

# THE SEMAPHORE

Newsletter of the Little River Railroad and Lumber Company Museum

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## Annual Meeting

The Little River Railroad and Lumber Company Museum, Townsend, TN has set Saturday, April 16, 2011 for our Annual Meeting.

We have a really outstanding program for our Annual Meeting this year. Rick Turner, our President, will be presenting Logging Railroads in the Smokies. This program provides a glimpse of how people lived and what occurred in the Smoky Mountains prior to the establishment of the Park in 1934.

Besides being President of the Museum, Rick is a volunteer in the Park where he developed this program for presentation to Park visitors.

In addition to a picnic lunch, we will also have motorized speeder and hand car rides (you provide the power for the hand car) and tours of the museum and the new shop building.

Our schedule is:

Time	Activity	Presented By	Reservations
10:00 - Noon	Tour Museum Property	Museum Staff	No
12 noon	Al Tompkins commemorative brick laying	Museum Staff	No
Noon to 1:00	Lunch	Museum Staff	Yes
1:00 to 1:30	Business Meeting	Rick Turner	No
1:30 to 2:30	Logging Railroads in the Smokies	Rick Turner	No

Please note that all activities are free of charge, but we are requiring reservations for the picnic lunch so we can get a head count and determine the amount of food we'll need.

Please plan to attend. We look forward to seeing you there!

To make your reservations, please call Rick Turner at 865-428-0099 or email him at

[president@littleriverrailroad.org](mailto:president@littleriverrailroad.org).

## Annual Memberships and Donations

Each year we ask each of you to contribute the small amount \$21.47 for continued membership in the Museum. The benefits of membership have always included our annual newsletter, *The Semaphore*, and our grateful thanks for your support. Memberships are annual and run from the 1<sup>st</sup> of January to the 31<sup>st</sup> of December. Again this year we are continuing the benefit to membership in the Museum by giving all members a 10% discount on all items in the Gift Shop.

For those members who receive *The Semaphore* online, we now provide the ability to start or renew memberships on line through the Gift Shop. For all others a membership form is on the last page.

Our plans to further enhance and improve the Museum depend on your support. Your tax deductible donation and membership go a long way in that effort. We cannot do it without you.

Thank you for your continued support.



# Log Cars of the Little River Lumber Company

by Jerry L. Dowling

## Introduction

The problem with being in the logging business is that one has to figure out a way to transport the logs from the forest to the mill. Various approaches -- dragging, floating, tramlines and the like -- are options depending on the location of the timber, the area's topography, and the existence of rivers, roads or other existing transportation resources. While tramlines, dragging logs with oxen, and even floating had been used in the Great Smoky Mountains at various times, these strategies did not lend themselves to large scale timbering operations. Accordingly, with the prospects of a substantial logging business, the Little River Lumber Company (LRLC) chose to build a railroad as its prime means of transport.

The western slope of the Smokies is blessed with rivers and streams. However, these waterways are too inconsistent in depth and clogged with boulders to permit extensive floating of logs as was done in the upper Midwest and Pacific rim. But, the same rivers and streams provide a course for the construction of a rail line. The mountain gaps not only permit the passage of water in a river bed but also create a shore line to accommodate a railway roadbed. Thus, the LRLC constructed a standard gauge railroad from the mill in Tuckaleechee Cove (Townsend) into the woods where the timber resources lay.

During its nearly four decades of existence the LRLC utilized three different forms of railroad log cars to haul the logs from the skidder landing site to the mill. This article discusses these cars. Most of the observations about the log cars are derived from extensive study of the photographs of LRLC and its companion Little River Railroad (LRRR) equipment. Where relevant, reference is made to particular photographs which are in the archives of the Little River Lumber Company Museum and the National Park Service and which appear in the Schmidt and Hooks book, *Whistle Over the Mountain*. Photos in this latter publication are noted by “(Whistle, p. x).”

## Skeletons



The initial effort at transportation of the harvested logs was via skeleton cars. These units consisted on two large timbers providing a backbone for the car with four cross-members serving to bear the weight of the logs (*Whistle*, p. 103). The entire apparatus was held together with iron straps and bolts. The term “skeleton” is used to describe these units because indeed they mimic the basic structural skeleton of a rail car. The LRLC cars appear to have been equipped with link and pin couplers and were lacking air brakes. The absence of this latter feature greatly limited the number of cars and attendant weight that locomotive number 1, a small 0-4-0T could handle -- moving was not the issue; stopping was! The later addition of Shays improved upon this situation.



