Remanufacturing Industry Briefing

Hosted by the U.S. Department of Commerce and the Standards Alliance

MEMA Office | Washington, D.C.
December 7, 2016

John Chalifoux
MERA

John Disharoon
Caterpillar, Inc.

George Zauflik
CARDONE Industries, Inc.
Remanufacturing Industry Briefing

Hosted by the U.S. Department of Commerce and the Standards Alliance

MEMA Office | Washington, D.C.
December 7, 2016

John Chalifoux
President and Chief Operating Officer
MERA
Today’s Theme:

Setting the Quality of Remanufactured Products on Par with New
Discussion Topics

- Key Industry Drivers
- Reman as the 4th R
- Remanufacturing Industry Report
- International Industry Definition
- Remanufacturing Legislation
- Manufactured Again Certification
Key Industry Drivers

- Economic and environmental consciousness of buyers
- OEMs and suppliers view reman as a valuable service parts offering… particularly as service commitments increase to 15 years beyond EOP (end of production)
Reduce.
Reuse.
Recycle.

— *the 4th R of the environment* —

Remanufacturing is sustainable manufacturing and a key component of the circular economy.

Today’s remanufactured products are as good as new, cost less to purchase, and minimize the impact on the environment.

Key Findings

• The U.S. is the world’s largest producer, consumer, and exporter of remanufactured goods.

• U.S. production of remanufactured goods (in all sectors) totaled at least USD 43.0 billion in 2011.

• U.S. remanufacturing activities supported at least 180,000 full-time jobs in the U.S.
The U.S. and the European Union account for the bulk of global remanufacturing activity and trade; although Brazil, India, and China are developing their own remanufacturing industries in response to growing domestic demand.
Remanufactured Goods: An Overview of the U.S. and Global Industries, Markets and Trade

Key Findings (continued)

- Foreign regulatory barriers are a significant impediment to U.S. and global trade in remanufactured goods. The lack of a common definition of remanufactured goods hampers increased U.S. and global trade in remanufactured goods.
REMANUFACTURING: A standardized industrial process by which cores are returned to same-as-new, or better, condition and performance. The process is in line with specific technical specifications, including engineering, quality and testing standards. The process yields fully warranted products.
**CORE:** A previously sold, worn or non-functional product or part, intended for the remanufacturing process. During reverse logistics, a core is protected, handled and identified for remanufacturing to avoid damage and to preserve its value. A core is not waste or scrap and is not intended to be reused before remanufacturing.

*Definitions for remanufacturing also exist with ITC and USTR*

September 13, 2016: MERA, APRA, CLEPA, FIRM, ANRAP, CPRA
Remanufacturing Legislation

U.S. Federal Vehicle Repair Cost Savings Act

• Signed into law by President Obama in October 2015

• Requires Federal Agencies to encourage the use of remanufactured parts when servicing the federal civilian vehicle fleet
  o The related annual purchases of those agencies total nearly USD $1 billion.
Objective

- Set the quality of remanufactured products on par with new

Expected Outcome

- Increased value for remanufacturers and all buyers
Manufactured Again Certification

Program Highlights

• Companies will be able to certify that their remanufacturing processes meet quality management standards more generally associated with new manufacturing:
  ○ ISO 9001 and IATF 16949

• Program allows all buyers to confidently identify—and purchase—remanufactured products.

Learn more at ManufacturedAgain.com
The program will drive demand by identifying companies and brands to:

• Vehicle manufacturers
• Government procurement offices
• Repair shops
• Technicians
• End users (consumers)

Learn more at ManufacturedAgain.com
Learn more at ManufacturedAgain.com
Today’s Theme:

Setting the Quality of Remanufactured Products on Par with New
Remanufacturing Industry Briefing

Hosted by the U.S. Department of Commerce and the Standards Alliance

MEMA Office | Washington, D.C.
December 7, 2016

George Zauflik
Senior Vice President
CARDONE Industries, Inc.
Leveraging over 45 years of reman pioneering to produce high-quality, precision-crafted products with the lowest environmental impact.
CARDONE Today

- Largest family-owned remanufacturer
- 46 years experience
- Over 3.4 million sq. ft. in Philadelphia, PA
- 46,000+ SKUs
  - All makes and models
- Over 5000 employees

