

IHC's "EAST MOLINE STORY"

BY LAWRENCE L. CORNELIUS

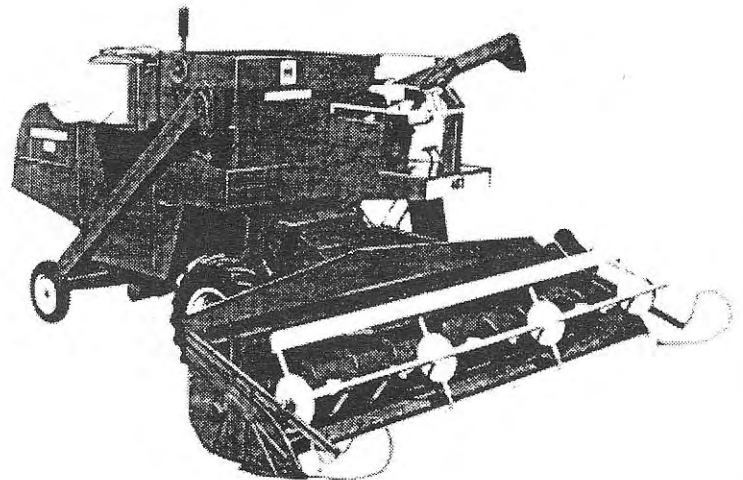
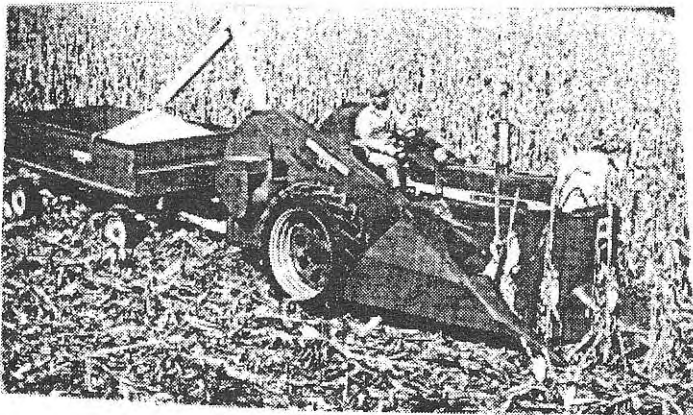
Some of you might have this book "The First 70 Years" by Lawrence L. Cornelius, but I know there are a lot that do not have this book. I believe this is the only written history on the IH East Moline Plant. This is the last plant still in operation that was owned by International Harvester. Since this plant will be closing in 2002 or 2003, I'm hoping that one of our northern clubs will have some kind of farewell show for this plant. Mr. Cornelius was an engineer for this plant and dedicated his book to the employees and former employees. He was a long time resident of the Moline area and now lives in Phoenix. I have some old pictures that he gave me that I will put in the next few issues. Also the products and years made will be printed from his book. This article will run in the next 3 issues of Highlights because of its size. This will only make a dent in the 170+ pages in his book. Many thanks to Mr. Cornelius and I hope he is having a wonderful retirement.

Darrell Darst/Editor

ABOUT THIS STORY

This publication is an attempt to assemble in chronological order a historical account of the East Moline Plant. No in-depth story information has ever been written reviewing Plant development. Previous Company oriented written books give little recognition or mention of East Moline's notable contribution to IHC's product line development and the Plant's past successful financial performance.

The growth from an unheated warehouse to one of the largest and most modern implement plants involved some of the farm industry's most talented and devoted people. This story is about the Company's growth expansion, its progress and the products manufactured; all through the endeavors of those people who made it work.



A new era of epoch making proportions was about to be embarked upon in the Quad-Cities; namely East Moline Works. Farmall Works was already part of the Harvester family. The meager beginning of a warehouse building to be used for storage purposes, and also as a shipping transportation point developed into a factory of giant proportions. Times of constant change, improvements and expansion plans would be forthcoming in the years to come. The end results developed into one of the largest and most modern equipped plants in the entire farm equipment industry. The East Moline property was also purchased from the Moline Plow Co. on Nov. 24, 1926, for \$90,000, according to Land Records, as recorded on page 177 of Grantee Book "I-J", in the R.I. Co. Court House. This 83 acre parcel of land was strategically located between both rail and river transportation facilities. Plans to build a large storage warehouse were put into effect. In November, grading of the property began.

Construction of a million dollar building began on July 6, 1927. A single story, with its floor space spread out on one level, would permit a simpler, and a more efficient operations. The building was to be made of concrete and steel with a concrete floor over the entire 450,000 square feet of its area and covered ten acres completely under roof. From the top, the south of the building was to have a saw-tooth appearance with three ridges extending north 1000 feet. High skylights in the slope of the ridges and extending from one end of the structure to the other would provide ample light during the day. There would be no windows in the sides of the building. One entrance was located on the north side or toward the river and a smaller entrance with a small office was located on the south side. Construction of the warehouse was completed October 26, 1927. Objective usage of the new warehouse was for storing and shipping tractors manufactured at the Farmall Plant. The new facility also provided an area for assembling machines such as threshers, harvester-threshers and corn pickers, which at that time were built at other IH factories located in the Chicago area. The first carload of McCormick-Deering threshing machines was received and unloaded on Nov.3, 1927. These larger units could not be easily handled in the multiple story building of the Moline Transfer House.

In the initial purchase by Harvester, three parcels of land were involved. The "White House " warehouse situated in Moline; five vacant lots lying north of the Davenport, Rock Island Railroad and North West Railroad Co.(DRI & NW), located west of 55th Street in Moline; and the East Moline Industrial Tract of Moline Plow Co.(now the East Moline Plant property). The five vacant lots were acquired for a switch track right of way to serve the E.M. property.

