



Ritchie Bros. Used Equipment Market Trends Summary

(North America Edition)

Table of contents

Summary		1
Main Featu	re: Multi-terrain loaders sold in the U.S.	2, 3, 4, 5
Industry Hi	ghlights:	
•	Mid-to-large construction equipment – U.S.	6, 7, 8, 9
•	Vocational trucks – U.S.	10, 11, 12, 13
Ritchie Bro	s. Mix Adjusted Used Price Indices	14
•	Heavy Equipment & Truck Tractors – U.S.	15
•	Vocational Trucks and Lifting & Material Handling – U.S.	16
•	Heavy Equipment & Truck Tractors - Canada	17
•	Vocational Trucks and Lifting & Material Handling - Canada	18
Ritchie Bro	s. Snapshot of Demand – Top 6 Asset Categories	19
Seller / buy	er maps for the 3 months ending December 31, 2020	20
About Ritch	nie Bros	21

About this Research

This research includes summary information taken from Ritchie Bros. Market Trends, a premium data product that allows users like you to access 10 years of Ritchie Bros. transaction level data providing:

- ► Real time insights See results from our most recent auctions
- ► Equipment flows Draw insights into asset flows across state and national boundaries
- ► Make-model details Determine residual pricing of assets at make-model level of detail for auction
- ► Like-for-like comparisons Compare residual value for like-for-like assets

Subscribe to Ritchie Bros. Market Trends and access this data and more in-depth detail by country, date range, asset category, brand, model, as well as median asset age, usage and other key data points.

All data and charts are from Ritchie Bros. Market Trends. To learn more about Market Trends, visit **rbassetsolutions.com**.

Summary

In our final Ritchie Bros. Used Equipment Market Trends summary report of 2020, we discuss insights and trends related to multi-terrain loaders, the small and versatile machine used in nearly every industry.

This past year, Ritchie Bros. has experienced record-high participation in its auctions, while OEM production has slowed, resulting in solid to strong pricing for most equipment categories. During the first three quarters (Jan - Sep) of 2020 we sold more than 2,750 multi-terrain loaders for US\$64 million, which is up 35% year over year.

In this month's report, we also showcase data highlights for key mid-to-large construction equipment categories and vocational trucks.

All data and charts are from Ritchie Bros. Market Trends. To learn more about Market Trends, visit **rbassetsolutions.com**.

Multi-terrain loaders unit sales at Ritchie Bros.





Doug Olive, SVP, Pricing

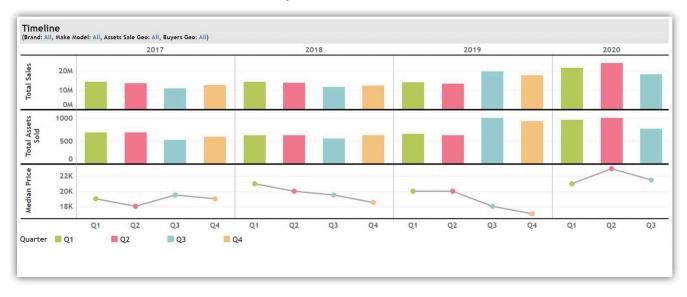
Used across industry, the versatile multi-terrain loader was in high demand in 2020, with a record number of units selling through our numerous sales channels. There are a number of factors that have contributed to this record-breaking year for multi-terrain loader sales, including an uptick in residential construction, rental company fleet renewals, landscaping projects, seasonal work, and more. In the past five years, Ritchie Bros. has sold 14,000 multi-terrain loaders for US\$313 million!

Main Feature: Multi-terrain loaders - U.S.

The perfect tool for a small project. The multi-terrain loader (MTL) is a versatile machine used across nearly every industry, from construction to agriculture. Its size and ease of maneuverability make the multi-terrain loader ideal for jobs where a bigger machine can't fit, and its rubber tracks allow it to operate on sand, snow, mud, and turf.

In the United States since 2015, Ritchie Bros. has sold more than 14,000 multi-terrain loaders for US\$313 million, with 2020 being a particularly strong year for MTL sales. In fact, in the first three quarters of 2020 (Jan – Sep) Ritchie Bros. has already sold 2,750+ multi-terrain loaders for US\$64 million, which is just shy of total MTL sales in 2019.

