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The #29 over-the-wall pit crew in action.

Read the story on page 38.



Are you benefiting from ASE certification?

One of the organizations I am proud to be a part of is the National Institute for Automotive Service Excellence, or ASE. It is a great organization, dedicated to improving the quality of automotive service and repair through voluntary testing and certification of professional automotive technicians.



ASE was founded in 1972 and the program has grown from a series of four auto tests to a comprehensive offering of more than four dozen exams covering every major diagnostic and repair specialty. Hopefully, many **Tech** readers are already registered for and taking the Spring ASE certification tests across the country.

By taking and passing these tough, national competency exams, technicians have the pride of knowing they are among the elite in their profession. Certified technicians can expect increased respect from their employers as well as their peers. In addition, many ASE-certified techs report benefiting from selection for advanced training, improved job opportunities and increased compensation.

Snap-on has long assisted the ASE and other organizations in helping enhance the image of all professional technicians, whether engaged in automotive or other specialties. There is no better way for you to further your own career than with advanced training and, where applicable, ASE certification. For more information, visit ASECERT.org.

Thanks for your continued support of Snap-on and for reading **Tech** magazine.

Tom Ward
President, Snap-on Tools Company LLC

Share Your Story

Drop a note or send an e-mail. Include your story idea about you or a fellow technician, your contact information, place of employment and the name of your Snap-on Franchisee.

Tech Magazine

Snap-on Tools
PO Box 1410
Kenosha, WI 53141-1410
TechMagazine@Snapon.com

Tech

Only for techs. And only from Snap-on®

Volume 4, Number 2

EDITOR-IN-CHIEF
Pete Kennedy

CONTRIBUTING EDITORS
Jeff Winke
John Koski
Barry Gantenbein
Jack Burke

AUTOMOTIVE EDITOR
Warren Eulgen

SENIOR ART DIRECTOR
Jason France

ART DIRECTORS
Jay Blazek
Ben Newby

CUSTOMER SERVICE DIRECTOR
Kris Matz

PRESIDENT & PUBLISHER
Tim O'Brien

High Velocity Communications Inc.
2444 North Grandview Blvd.
Waukesha, WI 53188-1695
HighVelocityCommunications.com
262.544.6600 – Phone
262.544.9777 – Fax

ADVERTISING DIRECTOR
Curtis Costin
Costin Media Group
847.658.6451 – Phone
262.544.9777 – Fax
Curtis@CostinMediaGroup.com

SNAP-ON CONTACT
TechMagazine@Snapon.com

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Big ride, big TV

Many living rooms don't have TVs this big. The Alton F-650 XUV, unveiled at the Chicago Auto Show earlier this year, comes with a 42-inch plasma TV attached to an arm that swings out for easier viewing. The \$200,000 mega-truck comes with hardwood floors, custom captain chairs, a 42-speaker sound system, two drop-down 16-inch TVs, four computer workstations, plus a train horn. The Ford-based XUV was built by Alton Manufacturing and has a gross vehicle weight rating of 25,999 pounds and comes with a 7.2L Caterpillar diesel engine that cranks out 660 ft-lbs of torque.



On the Web:
AltonCo.com



'Great Race' updated 100 years later

More than 30 motor vehicles—most of them vintage cars but some that run on renewable energy—are expected to take part in the 22,000-mile re-running of the 1908 New York to Paris "Great Race" this spring and summer.

The Great Race 2008 will take 65 days and lead drivers across North America, Asia and Europe. The cars will be transported across the Pacific on Boeing 747s.

A 1904 Thomas Flyer is the oldest vehicle in the race. In 1908, a 1907 Thomas Flyer was declared the winner.

The race has attracted teams from nine countries: Australia, Brazil, Canada, Colombia, Ireland, Mexico, Portugal, Poland and the United States.

The race starts May 30 and is scheduled to end Aug. 2 at the Eiffel Tower.



On the Web:
GreatRace.com

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A tech of merit

Bryan Knott is helping young men learn what it takes to be techs—and better people. Bryan, owner of Carencro Automotive Center in Carencro, La., is also Scoutmaster for Troop 143 in his community.

He's been Scoutmaster for about a year and was an assistant Scoutmaster for about four years before that. He grew up as a Scout and his 15-year-old son, Joshua, is a Star Scout, one of the highest ranks possible.

Helping his Scouts earn the Automotive Merit Badge is a highlight of Bryan's volunteer activity. "The Merit Badge requirements are aimed at getting boys more familiar with cars and what it takes to keep them in good working order," Bryan said. "I like to take it a little further, a little more in-depth."

Bryan takes the boys to his shop and shows them the basics, like how to properly dispose of the used oil and filter. But he also shows them how car computers work, and what the sensors do. Specifically, he shows them how the Snap-on MODIS system diagnoses problems—and just how technical his job can be. "We need more skilled technicians, and maybe I'll help spark a boy's interest in becoming a tech," Bryan said.



Share Your Story

Do you have a story idea for *Tech*?

E-mail us at: TechMagazine@snapon.com

Tech throws himself to the wolves

John Basile always wanted a pet when he was growing up. His dad, however, didn't. "It would have taken an act of Congress for me to get a dog," John Basile recalled.

So instead of a dog, John started collecting pets he could find in the neighborhood: frogs and turtles from nearby streams, even a rabbit or two.

"When I was a child, I was just nuts about animals," said John, a 30-year tech with UPS in suburban Chicago. "I never had enough."

That early passion for animals never left John. His fascination with wolves led John to begin raising them on his 6-acre spread near Lockport, Ill. He studied for, and was awarded, a USDA license so he could keep the animals. He even kept his midnight to 8:30 a.m. shift so he'd have more daylight to work with the animals.



As word of John's work got around, he started getting requests from schools to talk with students.

"At first, news of what I was doing spread by word-of-mouth. One teacher would call, then someone else would hear about it and I'd get another invitation," he said.

So John started Big Run Wolf Ranch, a federally licensed, non-profit educational facility specializing in North American wildlife. The ranch now has 11 wolves of three subspecies. John and his wife, Julie, a biologist and high school biology teacher, have expanded their menagerie to include a cougar, groundhogs, skunks, raccoons, coyotes and a black bear. More than 20,000 children came to the ranch for presentations during 2007.

"This is a great way to educate children and live with the animals I love," John said.

On the Web:

bigrunwolf ranch.com



AN EVOLUTION IN DESIGN

New Instinct screwdriver line offers more comfort, utility

If you want to build a better screwdriver, you should ask the people who use them what they want in a tool. That was the simple idea Snap-on used to develop the new Instinct line of screwdrivers.

More than 400 techs from the Chicago and San Jose, Calif., areas were asked to try out 11 screwdrivers, including three Snap-on prototypes, and give feedback. Techs said they wanted their screwdrivers strong, durable and comfortable. But they also stressed their tools need to be seen easily in low light and identifiable as to style of head. Oh, yeah—it'd be nice if it didn't roll away if you dropped it.

"We asked guys who make a living with tools to help us," said Andy Lobo, product manager for Snap-on tools. "They told us the features the screwdriver needed to have and we put it in the package." The result? A leap forward in screwdriver design and workability.

Instinct's handle—with six specially designed curves and flutes—provides fingertip control and aids in spinning. The new line comes in bright reds, oranges and greens so the tools will stand out under the hood or in other low-light conditions. Each handle clearly shows the tip's size and type, and the shape prevents it from rolling.

At the request of techs, the screwdrivers come in both soft- and hard-handle models. The soft-handle models are extremely comfortable to use, while some techs like the hard handles for their ease of cleanup. The Instinct is durable with chemical- and corrosion-resistant handles, while vapor-blasted tips improve screw head grip and protect the nickel/chrome finish.

And, of course, the Instinct line comes with Snap-on's legendary quality and dependability.

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FIRST-TIMER WINS NHRA TRIP



On page 17 in the winter issue of *Tech*, Early Times announced a contest for consumers of legal drinking age to win a stint as the assistant crew chief on the SnaponFranchise.com NHRA Top Fuel dragster of Doug Herbert at a national event held in Las Vegas during April. Mary Stadick and her husband, Dennis, of New Ulm, Minn., were the winners of this all-expense-paid trip and served as the special assistants to Doug's crew chief Kevin Poynter.

Stadick's on-line entry was randomly selected from thousands of contestants and included round-trip airfare for two, lodging, ground transportation, access credentials and a special Snap-on prize package. "This was my first NHRA national event," said Stadick. "It was awesome! The Top Fuelers literally shook the ground on every run. Meeting Doug and Kevin was fantastic. Special thanks to everyone at Early Times and Snap-on for giving us the opportunity for this once-in-a-lifetime experience."

"Everyone was thrilled to have Mary and Dennis join us," said Joe Murray, brand manager for Early Times Kentucky Whisky. "We had a great response to the sweepstakes and enjoyed the special behind-the-scenes look at NHRA Top Fuel drag racing courtesy of Snap-on."

NEW

TECH TOYS

HOW WILD WILL CALENDAR PHOTOS BE?



Photos will truly be worth a thousand words—make that 12,000 words—when you first lay your eyes on the **2009 Tech Toys Calendar**. As you turn to each month, your reaction will likely be: “Cool—very cool, yeah baby, holy crap, that’s outrageous,” or simply, “Wow, that’s wild!”

So, what types of vehicles will cause you to blurt out these reactions? Who knows? It could be:

- A hopped-up 4X4
- A big block water rocket
- A cab-over delivery truck
- A frame twistin’ tractor puller
- An old oil tanker
- An exotic drag car
- A meticulously restored big rig
- A double-dare-you monster truck
- A very cool vintage school bus
- A Johnny Popper
- A heavy-duty wrecker

What toy do you own?

We’re still looking for a motorized bar stool and V8 powered shopping cart. We know these and other no-holds-barred creations are out there—along with other wild rides. Techs are known for some of the best “imagineering.” If you’re ready to share your creation with your fel-

low **Tech** readers, bring it on. If we don’t have room in the 2009 calendar, the best of the rest will be held over for the 2010 edition.

All we need from you now is a snapshot or two (digital or print) and some basic information like your name, address, phone number, e-mail address, name of your Snap-on Franchisee, etc. If your wild thing is selected, we’ll probably send a professional photographer to take some shots.

