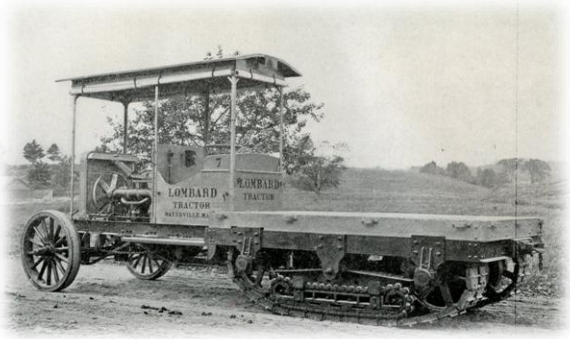
LOMBARD'S TIN LIZZY & BRUISERS

Terence F. Harper
January 2020

***R**eaching into the cab, Paul pressed the starter button and the motor began churning noisily. Waiting expectantly for something - anything to happen, we were rewarded with several deafening backfires. Standing opposite Paul on the other side of the tractor I was stunned during one of the intermittent explosions to see a large ball of flame shoot out of the low slung up-draft carburetor leaving a trail of flaming gas splattered across the starter motor and up the front of the cab. "Paul I think we have problem over here!" he quickly tossed over a rag and I managed to snuff out the fire before it reduced this precious antique to a pile of smoldering wood and twisted metal. After a few moments of reflection we sheepishly realized that we had the firing order backwards in relation to the rotation of the magneto. With that fixed, and a fresh charge of gasoline drawn into the cylinders from the primer cups, the beast roared to life. With some fiddling with the timing it settled down to a smooth idle and Paul ran the beast out into the sunshine for the first time in 20 years.*

Lombard Model "T" Circa 1926
Terence F. Harper Collection

In the hierarchy of Lombard models, the "T" was the small brother to Lombard's standard 10 ton tractors which had a lineage stretching all the way back to 1916 when Lombard filed a patent simply titled "Tractor truck".[1] Weighing in at approximately 10 tons and appearing under a number of different model names including; model "F", "N", "NW", "ST", and finally the "LD" Lombard's 10 ton tractor would remain essentially the same basic design until the end in 1936. The model "T" was but one of three distinct models introduced by Lombard in the late 1920's all intended to break into an expanding market.



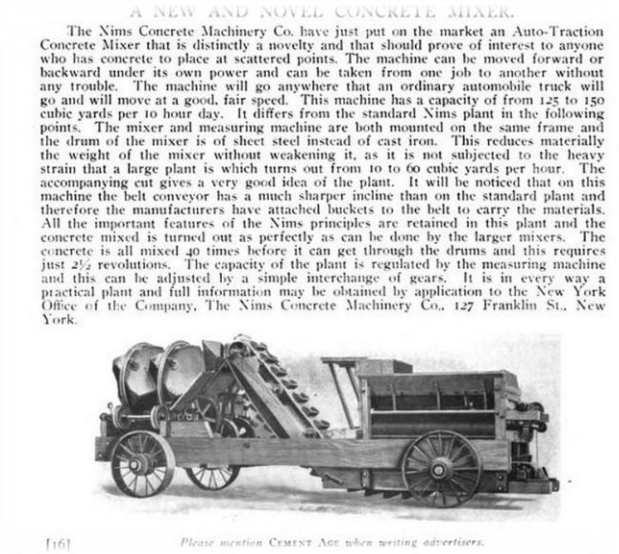
Lombard Lag bed tractor circa 1915
Terence F. Harper Collection

Early on Lombard recognized that the principal market for his products- the north east logging industry, was limited at best. In fact Alvin Lombard himself stated as early as 1909, when developing his first gasoline powered tractor, that he *"intend to develop a traction engine in the near future for all kinds of farm and road work, also for mining purposes"* He went on to state *" The*

[1] Patent No. 1,234,355 "*A.O. Lombard Tractor Truck*" filed April 22, 1916

engine I have just completed in my factory. I propose introducing this coming summer for farm work…We designed the engine for hauling gang plows, big harvesters, ore from mines etc." [2]

The tractor that emerged later that year was indeed designed with agriculture in mind. Small, and equipped with a single track, its design was covered by a patent filed on June 25th 1910. Of the four listed as being sold between 1909 and the end of 1910 at least one found its way to a farm in Fort Fairfield, Maine.[3] Regardless, by late 1912 Lombard was focused exclusively on the manufacturer of a larger twin track *"Lag bed gasoline tractor"*[4] powered by a four cylinder engine of Lombard's own design. Marketing only one size tractor until approximately 1915, Lombard pitched it for both the timber industry and the agricultural markets. However, it's doubtful how many (if any) actually were purchased for farm work. As it turned out demand for Lombard's steam Log haulers and his gasoline tractors were in heavy demand within the timber industry. However, that need to gain market share in other areas was recognized and would be pursued with vigor as the years passed.



A NEW AND NOVEL CONCRETE MIXER.

