ITCO

2021

GLOBAL TANK CONTAINER FLEET SURVEY

- Global Tank Container Survey
- Operators and Leasing company fleets
- New manufacture analysis
- Historic Development of the Global Tank Container Fleet
- Future development of ITCO and the Tank Container Industry

2021
GLOBAL TANK CONTAINER FLEET SURVEY

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ITCO 2021 Survey reveals industry growth of 5.3% in 2020 compared to 7.9% in 2019

Global Tank Container Fleet reached 686,650 by 1 January 2021

Market uncertainty during 2020 – primarily caused by the global COVID-19 pandemic – resulted in growth in the global tank container business slowing down, compared to previous years. By the end of the year, however, there were clear signs of a recovery in orders for new equipment – indicating a considerably improved situation in 2021.

However, the tank container market continued to expand in 2020 – with the benefits of the tank container as a "just-in-time" alternative mode of shipment being increasingly recognised. More companies are turning to the tank container, and operators are succeeding in successfully converting certain cargoes - previously shipped in drums or transported in chemical tankers – to tanks. In addition, China continued to see significant growth in the use of tank containers for domestic transport of bulk liquids, while inter-Asia – especially South-East Asia – tank operations continue to develop strongly.

Unlike in 2019, when much of the investment was undertaken by the leasing sector, 2020 saw moderate expansion of both operator-owned and leasing company fleets. The market remains strong - with attractive prices for new containers, together with low interest rates and greater efficiencies by all sectors - contributing to a highly competitive industry.

The unexpected shortage of capacity on containerships from Asia to the main markets of North America and Europe led to significantly increased freight rates, which also impacted the industry.

Following on from the record year of grown in the industry in 2019, this year's ITCO Tank Container Fleet Survey nevertheless reports substantial growth in the tank container business during the past 12 months. Production of containers in China continues to dominate the industry.

According to the 2020 ITCO Global Tank Container Survey, the worldwide tank container fleet grew by over 5 percent in 2020 over 2019. This year's Survey estimates that, at 1 January 2021, the global tank container fleet stood at 686,650 units worldwide, compared to the figure of 652,350 on 1 January 2020. This represents a year-on-year growth of 5.26%, compared to the 7.88% growth achieved in the previous year.

The number of tank containers produced last year was lower than in 2019 - but early indications indicate an upturn for manufacturers in 2021. The cyclical nature of the industry continues - a phenomenon witnessed by the industry over the past 25 years.

In 2020, a total of 35,800 tank containers were built, compared to 54,650 tank containers in 2019, a decrease of some 18,850 units.

As in previous Editions, this Survey analyses the growth in the world's tank container fleet and the development of production of tank containers 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 operators account for over 246,630 tanks representing over 55% of the global operators' fleet. The top 10 leasing companies account for over 250,000 tanks, about 79% of the total leasing fleet. The top three leasing companies account for nearly 159,000 tanks, approximately 50% of the total fleet.

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.

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 of them) 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.

DISCLAIMER

The Global Tank Container Fleet at the beginning of 2021: Overview

Table 1: Global Tank Container Fleet (1 January 2021)

Number of Operators Worldwide	230-plus
Total Number of Operator Fleets (Owned & Leased -in)	**443,110**
Number of Tank Lessors Worldwide	37-plus
Tank Containers in Leasing Company Fleets	**316,710**
Tanks on lease to Operators, Shipper and Others Users	**272,310**
"Idle" leaseco tanks* (M&R, testing, storage)	**44,400**
Shippers and Others*** **	
Total (Owned and leased)	**199,140**
Tanks Built in 2020 (estimate)	35,800
Disposals******	1,500
Estimated Total Global Tank Containers (Calculated: Tanks in Operator Fleets + Lessors "Idle" Tanks + Tanks in Shippers and "Others" Fleets)	**686,650**

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 within both the operator and also the shipper fleets, except for those tanks which are "idle". (Definition of "idle tanks" on next column)
- "Shipper" and "others" fleet is estimated in accordance with the methodology detailed at the end of this Survey.
- The Survey indicates that there were 686,650 tank containers worldwide at the beginning of 2021 including annual manufacture in 2020 of 35,800 new tanks
- Taking into account an estimated 1,500 disposals (scrapped or sold for static storage), the 1 January 2020 fleet size of 652,350 therefore grew to 686,650 at the beginning of 2021.
- This represents a growth of 5.3% from 1 January 2020 to 1 January 2021.

