



FROM HUMBLE BEGINNINGS

Today, the Zamboni® ice resurfacer means one thing, and it's a huge and significant thing. It is the machine that prepares ice surfaces for skating events, whether they be figure skating or hockey.

For fans of ice events, the Zamboni® ice resurfacing machine represents a new beginning. Nothing is better than freshly resurfaced

ice. Whether it redresses wounds from earlier hockey periods, or signals another stage of a figure skating event, the path of an ice resurfacer across the ice rink is to ice events what an umpire's brush across home plate is to a baseball game...only more complicated, it being mechanical and all.

BY KENT MCDILL | PHOTOS COURTESY OF FRANK J. ZAMBONI & CO., INC.

In 1920, teenagers Frank and Lawrence Zamboni left the family farm in Idaho to go to work for their older brother George in Southern California. George had an auto repair business, and the Zamboni boys were all good with mechanical things from time spent on the farm with equipment there.

But Frank and Lawrence were also businessmen, and they saw an opportunity to start their own business, working with refrigeration units used by local dairy farmers to keep their milk chilled in transport. Their interest wasn't the ice-making so much as the electrical engineering required to keep refrigera-

tors running and cooling properly. But they built an ice-making plant in order to make the blocks of ice that refrigeration units needed before electricity could be used to cool the appliance.

But you know how these things work in the "humble beginnings" stories.

With their foot in the door of the

refrigeration business, (and because they were losing money on their block ice plant when that form of refrigeration became antiquated), they wanted to figure out a way to make more money by cooling things.

It was at that time that the sport of figure skating was making in-roads in the Western part of the United States after being cultivated so actively in the East. But the Eastern seaboard was built for ice skating; it took some doing to get the sport situated in California.

In 1939, Frank and Lawrence teamed with cousin Pete Zamboni to build a skating rink in Paramount, California. The Paramount Iceland Skating Rink, which remains open today, got its start in 1940, and when it opened it was one of the largest rinks in the country. It was also outdoors, which means exactly what it sounds like—an outdoor ice skating rink in Southern California.

The Zambonis were talented at making ice, but not that good. They decided to put a roof on the place, and thus was born the building known for decades as Paramount Iceland.

Besides being an ice rink in Southern California, Paramount Iceland was unique because of the way the ice was made and maintained. Prior to Iceland, the ice on a rink was maintained through the use of refrigerated steel piping that ran under the ice, which created varying degrees of temperature along the surface.

Zamboni created large flat tanks which covered the entire area of the ice floor above, and ran the frigid salt brine underneath to freeze the water above. Iceland was built upon those tanks, and that freezing mechanism was used from 1939 to 1977, when it was converted to a more modern and conventional plastic pipe grid.

Iceland was a huge place, thanks to the fact that it started out as an outdoor rink. With 20,000 square feet of ice surface, there was a lot of work for a resurfacing machine to do. In 1940, resurfacing ice meant driving a tractor onto the ice with a scraping device trailing behind it. The scraper would create shavings, and a team of workers would have to collect the shaved ice, then use a hose to spray the surface

with fresh water, and then squeegee the water away to collect the floating dirt.

Another layer of water would be applied, then it would have to freeze. The entire process took about an hour and a half and required a lot of manpower. It took away from the time the skaters could use the ice (and pay for that privilege). From a business standpoint, this was a problem that needed a solution.

THE SOLUTION (EVENTUALLY)

Frank Zamboni believed machinery should be able to take the human element out of the ice resurfacing puzzle. Starting in 1942, he put his mind to developing the machinery.

There were several attempts to attach a device to the back of a tractor in order to create the perfect sheet of ice. But there were too many moving parts. Zamboni spent five years trying to create a tractor-sled combination before he set out to rebuild the tractor itself.

