



IRATA SAFETY BULLETIN SB19

ANCHOR SLINGS SLIPPED ON ANCHOR

Issue No.	SB 19
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Status	Report following an operating member's report

1 The incident

Two sets of working and safety lines were rigged to go up and over a six storey building, using four plastic coated steel strops, each with a single loop around a 500mm dia. poplar tree. One technician lowered himself over the top on the other side of the building, followed shortly afterwards by a second on the second set of ropes. As the extra weight transferred back to the steel strops they slipped up the tree. This resulted in one technician dropping 2–3 metres and landing on his back on the balcony wall below. The other technician also dropped, but only 1.5 metres and did not collide with any structure or suffer injury. The first technician was taken off his ropes, taken to hospital, X-rayed, given a thorough examination and discharged. He later went to the Doctor who signed him off work for a period.

2 Incident analysis

2.1 The primary cause was the configuration of the plastic coated wire strops slipping upwards on the relatively smooth tree trunk.

2.1.1 This safety bulletin will not consider the following:

The method statement said use the plant room on top of the building for the primary anchors and dead- weight anchors placed in the centre of the roof for deviation points. This configuration would also have eliminated a lot of rope stretch compared to the method used.

3 Control measures

3.1 Examples of ways to prevent ropes or anchor slings sliding:

- a)** Multi-wrapped webbing slings, rope, or wire strops have more friction /grip than those in a single loop.
- b)** 'Choked' webbing slings (i.e. where one side is threaded through the other) will increase friction around a structure, although this also causes a loss of strength in the sling.
- c)** Link to another opposing anchor to prevent sliding.

4 Lessons to be learned

4.1 Always anticipate the direction of loading from an anchor.

4.2 Where the load is offset from the perpendicular, suitable measures should be put in place to prevent ropes or anchor slings sliding in the direction of loading, particularly on smooth linear structures such as this tree, steel or concrete beams.

4.3 Consider management approval for significant changes to the method statement written following pre-work visit.



Photo 1: Strop set up as a Primary Anchor. There were four of these together to anchor four ropes.



Photo 2: Indicating (approximately) where the ropes were originally rigged (at low level) and where they eventually came to a stop.