

## I WISHED THAT I WAS STILL A TREE FELLER

Terence F. Harper  
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*"I remember sweating when it was below zero, wrestling with that iron wheel with tons of logs on sleds behind that iron monster zooming downhill at twenty miles an hour, dodging trees and doing my damndest to keep on the trail. I was scared many times. I would look downhill and checkout the curve – there was always seemed to be a curve – and wished that I was still a tree feller."*<sup>1</sup>

Sam O. White



Eastern Manufacturing Company's well maintained 9-14 haul road from Russell Brook. Circa 1908-1913  
Terence F. Harper Collection

It's safe to say, after nearly a century since Sam White wished he was still a "tree feller", most of us have never or will ever have the opportunity to experience life from the steersman's seat of a Lombard steam log hauler accelerating downhill with 300 tons of logs pushing and gravity pulling ever faster- clutching that big iron wheel with a death grip wondering if you would once again make that curve at the bottom of the hill. For Sam it was a life defining experience vividly remembered decades later in the twilight of his life. For us, his words have helped to define an era, and, for better or for worse, our perception of a machine and the men who worked with it and operated it.

It seems that whenever a discussion takes place in regards to steam Lombard log haulers or a reporter or author pens a few lines concerning these perennially fascinating behemoths, they invariably leave the reader or listener wondering why such a deadly infernal machine could possibly have existed – ranking it with playing a game of "hot potato" with nitro glycerin, living with Bubonic plague carrying vermin or strolling around the radioactive ruins of Chernobyl. Memorable lines such as *"Steersmen who resisted the temptation to jump were known as 'stay with 'er' men and gained the respect of the loggers."*<sup>2</sup> or *"So there he sat, grasping mightily a heavy iron wheel, steering for his life, and hoping every time that he came to a steep down-grade that he would survive long enough to find another way to earn a living."*<sup>3</sup> would lead the reader or

enraptured listener to believe that the steersman on a Lombard had a finite life span and that a logging operation using steam Lombard log haulers invariably left a trail of rusting iron wreckage and graves in its wake and grieving widows and countless orphans at home. But is that the reality?

As with many historical events that happened long ago we have to peel through layers of folklore to reveal the truth – lore that has become wrapped and entwined around the facts and has become accepted as established truth simply by being repeated over and over - being embellished along the way to create a compelling and entertaining good story. Who doesn't like a good story? However, sometimes once revealed, the long hidden facts can in themselves become a good story – it's akin to carefully removing layers of grime to reveal the bright colors and fine detail of a great masters painting or removing layers of garish paint to reveal highly figured wood burl and deep luster from an old bureau you have long since become comfortable with.

There is no doubt that a 20 ton steam Lombard log hauler could be a dangerous machine to its crew. The sheer weight and mass of parts could crush and maim hands and fingers that were unfortunate enough to get in the way. A

<sup>1</sup> Rearden, Jim, *"Sam O. White, Alaskan: Tales of a Legendary Wildlife Agent and Bush pilot"*, Alaska Northwest Books, 2006.

<sup>2</sup> Young, James A., Bundy, Jerome, D, *"Endless Tracks in the Woods"*, Crestline Publishing, 1989

<sup>3</sup> Pike, Robert E, *"Tall Trees, Tough Men"*, 1999, W.W. Norton & Company Inc., 1967

hot backhead and exposed steam piping could burn and scald. In an era long before OSHA there was no “lock-out tag-out” procedure or safety guards or emergency stop buttons. There were no audible warning (other than the whistle) when the machine was reversing, no seat belts, no air bags - nothing.

The expectation was that the crew knew what they were about. That they knew enough not to stick a finger in a rod pin hole where it could get sheared off as neat as a surgeon’s knife should the pistons decide to move on their own as they sometimes do. It was

assumed they knew that steam could scald and various parts, either individually or as a whole, could crush, maim, scald or burn – such was life. It was accepted just as it is that polar bears are not cuddly pets. You wouldn’t consider slathering yourself in seal blubber and casually strolling past a starving polar bear anymore than a mechanic or engineering of old would stick his fingers where they could be lost.



