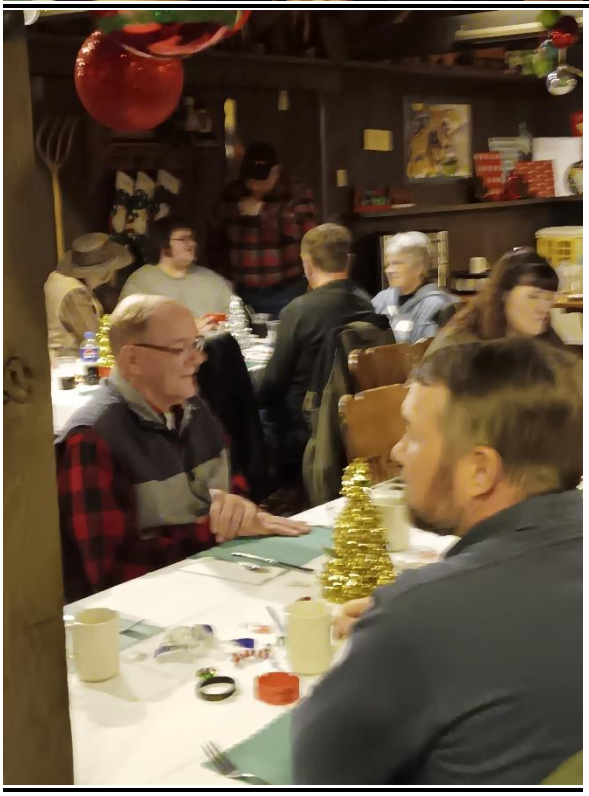
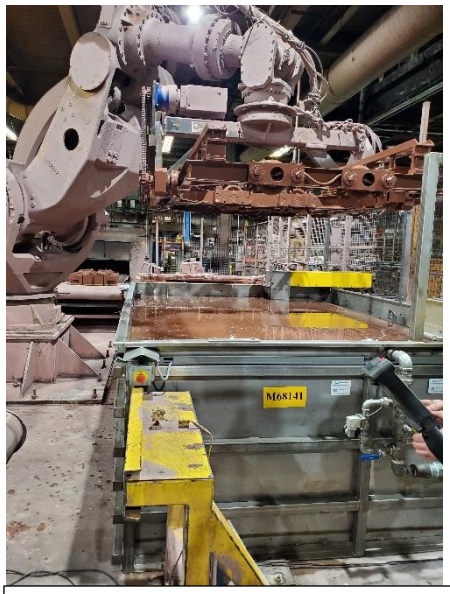
HIGH BALL

A Publication for the Mid-Michigan Railroad Club
December 2023

December 2nd was the annual club Christmas Party. Turkey dinner with all the trimming, pie and good company. A good time was had by all.



