

Annual Global Survey 2009

Port Mobile Handling Equipment Deliveries

A PEMA Publication



Covering 2009 deliveries and 2006-2009 historical trends for container handling reach stackers, FLT's and terminal tractors

Researched and authored exclusively for the Port Equipment Manufacturers Association by Brian Robinson

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1 | Introduction

This is the third global survey of mobile port handling equipment deliveries to be commissioned and published by the Port Equipment Manufacturers Association aisbl.

Based on original data gathered from port equipment providers around the world, the objective of the annual survey is to determine market size and scope by delivery for:

- Reach stackers
- FLTs for handling laden containers
- FLTs for handling empty containers
- Terminal tractors

PEMA commissioned this and previous surveys to contribute to the global body of port equipment industry knowledge.

Much information is available via the media on deliveries of large equipment, such as ship-to-shore cranes and yard cranes. However, little is available in the public domain for these smaller equipment classes, which represent an important element of the global port equipment market.

PEMA hopes that this 2009 survey will be of value and extends sincere thanks to everyone who contributed information.

Development

The first PEMA survey of mobile port handling equipment was published in April 2008 and provided figures for equipment deliveries in 2006 and 2007. Deliveries were reported globally and by three broad geographic regions: EMEA (Europe, Middle East and Africa), Asia Pacific and the Americas.

Following publication of the first report, participants suggested that a more detailed geographic breakdown would be useful, especially in highlighting trends in emerging markets, but also in providing a more detailed split between Europe, Middle East and Africa.



For the second survey of 2008 deliveries, published May 2009, manufacturers were therefore asked to be more specific and to report deliveries by the following geographic categories: Europe, North America, Latin America, China, Other Asia, Indian Sub Continent, Middle East, Africa and Australasia/Pacific.

This current survey of 2009 deliveries follows the same geographic breakdown as last year.

Methodology

The survey research was conducted in January-April 2010 and results were collated in April-May 2010. All known manufacturers of the four equipment types were contacted by email and telephone. They were asked to participate by giving their company's equipment delivery numbers for 2009.

Confidentiality

Contributors to the survey were given an assurance of strict confidentiality. The survey was conducted by Brain Robinson, an independent container and transport industry consultant.

Mr. Robinson signed a confidentiality agreement with PEMA stating that individual company data would not be released by him to any other party, including any officer or member of PEMA, except in fully consolidated and aggregated form.

Furthermore, the release of any and all data must comply with criteria established by outside legal counsel and all source data will be destroyed within six months of the survey results being released.

Legal requirements

There is a legal requirement that for the survey to meet EU competition rules, there must be at least five (5) manufacturers reporting deliveries in total and into a geographic region.

1 | Introduction

In some situations, this requirement was not met. In these cases, some consolidation of data for regions has been made in order to ensure regulatory compliance.

Survey distribution

The consolidated results will be released to PEMA members and to all contributors to the survey.

Disclaimer

This survey is based on information provided directly by the equipment manufactures. Data has not been independently verified. PEMA and the author cannot accept responsibility for the accuracy of the data provided.

Terminal trailers – a note

In previous surveys, terminal trailers were also included. However, the response level from manufacturers of this equipment was disappointingly low and the resulting data was not sufficient to provide meaningful results. This equipment class has therefore been excluded from the current survey.

Manufacturers in China – a note

Five equipment manufacturers in China were contacted for this survey:

Shanghai Seayork Port Equipment Co.

Shanghai Seayork produced a prototype reach stacker in September 2009 and expects to produce commercial units in 2010. The company says that it will contribute to the survey in future years.

Wison (Nantong) Heavy Industry

Wison confirmed that it produces only ship-to-shore, yard and portal cranes and therefore does not fall under the scope of this survey.



Sany Group

Sany Group did not respond, but advertises that it produces empty container handling FLT's and reach stackers.

China National Heavy Duty Truck Group Jinan Special Automobile Co. (Sinotruk)

Sinotruk did not respond, but advertises that it produce variants of terminal tractor as well as over-the-road tractor and semitrailer units.

Dalian Heavy Industry/Dalian Crane Works

Dalian Heavy Industry did not respond. However, the company is believed to manufacture only quay and yard cranes and therefore would not fall under the scope of this survey.



2 | Key findings: feeling the effects of the economic crisis

Following several years of strong market demand for mobile port handling equipment, the effects of the recent global economic and financial crisis are clearly evident in the survey results for 2009.

All of the equipment classes included in this survey showed a significant decline against 2008, with delivery volumes down between 37% and 48% on a global basis.

On a regional basis, some of the results were even more severe. Deliveries of reach stackers into Europe, for example, were more than 60% down.

The detailed breakdowns for all equipment classes are provided in the sections following this overview. A global overview of 2009 deliveries versus 2008 volumes is given in the table below.

The drop in numbers was to be expected given the depressed market conditions in the marine terminal industry. Significant reductions in traffic volumes during the year prompted port and marine terminal operators to focus intensively on cost-cutting and cash conservancy, including reduced equipment spend.

However, the market for the equipment types covered by this survey appears to have been affected far more severely than that for larger port equipment.

One recent public industry survey showed a 2008-2009 decline of 13% for ship-to-shore container cranes and just 3% for yard container cranes



A probable reason for this is that the larger cranes delivered in 2009 were ordered and financed before mid-2008, when the global crisis began to bite, whereas smaller equipment types are typically ordered on a shorter lead time.

The port equipment covered in this survey may therefore be seen as a 'real time' indicator of actual market conditions and demand.

Based on this scenario, this sector may therefore also be the first to feel the positive effects of pick-up in demand as markets rebound.

