HOW, WHERE AND WHY TRUCKS ARE BEING MAINTAINED AND SERVICED DURING THE FOURTH LONGEST PERIOD OF ECONOMIC RECOVERY?

A COMPREHENSIVE STUDY OF THE MEDIUM AND HEAVY DUTY TRUCK AND TRAILER SERVICE MARKET IN 2015

TO BE CONDUCTED BY:

MacKay & Company

2015

WHEN WAS THE LAST TIME YOU AND YOUR COMPANY TOOK A HARD LOOK AT HOW AND WHERE YOUR VEHICLES, YOUR COMPONENTS AND YOUR PARTS WERE BEING SERVICED — AND WHY?

CONSIDER THIS:

- The operating universe of both power equipment and trailers is not only larger than it has ever been – it is also older; the average age of Class 8 trucks and tractors, for example, is now 9.7 years.
- Every study of service activity we have conducted in the past 18 years generates this feedback; the truck operator wants to outsource more of the service work he presently performs.
- The expansion of complex electronic and emissions technology and equipment should drive more of this type of service work to outside service providers – **BUT**
- There has been no truly meaningful expansion of service capacity either in the dealer channel or by independents – **AND**
- Truck dealer service capacity will be increasingly constrained as proprietary engines and components drive business from engine distributors to truck dealers. **COMPOUNDING THIS** –
- Most primary components are running many more miles between repair or replacement than even a decade ago – so the second and third owner is becoming a much more important factor in the service equation – **SO**

WHERE IN THE SERVICE EQUATION DOES THIS LEAVE THE VEHICLES, COMPONENTS AND PARTS THAT YOUR COMPANY PRODUCES?

- Where are they being serviced – and why?
- How large is this service opportunity – who is getting it – and why?
- How do these service practices vary by vocation of use, size of the fleet, truck brand, engine brand, first vs. subsequent owner and geographic region?
- How well is this service work being performed; what do the individuals and companies who operate your vehicles, components and parts want from their service providers – and why?
- Where is the service work on your vehicles, components, tires and parts headed; what will be driving these shifts – and why?
- How do you influence the service provider to ensure that your vehicles, components and parts get the service support they need?

MacKay & Company's 2015 multi-client study of the truck, trailer and component service market will directly address not only these questions – but any others that will put both the opportunities – as well as the challenges – of the service market in clear perspective.

WHAT DOES THIS SERVICE OPPORTUNITY LOOK LIKE TODAY?

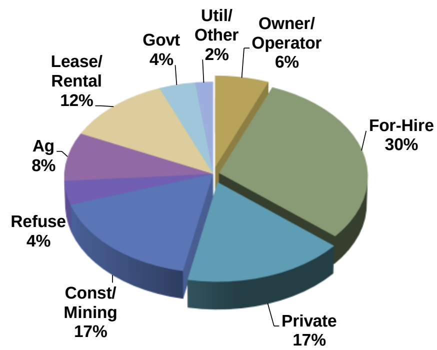
By the time the upcoming 2015 Study is launched, it will have been four years since the last critical evaluation of the medium/heavy duty truck and trailer service market. And, there have been a great many shifts in the truck and trailer marketplace over these past four years. Some of the most important changes are:

- Production of new trucks and trailers has dramatically shrunk since the peak in 2006.
- The average age of all medium and heavy duty equipment – including trailers – is more than a year older than in 2007.
- The vast majority of trucks presently in service are equipped with much more emission control equipment and 2003, 2007 or 2010 hardware.

Realizing that the impact of these shifts will not be fully evident until the 2015 Study has been completed, what did we learn in 2011 that should set the stage for 2015?

The operating universe of serviceable medium and heavy duty trucks and trailers grew from the 5.9 million units in operation in 1997 to 8.1 million in 2011. The medium truck market hardly grew at all – but the Class 8 power unit and trailer universes grew by 60% and 42%, respectively. Based simply on positive shifts in the operating universe, opportunities in the service market increased significantly.