A more typical Lombard accident, Madawaska Company circa 1926-33  
*Terence F. Harper Collection*

A Lombard steam log hauler was not unique in this regard. Its closest kin – the steam locomotive and traction engine presented abundantly similar hazards. Flip through the yellowed and brittle pages of the *“Brotherhood of Locomotive Engineers and Fireman”* or the *“American Thresherman”* and look at the accident reports. Safety was by and large dependent on the knowledge and good judgment of the crew. Obviously any machine that resulted in death and injury at nearly every use, as the folklore surrounding Lombard’s suggest, would not have been accepted nor commercially viable. Looking at it from another perspective, if true Lombard would no-doubt have sold a lot more machines to replace those that were being wrecked and destroyed and strewn about the woods on such a regular basis!

In truth a Lombard was a complex and expensive machine. It represented a significant financial investment and commitment. The cost of a new Lombard was approximately \$5,000.00 (F.O.B. Waterville, Maine.) This translates to approximately \$120,000.00 in today’s dollars. Then there is the cost of the crew – Engineer \$6.00, Fireman and Steersman \$4.00, and striker \$3.25 per working day.<sup>4</sup>

The haul road was another major investment and expense. A haul road for horse drawn sleds, typically used a base of compacted snow to form a base and provided a smooth if undulating path over stumps, boulders and water courses. In fact slash, logs etc. could be used to fill in holes and low spots. It was not uncommon to have a road for horse drawn sleds that was smooth in the winter but was so rough during the summer it could be difficult to walk!  
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A good quality Lombard road had to have stumps cut flush and large rocks and boulders removed. Earth fills and cuts were used to minimize humps and hummocks. Great care had to be taken to eliminate cross-slopes and minimize grades going against the load. According to the St .John Lumber Company, a steam log hauler road 18 to 20 feet wide cost \$323.47 per mile. By comparison a road for teams cost \$255.45 per mile while the roughest of tote

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<sup>4</sup> Koroleff, Alexander M., Bryant, Ralph C., *“The Transportation of Logs on Sleds”* Bulletin no. 13, Yale University, 1925



went down with the machine.<sup>6</sup> Ironically, just days before, an article stated that the ice of the lake was 15 inches thick and was more than sufficient to hold the weight of the Lombard and the loaded sleds. To save time, distance and cost they were hauling across the lake directly to the Eastern Manufacturing Companies pulp mill in South Brewer.<sup>7</sup>

Go-back roads were constructed as well – these were cheaply constructed roads that provided turnouts or ran parallel to the main haul road allowing empty sled trains from interfering with loaded sled trains as they labored along the main road. If a logging operation lost the use of a steam Log Hauler - whether through accident or breakdown, it would become nearly impossible to make-up the lost time and production. The annual cut had to be delivered, whether direct to a mill, railhead, lake or streamside or financial hardship and even ruin could and often was the result. Leaving a trail of smashed sleds and destroyed log haulers strewn through the woods was not part of the business plan.

Were there accidents? Yes. Most were minor some humorous and a few tragic. Stark evidence of this is provided by a set of very bent frame rails from a steam Lombard Log hauler that were recovered from the former Eastern Manufacturing Co. depot camp at Russell Brook by the Breton family. It's clear by the way the heavy 7" x 19-3/4 lb channels are bent and twisted that something bad happened and that replacements for parts 182R (according to the factory catalog) and its mirrored twin - 182L (right & left frame rails) were soon making the long journey from the factory in Waterville to the wilds of Township 9-14.

Perhaps those bent frame rails were from the incident described by the late Edwin Robichaud. Edwin spent his summers as a youth at Tramway from 1926-33. Where no doubt Edwin heard many stories from the men he lived and worked with and also from his Father who worked on Steam Lombard's before he moved to New York to work construction projects. Edwin told the story of a steam Lombard crew during the Eastern Manufacturing era (1908-1913) that was heading down the 9-14 haul road from Russell Brook Depot camp with a long string of loaded sleds.