Multi-terrain loaders sold in the U.S.: 2017 - Q3 2020

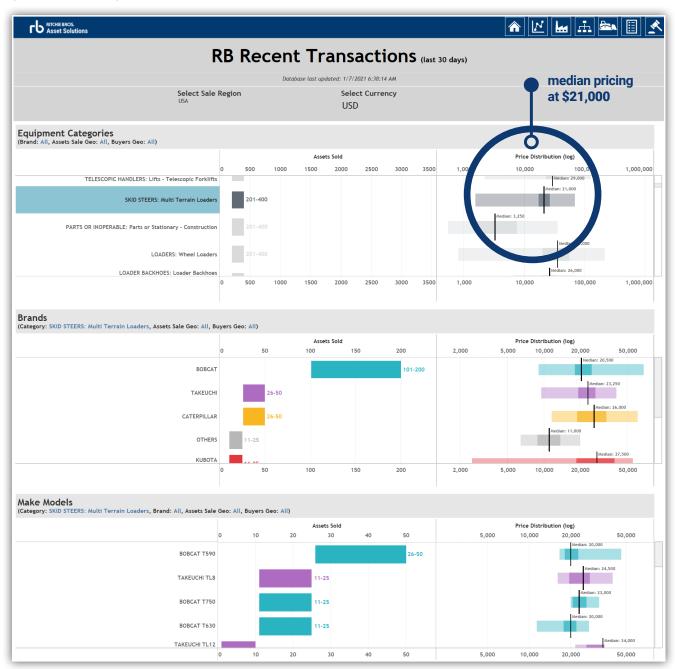


Main Feature: Multi-terrain loaders - U.S. Continued

Pricing has also reached record highs for multi-terrain loaders in 2020. In Q2 2020 (Apr – Jun) MTL median pricing reached \$23,000, which is up 8.7% from the previous record.

However, in Q4, median pricing declined slightly to \$21,000 as shown through RB NOW! a view in Ritchie Bros. Market Trends which highlights transactions over the past 30 days.

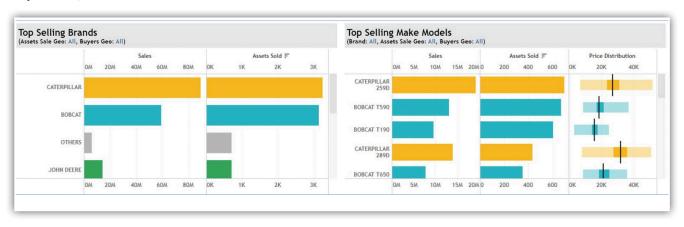
RB Now! shows recent RB transactions of multi-terrain loaders sold in the U.S. over the last 30 days (as of Jan 7, 2021)



Main Feature: Multi-terrain loaders - U.S. Continued

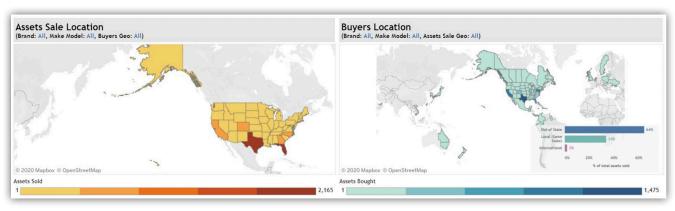
In the United States alone this year, top selling multi-terrain loader brands at Ritchie Bros. were Caterpillar, Bobcat, and Takeuchi. Top 2020 models include Caterpillar 259D, Bobcat T590, and the Caterpillar 289D.





Over the past 10 years, we've sold 21,000+ multi-terrain loaders in the United States for a staggering US\$421+ million! Approximately 31% of the units were purchased by local state buyers (based on the auction location), while 63% was purchased by out-of-state buyers, and the remaining 5% purchased by international buyers. In the past three years, the top selling locations for multi-terrain loaders was Texas, Florida, North Carolina, Georgia, and California.

