

Railway accident investigation report

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| Railway operator | Watarase Keikoku Railway Co., Ltd. |
| Accident type | Train derailment |
| Date and time | About 14:59, May 22, 2017 |
| Location | At around 16,029 m from the origin in Shimo-Shinden signal station, between Hanawa station and Mizunuma station, single track, Watarase Keikoku Line, Kiryu City, Gunma Prefecture |

SUMMARY

On May 22, 2017, the driver of the inbound Test 9792D train, the electric and track inspection cars composed of three vehicles, started from Mato station bound for Kiryu station, Watarase Keikoku Line of Watarase Keikoku Railway Co., Ltd., felt a shock just after the train had passed through the 160 m radius right curved track, between Hanawa station and Mizunuma station, at about 36 km/h at about 14:59, then applied an emergency brake to stop the train.

After the train had stopped, the driver checked the situation and found that all axles in the front bogie of the 2nd vehicle had derailed to left.

There were 7 persons, *i.e.*, the train crews and the staff in charge of railway facilities etc., onboard the train, but no one was injured.

PROBABLE CAUSES

It is probable that the accident occurred as the right wheel in the 1st axle of the front bogie of the 2nd vehicle fell off to the inside of the gauge and continued running being spread gauge, and then the left wheel flange in the front bogie climbed up to outer left rail and derailed to left, because the gauge was widened while the train, the electric and track inspection cars, was passing in the 160 m radius right curved track.

It is probable that the gauge widening was caused by the rail tilting etc., due to lateral forces accompanied with train running in the curved track where the continuous defective sleepers and rail fastening devices were existed.

It is somewhat likely that the existence of significantly large gauge widening to cause derailment was related with that the proper track maintenance had not been implemented because the danger against gauge widening by the continuous defective sleepers and rail fastening devices had not been recognized in the periodic inspection etc., and the proper operation control and the track maintenance had not been implemented even though the remarkably large irregularity of gauge had been detected in the measurement by the track inspection cars just before the accident.