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A Brief History of Gray Marine Engines

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A Gray Motor Co. engine, as identified by C.H. Wendel in the January/February 1985 issue of Gas Engine Magazine. Courtesy of G.F. Harvey

Having lived in the Detroit area for many years where Gray marine engines were built, I had respect for the Gray Marine Motor Company. However, I knew little of its history. That changed when I acquired a copy of a history of that company written by the son of the founder. The document is an unpublished manuscript written by John W. Mulford in 1961. It runs to 41 pages, single-spaced. Actually, it is a family history as well as a company history. Like other such documents, it may contain some family traditions and some recollections that are not entirely correct. Until 1941 when he took his father's place at Gray, John W. Mulford operated a printing business.

O. J. Mulford was born in Monroe, Michigan in 1868. A few years later the family moved, first to Indiana, then to Stanton, Michigan. The father was a lumberman, and lumber was still being cut in the great pine forests of northern Michigan. As a boy, O. J. Mulford began to learn the printing trade, working in a print shop in Stanton. He continued in school after the family moved to Detroit and worked in a commercial printing shop part time. He then acquired a print shop of his own.

After a bout with meningitis, he went to live with an uncle in California. There he worked as a printer and developed a business of street car advertising. Back in Detroit, he started his own street car advertising business as well as an advertising agency. He also acquired a lifelong love of boats.

About 1890,O. J. Mulford with a W. A. Punge and a Mr. Seymour, a yacht designer, formed the Michigan Yacht and Power Company, bought a building in Detroit where the Naval Armory now stands, and began building small power boats. That same year they became distributors or perhaps exclusive agents for the Sintz gasoline marine engine built in Grand Rapids, Michigan. Undoubtedly it was one of the best marine engines available during those pioneer times. In 1901 or 1902, according to the manuscript, they purchased the Sintz company and moved it to Detroit.

Larry Mahan of Marstons Mills, Massachusetts has a collection of Sintz information, including stock

ownership records. In 1900, O. J. Mulford owned just one share of stock in the Sintz Gas Engine Company. In 1901, when the Sintz company was moved to Detroit, Mulford owned 1300 shares and W. A. Punge (see above) was the largest shareholder with 3481 shares. Several prominent Grand Rapids people still owned considerable stock, including many of the early Sintz owners. He mentioned that by 1894 the Sintz family no longer had a financial interest in the company. Clark Sintz had sold his interest; he and his son Claude founded Wolverine Motor Works. Larry Mahan states that the Sintz Gas Engine Company was absorbed into Michigan Yacht and Power Company late in 1903. The Sintz Gas Engine Company ceased to exist. In 1903, W. A. Punge was building automobiles at the boat factory.

Returning to the manuscript story, Mulford sold his interest in the Michigan Yacht and Power Company late in 1905. That was the year that the Gray Marine Motor Company was formed with O. J. Mulford, president, Paul Gray, vice-president, and David Gray, secretary-treasurer. Paul and David Gray were sons of a banker, John Gray. They began with a line of single-cylinder two-cycle designs and then expanded into other engines. They developed a four cylinder four-cycle engine with the automotive market in mind.

Meanwhile, the United States Motor Company had been formed in 1909 by Frank Briscoe to merge Maxwell, Columbia, and Stoddard-Dayton Truck. [This is not the U. S. Motors Corp. of Oshkosh, Wisconsin.] I have been told that the history of the United States Motor Company is in George Dammann's book *70 Years of Chrysler*. U. S. Motor purchased Gray and Mulford became vice-president of U. S. Motor. At the time of the sale, Gray was building about seven thousand engines a year. Unfortunately, U. S. Motor went bankrupt the next year, 1910. With $ 160,000 of investment by others, Mulford purchased Gray, now calling it Gray Motor Company, without 'marine,' as he had automotive engines in mind. One of the investors was Charles King, who developed the King car with a Gray Engine.

Gray Motor Company spent considerable money on an air starter for cars but it never did see production. The 1919 edition of *The Modern Gasoline Automobile* by Victor W. Page describes the Never-Miss Starting System which undoubtedly is the Gray development. A control knob on the dash admitted compressed air from a tank to a device mounted on the front of the crankshaft. A piston, rack, and pinion cranked the engine a couple of turns. The operation could be repeated if neccesary until tank pressure became low. After the engine started, a foot-pedal engaged an air compressor to recharge the tank. John Mulford remembered an air starter on the family car when he was a child. The Never-Miss was one of many starters that lost out to electric starting.

Some of the four-cylinder Gray engines were used in lifeboats during WWI, as well as on drainage pumps to pump out trenches in France. After the war, this engine was named the 'Victory Motor.'

Gray stationary engines are not mentioned in the manuscript, but I know that Gray did build hopper-cooled engines in the 1911-1914 period.

The Gray 'gearless' outboard motor is in Gray catalogs of 1915-1918. They had a flexible shaft in the lower end instead of the usual gear box. The Chesapeake Bay Maritime Museum in St. Michaels, Md.has one in its collection. The outboard is mentioned in the manuscript, but with the wrong period of production.

