

"The accident that the train derailed because the gauge widened significantly while the train was passing through the curved track"

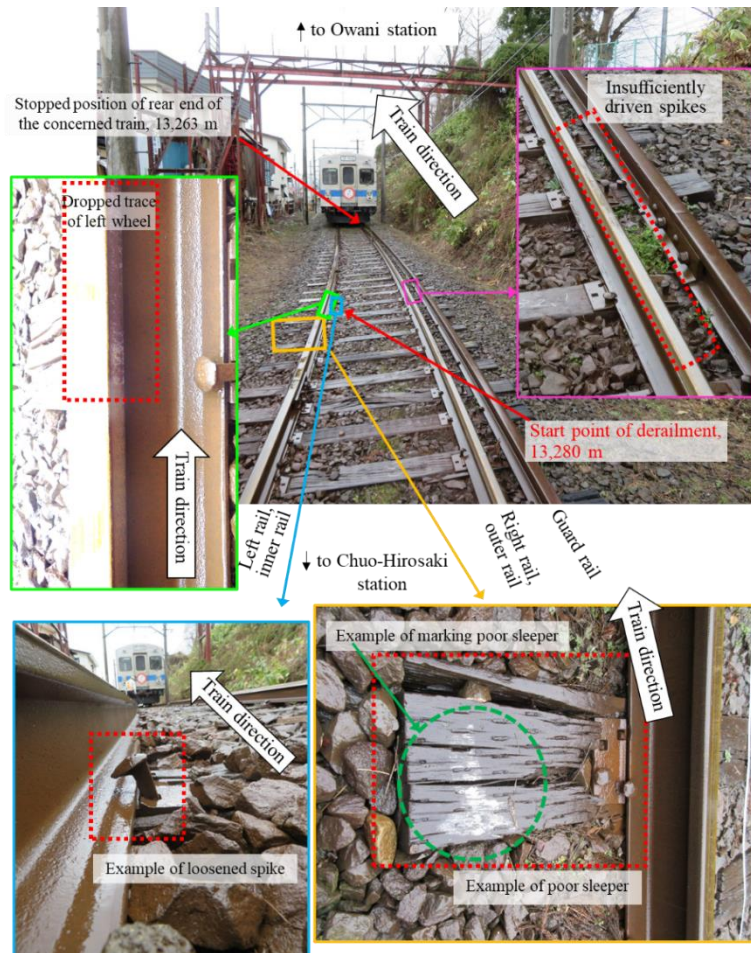
Railway operator : Konan Tetsudo Co., Ltd.
 Accident type : Train derailment
 Date and time : About 18:52, April 14, 2019
 Location : Around 13,280 m from the origin in Owani station, between Chuo-Hirosaki station and Hirokoshita station, single track, Owani Line, Hirosaki City, Aomori Prefecture

<SUMMARY>

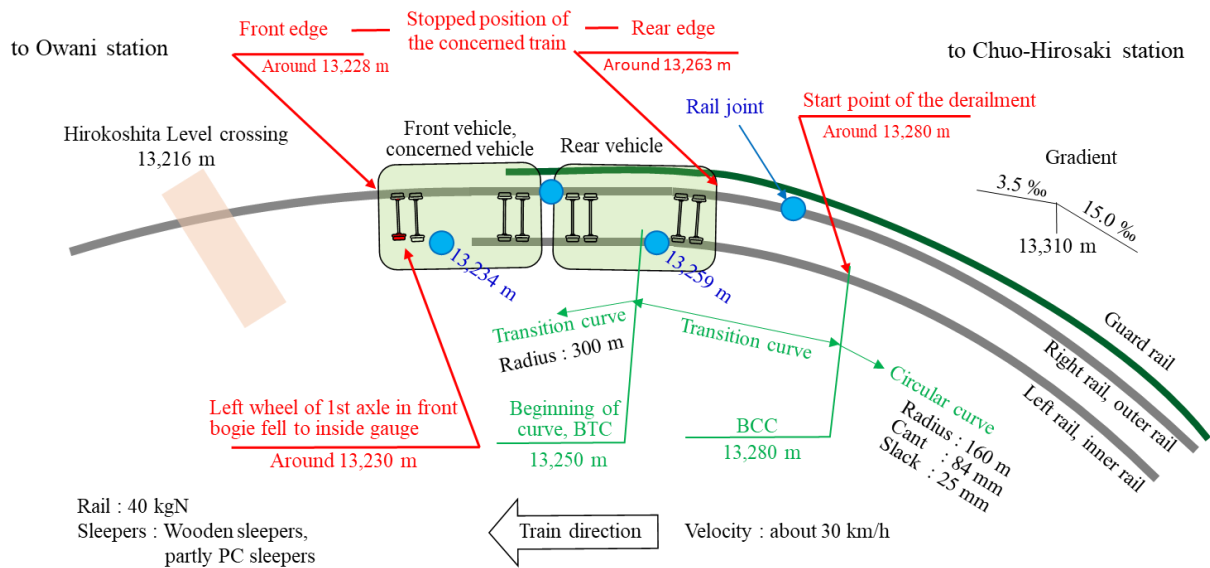
At about 18:52, on Sunday, April 14, 2019, while the one-man operated inbound 34 train, composed of two vehicles and started from Chuo-Hirosaki station bound for Owani station, Owani Line of Konan Tetsudo Co., Ltd., was passing through the 160 m radius left curved track between Chuo-Hirosaki station and Hirokoshita station at the velocity of about 30 km/h, the driver of the train noticed a shock and applied the emergency brake to stop the train.

After the train stopped, the driver checked the situation and found that the 1st axle in the front bogie of the forefront vehicle had been derailed.

There were 10 passengers and the driver onboard the train, but no one was injured.



<STATUS OF THE DERAILMENT>



<PROBABLE CAUSES>

It is probable that the concerned accident was caused as that the left wheel of the 1st axle in the front bogie of the forefront vehicle fell to inside gauge because the gauge widened significantly while the train was passing through the 160 m radius left curved track.

As for the significantly widened gauge, it is probable that the gauge widened dynamically by the rail tilting, etc., due to the lateral force caused by the running train, because of the large static irregularity of gauge and the continuously existed poor sleepers and the poor rail fastening status in the concerned curved track.

It is probable that the static irregularity of gauge had been large, related with that the maintenance standard value for the irregularity of gauge was larger than the appropriate value because the slack had not been considered.

It is probable that the poor sleepers and the poor rail fastening status had been continuously existed, related with the insufficient repairing works for the sleepers and the rail fastening devices due to the inadequate records and measuring methods in the sleeper inspections.

In addition, it is probable that the occurrence of the concerned accident was related with that the margin against the derailment to inside gauge had been small because the slack had been relatively large in the concerned curved track, and the insufficient implementation of the measures responding to the opinion for the purpose to prevent the train derailment accident due to the wide gauge, issued by the Japan Transport Safety Board issued on June 28, 2018.

<MEASURES TO PREVENT THE RECURRENCE>

- (1) The steady implementation of the track maintenance.
- (2) Change of materials of the sleepers.
- (3) Study on the reduction of the slack.

Here, the above measures to prevent the recurrence were the items described in the opinion of the Japan Transport Safety Board, and the Tohoku District Transport Bureau had already been made known well to the concerned company. Therefore, it is necessary for the concerned company to reconsider and implement the required measures on the prevention of the train derailment accident due to the wide gauge, once again.

Details can be obtained by the railway accident investigation report in the home page of the Japan Transport Safety Board, i.e., <http://www.mlit.go.jp/jtsb>