MINNEAPOLIS-MOLINE HISTORY

In 1865, the seed that blossomed into the Minneapolis-Moline Company of today started growth in the first modest shop of the Moline Plow Co.

From Moline records we learn that in 1865 at the corner of Mill and Main Sts. now at Third Ave. at Fifteenth St., in Moline, the first Moline Plow Co. plows were built. A partnership of prominent Moline men was formed, consisting of H. W. Candee, R. K. Swan and Andrew Friberg, known by the firm name of Candee, Swan & Co., who engaged in the manufacture of plows and cultivators.

These men purchased the site on which was located the wood shop of Hemenway & Bernard, a two-story structure 30 x 70 feet. The transaction included the wood-working machinery and a water wheel flume, both being quite necessary to the manufacture of plows in those days, for wood was an essential material and water power was used exclusively. An adjacent site also was purchased from the Moline Water Power Co. extending to the old tail race at the foot of Fifteenth St., giving them access to the river.

Andrew Friberg was one of the most experienced plowmakers in what was then known as the Northwest. He was a practical mechanic with years of experience and was an important member of the firm. He designed and patented many features on Moline plows, at that time discovering a hardening process for steel used in the plow bottoms, an invention which added a great deal to the industry.

During the first year of the business, George Stephens, who later became an important figure in the plow business, joined the firm. Mr. Stephens' ability in woodworking was well recognized at that time because of his twenty-five years' experience with the firm Stephens, Huntoon & Wood, lumber dealers.

The firm of Candee, Swan & Co. prospered from its inception. The prairies of the Middle West were being broken, and pioneers were moving westward. Their one important tool, strapped to the back of the ox wagon, was the plow. Moline plows became well known for their quality and were in great demand. In 1868 the firm issued its first illustrated catalog, an edition of twenty pages, describing walking plows and cultivators, the entire product.

About this time S. W. Wheelock and Capt. J. W. Good became members of the partnership on an equal basis. In 1870 the business was incorporated as the Moline Plow Co. for $400,000 and in addition to the members of the partnership other prominent business men of Moline became original stockholders of the company. R. K. Swan was elected the first president of the company. He was succeeded by S. W. Wheelock, who served in that capacity until his death in 1892.

The company continued to expand and erected a new brick building and installed much new and improved machinery. However, at that time a great deal of the labor on plows was performed by hand. Grinding and polishing of plow bottoms was done on immense stones, 6 to 7 feet in diameter, and operated by water power.

In 1878, approximately 300 men were employed, and the product then consisted principally of plows, harrows and cultivators. Phenomenal progress was made after the incorporation of the business. Each member of the organization was a specialist in his line, and many exceptional implements were developed. Among the best was the New Western cultivator originated and sold in the '70's. It was said to be the first straddle-row walking cultivator.

In 1884, August Lindgren, Moline Plow Co. designer, is credited with perfecting the first successful three-wheel sulky. It was named the Moline Flying Dutchman, and the name became the key word of fine plows, so valuable that the entire line became known as the Flying Dutchman line. About 1885, the Flying Dutchman trademark was adopted and used to identify the product of the Moline Plow Co. It reigned supreme for many years on a pedestal over the factory building and in many implement dealers' stores.

In 1892, George Stephens became president of the company. Under his regime the business developed at a remarkable pace. Moline plows were well established in foreign countries as well as at home. Branch houses and warehouses were opened in all of the principal distributing centers; additions were added to the factory, the personnel increased and a wide line of farm implements was manufactured.

George Stephens died in 1902 and was succeeded as president of the Moline Plow Co. by his son, George Arthur Stephens. In 1918, Frank Gates Allen became president, and in 1919 the John N. Willys interests obtained control. It then became known as the New Moline Plow Co. and George N. Peek, later co-administrator of the AAA and adviser to President Roosevelt on foreign trade and head of the import-export bank, was made president and general manager.