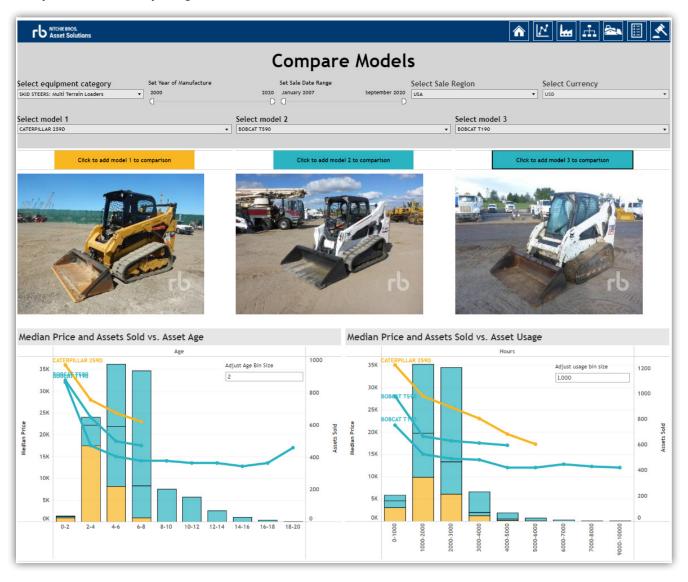
Asset and buyer locations of multi-terrain loaders sold in the U.S.: 2017 - Q3 2020



Main Feature: Multi-terrain loaders - U.S. Continued

When comparing the top three models from the past three years (Jan 2017 – Sep 2020), we see that the price depreciation for the Caterpillar 259D, the Bobcat T590, and T190 is sharpest for two- to four-year-old machines. By usage, price declines were sharpest for 1,000- to 2,000-hour machines. The specifications of these makes and models can be compared on **RitchieSpecs.com**.

Comparison of median pricing of common multi-terrain loaders in the U.S.: 2017 - Q3 2020



Industry Highlights: Medium-to-Large Construction Equipment – U.S.

Every edition we highlight select industries. Here we look at medium-to-large construction equipment, as well as vocational trucks. The parameters used include:

- ► Three-year trends Jan 2017 Sep 2020
- ► Assets sold in the U.S.
- ► Includes articulated dump trucks, dozers, wheel loaders and motor graders

Articulated Dump Trucks: Approx. \$281MM; approx. 3,200 units (All model years included)

► Quarterly trends:

Median pricing: Quarterly median pricing has declined through 2020, from its high of \$86,250 in Q1 to just over \$54,000 in Q3. Pricing has increased slightly in Q4 to \$56,500 as displayed in the RB NOW! tool of Ritchie Bros. Market Trends (as of Dec 17, 2020)

Volume sold: Q1 2020 saw its second highest quarterly volume in the last 3 years with 292 units, 13% less than Q1 2019 at 335 units

- ► Top selling brands by volume: Caterpillar, Volvo & Terex
- ► Top makes & models sold by volume: Caterpillar 740, Caterpillar 740B & Volvo A40F





Industry Highlights: Medium-to-Large Construction Equipment – U.S.Continued

Dozers: Approx. \$507MM; approx. 8,400 units (All model years included)

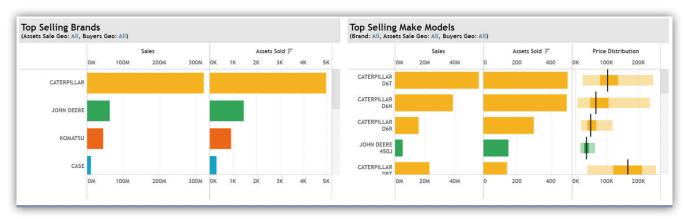
Quarterly trends:

Median pricing: Quarterly pricing has remained fairly stable through 2020 compared to previous years, starting at \$48,000 in Q1, rising to \$50,000 in Q2, and declining to \$47,000 in Q3. However, a look at the past 30 days of transactions using RB NOW!, median pricing has risen to \$55,000 (as of Dec 17, 2020).

