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TAKING CARE OF BUSINESS

Juicing machine – Finger Amputation

Background

Oranges are fed into the machine via the feeding tube. They are cut then fed around two counter-rotating drums to extract the juice. The machine is guarded by a removable Perspex front cover, which compresses 2 safety micro switches. The operator (a 21 year old female foreign student) had no formal training in the operation/cleaning of the machine.

What happened?

The injured party was cleaning the machine. She removed the front Perspex cover and noticed an orange stuck inside. She started it, to expel the orange. As she did so, the machine caught her left hand.

How did it happen?

Congealed orange juice had caused both spring-loaded rods to stick in the compressed position. This rendered the safety switches useless and allowed the machine to operate with the Perspex cover removed.

Consequences?

Amputation of Operator's little finger and damage to ring finger.

Solution(s) to prevents future recurrence?

Machine manufacturer agreed to;
1. Change Safety micro switch design from spring-loaded to magnetic.
2. Circulate a safety alert to all suppliers/end-users explaining safety concerns.

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TAKING CARE

Juicing machine – Finger Amputation

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TRUE STORIES 2

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TAKING CARE OF BUSINESS

Hot Candle Grease – Severe Burns

Background

A waitress suffered severe burns to her arm and leg due to contact with burning tea lights.

What happened?

A tray of burning Tea lights (small candles) fell onto the Waitress' body. Hot wax burnt her forearm and her polyester-type trousers caught fire.

How did it happen?

While carrying the tray of tealights (lit sometime earlier) to the dining room for placing on the tables, the Waitress was struck by a door being opened by a colleague

Outcome(s)/ consequences?

The Waitress suffered burns to her forearm and required a small skin graft to her thigh area. She did not return to work in the establishment.

Solution(s) to prevents future recurrence?

The unsafe system of work ceased. The practice of staff lighting candles after they are located on the dining room tables was implemented following a risk assessment.

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Hot Candle Grease – Severe Burns

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TAKING CARE OF BUSINESS

When a Bandsaw Cuts - Multiple Finger Amputation

What happened?

Two operators suffered finger amputations when their hands came into contact with the moving blade of an electrical bandsaw. The saw was being used in a meat processing company to cut meat carcasses into smaller cuts .

Why did it happen?

The vertical blade guard of the bandsaw was not adjusted for the particular cut, as a result an excessive portion of the blade was exposed.

Outcome(s)/ consequences?

Amputation of fingers in two separate incidents involving the same bandsaw.

Solution(s) to prevents future recurrence?

Employees trained in how and when to correctly adjust the blade guard. Bandsaw workstation improved with physical barrier to prevent the operator accidentally being pushed in to the table by passers-by.

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When a Bandsaw Cuts - Multiple Finger Amputation

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TAKING CARE OF BUSINESS

Security camera check ends in tragedy

Background

A contractor was requested to check out malfunctioning security cameras located at a height on the front of a company premises.

What happened?

The contractor was killed when the basket he was elevated in to reach the cameras fell off a forklift.

How did it happen?

The forklift driver, who's assistance was requested by the Contractor, selected a basket constructed for sorting goods and not for use with a forklift. It was onlyresting on the forks and fell off when it became unbalanced due to a shift in the weight distribution.

Outcome(s)/ consequences?

In addition to the personal tragedy of the contractor being killed, both the occupier of the premises and employer of the deceased were prosecuted.

Solution(s) to prevents future recurrence?

Where work at heights cannot be avoided, a risk assessment must be completed and a safe system used. Platforms/cages must be properly designed, constructed and used and those without controls integrated with the vehicle are to be avoided.

