Prospects and Practices of Parts Reutilization From Vehicle Disassembly in the USA

Automotive Recyclers Association
Michael E. Wilson, CEO

Warsaw, Poland

September 26, 2017

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Automotive Recyclers Association (ARA)

"The Voice of the Professional Automotive Recycling Industry"

- Association established in 1943
- 4,500 members spanning 18 countries worldwide
- 33 percent have been members 20+ years
- Executive Committee, Board of Directors and Committees
- 5 Full Time Staff

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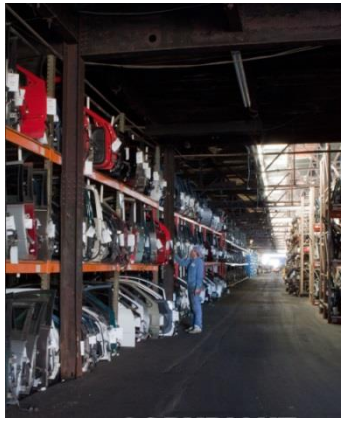
U.S. Vehicle Recycling Operations – Two Sectors

Full Service



Self Service

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IHS Statistics – United States

Average Vehicle Age 11.6 years old

264 million vehicle registrations

Over 11 million vehicles retired in 2015; 14 million vehicles in 2012

- Drivers held vehicles for a record 79.3 months, 1.5 months longer than 2014
- More than 20 million vehicles on roads in 2021 will be at least a quarter-century old
- Vehicles in the new to five years-old category will grow 16 percent by 2021
- Vehicles in the six to 11 year-old range will grow just 5 percent
- Vehicles that are 12+ years old will grow 10 percent
- Vehicles aged 16 years and older to grow 30 percent to 81 million units in 2021

November 2016

Most U.S. Automakers Do Not Support Parts Reutilization

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Negative Campaign on Integrity of Recycled OEM Parts

Chrysler Position Statement

STRUCTURAL REPAIR PARTS USAGE

CHRYSLER GROUP LLC POSITION

Chrysler Group LLC vehicles, systems and components are engineered, tested and manufactured to protect vehicle occupants based upon both government mandated and internal corporate requirements relative to durability, NVH (noise/vibration/harshness), occupant protection, and vehicle safety.

The overall structural integrity of the vehicle is dependent on its inherent design specifications. Sheet metal and glass are critical elements in the design of specific crush zones that allow the energy of a collision to be absorbed in a predictable way and maximize the effectiveness of the restraint system to protect the occupants. The use of parts not specifically designed and tested by Chrysler Group LLC may compromise the integral balance between these safety systems.

Only Authentic Mopar® Repair Parts and glass are designed, engineered, manufactured and tested to the Chrysler Group LLC internal and government mandated standards and are the only ones equivalent to the originally installed parts.

Chrysler Group LLC does not approve of or recognize structural repair procedures where Authentic Mopar Parts are not used for Chrysler, Jeep®, Dodge and Ram vehicles. Any repairs performed not using Mopar parts, and not following published repair guidelines and procedures, may expose current or future vehicle owners and occupants to unnecessary risk.

When restoring a collision damaged vehicle to pre-loss condition, consideration must be given to the following:

- All structural distortion has been identified and corrected using appropriate structural straightening equipment ("frame rack") and a three-dimensional measuring system
- All damaged panels have been repaired or replaced
- All replaced panels provide the as-built structural equivalence and corrosion protection of the original panels
- Unless partial replacement procedures are documented in a Chrysler Group LLC publication, structural panels must be installed in their entirety – partial replacement or "sectioning" of panels may compromise vehicle structure
- Chrysler Group LLC does not support the use or re-use of any structural component which has been removed from a vehicle previously damaged, flooded, burned, scrapped or removed from use for any other reason—commonly referred to as "salvage parts."
- While some salvage parts may "appear" equivalent, there can be dramatic differences in the design and functional characteristics which cannot be determined by a visual inspection and which could have a negative effect on the vehicle occupants in a future collision event.
- Salvage components may have been affected by crash impact loads, incorrect, improper or inadequate disassembly and removal procedures, weathering or environmental exposure outside of that expected during normal use.
- Salvage components are not traceable should a component recall be required in the future.

