



# Newsletter

Volume 2, Issue 3/July-September 2005

## A WORD FROM THE PRESIDENT

Summer has arrived and the museum staff has been busy attending various rallies and car shows. Phil Wicks and I were able to race the 1960 Saab 93 at Barber Motorsports Park at the end of April. It was my first experience at the new Barber Roadcourse, and it is certainly a beautiful facility. The Saab ran great until it experienced an engine failure on Sunday, but Phil and I had a good time and look forward to going back.

Greg has immersed himself in preparing the 1934 McQuay-Norris for the Great Race. Soon after we return, the Matra DJet 5 will be finished after its 4 year restoration and will be attending the Lexington Concours d'Elegance in August.

Susan and I will be on the Great Race by the time you read this. At the end of July, we will be attending the 40th anniversary of the production of the Peel microcars. We are going to ship our Peel Trident to the Isle of Man and hopefully set a Peel Trident speed record around the famous 37 mile TT Motorcycle course.

The Magic of the Machine will be on July 30th and will include a demonstration of the LARC -LX and other interesting vehicles. Also, we have had many new arrivals in the last three months, so I hope you will drop by and check them out!

*Jeff Lane  
President*

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Part I**
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### Our award winning Tatras!

## A WORD FROM THE CURATOR

The season for car showing is well under way and finds Lane Motor Museum very active. We hosted a Members Reception in May to thank those who support the Museum with the hanging of a Founding Members plaque in the Museum lobby.

New arrivals include: 1975 Citroen 2CV race car (we now have two allowing Jeff to compete against another driver), 2001 Liege (British kit car built on a Reliant Kitten chassis for the purpose of hillclimbing), 1946 Hewson Rocket (one-of-a-kind aluminum body American car), 1966 Honda S600 coupe (Japanese microcar), 1934 McQuay-Norris Streamliner (special body with a Ford Flathead V8 engine), 1953 Mochet Luxe (French microcar), 1948 Morgan (3-wheeler), 1965 Peel P-50 (weighing 250 pounds, it is the smallest car produced), 1962 Renault Dauphine (stock model to complement our electric conversion), and 1974 Suzuki Jeep (camouflaged as a micro-military vehicle). Rumor has it that there are two containers ready for delivery any day now! Guests never know what will be a new addition to the floor.

Museum cars have been out to various shows. Kars4Kids (a local show to raise money for the Tennessee Baptist Childrens Home) featured a display which included the Aero, Citroen Mehari, Lancia Delta HF Integrale, and Renault 5 Turbo. The Subaru 360 Pick-up with the Peel P-50 placed in its bed attended Micros in Madison—a gathering of microcars in Georgia.

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## Spreading the News: Marketing Lane Motor Museum

...Curator, Continued from pg. 1

Lane Motor Museum has so many exciting things happening in the marketing and public relations department that there is not room to mention it all. Since I was privileged to join the Lane team in January, I have been busy trying to get the word out to everyone about this great Museum.

One of the most noticeable changes at the Museum is online. Lynne DeLuca with Mind's Eye Productions has redesigned the Lane Motor Museum website. You can now visit the Restoration Shop, see new arrivals, read our latest newsletter, and much more. I hope you will check out the new website regularly for new updates.

We also have had some exciting events at the Museum over the last few months. We had Earth Day in April with Alternative Fuel Vehicle demonstrations, Earth Day crafts and storytimes in the children's area. In May, we had our first member's reception of the year. On June 10, we held our first Family Day which was a rousing success.

Our next Family Day is scheduled for Friday, July 8. We will have face painting, car crafts, a scavenger hunt, behind the scenes tours and more. Another exciting event scheduled for July is "Magic of the Machine." This event on July 30 will highlight the power behind our vehicles. Most of the hoods on the vehicles will be up so you can check out the engine. We will also have propeller powered vehicle demonstrations, an amphibious vehicle display, and more. As a special treat for our members, Jeff will be driving the LARC-LX around the property. Lane Motor Museum members *only* will be able to ride inside this massive vehicle. You *must* be a member to experience this incredible opportunity. If you have a family member or friend who would enjoy a ride, they can access a membership form online or pick one up here at the Museum. They will also be able to join here that day.

