



TB11 – Hidden Entrapments within the play area

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Title	TB11 – Hidden Entrapments within the play area		

Version	Date	Notes
Draft	08-02-2025	Draft for comment/review
V1.00	10-03-2025	Initial version released

Incident

PIPA has been informed about an incident involving an entrapment of a limb within the playing area of an inflatable device. A ‘bish bash’ type object which was located within the playing area was stood on by a user of the device. Their limb proceeded to crush the bish bash object, below the bed of the inflatable resulting in entrapment of the limb. The operator took emergency action by slicing the inflatable in order to release the limb.

Risks Identified

- Entrapment of a limb – this could result in injury due to sprain, strain, and fracture
- Grounding – the ability for a limb to pass through an aperture in the bed of an inflatable may result in unexpected grounding and could result in a sprain, strain or fracture

Cause

The cause of the incident was due to both low pressure within the bish bash object and the size of the aperture in the bish bash object’s base. In this incident, the aperture was of a similar circumference of the bish bash object. This enabled the bish bash material plus user’s limb to pass through the aperture into the bed. The exact root cause is unknown, and it is not known at what pressure the inflatable was operating at.

The context of this entrapment has not been directly referenced within BS EN14960.

Desired Outcome

The outcome is to ensure that part of the body is unable to enter the bed through an object in the play area to cause an entrapment, rather than a stipulated manufacturing process. For example, in figure 1 it shows a smaller aperture which is created by a reduced hole in the inflatable bed. Objects may also be stopped from entering the aperture by using criss-cross webbing or alternative manufacturing techniques to prevent entrapment.

Another consideration is the pressure within the inflatable object. If the object is sufficiently pressurised to mechanically prevent it being crushed into the inflatable bed, this also achieves the outcome of preventing the entrapment.

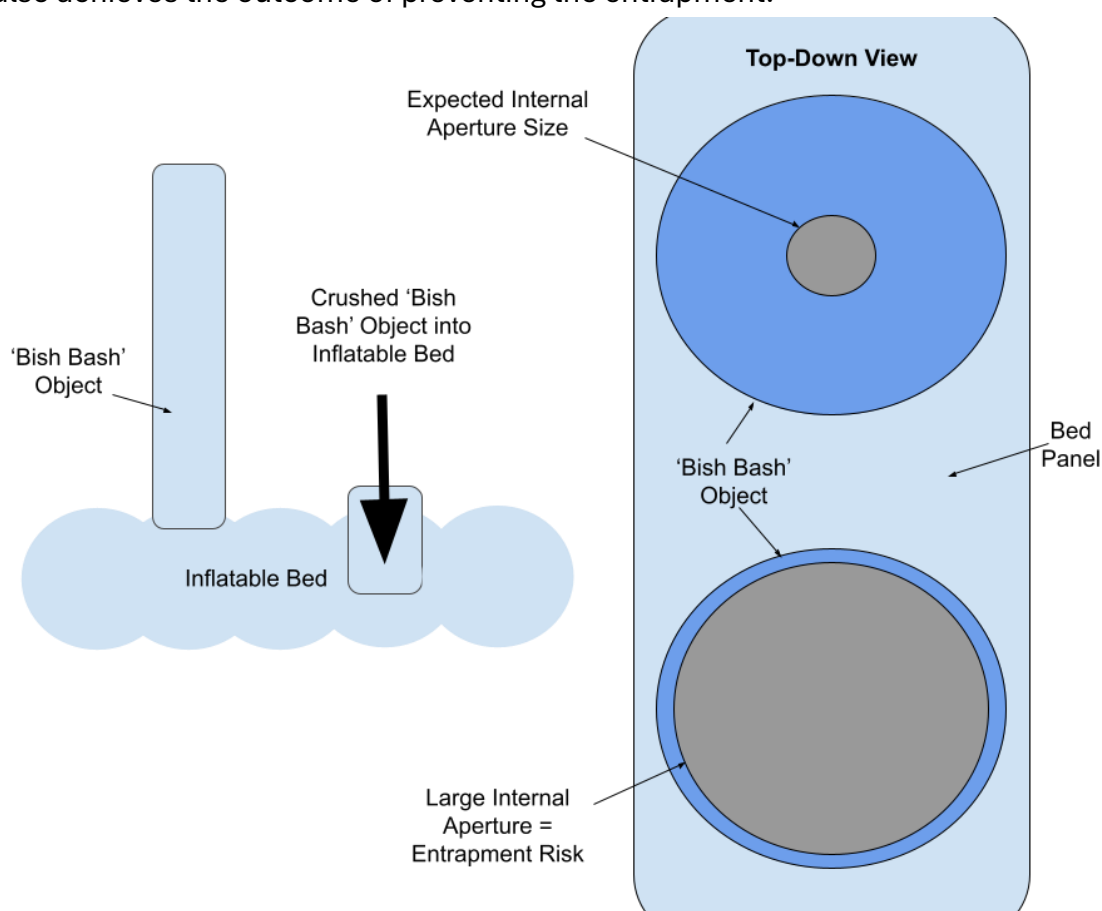


Figure 1: Illustration of the incident and cause

Actions for controllers

All controllers who operate devices which contain inflatable objects within the play area and are connected to the bed of the inflatable must check the ability of the object to resist the user's weight and interference during use. If the object can be 'crushed' by a user, check whether the object resists the ability for a user to be able to push the object into the bed of the inflatable (see Figure 2).

Note: we recommend you conduct a risk assessment to perform this action. If you are unable to complete this check safely, we recommend it is conducted by an inflatable inspector.

If the device is operating at the correct pressure, and you believe the aperture into the object may enable an entrapment issue to occur, you should contact the manufacturer in the first instance.



Figure 2: Example of a crushed inflatable object being pushed into the bed of the device

Actions for inflatable inspectors

Initial and Annual Inspections

During the inspection of an inflatable which contains inflatable objects in the play area, check the ability of the object to resist being crushed, and its ability to retain its shape. If there is low pressure within the object, lay the object flat and use the small head probe to push into the base of the object.

If the small head probe pushes the object through an aperture into the inflatable bed, the device must be failed due to the risk of entrapment for users.

Failed Inspections

The inflatable should be failed under the entrapment section of the inspection report, with sufficient detail and photos to help show the risk you have identified. The manufacturer should be contacted for advice before repairs are completed.



Figure 3: Failed aperture enabling object being pushed into the bed of the device