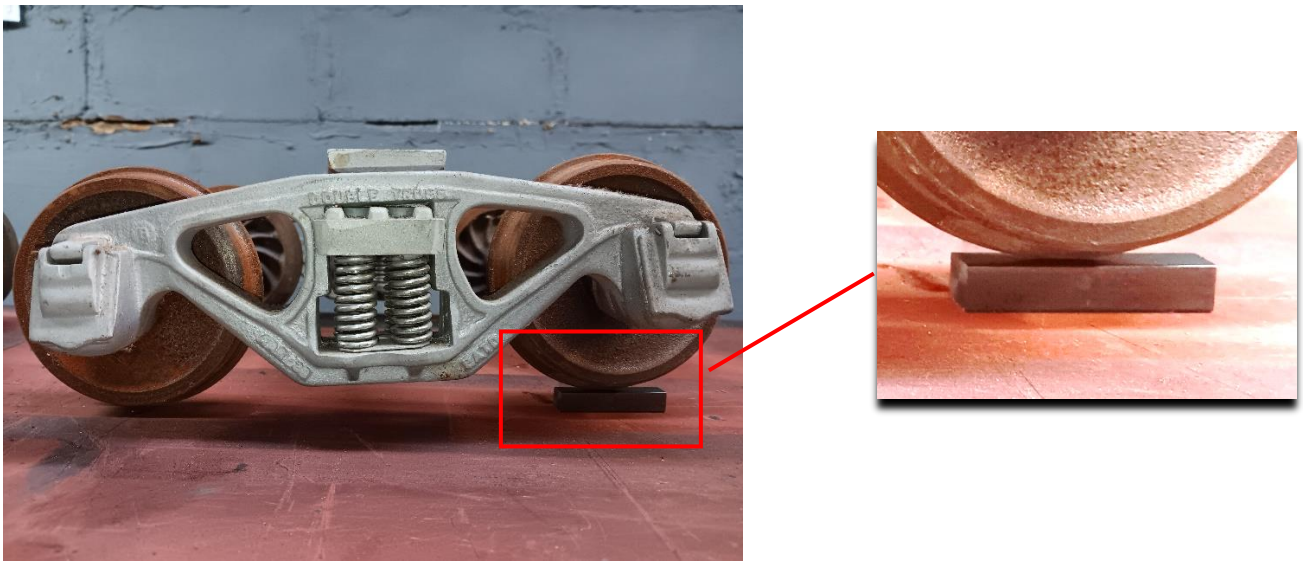


Alas I had a date to upgrade an automated wash system. I think you had more fun.

Staying On Track

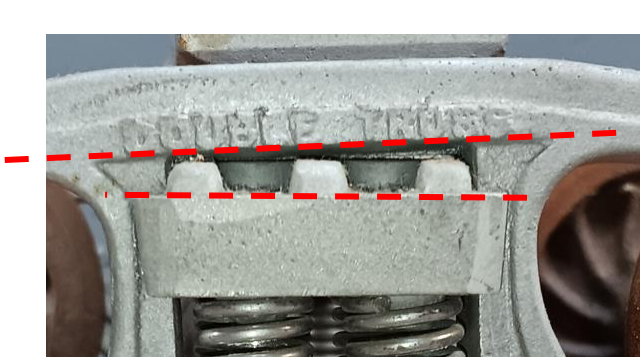
Even with a well maintained track, there is no perfectly level track. As the weather changes frost heaves the ground beneath the track. Summer temperatures and sun cause the rail to expand and shift. Every locomotive and car that rolls across a rail joint pushes the rail ends downward.

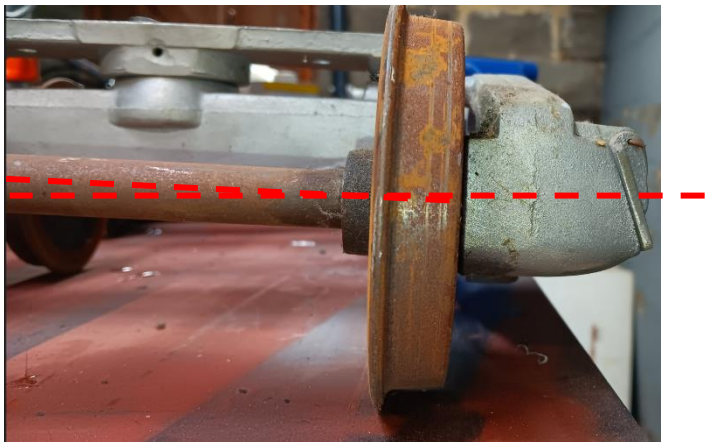
When building and maintaining locomotives and rolling stock staying on track begins with flexibility. General practice is that wheels should roll easily over a ¼" object without any other wheels lift from the rail. This allows equipment to roll through low rail joints and over the occasional rocks and sticks without a second wheel lifting from the rail increasing the chance of a derailment.



This Morris truck above rolls easily over a 3/8" block.

In the views below are two points in the trucks needing flexibility is the bolster in the side frame and at the journal bearings.

