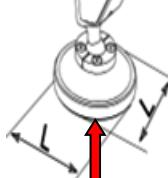
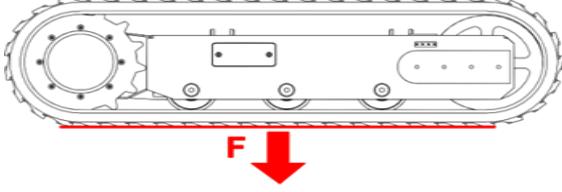
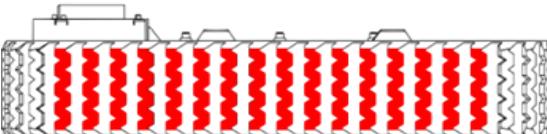


Pressures and Force:

Stable ground

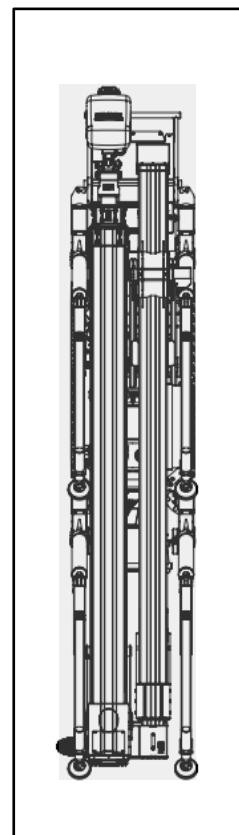
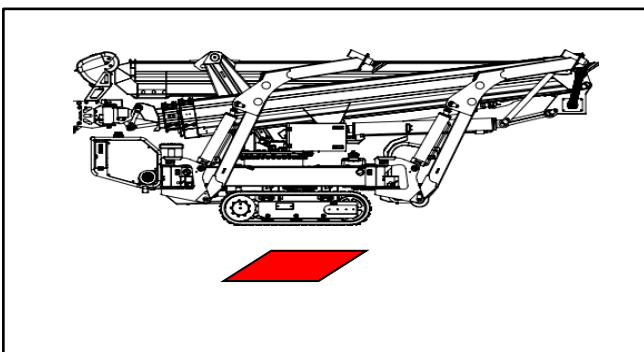
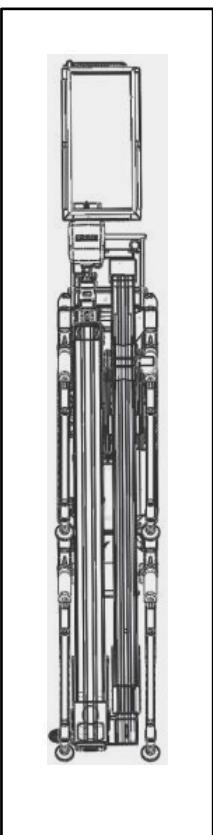
<b>I. Force Impact</b>		
<b>1. Machine Effect on Floor Surface Material - Outriggers</b>		
<b>Maximum Force on Floor Material under single outrigger (fully loaded machine with max basket capacity)</b>	23.7 kN 5328 lb force	
Total area of a single outrigger foot (based on foot diameter of 175mm)	240 cm <sup>2</sup> 37.2 sq in	
Max. ground pressure (force / area of foot)	98.7 N/cm <sup>2</sup> 143.1 psi	
Required synthetic underplate for outrigger (max psi reduced when using underplate)		
40cm x 35cm (15.8x13.8in), 2911 / 0349 65cm x 22cm (25.6x8.6in), 2911 / 0456 70cm x 22cm (27.5x8.6in), 200148	16.9 N/cm <sup>2</sup> 16.5 N/cm <sup>2</sup> 15.3 N/cm <sup>2</sup>	24.5 psi 23.9 psi 15.3 psi
<b>2. Machine Effect on Floor Surface Material – Tracks</b>		
Max. load under one track (machine weight / 2) (2980kg / 2)	14.6 kN / 3282 lb force	
Crawler area in contact with surface	600 cm <sup>2</sup> 93 sq in	
Max. ground pressure	24.3 N/cm <sup>2</sup> 35.2 psi	
 35.2 psi		

## II. Live Load (Weight and Pressure) Impact on Structure

(The Machine Live Load over projected area of machine.)

