NAFLIC

National Association For Leisure Industry Certification

Standards & Related Documents Committee

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296. Zamperla Disko Ride

Last year we received information from the Health and Safety Executive of an accident involving a Zamperla Disko ride and we subsequently heard of another design issue. There may be a number of these rides in Great Britain.

The Disko seats 24 or 40 persons (two different models) in motorcycle-like pedestal seats facing outwards around a rotating platform. The whole platform also oscillates back and forth in a circular arc about a horizontal axis. The passengers therefore experience a dual rocking / spinning motion.

The standard version has a non-total restraint which doesn't stop passengers from being able to stand up. We believe that some Disko rides have since been modified by the provision of seat belts to restrict the likelihood of persons getting into a position of danger.

In July 2004 there was an accident in the UK when a tall man suffered crushing injuries to his foot. The outer edge of the spinning platform is not far in front of the passengers' feet and, from the investigation, it would appear that the injured person's foot, which was extending over the edge of the disc, was struck by the loading platform as the rotating disk passed through the station. The loading platform at the time was around 2" / 3" (50 - 75 mm) below the disc. The manufacturer and Design Review inspection body were informed of the accident.

To prevent reoccurrence, the height of the loading platform was dropped and a suitable passenger maximum height restriction was placed on the ride. Such height restrictions may be established using anthropometric data to check leg reach. However, the park are said to be looking at installing a stainless steel ring around the edge of the disc to prevent people placing their feet outside the perimeter.

HSE tell us that there was nothing in the operations manual to suggest that the height of the loading platform was critical to the safe operation of the ride. Although it is possible that there was a lack of conformity to design, there are also reports that there may be significant variations, each time the device is built up, in the resultant position of the loading platform below the path of the rotating platform.

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