



SUMMARY

CONSTRUCTION

LIFT/ACCESS

AGRICULTURE

COMMERCIAL TRUCK

MARKET DATA: SEPTEMBER 2018

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

\$29,748,796,068

RESALE
\$29,499,022,900

384,146 Assets

AUCTION
\$249,773,168

12,091 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?

MARKET SUMMARY

For more detailed articles, visit [EquipmentWatch Intelligence](#) online.

MARKET ACTIVITY	YEAR OVER YEAR MARKET METRICS		MONTH OVER MONTH MARKET METRICS		PRICE STABILITY INDEX™
	VALUES	FLV	VALUES	FLV	
CONSTRUCTION \$17,398,087,400 MARKET VALUE 191,253 ASSETS	▲ 1.0% FMV ▼ 10.3% RESALE	▲ 4.8% FLV ▼ 1.8% AUCTION	▲ 0.7% FMV ▲ 2.5% RESALE	▲ 0.8% FLV ▲ 107.4% AUCTION	100.29 (95 to 105 scale) DEFLATED STABLE INFLATED
LIFT/ACCESS \$1,245,642,383 MARKET VALUE 43,542 ASSETS	▼ 1.0% FMV ▼ 16.0% RESALE	▲ 9.6% FLV ▲ 29.5% AUCTION	0.0% FMV ▼ 1.6% RESALE	▼ 0.1% FLV ▲ 105.8% AUCTION	99.85 (95 to 105 scale) DEFLATED STABLE INFLATED
AGRICULTURE \$8,407,096,333 MARKET VALUE 106,833 ASSETS	▲ 1.2% FMV ▲ 22.7% RESALE	▲ 4.3% FLV ▼ 1.3% AUCTION	▼ 0.8% FMV ▲ 1.6% RESALE	▼ 0.6% FLV ▲ 9.8% AUCTION	99.10 (95 to 105 scale) DEFLATED STABLE INFLATED
COMMERCIAL TRUCK \$2,697,969,952 MARKET VALUE 54,609 ASSETS	▼ 13.3% FMV ▼ 19.5% RESALE	▼ 6.9% FLV ▲ 57.7% AUCTION	▼ 1.9% FMV ▼ 11.8% RESALE	▼ 1.9% FLV ▲ 180.5% AUCTION	98.06 (95 to 105 scale) DEFLATED STABLE INFLATED



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CONSTRUCTION

OVERALL

TYPE TRENDS

BRAND TRENDS

REGIONAL TRENDS

How is the Price Stability INDEX calculated?

MARKET ACTIVITY

\$17,398,087,400
MARKET VALUE

191,253
ASSETS

YEAR OVER YEAR

MARKET METRICS

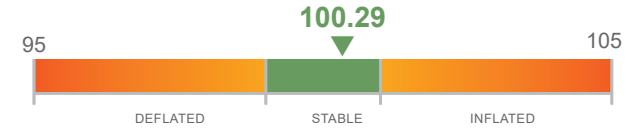
VALUES **▲ 1.0%** FMV **▲ 4.8%** FLV
VOLUME **▼ 10.3%** RE SALE **▼ 1.8%** AUCTION

MONTH OVER MONTH

MARKET METRICS

VALUES **▲ 0.7%** FMV **▲ 0.8%** FLV
VOLUME **▲ 2.5%** RE SALE **▲ 107.4%** AUCTION

PRICE STABILITY INDEX™



MARKET PERFORMANCE

Resale and auction values both increased slightly in September when compared to August. Both channels have seen year-over-year increases of at least 1%.

