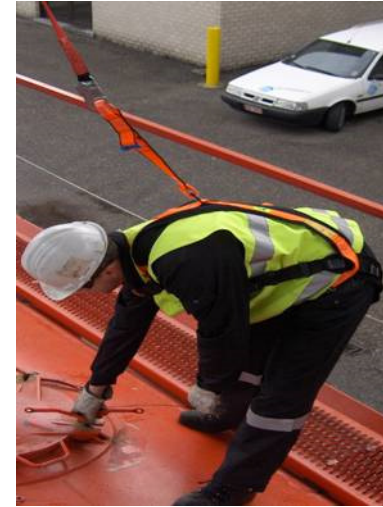


Working at Height

Where are we ?

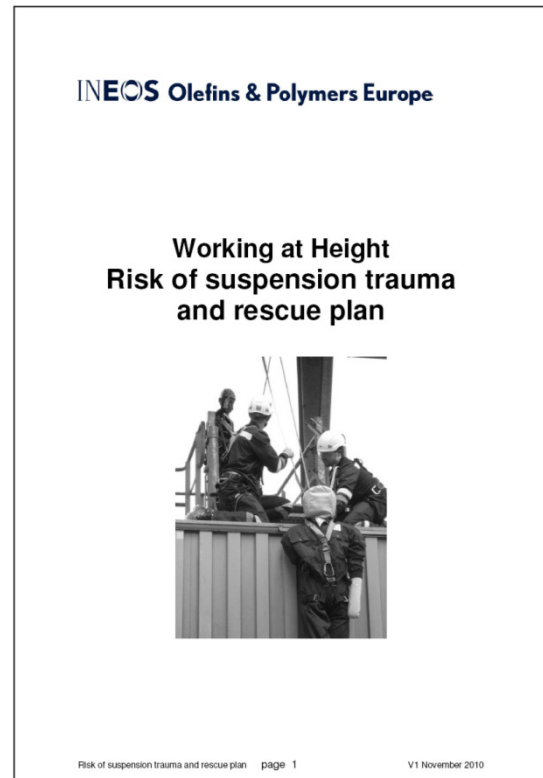
We do not want people to work at height without proper fall protection:

- Fall prevention system: no exposure to elevated hazard
- Fall restraint system: prevent a person from falling
- Fall arrest system: arrest a free fall

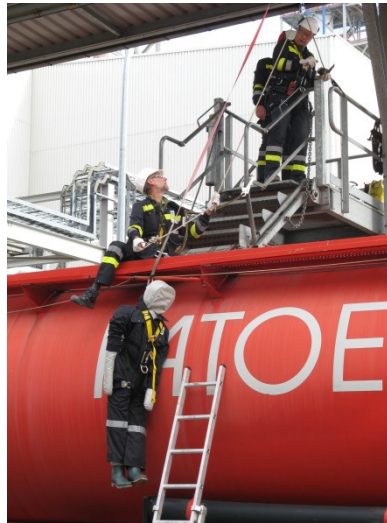


Working at Height

Code of practice for using life line systems



Rescue plans



**Are we sure that we will no longer have
WAH incidents ?
Have we considered all the risks ?**

Working at Height

Some WAH near misses/ incidents:

1: Life line system not properly designed

Lifeline not attached above the worker: will result in a swing fall



OK



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Working at Height

Some WAH near misses/ incidents:

2: Harness not properly worn



Driver training and Checks !!!!

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Working at Height

Some WAH near misses/ incidents:

3: Harness fitted with too long extension leads or shock absorbers

Extension leads make the connection of the harness to the lifeline system easier. However: if the lead is too long, the fall will be greater, and the potential for injury increased.



