

**SUMMARY** 

CONSTRUCTION

LIFT/ACCESS

**AGRICULTURE** 

COMMERCIAL TRUCK

### **MARKET DATA: JULY 2016**

EquipmentWatch remains the largest sales database on the planet with 20x the sales data of any other source.

\$32,531,666,170

RESALE

\$32,352,413,999

420,868 Assets

**AUCTION** 

\$179,252,171

6,415 Assets

The EquipmentWatch Market Report™ is a monthly resource for the construction, lift/access, agriculture and commercial truck industries to make better-informed decisions by leveraging key equipment values, market activity, age and usage metrics.

How is the Price Stability INDEX calculated?

#### For more detailed articles, visit EquipmentWatch Intelligence online. **MARKET SUMMARY** MONTH OVER MONTH YEAR OVER YEAR MARKET ACTIVITY **MARKET METRICS** PRICE STABILITY INDEX ™ **MARKET METRICS** ▼ 0.8% **7** 3.4% **▲** 0.9% **V** 0.3% CONSTRUCTION **VALUES VALUES** 99.19 FLV FMV FLV 95 105 $\mathbf{v}$ \$13,930,349,338 164,050 36.2% **▼** 42.8% VOLUME $\blacksquare$ **1.0% VOLUME 11.3%** MARKET VALUE **ASSETS** STABLE DEFLATED INFLATED RESALE RESALE **AUCTION AUCTION V** 0.8% **T** 1.7% **3.9% 4.0%** LIFT/ACCESS **VALUES VALUES** 100.16 FI V FLV FMV FMV 95 105 \$1,318,110,329 41,404 **10.6% 10.7%** MARKET VALUE **ASSETS** VOLUME **VOLUME ▲ 3.8% 7** 24.4% DEFLATED STABLE INFLATED RESALE **AUCTION** AUCTION RESALE **7** 6.9% **7.0% 3.0% 2.9%** 100.1 **AGRICULTURE VALUES VALUES** FMV FI V FMV FI V 95 105 \$14.588.990.414 158.773 **22.4% V** 31.5% **62.0% T** 1.3% MARKET VALUE **ASSETS** VOLUME VOLUME DEFLATED STABLE INFLATED RESALE **AUCTION** RESALE **AUCTION** 103.5 **▲** 0.7% **3.7% VALUES 1.2% V** 0.4% COMMERCIAL TRUCK **VALUES** 95 105 FMV FLV FMV FLV \$2,694,216,089 56,641 69.4% **7.9%** VOLUME **7** 28.3% **V** 46.5% MARKET VALUE ASSETS DEFLATED STABLE INFLATED **VOLUME** RESALE **AUCTION** RESALE **AUCTION**



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TYPE TRENDS

BRAND TRENDS

**REGIONAL TRENDS** 

How is the Price Stability INDEX calculated?



### MARKET PERFORMANCE

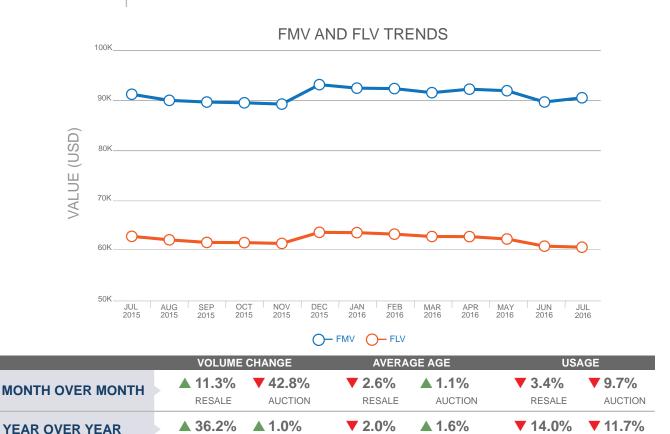
July typically marks the peak of the summer season in the construction world, and this year that peak brought an unexpected month-over-month increase in FMV of 0.9%. That boost in values, alongside a strong 11.3% increase in market activity, helped send the Price Stability Index to 99.19 in July.