A most interesting aspect of the LR skeleton cars was that the company apparently constructed them on site (*Whistle*, p. 26). It is unclear whether LRLC personnel designed the cars and/or whether they were delivered in “kit” form via the Knoxville and Augusta Railroad (Southern) connection at Walland. What is clear is that the cars were assembled in Townsend from pre-cut timbers and placed upon arch bar trucks. Each car had a short wheelbase and appears to have been no more than 15 to 18 feet long, allowing the cars to carry logs about 12 to 15 feet in length. Since the cars were not designed for interchange service, they bore no numbers or other identifying information.

Industry records suggest that LRLC may have owned as many as two dozen of these units. It soon became apparent, however, that this form of car could not be used effectively in large scale timbering. The lack of air brakes limited the length and speed of each train and the size of the car would not accommodate large loads of logs or the weight of some of the giant poplar trees. Before the first decade of operations had past, the skeletons had been displaced by the next series of log cars.

## Wooden Sill Cars

The skeletons were replaced with wooden sill flat cars. The side and end sills, as well as all undercarriage bracing, was constructed of wood. The deck likewise was composed of wooden planks. Structural support was added through the use of six truss rods passing over twelve queen posts which were mounted to two needle beams that ran the entire width of the underside of the car.

These cars provided substantial advantages over their predecessors. First, they had air brakes, effectively allowing longer trains and concurrent greater safety. Second, being 36 feet long, over nine feet wide, and reinforced with truss rods, they could carry more weight than the skeletons. The stated capacity of the cars was 60,000 pounds, the industry standard for cars of this size and construction. No load of logs likely threatened that rating.

These units were not ordinary flatcars but rather contained several unique features. Most notable was the mounting of railroad track upon the deck of the cars. These tracks permitted workmen to utilize self-propelled steam powered log loaders to load the cars. These loaders could move along the cars and place the timber which had been stacked trackside. The loader would stop on one car and use its derrick and tong system to load logs on the car behind it. When the car was loaded, the loader would swing a piece of transition track into place to bridge to the next car. The loader would move to the next car and load the car which it had previously occupied. The Little River Railroad and Lumber Company Museum in Townsend has on display a piece of transition track.



Another feature of these cars was the presence of the pivoting brake wheel. At the time, standard car construction specified a vertical shaft with brake wheel attached be mounted on one end of the car. The wheel allowed the brakeman to manually set the brake and hold a parked car in place. However, the vertical brake shaft created an impediment to moving the loader from one car to another. The problem was solved by mounting the lower end of the shaft on a circular swivel mechanism. The rod could then be dropped 90 degrees to a position parallel to the end sill and out of the way of the loader. No photograph of Little River Railroad log cars has been found where the

brake wheel is positioned upright. The appliance is visible on the end of flat 362 at the Elkmont coaling station (*Whistle*, p. 69).

This author has been unable to identify the industry name for this mechanism or when it was first used on American railroads. Examination of photos of flatcars during the early 20<sup>th</sup> century suggests that the device was not widely adopted. A pivoting brake shaft may be seen on one of the more modern flatcars at the Museum.

Unlike the flat cars in common use at the time, which had nine to twelve stake pockets along each side, the LRLC cars had only four such pockets and likely could have fared quite well without any stake pockets at all. The railroad did not depend upon vertical stakes to provide side support to the logs. Rather, the 36-foot cars were stacked with two courses of logs cut to about 16 feet long. The logs were stacked pyramid style with two to four logs forming the base, depending on the logs' diameters. Successive layers were laid in the cracks formed by the adjacent logs. The typical car would carry two stacks of six logs. A logging chain was secured over each log stack and attached on each side of the sill into a cast iron cleat. This latter device was simply a fixture with a slot running vertically through its middle. A link in the logging chain was placed in the slot. Since each link in the chain was positioned 90 degrees to the links on either side, a secure connection was created. Tightening of the chain consisted of placing the final log on top of the stack, thereby using that log's weight to place tension on the entire chain.

LRLC rostered about 30 of these flatcars. They were lettered originally labeled "Little River Railroad" but subsequently carried only the initials "LRR". The units were numbered non-sequentially beginning with 300. (The absence of photographs of units bearing odd numbers suggests that the cars may have carried only even numbers, a not unusual industry practice). Car 366, possibly the final unit in the series, was converted into a passenger observation car (*Whistle*, p. 92).



