

TOWER CRANE DISMANTLING WITH DERRICK

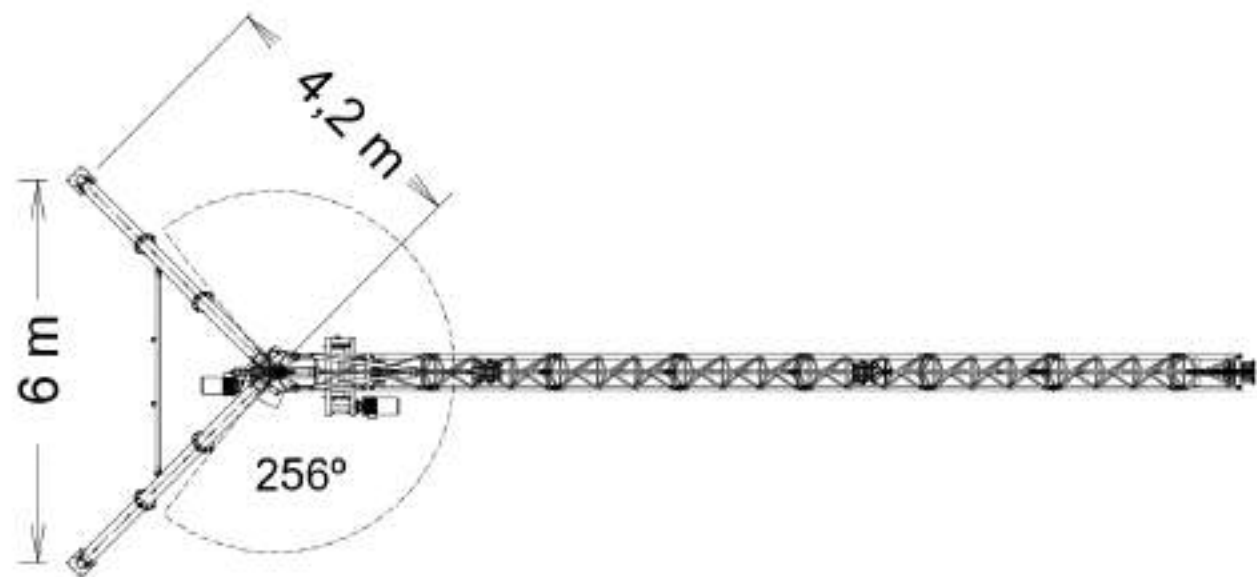
JASO 1920

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JASO 1920 DERRICK



DERRICK IN ACTION

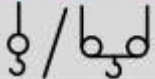




TOP VIEW

DERRICK DATASHEET

J1920.DC

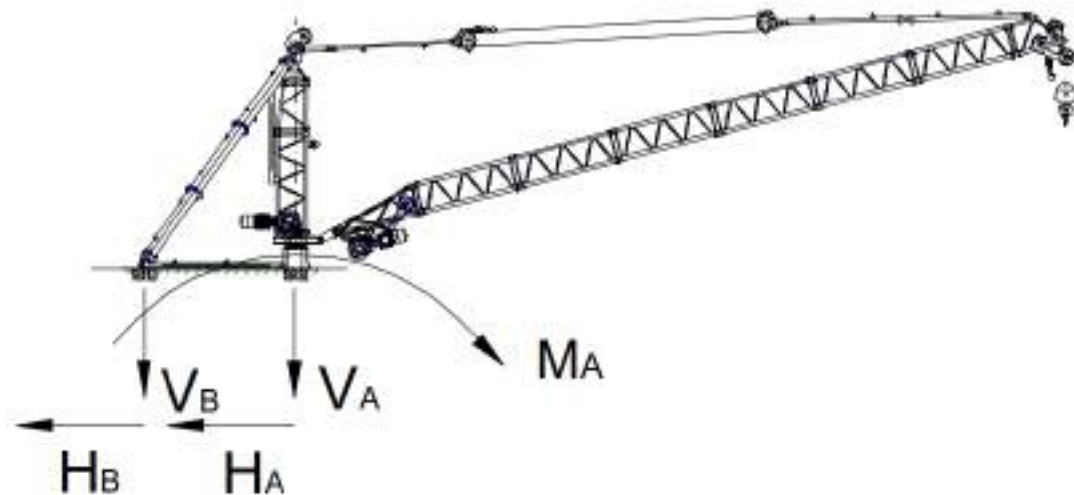
CARGAS / LOADS / CHARGES / LASTEN / НАГРУЗКИ / الأحمال

