



Hardfacts

Norwich Union Risk Services

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Inflatable Bouncing Devices – Safe Operation

Introduction

This Hardfact is concerned with those amusement devices known as inflatable bouncers ie an air filled structure designed to allow users to bounce, slide or climb on them. They are made from flexible fabric, kept inflated by one or more blowers and rely on air pressure to maintain their shape.

There are three main inflatable types as follows:-

- open-sided, often referred to as flat beds (distinguished by their lack of walls);
- open-fronted, often referred to as 'castles' (these have walls on all sides except one);
- totally enclosed e.g., disco bouncers (all sides enclosed by an inflatable dome).

Hazards

In following the safe design and operation of these inflatable bouncers the following main hazards should be safeguarded against:

- wind blowing away or blowing over the whole structure;
- the fabric splitting under pressure;
- seam failure;
- accidental spilling of users;
- user injury, caused either by themselves or others;
- overcrowding;
- injury to users whilst mounting and dismounting;
- disregard of large users for little users;
- air loss due to blower disconnection, blower failure or interruption of power supply;
- zip failure;
- tripping (particularly over anchorages);
- access to unguarded or inadequately protected parts of equipment eg blower units
- electrical hazards (eg shocks and burns)

- lifting injuries caused by manual handling
- inadequate means of escape in case of fire;
- dangerous siting of equipment.

Outdoor Events – Access to Bouncers

With outdoor events, where the bouncer is the only or the main attraction and where crowds are present, a perimeter fence for crowd control should be provided. The crowd control barrier should be at least one metre high with an access gateway, and the barrier should surround the device.

The operating area at the front of the step/front apron should be kept clear of onlookers so that the operator or attendant has a clear field of vision and can ensure that persons can mount and dismount safely.

Non inflatable gym mats or similar soft landing material (minimum 25 mm to maximum 125 mm thickness) should be provided to cover hard surfaces which are adjacent to open sides and entrances/exits for a distance of at least 1.2 metres. Safety mats should be fire resistant when used indoors.

Safe Operation

Outdoor bouncers should have anchorage points used at all times. In high winds the bouncer should not be used. Where the ground is suitable the bouncer should be secured to the ground with anchor stakes. Anchoring to vehicles (or similar method) should be used with hard standing ground.

The operator (appointed by the controller to be in charge of the immediate operation of an amusement device when in use by the public) needs to determine the minimum number of attendants needed to ensure the safe operation of the device and this number should be adhered to. Entrance and exit points should be covered by an adequate number of attendants.

Operators should:

- ensure that users remove their footwear (except socks) and any other hard, sharp or dangerous objects;

- prohibit users from consuming food/drink/ chewing gum;
- prohibit obstruction to the entrance/exit;
- prohibit any person to bounce on the step/front apron of the device;
- prohibit any person climbing or hanging on the outside walls;
- not allow persons who are taller than the outside walls (when standing on the device) to use the device.

The operator of the device must constantly monitor the activity on the inflatable, discouraging any horseplay. The first sign of any misbehaviour should be corrected by the use of a whistle or similar item to attract attention and assert authority. The operator should not allow overloading of the inflatable.

Boisterous and larger children should be separated from smaller ones and numbers on the inflatable should be restricted to allow the users enough room to play safely.

Key Action Steps

- All operators should receive full and sufficient training in the working of inflatable bouncing devices as follows:
 - method of operation
 - safe loading of the inflatable
 - safe system of work
 - attendants' training requirements
 - safe methods of assembly and dismantling of the device
 - daily inspections.

They should also be aware of the intervals at which thorough examination and testing should be carried out.

- All attendants should receive suitable and sufficient training for the work they will be expected to carry out as follows:
 - safe anchorage arrangements
 - crowd control enclosures
 - control of the public
 - safe loading of the device
 - associated risks and precautions
 - defect and breakdown procedures
 - emergency procedures.
- Safe operation procedures and rules should be adhered to at all times when both erecting/dismantling and using the inflatable.

- Inflatable bouncing devices should follow the general design and manufacture recommendations with regard to enclosed structures; access/egress; anchorage; inflatable structures and materials; details of which are available from the Inflatable Play Inspection scheme website.
- Each inflatable device should be thoroughly examined at regular intervals and at least annually by a competent person.
- An inspection of the inflatable should be carried out before first use on any day. This should include crowd control measures, anchorage points, ropes and stakes; inspection of the material for defects; adequate pressure upon inflation; blowers; electric cables. The inflatable should not be used by the public until any defects, adjustments or repairs identified in the daily check have been carried out.
- Use of the inflatable should not be allowed during high winds.
- Maintenance of the inflatable is required in accordance with manufacturers' guidelines and schedules.
- Records of all examinations and daily inspections should be kept either at the device or should be readily available for inspection.

References

Fairgrounds and Amusement Parks – Guidance on Safe Practice – HS(G) 175 – HSE Books 1997, tel 01787 881165.

Guidance from the Inflatable Play Inspection Scheme www.pipa.org.uk

BS 5438: 1989 Methods of test for flammability of vertically oriented textile fabrics and fabric assemblies subjected to a small igniting flame.

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Norwich Union Risk Services operates a Risk Helpline during normal business hours for the cost of a local telephone call. The telephone number is:
0845 366 66 66
www.nu-riskservices.co.uk