This statement supersedes any previously released information by Chrysler Group LLC.

Release Date: August 11, 2010

August 2010

Chrysler LLC does not support the use or re-use of any structural components … .

While some salvage parts may "appear" equivalent, there can be dramatic differences in the design and functional characteristics which cannot be determined by visual inspection … .

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Circular Economy – Poland & Other EU Countries

- Recover all products, components and materials at highest utility and value.
- Reuse is an integral part of any sustainable development plan or program.
- Restrictions on the reutilization of motor vehicle parts has detrimental impact on resource efficiency, sustainable materials management along with end-of-life vehicle processing.
- Automakers must go beyond material reuse to one that requires basic reuse principles on the reutilization of parts and components for their same application.

ENCORY

a joint venture of BMW Group and ALBA Group.

Launched in September 2016, Encory is a 50:50 Joint Venture of BMW Group and ALBA Group committed to developing interrelated logistics and consulting solutions in the field of reusing and remanufacturing automotive parts, the marketing of used parts, and the recycling and disposal of automotive parts and residual waste.

Encory's German launch is already planned for the third quarter of 2017, and rollouts in BMW's top twelve markets in Europe, Asia and the USA are scheduled to be complete by 2020.

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Data Access

- Data drives almost every aspect of a professional automotive recycling business, from the value of parts inventory to automotive recyclers' access to the original equipment manufacturer (OEM) information.
- Data provides the backbone to a sustainable business model for these important stewards of the environment.

Data & Inventory Quality

- As the professional automotive recycling industry matures, so does the level of its electronic integration.
- As insurance companies seek greater availability of insurance-quality parts alternatives, significant investments in technology are providing better filters for recyclers' parts inventory.
- Importance of utilizing unified descriptions among all parties.
- Greater integration of recycled parts into estimating systems can eliminate phone calls along with reducing parts backorders and delays.

Today's Complex Modern Vehicles

30K OEM Parts Per Vehicle

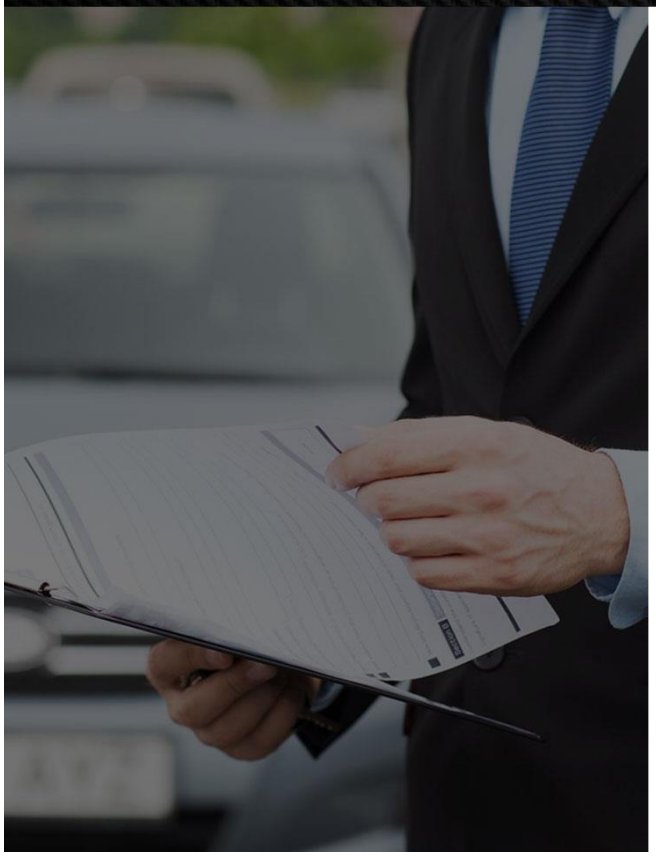
15K Components Per Vehicle

Estimate that 40% of the parts cost in a new car are tied up in electronics.