		TD/2R (kg)	Cargas máximas / Maximum loads / Charges maximales / Höchstlasten / Максимальные нагрузки / أقصى حمولة / TD/2R		
 (m)	2R 4000 kg [m]	TD 2000 kg [m]	Alcance del gancho [m] / Hook reach [m] Portée du crochet (m) / Reichweite des Hakens (m) / Радиус действия крюка (m) / مدى الخطاف		
			15	17	19
		19	2000	2000	2000
	17	17	2000	2000	-
15	15	15	4000	-	-
 (m)	2R 3000 kg ... [m]	Alcance del gancho [m] / Hook reach [m] Portée du crochet (m) / Reichweite des Hakens (m) / Радиус действия крюка (m) / مدى الخطاف			
		17	3000	3000	-



JASO 1920 Datasheet.pdf

REACTIONS ON THE SLAB



Wind in Service – 72Km/hr

Figure 1.

Jib 15 m. REACTION FORCES (KN)				
V_A [kN]	H_A [kN]	M_A [kN·m]	V_B [kN]	H_B [kN]
- 262 + 124	± 198 kN	84,7	± 193	± 193 kN
- Compression + Traction		Torque moment in A $M_D = 26 \text{ kN·m}$		

Tower Crane Dismantling



DERRICK DISMANTLING

No manual Intervention needed.

Larger assemblies dismantled at once

Safe operation

Does not damage structure

1

2

3

4



MANUAL DISMANTLING

Entirely done by manpower

Dismantled into individual parts on the top of the building

Unsafe due to handling of heavy loads manually

Damages structure due to ad-hoc supporting

MANUAL DISMANTLING PRACTICES

Support given by tying rope to the wall



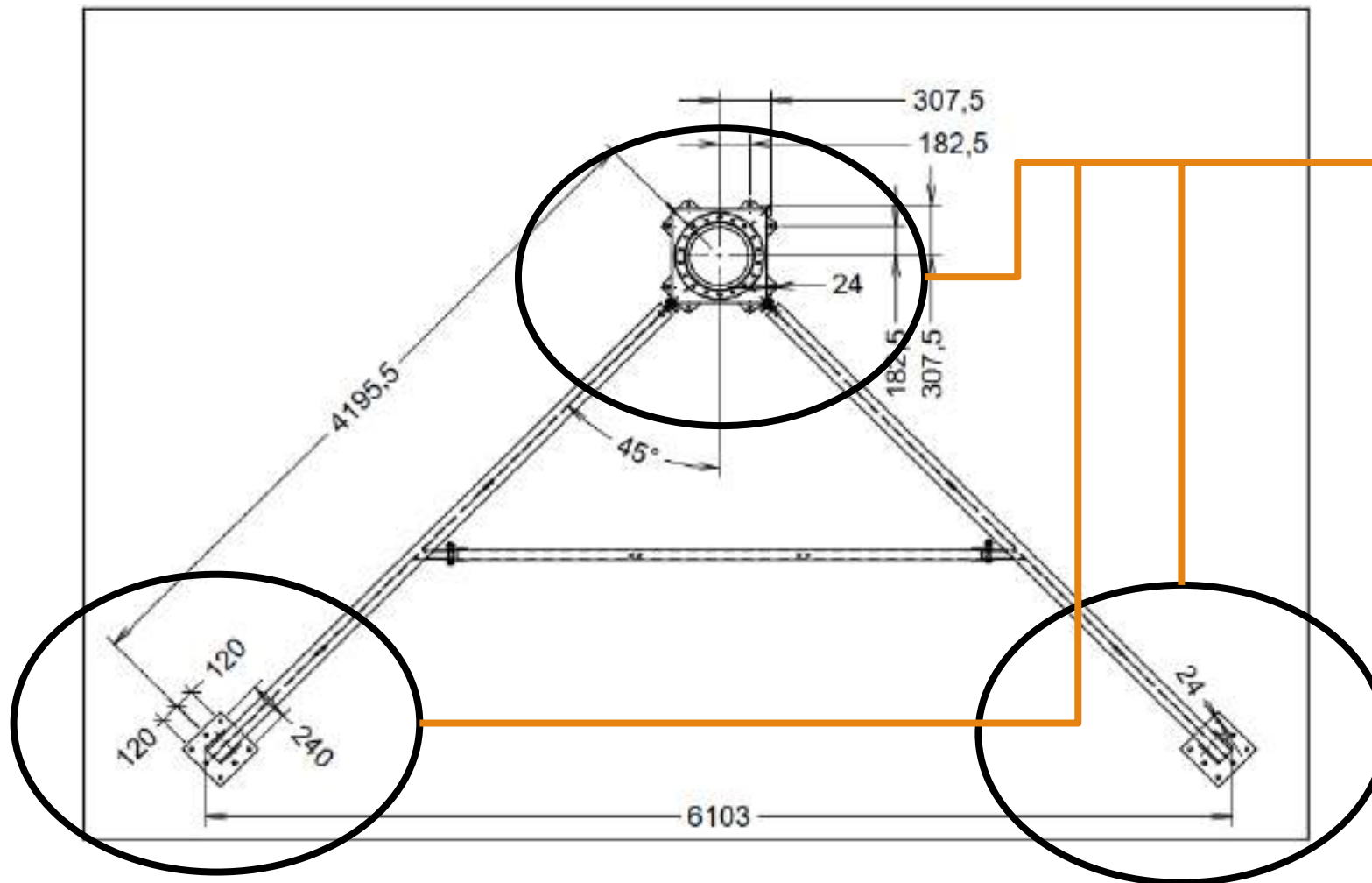
Improper resting of heavy members on slab and parapet wall damaging both building and tower crane



