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As a youngster I was an enthusiastic car buff. October was a special time of year for me, especially October of 1963. That's right, in the fall of 1963 Chevrolet was unveiling the all new, redesigned Corvette Stingray. I can still remember traveling into town one evening with my parents and my brother to see a dream come true. There it was, in the middle of the showroom floor, gleaming in red with an appeal that was unmatched by any other car in the world! It was a type of car that seemed unattainable, ultra expensive, exotic and wow, by the time I would be old enough to drive, who knows how much they would cost. Twenty three years later, that $5,000 sticker price would prove to be the steal of the century, and that's what this article is all about. The cost of machinery — is it really overpriced, or is it the buy of the century.

The golf course maintenance industry is much like the high priced market of exotic sports cars. After all, there are respective similarities. Both are limited to low volume production, hand built with care, fulfilling a very specific market need and thereby, the end result produces a piece of machinery that is typically more expensive than what the average consumer can appreciate or afford.

The 1980 GCSAA Conference and Show in St. Louis proved to be an exciting conference for me. No, it wasn't because of the fact that Budweiser is brewed in the Gateway Town, but rather that St. Louis was the home of the Chevrolet Corvette Assembly Plant. My brother and I toured the plant one afternoon and three hours later our comments were, "How in the world can G.M. afford to sell a Corvette for such a low price." We were in awe of such large scale production. After all, look at the sheer acreage of the plant facilities, all those overhead conveyors and belts and the humongous machinery swinging axles, engines and fenders into place at just the right moment for what ultimately would become a new Corvette. It is staggering to observe just how many components from who knows how many different suppliers must come together to actually create an automobile. Of all the thousands of jobs, I asked the plant manager, "What is considered the most prestigious job on the assembly line?" He quickly responded, "We have an elderly gentleman who bolts the last component on the car before it's driven off the assembly line, and that's the steering wheel." Just a few feet from the end of the line, the wheel goes on and off goes my dream car.

Now let's get back to reality and further explore this comparison to the turf industry. Upon my graduation from Eastern Kentucky University in 1977, Dr. Barkley, the Horticulture Department Chairman, asked if I would like to be the representing student to attend the Jacobson Student Seminar? So, of course, there I was in Racine, Wisconsin, with 29 other graduating students from across the country spending a four day seminar studying engines and machinery and taking various tours of production and lectures. I guess I was expecting a little bit of a sales pitch but, to the contrary, I witnessed a strong, dedicated commitment to build quality. It was my first exposure to the real world of big business. Sure, there were deadlines to meet and sales quotas to surpass, however, there was also a sense of confidence in the employees with great respect for their employer. After touring the Jacobsen plant, I thought it would be neat to someday have the opportunity to tour the Toro plant.

Well, little did I realize, nine years later I would actually get such an opportunity. This past summer, Toro sponsored the first annual "Toro Turf Professional's Seminar" in Minneapolis, Minnesota. The meeting attendees included a customer from each Toro supplier within the country, and most of these individuals were golf course superintendents. Ironically, three of those students who attended the Jacobsen Seminar with me in '77 would meet again for the Toro Seminar. That's right, I found that Dennis Osborn of California and Gary Geottech of Texas were joining me, as the representative from Florida, in attending this seminar. I believe we have now become enough of businessmen and understand the industry well enough to not be overwhelmed by sales propaganda. However, once again, we were overwhelmed by employee commitment and dedication to manufacture a product that one can be proud of. Much like a golf course superintendent who takes pride in his course.

I still find it incomprehensible to make such a large commitment to large scale production. We are not talking about backyard mechanics who dream of fabricating some sort of home made lawnmower, but rather manufacturing turf equipment on the scale of a Ford or G.M. The cost of a tool and die machine alone can exceed $40,000! And this machine is just one of several production procedures on the assembly line to manufacture (continued on page 23)
something that looks so simple to produce from a layman's point of view.