The so called "White House" warehouse was a six story building, located in Moline, at 18th Street and 3rd Avenue, adjacent to the railroad tracks. On February 1, 1927, W. W. Cheyne, IHC sales department, was appointed in charge of the Moline Transfer House. On May 7, 1927, Mr. Cheyne was also put in charge of the East Moline warehouse until December 1, 1933, when E.W. Stahl was assigned as plant manager of the East Moline facility where machines were now being manufactured.

To whom Cheyne reported is unknown. He was originally attached to the IH sales department when the Moline Transfer House was purchased to receive and store machinery manufactured in the Chicago area and local factories which was then to be distributed to other regional locations depending upon customer orders and expected sales. Cheyne was listed as a manager until 1939. In 1940 he was listed as a traveling salesman. The Transfer House remained in business until 1967 and remained vacant from 1968 to 1971. It was used as a warehouse from 1972 to 1974 by Bonnie Bakeries, and by Taylor Insulation Co. in 1975. On July 24, 1975, lightning struck the warehouse and fire completely destroyed the structure with an estimated loss of \$1 million dollars. It is listed as one of Moline's more spectacular fires.

In May 1929, construction of a second giant warehouse began on the E.M. site. This building was to be slightly larger than the original warehouse and constructed of similar design on property adjoining the present building. This addition would provide the Company with 1,000,000 square feet of floor space all under roof. The building will be slightly larger than the present warehouse and cover 10 1/3 acres. Cost was estimated at \$500,000.

It might be noted, the effects of the Great American Depression were being felt at this time. The Wall Street crash occurred in October of 1929 and lasted until 1933. This financial crisis occurred during the time period IH was constructing East Moline's second warehouse. The building cost was eventually listed at a total cost of \$380,000 upon completion in late 1929. All U.S. industrial operations were in a state of paralysis. Sharp reductions in local operations caused layoffs and reduced three day work weeks in 1931-1932. Employee hardships were buoyed up by a Harvester loan plan whereby regular employees could secure advances of money against wages to be earned in the future when they returned to work. By 1933, employment gains improved and a five day work week was the average. One major improvement factor, in the farm economy, was the 100% rise in prices for farm products over the lows of the previous year.

The most significant development during 1933, was the construction of the Combine Plant in East Moline. This manufacturing building adjoined the two warehouse structures and was to be used specifically for fabrication and assembly of combines and corn pickers. The building covered 90,000 square feet and cost \$200,000. A large amount of tooling and equipment, used in the making of their products, was to be transferred from Deering Works.

This new facility replaced the old Deering Works in Chicago. At that time, the Deering Works manufactured Grain Binders, Push Binders and Headers, Reapers, Mowers-regular cut & giant cut, Rakes, Huskers & Shredders, Disc Harrows-spring & peg tooth, and Binder Twine. In 1902, the Deering Works covered 51 acres and employed 3,000 to 4,000 people. The resemblance in plant size is immediately

reflected to a comparable East Moline plant size. The high employment figures parallel the 1959 high of 4,339 and the 1967 high of 3,966 employees. The new structure was completed late in 1933 and fabrication of parts was begun.

E.W. Stahl was appointed as superintendent of the new plant on Dec.1, 1933.

Production of combine parts started with about 205 employees. Initial production machine assembly started in 1934, with 486 units of pull type harvester-threshers, or combines, and 617 units of the old stationary type harvester-thresher being built. East Moline finally emerged as a production factory. The depression years had passed, a sharp rise in farm product prices placed farmers in a position to purchase sorely needed new equipment. Total figures for the 1935 production year were: 1195 harvester-threshers, 631 stationary threshers and 85 corn pickers. Picker production was lower than anticipated, the result of the 1934 severe drought influence on sales. Farmers bought corn-binders instead of corn pickers. Employment jumped to 600 workers. Not only were machine production quantities increased but export orders were also being received and shipped.

Prosperous economic conditions increased machine sales and the present plant capacity soon became overcrowded. The necessity for plant expansion became very evident and this initiated new building plans. In 1936, manufacturing capacity was almost doubled by the addition of 73,326 square feet of floor space to the manufacturing building which was constructed late in 1933. As with the initial first warehouse construction, plans to keep all additional new buildings of consistent type structure design and profile were agreed upon. The single story saw-tooth type construction has usually been maintained through the various building programs.

Steel products constitute 90% of the material used in the manufacturing of farm machines produced at East Moline. With the already overcrowded work area necessary to store, handle and process the tons of steel used during the year, a new steel storage shed 111 x 352 feet, having 40,000 square feet of floor space, was erected. The new facility was constructed so that trains could carry their steel load into the building where the steel was unloaded by a huge overhead crane.

In 1936, a huge 50 x 50 feet boiler plant was also constructed from which the entire plant was heated. It is an entirely modern and efficient building. Many tons of coal were used to create the needed energy which was transmitted into the water being made into steam in the boiler. Dirt and grime are usually associated with coal and furnaces. This boiler room was kept clean and shiny; no muss, no fuss here. Cost of the complete 1936 expansion program was \$1,000,000 and included machinery and equipment. 1,700 workers were now employed.

More growing pains in 1937, added 154,000 square feet with construction of another addition to the manufacturing building and a 50,000 square foot sheet steel storage addition. A compressor room adjoining the Boiler Room(Power House)was also added. Cost of the three complete project was listed as \$200,000. 2,781 workers

were now employed. The plants production of harvester-threshers, stationary threshers and corn pickers listed an annual maximum production capacity of 18,000 machines.

A variety of mounted type corn pickers models were built over the years. In 1939 the introduction of the 2-M corn picker resulted in the basis of a product that would become one of the mainstays of plant production until 1952; 42,593 machines were built. From 1952 to 1956, the 2-ME was built - 27,666 machines; from 1957 to 1964, the 2-MH was built and from 1960 to 1964, the 2M-HD was built.

