



YPSILANTI AUTOMOTIVE HERITAGE MUSEUM NEWSLETTER

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President's Report

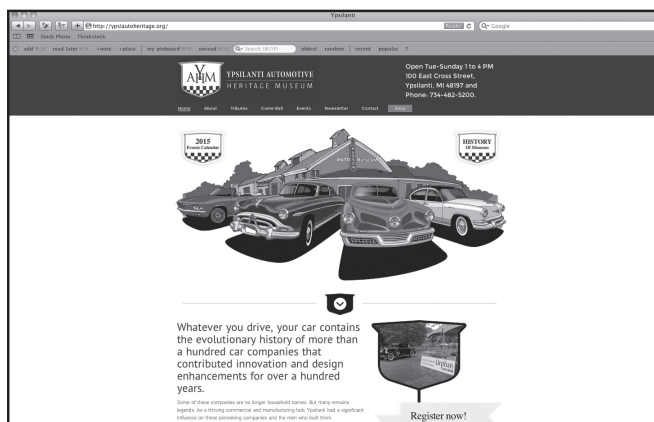
BY RON BLUHM

Our museum website has been updated! Our old website needed expensive professional help to make even minor changes. With new technology, we will be able to keep it current and make those changes ourselves. Take a look at www.ypsiautoheritage.org.

Last fall, our building insurance provider asked us to remove a couple of downspouts that empty on the sidewalk before winter. We asked the City of Ypsilanti if we could run drain lines under the sidewalk that would direct collected rain water to the street. Because of new problems the change would cause, they refused to allow that solution. We contacted LHI Gutter Contractors in Belleville. They removed one of the downspouts and directed all of the roof water to the west where the remaining downspout is located. Our insurance company is deciding if this solution is satisfactory. Because they were able to come up with a solution and consider their work a nonprofit donation, we are very appreciative of their work (*see their business card on page 6*).

The New Year started out busy right away. Condat Incorporated used the garage area of our National Hudson museum for their international meeting. The company's parent management arrived from France and conducted the meeting speaking French. The parts counter in the museum showroom was converted nicely into a bar for the meeting.

Also in January, National Park Service representatives from Washington DC visited us as part of their three stop visit to MotorCities National Heritage Area sites. With all the MotorCities sites to choose from, we were pleased that MotorCities choose us as one of the places to bring the National Park Service representatives.



