



NRAG GUIDANCE – CHAIN COLLECTION BAGS

The following companies or associations endorse this NRAG Guidance



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The main hazards presented by using textile chain bags suspended from hoists are:

The chain spilling out of the chain bag and striking people.

Objects struck by a falling chain falling onto people.

The bag itself being damaged and releasing chain, or the bag may break off its anchor point and fall.

Chain spills usually happen very quickly and the only warning to those below is usually the sound the chain makes running over trusses or other resistant materials.

An initial length of as little as a two metres spilling may generate sufficient momentum for the entire length of chain (typically 25-30m) to be pulled out, especially when the chain is well lubricated.

Should a falling chain strike a person it could cause serious injury particularly if there is an end stop or other fitting on the chain end.

If a chain spill strikes luminaires or other equipment, broken parts and debris would fall onto people below.

Chain spills are usually caused by:

1. The bag being of insufficient volume for the length of chain being used;
2. The bag resting on a structure and the chain overflowing the bag;
3. Something pushes the bag away from its intended position causing the chain to miss the bag;
4. Natural hoist movement whilst running causes the bag to swing and chain to miss the bag;
5. Un-lubricated chain tends to build up on one side of the chain bag resulting in an overflow.

Chain bags themselves fail because:

- The bag or its support(s) carry too much chain or when unintentional forces are applied to the bag such as being caught under a truss member as the hoist is taking load before a lift
- Poor treatment and lack of inspection particularly to webbing, stitching and connectors
- They are exposed to heat or burning from pyrotechnics, welding or lighting effects.

Hand chain blocks:

Chain bags are damaged by the action of the moving hand chain.

It is recommended that chain bags are only attached after the lift and removed before lowering the load.

Hand chain blocks transported in their own chain bags can result in potentially hazardous wear and tear.

Control measures to reduce likelihood of chain spills:

- Use chain bags of appropriate strength, shape and capacity for the length of chain being used
- A bag with two suspensions offers some redundancy
- Attach bags to the correct part of the hoist body with secure connectors of appropriate size and strength
- Ensure that the chain bag can hang plumb beneath the chain exit port at all times during operation
- Limit by 50% the length of chain that can spill by securely fixing the end of the load chain to the hoist
The connector and anchor point used for this must be strong enough under foreseeable conditions
- Identify chain bags by number and inspect them according to a scheme of inspection
- Make a pre-use check on site of chain bags as if they were lifting accessories
- Check chain bags are rigged effectively before a lift and that chain is securely contained after the lift.