HOW WELL-MAINTAINED TRAILERS GO RIGHT TO THE BOTTOM LINE

Frequently referred to as “the forgotten asset,” trailers are often not the highest priority for fleet maintenance operations. By keeping a trailer in optimal shape, fleet operations will slash maintenance costs and maximize uptime — two crucial elements to keeping a fleet’s vehicles on the road, productive, and contributing to the bottom line.

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Preventive maintenance — it's critical to keeping heavy-duty fleets on the road and productive. Today, for many fleets, the maintenance focus is primarily, and understandably, on the tractor. A new tractor can cost up to $200,000, so it's in the best interest of the company to keep this asset in peak condition.

But a tractor by itself doesn't deliver the load – it requires a trailer. More numerous than tractors and costing significantly less — usually in the $40,000 range[1] — trailers often become the "forgotten asset" in the maintenance equation.

This oversight can be costly for a fleet. Inconsistent trailer maintenance can lead to unnecessary downtime, delays in deliveries and potential accidents — with the possibility of ruinous liability payments — all of which go right to the bottom line.

By shifting their maintenance focus to the entire vehicle — including trailer maintenance — fleet maintenance managers are not only reclaiming a forgotten asset, but they are preserving and amplifying savings to their bottom line.

To this end, there are three specific ways fleets can approach trailer maintenance to keep these overlooked assets up and running, Federal Motor Carrier Safety Administration (FMCSA) compliant, and generating profit for the company:

1. Preventive maintenance of all trailer components.
2. Regularly scheduled maintenance tied specifically to trailer tires.
3. Specifically leveraging retreading to maximize operational savings over ultra-low-priced imported tires, which are typically used only once[2].

PREVENTIVE MAINTENANCE FOR UPTIME

As it is for tractors, preventive maintenance is crucial in keeping a trailer up and running. However, because trailers far outnumber tractors and are spread across many more locations (drop-yards, warehouses, customer locations, etc.), maintenance is harder to schedule on a regular basis.

Fleets that don't actively manage preventive maintenance for these "lost" trailer assets could miss detection of existing and emerging issues leading to unexpected and costly downtime and/or FMCSA violations. Trailer maintenance can be handled in a proactive way, maximizing uptime and productivity. Cutting trailer maintenance costs by even just a few percentage points could add thousands of dollars back to the bottom line[3].

STAYING IN COMPLIANCE

In today's regulated environment, staying in compliance is crucial to an efficient and productive trucking operation. While the value of keeping tabs on a truck's maintenance needs is well understood, fleets tend to overlook the compliance value as it extends to trailers.

Specifically, Section 396.11 of the FMCSA regulations[4] requires that drivers inspect both their power unit and trailer prior to operating the unit and are satisfied that they are safe to drive.

To that end, drivers are required to complete a DVIR daily pre- and post-trip for the tractor and the trailer. Among the required items that must be checked are the tires and wheels. Failure to complete a daily DVIR is a violation of the regulations, which could see the driver and fleet cited, and the vehicle pulled out of service.

Trucking regulations are viewed by some as a nuisance, but their intention is to keep vehicles in good working order and to keep drivers and the public safe. It may be an inescapable requirement to follow the regulations, but it's also good for business.

Being compliant with all rules and regulations is a way to demonstrate that the fleet manager and the company take well-maintained vehicles and safety seriously. This commitment is a strong sign to potential customers and the public at large that this is a safe, conscientious company that's both a good business partner and corporate citizen.

TRAILER PREVENTIVE MAINTENANCE

ATA's Technology & Maintenance Council (TMC), in partnership with FleetNet America, recently reported that the average cost for unscheduled mechanical repairs rose 43% in Q3 2019, from $358 to $513[5]. The top three causes for unscheduled maintenance, in order, are brakes, lights, and tires.

