

NAFLIC

National Association For Leisure Industry Certification

Standards & Related Documents Sub-Committee

TECHNICAL BULLETIN - FEBRUARY 1993

049. Langwheel Flying Coaster

The Health & Safety Executive have brought to our attention some details of an accident involving a Flying Coaster ride manufactured by Langwheel in the USA and believed to be approximately 20 years old.

In this Langwheel design, in which the cars follow a tram track containing a 2150mm hill, the radial arms carrying the cars are damped in their descent by hydraulic cylinders (1.2m long, 120mm diameter) attached to the ride centre.

The incident occurred when one of the damping cylinders seized as the radial arm reached its maximum height. This caused the car to complete a rotation of the ride in a raised position. It then struck the crown of the hill causing the occupants to be ejected.

Other concerns about this type of device were mentioned :-

- a) dampers becoming detached from mountings.
- b) poor locking of passenger restraints.
- c) inadequate guarding of drive / gearbox.

More details of the HSE's findings are available on request. It is also likely that some recommendations will appear in a future Technical Bulletin.