

# NAFLIC

*National Association For Leisure Industry Certification*

Standards & Related Documents Sub-Committee

TECHNICAL BULLETIN - JULY 1992

## 017. Zamperla Balloon Race

Technical Bulletin number 011 drew your attention to crack indications detected by Leisure Technical Consultants Ltd in the transverse butt weld at the bend in the main centre column of a Balloon Race ride.

Although this defect has only so far been found on one of the four Balloon Races covered by LTC it was thought that it would be useful to publicise the findings in a Technical Bulletin.

The NDT results have been reported to the manufacturer who believes that the cracking may result from welding defects rather than a design inadequacy.

An independent review of the stress variation at two welded regions near the column bend has now been completed by Wilson Consultants. It was concluded that the design may have a limited fatigue life at the partial penetration butt welds in the roller guide rails.

It is the opinion of Wilson Consultants that this problem is likely to occur on other Balloon Race rides (with shorter life on the 12 arm model than the 8 arm). We would advise any other NAFLIC members who carry out thorough examination of a Zamperla Balloon Race to take account of the above facts. The Committee would be grateful if members examining rides of this type could keep us informed of the results of NDT in the region of the butt welds involved.