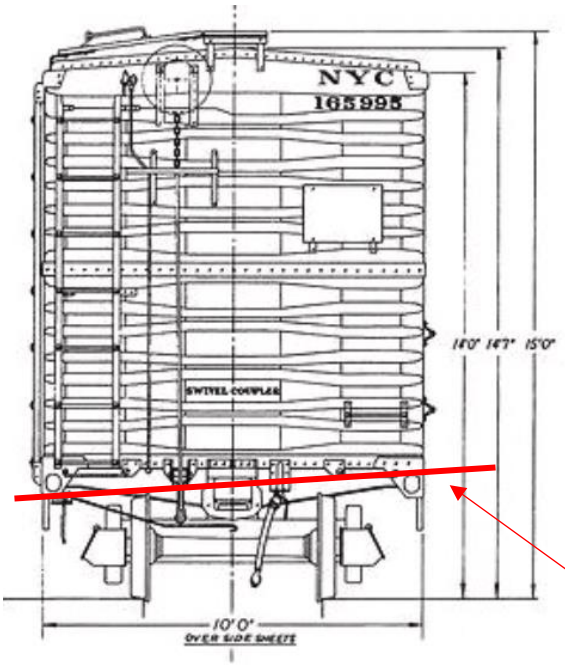


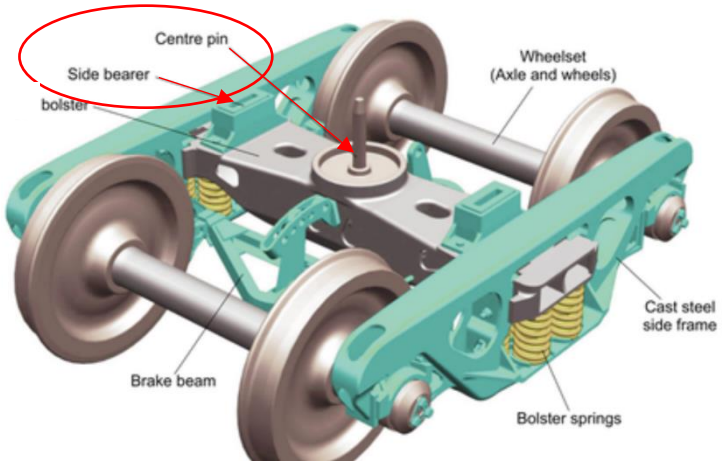


Flexibility is also needed truck to truck. Each truck needs to be able to follow the contours of the track beneath it without affecting the other. There are a few ways this is commonly addressed.

- Clearance at the truck center pins.
- Three pointing the bolsters.
- Don't load the bolster.

