



TDE Team Review



Dismantling of a Ford icon (see story page 4).

On the Inside...

Intro to DPS6	3
CD4E Blitz Resourcing	5
Youthful April Invasion.....	6

Boulevard Building Rediscovered....	10-12
Intro to Transit.....	14-15
Stallion Story via 5R55E	16

Message from the Director



Phil Yubasz

Teamwork. This is a cornerstone of Alan Mulally's plan for our company. It is called out in the "One Team, One Plan, One Ford" facing of the plastic cards we have, and is the essential ingredient for the "O" portion of the expected behaviors:

"Own Working Together." I thought I would examine this a bit more since I have been intrigued by teamwork and the fundamentals of good teamwork my entire career.

I checked Webster's definition for teamwork and found "work done by several associates with each doing a part but all subordinating personal prominence to the efficiency of the whole." I especially like the part about subordinating personal prominence to the efficiency of the whole. For me, this means that no one person's personal stature or agenda rises above the goals of the team. All efforts are dedicated to the focus of the team. In this definition, I like the mix of complete use of one's talents combined with a humble outlook to assure that any one contributor's prominence doesn't rise above others in the collective quest for team objectives. In this context, Barry Sanders always comes to my mind. He was probably one of the greatest running backs in National Football League history. Barry was a joy to watch; even his opponents enjoyed watching his runs! The best part for me was the way Barry celebrated just after scoring one of his many touchdowns; there was no demonstration! He handed the ball to the referee and enjoyed his teammates' congratulations. His demeanor indicated that the team just scored; for Barry, the touchdown was anything but an "I did it" statement.

Properly defining teamwork is very difficult. Good examples are easy to find, however, and they make for easier understanding. As many of you know, I have been active in sports most of my life. I stay involved in sports with my boys and find many teamwork examples by studying the history of sporting successes...or lack thereof! We currently have some great examples of different levels of teamwork in professional sports right here in Detroit. Both the Pistons and Red Wings are great examples of teams with extended histories of success. Our Tigers are an interesting study in teamwork dynamics, as well.

Did you follow the Red Wings playoff run? Johan Franzen became a true scoring machine through the early part of the playoffs; he was essentially unstoppable and gave the number one line added scoring assistance. At one extended point, though, he was out of the line-up due to injury but the team kept on rolling as others step up. Wings forwards Zetterberg and Datsyuk were simply magic to watch with the puck... but their *best* trait was their hard work in the defensive zone and their magnificent intensity in keeping other team from scoring. It is this kind of effort from the Wings' recognized leaders that sets the example and places the right teamwork ingredients into a formula for success - highly skilled people with a dedication to the team with no personal prominence above the team. What a great and collective success story ...crowned by the Wings taking the Stanley Cup!

To a lesser degree, the Pistons also provide a great example of pieces fitting together nicely in a winning formula. Now Rasheed Wallace may not be your favorite guy; some would say he doesn't display dedication to the team above himself when he gets upset. Yet he somehow manages to offset this negative trait with a commitment to his teammates that they clearly recognize and support. In the end, as you know, this team needed more 'we' than 'I'. To that end, expect changes before next year.

Our Tigers furnish a very different example. I am not sure what is going on with the "can't miss" Tigers but I wonder if all the changes that occurred during the off season have caused the collective sense of team to radically change. If so,

(Continued on page 4)



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'TDE Team Review' is a quarterly publication by and or TDE employees. Key goals are the encouragement and improvement of communications throughout the organization. Employee contributions and feedback are welcomed...and solicited.



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DPS6: TDE Takes Global Lead

by Piero Aversa, EP Transmission

In our industry, it's an unprecedented time of higher raw material costs and skyrocketing gas prices. Carmakers the world over are looking for game-changing technologies which can propel vehicles into the hearts and minds of customers at the same time they add to the bottom line.

One such technology that Ford has advertised heavily is its EcoBoost powerplant. With its combination of direct fuel injection and turbocharging, EcoBoost will beef up the behavior of small 4 and 6 cylinder engines....and do remarkable things to vehicle efficiency and performance.

Closer to home, DPS6 represents a game-changing technology in our community. DPS6 – one of Ford's new dual clutch Powershift architectures – has been in development for the past 4 years. It provides maximum mechanical efficiency for a gearbox while offering the smooth, automated shifting typical of traditional ATs. The DPS6 Powershift does away with pumps, hydraulic controls, planetary gear sets and torque converters and replaces them with a very efficient layshaft gear arrangement and electro-mechanical gear plus shift controls. We are particularly excited by the prospect of NOT dealing with the pesky cooler line leaks, stuck valves, hydraulic delay... but this technology will of course bring new challenges. Powershift transmissions have started to appear in low-volume, performance-oriented vehicles, particularly in Europe. Ford is in the fray with the MPS6 wet-clutch Powershift just launched in the new Volvo V50.

In September, DPS6 became TDE's baby after Advanced Trans saw it safely through the IR (Implementation Ready) milestone. It wasn't a "throw it over the wall" design hand-off. Instead, TDE had embedded forward model employees at Advanced in 2007 to develop this new design in parallel....not in series. As a result of this strategy, our learning curve was far more friendly and the actual handoff far less chaotic. (In fact, design freeze took place only weeks after DPS6 became TDE's baby!) In keeping with the ONE Ford engineering vision, TDE will have Global Core Engineering lead for the DPS6 hardware and calibration, while PTE will have Global Core lead for the transmission controls.

When the baton was passed in September, TDE began work to 1) nail down an affordable cost structure, 2) identify and refine targets with the vehicle teams, 3) deep dive such transmission subsystem designs as gears/shafts/park systems, 4) and bring

such TDE strengths as design rules and CAE analysis to bear. The ownership of this new design wasn't limited to any one department. Instead, it involved extensive, ongoing collaboration between system design, transmission electronics, calibration, CAD/CAE, Purchasing and MP&L.

This project is anything but an arm's length, "black box" external purchase agreement. While the base design is Getrag's, the finished transmission will bear the stamp of TDE engineers. Ford dictated the relevant specifications such as the package envelope, center distance, gear ratios and functional SDS requirements. Additionally, TDE functional experts were brought in up front, and they are steadily refining the Powershift design in every way. We have, for example, full responsibility for calibration and for software development.



As a result, we'll have more control over how the product drives and feels. We'll also be able to reserve some of the lessons learned and

some of the intellectual property we're creating exclusively for Ford. While Getrag plans to market its own version of this transmission, the Ford DPS6 Powershift will be differentiated by its software and controls. Our aim is to improve over that base Getrag creation, just as 6F did when compared to development partner GM's product.

In early 2008, we received our first pre M1 "mule" (test vehicle). You may have noticed the aesthetically challenged, tiny sedan in primer grey – affectionately called "Ugly Betty" - zipping around the TDE parking lots. This vehicle has provided the DPS6 team with a working platform to prepare the M1 vehicles. We have now progressed to M1 vehicles. My first impression is that this will be a winning vehicle... and will have a world class powertrain to match!

On May 7th, the <PA> Program Approval milestone was approved by the Board of Directors. This <PA> approval demonstrates senior leadership confidence in both 1) the technology and 2) the business plan behind it. That May announcement was music to our ears, for it meant that Ford had decided to fund all of the engineering efforts we had invested. DPS6 – a far flung transmission program with the potential to become a legitimate, global competitive advantage - was at last a "go."

Water Tower: Goodbye to an Icon

A Livonia Plant landmark no longer looms over the skyline on our campus. The 134-foot tall, white water tower which stood at the east side of the ATO Building came down during the week of April 14.

That rounded steel shape dated back to the plant's earliest days in 1952, when water pressure from the fledgling city of Livonia (circa 1950) was far less reliable. For years, the water tower functioned as the site's primary source for potable water, fire protection, and constant pressure for plant equipment, toilets, and Power House machinery. The capacity of that gravity-driven aerial storage device - made of 1" thick steel - was 400,000 gallons. City water was pumped up into that tower as needed by the Power House; during the Livonia Plant's heyday, it is estimated that the plant used almost 1,000,000 gallons of water each day.

A ladder went up one leg of the structure to the tank's horizontal catwalk and curved upwards to the very top of the tank. It is said that, back in the day, the view of Detroit's July 4 fireworks from that structure was the best in the 'burbs!

In later years, an auxiliary tank was created on the test track infield; by 2005, the water tower had become more of a landmark than a functional piece. The tower was last painted in 2001; in the last three or four years, its exterior appearance had deteriorated to the point that it needed major attention. The business case for removal was made when a September, 2006, study disclosed that it would be more expensive to repaint the water tower than take it down.

After draining the water and capping and controlling all supporting electric, gas, water, and steam connections,

demolition work began. That work was made more challenging by the fact that the water tower was surrounded on three sides by other plant structures; as the landmark came down, there was no margin for error!