If the road was in good shape with nice deep and well iced ruts for the ski's to follow, the steersman would have a fairly easy job. In fact that night he dozed-off. Soon he awoke realizing that something wasn't quite right. Every night a tank sled was drawn over the road to sprinkle water into the ruts. The crew of the tank sled had cut a rough road down to the lake shore so they could refill the tank. When the steersman awoke it was that trail they were unfortunate enough to be following. The crew jumped. Quickly disentangling themselves from the trees and brush they watched horrified as the sleds went sluicing by lead by the slap of the Lombard's track pads soon followed by a crash as the whole rig broke through the ice on the lake.



A typical horse drawn "two-sled" rig popular throughout the New England forests from the 1860's and well into the 1930's  
*Terence F. Harper Collection*

A steam Lombard log hauler did not and does not have brakes. This fact, which seems to be a grievous omission on A.O. Lombard's part, always figures into the stories and the legend. In reality, like the myriad of opportunities to be burned, scalded or maimed, the lack of brakes was accepted and dealt with accordingly by the crews. It was nothing new to them.

Ever since the 1860's when sleds drawn by teams of powerful draft horses came into wide spread use in the New England forests, teamsters had been dealing with no brakes and in fact had become very good at maneuvering heavily laden sleds complete with reluctant, sometimes frightened horses through seemingly impossible places and down truly

<sup>6</sup> "Paper, a Weekly Technical Journal for Paper & Pulp Mills", Jan 26, 1914

<sup>7</sup> "Paper, a Weekly Technical Journal for Paper & Pulp Mills", Jan 19, 1914

terrifying precipices. To them a Lombard with a long string of sleds laden with tons of logs was simply another sled – only a lot bigger and a lot heavier.

Just as great efforts were taken to preserve the life of a team of horses (and the teamster) from a runaway sled. Greater effort was made to preserve the large capital investment represented by a Lombard and crew. It started with locating and laying out the haul road. This was usually the job of an experienced person such as the camp foreman. The goal was to create a road that was short, provided optimal access to the area to be cut over and was cheap to build and maintain. The success of a season's work if not subsequent seasons, depended upon the main haul road. A straight line between the cuttings and landing would be optimal but seldom if ever achieved. Unlike Kansas, Northern New England isn't flat. Maine in particular is carved by tens of thousands of streams, rivers, lakes and bogs – all formed in valleys and basins between mountains, endless hills and horsebacks - a jumbled messed-up landscape left behind from the last ice age.

The trick was to weave a log hauler road around and over these obstacles while trying to minimize the grades - a one degree change in grade could increase or decrease the efficiency of hauling by as much as 30% in terms of the tonnage of logs that could be moved.<sup>4</sup> In laying out a road it was preferable to keep the grade going with the load - providing a nice gentle downhill slope from cutting to landing. Studying old topographic maps you can see how the old Lombard log hauler roads, such as the 9-14 road along Russell Brook, for the most part follow drainage courses such as the shore of a lake or along a stream or brook. Just like a railroad they were trying to minimize the grade.



Great Northern Paper Company's 1,250 foot long Cooper Brook log hauler trestle Circa 1928.  
*Terence F. Harper Collection*



Water Tank Sled on Madawaska Company operation circa 1926-33  
*Terence F. Harper Collection*

Though a steam Lombard could work on some pretty steep grades - a maximum grade of 2 percent or less against the load was considered optimal. Often great lengths would be taken to achieve this. For instance on their Cooper Brook operation, Great Northern Paper Co. spent thousands of dollars to build a huge wooden trestle 1,250 feet long and 25 feet high across a small brook and excavated over 30,000 cubic yards of material using horses and a steam shovel to create a cut 27 feet deep at the height of land – all for the sake of holding the grade at less than 2 percent.<sup>8</sup>

Great Northern Paper obviously went to exceptional extremes. Most logging operators didn't have the resources of a large engineering department or the financial wherewithal to go to such efforts. In addition the vast majority of logging operations only worked an area for a couple of season at

most. Building the most efficient and functional haul roads for as little cost as possible was the primary goal. While generally efforts were made to minimize grades and steep but hopefully short pitches, more often than not they were a fact of life. That's not to imply that Lombards on these operations were plunging pell-mell into the woods carrying their crews to glory on a regular basis – that was certainly not the case. Thus enter the “road monkey” into our story.