### 1. Area load in transport position (Unloaded basket)

Area in transport position (projected area with basket)	6.4 m <sup>2</sup>	68.8 sq ft
Area in transport position (projected area without basket)	5.0 m <sup>2</sup>	53.8 sq ft
Machine loading in transport position	29.2 kN	6564 lb force
Live Load with basket	4.5 kN/m <sup>2</sup>	94 psf
Live Load without basket	5.8 kN/m <sup>2</sup>	121 psf



Track dimension is 8" wide x 57" long

or 456 square inches x 2 = 912 sq in.

912 sq in = 6.33 sq ft

6585 lbs / 6.33 = 1040 psf

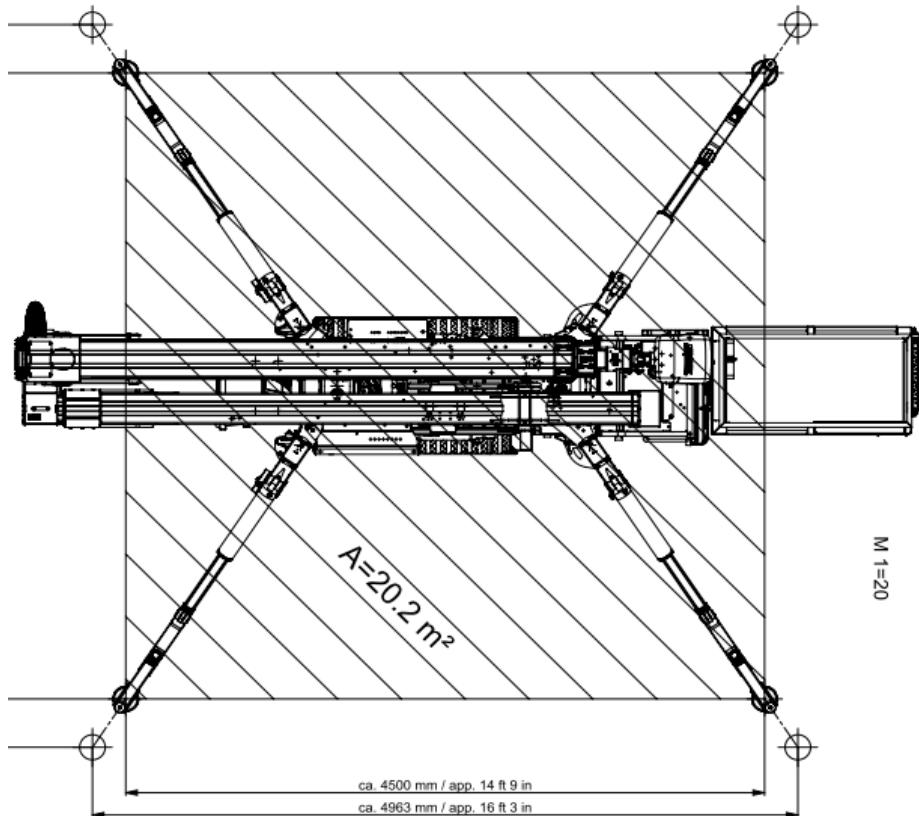
This calculation is only for dead load on track surface and not the live load effect over the entire area the machine would operate on.

with Basket  
94 psf

without Basket  
121 psf

## 2. Area pressure in working position

Area in working position	20.2 m <sup>2</sup>	217.3 sq ft
Machine loading in working position (with full load in basket)	31.7 kN	7136 lb force
Area pressure (Live Load)	1.56 kN/m <sup>2</sup>	32.8 psf



$2980 \text{ kg} + 250 \text{ kg} = 3230 \text{ kg}$  (machine weight + loaded basket)  
 $3230 \times 9.81 / 20.2 = 1568$  or  $1.56 \text{ kN/m}^2$   
 $6585 \text{ lbs} + 551 \text{ lbs} = 7136 \text{ lbs}$     $7136 / 217.3 = 32.8 \text{ psf}$