In addition to our fabulous special events, I am creating educational programs for the Museum. We will have curriculum based activities for school field trips in place by the fall. Some of the programs include Force and Motion, European Road Trip, and C is for Car. If you know a teacher who is looking for a unique, inexpensive field trip, please let them know about Lane Motor Museum.

Finally, I am also in charge of special event rentals here at the Museum. I would love to help you plan a meeting, party, or other event at the museum. I hope to see you here very soon.

*Bethany Hawkins*  
Marketing Director

Eurofest Nashville featured a display which included the BMW R51/3 Motorcycle, Citroen 2CV, Fiat 500 and Multipla, Lancia DiLambda, Leige, Lotus Super Seven, Mini, Peel P-50, Saab, and Tatra T-57 and 97. The Tatra T-97 was deemed Best Foreign car at the Ypsilanti, MI, Orphan Car show while the Tatra T-87 took Best of Class (Post War Luxury) and People's Choice at the 28<sup>th</sup> Cincinnati Concours d'Elegance at Ault Park.

We attended the Tatra-Freunde International Meet in Dresden, Germany, in a Tatra T-700. The Lancia Delta HP Intergrale and Simca Gordini Type 5 racecar were in attendance at the Walter Mitty.

Lane Motor Museum hosted its 2<sup>nd</sup> Annual Microcar Drive with approximately 15 cars in attendance. Jeff led the 65 mile rally in a Peel Trident with Susan following in a Leige. Other Museum cars that followed included a convertible Mini and Fiat 500. The highlight of the day was Jeff demonstrating the "reversing handle" on the Peel P-50. Rather than a gear for reverse, there is a handle placed above the back bumper which allows you to lift the rear of the car and turn the vehicle in the direction you wish to go.

Beginning June 25, Jeff and I will be participating in the Great Race—a 14 day, 4,200 mile, time/speed/distance event which will take us from Washington, DC, to Tacoma, Washington. We will be competing in a 1934 McQuay-Norris Streamliner. This is the only survivor of six vehicles built during 1933-34 by the McQuay-Norris Company. Drivers built the engines using McQuay-Norris parts and then drove them from 1934-40 across the U.S. and Canada to promote their products. You can follow our daily progress at [www.greatrace.com](http://www.greatrace.com).

*Susan Lane*



**1934 McQuay-Norris Streamliner**

## Down History Lane

I Have you ever wondered, like I have, about what got the ball rolling regarding tires? It may surprise you to know that it was actually a simple rubber ball that brought rubber to the attention of the western world. It all began with the invention of the solid wheel, which occurred around 3500 BC in Mesopotamia, known today as Iraq.

The wheel was a great idea, beginning as far as 750,000 years ago during the Paleolithic era. Rolling things around on logs and wood wheels wasn't good enough for the wheelwrights that came along later, so they began to cover the wheels with protective sheathing or covers which we know today as tires. Pronounced "tir", the definition is "a roughly torrodial piece of material placed on a wheel to cushion it, or a hoop that covers a wheel." Tires were originally made of leather, wood, iron, and finally rubber. The protection from damage that the tire gave to the wheel extended the life of the wheel and provided safety and reliability to the vehicle. Tires today are largely made of synthetic rubber, a product made from crude oil and developed by B.F. Goodrich in 1940. Natural rubber, which is white, was used for producing the first tires. Natural rubber is obtained from the milky white fluid called *latex* found in many plants, the most important of which is the tree *Hevea brasiliensis* and other species of the Spurge family, which were the sources of the original South American rubber, the commercially important *para rubber*. Around 1915, carbon black was added to white natural rubber for both color and improved durability and resistance to damage.

