

## Railway accident investigation report

Railway operator : West Japan Railway Company

Accident type : Other accidents with casualties

Date and time : About 17:27, August 8, 2015

Location : In Shiromaru tunnel between Kokura station and Hakata station, San-yo Shinkansen Line, Miyawaka City, Fukuoka Prefecture

### SUMMARY

On August 8, 2015, about 17:27, the driver of the outbound 561A, named "Sakura 561", composed of 8 vehicles, starting from Shin-Osaka station bound for Kagoshima-Chuo station of West Japan Railway Company, running at about 295 km/h in Shiromaru tunnel, between Kokura station and Hakata station, noticed the power failure and stopped the train by an emergency brake.

After the train stopped, the cabin attendant was reported from the passenger seated in the left window side seat of the fourth row from the front in the 3rd vehicle, as that the strong impact from the left side of vehicle body hurt the left arm and surroundings of the passenger.

The conductor, rushed to the 3rd vehicle, in response to the report from the cabin attendant, confirmed that there are damages around side window beside the seat of the injured passenger.

Furthermore, the conductor got off the train and checked the vehicles from outside of the train, and confirmed that there were plural damages in the left side surface of the 3rd vehicle.

On about 18:13, the train restarted operation and arrived at Hakata station about 59 minutes behind schedule. It was found that the side cover plate attached to the front left part of the second vehicle was removed and missing at the car depot.

The power staffs carried out the patrol and found the side cover plate between up track and down track in Shiromaru tunnel.

There were about 500 passengers, 2 train crews, i.e., the driver and the conductor, and 2 cabin attendants onboard the train. There was no injured person except for the above mentioned passenger.

### PROBABLE CAUSES

It is probable that the accident had occurred as the passenger was injured due to the impact by the side cover plate, which was attached to the front left body of the second vehicle of the train running at about 295 km/h in Shiromaru tunnel of San-yo Shinkansen Line, removed and hit the left side of the vehicle body near 4A seat of the 3rd vehicle, while it was contacting with left side of the vehicle body and side wall of the tunnel, was acted to the passenger in the seat.

It is probable that the side cover plate was removed from the vehicle body, because the fitting bolts for the side cover plate were lost by vibration while the train was running, due to the weak fastening torque for the fitting bolts as if it was fastened by hand, which was insufficient against the specified value, and were removed by the winds etc., according to the train running.

It is somewhat likely that the fastening torque of the fitting bolt remained as the level of fastening

by hand, because the fastening work had finished unless fasten the fitting bolts of the side cover plate with the specified value, when the side cover plate was fitted in the accompanied works with the running test implemented just before the accident.

It is somewhat likely that the work was finished without fastened the fitting bolt of the side cover plate with the specified torque value, was related that the work was implemented without clearly confirmed the assigned roles of the worker, commands for procedure of each work, and the position of the side cover plate which was the object of the work.

Furthermore, although the regular inspection was implemented during the fitting work of the side cover plate accompanied with the running test to the accident day, it is probable that the loosed fitting bolts for the side cover plate could not be found in the regular inspection, in relation with that the confirmation procedure to check the fitted status of the coincident marks of bolts were not well enough performed.