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<sup>8</sup> Grover, A.L., “The Northern”, Great Northern Paper Co., 1928

The road monkey was a vital component in the complex process of moving timber from the cuttings to the landings. Whether a horse only operation or using a vast fleet of Lombard log haulers, how well the road monkey performed his job could not only effect the efficiency of the operation from a dollar and cents point but very much determine the safety of the teamsters and the Lombard crews. It was as much the unheralded work of the road monkey that prevented a plethora of Lombard wreckage from littering the verdant forest as it was the skill of the Engineer and Steersman.



Even with effective brakes gasoline Lombard tractors were not immune from accidents. Témiscouata Baisley Lake, P.Q.  
CDME Frasier Companies, Limited, Terence F. Harper Collection

It was the job of a crew of road monkeys who kept the road in top condition – filling in holes with compacted snow, shoveling as required and cleaning and restoring the ruts with an axe as needed. A rather inglorious though vital job was removing manure dropped by the horses. If scattered and kicked into the ruts it could make for hard hauling. On average a road monkey could maintain in top notch condition approximately 1 mile of heavily traveled road.<sup>4</sup> Another job was sprinkling the road with water to maintain a nice smooth ice surface. This had to be done on a nightly basis using a tank sled, usually drawn over the road by a team of horses and refilled at a convenient stream or lake. The ruts were vital to guiding the sled runners, if left on their own they soon became filled with snow and debris or damaged allowing the sleds to slew and go astray.

True, a steam Lombard log hauler had no brakes – at least not as we recognize them in the modern sense. However, a Lombard engineer who knew what he was about and kept his wits about him could slow things down considerably if not to a complete halt. The factory advised: *“If you wish to hold the load some with [the] machine, draw back [the] reverse lever toward center and watch the action of [the] driving members. Don’t use steam and don’t allow the lag bed to stop.”* Instilling a sense of confidence they add *“These suggestions will be readily understood after a few runs.”*<sup>9</sup>

By moving the reverse lever back, the valve timing would change and allow steam to enter the cylinders in front of the moving pistons. The steam, being compressed to a degree between the pistons and the cylinder covers would slow the piston down – sort of like how air is injected into the cylinders of a diesel truck engine to help slow it down albeit much, much quieter. As suggested by the factory it could be overdone allowing the tracks to come to a complete stop, lose traction and simply slide on the ice. Then your along for an interesting ride. The same thing happens with the tires of an automobile (before anti-lock brakes) jamb hard on the brakes the wheels lock and lose traction and simply slide or skid over the surface.

While today this might sound foreign or dubious at best we have to temper these thoughts with the understanding that these people were born, raised and lived in an age dominated by steam – the undisputed driving force behind the industrial revolution; steam locomotives, steam shovels, steam automobiles, steam powered factories, steam ships, steam heat, steam powered electrical plants and steam traction engines. They were as comfortable working with the steam powered technology of the age as we are today working with laptop computers and wifi.

The engineer of a steam Lombard log hauler could indeed do a fair amount to check the speed of one of these beasts descending a modest hill. However, it was the road monkey, judiciously applying Amontons’ first and second laws of friction, that really helped but the brakes to things. Though they may not have read his works on the relationship between load and area of contact, they did understand through practical knowledge and common sense that dry hay

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<sup>9</sup> Lombard Traction Engine Company, *“Lombard Auto Tractor-truck list of parts, Steam Logging Engine”*, circa 1905-1918



Barienger Sleigh Brake on display at the Patten Logging Museum, Patten, Maine.  
*Terence F. Harper Collection*

or straw tossed onto the ruts on a hill did a fair job of increasing friction and slowing the forward progress of a heavy laden sled train and attached Lombard. It was a technique they were long familiar with having used it to check the speed of horse drawn sleds. A road monkey who knew what he was about didn't just scatter the hay or straw which would soon be dragged down the hill by the sleds. He would chop holes that crossed the ruts and were spaced out evenly down the hill. The holes - filled with bunches of hay or straw kept it from being dragged down the slope.