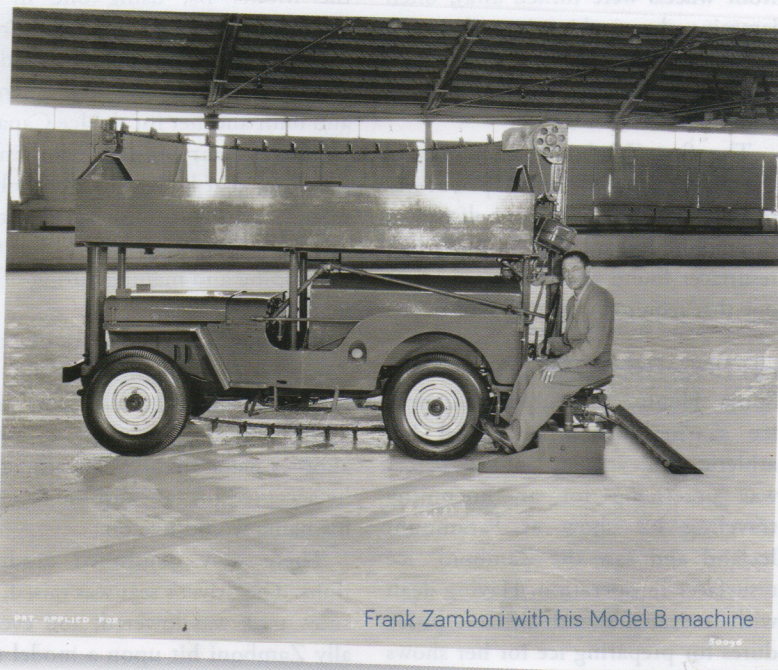
The design was to build a machine that could shave off the prior layer of ice, collect and remove the shavings from that cut, and wash and squeegee the ice again, with a tank large enough to hold the amount of water necessary to complete that task.

By 1947, there were numerous war surplus vehicles to be had at low prices, and that is what Zamboni used to

“Paramount Iceland offers an impressive training facility for all levels of figure skating. Management and staff have done an outstanding job in creating an environment where all levels can successfully train together and thrive. I am proud to call Paramount Iceland my home rink and I am excited to be involved with a facility so rich in history and in its progressive approach to our sport.” ~ KEN CONGEMI

develop his prototypes. The experimental models included a two-wheel drive vehicle (scuttled because it could not get the necessary traction on the ice), and another that could not maintain a tight control on the blade cutting the ice, so that it clattered and cut divots into the ice as it made circuits.

By 1949, he had the first successful model, a four-wheel drive, four-wheel steering truck with an adjustable blade that could be controlled by the operator to hold it firmly in place rather than bouncing as it made cuts. This model became known as Model A



Frank Zamboni with his Model B machine



1940s Iceland

Iceland's grand opening in 1940



Zamboni® ice resurfacer. He received a patent for the vehicle in 1953.

All of the work on the Zamboni® ice resurfacer models took place at Paramount Iceland Skating Rink, to this day known as the birthplace of the Zamboni® ice resurfacing machine.

The Model A had a tank for snow with a cover to keep the snow from falling back onto the ice, an in-tank snow-melting system to allow for greater capacity, and a wash water system. The wash-water system was the key to the invention, as it cleaned the ice prior to the final application of water to create a fresher, smoother seat of ice.

The final innovation was to get rid of the independent rear steering. With four-wheel steering, the rear wheels would run into the rink walls when the front wheels were turned away, often jamming the machine into the walls, and requiring humans to pull it free. The Model A had front-wheel steering and four-wheel drive.

The first Zamboni® ice resurfacer, the one for which the initial patent was received, can still be seen on display at Paramount Iceland. But in 1950, the resurfacer found another home, albeit one that required a great deal of travel.

HITTING THE ROAD

Sonja Henie, the fabled Olympic ice skating star who turned her athletic achievement into a career, was practicing for an upcoming traveling ice show at Paramount Iceland and saw the Zamboni® ice resurfacer in operation. Having dealt with uneven ice and difficult procedures for preparing ice for her shows

around the country, she asked Zamboni if he could create one in time for an upcoming show she had in Chicago.

Zamboni located the parts he would need, and a new Jeep® truck that would be the base unit for the Henie model, then loaded all of the parts into a trailer attached to the back of the Jeep®. He drove to Chicago and assembled the device in the Windy City, and that machine became Model B.

Eventually, Henie ordered two of the Model Bs, using one in the United States and one in Europe. Zamboni built one for the Pasadena, Calif. rink called Winter Garden, and built another for the Ice Capades.

These four orders convinced Zamboni that he had found his life's work, and he founded the Frank J. Zamboni & Co., Inc. for further developing and manufacturing of the machines.