### **MARKET HIGHLIGHTS**

- The average age of construction equipment on the resale and auction markets dropped relative to last month but remained 1.1% and 1.6% higher than July 2015, respectively.
- Average usage is down from last month and last year on the resale channel, which may be reflected in the increased FMV observed last month.
- Forced liquidation values are on average 3.4% lower than July 2015, indicating a mildly depressed market for auctioned equipment outside of the seasonal influences.

### MARKET FORECAST

Although fair market values increased just under 1% from June to July, those values in June were 2.4% below the month before. In the short-run this market looks and feels stable, but diminishing confidence in the strength of the market cast a shadow of doubt over a positive long-term forecast.



RESALE

AUCTION

RESALE

**AUCTION** 

RESALE

AUCTION

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MARKET ACTIVITY

**OVERALL** 

TYPE TRENDS

60K

YEAR OVER YEAR

**MARKET METRICS** 

BRAND TRENDS

**REGIONAL TRENDS** 



How is the Price Stability INDEX calculated?

**\$1,318,110,329**MARKET VALUE

**41,404**ASSETS

VALUES V 0.8% FLV

VOLUME 10.6% A 10.7% AUCTION

RESALE AUCTION

VALUES ▲ 3.9% FLV

VOLUME ▲ 3.8% AUCTION

**MARKET METRICS** 



### **MARKET PERFORMANCE**

After a small overall decrease in values in June, July saw an overall increase of about 4%. Year-over-year values are down by only about 1%. Resale market activity increased by almost 4% over the past month, while auction activity declined by almost 25%; looking at last year, market activity is still up just over 10%.

### MARKET HIGHLIGHTS

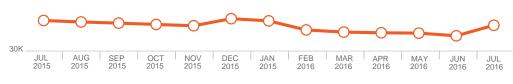
- Average utilization for resale markets is up almost 20% compared to last July.
- Overall lift values are up about 4% from last month after a drop in the previous month.
- After having a deflated index score last month, the lift market bounced back with an overall Price Stability Index of over 100.

### MARKET FORECAST

Look for values to remain about even with market activity to drop slightly for the next month. As the fall comes, look for market activity to increase as disposition starts to occur.

# FMV AND FLV TRENDS







	VOLUME CHANGE		AVERAGE AGE		USAGE	
MONTH OVER MONTH	▲ 3.76%	<b>24.4</b> %	<b>▲</b> 0.3%	<b>▼</b> 5.7%	<b>v</b> 0.1%	<b>▲</b> 5.4%
	RESALE	AUCTION	RESALE	AUCTION	RESALE	AUCTION
YEAR OVER YEAR	<b>▲</b> 10.6%	<b>▲</b> 10.7%	<b>▲ 3.1%</b>	<b>▼</b> 1.1%	<b>▲</b> 19.7%	▼ 5.8%
	RESALE	AUCTION	RESALE	AUCTION	RESALE	AUCTION

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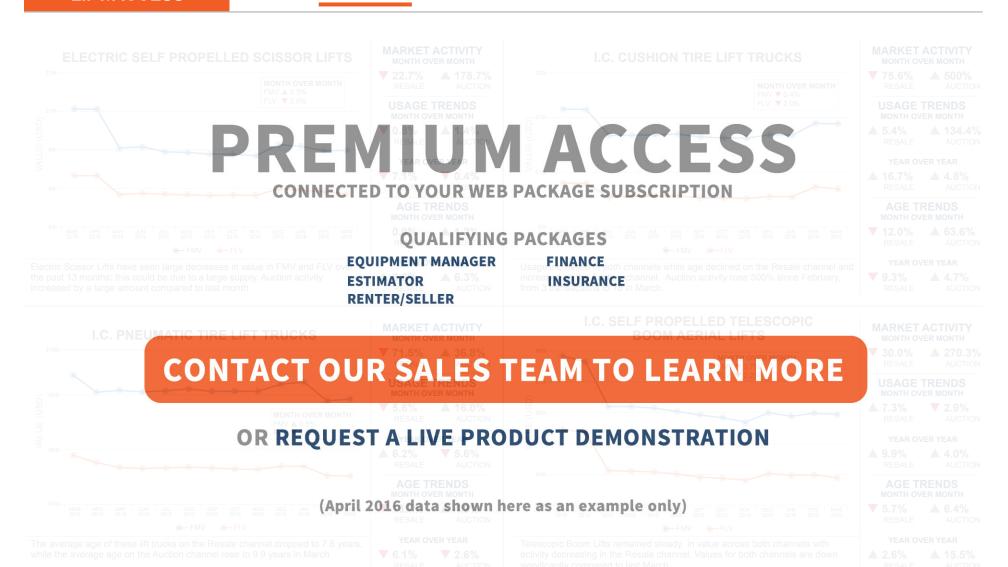
COMMERCIAL TRUCK