DERRICK OPERATION – VIDEO



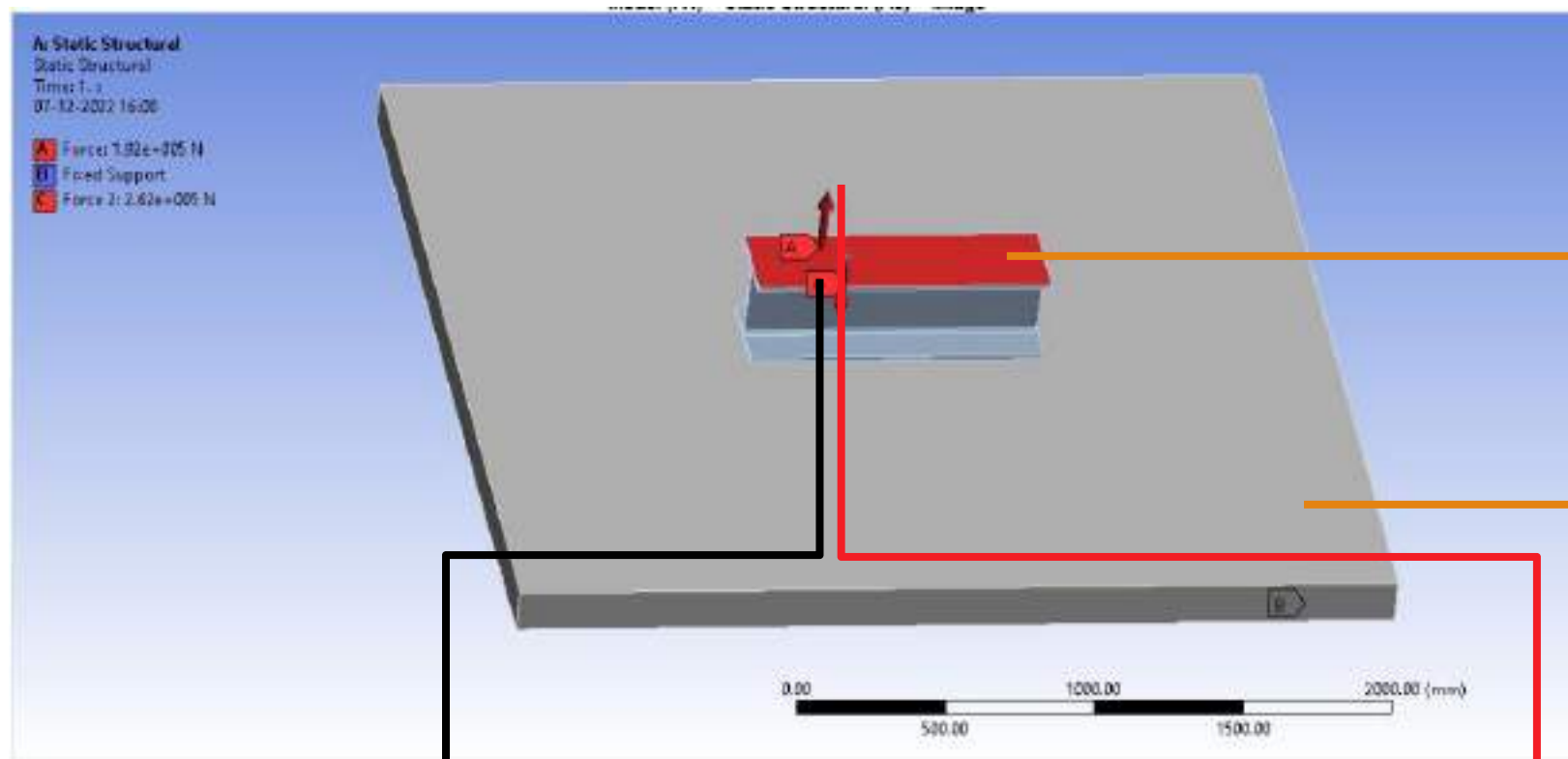
TOP VIEW – BASE FIXTURE



3 RESTING POINTS

THESE POINTS
WILL BE LISTED ON
H-BEAMS

LOAD CONFIGURATION



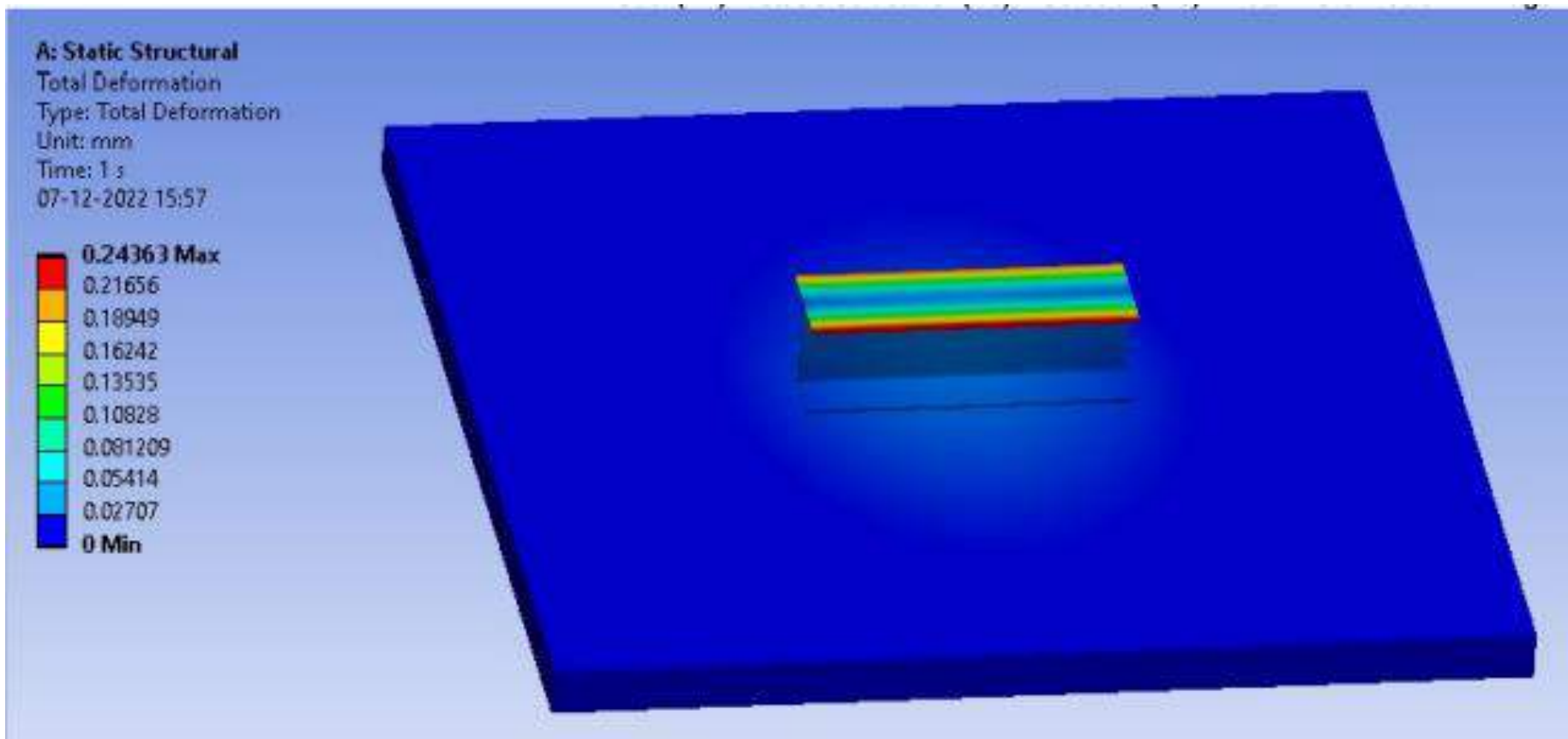
H Beam
1 meter length

Concrete Slab M25
125mm thick

Compressive Load – 262 kN

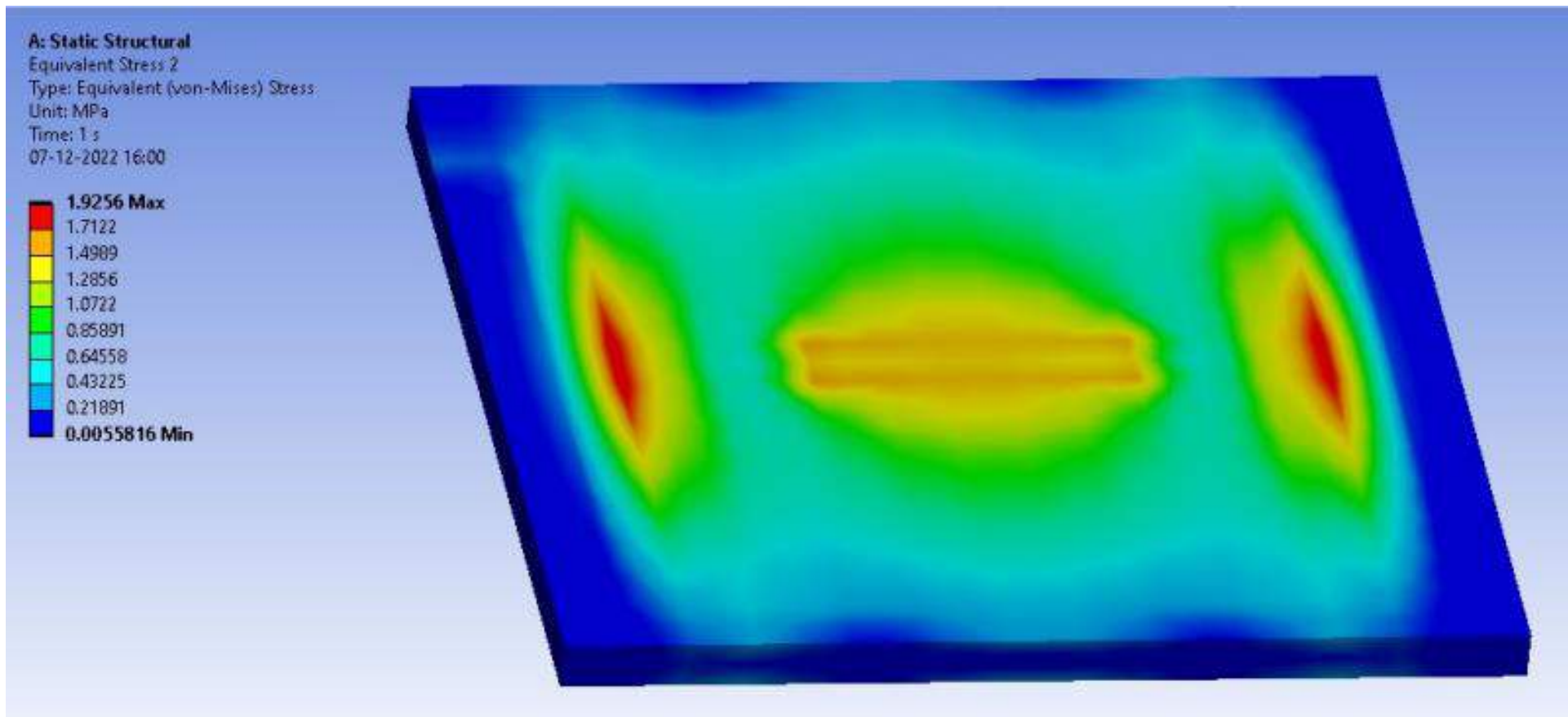
Tensile Load – 198 kN

LOAD DISTRIBUTION ON H - BEAM



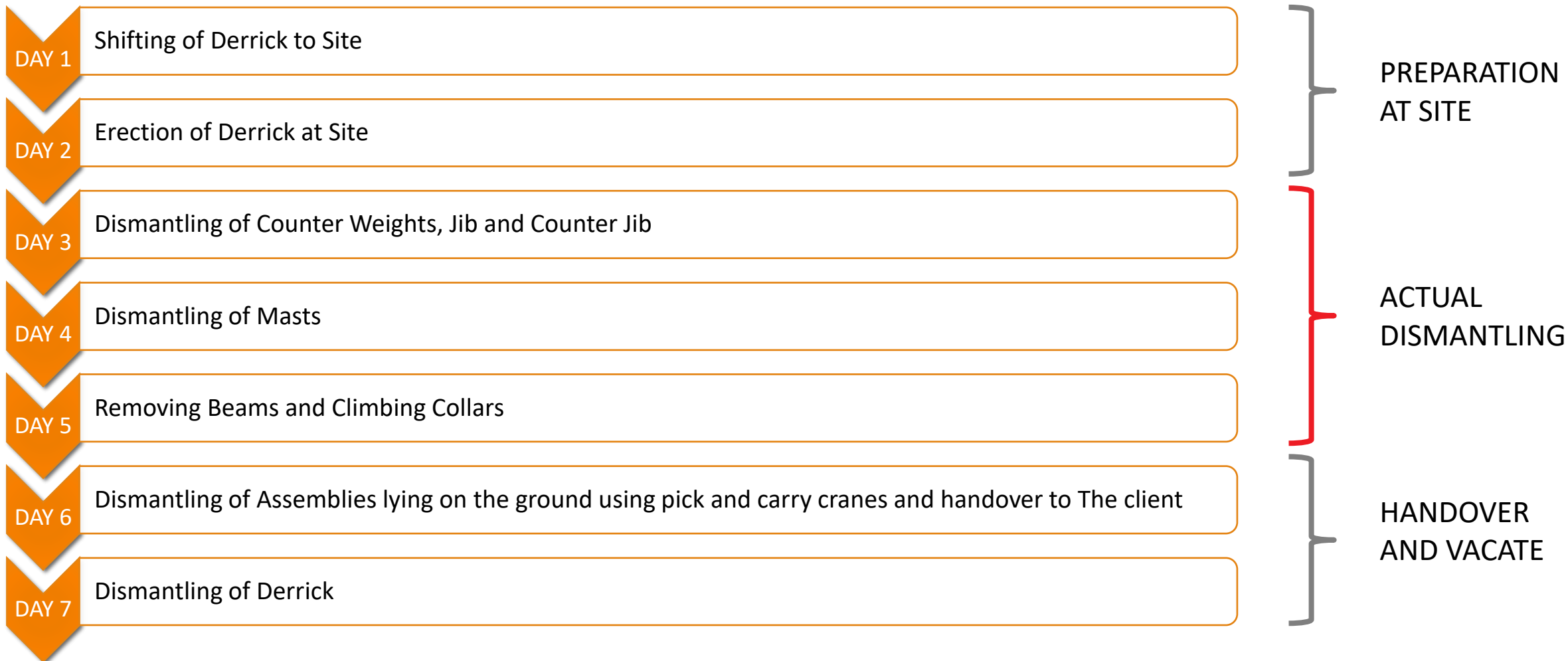
