

Google

Geographical Index|AK|AL|AR|AZ|CA|CAN|CO|CT|DE|DC|FL|GA|HI|IA|ID IL|IN|KS|KY|LA|MA|MD|ME|MI|MEX|MN|MO|MS|MT|NC|ND|NE|NH|NJ|NM NV|NY|OH|OK|OR|PA|RI|SC|SD|TN|TX|UNK|UT|VA|VT|WA|WI|WV|WY

quicklinks|buses|cars|customs|designers|fire apparatus|limos|pro-cars|taxis|trailers|trucks|woodies

Linn Manufacturing Corp. (aka Linn Tractor Co.)

Linn Manufacturing Corp., 1917-1927; Linn Manufacturing Corp div. of Republic Truck Corp., 1927-1929; Linn Manufacturing Corp. div. of LaFrance-Republic Corp., 1929-1932; Linn Manufacturing Corp. div. of American-LaFrance, 1932-1949; Morris, New York; 1939; Buffalo, New York

Associated Firms

Linn Trailer Mfg Corp., Lyncoach,Medicoach, Lombard

For nearly two decades the mighty Linn 'HafTrak' was without peer. Approximately 2,500 examples of the 'torque monster from Morris' were produced between 1917 and 1948, and thanks to a rabid fan base, they remain popular today, attracting a crowd whenever the handful of remaining operational Linns are shown or operated.

Although Linn's early tractors were visually similar to the logging tractors manufactured by his former employer, Alvin O. Lombard, the track systems differed enough that both men received US Patents on their respective designs; Lombard favored a rigid track - Linn a flexible one. Clearly Linn's tractors were based on Lombard's concept, but a close examination of the respective patents reveals no infringement, at least where the tracks are concerned. If either inventor had bothered to apply for a patent on the overal design of the two units, the case would not be so cut and dried.

H.H. Linn's patented 'Flexible Traction' units gave the Linn tractor a distinct advantage over a conventional motor truck enabling it to traverse rock-strewn, muddy or hilly terrain previously inaccessible by a motor vehicle. Power was transmitted to the ground via the rear crawler tracks which included a spring-loaded steel triangle, pivoted at its apex, which allowed the track bed to flex and conform to the contour of whatever surface the Linn might encounter.

The Linn proved popular with loggers, miners, contractors and municipalities, serving double duty as a road-building machine during the summer months and a snowplow during the winter. Under ideal conditions company literature claimed the Linn could travel up a 50% incline and some customers, particularly Barrie, VT's Vermont Marble Co. stated their Linns regularly carried a 20-ton load up a 22% grade.

When equipped with skis a snow-going Linn road train, (1 or 2 Linn tractors towing from 10 to 16 log sleds) could increase productivity 10-fold, with numerous North American logging and mining outfits testifying to their efficiency in Linn advertising. One Linn snow train, operated by the Hudson Bay Mining & Smelting Co., Ltd., pulled a 120 ton load from their supply depot to its Flin Flon, Manitoba/Saskatchewan, outpost and the Amtorg Trading Co. exported numerous Linns for use in the Russian province of Siberia.

Linns were also popular in warmer environs, a number of units were exported to the Middle East, as well as the Panama Canal Zone where they were used for canal, roadway and railway maintenance. During the 1930s Linns equipped with 5-10 ton rock bodies were used by contractors engaged in the construction of the Bonneville, Chickamauga, Guntersville and Grand Coulee Dams and helped construct the Canadian Oil (Canol) oil pipeline in Alaska.

Linns were delivered fully-equipped, with the customer offered a vast assortment of bodies which included the standard 8-9 yard dump body, side-tipping rock bodies from 5 to 15 yard capacity, and purpose-built haulers equipped with Gar Wood and St. Paul hydraulic hoists. A 25-yard model 37-T flexible-tracked dumping semi-trailer was also offered, but there were few takers.

Numerous New York municipalities owned Linn snowplows, which could be equipped with their choice of snow-fighting equipment manufactured expressly for the Linn by Champion, Frink and Sergent. Early models equipped with bi-lateral wing plows required from two to three operators, plus the driver, but later units offered hydraulic control, allowing a Linn plow to operate with just a single operator (plus the driver – a necessity as the Linn could be a handful to drive in inclement weather).

Early Linns were equipped with 4-cylinder Continental Red Seal engines while later editions could be ordered with a wide variety of power-plants ranging from four- and six-cylinder Waukesha and Hercules gasoline engines to the six-cylinder Cummins diesel torque monster. From 1929-on Linn was owned by American LaFrance and a handful of Linn prototypes were



equipped with American-LaFrance V-12 gasoline engines. Early Linns were limited to a top speed of 5-6 mph, although later units equipped with the big Hercules 6-cylinder could reach a top speed of 12 mph.

The firm's swan-song was the 1939 Linn C-5 convertible tractor truck, which could be operated as a standard Linn off-road or as a conventional truck (albeit with front-wheel-drive) while on the road. Unfortunately the C-5 came one decade too late as Linn's main customers - municipal highway departments - were already bandoning their Linns in favor of more modern and versatile road-building and maintenance equipment offered by Walter and FWD, and shortly after War's end, Linn quietly withdrew from business.

Linn's founder, Holman Harry Flannery, was born on May 7, 1877* in Washburn, Aroostook County, Maine, to William J. and Lucretia A. (Currier) Flannery. His father was a farmer in rural Washburn which was located just west of the better-known communities of Caribou and Presque Isle, Maine. (*His burial records states he was born on May 4, 1878.)

His mother, Lucretia A. Currier was born on Dec. 4, 1852 at Fort Fairfield, Aroostook County, Maine to Henry C. and Mary (Stevens) Currier (farmers) being the youngest of 8 children.

His parents' marriage ended in divorce in 1883, and his mother left Washburn and moved to Old Town, Penobscot County, Maine (North of Bangor) to re-establish her life. In 1892 she married a Scottish-born confectioner named Robert D. Linn (b. June, 1850) and shortly after their marriage, 16-yo Holman left his father's farm to live with his mother and stepfather in Old Town, securing employment as a weaver at the Old Town Woolen Co. Linn's meager income was supplemented by a part-time job at a local shoemaker where he became proficient at operating a McKay leather stitching machine.

Linn also joined Herbert Percy's Band and on holidays and weekends toured the region providing musical entertainment to the culturally deprived residents of rural New England. The 1900 US census lists his name as Holman H. Flannery (occupation, musician), but shortly thereafter he changed his last name to Linn. The Linn household also included Elery C. Currier (b. Jan. 1880) who was also listed as a stepson of Robert D. Linn – his occupation salesman of confectionaries (aka Ellery C. Linn).

On one playing engagement in Berlin, New Hampshire, Linn became infatuated with a divorcee named Mrs. Edward Wheeler (Grace Goravilla Gay b. Nov. 9, 1870 in Tunbridge, Vermont to Orrin Albert and Estella J. [Richardson] Gay), and the two married on June 2, 1900. Grace was a musician and singer and her enterprising husband decided to form a roadshow to showcase her considerable talents.

Performing canines were popular at the time and within a few short months Linn had trained a



H. H. LINN, Manager and Owner



WE PRESENT TO Somersault Dogs Tight Rope Walkers Globe Manipulators Waltzers Cake's Walkers



HE BUSINESS. Dogs that solve Mathematical Problems. Forward Walkers Looping the Loop Dogs that Laugh, Sing, Pray, etc.

Change of Program Nightly

number of pups to perform various tricks, with the performance augmented by the newlyweds singing the latest popular songs accompanied by Grace's portable reed organ backed by scenic views projected by a magic lantern. Soon after Linn added motion pictures to the attractions, projecting such crowd favorites as the Great Train Robbery (1903) and Uncle Tom's Cabin (1903).

In their early days 'The Linns and their Wonderful Educated Dogs and Monkeys' travelled by horse-drawn wagons, which was later acccompanied by H.H. Linn's horseless carriage, which could be seen in return for a 10° fee. As the size of the entourage increased Linn became engrossed with building his own road locomotive and in 1906 designed a road going vehicle which utilized two upright Brennan gasolene engines connected via a jackshaft and bi-lateral chains to the two rear wheels. The road locomotive was constructed in the carriage shop of John Gould in Old Town, Maine and created a sensation wherever the Linn's performed.

By 1908 black face comedian G.E. Follette, wire artist Mavolio, and serio comic Princess Madeline had joined Linn's entourage, necessitating an even larger road locomotive, which was now tasked with hauling three trailers full of equipment. The second iteration of Linn's road locomotive would be fully enclosed for travelling during inclement weather and in the fall of 1909 he commissioned the Lombard Tractor Co. of Waterville, Maine to construct it.

In 1908 Lombard had constructed a gasolene-powered prototype based on the a 5-ton Lombard steam tractor using a rear-mounted 50-hp Brennan engine powering the twin 'lag beds' or 'lag tractor treads' (better known today as a 'Caterpillar treads'). The flywheel resided at the rear of the engine, the front-mounted driveshaft delivering power to a 2-speed transmission (2-forward, 1-reverse) that were connected to the sprockets via chain drive. Cooling was supplied by four cast-iron house radiators with an expansion tank created from a wooden barrel. Unlike a standard Lombard steam tractor, the driver of the gas-powered Lombard sat at the very front of the vehicle directly above the front wheels/skis.

Lombard constructed a second gasolene-powered tractor in 1909 that was equipped with a Brennan horizontally-opposed 4-cylinder engine that fit between the two frame rails, allowing for a flat, continuous load floor. A third machine, based upon the second prototype,was constructed for H.H. Linn in late summer, the November 1909 issue of Automobile Dealer and Repairer providing the details:

"New Use for the Automobile.

"C. Lombard Company of Waterville, Me., manufacturers of the famous Lombard log hauler, has made one of the most unique arrangements for a traveling circus that has ever been seen. It is a car for the use of the H. H. Linn dog show. A car 26 feet long and $6\frac{1}{2}$ feet wide has been completed for the proprietor of the show, and is set over a gear similar to that which propels the hauler. By means of this car, which is fitted up into a comfortable traveling home, the carts containing the equipage of the show will be taken from place to place. A Brennan 4-cylinder gasoline engine of 50 horsepower propels the running gear, and the machine can travel over any kind of a road at the rate of four miles an hour. By means of a truck in front turned by a work gear, the car can be steered, and it can also be run in the winter time by placing runners in front instead of the wheels.

"The car is divided into two parts, the living quarters and the operating room. In the latter are repair kits, dynamos and all that is necessary for the mechanical part of the business. A dynamo capable of furnishing power for 150 sixteen candle power lights will supply the illumination for the car and also for the interior of the tent."

A typical Dog Show performance was covered in the August 8, 1912 issue of The Hour (Norwalk, CT):

"Linn's Dog Show

"The first performance of the Linn Dog Show at the Capt. Lamb lot, Main street., last night, drew a large audience and the satisfaction expressed afterwards indicates that the tensts will be crowded tonight. The entertainment consists of moving pictures, illustrated songs and a skit introducing a musical specialty. The performing dogs do wonderful tricks, some of which have never been seen with



SCHOOL DAYS IN DOGLAND-Linn's Famous Educated Dogs.



any other show. The outside show which precedes the regular performance, attracted a large crowd. The wonderful dog which jumps from a ladder 40 feet in height and is caught in a blanket, came in for his share of the applause. The show is the quietest, cleanest and most elaborately equipped of any which has ever visited town. The appointments are all first class condition and the big tractor which furnishes power for the lights and draws the train from town to town, came in for it share of interest. The show will be seen tonight and tomorrow night when it will move to Fairfield. No afternoon performances are given. The program is changed at every performance."

Lombard constructed a second machine for Linn, the second, being a purpose-built demonstrator that Linn used to advertise Lombard tractors, as he had now taken a part-time position as a Lombard representative when his 'Dog Show' was on haitus. Equipped with a single rear lag bed, the second vehicle looked remarkably similar to the tractors that H.H. Linn would soon produce under his own name, albeit Linn's would be quipped with a pair of lag beds for better stability.

While working for Lombard, Linn (aka 'The Showman') spent his winters visiting New England logging camps where he demonstrated Lombard's latest gas-engined tractors, providing muchneeded feedback to the Waterville factory as to improvements in future products.

Linn parted ways with the Lombard organization in 1915 due to his displeasure with the fact that Lombard had applied for a number of U.S. Patents on improvements suggested by Linn without giving him credit.

Linn resolved that he would build his own gasolene-powered caravan and in the summer of 1915 he commissioned Syracuse's Brennan Motor Co. to construct a prototype chassis which included a new fully flexible track unit of Linn's design which allowed the tracks to maintain full contact with the road surface regardless of the terrain.

The Linn's also decided to leave Maine for good and in October of 1915 they purchased a home in the small Otsego County, New York village of Morris, which was located 70 miles southeast of Syracuse. The latest local celebrities were granted permission to house their animals and show equipment at the Town of Morris fairgrounds during the winter and Linn set about completing his latest caravan in a Lynn Kenyon's carriage shop.

The new caravan was completed by spring of 1916 and the Linns embarked upon their annual tour of New York and New England. Midway through their summer tour a serious outbreak of Polio occured among Italian immigrants in the city of New York forcing the NY State Health Department to enforce a travel ban in a number of counties boardering Westchester County and Manhattan. In the interests of public health neighboring states quickly followed suit and the Linn's were forced to abandon the remained of their 1916 summer tour. They returned to Morris and Linn decided to embark upon the manufacture of his own tractor utilizing the new track system he had developed for his latest caravan.

Linn found a number of willing investors in and around Morris and by late fall had made arrangements for the incporation of the Linn Manufacturing Corp. Original investors included Lynn Kenyon, R. R. Ripley, Dr. L.R. Morris and George Whitman, cashier of the Morris First National Bank, and the village fathers offered up an old abandoned grist/lumber mill for a factory site.

Production of the prototype commenced in an old Morris machine shop located on Grove St. that January, the February 22, 1917 issue of the Oneonta Star boasting:

"Linn Tractors Sold

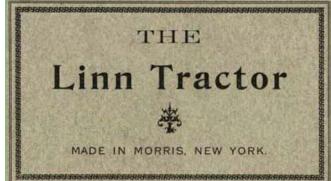
"The Linn tractors are becoming very popular after they have been seen working. Last week a representative of a state road firm was in Morris witnessing demonstrations by the machine and were so well pleased that before they left they contracted for a machine to be delivered May 20, and would have taken another of the could have gotten one, but the company is not in shape to furnish it so soon. This makes five tractors that have been sold and delivered as soon as they can be made. The shop will start up about March 1, and will turn them out as fast as possible. As it looks now they will have to work some to make them as fast as the can sell them."

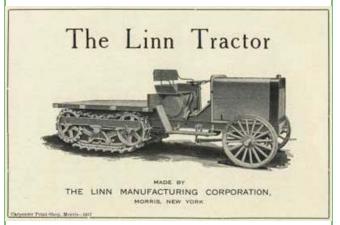
The firm's incorporation was announced in the trades that spring, the April 1917 issue of the Cycle and Automobile Trade Journal giving the firm's location as Lincoln, Nebraska:

"Linn Mfg. Corp., Lincoln, Neb., organized with a capital of \$50,000 to manufacture autos, tractors, etc. Incorporators are H.H. Linn, G. Whitman and L.R. Morris."

The May 1917 issue of the same publication (Cycle and Automobile Trade Journal) offered the









Showing the Flexibility of the Self-Laying Track of the Linn Tractor passing over an Obstruction in the Road. Every calk clings tenadously to the obstruction as the machine climbs over.

following correction:

"Linn Mfg. Corp., Morris, N.Y. has been organized with a capitalization of \$50,000 to manufactured autos, tractors, etc. We inadvertently stated in our last issue the company was located in Lincoln, Neb. Incorporators: H.H. Linn, G. Whitman, and L.R. Morris."

The old wooden mill was torn down and a modern 300' x 50' one story concrete block factory was erected in its place, the July 25, 1917 issue of the Oneonta Star reporting:

"Landmarks Razed

"The old saw and grist mills near the fair grounds have been torn down to make room for the new buildings of the Linn Tractor company. The foundations for the new buildings will be started this week.

"Fitch Gilbert of Gilbertsville purchased a Linn tractor last week."

The new factory was located adjacent to Butternut Creek wher they constructed a hydroelectric generating plant that was powered by a 12' x 13' diameter 60 hp Fitz steel overshot waterwheel which was hung by Linn's own hand. The excess power generated by Linn's hydroelectric plant was sold to the local municipality through the Linn-controlled Morris Electric Light and Power Company.

Unlike most manufacturing plants of it's day which featured stationary engine-driven shaft and belt power tools, Linn's adoption of electric power created a much cleaner and safer factory environment, as each piece of machinery was powered by its own electric motor.

Linn exhibited a new Linn tractor at the 1917 Oneonta Fair, the September 19, 1917 issue of the Oneonta Star reporting:

"At the Oneonta Fair

"A new Linn tractor out of the shop for the first time on Monday, is on exhibition at the Oneonta Fair this week, Ambrose Clark of Cooperstown has bought this machine, the second one inside of a month."

The first production Linn tractor was sold to Charles Brook, a Mt. Upton logger; the second, to Fitch Gilbert, who used it to haul material from Gilbertsville to a hillside tract where he was constructing a new summer home.

By year's end a dozen machines had been turned out and a grateful Linn held an open house for the citizens of Morris the following March, the March 27, 1918 issue of the Oneonta Star reporting:

"Open Night at Tractor Plant

"Last Thursday night was visitors' night at the Linn tractor plant and a large number of people took the opportunity to make their first visit to this busy place. The plant was running full blast and lighted from the large dynamo, which made it as light as day. The men were all busy at their various machines and the wood workers were building trailers. There were six of them in various stages of completion, and six or seven tractors were being assembled, from completed ones down to just the frame. Many of the people were surprised that such a large manufacturing institution was in their midst and they did not know much about it. It is a big thing for Morris, and they are very busy turning out the machines and selling all they can make."

Additional local pruchasers of Linn equipment appaered in the 'Otsego County News' column of the April 3, 1918 edition of the Oneonta Star:

"Edmeston, Pittsfield and Exeter have each purchased a Linn Tractor to use on the highways."

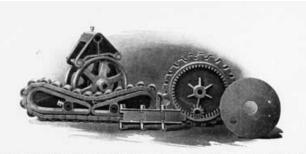
Less than two years after its establishment increased sales forced a recapitalization, the November 20, 1919 issue of The Iron Age reporting:



Showing the Flexible Self-Laying Track of the Linn Tractor dropping into a depression in the road. Nine callos cling to the ground in the depression, on level only six are in use at one time.



The Linn Tractor passing over an unevenness in the read, showing the Self-Laying Track always clinging to the ground. It travels in the deid equally as well as on the highway Pinte Feer



Showing the Rocker Beam and Runner Blocks which form the Flexible Traction Member of the Linn Geared-to-the-Ground Tractor; also the Double Intermitting Driving Sprocket of semi-steel, the Master Gear with Nickel Steel Plnion running in a dust-proof case, and three links of the Self-Laying Track which are held together with Steel Pins. Runner Blocks, Rollers, Chains, Track Links and Pins are made of Manganese Steel. Patents applied for cover these features. Pinse Fire



he Linn Tractor at work on the Highway doing far more efficient service than horses or a high wheel tractor. In fact the day this photo was taken the Linn Tractor hauled the high wheel tractor out of the ditch three times, where it had become helplessly stuck in soft ground. Plate Serve



on the highway with its

"The Linn Tractor Corporation, Morris, N. Y., has been incorporated with an The Linn Tractor hauling with e type of Road Machine active capital of \$50,000 by H. H. Linn. G. Whitman and R. R. Ripley, to This depth oto was taken when the machnes were at ork on the road

The tracks on the very first Linns suffered from a poorly designed hollow-steel rollers whose wood cores crumbled under hard use. They were quickly replaced with solid Manganese rollers furnished by the Taylor-Wharton Iron and Steel Co. of Highbridge, New Jersey.

