

The Story Behind the Disney Springs Amphicars

by Jim Korkis, contributing writer ✉

January 11, 2017

The flyer for one of Disney Springs new restaurants states:

"The Boathouse is the only place in the world that offers the unforgettable and thrilling experience of a Captain's Guided Tour in a vintage Amphicar.

"These rare cars drive on land and enter the water with a splash, taking you on a Captain Guided 25-minute tour of the landmarks of Disney Springs.

"Our fleet of Amphicars were purchased from private collections worldwide – there were less than 4,000 of these unique amphibious vehicles produced during the 1960s. Less than 400 exist worldwide today. \$125 per car. Up to three people in the car per tour."

Of course, the flyer barely tells the amazing history behind these vintage vehicles. While many people thought the closing of the Amphicar manufacturing plant in 1968 also closed a chapter on an intriguing story of automotive history, The Boathouse at Disney Springs has brought that unique experience back to a general audience.

Although amphibious "Duck" boats (actually a **DUKW** which is a six-wheel-drive modification of the amphibious CCKW trucks used by the U.S. military during World War II) are popular tourist transport in places like Manhattan, Boston, Seattle, and Washington, D.C., they can not compare to the intimate joy of being afloat in an Amphicar with its retro sporty appeal.

An Amphicar combines the two words "amphibious" (able to operate on both land and water) and "car." It was known as Amphicar 770 because it could do up to seven miles per hour in the water and seventy miles per hour on land.

While over the decades many amphibious vehicles have been built (primarily for the military since World War I), the Amphicar is the most successfully mass produced amphibious car for the general public even though it was only marketed for roughly six years in the 1960s.

It was not a good car or a good boat, but it was claimed that it was "the fastest car in the water and the fastest boat on the highway." It did have its merits and it certainly attracted attention and still does.



The rare Amphicar was added to Disney Springs because of its "eatertainment," and can be accessed at The Boathouse.

According to the original factory literature the vehicle weighed approximately 2,288 pounds and was capable of 32 miles per gallon of gas on the road and 1.5 gallons per hour in the water.

The convertibles were offered in only four colors: Beach White, Regatta Red, Lagoon Blue, and Fjord Green (Aqua). Disney Springs has two of each color car that cruise on the lake, although usually only six at a time are used.

Its first official appearance was in 1961 at the fifth New York Auto Show on April Fools' Day. Held at the New York Coliseum, the show featured an international theme and included examples of Sunbeam, Simca, Aston Martin, Peugeot, Jaguar (the Jaguar XKE made its debut), Bentley, and BMW.

The vehicle actually made an earlier limited debut at the 1959 Geneva Salon show and was labelled the Eurocar. Once production began in 1961, some changes had been made and it was re-named to the more descriptive and marketable Amphicar.

Advertisements proclaimed, "The car of the future is here today. The sportscar that swims."

The vehicle was manufactured in West Germany. While actual production stopped by the end of 1965, the remaining cars built from parts inventory (in anticipation of selling at least 20,000 cars a year) continued to be sold through the beginning of 1968 when all new sales ceased entirely.

Cars were titled in the year they actually sold, rather than when they were produced, so an Amphicar assembled in 1963 could be titled a 1968 if that was when it was first sold, leading to the common misconception that the cars continued to be manufactured for up to three years after production actually stopped.

No cars sold in 1968 made their way directly to the United States. The new U.S. Government's Environmental Protection Agency and Department of Transportation safety and emissions regulations that went into effect with all vehicles produced in that year could not be met by Amphicars without some expensive modifications.

Since 90 percent of the Amphicar Corporation sales were to the United States, this was disastrous. The factory in Berlin closed in 1968.

The remaining inventory of unused parts was eventually purchased by Hugh Gordon of Santa Fe Springs, California. Gordon Imports remain the primary source today for authentic spare parts for the vehicles.

The car boat was designed by German car racer and engineer Hans Trippel (who also designed the iconic gullwing doors for the Mercedes-Benz 300 SL) and manufactured by the Quandt Group (responsible for BMW) at plants in Lubeck and Berlin-Borsigwalde. He had more than 15 years of research and development behind the project.

The company produced 3,878 of the amphibious passenger automobiles total, according to company records, and 3,046 of them were imported to the United States during the initial years.

Its "failure" had nothing to do with its design. As seen at Disney Springs, Amphicars built in 1961 still function as well as they did when they were built over a half a century ago.

In fact, some Amphicars have successfully crossed parts of the ocean, including trips from San Diego to Catalina Island, across the Channel from England to France several times (even once during a storm), and from Africa to Spain. Every car made had to pass an extensive water tight test in a diving pool.

Some Amphicars were used by the Berlin police department and others were fitted for rescue operations.

Unfortunately, the car seemed too odd for the average American consumer, and was a little expensive compared to just a regular car that would have better performance, more room and maneuverability in an age when the size of a car mattered.