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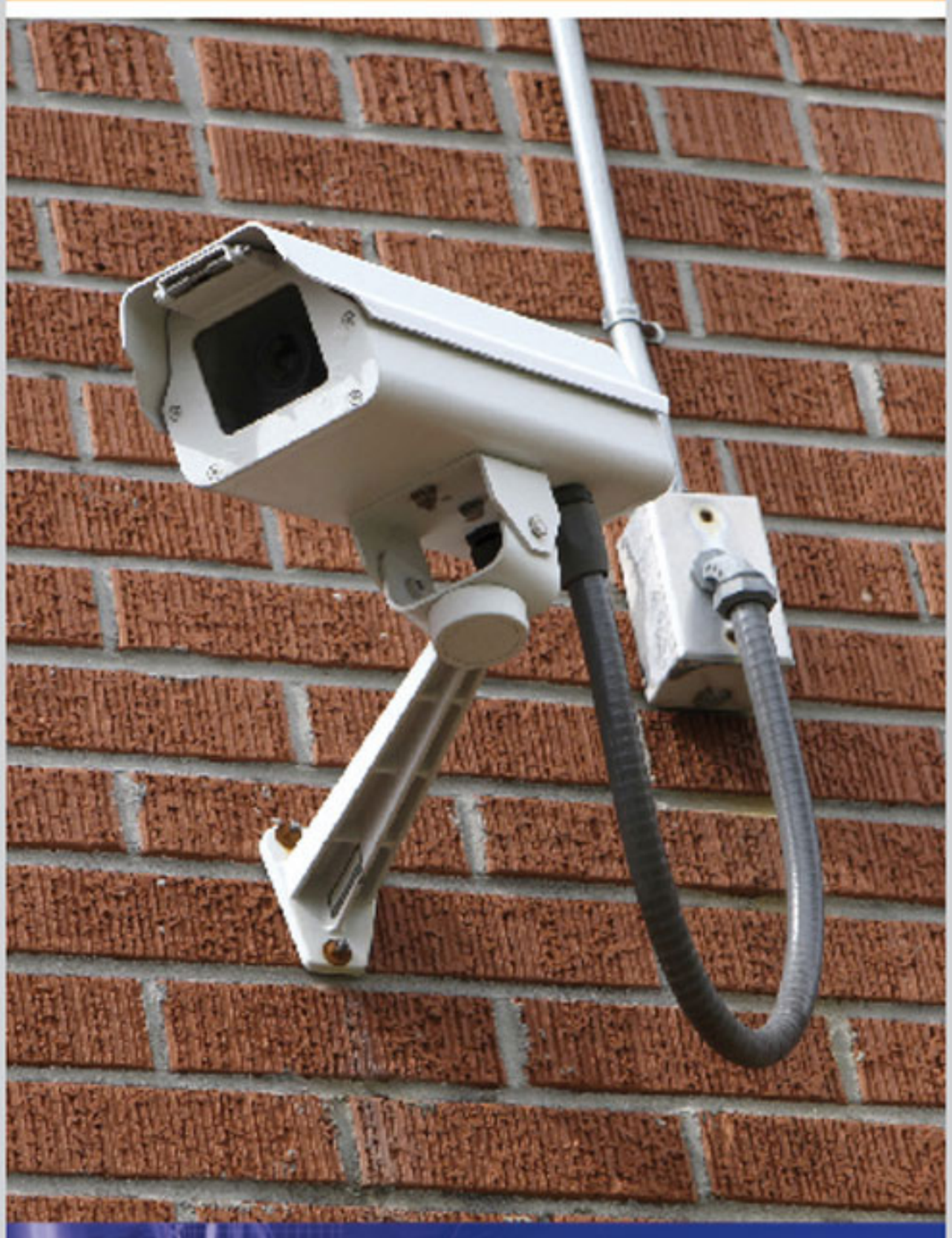
Security camera check ends in tragedy



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TAKING CARE OF BUSINESS

Skull and organ damage due to fall from lorry

Background

Materials loaded onto lorry trailers at a Manufacturing company had to be adjusted and secured (using ties/straps) by workers prior to transportation.

What happened?

A forklift operator fell off materials he had loaded and dimbed onto on a lorry trailer and part of the load fell on top of him.

How did it happen?

A risk assessment, had not been carried out. Training was not given on how to secure loads and there were no measures in place to protect workers from falling from the lorry trailers.

Outcome(s)/ consequences?

The operator suffered a fractured skull and had an internal organ removed.

Solution(s) to prevents future recurrence?

Fall protection system installed at loading bays(consisting of a certified overhead running line that operators anchored on to by way of a body harness and lanyard)

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Skull and organ damage due to fall from lorry

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TAKING CARE OF BUSINESS

Racking Collapse – Fatal Impact Injuries

What happened?

A worker was killed when he was struck by falling cartons following a pallet racking collapse.

How did it happen?

A racking leg at ground level was damaged and buckled, resulting in the racking collapsing. The leg which was not protected and was struck by the tip of the forks of a forklift truck. Pallets of stock stored at high level fell to ground and the forklift driver was struck by falling cartons as he attempted to escape.

Outcome(s)/ consequences?