The Nims Concrete Machinery Co. have just put on the market an Auto-Traction Concrete Mixer that is distinctly a novelty and that should prove of interest to anyone who has concrete to place at scattered points. The machine can be moved forward or backward under its own power and can be taken from one job to another without any trouble. The machine will go anywhere that an ordinary automobile truck will go and will move at a good, fair speed. This machine has a capacity of from 125 to 150 cubic yards per 10 hour day. It differs from the standard Nims plant in the following points. The mixer and measuring machine are both mounted on the same frame and the drum of the mixer is of sheet steel instead of cast iron. This reduces materially the weight of the mixer without weakening it, as it is not subjected to the heavy strain that a large plant is which turns out from 10 to 60 cubic yards per hour. The accompanying cut gives a very good idea of the plant. It will be noticed that on this machine the belt conveyor has a much sharper incline than on the standard plant and therefore the manufacturers have attached buckets to the belt to carry the materials. All the important features of the Nims principles are retained in this plant and the concrete mixed is turned out as perfectly as can be done by the larger mixers. The concrete is all mixed 40 times before it can get through the drums and this requires just 2½ revolutions. The capacity of the plant is regulated by the measuring machine and this can be adjusted by a simple interchange of gears. It is in every way a practical plant and full information may be obtained by application to the New York Office of the Company, The Nims Concrete Machinery Co., 127 Franklin St., New York.

[16] *Please mention* CEMENT AGE *when writing advertisers.*

Nims Concrete Mixer
"Cement Age", June 1909

Later, in 1915, one of the most significant early steps towards expanding the market for Lombard's products was the formation of the Lombard Auto Tractor-Truck Corporation by James S. Barron, J.T. Crowley and R.O. Eggleston with $25,000.00 of capital stock.[5] Serving as the exclusive sales and marketing agent, the Lombard Auto Tractor-Truck Corporation, - guided by James Barron, would have a long association with Lombard. During the course of his long career, James Barron had acted as sales agent for many firms offering a diverse assortment of goods and services ranging from hats to paint to electrical components and even providing provisions and clothing to the New York Navy Yard[6]. In spite of a fire in 1904, which destroyed his building and $185,000.00 in merchandise[7], Barron recovered to become a major agent marketer of goods and services for a large number of companies.

By 1906, he was representing the East Burlington Rubber Company which listed itself as a supplier of medical goods.[8] By 1908 he was peddling the Peerless Pick-up Sweeper and the Twentieth Century Grader. In 1909 he partnered with Parker U. Cole to form the Barron & Cole Company – their focus being on contractor supplies and equipment including pipe fittings, snowplows, the odd steam shovel, rolling tampers, oil sprinkler wagons and gang rooter plows. In addition, Barron & Cole served as the

[2] The Horseless Age, *"A New Farm Tractor",* April 7, 1909

[3] Sturtevant, Lawrence, M., *"List of Gasoline machines made & sold at Waterville, Maine",* Un-published manuscript

[4] Lombard Steam Log Hauler Company, *"Lag Bed Gasoline Tractor"* sales brochure, circa 1914

[5] "*Motor Age"*, September, 9, 1915, p 48

[6] "*Annual Reports of the Navy Department: Report of the Secretary of the Navy"*, 1891, p561

[7] "*American Electrician",* June 1904, p317

[8] "*India Rubber Review"*, June 15, 1906, p205

marketing agent for the Nims Concrete Machinery Co. and their 20th Century Grader and Nims measuring machine for concrete mixers.[9] In other words Barron was a sales agent with a proven track record. Using Barron's marketing experience it was hoped that Lombard would experience sales as never before and hopefully tap into new markets. Barron would work as Lombard's sales agent until 1932.

The first fruit of this relationship was the inclusion of two Lombard tractors in Pershing's punitive expedition into Mexico. Unfortunately for Lombard, no sales to the United States Army resulted. However, pay dirt was hit in February of 1917 with a contract with the Russians through Gaston & Wigmore which resulted in the sale of approximately 100 Lombard tractors to the Imperial Russian army. Post war Barron referred to the performance of the Russian Lombards extensively in their marketing material. *"We think it might also be in order at this time to mention the fact that in one of the big German drives, Lombard machines saved over 600 big guns, and we think you will agree that machines capable of this performance under conditions existing at the front, are capable of operating anywhere successfully."*[10] While the Russians put the Lombards to good use, the U.S. army had only 20 on hand at the end of the war – and these were still stateside awaiting shipment to France.[11]

With his 1916 patent for a "Tractor Truck" Lombard all but locked in place the definitive design for all subsequent 10 ton gasoline powered log haulers. Though there would be minor detail changes, such as the type and supplier of the engine or changes to the power train, for the most part the design would remain fixed until the very end in 1936. These machines were designed for one purpose – hauling sled trains of logs and pulpwood – a job they by all accounts excelled at. Interestingly for a few years Lombard offered a companion machine with a four cylinder 60 hp. engine as opposed to the standard six cylinder engine. Thought slightly smaller in some respects it was essentially the same machine as the 10 ton.

As late as 1920 company sales material advertised its use as a farm tractor stating that their 60 hp machine would *"haul from 4 to 8 plows…"*[12] An issue of the *"Power Wagon Reference Book"* from 1920 listed the 10 ton 100 hp Lombard tractor capable of handling a 12 bottom plow [13] - which... there is no doubt it could. However, the reality was that the tight confines of the average New England farm was no place for a beast with a 50 foot turning circle - let alone the cost. In addition, by early 1928, when Ford discontinued production of his beloved Fordson tractor, over 700,000 of these venerable machines were working the soil. The little Fordson was the right machine at the right time while the Lombard was there at the right time but was the wrong machine to meet the needs. Add to that a host of other manufactures such as McCormick-Deering, International Harvester and a host of lesser known brands seeking a share in the rapid mechanization of farming. In fact by 1921 there were over 186 manufactures of tractors - it was a crowded market indeed. In the grain belt of the Midwest it was a bit of a different story. There, in the great expanses of the prairie, was the room and the need for large, powerful tractors such as Lombard offered. However, the sod busters of the prairie were firmly wed to the impressive and effective products from such firms as Huber, Avery, Big Four, Advanced Rumely and Case to name but a few.