The amount of money for an Amphicar could buy a brand new Chevrolet Corvair Monza (\$2,238), an aluminum fishing boat, Evinrude outboard motor, trailer, and a week's worth of bait. Or for the same amount of money, a car buyer could drive home Chevrolet's new Impala Super Sport hardtop or a Mustang or any of a dozen more attractive and high performance cars.

Amphicars sold for approximately \$2,800 - \$3,300 and, of course, required more extensive and specialized maintenance than either a regular car or boat. It would be similar to scheduling maintenance today on a four wheel drive vehicle but you would have to do the maintenance yourself since there are few mechanics who know how to take care of an Amphicar.

Later models, once production got underway, actually sold for less but by then it was too late.

Today, at auction, a restored example can sell for more than \$100,000, although there are still some bargains in the \$50,000-\$80,000 range.

The initial development costs of roughly \$5 million were unable to be recovered because of slower sales than expected.

The Amphicar Corporation was considered a separate company from its general manufacturer and was initially funded by the German government. There are connections with some other German manufacturers such as Borgward, Mercedes and BMW.

The car was designed to be produced primarily for the North American market and was considered a descendant of Trippel's Volkswagen Schwimmwagen.

They were assembled in Germany, the body was built in Italy, used a modified Porsche transmission, had brakes from a Mercedes (the brakes don't work when it is in water), were powered by a 48 horse power U.K. Triumph Herald engine and the wiring harness was supplied by Lucas. On land, it was a conventional four-speed and reverse unit (like in the famous Volkswagen Beetles). In the water, it became a two-speed unit, forward and reverse.

In the United States, the Coast Guard mandated that the vehicle have navigation lights (there is a knob on the dash board along with one for the bilge pump) and a flag. In addition, there are Coast Guard-required registration numbers on the front fenders.

As seen at Disney Springs, the cars have no problem voyaging at night and are equipped with sufficient lighting. The car requires both a car license and a boat license.

When they were first made, options included an anchor, floating cushions, flares, life jackets, and oars (folded under the front seat) for breakdowns. Disney Springs has a small towboat anchored to the shore in case one of the Boathouse Amphicars stalls out and the drivers all have hand held radios to communicate that situation.

So far, that has not been a problem, although one car is now backstage being nursed back to health because one evening a group of highly inebriated guests took a cruise and the passenger in the front seat decided he would open the car door in the middle of the lake.

The door was quickly shut and the bilge pumps did clear the water, but it never occurred to anyone that a guest might be stupid enough, or in this case drunk enough, to open the door. The lake is approximately 19-feet deep at the center and roughly 10-feet deep around the perimeter like at the Boathouse.

The two front doors have a double seal with rubber strips like those used on a refrigerator. There is rarely any leakage and a car can stay in the water for hours without any leaking or even tied up to a dock for days. A high-capacity bilge pump ensured that the Amphicar would not end up at the bottom of a lake.

The car is not made of fiberglass, but steel (which can make it prone to rusting without proper care). The steel is thicker than on a regular car and much better assembled with continuous welds and lead filling around the joints to make it watertight.

The wheels are set low, so that the vehicle stands well above ground level when on dry land. Its water propulsion is provided by twin propellers mounted under the rear bumper. The engine is mounted at the rear of the craft. In water as well as on land, the

Amphicar steered with the front wheels.

The car is driven straight into the water in first gear until it floats off the bottom and the propellers take over. First gear is then disengaged. A special two-part land-and-water transmission built by Hermes (makers of the Porsche transmission) allows the wheels and propellers to be operated either independently or simultaneously.

In first gear, the Amphicar is capable of climbing the 39 percent gradient usually needed to exit the water. The car was built necessarily tall to enable it to easily enter and exit high shores.

The engine is located behind the passenger compartment, a weight bias that improved rear-wheel traction in the snow or on boat ramps. Up front was a storage compartment that contained a spare tire, 13-gallon gas tank and enough luggage space for a family of four. The bottom of the car is roughly shaped like a boat.

To appeal to American buyers, the tail fins were one inch higher than the highest ones on a 1959 Cadillac. Actually, those fins helped block waves from reaching the engine compartment through the air vents.

How did these charming antiques end up at Disney Springs?

Steven Schussler is the creator of WDW restaurants Rainforest Cafe, T-Rex, and Disney's Animal Kingdom's Yak and Yeti. His company, Schussler Creative, is responsible for The Boathouse, as well, which opened April 13, 2015.

Three-quarters of the restaurant is built over the water and includes a flotilla of 19 multimillion-dollar vintage boats. These rare examples were gathered from museums, private collectors, and boat shows from around the world and thankfully have plaques giving information on each of them.

The actual front of the restaurant is facing the water like a huge wrap-around porch. The restaurant portion is managed by the award-winning Gibsons Restaurant Group.

Like his other venues, Schussler was looking to design an immersive, interactive experience, basically what he refers to as "eatertainment." He was clever enough to make sure that the attractions of The Venezia, a beautifully crafted 40-foot wooden Italian Water Taxi champagne toasts and chocolate-covered strawberries cruise, and the Amphicars would not be exclusively available to just the patrons, but to all guests willing to pay the price.

