Point Loadings explained

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Point Loading Chart

MODELLO	PRESSURES AND REACTIONS TO THE GROUND			06/11/2016
	UNDERCARRIAGE		OUTRIGGER	
	Average Reaction [daN]	Pressure on soft ground [daN/cm²]	Reaction [daN]	Average Pressure on pad Ø30cm [daN/cm²]
GL1470	1670 daN	0,5 daN/cm²	1330 daN	1,9 daN/cm²
LL1472	1400 daN	0,4 daN/cm²	1200 daN	1,7 daN/cm²
LL1570	N/A	N/A	1670 daN	2.36 daN/cm2
GL1780	2100 daN	0,62 daN/cm²	1450 daN	2,0 daN/cm²
LL1965	2100 daN	0,62 daN/cm²	1330 daN	1,9 daN/cm²
LL2312	3000 daN	0,48 daN/cm²	2100 daN	3 daN/cm²
LL1775	2230 daN	0,67 daN/cm²	1731 daN	2,45 daN/cm²
LL2010	2980 daN	0,64 daN/cm²	2150 daN	3,04 daN/cm²
LL2614	4182 daN	0.53 daN/cm2	3124 daN	4.42 daN/cm2

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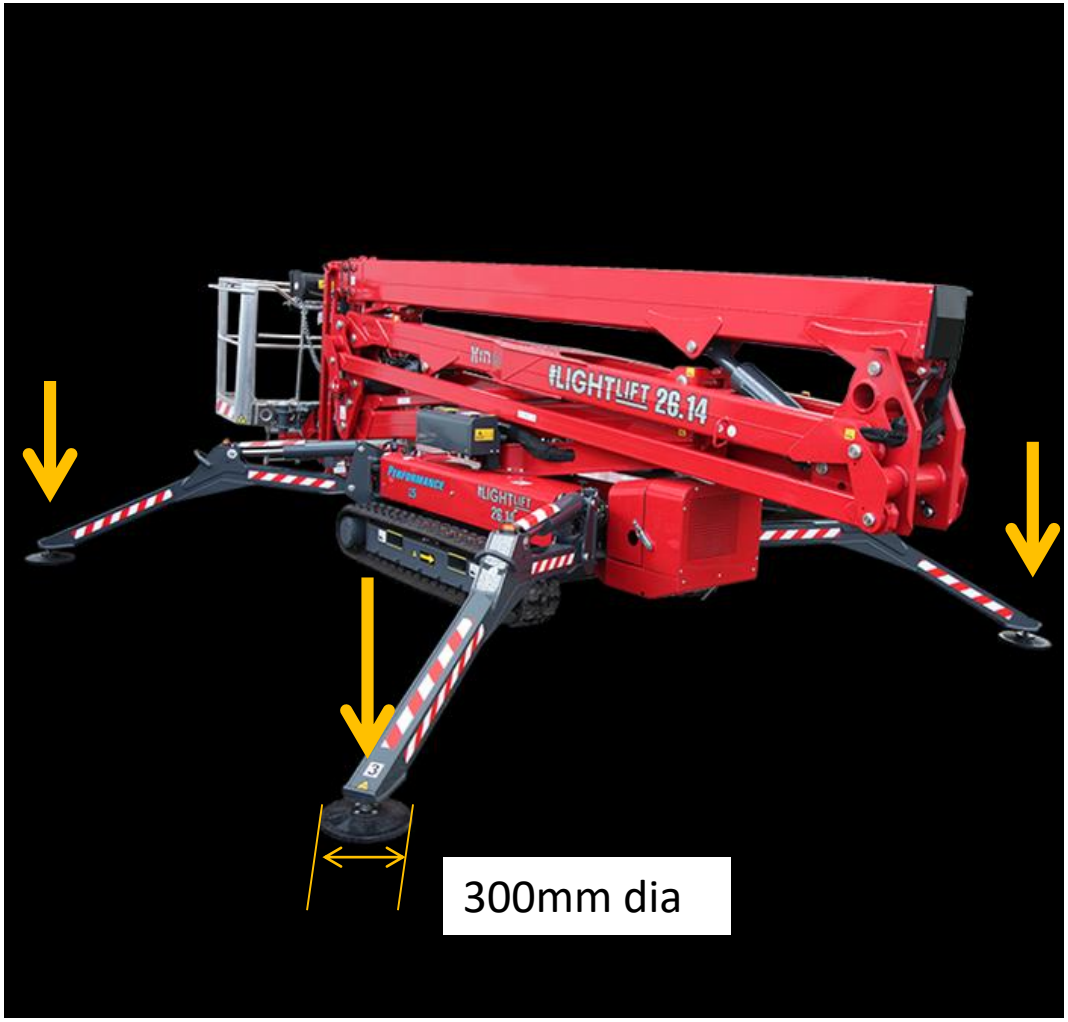
Concentrated surface pressure CSP

CSP is the force that is concentrated it is the most accurate way of measuring point loadings and Hinowa recommend this figure.