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[9] "*Cement Age",* June 1909, p18

[10] Lombard Auto Tractor Truck Corp., "*Special Points of Construction in the 1920 Lombard Auto Tractor-truck"*, Terence F. Harper Collection

[11] *"War Expenditures, Hearing before Sub-committee No. 3 (Foreign Expenditures*), Vol. 2, Government Printing Office, 1920, p2388

[12] Lombard Auto Tractor-Truck Corp., sales literature, circa 1920

[13] Power Wagon Reference Book, *"Farm Tractor Manufacturers",* 1920

Lombard 25 hp. single wheel agricultural tractor circa 1915
Terence F. Harper Collection

One exception to the above was Waldeck Farms Inc. in Milmay, New Jersey. Having purchased a large tract of land they used a 10 ton Lombard tractor (s/n 2045) to pull stumps, haul manure from the nearest rail head (the average load was 25 tons) and pulling a Russell-Mogul road grader which on occasion would cut stumps off level with the ground with the blade. Pulling a heavy single bottom plow, modified and reinforced for the brutal job of cutting roots, approximately 10-12 acres of newly cleared land could be plowed per day *"…despite stops to clean roots and snags out of the disks."* To start the Lombard they used a length of rope with a loop around the crank handle and yanked over compression by three burly farm hands.[14]

To their credit Lombard had developed in 1915 a far smaller 25 horsepower,[15] four cylinder machine equipped with a single front wheel designed specifically for agricultural work. A sales brochure from circa1920 [16] contains a number of photos of this machine at work in the fields but curiously fails to describe it in any way. According to Lawrence Sturtevant only a single prototype was made.[17]

On occasion the big 10 ton Lombards could be found working construction sites such as during construction of the Bronx Parkway in 1920 where one Lombard tractor was used, in conjunction with two Holt tractors, to move over 215,000 cubic yards of excavated material.[18] Also in 1920 the Borough of Queens, New York purchased a used 10 ton Lombard for municipal work (amid some controversy) and was soon put to work at Asphalt Plant No. 3 in Glendale, Long Island. At the time it was touted as *"the biggest tractor in New York."* [19] previously it had been used to aid construction at Camp Upton in New York. However, these are the exception.

It was not for lack of trying that Lombard saw slow growth in the construction and municipal market. At the time, the need for a heavy tractor on a construction project was rather limited. As in the case of the Bronx Parkway, heavy tractors were used mostly for hauling dump wagons, scrapers and heavy materials. The drive to meet burgeoning demand for improved roads and infrastructure by development of efficient construction methods through mechanization and technology was still a few years in the future. At the time the construction industry was still heavily dependent on cheap manual labor and animal power.

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[14] Clinton Tractor Journal, *"Tractors Turning New Jersey Woods into Farms"* Oct. 1, 1919

[15] *"Automobile Topics,"* May, 31, 1913, pg 182

[16] Lombard Auto Tractor-Truck Corp., sales literature, circa 1920

[17] Sturtevant, Lawrence M., *"Lombards of Maine : Inventors From the Penobscot Frontier"* unpublished manuscript

[18] Public Works, *"Earth Moving Machinery in Bronx Parkway"* Vol. 49, October 2, 1920

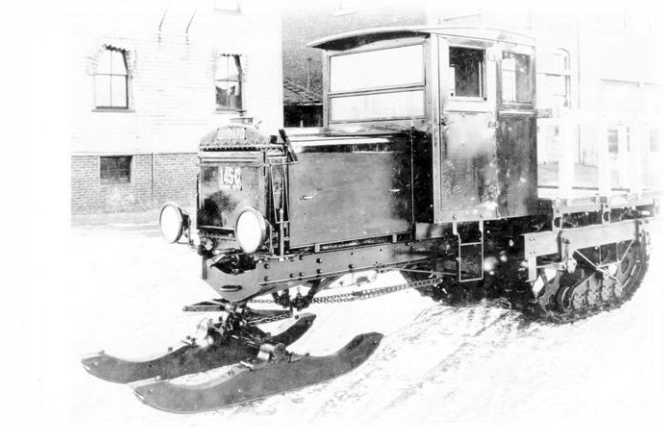
[19] Supreme Court of the State of New York, C.H. & R.C. Peckworth Incorporated against the City Of New York, June 21, 1921

Tracing development of Lombard's gasoline tractors is difficult at best and maddeningly frustrating at its worst. There is very little surviving documentation and it's difficult to date surviving photographs. In addition, the surviving sales literature is confusing lacking dates and images and captions do not necessarily match.

What we can surmise is that by 1920 the 60 hp Lombard had been replaced by a new machine weighing approximately 5 to 6 tons and powered by either a Waukesha or Stearns four cylinder engine. Rather than the roller chain used on previous Lombard tractors this smaller Lombard used steel track rollers (eight per track). To provide a degree of flexibility, the rollers were fitted to a carriage that could pivot vertically about a horizontal shaft.

