

SUMMARY

CONSTRUCTION

LIFT/ACCESS

**AGRICULTURE** 

COMMERCIAL TRUCK

# **MARKET DATA: OCTOBER 2016**

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

\$30,499,781,963

**RESALE** 

\$30,295,817,298

391,828 Assets

**AUCTION** 

\$203,964,665

6,589 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 TO **MARKET METRICS V** 0.4% **7** 2.6% **T** 1.1% **V** 0.8% CONSTRUCTION **VALUES VALUES** 98.75 **FMV** FLV FMV FLV 95 105 \$16,421,638,338 183,626 **V** 43.4% **1.0% 7** 37.7% VOLUME 66.5% **VOLUME** MARKET VALUE **ASSETS** STABLE DEFLATED INFLATED RESALE RESALE **AUCTION AUCTION T** 1.9% LIFT/ACCESS **T** 1.7% **7** 2.6% **T** 1.9% 98.60 **VALUES VALUES** FMV FIV FMV FIV 95 105 38,951 \$1,240,557,550 30.6% **7** 27.6% ▼ 38.1% **T** 10.4% VOLUME MARKET VALUE ASSETS **VOLUME** RESALE RESALE **AUCTION AUCTION** DEFLATED STABLE INFLATED 97.74 **7** 9.8% **V** 10.1% **7** 3.4% ▼ 3.3% **AGRICULTURE** VALUES. VALUES. 95 105 FMV FLV FMV FLV \$10.338.621.178 121.562 **47.8% 7** 26.0% **7** 29.1% **T** 12.3% MARKET VALUE ASSETS VOLUME VOLUME DEFLATED STABLE INFLATED RESALE **AUCTION RESALE AUCTION** 100 **V** 6.4% **V** 1.8% **VALUES v** 0.1% **V** 0.6% COMMERCIAL TRUCK **VALUES** 95 105 FMV FLV FMV FLV \$2,498,964,897 54,278 88.2% **V** 68.6% VOLUME **▲** 5.6% **V** 44.9% MARKET VALUE ASSETS DEFLATED STABLE INFLATED **VOLUME** RESALE **AUCTION** RESALE **AUCTION**

**NOVEMBER 22. 2016 VERSION: FREE | UPDATED MONTHLY** 



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TYPE TRENDS

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### **MARKET PERFORMANCE**

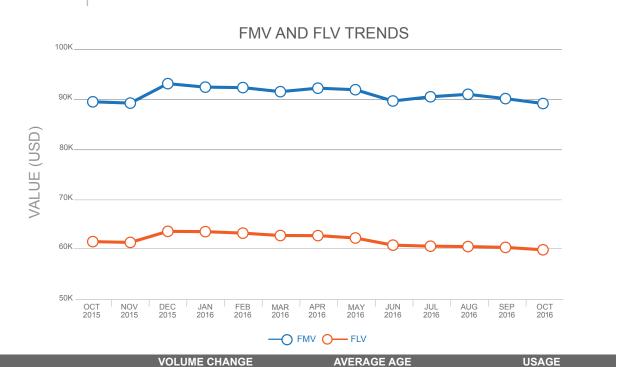
The markets for used construction equipment in October did not differ much from years past, with a continued decline in FMV and a marginal increase in market activity on the resale channel. The 1.0% increase in resale market activity was not enough to offset the -0.4% average decrease in fair market values, pushing the Price Stability Index down slightly into Deflated territory.

### MARKET HIGHLIGHTS

- · Equipment available for auction and on the resale channel continued to push farther from the other, as the gap between average age and average usage widened further in October.
- · Average FMV and FLV continued to lag behind October 2015 averages by a mild difference, 1.1% on the resale channel and 0.8% on the auction channel
- Although the shift in average age on the auction channel offset a similar decrease in September, average usage for equipment at auction has increased two months in a row

### MARKET FORECAST

In 2013 and 2014, auction market activity declined from September to October, a trend continued in October 2016. If historical trends hold, we anticipate another sharp drop in market activity in November followed by a high volume month in December.



**V** 0.1% **2.4% 1.0% 7** 37.7% **T** 1.7% **▲** 6.9% MONTH OVER MONTH RESALE **RESALE** AUCTION RESALE **AUCTION ▲** 66.5% **V** 43.4% **7** 5.8% **2.1% V** 6.5% **▲** 7.9% YEAR OVER YEAR RESALE **AUCTION RESALE AUCTION** RESALE

**AUCTION** 

AUCTION

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### **MARKET PERFORMANCE**

As expected, lift values dropped in October, with an overall decrease of 1.9%. Both resale and auction channels had larger decreases in volume in October.

