



Automotive Quarterly M&A Newsletter

Q3 2020



Auto Parts Remanufacturing

The Auto Parts Remanufacturing Industry is Becoming More Complex

Remanufacturing or simply ‘reman’ – the process of taking used auto parts and rebuilding them to OEM specifications – offers consumers an affordable alternative for replacement parts without sacrificing quality or performance. In addition to its economic benefits, the reman process is an environmentally-friendly solution as it saves both resources and energy.

Despite the apparent benefits, auto parts remanufacturing is facing its own set of challenges, including the following:

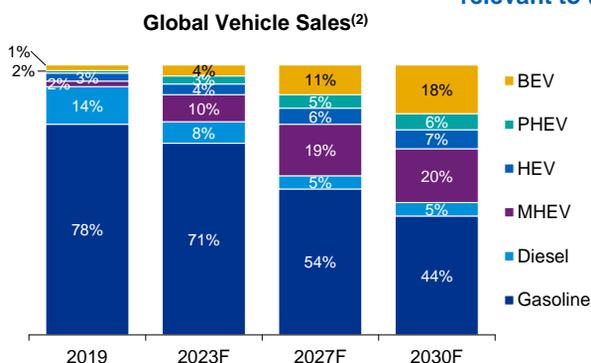
Increasing Parts Quality – OEMs continuously advance their vehicles’ performance and fuel efficiency, in addition to meeting stricter regulatory requirements such as emissions, safety, and noise standards. As a result, the quality of engine and powertrain parts has improved substantially. The enhanced life-span of these higher quality products can reduce the demand for reman services as fewer replacements are required over a vehicle’s life.

Parts Proliferation – The phenomenon of parts proliferation – where automakers create minor variations of the same part across vehicle platforms – continues to be an ongoing challenge for the reman industry. This trend makes inventory management more difficult as reman players must anticipate demand across an increasing number of parts and determine which are worthy of occupying costly shelf space. Furthermore, as components move from being purely mechanical to mechatronic, technological requirements and remanufacturing costs have steadily increased, negatively impacting profitability.

Labor-intensity – While the automotive OEMs and their suppliers continue to expand automated processes in manufacturing and assembly, the reman industry remains highly labor-intensive. Its ability to incorporate automated processes in the disassembly of parts is constrained by the unpredictability of wear-and-tear characteristics of used parts. Therefore, it requires manual intervention for manipulations and improvisation.

While the industry can expect some tailwinds from record sales of new vehicles in recent years, a new major challenge is already on the horizon. The accelerating shift toward electric powertrains represents a significant turning point for remanufacturers. According to CALSTART, seventy percent of an electric vehicle’s components may be different from gasoline-powered vehicles.⁽¹⁾ Combustion engines and parts, transmissions, starters, and alternators, which generate the majority of revenue for the reman industry today, will eventually fade away as we transition to a world of electric powertrains.

Electrified vehicle (xEV) sales are projected to surpass ICE vehicle sales by 2030 reshuffling the components relevant to the reman industry



BEV: Battery Electric Vehicle (EV) - pure electric vehicle which use only battery power to propel the electric motor

HEV: Hybrid EV - uses the combined efforts of both a gasoline engine and a battery-powered electric motor to propel the vehicle; battery power is generated onboard

MHEV: Mild Hybrid EV - uses an electric motor and a smaller battery to help boost the gas engine’s output

PHEV: Plug-in Hybrid EV - a higher-capacity hybrid vehicle that requires a charging station to fully charge the battery

Vehicle Electrification will Fundamentally Change the Reman Industry Presenting Both Opportunities and Challenges

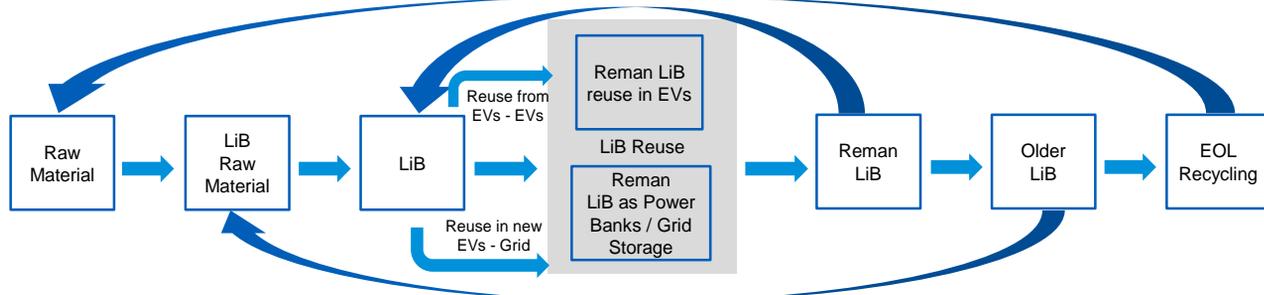
The advent of a new auto parts ecosystem for the electrified powertrain will result in significant changes across the reman industry. The main components of electric vehicles, including electric motors and Lithium-ion batteries (LiB), will require new remanufacturing tools, methodologies, and processes as compared to traditional ICE components.

