FAST CYCLE TIMES (The Result of Being ‘Lean’)

With ever increasing regularity, our day-to-day lives are introduced to new trends. Some of these, such as microwave ovens and dotcoms, end up as permanent fixtures in our lives. Others, such as hula hoops and Beanie Babies, turn out to be just the latest fad that sets our world abuzz overnight and then vanishes just as quickly.

The world of collision repair has its own trends that occasionally stimulate emotion and commentary, the very latest being the subject of reducing cycle time. Is this just a fad, or as some experts are predicting, will it truly become a fixture in our lives and forever change the industry?

Cycle time reduction has an assortment of titles, such as “Fast Track Production,” “Advanced Production Systems” and “Rapid Processing Technology.” Call it what you will, it means decreasing the time it takes to produce the finished product or simply repairing the car and returning it to the customer faster. “Curb-to-curb” and “keys-to-keys” are commonly used to describe the period of time that elapses beginning when the vehicle is dropped off at the curb outside your shop and ending when it’s sitting back at the curb, repaired and ready to go.

There are several reasons why the interest in cycle time reduction has started to gain momentum. For larger body shops, and particularly for the consolidators and those with multiple locations, maintaining and developing direct repair program (DRP) relationships has become paramount to satisfying their thirst for the high volume of jobs necessary to maximize the utilization of their production capacity. The promise of a quick turnaround time has inevitably attracted the attention of the insurers who have a vested interest in closing a claim in the shortest possible time frame. The potential reduction in rental car costs and keeping their policyholders happy are additional benefits to the insurer.

Auto manufacturers are also showing an interest in cycle time reduction and are actively marketing the capabilities of their dealer body shops to insurance companies. While this strategy is similar to that of the consolidators, who are promoting their body shop networks, the car makers have added incentives, such as protecting their sales of crash parts and helping their dealers improve the profitability of fixed operations.

The ability to turn a job around quickly can be flaunted as a unique selling proposition, that is something that makes your shop different from the rest. However, research conducted by Chancellor Partners in Vancouver, British Columbia, indicates that improving customer satisfaction via cycle time reduction may not offer the kind of marketing advantage that was originally anticipated. The customers expectation is primarily the consequence of what the body shop told him, so telling a customer it’s going to take two weeks to fix their car, may not necessarily be the problem. Telling them two weeks but taking three or four is the problem. According to Ray Kihara at AutocheX, “When the vehicle promise date is missed, the willingness of the customer to recommend the body shop to family or friends drops. When the delivery date goes beyond seven days, that willingness drops by as much as 10 points.”

INFLUENTIAL FACTORS

Body shop owners and managers have a number of fundamental questions about the subject of cycle time reduction. How are those shops that are attempting to reduce cycle time going about it? Can any facility do it, or does it take special equipment or shop design? Will the insurance companies be the only ones that truly benefit? What’s in it for me, the body shop owner? Is this just a fad?

To put all of these questions into perspective, you must first ask how much cycle time can be reduced. The fact is that the influences on cycle time are numerous and are varied. Technician efficiency will always be a factor. But in turn, this will depend on training and experience; having the right equipment, tools, materials and parts to do the job; and having a complete and thorough repair order. Morale can also affect technician efficiency, as can the type of pay plan and incentives that are in place.

Parts availability will have an obvious impact on cycle time. If a body shop does not have access to the necessary parts, or didn’t get them ordered in a timely manner, no amount of efficiency in other areas of the operation will make up for the time that can be lost just waiting for parts to arrive.
Management, organization and administrative issues can be cited as primary reasons why many body shops are unable to deliver cars in a predetermined time frame. But even the most organized shops can have their schedules disrupted by re-inspections or supplement approvals, so the insurance adjuster’s ability to respond also affects cycle time.