Perhaps the most impressive piece of machinery on the assembly line was at the Toro irrigation Assembly Plant in Riverside, California. (That's right, I also toured that facility while in Anaheim for the GCSAA Conference and Show in '81.) Within the plant, there was a discussion on the exorbitant expense of purchasing springs for the 600 series lawn sprinklers from a supplier. The results of a cost analysis showed that it would be more profitable to purchase a high spring manufacturing apparatus at a cost of $10,000 whereby springs could be manufactured in house. I witnessed a huge coil of metal being fed into the machine turning out those springs that I used to think were over priced and simple to make. It would seem a spring is worth only a few pennies. However, after being behind the scenes, think of how many springs must be sold to justify the initial outlay. No, I'm not naive either. When is the last time you've seen a McDonald's fold?

The point is, the next time you order a special diameter spring of a specific spring weight and tensile strength, you might appreciate such costs better.

How often have you echoed the frustrating comment of, "Why does that damn little pulley, bearing, or shaft cost so much?" when you know that part is not even worth half that price. I can sympathize with such thoughts, yet seldom do we consider the full view of the picture. What I'm talking about is the absorbed cost for engineering, research and development, marketing, production, inventory, shipping and finally... an ultimate decent profit for the manufacturer, distributor, and retailer.

If you or I were a stockholder you can bet we would like the best return possible or at least what the given market will bear. On the flip side of the coin, we the consumer like to see competition. And you can sure bet that's why we've seen new market entries in the last few years. Don't be fooled by the so-called smaller competition. I have also toured the Lesco Manufacturing Plant in Sebring, Florida. There too you will find those expensive tool and die machines fabricating components in much the same fashion as Toro and Jacobsen. There are respective differences between the manufacturers. Some might be owned and operated by a larger parent corporation, some might accept a smaller percentage of profit, some might operate with smaller overhead, while some are structured with privately owned and operated suppliers under a parent name. Within our lectures and discussions at the Toro Seminar, fellow superintendents from throughout the country voiced varied comments about their respective distributors. In the case of Toro, each distributor is privately owned and operated. They are not directly owned by the manufacturer. We superintendents have observed that some distributorships do not participate in nationally offered sales incentive programs, rebates, and discounted specials. If you are not satisfied with your distributor, they want to know about the problems. It truly is a two way street. I was intrigued to learn that each distributor is reviewed annually by the parent company much like a student taking an exam. Each distributor is reviewed for their stocked inventory versus the manufacturers suggested inventory list, their shipping quotas, back order fill rates, customer satisfaction, and so on. It was acknowledged that some distributors do not operate up to standards and therefore distributors are sometimes terminated. However, this might not be such an easy task. A more competent distributor must follow, and that is not always easy to come by. Have you ever let an employee go for some relatively slight infraction and several weeks later wished you had that employee back. Well, imagine that magnitude for a national manufacturer. Just as much as there were complaints, there were also overwhelming compliments. The problem, however, is that we, the fortunate few who have attended such seminars, can appreciate the problems behind the scenes of manufacturers and perhaps are more understanding and patient. When you, or your mechanic, experience a major complaint such as a delayed back order, an incorrectly shipped part or warranty claim, don't just complain to your fellow superintendent. Instead, call the owner of your distributor and write a letter acknowledging your problem. Records show that those who talk but do nothing to correct the problems seldom see results. Companies cannot make profits unless they sell to satisfied customers.

I must say that I am very fortunate to have toured such facilities and I could just keep on writing about the many things that I have learned from these tours that I would like to share. However, here are a few helpful notes that might be interesting:

- It can take anywhere from two to five years to create a piece of equipment that ultimately reaches the hands of the consumer.

(continued on page 24)
CAE, CAD, and CAM computers (computer aided engineering, design and manufacturing) are employed to design turf equipment just like the one you see on G.M. commercials. Everything from a lawn mower housing to a complex hydraulic pump can be simulated on the computer screen and actually be stress-tested to determine points of weakness or wear.

Prototype machines are often fabricated in plastic in the research lab to analyze design features. (I might also point out, cameras are not allowed in these parts and only the mind can wonder what sort of new machine lurks under those canvas covers.)

Engines are dyno-tested in the research lab where quite often suppliers’ horsepower ratings fall short of design specs because legally the engine manufacturer can rate the horsepower without a muffler system, although the manufacturer will be required to sell the machinery with a muffler system.

Government standards along with manufacturer specifications are tested for durability such as the tensile strength of a rotary blade and impact shatter tested, to determine safety standards for the operator.

Welding computer robots can weld an entire mowing frame with over 60 welds quicker than the time it takes to unload and hook-up the next frame.