As Benjamin Franklin said, "an ounce of prevention is worth a pound of cure." According to FMCSA Safety Measurement System[6] data for the rolling 24-month period of September 2017 – August 2019, 62.4% of out-of-service violations were attributed to trailers. In addition to preventive tire maintenance, there are other areas of the trailer that benefit from attention before a problem occurs. These include DOT annual inspections, preventive maintenance for wheel end assemblies, trailer braking systems, suspension systems, minor electrical, air lines and connections, mud flap repair or replacement, and minor body repair to trailers.

There's an obvious positive impact of avoiding costly breakdowns that affect a fleet's ability to meet customer commitments. Drivers will also appreciate extra attention on the trailer before they hit the road, as they are the ones on the line to receive CSA violations if they are cited for an issue. These violations affect their driving record and, ultimately, their livelihood.

TIRE MAINTENANCE BEST PRACTICES

Trailer tires are subject to carrying varying loads over a variety of road and yard conditions. Often parked in remote trailer yards and warehouse locations and pulled by a variety of tractors operated by different drivers, the trailer wheel position is often subject to less regular and thorough maintenance than its counterparts in the steer and drive axle wheel positions.

Proper tire inflation is crucial to help maximize tire tread life, promote even tread wear, ensure casing endurance and avoid tire failures on the road/ERS (Emergency Road Service) events.

To keep trailers up and running, fleets should adhere to the following tire maintenance best practices:

- Select the right tire for the application.
- Ensure and maintain proper cold tire inflation pressure.
- Inspect tires and check tire pressure often.
- Abide by the tire's recommended speed and load rating[7].

The above proven methods have been available to fleets since the inception of the tire, but thanks to technological advances, trucking fleets have more tools at their disposal to monitor these crucial components.

Tire pressure monitoring systems (TPMS) for tractors have been available for several years, and now they're available for trailers as well — alerting drivers and fleet staff when a tire is under or overinflated. An automatic tire inflation system (ATIS) automatically adds air to underinflated tires. It's important to note that having an ATIS on a trailer, does not mean a fleet can "spec it and forget it." ATIS manufacturers recommend checking tire pressure at the valve stem at regular intervals. Failure to regularly check and make necessary adjustments can be a large contributor to irregular tire wear.

Increasingly common on tractors, telematics[8] are also being added to trailers, helping to keep tabs on the trailer and the cargo inside of it. Telematics sensors can help fleets maintain tire health with the addition of sensors attached to the tire hardware and suspension. Over or improper loading of the trailer can put additional strain on tires and suspension, causing uneven or accelerated wear, and, in worst-case scenarios, tire or component failures.

Whether you're monitoring trailer tire health through proven traditional methods only or in combination with established and emerging technology, regularly scheduled tire maintenance should be among the cornerstones of the fleet's preventive maintenance program related to its trailers.

MAINTENANCE AND THE BOTTOM LINE

It can't be stressed often enough that both tractor and trailer maintenance are crucial to keeping the entire truck in service and productive for the fleet and its company. Downtime due to a tire failure or poor preventive maintenance practices can cost the fleet in a number of ways.

Among the most common and disruptive is having the vehicle out of service for unscheduled maintenance. Maintenance is necessary, but, when it's unscheduled, it causes ripple effects throughout the organization, affecting delivery times and overall productivity. The driver will also likely be sidelined by unscheduled maintenance, meaning you'll have to pay him or her for unproductive time. Downtime is time away from producing — and, to the point, goes right to the bottom line. If customers get a sense that the fleet can't deliver, then it could affect the company's brand and its business.

Downtime isn't the only thing that will affect the bottom line. In worst-case scenarios, a tire or mechanical failure that results in collateral damage could result in significant losses for the company. In addition to a company or a non-company driver being injured in an incident, the fleet may face significant liability related to the incident. It is not uncommon for multi-million-dollar judgements to be handed down to fleets for crashes related to poor maintenance practices.

