The IPAF
Powered Access
Rental Report 2009

United States of America

Final Report
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Prepared for:
The International Powered Access Federation

Prepared by:
Ducker Worldwide

89 route de la Reine, 92773 Boulogne Billancourt cedex, France Tel: +1 248-530-2011
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I. Foreword

1.1 IPAF
The International Powered Access Federation (IPAF) promotes the safe and effective use of powered access equipment worldwide. IPAF is a not-for-profit members’ organization that represents the interests of rental companies, manufacturers, distributors, users and training companies. It was set up in 1983 and celebrated its 25th anniversary in 2008.

The IPAF training program for platform operators is certified by TÜV as conforming to ISO 18878. More than 80,000 operators are trained each year through a worldwide network of over 400 IPAF-approved training centers. Successful trainees are awarded the PAL Card (Powered Access License), the most widely held and recognized proof of training for platform operators. In North America, training is managed by IPAF’s North American subsidiary, AWPT.

Membership of IPAF is open to users of platforms, manufacturers, distributors, rental and training companies. Members enjoy access to practical information and a growing portfolio of member services. They also have the chance to influence the legislation and regulations that govern platform use. More information can be found at www.ipaf.org.

1.2 IPAF Contact Information
Additional copies of this report can be ordered at www.ipaf.org or from your nearest IPAF office.

IPAF has also published the IPAF European Powered Access Rental Report 2009 – details available at www.ipaf.org or from your nearest IPAF office.

US:
IPAF-US, 225 Placid Drive
Schenectady, NY 12303, US
+1 518 280-2486
usa@ipaf.org

UK Head Office:
IPAF, Moss End Business Village
Crooklands, Cumbria LA7 7NU, UK, UK
+44 15395 62444
info@ipaf.org

France :
IPAF-France, BP 90093
F-71403 Autun Cedex, France
+33 6 83 08 33 78
france@ipaf.org

Germany:
IPAF-Deutschland, Grüner Weg 5
D-28790 Schwanewede, Germany
+49 421 6260 310
deutschland@ipaf.org

Italy:
IPAF-Italia, Via Matteotti 40/12
I20020 Arese (MI), Italy
+39 02 935 81873
Italia@ipaf.org

Netherlands:
IPAF-Benelux, 39 Seringstraat,
NL-3295 RN ‘s-Gravendeel, Netherlands
+31 6 30 421042
Benelux@ipaf.org

Spain:
IPAF-España, Edificio Heracles, Interior Zona Franca
E-11011 Cádiz, Spain
+34 956 297 406
espana@ipaf.org

Switzerland:
IPAF-Basel, Dufourstrasse 11
CH-4052 Basel, Switzerland
+41 61 227 9000
basel@ipaf.org
1.3 Ducker

Ducker Worldwide is a primary research-led industrial market research and consulting company, dedicated exclusively to ad hoc business-to-business research and particularly specializing in the markets for construction equipment and materials both in Europe and the US.

Ducker benefits from solid industry experience and a highly international team able to survey global markets at a local level:

- **Product and industry expertise**: experience in the AWP and equipment rental markets through several projects completed within access equipment and other types of construction machinery at all levels of the value chain including rental as well as distribution and contracting

- **International approach applied locally**: with a team of permanent native consultants working out of offices that reach across the US, Europe and Asia, Ducker prides itself on the fact that all fieldwork is completed in the respondent’s native language by in-house consultants and by Ducker’s internal multi-lingual call-centers

- **Methodological expertise**: on-going involvement in strategic consulting within areas such as market sizing and segmentation, distribution structure, competitive positioning, customer satisfaction or market opportunity and new product entry assessments for a variety of products within the global construction and transportation industries amongst others

- **Quality charter**: Ducker Worldwide is certified as conforming to ISO 9001 and works to the guidelines of the ESOMAR ethics standard

More information on Ducker can be found at [www.ducker.com](http://www.ducker.com).

1.4 Ducker Contact Information

This report was produced by the European headquarters of Ducker Worldwide in cooperation with its US headquarters.

Ducker Worldwide

1250 Maplelawn Drive
Troy, MI 48084, US
[www.ducker.com](http://www.ducker.com)
Tel: 248-530-2011

Nicole McGregor, Partner
[nicolem@ducker.com](mailto:nicolem@ducker.com)

Ducker Research Europe (European Headquarters)

89, route de la Reine
F-92773 Boulogne Billancourt cedex, France
[www.duckereurope.com](http://www.duckereurope.com)
Tel: +33 1 46 99 59 60

Jennifer Mathis, Partner
[jennifer.mathis@duckereurope.com](mailto:jennifer.mathis@duckereurope.com)
Pia Vaquer, Project Manager
[pia.vaquer@duckereurope.com](mailto:pia.vaquer@duckereurope.com)
2 Scope & Definitions

2.1 Comparability with Previous IPAF Reports

This report, together with its European counterpart, pursues the groundbreaking initiative first taken by IPAF in 2009 to produce an annual assessment of the powered access equipment rental industry in the US and in Europe. The information contained in these industry reports is not available through any official statistics or other secondary data, nor have any comparable publications been available in the past.