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.
- This normally represents between 10% and 15% of the leasing company fleet at any one time. For this survey, we have estimated the figure of idle tanks to be 14% of the leased fleet,

****Shipper (also referred to as called producers or consignors) fleet**

- The Shipper Fleet comprises tanks operated by producers of bulk cargoes, for shipment in tanks – especially chemical and food/drinks companies.
- These tanks can be units for specific logistics operations, dedicated services or for use within a company's own production process. The are also often "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 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 (refurbishment). This is especially viable 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 converted 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 1500 tanks being scrapped in 2020.

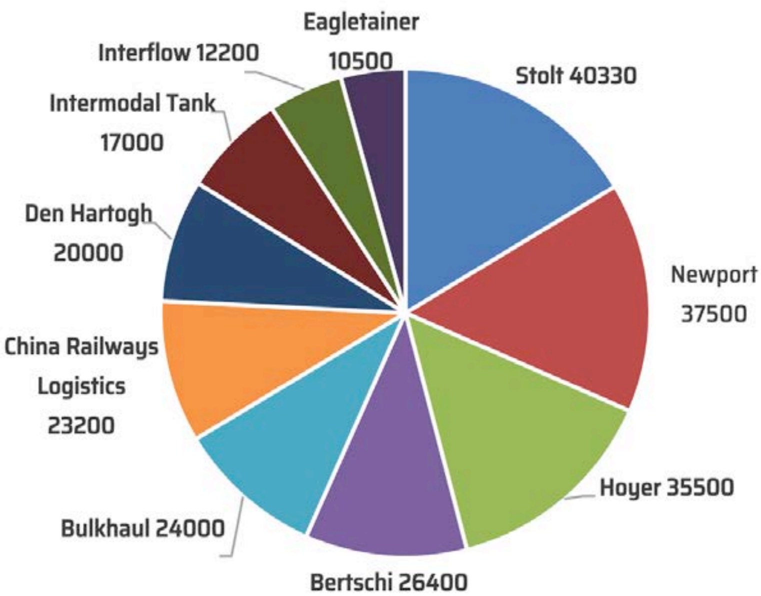
Top Ten Tank Container Operators

There are over 230 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 2021, the top ten operators accounted for over 246,630 tanks representing over 55% of the global operators' fleet – calculated to be over 443,100 tanks.

(At the same time last year, the top 10 operators accounted for 235,019 tanks, which represented over 56% of the global operator's fleet).

Figure 1: Top Ten Tank Container Operators (at 1 January 2021)



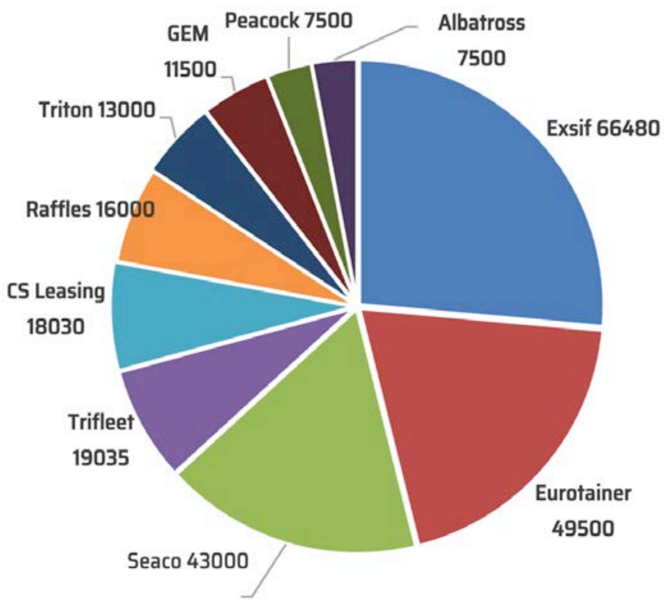
Top Ten Leasing Companies

At least 37 companies worldwide provide tank container leasing services. These range from large global lessors to regional and local companies. The 37 lessors identified by ITCO have a combined fleet of 316,710 tanks.