Global unit deliveries of port mobile handling equipment - 2008-2009 comparison

Equipment type	Units delivered 2008	Units delivered 2009	Change
Reach stackers	1480	796	-46%
FLTs laden	198	110	-44%
FLTs empty	613	318	-48%
Terminal tractors 4x2	2843	1778	-37%
Terminal tractors 4x4	682	404	-40%

Note 1: Figures include only data supplied by survey respondents

Note 2: Terminal tractor data excludes North America, which is served by only two main suppliers and therefore does not meet regulatory reporting criteria

3 | Reach stackers



Survey respondents

Nine (9) reach stacker manufacturers contributed:

- Cargotec Kalmar
- Hyster
- Indital
- Liebherr
- Linde
- Konecranes Lifftrucks
- TCM
- Terex (Fantuzzi Reggiane)
- TerexCranes France

CVS Ferrari has also contributed to the survey in past years, but this year no response could be obtained. It is understood that on 25 February 2010 the company filed for “Scioglimento, Procedure Concorsuali, Cancellazione”. This translates as “Dissolution, insolvency procedures and cancellation.” However, it is believed that CVS Ferrari did deliver reach stackers in 2009, so total market numbers may be understated.

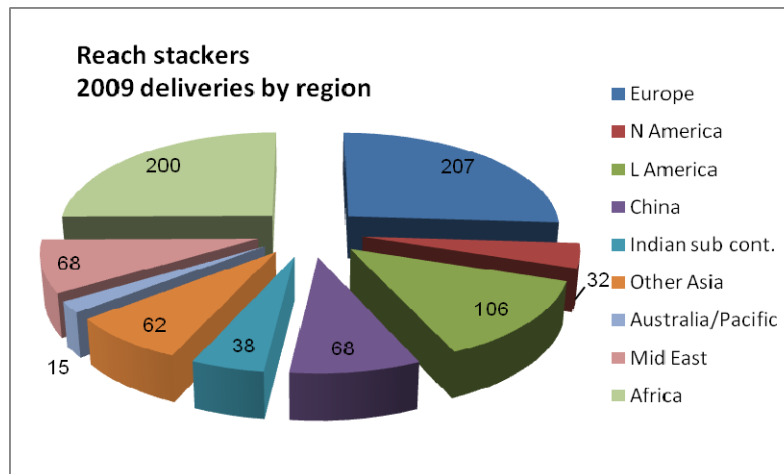
Two companies in China that were thought to be involved in the reach stacker market were also contacted. Sany did not respond. Shanghai Seayork responded that it has built a prototype reach stacker and expects to start production in 2010.

Survey key findings

After several years of solid performance, the effects of the global economic and financial crisis were starkly reflected in the 2009 figures for reach stacker deliveries.

Based on the data provided, the global reach stacker market dropped 46% against the previous year, with aggregated global deliveries of 796 units in 2009, compared with 1480 units in 2008.

The European market was among the most severely affected, showing a 61% drop compared with the previous year. Asia and the Americas also suffered, with deliveries down by some 50% on average. The Middle East was less severely impacted, with a drop of just 9%. The only region to show any growth was Africa, where deliveries increased by 6%.



Consolidated results of reach stacker deliveries for 2009

Region	Units delivered	Share of global market
Europe	207	26%
North America	32	4%
Latin America	106	13%
China	68	9%
Indian Sub Continent	38	5%
Other Asia	62	8%
Australasia/Pacific	15	2%
Mid East	68	9%
Africa	200	25%
Global	796	100%

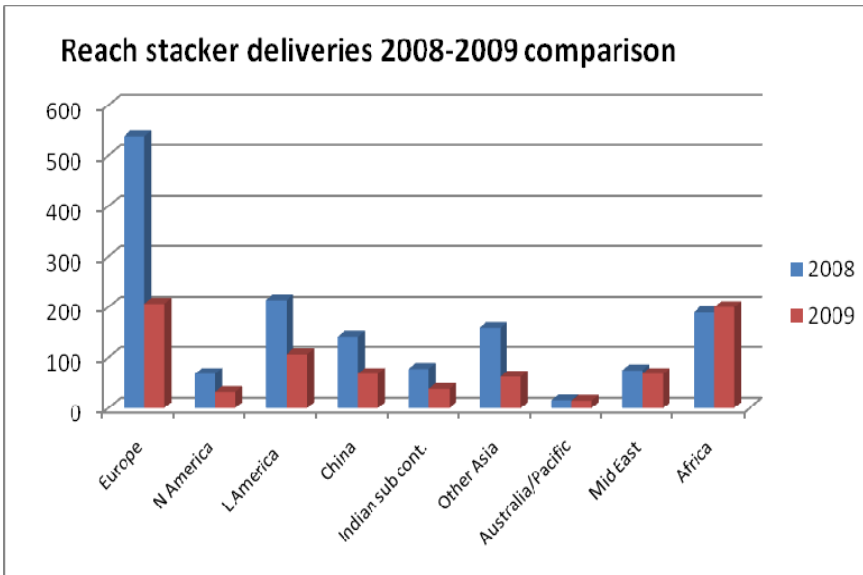
Note: Percentages rounded to nearest whole number

3 | Reach stackers



Reach stacker deliveries 2008-2009 comparison

Region	2008	2009	Change
Europe	539	207	-61%
North America	68	32	-53%
Latin America	214	106	-50%
China	142	68	-52%
Indian Sub Continent	78	38	-51%
Other Asia	159	62	-61%
Australia/Pacific	16	15	0
Mid East	75	68	-9%
Africa	189	200	+6%
Global	1480	796	-46%



Note 1: Percentages rounded to nearest whole number

Note 2: Nine (9) manufacturers provided data for 2009 deliveries compared with ten (10) for previous years; CVS Ferrari did not contribute