In 2010, IPAF’s objective has been to build on its experience and to take the assessment a step further by increasingly anchoring the study in ad hoc primary research, allowing also for additional detail. Ducker’s reports this year do not, therefore, set out to reproduce the exact same study as those published a year before, but to provide the same level of information and more while improving the level of relevance and reliability.

As a consequence, the historic market estimates for 2007-2008 in the current report differ from those published one year ago and should be considered as the more up-to-date, revised version.

3 Scope & Definitions

3.1 Products

The present study focuses on powered access equipment, i.e. aerial work platforms (AWPs), also called mobile elevating work platforms (MEWPs). It includes the full range of powered access equipment (all sizes and types) except mast climbing work platforms (MCWPs).

- Included are powered people lifts: all booms, scissor lifts and vertical masts
- Both articulating and straight telescopic booms
- Self-propelled as well as vehicle-mounted, push-around, trailer-mounted/towable

Excluded are telescopic material handlers, forklifts, cranes, mast climbing work platforms

No actual product segmentation has been part of the objectives this year, due to the complexity involved, but differences by product type have been taken into account qualitatively when available and relevant, so as to reflect e.g. variations in fleet mix between countries.

3.2 Countries

This report focuses on the United States of America market and makes occasional comparative reference to the eleven European countries that are surveyed in a separate report.

No regional segmentation is included.
3.3 Target Companies

Organizations interviewed for this study include rental companies and other industry experts:

- Specialist AWP rental companies
- General rental companies that also offer AWP rental (if AWP represents at least 5% of rental revenues). In this report, these companies are referred to as generalist.
- AWP manufacturers
- National rental associations
- Trade magazines

Only companies where rental represented at least 5% of total revenue were interviewed. Similarly, generalist rental companies were only included if AWP represented at least 5% of rental revenues. The lowest percentage shares actually encountered amongst US respondents were 20% and 15% respectively.

Rental company interviews have been the basis for a quantitative analysis, while interviews with manufacturers, associations and magazines have provided further qualitative insight.

Telephone interviews were conducted with rental companies, manufacturers and other industry experts. Rental companies interviewed are estimated to represent about 40% of the total AWP rental industry in the US.

Rental companies comprise of both specialists (55%) and generalists (45%), small (50%) and large (50%). Overall, they were segmented by specialization or size as follows:

- Specialization:
  - Specialists: AWP >50% of rental revenue
  - Generalists: AWP ≤50% of rental revenue

- Size:
  - Large: AWP rental revenue ≥ median of AWP rental revenue
  - Small: AWP rental revenue < median of AWP rental revenue
  - The median is approximately $14M
3.4 Respondents

Only persons with input in machine selection or management were qualified as respondents. Recurrent respondent job functions include in particular Managing Director and AWP Product Manager, but also Sales Director, Technical Director, Purchasing Manager, Fleet Manager, Branch Manager or Operations Manager.

Ducker and IPAF would like to take this opportunity to thank all industry representatives who have been available for interviews and whose kind assistance made it possible to conduct this research.

3.5 Rental Revenue

Rental revenue has been defined as comprising of rental rates as well as all rental-related services, such as the following:

- Rental rates
- Machine repair
- Support (e.g. fuel services)
- Transportation/delivery
- Training
- Damage waiver
- Operator charges

Rental revenue in this report excludes:

- Re-rental (machines rented from other companies)
- Resale of used equipment

No separation is established in this report between revenue from rentals versus services, but examples show that services may typically represent roughly around 10-20% of revenues.

3.6 Objectives

The study assesses the AWP rental market value for the US over a five-year period. A separate report is available covering the European market.

Main objectives by country:

- 2009 AWP rental market value
- Trends and dynamics (2007–2011)
- Operational indicators (investment, fleet age, inventory, construction vs. non-construction)
Main add-ons to the 2008 survey:
- AWP fleet size
- Segmentation specialist/generalist, small/large
- Non-construction applications
- Time utilization rate, selling age, divestments, evolution of rental rates

In addition to the primary objective of market value, fleet size has been included to ensure that the value is anchored in reality. Moreover, fleet information is typically more available than rental revenue. This has allowed for cross-checks, revenue-per-unit ratios and the optimization of secondary sources.

The current study does not examine rental company profitability.

3.7 Time Period

The study covers the time period 2007-2011, with particular focus on 2009 followed by 2008 and 2010.

The conducting of all interviews in the first quarter of 2010 has allowed for primary data collection on the full previous year, thus providing for more specifically targeted and up-to-date information than would have been available from any statistical sources.

In addition, the beginning of 2010 already provided the industry with a hint of what the new year would look like. However, it is important to note that the forecasts for 2010 and 2011 reflect the perception that the industry had around February/March 2010 when the interviews were being completed, a perception that has in some instances even been seen to change by the end of the first quarter of the year.

2009, being a very particular year due to the unprecedented economic downturn, is not representative of other years, but is an interesting time to capture both previous and emerging trends, providing for a particularly changing market over the time period studied.