Volume sold: Q1 2020 volume of 717 assets is the highest volume since Q1 2015

- ► Top selling brands by volume: Caterpillar, John Deere & Komatsu
- ► Top makes & models sold by volume: All Caterpillar D6T, D6N & D6R





Industry Highlights: Medium-to-Large Construction Equipment – U.S.Continued

Wheel Loaders: Approx. \$553.8MM; approx. 12,400 units (All model years included)

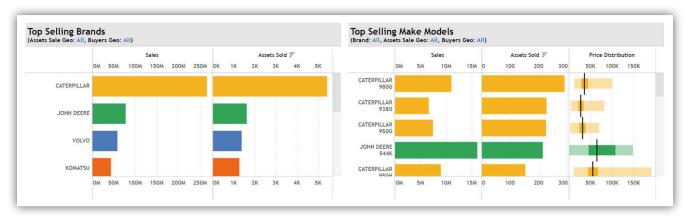
Quarterly trends:

Median pricing: Quarterly median pricing has declined through 2020, from its peak in Q1 at \$40,000, to \$33,000 in Q2, to \$32,750 in Q3. But, using RB NOW!, median pricing over the past 30 days increased to \$35,500 (as of Dec 17, 2020).

Volume sold: As with previous years, Q1 2020 saw the highest volume sold at 940 machines, with lower volumes sold in Q2 and Q3

- ► Top selling brands by volume: Caterpillar, John Deere & Volvo
- ► Top makes & models sold by volume: All Caterpillar 980G, 938G & 950G





Industry Highlights: Medium-to-Large Construction Equipment – U.S.Continued

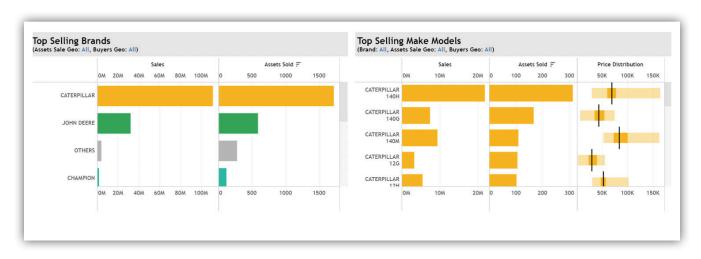
Motor Graders: Approx. \$168.3MM; approx. 3,000 units (All model years included)

► Quarterly trends:

Median pricing: Compared to previous years, 2020 median pricing has been steadier. Quarterly median pricing started at \$55,000 in Q1, to \$47,500 in Q2, to \$50,000 in Q3. Q4 median pricing increased to \$60,000 (as shown through the RB NOW! tool of Ritchie Bros. Market Trends, summarizing the past 30 days of transactions, as of Dec 17, 2020)

Volume sold: Like other medium-to-large construction machines, 2020 saw its largest volume sold in the first quarter with 234 units

► Top selling brands by volume: All Caterpillar – 140H, 140G & 140M





Industry Highlights: Vocational Trucks – U.S.

Now we look at select vocational truck categories. The parameters used include:

- ► Three-year trends Jan 2017 Sep 2020
- ► Assets sold in the U.S.
- ► Includes dump trucks (Tri/A), mixer trucks, mechanics trucks and fuel & lube trucks

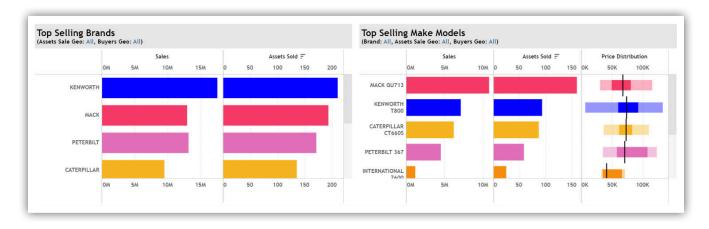
Dump Trucks (Tri/A): Approx. \$83.8MM; approx. 1,030 trucks (Model years: 2010 and up)

Quarterly trends:

Median pricing: The high point for median pricing in 2020 has been Q3, with \$65,500 per truck. Compared to previous years, quarterly pricing has been steadier, albeit noticeably lower than 2017 – 2019

Volume sold: Of the model years examined, Q1 2020 saw the highest volume of trucks per quarter since 2017