Gen. Hugh S. Johnson accompanied George Peek to the Moline Plow Co. in 1919. The two men had been associated in government war work in Washington in 1917 and 1918. Gen. Johnson is

generally given credit for preparing the draft act under which men were drafted for service in the world war. Johnson was Peek's right hand man in management of the Moline Plow.

During the industrial depression, R. W. Lea, who had been manager of the Stephens Motor Car subsidiary and later active in the Moline Plow at Moline, became president of the Moline Implement Company, and General Johnson was named chairman of the board. George Peek retiring from the company.

The Moline Implement Company became part of the Minneapolis-Moline Power Implement Company in 1929.

It was in December, 1915, during the period when management of Moline Plow was in the hands of George A. Stephens and Frank G. Allen, that Moline Plow sponsored the general purpose tractor and made it universally available to agriculture.

What was called the Universal motor cultivator was developed by a small company in Columbus, Ohio, known as the Universal Tractor Mfg. Co. Its reception led the company immediately to build a larger model called the Universal tractor, which could pull a single plow bottom and in addition cultivate by straddling a crop row. Moline Plow Co. officials saw a great future in this idea, and they bought out the company in Columbus, moved the equipment to the Tri-Cities and shortly thereafter built a million-dollar factory in Rock Island to produce an enlarged and improved Moline Universal--one that would pull two plows and cultivate two rows. This was called the model "D".

In this same model "D" period, Moline officials concluded that the line was incomplete, lacking harvesting machines. So they purchased Adriance, Platt & Co., of Poughkeepsie, N. Y., one of the pioneer producers of reapers, mowers and binders. Moline soon learned that a binder designed for horse draft lacked certain elements of endurance when yanked behind an unfeeling tractor engine. Others must have noted the same deficiencies, but Moline moved fast. It designed the Hyatt-equipped 10-ft. Moline tractor binder, the FIRST one engineered to "take it" behind mechanical power.

Only the taproot of Minneapolis-Moline goes back to the Moline Plow Co. The lateral roots came out of the Twin Cities from the Minneapolis Threshing Machine Co. at Hopkins, a suburb of Minneapolis, and the Minneapolis Steel and Machinery Co. of Minneapolis, Minn.

The genesis of the Minneapolis Threshing Machine Co. is traced back to the McDonald Mfg. Co., Fond du Lac, Wisc., which according to tradition, made horse-powers only. The company at Minneapolis was incorporated April 19, 1887, with John S. McDonald, president. F. E. Kenaston succeeded to the presidency in 1899 and continued in that capacity until 1921, when he was elected chairman of the board and N. A. Wiff was elected president. These men continued in these positions until 1929 when the company was consolidated with the Minneapolis Steel and Machinery Co. and the Moline Implement Co.

The manufacturing chronology of the MTM Company is not without interest, the initial manufacture of each item being in the year indicated:

Year	Product
1887	Grain threshers, sweep powers
1889	Steam engines (return flue boiler)
1900	Corn shellers (cylinder type)
1902	Steam engines (direct flue boiler)
1910	25-50 Hp. 4-cyl. tractor
1911	20 Hp. 2-cyl. tractor
1912	12-25 Hp. 4-cyl. tractor
1915	40-80 Hp. 4-cyl. tractor
1917	35-70 Hp. 4-cyl. tractor
1918	17-30 Hp. 4-cyl. tractor
1926	16-ft. combine
1927	10-ft. combine

May it be interjected that the 17-30 Minneapolis tractor had the "sweetest" sounding exhaust of any tractor engine we had ever heard up to that time. It would be a pleasure to thresh with that engine in the belt. Exhausts tell a story to ears attuned.

Minneapolis threshers were designed to cope with the meanest grain conditions in America, the weed-infested uneven-ripened grain of the spring wheat states and provinces. They made their reputations where conditions were at their worse and where many other machines never could obtain a foothold. At the World's Columbian Exposition in 1893 in Chicago, Minneapolis threshers and steam traction engines won the only medal awarded for a complete threshing unit.