3.8 Exchange Rates

Whenever comparing the US market with the 11 European countries covered in IPAF's European report, the following 2009 average currency exchange rate was used. The same rate has been used throughout the time period in focus in order to eliminate variation in growth rates due to exchange rates rather than to the actual AWP rental market.

<table>
<thead>
<tr>
<th>Currency Unit</th>
<th>Converter to Euro</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA $1</td>
<td>0.71895</td>
</tr>
</tbody>
</table>
II. Market Size 2009

1 Market Value

The total AWP rental market value in 2009 in the US is estimated at approximately $6B. The US market is the most mature market as a result of the well-developed practice of rentals over the past twenty years and the use of AWPs in work at height: it is nearly twice as big as the European market. This is significantly less than the market size estimation in the IPAF Rental Report from 2008, partly due to a strong decline in the market but also partly due to a reassessment of the 2008 market size.

Excluding companies that do not rent AWP. Total company revenue and rental revenue only reflect the target population of rental companies to whom rental represents min. 5% of revenues and AWP min. 5% of those rental revenues.

Definitions:
- Specialists: AWP >50% of rental revenue
- Generalists: AWP ≤50% of rental revenue
- Large: AWP rental revenue ≥ median (approx. US$14M)
- Small: AWP rental revenue < median

Within the target population, i.e. rental companies that have an AWP fleet, AWPs represent on average 44% of rental revenues. This ranges from 36% of total rental revenue for generalist companies to 81% for specialists and from 40% for small companies to 50% for large companies.
It is commonly believed by the industry that the AWP rental market value represents 25% to 30% of the total construction and industrial rental revenues, the difference with this study's findings (44%) results from the fact that companies whereby AWP rental represents <5% of rental revenues (and/or equipment rental <5% of total revenues) fall outside the target for this assessment. Their importance is difficult to quantify.

1.1 Specialization and Size

Of more than 4000 rental companies active in the US market, less than 200 are estimated to earn more than 5% of rental revenues on AWPs.

The US market is characterized by a majority of very large generalist companies that display significantly higher rental revenues than their European counterparts.

- Generalist AWP rental companies are estimated to represent about 65% of the AWP rental market in value. While these companies do not dedicate more than 50% of their rental revenues to AWPs, they can, however, structure their AWP rental activities in a specialized organization.

- Although still consolidating, the US market is much more consolidated than Europe. Large AWP rental companies are estimated to represent 50% of the AWP rental market in value. The top 5 players represent about one third of the market. In 2009, many small regional rental companies left the US market as they could no longer compete under the tight market constraints. Also larger rental companies closed many unprofitable branches.

1.2 Re-Rental

Re-rental, i.e. rental by one rental company from another, only represents around 2% of the AWP rental market. While some claim not to do any, those that do, report it as a minimal activity. Target companies are small independent rental companies or contractors, but also large rental companies who wish to add specialized or large, high-capitalized equipment for short-term needs. In this depressed market environment, tight competition among rental companies does not favour re-rental practices.

- “We will only do this for specific customers when required in order to secure a deal usually for more specialized equipment”. (Small generalist)

<table>
<thead>
<tr>
<th>Re-Rental - 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>2%</td>
</tr>
<tr>
<td>3%</td>
</tr>
</tbody>
</table>

Total

- Machines rented to other rental companies
- Machines rented from other rental companies

Source: Ducker Worldwide for IPAF

The stated percentage corresponding to machines rented from other rental companies has been deducted from each company’s AWP rental revenues case by case
1.3 Activities Outside AWP Rental

Within the target population of rental companies active in the AWP market, construction equipment rental (incl. AWPs) invariably represents the vast majority (around 80%) of total company revenues. With small rental companies this share is slightly lower in favor of “Other” ancillary activities (such as non-rental-related services, other rentals, etc.). For specialists and large rental companies, the share is higher.

Sales of used rental equipment (all equipment types) represent around 11%, testifying to strong defleeting activities in 2009.

Used equipment sales are excluded from the AWP rental revenues reported.

The term construction equipment is here used in its widest sense to describe the type of equipment that can be used for construction purposes amongst others, including all AWP, also when these are used in non-construction applications. Rental-related services are included within the equipment rental revenues.

Source: Ducker Worldwide for IPAF
2 Market Size in Units

2.1 Market Volume & Revenue per Unit

The total number of units in AWP rental fleets in the US is estimated at approximately 425,000 machines in 2009. This is nearly twice the fleet size of Europe.

The revenue per unit is very close to that of the average of the eleven European countries included in IPAF's European study.

![AWP Fleet Size & Revenue per Unit - 2009](image)

Source: Ducker Worldwide for IPAF

2.2 Product Types

The current report does not comprise of an actual product segmentation, but self-propelled platforms can be estimated to represent the vast majority overall. The US AWP rental market seems to offer (relatively) slightly less diversity than the European market. The large rental companies influence this situation a lot as they focus on a streamlined product range; the smaller, independent rental companies being more flexible to their customer needs and displaying higher diversity in their fleet mix. As a result, for example, push-around/towable machines, although growing, seem much less popular than in certain European countries while truck-mounted equipment is almost nonexistent in the rental market – only about 30 rental companies offer truck-mounts in their fleets in the US. Truck-mounted platforms are viewed as a specialist market for niche applications. Self-propelled AWPs are perceived as more versatile and generalist (more mobile on site, can serve indoor and outdoor applications), thus offering a larger range of possible applications, which increases their demand potential. Many national rental companies in the US are generalists looking for high-volume versatile solutions which truck-mounted platforms are considered not to provide.