2011
Class 8 Universe by Vocation
2,820,260 Units



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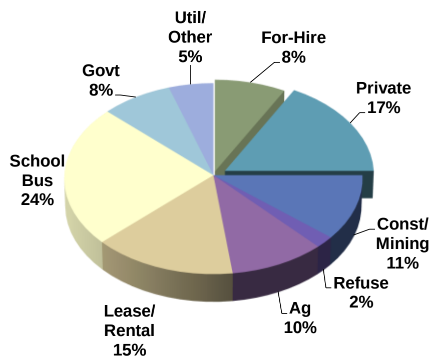
2011
Medium Duty Universe by Vocation
1,605,386 Units



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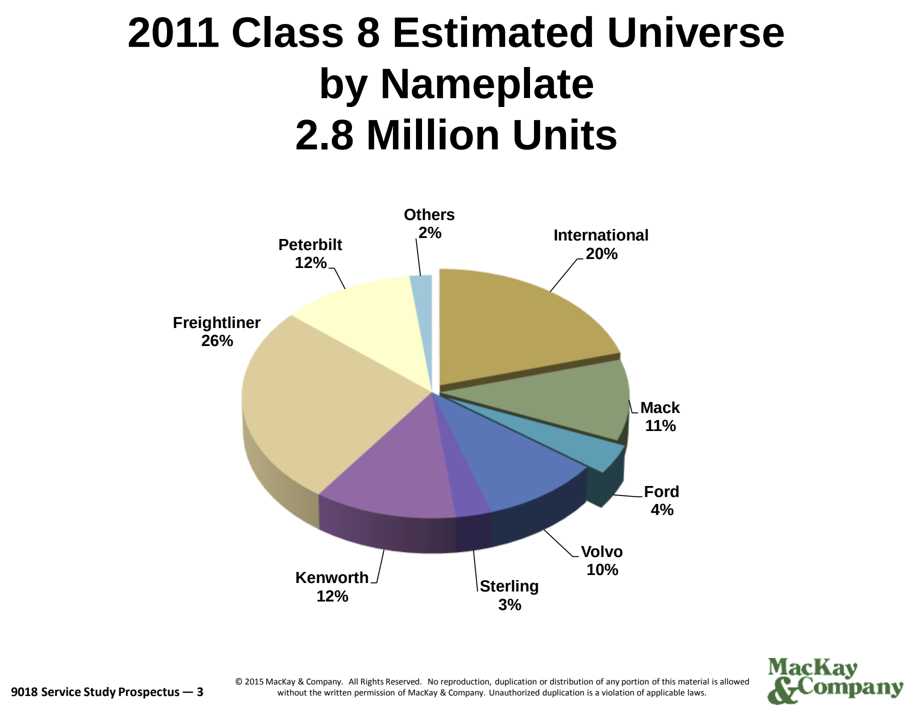
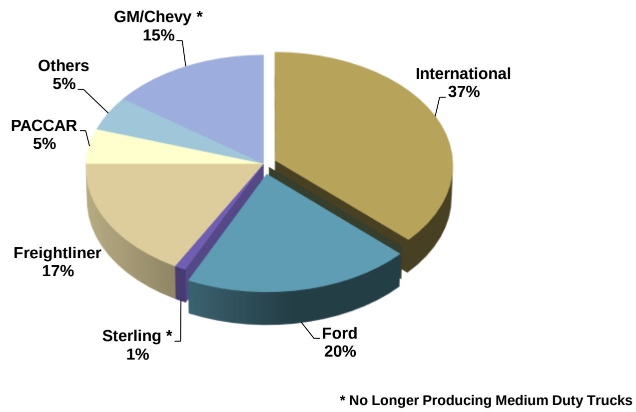
By 2011, the nameplate mix in both the medium and heavy duty truck markets had shifted appreciably. Interestingly, the longevity of vehicles in selective vocations (Ford in service and vocational applications, for example) gave some nameplates in the heavy duty universe a much higher universe share than would be found in new registration data.



