



Incorporated in New Zealand

## AAGSC RECOMMENDED INDUSTRY PRACTICE

### ROLLING STOCK (GROUND SUPPORT EQUIPMENT)

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#### Background

There are limited standards or recommended practices available to help minimize the occurrence of damage to aircraft, equipment, property or injury to personnel caused by 'runaway rolling stock'.

Rolling stock is defined as equipment such as baggage barrows, low profiles, pallet trailers, dollies etc.

The IATA Airport Handling Manual (AHM) "Airport Handling Equipment Specifications" and "Safety Practices in Aircraft Handling" sections contain some references:

- **AHM 966** – The "Functional Specification for a Pallet Dolly" in the IATA AHM manual states that a *"dolly shall have a parking brake"*
- **AHM 965** - The "Functional Specification for a Container Dolly" in the IATA AHM manual states that as an option an automatic braking system should be considered in conjunction with the towbar operation or similar.
- **AHM 963** - The "Functional Specification for a Baggage / Cargo Cart" in the IATA AHM manual states that as an option an automatic braking system or overrun braking system be fitted.

- **AHM 630** – Safe Operating Practices in Aircraft Handling States that equipment when parked shall have parking brakes applied.
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## **Rationale**

The Australasian Aviation Ground Safety Council (AAGSC) continues to work on initiating safety improvements related to the design and safe use of Ground Service Equipment (GSE).

Significant costs are suffered by the aviation industry associated with equipment / aircraft damage and personnel injury resulting from the inadvertent detachment of rolling stock whilst being towed.

A similar hazard is possible when parked rolling stock inadvertently gains momentum due to apron gradients or environmental forces. This hazard may result from the equipment park brake sometimes not being incorporated into the design, being applied, or unserviceable. Other scenarios may include the release of rolling stock from the Tow Motor by an operator when still moving.

These concerns reinforce the industry's need to take a pro-active stance and influence the manufacturers to include basic failsafe devices into the design specification and manufacturing of all types of GSE.

The AAGSC publishes recommended industry practices to highlight design, process and procedures to help minimize the occurrence of "runaway" rolling stock incidents.

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**Recommended  
Industry Practice**

The AAGSC recommends that ground handling organizations, including airlines and airport operators adopt the following measures:

- All rolling stock to be fitted with manually operated braking systems which must be used whenever the rolling stock is parked or disconnected from the tow vehicle or other rolling stock
- Consider during safe design the potential for automatic braking systems installation should a rolling stock uncouple during transit
- Use of a failsafe tow pin (spring) device designed to eliminate the potential of uncoupling incidents
- Store rolling stock in connected trains, especially when loaded with Unit Load Devices (ULD's) in high wind environments
- Construct equipment designated storage areas with as flat a grade as possible and encourage off apron storage of rolling stock in areas not subjected to jet blast / strong winds
- Where ULD's are restrained or stored ensure adequate restraint is fitted to prevent upward or sideways movement
- Where possible install dedicated ULD racking thus limiting / minimizing the storage of ULD's on rolling stock and subsequent hazard of runaway loaded rolling stock
- Where possible mark entry and exit routes to aprons, placed to minimize the consequences of uncoupling incidents – consider installation of physical barriers
- Publish and enforce speed limits and maximum train lengths

- Ensure road surfaces are even and smooth to minimise vibration.
- All rolling stock must be maintained in good mechanical condition including regular inspections to ensure serviceability of all components



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