- ► Top selling brands by volume: Kenworth, Mack & Peterbilt
- ► Top makes & models sold by volume: Mack GU713, Kenworth T800 & Caterpillar CT660S





Industry Highlights: Vocational Trucks – U.S.Continued

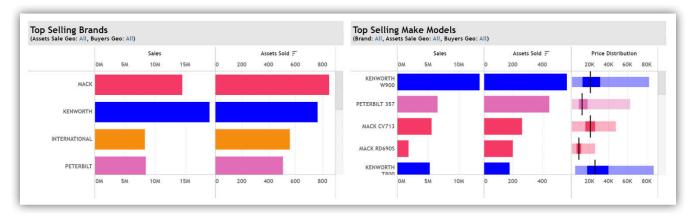
Mixer Trucks: Approx. \$66.8MM; approx. 2,600 trucks (All model years included)

Quarterly trends:

Median pricing: Quarterly median pricing has ranged from \$11,500 in Q1, to \$15,000 in Q2, to \$13,000 in Q3 **Volume sold:** Quarterly volumes have been steady between Q1 to Q3 2020, ranging between 229 to 279 trucks

- ► Top selling brands by volume: Mack, Kenworth & International
- ► Top makes & models sold by volume: Kenworth W900, Peterbilt 357 & Mack CV713





Industry Highlights: Vocational Trucks – U.S.Continued

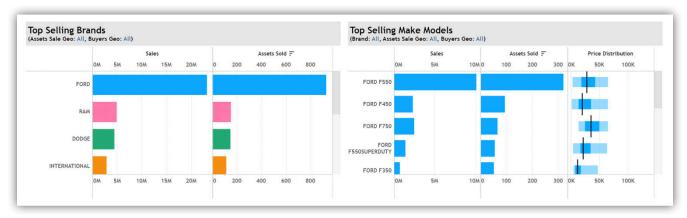
Mechanics Trucks: Approx. \$55.5MM; approx. 1,700 trucks (Model years: 2010 and up)

Quarterly trends:

Median pricing: Quarterly median pricing has been declining through 2020, from \$25,000 in Q1 to \$16,250 in Q3 **Volume sold:** For the model years explored, Q1, Q2, Q3 set records for the highest quarterly volumes since 2017

- ► Top selling brands by volume: Ford, Ram & Dodge
- ► Top makes & models sold by volume: All Ford F550, F450 & F750





Industry Highlights: Vocational Trucks – U.S.Continued

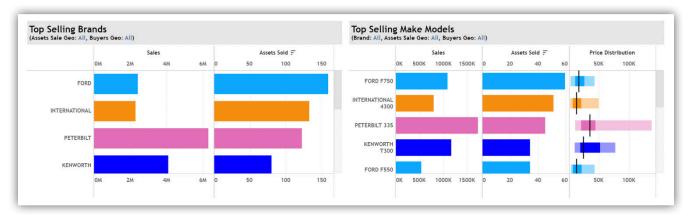
Fuel & Lube Trucks: Approx. \$24.9MM; approx. 770 trucks (Model years: 2000 and up)

Quarterly trends:

Median pricing: Q3 saw the highest quarterly median pricing in 2020 at \$20,000, an increase of 21% over Q2 **Volume sold:** Of the model years researched, Q1 saw the second highest volume of assets from any quarter since 2017

- ► Top selling brands by volume: Ford, International & Peterbilt
- ► Top makes & models sold by volume: Ford F750, International 4300 & Peterbilt 335





Ritchie Bros. Mix Adjusted Used Price Indices

Ritchie Bros. uses a machine learning-based method to calculate a used price index:

To isolate and measure the change in supply / demand dynamics on prices over time, we use various machine learning techniques to correct for equipment mix such as make, model, age, as well as 100+ features.

- 1.8 million transactions
- Data from 2005 onwards
- Adjusting for 100+ features
- Includes data from the U.S. and Canada

Indices are validated by correlating with key industry metrics:

We validate our used pricing indices by correlating them against well followed industry metrics such as sales or orders. In this example, the US Ritchie Bros. Heavy Duty Truck price index is plotted vs the US Heavy Duty Truck Sales index. The correlation between the two is clear, with the price index leading the sales index.

