

NAFLIC

National Association For Leisure Industry Certification

Standards & Related Documents Committee

TECHNICAL BULLETIN - MARCH 2002

224. Sonacase Accident

An accident involving a Sonacase Twist occurred at Shrewsbury Fair on 18 September 1999. The injured person was a 13 year old girl. More details of the accident came to light following the prosecution in the Spring of 2001.

The ride was approximately 6 years old at the time of the accident, having a restraint with a central ratchet bar locking mechanism. A restraint opened during the ride cycle and the girl was ejected. It was subsequently found that the locking mechanism on this particular car was worn - in particular, there was wear to the tip of the pawl which engages with the ratchet bar. The excessive wear allowed the bar to be forced past the pawl under load. It was also a feature of the particular lock which failed, that the pawl was somewhat shorter than the other 11 on the ride, and it appears that it would never have engaged the notches in the ratchet fully, unlike the other 11. Therefore, the wear was more critical on the failed mechanism, though all 12 pawls were exhibiting the same wear pattern.

Although regular inspection might have helped to avoid the accident, the facts also suggest some possible shortcomings in the detail of the design, and in quality control during manufacture.

Other accidents on Sonacase Twists were covered in Technical Bulletins 014, 134 and 157. Although different in detail from this accident, these all followed from passenger ejection as a result of restraints coming open.

Committee Members :- Dr Garry Fawcett (Chairman), Mr Richard Barnes, Mr Peter Smith, Mr Ian Grant,
Mr David Geary, Mr Steve Parker, Mr Eddy Price and Mr Mike Preston

© March 2002

PO BOX 752, SUNDERLAND, SR3 1XX
TEL: (0191) 5239498 FAX: (0191) 5239498