E.G. Model 2614
30cm dia foot pad area = 706.85cm2
Reaction 3124daN

3124/706.85 =4.419 (4.42) daN/cm2

To convert Decca N (daN) to KN/M2 (kilo Newton's per metre square Times by 100)
E.G.
4.42 x 100 = 442KN/M2



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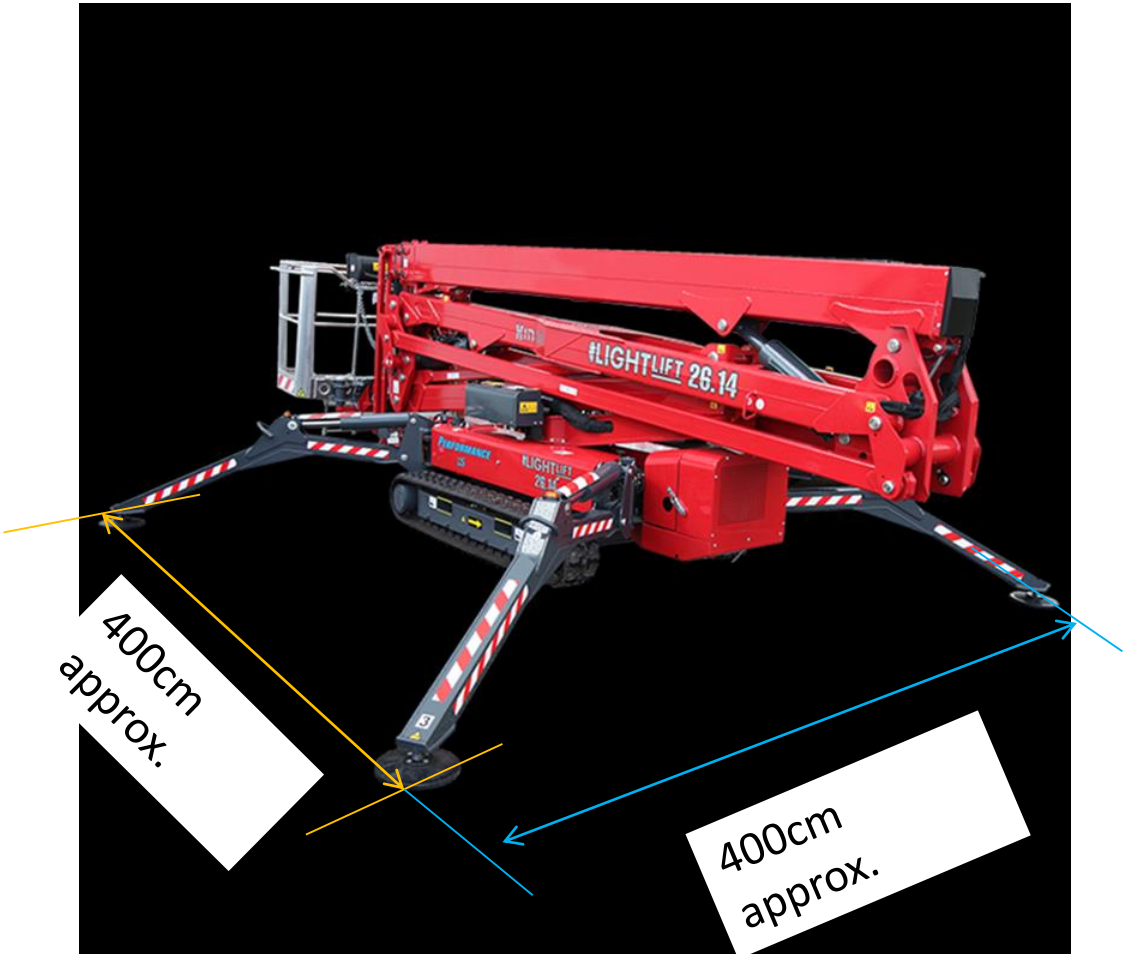
General surface pressure GSP

GSP is a general load over an area many shopping centres use this measurement also other access platform manufactures, Hinowa don't consider this to be accurate.

E.G. machine weight (model 2614 diesel) 4365Kg
Base area 4mtr x 4mtr =16 mtr/2
4365/16 = 272daN/M2
(To convert daN Decca Newton's to KN Kilo Newton's Divide by 100)
272/100 =2.73KN/M2



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Point Loadings Conclusion

1. CSP is accurate
2. CSP is the choice of Hinowa
3. You must understand the value of the point loadings you have been Given CSP or GSP
4. The values in this Guide are for example only you must check the values for your specific machine
5. If in doubt check with you Architect