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TYPE TRENDS

**BRAND TRENDS** 

REGIONAL TRENDS



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How is the Price Stability INDEX calculated?



### MARKET PERFORMANCE

Both FMV and FLV increased during July over June, which was interesting as resale age dropped along with an increase in usage for the channel, but age increased and usage decreased for the auction channel. While younger equipment became available on resale, it did have a bit more usage and the volume increased well above last month as well.

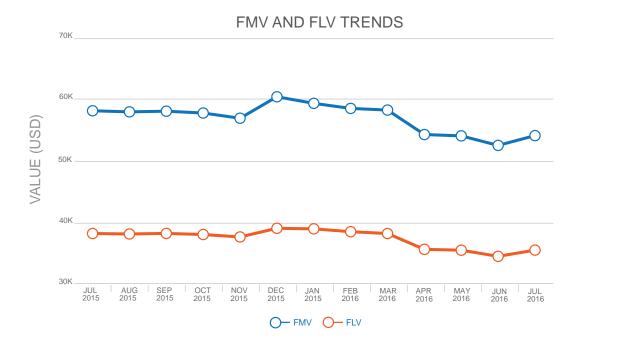
### **MARKET HIGHLIGHTS**

- · Average age and usage increased for both the auction and resale channels over June 2015.
- Market activity was low during July in comparison to June and last July on the auction market while resale increased indicating a shift in which channel people are choosing to sell their equipment.
- FMV and FLV changes from last June were almost identical just like the June to July change showing how the market has influenced the two channels similarly.

## MARKET FORECAST

Look for increases in FLV and FMV to continue into August as volume tends to drop during this month before increases in the fall.

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	VOLUME CHA	NGE	AVERA	GE AGE	USAG	iΕ
MONTH OVER MONTH	<b>▲ 62.0% ▼</b> RESALE	1.3% AUCTION	▼ 5.0% RESALE	▲ 17.9% AUCTION	▲ 22.6% RESALE	<b>▼28.9%</b> AUCTION
YEAR OVER YEAR	▲ 22.4% ▼	31.5% AUCTION	▲ 7.4%  RESALE	▲ 23.7% AUCTION	▲ 130.9% RESALE	<b>▲55.1%</b> AUCTION

