

Manual Handling Formwork

A falsework/formwork operative sustained a double fracture to his right ankle whilst carrying a 225mm primary beam from the formwork striking area to a laydown area.

The beam was 5.4m in length & weighed 47.9kg. The operative “turned” his ankle & fell over & the Titan beam landed on his ankle.

Learning Points

- The manufactures information gave the weight of the 225mm beams as 8.87kg/m rather than detailing the actual weight of the beam.
- The beams on site ranged from 1.2m (10.6kg) to 7.2m (63.9kg).
- The RAMS (inc MH assessment) for the installation & striking of the beams was generic & did not detail the weight of the beams or the means of moving, installing or striking them.
- At the time of the incident the IP was carrying the beam on his shoulder with no assistance from any one else.
- The operative was wearing slip on “dealer boot” type protective footwear which had an elastic gusset rather than laces.



Photograph of Incident scene

Manual Handling Formwork - Post Incident Actions



Beams stencilled to indicate individual or team lift

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Titan Propping Weight Guidance and Information

Everyone has the right to be
100% Safe

Components Titan beams

Manufactured from extruded aluminium sections. This means they are lightweight, easy to handle, resistant to corrosion and have a long life. All essential beams are identified with a colour to indicate design details.

Titan 100 Series

100 Series beams are available in the following lengths and weights:

| Length | Weight |
|--------|--------|
| 2.0m | 6.0kg |
| 2.3m | 10kg |
| 2.4m | 14kg |
| 2.7m | 15kg |
| 3.0m | 17kg |
| 3.6m | 20kg |
| 4.2m | 24kg |
| 4.8m | 28kg |
| 5.4m | 30kg |
| 6.0m | 34kg |
| 6.6m | 36kg |
| 7.2m | 41kg |

Titan 225 Series

225 Series beams are available in the following lengths and weights:

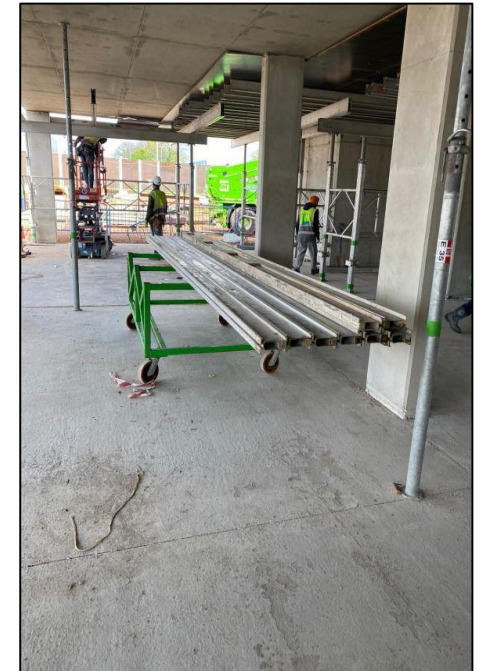
| Length | Weight |
|--------|--------|
| 2.0m | 12kg |
| 2.3m | 18kg |
| 2.4m | 23kg |
| 2.7m | 27kg |
| 3.0m | 30kg |
| 3.6m | 37kg |
| 4.2m | 43kg |
| 4.8m | 48kg |
| 5.4m | 53kg |
| 6.0m | 57kg |
| 6.6m | 64kg |
| 7.2m | 71kg |

Titan Beams in the green category are below 24kg and are considered safe to lift with 1 person. Titan Beams in the red category are in excess of 24 kg and under manual handling guidelines alternative lifting practices should be used such as mechanical means or using a sufficient number of persons to lift. Lifts should be assessed individually by competent persons to ensure the lift is done safely and correctly.

- When carrying out manual handling always ensure the work area is free of any trip hazards such as beam clamps, level changes and debris.
- Plan the route to be taken with the load.
- Assess the load to ensure it can be lifted correctly and safely with either 1 or 2 persons.
- Always look to minimise manual handling where possible by using mechanical.

Poster detailing weight of each beam displayed at workforce.

RAMS & MH assessments revised to detail weight of beams & controls to be implemented for handling, installing & striking.



Proprietary wheeled stillages provided for horizontal movement of beams.

| Reference | Issue Date | Display Until Date |
|------------------|------------|--------------------|
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