OK



NOK



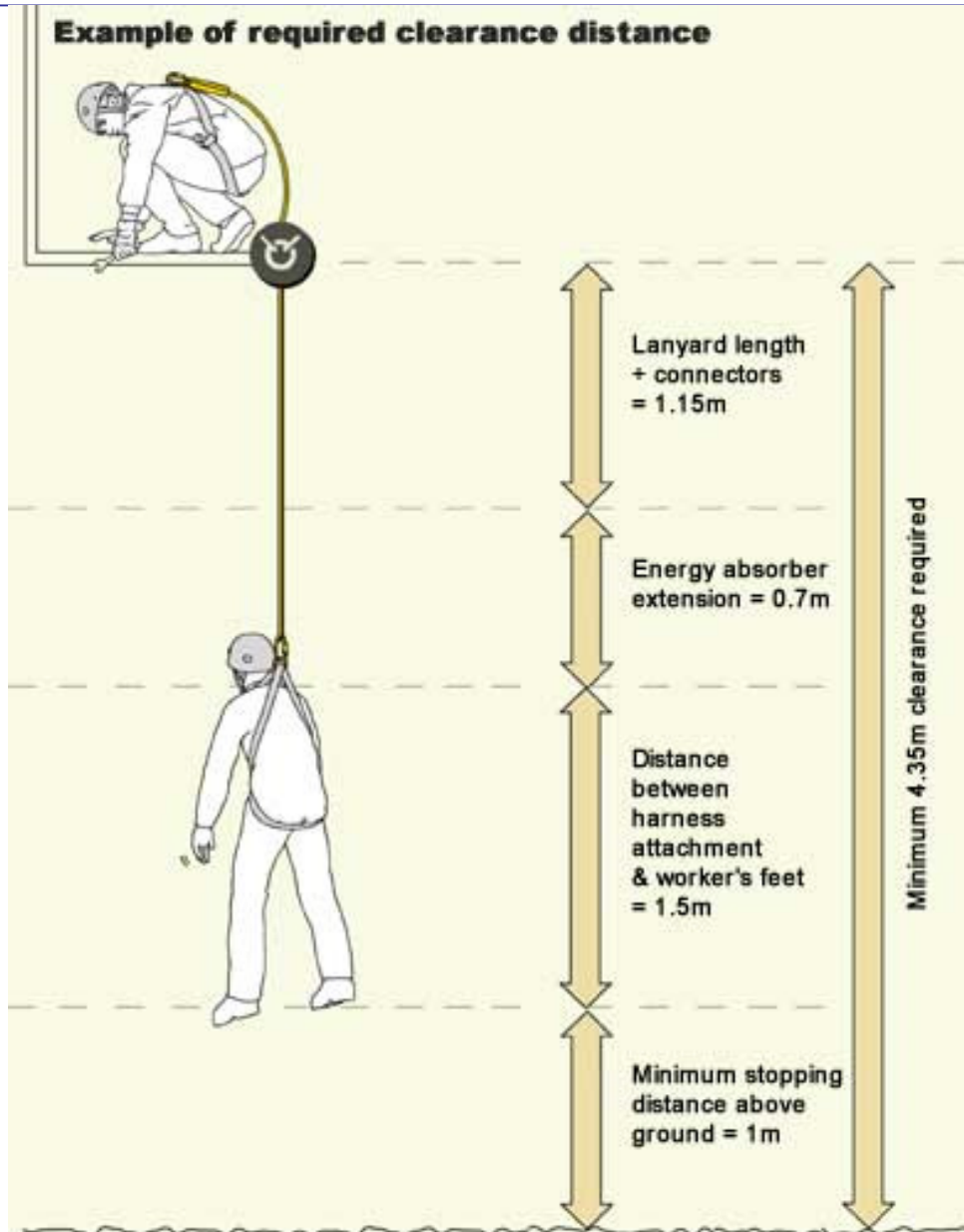
Shock absorbing lanyards may NOT be used, as they expand with 1 metre in case of a fall (the self retracting fall arrest block or 'stop block' will act as shock absorber)

Checks !!!!

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Working at Height



Working at Height

Some WAH near misses/ incidents:

4: Cable of life line system hooked onto truck:

Drivers 'temporarily' clipping the lifeline onto to the body of the truck.
The driver then forgets, and drives off, pulling the cable with him...

Checks !!!!

5: Cable of life line hanging in the way of trucks

The line getting in the way of the lorries as they pull into the structure.
Risk that it is being 'caught' by the truck

solution



Working at Height

Some WAH near misses/ incidents:

LER SAFETY COMMUNICATION

Silo operator with life line caught by silo truck

SUBJECT: Incident because of unsafe use of fall protection system

DATE : Juni 2011

LOCATION : KTN Platform (non Ineos)

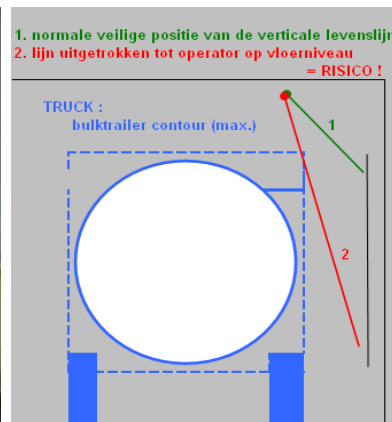
FACTS : 1. The silo operator had to charge a bulk silo truck. He had his fall arrest harness already hooked to the lifeline when the truck was passing by slowly.

2. The life line was caught by the (collapsed) handrail of the trailer.

3. The operator was pulled away, he fell down and was dragged with the trailer until the driver noticed it and stopped the truck.

OUTCOME : Contusion of right ankle.

Operator was unable to work during one week.



Simulated pictures



Working at Height

Some WAH near misses/ incidents:

Are the stop blocks in good condition ?
Do you inspect them regularly ?