The tower's height was systematically reduced in reverse order of its construction. Watching workers from Precision Demolition (Brighton) raze it on April 16 & 17 was surreal. The ease with which those energetic, confident "high burners" (as they're called in the trade) moved from spot to spot, wielding their torches while wearing heavy protective gear 100 feet and more up in the air...defied coherent description. The sight of an oversized, 120 ton hydraulic crane slowly lowering the cut steel sections safely from the diminishing tower to the ground was remarkable, too. Those steel sections were loaded into trucks and hauled away to be scrapped.

That time-honored, Ford-ovalled water tower loomed very large over our skyline for 57 years. In its basic functions and in its ad-hoc role as a welcoming landmark for employees and community alike, it served this site well for half a century. It struck me as inconceivable that 15 men working for about 16 hours could remove its imposing footprint - indeed, any and all tangible evidence - so completely.



Message From The Director *(Continued from page 2)*

it might well be a major contributor to their very poor play, which is well below anybody's expectations.

While I get *excited* about sports, I'm personally *invested* in how we do in the workplace. Right along with our CEO, I see teamwork as a key ingredient to that success. Surely, we need to use our individual talents to the best of our abilities. At the same time, we need to make sure that Ford's team goals remain our objectives, and that individual "prominence" as engineers remains dedicated "to the efficiency of the whole."

Humility, helpfulness, volunteering spirit, hard work, leadership at all levels and clear respect for one another are key ingredients for Ford's success. I don't know of the 'perfect' definition for a great team, but my many experiences here convince me that TDE has the skills, the dedication and the right ingredients to contribute boldly to our Company's objectives. We need to re-dedicate ourselves to these behaviors - and to the true sense of 'team' - every day we are here.

ONE Ford: Overcoming Adversity

by Jacob Povirk, Axle Shafts & Diff Assemblies N610

When you think of labor troubles involving another OEM, most of us probably don't see ramifications outside of that OEM. We think of his shortages as his problems, if we think anything at all.

When American Axle went out in early February, for example, most probably thought... *"If a strike of any duration sets in, GM might have its hand full."*

Often, though, there's more to it than that. The difficulties at American Axle had an impact on TDE, too, for that supplier makes differential pinions and side gears for CD4E. As the days stretched into weeks without any sign of strike resolution, it became apparent that Batavia production was jeopardized... and that Escape assembly at Kansas City soon would be, too.

Sand was quickly falling through the hourglass as CD4E component inventories dwindled. With other OEM's announced idling of manufacturing facilities throughout North America, a multifunctional Ford team representing Product Development, Purchasing, Finance, Manufacturing, Testing, Quality, MP&L and supplier partners was formed to immediately identify sourcing alternatives for these two components.

This team's task was enormous. Design and development work that should take *years* following standard timing...needed to happen in *weeks!* By traditional standards, this represented a nearly insurmountable task. There were huge technical, developmental and commercial barriers based in "business as usual" which seemed inevitably to point Batavia and Kansas City being idled. But team members challenged themselves to keep those plants running. They developed a true "can do" attitude, and that attitude became infectious.

The design validation process was not without setbacks. The initial hardware failed fatigue testing prematurely...on a Saturday morning! We needed to quickly determine root cause for the failure and whether it was attributed to material or heat treat characteristics. Who better to do that analysis than Technical Specialist Jerry Lehman? Our awkward Saturday afternoon conversation started with... *"Hey, Jerry, what are you doing this weekend? By the way, there's a set of failed gears on your desk. Could you, by chance, do a complete failure mode analysis by Sunday evening?"* Without the slightest hesitation, Jerry's answer was "yes."

There were other remarkable feats. D&R Engineer Steve Trombat worked with the supply base to develop alternative gear sets and procured hardware for validation testing in days. Adrian Ungvari (D&R Engineer) managed validation testing at a test facility that had an open stand, but didn't have the fixturing, spare parts or familiarity with our engineering test procedure. That test stand needed to run 24/7 to meet timing and Adrian worked tirelessly to ensure that it was never down. This included calling all the Ford dealerships in metro Detroit on a Saturday morning to locate spare parts! Warranty analyst Diane Hamilton pulled all the CD4E warranty claims against the causal part numbers and System Engineer Gary Godula somehow quickly located the historic DVP&R (archived in Allen Park) used to initially sign off the diff pinion and side gears in order to validate acceptance criteria.



(L to R) Adrian Ungvari, Jacob Povirk, Gary Godula, Diane Hamilton, Ken Walega & Melissa Sheehan

Many aspects of our emergency resourcing project occurred in parallel: design, development, sample procurement, validation testing, developing a viable manufacturing plan, PPAP, commercial negotiations and logistics. Everyone and every organization had its role. For our team to enjoy any success at all, members needed to execute

flawlessly and concurrently, overcome unforeseen adversity and seamlessly act as one. Mr. Mulally's slogan fit like a glove: *One Team, One Plan, One Goal, One Ford.*

Together, we engineered a "happy ending." In just 13 days, an alternate source for the CD4E differential pinion and side gears was identified, sample parts procured, validation testing completed and capacity ramped up to support production requirements. Despite brutally compressed timing and very real pressures to keep Batavia and Kansas City running, product quality was not compromised. The new components were launched with comparable quality.

Vehicle production at Kansas City Assembly was unaffected by the supply interruption and Batavia's differential assembly line was down for only a day and a half. By any and all timing standards, this emergency resourcing was a truly remarkable feat.

It could not have been accomplished without embracing the guiding principle that we are all responsible – *collectively* - for the continued success of Ford Motor Company.

“Invasion of the Young-Uns”: 2008 Take Your Child to Work Day

by Danielle Crouse & Michelle Bush

Our 2008 TDE/ME Take Your Child to Work Day on April 24 found 142 excited children and 82 pleased parents on our campus. For 2007, 103 children and 60 parents were on hand, so this year’s numbers made the 2008 event quite a success!

The buzz of energetic, intelligent and inquisitive children filled our building all day long. All seemed eager to learn and to see what their Moms or Dads do at work. When we organizers got a break between activities, we saw participating kids in our hallways taking part in the scavenger hunt, or in conference rooms in meetings with their parent, or at their parent’s desk examining the notes written on the board. They all were asking questions! At the end of the day, the children turned in their scavenger hunt forms and received participation certificates. In those moments, we could see that the children learned not only what their parents do for a living, but how their hard work and contributions help to make Ford the great company that it is.

This year’s TYCTWD brought with it several new events. We welcomed a visit and demonstration from June and Iris, a client and service dog from PAWS as well as Pat with her service hearing puppy in training, Timple. We had three new 2009 vehicles on display (Flex, F150 and MKS) and we added another demonstration to our agenda, Virtual Manufacturing. Many of the children who returned from last year’s event were happy to find agenda favorites they remembered from 2007: badges, basic transmission, CAD/CAE demonstrations and a refreshed scavenger hunt. Everyone had a great time and we hope to see all the kids back next year. Who *knows* what new event or demo will be on the agenda?

We would like to say a special ‘thank you’ to Mark Blair and Dave Dreyer for finding budget for this year’s event. We also offer very heartfelt thanks to all of the TDE/ME/TED volunteers who helped with make this year’s TYCTWD a remarkable, memorable experience.



This year’s happy ‘Take Our Children to Work Day’ crowd was the biggest yet!

My Day at Ford

by Kim Bottenberg

A few weeks ago, it was Take Your Child to Work Day. I went with my dad, John Bottenberg, to where he works as a manual transmission supervisor at Ford. It was pretty cool most of the time, but there was one boring meeting that I had to go to. There were tons of awesome activities that the Ford people set up for us kids, like the P.A.W.S. activity, when they brought in Irene, the dog that helps people with disabilities.

My favorite part of Take Your Child to Work Day was meeting all of my Dad's friends and seeing what their jobs are. Even though sometimes my dad talked a little too long with them, it was still fun to have the chance. The only parts I didn't like were 1) having to wait around while my dad got some actual work done and 2) getting sick in the afternoon on Take Your Child to Work Day.

Even though I'm pretty sure I'm not going to work for Ford when I grow up, I still think Ford was a pretty great place with an awesome cafeteria!!!! And I'm pretty glad my Dad works there. My last words? **FORD ROCKS!!!!!!**



Kim & John Bottenberg



Graduation Season Good News - As this academic year draws to a close, many parents in our community are basking in the scholastic achievements of their children. Head ATNPC Crib Attendant Glenn Moore and his wife, Terri, provide a good example. Their son, 13 year old Steven, is a 7th grader at West Middle School in Taylor. This 4.0 student recently earned a Michigan Educational Assessment Program (MEAP) recognition for academic excellence...along with induction in the National Honor Society. Steven's ambition for when he grows up? To be a pilot! Lots of 'proud parent' potential in the Moore family, wouldn't you say?



Proud Parent

by Mike Lemieux, Axle Systems

Kristin Lemieux is a 2007 graduate of Gabriel Richard High School in Riverview. Just like most high school juniors, Kristin was receiving mail from colleges all over the country back in the winter of 2006. One particular brochure caught her eye. It was for the United States Military Academy at West Point. Intrigued, my daughter went on the web to do some research. She then came back to my wife and me with a West Point brochure and proclaimed, "I can do this."