The forklift truck driver suffered head injuries and died as a result.

Solution(s) to prevents future recurrence?

Protection of racking components from impact. Racking inspection and maintenance programme. Instruction and training of forklift drivers in the safe and proper use of the pallet racking system.

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Racking Collapse – Fatal Impact Injuries

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TAKING CARE OF BUSINESS

Abattoir Accident – Multiple Finger Amputation

Background

The Horn cutter machine, used to remove animal horns, has a blade mounted inside a block with handles on either end. The blade is operated when the trigger on both handles is pressed simultaneously (Dual-hand Control).

What happened?

A 19 year old apprentice butcher had 2 fingers amputated and a 3rd partially amputated while operating a Horn-cutter machine in an abattoir.

How did it happen?

Whilst operating the machine the Butcher slipped on a blood spill. He accidentally started the machine with his left hand and his right hand got caught in the closing blade. The dual-hand control function did not work because the machine had been altered the previous week and subsequent maintenance checks failed to detect the problem.

Consequences?

2 fingers amputated and another partially amputated on the right (Dominant) hand, resulting in 95% loss of functionality.
€20,000 fine for the company.

Solution(s) to prevents future recurrence?

1. All maintenance checks undertaken as per manufacturer's recommendations.
2. Revised training programme for operators and maintenance personnel.

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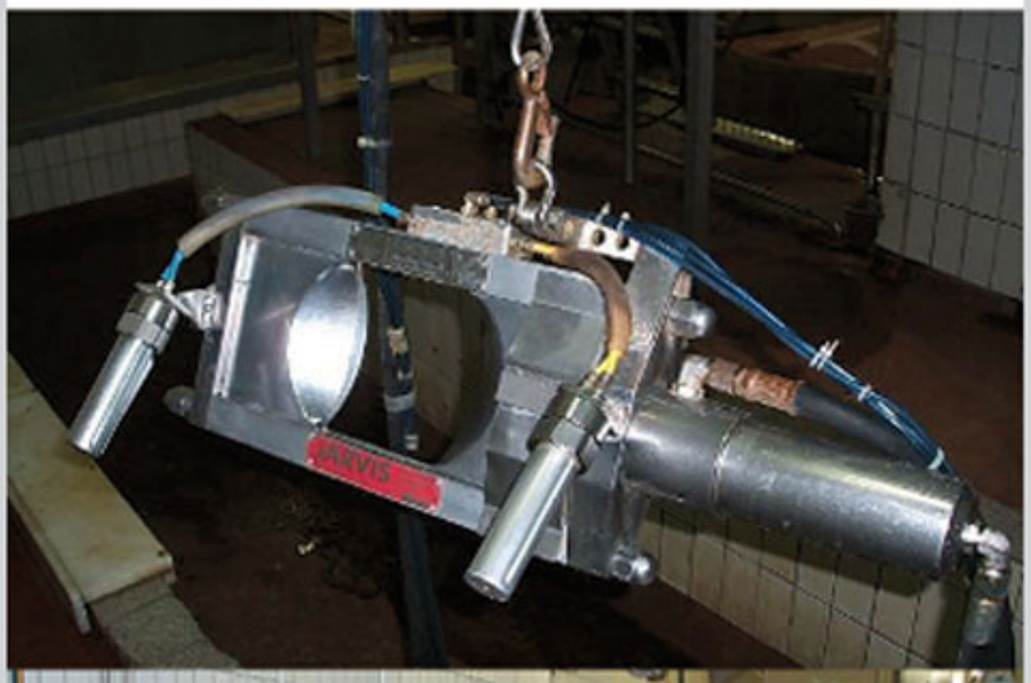
Abattoir Accident – Multiple Finger Amputation



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TAKING CARE OF BUSINESS

Arm Amputation in a Butcher Shop

Background

Small, friendly, traditional Butcher Shop, with trained staff.
The guard had been removed from the feed throat of the mincer
It was possible to reach the rotating worm.

What happened?

An apprentice put his hand down the feed throat to clear some meat. The worm caught his fingers. He reached the emergency stop too late.

How did it happen?

The only safety guard had been removed. Employer failed to replace the guard.

Outcome(s)/ consequences?

Employee suffered amputation of his arm, below the elbow.
Employer was prosecuted in the District Court. Lost trade, lost skills, increased insurance.

Solution(s) to prevents future recurrence?

