

# NAFLIC

*National Association For Leisure Industry Certification*

## **Standards & Related Documents Committee**

### **TECHNICAL BULLETIN - OCTOBER 2002**

#### **254. Fabbri Fabricated Ratchet Restraints**

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A defect involving a Fabbri Top Spin has recently been reported to us by NAFLIC member Leisure Technical Consultants Ltd. No accident occurred.

One of the teeth of the passenger restraint locking ratchet was found to have been broken off. This can be seen at the position marked "A" of the photograph on page 2 of this bulletin.

The ratchet teeth, e.g. "B" in the photograph, are simply pieces of plate welded in position at a suitable angle to mesh with the pawl. The weld is a single fillet weld along the inner rear edge of each plate only. We have not seen the design specification, calculations, etc., so we remark only that this single, straight, weld would not normally be a particularly strong arrangement for the resistance of the tooth load.

The location of the tooth weld is such that it is not normally visible and, although for maintenance / inspection purposes a small dentist-type mirror may be useful, more reliable examination is achievable by removal of the ratchet unit by unfastening the 4 socket screws "C".

We believe that the same fabricated ratchet unit is employed on other Fabbri rides apart from the Top Spin.

Committee Members :- Dr Garry Fawcett (Chairman), Mr Richard Barnes, Mr Peter Smith, Mr Ian Grant,  
Mr Steve Parker, Mr Eddy Price and Mr Mike Preston

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