So, who figured out how to use rubber in the first place? It now appears that around 1600 BC the Mayan people of ancient Mesoamerica learned that rubber sap mixed with the juice from morning glory vines produced a durable and elastic substance. It could be formed into balls for games, to secure axe heads to handles, and many other uses - Rubber had been invented! Caoutchouc was the name given to the substance, derived from the Mayan word Cahuchu, which means "weeping wood".

In use for centuries by the ancient peoples, Caoutchouc was introduced into western culture by Columbus, who had seen Haitian natives playing with a ball that bounced much higher than any ball he and his men had ever seen. Upon learning that the balls were made from a milky white fluid obtained from certain trees and cured over the smoke of palm nuts, it was deemed an important discovery that would improve the games played with balls in the western world. Once introduced into western culture, Caoutchouc and its uses slowly evolved in stages during the next few centuries. In 1736, sheets of Caoutchouc were sent to France, and although folks were fascinated by it, there was no real use for it. Little further development is known to have occurred until around 1791, when Samuel Peal, an Englishman, discovered how to waterproof cloth with it - something Spanish soldiers had done long before! Then, English inventor and scientist Joseph Priestly found that Caoutchouc would rub out pencil marks on paper and this finally coined the name "rubber".

In 1843, American inventor Charles Goodyear accidentally discovered the process of vulcanization, which made rubber more elastic and less sticky, making it easier to work with and improving its strength and reliability in all types of weather. The term comes from Vulcan, the Roman God of fire. This vulcanization process which Goodyear began working on in 1834 helped create the modern form of rubber we know today. Keep in mind that bicycles didn't even exist in 1834, much less automobiles, so the tire industry wasn't even in the picture as rubber was initially being developed. At first there were waterproofed clothing items, horse shoe pads, rubber shoes, and in 1845, the rubber band was invented. Also in 1845 a Scottish engineer, Robert William Thomson, patented the idea for an air filled rubber tire for carriages, although he never successfully produced a single one.

A few years later the bicycle did finally come along and so did the use of solid rubber tires on which to roll, beginning with the "high wheel" or Penny Farthing bike of the 1870s. In 1887/1888 a Scottish veterinarian, John Dunlop, produced and patented the first air filled tire. He had done so to relieve the headaches his young son suffered from riding his tricycle which had hard rubber tires. This achievement pioneered the tire industry we know today. Dunlop coined the word pneumatic. The use of air filled pneumatic tires quickly became the standard tire for all new bicycles. In the 1890s the bicycle craze had engulfed America, and millions of cyclists brought about the need for vast numbers of tires, mostly produced in "Rubber City" - Akron, Ohio. Hard rubber tires for carriages became a reality, and by the turn of the century, men like Harvey Firestone had realized that the future of the tire was going to play a very important role in the American economy. In 1900 he formed the Firestone Tire and Rubber Company of Akron, Ohio. At that same time the good ole Horseless Carriage came rolling along and the rest is history. The automotive era had begun, and the tire industry was really on a roll! The high bouncing Mayan ball fulfilled its destiny and helped create one of the world's most important industries.

## **Curious Car of the Quarter: The Amphicar Model 770**

### **The Amphicar Model 770**

**Q:** I need a car and I want a boat, but I only have one parking space. What should I do?

**A:** Get yourself an Amphicar! "It's a Car! It's a Boat! The Car of the Future - Here Today! "

...Or so said advertisements of the 1960s. While it is true that it operates on both land and sea, it does have its limitations, but also its attributes. The Model 770 is so named because it is capable of up to 7 mph on water and 70 mph on the road. Having driven the example on display in the Museum, I don't doubt either claim, but I wouldn't necessarily want it for my only means of conveyance!