In 1940, construction of an additional manufacturing building 15 acres or 653,400 square feet in size was begun and scheduled to be completed in early 1941. Relocation of the main assembly line to the new structure was a monumental task. To accomodate a smooth flow from the originating machines, to the sub-assembly line, to the storage building, required the installation of thousands of feet of conveyor line. To be exact it took 5,252 feet of main trunk line to complete the job. Machinery and other equipment was placed in the new building and will be ready for the 1941 production run of combines. Plans for achieving steadier year-round employment without any major interruption to the regular plant production was accomplished. The plant now has 42 acres under roof and is one of the most modern and largest plants in the entire farm equipment industry.

Construction of a new office building began in 1940. It is located on the South West corner of the plant property, adjacent to the manufacturing buildings, and will afford office employees better year round working conditions. The previous office quarters were located in the factory buildings. An expenditure of one million dollars was reported spent in building both the new manufacturing and office buildings.

1940 saw the production of the # 42 Pull Combine having a 4 foot-cut and weighing 1,900 pounds. The new machine was designed for use on smaller acreage farms. This machine is 100 inches wide, 230 inches long and 97 inches in height. The machine came equipped with a twelve bushel grain tank or optional bagging platform. A radical change from the offset cutter bar design to a straight through arrangement is a feature that is still in use. Another feature was the unit straw rack, compares to the multi-section straw walkers on previous Harvester models.

In August 1941, the plant's first superintendent, E.W. Stahl, who had been in that position since December 1933, was transferred to McCormick Works in Chicago, in the same capacity. Charles C. Calkins, the plant's new superintendent, had been with the Company since 1925. He was formerly superintendent of the Company's Richmond, Indiana Works. The EMP was the newest plant in the Harvester organization and under Mr. Stahl's guidance, it developed into the manufacturing plant of today's proportions. The improved working conditions and expansion of the plant to the extent of meeting production schedules regularly was a tribute to the experience of Stahl's administrative capabilities.

In March 1941, the erection of an engineering and experimental shop building was begun and construction was completed in November. The new structure is attached to the East wall of the main office building. The building is 220 x 198 feet of which 9,000 square feet of floor space is used by the Engineering Department and 31,944 square feet by the Experimental Department. Building costs were listed at \$160,000.

Year 1942, marked the production of the first self-propelled combine at East Moline. The #123 S-P Combine was built from 1942 until 1948. A Sales Department survey in 1941, determined that a need existed for a self-propelled combine for farmers who owned large farms, and custom operators. This task was assigned to E.M. Engineering and the design, development and testing resulted in a self-propelled combine having a low silhouette and a 12-foot cut Platform(modern name changed to Header). The first machines were built in 1942, until the war compelled production to be discontinued. In 1944, the government asked the Company to re-release the #123 S-P Combine and urged greater production to aid in conservation of manpower.

The #123-SP H-T assembly line was the only line that operated on a year-round schedule. A completed Combine is assembled in 13 hours at a rate of 24 machines per day. On March 17, 1944, the 10,500 #123 S-P HT, started down the assembly line.

The #123 SP combine, weighing 7,200, was driven by an International six cylinder engine and featured a 12 foot cutter bar with hydraulic platform controls. Straw spreader and a bagging attachment were optional. A pick-up attachment for windrowed crops was also available.

The government controlled quotas of 1942, restricted farm implement production to about 20% of the 1940 production output. A number of employees were laid off when the reduced quotas went into effect on November 1, 1942. A reduced output of all machines went into effect, however, production of repair parts were set at 130% of the 1940 production output and were not curtailed by government limitation orders. A new steel storage building, 110' x 770'-85,470 square feet, is expected to be completed during the Fall of 1947 at a cost of \$855,000. This new facility replaced the original 111 x 352 foot steel structure built in 1936 and now converted to the Heat Treat and Press Departments. A 300,000 gallon water reservoir, to supplement the 100,000 gallon raised water tank, was also constructed for additional fire protection. The plant expansion program started in the spring at an estimated cost of \$4,500,000. This also includes construction of a central food kitchen and six additional food cribs through the plant. This project is expected to be completed in the spring of 1948.

Construction of a new Engineering facilities located on the south side and adjacent to the Main Office began in March 1948. An 11,616 square foot Engineering and a 10,164 square foot Experimental Shop extension was added. The original east-west road was relocated southwardly into the parking lot area to its present location.

In May 1948, the new centrally-located food kitchen, and six food cribs through the plant, were opened. This project was begun in the fall of 1947. Employees now had an opportunity for a hot meal at a reasonable cost-no more waiting for the little "red lunch wagons." 1948 saw the introduction of the # 125-SP combine, replacing the #123-SP. The machine embodied many refinements that had been postponed during the Second World War. Over 7,000 machines were built during its two production years of 1948-1949. Improved version, the # 125-SPV and #125-SPVC models, were built from 1950-1952. All accommodated 10', 12' or 14' Header widths.

In 1948, the area of property located just across the street from the Moline border and north of the railroad tracks, in East Moline, was leveled of old manufacturing buildings. The Company decided to improve the appearance of the property near the First Street entrance by their removal. These were facilities previously used by various businesses not associated with Harvester. Harvester purchased this commercialized portion of the property from Midland Iron and Steel Corp. on October 9, 1946 for \$40,000. Louis Livingston, president of Midland initially purchased this parcel from Moline Plow Co., September 6, 1923. Recorded in Rock Island Co. deed book 220, page 160.