**AGRICULTURE** 

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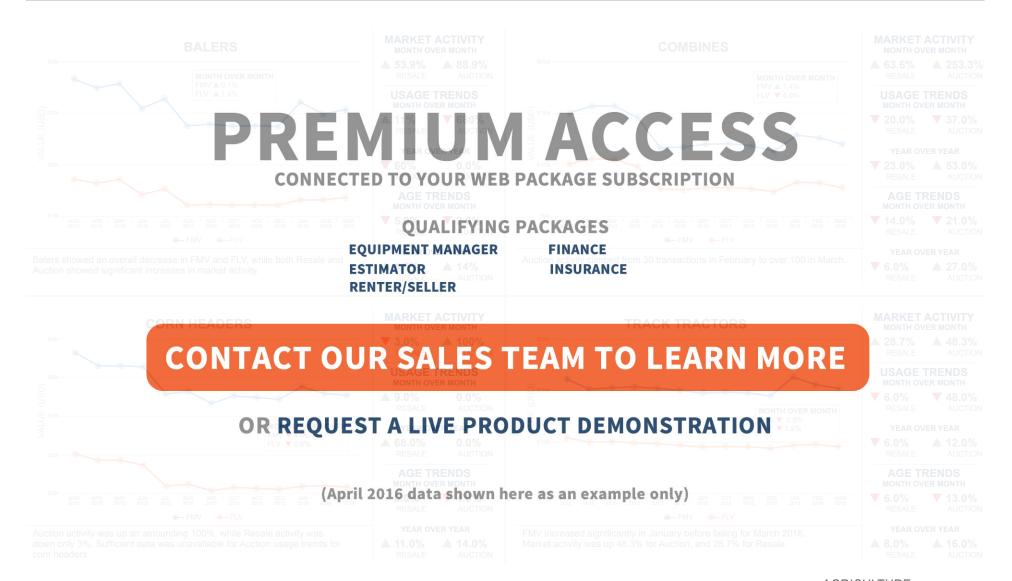
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How is the Price Stability INDEX calculated?



### MARKET PERFORMANCE

FMV increased only slightly above June as changes have been minimal for the overall channel since February. Market activity was down for both resale and auction month over month, but the resale channel increased well above last year.

### MARKET HIGHLIGHTS

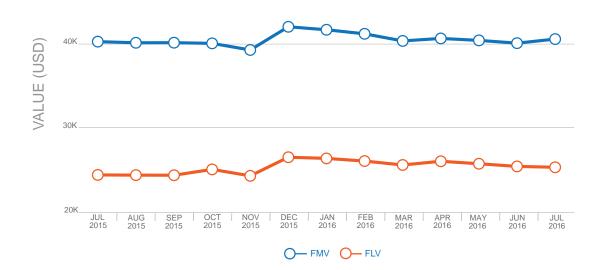
- Even though average age increased for both the resale and auction channels, average usage dropped from June.
- As auction usage decreased from last July and resale increased, the majority of subtypes showed higher average usage on the resale channel than auction.
- The Conventional Sleeper Tractors and Medium Crew Cab & Chassis trucks were the only two subtypes with drops in FMV during July, but due to their combined market activity they prevented large increases for the overall channel prices.

### MARKET FORECAST

Both 2013 and 2014 showed decreases in market activity between July and August, but there was a large increase in August 2015, so given past year changes August should show a leveling out in market activity before moving into the fall months.

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	VOLUME CHANGE	AVERAGE AGE	USAGE	
MONTH OVER MONTH	▼ 28.3% ▼46.5% RESALE AUCTION	▲ 22.5% ▲ 2.6% RESALE AUCTION	▼ 9.4% ▼ 14.5% RESALE AUCTION	
YEAR OVER YEAR	▲ 69.4% ▼7.9%  RESALE AUCTION	▼ 29.6% ▼ 16.5%  RESALE AUCTION	▲ 15.6% ▼ 16.7%  RESALE AUCTION	

COMMERCIAL TRUCK

TYPE TRENDS **NEXT** 



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# **APPENDIX**

### INTRODUCTION

The EquipmentWatch Market Report is a compilation of a wide array of EquipmentWatch's data, designed to bring you an in-depth look at used equipment markets over the last month.

This Appendix is designed to answer your questions regarding this report. Here we define and illustrate how we think about values, market activity, age, Usage, and regional influence for the most common types of equipment seen on used markets across North America.

### **OUR DATA**

### **Selection Criteria for OEMs and Subtypes**

EquipmentWatch tracks Resale and Auction prices and activity for over 15,000 models across 389 manufacturers throughout North America. With over \$800 billion in collected equipment transactions, EquipmentWatch is your primary source for intelligence regarding used equipment markets.

The data in this report is divided into four distinct equipment markets: Construction, Lift/Access, Agriculture, and Commercial Trucks. For each market, we selected the top equipment types based on their market share from January 2015 to December 2015. They're listed in the table to the right.

