



Minimizing lead time and freight costs

Using telematics, predictive analysis, and collaborative arrangements
to procure parts more quickly and affordably

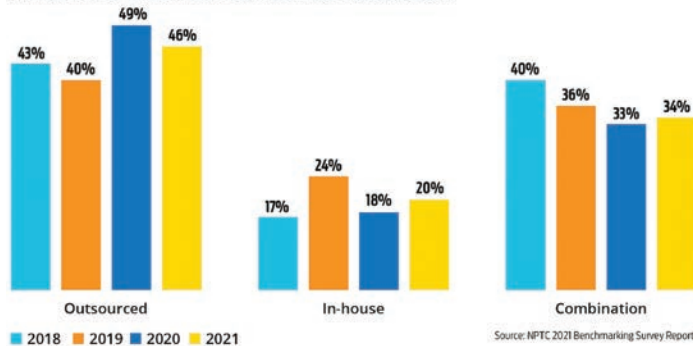
By Crystal Jeffers

Today's economy is fraught with an unyielding demand for parts and an increase of delays and shortages. Though these have long-since been issues within the industry, demand and delay have been trending higher at an alarming rate since the onset of the pandemic, leaving many in the lurch as the far reaches of the trucking industry struggle to survive in a rapidly changing market. Whether you handle repairs in-house or outsource to a local shop, being proactive about fleet maintenance is more important now than ever¹. Though, at times, it may seem there is not much to be done about the current state of affairs, there are several tools designed to help fleets proactively address part needs and concerns, helping to cut down on lead time and freight costs.

¹ Beach, J., Lockridge, D. (2016). The connected shop: From remote diagnostics to predictive analytics, being on top of maintenance today means using data and connections. *Modern maintenance manager*.

Over the last few years, more and more businesses are incrementally shifting away from hybrid approaches and committing to either handling repairs completely in-house or through outsourcing. There are pros and cons to each of these approaches, but no matter which side of the fence you are on, there are ways to improve your freight and part costs.

Where is maintenance conducted?



So, you handle your own repairs...

In 2021, the National Private Truck Council (NPTC) created a Benchmarking Survey Report, which found that nearly half (46%) of all private fleets outsource all of their maintenance needs, while only twenty percent perform their own repairs². Of those who handled their own repairs, the survey found they experienced nearly 10% longer trade cycles.

If you handle your own repairs, then not only are you a rare breed, but there's a good chance you've already got an inventory system in place for common maintenance related items like fluids, filters, and the like. Whether this is a single small shelf at the back of your shop or several sets of tiered, industrial grade racking, the ability to store parts for the future is a luxury not all are so lucky to have. If you have capacity onsite, one approach to account for variability in lead time is to create a strategic buffer by over-ordering inventory in advance. There are both targeted and generalized approaches to this.

For those who receive regular visits from a dedicated representative at their local parts retailer, this can be as simple as having them bump up the normal stock quantities as they make their rounds. The more you have onsite, the less you gamble on last-minute orders,

and the less you wind up paying on overnight fees or other expediting options. The targeted approach involves stocking in advance by looking ahead at what routine maintenance and predicted repairs may be coming down the pike. Likewise, if you have sister trucks in your fleet, maintenance items and unexpected repairs can be anticipated across those similar VINs, helping to both proactively order parts and schedule preventive services.

Depth of inventory on more common parts ensures efficiency on predictable repairs (In the coming pages, we'll look at how predictive analysis can be used to this aim). Breadth on less common parts helps to prepare for the unexpected. Inventory management systems can help with both of these part goals. A good mix of each of these categories in your inventory will help to maximize coverage and minimize the amount of last-minute searching for parts. Building this type of mitigation tool into your existing parts processes can go a long way toward increasing the efficiency of repairs.

Many businesses mistakenly believe there are no alternatives available when it comes to managing the cost of freight³. Especially with all the talk of driver shortages, reduced capacities, and other regulatory burdens, it is reasonable to assume such things. But another approach, one that is intuitive and may already be familiar to you, involves making larger than normal purchases to try and get discounted freight or bulk discounts on parts. If you have the parts storage to accommodate this, buying up significant stores of parts you frequently purchase ensures you always have a steady supply and enables you to take advantage of seasonal or annual sales that may be going on at part dealers around you. Some part dealers also provide discounts on parts as incentives for using certain tools, like ordering online for example. Part providers that have online part ordering available may provide discounts to parts that are purchased through their online portal, which would not only save time but also money on stock orders.