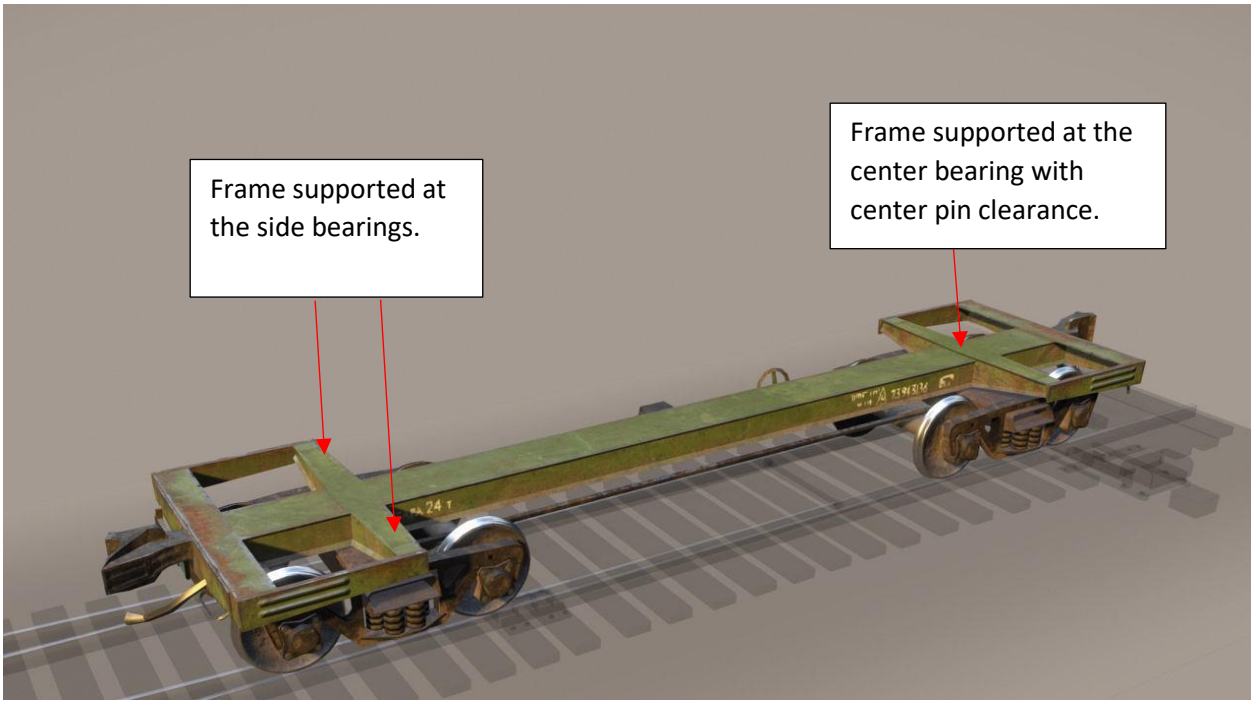
The most common method is to include clearance between the center pin and the bolster. Tom Bee recommends the truck bolster be allowed to flex from a level car frame about 10˚. This allows the trucks to follow twists in the track level. More than 10˚ is not recommended with passenger carrying cars. The car will feel "tippy" to the passengers. Too much movement can also contribute to the passenger rocking to the side contributing to a derailment. Movement is often limited using side bearings or contact points on the bolster.



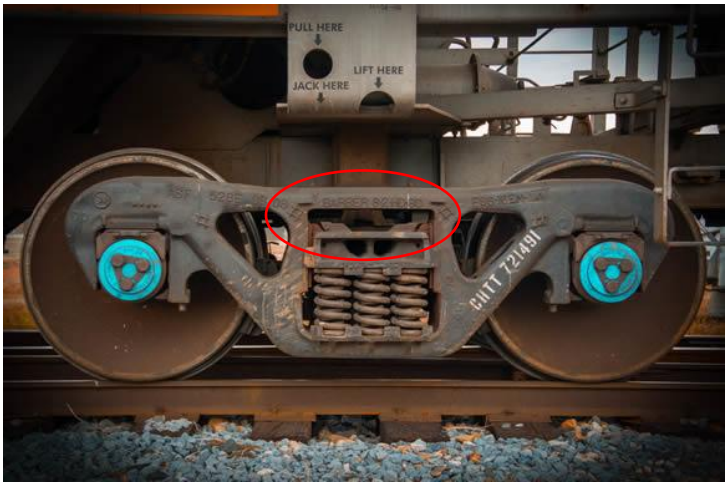


Bolster that can move 10˚ from a level car frame allows the truck to follow twists in the track level.

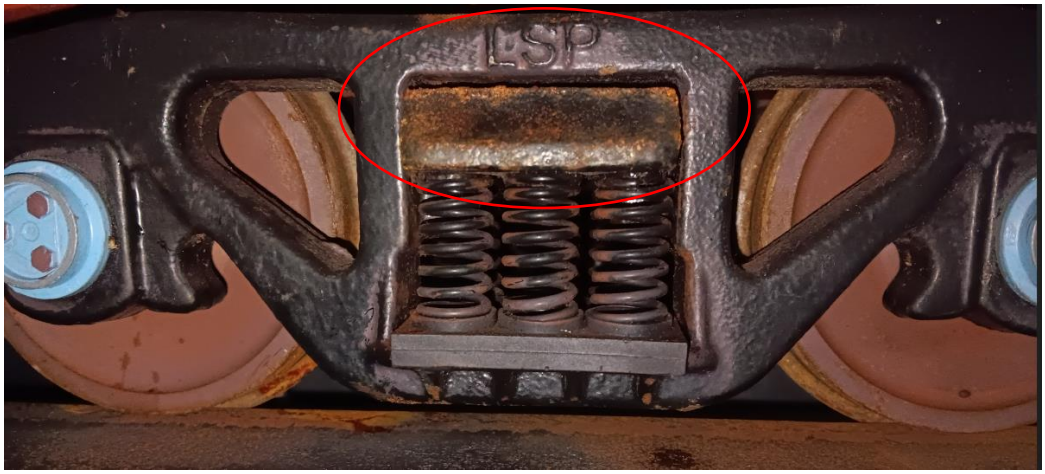
A method I have not tried is three pointing the bolster support points. With a three point support at the first truck the bearing at the center pin supports the car frame at bolster. At the second truck the bolster the side bearings support the car frame. Clearance in the first trucks center pin is required. A number of people at the Mill Creek large engine meet report using this method with good success.