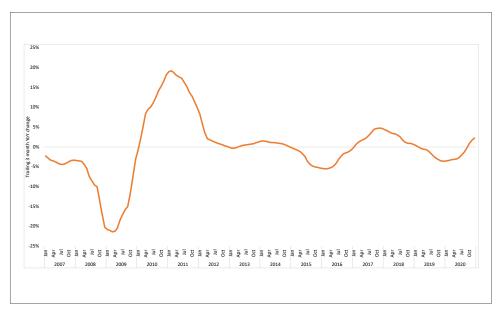


Sources: Ritchie Bros. Mix-Adjusted Price Index; Heavy Weight Truck Sales U.S. Bureau of Economic Analysis

Price Indices Summary

This December caps a turnaround in pricing in 2020. Prices were deflating at the beginning of the year, but by late-Spring they began a reversal as the pandemic hit. By December, all indices in both the U.S. and Canada are showing strengthening inflation vs the same period in 2019. Truck tractors (which saw the deepest declines through 2019) and vocational trucks lead the way, while heavy equipment and lifting & material handling show modest but significant inflation.

Heavy Equipment & Truck Tractors – U.S.



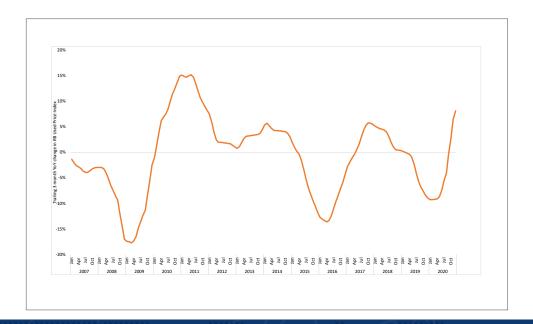
Prices show strengthening for used heavy equipment

In our estimation, for the 3 months ending December, prices for used heavy equipment increased 2% (± 1.5%) compared to the same time frame last year

Top equipment types in Heavy Equipment include: excavators, dozers, loaders, articulated dump trucks, compactors, motor graders & loader backhoes

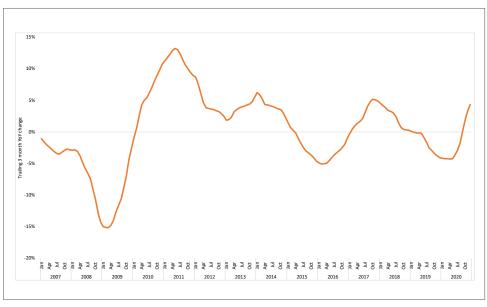
Prices show strengthening for used truck tractors

In our estimation, for the 3 months ending December, prices for used truck tractors increased 8% (± 1.5%) compared to the same time frame last year



Vocational Trucks and Lifting & Material Handling - U.S.





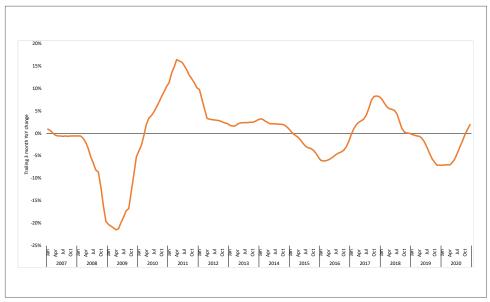
Prices show strengthening for used vocational trucks

In our estimation, for the 3 months ending December, prices for used vocational trucks increased 4% (± 1.5%) compared to the same time frame last year

Top equipment types included in Vocational Trucks: dump trucks, flatbed trucks, boom trucks, water & tank trucks, van & reefer trucks, mechanical trucks & concrete mix trucks

Prices show strengthening for used lifting & material handling equipment

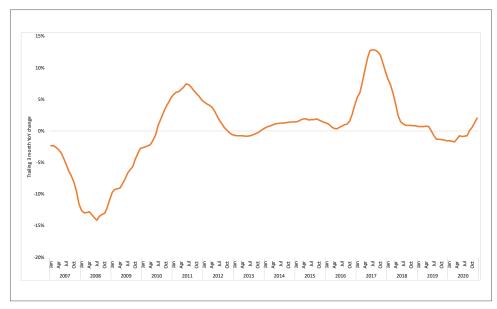
In our estimation, for the 3 months ending December, prices for used lifting & material handling increased 1% (± 1.5%) compared to the same time frame last year



