



Safety in coal-bagging plants

The following information highlights some of the dangers and risks that might exist in coal-bagging plants. It is not a complete description and the risks will vary depending on your own particular business.

Main types of risk and how to manage them

Machinery

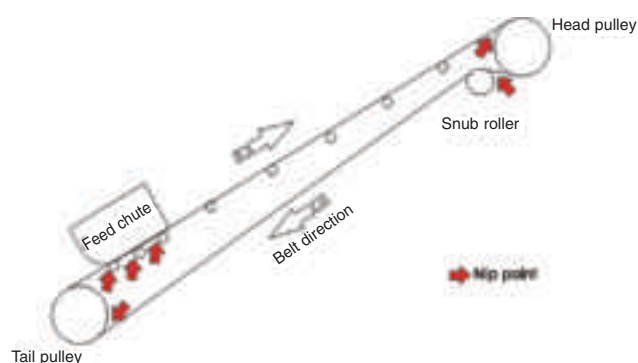
Most accidents involving machinery happen as a result of people becoming trapped or tangled up in the machine, or falling from the machine while carrying out maintenance work.

- Make sure that all guarding is maintained, in particular at 'vee-belt drives', head and tail pulleys, tensioning pulleys, snub rollers, feed chutes, eccentric fly wheels and so on.
- Make sure there are suitable emergency stop controls (buttons and trip wires) and that they are tested regularly.
- Provide safe access to all areas of machinery which need to be maintained (for example, head pulleys and screens). Walkways and platforms should have guard rails to prevent people falling.
- Maintain access ways and check for damaged metal floors and rotting boards.

Well-guarded tail pulley with guards preventing access from above and below the tail pulley and along the side of the feed chute. There is also an emergency-stop pull wire.



Nip points on simple belt conveyor



Vehicle movements

Risks include vehicles overturning or colliding with other vehicles, or people being reversed over or crushed.

- Try to separate vehicles and people, for example, by using clearly marked traffic routes.
- Do not let members of the public into dangerous areas.
- Design traffic routes and the position of machines to reduce the need for reversing and prevent vehicles coming round corners where the driver cannot see what is ahead of them.
- Set a speed limit on the site.
- Fit vehicles with easy-to-hear reversing alarms and make sure that mirrors give the driver good 'all-round' vision especially at the back of the vehicle. Consider other aids such as closed-circuit television (CCTV).
- Provide employees with high-visibility clothing to make them more obvious to drivers. (See the separate sheet on workplace transport.)



Vehicles

Accidents happen as a result of the braking and steering failing, and as a result of people falling when entering or leaving a vehicle.

- Carry out regular inspections and test the braking and steering in line with the manufacturers' instructions.
- Make sure that you properly maintain the steps, handles and hand holds provided to help people enter and leave the vehicle.
- Do not let loading shovels and telescopic loaders move forward while raising or lowering their bucket (blocking their view).
- Provide suitable information, instructions and training for drivers (see the separate sheet on forklift trucks).

Manual handling

There is a risk of back injuries and muscular strains from lifting and moving heavy or bulky items.

- Assess all of the manual-handling work that your staff perform, such as lifting, carrying, pulling and pushing.
- Use mechanical devices where possible, for example, bag lifters, trolleys, pallet trucks, forklift trucks, conveyors and so on.
- Train staff in how to lift things safely.
- Design the workplace so people do not have to lift many items.

Slips, trips and falls

Uneven, slippery or obstructed floor surfaces, trailing cables and poor general housekeeping may lead to accidents.

- Keep passageways, stairs and working areas as clear as possible.
- Get rid of all waste materials immediately.
- Clean up spillages immediately and put up warning signs where there may be slippery conditions. Keep the bagging area as clear as possible by cleaning it regularly.
- Fasten any cables securely to the floor, or move them overhead if possible.
- Provide guard rails in areas where someone could fall.

Storing gas cylinders

There is a risk of fire or explosion from stored LPG cylinders. (See the separate sheet on LPG.)

Noise

Bagging machinery, conveyors and vehicles may create potentially dangerous levels of noise which can cause incurable hearing damage.

- If people speaking normally have difficulty being heard clearly by someone who is about two metres away, you should arrange to have a noise assessment carried out.
- Reduce noise by enclosing noisy machinery where possible.
- Provide suitable hearing protection, and make sure workers wear it. (See the separate sheet on noise.)

For more information

Workplace transport safety, HSG 136, ISBN 0-7176-6154-7 HSE Books at www.hsebooks.com

Guidance on safe use of machinery PD 5304:2005 ISBN 0-580-46818-6 British Standards Institution (BSI)

Safeguarding of the hazard points on troughed belt conveyors BS7300 ISBN 0-18346-7 British Standards Institution (BSI)