### **MARKET HIGHLIGHTS**

- Resale and auction volume both decreased for the first time since we released the Market Report, which is expected due to the seasonality.
- Although resale volume dropped about 10% in October, it was still 30% high than last October. This shows a good trend in the used equipment markets.
- For the second time since the release of the Market Report, the overall lift Price Stability Index has deflated due to a decline in values and volume during October.

### MARKET FORECAST

Expect to see FMV and FLV continue to drop in November as weather becomes colder. Volume should also continue to decrease as it did in October.









	VOLUME CHANGE		AVERAGE AGE		USAGE	
MONTH OVER MONTH	▼ 10.4% RESALE	▼ 38.1% AUCTION	▼ 1.8% RESALE	▼ 1.5% AUCTION	▼ 2.1% RESALE	▼ 7.1% AUCTION
YEAR OVER YEAR	<b>▲ 30.6%</b> RESALE	▼ 27.6% AUCTION	▲ 0.1% RESALE	▼ 7.4% AUCTION	▲ 18.8% RESALE	▲ 2.4% AUCTION

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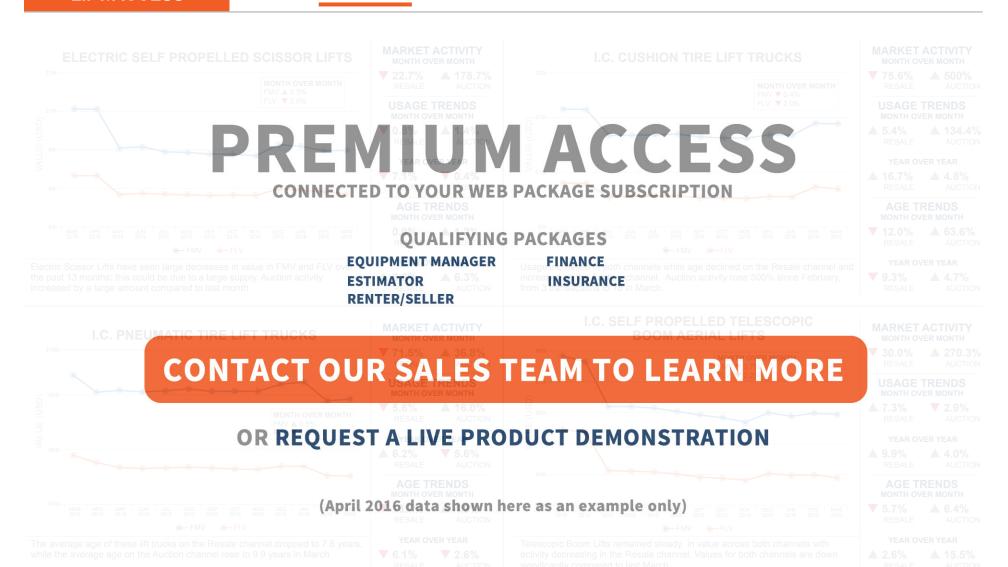
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### MARKET PERFORMANCE

FMV and FLV continue to drop as volume on both channels was down from September. The FMV and FLV yea rover year decreases were due to the change in equipment on the market as average age and usage for both channels increased well above 2015.

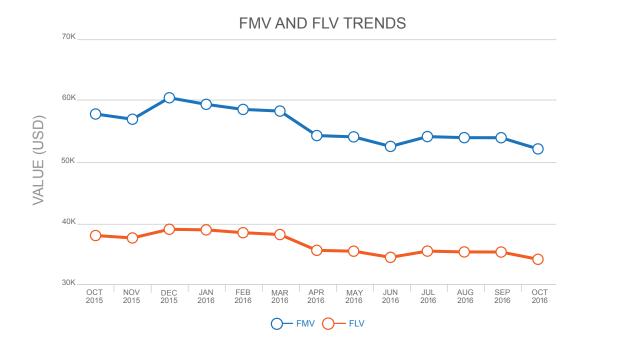
### MARKET HIGHLIGHTS

- Average age on the auction channel was down 10.4% for October, but 13.2% above the same time last year with increases in usage both month over month and vear over year.
- · Volume for both channels was down in October, but the resale channel in comparison to 2015 was up almost 50% adding older and higher utilized equipment to the market.
- Both FMV and FLV are at their lowest for the past 12 months leaving room for increases in the near future.

### MARKET FORECAST

Last November showed decreases in both FMV and FLV. but increases for both during December so anticipate increases in the coming months.

