

Dear Rueben Stokes:

What a great time to be at Ryder! We are excited about the roll-out of Ryder On-Demand Maintenance. It is the ultimate in maintenance flexibility from Ryder and a service package that no one else in the industry has to offer. In fact, 50 of the businesses in our 2-year pilot program had never done business with Ryder before. And that means a huge growth opportunity.

We're here to support your efforts to take Ryder On-Demand Maintenance to the marketplace. To help you get out of the gate strong, we're sending you your own, personalized On-Demand Maintenance sales kit. It contains all of the digital and printed assets to aid in your sales efforts for this innovative new product, complete with high-impact branding and messaging. These materials have been carefully designed to generate strong interest in On-Demand Maintenance and convey all the vital information necessary for converting your leads to customers.

We are interested in hearing about the overall reception of On-Demand Maintenance as you start engaging with prospects. Please don't hesitate to reach out to us with any questions and to share feedback. You can contact Carlos Mendiola, Group Director of Product Management for On-Demand Maintenance at cmendiol@ryder.com or David Kujawa, Director Integrated Marketing at David_A_Kujawa@ryder.com.

Thank you for all your hard work thus far, and all the best in your sales efforts. Let's keep our momentum going strong!

Regards,

SVP, Chief Sales Officer, Fleet Management Solutions Phone: 305-500-4363 Email: jgleason@ryder.com

Kann M. Jones

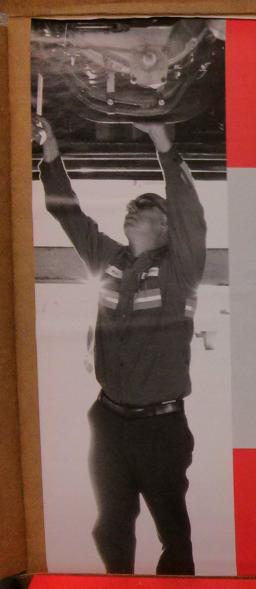
EVP, Chief Marketing Officer
 Phone: 305-500-3694
 Email: Karen_M_Jones@ryder.com

Ryder is in demand for On-Demand Maintenance!

SALES KIT PERSONALLY PREPARED FOR:

Rueben Stokes





Ryder On-Demand Maintenance Sales Kit

YOUR VEHICLE FOR INCREASED SALES. HERE'S WHAT'S UNDER THE HOOD:

CONTENTS

MARKETING COLLATERAL

20 - Presentation Folders (dual pocket)

20 - Ryder On-Demand Maintenance Brochures

20 - Ryder Managed Maintenance Solutions Brochures

20 - Saia Case Study Brochures

20 - Service Event Management/Decisiv Sell Sheets

20 - New Maintenance Landscape Special Reports

CUSTOMER PRESENTATION MATERIALS

1 - Ryder On-Demand Maintenance Sales Resource Guide

1 - Thumb Drive (with videos and PowerPoint presentations)

CUSTOMER GIVEAWAY 20 - Tire Gauge Key Chains

If you are missing anything from your kit, require more information, or would like to order additional materials, please contact Kelly Stone at The Idea Box at 954-465-6408 or kelly.stone@proforma.com



20 - Sala Case Study Brochures

20 - Service Event Management/Decisiv Sell Sheets

20 - New Maintenance Landscape Special Reports

CUSTOMER GIVEAWAY

20 - Tire Gauge Key Chains

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/ EVP, Chief Marketing Officer Phone: 305-500-3694 Email: Karen M Jones@ryder.com

11690 NW 105 Street, Miami, FL 33178

www.ryder.com

Ryder On-Demand Maintenance Sales Resource Guide

· Road calls

· On-site: modular/SIAB

· Pick up & delivery

· Invoice data teed

· Customized Invoicing format

· Maintenance detail delivery

· Access to Decisiv platform

About the Managed Maintenance Center (MMC) The MMC is a central communications hub for all Ryder facilities that

use the Advanced Planning Scheduling System (APS). Calls go into

the MMC so all transactions and services can be coordinated and

scheduled. The MMC also prepares repair estimates based on agreed

upon terms and handles the authorization process, manages vendor

support, as well as reporting metrics, and working with the RCRC

Emergency Assist Department when necessary.