The company built a new factory in 1917 at 2102 Mack Avenue on the Detroit Terminal Railway. War work included the machining of artillery shells. After the war, the Victory engine was built for some car and truck applications. Traffic Truck in St. Louis, Kohler Truck in New Jersey, the Panhard truck, and the Crow-Elkhart car were among those customers. Looking through Wendel's *Encyclopedia of Farm Tractors*, I discovered that the Gray Victory engine was used in the little Prairie Queen tractor in 1922.

Though Paul and David Gray had been partners in the founding of the company, their names do not appear again in the manuscript. Mulford continued his advertising business. He was not suited to managing an industrial firm so he always needed a good factory manager. The manuscript tells the names and

backgrounds of the men who held that job over the years.

While Billy Blackburn was manager, he modernized the Victory engine and called it the model X, according to the manuscript. However, I found that Gray ads in 1920 called the marine version the VM (Victory Marine). In 1921, F. F. Beall came to be manager of Gray. He further improved the engine and named it the Gray-Beall engine. My listing of marine engine catalogs in the February 1992 issue of Gas Engine Magazine includes literature on the Gray four cylinder automotive and marine engines, including the Gray-Beall of 1921. Production of the two-cycle engines continued, at least through 1924.

1921 was the year that the Gray automobile was developed together with an inexpensive model Z engine for the car. They built 75,000 cars from 1922 to 1924. By then the car operation was in very bad financial condition. Mulford managed to buy back the marine engine part of the business in 1924, together with 3,000 model Z engines. The reformed Gray Marine Motor Company purchased the old Northern car plant at the corner of Canton and East Lafayette (6910 Lafayette) for their factory. From this time on, Gray was in business converting engines for marine use.

The April 10, 1924 issue of Motor Boat Magazine contains a brief report that O. J. Mulford had bought back Gray Marine the previous August. The article contains some Gray history which agrees well with the manuscript. It has a portrait of Mulford.

In the later 1920s, Gray converted the Studebaker light six and big six. These were followed by conversions of the Pontiac six and some Hercules industrial engines. The 3,000 model Z engines were all converted and sold. The issue of Motor Boat just mentioned has a two-page advertizement for Gray engines. There are excellent pictures of the Z and X engines. The Z is a 12-18 HP 4 cylinder L-head design that seems to owe a lot to the model T Ford. The X is a 35 HP 4 cylinder OHV engine. Both engines employ much aluminum to reduce weight. Gray continued to offer 1-and 2-cylinder two-cycle model U engines.

At some point, Chris Craft took over the conversion of Hercules engines and Gray switched to Continental engines. A friend who toured the Gray factory in 1940 remembers seeing Continental engines being converted. 1936 was a turning point. That year they began negotiating for the new General Motors 6-71 diesel. The project was highly successful, and Gray was poised to build a great many 6-71 conversions for the war effort. By 1941, John W. Mulford had taken his father's place at Gray, so the manuscript contains much detail of the wartime operation. They reached a production rate of 100 engines per day requiring constant expansion into new factory space. O. J. Mulford died August 2, 1943.

After WWII, there were two contenders for the purchase of the Gray Marine Motor Company. One was General Motors, which would make it their marine engine division. The other was Continental, who wanted their own marine engine business. The deal with Continental was the successful one. According to William Wagner's book *Continental, Its Motors and Its People*, Gray was acquired by Continental on June 14, 1944 for $2.6 million. John W. Mulford was made general manager of Gray. The manuscript tells some interesting tales about the boat builders who were Gray's post-war customers. The manuscript does not tell the date at which Continental closed Gray because that was after the manuscript was written, but I believe it was in 1967.

I thank Phil Brooke, Jr. of Spokane, Washington, for the Mulford manuscript and Larry Mahan of Marston Mills, Massachusetts for reviewing my article and supplying the Sintz ownership data. Larry plans to publish a history of the Sintz and Wolverine operations.

Gray catalogs in the Motor Vehicle Manufacturers Association Patent Library, Detroit

1912 instruction book. Hardback.

1913 pocket catalog. All engines two-cycle.

1918 small catalog

1920 catalog. Little change.

1921 marine engine catalog, the two-cycle engines are shown plus a 4-cylinder OHV engine. The four is rather ugly with a very high rocker arm cover.

1921 catalog showing the Gray-Beall automotive engine. A good-looking OHV design.

1922 sheets, one showing the two-cycle engines and the other showing an OHV automotive engine. It looks much neater than the one in the 1921 marine engine catalog.

1924 sheets with good cross-sections of the one and two cylinder two-cycle engines. Also a pocket catalog for the entire line.

1926 engine line. It includes a model D which is like the Doman 'Falcon' and US Motors model OK-1.

1926 folder showing these models: U - 2 cyl 2 cycle 3 port; V - 4 cyl 4 cycle push rod OHV; Z - 4 cyl 4 cycle L-head, 25 HP; Z -14-20 HP marine engine with lots of aluminum, reverse gear on the flywheel end.