According to the surviving records they met with some success with at least seven exported to the Dutch East Indies for use on plantations. One, sold to Great Northern Paper Co. in 1921 was powered by a Stearns four cylinder engine. Costing $5,000.00 it was equipped as a jitney to transport lumberman from and to remote camps. Eight years later it was sold to Fleetwood Pride of Guilford, Maine for $1,200.00. Though as successful as the design was, in regard to sales it did not open up any new markets. A look through the surviving records [20] shows that most, if not bound for the Dutch East Indies, were purchased by lumber and pulp and paper companies. In fact after November 1921 there are no more sales noted.[ibid] which would indicate that either the model was discontinued or Lombard had quickly met the demands of a very limited market or worse.

Unfortunately for Lombard it was worse. The close of the Great War on the eleventh hour of the eleventh day of the eleventh month of 1918 ushered in a new era of prosperity and a consumer driven economy – the likes of which had never been seen before. At long last the United States had essentially completed its lengthy conversion from an agrarian based to a robust industrial based economy. In fact, until 1890, agriculture led all other components of the economy. In that year manufacturing and mining edged out agriculture in regards to percentage of gross national product for the first time and would continue to widen the gap over the ensuing decades.[21] This shift created a rapidly growing wealth within the working class. With money available for things beyond that required for day to day subsistence people were now buying consumer goods as never before - automobiles, appliances, furnishings and housing were among the myriad of products demanded along with investing in business and industry developed to support that growth. It was indeed a consumer driven economy and industry rose to the demands.



Lombard 5 - 6 ton tractor, circa 1920 equipped with skis for winter use
Terence F. Harper Collection

With the widespread application of mass-production techniques and precision machine equipment, the cost of goods

[20] Sturtevant, Lawrence, M., *"List of Gasoline machines made & sold at Waterville, Maine",* Un-published manuscript
[21] White, Richard, *"Rise of Industrial America, 1877-1900*", The Gilder Lehrman Institute of American History

plummeted. As an example, on December 1st 1913 Henry Ford started-up his first moving assembly line which allowed for the mass production of his iconic Model "T". The impact was immediate. An automobile that once took 12 hours to build now could be assembled in 2 hours and 30 minutes. When first introduced in 1909, the average model "T" runabout sold for $825.00. By 1913 it was only $335.00. All this fueled an unprecedented growth in construction – including roads, bridges, rail, buildings, hydroelectric facilities etc.

However, this growth took a heavy hit during the sharp, short post war recession that began in 1920. Industries that had invested heavy in massive expansion to fulfill lucrative wartime demand now found themselves with cancelled contracts and massive debt and stockpiles of materials purchased at war time inflated prices now worth pennies on the dollar. For instance, automobile production fell by approximately 23percent and the number of companies reporting income exceeding $100,000.00 fell by approximately 45 percent. Worse - for a consumer driven economy, wages dropped by a reported 22 percent. What began as a recession was indeed a depression by 1921 with business failures tripling.[22] It was a whirlwind that Lombard could not avoid.

In 1920 with the economy sinking into the post war depression business at best was described as *"dull"* with a total of twenty-four tractors sold from January to December of that bleak year. During 1921, as the economy rebounded after the devastating financial decline of 1920, Lombard struggled to survive. If 1920 was dull than 1921 was abysmal with only nine tractors listed as sold. As if 1921 was not bad enough worst was to come. In 1922 only one tractor sale is listed - forlornly sandwiched between s/n 2122 (December 31st 1921) and s/n 2124 (September 22nd 1923)![23] Lombard production was always limited but this was devastating.

With the declaration that *"because of business conditions, the company made no money during the past three years"* Lombard obtained a court appointed receiver in July of 1923. At the time Lombard owed an estimated $80,000.00 to its creditors yet the company's assets were valued at approximately $240,000.00. Lombard hoped that under the protection of a *"Friendly"* court appointed receiver – in this case Charles Andrews, that costly litigation could be avoided and the *"valuable"* assets protected.[24]

Having gone into receivership in 1923, the company emerged in 1925 with strong sales. It was claimed that *"The company has more orders on its books than at any time since the war."* [25] As it turned out 1925 was a good year with approximately twenty four tractors sold. Sixteen of which went to one client - Edouard Lacroix. The revitalized firm listed Samuel Lombard as President, Louis Lombard as Vice President and George Voss as Treasurer and General Manager.

Earlier, On March 31st, 1925, the stockholders voted to issue first mortgage, six percent bonds to the amount of $150,000.00 with an interest rate of six percent payable semi-annually and due on April 1, 1945. The Ticonic National Bank of Waterville, Maine was listed as the trustee and mortgage holder.[26] Though a seemingly minor business transaction it would have major ramifications during the events of 1932.