While a full adoption of electric vehicles is still years in the future, consumers’ acceptance of hybrid vehicles is already in full swing. Since hybrid vehicles are based on the same technological principles as BEVs, the future demand for EV reman services is already being created. This trend represents an attractive business opportunity as hybrid vehicles incorporate a complex assembly system and therefore allow reman operators to realize higher margins while still offering a lower-cost alternative to outright replacement.

Auto Parts Remanufacturing (continued)

In a BEV, the battery pack alone accounts for about a third of the production cost⁽³⁾, representing the industry's single biggest reman opportunity. LiBs rely on a mix of finite critical components with few substitutes. Proper management of LiBs thus becomes crucial as the number of battery-enabled vehicles on the road increases. LiBs typically retain 80%⁽³⁾ of their initial capacity when they reach their end-of-life in EVs. Such batteries don't satisfy the requirements for further use in EVs, but the battery systems' key components are still functional when retired. This opens up significant opportunities for reman operators to set up collection networks and develop facilities to handle and exploit the residual value of LiBs, as volumes reach a critical mass.

EV batteries End Of Life (EOL) recycle options⁽⁴⁾



There are several options at the LiB's end-of-life. They can be remanufactured for second-life applications in both mobile and stationary storage. Often a used battery pack contains many good modules. High-quality modules can be reused in battery packs for new cars or replace battery packs in used cars. In addition to cell modules, LiBs also consist of parts like controllers, relays, cables, connectors, and ventilators, which can be reused. Modules can also be reconfigured to be used as uninterrupted power supply systems in hospitals or server facilities or for basic stationary applications in electric grids to store energy from solar panels and windmills.

Remanufacturing LiBs requires a systematic method to manage the used battery subsystems and poses significant challenges. Improper packaging and storage during transportation create safety risks. Vehicle collisions or mechanical defects at EOL can lead to batteries being unstable. This can result in fires and even explosions, requiring special equipment as these fires are difficult to extinguish. The assessment of the battery condition becomes crucial to ensure appropriate handling and avoid accidental injuries.

Differences in battery chemistries among OEMs in a race to improve range presents another challenge. The control software in car batteries is also complex and requires OEM-specific knowledge. The lack of standardization and secrecy about battery chemistry forces manual disassembly for every piece and has inhibited advances in remanufacturing and recycling. A proper second-life application and large-scale processing for EV batteries will only be possible through a collaboration among reman companies and OEMs to facilitate more transparency in products, thus enabling the setup of automated, efficient, and sustainable reman methods.

Changing Landscape Stresses the Need for Timely Action

The changing landscape in the remanufacturing industry and the transition to EVs will have a lasting impact on market participants and their future strategies.

Consolidation: Capital-strained players that are unable to adapt to the changing conditions will struggle or become acquisition targets. Larger players are likely to aggressively consolidate a shrinking market to realize economies of scale.

Increasing Level of Technological Expertise: Remanufacturers will need to make investments in new technologies and capabilities as their traditional revenue sources decline and margins come under pressure. Remanufacturing EV parts will require establishing new processes, collection and distribution channels, and technical expertise.

Automation: While the scope of robotics has increased in automotive manufacturing, disassembly workplaces have remained vastly unautomated. Well-capitalized reman industry companies will be better able to invest in sophisticated human-robot collaboration techniques where humans' cognitive abilities are aided by the power and endurance of robots and artificial intelligence.

Automotive Industry M&A Synopsis and Key Takeaways

Automotive M&A Market Synopsis

- The global automotive industry recorded 81 M&A deals in the third quarter of 2020, an 11% increase on a Q-o-Q basis and a 5% decline on a Y-o-Y basis
- The automotive parts and equipment segment recorded 65 M&A deals in Q3 2020, an increase of 18% on a Q-o-Q basis and 2% on a Y-o-Y basis. The increase in majority stake transactions was much steeper on a Q-o-Q basis (+28%) while it declined 8% on a Y-o-Y basis

Landmark M&A Announcement in Q3 2020

MiddleGround Capital Acquires Dura Automotive Systems

“We have been searching for an opportunity to invest in a business as well-positioned as Dura to capitalize on the most disruptive trends in the automotive industry. From today’s focus on electrification of the powertrain and vehicle lightweighting to some of the longer-term shifts toward autonomous driving and connected car, Dura is and will continue to be a driving force in an industry undergoing major transformation. We are delighted to support Dura on its journey.”

John Stewart, Partner at MiddleGround

Note: M&A deal volume is based on M&A transaction records available in CapitalIQ (including both majority and minority stakes).