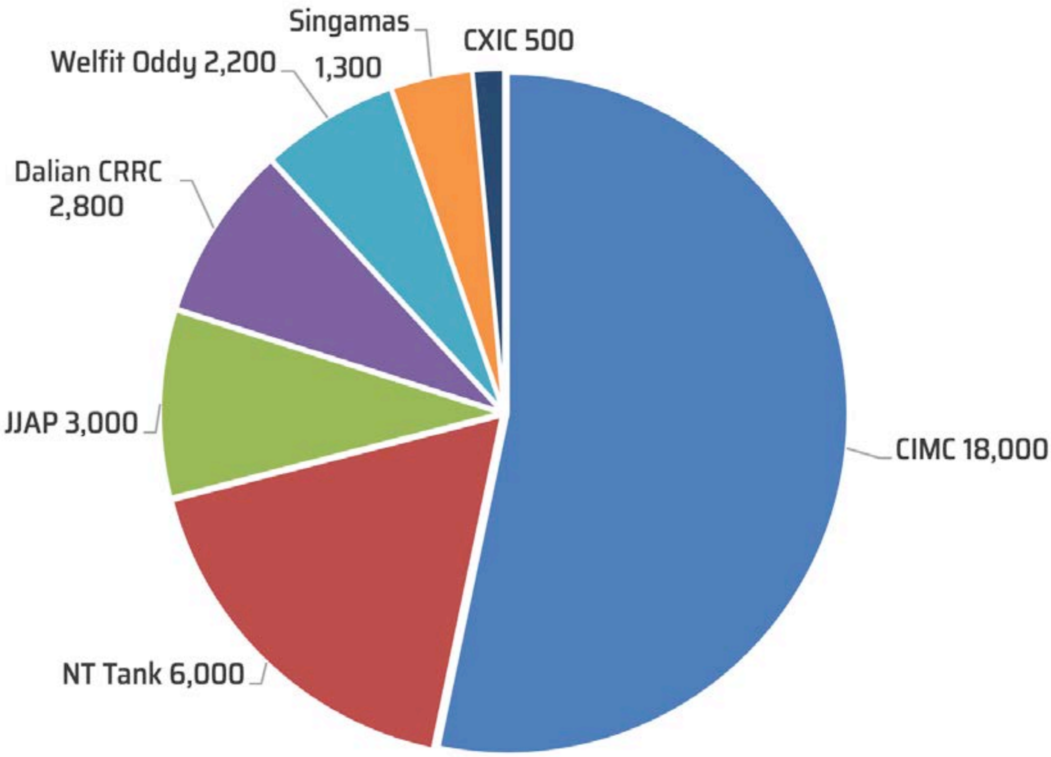
The top 10 lessors account for 251,545 tanks, about 79.5% of the total leasing fleet.

The top 3 companies account for 158,980 tanks of the total leasing fleet, or 50.2 %, compared with 50.5 % last year.

Figure 2: Top Ten Tank Container Leasing Companies (at 1 Jan 2021)



Top Tank Container Manufacturers



- In 2020, the combined number of tank containers produced by all of the world's manufacturers totalled 35,800 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, Welfit Oddy, Singamas, JJAP, CRRC and CXIC. These top seven represent 95% of global manufacture.
- The majority of production is of the industry standard tank range but nevertheless there is a very active and growing specialised tank sector.