By late 1919 business had improved to the point where Linn hired a dedicated salesman, the 'Otsego County News' column of the December 11, 1919 issue of the Oneonta Star reporting:

"Engaged As Sales Agent

manufacture motor tractors and parts."

"The Linn Manufacturing corporation has engaged Albert H. Nichols of this village (Morris) as sales agent to go on the road and sell the Linn Tractor. Mr. Nichols will make a good agent as he is familiar with the working of the machine, having been engaged in the plant when it first started, and for the past year has used one on the highways of this town as superintendent of highways, and can demonstrate one in all it movements."

Although no mention of a snow plow is made, the Wednesday January 28, 1920 issue of the Oneonta Star reported that a Linn tractor had cleared a 14-ft path through the snow:

"The experience over in the Butternut Valley should be worthy of more than passing notice. As noted in 'The Star' of yesterday, when it became impossible for the trucks to carry the milk from Morris and vicinity to Mt. Upton, the shipping point, a Linn tractor was hitched to a couple of road machines and the highway was cleared to a width of 14 feet and truck and other motor driven vehicles are passing over it. The cost was trifling compared with the monetary value of the use of the highway.

"It is understood that the town of Davenport has purchased one of the tractors for its use. It is not improbable that other tractors could be found along the Sidney, Cooperstown and Cobleskill highways which could be available for use in clearing the roads of snow during the winter months."

Linn tractors were now frequently called into action whenever a major snowstorm struck the northeast, the February 3, 1920 issue of the Oneonta Star reporting:

"To Continue Highway Work

"Progress Made On Otego Road Today

"Commissioner Youngman spent most of the day yesterday with a force of men at work on the Otego road endeavoring to open it to auto traffic. Below the Plains schoolhouse a drift was encountered in the small cut and the tractor was thrown out of the roadway. It required some time to replace it and then the work was abandoned for the day. Last evening Mr. Thompson, who has had some experience with the tractor, communicated with the Linn tractor people at Morris and they advised mounting the front end on runners, which it was said would aid in keeping the road machine on the roadway. This morning an effort will be made to rig the Linn Tractor of the town after this fashion and later in the day it probably will be in use again."

The following day's paper (February 4, 1920 Oneonta Star) provided additional details:

"Tractors Do The Work

"Otego Road Cleared To Nichols Farm and Colliers Road to Colliers

"Linn Tractor when equipped with runners at front does excellent work ...

"With the Linn tractor mounted at the front upon runners and guided by the sturdy team of Charles E. Thompson of South Side and a heavy road machine in tow the state road from Oneonta-Otego was opened yesterday in good shape for light motor cars as far as the farm of Charles E. Nichols. Weather permitting, the



orks with Equal Efficiency on Snow Roads. In fact its adaptability to all kinds of ads marks its distinctive val on lumber jobs inaccessible to horses. And for work in the Plate Eight





town superintendent, aided by Mr. Thompson and others of his force, will continue on this road today with every indication that it will be opened to Otego and perhaps beyond. The tractor was kept in the road with this means of guidance and it performed admirably, demonstrating that the snow can be cleared from the highways in first class manner by this method. Of course Oneonta delayed until the snow was packed in the roadway, which rendered the task extremely difficult.

"From the Pond Lily corner to the farm house of H.L. Day the second road machine was kept in motion during the greater part of the day while the contrivance was being rigged for guiding the tractor. Attached to it were the teams of M.G. Keenan and Charles Nichols and they pulled true, and the drifts in that section had been lowered when the tractor arrived shortly after 1 o'clock. The roadway is well packed where the snow could not be cut close to the macadam and while it was not deemed advisable to attempt to use the highway with big trucks or motor buses, the light cars will make it comparatively easy. Below the Day farm there were encountered few drifts and road is in quite good condition except in one stretch for a few rods were a bit of shoveling will be done early today.

"All engaged on this job were confident that snow can be controlled on the state roads in this section excepting in the event of a severe blizzard. Snow fences erected at points where trouble is likely to occur and with the tractor ready as soon as any large snowfall occurs, it is believed that the roads will be kept passable for the entire winter. Preparation should be made for the task during the coming summer."

B.H. Baird, 786 Michigan St., San Francisco, California. Linn's west coast distributor, saw to it that the Linn was well-publicized in the region's automobile trades, its first appearance being in the February 15, 1920 issue of Motor West:

"Linn Tractor Appears on Coast

"A newcomer in the tractor field on the Pacific Coast is the Linn tractor. B.H. Baird, Pacific Coast distributor, has demonstrated these machines hauling sugar beets, plowing and logging with great success. Unlike most tractors, the Linn has a carrying capacity of 5 tons on its own body. It might be more correctly termed a tractor truck, as the design is similar to an automobile truck with the exception of the rear self-laying track in place of wheels. The power plant is a 45 H.P. Red Seal Continental engine, and with a four speed model 60 Brown-Lipe transmission and Brown-Lipe-Chapin differential the Linn is one of the most powerful hauling propositions on the market today. The normal load for tractor and trailer is 16 tons over an 8 per cent grade. The maximum speed is 6 miles an hour."

Now that production began to keep up with demand, Linn began advertising in the national lumber trades, the following - which appeared in the July 31, 1920 issue of American Lumberman - being representative of the advertisement/articles that were popular at the time:

"An All Year Tractor

"An All Year Tractor More than once the Truck and Tractor Department of the 'American Lumberman' has been asked where a machine can be obtained of the track laying type which will operate winter and summer in mud snow sand or any other such conditions. The Linn tractor made by the Linn Manufacturing Corporation, Morris, N.Y., serves as a very good answer to this question for it is so built that in the summer time front wheels, similar to motor truck wheels, are used; but these wheels are removed in winter time and sled runners substituted therefor. One lumberman in New York State uses a large fleet of Linn tractors the year around. He has found they work with equal facility in the summer or in the winter. In the winter time ice roads are built and with the sled equipment the tractors proceed as dependably and smoothly as during the summer. The accompanying illustration shows a Linn tractor rigged up to show both sled and wheel steerage."

By this time most of the parts used in Linn's patented tracklaying system were being supplied by Taylor-Wharton Iron and Steel Co. of Highbridge, New Jersey, and like most early vehicles, the remainder was assembled from parts supplied by various third-parties, the only item manufactured in-house was its wooden cab which was hand-constructed by an old Swedish carpenter named George Fisher. The August 15, 1920 issue of the Commercial Car Journal provides the sources of many of the Linn tractor's components:



Side View of the Linn Self-Laying Track, Geared-to-the-Ground Tractor This tractor is especially adapted on lumber and heavy construction contract jobs. Note the left to the left of the tractor, this may be substituted for the front wheels for winner lumbering



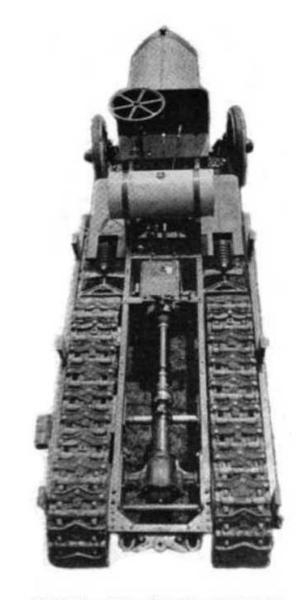
Showing the Linn Tractor handing 13:420 foet of hard wood drawn even ion roads for the Johnson & Son Lumber Company at Post Leveler, N. Y. This land of timber was more then could be funded on two fields care.

"Linn Geared-to-the-Ground Tractor

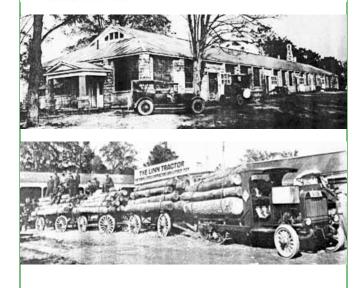
"The Linn tractor, manufactured by the Linn Manufacturing Corp., Morris, N. Y., is a self-laying track machine and is especially adapted to work on wood or lumber jobs, or heavy construction contracts, because it can do the work of ten teams, and it can travel over roadways in the woods and on soft ground where horses cannot go and draw a paying load. The tractor is claimed to be able to pun four times its own weight over ordinary roads, winter or summer. To perfect the traction power of a revolving track, a flexible traction member was invented, which will adjust itself at all times to any unevenness in the road or field which it might encounter. This is an improvement over the rigid self-laying track as they often encounter spots or depressions and they have no traction at all. The construction of this track has been simplified, as not a bolt or nut is used in this traction member aside from the hangers which carry the axles. The sprockets and track-links are said to have an unusually long wearing surface. The track link joint has a 15-16-in. hardened pin, 13 in. long, that floats and has bearings its entire length. The anti-friction rolls are of ample size and strength and carry no weight on their axles.

"The Linn tractor is made of such units as a Continental, Red Seal engine, Bosch magneto, Schebler carburetor, Brown-Lipe transmission and Brown-Lipe-Chapin differential, and Sheldon front-axle.

"The four-cylinder, vertical, L head type, Continental engine, has a bore and stroke of 4 $1/4 \ge 5 1/2$ in., respectively. Engine speed is controlled by a Pierce governor. The crankshaft bearings measure 3/4 in. front, in. middle, and 4 15/16 in. rear Gasoline is fed by gravity from a fuel tank having a capacity of 3054 gal. through a Schebler 1/4-in. carburetor, which is equipped with a hotspot manifold. Ignition is through a Bosch magneto. The splash and force feed system of



Bird's-Eye View, Showing the Transmission, Propeller Shaft and Rear Axle Assembly, and General Construction of the Track.



lubrication includes a Continental, double-plunging oil pump and a Morris oil indicator on the dash.

"Cooling water is circulated over the cylinder head and valve seats by a centrifugal pump. The radiator is honeycomb type and is a Mayo make. Cooling air is sent through the radiator by a large Oakes fan driven by a belt.

"The sliding gear transmission- system which provides four speeds forward and one reverse is the Brown-Lipe, fourspeed, Model 60 transmission. This transmission provides the following speeds and normal pull in lb.: First or low, 1 mile, 12,000 lb.; second, 2 mile, 8000 lb.; third, 4 mile, 3500 lb., and fourth, 5 1/2 mile, 2000 lb. Differential is a Brown-Lipe-Chapin and final drive is internal gear.

"The front axle is a Sheldon, equipped with roller bearings and carrying two front wheels equipped with 36 x 5 rubber tires.

"The length of a Linn tractor is 198 in., width 74 in., height 36 in., to the top of the cab, wheelbase 111 in., size of body, 9 ft. by 5 ft. 4 in., outside turning radius ft., weight packed for shipment 9000 lb.

"The price is \$5000 f.o.b. Morris, N. Y. A front sled for winter use can be secured for \$50 additional."

The Linn could be equipped with a wide variety of bodies and equipment which included stake beds, fifth wheels, fuel tanks, and dump bodies which ranged in sizes from 5 to 15 yards. Purpose-built Linn loggers and logging trailers could be equipped with racks for carrying 4-foot pulp wood bolts or massive bunks for handling logs up to 16 feet in length. Most early Linn users were regional highway departments with the next largest group being businesses involved in the harvesting or processing of timber, as evidenced by the following list of North American Linn Tractor Owners & Users - circa 1920 - supplied by Rene Elliott:

Clark Estate, Cooperstown, N.Y. Iroquois Farms, A. Treyl & Co., Livingston, Manor, N.Y. Root Bros. Otego, N.Y. Highway Supt. Town of Oneonta, Oneonta, N.Y. J.J. Smith, Limestone, N.Y. C.A. Goff & Sons, Kenwood, N.Y. Highway Supt. Symra, N.Y. C.W. Peak, Peaksville, N.Y. Highway Supt., Edmonston, N.Y. Highway Supt., Exeter, N.Y. Highway Supt., Schuyler Lake, N.Y. Highway Supt., Pittsfield, N.Y. Highway Supt., New Berlin, N.Y. Arthur Leighton Co., Cooks Falls, N.Y. James Mfg. Co., Kane, Pa. Vandilla Chemical Co., Olean, N.Y. Fitzpatrick & Weller, Ellicottville, N.Y. A.B. Smith Chemical Co., Red House, N.Y. Oswayo Chemical Co., Genesee, Pa. Highway Supt., Town of Middlefield, N.Y. Highway Supt., Cooperstown, N.Y. Highway Supv., Mr. Button, Town of Columbus, New Berlin, N.Y. Highway Supt., Howard McPherson, Town of Bovina, Bovina Center, N.Y. Highway Supt., Town of New Berlin, N.Y. Corbett & Stewart, Corbett, N.Y. E.R. Washburn, Franklinville, N.Y. J.E. Cannan (Camp #7), Forestport, N.Y. Oxford Basket Co., Oxford, N.Y. Highway Supt., Town of Smithville, Smithville Flats, N.Y. Highway Supt., McDonough, N.Y. Highway Supt., Worchester, N.Y. Wyman Chemical Co., Port Alleghany, N.Y. Moyer & Pratt, Lyonsdale, N.Y. Blount Lumber Co., Laconia, N.Y. United Block Co., Crogan, N.Y. United Block Co., Chaffee, N.Y. Warner Sugar Refining Co., Roulette, Pa. Highway Supt., Sidney, N.Y. Highway Supt., Unadilla, N.Y. B.H. Baird, 786 Michigan St., San Francisco, Cal.



The Linn Tractor with very rugged semi-trailer, for transporting oil well casing.



Carter Oil Co., (Mr. Cooper) Parkersburg, W.Va. Highway Supt., Town of Burlington, West Burlington, N.Y. Clyesdale Motor Truck Co., Pearl St., Toronto, Can. Potter, Burton Lumber Co., Fort Ann, N.Y. A. Sherman Lumber Co., Potsdam, N.Y. Young Bros., Lumber Mfrs., Elmira, N.Y. Hugh Nawn Contracting Co., Gilboa N.Y. C. Fred Johnson, (Mr. Burton) Johnson City, N.Y. Charlotteville Creamery Co., Charlotteville, N.Y. Mr. Geo. Polley, Andes, N.Y. Baggs Machinery & Supply Co., Baggs, Wy. L.L. Sornberger, Masonville, N.Y. Mr. LaPorte, Brandreth, N.Y. J.S. Avery, New Milford, Pa. Dale Engineering Co., Mann Bldg., Utica, N.Y. Dale Engineering Co., East Springfield, N.Y. Brooklyn Cooperage Co., St. Regis Falls, N.Y. Highway Supt., Town of Norwich, Norwich, N.Y. Chas. P. Root, Gilbertsville, N.Y. Highway Supt. (Mr. Robbins) Bainbridge, N.Y. E.A. Schubert, Room 312 MacClain Bldg., Roanoke, Va.

A recent Linn purchase by the Durham Lumber Co., of Brownsville, California was mentioned in the November 1920 issue of The Timberman:

"Logging With Linn Tractor

"At its camps near Brownsville, Cal., Durham Lumber Co. has recently installed a Linn tractor, the reports on which have been favorable. The Linn is a machine of the tractor-truck type. The track laying features of the driving wheels insures a maximum of traction power on all kinds of roads. Two Economy trailers go to make up the train and total load so moved averages 3,600 feet of green logs. Good time is made on the 24 mile haul on which grades of 15 to 20 per cent are encountered. B.H. Baird of 786 Mission Street, San Francisco, is the western distributor for the Linn tractor."

By late 1920 Linn's growing backlog of orders signaled the need for additional capital and the Taylor-Wharton Iron and Steel Co., one of the firm's primary suppliers, stepped up to the plate. Taylor-Wharton's directors bought up a substantial portion of outstanding Linn shares for \$175 per share, which provided Linn's original Morris-based investors a substantial return on their \$100 investment. H.H. Linn, who held a substantial number of shares, was retained as plant superintendent while Taylor-Wharton's president, George R. Hanks, became Linn's president as well, the December 8, 1920 issue of the Oneonta Star reporting:

"Linn Tractor Corporation

"Widely Known Morris Manufacturing Concern Under New Management – Stock Sells at \$175

"Morris, Dec. 7. – The Linn Tractor Corporation, which was established here several years ago and by steady growth has become the leading manufacturing industry of the Butternuts Valley, was reorganized on Friday last. Much new capital from New York City and vicinity has become interested in the enterprise and the new investors have purchased the stock of local men, who in the beginning aided in putting the business afloat. The former stockholders have disposed of their holdings at \$175 per share, which is now being paid; and in addition to this sum, the old stockholders will receive a dividend of 11 percent, payable January 15, from the business of the past 11 months, bringing the actual selling price up to \$186 per share.

"Satisfactory as this is from a business standpoint, the residents of Morris are even more gratified to know that the business will be continued in this village and that the output will be greatly enlarged. It is a good business, paying good wages; and additional men are being put to work.

"The following are the officers of the reorganized company:



SPECIFICATIONS OF GAS LOG HAULERS

×.	Lombard 60 Lombard 100 tractor-truck tractor-truck			
Manufactured by	The Linn Mfg. Co., Morris, N.Y.	Lombard Tractor Engine Company, Waterville, Maine		
Rated belt H.P.	40	60	100	
Rated drawbar H.P.	251	32	50	
No. of cylinders	4	4	6	
Bore, cylinder, inches	5	51/2	534	
Stroke, inches	63/4	61/2	7	
Normal motor speed, R.P.M.	1000	1050	1050	
Low speed, miles per hour	1	2	13/4	
Medium speed, miles per hour	s and 4	4	31/2	
High speed, miles per hour ²	6	6	7	
Reverse speed, miles per hour				
Crawler traction members, width, inches	14	1.2	1.2	
Crawler traction members. Length in con	tact			
with ground, inches	40	86	84	
Ground pressure, lbs. per sq. inch (with en	npty			
platform)	51/2	41/2	634*	
Maximum capacity of platform, tons	5	5	5	
Length of tractor, inches	228	175	=55	
Width of tractor, inches	79	52	77	
Height of tractor, inches	96*	72	78	
Weight (empty platform), lbs.	10,000	12,000	19,000	
Weight per 1 drawbar H.P., lbs. (empty p	olat-			
form)	400	375	380	

Linn Tractor history, Linn Manufacturing Corp., H.H. Linn, Truck Tractor, caterpillar, Holman Harry Linn, Morris, New York - CoachBuilt.com

"President, T.R. Hanks, president of the Taylor-Wharton Iron and Steel company of High Bridge, N.J.; first vice president, H.H. Linn of Morris; second vice president, H.H. Salmon jr., of Garden City, L.I.; secretary, R.G. Thatch of New York City; Treasurer, George Whitman of Morris; Superintendent, H.H. Linn."