▪ **ABS**	▪ **Traction Control**
▪ **Vehicle Stability Control**	▪ **Engine Management System**
▪ **Computer Controlled Transmission**	▪ **Four Wheel Disk Brakes**
▪ **Airbags**	▪ **Backup Cameras**
▪ **Navigation**	▪ **Entertainment Systems**
▪ **Multi-Zone Climate Control Systems**	▪ **Distributorless Ignition**
▪ **Power Accessories (Windows, Door Locks, Remote Locks Sliding Doors, Tail Gates)**	▪ **Alarm Systems**

Solera Presentation – ARA Convention 2016

VEHICLE COMPLEXITY & PARTS ARE **INCREASING**

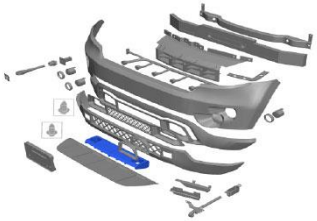


PART DOLLARS PER ESTIMATE HAVE INCREASED 29 PERCENT IN THE PAST 5 YEARS

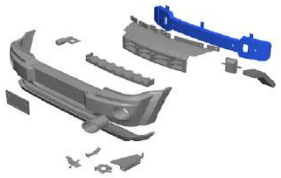
TWO KEY DRIVERS:

- Part price inflation has increased past costs by 4.7 percent year/year.
- Replaced part count continues to rise as vehicles become more complex. 0.6 part count increase/claim yoy.

2015 JEEP GRAND CHEROKEE



2010 JEEP GRAND CHEROKEE



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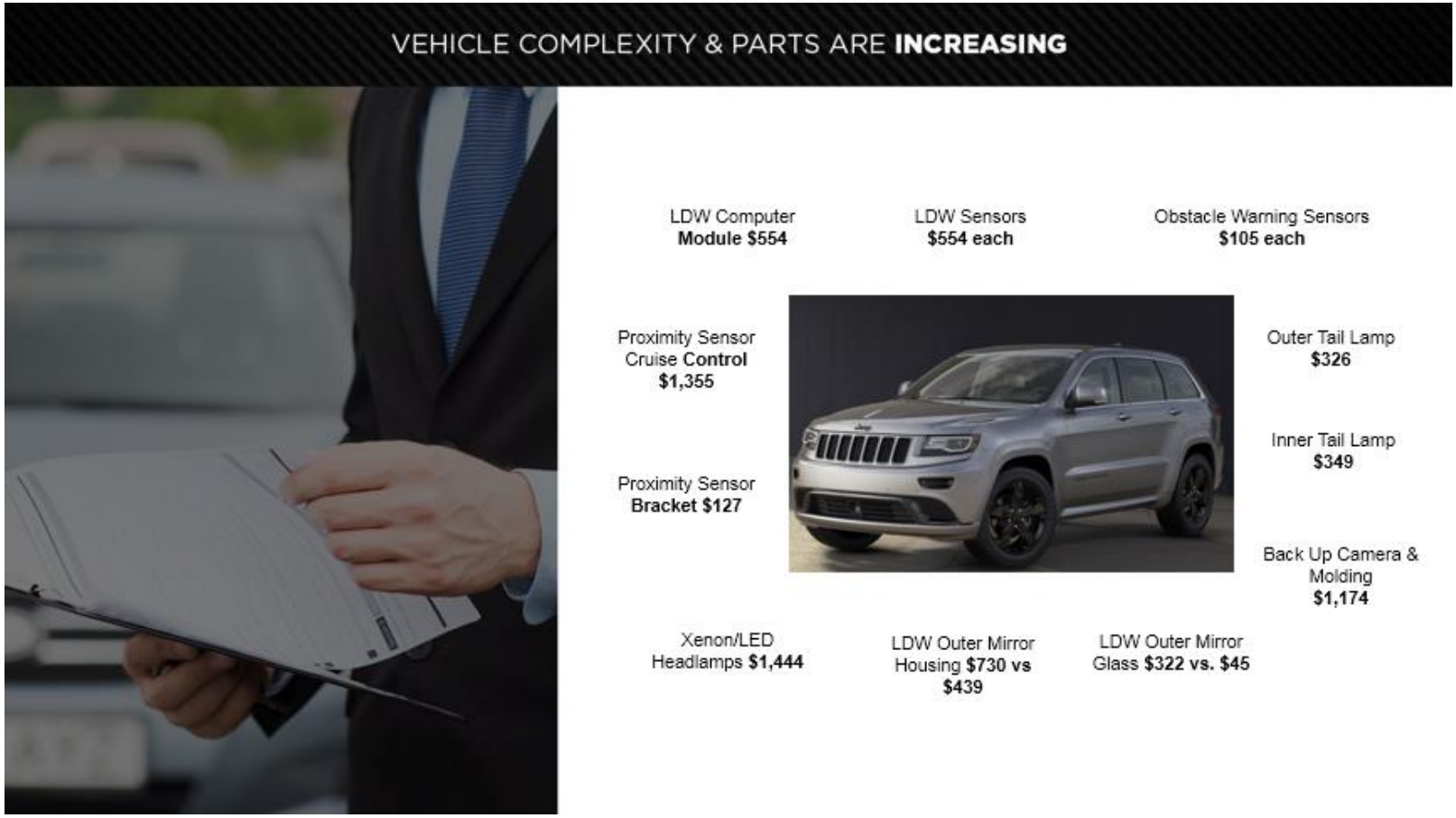
Hollander Interchange