World HQ, Philadelphia, PA
CARDONE Footprint

World Headquarters
- Philadelphia, PA

Mexico Operations
- Matamoros, Mexico

Distribution Warehouses
- Dallas, TX
- Harlingen, TX
- Ontario, CA
- Mississauga, ON
- Edmonton, AB
Mexico Operations

Matamoros, Mexico

- Three plants
- 2,800 employees
- 500,000+ square feet
Texas Operations

Harlingen, TX

- Core facility to support Mexico remanufacturing
- Distribution for southwest
- 670,000 square feet
Texas Operations

Dallas, Texas

- State-of-the-art distribution facilities
- LEED-certified building
  - Environmental cert.
- 407,000 sq. ft.
- 100 docks
- 24-hr. turnaround
Why Reman?

Remanufactured parts typically sell 30-50% BELOW the price of new units.

Reeman
$240.95

New
$415.00
Why Reman?

- Saves 85% energy and material used to manufacture new parts
- Eliminates emissions
- Reduced waste disposal
- Saves manufacturing costs by salvaging unworn parts
Why Reman?

Extend Sales Throughout Entire Life Cycle

Volume of Parts

Years

New
Reman
Total

Data Based Upon
10 Years USA Experience

NEW
REMAN
Why Reman?

Widest Coverage

Early-model coverage
where O.E. new parts supply
no longer exists

Late-model coverage
where high-priced O.E. is the
only other option
Leading in Quality

- **ISO 9001 certified**
  - Quality processes
  - Documented continuous improvement plans

- **TS 16949 certified**
  - International automotive quality standard

- **ISO 14001 certified**
  - International environmental management system
Our Newest Products

Released in Past Year

- Hybrid Drive Batteries
- Glow Plug Controllers
- Totally Integrated Power Modules
- Air Suspension Compressors
- Auxiliary Coolant Pump
- Accelerator Pedal Sensor
- Air Suspension Struts
- Air Suspension Springs
- ABS Modules
- Premium Calipers
Leading in Technology

Mechatronic / Electronic Parts

- Electronic Power Steering
- Electronic Brake Units
- “Anti-Pinch” Window Lift Motors
- ABS Systems
- Electric Calipers
- IVD Brake Boosters
- Many More!
To deliver the right products
at the right time and place
with the excellent
quality, technology and service
you deserve.
Remanufacturing Industry Briefing

Hosted by the U.S. Department of Commerce and the Standards Alliance

MEMA Office | Washington, D.C.
December 7, 2016

John Disharoon
Caterpillar, Inc.
Gaining Global Acceptance
Annex D - Pathfinder on Facilitating Trade in Remanufactured Goods

“Remanufacturing is a complete product recovery process that includes the repair, replacement and recovery of components for product reuse…participating economies committed not to apply measures specifically concerning used goods to remanufactured goods.”

Japan
United States
Chile
Canada
New Zealand
Chinese Taipei

Papua New Guinea
Australia
Mexico
Singapore
Korea
TransPacific Trade Agreement (TPP)

Article 2.11: Import and Export Restrictions
1. Except as otherwise provided in this Agreement, no Party shall adopt or maintain any prohibition or restriction on the importation of any good of another Party or on the exportation or sale for export of any good destined for the territory of another Party, except in accordance with Article XI of the GATT 1994 and its interpretative notes, and to this end Article XI of the GATT 1994 and its interpretive notes are incorporated into and made a part of this Agreement, mutatis mutandis.

Article 2.12: Remanufactured Goods
1. For greater certainty, paragraph 1 of Article 2.11 (Import and Export Restrictions) applies to prohibitions and restrictions on the importation of remanufactured goods.
2. If a Party adopts or maintains measures prohibiting or restricting the importation of used goods, it shall not apply those measures to remanufactured goods.
<table>
<thead>
<tr>
<th>United States</th>
<th>Malaysia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Mexico</td>
</tr>
<tr>
<td>Brunei</td>
<td>New Zealand</td>
</tr>
<tr>
<td>Canada</td>
<td>Peru</td>
</tr>
<tr>
<td>Chile</td>
<td>Singapore</td>
</tr>
<tr>
<td>Japan</td>
<td>Vietnam</td>
</tr>
<tr>
<td>New Zealand</td>
<td></td>
</tr>
</tbody>
</table>

**Indonesia**
Thank You for your time

John Chalifoux  
MERA

John Disharoon  
Caterpillar, Inc.

George Zauflik  
CARDONE Industries, Inc.