- “Large National Houses value uniformity in terms of fleet” (Manufacturer)
- “We typically find it easier to work with the regional companies because they tend to be more flexible with their product offering than the national rental houses” (Manufacturer)
2.3 Revenue per Unit by Company Type

Large (generalist) companies in the US attain a higher revenue value per AWP unit than the smaller (specialist) companies. Many focus on a large fleet of more standard equipment and hence manage their business in a more profitable way than the smaller rental houses. Other large AWP rental companies can also hold some less standard, larger, more niche high-value pieces of equipment such as big booms, and to a lesser extent truck-mounts and spider lifts to rent and these pieces have been less affected by reduced rental rates than other pieces of equipment.

Small (and specialist) rental companies tend to generate less revenue per unit than the larger ones. Facing the largest decrease in time utilization, and less flexible to de-fleet (than the larger national rental houses), many were forced to lower their rental rates the most (and therefore more than the larger rental companies) to remain competitive in 2009 and will still do so in 2010. This heavily impacts their profitability. Others cannot afford to invest in an AWP range outside the basic or standard range of booms and scissor lifts and have taken the opportunity to invest in low-price second-hand equipment.

Source: Ducker Worldwide for IPAF

Definitions:
- Median: splits the population in two (50% of answers are below, 50% above)
- Upper and lower quartile: 50% of all answers fall within this range
3 Applications

3.1 Construction vs. Non-Construction
Non-residential construction related applications (including new and renovation building activity and civil engineering) heavily drive AWP rentals in the US, even more so than in Europe.

![AWP Applications Chart](image)

Source: Ducker Worldwide for IPAF

3.2 Non-Construction Applications
The most frequent non-construction application is traditionally industrial manufacturing.
Depending on the regions in the US, applications are developing for AWP rentals like building maintenance, cleaning and green areas, utilities, access to wind turbines for cleaning and maintenance, and telecommunications. There is an increased focus on niche markets, like golf courses, and wineries.

![Non-Construction Applications - 2009](image)

Source: Ducker Worldwide for IPAF

**Weighted result indicating how frequently each sector constitutes one of the main non-construction applications; not a direct indication of the share of rental revenues represented by that sector**
III. Market Dynamics 2007-2011

1 Market Value

The AWP rental market started to slow down in 2008 in the US, one year earlier than in Europe. Some regions such as Florida, Arizona and California already had started to feel the brunt of the financial crisis and the troubled real estate market in 2007. The AWP industry is a “lagger” in that it feels the benefits of an up- or downturn in construction later than other types of equipment.

The AWP rental market decline of minus 25% in the US in 2009 was much more pronounced than in Europe. All segments, i.e. specialists, generalists, small and large rental companies, were affected by this decline. Manufacturers report a decline in AWP sales of approximately 60% (ranging from minus 30% to minus 80%) in 2009.

Although the current report does not analyze the impact on profitability levels, we however can assume that the combination of the two factors, both revenues and profitability, will lead to an even more negative picture of the industry.

In terms of outlook, 2010 will continue to experience the downturn with slow progress expected (by rental companies and manufacturers) to be seen towards the third and fourth quarters. The bad weather conditions throughout the first quarter of 2010 may however have cast a shadow on these comparatively positive predictions for 2010, which is why these early-year forecasts should be taken with particular caution and viewed as a probable best-case scenario.

The growth rebound expected as of 2011 should be at a slightly stronger pace than in Europe. However the recovery to 2007 levels will be much slower as the US market seems more durably impacted. It will not recover its good years before 2013; some more pessimistic experts even consider that it will never return to 2007-2008 levels. 2009 saw branch closures, de-fleeting and reductions in employee headcounts. Even if demand increased quickly, these elements, along with the low availability of capital, will restrict the capacity of the industry to generate revenue of the past until fleet size and personnel are added to support this growth.

- “We have to take into account that this is also the toughest "calendar" time (Jan-March) for business. We may see improvement later this year. The rate pressure is very severe here; it'll take a while to recover. I doubt we'll get back to 2008 levels in 2010 but 2011 should be better than 2010.” (Small Specialist)
It appears that the AWP activity of the larger generalist rental companies was more impacted by the economic downturn than that of specialist and smaller rental companies. However, they have implemented drastic measures in terms of de-fleeting to be in a stronger position once the market recovers in 2011. They are therefore expecting (or hoping for?) a solid growth of their revenues in 2011.

