulk Tainer Logistics	UK	10,250	Leschaco	Germany	5,600
Bulkhaul	UK	23,000	M&S Logistics	UK	9,725
Celerity Tank	China	1,500	Milky Way	China	5,000
Central Logistics	South Africa	1,000	Meurer Intermodal	Germany	1,200
Chemical Express	Italy	3,610	Newport	Netherlands	38,500
Chemion Logistik	German	1,000	Nichicon	Japan	10,000
China Railway Logistics	China	27,500	Niyac	Japan	2,500
Contank	Spain	1,200	NRS Ocean Logistics	Japan	15,750
Crossover	Singapore	6,500	Paltank	UK	2,200
Curt Richter	Germany	2,710	Pan Bridge	Korea	1,000
Daelim	Korea	7,000	Protank Liquid Logistics	Taiwan	1,200
Dana Liquid Bulk	USA	8,150	R.M.I Global Logistics	Netherlands	4,600
Deccan Transcon	India	1,700	Radix	South Korea	1,400
Den Hartogh	Netherlands	24,500	Rinnen	Germany	3,500
Dinges	Germany	1,000	Sinochem domestic	China	1,000
DJD International Logistics	China	6,000	Sinotrans	China	1,360
Eagletainer	Singapore	12,800	Spectrans/RailGarant	Russia	5,275
EHS Logistics	China	1,050	Stolt Tank Containers	UK	47,000
Eway	Malaysia	20,000	Suttons International	UK	13,910
Flexitank	USA	2,500	Ueno	Singapore	1,000
GCA Trans	France	4,000	Van den Bosch	Netherlands	6,100
General Tank Containers	China	1,200	VTG	Germany	6,115
Goodrich Maritime	India	6,200	<b>Other Under 1000</b>		
Gruber	Germany	1,300	Estimated*	Asia Pacific	20,000
Hengcheng	China	5,000	Estimated*	Europe, RU	10,000
Hoyer Group	Germany	39,900	Estimated*	Americas	10,000
Infotech-Baltika M	Russia	5,400	Estimated*	India/Mid-East/Africa	8,250
Interflow (TCS)	UK	14,700	<b>TOTAL</b>		<b>568,760</b>

Note: \*There are a number of regional operators that are not readily contactable. Accordingly an estimate has been included.

# Global Tank Container Fleet: Leasing Companies Fleet at January 2023

**Tank Container Leasing companies** provide tank containers to operators, shippers and others - usually on a contractual term basis, where the lessee takes “quiet” possession and operates that tank as if it were owned. Leasing company fleet listings include all tanks within the leasing company fleet including owned outright, managed on behalf of investor owners and any other financial means of acquisition.

**Table 5: Leasing companies’ fleets (at 1 January 2023)**

*Criteria: Companies with over 1000 tanks in their fleet*

LESSOR	Headquarters	Fleet
Albatross Tank Leasing	China	9,900
Combipass	France	1,500
CS Leasing	USA	29,150
Eurotainer*	France	55,000
EXSIF Worldwide	USA	70,000
International Equipment Leasing	USA	8,150
Matlack Leasing	USA	2,500
MCM Management	Switzerland	2,400
Modalis	France	5,000
Multistar Leasing	South Africa	5,190
Noble Container Leasing	Hong Kong	1,900
NRS Lease	Japan	5,000
Peacock Container	Netherlands	20,000

LESSOR	Headquarters	Fleet
Raffles Lease*	Singapore	30,000
Seaco Global	Singapore	43,000
Tankspan Leasing	UK	2,285
Trifleet Leasing	Netherlands	22,360
Tristar Engineering	Switzerland	1,100
Triton International	USA	12,200
TWS Rent-A-Tainer	Germany	7,690
Unitas Container Leasing	Bermuda	1,600
<b>Total (above 1000)</b>		<b>335,925</b>
<b>Estimated total for others under 1000**</b>		<b>25,000</b>
<b>TOTAL</b>		<b>360,925</b>

Notes:

\* Same owner

\*\*There are a number of regional lessors that are not readily contactable. Accordingly, an estimate has been included.

# Global Tank Container Fleet: Tank Container Manufacturers in 2022

Leading **manufacturers** that specialise in international tank container production have been listed. There are other manufacturers worldwide that build tanks for mostly domestic and regional markets, in addition to their core business - typically that of road tank vehicles and process vessels. A nominal estimate has been added to recognise the production completed by regional manufacturers.