- Provides auto recyclers and others with comprehensive solution for identifying interchangeable auto parts.
- Available in traditional printed format, stand-alone CD-ROM, and integrated into Hollander's inventory management systems and part locating network.
- Access to accurate and specific auto parts data is critical given sophisticated electronic components and other "smart" automotive technologies.

Solera Presentation – ARA Convention 2016



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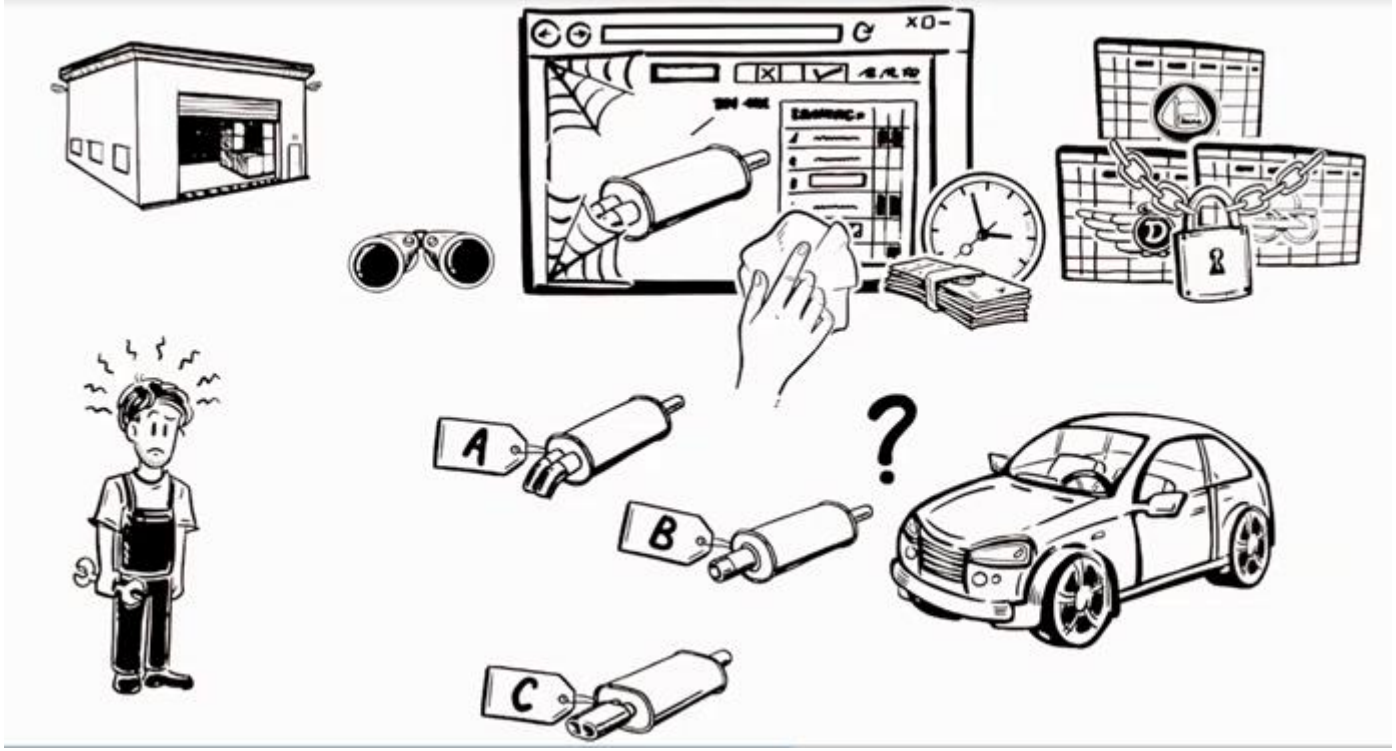
Unequivocal Parts Identification



