J BASHFORD & ASSOCIATES

Commercial
Construction
Health Authorities
Housing Associations
Hotels and Leisure
Local Authorities
Managing Agents
Transport

Project Type:
Investigation

Project Scope:
Investigation into major equipment failure and recommendations for an optimum remedial solution going forward.

Following a major equipment failure, JBA was asked to survey the site, establish a cause, assess the damage and put forward a report on the lift's future operation.

JBA discovered that the rolled steel channel (RSC) fabricated to support the main drive unit had failed at the welded joints, causing the entire drive unit including gearbox, drive motor and traction sheave to collapse to one side.

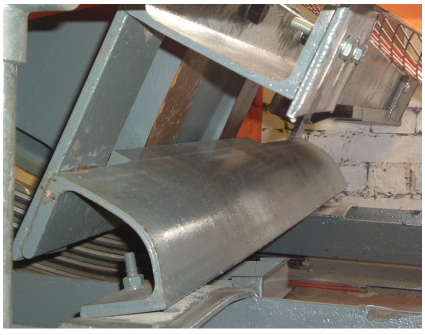
The whole drive unit had come to rest on the overspeed governor, the only thing that prevented it from falling to the floor. Fortunately nobody was using the lift when the welded joints failed.

The lift was modernised in 2001 and this included the main drive unit. The supporting steel work was not of the main drive manufacturer's design, appearing to be fabricated to adapt to the existing retained steelwork. Sadly, the welds had not sufficiently penetrated both materials; and the extreme forces exerted on the steel caused the RSC to bend, being only held in place by its fixing bolts.

On conclusion of a thorough investigation, JBA presented a detailed report back to the client including specific remedial actions to restore the lift back into safe working service.

The entire drive unit had collapsed

The welds had not penetrated



Structural failure

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