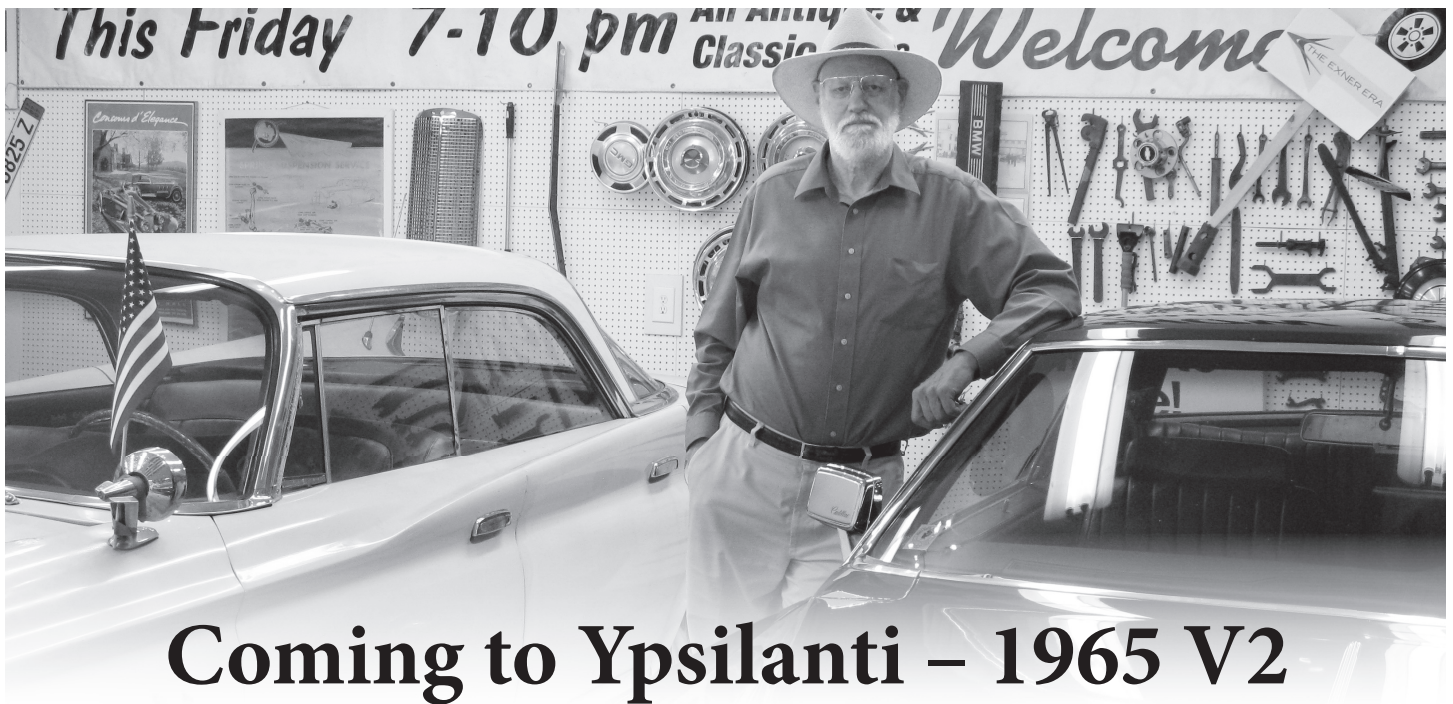
Check us out at www.ypsiautoheritage.org.

Eva McGuire stopped by last summer and inquired about having a Chevrolet Corvair event in our museum sometime. Around car people, Eva is known as "The Corvair Lady." The sometime has arrived. Eva will present a Corvair event titled "Meet the Makers" on Thursday, May 14. The event will start at 1 PM at the Yankee Air Museum and conclude later in the day here at YAHM.

Our 19th Annual Orphan Car Show will again be held in Riverside Park on September 20th. The Ypsi Area Show and Shine Car Show returns on May 3rd and the Michigan Vintage Volkswagon Car Show returns on May 17th, both in Riverside Park. Depot Town Cruise Nights will resume the first Thursday evening of June and run until the last Thursday in August. We again have an interesting spring, summer, and fall to look forward to in Ypsilanti.

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Coming to Ypsilanti – 1965 V2

BY BOB ELTON

It's been almost 50 years since I packed up my 1958 Chrysler Windsor and drove out to Michigan to start a career in the car business. I was fresh out of high school, and ready to start as a coop student at the General Motors Institute. My coop plant was General Motors' Hydramatic plant, in Ypsilanti, Michigan, a place I couldn't even spell, much less pronounce.

Hydramatic was actually my 3rd choice of plants to work. Like most eager GMI applicants, I chose the tech center as my first choice, my head brimming with visions of stylists and wild advanced engineering projects, like self-driving cars. My 2nd choice, also the 1st or 2nd choice of all high school kids, was the proving grounds in Milford, where, again like every kid, I had visions of driving like a maniac in new Corvettes on all kinds of roads. Neither of these was a realistic choice, of course, so I found myself at Hydramatic.

Late that summer of '65, I showed up at a downtown hotel in Ypsilanti, where all the new recruits had been staked to a few nights by Hydramatic. We had a big dinner meeting, and, after the meeting, the chief engineer showed us the new Rolls-Royce, which had of course, the newest Hydramatic transmission. It also had an electric selector system, which, being British and Lucas, was apparently very troublesome.

The next day we had to show up for an orientation. My Chrysler wouldn't start, so I had to get a cab. Nothing like being late for the first day at a new job!

