

THE HISTORY OF THE BLAKELY DESIGNED ROWBOAT MOTORS

The illustration of a unique Gray Gearless Detachable Rowboat Motor on p. 59 of the June, 2009 “Antique Outboarder” caught my eye, especially the “Edward B Blakely of Muskegon, MI” statement on the patent. I Soon learned that Blakely Engine Co built some of these gearless motors identical to the Gray Motor Co motors but lacking the Gray name cast into the flywheel.

To date, I have seen only one Gray Gearless RBM and when I did, my curiosity got the best of me as I live in Muskegon County. I told the gentleman that owns it I would try to find out where they were made in Muskegon and by whom. That was my first mistake as I greatly underestimated the scope of my investigation of the elusive Edward B Blakely (EBB) and his Blakely Engine Co. He left few tracks in his multiple employments throughout the gasoline and diesel engine industry in the early 1900s. My friend in the AOMCI, Dick Gorz was able to get a copy of the EBB Gearless lower unit #1,139,631 patent for me to help me get started.

After searching the various 1911 -1918 files of the Muskegon Co Register of deeds for land ownership by Edward B Blakely (EBB), the Muskegon Business Directories, the Muskegon Museum Historical Section, year end recaps in the Grand Haven Tribune and scanning 1913-1918 Muskegon Chronicle newspaper, I could not locate an address or records of the Blakely Motor Co. The first ray of hope came when I found a listing in the 1914/5 Muskegon City Directory of Edward B Blakely as being the Manager of Lyons Machine & manufacturing Co. in Muskegon MI. My efforts quickly switched to a study of Lyons Mach & Mfg Co.

Lyons Mach and Mfg Co. was established with \$72,000 of capitalization in 1912 by four officers with several years of engine building experience at Continental Motor Co. of Muskegon, MI. Lyons was a machine mfg concern but was also a job shop operating in a 50'x450' plant at 656 Nims which was previously the site of the old Gary Motor Car Co (1909) and the Henry Motor Car Co (1910-1911)--both defunct -- “a Bad Omen” ! ?

Before buying this building, Lyons had planned to build a new 50'x 122' factory so this large 50'x 450' 656 Nims St. building had adequate space for both their machine building and job shop work. The Lyons Mach & Mfg Co. moved into the Nims St plant between April and November of 1913 .

At this point I called Jack Craib who patiently filled me in about the design details of the identical Blakely Gearless and Gray Gearless motors and the fact that the gearless motor power heads were common with of the vertical drive shaft/gear case model Blakely, Admiral and Anderson Catalog/badge motors. These three brands share a conventional vertical shaft /bevel gear lower unit as found on most RBM motors of that time. Questions still remained about where the Blakely designed motors were built and by whom but it would seem logical to me to build all power heads in a single plant .

Scanning old local newspapers yielded data about a August 8,1914 power boat race on Muskegon Lake which included a " Mosquito Class" ie RBM Class . I noticed one of the racers was John Hartman the bookkeeper at Lyons and another was Lyons sec/treas F.W. Garber (or his son F.W. G Jr.) Unfortunately, neither Lyons driver placed in the top three .

1st place went to an Evinrude RBM motor, 2nd to an Admiral motor and 3rd to a Gray motor. Lyons employee participation in this race showed a keen interest by Lyons in promoting the Blakely designed motors and it also dates both the Admiral vertical drive shaft and Gray Gearless motors back to August 8,1914.

The day of this race EBB wrote an article in the Muskegon Chronicle touting the virtues of his motors stating that they were "Built in Muskegon".

About this time I reviewed my findings with Dick Gorz who asked if I had read Arlan Carter's RBM book. My answer-- Arlan who and what book ? Dick kindly loaned me his copy of the book which I found to be very well written, extremely interesting and a major source of information and leads for my search. Yes, I now own my own copy of his book and read it often. I have since contacted Arlan and we keep in contact.

The 1914 ad for the "Flexible Vanadium Shaft" on page 322 of Arlan's book states: "The flexible shaft used in the Gray Gearless is manufactured by the Chicago Flexible Shaft Co. We sell it for driving all kinds of machinery and it is used for transmitting power to rock drills and similar machinery."

This raises more questions than answers about the Blakely gearless patent, the assignment of Blakely's patent to Gray Motor Co. and whether Chicago Flexible Shaft Co ever had a patent on their flexible shaft design ?

Blakely's gearless patent states: "This invention relates to propelling mechanisms ADAPTED to detachably connected row boat motors and other small craft" Thus it appears to me that E B Blakely's patent is limited to only RBM and other small craft applications of this established flexible Shaft design". Based on this information, it appears that the gearless lower units were supplied as parts, sub assemblies or complete assemblies by Chicago Flexible Shaft Co. I find it interesting that nowhere in any of the Blakely Engine Co or Gray Motor Co advertisements is Blakely's gearless patent mentioned.

The early 1914 Blakely ad on page 315 of Arlan's book states:" The Gearless Blakely is a new-comer to the field but it is far from being a new and untried product. The builders are men who have been prominently identified with the gasoline business for fourteen years." This is key as the four former Continental Motor Co employees who established Lyons Mach & Mfg Co. had many years of service building gas engines at prominent positions at Continental Motor Co. Wm Odell was Plant Superintendent, Ray Hill was an Engineer, Oscar Bloomberg was tool room superintendent , Wm Halderman was plant electrician. Lyons Manager, Edward B Blakely had worked throughout the automobile and stationary gasoline engine industry as an engineer and plant manager since 1900.