Irrigation components are commonly molded in plastic because production cost would be exorbitant if produced in metal. (And I used to think they made them in plastic so that they would break easier and need to be replaced more often.)

The big manufacturers actually have warehouses stocking virtually every part ever needed for every machine to come off the assembly line over the past twenty years. (If you thought the part was back ordered because it was not made anymore, think again! Call your distributor!)

With some manufacturers, if the part is not locally stocked, a “DOWN machine” emergency order can be placed directly to the factory daily, and the part will be shipped directly to your maintenance door. You, of course, must pay the shipping cost.

Upon delivery of new equipment, ask the manufacturer for the “suggested inventory parts list” that your supplier has been advised to stock. (You just might want to stock the majority of those parts yourself as the factory tracks the purchase of parts to keep machines running and sooner or later you will need that part.)

And now for the inside spy scoop. I just read an article that G.M. will introduce, sometime next year, a low cost introductory Corvette for around $20,000! To reduce the sticker base price such accessories as T-tops, ABS braking, 16” diameter wheels and the digital dashboard would be eliminated to create a stripped down version. Could this be the next buy of the century? Twenty years from now, you’ll probably wish you had bought two. ■
The C.A.D. System can simulate designs revealing fatigue and wear points.

A bin of blades will ultimately come together to form a reel.

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Most of us are familiar with the term, preventive maintenance. Certainly all of us agree with the theory of preventive maintenance, or P.M. as it is often referred to. So why do problems still exist with many machines in use? Do manufacturers produce equipment not designed for the rugged demands of today's turf equipment?

As the representative of a major turf equipment manufacturer, I have the unique opportunity to view and examine a wide variety of equipment. Problems that may exist in one location, may not exist at all just down the road at someone else's facility.

What is the difference? Why is one customer satisfied, even happy, the other upset and disappointed? Consider some of these common denominators that manufacturers say work together to produce long life and trouble-free service.

ATTITUDE — Those customers who take a personal interest in the peak performance of a machine often are the most satisfied. They are the ones who respect and view machinery as sophisticated, well-designed work tools for accomplishing difficult tasks. Machines reflect this attitude by looking as good as they perform.

RECORD KEEPING — Record keeping has long been used as a gauge for determining how successful one's preventive maintenance program is. After all, without records, how can one verify and prove his point when making equipment evaluations? All successful professionals such as doctors and lawyers are required to keep records. Are we any less professionals?

PLANNING — "People do not plan to fail, they fail to plan" you may have heard said. People who plan ahead their daily, weekly or monthly maintenance procedures often spend less time repairing their machines.

SERVICE SCHOOLS — Manufacturers spend considerable time and money providing local service training sessions for customers. Statistically, less than 2% of the customers will ever show up for one of these schools. Also true is that 90% of the complaints received from the field are from the remaining 98% unattended.

THOROUGHNESS — Most people feel that changing the oil and greasing the zerks is the extent of preventive maintenance. Any owner's/service manual provided by all manufacturers will quickly point out much more.

Being thorough and following the manual will result in more preventive maintenance - but less frequent repairs.

COMMITMENT — What good are plans and intentions if the work never gets done? Commit yourself to see that this all important work is carried out dogmatically.

DAILY CHECKLIST — One key ingredient in the formula for successful preventive maintenance is a daily checklist. These are things performed on a daily basis after the day's work is completed. People who procrastinate and expect to perform their daily checklist in the morning, often find other things to stand in their way.

Everything discussed here may seem obvious, but the facts prove that most people do not carry out even the most obvious maintenance chores. Manufacturers and distributors of today's turf equipment want you to receive the most value for your dollar. A proper attitude and respect for machines is the first step. Keep records and make a definite plan for each day's scheduled maintenance. Learn to become a problem-spotter instead of a trouble-shooter in order to prevent breakdowns. Attend factory sponsored service schools and go expecting to learn. And once you've decided to develop a proper preventive maintenance program, carry through and do it.

A common sense approach to proper preventive maintenance will provide you the freedom of trouble-free equipment.