Send your photos today

Why wait? Respond now. You could be a late entry for the **2009 Tech Toys Calendar** or a frontrunner for the 2010 edition. You’ll even receive an officially licensed Snap-on® cap. If your creation is chosen for the **2009 Tech Toys Calendar**, you’ll also receive a specially embroidered, limited-edition Snap-on **Tech** magazine jacket. Mail or e-mail the photos of your toy to:

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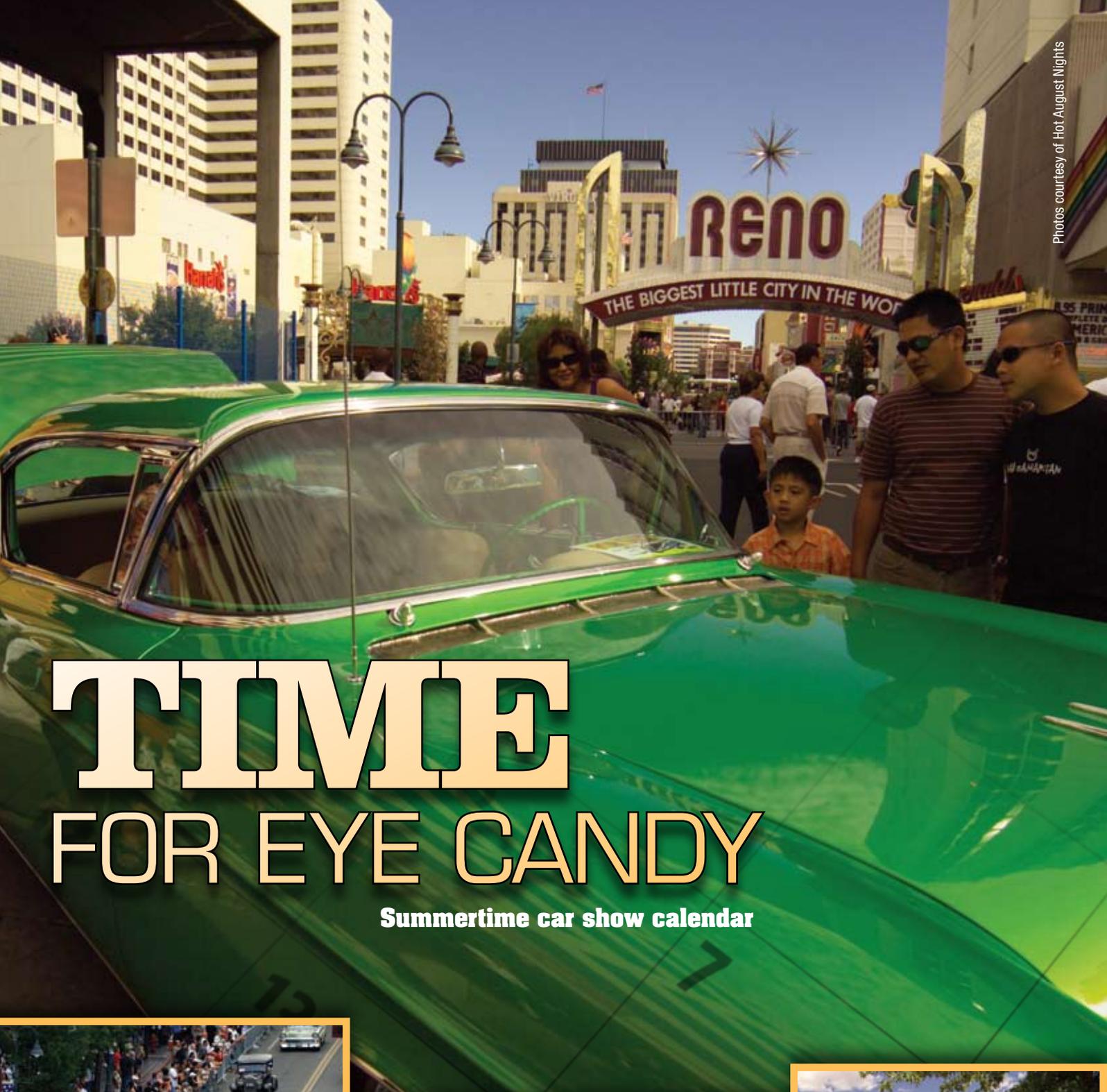
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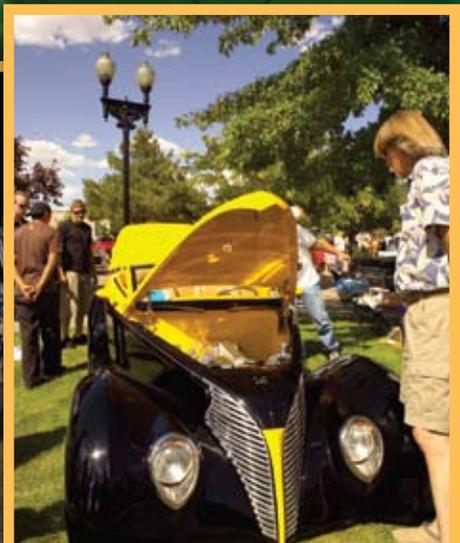
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TIME FOR EYE CANDY

Summertime car show calendar



Summertime is prime time for local, regional and national car shows featuring cherry rides and sweet wheels. To help you get a bead on where to find those rolling Rembrandts, here's some helpful information on what's

happening and how to find out more about the events.

So, check out where the hot rods, muscle cars, antiques and classics will be taking center stage this summer. Chances are, there's an event close by.

June events

June 7-14: The Hot Rod Power Tour. HotRod.com

June 12-15: 34th Mid America Ford Performance and Shelby Meet, Tulsa, Okla. MidAmericaFordMeet.com

June 14-15: 22nd Annual Antique and Classic Car Show, Manchester, Vt. ManchesterCarShow.com

June 20-22: 35th Annual Back to the Fifties Weekend, Minnesota State Fairgrounds St. Paul, Minn. msra.com

June 26-29: Bloomington Gold, Pheasant Run Resort, St. Charles, Ill. BloomingtonGold.com

July events

July 11-13: Iola Old Car Show, Iola, Wis. IolaOldCarShow.com

July 21-26: Centennial T Party, Richmond, Ind. TParty2008.com

July 25-27: Car Craft Summer Nationals, Minnesota State Fairgrounds, St. Paul, Minn. Carcraft.com

August events

Aug. 1-10: Hot August Nights, Reno, Nev. HotAugustNights.net

Aug. 4-10: 68th Annual Black Hills Motorcycle Rally, Sturgis, S.D. SturgisMotorcycleRally.com

Aug. 16: Woodward Dream Cruise, near Detroit, Mich. WoodwardDreamCruise.com

Aug. 17: 58th annual Pebble Beach Concours d'Elegance, The Lodge at Pebble Beach, Calif. Event includes Russo and Steele auction. PebbleBeachConcours.net

Aug. 28-31: Harley-Davidson 105th anniversary celebration, Milwaukee, Wis. Harley-Davidson.com

September events

Sept. 13: Forge Muscle Car Classic, Marriott Meadow View Conference Resort & Convention Center, Kingsport, Tenn. ForgeMuscleCarShow.com

Carlisle Companies hold several auto events throughout the summer, all in Carlisle, Pa. Go to CarsAtCarlisle.com for more information.

The National Street Rod Association sponsors shows throughout the summer. Go to nsra-usa.com for a complete schedule.

Goodguys Rod & Custom Association holds events throughout the summer. Go to Good-Guys.com for a complete schedule.

Several Super Chevy Shows are scheduled this summer. For a complete list, go to SuperChevyShows.com.

Many state, regional and national car clubs host shows each year. To check out events in your area, go to OldRide.com and click on events or clubs.

TELL US ABOUT YOUR CAR SHOW
Do you participate in an interesting car show? Tell us about it and share the event's Website address. Send to Tech@HighVelocityCommunications.com.



STUDENTS SHOW TECH SKILLS ON TV

Schools use Snap-on tools to get the job done

When students at two high schools in middle Tennessee had the chance to showcase their automotive skills on reality television, Snap-on was there every step of the way.

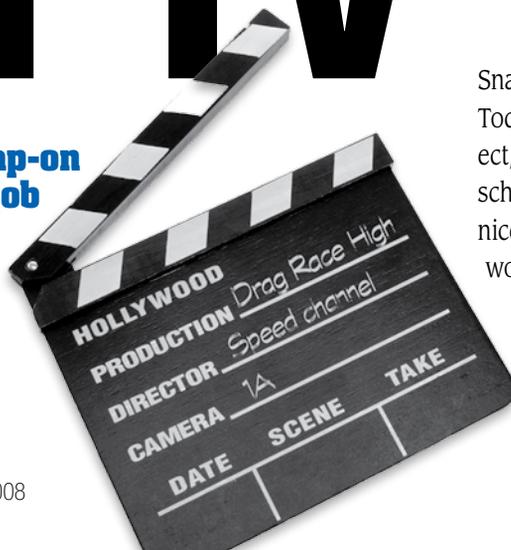
In line with its successful "Pinks" series, *Speed* channel created "Drag Race High" and chose East Hickman High School and Fairview High School to participate. The reality program followed students and teachers as they found a car, modified it from the ground up and prepared it for racing. East Hickman won the race and the show aired in February.

Both schools used Snap-on tools to get the job done.

"I don't have to worry about my tools, because I know that Snap-on will take care of anything that comes up," said teacher Todd Collins, who led the East Hickman team. "With this project, I spent 90 percent of my time finding parts, working on schedules and overseeing the students as they worked. It was nice to have Snap-on tools; it was one thing I didn't need to worry about.

"Plus, the kids work with quality Snap-on tools and it exposes them to a quality professional tool."

Will Robinson, account manager for the industrial group at Snap-on, is on advisory committees for both



Share Your Story

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East Hickman High and Fairview High. He worked with the schools to make sure they had the tools and diagnostic equipment they needed—not just for the competition but also for day-to-day automotive classes. “Being as close as I am with both the schools and being aware of the construction of each car, it’s like I’ve been walking on a tightrope,” he said of balancing his “loyalties.”

“It’s important for Snap-on that we not only serve the technicians of today, but also help educate and train the technicians of tomorrow,” Will said.

Tim Hobbs, an automotive technology teacher at Fairview High, agrees. “The industry is 100,000-plus technicians short each year,” he said. “This event gave our trade some good exposure and highlighted the fact that automotive technology is a trade that provides excellent career opportunities.”

East Hickman started anew in August when the new high school opened.