Shift hours and the number of shifts per day more directly impact any shop’s ability to produce. The more hours your shop is open, the sooner you should be able to finish the job. The type of repair and the extent of the damage also determine how long a job takes to complete. The time on repair orders range from four to five hours for a small door ding to literally hundreds of hours on a hard hit, late-model vehicle.

With so many factors, calculating cycle time is, without question, a complex matter. The Process Efficiency Calculator, developed by Bemack Planning Services as part of its Rapid Processing Technology program, identifies the variables that most significantly affect cycle time calculations. These variables include the value of the repair order, the average labor rate, the ratio of labor to total sales, the hours per shift, the labor ratio and administrative efficiency.

According to Bemack, the primary goal was to develop a tool that identifies the high-leverage activities that individual body shops can focus on to improve cycle time. The program, which took almost three years to develop, identifies these high-leverage activities by using numerical animation and computer modeling methods. While the company stresses that predicting cycle time is not its intended use, the calculator does a relatively accurate job of doing just that. For example, one shop that was fairly well organized was able to complete a $2,950 repair job using standard processing methods in 5.57 shifts. By adjusting their processing and production control methods, the same shop was able to fix the same car in 3.0 shifts. But under different circumstances in a different shop, the same $2,950 job might take only 2.5 shifts to repair. Bemack’s conclusion is that even if you have a well-organized operation, cycle time can be cut almost in half. For those who are less organized, cycle time can be reduced by as much as 75 percent.

**ADMINISTRATIVE ASSESSMENT**

While this may seem feasible only to consolidators or large shops that can afford to hire a consulting company, there are also measures the average rural America, real-world body shop can take to reduce cycle time. There’s an old saying that goes something like this: “If you continue to do what you’ve always done, you’ll continue to get what you always got.” Few people like change, but if cycle time is going to improve, the way things are done must change.

So where do you start in your efforts to reduce cycle time? While the answer to this question will vary from shop to shop, it’s important to realize that there is no big secret, no magic piece of equipment or a clever new way to get people to work faster. That may disappoint some people who would like a quick fix. But the reality is that cycle time is affected by every step of the process, starting in the front office.

The administrative process offers the most potential for engineering profitability into the collision repair process and for most shops, improvements here will have a significant impact on cycle time. For this reason, this is the place to start. Examine every step of the process from the time the job arrives at the curb through the scheduling methods to the moments the estimate is written, the repair order is created and the parts are ordered. It is possible to identify more than 20 steps in this part of the administrative process alone that can potentially be better organized, more efficient and result in cycle time reduction.

Ask yourself the same question about all of the systems and procedures you use: Did we plan to do it this way, or did the way we do it just kind of evolve? When you examine the origins of your current systems, don’t be surprised when you realize that no conscious decisions were made or that no game plan was ever developed, it just kind of happened. Then, as times goes by, a process becomes “the way we’ve always done it.”

Many owners and managers, particularly those who came up through the ranks as technicians, prefer to focus on production management or on the production methods. While this is an important factor, no single effort will generate the desired results. Production efficiency is the result of doing a variety of things right, although in the quest to reduce cycle time, the production departments cannot be isolated from the other elements of the body shop operation. For the production departments to function efficiently, it is extremely important to have an effective administration department in place and working in harmony with the other departments.

Producing complete and detailed repair orders, thorough parts ordering and check-in procedures, job
planning and scheduling methods, are just some of the front office tasks that will effect production. Production management is merely one of many components in a complex machine. Efforts to reduce cycle time should start at the very beginning of the process. Consider anything and everything that could potentially delay the job in mid-stage of repair and compromise the schedule. While every job must be planned separately, anticipating delays caused by such things as hidden damage, re inspections, parts problems and color match issues, etc., will provide you with the opportunity to do something about them ahead of time.