Customer Process Flow

· On-site: customer shop

· Modified fleet reporting

Email potifications

· Decisiv software

· Mobile access

Service Description:

- The ultimate in maintenance flexibility for large for-hire fleets Access to our network of 450+ company-owned shops in the U.S. & Canada
- Access to our network of 5,000+ technicians · Contract and pay for maintenance services as needed at
- pre-negotiated rates Dedicated customer support through MMC and national sales
- Ryder negotiates, approves and monitors all repair work.
- · Inspections can identify pending issues and bring fleet up to standard
- Full visibility to service details across any regional or national fleet network
- Repairs at Ryder facilities guaranteed for 30 days
- · Fuel & rental availability

Standard Services

· EPA compliance

- Transactional billing
- · PO authorization (email/phone) · Pre-approval repair limits
- · Online invoice delivery (bill trust)
- · Invoice cost reporting
- Truck washing
- MMC repair coordination
- · Ryder shop hours of operation

Optional Services

We can incorporate some or all of these value-added services into a customer's contract:

- · Fleet management portal
- · Fleet-care
- · Preventive inspections/service scheduling
- · Vehicle disposal
- · Warranty management
- · Fuel & tull service fuel island
- · Preferred rental rates
- · Direct to shop coordination
- · After hours repair maintenance
- · Tire management

FLEET MANAGEMENT | DEDICATED TRANSPORTATION | SUPPLY CHAIN SOLUTIONS





If you are missing anything from your kit, require more information, or would like to order additional materials, please contact Kelly Stone at The Idea Box at 954-465-6408 or kelly.stone@proforma.com

MARKETING COLLATERAL CUSTOMER PRESENTATION MATERIALS CUSTOMER GIVEAWAY





A New Approach to Maintenance Flexibility

Ryder On-Demand Maintenance offers consistent service, predictable rates, and one-source simplicity for large for-hire fleets.







The ultimate in flexibility for large fleets, Ryder On-Demand Maintenance provides access to Ryder's industry-leading technicians and quality from a network of 450+ On-Demand Maintenance service locations in the U.S. and Canada. With On-Demand Maintenance, contract and pay for maintenance services as needed at pre-negotiated rates with visibility to service details across your regional or national fleet network.

This innovative maintenance service gives you access to Ryder's national network of shops, service, and repair specialists. Ideally suited for for-hire carriers with 500+ vehicles, Ryder On-Demand Maintenance eliminates the challenges of working with multiple maintenance vendors vendors who don't always consider your fleet their priority or offer consistent quality repairs on the tight timeline you need them.

On-Demand Maintenance keeps you on the road

No matter where or when a truck breaks down, you want fast, professional service to get that vehicle back on the road. With On-Demand Maintenance by Ryder, there is now a simple way to consolidate your repair network and gain complete control over maintenance costs.

Fast response is just a phone call away

Simply schedule preventive maintenance and repair work when you need it, where you need it. All it takes is a single call to Ryder's Managed Maintenance Center. An experienced maintenance representative will discuss the job with you, obtain your authorization, and schedule the work.

Standard services include:

- Service and repairs at pre-negotiated rates across the Ryder network and pre-qualified providers
- Simple repair scheduling through Ryder Managed Maintenance Center
- Electronic estimate approvals
- Online invoice delivery
- Timely detailed reports of fleet and maintenance data
- EPA compliance
- Truck washing

Stay in control with full visibility

Through a convenient web-based application powered by DecisivTM you also have access to:

- Enhanced communications
- Service event management
- Data/information visibility
- Flexible reporting options

Exceptional service by Ryder

5,000+

45

TECHNICIANS, INCL. 1,000+ REFRIGERATION EXPERTS

ON-DEMAND MAINTENANCE SERVICE LOCATIONS IN THE U.S. AND CANADA

YEARS OF FLEET AND MAINTENANCE EXPERIENCE

CALL. WHENEVER, WHEREVER YOU NEED SERVICE AND REPAIRS, RYDER'S MANAGED MAINTENANCE CENTER IS READY.