### AWP Rental Revenue

<table>
<thead>
<tr>
<th>Year</th>
<th>Specialist</th>
<th>Generalist</th>
<th>Total % of large companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>67%</td>
<td>33%</td>
<td>33%</td>
</tr>
<tr>
<td>2008</td>
<td>67%</td>
<td>33%</td>
<td>33%</td>
</tr>
<tr>
<td>2009</td>
<td>65%</td>
<td>35%</td>
<td>50%</td>
</tr>
<tr>
<td>2010</td>
<td>66%</td>
<td>34%</td>
<td>49%</td>
</tr>
<tr>
<td>2011</td>
<td>67%</td>
<td>33%</td>
<td>51%</td>
</tr>
</tbody>
</table>

Source: Ducker Worldwide for IPAF
2 Market Size in Units

After massive investment in 2007, AWP rental companies displayed strong reactivity to their slowing business in 2008 by closing under-performing branches and reducing the size of their fleet.

This fleet reduction continued in 2009 (decreased by minus 7%) as a result of low investment and de-fleeting peak in 2009. It was much more effective among large generalist rental companies which had the flexibility to reduce fleet volumes without necessarily compromising their fleet mix too much.

The total fleet size in the country is expected to remain stable or even to slightly decrease in 2010 as no short term recovery signs are appearing. Companies want to keep a minimum number of units in their fleet in order to have availability for when demand picks up again and they therefore prefer to increase the age of their fleet rather than de-fleeting further.

In addition, a severe decrease (close to minus 20%) in the average revenue per unit occurred in 2009, partly as the result of dramatic rental rates pressure. The downturn in the construction sector has led to less demand and to over-supply of AWP rental equipment and despite the de-fleeting, rental rates had to drop in order to maintain time utilization.

The AWP revenue per unit decrease can also be explained by changes in terms of fleet mix. Market players notice a trend towards smaller, electrically powered or low level access equipment (e.g. 12 to 16 foot) units in 2009.

![AWP Fleet Size & Revenue per Unit](image-url)
IV. Investments & Divestments 2007-2011

1. Investments vs. Divestments

AWP rental companies typically buy on a five year cycle. The AWP rental market experienced a peak in investment in 2006 and 2007 which led to an oversupply situation in the rental market in the event of a market downturn. Investments severely declined in 2008 and 2009, once rental demand started to slow. Investments are not expected to resume before 2011 but companies are still expected to remain cautious in their fleet renewal strategies for some time.

Rental companies adopted different strategies in order to deal with their over-supply of equipment. Some have mentioned opening up new outlets in order to “spread out” the current fleet and gain markets geographically; by doing this, they do not need to de-fleet. But others heavily resorted to de-fleeting. The older equipment was sold not to be replaced.

The de-fleeting peak was reached in 2009. As a consequence, the investment/divestment balance was strongly negative in 2009 and is still expected to be in 2010. However, the AWP rental fleet size started to decrease in 2008, although the investment/divestment balance was slightly positive: the monetary value difference between new and used equipment led to a fleet volume reduction but a positive balance in value. This strategy provided needed profit margin dollars through the sale of older, low NBV assets while simultaneously de-fleeting to match lowering rental demand.

Most of the de-fleeted equipment is being sold at auctions or through brokers for the domestic market or off-shore.

Respondents believe that the de-fleeting cannot continue endlessly as the used AWP market is already swamped in the US. More de-fleeting could only push down used equipment prices even further, which would be neither realistic nor desirable. In addition, many rental companies want to have sufficient inventory levels once demand increases with the economic recovery.

![AWP Investment & Divestment Chart]

Source: Ducker Worldwide for IPAF
The national rental houses de-fleeted the most in 2009: they have invested the most in previous years and have a higher need and flexibility to de-fleet than smaller companies due to their large fleet size. Few smaller regional players could afford to take advantage of the low prices on the de-fleeted equipment as capital restraint is a major factor for all making acquisitions.

- “The rental sector is in chaos; everyone is trying to get rid of their equipment. There’s a lot of used equipment for sale” (national house)
2 Rental Inventory

Data on rental inventory was challenging to collect and analyze as companies refer to different definitions (financial value, value of acquisition cost, replacement value, cost of new).

The analysis of the inventory value estimate for 2009 leads to the conclusion that AWP rental companies have experienced a declining return on investment on their equipment. On average, 3½ years of rental revenues are required in order to cover the equipment inventory value whereas 3 years would be more typical.

On the other hand, US rental companies seem better positioned to yield higher profits (although under pressure) than their European counterparts, as they record very similar rental revenues per unit but less rental inventory value per unit. However the current scope of the research does not enable us to expand further on the subject in terms of difference between the US and Europe e.g. in acquisition costs, machine configuration, purchase order volumes or depreciation schedules.

Total AWP Inventory (New replacement value) - 2009

Source: Ducker Worldwide for IPAF
V. Operational Aspects 2008-2010

1 Market Variables

Rental revenues are the result of three main levers, namely equipment time utilization rate, rental rates and fleet size and mix. Rental rates and fleet build-up are the two strategies that rental companies can choose to use as adjustment variables in order to influence utilization and finally revenues.

Both of these levers (rates and fleet) were used in response to the economic crisis especially in the US, although the rental rates remain the major one. In other words, the market has seen a greater decline in rental rates than in fleet size: a relatively high number of machines have still been on offer (available for rent) and at exceptionally low rental rates, leading to the severe decrease seen in the average revenue per unit. One could question the longer-term sustainability of such a strategy and its impact on a company’s profitability.