Use and maintain machine in accordance with the manufacturers manual. Check safety features are present and functioning.
Train and supervise employees in the use of the machine. Involve employees in assessments and safety checks. nAsk Manufacturers if there have been design improvements.

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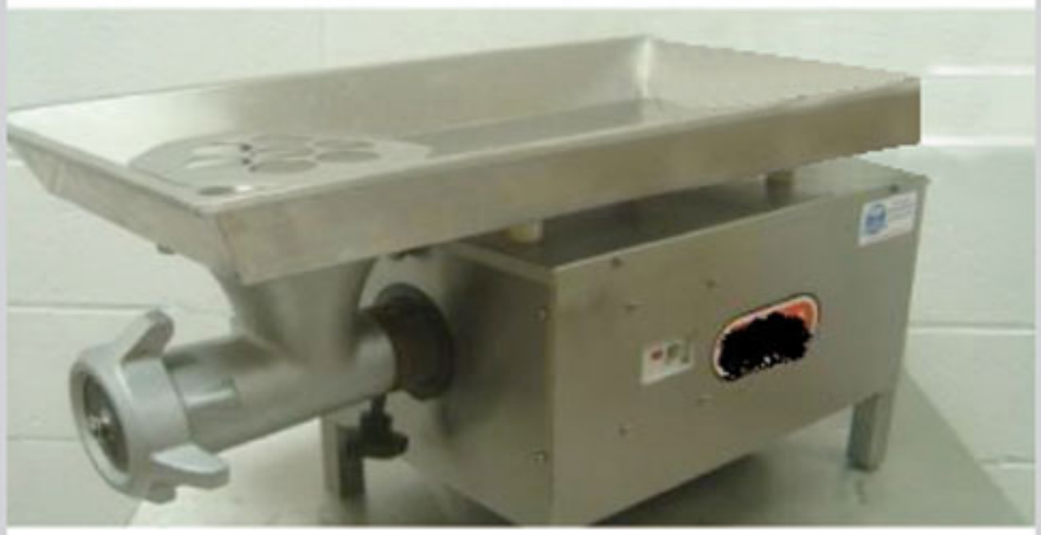
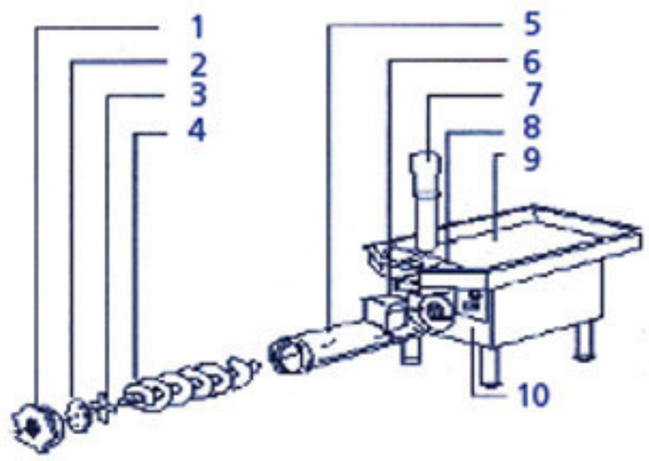
Arm Amputation in a Butcher Shop



Note: This opening into this mincer is guarded to prevent accessto the danger zone.

Key

1 Lock Nut
2 Hole Plate
3 Blade
4 Work
5 Worm Case
6 Feed Intake
7 Pusher
8 Restrictor Plate
9 Tray
10 On/Off switch
Protective Hood



Arrangement of a mincing machine with tray and restrictor plate

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TAKING CARE OF BUSINESS

Improved Post Driver design set to reduce hand and face injuries

Background

Hydraulic post drivers are machines that are normally mounted on tractors and are used to mechanically drive timber posts into the ground for the erection of fencing.

What happened?

Some operators of hydraulic post drivers were sustaining serious hand and head injuries while operating the machine.

How did it happen?

The control levers were being activated accidentally while the operator had their hand in the crush zone (on the timber post).

Outcome(s)/ consequences?

A meeting was arranged between the Irish manufacturers and the HSA where it was agreed by the group of manufacturers that they would work together to produce a prototype machine that would reduce or eliminate the risk of serious injuries and comply with the relevant European and Irish standards.

Solution(s) to prevents future recurrence?

The post driver manufacturers developed a number of prototype machines, with improved guarding. The improved safety design has opened up new export opportunities for some of the manufacturers.