“When we were planning for the automotive shop, we could

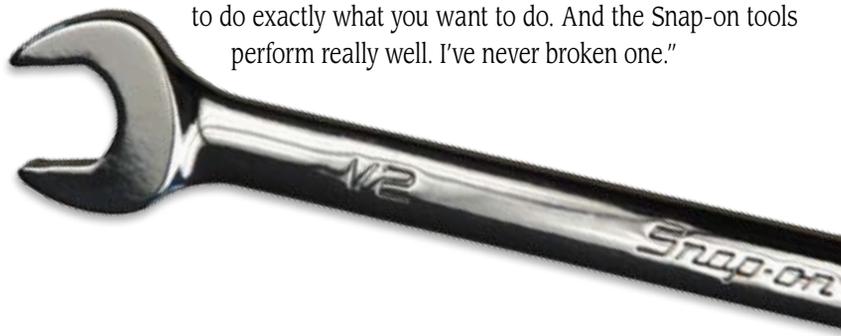


East Hickman's Eagle 1 was driven by Tony Bischoff, a renowned NMCA driver.

have bought any tool we wanted,” Todd said. “But, Will sat down with me in late 2006 and early 2007 to plan and develop a list of products we would need to become NATEF-certified and to properly outfit our shop. With the school scheduled to open in August of '07, Snap-on was the supplier of choice for our new program.”

As for the modification and the racing process, here is what some students had to say:

Curtis Perry, 17, Fairview High School: “With this project you can really see the teamwork. It’s not often that you get to do exactly what you want to do. And the Snap-on tools perform really well. I’ve never broken one.”



Megan Stone, 17, East Hickman High School: “This is a once-in-a-lifetime opportunity for kids at our school. The more I worked on cars, the more I liked it.”

Travis Harrison, 16, Fairview: “It was an awesome experience, working on a car with that much horsepower (700 hp). I also got to use equipment that I never used before.”

Steve Huff, 18, East Hickman: “It’s amazing to see how good our car looked. I didn’t expect it to have that much horsepower. The best part was when we put the engine in.”

James Roderick, 19, Fairview: “It felt great to see how we took the car from nothing to one that had 700 horsepower.”

Michael Brown, East Hickman: “The most fun was putting the roll cage in. I’d never done anything like it before.”

“This was a win-win situation for the students,” Tim said. “Even though we weren’t able to hit the deadline, the kids still got to participate and to build a powerful machine.”

The fact that the race took place is a tribute to the communities in which these schools thrive. From local body and paint shops to relatives and friends who gave up their time to help, many people and businesses had a hand in the schools’ successes.

“While this has been a challenge, the morale at our school is over the top,” Todd said. “Our whole school is involved. It’s been a learning experience for everyone.” 



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SMART DEER, DUMB HUNTER

By Ted Nugent

If you've been deer hunting as long as I have, not only are you rather old, but like me you are forever fascinated and intrigued by our beloved North American deer.

If you ever hear some sporter claim that deer "always do this" or "always do that," know for certain that you are listening to someone with very limited deer hunting experience, or someone who just doesn't get it. Deer never "always do" anything, or in some cases, "always do" everything. Or variations thereof. It could drive us nuts!

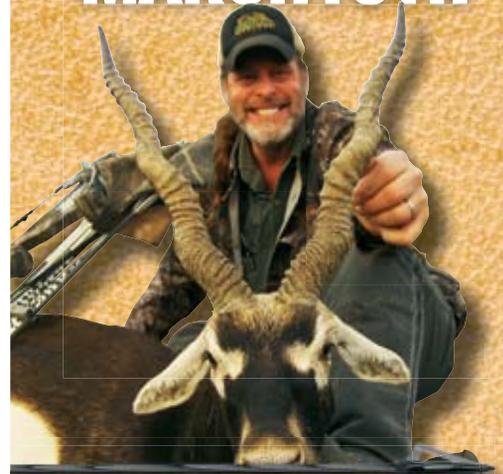
On my traditional Michigan and Texas deergrounds, where I hunt hundreds of days each year, I am thrilled at the challenge of the most wary, spooky, high-strung, hyper-alert, borderline impossible deer that exist anywhere that I have ever seen in my life. Usually.

On certain properties in Texas where cattle ranching activities are daily fare, I admit that I have celebrated some very welcome, deeply appreciated, downright stupid whitetails. And no one deserves a relaxed deer more than I do. Same goes for some of the deer I've encountered in IL, NM, SD, and NE. That these whitetails don't even look up into the trees is a gift from the deer hunting gods for sure. I think my TX & MI deer are born walking backward looking up into the trees before the placenta is removed. It is truly amazing.

Way back in 1953 or so, when I first began following my dad into the beautiful forests of Northern Michigan, I was hopelessly spellbound by all things wild. There were plenty of whitetails back then in that big timber country Up North, but quite honestly, we seldom if ever saw any.

Continued on page 20

SEASON OPENS MARCH 15TH



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Dad was a casual bowhunter, enjoying leisurely strolls in God's country, but not exactly a dedicated, stealthy, venison-craving, hardcore bowhunter. We never killed a deer, but when we met other bowhunters with a fresh kill hanging back at camp, my eyes nearly bugged out of my head, totally fascinated by the beasts and the mesmerizing stories of the encounter and shot. I couldn't get enough of it.

So this particular, fine October 2007 afternoon, high on a long, winding forested hogback ridge overlooking my magnificent Southern Michigan home swamp, eternally young Ted is 20 feet up in my Old Man ladder stand, big buck dreams exploding in my head like fireworks on the Fourth of July. I've only been on stand for 45 minutes when the flicker of an ear 70 yards out prods my heartbeat into overdrive.

Binoculars reveal a pair of young deer moving my way, with a third, big old swamp-donkey doe bringing up the rear. She is plenty for my big buck dreams, and I begin my predator mantra.

As usual, the mature matriarch doe is taking one step at a time, looking up into every tree. Even though I had put this ladder stand up just this season, and had never hunted on this segment of the big ridge ever before, she was on red alert as if arrows had come from every treetop on the place every day of her life. Wild.

Side sloping far down the northern hillside to my left, her elevation was now somewhere around 50 feet below my perch, when her head swung up and she

stared a hole clean through my soul. I had not moved a muscle. Not a twitch, not a breath, yet still she nailed this new treetop blob of Mossy Oak surrounded by a perfect, concealing canopy of leafy cover, as if I were dancing a flashing day-glow-orange-neon-light jig up here.

For the millionth time in my life, I was frozen in a staredown with another whitetail deer, through no fault of my own. I make it a point to not actually look straight at her, and a concrete statue is no more still than I, as she does the big bad evil stare, head-drop, glance away, flash back at me, cruel guitar-player torture test. A few front hoof stomps, then she pivots 180 degrees and white-flags back up the ridge fast. But I come to full draw anyway and swing with her as I let out a pretty good doe bleat vocal imitation that stops her dead in her tracks about 45 yards out. Cool!

Two 10-year-old red oaks bracket her ribcage, leaving a scant 6-inch gap for my feathered death ray. I whisper, "I can do this," and touch off my arrow as it mystically arches perfectly in between my twin oak tree aiming point, and with a lovely "kerchunk" my razor-sharp Magnus broadhead slices through her vitals perfecto, like a samurai sword through a side of beef. Oh, it is a very beautiful thing!

Now jettison forward a few months later to the slopes of New Mexico, where mule deer are king and Rocky Mountain elk own the wilderness.

The sun is barely up behind me as a gaggle of Merriam turkeys make their way from the hillsides above, winding through the burned-out forests of the Sacramento Mountains. Behind the turks are some gray mule deer does and fawns, walking along rather

STRAIGHT SHOOTER

Tech says Nugent is one of the guys



Brian Dove, left, Ted Nugent and Josh Jones after a successful hunt in Texas

The Nuge doesn't just talk a good game. When it comes time to hunt, he's a straight shooter. So says Josh Jones, a Loganville, Ga., auto tech who recently went on a hunting trip with Ted Nugent. "He's the real deal," Jones said. "He shot a lot of stuff while we were there. And he was just a really down-to-earth guy. We talked a lot about hunting."

Jones and his buddy, Brian Dove, took part in a hunting vacation with Nugent at the Y.O. Ranch near Kerrville, Texas. Jones' wife bought the hunting vacation for her husband's 30th birthday. While Jones has been a fan of Nugent's music, writing, and outdoors television show, he expected to have limited contact with Ted during the hunt.

"Going into it, you kind of think, 'rock-star type,'" Jones said. "But that wasn't the case at all. He ate lunch and dinner with us. After dinner, we hung around the lodge and he was there every night, talking or playing his guitar. He was pretty much like any of the other guys who were there hunting."

Nugent bow-hunted for a variety of prey on the ranch—and was very successful, Jones said. Jones went gun hunting, and had a success story of his own in the form of a 9-point whitetail. "I saw this buck standing high up on a ridge with sky behind it, and the sun shining down on it. I've seen a fair amount of deer in my days of hunting, but the size of this one, and seeing it up on this ridge with the skyline behind it—it was wild looking.

"That, and everything else about the hunt, was memorable."

nonchalantly, without an apparent care in the world. Now, mind you, I am on a small chunk of private land at the edge of the Mescalero Indian Reservation, but this country is hunted pretty hard all season, the mountains are alive with cougars, bears, coyotes, bobcats and fox, and all this game is parading to a grassy zone and water near my groundblind as if they were in a zoo.

The morning was nonstop game, does, young deer and numerous small and medium bucks, when after a few hours a bigger, mature 4x3 comes from the opposite direction. Spending a few grandstanding minutes terrorizing an innocent green bush above me, this handsome buck, which has seen at least five hunting seasons of certain harassment by every imaginable predator, including man, comes straight for the group of does before me. Cool!

Proving to me that mule deer do the snort-wheeze, he noses doe after doe looking for a receptive breeder when he finally makes a mistake and pauses just 20 some yards from my groundblind. Doing my best to zoom onto him with my vidcam, I come to full draw and send a razor-sharp broadhead for his chest. Nicking the brisket and slicing his opposite leg, the buck leaps and dashes right for the group of does and fawns.

A second arrow is already on my bowstring when he limps back in a circle, nosing after a big old doe as if nothing has happened. Again he pauses, this time at a 35-yard marker from my earlier range-finding preparation, and as the sight pin settles on his ribcage, I touch off arrow number two in less than a minute. This one connects dead center with a lovely THWACK, the now bloody arrow flying beyond the bucking buck. He dashes wildly for 40 yards, stops, backs up and tips over without a quiver. Stone dead. Hallelujah!

Clearly, I relish lucky over good at every opportunity, but the distinctly

different conduct as displayed by these two wild deer could not have been more opposite. The Michigan whitetail provided a nerve-wracking challenge, but when you really admit it, so did the New Mexico mule deer, only different. Luck of the draw brought my Michigan doe to a stop just in time and at the perfect spot to give me a shot just like one that I practice all the time.