As you might imagine, this came as a complete surprise to both of us. Neither of us had a military background. We immediately felt the concerns that any parent would regarding a child who's thinking about the military. But, after a lot of soul-searching, how could we do anything but encourage such an honorable decision?

My daughter was concerned that her grades might not be high enough, but we suggested that she push the application process just as far as she could to find out! Kristin wrote letters to her Congressman, Senators and the Vice President. She filled out countless forms, went through physical fitness testing, interviews, physical exams, gathered reference letters and attended a week long camp the summer of 2006. We also traveled to West Point in New York to see the campus and Kristin - a gifted softball player - attended a softball camp there that summer. Then came the waiting...and waiting... and *waiting* for the necessary nomination.

The bad news? First one Senator declined. Some good news? She received a letter from West Point admissions that she was deemed fully qualified for admission. Bad news again.... without a congressional nomination, Kristin couldn't qualify. Good news? She received a *conditional* nomination from Congressman John Conyers in December 2006. However,

he nominated her on a *competitive* basis, so she had to outshine other nominees in his district. Finally, the good news/bad news roller coaster came to a stop on January 10, when Kristin received a call from Congressman Conyers' office advising that she would be offered admission to the Military Academy. When the formal offer came in the mail, my daughter didn't hesitate. She filled out the acceptance paperwork and mailed it back the very next day.

At her high school graduation ceremony in May, an army officer and a cadet presented her appointment. We drove her to West Point for R-day (Registration Day) on July 2. The military gave us 90 seconds to say our goodbyes and then Kristin started the so-called "Beast Barracks" - Cadet Basic Training. We didn't see her for 6 weeks and she was only able to call us twice for 10 minutes at a time as an upperclassman listened and watched the clock. Our only other contact was via mail. On August 18 (Acceptance Day), we proudly watched Kristin



Kristin Lemieux: pulling no punches

and her 1304 (17% women) classmates being accepted into the Corps of Cadets. Seeing the cadets march on "The Plain" is a moving experience. The academic and military regimen is quite a challenge, especially for the plebes (freshmen). The day starts early and lights out comes at midnight.

As I write, Kristin has completed her plebe year. Her last final was on May 22. She'll be home for the month of June, return to West Point for training the month of July and then spend a couple weeks at home in August. Here's what my daughter has to say about her experience:

"West Point is challenging because cadets must be proficient in academics, physically fit, and willing to overcome the challenges the military presents. Going on a 12 mile road march in August with a 50 pound ruck on your back in the Appalachian

(Continued on page 9)

Proud Parent (Continued)

Mountains was pretty challenging. Many times I wanted to stop and even began to cry, but my classmates and friends talked me through it. Upon reaching the top of the ski slope and taking in the view, I felt a sense of astonishment at what I had overcome and huge gratitude toward my friends who helped me reach the end. Balancing at least 2 hours of softball practice a day and school work is also difficult. Freshmen have to take 18 credit hours their first semester. I also had to become accustomed to failing. People who were top scholar athletes in high school become just average. It is difficult to get a C in most classes when you got A's and B's your whole life. But what it comes down to is, "How am I going to get through this?" Cadets figure out ways to use their strengths to overcome the challenges. Cadets also help each other out. Everyone has strengths and weaknesses. Cadets learn to ask for help on things that challenge them and to offer help in aspects they thrive in. West Point teaches teamwork...and that's definitely been reinforced here. The friends I've made so far are the best ones I've ever had. When I finally got to go home and see my friends and family for Thanksgiving, I realized that I missed my academy friends and I couldn't wait to get back to see them. Camaraderie is a powerful reason I'm glad I decided to go to West Point. Any time the thought creeps in that

it would have been easier to go to a regular college, I remember that - if I had - I never would have met these remarkable people who will be my friends for the rest of my life."

People often say "You must be so proud" to my wife and me. You bet! We're proud when we visit West Point and see the links from the Great Chain that stretched across the Hudson River to stop the advance of British ships during the Revolutionary War. We're proud when we see our daughter marching on "The Plain" - the same spot where Grant, Lee, Custer, MacArthur, Eisenhower, Patton, Bradley, Aldrin, Powell and Schwarzkopf and other historical figures have marched. In fact, we can't help being overcome with emotion.

And there's another thought which occurs to us. One of the things we enjoy most about visiting West Point is interacting with the other cadets. These are the future leaders of our country and it is extremely reassuring to meet and talk with them. If you ask me, we're in good hands.

(If anyone has any questions or have a child considering the United States Military Academy they can go to www.usma.edu or feel free to give Mike a call.)

Marathon Man: CD4E's Gary Godula, a 10 year running veteran, earned the right to run in this year's Boston Marathon. The 112th running of "the Boston" took place on April 21, and Gary was one of 25,000 (!) men and women from around the globe to run this time-honored race. Despite Heartbreak Hill's best effort, Gary finished the race with strength to spare. His time? A very respectable 3 hours, 22 minutes, 36 seconds. In the aftermath of the major rigors of this road race, Gary's strongest takeaway wasn't about pain or tortured endurance. Instead, he still grins and shakes his head in wonder that the crowds, the race workers, and the City of Boston are such awesome hosts for this granddaddy of all American marathons.





In the World of Ford

Ford's Boulevard Building: Branch Office and So Much More

The unexpected reference in the Business Section of the 3/9 *'Detroit Free Press'* surprised me. A story profiling a booming international construction firm called Lakeshore Engineering advised that the enterprise now made its headquarters in a former Ford factory at Woodward Avenue and West Grand Boulevard.

A former *Ford* property? At Woodward and West Grand? *Hmmmm....*

A call to *'Free Press'* writer Peter Gallagher disclosed the name of his contact at Lakeshore. The next call- this one to Charlene Mitchell at Lakeshore - elicited approval to make a visit. The April 30 tour opened my eyes to another level of the founding Ford's pervasive influence on Detroit history.

The building was another of the hundreds designed and built for Mr. Ford by Albert Kahn. Its location on West Grand - a mere stone's throw from what used to be the General Motors Building! - caused Mr. Kahn to name it the Boulevard Building. Built in 1910 with three levels, it was intended as a large, capable sales and service center: a regional support for the many independent Ford agencies in Michigan. Such branch centers served two purposes: 1) new car showrooms and 2) service centers. Branches made good sense for the young Ford Motor Company, for they provided customers with standardized, qualified service. In addition, they served as central storage areas from which replacement parts shipments could be made. Finally, as factory stores, they also spared the company from paying the large vehicle discounts ("territory agreements") which were typically granted to independent Ford franchisees.

The building's street level contained a showroom and a garage/

service area. The service area was well developed for its day; in addition to many service stalls, it also offered a so called 'carriage wash' with a 4-car capacity. The showroom had its own business office, with spaces for a private manager's area, a stenographer pool, and bookkeepers. The upper stories were given over to parts storage. The building was coal-fueled; Albert Kahn's basement plans called for a coal room, complete with coal chute and hydraulic ash hoist!



One of the service innovations delivered by larger urban branch locations was mobile repair for Ford customers with light repair needs. Upon receiving a call from a motorist in distress (phones were widespread in the city of Detroit by 1914), individual road service crews - motorcycle "flying squadrons", according to the July, 1914 issue of *'Ford Times'* - could be dispatched to the problem site. Many repairs could be made on the road; cars requiring more in-depth

attention would be towed back to the branch. While repairs were chargeable, the actual road service was free!

At the Benson Ford Research Center, I found an old repair bill describing services performed in those early days. The prices may have represented big money back in the teens and twenties, but certainly sound like bargains today!

- Overhaul motor and Trans 18.00
- Overhaul front axle 5.00
- Vulcanize inner wheel tube .50
- Stop gas leak at tank no charge

The strategy which drove the vitality of the Detroit branch - and those which had been built elsewhere in America - flourished. Branches served as key parts of the distribution system which linked Detroit with its 7000 local Ford dealers. By 1914, sales



handled by the 29 branches equaled 80% of Ford's total sales volume¹.