Key Takeaways

The Increasing Electrification of Vehicles Will Have a Profound Impact on the Remanufacturing Sector

- The reman industry is facing several challenges, including improving parts quality (and lower replacement demand), increasing parts proliferation, and a limited ability to deploy automated processes to reduce labor costs
- On a positive note, the rising adoption of electrified vehicles will provide new opportunities to remanufacture select parts in the hybrid and battery electric vehicle space
- However, this evolution will present challenges as the new generation of vehicles will require more technical expertise and novel processes, as compared to the remanufacturing of ICE-related parts

Valuation Observations and Sector Performance

- The valuation multiples for auto parts suppliers have increased significantly over the previous quarter

At the end of Q3'20 the average EV / LTM EBITDA multiples were:

**NA Auto Parts
Manufacturers** **9.6x
+3.3x Q-o-Q**

Source: CapitalIQ

KPMG Corporate Finance



**Industrials Deal of the Year 2019
(\$100m-\$1bn)**

- In the global mid-market segment, the Corporate Finance practices of KPMG International’s member firms are the #1 M&A advisor with the most transactions over the last 5 years

Selected Public Automotive Parts Manufacturers

Selected Automotive Comps											
Company	HQ Country	Market Data				LTM Financials			Valuation Multiples - Enterprise Value To:		
		Market Cap (\$mm)	Enterprise Value (\$mm) ⁽¹⁾	Share Price ⁽²⁾	% 52 Wk High	Revenue	Revenue Growth	EBITDA % ⁽³⁾	LTM EBITDA ⁽³⁾	NTM Revenue	NTM EBITDA ⁽³⁾
North American Auto Parts Manufacturers											
Adient plc	IE	1,627	5,812	17.33	59.2%	12,994	(22.4%)	3.4%	13.1x	0.41x	6.6x
American Axle & Manufacturing	US	654	3,953	5.77	51.2%	4,966	(28.4%)	12.2%	6.5x	0.74x	5.0x
Aptiv PLC	IE	24,756	27,589	91.68	92.6%	12,341	(13.8%)	12.3%	18.1x	2.04x	12.7x
BorgWarner Inc.	US	8,029	9,237	38.74	83.1%	8,756	(13.9%)	15.2%	6.9x	0.98x	6.5x
Cooper-Standard Holdings Inc.	US	223	1,000	13.21	33.6%	2,461	(27.0%)	1.1%	NM	0.42x	7.2x
Dana Incorporated	US	1,780	4,369	12.32	64.1%	7,155	(15.0%)	9.7%	6.3x	0.58x	6.0x
Gentex Corporation	US	6,329	5,992	25.75	82.3%	1,605	(13.3%)	27.6%	13.5x	3.22x	11.7x
Gentherm Incorporated	US	1,336	1,341	40.90	81.9%	835	(18.0%)	13.4%	12.0x	1.51x	10.9x
Lear Corporation	US	6,537	8,819	109.05	76.0%	16,545	(17.3%)	7.9%	6.8x	0.47x	5.4x
Linamar Corporation	CA	1,946	2,953	29.73	79.5%	4,286	(23.6%)	12.7%	5.4x	0.62x	4.8x
Magna International Inc.	CA	13,656	19,422	45.73	81.0%	31,664	(21.8%)	9.3%	6.6x	0.53x	5.5x
Martinrea International Inc.	CA	574	1,322	7.15	64.6%	2,371	(14.0%)	9.2%	6.1x	0.47x	3.9x
Nexteer Automotive Group Limited	US	1,737	1,754	0.69	65.0%	2,954	(20.1%)	9.3%	6.4x	0.55x	4.0x
Stoneridge, Inc.	US	496	607	18.37	54.1%	676	(21.4%)	5.6%	16.0x	0.97x	16.0x
Tenneco Inc.	US	564	6,407	6.94	42.6%	14,935	NM ⁽⁴⁾	5.6%	7.7x	0.41x	5.6x
Visteon Corporation	US	1,926	2,215	69.22	65.3%	2,489	(13.6%)	7.2%	12.3x	0.76x	9.0x
North American Auto Parts Manufacturers Mean					67.3%		(18.9%)	10.1%	9.6x	0.92x	7.5x
North American Auto Parts Manufacturers Median					65.2%		(18.0%)	9.3%	6.9x	0.60x	6.2x

Source: CapitalIQ and company filings.

All figures in USD, where applicable, converted at rates as of September 30, 2020.

- (1) Enterprise Value (EV) equals Market Capitalization plus Debt, Preferred Equity, and Minority Interest, minus Cash and Cash Equivalents as of closing price September 30, 2020.
- (2) Closing share prices as of September 30, 2020.
- (3) EBITDA equals Earnings before Interest Expense, Income Taxes, Depreciation and Amortization.
- (4) Y-o-Y LTM revenue growth is not comparable due to acquisition of Federal Mogul in October 2018.