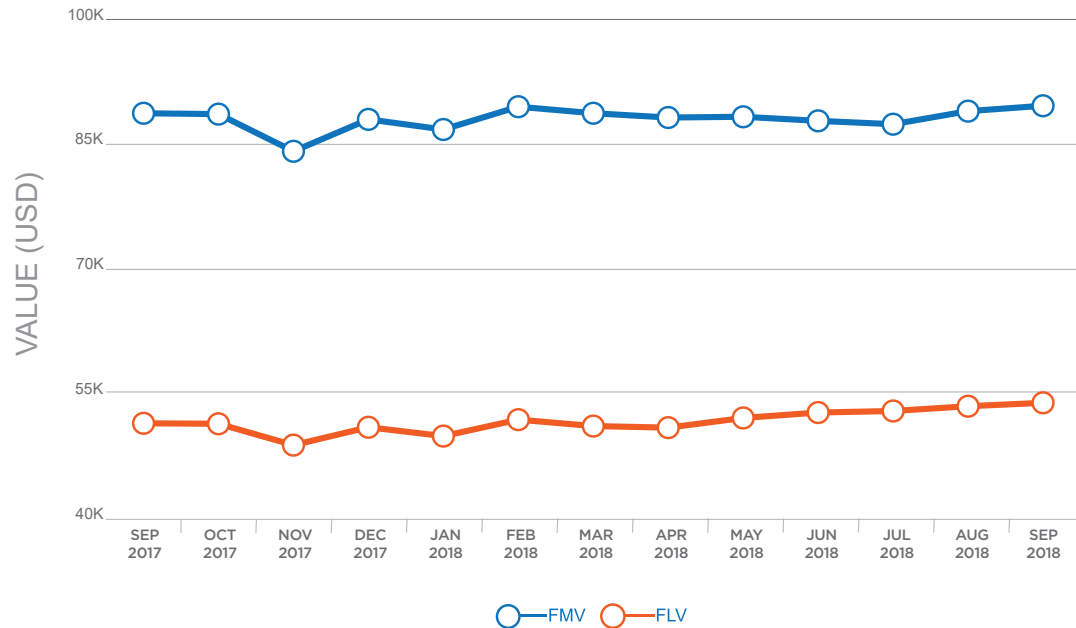
MARKET HIGHLIGHTS

- Both resale and auction volume increased from August to September, with auction seeing an over 100% month-over-month rise and resale at 2.5%.
- All metrics for overall average age and average utilization were negative in September when looking at month-over-month and year-over-year changes.
- The overall market value increased by almost 4% from August to September, while the overall number of assets increased by 4.6%.

MARKET FORECAST

Values should decrease slightly for October across both channels, while market activity should also decline.

FMV AND FLV TRENDS



	VOLUME CHANGE		AVERAGE AGE		USAGE	
MONTH OVER MONTH	▲ 2.5% RE SALE	▲ 107.4% AUCTION	▼ 2.3% RE SALE	▼ 8.5% AUCTION	▼ 4.7% RE SALE	▼ 5.6% AUCTION
YEAR OVER YEAR	▼ 10.3% RE SALE	▼ 1.8% AUCTION	▼ 1.1% RE SALE	▼ 0.2% AUCTION	▼ 10.8% RE SALE	▼ 0.3% AUCTION



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[How is the Price Stability INDEX calculated?](#)

LIFT/ACCESS

OVERALL TYPE TRENDS BRAND TRENDS REGIONAL TRENDS

MARKET ACTIVITY

\$1,245,642,383
MARKET VALUE

43,542
ASSETS

YEAR OVER YEAR

MARKET METRICS

VALUES ▼ **1.0%** FMV ▲ **9.6%** FLV

VOLUME ▼ **16.0%** RESALE ▲ **29.5%** AUCTION

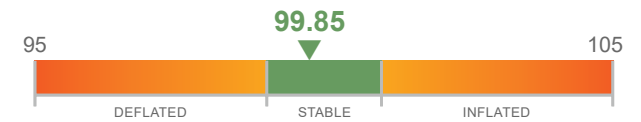
MONTH OVER MONTH

MARKET METRICS

VALUES 0.0% FMV ▼ 0.1% FLV

VOLUME ▼ **1.6%** RESALE ▲ **105.8%** AUCTION

PRICE STABILITY INDEX™



MARKET PERFORMANCE

Volume in both resale and auction increased significantly, while FMVs and FLVs in lift remained around the same in September, relative to August. The Price Stability Index™, at 99.85, returned to stability after a month of deflated market performance.

