

# The Earthmaster Story

## Ownership

Earthmaster Farm Equipment Company came on the farm equipment scene in the post WW II years in California. The Bank of America and its division, Transamerica, supplied startup capital. However, development of the tractor and some of its related equipment started earlier at a company known as Aerco. There seems to be no records readily available other than a few scant references in a few old magazine articles and an occasional bit of literature.

There have been very few articles written on the Earthmaster, perhaps because it was not a major farm equipment manufacturer. It fell between the cracks and was pretty much forgotten. A reference to the engineering and design work in an October 9, 1947 Farm Implement News, which was written early in the production era reported that; “the advanced design is a result of careful engineering, testing, and refinement aimed at producing a tractor which takes complete advantage of war time developments in materials and construction techniques and incorporates the features demanded by advanced farming methods.” The article also stated “The Earthmaster tractor was to make tractor ownership financially productive on farms as small as 10 acres, without sacrificing 100 acre performance”.

The article also listed some people who were major players in the design and production. Robert Hartssock was chief engineer, Harry Lehman was the works manager, and J.J. Gardner was the general sales manager.

A member of the low priced tractor field, the Earthmaster was a complete tractor in every aspect. It featured a newly developed hydraulic system known as the Duomatic, which assured positive lifting, lowering, and depth control of the implements. With the Earthmaster weighing less than 1500 pounds, the 4-cylinder, 62 cubic-inch displacement “L” head Continental engine provided ample power for the full line of implements. Tractors and implements used a large amount of welded steel construction, therefore eliminating the need for many castings. The 3 forward speeds and one reverse transmission along with a 3 position throttle lever controlling governor speeds, offered a wide range of speeds for different jobs performed with the tractors.

In the 1991, “The Tractor Magazine,” published by Steve Sharp, contained an article concerning the Earthmaster. He wrote the following information: “Aerco’s production embraces agricultural implements including two wheel tractors, feed mixers and applicators for dairy farming. Development is nearly completed on a small four wheel tractor and on implements to be used with it.” The two-wheel garden type tractors were the model “R”, the model “S” and a model “SSR” with variations of the “S” and “R”. Two-wheel models preceded the four-wheel models by a few years. Very few two-wheel tractors seem to have survived.

Also according to the 1991 article, Adel Precision Hydraulics acquired the ownership at the end of 1946 when a stock exchange of 55,091 shares of Aerco was acquired. The companies combined their administrative departments, making substantial reductions in administrative personnel, and consolidated the operations. Aerco retained its corporate existence, but now was fully owned by Adel. The companies complimented each other well and the overall manufacturing operations were to be improved as a result. Corporate offices were located on Van Owen Street in Burbank, California, and manufacturing facilities were listed as being located in Hollydale, which was between Southgate and Downey.

Very little history can be found to prove or disprove the stories of the beginnings of the company. The company produced the tractors and equipment in Hollydale for a couple of years, and there is a possibility

that the investors did not see a good enough return on their money and maybe that caused the next move in the mystery of the corporate puzzle. The next owner was the S.L. Allen Co. of Pennsylvania, the makers of the Planet Jr. line of tillage tools and was also the supplier of cultivators for Earthmaster. It is possible that the S.L. Allen Co. invested in the company future because of tooling to supply equipment for them. This would cause them to be interested in the outcome of any liquidation of the company assets. There are currently no known records showing that any tractors were produced during the time of their ownership. It is not known at this time how long they owned the company, but generally speculated to span the years 1950-55.

Mr. Charles Latham of Latham Feed and Seed Co. of Belhaven N.C. stated that Turner Mfg. Co. of Statesville, N.C. was the next owner and they manufactured a few more tractors, or at least assembled them from existing parts they had acquired from Allen. The number of tractors and implements are indefinite. The venture then fell into the ownership of a man by the name of George Hickman whose address is unknown and nothing seemed to come out of that ownership. The next known owner of the Company was the Latham Feed and Seed Co. of Belhaven, N.C., who have been in business since about 1917. They bought all rights and tooling and all remaining stock of parts and whole goods, and appear to have gotten into the Earthmaster Tractor manufacturing business with complete ownership of it all. Supposedly they purchased about 200 tons of whole goods and parts for about 3 cents per pound plus shipping costs. They apparently were planning to make it work, as they were known to have gotten 13 whole tractors and then assembled between 25 and 30 more. Greg Turberville obtained the above information from Mr. Latham and his son Seth Latham through telephone conversations and letters.

A letter signed by Mr. Charles Latham postmarked December 5, 1958 to Mr. Alvin Harwell of Robinson, Georgia, who was inquiring about repair parts for his Model "C" read as follows, "We are in the process of going into production of the four wheel tractor and a full line of implements to match. Meanwhile we are prepared to give prompt and efficient service on all orders for tractors, implements, and repair parts. We have a good stock of plows, harrows, cultivators, bulldozers, loaders, and bedders for immediate shipment. Most repair parts orders can be shipped out the same day received. We have the best all around tractor, at the most reasonable price, ever to be offered to the American public. We enclose literature on the Earthmaster, and solicit your inquiries."