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2 2021 Benchmarking Survey Report. (2021). *National Private Truck Council*. <https://www.nptc.org/benchmarking/benchmarking-report/>

3 Taylor, Mark. (2006). "12 Ideas to Lower Shipping Costs," *Parcel*.

Whether your preferred parts provider has their own set of discounts for seasonal or online orders, there are plenty of groups and organizations that can be joined to gain additional advantage when ordering parts. One example of this is a government sponsored program called SourceWell, which rewards participating schools, universities, nonprofits, and government agencies with a broad range of discounts in exchange for membership. This specific program is a great example of how many individual companies of any and all sizes can



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come together to obtain greater purchasing authority in the name of making parts more broadly affordable and accessible. Purchase programs like this use a technique called “cooperative purchasing”, which illustrates the bulk purchasing method on a large scale. By bringing multiple businesses together, “under one roof” so to speak, organizations like these are able to use that collective demand for parts and large order quantity to negotiate more favorable pricing terms with a variety of part providers. Programs like these have grown in popularity and help smaller businesses to not only streamline their parts procurement processes, but to obtain those parts at a more reasonable cost.

Membership of any sort often has its benefits, whether they come in the form of negotiated rates or access to exclusive discounts and products. For this reason, it is always important to shop your providers as you search for the one that gets you the best bang for your buck. A good place to potentially take advantage of discounts is to look at the perks and features of different credit systems within your industry. When it comes to heavy duty truck parts, Fleetcharge is a fine example of how membership pays off in a variety of ways. Fleetcharge is an International-specific credit provider, so the benefits are specific to International dealers, but that can open the door for better benefits since they do not have to be broadly applied across the board. One benefit

to being a Fleetcharge member is, yes, parts discounts, but more than that alone, it is the guarantee that pricing will stay consistent no matter which International parts provider you do business with. Where SourceWell prioritizes various part discounts through negotiated contracts with a multitude of *providers*, Fleetcharge prioritizes part discounts through all proprietary providers with a multitude of *parts*. In some cases, the discounts available through this program are even better than what is being offered to the traditional parts customer during seasonal and annual sales. Fleetcharge members get access to other perks as well, such as access to EBS (Emergency Breakdown Service), which may be of benefit to your fleet depending on your needs, and only goes to reinforce the fact that it’s important to weigh all of your options when it comes to reducing the cost of parts.

You outsource repairs...

According to Dave Walters, senior solutions engineer for Trimble, a majority of fleets outsource at least 35% of maintenance needs to providers outside their own maintenance network; a number that only appears to be on the rise⁴.

If you outsource repairs, there are a couple tools you may be surprised to know about. Remote fault code monitoring systems provide advanced notice about part needs that may be urgent or simply coming down the pipeline. This advanced notice enables your parts teams to act quickly through proactive measures rather than responsive measures, helping to speed the initial phase of any repair process by minimizing time on task with diagnosing before one is even able to begin searching for parts. Depending on the existing structures, relationships, and openness of management with regard to shared data, there may be even further room for improvement of your parts procurement process and subsequent savings.

In what many are calling the Big Data Era, companies across many industries, especially transportation, have been observing the importance of collecting not just information, but *relevant* information to their businesses; information that will help users to

4 Skydel, S. (2022). The ins and outs of maintenance outsourcing. *Fleet Maintenance*. fleetmaintenance.com/shop-operations/article/21263905/commercial-vehicle-maintenance-outsourcing

make the informed, data-driven decisions at the right time⁵. But in a world with such great abundance and variety of information being captured, how does one know what to use and when? One approach is to use analysis of internal and external data to forecast growth opportunities. As it relates to parts, this could be a determination about what parts to order when, in what quantities, and from which providers depending on lead time, freight costs, and available discounts. Data can also be used to prioritize parts needed for safety rather than a simple routine repair or replacement. As vehicles become more and more computerized, sensors provide data that can help fleet managers proactively stock lights, brakes, and other safety-related parts, helping to ensure all vehicles are up to date on their maintenance needs.