Business was so good that 5 more stories were added to the Boulevard Building in 1913. Demand for the Model 'T' grew exponentially in the 'teens and the new space allowed assembly of knocked down versions of the 'T' shipped over from Highland Park. As part of this expansion, a paint shop was added, too. Despite obvious prosperity, Mr. Ford of course remained true to his thrifty roots. The plans for the new elevation called for a new and taller 40' rooftop flagpole, but prescribed ... *"reuse old bracing and change to suit new pole."*

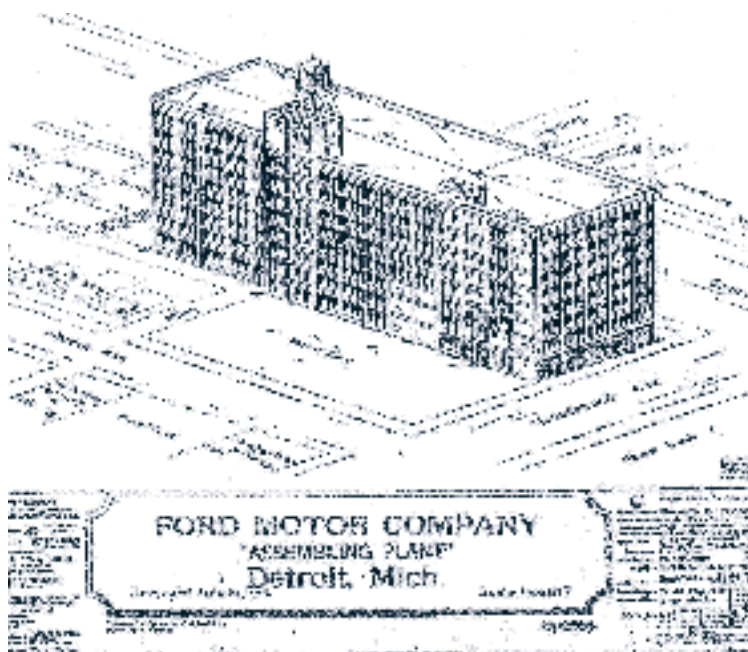


The fledgling Detroit Auto Dealers Association hosted the city's 13th annual Auto Show at the Boulevard Building in January of 1914. Admission was 50 cents and those who attended browsed "...73 exhibitors of vehicles and accessories, 37 of whom showed 41 different brands of gasoline pleasure cars..." For further patron enjoyment, orchestras played on all three floors!

The pace of work at the Detroit branch was nonstop. A 1915 letter of complaint from R. R. Robertson, owner of the nearby RRCo Cut Stone Company, described serious congestion problems: "The great quantities of

bodies, axles, tires and so on being received daily is something extraordinary. Owing to the inability of the plant to receive them as fast as they come in, the trucks and teams are strung along John R all the way from Milwaukee to Horton, 2 full blocks long, where they wait their turn to unload for hours at a time."

The original Albert Kahn drawings were created on linen and dated April 16, 1910. They were substantial in their heft, clear in what they rendered, and highly detailed. As I unrolled those 18 venerable, oversized linen documents at U-M Ann Arbor's Bentley Historical Library, it gave me a start - and then a thrill - to speculate that the founding Ford and Mr. Kahn had very probably pored over those same prints together some 98 years ago!



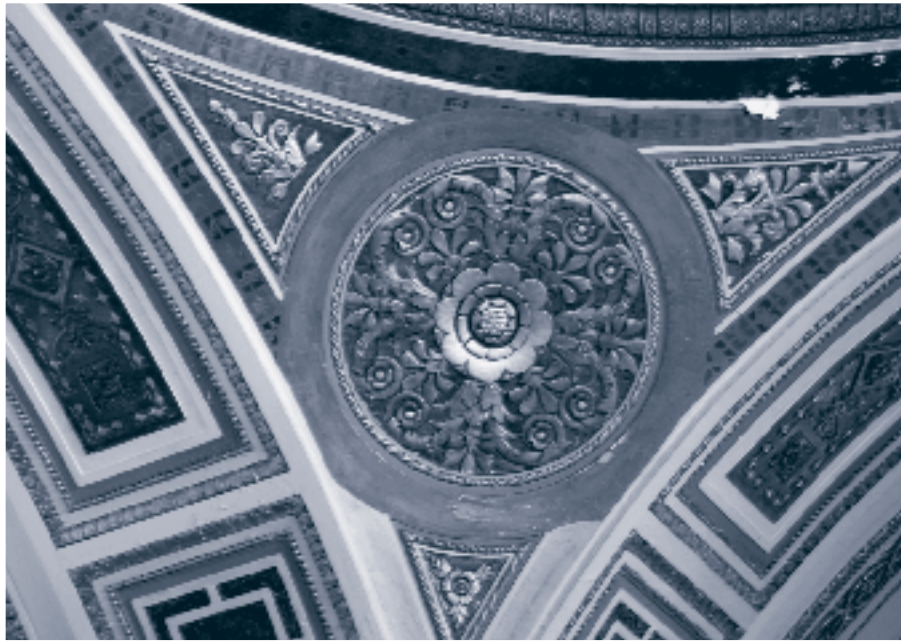
While the detail in the architect's prints told the story of a fine commercial structure, the *extent* of that story unfolded upon my visit. Even though the building had had four other post-Ford owners and seen the passage of over 90 years before Lakeshore bought it in 2005, there was still ample evidence of the opulence of the age and of the Ford Motor Company of old. This was nowhere more obvious than in the lobby.

That lobby was spectacular. Coved plaster ceilings were crowned with carved artwork.

(Continued on page 12)

Floors made of 30" x 30" diagonal marble squares gleamed. Elegant old octagonal glass chandeliers hung from the ceiling. Utility closets had doors of brass! Glassed-in directories with brass enclosures were stationed on both sides of the center lobby. An oversized, wall mounted mailbox ("Cutler mailing system") was rendered in brass, too. An ornate, 3' x 3' clock was centered above the center bank of passenger elevators. Two bas-relief sculptures abutted that clock. They had been carved to include themes of agrarianism and transportation, dear to the heart of the founding Ford. The lobby's center area was domed; its plaster center was painted a deep mulberry color and was heavily gilded.

Elsewhere, the circa-1910 freight elevator was still in operation. (I estimated it could carry 3 Model Ts...) Appropriately, given Henry Ford's firm belief in function over form, it was far bigger than any of the six passenger elevators! (With the founding



Ford's belief in physical fitness, he commissioned *zero* passenger elevators in the Boulevard Building's 1910 iteration. Instead, he insisted that any employees having business on the 2nd or 3rd floors use stairs to promote their health!)

Importantly, current owner Lakeshore Engineering gives every impression of being a responsible, caring stakeholder. The firm has embraced an obvious and generous strategy of upkeep, repair, and renovation.

What a magnificent architectural effect was the building at 1550 Woodward! That rich architectural legacy is still obvious despite the building's original glazed terra cotta exterior having been sheathed in anonymous white concrete at some point in the '70s or '80s. Such opulence remains a true reflection of the turn-of-the-century auto industry in our country, of the high regard that America gave it, and of Henry Ford's success in understanding and responding so well.

¹*Roadside America, Jan Jennings, 1990 (pp.42)*

TDE Partners with Lions Club

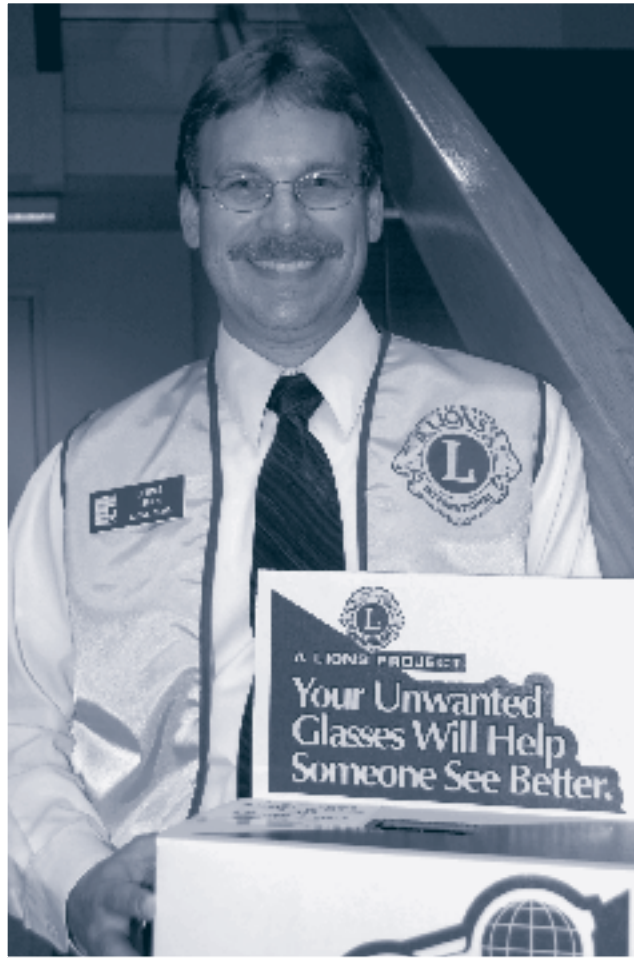
by Dennis Isken, CAD/CAE

TDE is an organization with a history of having a big heart. I'm pleased that my employer and a community organization I enthusiastically belong to will soon collaborate on a new outreach...one you may have heard of or seen before.

