



The AMA History Program Presents: Biography of MEL ANDERSON



Modeler since 1919

Birth Date: November 18, 1902

AMA Number: 176458

Transcribed and edited by SS (6/02), Updated by JS (10/07)

Career:

- 1919: Designed his first motor at age 17; it was the first front rotor valve induction motor
- 1931: Made his first gas engine
- 1935: Worked with Bill Atwood for Major C. C. Moseley to help design and manufacture the popular Baby Cyclone engine
- 1936: Built and flew the first model airplane powered by two gasoline engines
- 1938: Set a world endurance record with a plane and engine he built himself
- Designed and produced the Super Cyclone engine which set all records in the .60 class in 1940
- 1946: Founded Mel Anderson Manufacturing Company
- Sold over a half a million of his Baby Spitfires; his following four engines sold just about as well

Honors:

- 1982: Model Aviation Hall of Fame

The following information is taken from the Model Aviation Hall of Fame application submitted by Irwin Ohlsson and William D. Simpson on March 14, 1981 on behalf of Mel Anderson. Mel was inducted into the Model Aviation Hall of Fame.

Mel Anderson, born November 18, 1902, began building and flying model airplanes at age 15. He built his first model motor in 1919, a twin cylinder compressed air motor using front rotor valve induction. This was the first front rotor valve induction motor. Mel still has the motor, a picture of which is on page 23 of the September 1960 issue of Model Airplane News.

In 1920, Mel went to work for Welk's Jewelry in Los Angeles where he learned how to run a lathe, make casting and lap and hone.

Mel made his first model gas engine in 1931 from aluminum castings for which he had made his own patterns. This was the first gas engine to use front rotor induction. It ran beautifully. Bore and stroke were 7/8-inch (.525 cubic inches). It had updraft intake and the first true needle valve. Mel made three more engines in the next three years, each an improvement on the previous.

In 1935, Mel, along with Bill Atwood, went to work for Major C. C. Moseley, president of Grand Central Air Terminal, Los Angeles' largest airport, to design and manufacture the Baby Cyclone engine.

The first Baby Cykes were built and placed on sale around Christmastime of 1935. It had a displacement of .363 and was made from 1935 until 1939, during which more than 15,000 were sold. There were seven different models of the motor, each version an improvement over the last, but the basic design never changed. In its day, it was the finest engine on the market.

In 1936, Mel built and flew the first model airplane to be powered by two gasoline engines. Article and picture appeared in the December 1936 issue of Model Airplane News.

Boat racing was popular in the Los Angeles area in 1936. Boats were tethered to 67-1/2 foot line and timed on a lake in the San Fernando Valley. Mel built a model boat and engine with 1-5/16 bore and stroke, rear exhaust and had separate front and rear carbs. With the engine running on both carbs, it would jump out of the water when released. Mel adapted a self-timer from a Kodak camera to open the rear carb about the second lap. The engine ran on straight gasoline and was lubricated by an oil drip method pressurized by an inflated balloon. It had a Packard spark plug and 13-1 compression ratio. There were no model spark coils in those days and Mel used the wiring from a Model T coil to wind his own coils. The boat held the world speed record and no other boat in the area came close to its speed.

The first geared model engine was made by Mel in 1939 using a Baby Cyke engine. Gears reduced prop rpm by one third and double ball bearings were used in the prop drive shaft. A picture of the engine is on page 23 of the September 1960 issue of Model Airplane News.

By 1939, Bill Atwood had left the company and Mel set out to design a new engine, the incredible Super Cyclone. Twelve different experimental engines were made, each with modifications on the previous, until the final design. At the end of 1940, all records for the .60 class engine were held by the Super Cyke. Over 50,000 Super Cykes were sold before production was halted by order of the government following the attack on Pearl Harbor.

In 1946, Mel struck out on his own, forming the Mel Anderson Manufacturing Company. His first design was the Anderson Spitfire, originally .60 displacement, later increased to .65. Thousands of Anderson Spitfires were sold.

In 1949, Ray Arden came out with his glow plug, which was to revolutionize the model engine business. Mel began work on a new baby engine that year and the Baby Spitfire went into production with a displacement of .045.

The Baby Spitfire was an immediate success and over half a million were sold and nearly as many of its later successors, the Spitzzy .045, the Royal Spitfire .065 and the Baby Spitfire .049.

These last four engines were the climax of Mel Anderson's career in the model industry and they were the last motors he produced before leaving the model business to become a production engineer for a manufacturer of high precision components for both airplanes and missiles. Mel retired in 1973 at the age of 70.

The present front rotor induction used in most model engines today was developed by Mel Anderson. He set a world endurance record in 1938 with a plane and engine he built himself. Mel Anderson's Super Cyclone was the first engine to use a tangent mounted down draft carb with vacuum feed. The port timing of the Super Cyke is still the standard, even today. The Super Cyke was the first engine with a relief ground piston.

Mel and his wife of 55 years, Ruthie, live in the same house in Alhambra, California, that they have occupied for the last 40 years.

Mel Anderson is truly one of the great pioneers and innovators of model aviation (and boating) and deserves to be in the [Model Aviation] Hall of Fame.

*(signed) Irwin Ohlsson and William D. Simpson
March 14, 1981*

The following article was sent to Carl Wheeley after the above information ran about Mel Anderson in the March 1982 issue of Model Aviation magazine. It is a correction of information that William D. Simpson submitted.

*William S. Simpson
7413 Via Lorado
Rancho Palos Verdes, California 90274*

February 10, 1982

*Mr. Carl Wheeley
Model Aviation*

Dear Carl:

The March Model Aviation, page 76, Mel Anderson, has a small error.

Bill Atwood should be credited with the design of the Baby Cyclone engine. Major Moseley hired Bill to make the engine that he was flying at the time. Bill had the blueprints drawn to his specifications. He was with Moseley at Grand Central two weeks when he asked his friend Mel Anderson to come and work with him and he did.

By the time the first production engines were ready for shipment, another person, who would later become a well-known engine designer, was working with them – Ira Hassad.

The original engine had an extensive modification before the first production engines were sold. Seems the cast iron cylinders leaked. [Out of] the first batch of about 40 engines, they could only get a few to run. They were going to throw them out and try again when Art Andersen, who was the subcontractor along with Ernie Carlson, suggested the cylinder be machined and an aluminum muff be sweated on. This was done and the engines ran fine. Only four of the original cast iron cylinder engines were saved, according to Mel Anderson.

The only reason I am bringing this to your attention is because Art Swift will be submitting a nomination for Bill Atwood to the [Model Aviation] Hall of Fame. Art's nomination credits Bill Atwood with the Baby Cyke design and according to Mel Anderson Bill Atwood gets the credit.

This letter is not intended for publication and no correction is requested.

*Sincerely,
William D. Simpson*

This is the letter that Mel Anderson received informing him of his acceptance into the Model Aviation Hall of Fame.

*Academy of Model Aeronautics
National Headquarters
815 15th Street N.W.
Washington, D.C. 20005*

December 21, 1981

*Mel Anderson
2013 Edgewood Drive
Alhambra, CA 91803*

Dear Mel,

It will be my pleasure to present to you the [Model Aviation] Hall of Fame award at the IMS show in Pasadena on Sunday, January 10, 1982, sometime between noon and 1:30 p.m.

If this arrangement meets with you approval, I will see you there. If this time and date creates any problem for you, let me know immediately.

Sincerely,

*John C. Grigg
AMA President*

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