Conversely, the trophy mule deer was so love struck that he too paused in a prime shooting position, which didn't exactly guarantee my arrow placement no matter how many thousands of arrows I practice at just such a setup. A huge dose of pure luck came into play again when he ignored the near vital slice of my first arrow. Thank you God.

Some may say that the mule deer is much less wary than whitetails, and overall, I would tend to agree.

However, bowhunters know that once we penetrate the mystical 100-yard danger zone of any deer, we have our work cut out for us getting into a full draw shooting position of decent percentages. There are no dumb deer, just some smarter than others. And I love both kinds!

I am still hunting every day, still looking for a deer, any deer, that will let me into bow range. Whether I choose to shoot it depends on many variables, but one thing is certain: Each and every encounter is a thrill that will cleanse the soul, and educate the reasoning predator within if we pay ultra close attention and learn from every lesson they provide.

Deer hunting is all about education. How the beasts can educate us about their uncanny arsenal of survival instincts keeps us coming back for more. And I bet I am just like all of you, and we will keep coming back for more, every chance we get, every hunting season that God blesses us with.

Deer aren't dumb, but us hunters sure can be. 

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HERE'S *the* CATCH

Five lures that will help you hook everything you chase this summer

By Jerry Gibbs

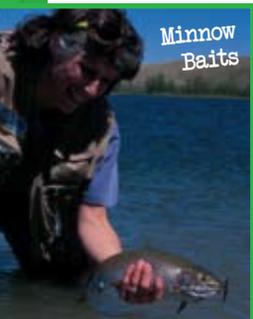
So you want a silver bullet bait—a no-fail lure you can use from now right through summer on any kind of fish you chase. Don't we all.

But there are a handful of lure types that, with variations in rigging and size changes, can handle just about anything. I've narrowed the list to five: a swimming minnow lure; soft plastic "wormforms"; jigs; spinners; and lipless rattle lures. Here's how to make them work.

HARD SWIMMING MINNOW BAITS

Think of the original floating Rapala. Today you have uncountable variations on the theme. Small ones will take panfish and trout. Up the size for larger trout, walleyes, bass, pike, salmon, muskie, and most inshore saltwater species (though you want corrosion-proof, beefy hardware models for the briny).

Without weight, floater/diver minnows can be splashed almost like a true surface bait. Sometimes just a steady crank with occasional twitch works in the shallows.



Get them a bit deeper by trolling with various type weights ahead on the line. You can hitch them to downriggers or side planer boards for controlled-depth fishing. For presenting these floaters from the bottom-up, rig them on a three-way swivel (with sinker dropper from one swivel eye); from a Carolina rig; or a Lindy-type slip sinker. There's no wrong way to fish them.

PLASTIC WORMFORMS

Everybody knows about Texas rigged worms, but that's just the start. Rig a worm wacky style—hooked through the middle with two ends waving. These can be fished weightless, or drop-shot style with a bell sinker on bottom, the hooked worm higher up the line. Use a slip sinker with barrel swivel ahead of it (as a stop) and desired length leader behind the sinker. Then rig a floating worm nose-hooked or Texas style, and twitch it along the bottom where it'll ride up according to how long you've made your leader.

Floating worms, or worms with a piece of foam ahead of them, jerked along the surface are great. Of course you can just use a soft Slug-Go type bait as the surface jerker. They're a kind of worm, too.

Cut a worm short—maybe use the end of one of those ribbon tail worms—and you have a skinny grub. Use it when fish are keying on smaller minnows. Tiny, thin worms rigged weightless (or with split shot) take panfish and trout. Hook them through the middle or in the nose.



JIGS

In proper size, jigs will catch everything you want. A jig can be trimmed with all sorts of attractive trailers. A plain jig, which is no more than a weight molded onto a hook, becomes deadly when inserted into a hollow plastic tube lure or at the nose of a plastic grub.

Jigs can come pre-rigged with silicone tentacle skirts or feathers or bucktail. Ultralight jigs on drop-shot rigs or multi droppers are favorites for crappie fishing and also will take bass. Tip a jig with live bait and you have the darling of walleye anglers.



Jigs can be bounced or crawled along bottom or even trolled. A plastic-dressed jig, cast and cranked steadily back, is often a deadly presentation for suspended fish. Tiny jigs drifted beneath a float (bobber) take trout and panfish. Slightly larger jigs twitched below a larger float nail bass, walleyes and lots of inshore saltwater species.

SPINNERS

The wish-bone wire lure known as a spinnerbait is one of the world's favorites when fishing through various types of cover (and open water, too). They become very different lures depending on the number of blades, blade type, along with blade/skirt color.

Their head weights are key to the depth at which they can be fished. Today, with 1- to 2-plus-ounce heads, you'll find spinnerbaits rolled along the bottom far deeper than was the case just a few years ago. Though the slow-roll drill is usually effective using heavy spinnerbaits, bass and big pike can be more inclined to take these

baits if they're worked like jigs—dragged with the blades not turning, then hopped in widely spaced intervals so the blades just spin once or twice.

Besides spinnerbaits, consider ubiquitous in-line spinners. Simplest of the non-weighted type are the Colorado, Indiana and Idaho spinners.

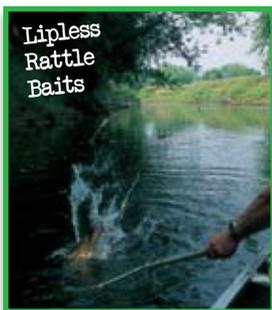
The Colorado is nothing more than a couple of swivels and split rings with a blade and small treble hook. Indiana and Idaho spinners are blades attached via a U-shaped clevis to a straight pin shaft that allows you to snap on a hook, fly or to use the rig as an attractor ahead of another lure. The Colorado is a perennial favorite

among trout and panfish anglers, though in larger sizes takes salmon and bass.

Mepps spawned the weighted in-line spinner craze. The lures are used on virtually all game fish from stream smallies and trout all the way up to the largest salmon and muskies. Muskie spinners take the form of so-called "bucktail" in-line spinners with big skirts of that material. Cast, jig or troll an in-line spinner, but if you troll you need to use a good ball bearing swivel to reduce line twist.

LIPLESS RATTLE BAITS

Bill Lewis' Rat'L-Trap is the prototype. They were intended for bass fishing and excel at that all during the season, even in cold water of spring. We started using them in open water because of the unpro-



Lipless Rattle Baits

tected free swinging hooks but soon learned they can be fished around brush and timber. Though you can really burn these baits back at a high speed, a slower crank that just keeps them vibrating is

sometimes better.

Then we learned about jiggging the things. Yes, a lipless vibrating rattle lure can be dropped to bottom, jigged up and let drop. Besides bass, it'll catch walleyes like this—and pike and muskies. I've used the really big rattlers on king salmon. There are salt-water models, too, that work on all nearshore species.

The smallest lipless rattlers will work in your favorite trout river or on panfish in the local pond. And, you can troll them straight or from planer boards. Just don't expect them to come through vegetation free of weeds.

So there you have my big five. I guarantee you'll catch fish if you use these in all their varied ways. 

Jerry Gibbs is the long-time fishing editor for Outdoor Life. Check out his blog, Gone Fishin', at www.outdoorlife.com.

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HOG HEAVEN IN MILWAUKEE

Harley-Davidson Museum will be a 'must see' for bikers of all ages

Never thought about planning a vacation around a trip to a museum? This museum just might change your mind.

Harley-Davidson Motorcycle Co. opens its 130,000-square-foot showcase to all things Hog in July. The launch coincides with the company's 105th anniversary celebration, which begins a month later.

Spread over 20 acres near the Menomonee River in downtown Milwaukee, the museum will bring alive the passion, history and culture of the iconic motorcycle maker. Displays include the first-ever Harley machine and a Hog owned by the King himself, Elvis Presley. Another big draw will be a customized Harley dubbed King Kong. It's more than 13 feet long, weighs in excess of 1,000 pounds and has two knucklehead engines.

Harley fans can scan a vast array of motorcycles—more than 100—and check out clothing, photos and posters from the company's past. Interactive exhibits will let visitors “feel” what it's like to ride a Harley. Other displays will explain the “nuts and bolts” of Harley engines.

The Harley-Davidson Museum is expected to attract 350,000 visitors from around the world each year. The museum grounds also feature a restaurant, café, retail store and a park-like setting along the riverfront.

Continued on page 26





HARLEY-DAVIDSON
MUSEUM

AS LONG AS YOU'RE THERE ... OTHER THINGS TO DO

HARLEY REUNION BASH

Aug. 27 to Sept. 1

Bruce Springsteen and the E Street Band and Daughtry headline the entertainment line-up for Harley-Davidson's 105th Anniversary August 29-31 in Milwaukee. But there are other Harley-related events going on. Reunion Bash 2008, a House of Harley-Davidson production, will host one of the largest motorcycle events in the Milwaukee area during the celebration. Even better, this event is free to the public.

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MilwaukeeBrewers.com



HARLEY-DAVIDSON MUSEUM

FAST FACTS

GRAND OPENING: JULY (DATE TBD)

HOURS: TBD

ADMISSION: ADULTS: \$16; KIDS 5-17: \$10; KIDS UNDER 5: FREE; STUDENTS WITH ID AND SENIORS 65+: \$12

WEBSITE: HARLEY-DAVIDSON.COM, CLICK ON MUSEUM

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THE MUSEUM GROUNDS ARE DESIGNED WITH THE INDUSTRIAL LOOK AND FEEL OF HARLEY-DAVIDSON.

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KING AND QUEEN OF THE STRIP

Fishers built their relationship at the track

Kevin Fisher and his wife, Kathy, have drag racing in their blood. Kevin started racing at local strips at age 20. Kathy grew up watching her dad on the quarter mile.

Their relationship was built around racing. Kevin asked Kathy out for their first date when he was strapped into his '69 Nova, in the staging line. Kathy was in the car behind him, ready to lay down a good run. They even got married at the track, in Kathy's usual pit area. (They would have married at the starting line, but the weather didn't cooperate.)

The Lima, Ohio, couple own and operate Performance by Fisher, a complete automotive repair shop that specializes in high-performance vehicles. But they spend a good deal of time traveling the drag racing circuits.

"It's not easy, as you might imagine," Kevin said. "I work six days a week at the shop and spend Sundays doing maintenance on the cars and other work."

They have a 53-foot trailer for two cars and other racing gear. They were able to hit two dozen

events in 2007. That proved to be one of their best years on the racing circuit, with Kathy winning her first IHRA national event at the Canadian Nationals in Toronto.