Figure 3: Production figures of the top 7 Tank Container manufacturers in 2019

Table 2: Annual Global Tank Container Growth (1 Jan 2013 - 1 Jan 2021)

Year / Players/Tank Type	2021	2020	2019	2018	2017	2016	2015	2014	2013
Operators - Number	**230**	**218**	**212**	**210**	**209**	**205**	**194**	**176**	**116**
Total Fleet (Owned and leased-in)	443,110	418,500	381,750	365,000	342,500	329,080	305,700	265,550	228,460
Leasing Companies - Number	**37**	**37**	**35**	**36**	**36**	**36**	**33**	**34**	**27**
"Idle" Leasing Company Tanks	44,400	45,840	42,785	32,000	28,500	20,175	23,400	17,650	15,000
On-lease to Operators, Shippers, Others	272,310	259,775	243,200	213,000	186,765	181,575	171,600	158,850	135,400
Total	316,710	305,615	286,000	245,000	215,265	201,750	195,000	176,500	150,400
Shipper / Others (Military, Offshore, etc)									
Total (Owned and Leased)	199,140	188,010	180,165	155,000	137,400	110,950	107,460	103,000	94,800
Manufactured (in the previous year)	35,800	54,650	59,700	48,500	44,500	43,780	48,200	42,620	39,700
Disposal*	1,500	7,000	7,000	4,500	4,500	2,000	5,000	1,000	-
Grand Total	686,650	652,350	604,700	552,000	508,000	458,200	427,560	385,200	338,260
Growth % compared with preceding year**	5.26	7.88	10.81	8.66	8.5	7.16	10.99	13.87	n/a

Notes:

*** Disposals:** Figures for disposals are not easily verified due to the difficulty in estimating since respondents tend to not reveal details of their fleets. Disposals result from repair costs exceeding the economic value of the tank and or the age profile required by some users. Prevailing low material prices, exchange rates and interest rates lowered the cost of the new tank. This reflects on the decision whether a heavily damaged unit is economic to repair or remanufacture. Some disposals are purchased by others and modified for continued use outside of mainstream sector and perhaps accounted in this Survey in the "others" category.

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

Table 2 summaries ITCO Surveys completed since 2013. The estimated 2020 growth, compared with 2019 is about 5.26%. Shipper owned fleets are not considered to be growing significantly, due to the trend to outsource logistics to operators. 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 – 2020)

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		686,650

Data Source: Containerisation International 2008 Census and, for more recent years, other sources including 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 1,500 tanks being disposed in 2019 from the world fleet

Figure 5: Tank Container Production (1990 to 2020)