Select Q3 2020 M&A Transactions

Date Closed	Target	Buyer	Implied Enterprise Value (\$ mm)	Implied EV/LTM Revenue	Implied EV/LTM EBITDA
Pending [#]	All Assets of Garrett Motion Inc.	KPS Capital Partners, LP	\$2,100.0	-	-
Pending	Turbo Motor Inyección S.L.	BORG Automotive A/S	-	-	-
Pending	Korea Auto Glass Co., Ltd. (KOSE:A152330)	KCC Corporation (KOSE:A002380)	\$1,179.3	-	-
Pending [#]	Substantially All assets of Shiloh Industries, Inc.	MiddleGround Capital LLC	\$218.0	-	-
Pending	InTiCa Systems AG (XTRA:IS7)	Printad Verlags-GmbH	\$54.3	0.7x	10.5x
Pending	Acoustics Division of STS Group AG	Adler Pelzer Holding GmbH	-	-	-
Pending	Goodyear Air Springs	Turnspire Capital Partners LLC	\$39.5	-	-
Pending	KATE LLC	KSP Capital Asset Management LLC	-	-	-
Pending	Sitech Sitztechnik GmbH	Brose Fahrzeugteile Se & Co. KG, Würzburg	-	-	-
Pending	Chongqing Hongli Zhixin Automotive Parts Manufacture Co., Ltd	Magna International Inc.	-	-	-
09/14/2020	AP Emissions Technologies, LLC	APACE Holding Company, LLC	-	-	-
08/24/2020	Manufacturing Facility of BORBET Alabama, Inc.	Wheel Pros, LLC	-	-	-
08/11/2020	Veoneer Nissin Brake Systems America LLC	ZF Friedrichshafen AG	-	-	-
08/04/2020	DURA Automotive Systems, LLC	MiddleGround Capital LLC	-	-	-
08/03/2020	Peterson Fluid Systems, Inc.	Niwot Corporation	-	-	-
07/31/2020	Brake Parts Inc.	First Brands Group, LLC	\$510.0	-	-

[#] US Chapter 11 Bankruptcy process, pending stalking horse transaction subject to higher or better offers in the bankruptcy case
Source: CapitalIQ, Mergermarket and press releases.

KPMG Corporate Finance

Leading Advisor to the Automotive Sector⁽¹⁾

Select Transactions ⁽¹⁾

  <p>KPMG Corporate Finance</p> <p>acted as sole financial advisor to Bosch GmbH on the sale of Unipoint to Victory Industrial Corporation</p>	  <p>KPMG Corporate Finance</p> <p>acted as financial and debt adviser and provider of tax and financial due diligence services to Orafol Europe on the acquisition of Kay Automotive Graphics Group</p>	   <p>KPMG Corporate Finance</p> <p>acted as buy-side financial advisor to Piston Group on the acquisition of Irvin Automotive Products from Takata</p>	  <p>KPMG Corporate Finance</p> <p>acted as financial advisor to VITEC, LLC in its sale to a confidential acquirer</p>
  <p>KPMG Corporate Finance</p> <p>acted as financial advisor to TriVero Group on raising acquisition financing for the purchase of BTM Company</p>	  <p>KPMG Corporate Finance</p> <p>acted as financial advisor to Convest Partners in the sale of Chicago Miniature Lighting to AGM Automotive Partners</p>	  <p>KPMG Corporate Finance</p> <p>acted as financial advisor to Fleetwood Metal Industries on its sale to Milestone Partners</p>	  <p>KPMG Corporate Finance</p> <p>acted as financial and tax advisor to FinnvedenBulten AB on the disposal of Finnveden Metal Structures AB to Shiloh Industries</p>

(1) Represents the Corporate Finance practices of KPMG International's network of independent member firms

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Sources:

- (1) Idaho National Laboratory, Advanced Vehicle Testing Activity
- (2) BCG, Who Will Drive Electric Cars to the Tipping Point? (January 2020)
- (3) International Energy Agency, Global EV Outlook, 2020
- (4) BORG Automotive Challenge, EV Batteries Remanufacturing, by Khalid Mahmood and Fiona Gutteridge (May 29, 2019)

References:

- Rematec, Steady growth for worldwide battery electric vehicle fleet (April 07, 2020)
- Rematec, Reverse logistics: a prerequisite for remanufacturing electric vehicle batteries (April 07, 2020)
- IBIS World, Auto Parts Remanufacturing (March 2020)
- IBIS World, Engine Rebuilding & Remanufacturing (December 2019)
- Green Light, The remanufactured battery is the future
- Rematec, The world is going electric (April 04, 2017)

Important Disclosures

Some or all of the services described herein may not be permissible for KPMG audit clients and their affiliates or related entities.

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