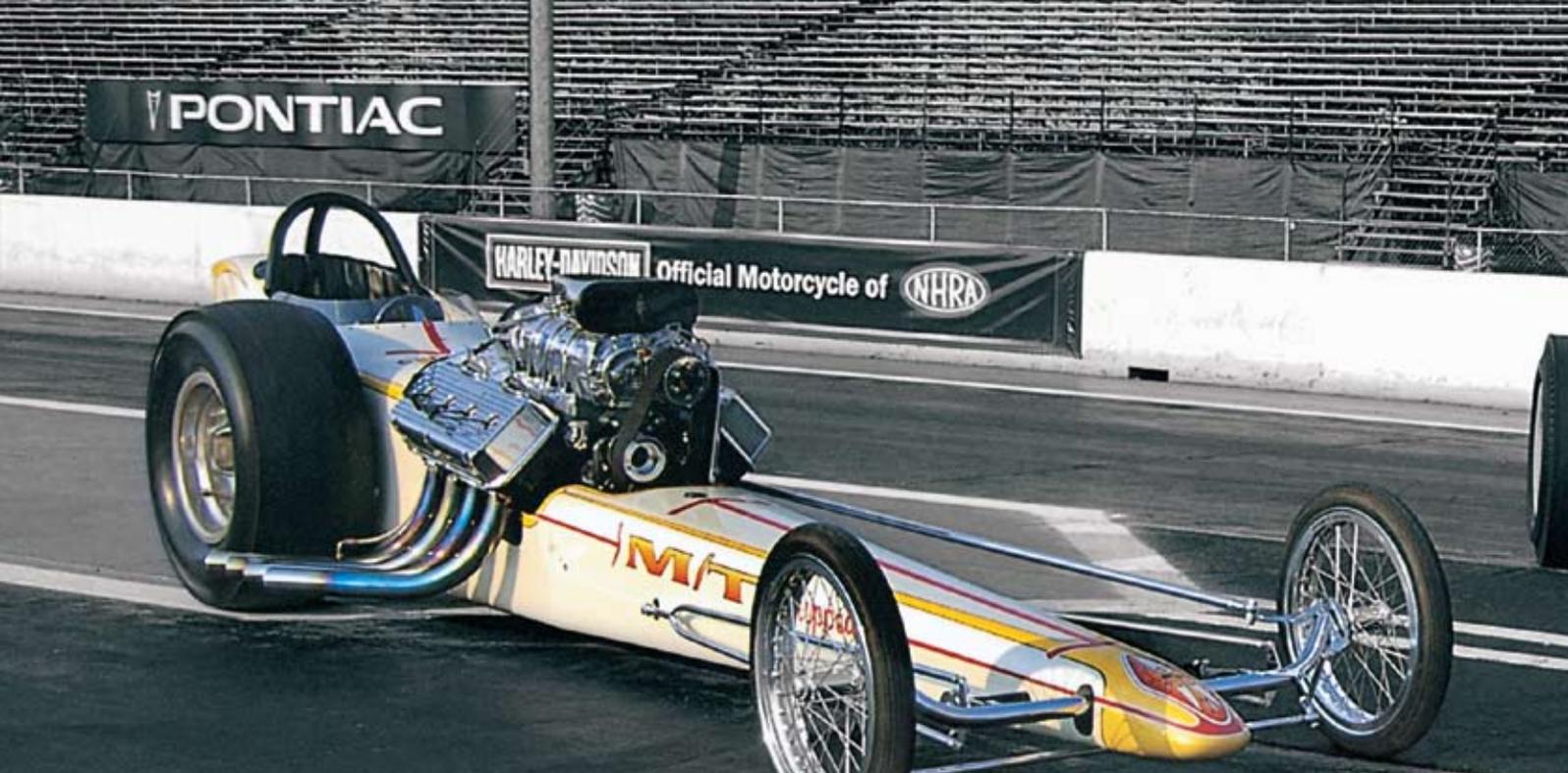
They also appeared on ESPN's "King of the Strip," a reality game show where 14 amateur drag racers go head-to-head for prize money. The Fishers did well, eventually taking home \$10,000. A second 13-week "King of the Strip" series is planned for 2009 and the Fishers expect to be part of that show, too.

Kevin and Kathy say they're lucky they can spend so much time doing what they both love. "Our business and racing go hand-in-hand," Kathy said. "When we're out at the track, we're working for the shop."

Both Kevin and Kathy praised the work of their Snap-on dealer, Tom Hirt. Hirt helped get Kevin outfitted when he started his business in 1992. The two have grown to be good friends, with Hirt a sponsor of the Fishers' racing team.

"I have \$100,000 worth of tools in my shop. I've tried them all, but Snap-on is all I own now," Kevin said. 🛠️





RECREATING a '60s Fuelie

A drag racing legend brings memory back to life

During his heyday in the early 1960s, Jerry Baltes set speed records at tracks across the country. He's in three halls of fame, including the International Drag Racing Hall of Fame. But after going to an NHRA Hot Rod reunion a few years ago, Baltes realized something was missing in his life—his old dragster.

At the reunion Baltes saw that some of his racing buddies had restored their Top Fuel dragsters from the 1960s. He had to do it too, he thought. The only problem? Baltes had no idea where his was. He had sold it in the early 1970s to a guy who lived near Cleveland. That owner had passed away, leaving Baltes no way to locate the vehicle. (See sidebar page 30.)

That didn't stop Baltes. He figured if he couldn't restore his dragster, he'd just build it again. And his old car was something.

In 1963 Baltes had teamed up with Don Croshier and Billy Lavato to purchase and race a Tommy Ivo car, which they ran as the Croshier, Baltes & Lavato AA/Fuel Dragster. They set

the NHRA speed record at Inyokern, set the track record and won a record six straight events at San Diego Raceway. Baltes beat some of the biggest names in drag racing: Emory Cook, Don Garlits, John Mulligan, Rick Stewart and Ted Cyr, to name a few. The CB&L team was ranked as high as No. 3 in the nation on the Drag News Mr. Eliminator List.

'Art' in the works

Baltes asked some of his old friends to help with the rebuild. Rod Peppmuller built the entire chassis, Carl Johnson of Sterling Engines in Rockford, Ill., manufactured the engine parts and Bob Creitz assembled the engine. Chris Ellis did the paint and



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Aries stock +.30 pistons, pins and rings

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Smith Bros. push rods

Mickey Thompson magnesium front cover and pump drive

GMC 6.71 blower

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Schiefer aluminum/bronze button flywheel

Schiefer dual-disc clutch

Chassis & Driveline

130-in. wheelbase

1934 Ford front spindles

Donovan aluminum bell housing

Lenco driveline

1949 Oldsmobile rear end housing

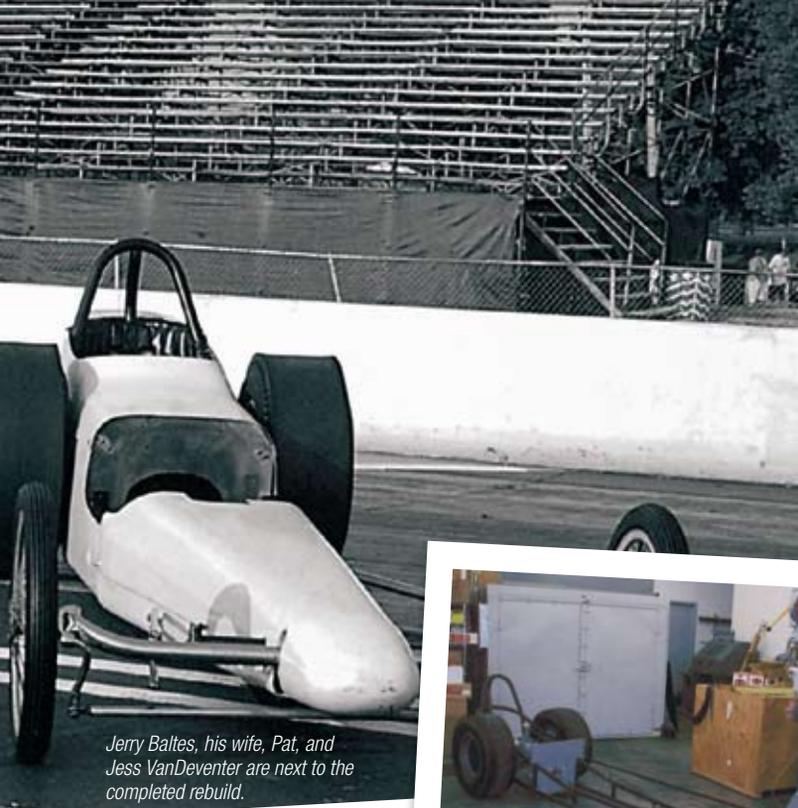
Mickey Thompson aluminum center section

Excel front wheels

2.50 x 18 front tires

Halibrand rear wheels

16 x 12 M&H rear tires



Jerry Baltes, his wife, Pat, and Jess VanDeventer are next to the completed rebuild.



Tom "the Tinman" Hanna fabricated the body and was in charge of final assembly.

They didn't have diagrams or schematics to reference, so they relied on their memories and measurements from a similar vintage AA/FD they found outside Denver. "Fortunately, I had an opportunity to look at the back end of it on occasion while racing," noted Hanna, who raced against Baltes during the '60s.

Hanna knew he didn't want to do a straightforward recreation. What he and Baltes wanted was a recreation with "enhancements."

"This wasn't a racer that would be around for a season or two," Hanna said. "What we're really talking about is art. This is built to last 50 years if it's preserved correctly."

The 1963 car had Mickey Thompson aluminum valve covers. Those couldn't be found, so Hanna obtained aftermarket covers and machined the Thompson name on those.

They also machined a Thompson blower manifold pop-off assembly from scratch. The original steering wheel was off a go-cart, so Hanna made a custom one with a big JB—for Jerry Baltes—in the middle.

Hanna machined the throttle and clutch pedals from billet aluminum. Unable to find the very early model Enderle "Bug-Catcher" blower injector used on the original, Baltes bought a 1966 unit and Hanna machined it to look like the older one.

Baltes said he expected the project to take "\$60,000 and three years" and was blown away when it took only nine months.

"It was beyond my expectations, the car looked so nice," Baltes said.

Hanna bought his first Snap-on tools in 1957 and they can still be found in his workshop today. He's added a ninth Snap-on roll cab—with the "extreme green" paint job—just this winter.

"Snap-on tools are absolutely the best," Hanna said.

Continued on page 30

The payoff

Baltes is justifiably proud of his career and the attention his new “old” dragster attracts when he brings it to cacklefests. “People’s jaws just drop when they see this car,” said Baltes, who’s built a successful commercial power cleaning and tank trailer leasing business in his adopted hometown of Richmond, Va.