You have options

As a valued customer, you have access to these optional services:

- Full-service fuel with complete 11-point vehicle inspection
- Scheduled preventive maintenance inspections
- Annual DOT/MTO inspections
- Mobile maintenance at your facility
- Emergency roadside assistance
- IFTA reporting and compliance
- Preferred rental rates
- Ryder pricing on quality fuel blends and Diesel Exhaust Fluid (DEF)
- Tire management program

Discover how outsourcing with us can improve your fleet management and supply chain performance by calling **1-800-793-3765 (option 1)** or by visiting **ryder.com**. 66 On-Demand has greatly streamlined the maintenance process for our company. Instead of dealing with a multitude of vendors, we can use Ryder's centralized call center to schedule maintenance, quickly receive estimates, and approve work orders. This greatly reduces downtime within our fleet, and gives us the flexibility we need to better serve our customers. Furthermore, Ryder has a strong presence in almost every area that we serve, so we know we can get the support we need to keep our equipment on the road. **99**



Andrew Coleman Vice President of Operations, Coleman Worldwide Moving

⁶⁶ The electronic invoicing system we've created with Ryder On-Demand Maintenance creates a lot of efficiencies on the administrative end and that's been a big upside for us. Control and transparency are key benefits. 99



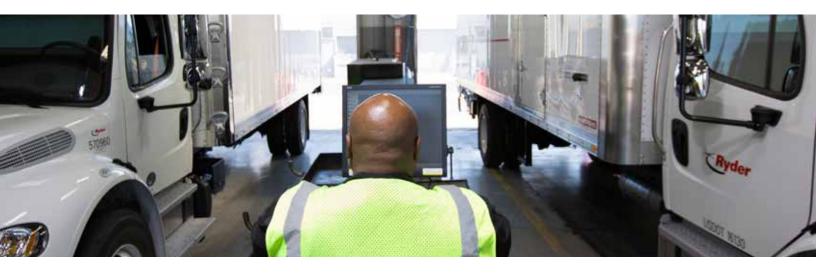
Cris A. Burgum, Vice President Maintenance & Properties, Saia LTL Freight

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Service Event Management Made Easy

Ryder and Decisiv have partnered to develop a Service Event Management Platform that provides real-time visibility, communication, and reporting for managing and maintenance of your fleet. From service events and cost management, to detailed reporting and analytics, our platform gives you much-needed control for all activities in your network of facilities and third-party maintenance vendors.



In an increasingly hectic environment, fast, efficient communication is more critical than ever. When it comes to fleet maintenance, any miscommunications can result in fleet downtime and skyrocketing service costs. That's why Ryder and Decisiv have teamed up to bring you a single platform to manage all your maintenance processes and events with interactive, real-time access to what's happening – anytime, anywhere.

With our expertly configured platform you can work smarter by getting all relevant service event information on your desktop, laptop, handheld device, or smartphone.

You can use the platform to request, manage, and track service events through Ryder's Managed Maintenance Center, as well as any third party vendor you wish to work with.

Stay in control with full visibility

Easy Set Up

- Turnkey solution for all service events and costs
- Fast set-up
- Minimal training
- Pre-configured for commercial fleet maintenance

Total Flexibility

- Enhanced communications
- Electronic estimate approvals
- Service event progress visibility

Timely Information

- Repair estimates
- Real-time status alerts
- Service history
- Decision support dashboards
- Standard and custom reports



How the Service Event Management Platform works:



With the Service Event Management Platform, you can:

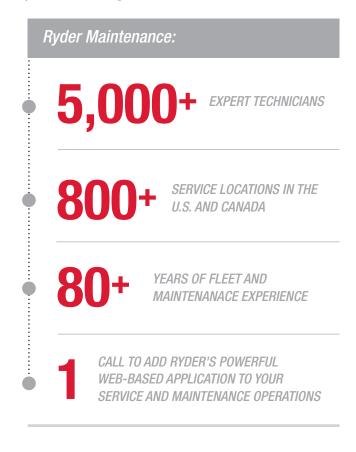
- Increase fleet up-time by getting instant alerts and updates on any service event
- Identify cost-savings opportunities with comprehensive reporting and dashboards
- Manage your maintenance from anywhere tablet, mobile device, web, and email
- Create, manage, and store preferences

Fast, Open Communications

Missed calls, jammed faxes, and one-off emails are all major contributors to many fleet managers' sleepless nights. Ryder can help you overhaul this by providing timely, smooth, online communications between all parties through our Service Event Management Platform.