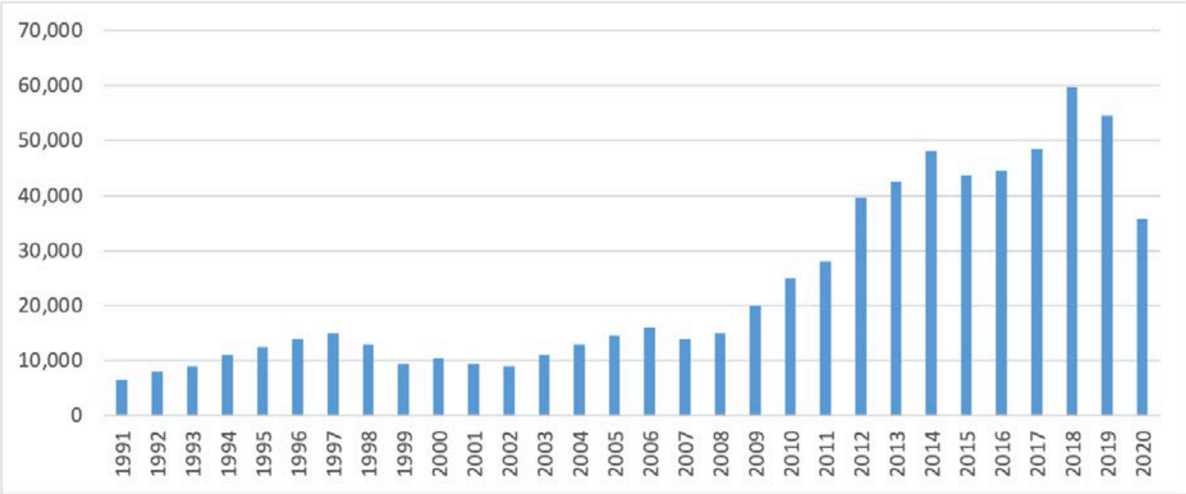
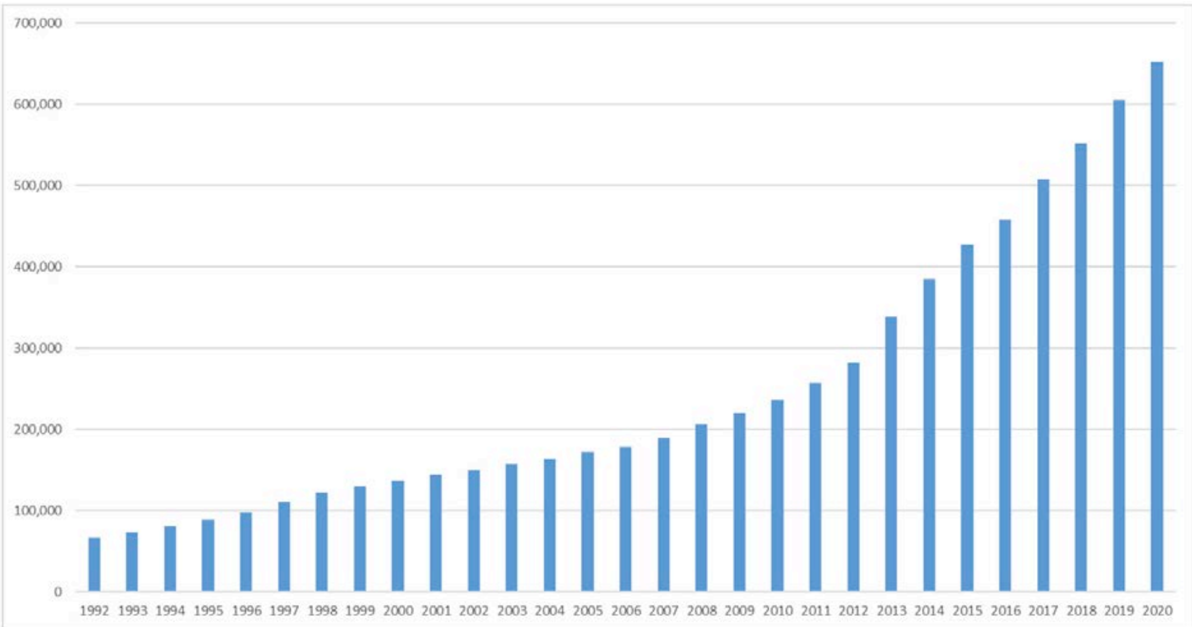


Figure 6: Total Fleet size (at 1st January of each year)



Global Tank Container Fleet:
Tank Operators Fleet at January 2021

Tank 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 2021)

OPERATOR	Head-quarter	Fleet
Agmark Logistics	USA	1,600
ATI Freight	UAE	2,000
Alfred Talke	Germany	1,200
Baltica Trans Logistics	Russia	1,500
Bertschi Group	Switzerland	26,400
Bolt	Singapore	1,500
Braid Logistics/Hillebrand	UK	3,300
Bulkhaul	UK	24,000
Bulk Tainer Logistics	UK	5,350
Celerity Tank	China	2,500
Chemion Logistik	Germany	1,000
Chemical Express	Italy	1,500
China Railway Logistics	China	23,200
Crossover	Singapore	4,000
Contank	Spain	1,200
Curt Richter	Germany	1,633
Daelim Corporation	Korea	2,804
Dana Liquid Bulk	USA	7,500
Deccan Transcon	Indian	1,600
Den Hartogh Logistics	Netherlands	20,000
DJD	China	2,000
Eagletainer Logistics	Singapore	10,500
Eway	Malaysia	9,000
Flexitank Inc	USA	2,500
GCA Trans	France	4,000
Goodrich Maritime	India	5,000
Gruber	Germany	1,139
Haesaerts Intermodal	Belgium	1,000
Hengcheng	China	5,000
Hoyer Group	Germany	35,500
Infotech-Baltika M	Russia	5,400
Interflow (TCS)	UK	12,200