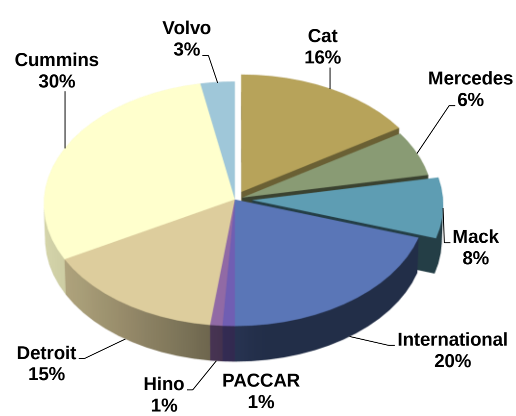
The situation was similar in the medium duty market.

2011 Medium Duty Estimated Universe by Nameplate 1.6 Million Units



Not only had truck nameplate shares changed measurable, changes in the diesel engine market were even much more significant.

2011 Diesel Engine Estimated Universe by Brand 4.3 Million Units

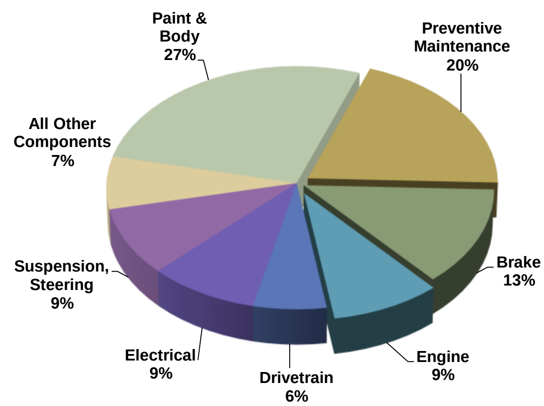


The impact of medium duty dieselization and major growth in Caterpillar's truck penetration presents a much different picture than would have been seen a decade earlier.

Even with a 60% increase in the Class 8 universe and a 42% increase in trailers and containers, the total medium and heavy duty truck and trailer service labor market grew 36% between 1997 and 2011. The impact of significantly improved component reliability and durability could not be more clearly demonstrated.

By 2011, the total medium and heavy duty truck and trailer service market increased by only 84 million hours, less than 20% – to a total of 495 million hours. Even more interesting, the relative importance of each major segment of the service labor market was nearly identical to the 1997 market.

2011 Total Service Labor Market 495 Million Hours



Note: Excludes Tires

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The total number of service labor hours required to support a heavy duty truck was virtually unchanged from 2007 (104.0 hours in 2011 vs. 105.3 in 2007) Compared with 1997, however, 21% fewer hours were required to support a Class 8 truck in 2011.

Heavy Duty Truck Service Hours Per Activity Per Year

Service Activity Group	1997	2003	2007	2011	1997-2003 Change	2003-2007 Change	1997-2007 Change	1997-2011 Change
PM	62.0	43.7	43.9	23.3	-30%	--	-29%	-62%
Engine	13.7	7.2	10.3	12.1	-57%	+88%	-20%	-12%
Drivetrain	3.2	2.0	3.1	6.3	-38%	+55%	-3%	+103%
Brakes	13.5	10.5	11.4	13.1	-22%	+9%	-16%	-3%
Suspension & Steering	6.4	4.3	5.7	8.8	-33%	+37%	-9%	+38%
Electrical	4.8	4.3	4.6	9.1	-10%	+7%	-4%	+90%
Paint & Body	19.7	14.0	19.4	25.2	-29%	+39%	-2%	+28%
All Others	5.2	5.2	5.6	6.1	--	+8%	+8%	+17%
Total	130.4	92.5	105.3	104.0	-29%	+14%	-19%	-21%

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The total number of annual service labor hours required to support a medium duty truck was 13% smaller than when first probed in 1997. However, 2011's 73.1 hours per truck represented a modest increase from 2007.