Full Visibility

If you're like most fleet managers, then you know that the current process to get a vehicle's repair status is anything but transparent. The operations manager wants to know when a vehicle will be back in service, all the while, you are playing telephone tag with the service shop trying to get answers. You can change all that by logging on to Ryder's Service Event Management Platform where you can quickly check the status of any repair. In fact, as soon as a status changes you receive an instant email alert that includes a link taking you to the most up-to-date information.

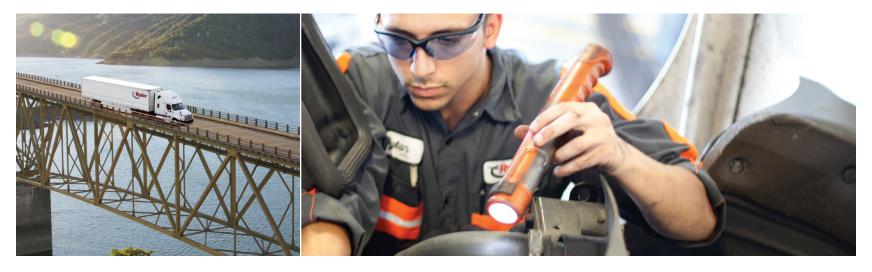


Discover how outsourcing with us can help maximize fleet uptime and eliminate breakdowns by calling **1-800-793-3765 (option 1)** or by visiting **ryder.com**.



Expert Solutions for Maintenance Demands

If you own your fleet, you understand that it's critical to take control of rising maintenance and repair costs. Every day more and more fleet owners are choosing Ryder to handle their service and maintenance needs. With Ryder's 80+ years of expertise you can maximize uptime, and eliminate breakdowns. Best of all, our services are accessible when and where you need them.



At Ryder we understand that fleet operators are finding it more and more difficult to keep up with maintenance demands. Vehicle technology is more complex, maintenance costs are going up, and breakdowns and downtime are on the rise. The good news is – you don't have to travel that road alone.

Ryder offers a wide range of maintenance options for all vehicle types, designed to keep your fleet running properly across its life span.

No matter which solution you choose, you'll always have nationwide access to 800+ service facilities, and 5,000+ certified technicians. You'll also benefit from Ryder's dedication to superior repair quality, safety, and speed. This includes open and effective communication so you are always up-to-date on each vehicle's status.

Managed Maintenance Solutions

Comprehensive Maintenance

A total maintenance package that covers all your service and repair needs 100% of the time.

Preventive Maintenance

Provides standard, preventive maintenance to keep your fleet running efficiently, ensure DOT compliance, and identify and troubleshoot issues to prevent breakdowns.

On-Demand Maintenance

The ultimate in Ryder maintenance flexibility for large forhire fleets. Contract and pay for a nationwide maintenance network for what you need, when you need it.



The success of your business rides on your fleet, so it pays to have reliable maintenance and repair services always at hand. Which option is right for your business?

Comprehensive Maintenance

If fleet maintenance is not your core business, Ryder will handle all of your service and repair needs, while maximizing your fleet uptime.

- Regularly scheduled preventive maintenance
- Minor and major repairs
- Optional multi-point inspections
- Warranty work
- 24/7 roadside assistance, extended repair hours, and available rentals
- Detailed record-keeping by vehicle, location, or fleet

Preventive Maintenance

Prevent breakdowns with meticulously planned maintenance that's done right the first time.

- 120-point preventive maintenance inspections
- Annual DOT compliance inspection
- 24/7 roadside assistance, extended repair hours, and available rentals
- · Minor and major repairs with pre-set labor rates
- Detailed record-keeping by truck, location, or fleet
- Warranty work
- Support for all types and makes of trucks

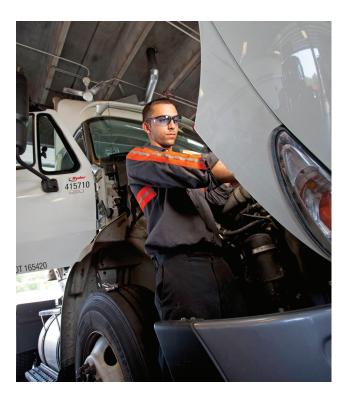
On-Demand Maintenance

Ideally suited for for-hire carriers with large fleets, enjoy the ultimate in flexibility – contract and pay for maintenance services as needed, at pre-negotiated rates.