THE ROLES OF TOOLS, EQUIPMENT AND SHOP DESIGN
Having the right tools and equipment to do the job, along with an efficient shop layout and design, is more important today than at any point in the history of the collision repair business. But it’s easy to fall into the age-old trap of throwing money at the problem. Indeed, there is a tendency to expect the tools, equipment and shop layout to fix more production problems than they were ever designed to fix or were ever capable of fixing. Conversely, there is also a tendency for the collision repair industry to make do, but when it comes to cycle time reduction, making do won’t make it.

By now, downdraft spray booths are pretty much a standard in the industry, but if you purchased yours 10 or 15 years ago, things have changed. Today, the energy-efficient booths have computerized control systems, variable frequency drive motors and sophisticated drying cycle controls. Structural repair equipment and measuring systems have also gone through a metamorphosis during the past decade, and the compressed air systems in many shops are a common example of where making do won’t make it.

Throughout the past decade, many shop owners and managers have realized that efficient facility layout and design are essential to efficient production. Equipment locations, traffic flow patterns and production environment characteristics (space organization, lighting, air quality and noise control) are just some of the important layout and design considerations.

Those shops that more are aggressively pursuing reductions in cycle time are converting at least part of their facilities to “flow shop” designs. This concept is sometimes known as the production line approach, and the entire collision repair process is performed in car wash style. Vehicles are placed in line and proceed forward through each stage of the process from tear down and body repair to painting, reassembly and detail. But the many variables in the collision repair process limit this concept to certain types of damage, mainly small- to medium-size jobs.

ANGLES OF ATTACK
If you ask consolidators or auto manufacturers about their efforts to reduce cycle times in the body shop, you are likely to receive a rather tight-lipped response. There are two possible reasons for this. First, the collision repair business is as competitive as ever, so many people aren’t ready to share their secrets at such an early stage of the game. Second, they’re all still learning. There’s a lot they have yet to find out.

Most efforts to date amount to sticking a toe in the water to test various concepts and ideas. The starting point for the majority of serious players has been to focus on smaller jobs. This requires developing a vehicle damage classification (VDC), which is a method of placing each vehicle in one of three or four categories based on the complexity of the repair. It’s a way of defining small, medium and large jobs that also provides an insight into the necessary equipment, tooling and technician skill level that are needed for the repair. There is no standard way of developing a VDC, but most use this technique to determine whether a job is suitable for their speed lane or fast track method. For some, the profile of a suitable job is based simply on whether the vehicle is driveable, and for others, the VDC is more definitive.

Reports from the field are that the focus on smaller types of repairs has rendered some gains in cycle time reduction. Smaller repairs are less parts intensive and less likely to have hidden damage. There is also less waiting for re-inspections or supplement approvals and less schedule chaos caused by big jobs that took forever to process and eventually become priority. Processing small jobs separately means they are less influenced by larger, more complicated jobs. Add to this a focus on improving the overall administration process, and it’s not difficult to see how cycle time is being reduced.
But there are two problems with this approach. First, several shops have reported that they ran out of work. There simply weren’t enough small- to medium-sized jobs to keep the production line going. Second, unless cycle time is reduced in all VDC’s, the interest will wane and the incentives fade. As a result, the cycle time issue could become a memory, the Beanie Baby fad of the collision repair industry.

With that said, be assured that the interest in this subject is not going away soon. There is enough interest, enthusiasm and commitment to fuel the momentum for a long time. This is important because the industry has a long way to go to cut cycle times by 50 or 75 percent across the board. The assault on cycle time must eventually become more aggressive, and it needs to be attacked on a much broader front. Improving administration and organizational efficiency and doing everything possible to improve technician efficiency should be the ongoing mission of any body shop interested in making money. Reducing cycle time then becomes a byproduct of those improvements. But how far will that get us and where do we go from there?