**Table 6: Tank Containers Manufactured (January to December 2022)**

*Criteria: Companies building over 500 tanks per annum*

Manufacturer	Headquarters	Fleet
CIMC Safeway	China	34,000
CXIC	China	750
Dalian CRRC Container	China	2,115
JJAP	China	11,250
NT	China	10,250
Singamas	China	3,000

Manufacturer	Headquarters	Fleet
Van Hool	Belgium	500
Welfit Oddy	South Africa	5,000
<b>Total (Manufacturers over 500)</b>		<b>66,865</b>
<b>Built by other manufacturers*</b>		<b>1,000</b>
<b>TOTAL</b>		<b>67,865</b>

Note: \*Nominal estimate on production completed by smaller or specialist manufacturers.

# Methodology

The global tank container fleet comprises a range of tank types including tanks for liquids, liquefied gases, powders, swap tanks and specials. Tanks below 20ft length such as those typical of the offshore oil industry are not included in this Survey.

The tank container is highly regulated and is required to meet stringent standards of operation, including statutory periodic inspection and renewal of test certification. However, there is no global register of tank containers. Data must be collected by systematically requesting tank owners and operators to provide company fleet numbers and manufacturers to report new production. Where firm data is not provided, this Survey provides estimates based on internet research and consultation with experienced industry representatives.

Reported figures are recorded as received or, in the case of the charts within the report, the result of the percentage calculation of data. It is not intended to suggest that calculated figures are accurate to an exact number. Readers should round up, or down, as required.

Leased fleet listings are not included in the total industry fleet figures, except for the relatively few estimated stocks that are idle. The balance of "on lease" tanks is typically estimated to be leased to operators (65%) and shippers and other tank users (about 30-35%).

This percentage might vary by leasing company according to their market strengths and objectives, but is an estimated average. The trend is for a greater proportion leased to operators but for consistency with previous surveys the percentage breakdown remains unchanged.

Whereas there is a trend to outsource tank logistics to tank operators, there remains a fleet of tanks directly controlled by shippers and others.

Shipper (also referred to as producers or consignors) fleet and others are challenging to assess because of the vast number of shippers and others worldwide.

It is especially difficult to compile a list of shipper-owned tank containers, because tank ownership is a relatively small part of their core business and - as a result - fleet figures are not freely available. This also applies to other tank users - such as shipping lines, military authorities, railways, oil companies, mining industry and China domestic. Estimates of the total "others" are included in the Survey.

Despite the ongoing trend to outsource tank logistics, we have shown a small year-on-year increase in the the shipper/ BCO and "other" fleets (ie fleets which are not tank container operator). Operators might provide logistics services for shipper-owned tanks, but the tanks are not included as operator tanks for the purpose of this survey. It is estimated that on average about 35% of the total leasing company fleet is leased directly to shippers and others.

In the 2013 Survey it was estimated that shippers and others might own, on average, about the same number of tanks that are leased into their fleet. This number remains unchanged in the 2022 Survey and in preceding years. Users of the Survey can make adjustments to suit their needs.

More details on the methodology are given as explanations in the accompanying tables and figures.



## Promoting tank container safety, efficiency and sustainability

The International Tank Container Organisation celebrates its 25th anniversary this year. Since it was launched by five founder Members in 1988, the Organisation has grown to become the leading advocate for the use of tank containers in the transport – and short-term storage – of bulk liquids and gases.

This edition of ITCO's "Annual Global Tank Container Fleet Survey" marks its 11th Industry Report. As with previous ITCO Reports, the main aim of the survey is to meet the data and information requirements of a wide range of stakeholders – operators, lessors, service and systems providers, manufacturers and investors – who follow our industry.

The global tank container fleet continues to grow, with the number of new tank containers manufactured last year (67,865) being the industry's highest (ahead of 59,700 in 2018 and 54,650 in 2019).

This growth was fuelled by the massive disruption and challenges in the supply chain during the Covid-19 Pandemic – which has underlined the critical role that the tank container can and does play in the logistics requirements of the tank container's major customers. This resulted in manufacturers ramping up production to meet short-term high demand, The knock-on effect of this will be an oversupply of tanks, a reduction of new production – and, possibly an increase in the number of tanks being disposed of. As it was not possible to guarantee regular deliveries to end-users, the tank container strengthened its role within a dedicated logistics supply chain, being used as a shipping tank, a road/rail intermodal tank and a storage tank. Instead of the "just-in-time" business philosophy, chemical companies frequently adopted a "just-in-case" basis, for which the tank container is well-suited.

