## **NAFLIC**

National Association For Leisure Industry Certification

## **Standards & Related Documents Sub-Committee**

## **TECHNICAL BULLETIN - JUNE 1996**

## 134. Sonacase Twist Accident

We have been informed, by NAFLIC members Banwells, of an accident at Telford involving a Sonacase Twist in which it is believed that a passenger restraint locking mechanism failed to engage or hold effectively. The lack of restraint allowed the two girl passengers to be ejected and one of them sustained serious injury.

Banwells tell us that the operating handle / lever was found to have excessive travel. We have no information as to whether this was a fault of design or of manufacture. We do not therefore know whether all Sonacase Twists have the same problem, although the implication of Banwells' information is that it may be a design fault affecting more than this one ride.

Modifications to the locking mechanism have been carried out on the ride which was involved in the accident but we have no information about modifications to other Sonacase Twists. Controllers of unmodified rides will need to consider what action to take.

We would emphasise to designers and Design Review Inspection Bodies the importance of good design and fatigue calculation of locking mechanism plunger springs. This applies to many rides having safety critical restraints. Thorough Examination Inspection Bodies may also need to consider the continued sound condition of such springs (e.g. corrosion). On Sonacase Twists these springs are normally visible and their monitoring is comparatively straightforward.

(Technical Bulletin No. 014 - May 1992 reported a different problem concerning Sonacase Twist passenger restraint locking).