- Service at 450+ On-Demand Maintenance locations
- Simple repair scheduling through Ryder's Managed Maintenance Center
- Electronic estimate approvals
- Online invoice delivery
- Timely detailed reports of fleet and maintenance data
- EPA compliance
- Truck washing

Ryder.com

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Managed Maintenance Advantages

5,000+

TRAINED, CERTIFIED TECHNICIANS

800+ RYDER SERVICE FACILITIES IN THE U.S. AND CANADA

YEARS OF FLEET AND MAINTENANACE EXPERIENCE

DAY AVERAGE TURNAROUND -THREE TIMES FASTER THAN THE INDUSTRY AVERAGE

Discover how outsourcing with us can help maximize fleet uptime and eliminate breakdowns by calling **1-800-793-3765 (option 1)** or by visiting **ryder.com**.



The Easiest Route to Upgrade Your Fleet

Trapped with an aging fleet? Are maintenance costs eating into your profits? Looking to free up capital that you could re-invest in other areas of your business? Consider Ryder's Fleet Buy-Out Program. From getting the best value for your old vehicles to replacing them with a modern fleet, Ryder provides you with a quick and hassle-free experience.



With Ryder's Fleet Buy-Out Program it's easier than ever to modernize your fleet.

Features of Ryder's Fleet Buy-Out Program

- Quick, simple, and seamless process that converts your old vehicles into cash
- Top dollar for your old vehicles
- Flexible deal terms tailored for your business
- Independent 3rd party inspection of your vehicles
- New vehicles custom spec'd to your needs

Full-Service Lease Benefits

- Control costs and free up capital
- Comprehensive maintenance nationwide for your entire fleet
- Access to insurance and fuel programs at reduced rates
- Priority substitute vehicles for maximum uptime
- Expert assistance with EPA compliance

When you make the decision to turn over your fleet management to Ryder, we understand you need to move quickly. We also understand that you will need a dependable fleet to keep your business moving without interruption. That's why so many companies like yours rely on Ryder for their fleet management needs. To get started with our Fleet Buy-Out Program contact us at: **1-855-657-0741**.

FLEET MANAGEMENT | DEDICATED TRANSPORTATION | SUPPLY CHAIN SOLUTIONS



Special Report

THE NEW MAINTENANCE LANDSCAPE FOR MODERN COMMERCIAL FLEETS

An up-close look at five mega trends driving up maintenance costs, adding complexities, impacting fleet uptime, and what fleet operators should be asking themselves to tackle them.





THE NEW MAINTENANCE LANDSCAPE FOR MODERN COMMERCIAL FLEETS

Companies of all types and sizes are reeling from the impact that more complex engines designed to reduce carbon emissions are having on their maintenance and service costs. They are doing their best to plan for otherwise unpredictable service as their fleets age. Grappling with the prospect of yet another phase of emission regulations on the horizon as early as 2017, they're calling into question all they thought they knew about today's fleet maintenance landscape.



This report will provide insights into today's maintenance landscape, its challenges and the unintended consequences that could sideline your fleet and stall your transportation network. The five mega trends we will explore are:

- 1. New emissions and fuel standards: getting ahead of the curve
- 2. The technician shortage: putting the brakes on your uptime
- 3. The hidden costs: driving up total cost of ownership
- 4. The power shift: from manual to automatic transmission
- 5. Big Data: more complexities ahead

New emissions and fuel standards: getting ahead of the curve



At a time when many fleet operators are still grappling with the 2014 engine technology and its related service and maintenance regimen, the EPA has introduced another wave of "Phase II" proposed regulations to reduce carbon emissions. The proposed rules will apply to vehicles built from 2018 to 2027. The objective is to achieve reductions of one billion tons of greenhouse gases and save about 1.8 billion barrels of oil and \$170 billion in fuel costs.¹ The overarching goal of the new regulations is to dramatically reduce carbon by using less fuel, so nothing will be off the table.

The policies expected to be adopted by manufacturers to produce more energy-efficient vehicles means escalating investments in new components, axle ratios, and aerodynamic enhancements, extending all the way up to entirely new engine platforms.