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	VOLUME CHANGE		AVERAGE AGE		USAGE	
MONTH OVER MONTH	<b>▼</b> 29.1%	<b>T</b> 12.3%	▲ 0.1%	<b>T</b> 10.4%	<b>2.6%</b>	<b>▲ 27.8%</b>
MONTH OVER MONTH	RESALE	AUCTION	RESALE	AUCTION	RESALE	AUCTION
YEAR OVER YEAR	<b>▲</b> 47.8%	<b>7</b> 26.0%	<b>▲</b> 4.5%	<b>▲ 13.2</b> %	▲ 85.5%	<b>▲ 21.6</b> %
	RESALE	AUCTION	RESALE	AUCTION	RESALE	AUCTION

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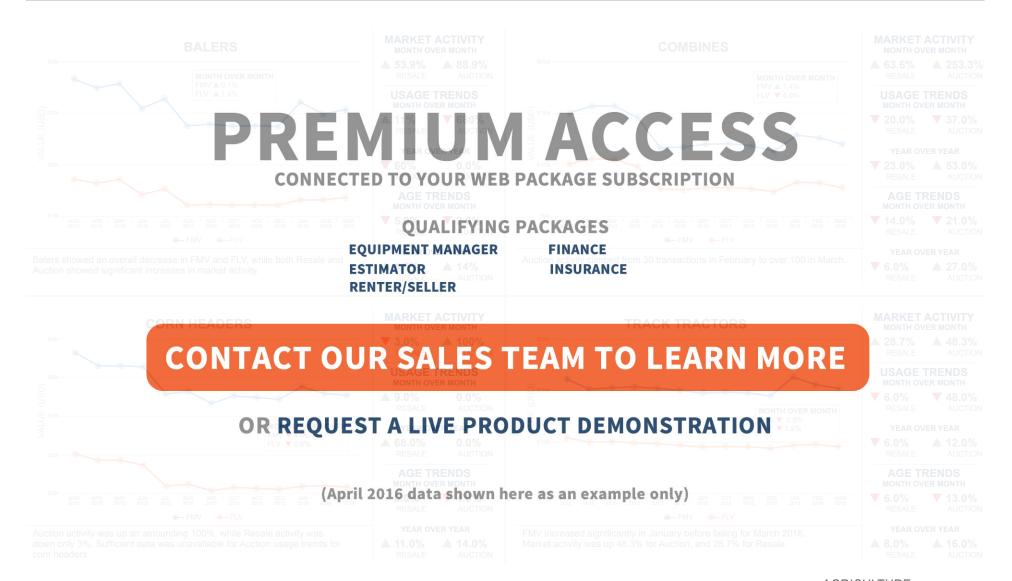
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### MARKET PERFORMANCE

Historically, October volume has shown variability depending on the previous months such as in 2014 and 2015 there were large increases right before October but in 2013 there was not thus causing volume to increase instead of decrease. This year, volume is up significantly for the resale channel especially over this time last year. Auction however showed drops which are expected to continue into November as the last four years have shown us tends to occur during that month.

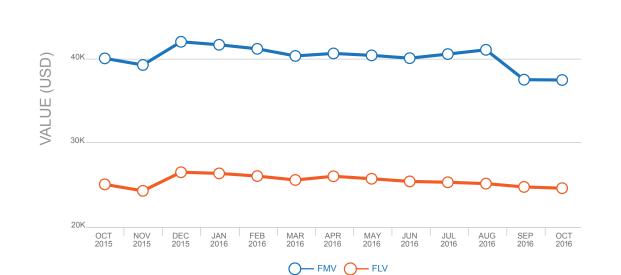
### **MARKET HIGHLIGHTS**

- · With the volume of trucks available on the market, sales have slowed down thus causing FMV and FLV to continue dropping.
- Age on the auction channel decreased for the month even though it was well above last year's average
- The resale channel has been hurting more than auction in terms of value changes within the past few months showing a 6.4% drop in FMV from October 2015.

### MARKET FORECAST

Expect auction volume to decrease in November from the sales in October as it has done in the past years.

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**FMV AND FLV TRENDS** 

	VOLUME CHANGE		AVERAGE AGE		USAGE	
MONTH OVER MONTH	▲ 5.6%	<b>44.9</b> %	<b>▲ 3.4%</b>	<b>24.5</b> %	<b>▲</b> 0.7%	<b>▲</b> 3.3%
MONTH OVER MONTH	RESALE	AUCTION	RESALE	AUCTION	RESALE	AUCTION
YEAR OVER YEAR	▲ 88.2%	▼ 68.6%	▲ 0.9%	▲ 15.1%	▲ 25.5	<b>▼</b> 22.2%
	RESALE	AUCTION	RESALE	AUCTION	RESALE	AUCTION

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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:

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

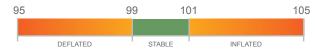
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This equation sums the product of prices in the current month and quantity of the previous month and divides that by the product of prices in the previous month and quantity in the previous month.

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	Α	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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