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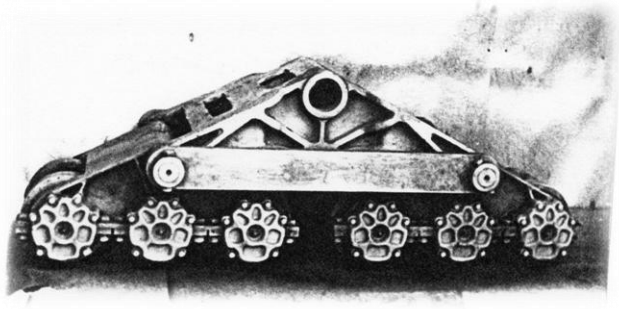
[22] Grant,James, *"The Forgotten Depression: 1921 the crash that cured itself",* Simon & Shuster, 2015
[23] Sturtevant, Lawrence M., *"Lombards of Maine : Inventors From the Penobscot Frontier"* unpublished manuscript
[24] *Lewiston Daily Sun*, July 6, 1923
[25] *Lewiston Evening Journal,* April 2, 1925
[26] Kennebec County Registry of Deeds, Indenture Between Lombard Traction Engine Company and Ticonic National Bank, April, 1, 1925

This was not the first time the company had been reorganized. The firm had a rather complex and confusing corporate history. To start with, upon Alvin (A.O.) Lombard's retirement from the day-to-day business in 1914, the Lombard Tractor Company was incorporated on May 14th 1914. It was indeed a family business with A.O. Lombard's Brother Samuel serving as President, A.O. Lombard as Treasurer. The directors included Samuel, A.O. Lombard, George Kidder, Harold Bickford and Alvin's Daughter – Grace Lombard Voss.[27]

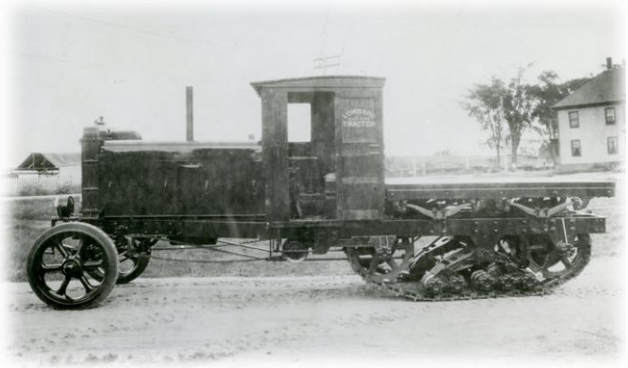


Lombard CS-88 and model GT articulated track carriage. Circa 1926 developed by Shop Foreman Harold Bickford.
Terence F. Harper Collection

To complicate things a bit more, on March 16th, 1915 the Lombard Traction Engine Company was formed With Samuel once again as President, Alvin's Son-in-law George Voss as Treasurer. The Directors were Samuel, Louis Lombard (Samuel's son), A. O Lombard and Grace.[28] In the coming years the Lombard Traction Engine Company would serve as the public face of the company.

With strong sales and fresh capital the Lombard Traction Engine Company began an all-out effort to break into the municipal and construction markets. In July 1926 the first fruits of this effort rumbled from the Waterville factory in the form of the model CS-88 Heavy Duty Contractors Special. Two of the first CS-88's to rumble out the factory door were sold to the Sherman Power & Construction Company and used extensively on a large hydroelectric project near Bellows Falls, Vermont from 1926 thru 1928.[29]

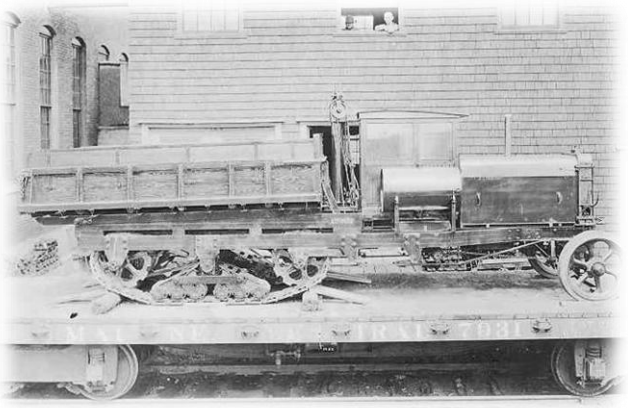
The CS-88 was simply a *"bruiser"*[30] as one trade publication put it. With an overall length of 23'-9" and weight of 23,850 lbs., standard equipment included a 12'x6' dump body with a load capacity (level with the boards) of six cubic yards or *"seven to eight yards heaped."* [31] A hydraulic hoist developed by Garfield Wood and sold by Wood Hydraulic Hoist & Body Company served as the hoisting equipment. With a load capacity of 15 tons the CS-88 was indeed a *"bruiser."* By comparison the average wheeled dump truck of the day had a capacity ranging from 1 to 2 cubic yards.



Lombard model GT was rated to carry a 20 ton load. Note heavy leaf springs supporting the platform.
Courtesy Donald Johnson

[27] Kennebec County Registry of Deeds, *"State of Maine Certificate of a Corporation Under General Law",* May 14, 1914
[28] Kennebec County Registry of Deeds*, "State of Maine Certificate of a Corporation Under the General Law,"* March 16, 1915
[29] *Public Works*, 1926, Vol. 57, pg. 329
[30] *Motor Age*, New Departure Manufacturing Company, Advertisement, Aug. 25th 1927, pg 7
[31] Lombard Tractor and Truck Corporation, Bulletin No. 4, *"Lombard Tractor Truck Heavy Duty Contractors Special"* circa 1926-28

Though the chassis was only 18 inches longer than Lombard's standard 10 ton tractor, some clever engineering was used to increase the distance the chassis extended behind the cab from 8'-3-1/2" to a full 12 feet. This included using the then new to the market Climax Engineering R4U motor. Weighing 2,000 lbs it was a massive 791.6 cubic inch four cylinder motor with a bore of 6"and stroke of 7". Rated at 97 brake horsepower at 1,200 rpm., it generated creditable 475 ft/lbs of torque at a mere 650 rpm. Lombard made a point to state that horsepower was *"…measured at the flywheel connection"* and was not a "*theoretical rating"*. [ibid]



Lombard CS-88 loaded on flatcar for shipment from the Waterville factory. Circa 1926-1928
Terence F. Harper Collection

Though a big engine, it was considerably shorter in length than the big Wisconsin engines used in the standard 10 ton machines. With a shorter motor, the cab could be moved forward on the chassis which, combined with the modest increase in chassis length, allowed for a large dump body without adding extra length to such an extreme that it would make the tractor difficult to maneuver around a congested construction site.