- Fleet operators can expect Phase II standards to have a much greater impact on the overall configuration of the power unit and the trailer than they have in any prior iteration of regulatory change.
- Scott Perry
 Vice President of Supply Management and Global Fuel
 Products, Ryder

The EPA estimates the cost of improving vehicle fuel-efficiency technology will be \$10,000 to \$12,000 per vehicle for the largest trucks and somewhat less for smaller trucks.

The best opportunity for the transportation industry to meet the new targets is to get ahead of the need for targets. To do that, the industry needs to take an active role in looking at:

- Total freight efficiency
- What fuel types generate the best CO₂ g/ton mile
- How to impact trailer weight and length laws that currently limit productivity while still focusing on improving safety
- How to ensure fleet operators can still select the right fuel, engine, powertrain, and trailer configuration to best meet their application while still complying with regulatory mandates

Bottom Line: Regulations are here and fleets can expect more to come. These new rules can create more complexity and potentially more cost; therefore, it is essential fleets understand what they have to do to achieve compliance. Nevertheless awareness isn't enough. To stay ahead of the curve, fleets will have to develop a proactive compliance strategy that addresses freight efficiencies, optimal vehicle configurations, and the best fuel types that, of course, limit CO_2 .

2 The technician shortage: putting the brakes on your uptime



The diesel engine and its components have dramatically evolved over the last decade. Because of new emission standards and technologies, one can safely say the industry has entered the diesel electronic age.

It should come as no surprise then that the job of diesel 'mechanic' has evolved into something entirely new. Being a prodigy with specialty wrenches and calipers or being able to assemble and disassemble an entire engine is no longer enough. Today's mechanic needs to have a core understanding of electrical components, including computer systems and software programs.

Higher levels of skills are required for today's mechanics – which has resulted in a challenging recruitment environment!

According to The National Institute for Automotive Service Excellence, only 3,500 diesel-and-truck technicians enter the market through technical schools annually. That's simply not enough to mitigate the following two trends:

- Over a million jobs exist today in the auto, diesel, and collision repair industries with growth of 17 percent projected through the year 2020.²
- The American Trucking Associations (ATA) also predicts a shortage of between 5,000 and 10,000, heavy-duty diesel technicians in the next five years.



To add further impact, truck dealers, equipment dealers, independent repair garages, and fleets are all in need of new technicians, and all recruit from the same labor pool.

Bottom Line: Less technicians and growing demands for service equals the perfect storm for longer service and wait times. Longer wait times means longer idle time. And longer idle time means lost opportunity cost as vehicles are not earning money making deliveries, and that certainly will influence customer satisfaction rates.



3 The hidden costs: driving up total cost of ownership



Frost & Sullivan reported that the average cost of a new tractor-trailer is estimated to range between \$140,000 and \$175,000.³ In an ever-changing, highly-regulated environment, there are additional "hidden" factors which can relentlessly drive up the total cost of ownership (TCO) of those vehicles.

Despite the recent decline in diesel prices, fleet owners' focus is shifting more broadly to TCO calculations which encompass fuel and equipment costs, maintenance and service, regulatory fines and opportunity costs associated with having idle equipment.

As previously covered in the technician shortage trend, modern diesel engines are now extremely complex to repair and maintain. To keep them running at their best requires unique service procedures, and new diagnostics by technicians who are essentially system analysts. As well, it's important to remember that engine technologies and diagnostics are changing so rapidly that technicians must be continually re-trained. Taken in totality, these factors create the perfect storm for rising costs that can have a significant impact on your bottom line.

Yet another factor that can increase TCO is violating one or more of the mounting list of regulations. This is becoming a regular occurrence for modern fleets – and is more costly than ever. For example, according to the Federal Motor Carrier Safety Aministration (FMCSA), the fine to employers when a Commercial Driver License (CDL) driver violates an out-of-service order has increased from a maximum of \$16,000 to \$27,500; a substantial increase of 72 percent.⁴



Finally, there are other "unaccounted costs" to factor in. For example, the general public has access to all FMCSA enforcement cases once they are settled. This information publicly displays the violations and fines paid, which could have a potentially disastrous impact on a company's brand and image.