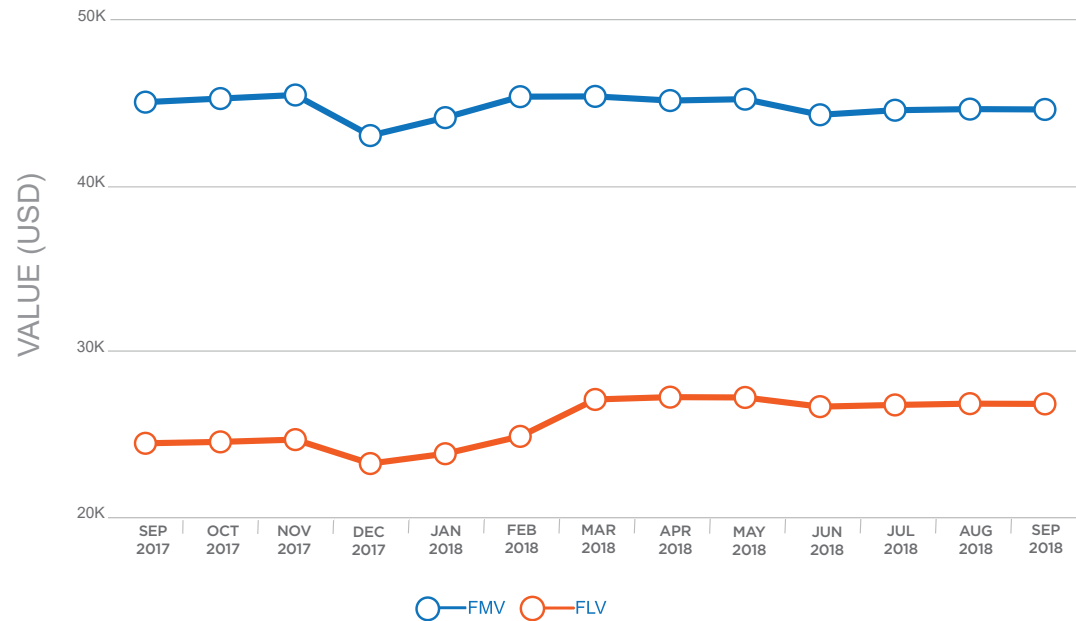
MARKET HIGHLIGHTS

- Auction volume saw a huge jump once again, increasing by 105.8% between August and September. Given that auction volume also jumped 69.2% from July to August, and that volume increased 29.5% compared to the previous September, it appears that auction is becoming a more popular channel for attempting to sell lift assets.
- In contrast to auction, resale is not seeing the same trends in volume. Resale volume in lift decreased by 1.6% between August and September and decreased by 16% compared to September 2017.
- For auction, average age increased by 9.6%, but average utilization decreased by 22.4% from August to September. In resale, however, age and utilization held steady between August and September.

MARKET FORECAST

In October, we are expecting to see values decrease in both channels. Volume will increase in resale and decrease slightly in auction due to higher than normal auction volume in September.

FMV AND FLV TRENDS



	VOLUME CHANGE		AVERAGE AGE		USAGE	
MONTH OVER MONTH	▼ 1.6% RESALE	▲ 105.8% AUCTION	▼ 0.3% RESALE	▲ 9.6% AUCTION	▼ 0.3% RESALE	▼ 22.4% AUCTION
YEAR OVER YEAR	▼ 16.0% RESALE	▲ 29.5% AUCTION	▼ 0.5% RESALE	▼ 0.8% AUCTION	▼ 3.4% RESALE	▼ 12.8% AUCTION



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AGRICULTURE

OVERALL TYPE TRENDS BRAND TRENDS REGIONAL TRENDS

MARKET ACTIVITY

YEAR OVER YEAR

MARKET METRICS

\$8,407,096,333
MARKET VALUE

106,833
ASSETS

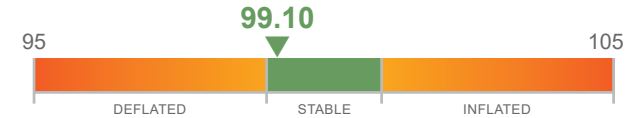
VALUES **▲ 1.2%** FMV **▲ 4.3%** FLV
VOLUME **▲ 22.7%** RESALE **▼ 1.3%** AUCTION

MONTH OVER MONTH

MARKET METRICS

VALUES **▼ 0.8%** FMV **▼ 0.6%** FLV
VOLUME **▲ 1.6%** RESALE **▲ 9.8%** AUCTION

PRICE STABILITY INDEX™



MARKET PERFORMANCE

This month values and usage decreased, while volume and age had a net increase. It is important to note that this channel is not very volatile pertaining to values, however volume and usage tend to have moderate to high volatility depending on seasonality.