According to Mr. Latham, there were indications that Wheel Horse was interested in the company in the late 1950's, but they never pursued it very far and broke off negotiations abruptly. Wouldn't that have been something? An Earthmaster by Wheel Horse! Then supposedly a Mr. Lawhorn, who it is thought to have been from north Georgia, began negotiations to buy the company rights and all the tooling. Sadly he fell ill and was never able to complete the deal. According to a grandson, he wound up leaving the inventory with the Latham Co. Parts were available from Latham & Co, until the early 1980's. It is thought that Mr. Lawhorn may have family in the area of Adel, Georgia. The remaining parts were eventually sold for scrap because Mr. Latham needed the warehouse space. According to Mr. Latham, there are no existing records. They were all turned over to a Mr. Ed Sharp who was supposedly starting a registry for Earthmaster tractors. Hopefully, someone who reads this article can shed some more light on the facts. The last move(s) of the company have not been documented as of yet.

## **Description**

Earthmaster manufactured nine models. The model "C", the most popular model seen today, is the standard one-row tractor. It has a clearance height of 20" and uses 24" rear tires and short front spindles. The model "CN" was a narrow row version of a standard height tractor. The "CNH" was an extra narrow, high version of the one row tractor. The "CH" had 24-1/2" inches of clearance by virtue of the 30" rear

tires plus a slightly longer front spindle. The "CXH" had 27" of clearance using 36" rear tires and a still longer front spindle setup, causing it to look somewhat like it was on stilts with the tall narrow rear tires. There was also an industrial model designated as the "CL". It is a model "C" that has been lowered 4" by rotating the rear housing at the final drive housing and inverting the front axles on the spindle posts. Earthmaster literature mentions "that it can be easily lowered at the farm by the farmer".

The two-row series was designated as the "D". The main difference was that they were extendable about 20 more inches by using wider housings on the rear axle.

Earthmaster models shared most of the driveline and final drive parts. The one-row Model "C" tractor had shorter rear axle housing and front axle housings than the two-row Model "D" tractors. No Model "D" parts books have been found to verify any more differences. The major difference of the high crop models was rear tire and rim sizes, and the front spindles were longer from the top to the axle. All of the clearances were obtained on the two row tractors the same way as on the one-row machines, taller rear tires and longer front spindles.

Another feature that Earthmaster advertised was that with the 3-speed transmission and the 3 governor speed settings of 1800, 2000, and 2200 rpms, that "there was a speed for every job". The top speed on all of the tractors was a little more than 6 mph. The high crop models with larger rear tires ran slightly faster at the same rpms.

Options that were available were a glass cyclone pre-cleaner, a p. t. o., a belt pulley, and an oil filter. One brochure even listed, "a factory installed low cost all fuel engine." There seems to be no record of any of this type engine ever being installed. Hydraulics didn't appear to be standard equipment on some of the earlier tractors, but later was standard for all of them. Earthmaster had one of the earliest live hydraulic systems. It was unique in that with the movement of a lever you could run one cylinder as in the cultivator lift, move it another way and operate a second cylinder only without the first one moving, and move the lever a third way and operate the two hydraulic cylinders together as in operating a front end loader. The system also had a snap-in or -out drive coupler that allowed the hydraulic pump to be engaged or disengaged quickly when the hydraulic system was not needed. This saved wear on the pump and removed any unneeded drain from the engine's 15.6-rated H.P and 37 foot-pounds of torque available at 2,000 rpms. Standard equipment included a 6-volt battery system with an Auto-Lite starter, a generator, and a cutout relay. A 3-position light switch was used to achieve the high and low charge rate control and operate the lights. An Auto-Lite battery distributor provided ignition. The engine oil filter was an extra cost option. The exhaust valves had rotators. The factory standard carburetor was an updraft Zenith with a 5/8" vertical throat. The gasoline was gravity fed from the 7-gallon gas tank under the hood filled through a lift-up door right in front of the dash. The tractors were equipped with a Vortex oil bath air cleaner as standard equipment tucked neatly out of sight behind the grille. All models used the same N-62 Continental spec.15 engine. Continental Engine Company built this 62-cubic-inch displacement engine to Earthmaster specifications. Their records showed they provided engines from 12/13/1945 until 8/12/57. Cooling was achieved by a Modine radiator thermo-siphon system that required no water pump. The Allis Chalmers model "G" and the Massey Harris "Pony" both used a variation of this engine, and some parts interchange.