OPERATOR	Head-quarter	Fleet
Intermodal Tank Transport	USA	17,000
Katoen Natie Tank	Belgium	1,700
Legend Tank	Singapore	4,500
Lexzau, Scharbau	Germany	5,010
M&S Logistics	UK	8,443
Marenzana Multi Modal Spa	Italy	1,500
Meurer Intermodal (Lanfer)	Germany	1,200
Milky Way	China	2,500
Muto Co Ltd	Seoul	2,400
Newport	Netherlands	37,500
Nichicon Tank	Japan	9,000
Niyac Corp	Japan	2,500
Odyssey Logistics Food Trans	USA	1,100
Paltank	UK	2,200
Protank Liquid Logistics	Taiwan	1,200
Radix	South Korea	1,000
Rinnen	Germany	3,500
R.M.I Global Logistics	Netherlands	4,600
Sinochem domestic	China	1,000
Sinotrans	China	1,360
Spectransgarant (Railgarant)	Russia	5,274
Stolt Tank Containers	UK	40,330
Suttons International	UK	9,500
Ueno Container Logistics	Singapore	1,000
Van den Bosch Transport	Netherlands	4,250
VTG Tanktainer	Germany	9,494
Other Under 1000		
Estimated not accounted*	Asia Pacific	14,000
Estimated not accounted*	Europe, RU	9,000
Estimated not accounted*	Americas	11,000
Estimated not accounted*	IN/Mid-East/AF	9,500
TOTAL		**443,110**

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

Global Tank Container Fleet:
Leasing Companies Fleet at January 2021

Tank 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 2021)

LESSOR	Head-quarter	Fleet
Albatross Tank Leasing	China	7,500
Combipass	France	1,500
CS Leasing	USA	18,030
Eurotainer	France	49,500
EXSIF Worldwide	USA	66,476
GEM Containers	UK	11,500
GRP Multilogistics	Switzerland	1,600
International Equipment	USA	7,100
Matlack Leasing	USA	2,500
MCM Management	Switzerland	2,000
Modalis	France	2,800
Multistar Leasing	South Africa	5,200
Noble Container Leasing	Hong Kong	1,300
NRS Group	Japan	7,000

LESSOR	Head-quarter	Fleet
Peacock Container	Netherlands	7,500
Raffles Lease	Singapore	16,000
Seaco Global	Singapore	43,000
Tankspan Leasing	UK	3,119
Trifleet Leasing	Netherlands	19,031
Triton International	USA	13,000
Tristar Engineering	Switzerland	1,100
TWS Tankcontainer	Germany	7,465
Unitas Container Leasing	Bermuda	1,600
Estimated total for others under 1000*		20,000
TOTAL		**316,710**

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

Global Tank Container Fleet:
Manufactured January to December 2020

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 2020)

MANUFACTURER	Head-quarter	Fleet
CIMC Group	China	18,000
CXIC Group	China	500
Dalian CRRC Container	China	2,800
JJAP	China	3,000
Nantong Tank Containers	China	6,000

MANUFACTURER	Head-quarter	Fleet
Singamas	China	1,300
Van Hool	Belgium	500
Welfit Oddy	South Africa	2,200
Other manufacturers*	Global	1,500
TOTAL		**35,800**

Note: *Nominal estimate on production completed by regional manufacturers.

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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 (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.