- Do the cables/lanyards not show signs of distortion ?.



- Do the stop blocks always rewind quickly enough ?
(with the cable not fully rewound, the extent of a fall will be significantly greater).

Near Miss: Jan 2010

“A driver had noticed that a fall arrest system was inoperative as the automatic retraction mechanism of the lifeline did not work. This was probably due to the low temperatures”.

- Does the pulley system always pull the line tight straight away, leaving no slack (draping around the drivers legs or body), creating a separate risk ?

Checks !!!!

Working at Height

Other issues to think about:

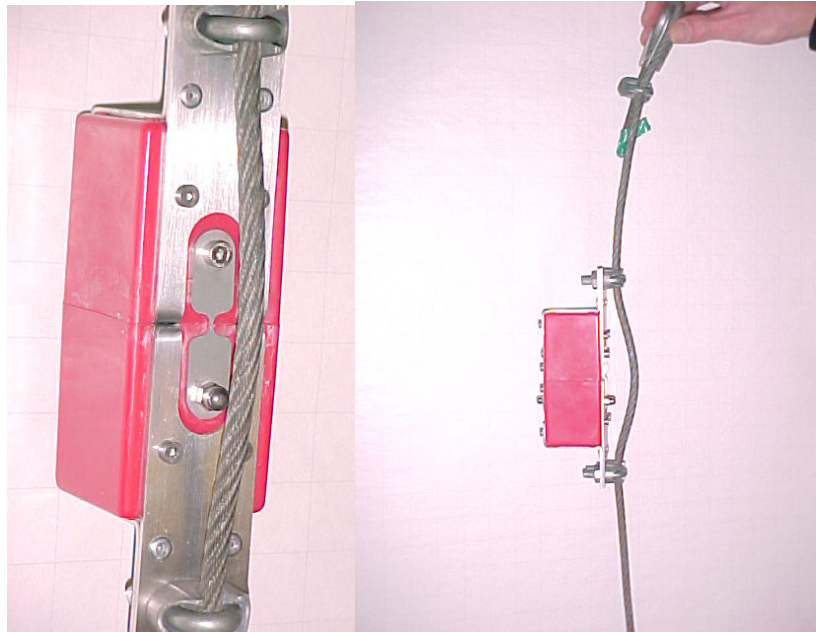
Proper supervision

In case of a fall, will it be noticed in time ?

Could the victim be hanging from the lifeline out of sight ?

Possible Solutions:

- camera system,
- fall detection systems



Working at Height

Other issues to think about:

Do you know when the stop block has been activated ?

- If a stop block has been activated, it must be sent to the manufacturer for resetting
- Do you have stop chute indicators ? – do you check it ?

Is the line not permanently under tension ?

- Use a rope to release the tension of the spring

Checks !!!!

Working at Height

Other issues to think about:

Suspension trauma

- Are all employees aware of the risks ?
- Have you a rescue plan ?
- Have all people been trained in it ?
- Has it been tested ?