Medium Duty Truck Service Hours Per Activity Per Year

Service Activity Group	1997	2003	2007	2011	1997-2003 Change	2003-2007 Change	1997-2007 Change	1997-2011 Change
PM	35.0	25.4	24.4	12.7	-27%	-10%	-30%	-64%
Engine	6.5	4.1	5.4	6.8	-37%	+32%	-17%	+4%
Drivetrain	2.4	1.7	2.1	3.9	-29%	+24%	-12%	+85%
Brakes	9.6	10.7	5.7	8.8	+11%	-47%	-41%	-8%
Suspension & Steering	2.4	1.9	2.8	4.8	-21%	+47%	+17%	+100%
Electrical	2.7	2.8	3.6	8.2	+4%	+29%	+33%	+204%
Paint & Body	19.7	17.0	19.1	21.0	-14%	+12%	-3%	+7%
All Others	5.2	3.6	5.3	6.9	-31%	+47%	+2%	+30%
Total	84.3	67.8	69.1	73.1	-20%	+2%	-18%	-13%

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The number of service labor hours required annually to keep a trailer in operating condition has not changed since 2003. And since 1997, the only real increase in maintenance demand was for suspensions, which are more complex today than they were in 1997.

Trailer Service
Hours Per Activity Per Year

Service Activity Group	1997	2003	2007	2011	1997-2003 Change	2003-2007 Change	1997-2007 Change	1997-2011 Change
PM	8.5	6.0	5.9	2.5	-29%	-2%	-31%	-71%
Air Brakes	4.3	3.1	4.0	3.5	-28%	+29%	-7%	-19%
Suspension	1.0	0.7	1.1	2.7	-30%	+57%	+10%	+145%
Electrical	2.0	2.0	2.0	2.0	--	--	--	--
Paint & Body	6.2	8.0	6.2	7.8	+29%	+22%	--	26%
All Others	8.0	2.0	2.0	2.3	-75%	--	--	+15%
Total	30.7	22.3	21.9	22.7	-27%	-2%	-29%	-26%

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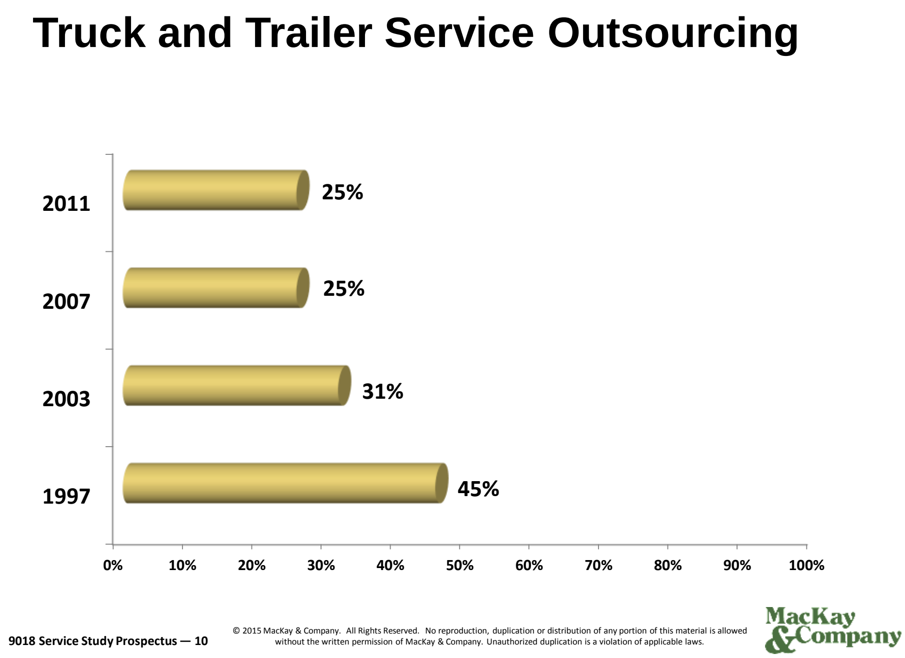
Perhaps the most challenging feedback from both the 2003, 2007, 2011 Service Update Studies was the inability of suppliers of outsourced service – both dealers and independents – to capture more of the owner/maintainer's service business. In fact, just the reverse happened. Outsourced service activity declined from 45% of the total market in 1997 to 31% in 2003 – and to 25% in 2007 and 2011!



Market conditions in 2015 will be somewhat different than they were in 2011 – and in earlier years as well:

- The truck universe continues to get older.
- The economic recovery continues although at a slow pace.
- The durability and reliability of many, but not all, components continues to increase.
- The impact of 2003, 2007 and 2010 emissions control components and systems will be much more important than in earlier years.
- The overall impact of electronics – not only in engines but in transmission, brake and other components – will be much more important.

