

OCME SAFETY REQUIREMENTS

GENERAL

Orange County Model Engineers, the Mackerel Flats and Goat Hill Junction Railroad is a 7 ½ inch gauge miniature railroad that conforms to the International Brotherhood of Live Steamers standards. Our layout is designed to accommodate 1 ½, 2 ½, and 3 ¾ inch scale locomotives and rolling stock.

SAFETY CHAINS

It is recommended that there should be an additional interconnection by safety chains attached to car frame. Typical attachment methods include welding or mechanical attachment of an “L” bracket or eye bolt. All safety chain components should have a minimum working load rating of 150 lbs.

Safety Component	Dimension	Working Load
Quick link	5/32" Diameter	440 lbs
Snap Link	1/4" Diameter	175 lbs
Chain	#2 or Larger	325 lbs
Cable	5/32" Diameter	920 lbs
Eye Bolt	5/16" Diameter	

Safety chains are mandatory if a train is going to pull the public

Where a single chain is used, it shall be attached at the center of the car. If the safety chain is not connected to an adjacent car, it shall be configured in such a manner that the free end of the chain shall clear the top of the railhead. Safety chain requirement does not apply to locomotives attached to a tender with a drawbar, or to equipment attached with a drawbar, or to equipment having automatic fail-safe brakes.

PHYSICAL CLEARACE

No part of a car or locomotive shall extend beyond 18 inches from centerline of track.

SEAT REQUIREMENTS

Front top of seat shall be no more than 10 inches above car floor for passenger cars; 16 inches for cabooses. No requirement for engineers' seats. Passenger seats on engineers riding car must be less than 10 inches above the floor. All seats securely restrained.

TRUCK REQUIREMENTS

Each truck wheel lifts 1/8 inch off the rail without raising any other wheel.

Truck pivot point clearance, no less than 1/100 inch and no greater than 3/32 inches (king pin seats are in contact). Riding on functional rollers is also acceptable.

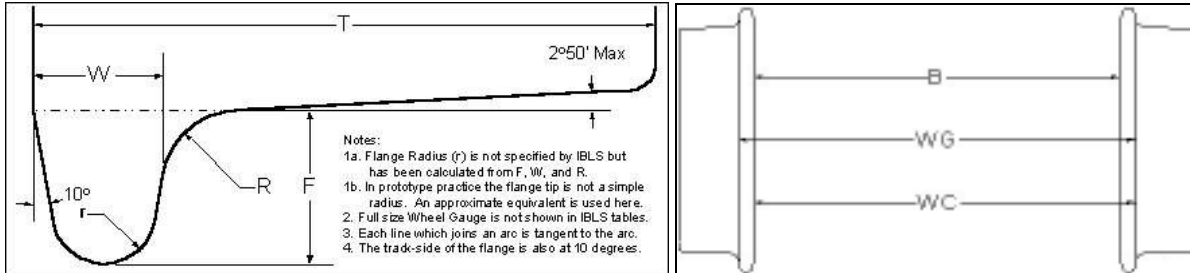
Bolster bolt nut or other retaining device, to have a minimum gap of 1/8 inch from the bolster.

Trucks rotate at least 5 degrees each way from the centerline.

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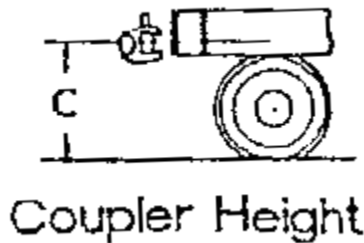
Wheel/axles shall conform to IBL Standards

Gauge	Track Gauge (In.) (TG)	Tire Width (In.) (T)	Flange Width (In.) (W)	Flange Depth (In.) (F)	Contour Radius (In.) (R)	Flange Radius (In.) (r)	Back to Back (In.) (B)	Wheel Gauge (In.) (WG)	Wheel Check (In.) (WC)
7 1/2 "	7.500 Min.	0.750 Min.	0.156 Max.	0.187 Max	0.094 ±0.015	0.062 Typ.	7.120 +0.020 -0.000	7.440 +0.000 -0.020	7.271 Ref.



COUPLER REQUIREMENTS

Coupler heights, (dimension C), are not less than 4-3/16 inches from the center of the coupler to the top of the rail when the car is unloaded. Coupler heights are not more than 4-9/16 inches. *This requirement does not apply if the equipment is not to be interchanged with other than owners' equipment.*



Coupler height mismatch shall not exceed 3/8 inch.

Couplers should be able to rotate sideways through an arc of plus or minus 7 degrees from the centerline.

LOCOMOTIVES

Steam locomotives must have a current boiler test and certification that will not expire within 30 days of meet.

Steam locomotives shall have two methods of putting water into the boiler. One method works without motion of the locomotive on the track.

Steam locomotives shall have an ash pan in condition to not allow the dropping of burning ashes or fuel on the track. Spark Arrestors for all Coal, Wood and Oil fired engines.

OCME SAFETY REQUIREMENTS

An engine braking system is present and able to slow and stop the entire train within a reasonable distance;

Steam Locomotives: Johnson bar in reverse, vacuum or pressure brakes.

Diesel Locomotives: Hydraulic drive, putting the hydraulic system in reverse, vacuum, pressure, or mechanical brakes.

Electric locomotives: Dynamic braking for solid state controllers or ability to put electric drive system into reverse.

Whistle, horn, or sounding device functions for sounding locomotive signals.

Front headlight if locomotive is to be operated at night.

Fuel shut off valve is inline with fuel tank and carburetor and accessible with locomotive cover in normal position. Applies to locomotives with internal combustion engines where the top of the fuel tank is level with or above the bottom of the carburetor.

Fuel tanks, other than a propane system, are not to be pressurized. I.e. gravity feed or fuel pump between fuel tank and engine.

No safety chain or coupler height restrictions are required on the front of a locomotive.

PULLING THE PUBLIC

If at any time during the meet you choose to pull the public each train must be equipped with a knowledgeable engineer and conductor. All trains must have radios set to FRS frequency channel 9, sub-channel 25 when running on the railroad.

The section on chains applies to anyone pulling the public

Signed _____

Date _____

OCME Board Member Acceptance _____

Date _____