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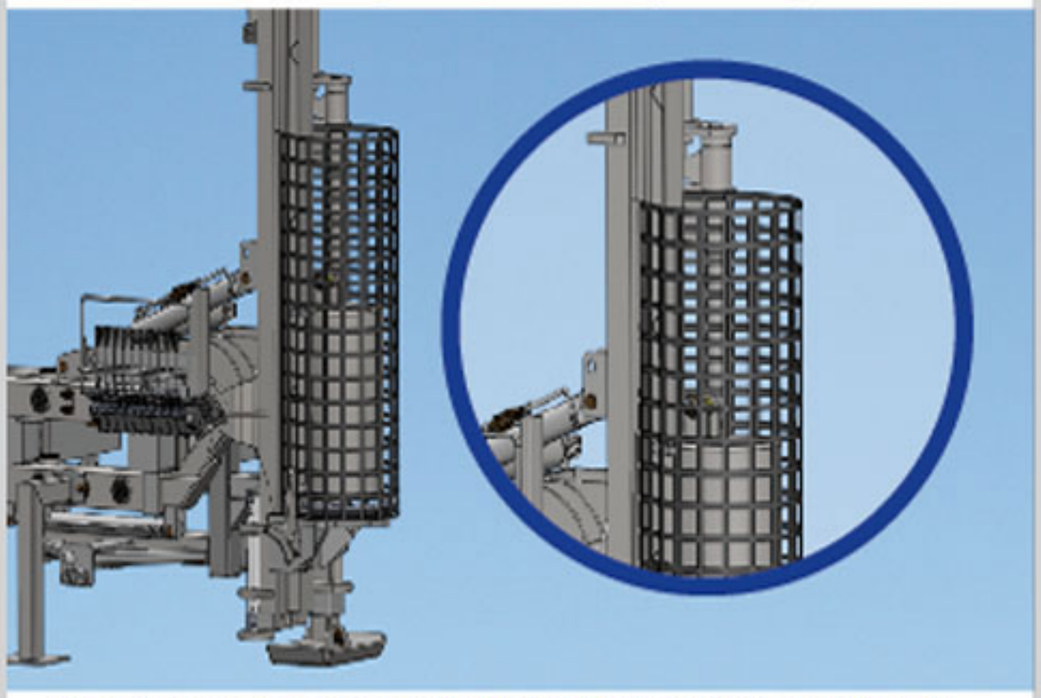
Improved Post Driver design set to reduce hand and face injuries

An example of a post driver without protective guards.



An example of a compliant post driver with a protective guard on the operating controls and on the hammer.

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TAKING CARE OF BUSINESS

Forklift Truck Fall – Back and Pelvis Injuries

Background

A Factory Worker suffered back and pelvis injuries when he fell 3 metres from a raised forklift-truck basket

How did it happen?

A basket not secured to the forklift forks was used to raise the Fitter to secure a pipe to the factory wall. The basket overturned on the forks when his weight shifted and he fell to the ground.

Outcome(s)/ consequences?

The Fitter suffered a back injury and broken pelvis, had a long stay in hospital, months of physiotherapy, slept in an orthopaedic bed in his sitting room and returned only to light work duties nine months later.

Solution(s) to prevents future recurrence?

Basket was withdrawn from service as it was not secured to the forks and have controls directly linked to the forklift.

Mobile Elevating Working Platform now hired for all such work at height.

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Forklift Truck Fall – Back and Pelvis Injuries

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TAKING CARE OF BUSINESS

Worker seriously injured from flying work piece

Background

Trained operators using CNC Lathe Machine. New machine bought specifically for small work pieces. A warning sign on machine stated that work pieces should not extend through machine's spindle port outside the machine's guards.

What happened?

Employee passing by machine was hit by flying work piece.

How did it happen?

The bar for turning was too long for machine it was therefore put through the port in the back of the machine extending outside the machine's guarding. Back stop to prevent work piece loosening was not in place. The lathe was running at 1800 rpm,s. The bar came free and hit passing operator.

Outcome(s)/ Consequences?

Operator had some fractured ribs and bruising and had to have surgery to remove spleen.

Solution(s) to prevents future recurrence?

Retraining for operators and port sealed up. Procedure awareness reinforced. Zone around machine highlighting danger area.

Note: Warning label on machine describes exactly what happened.

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Worker seriously injured from flying work piece

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FILLER PANELS