Open platforms like OnCommand Connection create a bridge between customers and dealers through an API (Application Programming Interface) feed that enables both sets of users to access the same datasets – in this case, datasets being captured through your preferred telematics provider from the ECM (Engine Control Module). Though this may sound complicated, it is quite simple and growing in popularity as more and more customers seek to build a collaborative relationship with their providers. There are many guides, tutorials, and representatives available to assist with the setup of this option. The primary benefit of it is that it provides your preferred part provider with the ability to pre-order stock based on the predicted, or present, list of parts that will be needed for particular repairs based on fault activity. Not only can this improve your part provider's inventory, as they will have an idea of what you currently need and what may be needed in the near future, but it could also potentially come with discounts as well since providers may be willing to incentivize customers to participate in such an arrangement. Depending on your needs as well as your preferred part dealer's experience with arrangements like this, it may require a simple conversation or it may require a more in depth discussion about how part ordering decisions ought to be made. But, at the end of the day, this type

of an arrangement can help to reduce freight costs by enabling customers and part providers alike to proactively address part needs rather than responsively.

When it comes to predictive analysis, very few companies are reaching the full potential of its capabilities. Sometimes this comes down to personnel time and aptitude, other times it comes down to a simple lack of infrastructure or a lack of priority for data in company culture. Whatever the case may be, effectively integrating predictive analysis into a company's current set of processes and procedures can have considerable impact on performance as it accommodates better planning through clearer and more informed decisions about when and how to purchase parts⁶. Telematics are often associated with truck tracking for data surrounding driver analytics or fleet safety. But there is much more than can be done with these devices when they are viewed as holistic data collectors rather than just niche. Investing in telematics tends to put companies ahead of their competition in a variety of ways and that is not just limited to driver safety or quarterly budgets⁷.

There are many costs in life and especially in business. It is important to remember that there is more than just monetary cost on the line when it comes to procuring parts; there is also *time* cost when it comes to determining which parts need to be purchased and who you plan to purchase them from in order to find the happy middle where you save money on parts and freight and reduce downtime with the least amount of lead time⁸. That being said, most are familiar with the phrase "time is money" and the term "opportunity cost". There is always a cost to doing business. One can often find cheaper parts or freight, which tends to come



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5 Iovan, S., Ivanus, C. (2014) Business intelligence and the transition to business analytics. Targu Jiu: "Academica Brancusi" Publisher, Annals of the "Constantin Brancusi" University, *Engineering Series*, Issue 4/2014, (CONFERENG 2014), ISSN: 1842 – 4856, pag. 150-156, Romania

6 Iovan, S. (n.d.) Predictive analytics for transportation industry. *Journal of Information Systems & Operations Management*. <http://jisom.rau.ro/Vol.11%20No.1%20-%202017/JISOM-SU17-A05.pdf>

7 Ahmetasevic, D. (2019). Trucking: Information security and technology. *Utica College*. <https://www.proquest.com/openview/75ea5891f70ac80e573b00ba443b772c/1?pq-origsite=gscholar&cbl=18750&diss=y>

8 Konishi, Y., Mun, S., Nishiyama, Y., Kinomura, M. (2021). Transportation time and freight cost. *Kyoto University*. <http://www.econ.kyoto-u.ac.jp/dp/papers/e-21-007.pdf>

at the cost of time, whether it is the lead time to have the part delivered for less money or the time invested to find parts through that particular provider. Alternatively, one could pay more money for predictive systems that help to proactively minimize these search and freight costs, helping to reduce the amount of time invested on digging up the most affordable or fastest option. From that perspective, freight cost is all a matter of what can be afforded in the moment – money or time.

Conclusion

Lead time and freight costs for truck parts have long been the bane of repair shops. The issue, in and of itself, is nothing new. But as the transportation industry struggles to accommodate rising demands that rival an equal rise in delays and shortages, a clear need for mitigation becomes apparent. Whether you service your own vehicles or outsource work to a local shop, there are several approaches you can implement to get ahead of the part availability crisis. When it comes to getting freight and part costs down, take advantage of every tool available and don't be afraid to dip a toe into the world of technology to reach your goals more quickly and consistently.

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