## Steel Sill Flatcars

At some point, probably in the late 1920s, the railroad switched to steel sill flatcars to transport its timber. These

units had steel side and end sills and presumably steel underbellies. However, they retained truss rods for added structural support. With the advent of the steel sill cars, the wooden sill cars vanish from the photographic record. The author has been unable to locate any photograph containing both steel sill and wooden sill log cars together. This suggests one of several possibilities. First, steel sill cars may have been used on one part of the system while wooden sill units – and possibly skeleton cars -- continued in use on another part of the railroad. This seems unlikely because the wooden sill numbers vanish from the Official Railway Equipment Register, being replaced with the steel flatcars numbered in the 200 series. A second possibility is that the wooden cars were rebuilt with steel sills. That is certainly a possibility although it would appear to be a job beyond the capacity of the workers at the Little River Railroad shop. The third and more likely scenario is that new steel cars were purchased. The layout of the steel cars was very similar to that of the wooden cars: a wooden deck bearing a set of rails for the log loader; a cleat on the side providing a connection for the logging chains, and the brake wheel dropped into a low position. In their final iteration the cars bore merely the initials “LRL Co”. A scintilla of evidence suggests the sills of the cars were painted boxcar red with white numbers.

#### Observations and Conclusion

Attempting to draw conclusions from photographic and scant published information is fraught with peril. While a relatively large number of photographs of the Little River Railroad and its operations exist, few can be reliability dated. Further, second-hand stories, hearsay, and faded memories collaborate to paint a less than accurate picture of the company’s equipment. Even normally reliable records, such as the Official Railway Equipment Register, can contain errors. Given that no official records of the railroad or the lumber company are known to still exist, we are left with making our best educated guess about some things. Such is the case with this article. Should any reader have corrections and additions to the content of this article, the author would greatly appreciate hearing from you.

*Jerry L. Dowling was reared in Knoxville but has resided in Texas for the last 40 years. He maintains a summer home in Townsend. “Armchair” railroading is his primary hobby. He may be contacted at [jerrydowling@comcast.net](mailto:jerrydowling@comcast.net)*

## Set-off House Restoration

by Gloria Turner

Most of our museum artifacts show how employees worked but not how they lived.

The Lumber Co. had many set-off houses. As the lumbering ended many were moved to towns to be used as housing. Many later became storage buildings.

This original set-off house was donated to the Museum by Carl and Nancy Cromwell.



These portable cabins were used to house loggers and their families in the back country camps, so the trip to work was short, but some were used as shops for maintaining saws etc..

They were built in the company shops in Townsend, many by the semi-pro baseball players that Col. Townsend brought to Townsend. They were transported on flatcars and "set off" along the tracks by log loaders. They were often set together in rows known as "stringtowns," sometimes perilously hung on hillsides.

Larger families might have several adjoining units, so these were early mobile homes, even modular homes. When the area was logged out, the houses were picked up, with all the furniture inside, and moved on up the mountain.

We want to restore our set-off house saving as much original fabric as possible that will give visitors a glimpse of life in the camps. Our hope is to display it with appropriate antiques or reproductions.

Our biggest problem right now is funds and volunteer help to restore the house. If you wish to donate to this project, volunteer to rebuild, or have appropriate furnishings to donate, please see Gloria or Rick Turner or call 865-428-0099.

## In Memory of Allan W. Tompkins

Al Tompkins, a dedicated member of our Board of Directors, passed away on August 4, 2010. Al was a good friend and a great asset to the Museum for many years, and he will be greatly missed.

# THE LITTLE RIVER RAILROAD AND LUMBER COMPANY, INC.

PO Box 211, Townsend, Tennessee 37882

## Membership Application/Renewal and Gift Form

This Company has been chartered by the state of Tennessee as a not-for-profit corporation.

The Company has established, and it maintains and operates, a museum for the purpose of preserving artifacts, papers, photographs and equipment of the Little River Railroad and Lumber Companies' operations, based in Townsend, Tennessee, and to exhibit same for the enlightenment of the general public.

We accept contributions of any articles pertaining to the history of these companies and the people of this community. No gift is too small. All gifts will be acknowledged.

**I wish to join the Friends of the Museum**  
(Friends volunteer time to the Museum)

### Membership Categories

**Contributing Member**  
Individual with Spouse  
and Minor Children  
One Year: \$21.47

**Life Member**  
Individual with Spouse  
and Minor Children  
Lifetime: \$200.00

**Honored Employee**  
Original Employees  
and Spouses  
Lifetime: Free  
Upon Application

**I wish to contribute \_\_\_\_\_**  
(Amount or item – describe on back)

All gifts and membership dues  
are tax-deductible.

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Phone \_\_\_\_\_

Date \_\_\_\_\_ Amount Enclosed \_\_\_\_\_

Email \_\_\_\_\_