The early history of the Minneapolis Steel and Machinery Co. is well attested because Twin City men are active in the MM Company today. The company was organized in 1902. The late J. I. Record, formerly president of Barnett & Record Co., elevator builders, Otis P. Briggs, president of the Twin City Iron Works, builders of the Twin City Corliss steam engine, Jos. P. Garbett, Ralph P. Gillette, and A. C. Cobb, attorney, were the incorporators. The company was formed to do just what its name signifies, to fabricate structural steel and manufacture machinery.

Mr. Record was the first president of the new company, Otis P. Briggs, vice president. E. A. Merrill, formerly of the Twin City Iron Works, was

treasurer, and R. P. Gillette was secretary.

The property where the plant was constructed had last been used by the old Minneapolis Harvestor Works where Walter A. Wood built mowers, and some of those old buildings then remodeled are still used. This property was owned by L. S. Gillette, who was on the first board of directors. The first new building put up was the structural steel plant, and that was fabricated right on the ground and erected over the punches and riveting machines that were first bought for shop equipment.

The machine shop was more or less a general machine shop. The Twin City Corliss steam engine manufactured was the principal machine. Each engine was a special job individually engineered and designed. There was no mass production nor merchandising of standard machines as is now done in the machinery line.

The structural steel business has been carried on continuously from 1902 until the present day. During that period the company has fabricated and erected steel work for a great many of the largest and most important steel mining structures, power plants, bridges, water tanks, grain elevators, and beet sugar plants west of the Mississippi River. It also has built a number of steel structures to be shipped overseas to the Hawaiian Islands, China, Mexico and Peru.

The machinery department has seen many changes. Being located in the center of the most important flour milling district and a still active lumbering section at the time of the company's inception, a great deal of the work done by the machinery department was to give service to the flour and sawmills. Aside from the Corliss engines the principal items furnished were transmission machinery, rope drives, shafting, castings, etc . With the coming of the steam turbine and individual electric motors for driving machines in flour mills and factories, the volume of this business was greatly reduced.

About 1907 or 1908, Mr. Record and Mr. Garbett went to Germany and brought back the rights to build a gas-producer engine, the Munzel, operated on gas made from charcoal or anthracite. A number of these engines were built and installed in elevators in the Northwest, and some of them are still in operation.

About 1908, W. J. McVicker, engineer, brought the drawings to the factory for the Joy Wilson tractor and two of those were made. There were four cylinder engines on these tractors, cylinder 10 x 10. Tractors were chain driven, wheels 30" face and about 9' in diameter, travelled about 2 miles per hour and pulled twelve to sixteen plows. One engineer that worked on these tractors, the late J. C. Junkin, later designed the Twin City "40" the first one of which was produced in 1910, and this Twin City "40" early made a rep- pulling a Giant plow in South Texas, breaking up mesquite roots to clear the lands that are now raising enormous cotton crops in the Corpus Christi district on such ranches as the Taft Ranch at Gregory and King Ranch at Kingsville.

As the Twin City "40" had a 7 1/4 x 9 four-cylinder engine, the next tractor was a "60" six-cylinder 7 1/4 x 9. These engines were the foundation units for the present stationary engines, many of which are now creating power for cotton gins and other industrial uses.

About this time, Pat Lyons, J. S. Clapper and others formed the Bull Tractor Co. which manufactured a small tractor to pull two plows and the first sold to the farmer for $300 to $500. Minneapolis Steel and Machinery Company manufactured all of the Bull tractors that were built and sold, many thousands, in the course of three or four years.

Another prominent company decided to get into the tractor game about this same time and designed a two-cylinder 30 H.P. tractor. The The Minneapolis Steel and Machinery Company built 500 of these for this company.

During the World War, the tractor engineers were continuing designing a new, and for that time, small size tractor, and the first production after the war was the Twin City 12-20 which even today would be considered a modern tractor (one of the two first really engineered tractors). The first ones sold were marketed in 1919, and some of that first production of tractors are still in use on farms.