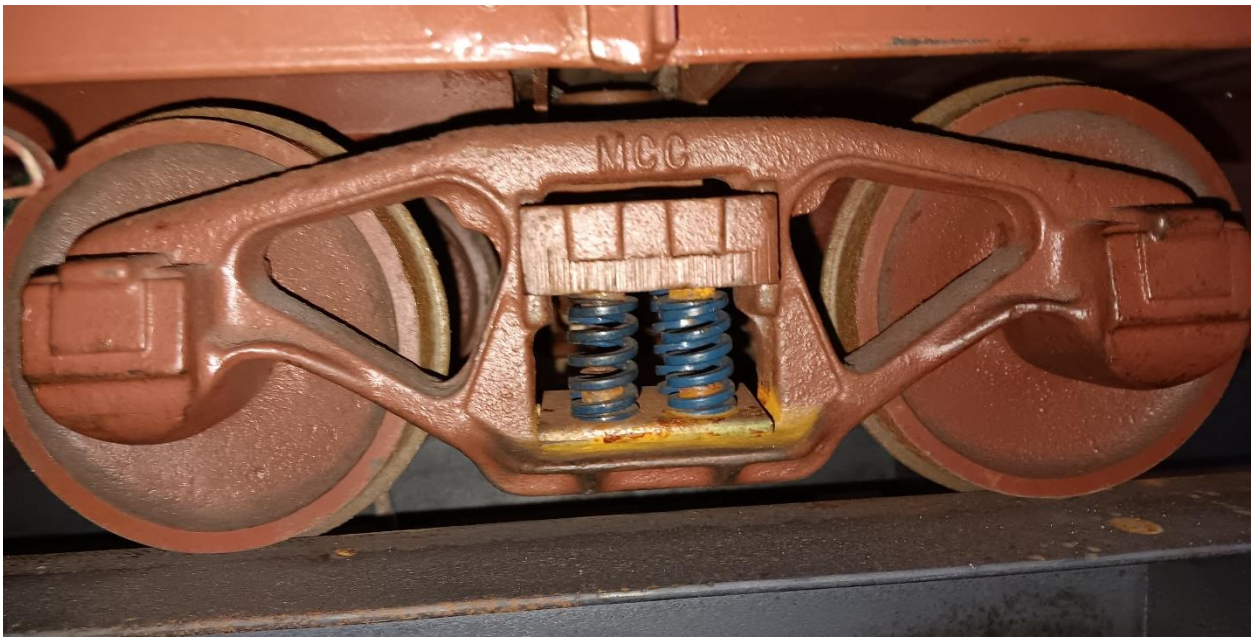


If you have ever looked at prototype trucks you may have noticed the springs to not hold the bolster tight against the top of the side frame.