Early tractors until serial number 632 had rectangular front nameplates. The name was on the top line and the serial number was stamped on the bottom line. After this point the tractors were equipped with a red oval name badge with brass colored lettering and no longer had the serial number on it. This is shown as a production change in the parts book. Tractors after serial number 632 had the serial number stamped into the right frame rail looking from the operator's seat just below the battery box where the frame starts to widen out. The battery compartment was under the instrument panel, which let the battery acid drop right down on the frame where the numbers were stamped. Most of the numbers have been eaten away over the

years. Finding a readable serial number is rare, but the rarest part is the battery compartment door. Fortunately there are a few reproduction doors now being made.

Many of the early tractors suffered frame cracking where the rails fasten to the front of the transmission, but a factory change strengthened that and seems to have taken care of the problem. The tractors below serial number 1550 had back-axle pinion housings and front spindle arms fabricated from welded up components. Starting with serial number 1551, they were made of castings. There were a few minor production changes to the clutch and some small size changes to operating balls in the disk brakes used on each side.

The brakes have a handy feature designed into the system so that when you mash the clutch pedal fully down it applies both sides of the brakes together. This is good for quick stops, and it also made applying the brake lock easier. The other most noticeable change occurred somewhere around serial number 2000; the exact change point is not known because of the absence of records. Vertical ribs were stamped on the side of the dash cowling. No one is sure if these were for stiffeners or just a styling change.

The pan-type seat was mounted on two springs that let it give slightly to help you feel some cushioning and supposedly to let the seat be a little more level feeling on uneven ground and slopes. The Ross automotive-type steering gear seemed very well suited. The narrow 400x15-inch three-rib front tires required a minimal amount of steering effort to turn them. The rear tread was adjusted in or out for width, 4" at a time, by moving the wheel outer rims on the center dish and turning the offset centers in or out.

At one point Earthmaster listed 58 implements and attachments for their tractors. They ranged from a basic one-bottom plow, available as one-way or two-way; one- and two-way center mounted disk plows; and rear mounted hydraulically controlled harrows. They also offered rear-mounted planters, front mounted cotton and corn cultivators, a spring tooth cultivator, and a field cultivator. They had several tool bar mounted set-ups that seemed to be designed more toward vineyard work, such as one-way plows to move dirt in and away from the rows. To take care of pest control while the crop was growing, they offered a 6-row duster that was rear mounted. They offered a box blade type tool they called a scraper, a bulldozer blade, and a snow plow. The front-end loader required raising the normal 750-PSI hydraulic pressure. This was accomplished by installing a higher-pressure relief valve spring, which they said, was included with the loader.

## Color

There is some debate as to the exact color formula for paint. California tractors seem to be a little more orange in their color. The North Carolina-built tractors seem pretty much the same as the California ones except that the orange color in the paint mix is less prevailing and the color appears redder. The yellow grille seems to be common for the North Carolina models. The decals for the Earthmaster name on the hood are slightly larger. Pictures taken of a Statesville, N.C. parade shows tractors with a yellow grille and yellow fenders. The yellow is a bright shade, which is described as "Chrome Yellow" in their brochure. . The lift and implements colors are a shade of green that is thought to be a color from the old Planet Jr. garden tractors and equipment of the S.L. Allen Co.

In summing up the fate of the Earthmaster, Possibly it was ahead of its time. It also seemed to be sorely lacking in dealer support and maybe even distributor networks. The farmers in most parts of the country wanted to expand from mules and one-row units to two-row and four-row equipment in the late 1940's and early 50's. They wanted bigger and faster tractors to do more profitable work. The need for one-row units in many regions was mostly gone by 1952 or thereabouts. Diesels were slowly creeping onto the

scene, replacing gasoline and LP-gas fueled tractor engines. Many regions had good dependable John Deere, Farmall, Allis-Chalmers, Case, and Ford and some Ferguson dealerships that were eager to supply their needs. Given the market for compact tractors today, and if it were equipped with a 3-point hitch the Earthmaster might sell.

The Earthmaster Tractor owners now find support from one another on at least one Internet web site. The most popular one currently is on Yahoo at <http://groups.yahoo.com/group/EarthmasterTractor>. Greg Turberville is the moderator of the site along with his duties as an Apache helicopter pilot training instructor in the U.S. Army at Ft. Campbell KY. This site serves as a clearinghouse for members who find modern day solutions for parts to keep their 50+-year-old machines going.

## **References**

As a footnote for more reading on the tractor, these other articles have been written.

1. The Gas Engine Magazine did a story in the February 1987 issue of a restoration project.
2. Antique Power magazine showed a picture of a model CH in an article about the Cook Museum of Ohio in the November 1999 issue. There was no history or facts, just a picture and a name of the tractor. There was also a brief mention of an Earthmaster restoration in a letter to the editor of the magazine in the same issue.