Construction	Lift/Access	Agriculture	Commercial Trucks
4-Wd Articulated Wheel Loaders	Electric Self Propelled Scissor Lifts	Track Tractors	Heavy Duty: Conventional - Sleeper (Heavy Tractor)
Articulated Frame Graders	I.C. Pneumatic Tire Lift Trucks	Balers	Heavy Duty: Conventional - Day Cab (Heavy Tractor)
Articulated Rear Dumps	I.C. Self Propelled Telescopic Boom Aerial Lifts	Combines	Heavy Duty: Conventional - Day Cab (Heavy Cab Chassis)
Compact Track Loaders	I.C. Self-Propelled Articulating Boom Aerial Lifts	Corn Headers	Medium Duty: Conventional - Day Cab (Cab Chassis)
Crawler Mounted Compact Excavators	Telescoping Boom Rough Terrain Lift Trucks	Wheel Tractors	Medium Duty: Cabover - Day Cab (Cab Chassis)
Crawler Mounted Hydraulic Excavators	I.C. Cushion Tire Lift Trucks	Planters	Medium Duty: Crew (Cab Chassis)
Large Generator Sets			
Single Drum Vibratory Compactors			
Skid Steer Loaders			
Standard Crawler Dozers			
Tandem Vibratory Compactors			
Tractor-Loader- Backhoes			



# **APPENDIX**

We have also limited the scope of the EquipmentWatch Market Report to the following brands in each market:

Construction	Lift/Access	Agriculture	Commercial Truck
Bobcat	Caterpillar	Deere	International
Case	Genie	Case IH	Freightliner
Caterpillar	JLG	New Holland	Volvo
Deere	Sky Trak	Massey Ferguson	Kenworth
Komatsu	Skyjack	Challenger	Peterbilt
Volvo	Hyster	Kubota	Hino

### THE EQUIPMENTWATCH PRICE STABILITY INDEX™

# Academic justification

The EquipmentWatch Price Stability Index™ is a new metric for understanding used equipment markets for used heavy equipment. It measures resale price capacity based on the movement of market prices and market activity among the equipment types and manufacturers presented above.

# **Methodology and Calculation**

The EquipmentWatch Price Stability Index™ is based on the Laspeyres Index, one of the many economic indices used to monitor changes in prices over time. To calculate it, we use the framework provided by the Laspeyres Index:

$$P_{L} = \frac{\sum (p_{c,t_{n}}) * (q_{c,t_{0}})}{\sum (p_{c,t_{0}}) * (q_{c,t_{0}})}$$

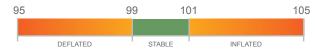
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This equation sums the product of prices in the current month and quantity of the previous month and divides that by the product of prices in the previous month and quantity in the previous month.

We have modified this method to track the change in prices for each equipment type from month-to-month against the change in market activity for each equipment type month to month.

# Interpretation

The EquipmentWatch Price Stability Index<sup>™</sup> can be thought of as an index of price capacity. In more formal terms, it measures how efficiently used markets adjust to equilibrium given previous adjustments in prices and market activity. There are three primary ranges in the EquipmentWatch Price Stability Index<sup>™</sup>, as noted below:



When the EquipmentWatch Price Stability Index™ is higher than 101, that indicates that equipment is valued at a higher level than expected, given last month's prices and amount of market activity. We categorize this range as "Inflated".

When the EquipmentWatch Price Stability Index<sup>™</sup> is lower than 99, it indicates that equipment is valued at a lower level than expected, given last month's prices and market activity. We categorize this range as "Deflated".

When the EquipmentWatch Price Stability Index™ is between 99 and 101, it is typically demonstrating that equipment prices and market activity are moving appropriately towards market equilibrium. We categorize this range as "Stable".

It is important to note that a higher rating on EquipmentWatch Price Stability Index™ does not necessarily imply that used markets are better than a lower rating. For some, price inflation is desirable; for others, it is undesirable. However, all parties involved in buying or selling equipment on used markets can use the EquipmentWatch Price Stability Index™ to easily understand how prices in a particular region or equipment channel are moving relative to the previous month.