The most commercially successful offspring of amphibious vehicle designer Hans Trippel, the Amphicar was an ambitious undertaking, with a truly international flavor. The Amphicar was financed by Hald Quandt whose family still controls BMW. Engineered by former Borgward employees, with body stampings from Italy, suspension and transmission parts from Mercedes-Benz, Porsche, and VW, and engines from the British Triumph Herald. Between 1961 and 1968, Germany built almost 4,000 Amphicars. with over 3,000 exported to the United States. Production ceased in 1968 due to poor sales and stricter U.S. emissions regulations. Another factor that contributed to the downfall of the Amphicar was that the company employed no marketing staff -- they had only engineers on their payroll!

The Model 770 was introduced almost simultaneously at both the New York Auto Show and the Miami Boat Show. Amphicars were considered very expensive when introduced. The price tag of \$3,300 was close to that of a full-size Ford or Chevy sedan, or a good quality outboard ski boat. While it seems that each year brings a new amphibious model or two to market, none have ever matched the commercial success and rabid following of the Amphicar.

How does the Amphicar work? Outwardly, it looks much like any other 1960s era European car, maybe up on its springs just a bit. Under the skin, it is a marvel of engineering -- totally sealed underside, rear engine, with double door doors and security latches. The standard equipment list includes items you would expect plus a bilge pump, navigation lights, fire extinguisher, paddles, an anchor, and an optional shortwave/marine band radio!

Preparing the Amphicar for water duty is as simple as making *really sure* that the sealing plug is inserted in the transom area. Latch the doors, and just drive right in. You have to experience it for yourself -- the sight of a car driving down a boat ramp, especially if there are unsuspecting boaters nearby -- it's absolutely priceless! Engage the proprietary gearbox, and give it a bit of throttle. The twin nylon props churn up a satisfying wake, and the front tires act as rudders, giving more than adequate performance, if not blistering speed. One thing I learned on my first voyage -- the brakes don't work in the water! It is easy to become accustomed to the car's controls, and you tend to forget that you are in a boat! Use the reverse drive for the props, though, and you can literally stop on a (floating) dime.

As you can imagine, there are active clubs devoted to the history, use, and preservation of these unique vehicles. Annual "Swim-ins" occur around the world. The 2001 Celina Ohio Swim-In holds the world record for the most aquatic cars ever in the water at once with 58 cars. Must've been quite a sight! If you are interested, the 12th Annual Swim-In is scheduled for Celina, OH on July 22-24. See [www.amphicar.com](http://www.amphicar.com) for details.

**See the back page for Amphicar Photos**

*David Yando  
Museum Manager*

## **Driving Home: Jeff's Experience Driving the LARC-LX**

Susan always said I should write a column on some of my adventures in driving cars home. After moving the LARC-LX, I finally realized that would be a good idea.

When I first began collecting cars, it was common to fly to where the car was and drive it home. I would take a few clothes, my tool kit, and the adventure would begin. Success was not always the result as a few trips ended in me arriving home in a rental car.

It's only appropriate that I begin my column with the driving of the LARC to the museum. The moving of the LARC is my latest driving adventure, and it is also the largest vehicle I have ever driven.

The LARC fits into the museum theme as it is unique and interesting. Basically it is a 26 foot wide, 62 foot long barge on wheels. Total height is about 19 feet. Starting from southern Florida, the LARC was pushed up the Tombigbee waterway to the Port of Nashville. At the Port of Nashville, Elliott Crane lifted the 200,000 pound vehicle onto land.

Greg Coston, our chief restorer, spent several months getting the LARC in shape for its 6 mile drive to the museum. After a couple of practice driving days in the field of Cherokee Marine, we were ready for the road.

The LARC is powered by 4 diesel engines— each engine driving a 9-foot tall tire. The transmissions are 3 speeds with a top speed of 17 mph. The driver sits in a tiny cab on the left rear of the vehicle. The seat you are positioned in is 14 feet from the ground. Steering options are unlimited as the vehicle has four wheel steer, and through a set of locking pins, you can choose many different variations.