Adirondack lumber and paper companies were amongst the first businesses outside of Otsego County to embrace the Linn, the 'Otsego County News' column of the January 6, 1921 issue of the Oneonta Star reporting on a recent demonstration in New York State's 'North Country':

"To Demonstrate Linn Tractor

"H.H. Linn, superintendent of the Linn Tractor corporation, and Earl Southern and Ralph Porter, employees, left last Friday for a lumber camp in the Adirondacks, where they will demonstrate the efficiency of the Linn tractor to interested parties in that section. Tractors have already been placed in several lumber camps up north and are giving satisfactory service, according to reports.

"The tractor plant here was closed for a few days last week but is now running again."

Loggers used Linn tractors to replace teams of draft horses which had been used for over a century to haul sleds of harvested timber out of the inaccessible backwoods of the Adirondack and Catskill mountains. Linns were often called upon to haul a half-dozen or more leds, which were often equipped with a sled-mounted shanty at the rear (aka caboose) which contained a pot belly stove to keep the operators warm (and alive) in case of blizzard or mechanical breakdown.

Although the reorganization was old news, it was reported to the trade in the February 1, 1921 issue of the Chilton Tractor Journal:

"Linn Tractor Corp., Morris, N. Y., has recently undergone a reorganization. The following are officers of the reorganized company: President, T. R. Hanks, Taylor-Wharton Iron & Steel Co., High Bridge, N. J.; first vice-president, H. H. Linn, Morris, N. Y.; second vice-president, H. H. Salmon, Jr., Garden City, L. I., N. Y.; secretary, R. G. Thatch, New York City; treasurer, George Whitman, Morris, N. Y.; superintendent, H. H. Linn."

The February 1921 issue of The Timberman reported on a recent sale to a Hawaiian sugar plantation:

"Linn Tractor Invades Hawaii

"B.H. Baird, distributor of the Linn tractor, San Francisco, spent the latter part of January in Hawaii in connection with the installation of a 65 H.P. Linn sold there for use on a large sugar plantation. The machine is to be used in hauling supplies to and from the plantation over roads which have been rendered impassable by ordinary means of transportation."

A classified ad in the May 21, 1921 issue of the Olean Times Herald reveals Olean, New York's Vandalia Chemical Co. owned a fleet of three Linns:

"For Sale - Three Linn Tractors, models 1918 and 1919, all in good repair. Also a number of wagon trailers for use with same. Property can be seen at the plant of Vandalia Chemical Co., Vandalia, N.Y."

Without mentioning it by name, the May 31, 1921 issue of Pulp and Paper Magazine reported that a Linn tractor had recently completed an efficiency test with Quebec's St. Maurice Paper Co.:

"Successful Tractor Test On Timber

"The St. Maurice Paper Co. of Cap Madeleine P.Q., have recently completed a test of Tractor Efficiency in the movement of logs - at their operations carried on at St. Donat, which is located 35 miles north of St. Agathe des Monts, Quebec. The test was carried on over woods roads - newly opened this season - and over a governing grade of 18 per cent. It was found possible to continually haul three trailers over this four mile route and move 180 logs on each trip, and with a minimum of four round trips each day, a total of 720 logs a day, and by the same schedule 4,320 logs per week. It is estimated that with one tractor and three trailers to each train (9 trailers in all) one of these tractors can accomplish the work of 12 teams. The trailers used were not special equipment but were built complete by the St Maurice Paper Co. in their blacksmith shop at St. Donat. They are of the conventional type of heavy duty sled as manufactured by the Adams Wagon Co. at Woodstock, with but slight changes made for purpose of proper tracking with tractor on curves.

CONSUMPTION OF GASOLINE AND LUBRICANTS, GAS LOG HAULERS

Type	Gasoline	Lubricating Oil	Cup Grease
2-44 N	Gallons	Gallons	Pounds
Linn tractor	27	1.00	0.50
Lombard 60, tractor-truck	35	1.25	0.75
Lombard 100, tractor-truck	50	1.50	1.00

THE LINN LOGGING TRACTOR



The best Hardwood is each year becoming further distant from mill or railroad and is consequently greatly increasing in cost. In many cases very valuable wood cannot be touched, because horses cannot haul it the necessary distance.

The Linn Logging Tractor, pictured above, was designed exclusively for Winter Log Hauling in the North Country. It was developed and perfected in actual logging operations in the North Woods.

At best, and under very easy conditions, a good team cannot haul more than 1,000 ft. —and a good team will seldom walk faster than two miles an hour.

The Linn Logging Tractor solves this difficulty

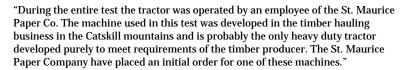
Travelling, as it does, at six miles an hour—operating without difficulty down steep sandhills and up stiff grades—and over river and lake ice— hauling such loads as above pictured.

By its use the operator is enabled to place his logs at the Mill for very low cost.

-Logging Department-

MUSSENS LIMITED DUBRULE BUILDING

MONTREAL



B.H. Baird, Linn's west coast representative, successfuly place a Linn tractor into service in an Alaskan Gold mining operation, the June 1921 issue of The Timberman reporting:

"Linn Tractor In Alaska

"B.H. Baird, San Francisco distributor for Linn tractors, has recently shipped a late model Linn to Fairbanks Gold Dredging Co., of Fairbanks, Alaska, where it will be used for hauling wood and oil over roads impassable to an ordinary truck because of snow and ice conditions. The tractor was equipped with extra wide flanged front wheels and these will be replaced by sled runners when snow is unusually heavy."

Northern New York's 'snowbelt' - which is concentrated along the Tug Hill plateau, a geographic feature that extends east from Lake Ontario into the Adirondack Mountains - averages more snowfall than any other section of New York State. While Linns had been used in downstate New York to help traverse snow-bound roads, no mention of a snowplow-equipped Linn can be found prior to the winter of 1920-1921 when Jefferson County's F.W. Carpenter, owner of the Black River Bus Lines, placed a Linn into service as a dedicated snow plow using an all-steel V-blade plow manufactured in the tire and machine shop of Carl H. Frink, of Clayton, New York. Carpenter's plow was not Frink's first, as one year earlier he had constructed a similar apparatus for Fred I. Dailey's Clayton to Watertown bus line.

The news did not escape H.H. Linn who immediately set about constructing his own prototype V-blade plow out of wood. Once tested, he made arrangements with the Marathon, New York plant of the Good Roads Machinery Co. (headquartered in Kennett Square, Pennsylvania) to supply Linn with a plow designed specifically for use with the Linn. Five years later Linn chose to partner with Carl H. Frink, who by that time was manufacturing a line of plows far superior to the Champion.

The Linn's rear tracks could be fitted with 3 different styles of tread (aka grousers or creepers); 1) Rubber Pad - cushioned for everyday use on paved, poured or brick roadways; 2) Ice agressive metal feet that provided traction on glare ice; and 3) State Road - a less-agressive metal pad that provided sure footing in mud, dirt, or snow.

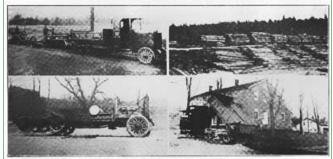
The February 7, 1922 issue of the Oneonta Star reported on a unique arrangement where a group of Cobleskill residents purchased a Linn which was then rented out to the cash-strapped municipality at \$20 per day:

"Cobleskill Buys Linn Tractor



THE LINN LOGGING TRACTOR Designed and Developed for Winter Hauling, in the North Woods

HERE'S A REAL TRACTOR



This Ling Tearton-Truck in Exceedingly Luciul for Lif Alada of Beary Work Where Instaland Effort is Required.



"Herbert Sweet, superintendent of highways in Cobleskill, went to Morris last week where he purchased a Linn tractor for road work for \$5,900. The transaction was financed by 10 men of the town and will not cause any raise in tax rate. The town will pay \$20 per day for each day the machine is in use and considering the power of the machine this in considered cheaper than to hire horses. Thus the machine will pay for itself. The tractor arrived in Cobleskill Friday."

The 'Morris Events' column of the March 22, 1922 issue of the Oneonta Star reported that a Linn tractor had successfully towed an 'engine house' 3 1/2 miles from Morris up Patrick Hill to its new home:

"An Old Landmark Gone

"The old engine house building which has stood for so many years near the creek bridge on Main street and which was recently purchased by David Fenton, was hitched behind a Linn tractor on day last week and was hauled on log runners up the state road. It is now located part way up Patrick Hill on the farm recently purchased by Mr. Fenton, to be used by him as a residence."

The March 27, 1922 issue of the Oneonta Star reported on the purchase of a new Linn tractor by the Town of Tompkins, Delaware County, New York:

"Tompkins Buys Tractor

"The Tompkins town board at a meeting Friday voted to buy on the lease plan a Linn tractor equipped with a hydraulic hoist and dump for use on both the dirt roads and on new highway construction. The rental of \$20 for each day of actual use is applied on the purchase price of \$5,800."

The 'Jefferson News Jots' column of the April 17, 1922 issue of the Oneonta Star reported on the purchase of a Linn by the Scoharie County, New York town of Jefferson:

"Linn Tractor for Road Use

"Drive Home Linn Tractor

"Superintendent F.D. Hubbell, Superintendent of Highways, F.H. Foote and George Fitzpatrick went to Morris Wednesday, and on Thursday drove a Linn tractor home, which the town board recently purchased for use on the road."

The acquisition of the Town of Jefferson's Linn involved another creative fininacing scheme, the 'Latest Vicinity Notes' column of the April 22, 1922 issue of the Oneonta Star reporting:

"Twelve public spirited citizens of Jefferson have signed a note whereby it is possible for the township authorities to secure a Linn tractor. Town and state join in the rental price and eventually the rent pays for the machine."

The June 21, 1922 issue of the Oneonta Star announced Linn was constructing a small addition to the factory:

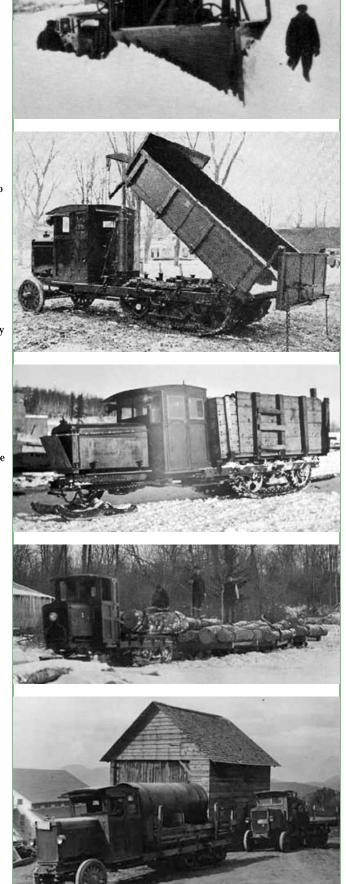
"Building a Storehouse.

"The Linn Tractor corporation are building a lumber shed and store-house on the vacant lot across the road from the tractor plant for their use."

A display ad placed by the Berskshire Garage, the local Linn distributor, in the January 20, 1923 issue of the North Adams Transcript (Mass.) encouraged local residents to come out and take a look at the vehicle:

"Watch!

"For the Linn Tractor which will arrive in town on Sunday night or Monday morning. The Linn Tractor is a heavy duty, heavy hauling machine of track-laying type. This tractor has been purchased by Vad's Express to run between North Adams, Williamstown, Pownal and Bennington, Vermont.



"For information, specifications and catalogues apply to Berkshire Garage, Telephone 1490."

The April 16, 1924 issue of the Oneonta Star reported that a Linn tractor was being demonstrated in Syracuse, New York:

"Tractor To Syracuse

"The Linn Tractor Corporation have sent one of their tractors to Syracuse Tuesday morning, which is to be used for demonstration purposes there."

The May 21, 1924 issue of the Oneonta Star reveals H.H. Linn was demonstrating a tractor to another Tug Hill community:

"Demonstrating Tractor

"H.H. Linn is in Denmark, Lewis County, this week demonstrating the Linn tractor in competition with other makes."

The January 7, 1925 issue of the Oneonta Star reports that Linn had sold a pair of tractors equipped with Champion snowplows:

"Tractors With Show Plows.

"The Linn Tractor corporation sold two tractors last week with snow plow attachments. One to the town of Otsego and one to Plattsburg."

Another Champion-equipped Linn tractor helped plow a roadway following a mid-January snow storm, the January 19, 1925 issue of the Oneonta Star reporting:

"Franklin Road Open

"Town Superintendent Conklin, with Linn Tractor Plow, Does Trick

"The Oneonta End of the Franklin turnpike road is open, Town Superintendent Conklin having finished a good job on the highway Saturday night and with the Linn tractor plow, recently purchased, plowed out the road well. Drifts of no mean dimensions are always encountered when there are drifts anywhere between the Dye home and the watering trough and in that stretch it has been impracticable to secure turning out places, so that persons traveling over the road should be alert to see that no one else has entered the 'tunnel' ahead. At all other points on the road is open full width so that no trouble in turning out is experienced. Safety first should be the motto of all who use the highway."

The February 18, 1925 issue of the Oneonta Star reported a sale to the Delaware County, New York town of Harpersfield:

"Harpersfield Buys Tractor.

"It is currently reported that the town of Harpersfield purchased a Linn tractor for delivery in the spring."

The March 19, 1925 issue of the Oneonta Star reported on another sale to a Delaware County municipality:

"Linn Tractors Sold

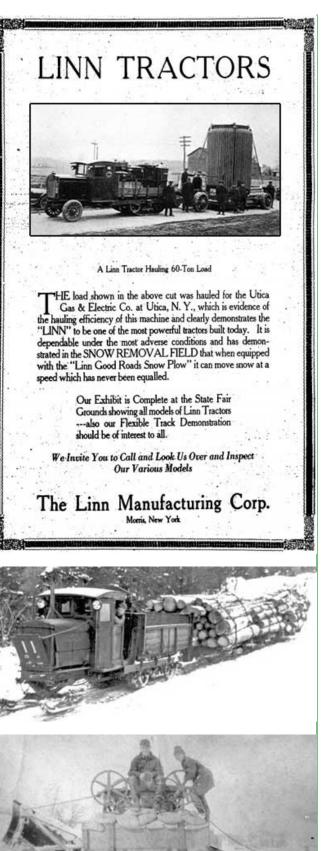
"The town board of Franklin at a meeting last week voted to buy a Linn tractor for work on the highway at a cost of \$6,600. All but one or two towns of the nineteen in Delaware county now have a Linn tractor. The report says the tractors save expense of teams and are efficient both in summer and winter, and are believed by many to be the best tractor on the market."

To aid the sales of Linn snow-fighting equipment, the factory produced a 2-reel short which featured the Linn in action, the April 2, 1925 issue of the Oneonta Star reporting on a recent screening:

"Clearing Belden Hill

"Excellent Movies of Linn Tractor Working During Heavy Snows of Past Winter Shown at Theatre.

"In conjunction with the picture program shown at the Oneonta theatre last evening were two reels depicting the work done in clearing the heavy snows of the past winter from Belden Hill by Linn tractors. Not only because of the particular



interest of Oneonta and vicinity people in pictures of territory which they know well was the picture appreciated, but as well because of the work of the Linn tractor made at Morris, which has a host of friends throughout the vicinity where the powers of that machine are particularly well known.

"The film was of two reels and showing the Linn tractor with its special plows arriving on the scene at Belden Hill, which was blocked with snow. The main 'V' type plow opened the roadway through the deepest drifts while the side wings were operated by the members of the crew of the machine to make a double pathway through the drifts.

"There was very little shoveling as is common with most road plows, the big Linn with its weighted body making its way into the deepest of the snow and plowing steadily along with scarcely a pause. And due to the fact that the plow operated to push the snow on both sides there was no tendency to sideslipping as is common with many plows of other types.

"Following the Linn plow over Belden was a sizable string of motor cars pointing its own lesson, that highways must be kept open during the winter months for the accommodation of an increasing number of motorists who find use of the roads imperative. And the picture also shows that with the Linn tractor, this work is easy."

Once H.H. Linn became successful he encouraged his extended family to relocate to the Morris area and by 1920 his step-brother Elery C. Linn had begun working for the Linn company. The passing of his step-father was annouched in the 'Otsego County News' column of the April 16, 1925 issue of the Oneonta Star:

"Attended Funeral of Robert Linn

"The funeral of Robert Linn, who died at Edmeston, was held at that place Saturday afternoon and was quite largely attended by Morris people. Among them were Mr. and Mrs. H.H. Linn, Mr. and Mrs. Charles Gage, Mr. and Mrs. Scott Lull, Miss Helen Colvin, Rev. and Mrs. F.G. Leonard.

"Mr. Linn was a former resident of this place and moved to Edmeston after the death of his wife. He was the father of H.H. Linn of Morris and E.C. Linn, formerly of Morris and Edmeston, but now of Saranac Lake. Rev. F.G. Leonard assisted the Edmeston clergyman at the funeral services.

"Sell Another Tractor

"The Linn Tractor corporation delivered one of its tractors to the town of German Flats last week."

The July 22, 1925 issue of the Oneonta Star announced the sale of one of the firm's first 100-hp 6-cylinder Waukesha-equipped machines:

"A Powerful Machine

"The Linn Tractor corporation have just turned out a new six cylinder 100-horse power tractor. It is a powerful machine."

The September 23, 1925 issue of the Oneonta Star reported on the sale of a crane and shovel equipped Linn to a customer in Florida:

"Sold A Tractor To Go To Florida

"The Linn Tractor Corporation had on display at the State Fair last week their tractors, one of them equipped with a crane and shovel for road work. This one is sold to parties who will ship it to Orlando, Fla. The Linn tractors are becoming famous all over the country."

In 1925 H.H. Linn commenced construction of a \$17,000 private coach dubbed the 'Linn Haven' for use as a mobile office while he traversed the country drumming up attention for the Linn tractor. The September 30, 1925 issue of the Oneonta Star provided details on the vehicle's construction:

"Best In The World

"H.H. Linn of Morris To Tour South in One of Finest Motor Coaches on Highways.



"Selling The Best Tractor

"Sumptuously Furnished Body on Safeway Six Wheel Coach Allows Combination of Pleasure With Trip in Interest of Linn Tractor, Manufactured at Morris – Bus Weighs Seven Tons and Will Cost \$17,000

"Mr. and Mrs. H.H. Linn of Morris will leave about November 10 for a winter trip through the South, combining business with pleasure and since Mr. Linn will establish agencies for the best tractor in the world, the Linn Tractor made at Morris, it is only fitting that the trip should be made in one of the most sumptuously equipped Pullman busses on the highway. The chassis is to be the Safe-Way Six wheel type, costing about \$7,000, and the body will cost about \$9,000. This will bring the total cost of the seven ton equipage to about \$17,000.

"And before any extended description of the new Pullman is given it might be well to tell about the traveling bungalow in which Mr. Linn visited Otsego county in 1907-1908. At that time he owned a pony circus, and had an especially equipped vehicle, quite as much of an advanced step in those days as is the splendid coach in which he will travel and live this winter.

"The machine was built to his specification, and the chassis was 30 feet long. It was powered by a 100 horse-power motor which gave a road speed of four or five miles an hour. The car steered on four wheels.

"But the rear two wheels were not round. The rear traveled on tracks similar to those in use as driving wheels on the Linn tractor of today.