# **APPENDIX**

### SECTION GUIDES

### The Introduction

In the top left, we exhibit a tally of the estimated market value of market activity last month in the Resale channel and Auction channel.

In the main table, we display market activity and assets for each market, along with month over month and year over year changes in Fair Market Value and Forced Liquidation Value.

#### **Overall Trends**

This page is an overview of each channel. The graph highlights an overall FMV and FLV trend line for all of the equipment types and manufacturers in the report for the last 13 months. It also displays very general month over month and year over year trends across the entire channel.

# **Type Trends**

This page subsets the analysis of the previous page across each of the key equipment types in this report.

#### **Brand Trends**

This page shows some of the key month over month trends for the manufacturers represented in this report, including equipment values, Usage, market activity, and age trends.

## **Regional Trends**

This page shows the EquipmentWatch Price Stability Index™ for each of the 14 regions, using the same calculation method as the EquipmentWatch Price Stability Index<sup>™</sup> shown on the first page of the report. The states and provinces which make up each region are listed in the table to the right.

Note that due to regional disparity in market activity, some regions with very little or no market activity in the last month are excluded from the analysis. These are marked with "NA" on the map.

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Country	Region	State/Province
USA	А	CT, DE, MA, ME, NH, NJ, MY, RI, VT
USA	В	MD, P, VA, WV
USA	С	AL, FL, GA, KY, MS, NC, SC, TN
USA	D	IL, IN, MI, OH, WI
USA	Е	IA, KS, MO, NE
USA	F	AR, LA, OK, TX
USA	G	AZ, CO, NM, UT
USA	Н	ID, MN, MT, ND, SD, WY
USA	I	CA, NV, OR, WA
USA	J	HI
USA	K	AK
CAN	L	NT, NU, YT
CAN	M	AB, BC, MB, SK
CAN	N	NB, NL, NS, ON, PE, QC

# **FAQS**

# Why did you limit the equipment types in this report?

EquipmentWatch tracks market activity for over a hundred unique equipment types each month. For each channel, we selected the most popular equipment types, based on the frequency of appearance on the resale and auction channels.

# Why are there only 24 manufacturers in this report?

EquipmentWatch tracks market activity for almost 400 unique manufacturers each month. For each market, we selected the top 6 manufacturers. As the markets shift and prominence on used markets changes, we will adjust our selections accordingly.



# **APPENDIX**

### Why don't you use OLV?

Orderly Liquidation Value, or OLV, is a third major category of values. These are the values of an asset given a single seller and multiple potential buyers given a long or indefinite timeframe in which to dispose. Given the lack of clarity around the time dimension, we have chosen not to make assumptions about the orderly liquidation process. However, OLV is typically between FLV and FMV in gross value.

### IMPORTANT DEFINITIONS

**Fair Market Value (FMV)**: the value of an asset sold to a single buyer under no compulsion.

**Forced Liquidation Value (FLV)**: the value of an asset sold at a properly advertised and conducted auction in which the seller is under compulsion to sell on an as-is, where-is basis as of a specific date.

**Market Activity**: A measure of the total number of observations collected by EquipmentWatch, including publicly-available dealer listings, auction results, and final sales data.

**Meter Reads**: A measure of Usage that varies by equipment market. For most equipment types, this represents engine hours at the time of observation.

Age: the age of an asset, based on model year and the year of observation.

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# **ABOUT EQUIPMENTWATCH**

EquipmentWatch is the trusted source for heavy equipment data and intelligence. EquipmentWatch produces the leading database information products for the construction equipment industry and is the world leader in heavy construction research and serves more than 15,000 professional, high-volume users of construction and lift-truck data. Our online and print products are valuable tools in decisions surrounding the purchase, valuation, operation, and disposal of equipment.

For nearly 50 years, EquipmentWatch has served contractors, equipment manufacturers, dealers, rental companies, lenders and insurers, and government agencies involved in heavy civil construction.

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