The first business to occupy this property area was Deere and Co., Midland Plant. The street address was listed as the corner of 14th Avenue and 1st Street. Deere occupied the buildings from 1918 through 1919. It was called the Midland Plant after the Midland Auto model built by Deere at their Midland Motor Co. This auto evolved from and was the successor of the Deere-Clark Motor Car Co. The occupancy of the property for two years was used for warehousing purposes since the motor car had been discontinued.

In 1920, the Moline Plow Co., Truck Works, was listed at this address. Later the address became known as 1340 1st Street. Along with a farm machinery line of products, Moline Plow Co. expanded into the auto manufacturing business in 1917 with the Stephens line of automobiles. They introduced the Moline Truck for the farm trade and business hauling. They were listed at this address from 1920 through 1923. In 1924 their car and truck production were discontinued.

The Daniel Boone Woolen Mills now became the resident, from 1924 through 1926. The buildings remained vacant from 1927 through 1932, the majority of the depression years.

In 1933 the Midland Iron and Steel Corp. took up residency until 1947 when Midland moved to their present site at 34 Street and Fourth Avenue in Moline after selling the property to IHC.

Employment reached an all time high of 4,339 with a total amount of 37,590 machines produced in 1949. Steel shortages caused by a nation wide steel strike

affected production schedules resulting in cut-backs to the original manufacturing program.

In 1950, a 13,068 square foot addition to the engineering and experimental shop area was added. The Advanced Engineering research department will use the building. Advanced Engineering was created for the purpose of developing new lines of farm machinery and also improving the current product lines. The total building area of the Plant under-roof is now 45 1/2 acres.

19,785 combines and 20,700 corn pickers were manufactured during 1950. That's a total of 39,485 machines compared to the previous years output of 37,590. The new buildings, machine tools and general factory re-arrangement provided during the past two years, allowed plant operations to increase its production efficiency.

One new and two changed models of threshers were the mainstays of the 1951 production year. Three new tooling programs for these machines were implemented during the year. The #64 Harvester Thresher, the #160 Hillside and a new #127 Self Propelled Harvester Thresher. The #127 replaces the #125 model combine. Employment averaged 3,500.

In March 1952, the Company says it will stay out of dispute of unions (UAW-CIO & IAM-AFL). The EMW management sent a letter to employees announcing that it doesn't want to get mixed up in any squabble between unions over bargaining rights at the factory. The letter referred to reported plans of UAW-CIO to gain bargaining rights at the factory now controlled by FEW-UE. IAM-AFL and the International Die Sinkers conference also reportedly were trying to gain bargaining rights in the plant's tool room. FE-UE now has those rights. EMW at the present time has three local unions with which they deal with and each has a signed contract in effect.

The production 1952 year was far below the 41,228 machines originally scheduled. 16,297 harvester threshers and 13,072 corn pickers were built or 29,369 machines. The decrease was due to the steel strike in part, but mostly due to the 87 day FE-UE strike(began Aug. 21). Not only was the plants production crippled but the economy of the entire Quad-City area was affected. EMW, Farmall and six other Harvester plants ratified the contract agreement. It was practically the same proposal which the company made to the union before the strike began. A new program, starting in February, was initiated trying to maintain full year round production capacity of four models of machines, two corn pickers and two harvester threshers. Inception of the strike prevented finalizing the new programs end results. Employment ranged from 3,455 in June to 3,117 in August.

The highest production schedule in history, a total of 47,213 machines is planned for the 1953 season. The breakdown called for a total of 23,143 Harvester Threshers and 24,070 Corn Pickers. Demands for farm equipment fell off sharply and necessary

reduction in manufacturing schedules followed. Employment dropped from 3,481 in July to 1,482 in November. A total of 33,897 units; 17,341 HT and 16,536 CP were actually built. That was a 29% reduction in total units.

There were no major building or plant improvement programs in 1954. An ambitious production program of new products was undertaken by the manufacturing department. New products which came off the assembly line were the #141-Self Propelled and #140 Pull-Type harvester thresher; a new one and two row corn picker, the #2C-10 and #34HM-20; a new one and two row southern snapper, the #2C-11 and #34HM-21; a new sweet corn picker, #34HM-22, and the #1-PF portable farm elevator. The 141-SP, built from 1954 to 1957, replaced the 127-SP. It was the first I.H. combine with an auger-unloading system for the grain tank. The 140-Pull type combine, was built from 1954 to 1962. 2,200 people were employed.

The 1955 season offered customers their first 141 HS-SP, hillside self-propelled, combine. The machine had a hydraulically operated automatic four-way leveling system and was built until 1958. This machine was a companion to the 141-SP combine.

The model #2-141, two 40" row corn head, was introduced and manufactured in 1956 to attach onto the 141-SP. The 141-SP was the first IHC combine to use a corn head. The new corn head had been developed for the 141-SP's past and present market and was built through 1958. Picking and shelling in one operation was a revolutionary change in method of harvesting a corn crop. The tractor mounted picker method had been used since 1904.

In 1956, the 101-SP harvester thresher, a smaller capacity machine, was produced. This was the first model in a successful line of following combines; the 151-SP, built 1957 to 1961 and the 181-SP, built 1958 to 1961. The model #21-101, two row corn head, was built in 1956 to 1957 for use with the 101-SP combine. These were followed by the 22-101 & 23-151, built from 1958 to 1962. The #40 and #41 corn heads were built through 1962 to attach to the 151-SP and 181-SP combines. This was Harvesters first four row corn head series.

The EMW's only other portable farm elevators were the, #21-PF series manufactured from 1958 to 1963 and the #21-A from 1963 to 1968. Both models were available in 34 and 52 foot lengths. A hydraulic controlled undercarriage permitted raising or lowering the elevators without leaving the tractor seat. The #1-PF portable farm elevator, built 1954 to 1957, was available in a 28 foot length only. 4,876 units were produced in that initial first year.