"The body was made by a ship cabin builder, and the bus was fitted with a ship stove, refrigerator, and other conveniences. About the only obstacle to traveling wherever business led was the fact that the body was too high for many of the bridges in use at the time, and detours were sometimes necessary.

"Description of the Latest Bus.

"And now for a description of the Pullman type bus in which the trip this winter will be made:

"After much deliberation and investigation of the larger motor busses, Mr. Linn decided on the purchase of the Safe-Way six wheel chassis manufactured by the Safe Way Coach company of Philadelphia. It is powered by a six cylinder 110 horsepower motor and has a wheelbase of 165 Inches.

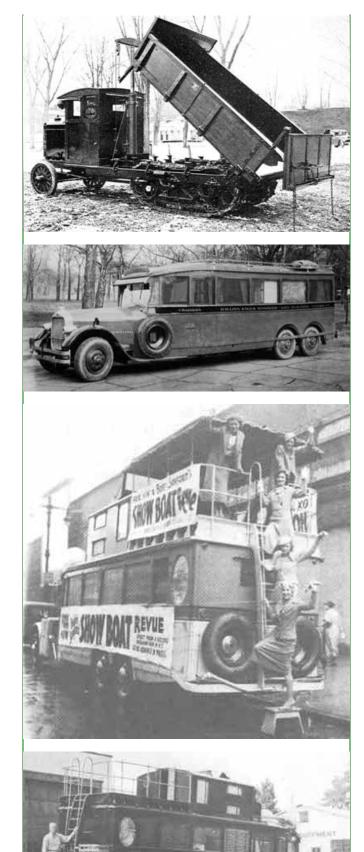
"Two complete driving axles of the inverted worm type and four driving wheels are located at the rear of the chassis. The axles are connected at the center with a very large torque tube of sliding sleeve type, allowing perfect action of the long side, three stage springs which connect the (missing text) frame pivoted at the spring center, making a very flexible driving unit and giving each tire of the four rear wheels it proportionate share of the load as well as of the drive.

"The very latest Westinghouse air brakes, operating internal expanding shoes are used on all four driving wheels. Emergency brakes are manually operated.

"The chassis was driven from the factory at Philadelphia to Cleveland, Ohio, a distance of approximately 500 miles, in less than two days by Charles E. Gage of Morris to the Schaefer Coach works, where the special body is now being built according to specifications of Mr. Linn.

"The body is 23 feet six inches in length back of the cowl and seven feet seven inches wide inside. It is equipped with two complete lighting systems, the regular equipment connected with the motor and a special Delco 12 volt system to supply current for the iceless refrigerator, cooking utensils, electric fans, and other conveniences.

"A Presto-Lite three-burner stove is installed in the very complete kitchenette, which has extensive cupboard space, and padded compartments for dishes and for the utensils for cooking three square meals a day. There is plenty of room provided for serving the meals.



"The latest type of Pullman beds, equipped with air mattresses, a shower bath with hot and cold water, lavatory, sanitary toilet, clothes closets, and extra storage space have also been provided. All windows are large and provided with plate glass and fine copper screening.

"The Pullman beds and five comfortable wicker chairs are upholstered in genuine taupe leather. With the bed folded, the coach will seat 16 people comfortably.

"A brown khaki canvas 25 by 12 feet fastened to the baggage rail on the top of the coach will provide a comfortable perch when the lower ends of the canvas are supported on for small tent poles. Moving picture equipment with camera and projector and radio apparatus of latest type will also be included.

"Of course, as those who know Mr. Linn and his ability as a salesman and of the Linn organization as manufacturers are well aware, this most luxurious motor coach is not wholly a pleasure vehicle. It is the intention of Mr. Linn enroute to establish agencies for the Linn tractor, which is fast becoming famous as an economical hauling unit and which is adapted to all kinds of heavy work, both winter and summer.

"Mr. Linn will be accompanies by Mrs. Linn and Mr. and Mrs. Chas. Gage, also of Morris, Mr. Gage acting as his driver."

After Linn sold his share in the firm to the Republic Motor Truck Co. in 1927, he traveled up and down the eastern seaboard in his coach which continued to be manned by his chauffeur and personal steward, Charles E. Gage.

After Linn's untimely 1937 passing his estate sold the coach to Purcel Kingsley of Cohoes, New York, whose Hudson River Night Line operated a showboat steamship called the Buccaneer. Kingsley modified it into a roving billboard/shuttle equipped with a search light and sound system in which he picked up customers for Kate Parson's "Show Boat Revue" a risqué burlesque that took place onboard the Buccaneer once it left its mooring at Manhattan's Battery Park. During Franklin Delano Roosevelt's 1932 presidential campaign, the Linn Haven ferried the future President and his entourage around Manhattan.

In 1948 ownership of the Linn Haven passed to Hollis M. Briggs of Troy, New York, who used the vehicle for private excursions. The vehicle was retired in 1962, and was purchased a decade later by automobile collector John Rich. The vehicle was recently purchased at Kruse's Fall auction in Scottsdale, Arizona and currently resides in the Martin collection in Houston Texas. Kruse advertised the vehicle was used by Franklin Delano Roosevelt in 1932, and was used in the production of Showboat. It has sleeping quarters, a kitchen and a stage on the back.

After a reported 5-year restoration the bus sold for \$58,000 at Kruse's 1998 Spring auction in Auburn, Indiana. It crossed the block later that year at Kruse's Fall Auburn auction where it sold for \$81,000. Nine years later it made an appearance at Kruse's 2007 Fall auction in Auburn where it was hammered sold at \$155,000, purchased by a Houston, Texas collector named Martin.

The firm's exhibit at the 1925 Morris Fair was covered in the October 7, 1925 issue of the Oneonta Star:

"Linn Tractor Lifts Itself

"The Linn tractor makers, whose factory is closed by the entrance to the grounds, makes as usual a fine exhibit. One of the big new six-cylinder machines, weighing 14,000 pounds is within a fenced enclosure and by the use of cables lifts itself by its own engine several feet from the ground at frequent intervals. It is a spectacular stunt and interests many.

"The company has on display one of its big powerful motors on chassis but uncovered and its every feature indicates power abundant. It has two new features designed by the Waukesha Motor Company which are notable. One is a device which introduces hot air into the carburetor until the engine become heated and the other is to secure anchorage on the block above the compression chamber with which guards against the ganger of displacement sometimes encountered with high power motors.

"There is also shown one of the latest improved snow plows attached to the big six cylinder 100 horse power chassis with longer and higher side wings enabling it to clear the snow from a highway 18 feet in width."

Upon its introduction the Waukesha-powered 6-cylinder Linn - which had an advertised top



Linn Tractor history, Linn Manufacturing Corp., H.H. Linn, Truck Tractor, caterpillar, Holman Harry Linn, Morris, New York - CoachBuilt.com

speed of 7 1/2 mph - was called the 'County & Township Special.' The Waukesha-powered 4-cylinder model was renamed the 'Contractors Special' and the benifits of itsshuttle shift (4 gears forward - 4 in reverse) and 360 degree pivoting driver's seat highlighted in promotiional materials.

The 'Dexter News' column of the February 16, 1926, issue of the Kennebec Journal (Augusta, Maine) reported on a Linn that had recently arrived for a demonstration in the home territory of its chief competitor, Lombard:

"The Linn Tractor arrived Monday from Morris, N.Y., and will be used at once for road breaking, a snow storm coming for the purpose of the demonstration. Oniel Stedman, of Morris, N.Y., a former employee of Fay & Scotts, arrived to demonstrate the ability of the tractor as a road breaker."

The 'Latest from Otego" column in the March 6, 1926 issue of the Oneonta Star revealed the Town and just purchased a Linn:

"Buys Linn Tractor

"Leon Gardner, highway superintendent, was in Morris the first of the week and brought back the new Linn tractor which has been purchased for the town."

The 'Town News" column of the March 8, 1926 issue of the Oneonta Star reported on a planned demonstration of a Champion-equipped Linn:

"At the meeting of the town board of the town of Maryland... H.E. Whiteside of Oneonta, a representative of the Good Roads Machinery Company of Marathon, requested consent of the board to demonstrate a snowplow which is designed by the Linn tractor people and manufactured by the G.R. Machinery Company at Marathon. This snow plow, which is known as the Linn snow plow, is used in conjunction with the Linn tractor, which is in service in this town at the present time."

Linn president, George B. Hanks, made a presentation before the Oneonta Rotary Club on March 25, 1926, which was covered in the next day's Oneonta Star:

"The Linn Tractor

"Rotarians Hear of Capabilities of Machine Manufactured at Morris and See Movies of it at Work

"G.B. Hanks of New York City, president of the Linn Manufacturing Corporation of Morris, was the speaker at the Rotary luncheon yesterday noon at the Elks club and after speaking briefly of the characteristics of the Linn tractor, moving pictures were shown of several of those machines hard at work on a construction job. The meeting was an instructive one and a number of interesting facts were brought out by Mr. Hanks in his address and through the pictures.

"In his talk, he said that H.H. Linn had designed the tractor, not only for heaving hauling, but for heavy hauling under severe conditions and said that he was confident that Mr. Linn had had the greatest experience in this line of any automotive engineer. Mr. Hanks emphasized that the tractor was not built to sell and that the constructional details were not changed to reduce sales resistance: rather that the company built them from the experience of Mr. Linn, confident that greatest satisfaction would result from that course.

"He emphasized the fact that the tractor must not only have a powerful motor, but must be able to place a large part of it upon the ground, where it would be of service. He remarked upon the importance of the tread of the Linn tractor, 3,500 pounds of manganese steel being used in the driving parts of every machine.

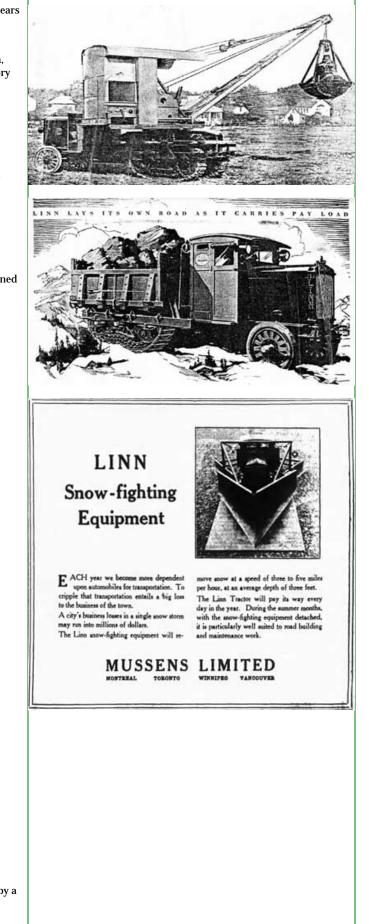
"The pictures shown were taken by the Taylor Wharton Iron and Steel company of High Bridge, N.J., which supplies this material, and depicted Linn tractors at work, hauling a load of 65,000 ponds in one scene and in another two steel girders, 76 feet long.

"In another part of the picture two Linn machines were shown hauling a load of 60 tons, the burden being carried 19 miles over rough, muddy, and winding highway."

The April 2, 1926 issue of the Oneonta Star reported on another impassable road reopened by a snowplow-equipped Linn:

"Mt. Vision-Hartwick Road Open

"The highway from Mt. Vision to Hartwick was opened on Tuesday. A large



snowplow was attached to a Linn tractor owned by the town of Laurens. The work was done through the efforts of the recently organized Otego Valley Auto club."

The 'Delaware County News' column of the April 23, 1926 issue of the Oneonta Star reveals the town of Bovina (an early Linn tractor purchaser) were still using their now 7-year-old Linn:

"Driving Linn Tractor

"M.R. Lyon west to Bovina Center Tuesday, where he has employment with the highway superintendent of the town of Bovina, driving a Linn tractor for the summer."

The Dexter News column of the April 29, 1926 issue of the Daily Kennebec Journal (Augusta, Maine) reported on a highway that had been passable through the use of a Linn:

"The Linn tractor has opened the road between this town and Dover-Foxcroft, much to the satisfaction of many business men who make the trip through here weekly.

"The road was said to be in very good condition Tuesday, but it is expected that as soon as the frost starts there may be a few places that will worry the motorist, but on the whole it is considered that the road will be passable and will drain in a few days now that the drifts are cleared from the roadway."

The June 28, 1926 issue of the Oneonta Star annoucned that H.H. Linn and his entourage were making a tour of Maine and Quebec where they hoped to establish additional Linn distributors:

"To Tour Maine and Canada

"Messrs. Linn and Gage with Wives Leaving Today for Six Weeks in Pullman Bus.

"Mr. and Mrs. H.H. Linn and Mr. and Mrs. C.E. Gage, all of Morris, leave that village today in the sumptuous Pullman but which Mr. Linn designed and had built according to his specifications and costing some \$17,000 and in which the two couples toured through the south to Florida last winter, and have as their objective cities in Maine and thence to Canada, where at various places it is planned to establish agencies for the Linn tractor. They plan to be gone about six weeks and with the Pullman of the highways equipped with every convenience they will occupy it much of the time during the trip, stopping at hotels only when they find it more convenient or desirable.

"The Linn tractor has many uses but it ever shines more brightly than when in use in big lumbering operations where the traveling is poor and there are big logs to handle. Many of them are now in use by some of the big lumbering firms in both Maine and Canada, but Mr. Linn is confident that this branch of the business can be largely increased and it is understood to be his plan to establish agencies at certain central points so that the business can be more expeditiously and satisfactorily cared for.

"The big Pullman with its 125 horse power motor and every equipment from electric lights to lavatories and to a complete radio receiving set has been put into first class condition for the trip and with its larder well stocked the members of the party are anticipating much pleasure as well as a successful trip from a business standpoint."

The August 12, 1926 issue of the Daily Kennebec Journal (Augusta, Maine) reveals that the Linn company planned on investing in a Bangor to Portland (ME) to Boston (MA) air service:



100 H. P. LINN TRACTORS

THE above photograph of a Linn Tractor ascending a 50% grade handling a six ton load (bags of sand) is a striking example of its wonderful traction power. The ability of thes Linn Tractor to handle heavy loads in almost maccessible places, through mow and mud, uphill and down, is one reason why Linn Tractors are so popular with logging companies. The Linn has proved itself to be practical and economical, simple to care for and easy to handle. Its record of performance in the hands of Canadian lumbermen is worthy of investigation.





"The Maine Aerial Service Inc. which operates an aviation school at Bangor, and which contemplates the establishment of an air service between Bangor, Portland and Boston will probably add three new airplanes to its squadron soon. This was the report of Lieut. Fred W. Rowell, secretary and treasurer of the company who stopped in Portland while on his way from Mitchell Field to Bangor. Lieut. Rowell was assured by the Linn Tractor Company of Morris, N.Y. that they would buy three planes for the Bangor company, as they have expressed much interest in the enterprise."

The October 22, 1926 issue of the Oneonta Star reported that Mussen's Limited, Linn's Canadian distributor, had delivered a reported 30 Linn tractors to Canadian logging and mining operators:

"Linn Tractors In Snow

"Mussen of Montreal Uses About 30 Tractors Made In Morris for Logging

"B. Taylor, representing Mussen of Montreal, Canada, passed through Oneonta last evening on his way from Morris to that city, having visited Morris to be certain that three tractors ordered by that firm would be shipped at once for use in Canadian logging operations this winter. The Mussen firm has nearly 30 Linn tractors in use in its Canadian operations and has found no other hauling equipment that will do the work.

"The three tractors mentioned are to be shipped from Morris Monday so that they will reach Montreal and Quebec as soon as possible. They are to be used on northern logging operations, the last boat to the island being made November 16. And it frequently happens that the boats can not make the last scheduled dates. The island is completely isolated during the winter and until the next April, giving an idea of the conditions under which the Linn tractors are performing very satisfactorily."

"The Hudson Bay Mining and Smelting Co used a Linn logging train to carry supplies on the ice of Hudson Bay to Ft. Churchill. Here the caboose served as the actual sleeping quarters for the crew."

After a half-decade at Linn Mfg.'s helm, George B. Hanks, realized further capital would be needed to successfully compete against its competitors, such as F.W.D. and Walter, which were growing in popularity year after year. Inquiries were made and Alma, Michigan's Republic Motor Truck Corp. seemed eager to get into the 'crawler business'. In addition to fresh capital the acquisition provided access toRepublic's well-established world-wide dealer network which included12 factory branches, 105 direct US distributors and 49 overseas agents in 25 foreign countries

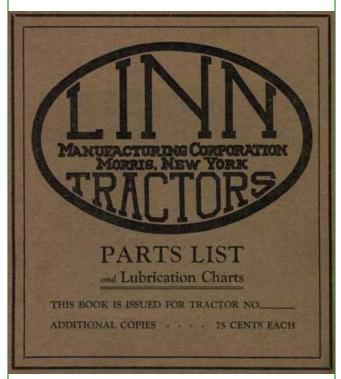
Republic's \$1,250,000 all-cash offer was accepted by the Hanks-controlled Linn Mfg. Corp. board on August 9, 1927 and the news was released to the trade via the August 13, 1927 issue of The Automobile / Automotive Industries:

"Republic Purchases Linn Tractor Plant

"ALMA, MICH., Aug. 9 –Republic Motor Truck Co., Inc., has purchased the entire capital stock of the Linn Mfg. Corp., Morris, N. Y., tractor manufacturer, and is now the sole owner of that company, including its plant, equipment, goodwill and exclusive selling rights. The operation of the Linn company will be continued at Morris as a division of Republic. The present personnel also will be maintained. Announcement of the purchase was made in Chicago by O. W. Hayes, president of Republic, following a meeting in the offices of M. Rothschild, chairman of the Republic board.







"The Linn Mfg. Corp. has been building a special type of tractor since 1916. The Linn tractor is a heavy hauling machine, equipped with either a 75 hp, or 100 hp. engine. It resembles a heavy motor truck except that revolving tracks take the place of rear wheels. The motor and front wheels are identical with those of any heavy duty truck."

The September 17, 1927 issue of The Automobile / Automotive Industries reported that Republic planned on offering a new issue of \$1,250,000 ten-year 6 $\frac{1}{2}$ per cent bonds to finance the acquisition:

"Republic Issues Bonds to Expand Linn Sales

"NEW YORK, Sept. 18 – National distribution of Linn tractors is contemplated by Republic Motor Truck Co., Inc., which has just announced a new issue of \$1,250,000 ten-year 6 ½ per cent collateral trust sinking fund gold debentures in connection with the purchase of all the issued and outstanding capital stock of the Linn Mfg. Corp. of Morris. N. Y.

"Sale of Linn tractors has hitherto been about 90 per cent confined to New York State. In view of the consolidation, distribution will be effected through 12 factory branches, 105 direct factory distributors in the United States, and 49 in 25 foreign countries, in addition to dealers appointed by distributors.

"Debentures are priced at 95% and interest, to yield over 6% per cent. Nondetachable stock purchase warrants are attached to each \$1,000 debenture, entitling the holder to purchase common stock in varying amounts up to June 30, 1930, at prices from \$5 to \$7.50 per share."