Developing a much more current – and more comprehensive – understanding of the challenges and opportunities in both the vehicle and component service market needs to be at the top of the list for every supplier in the heavy duty arena.

HOW WILL THE 2015 STUDY BE CONDUCTED?

The 2015 Service Study will be conducted very similar to the manner in which the 2011 Study was conducted. The primary research elements, in addition to a thorough review of all background data, will be:

- Discussions with each participant in the 2015 Study to determine the issues of greatest importance to each participant
- Selective preliminary field interviews with a representative sample of both internal (fleets, etc.) and external (dealers, etc.) service providers to determine the primary service and service-related issues upon which our broader-based survey work needs to focus – in addition to the critical shortage of technicians
- A series of mail and phone surveys with both internal and external service providers focusing on these issues – survey input is targeted from thousands of fleets and operators of medium and heavy duty trucks and trailers and a proportionally large number of dealers, independent garages, service specialists and other external service providers
- In-depth information on the following topics is currently proposed: serviceable universe of medium and heavy duty trucks, trailers and diesel engines; non-component service practices like paint and body and truck washing; service practices for specific vehicle components including but not limited to PM, engines, drivetrain, brakes, wheel ends, steering, suspension, electrical, heating and cooling and tires; service shop practices for fleet's internal shops and outside service providers; warranty services; contract maintenance, service provider analysis including capacity, labor mix and technician issues; outsourcing and an industry outlook.
- A detailed comparative analysis of this data and data from the three previous (1997, 2003, 2007) and 2011 studies, as well as an outlook to 2020.
- A comparative analysis of the tire mounting and dismounting data added in 2011.
- Preparation of a final report for the 2015 study and presentation of this report to each individual study participant. The general parameters of the Study will be based not only on MacKay & Company's objectives – but on input from participating firms as well.

MacKay & Company anticipates including and expanding upon some of these issues again as warranted or requested – as well as incorporating whatever additional relevant issues are suggested by participating firms.

In addition, as options to the base service study, the research results will be available for analysis by:

- First vs. subsequent owner
- Truck make
- Engine make
- Geographic region.

Contact MacKay & Company for further details.

A complete list of the contents of the 2011 Service Study is included as Appendix A to this prospectus.

2015 SERVICE STUDY MANAGEMENT

The 2015 Service Study will be under the overall direction of David A. Fulghum, vice president. Fulghum joined MacKay & Company more than a decade ago after 25 years with International Truck and Engine and its predecessor company. Fulghum's experience at International includes extensive service in engineering and service as well as in parts operations. He had a major role in the 2011 study and also directs several other service-related research activities.

Fulghum will be assisted by several MacKay & Company staff members, primary among them:

- Lynn Buck, market analyst, who will oversee the extraction and development of DataMac® Truck related data
- David J. Kalvelage, who will oversee much of the data development
- David A. Schorn, who will develop the appropriate database programs for data analysis and presentation.

DELIVERABLES

Each participating company in this study will receive:

- 2015 Truck & Trailer Service Study Final Report (Table of Contents for 2011 Study is in Appendix A.)
- On-site review of 2015 Study with MacKay & Company
- Access to online 2015 Truck & Trailer Service Study database

The online database for this study will be very similar to our DataMac® databases. The user-friendly database will allow users to analyze the aftermarket for service labor hours or dollars by a variety of queries for the entre aftermarket or for specific components groups or component areas.

2015 SERVICE STUDY TIMETABLE AND PARTICIPATION

The research program, as outlined is programmed to launch early in the second quarter of 2015. MacKay & Company anticipates that approximately 150 days, but certainly no more than 180 days, will be required from study launch to completion. The completion window, therefore, is November 30 – December 31, 2015.

Please contact us to obtain pricing of base participation in our 2015 Service Study. For those firms who are DataMac® subscribers or participated in the 2011 Study, participation is discounted. As well, prices for options (data by truck make, etc.) are available upon request.

QUESTIONS

If you have any questions on this study or would like to confirm participation, please contact

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SERVICE OUTSOURCING 2007 - 2011

OUTLOOK

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