3 | Reach stackers



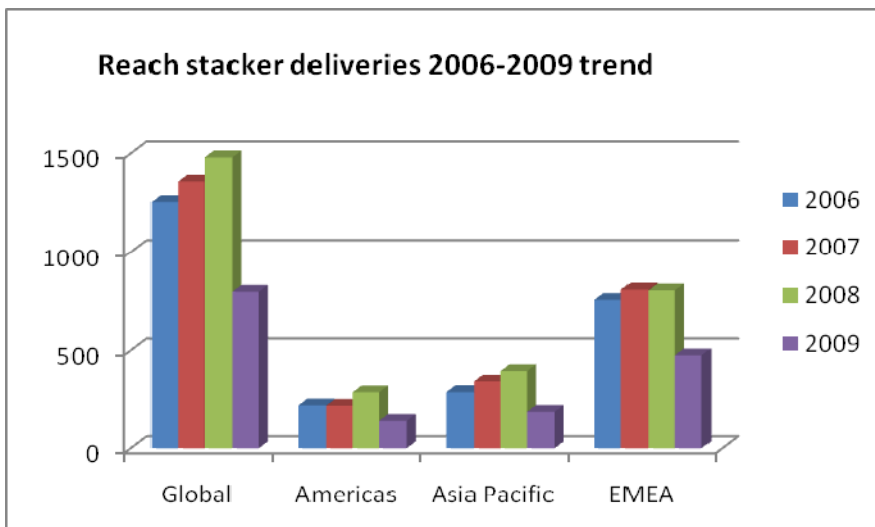
Reach stacker deliveries 2006-2009 trend

Region	2006	2007	2008	2009
Americas	216	214	282	138
Asia Pacific	283	337	395	183
EMEA	755	807	803	475
Global	1254	1358	1480	796

Table above: Number of units delivered per calendar year 2006-2009

Table below: Annual percentage change in deliveries 2006-2009

Region	2006-7 change	2007-8 change	2008-9 change
Americas	-1%	+32%	-51%
Asia Pacific	+19%	+17.2%	-53.7%
EMEA	+6.9%	-0.5%	-40.8%
Global	+8.3%	+9%	-46.2%



Note 1: Because of the need to consolidate regional data, the four year trend is compiled in the broader geographic regions used in the first 2006/7 survey

Note 2: Percentages rounded to nearest decimal point

4 | FLT's for laden container handling



Survey respondents

Seven (7) manufacturers of container handling FLT's contributed:

- Cargotec (Kalmar)
- Hyster
- Indital
- Konecranes Lifftrucks
- Linde
- TCM
- Terex (Fantuzzi Reggiane)

Svetruck in Sweden and Taylor in USA did not respond. Two Chinese manufacturers, Sany and Dalian, who are believed to manufacture container handling FLT's were contacted, but did not respond. CVS Ferrari has contributed in previous years, but did not respond this year (see explanation p6).

with deliveries dropping by 37%.

Some, even most, of the decline was doubtless due to the prevailing financial crisis. However, over recent years there has also been significant movement away from FLT's and towards the reach stacker as the port industry's standard equipment of choice for handling laden containers.

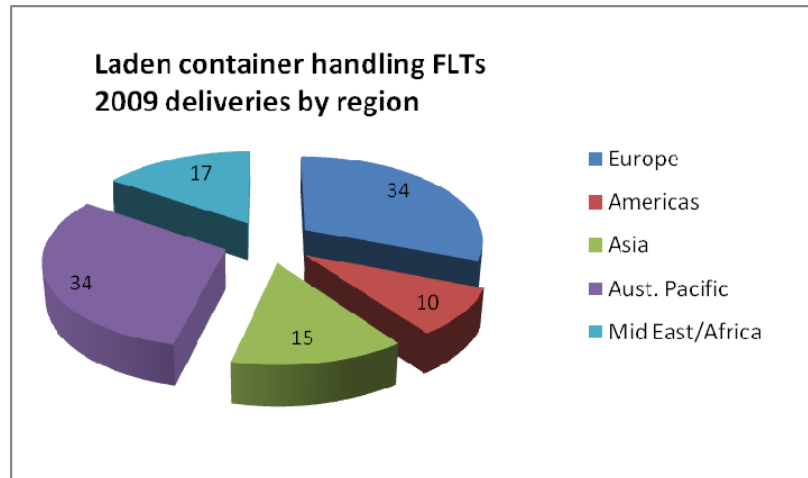
The lack of data from some key manufacturers must of course be taken into account in using these figures and caution must therefore be applied.

However, the 2006-2009 trend calculation is based on returns from the same group of manufacturers, with the exception of CVS Ferrari in 2009. The data therefore provides a fair degree of consistency from which to extrapolate year-on-year trends.

Survey key findings

The steady decline in delivery figures for laden FLT's continued and became more dramatic in 2009. Based on the data provided, the global market declined by 44% last year compared with 2008.