The October 15, 1927 issue of Automotive Industries reported that Linn would retain its current sales organization within New York state:

"Outlines Linn Sales Plan

ALMA, MICH., Oct. 12-Distribution of the Linn tractor line, recently acquired by the Republic Motor Truck Co., will be through the regular Republic dealer organization, except for New York State, where the Linn company developed an extensive selling group which will continue to function. The Linn company will continue manufacturing operations at Morris, N. Y., as a division of Republic and the present personnel will continue, according to O. W. Hayes, president of Republic."

Under Republic, Linn continued to relay their latest sales propoganda to Otsego County residents as evidenced by the following item in the December 22, 1927 issue of the Oneonta Star:

"Linn Tractors Do The Job

"Move Fifteen Ton Boulder Down Andes Mountain to Foundation

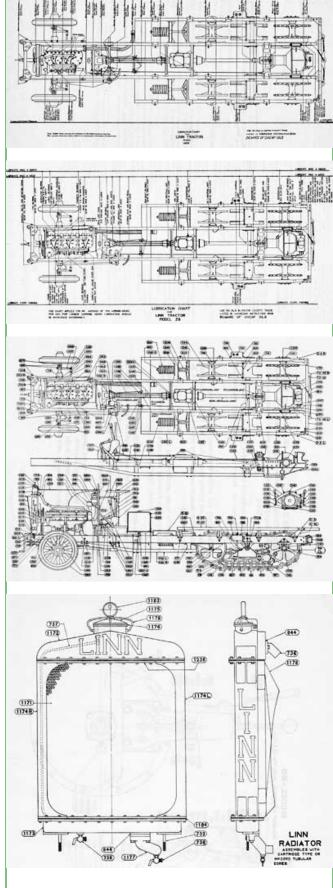
"The much talked about boulder is at rest on its foundation at Andes and was brought down the mountain in just a little less than a week and placed. The work of getting it loaded was the longest process as the drawing of it took only about four hours, it being drawn by the two large Linn tractors belonging to the town of Andes. Harry Larkin, town superintendent of highways, did the job, assisted by Andrew Coulter and they are to be complimented on their work as there were several here to look the job over and most of them were afraid to tackle it by contract. There were no accidents or trouble of any kind and these men will now be in line to move anything that is loose so if you are thinking of moving anything smaller than a mountain, see these men before doing so."

H.H. Linn retained an executive position in the Republic-controlled Linn organization (as a vice-president) and, based on the following article, is believed to be an active participant in the organization, the January 29, 1928 issue of the Billings Gazette (MT) reporting:

"Factory Head Makes Western Tour in Bus Built Like Pullman,

"When H.H. Linn recently decided to make a trip from his home at Morris, N. Y., to the west coast he didn't pick up a time table and find out when the next westbound train left. He merely called in his chauffeur and told him to oil and grease his private car - a de luxe bus which is literally a highway Pullman.

"This private bus is luxuriously equipped with all the conveniences of transcontinental trains, and Mr. Linn has found it much more to his liking for long distance traveling than railroads. Two comfortable double beds of the folding variety provide sleeping accommodations for Mr. and Mrs. Linn, as well



as for the chauffeur and his wife. Electric power is furnished by a generator for lights, as well as for an efficient refrigerating plant, electric fan, electric heater and also for an eight-tube radio which keeps the travelers In touch with affairs back east. A miniature bathroom, including shower, bath completes the homelike comforts. Comfortable reclining chairs afford relaxation against travel fatigue.

"The rear end of the bus is equipped for office work, with desk, typewriter and files, here Mr. Linn conducts his business each day, maintaining constant touch with his home office.

"Mr. Linn is vice president of the Linn Manufacturing corporation, at Morris, N. Y., manufacturers of Linn tractors. The Linn company was recently acquired by the Republic Motor Truck company, Inc., of Alma. Mich., and is now a division of that company. Mr. Linn is making a tour of the west in the interests of his company. He is the original designer and Inventor of the Linn tractor, which combines the outstanding features of the tractor with those of the heavy-duty truck.

"Republic-Linn factory branches are located on the west coast at Los Angeles, San Francisco and Portland, and Mr. Linn is calling on each of these branches during his tour. He left New York State in November, 1927, stopping at Indianapolis, St. Louis, Tulsa, El Paso, and Phoenix.

"Mr. Linn is an ardent advocate of modem methods of transportation. In addition to his private bus, he operates two specially built automobiles, and also personally flies a Stinson-Detroiter airplane equipped with a Wright whirlwind engine."

The Linn was mentioned in Lewis C. Dibble's column, 'Dibble Gabble' in the April 19, 1928 issue of Motor Age:

"The way two Linn tractors performed in upper Michigan, recently, in clearing the roads of veritable mountains of snow is giving O.E. Hayes, president of Republic Truck, a great deal of satisfaction."

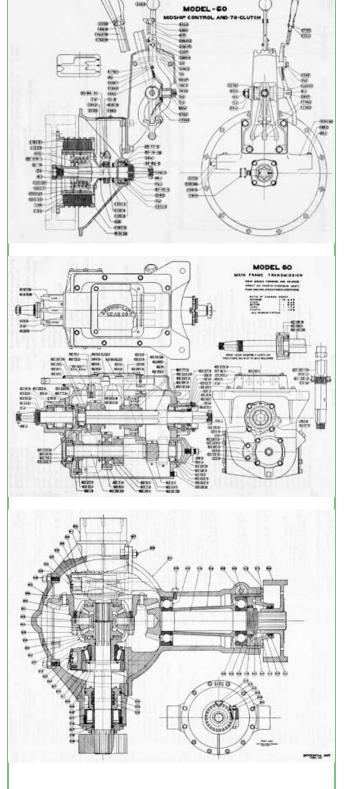
Coinciding with the sale to Republic, Linn entered into an arrangement with the Frink Snow Plow Co. of Clayton, NewYork to supply the tractor manufacturer with specially-designed snowplows. Up until that time Frink's plow used a single, full-height, non-elevating wing on the driver's side for pushing the snow farther back along the tractor. For the Linn, Frink developed a bi-lateral wing set-up which was controlled by as many as three operators riding in the Linn's equipment bed which was equipped with three steering wheels, one fore and two aft. The frontmounted wheel at the center operated a baffle plate which rode along the roadway just beneath the central-V-blade; the left and right steering wheels at the rear controlled the angle and elevation of the 12-foot long, two foot high side blades.

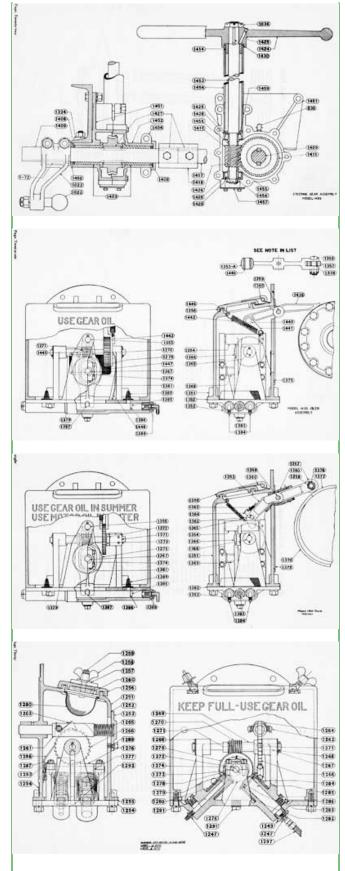
Shortly thereafter the steerable baffle plate (and its operator) was abandoned, the plate becoming a permanent part of the V-plow assembly. With the plow priced at \$1,550 a fully equipped 1929 Linn-Frink snow plow was priced between \$8,500 and \$10,500, f.o.b. Morris, N.Y.

Frink's main competitor was the Sargent, a hydraulic V-plow with bi-lateral wings manufactured by the Maine Steel Products Co. of South Portland, Maine. Priced at \$2,090 complete, the larger and heavier Sargent was the plow of choice in New England, and the additional cost could be quickly offset by the savings in manpower as the Sargent could be run with a single operator - the Frink required two.

Dwindling sales in their home market forced Linn's chief competitor, the Lombard Tractor & Truck Co. of Waterville, Maine, to seek a buyer in late 1928. In an ironic twist of fate (Lombard being the very same firm that once employed H.H. Linn as a salesman), Linn Mfg. purchased Lombard's good will and assets from H.J. Charles, Lombard's current owner, the December 20,1928 issue of American Machinist reporting:

"The Lombard Tractor & Truck Corporation of Waterville, Me., had merged with the Linn Manufacturing Co., Morris, N.Y. Officers have been elected as follows: President, G.R. Hanks, who is also vice-president of Taylor-Wharton Iron and Steel Co., N.J.; vice-president, George Whitman; treasurer, H.J. Charles, Waterville, Me.; secretary Lincoln Johnson, New York. The board of directors consists of: J.A. Bowers, vice-president, New York Trust Co.; W.F. McQuire, formerly of the Wayne Pump Co., New York; C.H. Jones, George Whiteman, John Ware, G.R. Hanks, D.E. Stalter, and S.T. Callaway."





Following the acquisition Linn's officers were as follows: G.R. Hanks, president (also v-pres. of Taylor Wharton Iron & Steel Co.); George Whitman, vice-president; H.J. Charles, treasurer (former pres. of Lombard); and Lincoln Johnson, treasurer.

Shortly thereafter Republic merged with the American-LaFrance Foamite Corp., forming the LaFrance-Republic Corp., the 'News of the Industry' column of the April 13,1929 issue of Automotive Industries reporting:

"Truck Firms Unite

"American-LaFrance and Republic Merged

"The boards of directors of the Republic Motor Truck Co., Inc. Alma, Mich., and the commercial truck division of the American-LaFrance & Foamite Corp. have approved an agreement consolidating these two companies, it was annoucned yesterday.

"This agreement is subject to ratification by the stockholders at a special meeting called for May 15.

"The consolidation of these companies, which also includes the Linn Manufacturing Corp., of Morris, N.Y., a Republic Truck subsidiary, brings together two of the oldest and best-known truck companies in the industry.

"The consolidated company will be know as the LaFrance-Republic Corp. Charles B. Rose, president of American-LaFrance & Foamite Corp. will be president."

Automotive Industries 'News of the Industry' column of May 25, 1929 annnounced the completed merger to the trade:

"Republic- LaFrance Combine Completed; Products of New Companies Cover Entire Motor Truck Field

"Detroit, May 22 -The consolidation of the Republic Motor Truck Co., Inc., and its wholly owned subsidiary, the Linn Mfg. Corp. with the commercial truck division of the American-LaFrance and Foamite Corp., was completed a few days ago at a meeting held in the law office of Clark, Klein, Ferris, Cook & Williams, Detroit, and hereafter the new corporation will be known as the LaFrance-Republic Corp.

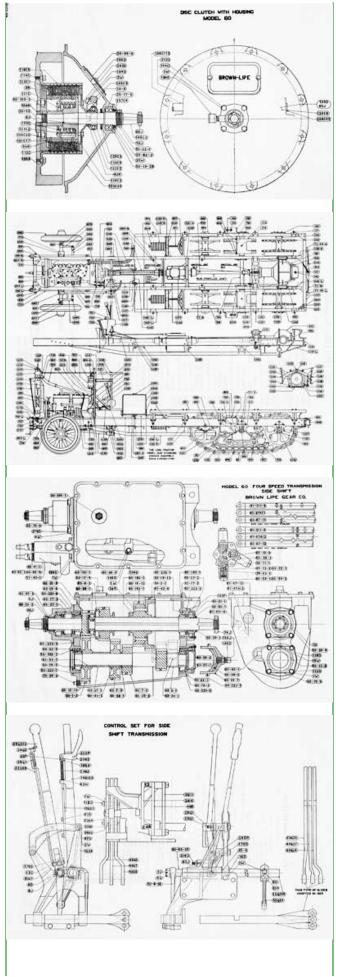
"The sales subsidiary will be known as the LaFrance-Republic Sales Corp. Preliminary details of this merger were announced in Automotive Industries, April 13.

"The combined facilities of the new corporation make one of the strongest companies in the motor truck and tractor field. It has many branches throughout the country and a large number of distributors, both domestic and export. The line of heavy trucks manufactured by American-L aFrance and the lighter Republic vehicles gives the new company coverage over the entire motor truck field.

"The balance sheet shows a ratio of current assets and liabilities of seven to one. The officers are: Joseph A. Bower, chairman of the board; Charles B. Rose, president; George R. Hanks, Franklin T. Pierce, Orley M. Canter and Thomas M. House, vice-presidents; Glenn S. Crisp, secretary, and Ralph W. Stark, treasurer."

As the corporate structure presented above indicates, H.H. Linn was effectively stripped of his management duties at Linn's Morris plant, and he took the opportunity to start another business.

The Linn Trailer Corporation was organized in late 1929 and capitalized at \$100,000 – The officers of the firm were: H.H. Linn, president; E.W. Wheeler, vice-president ; C.J. Smith, treasurer, and H.W. Naylor, secretary.



All four men had been either investors in or employees of the Linn Mfg. Co. Originally from Boston, Edward William Wheeler had served as Linn Manufacturing's chief engineer and purchasing agent. C.J. Smith was cashier of the First National Bank of Morris (N.Y.) and Howard Wing Naylor was the founder of the H.W. Naylor Co., a veterinary pharmaceutical manufacturer which is still in business today at drnaylor.com. Oneonta attorney D.J. Kilkenny served as the new firm's attorney.

The firm's product was an innovative one-wheeled automobile trailer that Linn had seen on a recent trip to France. It was currently being manufactured by a French manufacturer*, and Linn acquired a license to manufacture the trailer in the United States.

(*I was unable to locate the name of the French firm, the most likely candidate was Chaigneau, a bicycle manufacturer who is known to have manufactured single-wheeled trailers in Suresnes, a western suburb of Paris.)

William W. Capron., the Secretary of Oneonta's Chamber of Commerce was also given credit for bringing the Linn Trailer Corporation to Oneonta. The June 30 1929 Oneonta Daily Star reported:

"A fund is being railed by the Chamber of Commerce to purchase a site for the proposed Linn Trailer factory."

Linn applied for a US patent for his trailer on September, 10, 1930 and on July 31, 1934 was awarded Patent No.1968046 for his one-wheeled trailer, which he dubbed the "U-Can-Back" auto trailer. Advertising stated that the "New Linn Trailer ... Backs Correctly With the Car." Literature stated that the trailer had a weight capacity of 800 pounds, a remarkable amount considering its small size and single tire.

The November 30, 1929 Oneonta Daily Star announced that: "Work has been completed on construction of the Linn Trailer factory at West End" The article went on to state that the modern 50 x 150 ft steel and brick structure had been built by local contractors and included "individual motors for all machines". The article also stated that due to local interest a further \$25,000 in stock was being made available to local investors.

The April-13-1930 issue of the Daily Star stated:

"The final approval of specifications for the mass production trailer which is to be built at the West End plant of the Linn Trailer company is now being given and it is expected that within a few weeks the factory will be established on a definite schedule."

The outward appearance of the Linn changed little during its two decades of production save for the substitution of cast steel wheels for the originally wooden-spoked rims - heavy duty Linns were equipped with two-piece steel rims and baloon tires somtime in the late 1920s. However notable inprovements were made under the skin, particularly in regards to power, speed and carrying capacity.Linn's distinctive, yet antiquated all-wood cab was remain the sole offering until 1939 when an all-metal cab, supplied by the Orrville Metal Specialty Co. of Orrville, Ohio, was offered as a n ectra-cost option.

One welcome change was the reversing transmission which allowed an operator to run the Linn in reverse from a running-board mounted seat - using the same gears forward as back - which somewhat compensated for its ungainly 30-foot turning radius. Another time saver was the introduction of the self-dumping tailgate which was offered as standard equipment on Linn 5-yd dump bodies.

In 1930 Linn Mfg. Corp.built a one-off purpose-built tractor-trailer to deliver Linn tractors, called the Linn Transporter. Constructed of mostly off-the shelf Linn components, the mostly conventional tow vehicle featured a heavy duty Meade-Morrison Winch mounted at the rear of the extra-wide cab which included a sleeping compartment that extended over the winch. behind the winch was a massive fifth wheel to which was attahced a drop-frame gooseneck trailer manufactured by Oneonta's Linn Trailer Corp. Equipped with bi-lateral 50-gal. fuel tanks, the Transporter could cruise at a reported 40 mph when loaded up with a trailer and a new Linn tractor. The original 6-cylinder Wauksha was replaced by a Cummins Diesel powerplant in 1935. Rene Elliot reports that the Transporter was retired in 1936 and sold it to the Musson Bros., an Otsego county tree surgeon, who equipped it with an articulated boom cherry-picker boom.

The June 4, 1930 issue of the Oneonta Star reports that Linn salesmen were treated to airplane rides on H.H. Linn's Stinson bi-plane while attending a sales conference at the factory:

"Linn Tractor Salesmen Enjoy Airplane Flights

"Pilot Carlton J. Hinman has been busy the past two or three days with the Stinson planes of H.H. Linn of Morris, meeting salesmen of the Linn tractor company of that village arriving to attend a sales conference which was held Monday and Tuesday. One party was met by plane at Albany, and yesterday afternoon Mr. Hinman flew to Morris in Mr. Linns' cabin biplane and returned to Oneonta with his monoplane, leaving the biplane at the Linn field in Morris.

"A number of the guests availed themselves of the invitation extended by Mr. Linn to enjoy a flight from the local airport."

In the following month H.H. Linn took his bi-plane on a business trip to Main, the July 17, 1930 issue of the Oneonta Star reporting:

"Linn Makes Flying Trip to Maine To Inspect Tractors

"Harry H. Linn of the Linn Trailer Corporation and the Linn Manufacturing Corporation at Morris, hopped off from the Morris airport yesterday afternoon aboard his Stinson bi-plane, on a non-stop flight to Morridgewock, Maine. Carlton J. Hinman of the Oneonta airport was the pilot and they hoped to reach their destination before sundown.

"Mr. Linn made the trip for the purpose of inspecting a fleet of Linn tractors, having 14 tractors engaged on one job. Mr. Linn after inspecting the tractors will return and hoped when he departed to be able to return late today or tomorrow at the latest."

For a number of years Linn tractors had equipped their rear-dump bodies with hoists manufactured by Gar Wood's St. Paul Hydraulic Hoist Co., the October 13, 1930 issue of the Oneonta Star covered a recent business trip to St. Paul's parent company's Pittsburgh factory sales branch:

"At Pittsburgh Mr. Linn conferred with officials of the Wood Hydraulic Hoist company who are building a heavy duty hoist for the Linn tractor and with several large tractor users, and the return to Morris was made uneventfully yesterday."

A subsequent trip was made to Wood's Detroit headquarters, the November 5, 1930 issue of the Oneonta Star reporting:

"One Hop From Detroit

"H.H. Linn returned yesterday afternoon from Detroit, Mich., where he had been on a short business trip for the Linn Tractor Company at Morris with the Wood Hydraulic Hoist company, who are now developing a new heavy duty hoist.

"With Carlton J. Hinman as his pilot, and flying his Stinson monoplane, the trip was made to Detroit Monday and the return trip was made in one hop, requiring only five hours and a half."