Top equipment types included in Lifting & Material Handling: cranes, booms, scissors, telescopic handlers & forklifts

Heavy Equipment & Truck Tractors – Canada





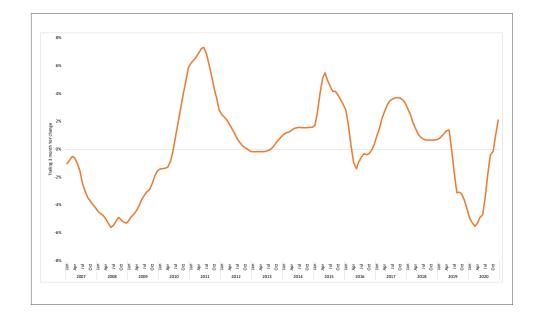
Prices show strengthening for used heavy equipment

In our estimation, for the 3 months ending December, prices for used heavy equipment increased 2% (± 1.5%) compared to the same time frame last year

Top equipment types in Heavy Equipment include: excavators, dozers, loaders, articulated dump trucks, compactors, motor graders & loader backhoes

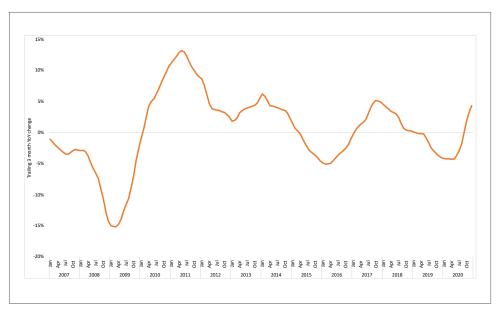
Prices show strengthening for used truck tractors

In our estimation, for the 3 months ending December, prices for used truck tractors increased 2% (± 1.5%) compared to the same time frame last year



Vocational Trucks and Lifting & Material Handling - Canada





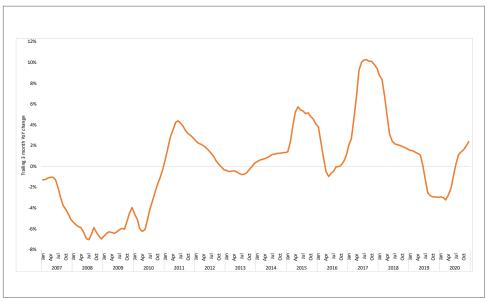
Prices show strengthening for used vocational trucks

In our estimation, for the 3 months ending December, prices for used vocational trucks increased 4% (± 1.5%) compared to the same time frame last year

Top equipment types included in Vocational Trucks: dump trucks, flatbed trucks, boom trucks, water & tank trucks, van & reefer trucks, mechanical trucks & concrete mix trucks

Prices show strengthening for used lifting & material handling equipment

In our estimation, for the 3 months ending December, prices for used lifting & material handling increased 2% (± 1.5%) compared to the same time frame last year



Top equipment types included in Lifting & Material Handling: cranes, booms, scissors, telescopic handlers & forklifts

Ritchie Bros. Snapshot of Demand

Top 6 Asset Categories

In 2020, Ritchie Bros. has seen record online demand for equipment. This brief snapshot highlights the top equipment searches across Ritchie Bros. Auctioneers, Ritchie Bros. Asset Valuator pricing tool, and RitchieSpecs, as well as finance approvals from Ritchie Bros. Financial Services. As you can see, truck tractors continue to be very popular, as are excavators, wheel loaders, dozers, and pickup trucks. Also, with a nice slate of on-the-farm of auctions this past fall, it's not surprising to see a few agricultural equipment categories on the list.

Top movers on the lists were wheel loaders, moving up by 6 spots on rbauction (current inventory searches), and multi-terrain loaders, moving up 4 rungs based on unique watchlisters.