While there are other ways that poor trailer maintenance could affect the company's bottom line, these are among the most significant. It's simply good business to have a strong fleet maintenance program — including its trailers.

ACCEPT NO SUBSTITUTES

The variety of commercial tires available to fleets operating in North America has never been greater. From ultra-low-priced imported tires to high-quality, premium performing tires — there are over 30 brands of varying price points and performance profiles.

For cost-conscious operations, price might be the number one consideration factor, particularly with the increased availability of many ultra-low-priced imported, new tires entering the market. This practice of equipping an imported, low-priced, new tire is particularly common for trailer axle fitments, where tire performance is generally more difficult to measure.

However, this is a short-sighted approach that will cost the fleet and its company more in the long term.

Ultra-low-priced imported tires manufacturers are sometimes perceived to invest less in their manufacturing processes, which, again, results in a perception by some end users as a lack of consistent tire uniformity and balance, and could possibly contribute to significant maintenance issues including:

- A compromise in tire performance, resulting in significantly less run-out mileage, greater susceptibility to irregular wear, and very poor retreadability of the casing.
- More frequent tire and trailer maintenance. A less uniform and imbalanced tire can result in a need to more frequently rotate trailer tires to combat the onset of irregular wear (which can start as early as 20,000 miles on low-priced, imported tires), and can also increase the frequency and degree of completing wheel hub and bearing maintenance.

The trailer axle wheel position is subject to considerable operating stress due to carrying diminishing loads. Combined with comparably, on average, less frequent air pressure maintenance, while all tire positions are important, the trailer tire wheel position is the one that is often overlooked, so fleets should be cognizant of not compromising quality for any reason.

A high-quality retread on a premium casing will provide better wear life and improved wear form. Benefitting from a superior original tire casing, better tread rubber compounds, and a high-tech retreading process, a premium retread can deliver better tire performance while driving down trailer maintenance costs through better uniformity and balance.

In fact, based on fleet feedback, the cost per mile to equip a trailer with a high-quality retread on a premium casing is 5% to 30% less expensive.

PUNCTURING A TIRE MYTH: RETREADING

Retreaded tires often get a bad rap. In fact, a high-quality, retreaded tire will have little to no discernable performance differences from new tires. As an added benefit, retreaded tires cost 30% to 50%[9] less than a new tire and can often be retreaded several times.

Keep in mind, in comparison, a high-quality, retreaded tire has better longevity than low-priced, low-quality imports. Retreaded tires also strongly contribute to a fleet's sustainability platform — which can be used in marketing and branding efforts to highlight the environmental benefits of working with the company.

Using retreads, particularly on trailers, is a cost-effective way of gaining all the benefits of a premium new tire without the premium price.

Like new tires, retreads benefit from the same maintenance best practices as new tires (see above). Specifically, careful attention needs to be paid to tread depth and maintaining proper inflation pressure. Trailer tire road failures are predominantly caused by improper tire pressure. The tire failure is a result of an underinflated casing causing excessive heat buildup which results in a separation of the tire belt package from the tire casing — not a separation of the retread from the belt package. The retread remains bonded to the belt package of the tire. The "rubber on the road" that we see on our highways is incorrectly attributed to retreads. In fact, it's a condition linked to poor trailer tire air pressure maintenance and not to the nature of retreads in and of themselves[9].

RECLAIMING THE FORGOTTEN ASSET

By refocusing their maintenance efforts on trailers, fleet maintenance directors are not only reclaiming this forgotten asset, but are also directly affecting their bottom line. Following a combination of preventive maintenance best practices and improved regulatory compliance, fleets will be able to avoid costly, unproductive downtime — both due to unnecessary breakdowns and costly CSA violations.

While priced higher on the front end, high quality new tires and retreads provide fleets with peace of mind, lower total cost of ownership, and better reliability.

To learn more about how Michelin can help improve your bottom line by keeping your trailers up and running,

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For additional information, visit MichelinTruck.com

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