Article 6 Regulation (EC) No 715/2007 (Euro5/6) and Annex XIV to Regulation (EC) No 692/2008, as amended in June 2011 by Regulation (EU) No 566/2011 Regulation

"**Information on all parts of the vehicle**, with which the vehicle, as identified by the vehicle identification number (VIN) and any additional criteria such as wheelbase, engine output, trim level or options, is equipped by the vehicle manufacturer and which can be replaced by spare parts offered by the vehicle manufacturer or its authorised repairs or dealers or third parties by means of reference to original equipment (OE) parts number, **shall be made available in a database easily accessible to independent operators**.

This database shall comprise the VIN, OE parts numbers, OE naming of the parts, validity attributes (valid-from and valid-to dates), fitting and where applicable structuring characteristics"

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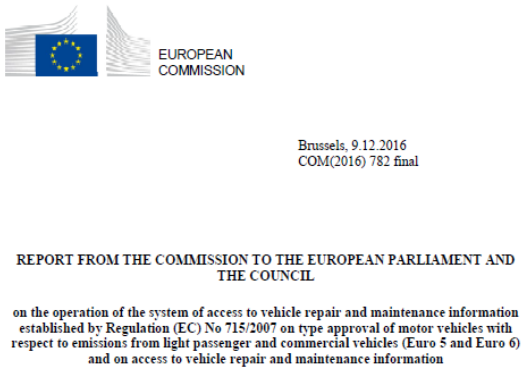
EU Report – Vehicle Repair and Maintenance Info December 9, 2016



EUROPEAN COMMISSION

Brussels, 9.12.2016
COM(2016) 782 final

REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL

on the operation of the system of access to vehicle repair and maintenance information established by Regulation (EC) No 715/2007 on type approval of motor vehicles with respect to emissions from light passenger and commercial vehicles (Euro 5 and Euro 6) and on access to vehicle repair and maintenance information

Most of the issues related to access to RMI via OEMs' websites will be resolved … by the introduction of the CEN/ISO standards… .The exceptions are access to information on bulk data on parts, as identified by the vehicle identification number (VIN), and remote diagnostic support. – Page 4

The major issue of concern to parts distributors and wholesalers is access to unequivocal parts identification information. … parts wholesalers report that the lack of unequivocal access to parts information typically leads to two or three parts being identified as relevant. … – Page 6