The steepest drops were recorded in Asia and the Americas, down by 65% and 69% respectively. In contrast to the reach stacker figures, however, the European market showed the smallest decline,



Consolidated results of laden container handling FLT deliveries for 2009

Region	Units delivered	Share of global market
Europe	34	31%
Americas	10	9%
Asia	15	14%
Australia/Pacific	34	31%
Mid East/Africa	17	15%
Global	110	100%

Note 1: Percentages rounded to nearest whole number

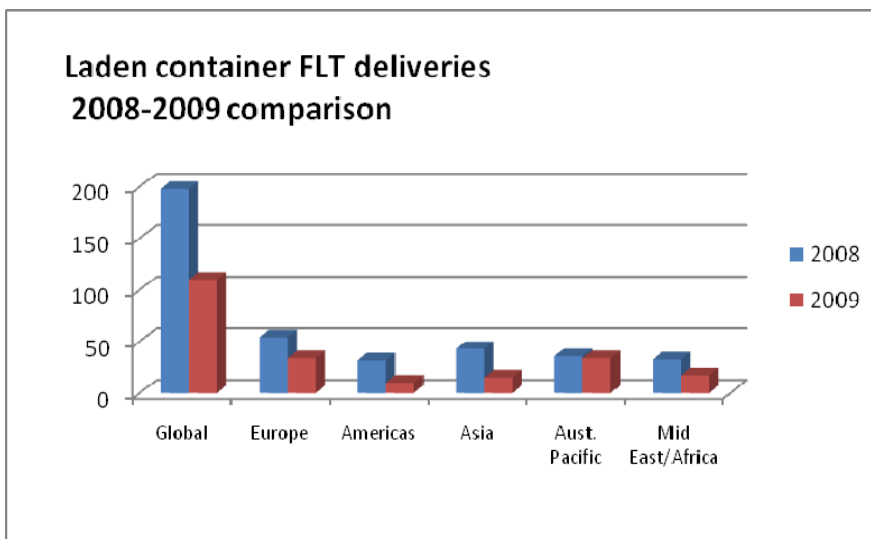
Note 2: The number of manufacturers reporting deliveries into North America and Latin America was not sufficient to meet legal requirements. Deliveries are therefore consolidated into Americas. China, Indian Sub Continent and Other Asia regions are consolidated into Asia for the same reason. as are Mid East/ Africa

4 | FLT's for laden container handling



Laden container handling FLT deliveries 2008-2009 comparison

Region	2008	2009	Change
Europe	54	34	-37%
Americas	32	10	-69%
Asia	43	15	-65%
Australia Pacific	36	34	0%
Mid East/Africa	33	17	-48%
Global	198	110	-44%



Note 1: Percentages rounded to nearest whole number

Note 2: Seven (7) manufacturers provided data for 2009 deliveries compared with eight (8) for previous years; CVS Ferrari did not contribute

FLTs for laden container handling



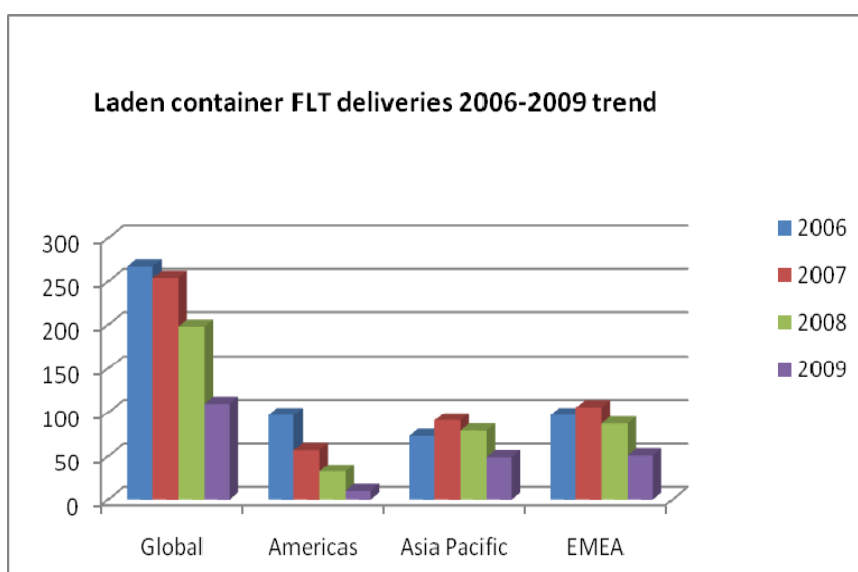
Laden container handling FLT deliveries 2006-2009 trend

Region	2006	2007	2008	2009
Americas	97	57	32	10
Asia Pacific	73	91	79	49
EMEA	97	106	87	51
Global	267	254	198	110

Table above: Number of units delivered per calendar year 2006-2009

Table below: Annual percentage change in deliveries 2006-2009

Region	2006-7 change	2007-8 change	2008-9 change
Americas	-41.2%	-43.9%	-68.7%
Asia Pacific	+24.7%	-13.2%	-38%
EMEA	+9.3%	-17.9%	-41.4%
Global	-4.9%	-22%	-44.4%



Note 1: For trend purposes 2009 deliveries have been consolidated into the broader geographic regions used in the original 2006/7 survey

Note 2: The data for 2009 does not include CVS Ferrari, which reported for the prior three years

Note 3: Percentages rounded to nearest decimal point

FLTs for empty container handling



Survey respondents

Seven (7) manufacturers of container handling FLT's contributed:

- Cargotec (Kalmar)
- Hyster
- Indital
- Konecranes Lifftrucks
- Linde
- TCM
- Terex (Fantuzzi Reggiane)

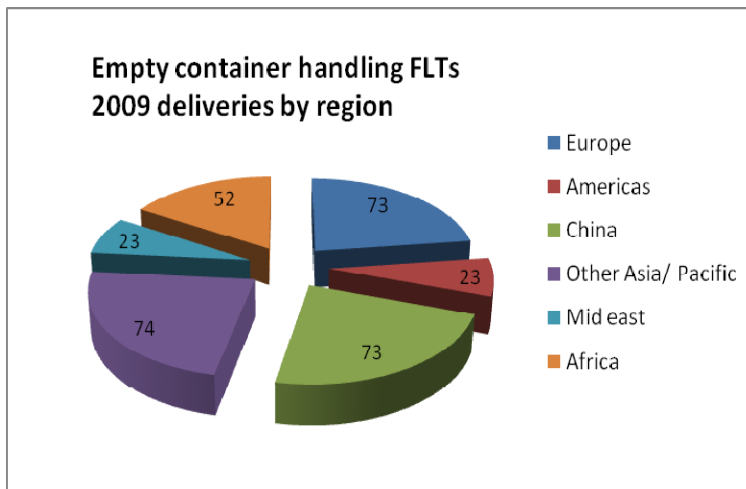
Svetruck in Sweden and Taylor in USA did not respond. Two Chinese manufacturers, Sany and Dalian, who are believed to manufacture container handling FLT's were contacted, but did not respond. CVS Ferrari has contributed in previous years, but did not respond this year (see explanation p6).

