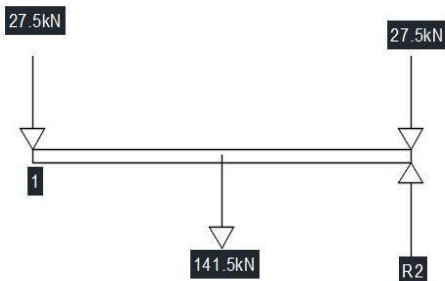


- Equipment weight:9.65T
- Maximum load:10T
- Hydraulic cylinders + frame:2.65T
- Auxiliary beam+guide rails :2.85T
- Cabin weight:4T
- Horizontal auxiliary beams:0.15T
- $F_n = mg = (9.65 + 10)T * 10N/kg$
=196.5kN
- Bearing capacity required by the ground and wall needs to be $\geq 196.5kN$
- When equipment is fully loaded it tends to -exert vertical downward forces within the support beams attached to the wall brackets.



-The vertical reaction force R_2 need to meet the following conditions:

About point 1

$$R_2(5.72) \geq 27.5(5.72) + 141.5(2.86)$$

$$R_2 \geq 567.99/5.74$$

$$R_2 \geq 98.25kN$$

The total force on the wall is greater or equal to 98.25kN. There are 20 brackets supporting each side of the lift (19 wall brackets + 1 on the ground), therefore the force on each bracket is \geq 4.9125kN