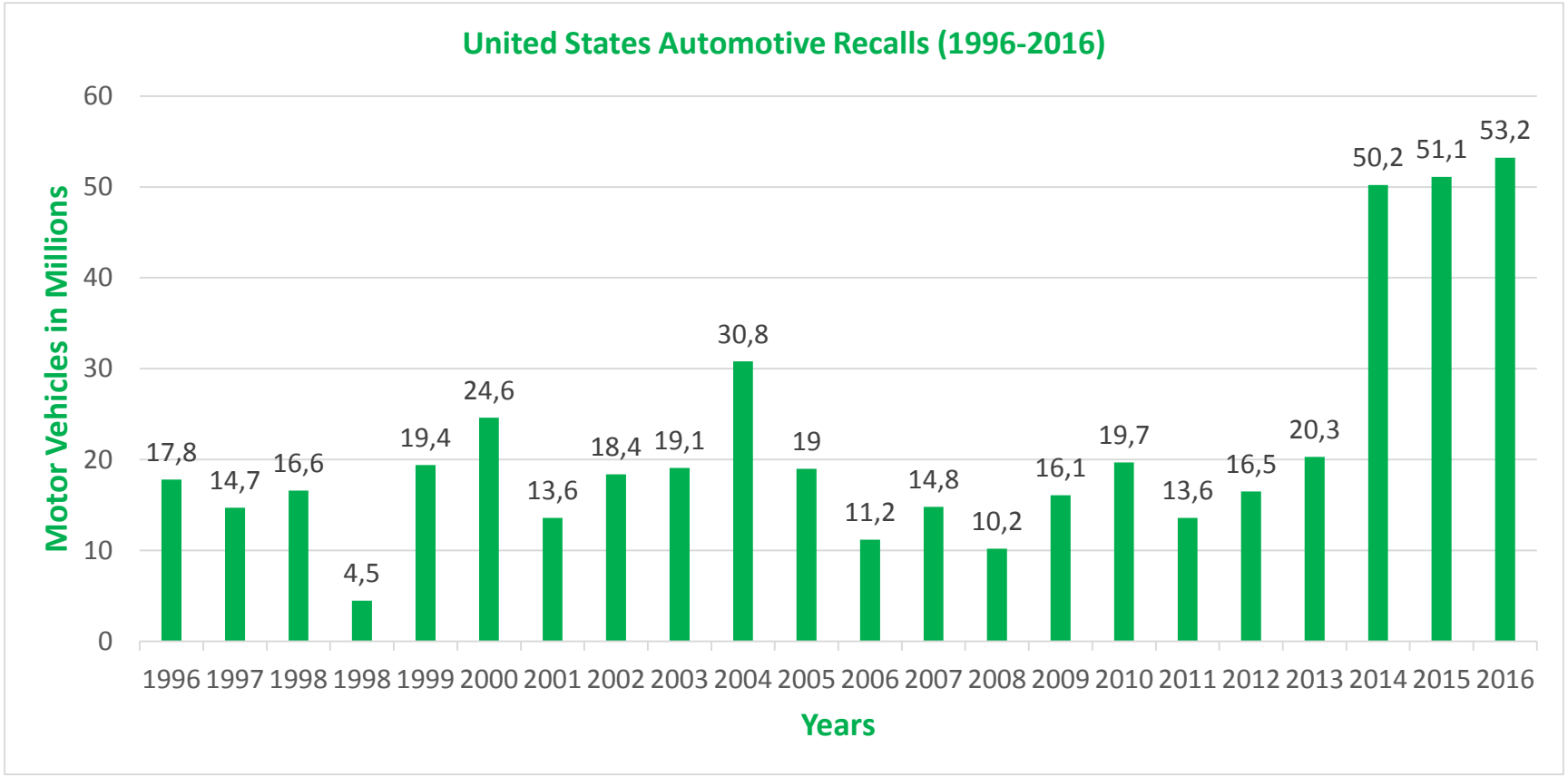
Access to information on data on vehicle parts, as identified by the VIN, is considered essential by IOs for their current business model. ,,, It should help them manage logistics and inventories and ensure that the right parts are available, delivered on time and with minimal returns. …The new set of ISO 18541 standards on access to RMI, … does not cover a common structured process for exchanging data on vehicle parts which can be replaced by spare parts, as identified by the VIN. A future common structured process … could therefore be included in the RMI Regulations…. – Page 9

To be competitive and provide adequate service to customers, independent repairers need to be able to access the technical information necessary to repair vehicles. This information is increasingly important due to the greater complexity of vehicles, the growing number of parts and greater use of on-board electronics. – Page 12