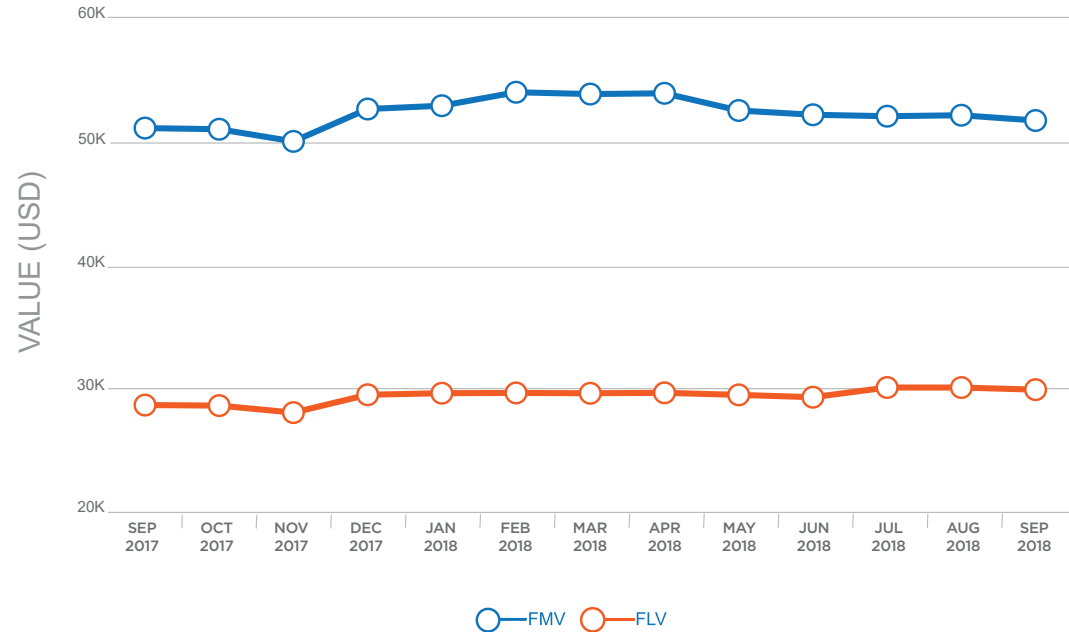
MARKET HIGHLIGHTS

- Average age has shown an increase on the resale channel and a decrease on the auction channel. Monthly changes are higher than yearly changes.
- Volume change has an impact on utilization. With more models being introduced on both channels it is apparent that models being introduced have lower utilization.
- Values have marginally decreased for the month. FMV have decreased by -0.8% and FLV by 0.6%. Although monthly values have decreased values relative to last year have increased.

MARKET FORECAST

In the fourth quarter be cognizant that seasonality plays a major part with this equipment so going into fall months be on the lookout for volume decreases, from consumers buying or keeping equipment because it is as off season for sales.

FMV AND FLV TRENDS



	VOLUME CHANGE		AVERAGE AGE		USAGE	
MONTH OVER MONTH	▲ 1.6% RESALE	▲ 9.8% AUCTION	▲ 3.3% RESALE	▼ 6.1% AUCTION	▼ 1.4% RESALE	▼ 8.7% AUCTION
YEAR OVER YEAR	▲ 22.7% RESALE	▼ 1.3% AUCTION	▲ 2.6% RESALE	▼ 1.2% AUCTION	▲ 0.8% RESALE	▲ 45.2% AUCTION



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REGIONAL TRENDS

How is the Price Stability INDEX calculated?

MARKET ACTIVITY	YEAR OVER YEAR MARKET METRICS		MONTH OVER MONTH MARKET METRICS		PRICE STABILITY INDEX™
	VALUES	VALUES	VALUES	VALUES	
\$2,697,969,952 MARKET VALUE	▼ 13.3% FMV	▼ 6.9% FLV	▼ 1.9% FMV	▼ 1.9% FLV	<div style="text-align: center;"> 98.06 </div>
54,609 ASSETS	▼ 19.5% RESALE	▲ 57.7% AUCTION	▼ 11.8% RESALE	▲ 180.5% AUCTION	

MARKET PERFORMANCE

As values dropped slightly last month, the activity on the resale channel was down as well. The auction channel continued to pick up with newer vehicles than the previous month. Meanwhile, the FMV drop with average age and usage increases indicated the vehicles remaining on the channel for sale were older with much higher usage than seen the previous month driving prices down.