During 1960, the plant grounds expanded to 156 acres through a 47 acre purchase from American Machine and Metals Co. This extended the plant property east to 7th Street. The company felt there was a need to insure enough land for outside

storage and parking facilities. With a decision to close McCormick Works, several models of mowers, ensilage blowers, field harvesters and field choppers, previously made in Chicago, were produced at E.M. for the first time. Tractor fast hitches were also produced for all I.H. tractors and the EMP made most of the sheet metal parts for Farmall's tractor production.

During 1962, an appropriation had been approved to provide E.M., with the first coil sheet metal shear line to be installed in any IH division. Sheets will be "custom cut" from giant continuous rolls of sheet metal to the exact blank size of the piece parts for which the sheets are intended. The line will cut up to 130 feet of sheet metal per minute from coils up to 60 inches wide. The new line will improve EMW competitive position both by reducing costs on our own products, and give the plant an advantage in bidding on collateral sheet metal contracts for other plants. The coil shear line is due to be delivered in April, and will go into production in May.

1962 saw the introduction of the 303-SP, 403-SP, 403 HS-SP and the 503-SP. 10, 13, 14, 15, 16 1/2, 18 1/2, 20 1/2 foot long attaching platforms were available depending upon the size combine used. Four row corn head models were also available.

The production load was increased, during 1963, with the addition of a new beet topper, and beet harvester, a new blower model, a new field chopper and a new mower. These machines were initially transferred to the EMW from other IHC plants. The closing of old manufacturing facilities and a need for a more efficiently operated plant was the basis for these machine relocations. E.M. now had 42 acres under roof.

1964 saw a new beet harvester, new flail chopper, new engine-drive forage harvester and a single row-crop attachment for the #50 forage harvester. Four new narrow corn heads, the #328N, #329N, #429N, and # 430N, were also produced. An employment high figure of 3,601 was reached.

Three new products were added to the EMW line in 1965. They were the No.15 Bale Elevator, the No. 234 Corn Harvester and the No. 115 Mower. Employment during the year averaged 3,156. The old standard No. 2M corn picker line and its successor models, built since 1939, were replaced by the No. 234 Corn Harvester.

Construction of a permanent dike and other flood protection facilities costing an estimated \$577,000 was the major 1966 project. Starting this summer, a 9,500 foot dike will be constructed 6 1/2 feet above the plant floor level or 3 feet above the 1965 flood crest. A rock surface 16 feet wide will run atop the dike for maintenance problems. Average employment in the plant was 3,482. EMW occupies 156 acres along the river. Included in the production load were two new mower models, a new blower, two new combines, the #402 Pull-Type and #82 Pull-Type and a new six row corn head, the #630N series. The 402-PT had the similar features of the 403-SP.

The grain tank had a 65 bushel capacity, expandable to 96 bushels using an optional extension. A 13 foot grain platform was standard equipment. Employment of 3,890, highest in 15 years.

1967 production of the 315-SP features twin, side-mounted grain tanks with 70 bushel capacity; a 6 cylinder, 72 horsepower engine; a 42-inch wide threshing, separating and cleaning; and fin-and-wire type rotary straw racks. The 315-SP is adaptable to 10, 13 and 14 foot grain platforms and 2-row wide, and 3-row wide and narrow corn heads. Two new field harvesters and a new mower were produced. Employment peaked at 3,966 in July. A \$273,000 "will call" truck loading dock was constructed on the north side of the plant.

During 1960 - With a decision to close McCormick Works, several models of mowers, ensilage blowers(#40 and #42), field harvesters and field choppers, previously made in Chicago, were produced at E.M. for the first time. Tractor fast hitches also were produced for all I.H. tractors and most of the sheet metal parts for Farmall's tractor production.

During 1963 - two new beet toppers, beet harvesters, two new forage blower models; #45(conveyor type)and #47(hopper type), a new field chopper and a new mower were built.

During 1964 - a new beet harvester, new flail chopper, harvester, new engine-drive forage harvester and a single row-crop attachment for a forage harvester were produced.

During 1965 - No. 15 Bale Elevator and the No. 115 Mower were built.

During 1966 - two new mower models and a new blower were produced.

During 1967 - two field harvesters and a new mower were built.

The above 1960 machines, as stated previously, were initially transferred to the EMW from other IHC plants. The products were previously developed by IHC engineering departments other than E.M. The above 1963 through 1967 listed machines were the succeeding new model extension lines of the original machines. The mower line was eventually transferred to Memphis, Tenn., in order to provide more capacity at E.M. for Harvester equipment products.

Production of the above collateral product lines did not last very long at E.M., about eight years. Some of these models were later transferred to other Harvester plant facilities as their schedules and E.M. production schedules dictated. On other models company in plant manufacturing was completely discontinued. Due to low customer demand, the economic factor dictated ceasing production. In maintaining a policy of being a "full line product company," Harvester approached short line manufacturing companies, such as Art's Way of Armstrong, Iowa and Hesston of Hesston, Kansas, that specialized in those type products. Arrangements were made with those companies to build comparable machines under Harvester's approval having I.H. decals and color schemes. This arrangement would not only continued Harvester's

full line policy but also increase the smaller short line company's business output. This same type policy is continued in today's Case IH line of low volume products.

In 1966, the 630 N (narrow row) corn head was produced. This was Harvester's first six row corn head. The 327, 328, 329, 429 & 430WN (wide-narrow) series were also manufactured. All were released for use with the 303, 403 and 503 combines.

The 1968 construction of a 72,000 square foot die storage building, on the west side of the main manufacturing building facility, will be used to house all dies and fixtures which are currently located in various areas of the plant. There will be a relocation of several manufacturing departments and installation of \$2.5 million worth of new machine tools and equipment. This relocation will allow the eastward expansion of the assembly lines into that area. The westward expansion of the assembly lines, will be accomplished by the re-arrangement of the originating, sub-assembly and paint departments. Employment at the plant hit a peak of 3,966 in July.