The goal was to create enough drag so the Lombard would actually pull the sleds downhill rather than being pushed by them. How effective this was depended upon the steepness and length of the down slope, the weight of the load and most of all how

diligent the road monkey was in removing wet or icy hay and laying down a new layer of dry hay. Logic would dictate that removing the snow and keeping the ground bare would have worked better. However, this was discouraged because the caulks on the tracks of the Lombard would soon be dulled or damaged which would hinder traction not to mention damage to sled runners and a very difficult pull for sled trains heading up the same hill.

On very rare occasions, where a steep pitch could simply not be avoided or was deemed worth the added trouble, mechanical means of holding back the sleds would be required in the form of a snubbing line or snubbing machine - such as the Barienger Sleigh Brake manufactured by the Ryther & Pringle Company.

Ryther & Pringle claimed their sleigh brake could hold a "30,000 lb load on a 45 degree slope".<sup>10</sup> With the use of a snubbing machine it was possible to literally lower the sleds down the hill. Using a snub line was costly and time consuming and on occasion the crews got creative. Near Mesquacook Lake, Lacroix's men, faced with some relatively steep sections of road, used a 10 ton Holt crawler tractor attached to the last sled. The idea being that the heavy Holt would lower the sleds down just like a snub line. They figured that it would be quicker than dealing with hundreds of feet of cumbersome rope and a snubbing machine. It worked to a certain extent - however, the Holt tractor, for the most part, was simply dragged down the hill with the tracks locked scrapping the ruts down to the bare ground. While bare ground worked to slow the sleds it made it very hard work for the Lombard pulling empty sled trains going up the hill.<sup>11</sup>

All this - road monkeys, hay, snub lines, and well laid out haul roads illustrates the great lengths taken to prevent expensive machinery from becoming a pile of wreckage. Newspapers and trade publications of the era were pretty good at printing all the gory details of accidents. Accidents within the logging industry were reported on a regular basis - and they did happen frequently. Between July 1<sup>st</sup> 1914 and June 30<sup>th</sup> 1916, within the Maine Lumber industry (including sawmills but excluding pulp and paper manufacturing), there were 240 injuries reported. Of these 3 were fatal.<sup>12</sup> Yet scouring the records, publications and papers we find no evidence to support the often made claim that equates the duration of the life of a steersman on a Lombard with the brief life expectancy (weeks) of a Great war fighter pilot flinging a Neuport biplane around the Fokker choked skies of the Western Front.

<sup>10</sup> "American Lumberman" Nov. 11, 1922, p 90

<sup>11</sup> Vigue, Raymond F., Unpublished manuscript, 1997, Terence F. Harper Collection

<sup>12</sup> State of Maine, "Third Biennial Report of the Department of Labor and Industry 1915-1916", 1917



Getting a Lombard out of a bad spot, Madawaska Company circa 1926-33  
Terence F. Harper Collection

As mentioned before, a steam Lombard represented a significant investment. An inexperienced or indifferent crew could reduce a steam Lombard to a pile of useless parts just as surely as the most spectacular wreck. An inattentive fireman, leaving the firebox door open or allowing the fire to burn thin, could allow cold air to chill the tubes and firebox sheets – the uneven contraction causing leaking tubes and weeping or even broken staybolts. Allowing large fluctuations in boiler pressure by not attending the fire regularly or by adding large slugs of cold water rather than modest amounts more often all served to create stress and shorten the life of a boiler. At worse,

low water could allow the crown sheet to run dry resulting in a warped sheet, broken stays or tragically a boiler explosion.

A poor or inexperienced engineer could easily break things too; running too fast, failing to use the cylinder cocks when starting or not lubricating bearings, valves, eccentrics, pistons axle journals and slides and crossheads properly. A Lombard broken by neglect or indifference was just as useless as one broken in a wreck.