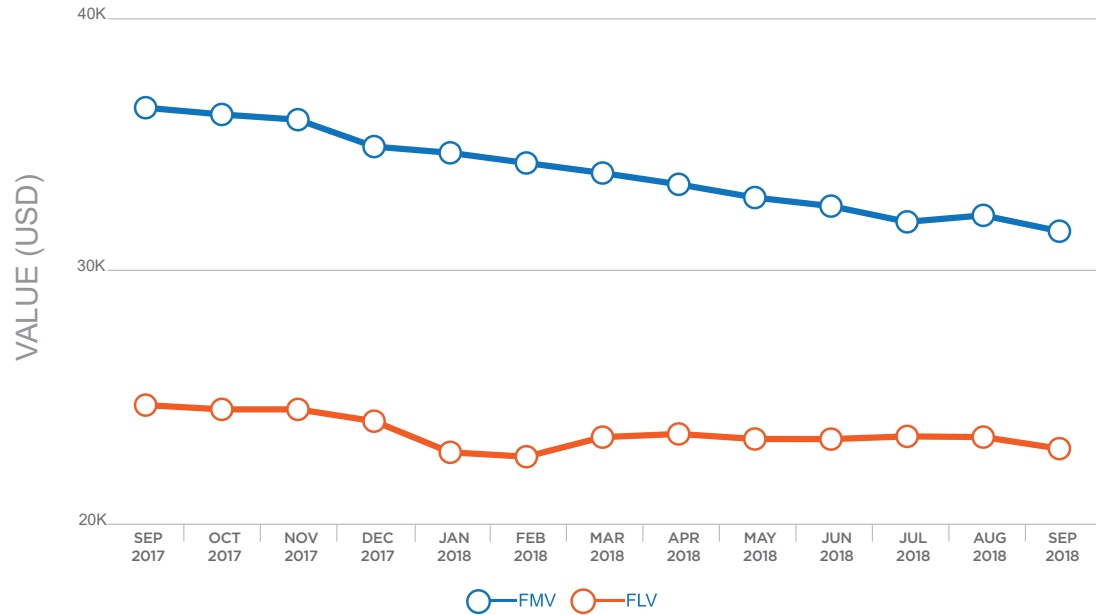
MARKET HIGHLIGHTS

- Resale activity slowed down last month while the auction channel had a 180.5% increase month over month which brought activity 57.7% above where it was last year.
- Average usage on the resale channel increased 27.6% between months, but only 0.5% year over year despite the 11.9% increase in average age indicating even though the trucks are older than the past year, they are still averaging the same mileage.
- The auction channel average usage and age did not have the same changes as resale last month with similar trucks being sold as the previous month and year despite the increase in sales.

MARKET FORECAST

After the drop in FMV last month, expect the month over month change going into October to remain close to stagnant before drops begin in December and January.

FMV AND FLV TRENDS



	VOLUME CHANGE		AVERAGE AGE		USAGE	
MONTH OVER MONTH	▼ 11.8% RESALE	▲ 180.5% AUCTION	▲ 3.5% RESALE	▼ 3.8% AUCTION	▲ 27.6% RESALE	▲ 0.1% AUCTION
YEAR OVER YEAR	▼ 19.5% RESALE	▲ 57.7% AUCTION	▲ 11.9% RESALE	▲ 0.6% AUCTION	▲ 0.5% RESALE	▲ 4.7% AUCTION



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:

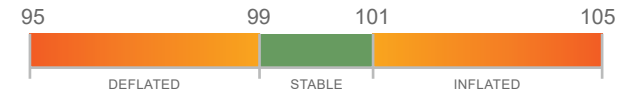
$$P_L = \frac{\sum(p_{c,t_n}) * (q_{c,t_0})}{\sum(p_{c,t_0}) * (q_{c,t_0})}$$

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™ 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™, 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™ 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™ 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.

Country	Region	State/Province
USA	A	CT, DE, MA, ME, NH, NJ, NY, RI, VT
USA	B	MD, P, VA, WV
USA	C	AL, FL, GA, KY, MS, NC, SC, TN
USA	D	IL, IN, MI, OH, WI
USA	E	IA, KS, MO, NE
USA	F	AR, LA, OK, TX
USA	G	AZ, CO, NM, UT
USA	H	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.

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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