E.M. has released an economical attachment for its #234 Corn Harvester that will permit the machine to harvest sweet corn. Sweet corn canneries and growers can now take advantage of the capacity and corn-saving efficiency of the #234.

New products introduced during 1969, include two new self-propelled combines, the 815 and 915 Monitor Control Combines. Other features include quick-attach grain platforms and corn heads; increased threshing, separating and cleaning capacities; a new revolutionary plenum chamber air system for cleaning; grain capacities up to 150 bushels; International V8 and diesel engines with up to 144 HP; hydraulically controlled swinging unloader-auger. The big 915 combine had eight different grain platforms, plus a variety of corn heads, with up to eight row capacity. The extended smaller family of the 815-SP and 915-SP combines were not produced until 1971. They were the 615-SP and 715-SP combines.

Other 1969, new products were; a complete new line of 700 Series corn heads for the new combines, 8 corn heads in all.; a grinder convertible unit for the #234 Corn Harvester. Expansion of the 700 Series extended through 1971, when two additional new models became available. EMW now has nearly 48 acres under roof.

1970 was a year of environmental improvements at EMW. To aid in controlling pollution. Wet or dry type dust collectors in dust producing operation areas were installed. EMW boilers are being converted to burn gas instead of coal, at a estimated project cost of \$400,000 to include a propane air "peak load shaving plan." The change over has been approved by the Air Pollution Control Board of the State of Illinois, and is slated for completion before the 1970-71 heating season.

A 914 Pull-Type new combine similar to the big 915-SP, features grain tanks that hold up to 150 bushels with an 8 x 8 inch clean grain elevator. It is equipped with a 1,000 RPM PTO drive. The combine weighing some 10,000 pounds.

In 1972, the Cyclo Planter was transferred from Canton Works to EMW. Any size seed can be planted accurately with the new IH 400 Series Cyclo Air Planter. Using a revolutionary air metering and delivery system, the planter takes seed from the master hopper, spaces it to give the operator his desired population, and delivers the seed to the furrow. The seed is selected, released and ejected into the rows with clean, constant precision. There is no bounce or scatter of seed. The spacing or population is determined by the ground related speed of the seed drum. The 400 Cyclo planter function is simple, accurate and reliable and includes 4, 6, 8, & 12 row units. The first Cyclo planter was made at Canton in February 1970.

We're not "East Moline Works" anymore. This is the "East Moline Plant," and of course the word "Works" is replaced by "Plant" in the titles of departments and individuals.

The I.H. Credit Union, chartered in 1934, moved into its new office at 17th Avenue and Kennedy Drive, E.M., on Nov. 29, 1972. The credit union was formerly housed in the E.M. plant. The 6,500 square foot building was completed at a cost of \$175,000. It features two drive-in windows, a large lobby and four private loan interview rooms. The credit union has assets of almost \$10 million and is one of the largest credit unions in Illinois. The credit union has 6,700 members and loans outstanding of \$6.5 million.

1973 saw a major step in improved employment parking facilities at EMP at a cost of \$200,000. The total to be blacktopped is approximately 500,000 square feet. The plant parking lot, which accomodates more than 1,400 cars, will be paved with a bituminous asphalt(blacktop) material and additional drainage and grading improvements will be made. The areas to be blacktopped are located on the south and west sides of the plant between 1st and 3rd Streets and north of the railroad tracks.

The paving project closely follows installment of four 40-foot tall light "cubes" that illuminate the parking lot with more than 16,000 watts of light. The four sided mercury vapor lights are equipped with specially designed reflectors that illuminate more than an acre each. Since nearly all 3,400 employes travel to and from work by car, the improvement to the parking lot will benefit everyone - At last, what an improvement!

The first 16 row 500 Cyclo air planter was made at the EMP. It is the largest of the Cyclo planters ever made by I.H., joining the popular line of 400 and 500 tool bar planters made in 4, 6, 8 and 12 row models.

The 1974, modernization of the steel storage facility is now under way at a cost of \$1.2 million. Completion and full utilization is expected in March 1975. This improvement project will increase the efficiency of the plant by systemizing receiving, storage and distribution of raw steel to our fabrication departments. Total

area involved is about 55,000 square feet. A new concrete floor will be poured to a 12 inch thickness, double reinforced, atop an 18-inch layer of compacted fill. The extra strength floor is required to support the thousands of tons of steel that will be stored in the horizontal cubicles of the 24-foot high cantilevered racks. The adjustable storage racks will replace the vertical stanchions installed in 1948 when the original steel warehouse was erected. While only minor structural changes to the main building will be necessary, the building's interior will be painted and a new lighting system installed. The steel storage modernization program is being conducted in four phases, and complies fully with accepted safety standards and OSHA requirements.

1974 saw the introduction of the #800 series corn heads, twelve in all. This was Harvesters first release of an eight row head, the 883 narrow row. It wasn't until 1978 that the 884 wide row head was produced. The limitation being the size of the combine and the power factor. The smaller 1400 Series combines could not handle the extra weight and were under-powered to run the wide row head units. Not until a higher horsepower and sturdier 1480 combine was released was the weight and power factor resolved. The plant employs about 3,400 a figure that stabilized this year with the increased demand for E.M. products, notably the air-powered I.H. Cyclo Planter.

In 1975, I.H. announced an \$11 million modernization and expansion program at its EMP. It will be the largest I.H. inventory control facility of its type, and the largest storage facility of its type in the Q-C. The automated, computer-controlled 50,000 square foot building, located on the west side of the plant, is 85 x 600 x 74 feet high. The building is about equal to a 50 story sky scraper laying on the ground. The floor will be 21 inch thick concrete, with reinforcing cable throughout.