Considering this and all the other supporting evidence, it is clear that Blakely's 1914 p.315 ad was referring to Blakely himself and this group of Lyons officer as the: "Prominent builders of the Blakely designed RBMs" in the Lyons Mach & Mfg Co. plant. This answers my Who and Where Question! ! Lyons employed 50 to 150 other people during this period.

From 1912 to 1914 Blakely worked as an chief engineer and later plant manager at Sears Roebuck's gas engine in Sparta, Michigan which is 20 miles east of Muskegon and 10 miles north of Grand Rapids. Some how during this period he designed the Blakely RBM and did all the pre production engineering such as prints, contracting parts sources for patterns, steel forging dies, iron. bronze and aluminum castings, production tooling and pre production samples for testing etc, etc. Blakely's knowledge and connections with the Grand Rapids area parts suppliers used by Sears was no doubt helpful .When he moved to Muskegon in January 1914 to start his RBM building operation as manager of Lyons Mach & Mfg Co. he hit the ground running! In January he applied for the gearless lower unit patent, In February he copyrighted the "Blakely Motor Co" name and produced production built motors early the same year. A truly incredible feat!! I can't help but wonder how many trips he made between Sparta and Muskegon in the year prior to 1914 to set up this operation.

In all of this, the business relationship between Blakely and Lyons is still a mystery. Was he to receive a royalty for each motor built? What was to be the function of the Blakely Engine Co ? Was it just to be a marketing brand name or a badge motor like Anderson and Admiral.

Now the plot really thickens !

On Sept 26, 1914 Lyons Mach and Mfg Co Filed a voluntary petition for bankruptcy through it's new president G.H. Neumeister. It is noteworthy that their second largest Creditor was Cross Gear and Engine Co of Detroit, MI. for \$2,360 (Huge amount in 1914 Money). Noted author Peter Hunn tells me Cross was a brass foundry and was well known for their machining of brass parts for the marine industry. Cross special interest group lead, Jay Walls confirms this and adds that they also made transmissions (gears) for the marine industry.

The cast curved bronze down housing of the gearless Blakely and Gray motors and the cast vertical bronze down housings plus the gear cases and

gears for the Admiral, Anderson and Blakely vertical shaft motors are some of the major items that Cross likely supplied.

Among the other named creditors in the bankruptcy were local Muskegon and Grand Rapids sources who supplied aluminum castings for exhaust manifolds & crankcases, iron castings for, block, piston, flywheel & boat brackets, and steel crankshaft forgings, etc. Local banks and individual investors and others were also named. There was no mention of Edward B Blakely or the Blakely Engine Co in any of this mayhem.

The fact that Chicago Flexible Shaft Co. was not listed as a creditor suggests that they sold the Flexible shaft assemblies directly to Gray Motor Co who then installed them on their gearless motors.

On the Brighter Side:

On June 20, 1915 a RBM class was included in a inboard powerboat on Bear Lake in North Muskegon and the Monday Chronicle reported it exactly like this:

“ BLAKELY WINS “OUTBOARD”

“The outboard race drew four entries and was won by E.B. Blakely in a light clinker boat equipped with one of his own engines. Christie’s “Good Bread”, Dr. C.H. Lefebvre’s “Coffee Grinder” and R.D. Bennett’s “Biscuit” tried gamely to keep up with the inventor in his new boat, and succeeded

mainly because Blakely's engine stopped once. Blakely rounded the buoy while the "Good Bread" and the "Biscuit" were trying to disentangle each other. The "Coffee Grinder" kept on grinding in the meantime and was rewarded for its efforts by coming in tied with the "biscuit" for third and fourth honors. "Good Bread" sneaked in second right behind the "Admiral", the name of the Blakely craft, " Ya gotta love a reporter like this !! Rog

This great race indicated that EBB was still in Muskegon on June 20, 1915 and he was still promoting his engines.

On June 24, 1915 Blakely filed for patent # 1,192,377 which describes a shifting lower unit gear case with forward, neutral, and reverse. It was assigned to Sears Roebuck.

By June 8, 1916 He was again Chief engineer at Sears and gave a presentation to the SAE promoting a new "High Compression Engine of his design." On Sept 11, 1916 he filed a patent on an improved design HVID Diesel engine supplied by Cummins to Sears. In December of 1919 He gave another SAE presentation titled "The Fuel Problems Are Fixed on the HVID". In 1924 he patented carburetor design. Edward B Blakely was Resilient to say the least!!

After the Sept 26, 1914 bankruptcy filing, Lyons Mach and Mfg Co was reorganized with new officers and a new plant mgr Henry R Young but continued to promote the sale of Rowboat Motors by exhibiting along with Anderson, Blakely and Gray at the 1915 Chicago boat show.

The Admiral, Anderson and Gray Motor brands continued to advertise until 1916/7. At that time WWI was escalating and the Muskegon Chronicle reported the local engine manufacturers and their suppliers were prioritizing their production toward military requirements. The Admiral, Anderson, Blakely and Gray RBM brands quietly disappeared by the end of WWI in 1918 although I could find no mention of their demise in the local papers.

Lyons Mach and Mfg Co was renamed Lyons Machine and Tool Co and continued operation as a very successful company until 1989. The old factory at 656 Nims was a "Bad Omen" as it was the site of three bankruptcies within six years and is now is deserted and crumbling. To bad it can't talk!

Rog Dykehouse Sept 13, 2011