The Hydramatic factory was a revelation to this hick from a small town in upstate New York. There were twice as many people working here than there were in my entire home town. I had never been in a building so big that people drove from one end to the other, a building so big I couldn't even see to the other end. I had also never seen another building that had its own fire department, including a Cadillac ambulance.

My first job was working in the dynamometer rooms. A couple of old-timers showed me how to set up the engines and transmissions, and hook them up to the dynamometer with special drive shafts. The Turbo Hydramatic 400 was brand new, and quite different from all previous Hydramatics. It was the first Hydramatic to use a torque convertor. Previous Hydramatics had fluid couplings.

Competitive developments made GM realize that they needed a torque convertor transmission with 3 forward speeds, like a Chrysler Torqueflite. GM management realized that they had a lot of torque convertor expertise in Flint, where Buick had been making Dynaflo transmissions for years, and a lot of gearbox expertise in Ypsilanti, at Hydramatic, where they invented the automatic transmission in the first place. So, Buick people were relocated to Ypsilanti and packed into the same engineering offices with Hydramatic people. The marriage wasn't really complete when I started at Hydramatic: guys were often referred to as either Buick

people or Hydramatic people. The Buick guys kind of kept to themselves, in labs full of tanks of oil and all kinds of odd pumps and other hydraulic devices.

The result of this forced marriage was the Turbo Hydramatic 400, a superb transmission that was built for more than 3 decades. While it was already in production for some of the larger GM cars, it was still undergoing testing and refinement. Most of the engines used for testing were Oldsmobiles, 425 cubic inches and 4 barrel carburetors. The exhaust was routed up through the roof and sucked away by big fans. The sounds alone were enough to excite a real car guy.

I was shown how to disassemble and reassemble a THM 400. I think the old guys were a little impressed that I could actually assemble one of these by myself after just one lesson. To this day I can disassemble and reassemble a 400. They're really not that complicated by modern transmissions standards.

The big deal at Hydramatic in that fall of 1965 was the new front wheel drive transmission for the new Oldsmobile. The Hydramatic 425 was a clever development of the 400, where the engineers essentially cut off the gearbox part of the 400, turned it 180 degrees to face forward, and added a chain to take the power from the torque convertor to the gearbox. This meant that in the dynamometer room, a whole new set-up had to be created to attach the engine and transmission to the dyno. There was lots of work going on to make that happen, and testing was going on at a furious pace.

A number of Oldsmobile 88s had been fitted out as mules for the 425 transmission. They looked pretty normal at first glance, but a closer look showed that the frame had been lengthened ahead of the cowl, and 98 fenders and hood were installed. The 98 fenders didn't quite match up to the 88 doors, but close enough. These cars were driving all around Ypsilanti, nobody seemed to notice that there was anything special about them.

Late in the development of the 425, an issue arose that I worked on. That's stretching it a bit: I got coffee for the guys who did the real work. It seems that the chain drive, which was one of the really tricky parts of the new design, made a small noise under some unusual throttle conditions. Not much of a noise, but enough to be heard inside one of those mule 88s. We ran them on the dynamometer and could not duplicate the noise.

Continued on page 6



DONATE AUTOMOTIVE ARTIFACTS TO THE MUSEUM



Support our museum, clean out your closets, and honor yourself or loved ones. Friends member Jim Curran recently asked if we would accept model cars he collected over the years for resale in our gift shop. We gladly accepted and placed them for sale in our gift shop immediately! Shortly after, Charlotte Payne asked if we would accept a collection of Snap On model cars and trucks in memory of her husband Chuck who had collected them during his employment as a mechanic. Again, we gladly accepted. Recently, Lynne Dickey donated a set of 10 place mats picturing vintage Ford automobiles originally issued in 1976.

We gladly accept automotive related items. Depending upon what the items are, they will be displayed, archived as reference items, or sold to support the museum. However we use them, items that may be getting in the way around your house will find a good use and a new home.



