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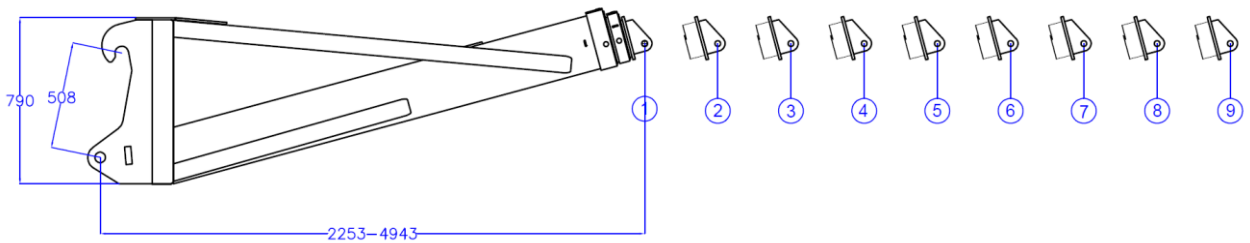


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3 STAGE LIFTING JIB

- Drawing Number – CJCATIT50
- To suit CAT IT Hitch
- Tare Weight – 540kg
- Lifting Capacity as per stated chart

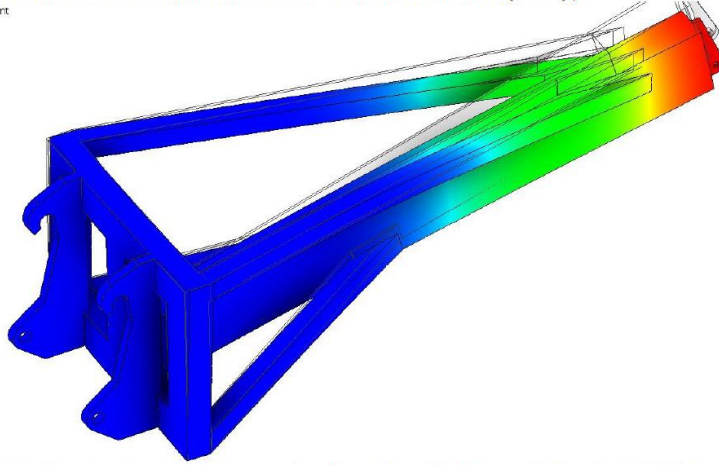


| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|------|------|------|------|------|------|------|------|------|------|
| (mm) | 2253 | 2620 | 2987 | 3354 | 3567 | 3997 | 4364 | 4731 | 4943 |
| (kg) | 3500 | 3090 | 2680 | 2272 | 2034 | 1555 | 1145 | 736 | 500 |



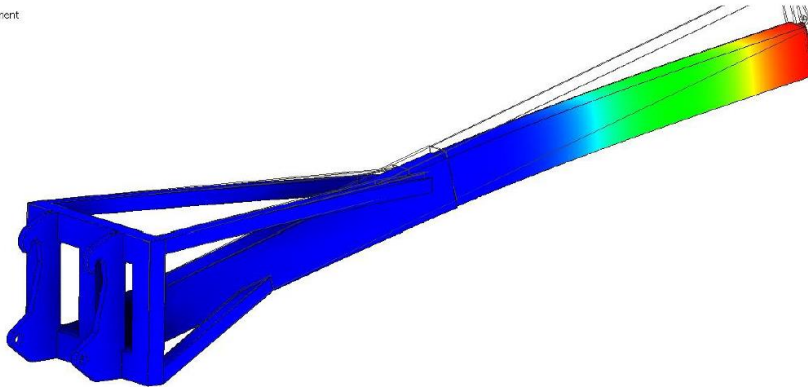
8.2 The Deflection Contours on the Frame is shown below (MM);

Type: Displacement
Unit: mm



Deflection Contours on the frame under Length = 2253 mm & Load = 5000 Kg

Type: Displacement
Unit: mm



Deflection Contours on the frame under Length = 4943 mm & Load = 1055 Kg

Stress and Displacement

| Component | Maximum Stress | Maximum Displacement | Maximum Permissible Deflection |
|---|----------------|----------------------|--------------------------------|
| Jib Length = 4943 mm & Load = 1055 Kg | 160 MPa | 8.4 mm | 3.75 mm |
| Jib Length = 2253 mm & Load = 5000 Kg | 256 MPa | 19.9 mm | 8.25 mm |

The Deflection observed in the Jib is more than the permissible limit. Hence the current Load rating must be revised.

The recommended load rating considering the deflection limit is as follows.

| Distance (mm) | 2253 | 2620 | 2987 | 3354 | 3567 | 3997 | 4364 | 4731 | 4943 |
|---------------|------|------|------|------|------|------|------|------|------|
| Load (Kg) | 3500 | 3090 | 2680 | 2272 | 2034 | 1555 | 1145 | 736 | 500 |

The Maximum Working Live Load must not exceed 3.7 tons (3700 Kg)