The lack of data from some key manufacturers must be taken into account in using these figures and caution must be applied, as figures do not fully reflect the global marketplace. However, the 2006-2009 trend calculation is based on returns from the same group of manufacturers, with the exception of CVS Ferrari in 2009. The data therefore provides a fair degree of consistency from which to extrapolate year-on-year trends.

Survey key findings

Based on the data received, deliveries of empty container handling FLT's fell 48% last year to 318 units, compared with 613 units in 2008. This is roughly in line with the laden container handling FLT market, where deliveries declined by 44%.

However, whereas the market for laden container FLT's has been in steady year-on-year decline, global deliveries of empty container FLT's grew by over 11% in 2008. The global market for empty container FLT's is now around three times the size of the laden container FLT sector, with deliveries of 613 empty handlers versus 198 laden units in 2008 and 318 empty versus 110 laden in 2009.



Consolidated results of empty container handling FLT deliveries for 2009

Region	Units delivered	Share of global market
Europe	73	23%
Americas	23	7%
China	73	23%
Other Asia/Australia Pacific	74	23%
Mid East	23	7%
Africa	52	16%
Global	318	100%

Note 1: Percentages rounded to nearest whole number

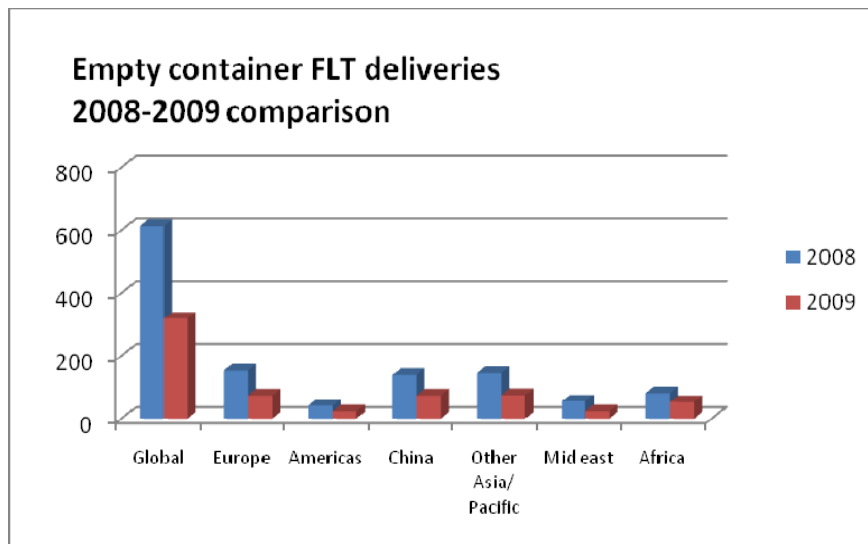
Note 2: The number of manufacturers delivering into North America and Latin America was not sufficient to meet legal requirements. Deliveries are therefore consolidated into Americas. Indian Sub Continent, Other Asia and Australia Pacific are likewise consolidated

FLTs for empty container handling



Empty container handling FLT deliveries 2008-2009 comparison

Region	2008	2009	Change
Europe	153	73	-52%
Americas	41	23	-44%
China	140	73	-48%
Other Asia/Pacific	145	74	-49%
Mid East	54	23	-57%
Africa	80	53	-35%
Global	613	318	-48%



Note 1: Percentages rounded to nearest whole number

Note 2: Seven (7) manufacturers provided data for 2009 deliveries compared with eight (8) for previous years; CVS Ferrari did not contribute

FLTs for empty container handling



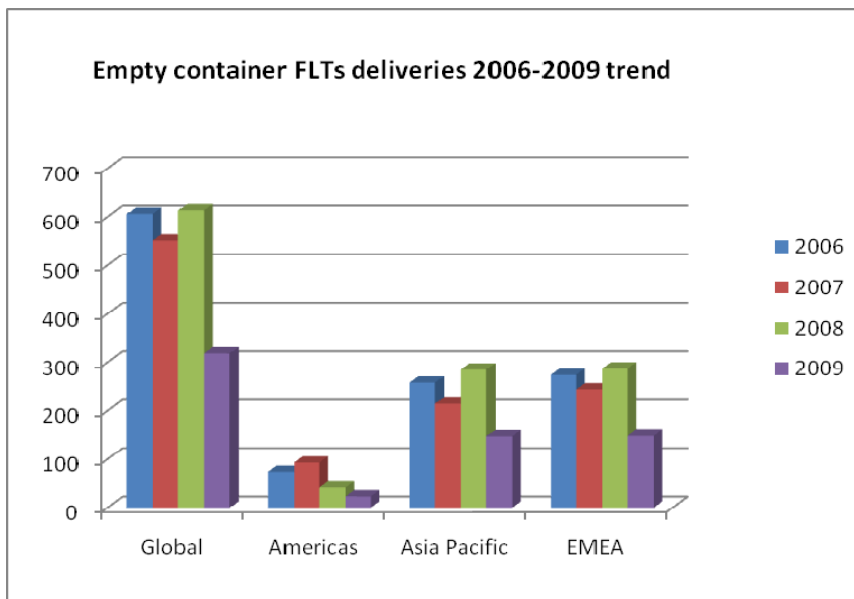
Empty container handling FLT deliveries 2006-2009 trend