As a result of the trend to outsource tank logistics it is estimated that the shipper and others owned fleet is static. 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 2021 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 accompanying tables and figures.

ITCO Vision: The Next Decade

This Edition of ITCO's "Annual Global Tank Container Fleet Survey" is the 9th Report that the Organisation has published.

As in previous years, the main aim of the Survey is to meet the data and information requirements of a wide range of stakeholders – operators, leasing companies, service providers, manufacturers and investors.

The figures in this Survey confirm that the Tank Container industry is continuing to expand, with shippers appreciating the "Just in Time" concept allowing them to increase or decrease their product being shipped to meet the ever changing pattern of their customers requirement and greatly reducing the need and costs for large amounts of static storage at either end of the liquid supply chain.

At the same time, they recognise the safety, efficiency and operational benefits of this type of equipment. ITCO's Fleet Survey is part of the work that the Organisation undertakes, to promote the tank container and to support its Members.

Keeping Connected with the Industry

As with all industry associations, during the past 12 months, ITCO has been unable to organise its normal schedule of Members Meetings, Conferences, Divisional Sessions, Work Groups.

The ITCO Tank Container Villages at Transport Logistic China in Shanghai in 2020 and Transport Logistic 2021 in Munich this year have had to be cancelled. And the ITCO/@TCO Depot Audit Programme has had to be suspended, for safety reasons.

However, the Organisation has worked hard to maintain connections with its Members:

- Over the past five months, we have organised a number of Webinars, covering Environmental, Safety, Technical and Regulatory issues.
- Future Webinars covering Tank Container Efficiency and Sustainability will be organised
- ITCO has also organised Divisional Meetings for our Members, to permit Companies to contribute their ideas for how the Organisation can provide a service to them
- New Safety and Technical Documents have also been published, to provide clear Guidelines to Members about industry best practice.

Shanghai Maritime University

ITCO is aware that one of the most important issues facing the tank container industry is how to ensure the successful development and education of a new generation of personnel (management and staff) entering this sector of the shipping industry.

All ITCO Members face the challenge of recruiting staff who can participate in the development of their businesses, introduce new ideas and technology, and ensure the long-term future of their companies.

It is an important aspect of ITCO's role as an organisation representing the interests of its members to create an environment which can attract a new generation of professionals. Within this, ITCO has a responsibility to support its members with the tools to provide training and education.

In last year's Survey, we reported on the donation of a Tank Container to Shanghai Maritime University - China's leading academic institution for the shipping, ports and logistics industry – to be used for hands-on training of students to better understand the technical and operational aspects of a tank.

Due to the COVID-19 pandemic, the training programme was put on-hold – until it was safe to start the process again. ITCO has maintained close links with the SMU over the past 12 months, and it is intended to start the programme again during the course of the year.

The tank will be used by the University for training and education purposes as part of a programme which includes six 1-day training days together with access by students to ITCO's on-line Tank Container E-learning Course.

E-learning Course

Many companies, both ITCO Members and others who are involved in tank container operations, have taken advantage of the ITCO E-learning course.

With staff at many companies unable to go into their offices over the past year, the E-learning course has proved particularly valuable for Companies to give their staff who are working at home some relevant training in key aspects of the business.

The tank container industry has a huge responsibility within the bulk liquid logistics supply chain. ITCO endeavours to ensure that its members have the correct tools to recruit a new generation of professionals who can be engaged in the process.

Environmental Awareness

The new generation of professionals also want to see that the tank container industry is taking a serious approach to the environment and sustainability. They need to see that the industry operates, repairs, maintains and cleans its equipment in the correct way.

Over the past year, ITCO has undertaken an active campaign to promote the environmental benefits of tank containers.

A video was prepared (English and Mandarin Versions) explaining the problems of single-use plastics and encouraging the use of ISO tanks as a more sustainable mode of transport.

And many Members made use of the ITCO banner, on websites, emails and brochures (below).

ITCO takes the issue of plastic waste very seriously and is endeavouring to play its part in the reduction of single use plastic.