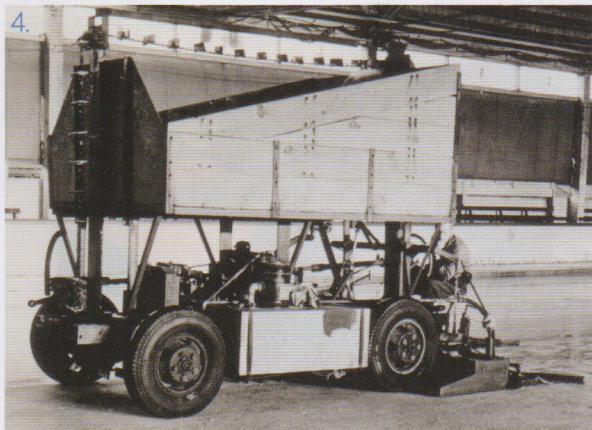
It is telling in the nature of Frank Zamboni that he initially did not want to name the company after himself. But after applying under another name that was already taken, he accepted his fate and the fact that his name would live on.

There were continued modifications. The driver's seat was raised, the snow tank was lowered, and eventually Zamboni hit upon a model that

would serve as the model to be produced for the next 20 machines. This was known as Model E, and its final design came in 1954.

In the 1950s, the Zamboni® ice resurfacer was a vehicle unlike any other, but it was a drivable machine. It could be driven the way a car could be driven, although it has a top speed of about 10 miles per hour. Still, Zamboni had no problem getting around the country by trailer to show it off to future clients.

Zamboni hauled his contraption around to National Hockey League arenas in the United States and Canada to show arena managers what was available to them. On New Year's Day in 1954, a Zamboni® ice resurfacing machine used for the Ice Capades was on hand at Boston Garden as a Boston Bruins game was scheduled. Boston Garden manager Bob Skrak decided to use the machine to resurface the ice between periods, and it was deemed a successful test by team management.



- 1) Today the rink offers a great space for group lessons
- 2) Iceland coaching staff pictured: *back row, left to right: Ken Congemi, Aurora Hall, Galvani Hopson, Jere Michael, Darlene Sparks, Rafel Artunian* *Front row: Katie Shepard, Teri Suzanne, Christina Sheehan, Tim Boore, and Alex Chang.*
- 3) The Wurlitzer pipe organ, originally installed in 1941, remains on display at its original home.
- 4.) Zamboni Model A machine

HONORING FRANK

By the time Frank Zamboni passed away in 1988, his invention was a brand name that represented the machine he invented.

Frank Zamboni is enshrined in the United States Figure Skating Hall of Fame, World Figure Skating Hall of Fame, National Inventor's Hall of Fame, and U.S. Hockey Hall of Fame.

Zamboni had an effect on sports other than ice skating and ice hockey. At the request of the Monsanto Co., which created the first artificial grass surface known as Astro-Turf, Zamboni created the "Astro Zamboni" resurfacer which vacuumed water up from the Astro-Turf, as well as the "Grasshopper" which was used to roll up artificial turf. The Grasshopper was first used at the Superdome in New Orleans in 1975.

Due to its use at National Hockey League games and minor league games as well, the Zamboni® ice resurfacer has become more than just a functional vehicle. It has become a carnival ride of sorts. Many professional hockey teams have offered as a prize to a lucky fan a ride upon the machine as it cleans the ice from one period to the next.

Thus, the relationship between the NHL and the Zamboni® ice resurfacing machine was born.

Eventually, Frank Zamboni abandoned the Jeep® body, using only the chassis while rebuilding the body for better functionality. Further innovations included reducing (and eventually eliminating) emissions from the vehicle, new coolant systems for the engines to extend life, and converting the operating systems to new technologies, reducing the number of manual tasks required.

MEANWHILE, BACK AT THE RANCH

Left in the slowly building wake of the history of the Zamboni® ice resurfacer is the remarkable history of Paramount Iceland, where the first ice resurfacing machine was created.

Paramount Iceland has had its share of world and national competitors and world-class entertainers grace its ice, including Peggy Fleming, Henie, and Robby Robertson. It houses the oddity of a fully functioning and yet truly ancient Wurlitzer pipe organ, which was first installed at the rink in 1941. The pipe organ is on display, sitting just off and above one end of the skating ice.

There is a game room and a snack room and there is a gift shop, where one can get a t-shirt honoring the Zamboni® ice resurfacer, or a toy ice resurfacer in various sizes.

And, on display in the rink's lobby, is the restored and fully operational Model A Zamboni® ice resurfacer. ❖

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