U.S. Laws to Protect Consumers from Automotive Safety Defects

- The National Traffic and Motor Vehicle Safety Act (NTMVS Act) which prohibits the sale of new motor vehicles and vehicle safety standard motor vehicle equipment that fail to comply with an applicable Federal motor. (1966)
- The Transportation Recall Enhancement, Accountability, and Documentation Act (TREAD Act) that extended the NTMVS Act prohibition to **cover the resale of used equipment (parts) subject to recall that have not been fixed**. (2000)
- The Moving Ahead for Progress in the 21st Century Act (MAP-21) which provided for a recall database with individual VIN look-up tool to be established by 2014. (2012)

Historical U.S. Recall Numbers



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Takata U.S. Manufacturing Recall

- Over 42 million vehicles and 70 million airbags subject to U.S. recall
- 19 automakers effected by recall
- 17 deaths worldwide (12 – U.S.)
- Potential for up 120 million vehicles subject to U.S. recall

Automotive Recycling Industry - USA
Inventory Management Systems

U.S. Congressional Hearing on Vehicle and Roadway Safety
October 21, 2015

I come before you today to urge Congress to provide the automotive recycling industry access to critical original equipment parts data on all vehicles. The critical data includes motor vehicle part numbers, names and descriptions tied to each motor vehicle's specific Vehicle Identification Numbers (VINs).

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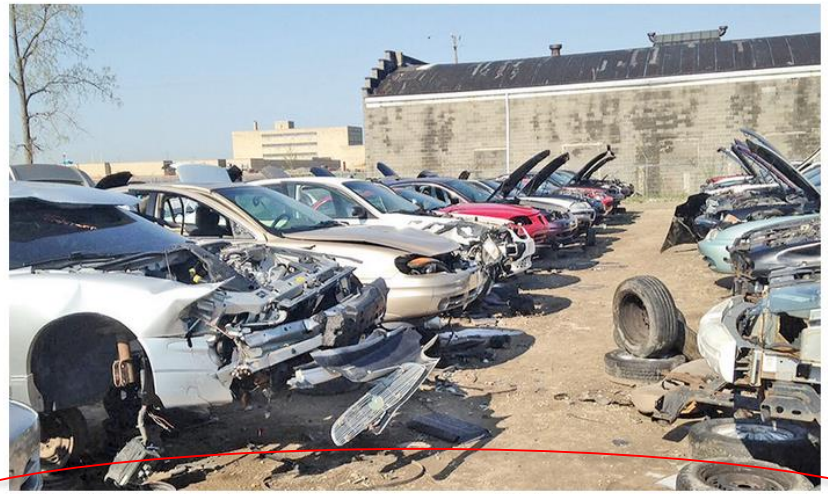
News Media

Automotive News

Is danger lurking in junkyards?

Honda works to stop reuse of faulty airbags

Ryan Beene
Automotive News | May 11, 2015



In this Detroit junkyard, passenger airbags are available to anyone who can detach them from the vehicle for $27.99 each.

Photo credit: RICHARD TRUETT

May 11, 2015

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NHTSA Public Meeting to Update Safety Risks Involving Takata Air Bags
Washington, DC - October 22, 2015

Jennifer Timian, Director of the Recall Management Division in the Office of Defects, National Highway Traffic Safety Administration (NHTSA)

People should not buy air bags online or from a salvage yard or anywhere other than the dealer. People should not have their air bags replaced by anyone other than a dealer.

Remedied parts are only available through the dealer who are affiliated with the vehicle manufacturers. These dealers will perform the remedy for free. We know that individuals are selling air bags with recalled inflators on eBay and other websites. Because buyers cannot really know the origins of the air bags, we strongly discourage anyone from purchasing an air bag off of the Internet for any brand of vehicle that has a recall inflator.

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Recycled Airbags Pose Potential Danger to Unsuspecting Drivers

Local CBS News Channel 2
Miami, Florida
May 17, 2017

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Automotive Recyclers Association

Headquarters:
9113 Church Street
Manassas, VA 20110

Washington Office:
300 New Jersey Avenue, NW
Washington, DC 20001