Performance Tests of Assist Steering System for Bolsterless Truck

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In order to improve curving performance of a railway vehicle, we have developed an assist steering system. This system does not complicate truck structure and has the fail-safe function. As shown by the results of the running test presented in our former report, this system was able to decrease outer side lateral force of the leading axle in the curve section by about 30%. However, the running condition of the test line was different from that of a typical commercial line with respect to the running speed and the alignment of the track. Therefore, as presented in this report, we executed the bench test in the running condition that simulated that of the circular curve section of the commercial line, and confirmed that this system was able to decrease the turning lateral force by 70-90%.