The July 19, 1930 issue of Automotive Industries reported that A.W. Nelson, Linn's west coast representative would be traveling to Russia:

"Nelson Goes To Russia

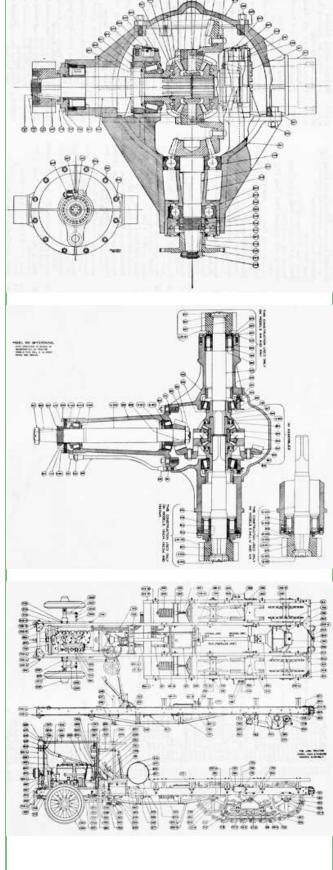
"A.W. Nelson, western representative of the Linn Manufacturing Co., division of LaFrance-Republic, is being sent to Russia for four months by his company. He will be attached to Amtorg Trading Corp. and will advise Russian engineers on maintenance and operations of Linn tractor trucks on various construction jobs."

The January 27, 1931 issue of the Oneonta Star records that the Otsego county Town of Westford had purchased a new Linn snow plow outfit:

"Town Buys Snow Plow

"John Lynes of the town board and Road Commissioner Martin Pickard were in Morris last week where they purchased of the Linn Tractor company a snow plow to be used on Westford roads."

American-LaFrance's takeover of Republic coincided with a period of ill-health for H.H. Linn. Recently diagnosed with diabetes, Linn embarking on a 30-month sabatical where he traveled



across the United States and Canada in the 'Linn Haven'. By 1931 he had grown bored of travelling and returned home to oversee the activities of his trailer company. He also returned to work at the tractor company serving as spokesman and consulting engineer.

Approximately two-thirds of the 2,500 Linn tractors built between 1917 and 1935 were sold for highway maintenance or construction. Just as sales of Linn tractors to municipalities plummetted following the onset of the Depression, sales to contractors engaged in Federal projects increased as a direct result of President Franklin D. Roosevelt's 'New Deal' Public Works Administration. Between 1933 and 1936 several hundred Linn tractors were purchased by contractors engaged in projects overseen by the Army Corps of Engineers, U. S. Bureau of Public Roads and Tennessee Valley Authority. Some of the larger project included the construction of the Bonneville, Chickamauga and Grand Coulee Dams. Mississippi River levees and the trans-Alaskan Canadian Oil (Canol) pipeline.

The August 1932 issue of The Timberman reported on a recent sale of Linn tractors in the Dakotas:

"Homestead Mining Company Standardizes On Linn Tractors For Logging Service

"On the long haul over rough roads in the pine country, Linn tractors asks no favors. Homestake Mining Co., of Nemo, South Dakota, which owns a billion feet of Ponderosa pine in the Black Hills, used for mining purposes and sale to the trade, has found the Linn one of the best investments ever made for long distance transportation of logs. The first unit was purchased in 1928. The following year another unit was purchased together with four Linn-Wheeler wagons. In the pine centers of the Inland Empire and along the road of southern Oregon the Linn tractor is increasing its list of users."

By the early 1930s Frink-equipped Walter Motor Truck Co. had become the snowplow of choice in the Northeast, even Gould & Bridges, Morris, New York's Linn distributor had taken on a Walter franchise. By this time Linn was offering a Sargent hydraulic Hi-Wing snow plow outfit, manufactured by the Maine Steel Products Co. of South Portland, ME, an article in a 1932 issue of Road and Streets reporting:

"New Linn-Sargent Hi-Wing Plow

"The Linn Manufacturing Corporation, Morris, N. Y., has announced a new Sargent hydraulically operated snow plow designed especially for use with the Linn, to enable the Linn to apply its massive power for snow removal. Three levers lift the V and control the wings and both ends of the wing push arms. The power comes from a hydraulic pump mounted on the power take-off of the tractor. The wings may be kept flat for planing or sloped up for setting back the banks. Whatever their position at the top of the lift, they are always flat when on the ground. They can also be folded in out of traffic or lifted so high that an automobile can pass under them.

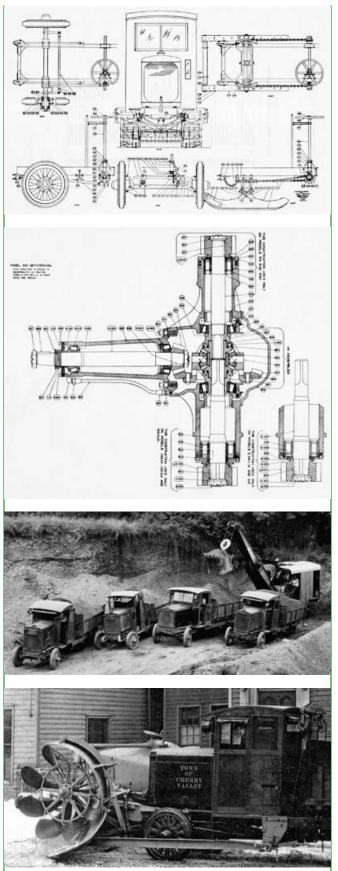
"There is no piping between the tractor and the plow. The plow and wings can be demounted by pulling ten separate pins. The Sargent Super-suction cutter bars, which are patented, enable the plow to cut clean, and the shape of the V makes it "lift" the snow and penetrate with maximum ease. The hook-up is so designed that the plow cannot 'jack-knife.' The big hydraulic jacks are powerful enough to lift the wings against snow without stopping the tractor, so that the wing man can keep the wing and nose in constant balance when plowing side banks of varying heights."

The July 15, 1933 issue of the Oneonta Star reported on H.H. Linn's recent trip to oversee a tractor demonstration in Jeffries, Mississippi:

"H.H. Linn of the Linn Tractor Corporation flew to Jeffries, Miss., where for several days he will demonstrate the power and adaptability of the Linn tractor to the construction of levees along the Mississippi River."

The December 14, 1933 issue of the Daily Inter Lake (Kalispell, Montana) reveals Linn tractors were used in Montana logging operations:

"Linn Tractors Are Being Prepared For Winter Work



"The Linn tractors used by Mr. Kelly, logging contractor for S. Somers Lumber company have been brought in from Dayton, where they were in operation during the summer, and are being requisitioned for winter work in the town of Marion, where Mr. Kelly has been logging recently.

"The Linns have a caterpillar drive and haul 1500 feet at a load, or as much as an ordinary freight car. These immense loads are made possible by the use of trailers in summer or sleds in winter, in winter the front wheels are replaced with runners for operation in snow.

"Mr. Kelley expects to run the trailers in two eight-hour shifts per day. The logs will be taken to Marion, where they will be loaded on cars on the Marion branch of the Great Northern.

"The caterpillar drive gives the Linn great traction under almost any road conditions, and it is said that they operated with ease on roads where a two-wheel drive truck would bog down."

By 1934 Cummins' Diesel-equipped Linns (introduced in 1933) were making gains on their gasoline-engined bretheren thanks to articles like the following that Cummins placed in the trades such as the following which appeared in Diesel Power:

"A common belief exists that a Diesel truck engine is a hard starter. But this is not true. It has been found that a well-adjusted motor plus a good battery makes starting as easy as with any gas engine. To illustrate: On one test a Cummins Diesel-powered snow plow manufactured by the Linn Tractor Company was left out overnight in subzero weather. The following morning the engine responded to the starter instantly. The engine did not employ any electrical heating elements."

In the Fall of 1934 Manitoba's God's Lake Gold Mines Ltd. made an addition to their existing fleet of Linns, the October 29, 1934 Winnipeg Tribune (Winnipeg, Manitoba) reporting:

"Big Freighting Job

"Gods Lake Gold will have a big freighting job on its hands this winter. Some 5,000 tons will be taken in over the tractor road, and the tractor fleet will be increased from four to seven Linn tractors.

"The company will spend some \$750,000 this winter and spring in its freighting and various phases of development."

In a 1977 conversation with historian Robert C. Ackerson, Carl Smith, a longtime member of the Linn Mfg. sales force, recalled a 1935 incident that made him realize the days of the Linn tractor wer numbered. Smith had accompanied the Morris Linn agent, Percy Gould, to Windsor, New York where he hoped to sell some tractors to some contractors constructing an earthen dam across the Chenango River. They were joined by Linn Mfg.'s chief product demonstrator, Rupert 'Dynamite' Hunt, at the construction site. Smith recalled the scene as follows:

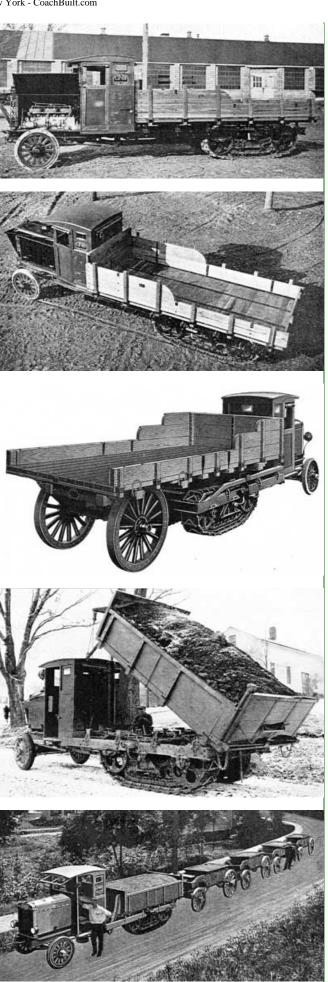
"'Dynamite' and his tractor were down in the creek bed and he wasn't doing very much... that's when I first saw those great La Tourneau tractors with their giant tires. They were scooping up dirt all over the place and dumping their loads as fast as their wheels could turn. All this time Dynamite was sitting in the creek bed doing nothing except moving an occasional load of mud... I could visualize then that the Linn Company was going to lose out..."

And lose out they did, as Gould exited the meeting with the contractors he called out to Hunt:

"'Dynamite' take that tractor out of there, lock it up and get my car. We're going home."

Despite several years of increased sales due to President Roosevelt's establishment of the Public Works Administration, increased competition from higher capacity earthmoving equipment manufactured byLa Tourneau and Euclid eventually brought Linn's contractor sales to a standstill. In the snow removal field competition was just as fierce and one municipality after another were trading in their Linns on four wheel drive equipment manufactured by Walter and FWD.





Linn Tractor history, Linn Manufacturing Corp., H.H. Linn, Truck Tractor, caterpillar, Holman Harry Linn, Morris, New York - CoachBuilt.com

In 1933 a redesigned (or more appropriately redesignated) Linn lineup - Model A, Model B and Model T - was introduced. The Model A was the same 10-ton capacity tractor Linn had been manufacturing for almost two decades - albeit with more powerful engines supplied by Hercules and Cummins.

The Model B, or "L-37" as it was later designated, was a 20-ton capacity tractor which set upon an all-new heavy-duty frame specifically designed for the mining and construction industry. The Model B Linn came equipped with a forged I-beam front axle with two-piece cast rims and 9.75 x 20-inch 12-ply balloon tires. Also included was a 15 inch clutch, heavy duty four-or fivespeed transmissions (which held 14.5 quarts of oil) and a double reduction rear axle at the rear of the bogie.

The Model T Linns were military variants of the Model B constructed in the hopes of winning potentially lucrative government contracts.

In June of 1933 the US Army evaluated a V-12 equipped Model T Linn for use as a crosscountry heavy equipment transporter at its Aberdeen, Maryland proving grounds. Weighing in at 18,230 pounds, the purpose-built Linn was fitted with American-LaFrance's 240-hp 754 cu. in. V-12 engine, which provided a pulling capacity of 8 1/2 tons (with a drawbar), or a combined carrying capacity of 8 1/2 tons while pulling an additional 7 1/2 tons.

Late in the year Linn supplied the Army with a second Linn, designated the Model T-3, which shared the same basic specifications and V-12 engine of the earlier model, but featured an enclosed cab, a midship-mounted winch, and a steel cargo body with top bows and tarpaulin.

However, the Linn's numerous drawbacks, which included an average cross-country speed of only 2 mph (20 mph over the highway), turning circle of 65 feet (unlike a regular crawler the Linn lacked the capacity of braking the inside track to assist in turning), and excessive noise caused by unlubricated tracks and un-muffled engine quickly put the T-3 Linns out of contention.

In July of 1934 Linn delivered the T-3's successor, the T-6, to the Army's Aberdeen proving grounds for another evaluation. The T-6 featured a redesigned track system that allowed it to turn around in only 36 feet, half the diameter needed by the T-3. The T-6's extra-wide frame now fully encompassed the track assembly, which was connected via a new 5-speed transmission to the 174-hp 935 cu. in. Hercules engine. The road wheels of the redesigned 14-inch wide tracks (i.e., the wheels which rolled over the track as it lay still against the ground) were filled by a smaller wheels-on-a-track assembly which moved around its own idler and roller assembly just as the outer track did. The re-engineered tracks increased the T-6's cross-country speed to 10 mph, although its highway speed was slightly reduced (15 mph) when compared to the 1933 Linn T-3. Unfortunately the re-engineered tracks were even noisier than its predecessor and despite its increased carrying capacity and maneuverability the government did not approve the T-6 for production.

In 1935 Oneonta's Linn Trailer Co. developed a tracked trailer with a 25 yd side-dumping body to be towed behind a standard Linn tractor for the Easton Car & Construction Co. of Easton, Pennsylvania - it was the only known sale of such a unit, which was listed in the Linn catalog as the Model37-T tracked trailer.

The February 17, 1936 issue of the Middletown Times Herald (Middletown, N.Y.) reported on a new Linn snow fighter that had been purchased by the Sullivan county town of Bethel:

"Ride New Snow Plow

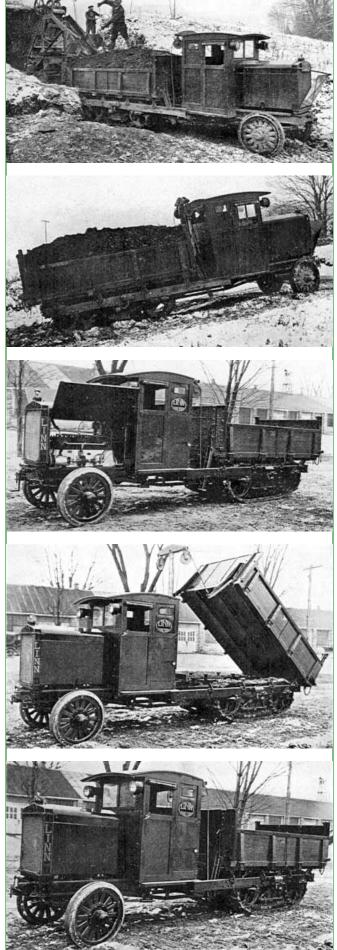
"White Lake – A dozen farmers living on outlying roads along which snowplows previously had been unable to make progress came out Friday at midnight and rode for several hours on the body of the new ten-ton Linn tractor plow which was delivered to Bethel township last Thursday just in time for the heavy snowstorm. Supervisor John F. Obermeyer accompanied the new plow on its rounds. It opened farm roads which had not been broken through all winter."

Apparently the Orange County village of Middleton had also recently purchased a Linn, the February 29, 1936 issue of the Middletown Times Herald (Middletown, N.Y.) reporting:

"Public Works Dept. Tests Snow Tractor

"Fourteen men, four trucks and a grader were assigned to snow and ice removal and clearance of catch basins in city streets today by Commissioner Justin P. Gates of the Department of public Works. Meanwhile department employees made test runs with the new Linn tractor-truck plow in several streets in the Randall tract in the South end of town, to familiarize themselves with its operation.

"Tests revealed the apparatus in satisfactory working condition, Commissioner Gates reported. With its front V-plow it is capable of clearing a twelve-foot lane, and with side-wings, a twenty-two foot lane."



Linn Tractor history, Linn Manufacturing Corp., H.H. Linn, Truck Tractor, caterpillar, Holman Harry Linn, Morris, New York - CoachBuilt.com

During the 1930s Linn took a number of used Linns in on trade, which allowed cash-strapped municipalities to purchase a re-furbished tractor at a substantial discount. One such unit, equipped with a Frink plowing outfit was sold to the Monroe County, New York town of Perinton in 1937 for \$2,950.00, a quarter of the cost of a brand-new Linn-Frink outfit.

For many years H.H Linn had been interested in private aviation, and owned a small fleet of airplanes that were used for promoting his tractor and trailer businesses. By 1928 he had invested in the Maine Aerial Service of Bangor, Maine and founded the H.H. Linn Airplane Corp., of Caribou, Maine. He constructed his own airport in Morris, New York, and at one time or another owned a Travel Air E-4000 (bi-plane), a Cessna AW, a Mono Monarch, a Stinson SB1 (biplane) and a custom-ordered Stinson M-219 monoplane. When asked about his investments in aviation in 1929 Linn stated:

""The time is near when our country will be as mighty on the wings as it is now on the wheels... There's one great adventure I find in flying, I can leave home shortly after luncheon, fly to New York, spend 2 $\frac{1}{2}$ hours in business and get back home again in time for diner, I wonder what George Washington would say about that?"

H.H. Linn was a passenger in the custom-built 4-passenger Stinson M-219 monoplane when tragedy struck on July 3, 1937. The event made the front page of the July 4, 1937 Syracuse Herald:

"Three Killed As Plane Dives To Fiery Ruin

Arthur Hansen, Foreman for I.B.M., Sole Survivor With Severe Burns; Capt Stead Is Pilot; Other Victims Are Holman H. Linn and Mrs. Dorothea Hansen

"Special Dispatch to The Herald

"Oneonta, July 3. — Three persons died in flames and a fourth was gravely injured today when a Syracuse-bound airplane crashed and burned at a private landing field owned by Holman H. Linn, 12 miles from here.

"The dead are:

MR LINN, 60, of Morris, Otsego County, founder of the Linn Manufacturing Company, trailer manufacturers, and owner of the four-passenger cabin monoplane.

CAPT. GEORGE STEAD. 43, of Norwich, Army Air Corps reserve flier and pilot of the plane.

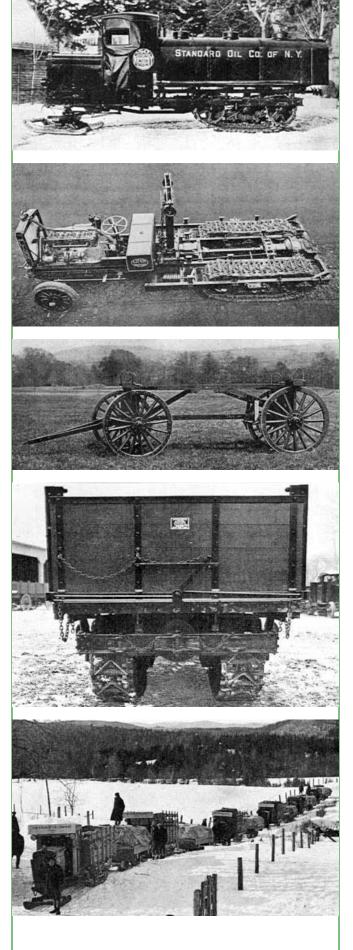
MRS. DOROTHEA HANSEN, 30, of Endicott.