Departing from Lombard's time-tested roller chain design, Shop Foreman Harold Bickford developed a track system using steel track rollers fitted to a unique articulated carriage.[32] featuring 12 track rollers in two sets of 6 each, the carriage as a whole could pivot. However, each set of six rollers (front and rear) could oscillate independent of the main carriage providing a high degree of flexibility.

If the CS-88 was an impressive machine its big brother was even more so. Based on the CS-88 the model GT featured a chassis extended to an overall length of 24 feet. The average load carrying platform measured 12'x7' and could hold a massive 20 ton payload. [Ibid] Powered by either a four cylinder Climax R4U or a huge six cylinder R6U, The GT was strictly a custom order tractor tailored to suit the service required of it. At the time there was nothing on the market to match it.

Lombard Model "T" illustrating the flexibility of the front axle. Circa 1927-1928
Terence F. Harper Collection

At the complete opposite end of the spectrum was the Model "T" As with Henry Ford's famed model "T", affectionately known as the "Tin Lizzy", Lombard's Model "T" can be viewed as an affordable alternative to its bigger siblings. To

[32] Sturtevant, Lawrence, M., *"Lombards of Maine, Inventors From the Penobscot Frontier, 1860-1940"*, Un-published manuscript

keep this in perspective, at an average price of $4,000.00 (F.O.B.) it cost as much as eleven Model "T" Fords or approximately nine Fordson tractors. Granted both examples are examples of exceptional mass production techniques while Lombard was in essence a custom shop producing a very low volume product.

Weighing 6 tons and powered by a Hercules 6 cylinder motor, it was targeted directly at the construction and municipal markets. A glance through the sales records indicates that a majority of sales were made to of state and local highway departments including the State of New Hampshire, State of Maine and a number of towns such as Farmington, Maine and Gorham, Maine.

Sandwiched between the Model "T" and the CS-88 Lombard offered their standard 10 ton logging tractor in two models – the Lombard Standard Six (Model SR-100) and the Lombard Big Six (SR-125). Lombard stated that *"The above models are used in hauling long tailing loads, snow plowing, logging and other work where heavy power is necessary."*[33] The primary difference between the SR-100 and the SR-125 was the motor. The former used a 1,091 cubic inch Wisconsin six cylinder engine rated at 104 hp while the latter used the same 1,187 cubic inch Climax (R6U) six cylinder good for 142 hp. The R6U was also used in the model GT. For a small manufacturer it was indeed a comprehensive product line.

In late 1926 the decision was made to sell the company and all its assets to a group of New York investors. On January 1st 1926 the Lombard Traction Engine Company deeded all property, buildings and equipment. Further the mortgage of six percent bonds held by the Ticonic National Bank now totaling $70,000.00 since $50,000.00 in bonds had been issued) was transferred as well, with the new owners assuming reasonability.[34] When the ink was dry the Lombard Traction Engine Company was no more a family owned business.

The new concern was incorporated in Delaware as the Lombard Tractor & Truck Corporation with its head office in New York. The management consisted of: E. W. Englebright, Pres., S. T. Callaway, V. Pres., James S. Barron Sec., H. J. Charles, Gen. Mngr., James S. Barron, V. Pres., F. H. Elvin, Gen. Supt., James S. Barron, Sales Mngr., H. J. Charles, Purchasing Agent, Harold D. Bickford, Mech. Engr., George A. Kidder, Supt. Mech. Shop.[35] Louis Lombard would remain with the company overseeing assembly.[36]

Englebright had previously served as Vice President,[37] Callaway as the President and F. H. Elvin as the Assistant to the Vice President in charge of Operations [38] of the Elvin Mechanical Stoker Company. In addition, Callaway's firm - Callaway, Fish & Company, had provided financial backing and held significant interest in Elvin Mechanical Stoker Company [39] and thus the new Lombard management became known as the *"Elvin Stoker people"*.[40]

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[33] Lombard Tractor and Truck Corporation, Bulletin No. 4, *"Lombard Tractor Truck Heavy Duty Contractors Special"* circa 1926-28

[34] Kennebec County Registry of Deeds, Indenture made between Lombard Traction Engine Company and Lombard Tractor and Truck Corporation, January 1, 1927

[35] *Engineers*, *Listing of Engineers of Corporations with their Duties and Connections*, 1928, pg 191

[36] Coe, Harrie, B, *"Maine Biographies"* Vol. 1, 2002, pg. 176

[37] *Railway Age,* June 14, 1922, pg 1384

[38] *Railway Mechanical Engineer*, July 1920, pg 499.