Schussler has owned several Amphicars over the years, starting in 2005, and was looking for a way to distinguish The Boathouse from other Disney restaurants when he settled on the idea of offering Amphicar tours of the lake.

His idea for the Boathouse began to form a few years ago when he drove his own Amphicar into Lake Minnetonka with his dog. "People were literally running from their homes pointing," he said. "One person even called the police thinking a car had driven into the lake by mistake."

Offering the Amphicar tours was meant to be a way of preserving some of the cars remaining, as well as introducing the quirky German creation to a new generation of fans.

Schussler purchased the vehicles from all over. Noted collector John Bevins supplied a few cars and ideas.

Some of the cars were not in great shape, and Schussler had modifications done on all of them including positioning the rear seat back further to accommodate some of the larger Disney guests. This repositioning (and removing of the convertible top) added an extra three inches of leg room.

For reasons of safety, as well as the fact that the Amphicars operate seven days a week and up to 18 hours a day to provide anywhere from 60-80 rides a day, some significant modifications had to be made for the sake of reliability, even to vehicles that were in mint condition.

The bilge pump system was completely redesigned with a pair of high-volume pumps mounted in a different location than the original to allow the car to be able to pump water out of the hull faster than it can come in.

Not all of the changes have been revealed to maintain the illusion that these were simply lightly restored vehicles from a half-century ago.

However, in an interview, Schussler did admit that some 3,200 components (generally unseen by the naked eye) were engineered specifically for the Amphicars in use at The Boathouse and that each car required \$65,000 to \$75,000 worth of upgrades, on top of its purchase price

Some of those modifications include an all-new ignition system. The carburetion (fuel injection basically) and exhaust systems were re-engineered to help combat vapor lock among other things. Engine compartment cooling was also improved by a redesigned vented hood and unique cooling fans. The rerouted exhaust system keeps the rear seats cooler.

"We kept the integrity of the original design, but we had top engineers, and consulted with all kinds of other people to make certain that what we did was the best that could possibly be done," Schussler said.

The Boathouse has its own shop dedicated to repairing and maintaining the cars daily as well as a collection of unusable Amphicars in various conditions providing donor parts when needed.

"They were considered at one point the worst boats and the worst cars in the world. We've re-engineered them," Schussler said. "It's very unusual for a car to go in the water. It's very unnatural, and it's frightening in a lot of ways."

"We are still the only place, not in North America, not in South America, not [just] in the United States," he said. "We are the only place in the world that's commercially running Amphicars that were made from 1962 to 1967. We're running them every day. Averaging about 85 rides a day."

Guests enter the car that sits on a turntable that positions the vehicle to go down quite a bit of ramp careening into the water with a splash. It seems counter-intuitive to drive directly into a body of water, but happily there are no consequences, other than a unique leisurely experience touring the lake and getting quite a different perspective of Disney Springs.

The captain does all the driving and since it is a tour will share bits of information about the car.

Of the less than 400 known Amphicars that exist today, about 80 of them are in Europe, a dozen or less in the United Kingdom (where originally 99 cars were changed from a left hand steering wheel to a right hand one), one or two in Australia, and the rest in the United States and Canada.

Amphicar owners gather in July at Grand Lake St. Marys in Ohio to show off their vehicles and interact with other owners.

Amphicars appear in films, including *Rotten to the Core* (1965), *The Sandwich Man* (1966), *The President's Analyst* (1967), *Inspector Clouseau* (1968), *Savannah Smiles* (1982), and *Pontiac Moon* (1994), among others.

In addition, it can be seen in the 1965 episode of the popular British television series *The Avengers* titled "Castle De'ath" where in the end tag of the episode John Steed and Emma Peel veer off the road into the water.

Madonna is seen driving a blue Amphicar in the 1983 music video of her song "Burning Up."

As the Amphicar drivers will share with guests, President Lyndon B. Johnson owned an Amphicar. He had a unique sense of humor, once terrorizing FBI Director J. Edgar Hoover on a wild ride during a visit to his ranch in Texas.

For some guests, he would suddenly swerve his Amphicar and drive downhill with the speed increasingly rapidly while he shouted he had malfunctioning brakes.

He had quite a good laugh as the car and his scared passengers plunged into the water.

There is a photo of Johnson taking acclaimed newscaster Walter Cronkite across a lake in an Amphicar. President Jimmy Carter also drove an Amphicar, without frightening his passengers. Musician John Lennon had a white Amphicar on his English country estate. Dan Aykroyd was an owner.

The car was more of a novelty than anything else and did not revolutionize the automotive industry. However, it captured some of the dreams for future transportation that were predicted in magazines like *Popular Science*, *Popular Mechanics*, and *Mechanix Illustrated*.

The iconic car still generates smiles, waves from those on the shore, a sense of wonder and more important, a sense of fun. Yes, I have ridden in an Amphicar with Disney historian Werner Weiss and we both felt it was an enchanting experience.