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RAILTRACK
Safety & Standards

Briefing Notes for:	Resistance of Railway Vehicles to Derailment and Roll-Over	
Document No:	GM/RT2141	Issue: Two
Subject Committee(s):	Traction & Rolling Stock	
Issue Date:	October 2000	
Initial Compliance Date:	02/12/2000	

BACKGROUND

The introduction of tilting trains gives rise to a potential new mechanism by which flange climbing derailment could occur: counter-acting tilt failure leading to twist on a single vehicle or group of vehicles. It is also probable that their operation will result in increased speed through curves with a consequent reduction in safety against roll-over. Issue one of GM/RT2141 makes no mention of train tilt.

KEY CHANGES INTRODUCED BY THIS STANDARD

For operations of tilting trains at greater than 6° cant deficiency, GM/RT2141 requires additional risk control measures to ensure that the total risk of overspeeding induced roll-over is no greater than would be the case for operating at up to 6° of cant deficiency.

GM/RT2141 has also been revised to require that, for tilting trains, the assessment of derailment risk consider the possibility of counter-acting tilt failure leading to twist on a single vehicle or group of vehicles. Finally, a requirement has been added that measures be implemented to minimise the possibility of tilt failure and the consequences should it occur.

COMPLIANCE

The effective date of this document is 02/12/2000 and the requirements mandated in this document shall be complied with no later than the dates detailed below:

The design requirements are to be complied with by all vehicles of previously uncertificated designs with a Design Scrutiny certificate signed on or after 02/12/2000. The design requirements shall be complied with from 03/12/2005 by any future vehicles, built to the same design as a vehicle already having Engineering Acceptance.

The design requirements do not apply retrospectively to existing vehicles with Engineering Acceptance. The exception is that where vehicles are being modified, the requirements shall be applied so far as is reasonable practicable.

For tilting trains the provision of this document are to be complied with from the commencement of their operation.