**CULTURE SHIFT**

By far, the greatest reduction in cycle times will come as a result of turning one of the most sacred traditions in today’s body shops on its head. The way production is organized in most shops is based on a culture of individualism. Assigning one man to one job dominates the collision repair process and allows only for the implementation of a linear process flow. It eliminates the option of deploying technicians to any job at any time in order to maximize output and reduce cycle times. By applying a total team approach it is often possible to implement a parallel process flow and allows more than one technician to work on any one job at the same time. Even though this can lead to radical reductions in cycle time, it would seem to most people like putting a square peg in a round hole. It doesn’t fit today’s body shop culture.

But just for a moment, put aside the way things are and imagine the way things could be, if the industry can break down the barriers of individualism. Imagine if you had a group of technicians who currently average 100 percent labor efficiency. If you were to assign any one of them to a series of tasks with a total of 10 bid hours, that individual would be able to complete those tasks in 10 hours. But if you assigned the same series of tasks to two technicians, the team could complete those tasks in five hours. The individual labor efficiency of those two technicians remained at 100 percent, but the effective labor efficiency as it pertained to the task was 200 percent, cutting the cycle time in half.

While that is a very simple description of the complex total team approach, the potential it offers body shop owners and managers is enormous and extends far beyond the benefits of reduced cycle times. Along with the current culture of individualism, comes a traditional work stall-to-technician ratio of 2-, 3- and sometimes even 4-to-1. Working together opens up the possibility of reducing this ratio to 1-to-1 or even less.

In turn, more technicians can be hired, and with that comes dramatic gains in the volume of business that the shop can process. The combined effects of doubling the effective labor efficiency and reducing work stall-to-technician ratios could more than double the output of your shop without adding a single square foot. Furthermore, the total team approach can be applied to any type of job, from the simplest to the most complex.

Ok, back to the real world. Right about now you’re probably thinking, “That’s all very well, but my guys would never go for it. They would probably quit. My pay plan wouldn’t work. Where do I find more technicians?” These are all relevant concerns that require even more change to our management strategies and our understanding of human resource issues.

Changing the culture of a company is about changing the employees’ attitudes, perceptions, beliefs and understanding about the way production should be organized. But unlike equipment and square footage, changes to the culture cannot be purchased. Those who try shortcuts, quick fixes or canned solutions will almost certainly fail. A new company culture requires the right environment and must be carefully cultivated in order for it to grow and mature. Only then can the benefits be reaped. It is possible to change the way the repair process is organized and executed in the body shop, but it requires a great deal of hard work, commitment and sensitivity to the natural process of growth.
If this all sounds far-fetched or out of reach, remember: Rome wasn’t built in a day, and Richard and Maurice McDonald, with the help of Ray A. Kroc, took more than a decade to transform their traditional carhop into the McDonald’s empire. And looking back, it may not surprise you that many of the records set in the 1956 Melbourne Olympics wouldn’t even have got you into the semi-finals when the Olympic games returned to Australia in 2004. But in 1956, how could American weightlifter Paul Anderson have imagined that his 413-lb., gold medal-winning lift would be broken by almost 160 lbs. in 1996 by Russia’s Andrei Chemerkin? With all the effort that it took American Charles Dumas to win a gold medal in 1956 when he cleared 6 ft., 11½ in. in the high jump, would he have ever believed that fellow American Charles Austin would beat his record by almost 12 in. to win the same event in 1996? Throughout the last half century, the records just kept being broken and athletes kept getting faster, higher and stronger than ever. In a similar manner, the body shop owner or manager who becomes the most successful in reducing cycle time will be the one who recognizes the need for change and constantly seeks ways to improve the present way of doing things. The repairer who captures the gold medal will be the one who maintains the belief that he or she can jump higher, run faster and be stronger than anybody else.

_Brian S. Evison is the owner and technical director of Bemack Planning Services, a California-based consulting company that is a worldwide leader in collision repair facility planning and that pioneers Rapid Processing Technology. His company has been retained to provide layout and design and management consulting services to thousands of body shops worldwide. Evison, a certified collision repair manager (CCRM), is a co-founder of Masters School of Autobody Management and a licensed teacher of post-secondary education._