After the war it was decided that farm machinery was the company's best field and it proceeded to develop a line of heavy farm machinery. It developed a line of several sizes of tractors, three sizes of threshers and had the first experimental combine out in 1929 when the company was consolidated with the Minneapolis Threshing Machine Co. and Moline Implement Co. into Minneapolis-Moline Power Implement Company. In 1949 the stockholders approved a change in name to the present Minneapolis-Moline Company.

Minneapolis-Moline Company is one of the large manufacturers making nearly a full line of tractors, power machinery and implements to meet the requirements of most of the farmers in the United States. The company was formed in 1929 by a consolidation of three manufacturers of certain tractors, threshers, combines and farm machinery. None of these companies had a complete line: The Moline Implement Company, of Moline, Illinois (an outgrowth of the pioneer Moline Plow Company) built a short line of plows, harrows, tillage tools, and hay tools; and at its plant in St. Louis Park, Minnesota, built Moline-Monitor drills and seeders. The Minneapolis Threshing Machine Company of Hopkins, Minnesota, was building a line of tractors, threshing machines, corn shellers and had just developed several combines. The Minneapolis Steel and Machinery Com-

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pany of Minneapolis, Minnesota, built the famous Twin City line of farm tractors, built a few all-steel threshing machines, and had started on a combine at the time Minneapolis-Moline was formed. This company also had a general machine shop, built transmission on and other heavy machinery, particularly for the flour mills and saw mills. This company was also a leading fabricator of structural steel. In the past it has built Twin City Corliss steam engines. Under contract with a present day competitor, this company produced several hundred large two-cylinder tractors about 1910-1911. Under contract with Bull Tractor Company it produced many thousand Bull tractors - three wheel job, two-cylinder engine, from 1911 until first World War. The formation of Minneapolis-Moline was a recognition of the need for a complete line in order to interest dealers and make it possible to get broad distribution of greater production. The OUTSTANDING products of each of the predecessors were settled on as the basic items of the present Minneapolis-Moline line. Since the founding of Minneapolis-Moline many new and complementary items have been added, to the mutual benefit of both the Dealers and their Customers.

The consolidation provided an increased personnel of men trained in the business: Engineers with years of experience both in design and construction; production men with "know-how" of quantity production, the special arts of blacksmithing, heat-treating, and the forming of metals to do properly the difficult jobs; men who knew how to make the hitches between the implement and the power that pulls it, get the proper line of draft, whether it be horses or tractors, so that the implement pulled will do the job for which it is intended.

With the founding of Minneapolis-Moline came not only field problems to solve but also the men who knew how to solve those problems. Field problems are mostly sales problems. Each of the three predecessor companies had field sales organizations. These were streamlined and consolidated into one field sales organization.

The new tractors, Harvestors and many other new machines, together with able and foresighted management, have put Minneapolis-Moline where it is today on the competitive map.

The most recent addition to the MM family took place March 1, 1951, when the B. F. Avery & Sons Company merged with Minneapolis-Moline Company. Founded in 1825, the Avery Co. was one of the oldest firms in the farm machinery industry.

Avery manufactures two sizes of farm tractors and a line of tractor-drawn or attached implements. These include tillage tools, planters, hay tools, and spreaders.

The Avery plant located in Louisville, Kentucky occupies about 48 acres of land and its buildings provide about 800,000 square feet of floor space. In addition to Louisville, it maintained branch offices and warehouses at Dallas, Texas, and Memphis, Tenn.

Minneapolis-Moline Company is expanding production at Louisville and will gradually integrate the Avery personnel, products, and dealer organization with those of our company.

Minneapolis-Moline believes in the effectiveness of both producing and selling by LEADERSHIP instead of the drivership. The results of this endure. The distribution set-up of the Minneapolis-Moline is stronger today than it ever has been before and this even after years of war. And the organization is waxing, not waning.

Thus MM is an integral part of the history of this country. It helped mold its agriculture. By multiplying the effectiveness of man's efforts through machines, it did its part in bringing to this country the living standard and the wealth it enjoys today.

ca 1953