Our Youngest Friend

BY BILL NICKELS

Last summer, a father and his young son arrived in the museum wanting to see our “Doc Hudson” from the movie Cars. We learned they were from Virginia visiting family members in the area. Before they left, the boy looked at a model of Doc Hudson for sale in our gift shop and told his dad “I like it.”

Visiting family members again during the Christmas holiday, father and son returned to the museum. This time Santa Claus left a Doc Hudson model for 4 year old Nicholas! Nicholas told us that his dad has a Chevrolet Corvair like what we have on display. Our real Doc Hudson and our Corvairs like his dad’s are his favorite museum cars.

In addition to visiting us, Nicholas also has his dad take him to the Henry Ford in Dearborn. He loves to take rides in their Model T cars. Now in the winter, he told us, the Model T cars “are taking a rest.” While at the Henry Ford, Nicholas also enjoys the trains and tractors. According to Nicholas’ dad John, his interest in trains and tractors came from visits to his grandfather’s small farm outside of Leesburg, VA where Nicholas checked oil in the tractors and painted them red.

Our 1952 Hudson Hornet Doc Hudson is a favorite for visiting children. Also, they are surprised and love to sit in our authentic Soap Box Derby racer. The future of restoring, driving, and displaying historic automobiles is in their hands.

Crescive Die & Tool Company

BY JOE BUTCKO

Early in his career, Joe worked for Crescent Tool and Die in Lincoln Park. He thought it was the most efficient run shop he ever worked in. When he started his own shop in 1952, Joe adopted the name Crescive for his shop, “I wanted to be very close to it, partly so people might mistake us for them, and I think ‘crescive’ was the next word in the dictionary. I like the meaning, ‘growing from within,’ and that’s where I got the name. I also named it ‘die and tool’ instead of ‘tool and die’ for two reasons. One reason is our primary function was dies, and the other reason is it causes people to ask.”

Crescive Die and Tool first occupied an empty garage at 830 North River Street. As his business grew, old pal John Smith asked Joe why he didn’t build on a couple of lots he owned on Ann Street. Joe told him “I didn’t have the money for a building.” John told Joe “he did.” Two months later, the building was finished. Together, Joe and John asked attorney Robert Fink to draw up a land contract whereby Smith would sell the new building to Butcko. Fink, in disbelief, said to John, “You mean you built a building on Joe’s land and you had nothing signed? He could tell you to just shove off.” John said, “Fink, you don’t understand, Joe and I shook hands.”

With the new building, Joe’s wife Mae finally had her own office. Mae kept the company books that included payroll, insurance, and all the company’s paper work. Crescive grew to 15 or 20 employees before Mae got some help. Joe said “She would accompany me, regardless of the time, whether I was delivering dies to Grand Rapids or heat treat to Detroit at 2 AM. Sometimes she would drive; sometimes she would just keep me awake.”

They had, as Butcko puts it, “twenty-three great years in Ypsilanti,” during which the shop expanded from 2,400 square feet to 20,000 square feet. That physical growth came to a halt in 1960. “Eastern Michigan University was expanding very rapidly also and had acquired every inch of land around me,” he says. However, I had an option on one half acre site to the south of me. Eastern offered their limit of \$2 per square foot and I had to better their offer. I did, but that ended my expansion in Ypsilanti.” Joe’s burgeoning manufacturing business finally ran out of room.

In Ypsilanti, between 1952 and 1975, Joe served on the Ypsilanti Chamber of Commerce as board member and president as well as Ypsilanti City Council, including a stint as mayor pro tem.