On behalf of the Lions Club, I've put up two collection boxes for eyeglasses and hearing aids - one at ATO and one at ATNPC. Starting now, we're asking for your support in contributing sensory aids that you no longer need. Your surplus items will be taken to various local organizations which donate resources to identify prescriptions and/or refurbish them. Where local resources aren't available, eyeglasses will be sent to regional Lions Eyeglass Recycling Centers. The categorized eyeglasses are then made available to the needy, both in local communities and worldwide. Donations of eyeglass cases or holders are also very welcome contributions.

We work with optometrists to volunteer their time to examine needy patients, determine their prescriptions and provide them with matching eyeglasses. Where there are no volunteer optometrists available, Lions Clubs provides funding for examinations. In addition, local Lions Clubs work with missions around the world to provide eye exams and glasses to people of all ages, who might otherwise never know what it is like to see clearly.

The Association of Lions Clubs was originally established in Chicago in 1917. While it has many community purposes,



Enthusiastic Lion Dennis Isken



the best known is our quest to end preventable blindness. There are currently 1.3 million members in 202 countries working together to address the needs that challenge communities around the world. The Club's motto is "We Serve", and its members promote volunteerism locally and worldwide.

Our local Lions Club in Frankenmuth raises funds for the following:

- Leader Dogs for the Blind
- Special Needs Vision Clinic
- Michigan Eye Bank
- Paws With a Cause
- Diabetes research
- Scholarships
- Other local non-profit organizations and projects serving the community

Collection boxes are located in the main stairwell in the ATO building and in the ATNPC cafeteria. Please consider donating any surplus eyeglasses and/or hearing aids no longer needed in your family. Through this Lions outreach, your outdated health aids can have new life helping someone else.

On behalf of the Frankenmuth Lion's Club, I thank you sincerely for your support!

(Dennis really does live in Frankenmuth. His door-to-door drive, five days each week, is 93 miles...)

TDE Meets Transit

by Tony Paskus, Axle Systems

Cor blimey, how time flies! It seems like only yesterday that Ford engineering teams from Britain, Germany and Belgium invaded our shores to join their North American colleagues in developing the next generation Transit: that European truck workhorse with fierce customer loyalty that has not wavered for over 4 decades. It's now 10 years and two product generations later, and there's good news for TDE. Our Axle Systems engineering group, with its new, evolving global footprint, will become a major player in the next generation Transit.

The Product:

Recently, Ford's 9.75" axle, designed and developed by our teams right here in Michigan, has been chosen to become the backbone of the next generation Transit van 2-tonne platforms across Europe and Asia. For those who may be unfamiliar, what exactly *is* a 'Trannie'? No, it's not a new Ford College Graduate (not to say they aren't workhorses). Nor is it a baby stroller (not to say they don't have customer loyalty). Nor, in this case, is it the excellent product coming out of our Livonia plant. Instead, it's the Ford Transit van, born and bred in Britain with aspirations for a global presence in the 21st century.

Some history, perhaps? Introduced in 1965, the Transit quickly ascended to myth-like status in the world of commercial trucks. From rubbish haulers to ambulances, from airport shuttles to personal-use vans, Transit's many uses and remarkable flexibility continue to grow in popularity. In fact, the name Transit - like 'Kleenex' and 'Xerox' - has become a generic term in Europe, describing all truck products in its class. It is recognized as the industry benchmark in medium commercial trucks. Recent competitive entries into the marketplace have a striking resemblance to Transit. Enter Mercedes Sprinter (Dodge Sprinter in the US), which mimics many fundamental Transit design themes. Coincidence? *Au contraire!* Anecdote has it that for many years, even the MB front *doors* fit nicely into the Transit door openings! "If



Ford Transit

you can't beat 'em, join 'em," seems to be the competition's strategy.

Hmmmmmm... That's all very nice, you might say, but is Transit really a truck that stands up to what we North Americans would consider worthy of our prominent truck reputation? After all, there is a certain brawny image the Ford truck has to maintain. You know - Tough Truck, no wimps allowed, you get the picture, right? Well, Ford truckers, you can relax. Transit has built its reputation on **ruggedness, reliability, and versatility**. It also demonstrates another attribute that's quite important these days: **efficiency**, both in terms of fuel economy and load-space capability.

This solid reputation has made Transit the truck of choice among blokes in Britain. You know - the burly guy with the checkered shirt, muddy boots, eating Yorkie bars, and drinking from a Thermos flask. When his working day is done, he hoses down the outside *and* inside of his truck. Transit is the *Workhorse of the World*, and will continue to enhance its rugged image with the introduction of our TDE-based global axle in 2011!



A Global Driveline Team

by Tony Paskus, Axle Systems

Hello Mate, Guten Tag, Merhaba...! You can now hear just such greetings in the hallways of ATO and ATNPC, and it's a sure sign of global activity brewing at TDE. Just as Ford's Transit is a cosmopolitan vehicle sold around the world, so are the teams developing it. They represent a mixture of diverse cultures and experiences working together to design and produce the best medium commercial truck in the world. TDE has now joined this team. Guided by ONE Ford principles, Gerry Kuchta, John Saieg, Dana Katinas and their esteemed D/L engineers are leading axle and driveline product strategies for future Transit programs.

How diverse, you ask? Well, the Brits lead the programs, the Germans develop the attributes, the Turks assemble the vehicle (and manufacture the axle)...and now US engineers will deliver the driveline system. Sound a bit complicated? Maybe, but I've found that this is a surprisingly harmonious and driven team. When you mix together our German compatriots' attention to detail (prints mean something?!?), the British chaps' ability to see all sides of the problem (over and over and over again), the Yanks' sense of urgency (damn the torpedoes!) all topped off with a fine cup of Turkish kahveh (icki is optional, but makes design reviews typically fall apart), life is good...

During the next 12 months, TDE's axle application and manufacturing engineers will be focusing their attention

on the axle manufacturing facilities in Inunu, Turkey, where production of our 9.75" axle is planned. Supervisor Ike Anyanwu-Ebo, lead Transit Applications Engineer Todd Kearney, and Manufacturing Engineering lead Paul Bojanowski are already heavily engaged in technical discussions with their Turkish counterparts. Together, they are reviewing prints, processes, and design rules, all aimed at producing axles to world class standards. M1 axles are on schedule starting this summer, with phase 1 axles being produced at Sterling Axle Plant and shipped to Otosan Kocaeli Assembly Plant, and phase 2 axles being produced with production tooling at Inunu. Another sign that our global plans are producing results is that Sterling will produce and ship up to 100 K 9.75" hypoid gear sets to support

Turkish axle production. Imagine that....the highest-value supplier of gears is Ford, produced right here in Michigan!!

In addition to our forward model activity, ongoing product actions such as MCR and quality upgrades are being led by Toivo Raabis, a recent engineering addition to our axle systems family. Toivo is working with our teams in Ford Asia Pacific and China, as well as FoE and Turkey.

Bottom line is 'We Got Global Game!' Challenging times create new opportunities and memorable experiences, and TDE is in the thick of it all. Time to renew the passports, learn some foreign phrases and take this global, high quality engineering show on the road!



Transit Glossary

<u>English/Turkish</u>	<u>American</u>
Imdat! (T)	Help! (Todd, for you)
Tyre	Tire
Kerb	Curb
Bonnet	Hood
Memnun Oldum (T)	Senior engineer?
Right!	O.K.!
Good	Good
Jolly Good!	Better
Bloody Good!	Now you're talking!
Cor blimey!	I can't believe it!
Alyewmineeum	Metallic substance
Kombi	Not a McDonalds Meal
Bloody Hell!	I'm slightly disappointed
Bowlin' me a googley	Throwin' me a curve
Wet Welly Test	Something done in a Transit

5R55E: “Where No Trans Has Ever Gone...”

by Vince Lajiness, 5R55S/E Transmission Systems

When Ford folks think of thoroughbreds, they probably bring Mustangs to mind pretty quickly. For TDE folks, though, there may soon be a *new* thoroughbred on the horizon!

Thoroughbred Motorsports is a small but growing manufacturer of specialty motor trikes in Tyler, Texas. In its first 14 years, nearly all of its trikes were ‘one off’ conversions: Harleys and Hondas turned into motor trikes via conversion kits. Their latest product is different, though; called “Stallion”, it’s a ground up, mass produced trike which features a well known Ford TDE automatic transmission... the 5R55E.