Together, these two factors have kept utilization from declining even more dramatically.
2 Time Utilization Rate

Time utilization has been included in this year’s study as an important indicator, being the result of decreased demand versus fleet management (adapting fleet size and mix) and price policy.

Time utilization rates have remained relatively high in the US, with a slight decline in 2009 to 69%, far less extreme than in Europe.

The main reasons for these rather stable high levels are the high cuts in rental rates, followed by large de-fleeting activities primarily performed by the larger (generalist) rental companies. Larger rental companies with depots throughout the country are also contributing to this situation by moving their fleet to depots with higher demand.

- “We are trying to reduce fleet and maintain time utilization rates” (Large Specialist)
- The 125-135 footers have maintained a good utilization at 60% or more. There is a continual demand for them. (Small Specialist)

Utilization rates indicated as calculate, non-adjusted by number of working days.

Time utilization has been defined as the physical number of machines out on hire as a percentage of the total number of units included in the fleet at any given time.

Generalist rental companies tend to display the highest time utilization rates in the industry, contrary to Europe where specialists do (except for 2009 in Europe where the difference between generalists and specialists on this criterion has leveled out). They have used the rental rate and de-fleeting tool the most.

Smaller rental companies suffered from the strongest drop in time utilization in 2009 as they had fewer capabilities to de-fleet due to their limited fleet size and have mostly (and only) played with the rental rate tool.

Specialist rental companies expect to further suffer from decreasing utilization rates in 2010 as they cannot continue to decrease their rental rates nor de-fleet as these actions would compromise the long-term sustainability of their business.
### Fleet Age

The average fleet age in the US was quite low in 2009, i.e. 3.4 years, resulting from two factors: peak investment in new equipment in 2006 and 2007, and de-fleeting of older equipment in 2009. However, as investment and divestment will be reduced for another year, the fleet age will naturally increase. In addition, as the second-hand market faces oversupply and excessive price pressure, rental companies prefer to hold on to their equipment.

- “We have de-fleeted, but are not looking to de-fleet further at this time. We will increase the number of years we keep the equipment. It is imperative we do not drop too low or as the market increases we will not have the necessary products” (Large Generalist)
- “We hold on to equipment for as long as we can. The used equipment prices are too low at present” (Small Generalist)

Typical retention period is 5 years (ranging from 3 to 7 years) in the US but it is inevitably bound to increase during bad times due to less investment by the rental companies. Retention is higher (up to 10 years) for expensive, large units.

![Avg Age of Fleet (years)](source)

3.1
3.4
3.9

2008
2009
2010

Source: Ducker Worldwide for IPAF

### Rental Rates

A large part of the decline in AWP rental revenue was accounted for by a drop in rates.
Cheaper rates were adopted in 2009 by the industry to help increase utilisation due to overcapacity and falling demand.

- “Rental rates are very inexpensive at present. Rental of a 60ft AWP would cost about $1700 a month in the Boston area.”

Some niche products such as spider lifts remain untouched by pressure on rental rates.

The smaller rental companies had to position the most aggressively in terms of rates in the industry to remain competitive and not to de-fleet.

- “The market has not grown, we have experienced a decrease. The rates have been all over the board. Large rental companies are dropping rates; we are forced to do so to remain competitive” (Small Specialist)
- “The small rental companies are at fault for this. Equipment that is most affected are electric scissors and booms” (Large Generalist)

Rates were already stable (i.e. not increasing) in 2008 and are expected to remain stable in 2010 except for smaller companies that still will put pressure on prices. However, the longevity of these companies can be questioned with such a strategy.

In terms of outlook, rental rates are expected to increase by 2011 but again very slowly.

- “With rental rates up to 50% lower than the 2008 rates combined with the increase in used equipment inventory and the eroding used equipment pricing, it is going to be very difficult to return to the rates charged previously.”
- “The market has to flatten out. The population of equipment is still too high; therefore it is difficult to ask for higher rental rates. It is a very competitive market and will take some time for rates to climb” (Small Generalist)

![Total - Growth in AWP Rental Rates](image)

*Source: Ducker Worldwide for IPAF*

Like-for-like comparison of rates for any given type of equipment, excl. possible changes in fleet mix and therefore not necessarily reflecting changes in average rate
<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>Specialist</th>
<th>Generalist</th>
<th>Large</th>
<th>Small</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>4%</td>
<td>5%</td>
<td>0%</td>
<td>3%</td>
<td>5%</td>
</tr>
<tr>
<td>2008</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>2%</td>
</tr>
<tr>
<td>2009</td>
<td>-19%</td>
<td>-13%</td>
<td>-19%</td>
<td>-18%</td>
<td>-23%</td>
</tr>
<tr>
<td>2010</td>
<td>0%</td>
<td>-1%</td>
<td>0%</td>
<td>0%</td>
<td>-6%</td>
</tr>
<tr>
<td>2011</td>
<td>5%</td>
<td>5%</td>
<td>5%</td>
<td>5%</td>
<td>6%</td>
</tr>
</tbody>
</table>

