# The Importance of Systemizing Your Diesel Repair Shop

A Highway & Heavy Parts White Paper

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## Part I: Systems Development

As the owner or manager of a diesel repair shop, do you continually struggle with getting the optimal efficiency out of your work flow? Do the same problems and errors keep reoccurring? Has your revenue flat-lined? Is your business not growing like you expected?

Every repair shop in America faces these same issues at one point or another. More often than not, they just accept these problems as just another aspect of doing business. But what most of them don't realize, is that these problems can be overcome rather quickly by taking the time to analyze and innovate the systems and processes that run their business.

Systems and processes are developed and implemented to make sure every task in the repair shop is completed in the same way, no matter who is performing it. If your systems are not being followed, or you lack effective systems in some areas, you will never achieve the optimal productivity and efficiency required to increase revenue and grow your business.

The key to solving these recurring issues is to identify the source of the problem, and determine the cause. Is it caused by an inefficient system? Is it due to the lack of a system? Is the problem caused by an employee not following the system correctly?

If the problem is caused by an inefficient or outdated system, you must review and analyze the entire process from beginning to end, and innovate the system to make it more efficient. Take into consideration every step required to complete each task, no matter how insignificant it may seem. Even the location of the tools and the time it takes a technician to access them can make a big difference in their efficiency. Also consider the amount of paperwork required to complete each process and how many times that paperwork is handled. More often than not, you will be able to minimize the number of steps in the process, or implement new technology to make the task easier.

If the problem is caused by the lack of a documented process for completing a specific task, simply because everyone should know it, you will most likely discover that many of your employees perform that task differently. You must develop a step-by-step process for it and train your employees on how to perform the task correctly.

If the problem is caused by an employee not following a system correctly, it is more than likely a training issue. Retrain the employee, step-by-step, on how to follow the system and coach them through it, so they understand it fully.

The purpose of systemizing your diesel repair shop is to document the best methods to complete the daily procedures that run your business. They should focus on efficiency, cost savings, error prevention, and safety. Properly documented and updated systems provide managers with the ability to identify problems easier and correct them faster. They also make it easier for you to open a new location, start a franchise, transfer ownership to a family member, or sell it for its maximum value. Every aspect of your diesel repair shop should be systemized. Your employees run your systems and your systems run your business. If your entire business isn't systemized, you really don't have a business.

If possible, get your employees and technicians involved in developing your systems and processes. They are the ones using them on a daily basis, so their input is extremely helpful and valuable. It's important that your employees understand why systems are important and how they affect your business. For example: Safety processes are put in place to prevent lawsuits and lost work, due to injury. Good safety procedures impact the bottom line of a business more than most employees realize; An accurate and complete initial service write up by the service advisor ensures that the correct vehicle information is documented for future use and billing purposes. This documentation saves the shop time and money down the road; Vehicle repair documentation standards will ensure that all labor is accounted for and recoverable. Repair technicians need to understand how minimizing their downtime will make the shop more profitable and their paychecks bigger.

Systems and processes need to be written into a procedure manual and distributed to every employee. The procedure manual should then be used to train the employees on how to follow the systems. When systems are followed properly, everyone benefits – employees are happier, owners are happier, and most importantly, customers are happier.

## Part II: Systems Evaluation

Systems are the foundation of any diesel repair shop business. But, how do you know if your systems are working? How do you evaluate them to determine if they are effective or not? Too many repair shop owners don't know the answer to these questions. They are running their businesses with systems that produce a result, but there is substantial waste and inefficiency in those systems, because they don't evaluate their effectiveness by measuring the results.

Simply by asking the question, "How do I evaluate the systems in my repair shop so I know whether or not they are effective?" you're making an important leadership decision. You're deciding to be proactive, entrepreneurial, and smart.

Systems evaluation is essential to understanding your business better. It will tell you what's not working and lead you to innovation. As you evaluate your systems, you will be faced with four simple choices: 1) improve an existing system; 2) eliminate an existing system; 3) design and implement a new system; or 4) leave the system as it is (for now).

**The Systems Evaluation Process:**

1. **Choose a system to evaluate.** This can be any type of system in your repair shop. You may want to review several systems at once and make your selection based on the ones that require the most attention.

2. **Determine the importance of the system.** When deciding which system to evaluate, take into consideration the impact it has on your customers and on your business. Prioritize the systems for evaluation, based on their impact.

3. **Determine the effectiveness of the system.** The next measure for evaluating a system is how well it's achieving its desired result. Is it as effective as it should be? Are you getting the best result for the least cost?

4. **Document your findings.** As you evaluate your systems, keep track of what you learn about them and record your findings. This will provide you with quantifiable information to help you make your decision about whether or not to upgrade your systems. You'll also have a way to measure your improvement when you upgrade your systems.

**Evaluating System Importance:**

When evaluating a system, the objective is to make judgements regarding its importance and effectiveness. You make those judgements by determining how well the system is doing what it was intended to do, and understanding how important the system is in terms of its impact on your customers and your business.

If the system has a significant impact on your customers, or has a high-cost and utilizes a large amount of company resources, then it's an important system and should be given a high priority. For example, if you're initial problem diagnostic and evaluation process takes longer than it should, then it will delay the repair estimate, upsetting the customer, and consequentially, losing the customer. This would result in lost time, lost labor, and lost revenue that you can't re-coup. Not to mention the future revenue that customer may have generated for your repair shop.

If the system does its job extremely well – achieves optimal results using minimal resources at a low cost, it is considered a very effective system and may not need to be changed or improved upon. For instance, if your sales process allows ample time for the service advisor to thoroughly review repair estimates with customers and explain why the repairs are needed, they have a greater chance to sell customers on the repair services, thus increasing their sales closing ratio. This is a good example of an important system that requires little time and effort to increase revenue for the shop.