One of Crescive's customers was Motor State Products, the original mechanical convertible top manufacturer. With Motor State tops, owners did not have to get out and have someone on the other side manually push the top up and help pull it down. Joe said, "When the Ford Mustang came out, Motor State was up to their capacity in convertible tops for Chrysler. The production projection for the Mustang was 1000 per month. Since I had built the convertible top dies for Motor State, they asked me if I would run the dies for that 1,000 a month. I didn't have any presses, but they had some old presses that they sold me relatively cheap so they could get out of the obligation of making that paltry

At the time when Crescive moved to Saline, Joe's older son Joe D. became president. Joe D. worked in the shop since the eighth grade and had just graduated from Ferris State with an engineering degree. Son Jim, five years younger than Joe D., earned a degree from Ferris in business administration. He became CFO of the company. His first grandson, Joe III, worked in production, maintenance, the tool room, and sales.

In addition to two Crescive plants, Joe's industrial park housed book printers McNaughton & Gunn, two R & B Machine Tool Company plants, and a bowling alley. "When I was negotiating with Saline, the mayor mentioned that what they really needed was a bowling center," Butcko recalled. "I told him that if he would get me a liquor license, I would get him a bowling alley. That wasn't the biggest mistake in my life, but it was damn close. I did build a



1,000 a month." The Ford Mustang caught fire and sales soared. Soon, says Butcko, "It became 1,000 a day, and I was in the production business thereafter.

In 1975, Butcko bought a 65 acre farm within the city limits of Saline from Bob Merchant and began developing the Saline Industrial Park. "The city had a very astute mayor named George Anderson," said Butcko. "He and the city council wanted to assist in the development of the industrial park. The city floated a municipal bond for me for some \$225,000. My civil engineer, Ken West, drew up and presented a plan to the city. The city sublet all the work and submitted the bill to me, to be paid back to the city in 10 annual installments at 6 percent interest. I was in my new plant within six months after buying the land; I paid the city back in less than four years."

bowling alley; it's probably the nicest in the state. But I have never spent a moment managing it, I never got involved, and we also never made the first dime."

The combined Saline facility grew from 25,000 square feet to 150,000. The company bought a plant in Milan with more than 120,000 square feet. Crescive grew to more than 500 employees.

Having been in business for a long time, Joe saw the corporate culture change. He said, "It's damn near impossible to find someone in our business who can make a decision and won't deny making it if something goes wrong."

Joe is a "Friend" & supporter of the museum.

Coming to Ypsilanti – 1965 V2

Continued from page 3

So, the chief engineer made the decision to build a chain case with a window so we could watch the chain in action. Then, the transmission was installed in one of the mule 88s, and a big hole cut in the firewall. One engineer would drive and another would lie on the floor and watch the chain. This was a very direct way to find the problem.

It turned out that the chain developed a standing wave under some conditions. That is, the chain flexed more than was expected. This alone would not have been a problem. But the chain could then touch a piece of the cast iron casting that supported the sprockets. It wasn't a serious problem, but there was concern that a customer might hear the noise and become worried.

The solution was also very direct. The chief engineer and a few minions took the casting back to the foundry in Pontiac, also a GM operation back then, and met with the chief engineer of the foundry. They discovered that the piece of the casting that was making the noise was there only for the convenience of the foundry. The foundry redid the forms, moved the protrusion an inch away, and the problem was solved. The whole process took about 2 weeks.

I was too young and inexperienced to realize that this was a masterful piece of engineering analysis and problem solving, something that could never happen in the GM of today. At the very least, it would take a year to get the supplier of the castings, the maker of the chains and the assemblers of the transmission into the same room, much less get a consensus as to the source of the problem and a plan to solve the problem. GM today would spend a year beating up the suppliers before they even began to seriously work on the solution. Or, they would ignore the noise and let the customers complain.

The chain itself was developed by Hydramatic, even though it was manufactured by Morse. The chain was a root driven, rather than flank driven chain, a totally new development. The chain was carried on 2 large sprockets. The tension of the chain was very critical, and for the first few years, the chains and sprockets were selectively fitted after the chain was pre-stretched. This ensured a really quiet and durable chain. I never heard of a chain failure in one of these transmissions, even though they were used in heavy cars with big engines.