[39] *Railway Mechanical Engineer*, Vol. 94, No. 12, Pg. 816

[40] Sturtevant, Lawrence, M., *"Lombards of Maine, Inventors From the Penobscot Frontier, 1860-1940"*, Un-published manuscript

1928 Lombard 6 ton dump truck. Originally built for the town of Gorham, Maine it's now part of the Breton Family collection.
Courtesy Herb Crosby
2019

According to the surviving sales records, [41] which may not be complete, from July 1926 through May 1927 Lombard sold a total of nine CS-88 and GT's. (S/N 4100 - 4108) Unfortunately the record only identifies the engine manufacturer rather than the model. Some were purchased by construction companies such as Clemete Contracting Co. in Corning, NY. One was purchased by Emilio Selle & Co. of San Jose, Guatemala - an importer and distributor of electrical equipment, machinery, accessories and supplies "for all industries." Two machines are listed as being shipped to Japan.

As with the CS-88 and GT the only clue that a particular machine was a model "T" is by the engine supplier. In this case it was Hercules. Of the five machines listed (and again the list might not be complete) as having Hercules engines and thus assumed to be model "T"s, four were purchased by state and local highway departments. One of the five machines was purchased new by Wyman & Simpson – a Maine based general contractor. The last supposed model "T" that appears on the list left the factory in December 1928 and was purchased new by the town of Gorham, Maine. [Ibid] Both the Wyman & Simpson machine and the Town of Gorham machine have miraculously survived years of hard use and the scrap metal drives of World War Two and are part of the Breton family collection.

We do not know much about the last machines time in Gorham, Maine or immediately afterwards. What we do know is it was eventually acquired by Starbird Lumber in Strong, Maine. In the late 70's early 80's it was acquired by the late Harry Crooker who eventually sold to the Breton family. In fact it's not established fact that it was sold as a model "T" since it varies quite a bit from the surviving Wyman & Simpson machine which is indeed a model "T" and will be discussed further on.

Owned by Paul and Ray Breton, the ex-Gorham Maine, ex-Starbird Lumber Lombard is an interesting beast. It shares so little in common with its big 10 ton brother that it's easy to mistake it for something else other than a Lombard. In fact, early on, several Lombard collectors and historians including the Bretons had doubts about it being a Lombard. For starters the builder's plate disappeared eons ago and unlike Lombard's other tractors there is no Lombard script cast into the heavy cast radiator header. There are other differences as well. At a nominal 6 ton's it's a smaller tractor than its big brothers. In place of the massive Wisconsin or Climax engine it features a Hercules YXC-2 six cylinder motor. Introduced in early 1928 it features a bore measure 4-1/2" and a stroke of 4-3/4" and is rated at 48.6 hp at 1,000 rpm.[42]

As with Lombard's other models, the transmission is mounted separate from the engine. However, In lieu of Lombard's patented shifting mechanism and a massive lever - that's akin to the Johnson bar on a locomotive, the model "T" has a centrally mounted lever that could have been found in almost any truck of the period. One unique feature is the provision for four speeds forward as well as four speeds in reverse. A separate lever, mounted low to the floor and by the drivers left leg, is used to shift from

[41] Sturtevant, Lawrence, M., *"List of Gasoline machines made & sold at Waterville, Maine",* Un-published manuscript
[42] Cooperative Tractor Catalog, 20th Edition, 1935, pg 164

Factory photograph of Lombard dump truck circa 1928. This particular machine Though not identified as a model "T" most closely resembles Paul & Ray's Lombard.
Courtesy Paul Breton

forward to reverse. An additional short lever, floor mounted and positioned to the far right of the driver, is used to engage and disengage the PTO drive for the hoist mechanism. Like is big brethren, the Model "T" uses a large contracting band drum brake on the drive shaft for braking either via the brake pedal or the hand brake. It's surprisingly effective.

The track system is unique as well. The lags feature grouser plates that can be swapped depending upon the conditions – snow, pavement, dirt, etc.). This feature is similar to and may have been an adaptation of a design patented by O.A. Harkness on September 23rd, 1921.[43] Weight is carried on the tracks via a carriage with 8 track rollers (4 per side). The carriages pivot to allow the track to conform to the terrain.

Earlier it was mentioned there is some question of whether or not this ex-Gorham, Maine Lombard dump truck is in fact a model "T". For starters it's a slightly bigger machine than the Wyman & Simpson model "T" owned by their brother Rick and there are some other significant differences. The frame is assembled differently and the track adjustment system is completely different.

To adjust the track tension on a Lombard including the early model "T"s there are usually four long bolts mounted vertically through the frame rails to hold the big sprocket yoke in position. Once loosened, slots in the yoke casting allow it to be moved forward or back via an adjustment bolt through a cross member. On this machine it is a totally different system. The yokes slide forward and back on dovetail slides bolted to the face of the inside and outside frame rails. Each yoke has four gibs (two inner and two outer) that engage the dovetail slides. A large spring extends crossways beneath the machine and is connected to the yokes via a bell crank. With the sprocket yokes sliding fore and aft on the slides and held in constant tension by the spring, the tracks are self-adjusting and have an enhanced degree of flexibility. Interestingly the one photograph that shows a Lombard that is a close match to Paul and Ray's features yet again a third style track adjustment system and track wheel system.