DAILY CHECKLIST

- Check engine oil
- Check radiator water level
- Check fuel level
- Check transmission/hydraulic oil level
- Check tire pressure
- Clean air filter element
- Lubricate as scheduled
- Inspect hoses, hydraulic lines and fuel lines for wear or leakage
- Inspect for worn, loose, missing or damaged parts
- Inspect screens, shrouds and radiators for grass blockage
- Inspect for loose, dull or damaged rotary blades
- Inspect reel to bedknife adjustment on reel mowers
- Inspect height of cut on reel mowers
It Shouldn't Be Like Rolling Dice.

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PROFESSIONALS AT WORK FOR YOU
There's a saying among the plantation's members concerning their golf course superintendent, Ed Fatica: "Pound for pound, he's the longest around."

The statement is made both in jest (Fatica might weigh in at 115 pounds on a good day) and with a great deal of respect. Fatica can really blast them off the tee. "I never saw such a little guy hit the ball such a long way," quips one member. Indeed, while riding around the Plantation's Bobcat course, Fatica receives several invitations to round out a foursome. There are also dinner invitations and requests for Fatica to "stop by sometime."

Clearly the members at the Plantation hold Fatica in high regard. "I've been here four years now so I know them all," says Fatica. "They really are great and I enjoy them."

Yet, just knowing the members and being a good golfer isn't enough to elicit the kind of affection that Fatica receives from his members.

In fact, Fatica's success is the result of his constant attention to how course conditions will affect the member's game and long hours on the job.

"Most of the people here have their private country clubs up north, so they're used to being treated right. And they're down here to have a good time. They don't care if it rained five inches yesterday. If the sun is shining today, they want to play golf. They don't want to hear that the course is closed because it's too wet. So I just get out there and rope it off."

Then there are the special touches that Fatica uses to enhance play for the members. For example, during a tournament he used poinsettias as the ladies tee markers. He planted annual beds on the 15th tee to separate different tee placements. And on the twelfth hole of the Bobcat course, he built a small putting green in front of the tee where golfers can practice when play is slow.

The putting green idea works so well that Fatica decided to add one to the 12th hole of the Plantation's new $3 million Panther course, which is scheduled to open in the spring of 1987.

"It's something to relieve the tension of just sitting in that cart when you know you've got two groups in front of you. Now you can chip and putt."

Located on Florida's West Coast, three miles south of Venice on U.S. 41, the Plantation's relaxed, yet active atmosphere is not something that just happened. According to Kathy McEachran, sales manager at the Plantation, "It's an atmosphere that we made a conscious effort toward creating. We've used Bermuda-style architecture because that's how we feel people up north envision Florida. And we've combined a variety of activities and amenities to create an upbeat community."

The Plantation's style of living includes condominiums, attached and detached villas, and single family homes. All exteriors are done in pastel colors and are within walking distance of pools. The clubhouse is also of Bermuda design with hanging baskets and beds of flowers decorating the veranda-type walkways. There are pineapples growing around the patio of the Golf & Racquet Grill while The Manor Restaurant offers outstanding cuisine. Activities include jogging and fitness trails, nine Har-Tru tennis courts, and, of course, golf.

Last year the Bobcat course was host to 60,000 rounds of golf, a good number by any standard.

"I've got lights on all my greens mowers because we have so many 8:15 shotgun starts," Fatica explains. "I put three mowers out when I mow tees. Everything has to be done quickly to beat the play because at 7:30 the gates open and I've got golfers teeing off on the first and tenth holes."

That the Bobcat has been ranked #26 in 1986 by Florida Golf Week Magazine is testament to Fatica's ability as a superintendent. With a degree in Landscape Design and Turf Maintenance from Alfred State in New York, he is well qualified to handle the landscaping around the clubhouse and golf course.

Then there is the construction of the new Panther course which Fatica, along with Director of Golf, Ted Beisler, is supervising. "This is really my first experience with construction," Fatica says, "but I've been around golf all my life (his father was a Golf Pro) and I've seen so many bad things; bad designs, bad cart path and tee placements, bad drainage. I feel confident with my knowledge."

Both the Bobcat and Panther courses were designed around a Scottish theme by golf course architect Ron Garl. Each course incorporates rolling hills (one of the man-made hills on the Bobcat is noted as the third highest elevation in Sarasota County), lakes, and natural terrain to create a chip-and-run game.

"Ron Garl is easy to work with and he's done an excellent job on the Panther," Fatica says. "This could be the best (continued on page 31)"