

MAST CLIMBING WORK PLATFORM COLLAPSE

On 3rd August, on one of our projects, two operatives were working from a (twin mast) mast climbing work platform (MCWP) placing cladding trims, at the ninth floor of a building when, without operator intervention, one side of the MCWP started to drive downwards.

The operatives were unable to stop this movement and exited the basket, holding onto the side of the building (and subsequently rescued by an adjacent MCWP). One side of the mast climber continued to descend causing part of one mast and the basket to collapse. Fortunately there were no injuries.

Incident Causation: The investigation is on-going however it is believed that:

- The left hand side MCWP motor started driving down without operator intervention (on its own) due to a fault developing in a switch in one of the control panels.
- 2. As only the left hand side of the MCWP was being driven down, the platform went out of level and this created stresses in the masts which then sheared them away from their connections to the building structure resulting in the final collapse of the mast.
- 3. The Operatives in the basket, who were understandably in a state of panic, may not have properly engaged the emergency stop system in the MCWP before they took the decision to exit the basket.



Collapsed Mast Climber

Immediate Actions: All Balfour Beatty UK projects with MCWPs in operation have arranged for new/additional Thorough Examinations to be carried out with particular attention being paid to the functioning of safety devices, limit switches, levelling switches, emergency stops, access gate switches and other associated devices.

As an interim measure the Operator Instructions for the MCWP were updated to require that whenever the MCWP is stopped to allow work to take place the emergency stop button must be activated and main electrical isolator in the basket switched off. These measures were adopted to prevent the MCWP





from starting to move without operator intervention and/or whilst the operator is away from the controls. The revised instructions were produced in the languages spoken by all operators and rebriefed.

Design Solution to Eliminate Future Potential Events: Work is currently underway with Plant & Fleet Services to develop a Balfour Beatty Plant Standard for MCWP. Although this work is still to be finalised it is likely that the new Plant Standard/Specification will require all future MCWP, being brought onto Balfour Beatty projects, to have a single control panel and be equipped with a 'push to run' (or dead Man's) button. These measures will eliminate any potential for a MCWP to start any operation without operator intervention and drive to an 'out of level' failure situation.

ACTIONS REQUIRED

- All MCWP being brought onto projects must have a single control panel and be equipped with a 'push to run' (or dead Man's) button.
- A Plant Specification Sheet will be produced to include this requirement.

Heather Bryant UK Health & Safety Director

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RESPONSE REQUIRED

BMS WILL BE AMENDED

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