Since over-sized vehicles are only moved after 10:00 pm in Davidson County, there was concern about the cold winter nights. Fortunately though, on January 10, the weather was a balmy 60 degrees. Carlos Lewis and Sons Movers provided the escort for us and everyone converged on Cherokee Marine at 8 pm.

LMM's able team consisted of Susan Lane, who would record a street by street account of the move. David Yando and Tim Nelson were there to take video. Jimmy Carter and Paul Collins were front corner lookouts. Greg Coston was there to worry about the vehicle running the entire distance, and oh yes, I was driving.

The initial part of the route down Cowan Street and across the Jefferson Street Bridge was going to be easy because there were no tight turns. This was a comfort to me as I would get some more driving practice before we got to some very tight turns later on in the route. The plan was to stay in 2<sup>nd</sup> gear for most of the route, excluding the tight turns. Since you are sitting 14 feet in the air, there are many things you simply cannot see, like cars and fire hydrants. Carlos Lewis and Sons Movers would have one person walking the route right in front of us and guiding us by radio. I had a radio in my ear and Robert from Carlos Lewis and Sons Movers would be standing right next to me to help me.

The drive down Cowan Street was uneventful using 2<sup>nd</sup> gear and about 1500 RPM with a ground speed about 5 mph and the throaty sound of 4 diesel engines humming along. The first thing you notice is how high you are. All the overhead electrical lines you drive under every day and never notice are now inches from your head.

The first right turn onto the Jefferson Street Bridge is uneventful. The rise of the bridge is probably going to be our biggest hill, so I give the LARC a little more gas to get a good run up the bridge. The LARC makes the climb no problem, and the bridge is one of the fastest sections of our route as there are no overhead wires or lights to watch out for.

We turn left on 8<sup>th</sup> Avenue and go by Bicentennial Mall. After the park, we turn right on a small 2-lane street to detour us around a railroad bridge. Now the route is getting more difficult as the LARC spans a 2-lane road completely. Someone comes out of a side street and heads towards us like they want to play chicken. Carlos Lewis and Sons Movers convince them they must turn around as we cannot back up. We then turn right up a narrow street with a concrete wall on one side and a fire hydrant on the other side. As I proceed up the street, I hear that I am too close to the fire hydrant (which I cannot see). I will have to back up and try again. The next time I am too close to the concrete wall. I back up again, and the third time I make it through with inches to spare.

**To Be Continued . . . Stay tuned to see if the L.A.R.C. will make it without major property damage.**

## Calendar of Events

- Friday, July 8      **Family Day at Lane Motor Museum** featuring children's activities and Behind the Scenes Tours at 11 a.m. and 2 p.m.
- Friday, July 22      **Willys-Overland-Knight International Meet at Lane Motor Museum.** A gathering of over 60 classic Overlands, Willys-Overlands, and Knights.
- Saturday, July 30      **Magic of the Machine Day at Lane Motor Museum.** You can celebrate the magic of the automotive machine with open hoods on most of the cars, Behind the Scenes Tour, and a special chance to win a ride in one of the classic automobiles. There will be a special demonstration of the LARC- LX and its official christening as part of the LMM family at 1 p.m. There will also be a demonstration of propeller powered cars.

### Special Member Alert!

**Lane Motor Museum Members only will be allowed to ride in the LARC demonstration on July 30. Only the person named on the membership card will be allowed to participate. Please be here no later than 12:30 p.m. to claim your spot.**

