



CABOOSE No. 903 was equipped with electric lights and radio.

Caboose With Lights and Radio

Lackawanna has built 61 new units of own design in own shops—the last word in comfort and efficiency

DURING the past 20 months the Lackawanna has been turning out, at its Keyser Valley, Pa., car shops, a group of 61 new all-steel cabooses. Thirty-two of these have been equipped with electric lights and 27 with two-way radio. These new cabooses are an all-Lackawanna product—both design and production. These new caboose cars are numbered 850 to 910.

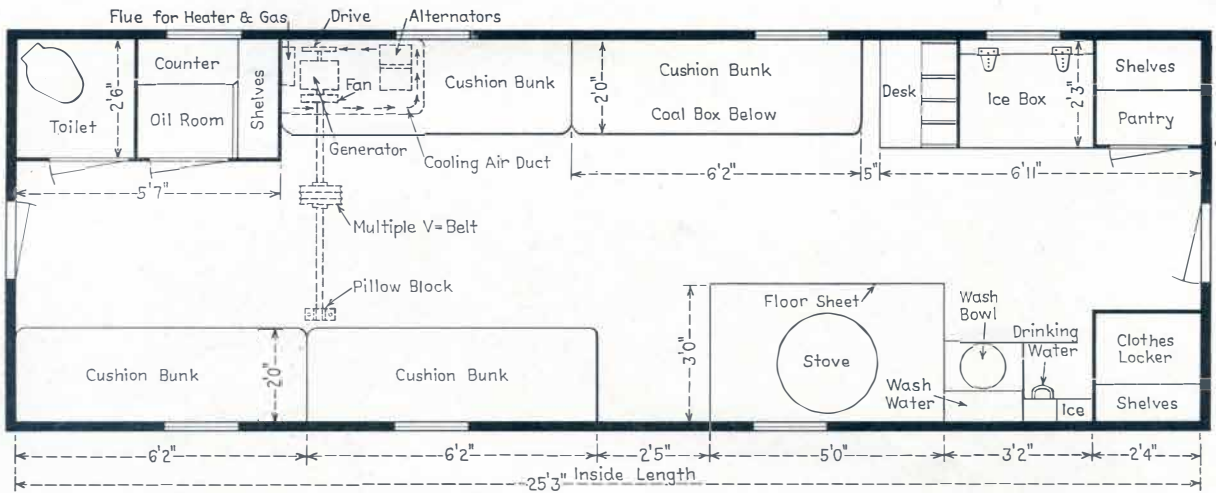
The car bodies are $\frac{3}{4}$ in. steel, all welded which results in simplification of manufacture and a better appearing job when completed.

The first caboose, No. 850, was erected and placed in service in 1948 to get the reaction of train crews that were to use them when the program got under way. The men were asked to comment on the car's riding qualities as well as its other features in order that the cabooses would be satisfactory and comfortable. As a result of this test period, a number of alterations was made in the original plans that could not have been foreseen.

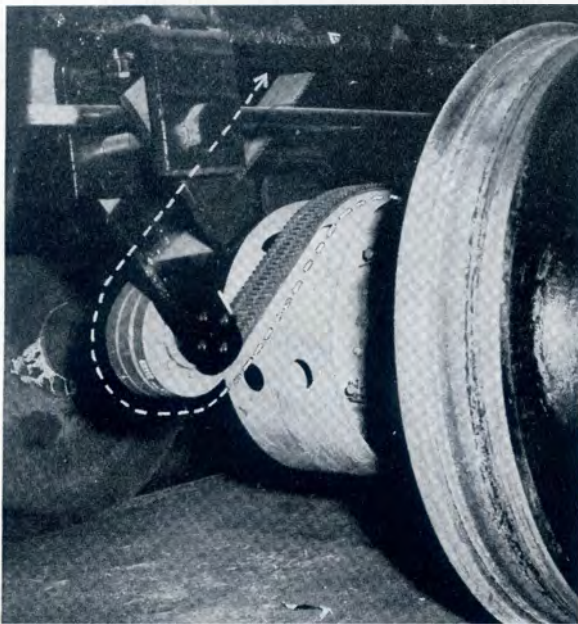
In this connection, shop employes and supervisors submitted suggestions to facilitate the production of the cars and provide additional safety features. These included

FEATURES OF THE NEW CARS:

- All-steel construction
 - Welded, insulated bodies
 - Axle-driven generators
 - Cast-steel underframes
 - Improved riding qualities
 - Aluminum sash—safety glass
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INTERIOR PLAN of the new DL&W cabooses.



EQUIPMENT with which new cabooses are fitted to operate alternator-generator. Dotted line follows axle-driven belt up into body.

the rounding of square corners, repositioning of grab irons and other handrails. A coping over the windows was added to help keep out the rain.

In determining the type of caboose best suited for the Lackawanna's heavy grades and pusher service, it was decided to use as underframes the cast steel tender beds from retired steam power. This not only provided the necessary additional strength, but was an important economic consideration.

The underframe was fitted with a standard draft gear pocket on the forward end by welding and the height was adjusted to the caboose by a heavier body center plate and extended side bearings. A steel plate was installed as a floor.

The car body itself is almost entirely welded in sub-assemblies, such as sides, ends, roof and cupola, and these parts are then assembled on the underframe as a single

unit by welding. The sides, floor, ends and roof are insulated to keep out cold and heat, thus preventing abnormally high temperatures in the summer and providing a consistent temperature in the winter with a minimum of coal. The insulation also reduces track and wheel noise.

Over the insulation fir plywood was applied to the walls, ends and ceiling to provide a smooth interior. Pine was used for flooring. All lockers and cupboards are of welded steel construction.

The cars are equipped with aluminum sash, glazed with safety glass set in rubber and the side cupola sash slides forward and backward for the convenience of employees while watching their train.

The trucks are equipped with long elliptical springs and steel wheels for easier riding. The center plate is fitted with a fiber filler, $\frac{3}{8}$ of an inch thick, to keep truck noise out of the car.

Cars Have "Zippers"

Each car is equipped with a device called a "zipper," which closes a valve in front of the angle cock and allows the pusher locomotive to cut off without stopping the train. The air brakes also may be released from inside the caboose by stepping on a floor release valve.

As the radio installation program for freight trains got under way 32 of the cabooses were scheduled to be equipped with alternator-generators to provide power for the radios. However, only 27 will have radios installed. As a by-product of this, electric lights are being installed in the 32 cabooses. A dome light is located in each end of the body of the car and another over the conductor's desk. The marker lights also are electric, with a part of the bottom cut away so that light shines on the steps. The lights inside have individual switches, and in addition another switch is located in the cupola so the ceiling lights can be turned off to reduce glare at night.

The alternator-generator is driven by a belt arrangement, operating off the axle and is so arranged that it will produce electricity regardless of the direction in which the caboose is operating. This obviates the necessity to turn the caboose at the end of a run. Storage batteries of sufficient capacity to carry the car from Scranton to Buffalo without failure of the system are used.