As of Jan 4, 2021

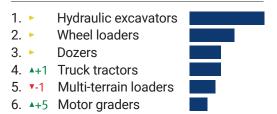
Ritchie Bros. Auctioneers

Current inventory searches (past 4 weeks) Scope: rbauction, global

1.	>	Truck tractors	
2.	>	Hydraulic excavators	
3.	▲+ 2	4WD tractors	
4.	▼-1	MFWD tractors	
5.	4+6	Wheel loaders	
6.	▲ +1	Pickups	

Ritchie Bros. Asset Valuator (Beta)

Pricing results searches (last month) Scope: Ritchie Bros Auctioneers, IronPlanet, Marketplace-E; global



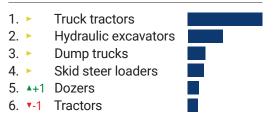
Ritchie Bros. Auctioneers

Unique watchlisters (past 4 weeks) Scope: rbauction, U.S.

1.	>	Truck tractors	
2.	>	Pickups	
3.	▲ +3	Equipment trailers	
4.	>	Flatbed trucks	
5.	▲+4	Multi-terrain loaders	
6.	▲ +2	Van trailers	

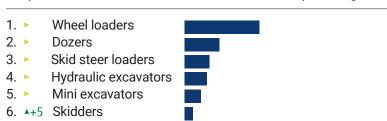
Ritchie Bros. Financial Services

Finance pre-approvals (Jan 4, 2021) Scope: Primarily U.S. & Canada



RitchieSpecs

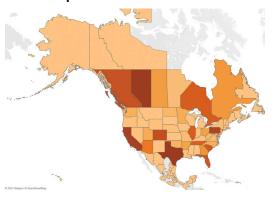
Page views of category landing pages (last month) Scope: Ritchie Bros Auctioneers, IronPlanet, Marketplace-E; global



- moved up from previous monthmoved down
- remained the same

Seller / buyer maps for the 3 months ending December 31, 2020ⁱ

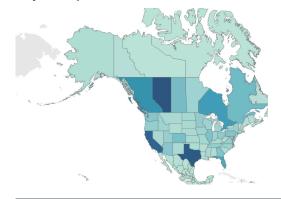
Seller Map - North America



Top 5 selling regions:

- ► Alberta, Canada
- ► Texas, USA
- ► California, USA
- ► Pennsylvania, USA
- ► Colorado, USA

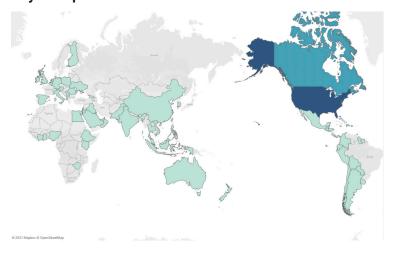
Buyer Map - North America



Top 5 buying regions:

- ► Alberta, Canada
- ► Texas, USA
- ► California, USA
- ► British Columbia, Canada
- ► Ontario, Canada

Buyer Map - World Wide



Based on value of transactions (USD) iOutside United States and Canada

Top 5 buying Countriesⁱⁱ:

- ► Mexico
- ► United Arab Emirates
- ▶ Peru
- ► Australia
- ► Ireland

About Ritchie Bros.

Ritchie Bros. connects equipment buyers and sellers through a global network of auction facilities and online sales channels. Ritchie Bros. Auctioneers and IronPlanet bring you multi-channel, trusted solutions that are transparent, fair and convenient.



Unreserved live auctions

- 40 auction sites globally with secured storage & buyer inspection
- ▶ 350+ live unreserved auctions a year
- ► Certainty of sale

IRON PLANET°

Weekly online auctions

- ► Regular weekly auctions
- ► Convenience of selling where it sits
- Buyer confidence from IronClad Assurance® equipment condition certification

Marketplace 🞉.

Reserved online marketplace

- Control over your selling price & timing of sale
- ► Convenience of selling where it sits
- Buyer confidence from IronClad Assurance® equipment condition certification



Online classified ad service

 Fastest growing online equipment listing service with over 400,000 listings



Inventory, data insights & disposition platform

- Inventory management system
- ► Market trends and pricing tools
- Maximize value of equipment through choice of disposition



For more information contact: dataproducts@ritchiebros.com

Subscribe for free: ritchiebros.com/market-trends-report