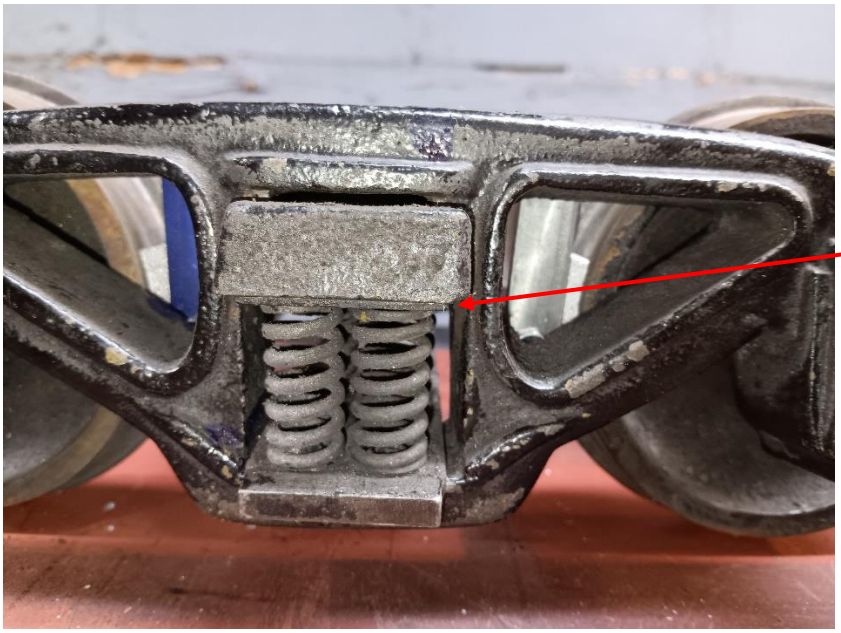


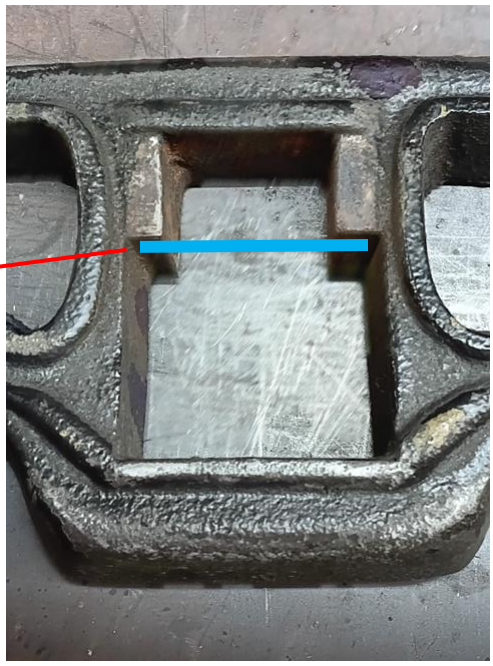
In 1/8th scale trucks the springs almost always hold the bolster against the top of the side frame opening. My Mountain Car (Titan Trains) and LSP trucks have a small button cast into the top of the side frame opening to allow the bolster to rock in the opening. Still the bolster has to work against the springs and I found this contributed to stiffness in the trucks.





In this view the springs have been replaced with shorter die springs to drop the bolster away from the top of the opening. This requited a spring pad to be added to the bottom of the opening to retain the springs.





Most of my trucks were built with a small plate between the springs and the bolster. The plate fits the wide portion of the opening. This prevents the springs from pressing the bolster to the top of the opening. The bolster can float on top the plate letting the trucks follow twists in the track surface.

Morris trucks have springs the perfect length to hold the bolster at the top of the opening but not loaded against the side frame. This gives good flexibility while retaining the springs.

2024 Dues are due.

Annual dues are due. Please send them to Chris Morris 421 N Shelson St. Charlotte MI 48813-1224. Chris asks that we have our dues in by January 1st.

January Business Meeting.

Rod is planning a January business meeting. Date to be determined.

Projects

Tom Stuck cleaned up the barn to give us working space for winter track panel and switch work. Thanks Tom.

For Sale

Retevis RT22 Walkie Talkies Rechargeable Hands Free 2 Way Radios Two-Way Radio(6 Pack) with 6 Way Multi Gang Charger. They use the same frequencies we use at Turkeyville. Only used 3-4 times. Asking $75. Contact Matt Murawski mattmur86@gmail.com




Steve Morris has a partially completed Little Engines 0-6-0 for sale.

Contact Steve at 517-231-1397

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