Region	2006	2007	2008	2009
Americas	74	93	41	23
Asia Pacific	258	214	285	147
EMEA	274	244	287	148
Global	606	551	613	318

Table above: Number of units delivered per calendar year 2006-2009

Table below: Annual percentage change in deliveries 2006-2009

Region	2006-7 change	2007-8 change	2008-9 change
Americas	+25.7%	-55.9%	-43.9%
Asia Pacific	-17%	+34.1%	-48.4%
EMEA	-10.9%	+17.6%	-20.8%
Global	-9.1%	+11.3%	-48.1%



Note 1: For trend purposes 2009 deliveries have been consolidated into the broader geographic regions used in the original 2006/7 survey

Note 2: The data for 2009 does not include CVS Ferrari, which reported for the prior three years

Note 3: Percentages rounded to nearest decimal point

Terminal tractors 4x2



Survey respondents

Five manufacturers contributed to the survey:

- Capacity
- Cargotec (Kalmar)
- MAFI
- MOL
- Terberg

CVS Ferrari has contributed in previous years but did not contribute for 2009 (see explanation p6). CVS Ferrari has been a small player in the terminal tractor market, but probably did deliver some units in 2009. China-based Sinotruck, which advertises terminal tractors as part of its portfolio, was contacted but did not respond.

The North American market for terminal tractors was in 2009 served overwhelmingly two manufacturers. As this does not meet the regulatory criteria of at least five suppliers of an equipment type to a specific market, it is regrettably therefore necessary once again to exclude North America from this survey.

Given the scale of the North American market, the legal restriction on including data for this region means that the figures reported here are significantly less than the actual world market. This must be taken into account when using these data on a global basis.

China was served by only two contributing manufacturers, the Indian Sub Continent by only one and Australia Pacific by three. These regions have therefore been combined with Other Asia into Asia Pacific.

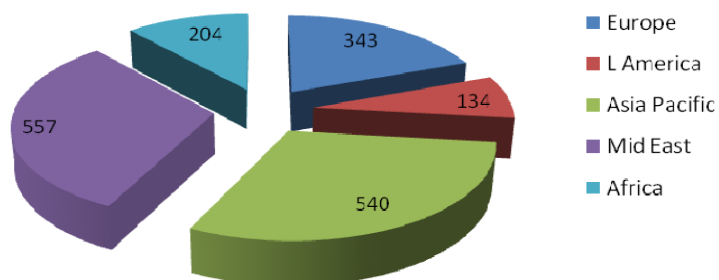
Survey key findings

Global delivery volumes for 4x2 tractors declined 37% in 2009 compared with 2008. Latin America was the hardest hit region, with a reduction of 61%, while the Middle East showed growth of 7%.

Market trend analysis – a note

As the original 2006/7 survey did not differentiate between 4x2 and 4x4 terminal tractors, the four year trend is based on consolidated data for both tractor types. From 2010, PEMA plans to begin providing historical trend analysis separately for 4x2 and 4x4 units, plus the consolidated market data.

**4x2 terminal tractors
2009 deliveries by region**



Consolidated results of 4x2 terminal tractor deliveries for 2009

Region	Units delivered	Share of global market
Europe	343	19%
Latin America	134	8%
Asia Pacific	540	30%
Mid East	557	31%
Africa	204	11%
Global	1778	100%

Note 1: Figures cover only those manufacturers contributing to the survey

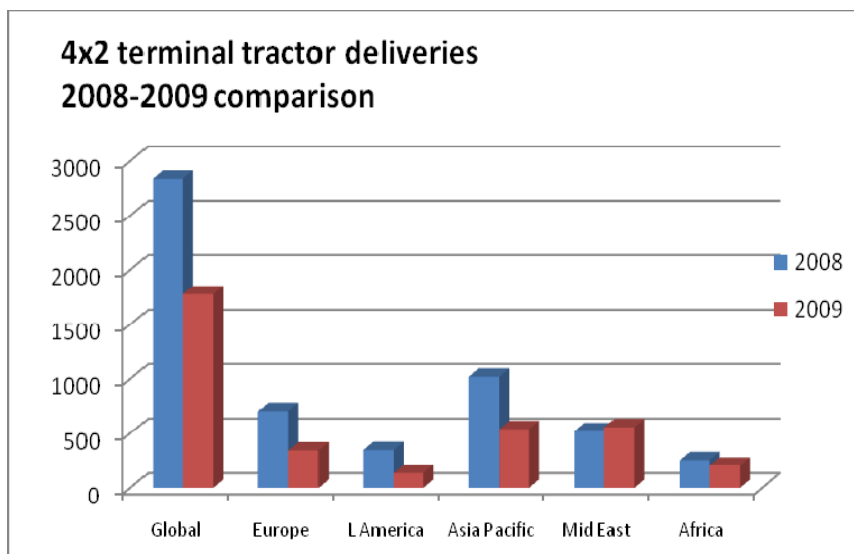
Note 2: For legal reasons, North America is excluded due to the limited number of companies serving this regional market. Deliveries to China, India Sub Continent, Other Asia and Australia Pacific are also grouped into Asia Pacific to meet legal requirements

Terminal tractors 4x2



4x2 terminal tractor deliveries 2008-2009 comparison

Region	2008	2009	Change
Europe	702	343	-51%
Latin America	347	134	-61%
Asia Pacific	1019	540	-47%
Mid East	520	557	7%
Africa	255	204	-20%
Global	2843	1778	-37%



Note 1: Percentages rounded to nearest whole number

Note 2: Data excludes North America due to legal reporting restrictions

Terminal tractors 4x4



Survey respondents

Five manufacturers contributed to the survey:

- Capacity
- Cargotec (Kalmar)
- MAFI
- MOL
- Terberg

CVS Ferrari has contributed in previous years but did not contribute for 2009 (see explanation p6). CVS Ferrari has been a small player in the terminal tractor market, but probably did deliver some units in 2009. China-based Sinotruck, which advertise terminal tractors as part of its portfolio, was contacted but did not respond.

