

NAFLIC

National Association For Leisure Industry Certification

Standards & Related Documents Committee

TECHNICAL BULLETIN – SEPTEMBER 2006

315. Sonacase Twist NDT of restraints

The committee has received the following email from Barry Baker at the HSE regarding the Sonacase Twist Ride.

"I have recently received a report "Structural Analysis of Passenger Restraint Components - Twist Ride" Completed by Dr M Lacey,, apparently carried for/on behalf of Sonacase ARM/Monty Hammond.

As far as the owners of Sonacase Twist's and those who inspect them is concerned an important conclusion is drawn as to the integrity of the single catch system on the restraint bar (dog & detent pin)

"There are clear advantages to the use of a double latch system. If the single catch system is retained then it would be necessary to inspect for cracks non destructively on a very frequent basis (probably at 3 month intervals). The use of a double catch system would require NDT annually....It would be strongly recommended therefore that the double catch system be adopted on all ride cars"

I assume that Sonacase will take steps to make this information known to all current owners of these rides. Unless there is a good reason to the contrary I would expect that this information should be acted on accordingly, either by increasing the frequency of NDT or modifying the ride (and of course having a design review carried out on the modification). NFIT inspectors will be made aware of this information and may ask for confirmation during inspections that this information has been satisfactorily considered by duty holders."

We note that time periods have been mentioned but NAFLIC has not been given information in order to confirm the validity of the time scales. This can only be done with reference to a appropriately completed Design Review and Assessment of Conformity.

The correspondence from Barry Baker implies that this type of Sonacase Twist with single catch system will only be able to carry a DOC for three months at a time because the NDT report will only be valid for three months.

Committee Members:- Mr. Doug Dadswell (Chairman), Mr. Richard Barnes, Mr. Peter Smith,
Mr. Ian Grant, Mr. John Green, Mr. Phil Mitchell, Mr. Ron Dale Dr Garry Fawcett MBE, & Mr. Dave Inman

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However, it is always the committee's view that when problems are found, that modifications must be designed to eradicate the issue rather than trying to manage the issue by inspection.

It is understood that there may be as many as 37 of this type of device. It is believed that there are a number of different variations and that some may have been modified. Indeed correspondence from HSE, on 8 April 2004, required all Sonacase Twists built prior to that date (presumably single catch variations only) to be modified if they had not been already and the related Report of Design Review for this safety-critical modification to be in the ride's Operations Manual.

At this stage our advice to Inspection Bodies is that the above may or may not apply to a Sonacase Twist that they are inspecting but they should take it into account.

NAFLIC members are reminded that there are a number of Technical Bulletins issued regarding the passenger restraint systems of these devices e.g. TBs 304, 274,224,157,134 & 014.

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