When you really think about it, it's very obvious whether a system is important or not. But how do you judge its effectiveness?

**Evaluating System Effectiveness:**

To evaluate the effectiveness of a diesel repair shop system, you don't analyze its inner workings, you analyze the result it produces and what it takes to get that result. An effective system is one that minimizes costs, makes the best possible use of your resources, and gets the results you want.

The key to evaluating the effectiveness of your repair shop systems is to think of them in terms of system input, system output, and system costs.

**System Input:** The input of a system includes all the resources used by the system to produce its desired result. These resources may include the number of customers, employees used, parts purchased, equipment and tools required, and paperwork. System inputs have specific metrics associated with them, such as time, quality, and efficiency that can be measured and analyzed to understand their impact on the results of the system.

**System Output:** The output of a system is the result it produces, plus any by-products and waste it may generate. System outputs also have specific metrics associated with them that can be measured and analyzed to understand the effectiveness of the system. Outputs from a diesel repair shop system may include the number of parts installed in a day, the time it took to install the parts, the quality of the parts installed, disposal of the used parts, and profits generated from sales.

**System Cost:** System costs are the specific costs directly attributable to the system and its implementation. These direct costs do not include overhead costs or any other cost that is not related to the system in question. For example, if a system requires 2 diesel repair technicians to operate it, then their pay and benefits are part of the system's labor costs. But management salaries, your advertising budget, or office staff are not part of the system costs.

System inputs, outputs, and costs are Key Performance Indicators that need to be identified, analyzed and measured in order to determine the effectiveness of the systems that run your diesel repair shop. Once this has been done, you can use the data to establish baselines for systems improvement and innovation.

## Part III: Key Performance Indicators


System inputs, outputs, and costs comprise the Key Performance Indicators (KPIs) that need to be identified, analyzed and measured in order to determine the effectiveness of the systems that run your diesel repair shop.

A countless number of things can be measured in any given system, but most of those measurements will be irrelevant. Just like in a diesel engine, most systems only have a small amount of measurable KPIs that will give you the pulse of the system, or tell you if the system is running smoothly. These are the KPIs you should identify, and "Quantity", "Quality", "Timing", and "Intangibles" is how you describe and measure them.

**Key Performance Indicators:**

**Quantity** is the amount of something: How many technicians were working? How many hours did they work? How many parts were purchased? How many parts were installed? How many vehicles were serviced? How many days was the shop open? It can even be the numerical measure of length, weight, or temperature.

**Quality** defines excellence or consistency, or lack thereof: How well was the part made? How well was the part installed? How consistent was the service? Does the system meet your quality control standards? Quality is typically what your customer says it is.

**Timing** is the speed of the system, or "cycle time". This is the time it takes to install one part, service one vehicle, process one customer, or make one sale.

**Intangibles** are the aspects of the system that can be observed and described, but not directly measured. They can include the attitude of your employees, the appearance of the repair shop, or even the weather. While intangibles can't necessarily be quantified, they can be given a rating that you can use to make an objective observation regarding their impact on the system.

You need to view your systems as objectively as you can. Observe them dispassionately. Measure what you can and quantify what can reasonably be given a rating. This will give you the facts about your systems, as best you can determine them.

The point of Key Performance Indicators is objectivity. You need to remove yourself from wishful thinking, biases, or any attachment you have to "the way we've always done it." You may not reach total objectivity, but KPIs will get you very close to it.

For example, maybe you have always used a particular diagnostic system because your repair technicians are familiar with it, and it seems to be very reliable. For those reasons, you haven't considered changing brands or models. But if you took a step back and looked closely at its features, and then compared them to other brands, you might discover that another diagnostic system has features that would make your technicians more productive, get faster results, provide more data, and even diagnose more problems than your current system does. For a modest investment, a new diagnostic system would save time and pay for itself quickly by generating more revenue for your repair shop.

The best way to judge the effectiveness of a system after you have measured and analyzed the Key Performance Indicators, is to ask these questions regarding the system:

1. **Did the system produce the desired result?**
   - Did it meet quality control standards?
   - Did it meet the required profit margin?
2. **Did the system make the best possible use of your resources?**
   - Did the most skilled technician perform the work?
   - Was the proper equipment or technology utilized?
3. **Are the inputs, outputs, and costs appropriate to the result?**
   - Was an adequate number of technicians or employees utilized?
   - Was it completed on time?
   - Was it completed under budget?
4. **Is the system humane and satisfying for the people who operate it?**
   - Do the tasks involved match the employees training and skill level?
5. **Is the system easy to understand, operate, and follow?**
   - Were any mistakes made?
   - Did it take too long to complete?
   - Is more training required to learn the system?
6. **Is the system easy to monitor, track, and quantify?**
   - Were the most relevant Key Performance Indicators identified?
   - Is the record keeping process out of date?
   - Can new technology be utilized to input and track KPIs?

Evaluating your systems would be easy if you knew what the data should be. Unfortunately, you don't have that advantage. Ultimately, the effectiveness of your repair shop systems is a matter of your perception of what works best in your business. In the end, it's your understanding of your business and your market. Good judgment and common sense will tell you if your systems are what they should be. Systems evaluation is a tool to help you view your systems objectively, and gain the knowledge required to improve them.

Please visit our blog post at www.highwayandheavyparts.com weekly to learn more about how systems development and innovation can benefit your diesel repair shop. Also look for additional White Papers in the "News & Updates" section of our website.

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