We got involved in April, when Ford Component Sales (FCS: formerly, Ford Power Products, a division of FCSD) advised us that there would be demand for 3700 units of our 5R55E transmission for this new customer. It’s normal business for the FCS organization to sell “off the shelf”

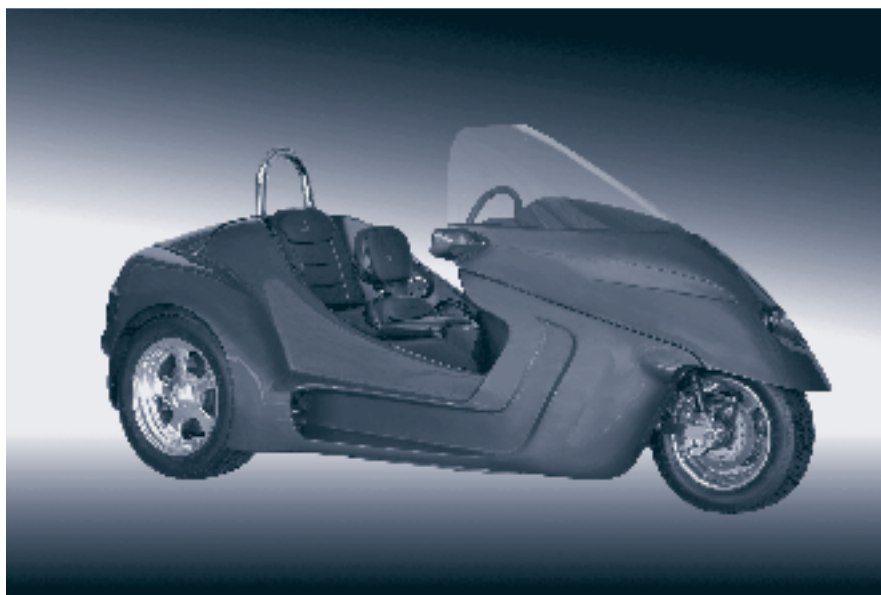
components which are in production for Ford produced vehicles to outside companies if there is a strong enough business case. Apparently, FCS found one with the Stallion project! The contract with Thoroughbred Motors Sports was signed-off a few months ago, and details are now falling into place.

In order to power Stallion, 5R55E is mated up with a Ford 2.3L I-4 gas engine: the same engine & trans combination used in the North American Ranger. So FCS is selling Thoroughbred an engine and transmission (with associated controls), Ranger’s steering column & shifter, an instrument cluster, and emissions and fuel management controls, too!

We (TDE) won’t design or release any modifications to mate the 5R55E up with the trike. In such projects, Ford doesn’t modify the purchased components for outside customers. Instead, FCS sells components “off the shelf.” Customers integrate such Ford hardware into the new vehicle, and customers accordingly own all the warranty and liability that goes along with how good a job they do with the integration task.

TDE (5R55) provides technical consulting through FCS. Even in an outside purchase case like this one, we are required to set up a proper release of our transmission through WERS. That way, orders can be filled by Bordeaux using Ford’s CMMS procurement scheduling system, in much the same way that service components and transmissions are procured through FCSD.

Thoroughbred proudly advertises *that “use of the Ford engine allows the Stallion to be plugged into Ford diagnostic machines at any of the 4400 Ford dealers across the country. There is no other motorcycle manufacturer offering that type of coverage to its customers.”* Thoroughbred Motors offers a 3 year/36K mile warranty to its customers.



The Stallion motortrike, powered by Ford!

dealers, and even selected *Ford* dealers across the country. This remarkable, robust trike sells for \$32,995 and includes such creature comforts as air conditioning, air lift suspension, 7 cubic feet of trunk space and even cup holders! The Stallion boasts a power-to-weight ratio equal to a Mustang GT... yielding impressive performance!!!

To this point, Thoroughbred has bought powertrain units in small numbers from FCS. FCS’s current order is for 3700 5R55Es, and Bordeaux is gearing up right now to begin delivery in August 2008.

If we have sufficiently raised your curiosity about this exciting new product, you can go get more information on their website at <http://www.thoroughbred-motorsports.com/>

Or, visit southeast Michigan specialty motor-trike dealer Rathbun Enterprises (Clayton, Michigan) shown on the website. Enjoy!



My First Car

by Joe Baum, Chief Engineer, Current Model

My first car was a 1976 Ford Gran Torino. It was the 2-door version that made ‘Starsky & Hutch’ so famous on TV. Unlike theirs, my car was baby blue, and didn’t have any zoomy white stripes across the side. It was powered by a 351 CID Cleveland and had a 3-speed C6 automatic transmission on the column. As best I can remember, the fuel gage never went below ¼!

It came my way in 1981, when I was a Iowa State University sophomore. My dad bought it for me. He spent a lot of time looking for a decent car and a good deal. It wasn’t the sleekest looking car, but I sure appreciated his effort... *and* my newfound freedom.

I loved the sound of that motor during a WOT performance. It had a low, throaty sound that that made you want to do it again...and again...and again. Most of all it, was a good people mover. I packed a lot of people in this car when I was on campus at Iowa State. This made for many great memories.

One of my favorite diversions involved going to the local grocery store. I found that the Torino’s front bumper guards were *just* wide enough to contain a shopping cart. Getting that cart up to speed by supplying ‘Torino power’...and watching those little shopping cart wheels shake at much higher velocities than they were designed for was priceless! We never got tired of that little prank...

My favorite recollection probably goes back to senior year spring break trip to Ft. Lauderdale. Three college buddies and I made the drive straight through from Ames, Iowa; we covered the distance in just 24 hours. This was a low budget trip. We met up with several other friends and had a very memorable week crashing on the floor of other people’s rooms. (As prudent students, we avoided renting a room of our own!). On the return trip, my Torino started vibrating considerably. I found some badly worn U-joints and replaced them in my parents’ driveway. (I did a lot of work on the car while I was in college, actually. In addition

to the u-joints, I handled regular maintenance and annual body work, too.)

My first car met an unfortunate ending. I was fresh out of school and working at GM in Flint. I made a weekend trip to Chicago for St. Patrick’s Day in the spring of 1985. When I got to Lansing, the transmission would no longer shift into

3rd gear, but I kept on going. I had so much fun in Chicago that I forgot to get that problem looked at. Naturally, the same issue occurred on the return trip. The poor engine was spinning so fast that I broke a FEAD (Front End Accessory Drive) belt around Kalamazoo. When I got the belt replaced, I hurriedly made my way back to I-94 East. While merging onto I-69, there was a puff of smoke and I lost all power. After I coasted to a stop, I had to set out

on foot. I made it to a rest area and met some other people with car trouble. I accepted a ride with them to Lansing and crashed in their apartment. The next day I caught a bus back to the Flint area. Despite missing a day of work and losing my car, I still consider it a successful weekend.

I called on my car and found it had a blown head gasket. Getting it fixed did not TARR, so I gave Marshal Towing the car in exchange for burying the towing bill. I was a bit choked up when I returned later to retrieve my personal items and said a final goodbye to my Torino. Hopefully, someone made the needed repairs and got it back on the road.

As a dutiful and promising GM employee, it was clearly time for me to purchase a GM product. So, I bought a new Somerset Regal. With the Regal came another road trip to Illinois, another “incident”, and temporary downgrade to a Pacer. But that is a whole different story.

But I loved that 1st car. There were many good times provided by that Torino. This first vehicle holds my fondest memories, and - now that I think about it - those memories are mostly of the people who were in the car with me.



1976 Gran Torino 2-door (Joe’s didn’t have the opera window...)

2008 Technical Recognition Luncheon



On May 22, the 22nd Annual TDE Technical Achievement Awards Luncheon took place at the Henry Ford Estate in Dearborn. The circa-1914 home of Henry and Clara Ford once again served as a fitting venue to honor 59 TDE employees who had earned distinction during 2007 for patent, technology or higher education achievements.

Reflecting the 2008 centennial of the Model 'T', Phil Yuhasz's opening remarks invoked the names of Model T stakeholders Charles Sorensen (pattern maker) Joseph Galamb (designer) and Peter Martin (production supervisor). Along with the founding Ford, Phil referred to them as "the heroes of the Model T." He segued from that description to a similar description of those in the room, praising them for their work as TDE's own "engineering heroes."

The event's guest speaker was David Kelley, Intellectual Property Counsel for Ford's Office of General Counsel. David reiterated to this distinguished engineering group the importance of documenting and formally filing the technical ideas we generate. "No matter how outrageous the concept, you never know the outcome", he advised. "It's your patents and trade secrets that Drive Ford Motor Company. They provide competitive advantages well worth protecting in this highly technical, highly competitive industry."

If you recognize someone in this picture, please offer your congratulations. At the same time, don't be shy about inquiring into the patent process. If you prefer, visit www.fordlaw.ford.com and research "Inventions / Patents" located under Ford Global Technologies.



"Business is never so healthy as when, like a chicken, it must do a certain amount of scratching around for what it gets."

- the founding Henry Ford

Junior Dragsters: Summer Fun for Father & Son

by Ed Robertson, 6R140 Design

It's nearly summertime, and my boy and I think we have found the great summer pastime. Ryan and I have a different type of weekend than most families due to our passion for drag racing. Ryan is the driver of a junior dragster and I'm his crew chief!

A day at the race track is filled with the sights, smell and sounds of 8,000 hp dragsters running nitro methane and blazing down the track at speeds beyond 340 mph. The smell of the smoke from spinning tires, the combustion fumes, and the roar of the engines make it all come alive. The ground and your body literally shake when these cars thunder by, which excites everyone, drivers and spectators alike. This is why Ryan and I love this sport. This is why our summer fun is all about Junior dragsters.

