Operation and Maintenance Manual

7 1/4" Sit in Bogie Coach



Ride on Railways Ltd. March 2023

Introduction

The concept of the Ride on Railways sit in coach is to provide a comfortable, easy access coach with a low centre of gravity.

Introduction of the HS2020 Guidance - Managing health and safety at passenger-carrying miniature railways, reinforces the importance of the operator's duty to ensure that the coach is fully assessed and suitable for their use. Document can be found here

As the manufacturer we hope we have addressed all safety concerns but are always surprised by the resourcefulness of some who are intent of finding new ways to cause issues. Please keep us informed if you find any.

Minimum radius curve 20' as the bogies are restricted to keep them inline should there be a derailment.

BE CAREFUL

1. These coaches are heavy.
    - Avoid lifting if at all possible.
    - If it has to be fully lifted, please ensure it is done with 4 people – one at each corner with appropriate PPE.
    - Always plan a lift – good lifting technique, route is clear of trip hazards, all involved are capable of the activity etc.
    - Do not go under any coach unless the bogies are supported. Low risk of failure but the vibration mounts on the cross plates are not designed for high tension loads.

2. Train brakes are always recommended. Good rule of thumb is, as a minimum, a train should have at least 1 in 3 axles braked. Usually this means more than one coach requires train brakes.

3. Do not rely on vacuum/air brakes for long term parking – chock or derail the coach to avoid it rolling away.

4. HSE (April 2022) have highlighted that the gap between coaches is a pinch point. This can happen during running or excessively during a derailment. Steps must be taken to make sure no one (public and club members) can or likely to put their hands or feet in this gap while the coach is in motion.

5. Track formation/ballast should be level with sleeper height to at least 200mm from the rail. This will avoid tipping a coach over if it derails. No objects should be higher than the rail head closer than 300mm from the rails.

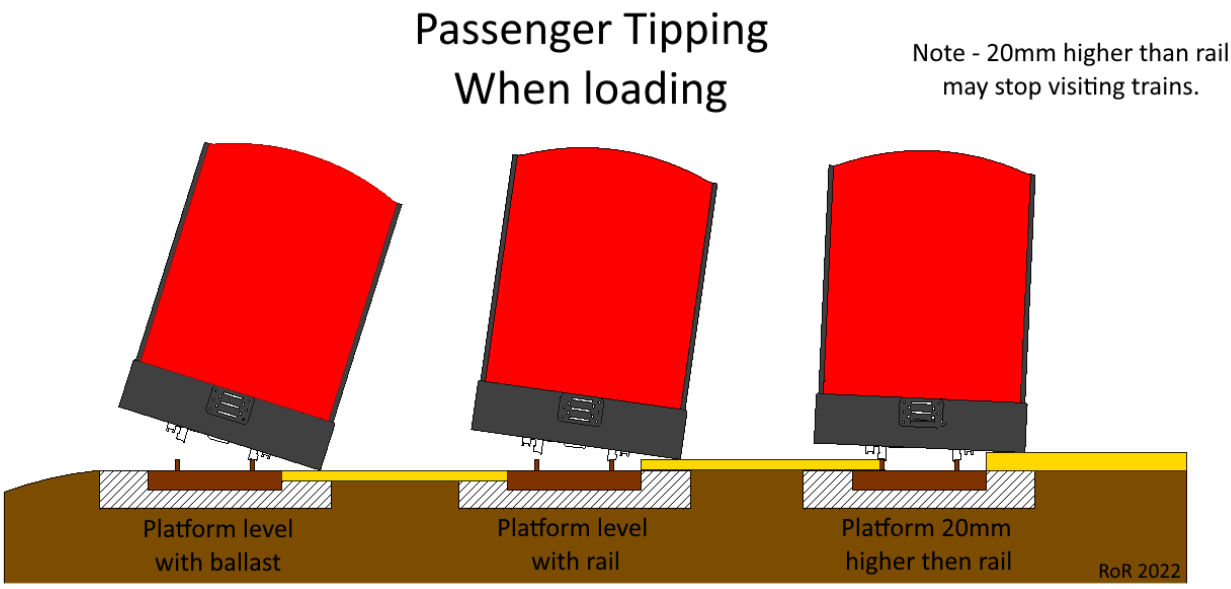
BEFORE USE

CHECK LIST

1. Large centre bogie nut (30mm socket/spanner) should not be locked tight as this will restrict movement and effect performance. There should be a little space between nut and cross plate.

