

## **The Vehicle that Could “Float on Snow”**

### **By Haylee Bindig**

Joseph-Armand Bombardier was a mechanic and inventor. In 1934, Joseph-Armand Bombardier’s two-year-old son passed away due to appendicitis because Joseph-Armand could not get him to a hospital during a snowstorm. Not long after, his idea for the bombardier was born. An advanced model of this brilliant invention in the 1930s is still used to this day as a fun, winter activity.

In 1935, the year following his son’s passing, Bombardier designed and created the first ever snowmobile in a repair shop in Valcourt, Quebec. His dream was to build a vehicle that could “float on snow”. He wanted something that could drive through the snow and swampy conditions with ease. The vehicle is driven by a set of tracks, one on each side. A sprocket in the front drives the wheels that run on the metal track to provide traction.

In 1937, he invented the snow coach. It was the first of the B series. This 7-passenger vehicle was used for many different purposes. In rural Quebec, they were used to carry freight, deliver mail, act as an ambulance and to take children to school. In the summer they had wheels in the front. In the winter the wheels could be replaced with skis so that it would drive better in the snow. Eventually Bombardier opened its own factory in Valcourt, in 1941.

During the second World War, Bombardier changed their focus towards the arms industry. This change happened after the Canadian Government produced rationing regulations. Customers needed to prove why snowmobiles were important to their lives in order to purchase one. After a snowstorm in 1947, the army snowmobiles became the main supplier for the communication towers bringing them food and essentials for living. The company continued to grow and diversify their products including larger snowplows and all terrain vehicles.

In 1950, Bombardier began to create personal snowmobiles. This was designed to have one continuous rubber track. They still wanted it strong and durable enough to

grip the snow in order to move effectively. They named this snowmobile the "Ski-Dog". They hoped for it to take the place of dog sled teams for hunters and trappers. The company had flyers printed to market their newest product. However this did not go exactly as planned. The flyers and advertisements were misprinted; instead of "Ski-Dog" they read "Ski-Doo!" As an alternative to reprinting all the advertisements, the company decided to adopt this new name. It stuck and since everyone was aware of the incident it brought more attention to the product, therefore increasing sales for the "Ski-Doo."

Customers who purchased this new snowmobile liked the speed and entertainment it brought for the winter snow. The first year Ski-Doos entered the market, 225 were sold. Four years later, the company sold over 8000. Ski-Doo wanted to lead the snowmobiling market.

Years later, a parts manufacturer opened up in Quebec so customers could purchase new parts. Soon after that V-8 engines were added to the snowmobiles. Today, there are many options for the different features a customer may desire.

I chose to write about the history of the bombardier because a few years ago my dad purchased a used 1952 R18 model, from a person near Cranberry Portage, Manitoba, the Bombardier capital of Manitoba. It is dark blue with all original hand-painted detailing on the exterior. I have taken a special interest in it because this past winter I got the opportunity to drive it for the first time by myself. Ours was special ordered by Judson Sierers from Landa, North Dakota. The order was placed on October 27th, 1952. He requested it to be an R18 model, blue in colour, with an additional gas tank.

In the beginning of production, the body was made from wood with a steel structured frame. When the B12 model was introduced they continued with a wooden body. Most of the B series were narrow gauge models, with a width of 60 inches. Later came the production of the C models, they were considered a wide gauge model at 76 inches. These had better balance for deeper snow. Prior to painting, any imperfections in the body were rectified with lead. Then later they began to use an automotive

body-fill. When ordered from the factory, there were only three colour options: yellow, blue and maroon.

Early bombardiers had round windows and were fairly small in size. Later, they changed them to rectangular windows and made them larger to allow more sunlight into the cab. Some bombardiers were made with an escape hatch through the roof. Similar to one in a school bus. They had seats all the way around the outer edge of the vehicle, with the riders facing each.

Below are the models of Bombardier that were produced, the different options available and the years in which they were built.

### **B Series**

Wooden and steel body

<b>B7s: Passengers</b>	7
<b>Engine</b>	V8 Ford
<b>Years of Production</b>	1937 - 1944
<b>Total Number Produced</b>	152 units
<b>Width (inches) and Weight (pounds)</b>	48.8 in and 2500 lbs.

<b>B12s: Passengers</b>	12
<b>Engine</b>	Chrysler Industry. 251 litre, 6 cylinder
<b>Years of Production</b>	1942 - 1951
<b>Total Number Produced</b>	2817 units
<b>Width (inches) and Weight (pounds)</b>	60 in and 3400 lbs.

## C Series

Wooden body

<b>C18s:</b> Enlarged version of B12, used as school bus snowmobile <b>Passengers</b>	18-25
<b>Engine</b>	Chrysler Industry. 251 litre, 6 cylinder
<b>Years of Production</b>	1945 - 1958
<b>Total Number Produced</b>	606 units
<b>Width (inches) and Weight (pounds)</b>	76 in and 3600 lbs.

## R Series

Entirely steel body with interchangeable skis and wheels

<b>R12s: Passengers</b>	12
<b>Engine</b>	Chrysler Industry. 251 litre, 6 cylinder
<b>Years of Production</b>	1951 - 1954
<b>Total Number Produced</b>	382 units
<b>Width (inches) and Weight (pounds)</b>	59 in and 4500 lbs.

<b>R18s: Passengers</b>	15
<b>Engine</b>	Chrysler Industry. 251 litre, 6 cylinder
<b>Years of Production</b>	1951 - 1954
<b>Total Number Produced</b>	394 units
<b>Width (inches) and Weight (pounds)</b>	74 in and 4600 lbs.



This is our bombardier. Picture taken in the winter of 2019, with a beautiful prairie sunset in the background. My dad had his work cut out for him with the restoration process, but overall the Bombardier was in really good shape. He replaced the seats around the edges of the track wells, with modern mini van seats for our comfort. He also built an updated dash out of metal with gauges for the

oil pressure, water temperature, volt meter and fuel. This dash also has heat vents and different switches for controlling the airflow and lights so we can also cruise in the dark.

### After Type R

<b>Passengers</b>	15
<b>Engine</b>	Chrysler Industry. 251 litre, 6 cylinder
<b>Years of Production</b>	1954 - 1981
<b>Total Number Produced</b>	1227 units
<b>Width (inches) and Weight (pounds)</b>	74 in and 5000 lbs.



Pictured is Joseph-Armand Bombardier with one of the B Series narrow gauge bombardiers.

From a 7-person snowmobile with interchangeable skis and wheels designed to deliver mail and take children to school, to a personal snowmobile with heated handlebars meant for entertainment. It all began with a man by the name of Joseph-Armand Bombardier. The tragedy of losing his son began the idea to create a vehicle meant for the snow. We have him to thank for the original snowmobile, which led to the snowmobile we use today for hours of entertainment in the snow, which we have tons of here in our area of Saskatchewan.

## References

(2021). Bombardier Inc. *Wikipedia*. Retrieved from:

[https://en.wikipedia.org/wiki/Bombardier\\_Inc.](https://en.wikipedia.org/wiki/Bombardier_Inc.)

Volume 31 of Bombardier Orders from September, 1952. Personal notes from the company secretary to track orders. Book is in the Bombardier museum in Valcourt, Quebec.