The North American market for terminal tractors was in 2009 served overwhelmingly two manufacturers. As this does not meet the regulatory criteria of at least five suppliers of an equipment type to a specific market, it is regretfully therefore necessary once again to exclude North America from this survey.

Given the scale of the North American market, the legal restriction on including data for this region means that the figures reported here are significantly less than the actual world market. This must be taken into account when using these data on a global basis.

China was served by only two contributing manufacturers, the Indian Sub Continent by only one and Australia Pacific by three.

These regions have therefore been combined with Other Asia into Asia Pacific.

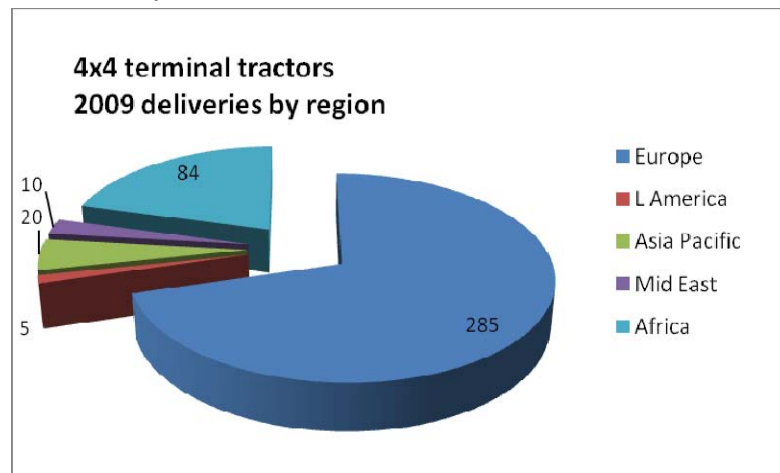
Survey key findings

Global delivery volumes for 4x4 tractors declined 40% in 2009 compared with 2008. As with 4x2 units, Latin America was the hardest hit, with a reduction of 67%. However, bucking the general trend, both Asia and Africa grew by more than 30%.

Market trend analysis – a note

As the original 2006/7 survey did not differentiate between 4x2 and 44 terminal tractors, the four year trend is based on consolidated data for both tractor types and is included after the 2008-2009 analysis for both equipment types.

From 2010, PEMA aim to begin providing historical trend analysis separately for 4x2 and 4x4 units, plus the consolidated market data.



Consolidated results of 4x4 terminal tractor deliveries for 2009

Region	Units delivered	Share of global market
Europe	285	70%
Latin America	5	1%
Asia Pacific	20	5%
Mid East	10	2%
Africa	84	21%
Global	408	100%

Note 1: Figures cover only those manufacturers contributing to the survey

Note 2: For legal reasons, North America is excluded due to the limited number of companies serving this regional market. Deliveries to China, India Sub Continent, Other Asia and Australia Pacific are also grouped into Asia Pacific to meet legal requirements

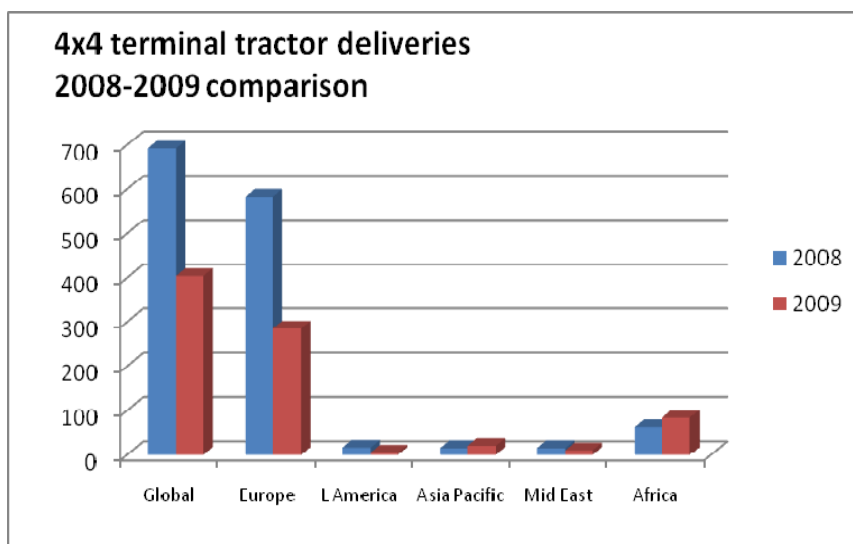
Note 3: Percentages rounded to the nearest whole number

Terminal tractors 4x4



4x4 terminal tractor deliveries 2008-2009 comparison

Region	2008	2009	Change
Europe	583	285	-51%
Latin America	16	5	-67%
Asia Pacific	15	20	33%
Mid East	15	10	-33%
Africa	63	84	33%
Global	682	404	-40%



Note1: Percentages rounded to the nearest decimal place

Note 2: North America is excluded due to legal reporting restrictions. Global data is therefore not comprehensive. However, data were supplied by the same contributing companies for 2008 and 2009, with the exception of CVS Ferrari

Terminal tractors all types



Notes on 2006-9 trend analysis

As noted above, the global delivery summaries that PEMA is able to provide in this survey are skewed by the legal restriction on reporting figures from the important North American market.

