

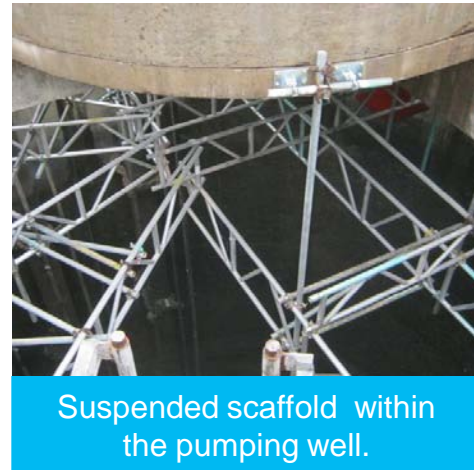
## Learning event – screw bolt anchor failure



Sheared bolts



12 x 100 Excalibur bolt



Suspended scaffold within the pumping well.

During the removal of a suspended scaffold it was found that a high proportion of the 12 x 100 Excalibur Hexagon Head Screw Bolt (HSB) anchors had failed.

The scaffold spanned a 10 metre internal diameter, 20 metre deep; pumping well. It had been fully boarded out to fulfil its primary function as a crash deck and light use access platform.

The overall failure rate of the bolts had been approximately one in five (20 per cent).

At the main spine beam connection, which comprises two Apollo AST brackets (four holes / bolts in each), the failure rate had been seven in eight (87.5 per cent). At this location, a 100 per cent failure would have resulted in failure of the entire platform.

The installation contractor, Harsco, has launched a full investigation into the reasons behind the failures and is working with Morgan Sindall to ensure all facts are known and communicated to the wider industry.

### Initial learning pending full investigation findings

- Laboratory tests are being carried out on the sheared bolts to establish the cause of failure. Until this investigation is complete the use of these type of anchors is temporarily suspended
- Review all Morgan Sindall projects and identify where this type of anchor is currently in use
- Ensure all fixings are installed as per the manufacturer's instructions and that the contractor / installer is fully briefed on the approved and agreed method of installation
- Ensure that contractors are aware that any change of design specification must be referred to, and then approved by, the Morgan Sindall temporary works department before works can proceed.

### Immediate action to be taken by site management:

None applicable	Applicable (please state below)
	Do not use Excalibur type anchors until a full investigation has been concluded and additional advice provided.
	Suspend the use of any installations where these anchors are employed, pending inspection on the integrity of the structure.
	Consult directly with Morgan Sindall temporary works department who will advise on suitable alternative fixings for your specific applications.
	Communicate this alert to all relevant stakeholders.

**Communication:** Toolbox Talks / briefings  Notice boards  Safe and Sustainable update

**Circulation List:** To all of Morgan Sindall  Supply Chain  Morgan Sindall Plant Hire Desk

Morgan Sindall Group

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