A new 30,000 square foot storage building, including nine covered truck docks for receiving materials from outside suppliers was built. The main receiving area of the plant will be transferred from the present area on the north east side of the plant to a location directly accessible to the plant's main entry gate on 1st Street E.M.

Extensive modernization of an existing 72,000 square foot die storage building that houses the plants large press section, and adoption of about 25 feet of "air space" within the 40 foot high steel building is planned. Paving more than 58,000 square feet of yard adjacent to the high bay storage building for outside storage of castings and dies utilized in the plant has also been completed.

E.M.'s Control Center Manufacturing facility was established in 1976. By adopting a similar type cab design and consolidating cab production at one facility, building in-house-cabs was an executive decision agreed upon. Previously combine cabs were built by and purchased from the McLaughlin Body Co., EMP's next door neighbor. The Plant has produced cabs since 1976 for the 86 series tractors made at the R.I. Farmall plant. It later began constructing them for the Axial-Flow Combines

produced in E.M., and for Cotton Pickers assembled in Memphis, Tenn. In addition to today's EMP needs, cabs are also furnished to support Burlington's Construction Equipment and Wausau's Wheel Loaders.

I.H. introduced a New Combine Line in a news release Sept. 26, 1977. The EMP will soon begin production of a new Axial Flow Combine, the 1440 and 1460. Under development and testing since 1963, the Axial Flow Combine features a single rotor design which is more simpler, yet far more efficient than a conventional combine. The EMP began preparation for Axial Flow Combine production several years ago. Over \$32 million will have been spent when the Axial-Flow Combine and modernization programs are completed. I.H.'s E.M. facility produced a limited number of new combines this year. Full production of the units will begin early next year, assuring that an ample supply will be available to meet the 1978 market demands. The 1480 was introduced in 1978 and the 1420 in 1979. The 1482 Pull-Type joined the Axial-Flow family in 1980.

Starting in 1978, new automated and other gear equipment costing more than \$4.4 million will be installed by mid 1979 in E.M. and R.I. plants. Of this total \$3.6 million will be spent in the EMP on four items. The largest appropriation is \$1.8 million for a new prime paint center in the plant's control center or cab manufacturing area. The new paint center will consolidate and automate three lines which wash and paint cabs. The rest of the \$3.6 million will be used for new machine tools and processes. Among them are the computer controlled sheet metal shear and consolidation of production steps in making I.H.'s Cyclo Air Planters.

Deere & Co. and IHC squared off in a patent infringement lawsuit that promises a rare glimpse into the complex world of farm machinery competition and development. Pre-trial documents filed in U.S. District Court in Rock Island, number in the thousand pages and stand nearly three feet tall.

The case docket listing the various pre-trial motions and actions fills nine typed pages. One observer called the suit a "Fortune 500" case, because only large corporations could afford the cost of such a legal duel. Deere filed the lawsuit April 28, 1976, charging that I.H. infringed on two patents incorporated in Deere's 40 Series Corn Head. I.H. claims its 800 Series Corn Head used other previously known technology, and that it adopted an alternate design to avoid infringing on the Deere patent.

Today, June 20, 1979, I.H. introduced the world's largest and most productive hillside combine, the model 1470 Axial-Flow. Introduction took place in Spokane, Wash., the heart of the hillside combine market of Washington, Oregon, California and Idaho. A limited number of pre-production combines will be demonstrated during testing in the Northwest from June through October. Basic production models will be built at I.H.'s EMP and will be shipped to Spokane for final assembly of the undercarriage, drive assembly and leveling system. The 1470 is a continuation

of the revolutionary Axial-Flow combine which has been in production at E.M. since 1977. The company says Axial-Flow combines are an average of 17% more efficient than conventional models. I.H. said the 1470 Axial-Flow is the first combine that is over 200 hp, it has a 205 hp turbo-charged diesel engine; four wheel drive; brakes on all four wheels and reversible header. The 1470 has a grain tank capacity of 145 bushels. The key feature of the new combine is the improved leveling device, essential to the success of hillside combines. It features a leveling sensitive mercury switch which electronically activates its hydraulic system. This allows the combine to respond automatically to changing terrain up to 48% slope, or an angle of 25.6 degrees, exceeding the capability of other existing machines.

Picket lines went up Nov. 1, 1979, after negotiations with the UAW union broke off. Negotiations have reached an impasse, and no new date has been set for their resumption. The breakdown was due to disagreement over Company requests for mandatory overtime provisions and changes in seniority rights. Progress has been made on many economic issue, other matters that would bring I.H. into line with contract agreements the UAW has with other competitors, has been the major stumbling blocks to an agreement. The Company has made some small concessions, but all the major things they are demanding, including mandatory overtime, remain on the table. It looks like a long, cold strike. Members of Local 1304 say they don't think they will be back to their jobs before the end of the year. Their mad, not just at the Company, but at the union negotiators and leaders, who kept them on the production lines after their contract expired Oct. 1.

April 1980 - The record breaking 173 day UAW strike against I.H. ended when 38,000 workers, in nine States across the country, overwhelmingly approved a new three year contract. Local 1304 in E.M. ratified the contract by a 68% margin Sunday afternoon following a brief two-hour meeting. Locals 1306 and 1356, representing skilled trades and office workers at the EMP, also approved the pact Sunday by 60% margins. Only Local 1309 in Rock Island, and a small local in Shadyside, Ohio, rejected the pact and remained on strike. The EMP produces some parts needed at the Farmall plant, including tractor cabs, but the continued shutdown at Farmall should not affect E.M. that much. If there is a big delay, in getting Farmall back to work, it would have more of an impact on the company's that supply Farmall than other I.H. plants. Farmall workers would have to stay out several weeks for the prolonged strike to have any production affect at E.M.