Most logging bosses knew that it was worth the extra money to hire good quality crews. Wages reflected this. For instance in 1904 average wages ran from \$2.00 to \$5.00 per day<sup>13</sup> while a skilled Lombard Engineer could earn as much as \$6.00 per day.<sup>4</sup> One such engineer was Dougall S. Price.

Dougall went to the woods when he was 16. Soon he was working as a “Swamper” cutting tote roads near Roach Pond. Like many youth Dougall had a touch of wanderlust which lead him to working as a deckhand on the *Cimbria* – a passenger and freight ship. Eventually he found his way to the boiler room.

After studying via the International Correspondence School, he became a licensed boiler operator. By 1906 he was the Assistant Engineer on the *Helena* - Fred Ayer’s (of Eastern Manufacturing fame) luxury yacht. He soon took over the engineer’s position which he would hold until the *Helena* was sold the following year.

With Eastern Manufacturing needing skilled Lombard engineers for their operations in Township T9-R14 and Township T7-R12 during the winter of 1907-08, Dougall could be found pulling the throttle on one of the company’s three steam Lombard log haulers working along Russell Brook and Woodman Brook. His brother Richard worked as his fireman while their father – an experienced river driver from New Brunswick, worked as a teamster. Later, in 1910, Dougall became an engineer for a tannery in Island Falls, ME. He eventually retired as a Boiler Inspector for Hartford Insurance Company in 1948.<sup>14</sup>

Since Sam White’s account of being a steersman on a steam Lombard is one of the few first person accounts we have to give it a certain amount of weight in regards to truth – but was Sam exaggerating the experience for the sake of a good story? Not by much. A steam Lombard log hauler is not easy to steer. The steering is geared 40:1 so takes a lot of turning of the steering wheel to get the ski’s to turn to the degree you want. In fact you have to compensate and start turning that wheel well before you actually enter a curve which takes good timing and skill and with close 8,000 pounds bearing on the skis<sup>15</sup> - quite a bit of muscle. The mantra “steer early, steer often” is very apropos. A steersman had to be on his game at all times. One trip as the steersman on the operating steam Lombard at the Maine

<sup>13</sup> New York Times, “Log Driving as a Sport for Swells and Cure-all for Invalids”, May1, 1904

<sup>14</sup> Merriam, Alice, to Terence Harper, e-mail, June 12, 2009 & June 20, 2009, Terence F. Harper Collection

<sup>15</sup> Crosby, Herb to Terence Harper, e-mail, January 7, 2018, Terence F. Harper Collection

Forest & Logging museum in Bradley, Maine will bear this out – your arms are constantly in motion and your working-up a sweat in no time.

Today, looking back from the perspective of a plethora of safety regulations, mandatory safeguards and rampant litigation, Sam’s words do in fact seem ominous and with casual interpretation leave the reader with the impression that a steam powered Lombard was indeed a death machine ready to take its crew to glory, but they were not – at least not for the era. No doubt Sam was afraid at times as he very well should have been. Fear, means respect and respect brings caution and encourages good judgment. Was Sam’s fear anymore out of place than that of teamster who feared being “sluiced” - his team of horses and loaded sled plunging downhill out of control as happened on occasion? Or being jerked off the load by careless use of a snub line or crushed by a shifting load? <sup>3</sup> Was the job as a steersman on a steam Lombard log hauler any more dangerous than that of a teamster or river driver or sawyer? No. The evidence simply doesn’t support it. In fact Sam went on to far more dangerous occupations – fighting in WW1 and as a pioneer bush pilot in Alaska – all of which no doubt made him question his choice of vocation at the times.

Over the past 100 years, since the last steam powered Lombard log hauler left the factory, the legend has slowly grown and expanded based on tradition accepted as fact – tradition in the form of a good story shared on and on and enjoyed by many, for who doesn’t like a good story even when we know there is a bit (... a lot) of exaggeration? Sam may have wished that he was “still a tree feller” but we are fortunate he wasn’t.



Sam O. White  
*Dead River Area Historical Society*



The fate of many Lombard log haulers - rusting debris littering the forest floor. Not from some spectacular, gory wreck but from the scrapper’s torch after decades of faithful service.

*Courtesy Paul Breton*