The four-year comparison data shown below must also be treated with caution because two additional manufacturers contributed statistics in 2008 and 2009, compared with 2006 and 2007.

The apparent high growth from 2007-8 is therefore misleading. However, 2006-7 growth figures are

based on data from the same contributing companies.

For 2009 deliveries, CVS Ferrari did not report, but is known to have been a smaller player in this market segment. Except for CVS Ferrari, other contributing companies for 2008 and 2009 were the same.

The decline in delivery numbers from 2008-9 does therefore reflect the actual situation for the markets covered by this survey.

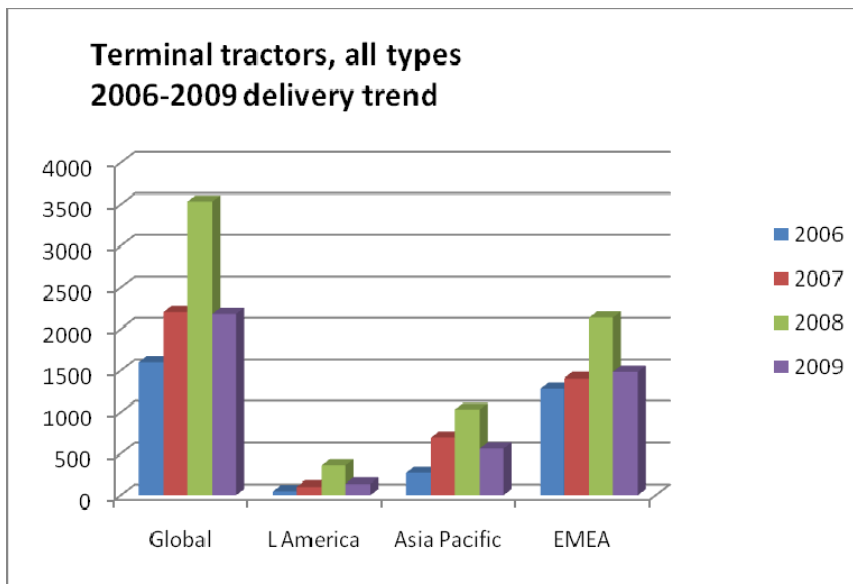
Terminal tractors all types 2006-2009 trends

Region	2006	2007	2008	2009
Latin America	48	103	363	139
Asia Pacific	270	697	1034	560
EMEA	1284	1407	2183	1483
Global	1602	2207	3535	2182

Table above: Number of units delivered per calendar year 2006-2009

Table below: Annual percentage change in deliveries 2006-2009

Region	2006-7 change	2007-8 change	2008-9 change
Latin America	+114.6%	+252.4%	-61.7%
Asia Pacific	+158.1%	+48.4%	-45.8%
EMEA	+9.6%	+51.6%	-32.1%
Global	+37.8%	+60.1%	-38.3%



Note 1: For trend purposes, 2008-9 deliveries have been consolidated into the broader geographic regions used in the original 2006/7 survey

Note 2: The data for 2009 does not include CVS Ferrari, which reported for the prior three years

Note 3: Percentages rounded to nearest decimal point

About PEMA



Founded in 2004, PEMA's mission is to provide a global forum and voice for the port equipment and technology industries, which play a critical role in enabling safe, secure, sustainable and productive ports, and thereby supporting world maritime trade.

Chief among PEMA's aims is to foster good relations within our world community, by providing a forum for members to exchange views on trends in the design, manufacture and application of port equipment and technology.

PEMA also helps to promote and support the global role of the port equipment and technology industries by raising awareness with the media, customers and other stakeholders; forging relations with port industry associations and bodies; and contributing to industry best practice initiatives and standards.

PEMA membership is open to any company involved with port equipment and technology, regionally or globally, in the following categories:

- Manufacturers and suppliers of port and terminal equipment
- Manufacturers and suppliers of components or attachments for port equipment
- Suppliers of technology that interfaces with or controls the operation of port equipment
- Consultants in port equipment and technology design, specification and operations

Current PEMA members include:

- ABB Crane Systems
- Actiw Oy
- Advanced Microwave Engineering
- Baltkran JSC
- Brevetti Stendalto SpA,
- Brieda Cabins
- Bromma Group
- Cargotec Corporation
- Cavotec MSL Holdings Ltd
- Conductix-Wampfler
- Control Techniques
- Hyster Europe
- IDENTEC SOLUTIONS AG
- KALP
- Konecranes
- Konecranes Liftrucks AB
- Lasstec
- Liftech Consultants Inc
- Linde Heavy Trucks Division
- Loxystem
- MAFI Transport-Systeme GmbH

- Michelin
- Nexans
- PORTEK Group
- RAM Spreaders
- SICK AG
- Stinis Holland
- Svetruck
- Terberg Benschop
- Terex Cranes
- Tratos Cavi SpA
- TTS Ports Equipment AB
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About the author

For the past 11 years, Brian Robinson has worked as a freelance journalist and transport industry consultant. His journalistic and consulting assignments have covered all aspects of the transport, shipping, ports and terminals industry, with special emphasis on port and terminal handling equipment.

Mr. Robinson has conducted detailed annual industry surveys of ship to shore cranes, RTG/RMG yard cranes and mobile harbour cranes, which have been published in the trade press and become industry benchmarks.

Previously, he was engaged in various senior management positions in the container leasing sector in both Europe and the USA, covering both field and HQ positions. Earlier in his career he worked in the rail, road and shipping industries.

Mr. Robinson was educated at London School of Economics and Anglian Management School.