

Railway accident investigation report

Railway operator : Japan Freight Railway Company.

Accident type : Train derailment.

Date and time : About 01:05, August 17, 2013.

Location : At around 79,453 m from the origin at Hakodate station, between Yakumo station and Yamakoshi station, double track, Hakodate Line, Yakumo Town, Futami District, Hokkaido.

SUMMARY

On August 16, 2013, the inbound High Speed Freight 3098 train, composed of 21 vehicles, starting from Sapporo Freight Terminal station bound for Fukuoka Freight Terminal station of Japan Freight Railway Company, departed from Higashi-Muroran yard on schedule, 23:33.30.

After the train passed Yakumo station and coasting at the velocity of about 40 km/h, the train driver noticed the obstacles such as trees etc., on the track about 100 m ahead, and applied an emergency brake. Just after that, he felt the shock as sink by the collision with the trees, and heard the dull sound raised from the bottom.

According to the inspection implemented after the train stopped, it was found that all two axles in the middle bogie of the front vehicle, electric locomotive, the second axles in the front bogies of the 3rd and the 4th vehicle, freight wagons, were derailed, and the second axle in the front bogie of the 5th vehicle, freight wagon, stopped and raised above the rail. Furthermore, ballast under the 4th and the 5th vehicles were swept out.

There was the driver onboard the train, but there was no casualty.

PROBABLE CAUSES

It is somewhat likely that the accident occurred by the derailment of all two axles in the middle bogie of the front locomotive, the second axles in the front bogies of the 3rd to the 4th freight wagons, when the freight train ran the track where the track shape was transformed and hung in the air by the swept ballast by a large amount of water etc., flooded from Atsuta river, in addition the transformation was increased as the train passed.

It is somewhat likely that Atsuta river flooded by the rainfall directly flew to the ducts and overflowed at around entry of the duct crossing under the road, because the quantity of water of Atsuta river exceeded the draining ability of the ducts crossing under the road and the railway track, while surface of Atsuta river basin was in the saturated states by the effects of the heavy rainfall of a higher ranked level in the history of meteorological observation.

It is somewhat likely that the ballast were flown out and the rail with sleepers was hung into air because the ballast was swept out according to the deterioration of suspending ability for the ballast structures, while a large quantity of water flooded from the river basis washed away the concrete blocks and the sandbags for the prevention of flooding installed in the down line track side, and water etc., flew on the railway track.