

PASSENGER RIDING EQUIPMENT* TECHNICAL DATA

Cars used to carry riders are home built based on a proven design used by other clubs for many years. Their primary features are:

- Strong box beam frame made from $\frac{3}{4}$ inch exterior grade plywood.
- Center section of car floor designed to ride 1" off the top of the rails.
 - Lower floor provides a more comfortable seating position and lowers the center of gravity of loaded car
 - in the event of a derailment the lowered car floor sits down on the rails, acting as an automatic brake and minimizing the chances the car will turn over on its side.
- Bulkheads on car ends prevent rider's feet or bodies from getting caught between cars.
- 1" x 2" steel rectangle tube frame runs length of car.
 - Car to car couplers mounted in the ends of this frame
 - Carries load from car(s) in front to car(s) behind
 - Includes plates for mounting frame to wooden car body and wheel sets (trucks) to the frame
 - Frame designed by manufacturer of the wheel sets (trucks) to assure proper alignment of truck mounting hardware to enhance tracking ability and reduce probability of derailments
- Wheel sets (trucks) are manufactured in Ohio to a design in use for over 20 years.
 - Each truck rated at 1000 lbs safe load
 - Equipped with air brakes controlled by engineer
 - Equipped with swing hanger mountings to give superior tracking abilities
- Car to car couplers are manufactured in Ohio and have been used successfully for over 20 years.

Complete set of riding car construction plans is attached.

*Passenger riding equipment includes the passenger riding cars, the conductors car and the engineers cars. They wood bodies are all built to the same general plan and the trucks, frames and couplers are standardized across all the car types.

PASSENGER EQUIPMENT RECOMMENDED MAINTENANCE:

Maintenance intervals

- Before the start of operations in the Spring (late March)
- Before the Annual Rail Festival (early June)
- Before the Carillon Christmas (late Oct, early Nov)
- Before each Operating session

Recommended Maintenance at Major intervals

- Inspect the wooden car body for any damage, separated joints or delamination of the plywood
- Turn the cars over so that the wheel sets (trucks) are accessible and inspect them.
 - Use International Brotherhood of Live Steamers (IBLS) gauge to check wheel sets for proper gauge over flanges ($7 \frac{9}{16}$ "") and back of wheel to back of wheel ($7 \frac{1}{8}$ "") on each axle.
 - Check each wheel for excessive flange wear, replace wheel if thickness less than $1/16$ "
 - Spin each axle and listen for any rumbling or squeaking that would indicate bearing wear/failure
 - Grease the bearings and trucking mounting plate
 - Check the brake system for proper operation. Includes replacing missing springs, testing/correcting air system for leaks and checking brake shoes for excessive wear, replace if necessary
- Oil coupler moving parts and grease coupler mounting pocket in frame

Recommended Maintenance before each operating session

- Visual inspection of car body
- Visual inspection of wheels/flange condition
- Test air brake system
- Test of emergency signal circuit
- (Carillon Christmas) test car lights