

Railway accident investigation report

Railway operator: East Japan Railway Company.
Accident type: Train fire
Date and time: About 20:12, February 4, 2013.
Location: About 106,500m from the origin in Omiya station, between Tsukuda station and Iwamoto station, double track, Joetsu Line, Shibukawa City, Gunma Prefecture.

SUMMARY

The 8757 train, the train composed of an electric locomotive and a diesel locomotive deadhead as a car, starting from Takasaki station bound for Niitsu station of East Japan Railway Company, passed Shikishima Station, on February 4, 2013.

The train driver felt as the train was dragged from the rear after the train passed the station. However, the driver did not find any malfunction by checking the instrument panels, and he continued to drive the train. After a while, when the train ran by powering operation at about 60 km/h after passed the Tonegawa No.2 Bridge, the train driver felt again as the train was dragged from the rear, but he could not find any malfunction from the instrument panels. However, when he checked the rear of the train, he found a fire broke out from the diesel locomotive, and he applied an emergency brake to stop the train at the safe place.

After that, the fire of the diesel locomotive was extinguished by fire fighting, but a part of the vehicle such as the transmission device were damaged by fire.

There was a train driver alone on board the train, but he was not injured.

PROBABLE CAUSES

It is considered probable that the remaining converter oil in the torque converter was ignited by the high temperature fragments etc. of the converter which was broken and heated by missing cooling function of the converter because the coolant was drained, and the first stage converter rotated while the deadhead diesel locomotive were running, because the "neutral rock" of the forward/backward switching device was not correctly performed when a diesel locomotive was hauled as the deadhead operation without powering.

It is considered probable that the reason why the neutral rock did not correctly performed was that the staff had set neutral rock without understanding the method to rock correctly and the staff in charge of checking also did not understand correctly the neutral rock.

It is considered probable that the reason why the neutral rock operation had performed by the staff who did not understand the operation procedure and had checked by the staff who did not understand correctly the neutral rock operation, was the poor recognition of the company about the importance of the neural rock operation, whose frequency is low because it was insufficient to prepare the operation manual and the prior education and training in advance were not performed or poor.

Furthermore, it is considered probable that the automatic emergency brake did not operated when the velocity exceeded the permissible value, because the electric power of the speed detector was not supplied while the locomotive was in the deadhead operation without powering, due to the meter relay of the over speed detector was replaced to the new type which required power supply from independent batteries, was related to induce the accident.