- Saturday, Oct. 1      **Mechanic Appreciation Day.** Lane Motor Museum wants to show our appreciation for the automotive professionals who keep Middle Tennessee's cars in top shape. Includes open hoods on most cars, door prizes, contests, and a tour of the garage with Lane Motor Museum's Restoration Specialist.
- Saturday, Nov. 5      **A Taste of Europe.** Come to the Lane Motor Museum to enjoy a Food and Wine event featuring tastes from countries represented in the collection including Italy, France, Great Britain, and Germany. This event will benefit Nashville RBI which brings the joy of baseball and softball to underprivileged youth. The event will begin at 6:30 p.m. Tickets are \$50 per person.
- Saturday, Nov. 12      **Car Club Appreciation Day.** Discounted Admission With Membership Card to any classic car club. Light refreshments will be served in the meeting room. Register for a special chance to win a ride in one of the classic automobiles at 2 p.m.
- Friday, Nov. 11      **Free Admission for Veterans.** Lane Motor Museum would like to honor our nation's armed services by offering free admission to veterans and current, active members of any branch of the armed services on Veteran's Day.
- Nov. 25-Dec. 31      **Motoring Miniatures.** Special exhibit in meeting room and art gallery featuring the toy vehicles in the Lane Motor Museum collection.

For more admission about these upcoming events at Lane Motor Museum, contact: Bethany Hawkins, Marketing Director, at (615) 742-7445 or [hawkins@lanemotormuseum.org](mailto:hawkins@lanemotormuseum.org) .

## The Delivery Room: New Arrivals at Lane Motor Museum



### 2001 Leige

This tiny traditional-style sports car was created with hill climbing in mind. Therefore, it is a very simple, lightweight car with high ground clearance and 18" wheels. The Liege can be purchased as a complete car or as a kit. This particular vehicle was assembled as a kit in Great Britain for Lane Motor Museum using a Reliant Kitten as the donor car.



### 1965 Peel P50

The Peel Engineering Company on the Isle of Man is famous for the Peel P50, the smallest ever passenger car. It is about 4'5" long, 3'3" wide, 4' high and weighs about 250 pounds. It is essentially a single seat surrounded by a one piece fiberglass shell. The P50 has no reverse gear, but a reversing handle attached to the back. Since the car is so light, the driver simply picked up the rear of the car and moved it into the desired position.



### 1946 Hewson Rocket

In 1945, William Hewson raised capital to form the Hewson Pacific Corporation and planned to produce Hewson Rockets and sell them for \$1,000. This vehicle was the prototype created by Hewson and his partners. Hewson's idea for the car included a very aerodynamic shape with no projections anywhere. The headlights were covered with glass, tail-light lenses flush, and no protruding outside door handles. Hewson, however, depleted his capital by the time the car's body was finished, and it never entered production.



### 1932 Aero 30

This Czech vehicle is a front wheel drive car featuring a fully independent suspension on a platform frame with mechanical brakes and friction dampers. The longitudinally mounted engine is two-stroke and water cooled with light alloy deflector-type pistons. Aero ceased production in 1947.



### 1948 Morgan F Super

The Morgan Motor Company, Ltd. produced approximately 30,000 three wheelers from 1910 to 1952. The company introduced the F Super in 1937. It has a barrel-backed body with the spare tire recessed in the tail. It has a channel section steel frame and conventional accelerator pedals. Morgan revived the F Super after World War II with little change until it ceased production of three wheelers in 1952.

For more information on more new arrivals, visit our newly renovated website at [www.lanemotormuseum.org](http://www.lanemotormuseum.org).

## Interesting Amphicar Facts

*For more information, watch*

*Car and Driver Television's website to see when the program will air featuring our Amphicar!*



Options included an amphibious camping trailer!



An estimated 600 "sea-worthy" Amphicars remain with an additional 1,000 in drivable condition.



Amphicars are surprisingly good in snow - having a flat bottom, weight over the drive wheels and 10" of ground clearance.



The Amphicar has the tallest tail fins of any production car -- about 1" higher than a 1959 Cadillac!



702 Murfreesboro Pike  
Nashville, TN 37210  
(615) 742-7445  
[www.lanemotormuseum.org](http://www.lanemotormuseum.org)

Want to ride in the LARC-LX?  
See inside for details!