But the best part of the get-togethers is making new friends and seeing old ones again.

“Someone asked me why I go to the reunions, when each year someone else from that time has passed on,” said Baltes,

73. “It’s because each one I go to, I see someone I haven’t seen in 40 years.”

Baltes says he and other racers developed friendships during those early days. They hung out together after the races and often drove to events together. They didn’t have big entourages like today’s NHRA pro-class racers.

“I was doing it (racing) to see the countryside,” Baltes said. “The races took us all over the country. We traveled Route 66 and back again. I remember taking a bath in the Rio Grande River on one trip.

“We were pioneers.” 



A TEARFUL REUNION

40-plus years later, Baltes finds the original

Jerry Baltes spent nearly eight years searching for his original dragster and hit one dead end after another.

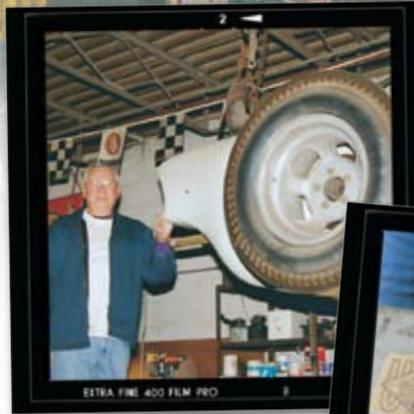
The man he sold the car to had died. Signs posted at drag strips brought no response, ditto postings on racing websites. It seemed as if the car had disappeared.

“We had people keeping an eye out for us, but nothing ever came up,” Baltes said. After a while, Baltes gave up his hunt and turned to recreating the Croshier-Baltes-Lavato AA/FD that was built in early 1963.

Then in early 2007 a photo of a ‘60s dragster appeared on the Internet. The markings were gone, but it bore more than a passing resemblance to Baltes’ car.

Soon he was getting e-mails from across the country: “Is it yours?” Baltes thought it could be, but needed to see it firsthand to be sure.

The car—without its engine—was hanging from the ceiling



Jerry Baltes after finding his original dragster



in mechanic Jim Urbanek’s shop in Eastlake, Ohio. Urbanek bought the car years ago but hadn’t gotten around to restoring it.

When Baltes arrived, he had no doubt about it. It was his old racer. “When I saw the car, I cried,” Baltes recalled. “That car was the most important thing that happened to me.”

When Urbanek begins restoring the vehicle, Baltes has offered to help.

Share Your Story

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John Thornton, left, Scot Manna and Jim Moritz

GREAT MINDS TACKLE A TOUGH ONE

MODIS, techs' hands-on experience help solve a tricky case

By Christopher Hockett
Snap-on Diagnostics

Every once in a while, automotive technicians act like doctors and collaborate on a difficult case. This case study, on a 1995 Jeep Grand Cherokee, was just such a problem worthy of more than one great mind to diagnose.

The customer complained of a rough-running engine with a misfire that also backfired through the intake. A complaint like this on a 1995 Jeep with a 4.0L inline 6-cylinder engine sounds easy enough, right? Here is where it gets interesting.

The customer purchased the Jeep as a used car in Florida and then drove it home to Illinois with the problem. After the long trip, the customer went to his regular technician with the complaint and ended up with this list of repairs: a valve job, camshaft and lifters, timing chain and gears, and all the major tune-up parts. Despite the valve job and the installation of these new components, the problem persisted.

Eventually the customer lost patience with his regular tech-

nician and went to Pat Weber for help. Weber, a 38-year veteran of the auto repair industry, is the lead technician on this case and is the owner of Weber Automotive Service in Glenview, Ill.

Weber was aware that his shop inherited a problem car third-hand. "I knew most of the history after the new owner purchased the vehicle, but nothing prior to that point in time," said Weber. "So I started with the basics, like ignition testing with my MODIS. Cylinder #4 was misfiring and the ignition scope patterns on my MODIS were very strange for cylinders #3 and #4. I continued with some vacuum testing, took compression readings and performed a cylinder leakage test on all cylinders, and I verified the fundamentals. Compression and cylinder leakage tests were fairly normal. Therefore, it had to be a relatively basic mechanical problem."

As you can see from the ShopStream™ Connect viewer (Figure 1), the ignition trace for cylinder #4 showed excessive



Pat Weber



Figure 1

MODIS diagnostic tool



turbulence, a lean condition and a short burn time. What's puzzling too is that cylinder #3 showed much higher-than-normal spark resistance inside the combustion chamber and it also had a short burn time.

Weber went further and verified that all the repairs performed at the other shops were done properly. After a thorough analysis of all the basic systems, he believed the engine acted as if it had a flat lobe on the camshaft because the engine backfired and the vacuum readings showed irregular pulses.

Weber examined the valve train and measured valve stem height on each valve. The heights were in specification, the cam lift was proper, and all appeared to be normal in the valve train. In fact, the only issue he uncovered from all the work performed at other shops was that the #1 & #2 injector wires were switched. Switching the injector wires to their proper injectors, however, had no effect on the complaint. Despite Weber's te-

nacity, the root cause still remained a mystery.

Weber, Scot Manna of MB Automotive, John Thornton of Autotrain Inc, and Jim Moritz of Snap-on Diagnostics rarely go a week without sharing challenging case studies, and this was no exception. The case piqued their collective curiosity and the four of them met on a Saturday to tackle this phenomenon. They retraced all the steps mentioned above and came to the same conclusion: It had to be a basic mechanical problem, despite having good compression, no excessive cylinder leakage, the valves opened and closed, etc.

"The test that took us in the right direction was using the lab scope on MODIS with a synch probe on the #4 plug wire as we measured the starter cranking amperage," said Manna. "The middle hump in the waveform for cylinder #3 was slightly

Continued on page 34

higher than the rest. This indicated that cylinder #3 encountered excessive resistance to motion during its compression stroke.” (Figure 2)

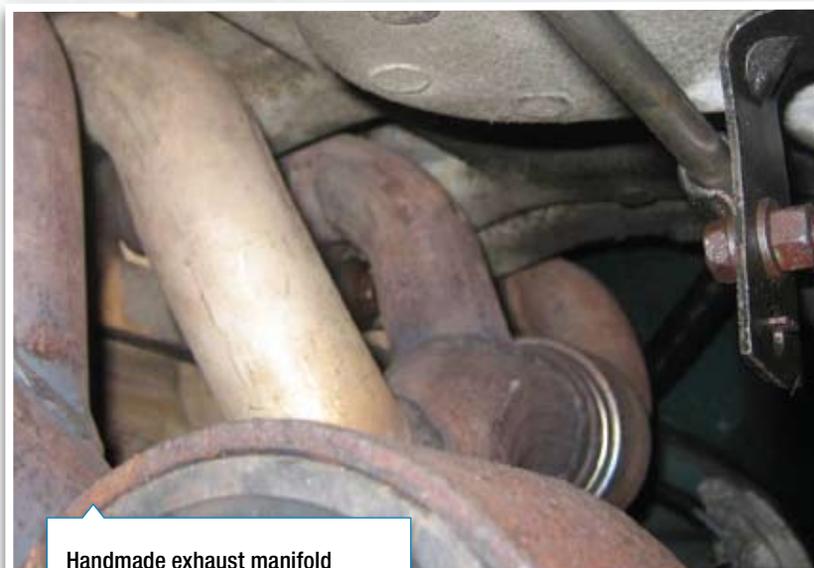
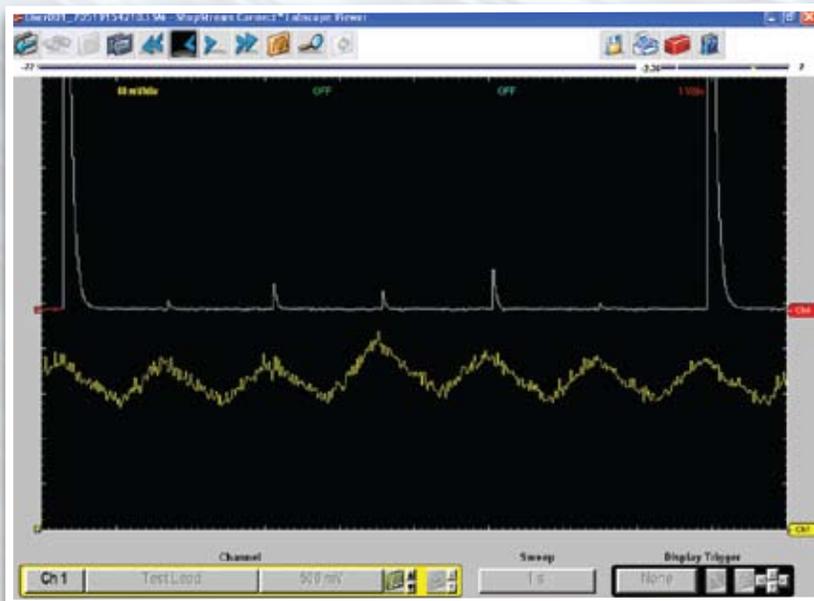
Said Moritz: “The strange ignition scope patterns were an effect, not the cause. When you combine that with the excessive cranking resistance for cylinder #3, the four of us had to ask ourselves what cylinders #3 & #4 shared with one another. You can point to the head gasket, but there was no evidence of a compression leak between the cylinders.”

Weber characterized it this way: “The only other attribute the two cylinders shared was that their pistons rise and fall together as opposites in the firing order, 1-5-3, 6-2-4.”

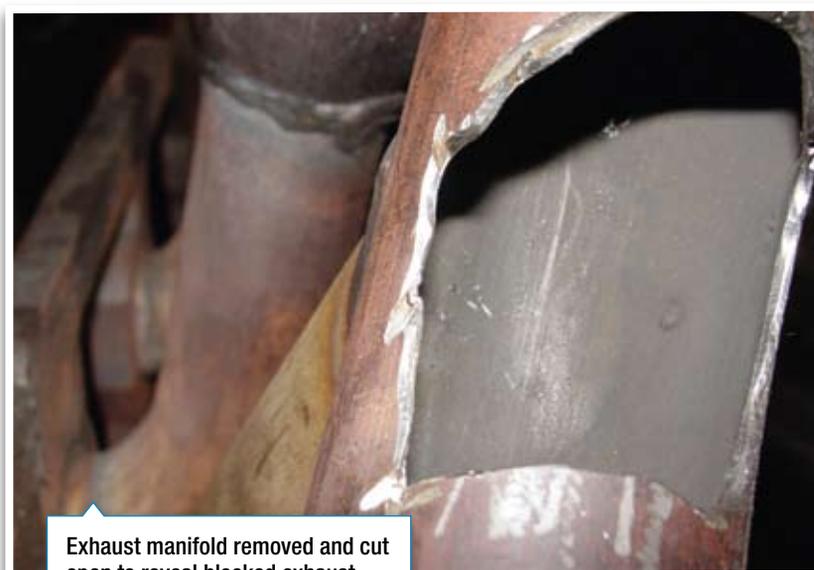
This is where the power of MODIS meets the power of human reasoning. “Basically, the lab scope confirmed that cylinder #4 had almost two complete compression strokes and no exhaust stroke,” said Thornton. “The extra compression stroke on #4 slowed down the compression stroke for #3. We suspected a restriction existed in the exhaust passage for cylinder #4. That would explain the pressure pulse that entered the intake manifold when the #4 intake valve opened.”

