

# NAFLIC

*National Association For Leisure Industry Certification*

Standards & Related Documents Committee

TECHNICAL BULLETIN — APRIL 2009

## 357. Sartori Techno Jump Defects

A member of NAFLIC has provided the following information regarding defects that were found on a Sartori Techno Jump ride.

Multiple defects in the form of fatigue cracks were detected in the Radial Arm Trunnion Brackets, Lifting Cylinder Attachment Brackets and the main vertical circular hollow section members between the upper and lower flanges of the Centre Hub.

All fourteen (14) Radial Arm Trunnion Brackets exhibited defects to the fillet welds securing both vertical plates to the base plate at the front and rear ends.



Committee Members:- Mr. R Nicholls(Chairman) [lci@lci.co.uk](mailto:lci@lci.co.uk),

Mr. Peter Smith, Mr. John Green, Mr. Phil Mitchell, Mr. Ron Dale, Mr. Mark Wolstenholme, Mr. Graham Dockerty, Mr. David Geary & Mr. David Inman  
Mr. Daniel Cox



All fourteen (14) Lifting Cylinder Attachment Brackets exhibited defects to the fillet welds securing both vertical plates to the lower flange of the Centre Hub at the upper ends. A majority of the defects were in the top of the weld to the Centre Hub but a number also exhibited defects in the bottom of the weld propagating into the Bracket plate. A small number of welds exhibited both defects.



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A 50mm long fatigue crack was also detected to the circumferential weld securing the base of one of the Centre Hub Vertical Columns.



While it was possible to detect a number of the defects to the Lifting Cylinder Attachment Brackets visually, the full extent was not determined until the paint, which is quite thick was removed. In the case of the Radial Arm Trunnion Brackets and Centre Hub vertical column no defects were detected visually.