Bottom Line: In this new high efficiency, electronic environment, there are ever-increasing factors driving up TCO. They include new emission engines, the cost to train and recruit new techs, increasing violation costs and lengthier repair times. It's no stretch to say, it's never been more important to completely understand and evaluate all of the observable and not-so-obvious costs, of ownership in order to develop a clear and comprehensive strategy to keep maintenance costs in check.

TOTAL COST OF FLEET OWNERSHIP (TCO)

Identify up to 15% savings

off your total fleet cost with an evaluation from Ryder.

When purchasing a vehicle, or an entire fleet, there are many known costs the purchaser includes in their decision. However, there are several costs that are not included, which makes it difficult to determine your total cost.

FINANCING

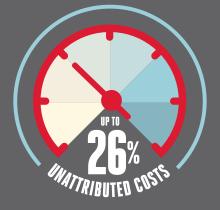
What you include:

- Procurement costs
- Financing method
- Taxes & licensing fees
- Interest

What else should you include?

- Opportunity costs of not investing elsewhere
- Vehicle disposal & salvage fees
- Limited purchasing power for assets
- Reduced return on asset





Training costs

MAINTENANCE

What you include:

- Fuel
- Parts, supplies, labor hours
- Repair & rental vehicle
 - Asset management system

What else should you include?

- Cost of downtime for poor maintenance
- Roadside service
- Cost of breakdowns
- Increasing costs as fleets age

A D M I N I S T R A T I O N **Ryder** What else should you include? HR costs to recruit drivers & technicians Personnel to manage capital & depreciation UNATTRIBUTED



4 The power shift: from manual to automatic transmission



In 2014, more than eight out of 10 Class 8 trucks in Europe were sold with electronic automated transmissions (AMTs); in the U.S., that figure was three out of 10 and growing. It is estimated that the trucking industry is already at the watershed moment when the majority of tractor-trailer transmission specs will be AMTs versus manual.

The EPA has stated that, "the 'Phase II program,' includes AMT-related mandates, would significantly reduce carbon emissions and improve the fuel efficiency of heavy-duty vehicles, helping to address the challenges of global climate change and energy security".⁵

- 66 In a perfect world, the most fuel efficient transmission when driven by the most experienced driver is a manual transmission. But we don't live in a perfect world, so the new AMTs mimic how the most experienced driver would perform.
- Mike Dennis
 Group Director of Maintenance, Ryder

The North American Council for Freight Efficiency (NACFE) estimates that the potential benefit of AMTs starts with a "conservative" fuel savings of one to three percent. Industry experts, however, have indicated that because AMTs electronic platform integrates with the truck's engine, axles, and other systems, there is the potential for further fuel savings. A common sense factor in the drive to AMTs may be the fact that many young drivers view learning to use manual transmissions as nothing more than a novelty. Research shows that this trend began long ago when General Motors released the first automatic transmission in 1940. Since that time, automobile manufacturers quickly moved away from manuals. By 1957, 82.7 percent of American-made cars were equipped with automatic transmissions, currently manuals account for only about 4 percent of American car sales.⁶ This prevailing attitude has surely had a hand in limiting the available driver pool for heavy-duty vehicles in the United States.

In fact, it's been reported that 90 percent of transportation carriers cannot find enough drivers to meet their needs. The trucking industry is short 30,000 professional drivers and according to the ATA that number is expected to rise to 330,000 by the year 2020.

Bottom Line: In addition to improved fuel economy, AMTs help in finding, recruiting and retaining commercial drivers who cannot drive manual transmission vehicles. There are also added safety benefits such as fewer distractions for drivers, and the fact that drivers can maintain both hands on the wheel. The downside is that AMTs require an upfront cost that can range anywhere from \$3,000 to \$5,000 more per vehicle. Computer diagnostics for AMTs, if not performed correctly, could easily serve up false positives causing repeat garage visits, emergency tows and lost uptime.



5 Big Data: more complexities ahead

Built-in Intelligence (BI) models will soon be a part of all commercial vehicles. BI will provide data that tracks maintenance schedules, life expectancy of parts, and even driver behavior.

New intelligence gathering mechanisms are changing vehicle servicing and replacing it with predictive maintenance, based on the data on wear and tear.

This new level of sophistication informs when it is time for a part to be replaced, and when the part displays characteristics suggesting it is coming to the end of its useful life. Even component makers use the analysis of mass of data from individual components to make improvements and monitor their performance.