2. The coach should run freely. If not investigate and find the issue.

3. In station areas the platform or formation should be as near to rail level as possible. Passengers will stand on the chassis frame and may tip the coach. The angle of tipping can be greatly reduced by bringing up the formation.



4. Captive coupling pins with solid bar coupling should be used. Any pin should be loose in the hole of the coupling bar to avoid the pin working up. None captive pins should extend at least 20-30mm beyond the bottom of the coupling.

5. Use of chains is recommended as back up – eyelets provided.

6. Coupling bar needs to be long enough not to move more than 45 degrees when negotiating curves or reverses curves. Especially important if propelling.

7. The coach should not be used with any other vehicle which allows members of the public to be able to put limbs in the gap in between coaches.

8. OPERATION

Loading

- Passengers need to sit centrally.
- Passengers should be informed –
    - **No leaning**
    - **No standing**
    - **To make driver or guard aware if they do not feel safe**.

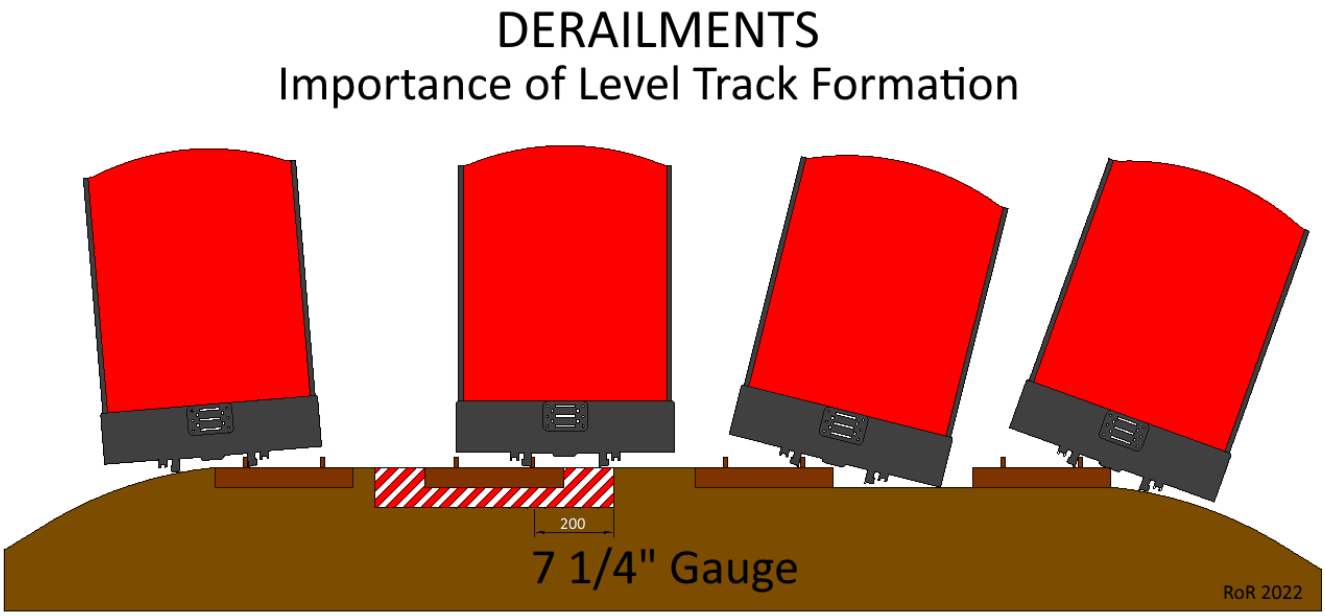


- Suitable supervision and a method of alerting the driver to stop should be in place to ensure the above list is adhered too.

- People with restricted mobility may struggle to get on and off the coach. This may mean holding the coach while they sit down/stand up.

- Adults must sit centrally. Only small children who are reasonably close in weight to sit side by side.