Source: Ducker Worldwide for IPAF
VI. Market Structure, Trends & Drivers

1 Market Maturity

The US AWP rental market is more mature in terms of both knowledge and use of AWPs and importance of the rental channel than its European counterpart. Overall, the US market is dominated by large generalists and twice as consolidated as in Europe. The US market is much more homogeneous in terms of fleet mix and company behavior. The segmentation generalist vs. specialist is less relevant in the US than in Europe as few US specialist rental companies exist and as most large generalist companies actually manage their rental fleet in a specialized division: as a result, US generalist rental companies and European specialist companies position quite similarly in terms of results. The segmentation by size (large versus small) leads to interesting differences.

Although the market is very mature, it still faces some overall growth potential as the search for improved safety and productivity is a key underlying driver.

1.1 Equipment Sales Penetration

The typical penetration ratio ranges from 80 to 85%, but varies by type of equipment. While sales to rental companies still prevail (60 to 70%), sales to end-users are more important than for the standard equipment range. End-users like airports, convention centers and warehouses that have a constant demand justify purchasing the product.

The equipment sales penetration has declined to 70 to 75% in 2009. AWP sales to end-users (industrials, warehouses, education, utilities, towns, service companies) were less impacted by the reduction in construction activity.

   - “However, rental companies aren’t buying as much anymore and that has left us looking for the niches that are interested in buying. This has been easier this year because prices are down and that has encouraged some traditional renters to buy a unit of their own” (Manufacturer)

1.2 Country Population Penetration

In 2009, the AWP Rental Revenue per Inhabitant totals $21, which is more than three times that of Europe. This supports the conclusion of a superior market maturity.
2 Drivers

2.1 GDP per Capita : $46,442

The gross domestic product is included below as the basic indicator of the overall economic environment. GDP suffered a decline in 2009, but not as steep as the estimated decline in the AWP rental market. AWP rental does not necessarily follow GDP as closely as it follows certain construction markets.

![GDP Chart](USA_GDP.png)

Source: Bureau of Economic Analysis (Data 2007 - 2009), CBO’S (Data 2010-2011), MF World Economic Outlook Database (Population)

2.2 Construction

In addition to the search for improved productivity and safety, the most important driver of the AWP rental market by far is the construction industry, which is heavily influenced by the overall economy (GDP). A decline in construction activity has a direct impact on AWP rental business.

The various construction segments are not of equal importance, but the most significant one is non-residential construction and in particular commercial and industrial buildings and to some extent offices. Collective housing is found to have a slight influence, yet very low in comparison, similarly to the remaining non-residential segments.

![Construction Chart](USA_Construction.png)

Source: US: Economic Indicators.gov
Comparing the US AWP rental market with trends in new non residential construction in terms of evolution leads to striking similarities. This can be explained by the fact that new construction work generates longer-term rental contracts for AWP and thereby, increased revenue.

The AWP rental market is heavily dependent on non residential construction activity. This is not expected to resume before 2011 or even maybe 2012 as the result of high rental availability i.e. too many unoccupied buildings.
3 Outlook and Axes of Development

The US AWP rental market faces a situation of decreasing rental rates and fleet reduction leading to declining revenues. This cannot be a sustainable strategy. On the other hand, the market has begun to realize that there are lower cost solutions available in the marketplace. The challenge will be that this “low cost” trend does not continue once the market demand returns to normal.

- “We'll continue to see rental rates at very low levels because so many rental companies are desperate right now and need to have cash flow in order to continue making payroll. We are all going to have to work hard to keep these units from becoming a commodity” (Large Specialist)

Against a backdrop of continued pressure on rates and forced consolidation, the most common strategy amongst rental companies is to increase the level of their product and service offerings. It would also seem that service may take on an increasingly significant role in the slow economic environment, with some small companies maintaining their revenues thanks to maximised service levels.

**Superior service**
- Flexibility, availability, proximity
  - “Smaller independent rental companies have suffered; however, they are better positioned because they are able to be more flexible with their product offering in order to respond to the changing demand of the customer base”. (Manufacturer)

**New applications**
- Services including maintenance, events
  - “It is important for rental companies to actively look for niche markets that are likely to have needs. Examples include colleges, universities, golf courses, etc.” (Manufacturer)

**Fleet specialisation**
- High-reach, truck-mount, niche products for special applications
  - “The niche items have maintained rates better than the generic scissor lift equipment” (Large Generalist)

**Reinforced safety and training**
- High-quality new products, maintenance, training
  - “There will be a focus towards safety and training” (Large Generalist)
  - “There is going to be a big push for training for these units” (Large Specialist)
  - “The challenge is that you will see some competitors coming to the table with old equipment (possibly that they acquired due to the abundance of low priced used equipment) and these companies will rent at very low rates. However, these units can be very dangerous in the wrong hands, so we are heavily marketing safety and training for our units. Each operator MUST be trained properly and we believe that is the responsibility of the rental organization.” (Large Specialist)

Source: Ducker Worldwide for IPAF
VII. Appendix

1 Methodology

1.1 Main Method & Approach

As mentioned in the introduction, the present study constitutes a reassessment of the AWP rental market as presented in the rental market reports published by IPAF last year, but using a different methodology. This year, the vast majority of the data has been derived from primary research (interviews with rental industry players), verified and adjusted by other expert interviews and by a more limited amount of secondary information.