A visual inspection of the exhaust manifold was revealing. The header pipe for cylinder #4 showed no signs of combustion heat. Weber removed the exhaust manifold and dissected it. He found a casting flaw in the aftermarket exhaust manifold that completely blocked the exhaust flow for cylinder #4.

“Someone replaced the exhaust manifold in Florida and the problem had existed ever since,” said Weber. “It’s just not something that you see every day. I may never see another problem like this one again in my career, but if I do, I know that my colleagues will be here to learn right along with me. And I know that my MODIS will be there to help too.”

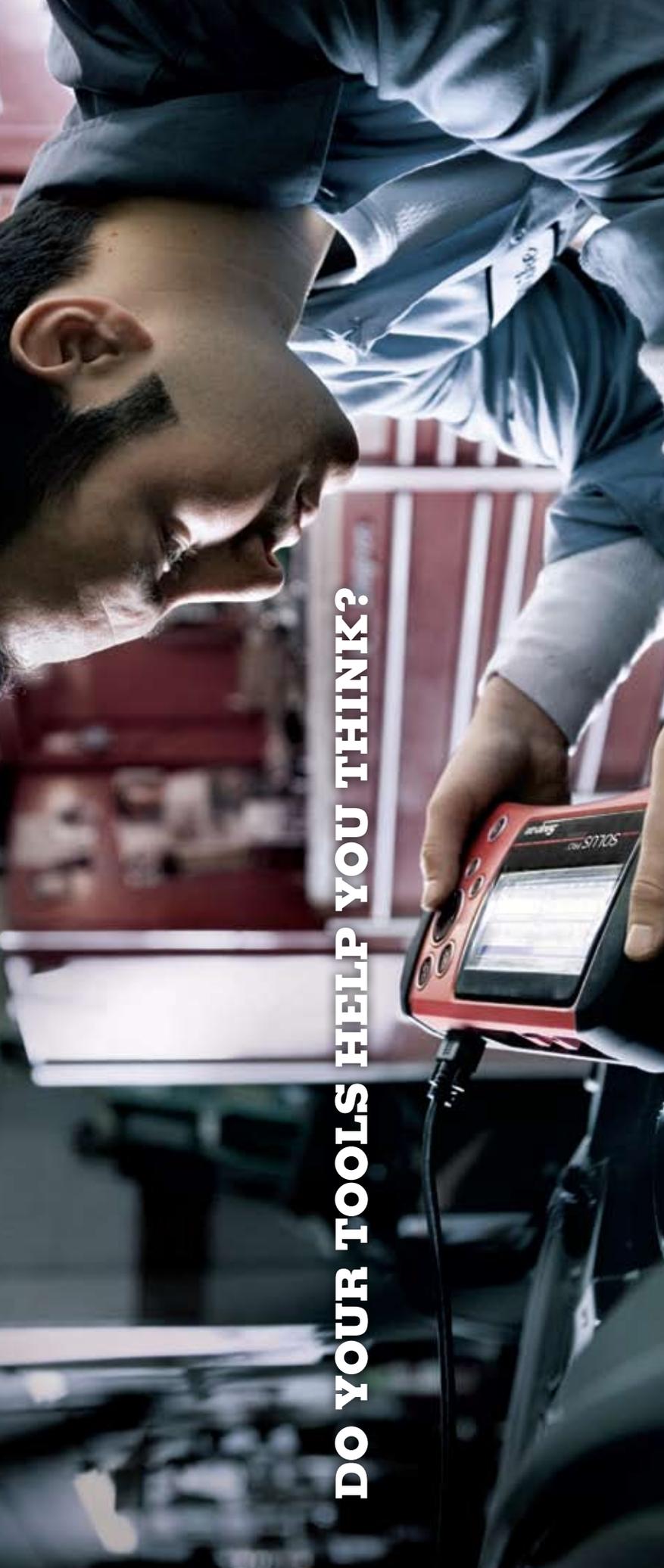


Handmade exhaust manifold installed on engine



Exhaust manifold removed and cut open to reveal blocked exhaust passage

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Why WIX?

To answer that question, WIX Filters takes us back to the beginning of their storied history, one that began in Gastonia, N.C., in 1939. That year, John Doanne "Jack" Wicks and his business partner Paul G. Crenshaw saw a market need for filter replacements that would simplify the filter changing process. After 15 years of success manufacturing filters primarily for agriculture and WWII efforts, WIX turned the filter market upside down with the invention of a spin-on oil filter design that quickly became the industry standard.

Today, WIX light-duty filters consistently offer the best protection in the industry, breaking typical aftermarket stereotypes for fit, form and function. And that goes for domestic and foreign nameplate cars, as well as light trucks and fleets.

Likewise, with a history steeped in heavy-duty filtration tradition, WIX knows that filtration has always been a critical consideration that can significantly impact the long-term profitability of an entire fleet. That fact holds even more relevance today, as fuel prices and vehicle maintenance take more and more of every fleet's operating budget.

Fortunately for technicians and their customers, WIX engineers have spent decades improving engine filtration alternatives and today offer premium filtration products that protect engines better than ever before.

Why? Because their technologically-advanced oil filter construction captures 45 percent more dirt than the leading brand. It also lasts 30 percent longer. Simply put, when other filters quit, WIX will still be going strong.

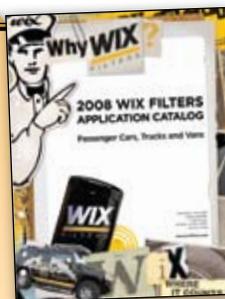
In fact, WIX oil and air filters increase engine life. At nine pleats per inch, WIX air filter media dwarfs the competition, re-

sulting in a longer lasting filter that captures more car-killing contaminants. Better filtration with lower restriction to air flow can also improve fuel mileage.

In today's fuel injection systems, a high-quality filter is more important than ever. A fuel filter keeps dirt, rust, scale and other impurities from clogging injectors and carburetors, enabling engines to run trouble-free and at peak mile-per-gallon performance. WIX designs fuel filters to fit all vehicles and has recently added a bracketed fuel filter to its line of the most reliable and highest performing fuel filters on the market.

WIX cabin air filters are the industry's most technologically advanced too. That's because WIX has added BioShield® 75, a patented, invisible microbiostatic coating, to trap and eliminate odor-causing bacteria, fungi and algae.

During the company's 69-year history, WIX has dedicated itself to engineering excellence by continually producing the best performing, most reliable filters in the world for automotive, diesel, racing, agricultural and industrial applications.



At more than 1,900 pages in length, the 2008 WIX Filters Master Catalog set gives new meaning to the phrase "heavy duty." Including reference information for every oil, air, cabin air, fuel, coolant, hydraulic and specialty filter WIX manufactures, developing this informative, easy-to-use three-book catalog is an immense, but essential, undertaking. The catalog includes 315 new SKUs in 2008, providing customers

with the functionality to locate parts by dimensions and segment part types by size and category. More than a product look-up tool, the WIX Master Catalog set provides technicians with the schematics and technical information they need to get the job done right.



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“Snap-on tools come through for us time after time. The readers of **Tech** magazine know what I’m talking about. Snap-on tools are our friends under fire.”

Jason Pulver
Richard Childress Racing
Body Hanger
Front Tire Changer



Crouching Athletes, Hidden Tools

Snap-on tools ready for pit road emergencies

When you see eight athletic crewmembers crouching on the pit wall poised to spring into action, you know they’re ready to crank out another pit stop in 13 seconds or less. Four new Goodyear Racing Eagles, two cans of Sunoco unleaded racing gasoline, maybe a wedge adjustment, and the #29 Chevy Impala SS of Kevin Harvick is down and away.

On any given race day, the Richard Childress Racing (RCR) over-the-wall pit crew members face the challenge of stringing together eight to 12 lightning-fast pit stops. When they follow the above scenario, fans might think these frenzied stops are relatively routine. Although every move is carefully choreographed, pit stops are far from routine. They only appear that way because of the time invested in intense practice sessions and rigorous physical conditioning.

Snap-on at the ready

When pit stops involve more than tires and fuel, team members take comfort in knowing the pit box is home to a wide variety of Snap-on tools. On most race days, they thankfully remain hidden from view. But when on-track circumstances dictate, Snap-on tools can save valuable seconds and protect track position when the distinctive yellow and red rocket comes to pit road.

You know the problems that occasionally arise: a collision with another car and/or the wall, a

problem under the hood, an electrical malfunction, a fluid leak, a brake problem or a suspension issue beyond routine adjustments. When any of these unscheduled service needs arise, the team reaches for Snap-on tools. Just like your box, every tool has a designated location. Unlike your box, most Snap-on tools are maintained in duplicate or even triplicate. On pit road, lost, missing or misplaced tools just aren’t acceptable options.

The Snap-on tools and equipment that are delivered to pit road prior to each race include: 18V cordless drills; combination wrenches; short and deep sockets, ratchets and extensions; screwdrivers; a variety of hammers; an assortment of left and right tin snips; jack stands; welding helmet; and an assortment of power tools for cutting and grinding. Other pit box drawers contain rivets and fasteners; nuts and bolts; various spare parts; power cords; and a variety of tape and body patches.

Speaking from experience

“We rely on Snap-on tools to help us run up front and win races,” said front tire changer Jason Pulver. “For my body hanging responsibilities during the week and my race day pit duties, Snap-on tools are simply the best for quality, comfort, durability, grip and leverage. We never break anything. Snap-on tools come through for us time after time. The readers of **Tech** magazine know what I’m talking about. Snap-on tools are our friends under fire.”

All of the #29 over-the-wall crewmembers have

worked together for a minimum of five years. They thrive on outperforming their counterparts on pit road and feed off each other. In turn, their efforts frequently influence Kevin Harvick's on-track performance. Picking up a spot or two helps Kevin get into a zone that drives him toward the front and victory lane. Success for the pit crew is measured in wins, top-fives, top-tens and qualifying for the Chase, which the team did in 2006 and 2007.



