

Getting fall arrest equipment right

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Despite a permit to work being in place for a crew member to work at height on a vessel, the length of fall arrest equipment was found to be greater than the height at which the crew member was working

IOGP Life Saving Rules:



Working at height

What happened?

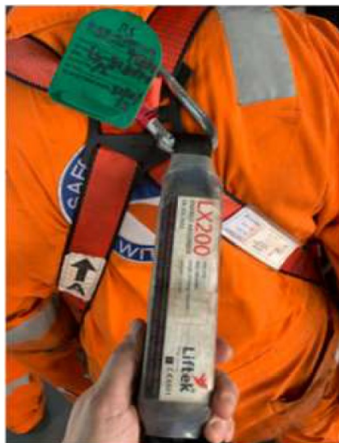
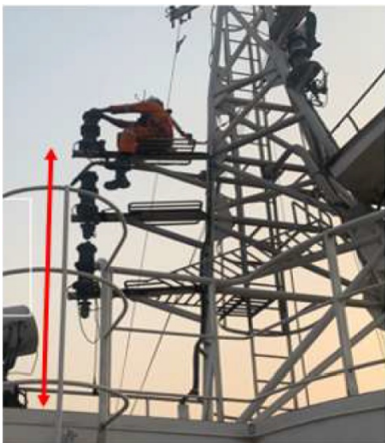
A crew person was changing the lamp bulbs on the vessel mast, working at a height of around 4m above the deck. The person was wearing a full set of PPE including a certified safety harness with a lanyard equipped with a shock absorber. There was a Permit to Work in place.

However, the total length of all this safety equipment had not been properly taken into account.

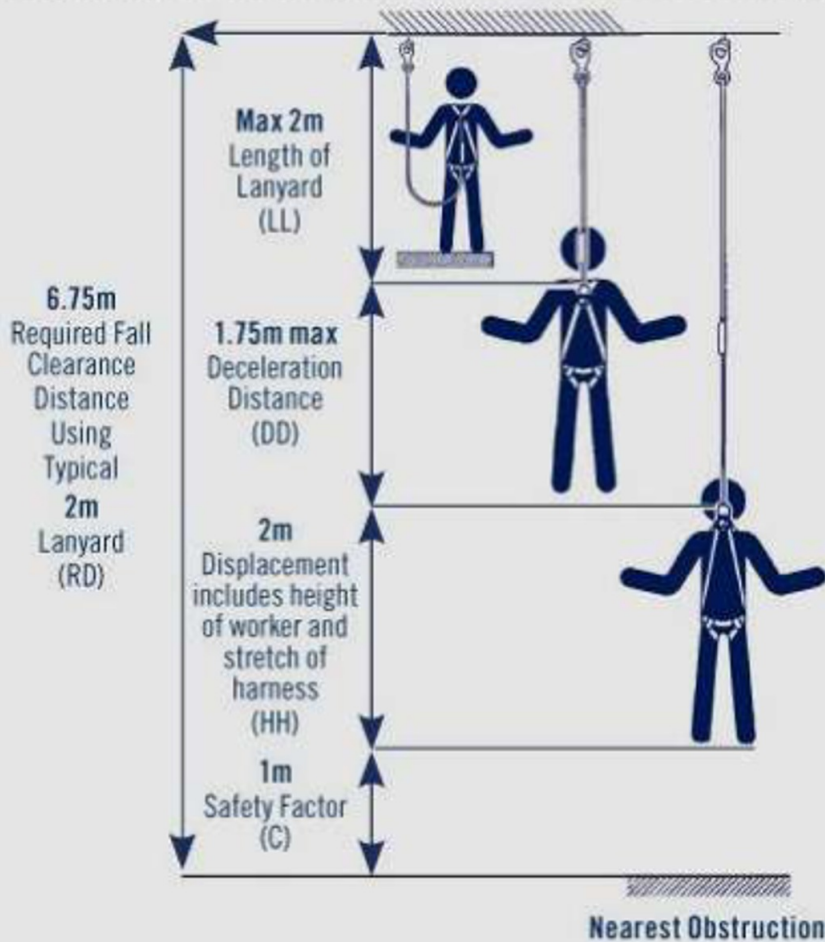
- 1.75 m: the safety lanyard shock absorber
- 2 m: the lanyard itself
- 1.9 m: the approximate height of the person being protected.

This added up to 5.65 m, whereas the person was working 4 m above the deck.

In the case of a fall from height, the fall arrest equipment would have been of no use and the person could have fallen to deck unprotected. He did not fall – no-one was injured.



Calculating your fall arrest



LL = Lanyard Length (max 2m)

DD = Shock Absorber Deployment Length (1.75 max)

HH = Worker Displacement and Harness Extension = 2m

C = Safety Factor and Clearance under worker = 1m

RD = Distance below anchor point to Nearest Obstruction = $LL + DD + HH + C$

Note: if the risk is fall factor 2 (i.e. the worker is anchored at foot level) with a max 2m length lanyard then the clearance required RD is 6.75m (LL=2m, DD=1.75m)

What went right?

The crew person was wearing fall arrest equipment and there was a Permit to Work in place – some incomplete assessment of risk had at least taken place.

What went wrong?

- The risk assessment was not adequate; no-one thought to check that the proposed work height relative to the length of the fall arrest equipment.
- No-one noticed or considered that the fall arrest safety lanyard was clearly marked “Minimum 6 m clearance distance” (see image).

Actions

Correctly calculate your fall arrest!

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