

Dropped Elevator Bumper Stop

SAFETY ALERT

Description of incident:

A rubber bumper stop for an elevator, weighing 0.6kg was discovered within the rig structure approximately 20 meters below the fixed mounted position of the bumper. Although unable to determine the exact moment the bumper dropped, it is accepted a dropped object incident occurred.

The investigation identified:

- The bumper was designed with a primary securing adhesive fixing the object to structure. There was no secondary retention method installed. When the primary securing failed, the bumper became a dropped object.
- The bumper stop was a previous design (2014). An updated design is more robust and includes a bolted connection (primary securing) with locking nut (secondary securing).
- The site DROPS Manual included the elevator, but did not specifically capture the rubber bumper stops, so these were not part of regular inspections. Note: It was revealed during the investigation that a similar incident has occurred to the same design of elevator. Both incidents occurred from an elevator installed for a derrick on a drilling rig.

Considerations:

Sites with elevators to perform inspection of rubber bumper stops, to determine the design and whether primary and secondary securing is installed.

Outcome Calculator		
Height	20	m
Mass	0.6	kg
Outcome	Fatality	117.68 Joules

Download the DROPS Calculator [here](#)



This photograph shows the fixed location the bumper dropped from

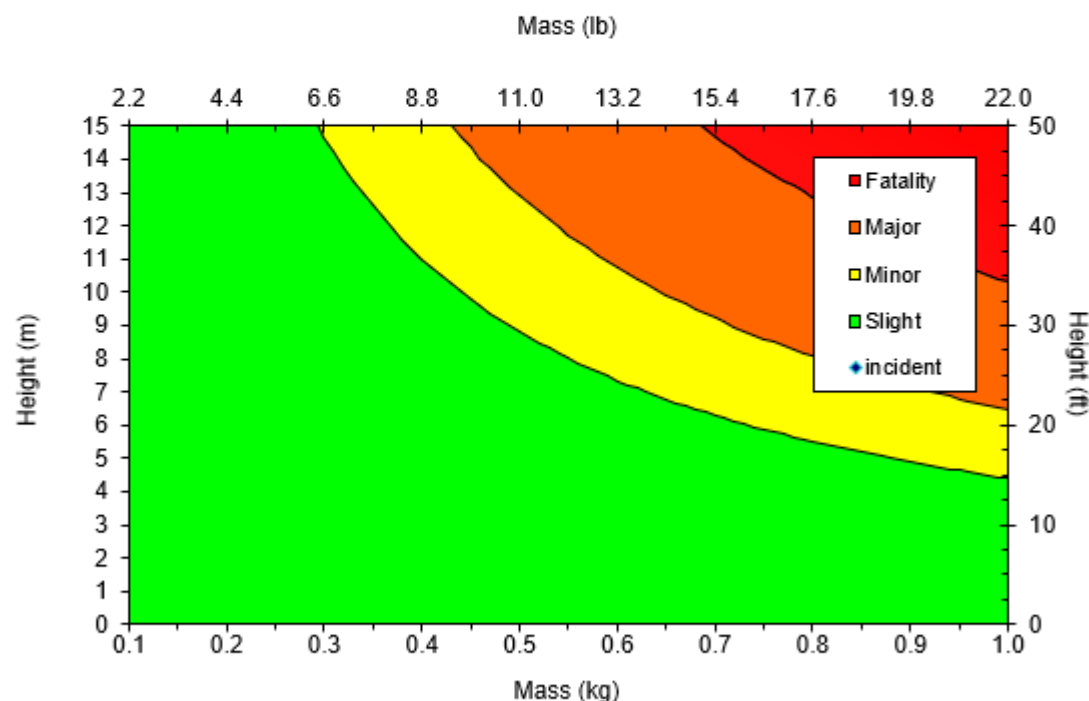
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Outcome Calculator

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NOTE: The graph above displays an 'incident' icon for visual purposes only and the axis is restricted to 15m / 10kg.
The **OUTCOME CALCULATOR** panel at the top of the page displays an accurate outcome for all input values

Important information for Users

GRAPH FUNCTIONALITY: For full functionality, please Enable Content where prompted. For information, a single Macro is employed in this workbook to rescale the top Mass(lb) axis where applicable.

CALCULATOR ASSUMPTIONS: The Calculator assumes that full PPE is being worn and that the object is blunt (no sharp edges - outcome would be worse).

CALCULATOR ACCURACY: The DROPS Calculator is a guide only and is intended to give a general idea of the potential severity of a dropped object. A detailed and specific risk assessment will always deliver a more accurate calculation of potential severity.

KEY	DESCRIPTION
■	FATALITY: Death resulting from an injury or trauma.
■	MAJOR: A Lost Time Incident (LTI). Non-fatal traumatic injury that causes any loss of time from work beyond the day or shift it occurred. Also referred to as Day Away From Work Case (DAFWC).
■	MINOR: A Medical Treatment Case (MTC). A Work-related injury that does not involve death, day(s) away from work, restricted work or job transfer, and where the employee receives medical treatment beyond first aid.
■	SLIGHT: A First Aid Case (FAC). Limited or no injury. Treatment may be limited to first aid.