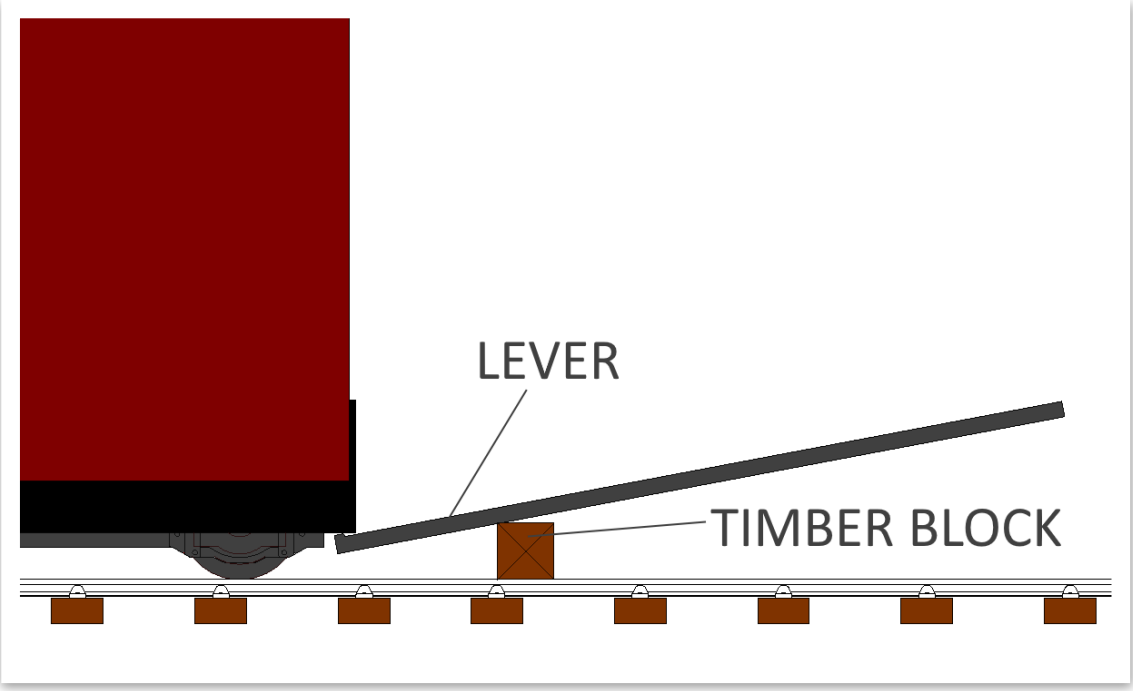
- High rail head level to be avoided as it can lead to excessive tipping.



DERAILMENT

Should a coach derail take care

- DO NOT PANIC – ensure passengers are ok and the situation will not get worse.
- Get all passengers off the coach.
- For minor derailments the inner end of the bogie can be accessed by removing the raised floor panel. Care must be taken lifting the bogie end as learning into the coach is not a very good lifting position.



- Re railing as a minimum is a two-person process. One to lift the coach end using a block and lever under the buffer beam, while a second aligns the bogie.
- If you do not have a block and lever - two people lift from either side (lifting the seat) while a third guides the bogie.
- Investigate all derailments. If the coach derails in the same location, then it is likely to be a track issue.

MAINTENANCE

This is your coach and you are responsible to ensure it is fit for purpose. If you need any help, advice or want Ride on Railways to carry out a full service please get in touch.

1. Regular visual inspections should be carried out. If the coach is not running freely or there are any different noises during operation – investigate.

2. All rubbing surfaces on the axle boxes should be regularly greased or oiled. Excessive oil/dirt should be cleaned off.

3. Annual inspection — or sooner for high mileage. Record formal inspections using the Rolling Stock Checklist in RailStock.

4. Do not let the coach remain wet. Remove floor mats if they are wet. Ensure any damage to paint is touched up/repaired to stop moister getting to the wood.

5. Seat covers are carpet tiles held by 5 screws.

All incidents and formal inspections should be recorded in a log book as this is a passenger carrying vehicle.

Please keep us updated with any issues that occur so we can share the knowledge and learn from it.

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