Continual improvement

The team relies on Snap-on to continuously improve tool quality, performance and functionality. Applied to the over-the-wall guys, these same high standards have helped reduce pit stop times by almost one second during each of the last six or seven years. These remarkable gains have been made as the result of a true team effort.



Matt Clark coaches the RCR pit crews. On Monday through Thursday of each week, team members invest 90 minutes per day in video reviews, chalk talks and pit stop

practice sessions. The overhead video of every stop is broken down into tenth-of-a-second increments, and the movements of every team member are analyzed. In addition to tire changing and refueling, the team anticipates problems and practices every possible scenario to make sure they are prepared for whatever comes their way.

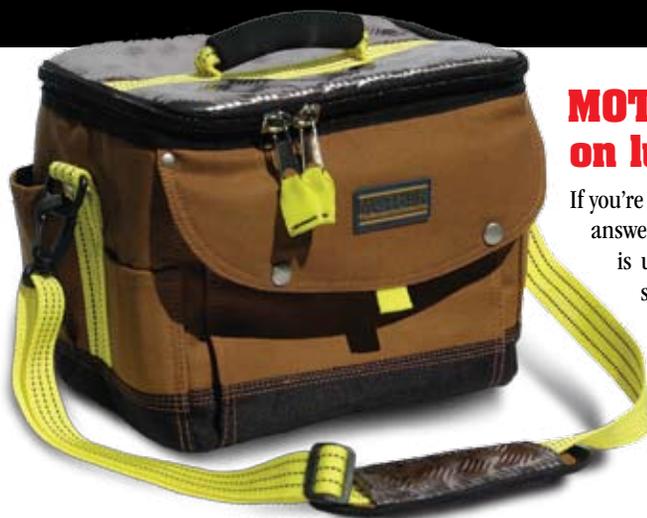


Pit stop trainer Ray Wright oversees another 90-minute session, four days a week. During these intense workouts, the guys focus on agility, strength and conditioning. As much as improving speed and mental concentration, the team seeks to avoid the strains and injuries that are hazards of the job. These workouts also help prepare for the rigors of a 36-race season and the extreme heat of the summer. Many of these in-demand pit crewmembers also pull double or even triple duty in the Nationwide and Truck Series.

Back in the garage

The team's regular toolbox used during pre-race preparations remains in the garage. Its contents are available should the #29 encounter any serious problems that can't be handled on pit road. A special crash cart also sits at the ready. Both storage units contain a complete selection of Snap-on hand tools, power tools and specialized items needed for emergency situations.

All of these Snap-on tools remain meticulously organized and out of sight ready to spring into action in the hands of the carefully conditioned and highly skilled athletes who need them to make Kevin Harvick and the #29 RCR team a contender for the Sprint Cup Championship. 



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If you're looking for a more "manly" lunch tote, MOTHER has the answer. MOTHER (as in "necessity is the mother of invention") is using its background in hunting packs to update soft-sided coolers. Its new MANCOOLERS are heavy-duty insulated bags that come in four sizes: Snack Size (\$16), the more accommodating Lunch Size (\$25), the Beerholio, which sports insulated drink holders (\$35) and the Glutton—for family sized appetites (\$40).

Mothertech.net

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LARRY NEWCOMB'S 1970 AMC JAVELIN

JAVELIN TURNS HEADS

Not your typical 'getting around' car

Larry Newcomb just loves the hand-me-down he got from his father.

Larry's dad bought a brand-new 1970 AMC Javelin in July of that year for his "getting around" car. He put 248,000 miles on the vehicle—"drove the wheels off the thing," says Larry—before putting it in storage. It stayed there for 17 years, until Larry finally found the time to start a restoration.

He tore it down and replaced all the bushings, lines, fuel tank, headliner and driveline. He rebuilt the engine and transmission. One thing he didn't change? The paint. As Larry says, it's the factory original "and still looks good."

Larry now uses the Javelin for his "getting around" car, driving about 60 miles a day to and from work as a shop foreman at Sunbelt Rentals in Sacramento, Calif. He has won awards at car shows for his handiwork, and the Javelin usually gets a reaction.

"I see many cool cars at the shows, but most of the time they never get driven," Larry said. "What a shame." 



TELL US ABOUT YOUR RIDE

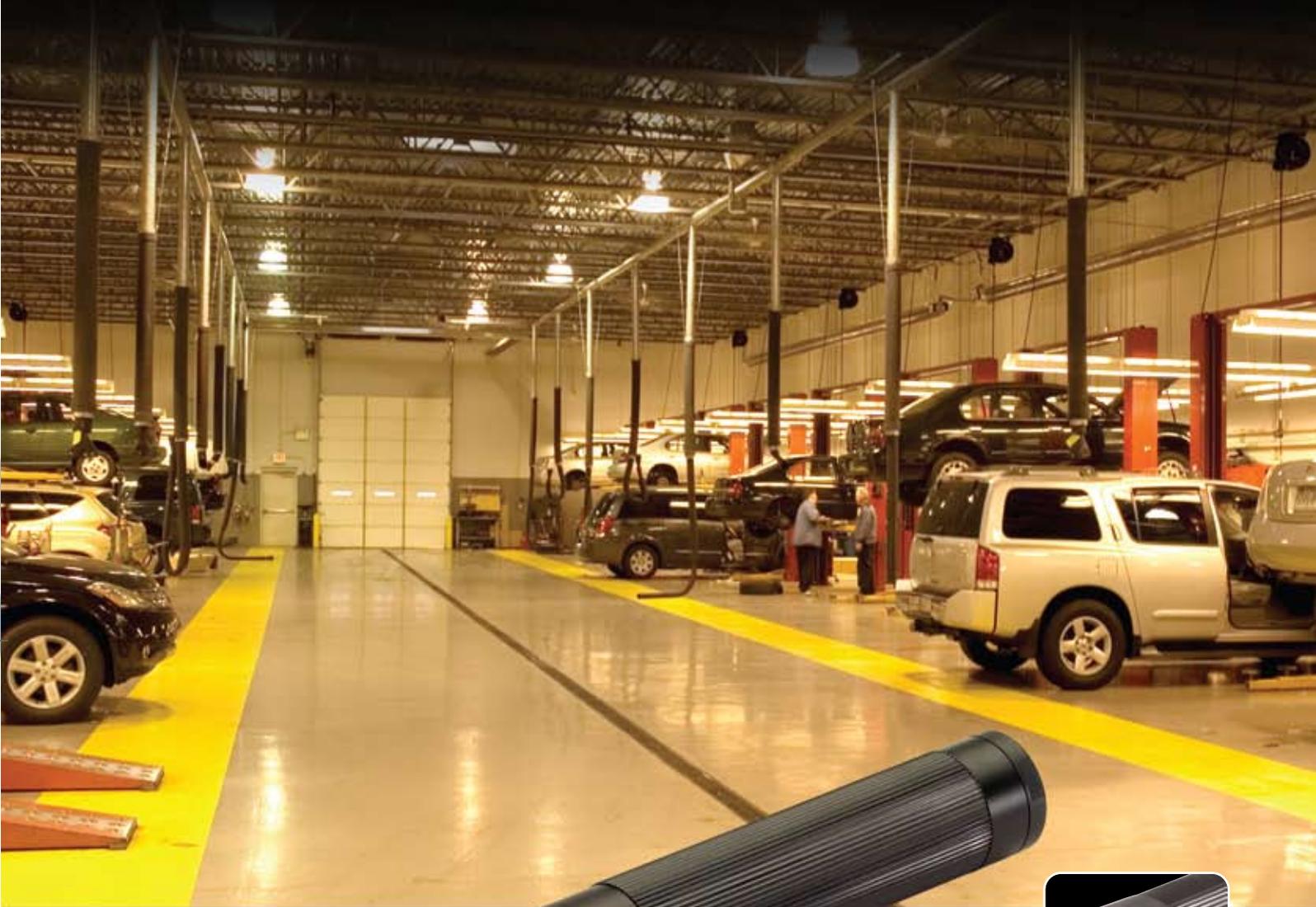
Share your ride with your fellow *Tech* readers. Just mail a brief description and a photo or send an e-mail with a high-res digital photo to:

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ABOVE: Larry's Javelin still sports the factory paint. Looks pretty good after all these years, doesn't it!?

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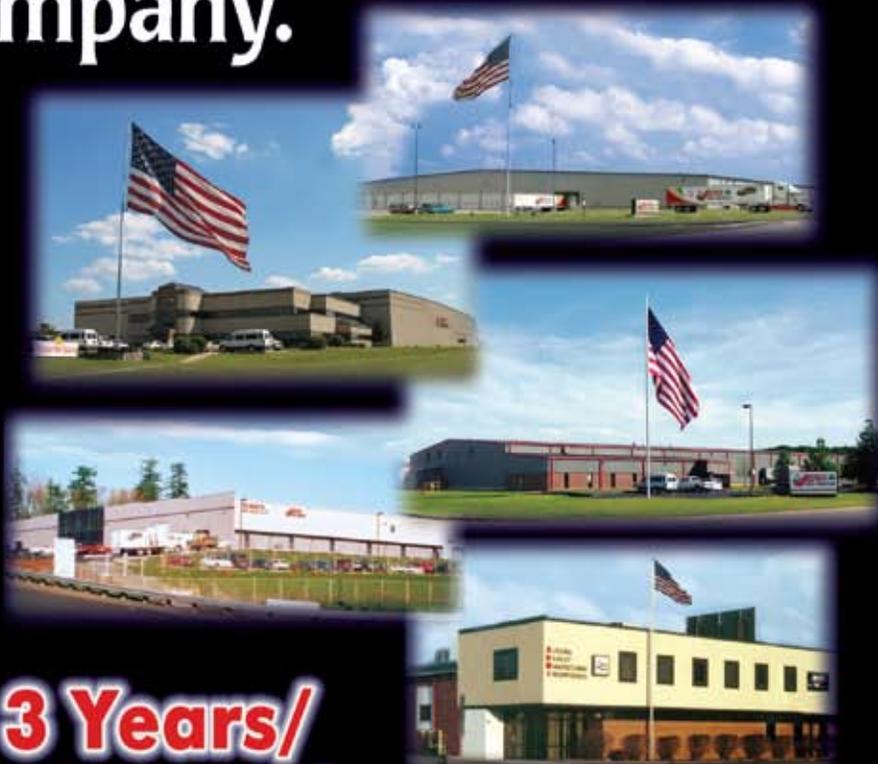
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