"Mrs. Hanson's husband. Arthur 34, foreman of the assembly department of the International Business Machines Corporation at Endicott, the only occupant who succeeded in escaping from the blazing plane, was reported in serious condition at the Mary Bassett Hospital at Cooperstown. The accident occurred at what is known as Patrick's Hill, when the motor stalled after the plane had attained an altitude of approximately 300 feet.

"State Police said that Pilot Stead swung the ship about and started to nose down after the motor had stalled. The motor started again, and Stead resumed his course. The plane struck a tree at the edge of a clearing and came down in a mass of flames, State police said. The Hansens had been visiting Mrs. Hansen's father Charles G. Stone, superintendent of the Linn factory, and had gone along for a ride when Linn and Stead set out for Syracuse on a brief business trip. State police said that person in the Linn home expressed belief that Linn had intended to come to Syracuse to purchase an automobile.

"The crash occurred at 2:30 o'clock Saturday afternoon. Only meager official reports were available for several hours after the accident. Lieut. J.J. Warner of State Police at Sidney said the first report received by troopers came in a telephone call from Private Edwin Wheeler of the Fourth Signal Corps Field detachment from Mitchell Field. A State police patrol was dispatched to the scene over traffic-clogged highways. Meanwhile, the Morris Fire Department was summoned. A water pump truck was unable to reach the scene until a tractor was used to haul the truck up the hill to the wreckage. The plane was destroyed by flames. State police were forced to wait several hours until the wreckage cooled in order to recover the charred bodies of the victims.

"According to State police, Linn, Stead and Mrs. Hansen were trapped in the cabin while Hansen apparently leaped from the flaming plane, collapsing after running a few feet. He was picked up by George Wetman, who resides near the scene. Wetman placed Hansen in an automobile and drove to the hospital at Cooperstown.



"From the other side of the valley, Mrs. Linn, driving home from Morris, saw the takeoff and the crash. 'I knew immediately what had happened,' she said later, 'I drove to the field, but there was nothing I could do, so I went into the house. Mr. Linn always used an airplane on his business trips,' she added.

"Another eye-witness was Lee Bryant, Oneonta vacuum cleaner salesman, who said he was driving past the field on his way to an appointment at the Linn home. Bryant found Hansen, the sole survivor, wandering about near the wrecked and burning plane, and led him off the field.

"'I saw the plane flying low over the road,' Bryant said. 'I thought he (the pilot) was doing tricks so I stopped to see the fun. He stuck the plane's nose in the air, then dipped down into a hollow as he apparently tried to pick up speed.'

"'His wing tip caught a small tree on the edge of the hill and the place catapulted through the air to the ground 100 feet away. It burst right into flames. I could see them in there but couldn't do anything about it.'

"Dr. Norman Getman. coroner, permitted the removal of the bodies to an undertaking establishment in Morris. Meanwhile, state police guarded the burned plane pending the arrival from Buffalo of John Somers, Department of Commerce inspector. Somers flew from Buffalo to Sidney, near the crash scene.

"Linn, a native of Washburn, Me., came to Morris in 1917, and subsequently established his trailer manufacturing business. Several years ago he constructed a hangar and field on 'Patrick's Hill' near his home to facilitate his use of airplanes in business trips.

"Captain Stead was a widely-known pilot. He served in the World War, and as Linn's private pilot had flown the Linn plane to many parts of the East and Midwest. At the Municipal Airport at Amboy, near Syracuse, officials said that the Lynn plane had made numerous stops there."

After the funeral, Linn's widow and the Trailer Company's board of directors asked Arthur R. Perkins, the head of the Unadilla Trailer Co. of New Berlin, New York to take over the day-today management of the Linn Trailer Co. Unfortunately sales of Linn tractors were in a steady decline and little could be done to turn the Morris plant around. Upon hearing the news, Linn's friend and business partner, George Whiteman, put the situation in perspective:

"The success of the Linn Manufacturing Corporation and Linn tractors as machines was entirely due to the inventive genius and head work of H.H. Linn. He was the brains and founder of the company."

Without Linn, who had returned to the Morris firm bearing his name in 1931 as vice-president in charge of engineering, the Linn Manufacturing Company continued its downward slide.

Shortly thereafter Linn Mfg. Corp. officials hired consulting engineer, Philip W. Sloan, to design a new model they hoped would save the company. Sloan's solution was an innovative vehicle, designated the Linn C-5, that company officials hoped would bridge the gap between the truck and crawler-tractor. Sloan had been the chief engineer of the Schacht Truck Co. of Cincinnati, Ohio, and many of the components of the C-5 were sourced from the recently shuttered Ohio truck manufacturer.

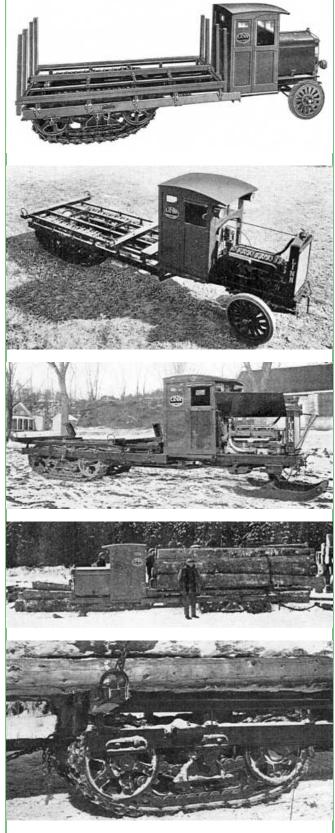
While the C-5 appeared to be a standard cab-over-engine (COE) truck at the front (albeit with double tires), the drive assembly at the back was unique, in that both a half-track mechanism and a conventional rear axle were fitted. It featured both front wheel and track drive with a pair of wheels mounted behind the crawler. On hard surfaces it could operate as a front-drive truck. In rough terrain hydraulics raised the rear wheels and lowered the tracks providing tremendous pulling power on all types of surfaces.

The new Linn was announced to the trade in the 1939 issue of Public Works:

"Linn Announces New Type of Haulage Unit

"The Linn Manufacturing Corporation, Morris, New York, has announced a new type of haulage unit, known as the Model C-S, which can be instantly converted from track to wheel operation, or vice versa, merely by throwing a control lever mounted at the driver's position.

"Body capacity is five tons, and the chassis weight, with cab, is 11,500 lbs. The engine is a 6-cylinder Hercules rated at 105 hp. Operating on dual pneumatic tired wheels, the vehicle has seven inches of road clearance under the traction



unit.

"In this position, the drive is on the front wheels; the traction unit idling, and merely revolving should it hit an obstruction. The load distribution is equal on front and rear wheels, with a maximum speed of 35 m.p.h. When track operation is desired, the operator merely pushes the control lever and the rear wheels are raised hydraulically. The wheels can be raised to allow nine inches of road clearance, or they can be allowed to trail or float behind the traction unit.

"In hauling from pits, for example, the C-5 will come up out of the pit unaided with its own load, and on its own tracks at 12 m.p.h.; and when it reaches good road. It can roll away at 35 m.p.h. on rubber. In addition, it will do those jobs requiring steady track operation, or others requiring only wheel operation. If hauling is to be over good roads for any protracted period, the entire traction unit is readily removed and stored.

"Timken roller bearings carry the upper ends of the spiral screw shafts and cutless rubber bearings are used at the lower ends of the shafts which are subject to abrading action of the sand and water.

In March of 1939 a prototype Linn C-5 was delivered to the US Army's Aberdeen, Maryland proving grounds for evaluation as a potential 155mm artillery prime mover. Rated for 5-tons carrying capacity, the C-5 was powered by a 104-hp, 478 cu. in. Hercules inline 6-cylinder engine that passed power to either the front axles or the 18" wide pair of rear tracks via a Spicer transfer case and Fuller 5-speed transmission. The 17,760 pound Linn C-5 was 94 inches wide, 94 inches high and 20 feet long with dual 12-ply 8.25 x 20-in. tires mounted at all four corners.

The April 22, 1939 issue of Automotive Industries revealed that Linn intended to manufacture the C-5 in a factory located at 1000 Military Avenue, Kenwood Station, Buffalo, New York, that had been recently vacated by the Fowler & Union Horse Nail Co.:

"Linn Mfg. Co. to Make Tractors in Buffalo

"The Linn Mfg. Corp., producer of heavy duty tractors, will begin operations in Buffalo, N. Y., in about two months. The company, which will move its manufacturing facilities from its present location in Morris, N.Y., has taken over a plant formerly occupied by the Fowler & Union Horse Nail Co. The property consists of $7\frac{1}{2}$ acres and a modern one-story factory with 77,000 sq. ft. of floor space.

"In addition to the 40 carloads of equipment and machinery that it will move to Buffalo from Morris, the Linn Co. will purchase about \$100,000 worth of new machinery and equipment.

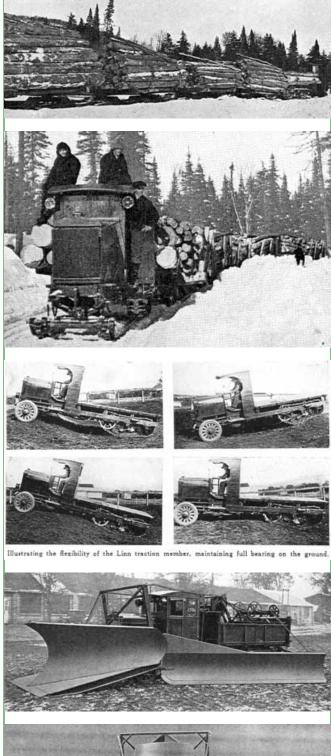
"The company recently has added to its line of heavy tractors a tractor-truck which may be used for highway or cross-country operation. The president of the concern is Franklin R. Van Rensselaer."

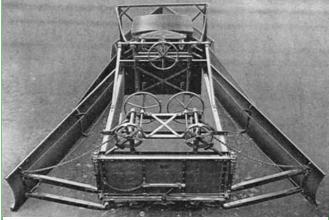
The handful of C-5's that had been sold to the public were experiencing their own problems and it soon became apparent that further testing should have preceeded customer deliveries. The September 27, 1939 death of Wallace J. Childs, chairman of American-LaFrance (and the C-5's main benefactor) only served to compound the problems, and the Buffalo plant was quickly abandoned with C-5 production returning to Morris.

A significant number of early C-5 purchasers were so disatisfied with their 'CaTruks' that Linn took them back and refunded their money. These included five C-5 logging units purchased by the U.S. Forestry Service for use near Concord, Massachusetts, as well as a road maintenance unit purchased by the Green County, New York, Town of Jewett.

Among the main complaints of failed drivetrain components others complained of the unsettling feeling experienced when the rear wheels were replaced by the tracks at speed. The C-5-specific track system enjoyed significantly less grip than a standard Linn L-37 and when used on snow the smaller cleat openings quickly clogged up with snow and ice, causing a loss of traction.

Sloan also modified the C-5 layout, moving the motor 18 inches forward to improve weight distribution and reduce heat build-up in the cab. The move forward resulted in a revised front-





Linn Tractor history, Linn Manufacturing Corp., H.H. Linn, Truck Tractor, caterpillar, Holman Harry Linn, Morris, New York - CoachBuilt.com

end whose louvered nosepiece tried to conceal the re-mounted engine and radiator as best as it could.

Sloan's marginally-revised Linn C-5 returned to the Aberdeen proving grounds in September of 1940. Unfortunately, it continued to be plagued by its rough ride (even when on wheels), low maximum speed, and the inability to tow a 155mm gun, the Army's chief requirement. Consequently no military orders for the C-5 ensued and production of the C-5 was put on haitus for the duration of the war, with the total number produced from 1939-1947 estimated at fewer than 30 examples.

Ernest Leigh Portner reports that several rotary plows were tried on Linn tractors. The 'Snow King', a light railway plow which featured dual outboard paddlewheels fed by a central V-blade plow - seen to the right - was constructed by the Rotary Snowplow Co. of Minneapolis, Minnesota. The second, constructed in 1940 by the Rome Grader Co., of Rome, New York, featured an articulating rotary blower mounted in front of a V-blade plow. Portner's father, who held a snow removal contract with Oneida County, tested the prototype, which ultimately proved unsuccessful due to its slow speed and inability to go through hard-packed snow.

A handful of refurbished Linn L-37-type tractors would play an important role in the development of the Gradall telesoping excavator. In 1941 Ray and Koop Ferwerda, principals of Cleveland, Ohio's Ferwerda-Werba-Ferwerda construction company, commenced construction of a telesoping boom excavator (considered the very 1st Gradall) using a government surplus dump truck chassis. They continued to improve the design during the War and in late 1943 commenced construction of a second prototype using a used Linn tractor as its carrier - the finished product debuting as the Gradall on May 6, 1944.

Three more secondhand Linn L-37s served as carriers for the next 3 Gradall prototypes, after which the Ferwerda brothers sold the rights to manufacture the Gradall to Cleveland's Warner & Swasey Co. Although Warner & Swasey had tested the Gradall on a Linn C-5 CaTruk carrier, its dual-tired axles were too wide for Ohio regulations and they determined that a low-priced Gradall unit - built on a cheap Army surplus truck instead of an expensive Linn C-5 - would be more attractive to potential dealers and customers.Consequently the first production Warner & Swasey-built Gradall, the M2400, debuted in 1946, mounted - like most early units - on an Army surplus 6x6 truck.

In late 1944 Linn created a pair of long-wheelbase Linn L-37 tractors which were equipped with a hydraulic platform lifts topped off with an inflatable rubber cushion that would serve as tow vehicles for disabled B-29 bombers. Two Linns were required to lift each B-29 - the pair joined together by detachable braces that kept the tractors operating in unison. Testing commenced on the specially-outfitted Linns at the US Naval Air Station at Patuxent River, Maryland in early 1945, but the end of the war caused the entire program (20 pairs of tractors were reportedly on the books) to be cancelled.

During the War a used Linn tractors could be purchesed for pennies on the dollar, as evidenced by a June 27, 1944 classified ad that appeared in the Harrisburg Evening News (Harrisburg, Penn.):

"Tractors For Sale

"3 Linn tractors -5 cu. yd. dump bodies, St. Paul hoists, 100 h.p. Waukesha motors, Reconditioned caterpillar tracks and solid rubber on front, avoiding tire trouble and costly delays. Ready to go to work. Price \$2,000, f.o.b. Buffalo, our yard. Charles Rossow Contracting Co., 343 Winslow Ave, Buffalo, 11, NY."

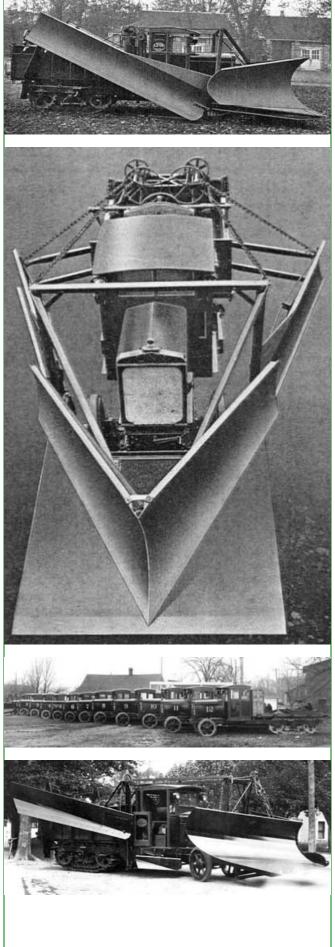
At War's end the Linn Mfg. Corp. found itself with a handful of returned C-5 CaTruks and a large parts inventory. Nobody was interested in purchasing a new C-5, albeit a used one, so some clever minds decided to rebuild the remaining C-5's into a seemingly all-new model, the C-6. By removing the rear axle and substituting a conventional front end for the dual-tired front-wheel-drive unit the C-5 became the C-6.

Linn supplied a C-6 to the U.S. Navy for evaluation, but once again no orders were forthcoming. C-6 sales were disappointing save for 25 units delivered to the International Hoist & Derrick Co. for use in the Russian oil fields. The last units were completed in 1948 with an estimated 30 Linn C-6's having been assembled to date.

American-LaFrance closed down the Linn shops in December of 1949 and its assets were liquidated at a December 15, 1949 auction. Harold Mills, Linn's former treasurer, and Maurice Bridges, a partner in Gould & Bridges, Morris' Linn and Walter distributor, bought the Linn factory and most of the parts and equipment for pennies on the dollar.

Mills and Bridges constructed two final C-6's from parts on hand hwich were sold to the former Seattle, Washington Linn distributor, and managed a Linn parts and service facility for most of the next decade, calling it quits in 1959.

In the November 8, 1998 issue of the Schenectady Sunday Gazette (Schenectady, N.Y.) reporter Alan Ginzburg published an informative interview with Richmondville, New York Linn collector



Charles Bilby:

"Old Workhorse: Slow-moving Linn Tractor Boasted Rugged Power

"By Alan Ginsburg, Gazette Reporter © 1998 Schenectady Daily Gazette

"Richmondville - Charlie Bilby primes with gasoline each of the six cylinders of the 170 horsepower engine of the 1935 Linn Tractor, climbs into the cab and presses the starter button. The clank and clang of the engine echo throughout the valley, jolting the tractor's nine tons of iron and steel.

'That's the greatest thrill, hearing that engine turn over,' Bilby says.

"Grasping the iron steering wheel with both hands, he engages the clutch, shifts into first gear and steps on the accelerator. The Linn lurches forward as the clattering roller chain turns the track.

"'You can feel the power when you step on the gas,' says Bilby, noting that though the Linn's top speed is only about 8 mph, its engine produces a powerful surge of energy.

"Yet the Linn 'half-track,' as it was later dubbed -- with its front wheels and rear bulldozer-like tracks -- wasn't made for speed. It was built for power and strength, for hauling tons rock, marble, road construction materials, and for plowing unpaved rural roads.

"In its heyday, this hybrid truck and track-driven machine was the workhorse of the construction industry, used in building dams, in copper mining, in marble quarries and logging. The Linn Tractor was also used on farms -- with up to five plows attached -- to plow fields.

"Flexible track

"The Linn Tractor, says Bilby, was a precursor of earth movers manufactured by Caterpillar and other firms that improved on Linn's traction unit design, with is flexible track system for easy travel over difficult terrain.

"Designed by Holman Harry Linn, who formed the Linn Manufacturing Co. in 1917 in Morris, Ostego County, the Linn Tractor was custom-built machine with an average retail price of \$20,000. In its early years, the Linn was powered by gasoline. Later models were available with diesel engines. Linns were equipped with four and six cylinder Waukesha engines, six cylinder Cummins diesel engines and later Hercules engines.

"While earlier engines would accelerate the Linn to about 8 mph, the Hercules increased it to 12 mph. Linn transmissions provided four speeds both forward and backward.

"'You could get any type of body you wanted,' says Bilby, 'a dump body that could empty from the rear or the side, with metal-and-wooden boxes that could carry 8 to 15 yards of material.'

"The Linns are about 25 feet long and 7 feet wide. Many of the Linns were used in the logging industry, where sled-type skis replaced the front wheels in winter and logs loaded in a train of trailers were pulled by the tractor.

"Standard colors were green and black, with some available in yellow, red, black and orange. The slogan for Linn Tractors was, 'Carry a pay-load using but one set of tracks.'