Junior dragsters are 1/2 scale replicas of full size dragsters, powered by flathead, 1 cylinder engines. Overhead valve engines are not permitted. These engines are custom built billet pieces, capable of propelling dragsters upwards of 85 mph in the 1/8 mile or 660 feet with elapsed times of 7.90 seconds. Junior dragsters are limited to racing only to the 1/8 mile whereas full-size dragsters race to the 1/4 mile.

We compete in International Hot Rod Association and National Hot Rod Association drag racing events, racing at dragstrips across Michigan and Ohio. (Our home track is Milan Dragway.) This kind of drag racing is called "bracket" racing; drivers compete against each other and against their own elapsed times.

In this type of drag racing, winners are usually decided by thousandths of a second. The driver and crew chief have to make an accurate prediction of their dial-in time and come closest to their time without breaking out by going too fast or too slow. The weather in particular affects such racing, for it greatly changes the engine's power and the dragster's performance. Ambient temperature, barometric pressure, relative humidity, track surface temp, and wind speed &

direction all impact elapsed times in a big way! Most teams, in fact, have some sort of weather station to record these variables while trying to predict their elapsed times...

You've probably seen drag racing's famous "Christmas Tree", a 3-color, light driven staging device used to start the race. Drag racing requires drivers to continually practice their reaction times: the lag between when the tree turns green and when the driver hits the throttle and moves his/her car. (A good reaction

time on the Christmas Tree is usually in the 100ths of a second!) After he's/she's away from the line, the driver must focus on his car's position continually down the track to decide whether it's going too fast or too slow in relation to the competitor's car and his predicted dial-in time. This is a great feat at any age, especially when the driver is 9 years old – as Ryan is – and all of this happens while racing to 660 feet with an elapsed time of 12.90 seconds at 50 mph!



Trophy-winning junior dragster Ryan Robertson

The 2007 season was Ryan's 1st full season, and I'm proud to say that my son won the Track Championship. For the 2008 season, we Robertson's have purchased a new dragster which we've built as a father and son project. During our "build", Ryan has learned valuable lessons in how parts are assembled, why there is a need for a torque wrench, where to use loctite on bolts and how to use hand tools properly. This is a sport where there is a high amount of family interaction at the race track; all the families at the track help each other, and this makes for a most enjoyable weekend, totally apart from the competition.

Having earned last year's champion title, Ryan knows that 2008 will be extremely challenging. That doesn't dampen our enthusiasm one bit! So if you are ever at Milan Dragway, stop by and see Ryan, myself and the Robertson family competing for the 2008 Championship Title.

Visit Milan Dragway's website at www.milandragway.com

Between the Walls...

As a young boy, Eric Robertson of CAD/CAE grew up on a farm near Rosebush in mid-Michigan. He remembers a family highlight which took place when he was 8 years old involving traveling to “the big city of Detroit” to visit Henry Ford Museum and Greenfield Village. The historical buildings, tools, machinery and vehicles on display in Dearborn captured young Eric’s interest.

Who knew that 16 years later he would be working for Ford Motor Company? And who knew that his appreciation for the history of days gone by and Ford Motor Company would be refreshed when his mother presented him in the summer of 2007 with several vintage copies of *The Detroit Free Press* and one of *The Michigan Farmer* dated from 1926 and 1927? His mom viewed those papers as a celebration of Eric’s continuing employment with the Blue Oval.

Protect Your Investment in Your Model T Ford

The Ford Motor Company is making a new car, but it is still proud of the Model T. It wants every owner of one of these cars to run it as long as possible at a minimum of expense.

Because of this policy and because of the investment that millions of motorists have in Model T cars, the Ford Motor Company will continue to make parts available, as Henry Ford himself says, “the low Model T is off the road.”

More than eight million Model T Fords are still in active service, and many of them can be driven for two, three and five years and even longer.

So that you may get the greatest use over the longest period of time at the lowest cost, we suggest that you take your Model T Ford to the nearest Ford dealer and have him give you an estimate on the cost of any replacement parts that may be necessary.

You will find this the economical thing to do because a small expenditure may enable you to maintain or increase the value of the car and give you thousands of miles of additional service.

No matter where you live you can get these Ford parts at the same low prices as formerly and know they are made in the same way and of the same materials as those from which your car was originally assembled.

Labour cost is reasonable and a standard rate is charged for each operation so that you may know in advance exactly how much the complete job will cost.



FORD MOTOR COMPANY
Detroit, Michigan

Interestingly, they came to light during a renovation of the house owned by another member of Eric’s family. Waaaaay back in the day, they had been put behind the first floors walls...as inexpensive insulation! The newspapers contained several articles relating to the early Ford Motor Company, including the Model T advertisement shown here.

As a side note, the home from which the papers came belonged to a family named Ruhle - which produced ‘70s-era Detroit Tiger pitcher Vern Ruhle. When they were new, those newspapers served as Vern Ruhle’s grandfather’s reading material...before they became “budget strategies” for home insulation!

PSA

Did You Know? ‘Scan to E-mail’ Risk

source: 4/11 e-mail from Marcy Klevorn, Director, Corporate IT Infrastructure

Some company printers, specifically Hewlett Packard multi-function printers, provide the ability to digitally scan a document and send an email image of the scanned document to an email recipient. That capability is called “Scan to E-mail.”

Because the scan to e-mail feature on multi-function printers is not encrypted, there is a risk that SECRET information and Personally Identifiable Information (PII) could be compromised.

Hewlett Packard multi-function printers should accordingly not be used for scanning and transmitting SECRET information or Personally Identifiable Information (PII). Standard mailing procedures should be used for sending SECRET and PII information.

Need more info about transmitting secure data? Consult page 23 of the IT Policy Manual <http://www.itpolicy.ford.com/downloads/itpm.pdf>

Higher Education Leads to CEO Introduction

by Don Morrissett, Mechanical Structural



(L to R) - Michelle Hernandez (Treasury – Strategy), Don Morrissett (TDE External Controls), Michael Logli (PD - Electrical/Electronic Systems), Karen Gold (Controller's Office – Wayne Assembly), Alan Mulally, Alejandro Bisogno (Treasury - Global Trading) & D. Bruce Bain III (Network Planning - Canada, Mexico & South America)

It's a great thing when an academic class paves the way for employees to meet "the Big Boss"! Our small MBA student group was tasked with interviewing Mr. Mulally as part of our Strategy class project. As Ford employees, it was a natural for us to hope that we'd get the interview.... and Mr. Mulally agreed to accommodate! This MSU project consists of three parts: 1) paper about our company, the industry, and what we understand the company's strategy to be; 2) interview with the CEO regarding the company's strategy; & 3) final report with our analysis of the company's strategy as detailed through the interview of the CEO.

Our April 25 interview made it clear that Mr. Mulally is deeply committed to a profitable Ford Motor Company. Overtly impressive, he promotes the history of the company and the importance of carrying forth Henry Ford's vision of an efficient Ford Motor Company with automobiles for the masses. It's very clear to me that if we each stick to our part of the ONE Ford plan, market share will stabilize and Ford will be profitable, thus opening doors for growth and prosperity in the years ahead.

The interview structure gave me the opportunity to discuss

part complexity with Mr. Mulally. In shift systems, as in many areas, we fight daily battles about part complexity. It is important that each of us continues to drive down complexity, even when it seems impossible. Ford's leadership is committed to being an efficient company, and part of this achieved through a reduction in buildable combinations. Complexity is not healthy for us nor our suppliers. If we are to prosper, we must follow the ONE Ford plan to make our company once again an efficiency leader.

I briefed Mr. Mulally on a recent effort for the U38x and U502 programs where the programs were requesting 20+ shifter part numbers. Our best and most collaborative efforts resulted in a reduction to 7 part numbers with an annual cost savings to Ford Motor Company of over \$200k per year. We all have challenges, and it's sometimes difficult to see how our small contributions effect the bottom line of the company. Feeling personally and passionately that each one of us *can* and *must* contribute, Mr. Mulally advised, "You are the answer...Don't give up."

(Don will earn his MBA from MSU in December of this year.)



Ford's 'T' Turns 100

One hundred years ago, Ford's Model T promised to change the world with its technology. The very first Model T rolled out of the Piquette Assembly Plant in Detroit (Piquette & Beaubien) on October 1, 1908. It was equipped with a 20-horsepower, four-cylinder engine with a top speed of about 45 miles per hour. That first production 'T' weighed 1,200 pounds and achieved 13-21 miles per gallon. It was sold to a Chicago physician for \$850.

The multi-purpose Model T was the vehicle that could do anything, and – over the next 19 years – the founding Ford would sell over 15 million of the iconic “universal cars.” The advent of Ford's moving assembly line in 1913 raised production and lowered costs to the point that almost anyone could afford one. The tough, versatile vehicle was ultimately available as a touring car, a runabout, a coupe or a truck, and was lauded as “Car of the Century” by a panel of 133 automotive journalists and experts in 1999.