Following the sale of the company to "the Elvin Stoker people" in 1927, S.L.G. (Samuel Lippencott Griswald) Knox was hired as a consulting engineer. Knox was a highly regarded and respected engineer having previously served at General Electric then as Chief Engineer and Manager of the Bucyrus Company [44]and held at least fourteen patents. Perhaps its S.L.G. Knox's influence that sets Paul and Ray's Lombard apart from earlier model "T"s.

[43] Harkness, O. A. *"Grouser"* United States Patent No. 1,588,549, issued June 15, 1926
[44] *Natoma News,* May-June 1911, pg 20

Moving on - unlike its big 10 ton siblings with their massive worm drive differential, final drive on all model "T"s, including Paul and Ray's machine, is via pinion drive to the rear sprockets. Linn used a similar arrangement on their tractors.

The dump body had an advertised capacity of four cubic yards when level with the top boards (which are removable) and used a Wood Hydraulic Hoist & Body Company mechanical hoist. Unlike most hoists developed by the prolific inventor Garfield A. Wood which used a vertical hydraulic cylinder, this one is purely mechanical and is raised by a pair of long curved rack gears hinged to the body and a pinion drive. The original design was developed and marketed by Highway Mechanical Hoist, a division of the Highway Associate Companies. Highway Mechanical Hoist was acquired by Wood in1926 and was sold under the Wood Hydraulic Hoist name.[45]

Regardless of whether it is a model "T" or not, When Paul and Ray's Lombard dump truck left the factory on December 11, 1928 it marked the end of Lombard's valiant attempt to make in-roads into a burgeoning market. As a precursor, just days before, on December 5th the Lombard Tractor & Truck Corporation consolidated with its archrival – the Linn Manufacturing Company of Morris, New York.[46] Exactly what this merger comprised of is a bit of a mystery. What we do know is that in 1922 S.T. Callaway was listed as a Director of the Taylor Wharton Iron & Steel Co. In addition G.R. Hanks (Pres. of the Linn Manufacturing Company [47]) also held the position of Vice President at Taylor Wharton Iron & Steel Co.[48] and thus providing a connection between the two firms.

While Lombard had struggled to gain a foot hold in a lucrative market, fully two thirds of the Linn tractors sold since the company's inception in 1917 went to municipalities for use in road work or the construction industry.[49] Whether the new board of directors for the combined corporations made a conscientious decision for Lombard to abandon this market or not is a moot point. What we do know is production of Lombard's "Bruisers" and their "Tin Lizzy" had come to an end. From this time forward their focus would be on providing tractors for the logging industry.

As it turned out, just a few months later in May 1929, Republic Truck and its subsidiary, the Linn Manufacturing Company, were purchased by American LaFrance. How this affected the merged corporations or if Lombard ever benefited from the merger is unclear. What we do know is that with the stock market crash that began on October 24, 1929 the fortunes of the Lombard Tractor & Truck Corporation took a turn for the worse. As with many manufacturing firms during the early years of the Great Depression, The Corporation struggled as sales plummeted. In fact there are no sales recorded for 1931 or 1932.[50] Gone indeed were the optimistic days of 1926. From the surviving records we know that Englebright, Callaway and their investors soldiered on until June 1932 when the decision was made to shut down the business. In a quirk of fate, when the Lombard Traction Engine Company emerged from receivership in 1925 and was re-organized, A.O. Lombard had purchased $50,000.00 worth of the previously mentioned bonds through the Ticonic National Bank of Waterville. At the time, the bank had

[45] American City Magazine, volume 35, Sept. 1926, pg 455

[46] *Lewiston Evening Journal*, Dec. 5, 1928

[47] Theobald, Mark, Coachbuilt.com, *"Linn Manufacturing Company (AKA Linn tractor Company)",* 2014

[48] *American Machinist,* Dec. 20, 1928, Vol, 69, pg. 982

[49] Theobald, Mark, Coachbuilt.com, *"Linn Manufacturing Company (AKA Linn tractor Company)",* 2014

[50] Sturtevant, Lawrence, M., *"List of Gasoline machines made & sold at Waterville, Maine",* Un-published manuscript

been authorized to sell $150,000.00 worth of the first mortgage bonds but in fact Lombard was the only purchaser.[51] Therefore, it was an easy matter for the bank to step aside as the trustee and appoint Lombard as the sole trustee and bond holder.[52] The next month the Lombard Traction Engine Company with Samuel Lombard as President and Louis Lombard as Treasurer was incorporated bringing the ailing business back into family control.[53] From June 1932 until the last Lombard rumbled out of the factory in 1936 the only available model would be the venerable 10 ton logging tractor. In those remaining years very few indeed were produced.

Today, Paul and Ray Breton's 1928 Lombard dump truck is a reminder of a time of optimism and risk. - a time when a small Maine manufacturing company tried to break into the big league. If Henry Ford's success is measured by the fifteen million "Tin Lizzys" produced in a vast factory complex then surely Lombard can be given an "A" for effort for producing a handful of "Bruisers" and their own "Tin Lizzy" in a small factory in Waterville, Maine.

Courtesy Herb Crosby
2019

[51] Sturtevant, Lawrence, M., *"Lombards of Maine, Inventors From the Penobscot Frontier, 1860-1940",* Un-published manuscript
[52] Kennebec County Registry of Deeds, June 28, 1932, Book 685, pg. 491
[53] Kennebec County Registry of Deeds, "*State of Maine Certificate of Organization of a Corporation Under General Law"*, July 7th, 1932