In 2023, however, many tanks being held by chemical companies are being returned – in part due to the easing of the supply chain problems and in part due to the cost of holding tanks on demurrage. Many tanks are also being returned which also include leasing tanks, which will put pressure on the leasing sector and the depots where they are stored.

In ITCO's 25 years, there have been two previous occasions when the industry has witnessed a levelling-up – the first was when demand from South Africa dropped in 2001, and the second was at the time of global financial crisis of 2008/2009.

### Safety and education

Over the past 25 years, ITCO has worked hard to promote safe working practices in the industry and the safe handling of tank containers. Much of the focus of ITCO work – through Conferences, Technical Guidelines, Webinars and E-learning Courses - has been on introducing and maintaining safety standards.

ITCO is also keen to introduce the tank container into the curriculum of transport universities and colleges to encourage students to consider the tank container industry as a possible career path – under the theme of "Inspiring a new generation to join the industry".

In November 2019, ITCO donated a tank container to the Shanghai Maritime University, for use as part of their training program. This training was put on hold for three years, but plans are now in place to start the delayed on-site training of students later this year.

More recently 80 Students from Rotterdam's Shipping Training College attended the ITCO "Tank Container Awareness Day" in December 2022. The aim of the meeting was to give fourth year students at the STC a chance to learn about the opportunities for working in the tank container industry.

Alongside the Shanghai and Rotterdam projects, there continues to be significant interest in the ITCO Tank Container E-learning Course, with a significant increase in companies purchasing the it during the pandemic as a way of educating new and existing employees working at home in the industry to great success.

## Environmental best practice

ITCO recognises that businesses – including companies shipping their products in tanks - are now increasingly looking for environmental sustainability best practice in their transport service suppliers. The tank container operates in a world where BCOs - the producers of chemicals and liquid foods and drinks - are active in their obligations to implement environmental initiatives throughout the transport chain.

The inherent sustainability of the tank container is a key asset to the growth of the tank container industry. ITCO and its members continue to promote awareness of the tank container as the transport mode providing superior environmental performance. ITCO's Environmental Work Group has also been addressing the proposed ban on Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS), with the most recent Guidance Document to be published being its Case Study "The Health and Safety Impact on the Tank Container Industry in the Event of a Restriction to the manufacture of PFAS".

Regulatory authorities in Europe and North America are investigating the potential restriction of the manufacture of PFAS's. The Guidance Document highlights the crucial contribution of PFAS which are used in the manufacture of sealing elements for the safe containment of liquids and liquified gases that are transported globally in a tank container.

The new Guidelines explain how the tank container industry uses solid state PFAS materials and how the material is compatible with almost all substances transported in the tank - along with its ability to remain effective in a wide range of temperatures and vibratory forces.



*Students from Rotterdam's STC Shipping and Transport College were able to learn more about a tank container by viewing the Hoyer demonstration unit at the Tank Container Awareness Day organised by ITCO in December 2022.*

## Efficiency and digitization

In addition to Safety, Environmental and Technical Work Groups, ITCO has recently established an "Efficiency" group of experts – whose objective is to create industry standards as part of the digitization process.

This WG has a number of projects in its scope – with the first one being to develop a standard for tank container load movement milestones across deep-sea routes.

The key target is to develop standards for visibility and track-trace capability towards the customer. This involves understanding which things can be standardized for a uniformed document of the tank container Industry - and which things remain to be done individually by each operator. Those milestones which bring added value will be included.

This is being developed on the basis of the ECTA Guidelines which have already been introduced.

## Planning for the next 25 years

During the Pandemic, ITCO organised a series of online webinars, focusing on specific topics relevant to Members – an important way for Members to be kept informed of projects and communicating with each other.

However, in 2022, ITCO was able to organise Meetings again. The October 2022 Amsterdam Members Meeting attracted over 200 participants – by far its largest ever conference. The next event will be the "ITCO Tank Container Village" in Munich in May - part of the transport logistic 2023 exhibition – which has over 70 Member companies exhibiting, its largest-ever exhibition.

ITCO's aim is to serve its Members and provide them with tangible benefits. Through the development of Technical Guidelines, Standardising Operating Procedures, Education and Awareness Courses, Conferences and Exhibitions, the foundations are in place to develop and grow the industry for the next 25 years.



*The 2022 ITCO Members Meeting (Amsterdam, October 2022) attracted its highest attendance, of over 200 participants*