Ford is working with the Model T Club of America to host the “T Party 2008” in Richmond, Indiana. Why eastern Indiana for such a momentous celebration? Today, Richmond is the home of the Model T Club of America. Another reason is that part of Indiana is a great reflection of an America that was largely rural in the early 1900s. A third is that the area once hosted 19 different car makers. “T Party 2008” is scheduled for July 21-26 and is expected to bring together the largest gathering of Model Ts since the car's initial production run! Over 1000 vehicles are already signed up, with Model Ts coming from as far away as England, Norway, Australia and New Zealand. Over ten thousand owners and enthusiasts are expected to make their way to Richmond to celebrate this remarkable automotive icon.

For more information, consult this website: <http://www.tparty2008.com/>



Scooting Through the Hallowed Halls – *Electro Hydraulics Manager Kevin Norris had a bad experience at the hands of some high energy nephews on April 22. He and Aaron (15) and Mike (17) were playing pick-up football to celebrate spring when Kevin suffered a rupture of his Achilles tendon. The resulting St. Mary's Hospital surgery was successful, with Kevin's doctor predicting that his patient would recover completely. Getting around at work while healing is taking place has proven cumbersome, however. Always the innovator - and always on the move on our campus - Kevin decided that crutches just wouldn't do as his #1 mode of transportation. Instead, with prescription help from his MD, he purchased a high tech aluminum scooter, shown here, to move him from point 'A' to point 'B.' Admirer and sealant specialist Buzz Riley presented him with a bright red bicycle bell and – for a short while, anyway – Kevin had the most stylish ride of all!*



Telescope

A brief look at selected automotive trends, developments, and technologies which impact or are driven by Ford Motor Company.

Oldest Auto Plant to Make Newest Chrysler V6 (*Wardsauto.com*) - In 1902, Thomas B. Jeffery and his son switched from making bicycles to building cars in Kenosha, WI, propelling the small town located between Milwaukee and Chicago into the automotive age. Over the next 105 years, Kenosha has clung to its automotive heritage, during turbulent times featuring Chrysler, Dodge, Nash, American Motors Corp. and Renault building cars there. Automobile production ceased in 1987 when the former Chrysler Corp. purchased AMC, but engine output has continued uninterrupted, making Kenosha reputedly the home of the oldest continuously operated automotive plant in the world. Now Chrysler LLC is investing \$450 million to retool the Kenosha engine plant for its new V-6 ("Phoenix") scheduled to begin production in 2011.

Romeo Renewal (*Wardsauto.com*) - Ford is investing \$13 million to upgrade its high-speed test track at Michigan Proving Ground in Romeo. In keeping with its environmentally friendly stance, Ford sought out a construction company that would utilize a "green" approach in the renovations. Angelo Iafrate Construction (Warren) was chosen to reconstruct the 52-year-old, 5-mile track. Iafrate's strategy will prevent 130,000 tons of debris from ending up in a landfill by reusing nearly all the material and sending what's left to a recycling center. Old concrete is being crushed and used as aggregate (ballast). The existing 20,420-ft. guardrail is being inspected to determine which pieces can be reused. It's estimated that this 'green' approach will save Ford \$12 million at the same time it delivers a new and improved testing route.

NBC Unveils EcoFriendly Satellite Truck (*Hollywood Reporter*) - NBC Universal's push toward green business is sweeping over its newsgathering operation. During the 4/21 "Today" show, the network took the wraps off what it calls the "mean green streaming machine," a hybrid SUV that leaves less of a footprint as it collects and transmits news from the road. The white and green Escape hybrid uses not only electric and gasoline power but also solar panels and wind turbines to recharge the batteries for its electronics gear. NBC's hybrid uses a combination gasoline and electric engine when racing to the scene of breaking news. The three deep-cycle batteries can run the various satellite and cell phone video technology for between five or six hours. The electronics can be recharged

while stopped using solar panels rolled out on a type of mat or large wind turbines that are hoisted on two portable masts. The network spent about \$100,000 to buy the Escape and then outfit it. It runs less than 20 amps for the entire system, compared with about 60 amps for the typical satellite truck.

9 Millionth Mustang (*FCN Online*) - Ford Motor Co announced on April 24 that it had built its 9 millionth Mustang. The Ford Mustang, approaching its 45th anniversary on April 17th, 2009, is one of the world's most widely recognized vehicles. Today, one of every two sports cars sold in America is a Mustang. It was introduced on April 17, 1964, at the New York World's Fair, and sales hit an astounding 419,000 in its first 12 months. They topped the 1-million mark in the first 2 years, shattering the sales records of any single model in automotive history. In addition, Mustang leads the nearly \$1-billion aftermarket parts & accessories industry as the most personalized vehicle of all time. It is now Ford's longest-running nameplate

Nissan Abandoning Titan (*San Antonio News Express*) - Just four years into building and marketing its first full-size pickup, Japan's Nissan Motor Co. Ltd. has announced plans to give up the manufacturing effort and to buy the next generation of its big truck from Chrysler LLC. Beginning in 2011, a new full-size pickup based on the Dodge Ram will replace the Titan and will be built by Chrysler - Mexico. Production of the current Titan at Nissan's Canton, MS, plant will end in late 2010. The end of a Nissan-built Titan will leave Toyota as the only import automaker manufacturing and marketing its own full-size pickup (Tundra).

Mercedes System Catches Tired Drivers (*CanWest News Service*) - Mercedes-Benz is in the final stages of developing a fatigue-recognition system called Attention Assist that will be available on some 2009 models. It uses various sensors to monitor driver performance. By looking at pedal and turn signal usage as well as steering wheel input, it recognizes fatigue-related changes in driving style. The information recorded by the system is compared with an individual driver profile that is developed and refined every time the driver takes the car out. When the driver deviates from his/her normal driving behavior, the system alerts the driver visually and audibly. So far, Attention Assist has been tested on more than 420 drivers who have covered more than 500,000 kilometers in their travels.

TDE Tool Drive:

Different Kind of Hardware Success

The 2008 Tool Drive for Clara Ford's gardens at the Henry Ford Estate was another employee-driven success. This annual community service outreach was TDE's sixth, and - over 30 days - yielded a harvest of 39 long handled tools, two brooms, a box of hand tools, and a gas-operated leaf blower. Of particular delight for Landscape Coordinator Pamela Morrison of the Estate were two sturdy pitchforks that she estimated dated back to the fifties or sixties! She was also tickled by an outdoor electrical 'power post', which she promised would be put to good use in connection with the Estate's annual Halloween program for children.

The Henry Ford Estate wants Ford employees on the Livonia campus to know that 1) this remains a one-of-a-kind outreach within industry and 2) during truly harsh budget times, donations of even "tired tools" help out in a mighty and material way.

HFE Landscape Coordinator Pamela Morrison (L) and Landscape Architect Karen Marzonie are most grateful to the men and women of our community for one-of-a-kind garden tool generosity since 2003.



TDE Employee Anniversaries

The following TDE employees celebrated milestone employee service anniversaries (40 yrs, 35 yrs, 30 yrs, 25 yrs, 20 yrs & 15 yrs) during the months of April, May or June, 2008:

30 years

Menard, Richard 5/22/78 Schramski, Tom 5/22/78
Rau, Lawrence 5/1/78

20 years

Adamczyk, Dave 5/31/88 Lajiness, Vince 6/30/88
Aversa, Piero 5/30/08 Quinn, Mark 6/30/88
Bruck, Al 6/22/08 Saieg, John 6/1/88

15 years

Bertcher, Therese 5/3/93 McNamara, Bill 6/21/93
Buchman, Kevin 5/3/93 Money, Shannon 6/21/93
Franchok, David 6/7/93 Pariseau, Dave 6/21/93
Fredriksen, Eric 5/3/93 Probert, Brad 6/14/93
Headapohl, Jim 5/10/93 Richardson, Eric 6/7/93
Kraus, Bob 6/16/93 Suter, Charles 5/3/93
LaRoche, Cory 6/21/93 Thomas, Jim 6/30/93
MacDonald, Geo. 6/7/93 Young, Mark 5/10/93

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Sincere thanks go the following employees, whose suggestions, cooperation and articles have driven this issue of "TDE Team Review": Piero Aversa, Joe Baum, John Bottenberg, Michelle Bush, Danielle Crouse, Ed Dimitroff, Paul Erlandson, Ed Haran, Dennis Isken, Vince Lajiness, Mike Lemieux, Glen Moore, Don Morrissett, Tony Paskus, Jacob Povirk, Eric Robertson & Ed Robertson.

Do you know of stories – on the job at TDE or after-hours in employee lives - which deserve some visibility? Such stories are very readable, so please contact editor Mike Imirie (CDS: MIMIRIE; ext 34417) with your recommendations. When you actively support "Team Review" - either as a writer, one who suggests a story, or a photographer - you make a valuable, firsthand communications contribution in our TDE workplace.