One new innovative technology is the Cummins diagnostic tool. It functions by gathering repair information from around the world, accumulates it into a database and creates "smarter" troubleshooting trees based on hundreds and thousands of similar repair patterns. The ultimate goal is to reduce the number of diagnostic steps required by as much as 50 percent. Most impressive is that the tool can frequently locate the root cause of an engine issue in as few as three diagnostic steps. Starting with the most likely solution that the tool proposes, technicians can execute a much faster and more efficient repair.⁷

Another solution comes in the form of an information-sharing platform. Decisiv[™] provides large fleet managers instant access to maintenance and activity data from multiple vendors in one single location. This real-time visibility allows them to more accurately measure and manage "days out-of-service," and improve asset utilization and capital efficiency.



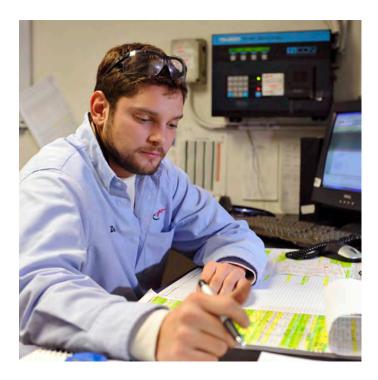
Accessible from any computer or mobile device, more and more fleets are adopting these time-saving technologies to streamline frustrating administrative tasks, increase productivity, eliminate waste, and reduce downtime.

Bottom Line: It has been reported that the trucking industry's average profit margin from big data technologies is about 3.6 cents on the dollar. Fleets will need to progressively invest more in management systems that can handle variable data from multiple vehicle and component manufacturers in a consistent way. It's estimated that the average payback or break-even point for an investment in BI technologies is roughly 12 to 18 months.

Tackling today's maintenance challenges

Here are 10 key questions every fleet operator should be asking about maintenance in their company:

- 1. What maintenance-related regulations apply to the vehicles in my fleet?
- 2. What are the new, proposed regulations and when will they become effective?
- 3. What will it cost for me to comply with the new vehicle emission standards?
- 4. What service and repair records am I required to keep?
- 5. Are there any changes to how I get my Certificate of Roadworthiness (CRW)?
- 6. How do I keep up with maintenance and repairs to minimize downtime?
- 7. Are my technicians skilled and educated to service the latest engine technology?
- 8. What is my technician turnover rate and how does it benchmark against the industry overall?
- 9. What's the impact of technology advancements and big data on my fleet operation?
- What are the hidden costs associated with maintenance that I may not be considering?



Complexity: driving the need for an alternate route

The five mega trends covered in this special report are causing quite a dilemma for fleet operators. As technology speeds ahead, trucks will become more and more computerized and complex, yet many technicians today aren't sufficiently trained to diagnose and work on the current vehicle systems.

Even when fleets can obtain a reliable diagnosis, depending on the vendor, it could take several days to get the parts necessary to complete the repair. The challenge compounds when adding hundreds of maintenance vendors to the mix. More often than not, the quality, dependability, and cost of service tends to be inconsistent at best and difficult to manage.

Many of those same providers still rely on phone calls, faxes, and handwritten invoices which often turn into telephone tag, jammed faxes, and time wasted on administrative tasks. The result for many fleets is a daily logistical nightmare.

Simplicity: the sound choice in an increasingly complex environment

Because of the increasingly complex environment many commercial fleet owners are asking themselves: "Do I really want to be in the fleet maintenance business?" Fortunately there is a better choice. Ryder has developed a series of maintenance services which include Comprehensive, Preventive, and On-Demand Maintenance. Fleet owners can take advantage of convenient access to Ryder's North American service and fuel network with access to a staff of 5,000+ expertly trained technicians.

Ryder delivers consistent service at predictable rates with the ease of a single source for billing and administration. Available on select plans, fleets can also centralize access to their vehicle repair and compliance records with Ryder's maintenance and repair exchange platform powered by Decisiv[™].

At Ryder, we are dedicated to simplifying the new maintenance landscape amidst today's increasingly complex requirements. Discover how outsourcing with us can improve your fleet management and supply chain performance at **ryder.com**.

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