Time [s]	Minimum [MPa]	Maximum [MPa]	Average [MPa]
1.	5.5816e-003	43.361	4.4878

LOAD DISTRIBUTION ON THE SLAB



Time [s]	Minimum [MPa]	Maximum [MPa]	Average [MPa]
1.	5.5816e-003	1.9256	0.54556

DISMANTLING SCHEDULE



METHODOLOGY – ERECTION AND DISMANTLING

Erection Methodology

1. Shifting of material via PM Hoist or iZura Mini Crane. Max weight of element – 511kg
2. Material will be manually moved to the position designated for the erection of Derrick
3. Derrick will be erected manually or using the tower crane at the site.

Dismantling Methodology

1. Derrick will be dismantled manually using a chain pulley
2. Material will be brought down to the ground level using iZura Mini Crane or PM Hoist at the site

SUPPORT REQUIRED FROM CUSTOMER/SITE

BEFORE DISMANTLING

1. Plan of terrace with Tower Crane position and Jib length marked
2. Arrange for Site visit and discuss any other possible obstructions for dismantling
3. Make a list of tower crane parts using packing list and discussion with technical team

DURING DISMANTLING

1. Power connection for Derrick and Mini Crane
2. PM hoist (if available) for shifting of material
3. Tower Crane for derrick erection if required

AFTER DISMANTLING

1. Arrange Pick and Carry crane for ground dismantling
2. Count and cross-check the loose parts before handover

THANK YOU!!



SCAN THE QR CODE TO SAVE THE CONTACT