"In 1927, the Republic Motor Truck Corp., a Michigan-based firm, purchased Linn Manufacturing and continued to operate it in Morris as a subsidiary while retaining its name.

"During the 1930s and 1940s, the Linn Tractor was used in construction of dams, such as the Grand Coulee Dam on the Columbia River in Washington state, for maintenance work on the waterway in the Panama Canal Zone and in many Tennessee Valley Authority projects. Linns also were extensively used in the logging industry in the Adirondacks.

"Lasting impression

"Bilby, a maintenance employee at the State University of New York College at



Cobleskill, says his fascination with the Linn tractor began when he was a youngster watching the machine plow snow along the back roads of Schoharie County.

"I still remember seeing the Linn coming down the road from a long way off, and even after it was out of sight, you could hear the roar of the engine and the clatter of the track,' he says.

"His father was a 'wing man' on a Linn. Huddled against winter's cold winds in a small shed attached to the dump box and outfitted with a kerosene heater, Bilby's father raised and lowered the wing plows with control levers. The levers were later modified to operate from the cab.

"When they were plowing with the wings out, it stretched about 21 feet wide, the average road was probably narrower between stone walls,' Bilby says.

"Cleats were attached to the tracks to prevent sliding on the snow- and icecovered roads. It took two men two days to fasten the cleats.

"'It was quite a sight to see,' says Bilby, who recalls watching the Linn clear the high snowdrifts. After each attempt to dislodge deep layers of hard-packed snow with the front-mounted V-plow, the driver would back up and buck against the drift, back and forth until a wide path opened.

"Never forgetting those early images of the Linn Tractor in action, Bilby, whose longtime hobby is restoring early gas-powered engines, found his first Linn about 11 years ago, a 1924 machine abandoned by a town highway department. He restored it and has taken the Linn to exhibitions of vehicles and machinery of yesteryear.

"Bilby has accumulated a dozen Linn Tractors -- built between 1924 to 1946 -most of them once used by town highway departments in Schoharie and several other nearby counties. He found them in town barns, garages, landfills, fields, in various stages of rust and corrosion. He restored the engines on a few and replaced parts and adjusted the tracks so they would operate.

"'I talked with some of the old guys who remembered the Linn plowing theirs towns and some knew where they ended up, and when I found one, No matter how rusted or busted up it was, I'd offer to take it off their hands.'

"Delicate job

"One of the Linns, he says, was buried nearly 2 feet in the ground. 'We had to dig it out and jack it up and put blocks under it until we could free it. I just hate to see them end up in the junkyard.'





will be able to show you many outstanding advantages regarding your present or future handing or to lems. Wherever the Likes is used-strough mines, in humber regions, on road building and constructio always beever able cost of heavy handing.

CONSULT US REGARDING YOUR HAULING PROBLEMS! PHONE, WEITE OR WIEE

SALT LAKE CITY

THE T. L. PARKER LINN TRUCKING CO., INC. WEST FOURTH SOUTH

PHONE WASATCH SIS

"Recently, he restored a 1935 Linn for a town in Sullivan County in exchange for two other Linns -- a 1933 gas-powered and a 1946 diesel-powered Linn, with metal cab and body.

"Restoring the 1935 Linn took two years and the help of his nephew Rob Bilby, who restored the tractor's electrical system.

"'The engine was a lot worse than I thought,' says Bilby. 'The valves were rusted shut, pistons stuck so tight you couldn't get them out.'

"After failing to free the pistons with solvent, he dislodged them by using a 20 ton hydraulic jack that squeezed a plug against the pistons to drive them through the cylinders. Though he had to replace the piston rings and make new head gaskets, the bearings simply needed a good cleaning.

"Bilby ordered some engine parts from a man in Ohio who maintains an inventory of parts used in Linn engines: others he fabricated or found in the scrap yard. Bilby has the technical manuals, including drawings and diagrams, for repairing the tractors.

"Bilby also repaired the hydraulic system that operates the plow, mounted new side lights, replaced the windshield and back window of the cab, mounted new tires. He cleaned and adjusted the track mechanisms and repainted the metal parts black.

"He then replaced rotted wooden doors, roof slats of the cab and dump body with white oak planks and painted them green, the Linn's original color. He had a new decal printed for the side of the cab, to match the original company logo.

"Linn Manufacturing stopped making the tractors in the early 1950s, but would accept used tractors as trade for highway equipment, such as sanders and snow plows, Bilby said.

"The company would cut the engine from the rest of the tractor, rebuild it and sell it for use at power plant,' he said, noting he has several of the engines, two that were used in sawmills, one that operated a ski tow and another that operated a water pump that made snow at a ski resort.

"Passed by

"'The Linn was just a good idea in its time,' says Bilby. 'They were outmoded when country roads were black-topped and four-wheel-drive, rubber-tire trucks came along that could plow and travel much faster.'

"Meredith McNeil, professor of agricultural engineering at SUNY Cobleskill, who also has a special interest in Linns, agreed.

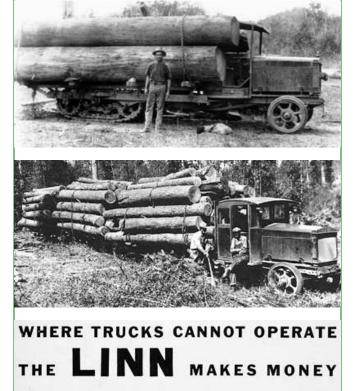
"'Time finally outran the Linn company. They built a machine that served the logging, construction industry and highway industry at a time when speed wasn't important. The Linn was slow but rugged beyond belief. But in the late 1940s and early 1950s, America really began to move technologically. So, speed-wise, the Linn Tractor was outdated'.

"What made the Linn last, says McNeil, was the track system. 'It had what you would call a fairly large footprint -- the amount of area that contacted the ground, which meant it could carry some pretty big loads.'

"Bilby says he's still looking for Linns to add to his collection and continues to comb the countryside for rusting machinery in former town landfills, barns and junkyards. He also checks out reported sightings of Linn Tractors by folks who have seen his restored 1924 Linn Tractor at a gas-up or antique car exhibit.

"Ernie Benson of Worcester recalls what it was like seeing a Linn plowing the roadway from Dorloo to Hyndsville in Schoharie County in the winter of 1945, when he was 7.

"Stopping by to admire Bilby's restoration of the 1935 Linn Tractor and hearing the start, brought back memories for Benson of the thrill of watching the tractor plow through the snow.



urrefected and with an over abundance of power, the inu wates no time between showed and dump. Watch is patented *flexible* traction grip into the rubher-lik umbo and arry on with the certainty of a wheel truch n a good road.

in a good tran. See the showel deliver tons of heavy earth or rock into is wide body, and then . . , watch the Linn move away ithout a protect, were "tough going" to its destination in a moment it is on its return, backward if the distance short or the space narrow. One electrical construction obst the Linn is the ideal heavy handing unit.

Day after day, regardless of the job's demands, eather or ground conditions, the Linn carries on where tasks could not turn a wheel... and makes momey for a sonner. Learn more about Linn performance and rofits. Write or wire for data.

HAULS PAY LOAD AS IT LAYS ITS



MANUFACTURING CORPORATION LAFRANCE-REPUBLIC Corp. No Lorana Omadoa Nelle Kannas City, Ma. Sona Parle S. D. Letter Rock Ark St. Fact Minn.

"'It was awesome,' says Benson, 'It was an awful winter that year, lots of snow, the Linn just came down that dirt road loaded with rock to give it ballast, and it just kept pushing against the snow, back and forth until the road was cleared. For a young boy, it was quite a sight to see, something you'd never forget.""

Although they were relatively unknown outside of Central New York, most highway departments located in New York State's snowbelt used a Linn tractor for highway maintenance during the summer and snowplowing during the winter. One Morris resident summed up the experience of many to historian Robert C. Ackerson in 1977:

"When we head the Linns pass by in the night we knew the roads would be clear in the morning."

(Our subject - Linn Mfg. Corp. was unrelated to the Escanaba, Mich. firm of the same name.)

@ 2014 Mark Theobald for Coachbuilt.com with special thanks to Fred W. Crismon, Ernest Leigh Portner, Rene Elliott and Alan Ginsburg

Pictures are continued on the next page - click here for more!

Appendix 1 - A.O. Lombard, H.H. Linn, Linn Mfg. Corp, Linn Trailer Corp., G.R. Hanks and P.W. Sloan US Patents:

US674737 – Logging Engine - Filed Nov 9, 1900 - Issued May 21, 1901 to Alvin O. Lombard

US854364 - Log Hauler - Filed Nov 22, 1905 - Issued May 21, 1907 to Alvin O. Lombard

US945560 – Machine for Making Roads - Filed Jun 26, 1909 - Issued Jan 4, 1910 to Alvin O. Lombard

US955601 – Sled for Carrying Logs - Filed Jul 3, 1909 - Issued Apr 19, 1910 to Alvin O. Lombard

US1234355 - Tractor Truck - Filed Apr 22, 1916 - Issued Jul 24, 1917 to Alvin O. Lombard

US1270531 - Tractor - Filed Dec 1, 1916 - Issued Jun 25, 1918 to Holman Harry Linn

US1521454 - Creeper - Filed Jul 30, 1921 - Issued Dec 30, 1924 to Holman Harry Linn

 $\rm US1685676-Tractor$ - Filed May 13, 1924 - Issued Sep 25, 1928 to Holman Harry Linn assigned to Linn Mfg. Corp.

US1701979 – Snow Plow - Filed Nov 17, 1926 - Issued Feb 12, 1929 to Holman Harry Linn assigned to Linn Mfg. Corp.

US1835506 – Universal Joint - Filed Apr 2, 1928 - Issued Dec 8, 1931 to Holman Harry Linn assigned to Linn Mfg. Corp.

US1685641 – Vehicle Drive - Filed Apr 2, 1928 - Issued Sep 25, 1928 to Holman Harry Linn assigned to Linn Mfg. Corp.

US1794630 – Construction for Automobile Trailers - Filed Aug 20, 1928 - Issued Mar 3, 1931 to Holman Harry Linn assigned to Linn Trailer Corp.

US1809344 – Tractor - Filed Aug 27, 1928 - Issued Jun 9, 1931 to Holman Harry Linn assigned to Linn Mfg. Corp.

US1835506 – Universal Joint - Filed Apr 2, 1928 - Issued Dec 8, 1931 to Holman Harry Linn assigned to Linn Mfg. Corp.

US1858154 – Tractor - Filed Dec 11, 1928 - Issued May 10, 1932 to George R. Hanks assigned to Linn Mfg. Corp.

 $\label{eq:US1877516} US1877516-Head \ Casting \ for \ Radiators \ - \ Filed \ Oct \ 8, \ 1930 \ - \ Issued \ Sep \ 13, \ 1932 \ to \ Holman \ Harry \ Linn \ assigned \ to \ Linn \ Mfg. \ Corp.$



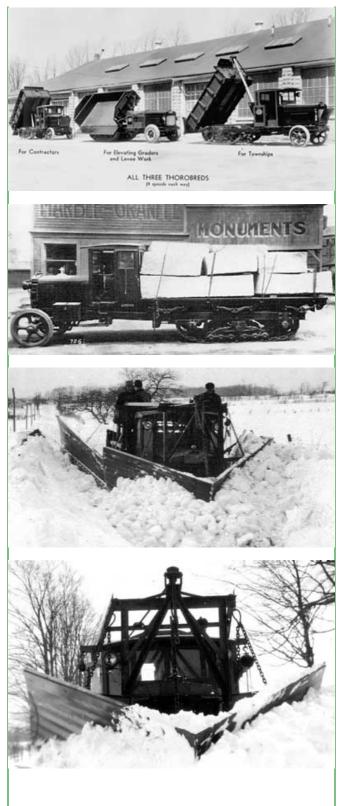
For Contractors



For Townships



For Elevating Graders and Levee Work



US1895387 – Logging Bolster - Filed Feb 20, 1930 - Issued Jan 24, 1933 to Holman Harry Linn assigned to Linn Mfg. Corp.

US1903629 – Vehicle Brake - Filed Apr 2, 1928 - Issued Apr 11, 1933 to Holman Harry Linn assigned to Linn Mfg. Corp.

US1915325 – Automobile Trailer Construction - Filed Oct 29, 1929 - Issued Jun 27, 1933 to Holman Harry Linn assigned to Linn Trailer Corp.

US1953051 – Trailer Construction - Filed Oct 1, 1930 - Issued Mar 27, 1934 to Holman Harry Linn assigned to Linn Trailer Corp.

US1953053 – Trailer Construction - Filed Feb 14, 1931 - Issued Mar 27, 1934 to Holman Harry Linn assigned to Linn Trailer Corp.

US1953052 – Trailer Construction - Filed Feb 14, 1931 - Issued Mar 27, 1934 to Holman Harry Linn assigned to Linn Trailer Corp.

US1954637 – Vehicle Construction - Grant - Filed Jun 4, 1931 - Issued Apr 10, 1934 to Holman Harry Linn assigned to Linn Trailer Corp.

US1959168 – Vehicle Construction - Filed Nov 10, 1931 - Issued May 15, 1934 to Holman Harry Linn assigned to Linn Trailer Corp.

US1968046 – Trailer Construction - Filed Sep 10, 1930 - Issued Jul 31, 1934 to Holman Harry Linn assigned to Linn Trailer Corp.

US2023330 – Gate Control For Dump Vehicles - Filed Dec 10, 1930 - Issued Dec 3, 1935 to Holman Harry Linn assigned to Linn Mfg. Corp.

US2027989 – Dump Body For Vehicles - Filed Sep 30, 1931 - Issued Jan 14, 1936 to Holman Harry Linn assigned to Linn Mfg. Corp.

 $\rm US2070015-Track$ Trailer - Filed Mar 25, 1935 - Issued Feb 9, 1937 to Holman Harry Linn assigned to Linn Mfg. Corp.

US2341883 – Convertible Vehicle - Filed Jul 13, 1940 - Issued Feb 15, 1944 to Philip W. Sloan assigned to Linn Mfg. Corp.

Appendix 2 Linn Videos:

http://www.youtube.com/watch?v=16JMcJLOym4

http://www.youtube.com/watch?v=_8aHWYp8qxs

http://www.youtube.com/watch?v=SzbCW5Vsb_A

http://www.youtube.com/watch?v=SxIfJH-TVx4

http://www.youtube.com/watch?v=V4glptWoEnM

http://www.youtube.com/watch?v=8rEdG2IC2xY

http://www.youtube.com/watch?v=FhgtU2drAC4

http://www.youtube.com/watch?v=N_Oq60EOjjs

http://www.youtube.com/watch?v=KDGRBHtQVRo

http://www.youtube.com/watch?v=_Z44_XdZLxI

http://www.youtube.com/watch?v=F-H9WMoeBZU

http://www.youtube.com/watch?v=RwDXcPhUDjc

http://www.youtube.com/watch?v=Y-EWN-UXG-U

http://www.youtube.com/watch?v=xbYOBjtpwjI
http://www.youtube.com/watch?v=MBWARg6BbgQ
http://www.youtube.com/watch?v=SFcTkBlqjhY
Appendix 2 Lombard Videos:
http://www.youtube.com/watch?v=uAJ0mxp-8j8
http://www.youtube.com/watch?v=TmFgE-wB-l0
http://www.youtube.com/watch?v=82A2uqTX9HI
http://www.youtube.com/watch?v=l31uJou_2cU
http://www.youtube.com/watch?v=5bIiy9zGwtY
http://www.youtube.com/watch?v=hPJkkH3ELAA

<previous< td=""><td>click here for more pictures</td><td>ne</td></previous<>	click here for more pictures	ne



References

Don Chew - Tracks and Screws? A.O. Lombard and H.H. Linn, Wheels of Time, Vol. 18, No. 2, March/April 1997 issue

Robert C. Ackerson - Linn: The New England Truck, Best of Old Cars, Vol. II, pub. 1977-1978

Fred W. Crismon - U.S. Military Tracked Vehicles, pub. 1992

Jim Grant - The Gradall: A Story of American Ingenuity, pub. 2010

Eric Bracher - The History of the Linn Tractor, Timber Times, issue 20, pub. 1998

Rene Elliott – The Linn Tractor, Old Truck Town News (Journal of the Hays Truck Museum), January 2000 issue

Rene Elliott – Those Creepy, Crawly Wonderful Linns, Wheels of Time, Vol. 6., No. 5; Sept.-Oct. 1985 issue

Some Postscript On the Linns, Wheels of Time, Vol. 7, No.

2; Mar.-Apr. 1986 issue

Log Trucks in the Pacific Northwest, Wheels of Time, Vol.7, No. 2; Mar-Apr 1986

C.H. Wendel - History of the Linn Mfg. Co., Gas Engine, Vol. 21, No. 3, March 1986 issue

James A. Young & Jerry D. Budy - Endless Tracks In the Woods, pub. 1989

Rene Elliott - Snow Plows in Northern New York, Wheels of Time, Vol. 12, No. 6; Nov.-Dec. 1991 issue

Rene Elliott - The C-Series Linns, Wheels of Time, Vol. 13, No. 6; Nov.-Dec. 1992 issue

Rene Elliott - The Linn Trailer and Van Co., Wheels of Time, Vol. 15, No. 3; May.-Jun. 1994 issue

Don Chew - Tracks and Screws? A.O. Lombard and H.H. Linn, Wheels of Time, Vol.18, No. 2; Mar-Apr 1997

Rene Elliott - Adirondack Logging with Linn Tractors (unpublished manuscript)

Steven R. Hatch - Mother Nature vs. the Model T: the Problem of Snow Removal in the Adoption of the American Automobile (Lehigh University Theses and Dissertations) pub. 2006

Clyde Shook - The Linn Tractor, Gas Engine; Vol. 34, No. 5, May-June 1999 issue

A Heavy-Duty Tractor Plow – November 1925 issue of The American City, pp. 579-580

Alexander M. Koroleff & Ralph C. Bryant - Transportation of Logs On Sleds; Yale University, School of Forestry Bulletin No. 13, pub. 1925

John Walker Harrington - How Self-taught Lumberjack Invented the World's First Endless-Tread Logging Tractor, Popular Science Monthly, January, 1923 issue

Jim Auman - Lombard log hauler, Railroad Model Craftsman, December, 1984 issue

Stewart H. Holbrook - Yankee Loggers, (International Paper Co.), pub. 1961

Log Haulers Twenty Years Ago: An Interview With O.A. Harkness, The Northern, December, 1927 issue

Hugh Desmond - Steel Horses for Long Hauls, The Northern, April 1926 issue

John Walker Harrington - How Self-taught Lumberjack Invented the World's First Endless-Tread Logging Tractor, Popular Science Monthly, January, 1923 issue

Walter M. MacDougall - Lombard's Iron Horse, The Northeastern Logger, March 1963 issue

Lore A. Rogers & Caleb W. Scribner - The Log Haulers, The Northern Logger, August 1967 issue

Submit Pictures or Information

Original sources of information are given when available. Additional pictures, information and corrections are most welcome.

Click Here to submit pictures or information

quicklinks|buses|cars|customs|designers|fire apparatus|limos|pro-cars|taxis|trailers|trucks|woodies



© 2004-2014 Coachbuilt.com, Inc.|books|disclaimer|index|privacy