Significant near miss – dropped reinforcement cage
Plan and manage lifting operations

A pre-fabricated section of steel reinforcement was being lifted into position, forming part of the structural lining to a large diameter shaft (approximately 30m deep). The crane had lifted the steelwork over the shaft, and was about to move it into position when the load failed, causing many long lengths of steel reinforcement bar to fall some 20m (see picture). Fortunately the contractor had established and enforced an exclusion zone beneath loads being lifted. This meant that no one was injured. Had this exclusion zone not been in place, and people had been working below the load, the potential consequences do not bare thinking about.

Why did this incident happen?
The slings used to fasten the reinforcement cage to the crane were attached in the wrong locations. This meant that the load could not support its own weight, causing it to fail and then fall. Lifting points had been designed into the cage, but unfortunately the slings were not attached to them.

What you must do:
Prefabication of items, such as reinforcement cages, is becoming more common place on construction sites. However, we need to ensure that we adequately plan to safely install them.

This plan should include:

- Designing in lifting and attachment points
- Giving clear information and training to site operatives (especially fabricators, slingers, etc.)
- Consider how close the prefabrication area is to its final position
- Adequately supervising the work and undertaking assurance and quality checks as necessary
- Ensuring the lifting points are immediately obvious (see photo on the right for an example of how to do this)
- Ensure that each lift plan has specific, detailed rigging sketches for slingers to follow as necessary

Ensure that all lifting operations on site are planned and controlled - this includes the design, planning and lifting of prefabricated items.