

Submission on Brakes for Miniature Trains

Some years past while attending a convention the president stated that the procedure of winding a handle to stop a train is most unsatisfactory and efforts should be made to improve braking ability for all clubs hauling passengers.

I took this seriously and realised that our club fell within the group winding handles to stop.

Our club normally hauls one or two 71/4" passenger wagons with about 6 adults on each wagon, this is approximately 1 ton in mass, and our track has a decline of 1 in 80 over a length of 300 metres, consequently when there is a need to **stop** real braking power is required.

The club decided to install air brakes on all wagons. This meant rebuilding the existing bogies, installing brake shoes and air cylinders. The riding cars were fitted with air reservoirs and air lines were installed through to the ends where connectors were positioned as per AALS standards. All locos were fitted with suitable miniature control valves and pressure gauges. Some testing took place to determine the size of the air cylinders to be used on the bogies. The bogies now have two 25mm diameter air cylinders to operate the brake shoes. It was found that this size was necessary in order to provide effective braking power.

The reservoirs in the cars can be topped up at the station, but in the normal way very little braking is required when operating a train. When the train is stationary and being loaded and unloaded the brakes are applied and there is no slack movement of the passengers cars.

If an event happens across the track in front of a train then there is a need to **stop**. One could not stand up in court and say "I did not have sufficient brakes".

Directly relating to braking ability is speed and I have found that the drivers who appear to be travelling excessively fast are those who do not have a speedo. So this brings up the topic of speedos again. I suggest speedos should be fitted to all locos used for passenger haulage.

Once again you could not stand in court and say "I was not sure what speed I was travelling at." In today's world these things have been forced upon us.

I would like to see paragraphs 4.2.2 and 4.2.5 in the AALS Standards Code of Practice altered to state that all passenger carrying wagons must be fitted with brakes.

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