June 1980 - A U.S. Court of Appeals has overturned an October 1979 federal court ruling that an IHC combine attachment does not infringe on a Deere & Co. patent. The ruling handed down last week and filed today, reversed U.S. District Judge Robert D. Morgan's ruling and ordered dismissal of the suit. The appeals court also ruled that the suit could be refiled by I.H. if new information can be shown. I.H. had sought a federal court ruling in May 1979 that the company's CX-41 corn head design did not infringe on a 1971 Deere patent. According to the suit filed by I.H., the company had asked Deere to review the corn head design in April 1979 and

give I.H. an opinion on whether it infringed on the Deere patent. In the suit, I.H. contends Deere asked for "payment of a very substantial sum of money" to make and sell the CX-41 corn head without fear of a patent suit. Deere denied the allegation. The Seventh Circuit U.S. Court of Appeals in Chicago overruled Morgan's ruling that the I.H. design did not infringe on the Deere patent and that Deere should pay the costs of the suit. I.H. failed to show there was a "reasonable apprehension that it would face an infringement suit or the threat of one if it continued its activities with respect to the CX-41 corn head," the appeals court ruled. The suit was part of a patent battle which has been going on for the past few years. Deere won a 1978 judgement that the 800 corn head violates a patent on Deere's 40 Series corn head. That ruling also handed down by Morgan, is currently under appeal in Chicago.

August 1980 - I.H. is appealing the patent case by asking a federal appeals court to overturn a U.S. District Court judge's decision that the company infringed on a Deere & Co. patent. In a notice filed in the U.S. district Court in R.I., I.H. appealed to the U.S. Court of Appeals for the Seventh Circuit to overturn U.S. District Court Judge Robert D. Morgan's July 10 decision. In that decision, Morgan decided a four-year-old patent infringement suit brought against I.H. by Deere in favor of Deere, ordering I.H. to discontinue manufacturing the farm implement involved and to pay damages to Deere. Morgan originally ruled in favor of Deere in 1978, but the Federal Appeals Court overturned that ruling in February and sent the case back to Morgan for further consideration. Morgan's decision again was found in favor of Deere last month.

The 225-employee research center at the EMP will be closed this summer, 1981, in a consolidation of I.H. engineering facilities. Ninety hourly employees will be laid off if positions are not found for them elsewhere in the plant, and 135 salaried employees will have to transfer to the Chicago area to keep their jobs. When the consolidation is complete, combine research and engineering work will be performed at the I.H. Agricultural Equipment Center in Hinsdale, a Chicago suburb. Consolidation will begin later this month and will be completed this fall. All 90 hourly workers are union members. Four are clerks and the remainder are skilled tradesmen. Reassignment of the hourly workers will be based on seniority and qualifications for available jobs. The 135 salaried employees are engineers and management personnel. This consolidation will place all farm machinery engineering operations at the Hinsdale center. E.M. engineers will be able to work more closely with other company engineers in high technology areas such as electronics and hydraulics. The Hinsdale Center now employs 1,050 people. The main building contains 431,000 square feet of space for research, engineering and test facilities. The site includes 450 acres and has three other buildings.

November 1981 - Patent Fight Ends - The U.S. Supreme Court has refused to consider an IHC appeal to a lower court decision that it had infringed on a Deere & Co. patent in design of a corn head. The decision does not affect Harvesters production because it replaced the machine last year. Harvester has asked the court

to clarify whether a patent can be issued for a machine that incorporates previously used technology. The company has contested Deere's 40 Series corn head patent on the grounds that the technology used was already common before the machine went into production in 1969. Harvester began production of a similar machine in 1974, called the 800 Series. Deere later filed a suit saying the 800 Series violated its patent on the 40 Series corn head. The Harvester 800 Series was replaced by the new 900 Series design in 1981. Deere won the suit in 1978 following the trial. I.H. appealed again, but the second time the court ruled in favor of Deere in August 1980. In an original decision, the court ruled I.H. must pay Deere three times the actual damages. In the original ruling the only difference was the drive shaft. I.H. used a different drive shaft in the attempt to evade the monopoly of the patent. Seven different models, the 943, 944, 953, 963, 964, 983 and 984 were produced with the two piece drive shaft design.

October 1982 - I.H. has been ordered to pay Deere & Co. \$28.5 million for willfully infringing Deere's cornhead patent from 1974 through 1980. An I.H. spokesman said the firm will appeal the decision. The judgement followed three years of legal haggling between the two implement company's. Deere initially sought direct payment for 30,326 I.H. cornheads they claimed were purchased by consumers and 20% of the net sales for 108,194 I.H. produced cornheads. Morgan rejected I.H. arguments for a payment to Deere of \$7.50 per cornhead row, with a \$1 million limit. Morgan also rejected Deere's argument that damages should be assessed based on retail statistics. The judgement was based on Morgan's finding that I.H. produced 138,520 cornheads that infringed on the Deere patent from 1974 to 1980. Morgan ruled that a 15% royalty rate on I.H.'s \$189,751,096 production costs for the cornheads was a reasonable amount at which to set damages

The EMP will shut down combine production beginning Oct.1, 1983 until Jan. 16, 1984, under plans announced by the firm Friday. E.M.'s 108 day shutdown was announced to the union leaders Friday. Sections of the plant that produce tractor cabs and planters may continue operating during the shut down. How many employees that will be laid off is undetermined. Currently 1,900 employees are working, with another 2,400 on indefinite layoff. The tractor cab production at EMP has been shut down since March because of the Farmall shut down. It will remain shut down until Farmall reopens.