The objective and the approach have not been to base the figures on those contained in the previous report, but to conduct an entirely independent market assessment, providing a new angle and a new market vision, either validating or challenging the previous results as necessary.

1.2 Overall Key Estimates

Key rental figures are estimated independently of last year’s report, based on several factors such as the following:

- Qualitative in-depth interviews with major rental companies and other market experts
- Quantitative interviews with rental companies both small and large, specialist and generalist
- OEM interviews on equipment sales (data confronted with average selling age) and market trends
- Existing secondary information and complementary interviews (magazines, associations and others: fleets, revenue, number and size of AWP rental companies etc.)
- Market share analysis (crossing direct respondent estimates of leading players’ market shares with actual revenue and/or fleet information)
- Comparisons between data points and between countries and segments to ensure coherence
- Validation of preliminary, intermediary and final estimates with industry experts

1.3 Calculation of Market Indicators

Wherever possible and relevant, all monetary values collected (e.g. investment and divestment) are calculated as a percentage of AWP rental revenues (excl. used equipment and re-rental) respondent per respondent, year by year. Based on these results, a weighted average percentage is calculated (cf. Weighting) per year and segment and applied to the estimated overall market size for that same year and segment in order to ensure maximum coherence and comparability between data points.

1.4 Missing Values

In case of interviews otherwise well completed but missing information on a necessary data point, the value has been estimated based on the average within the specific segment in question and/or adjusted based on secondary information and estimates derived from the interview or from other interviews in order to ensure maximum market representativity.

In the absence of a numerical answer regarding the future evolution (regarding revenue, investment, divestment or utilisation), the respondent was asked to state whether the trend would be stable, increasing or declining. In order for these answers also to be part of the calculation, they have been converted into numerical values in the same manner as described above.
- Stable: 0% change
- Increasing or declining: average increase or decrease reported within the segment in question

1.5 Segmentation & Statistical Relevance

The number of interviews conducted allow for good statistical relevance of results on an overall US level, especially thanks to a complex weighting of results (cf. weighting). Segment-specific results should however be considered as indicative.

Cross-segmentations (e.g. “large specialists”) have not been made, nor would the industry structure allow for it, due to the low existing number of large companies.

1.6 Weighting

In order to produce averages overall or by segment that reflect as far as possible the true market situation rather than the sample of companies interviewed, all individual answers have been weighted by three factors, namely company size and the size of the segment that the company is part of:

- Company size (AWP rental revenue in 2009) – in order to give more weight to the larger companies within the sample that each represent a big part of the total market
- Market fragmentation (the cumulated market share of the small vs. large companies) – in order not to under-represent the opinion of small companies - one small company's input speaks also for many other small ones in the market
- Specialisation (the cumulated market share of the generalists vs. AWP specialists) – in order to consider also whether, in each national market, the more representative company type are the generalist rental companies or the AWP specialists

1.7 Cross-Checks

Responses have been analysed both interview by interview (horizontally) and segment by segment (vertically) to ensure coherence within each interview and between interviews.

Data points have been compared to each other where relevant and ratios have been developed (e.g. share of used equipment sales, investment vs. divestment and fleet evolution, inventory vs. rental revenues etc.) in order to maximise coherence and understand variations.

1.8 Conclusion

Clearly implausible answers have been rectified where possible or otherwise excluded and the statistical analysis has been revised as often as required, but actual results stemming from the industry have not been modified. Surprising or seemingly incoherent trends may therefore persist.

When possible, they have been commented upon and explained in the text, based on qualitative feedback from interviews and Ducker’s industry experience. However, the intention throughout has been not to temper with the findings but to provide an opportunity for the industry to express itself.

Regarding forecasts in particular, it is however necessary to note that in the changing market that we are seeing at this specific moment of time more than ever, the situation is constantly being re-evaluated and perceptions may already have changed even between the time of information collection and the publication of this report. The report provides however a snapshot of the industry as it was at the beginning of 2010 and will hopefully serve as a basis for each reader to develop his or her own up-to-date forecasts.
This concludes our report. Thank you.
You may contact one of our team members at +33 146 99 59 60 or visit our website at
www.duckereurope.com or www.ducker.com

Ducker Worldwide

Ducker Worldwide
1250 Mapelawn Drive
Troy, MI 48084, US
www.ducker.com
Tel: 248-530-2011

Nicole McGregor, Partner
nicolem@ducker.com

Ducker Research Europe (European Headquarters)
89, route de la Reine
F-92773 Boulogne Billancourt cedex, France
www.duckereurope.com
Tel: +33 1 46 99 59 60

Jennifer Mathis, Partner
jennifer.mathis@duckereurope.com
Pia Vaquer, Project Manager
pia.vaquer@duckereurope.com