That first Christmas I flew home to New York on Mohawk Airlines, leaving from the terminal in Willow Run. Planes had propellers back then and they let you know it. Mohawk stopped at every minor airport between Ypsilanti and Albany, New York. It would have only taken a little more time to drive to New York. Returning to Ypsilanti, I could see the giant Hydramatic sign all the way from Detroit.

Bob's Coming to Ypsilanti story will continue in the next issue of this newsletter.

Bob is the founder of Ann Arbor's Rolling Sculpture Car Show, a "Friend", a supporter of the museum, and a frequent museum visitor.

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Please check one: ☐ 4" x 8" brick \$100 each 3 lines of text ☐ 8" x 8" brick \$200 each 6 lines of text

Payment Type

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Credit Card: ☐ Visa ☐ MasterCard

Card # _____

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Contact Information

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One Order Form Per Brick Please

Please PRINT what you want your brick to say. One letter or space per box. Punctuation marks and space take up one box. 4x8 bricks can have 3 lines 8x8 bricks can have 6 lines

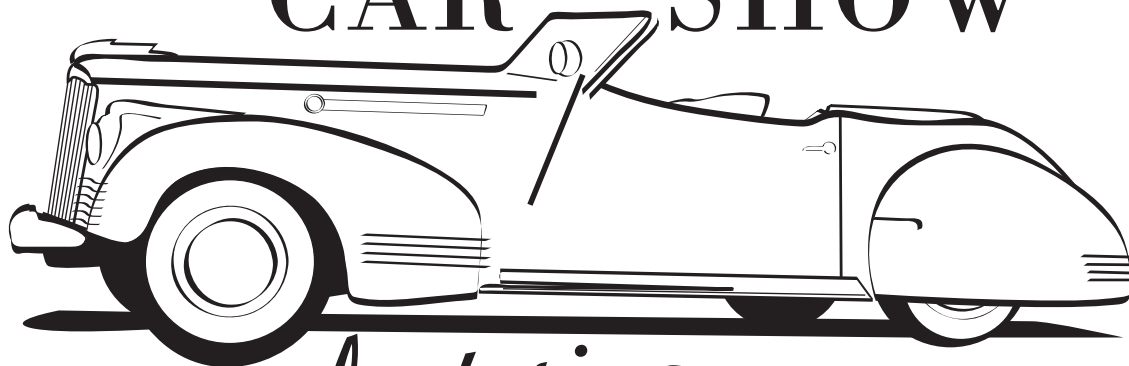
Funds will go to enhancing the Ypsilanti Automotive Heritage Museum



PRESENTS

19TH ANNUAL

Orphan CAR SHOW



featuring
convertibles

Sunday | September 20, 2015 | Riverside Park, Ypsilanti



**YPSILANTI AUTOMOTIVE
HERITAGE MUSEUM**

100 E. Cross Street
Ypsilanti, MI 48198
734.482.5200

MUSEUM HOURS

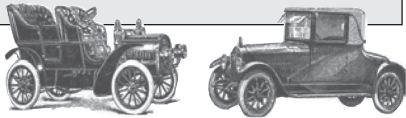
Tuesday-Sunday
1:00 to 4:00 P.M.

Monday
Closed

Admission \$5.00 adults
Children 12 and under are free
when accompanied by an adult

CONTACT US

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www.ypsiautoheritage.org



**YPSILANTI AUTOMOTIVE
HERITAGE MUSEUM**

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Join YAHM's Circle of Friends Enjoy the following benefits

• Free museum admission • Quarterly newsletters • 10% Gift Shop Discount •

Name _____

Address _____

City _____ State _____ Zip _____ Phone _____

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Do you own a historical automobile? ☐ yes ☐ no

Make _____ Model _____ Year _____

Are you interested in becoming a museum volunteer? ☐ yes ☐ no

Areas in which you have interest:

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Contribution for upgrading and developing new exhibits \$ _____

Amount enclosed \$ _____ ☐ check ☐ MasterCard ☐ VISA

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Donations made to The Ypsilanti Automotive Heritage Museum are tax deductible to the extent of the law.