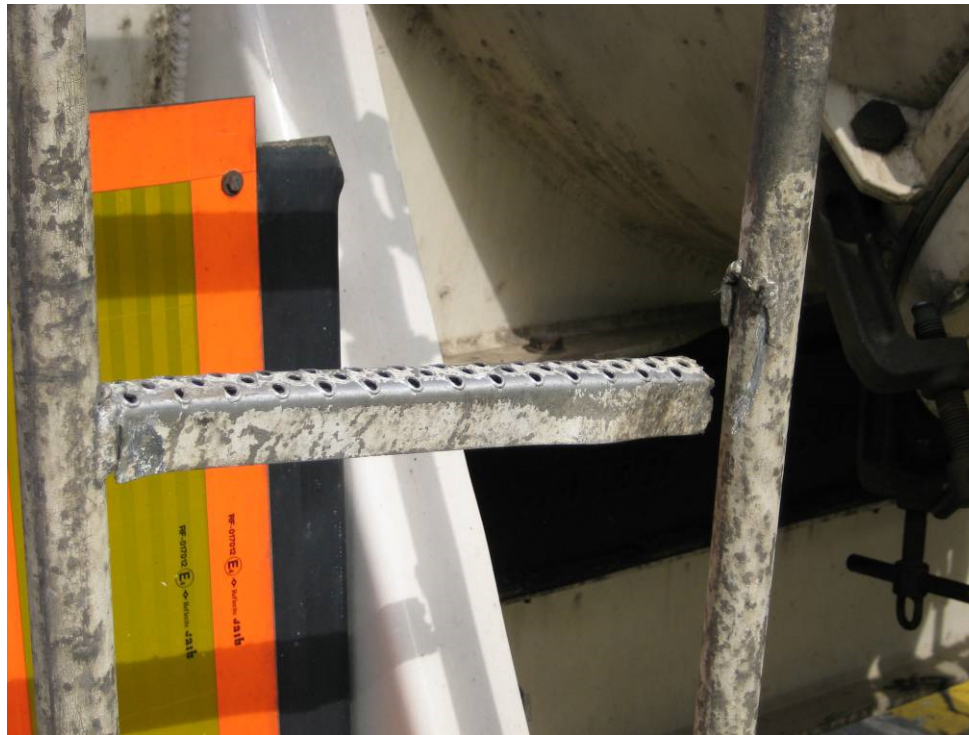
Good practice: Trauma straps



Working at Height

Some WAH near misses/ incidents:

Ladders truck not in a good condition



Checks !!!!

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Working at Height

Some WAH near misses/ incidents:

Drivers not following the rules/ using the WAH facilities



Checks !!!!



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Working at Height

Some WAH near misses/ incidents:

Fall restraint system not properly designed



Does your barrier system provide protection for all types of trucks/ containers ?

Checks !!!!

Working at Height

Some WAH near misses/ incidents:

Inspection dates of mobile safety ladders overdue

How do you ensure that all WAH equipment (stop blocks, safety ladders, Platforms, handrails)are properly inspected and maintained and that inspection dates are not overdue ?

Who is doing what ? (Ineos/ LSP)



Checks !!!!

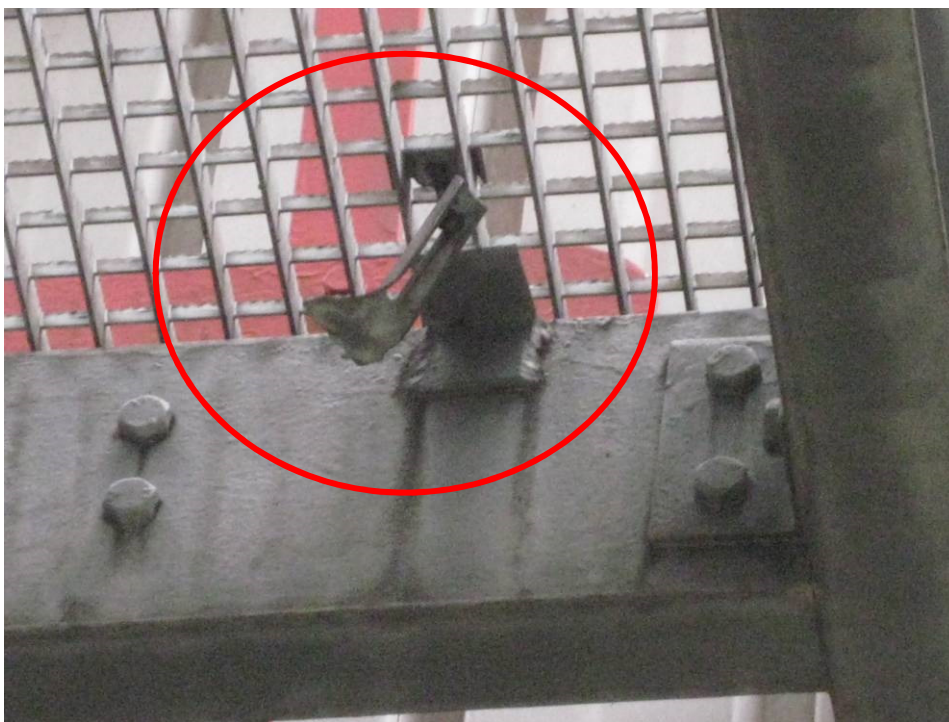


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Working at Height

Some WAH near misses/ incidents:

Grating clips loose



Grating Checks !!!!

Working at Height

Some WAH near misses/ incidents:

Bulk loading truck drove over a set of loading ladders.

- A driver upon pulling away from the loading area drove over a set of loading ladders which was fouling his path.
- ladders were incorrectly positioned on the tanker meaning that they were not 'square' on the tanker exposing the driver to a potential fall from height.

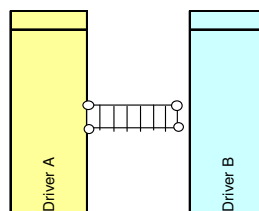
NOK !
Ladder not square
with the tanker



Checks !!!!

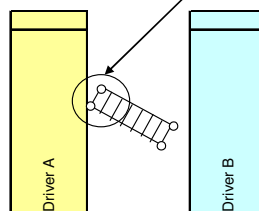
Correct Ladder orientation

OK



Incorrect Ladder orientation

NOK



Gap created
Potential fall from height

OK !
Ladder positioned
square with the
tanker



Is this done like this at your site ?

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