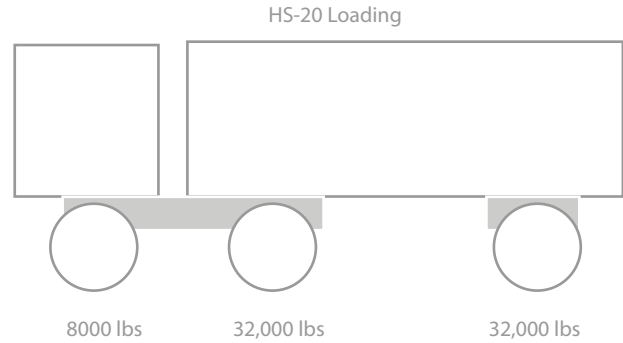
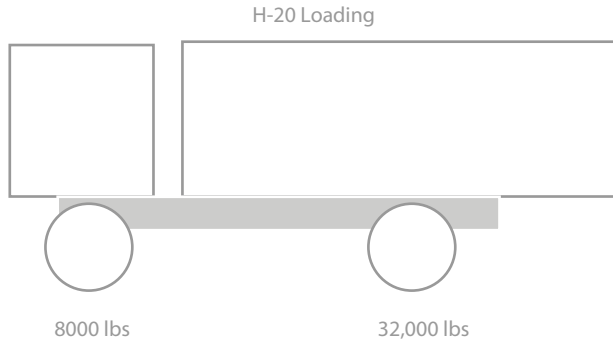


# H-20 and HS-20 loading



## Dynamic Load Sample Calculation

Wheel load =  $W_L = 16,000$  lbs (32,000 lb axle / 2)  
 Dynamic Force =  $F_d = 1.2$  (20% greater than static force)  
 Spread Area =  $A = 1496$  si (12" cover w/45 degree angle)  
 Weight of base =  $d_y = 0.97$  psi (12" road base @ 140 lbs/cf)

$$\sigma_{va} = (W_L \times F_d / A) + d_y$$

$$\sigma_{va} = (16,000 \text{ lbs} \times 1.2 / 1496 \text{ si}) + 0.97 \text{ lbs}$$

$$\sigma_{va} = 13.8 \text{ psi}$$

**13.8 psi (95 kPa) on Rainstore3**

## Surface Pressure

32,000 for the rear axle

32,000 lbs / 2 tires per rear axle = 16000 lbs

200 square inches contact\* (20" x 10")

16000 lbs / 200 sq inches = 80 psi

**80 psi (552 kPa) static**

Rainstore3 has been independently field and laboratory tested to meet H-20 Bridge Loading.

Grasspave2, Gravelpave2, and Slopetame2 can withstand 15,940 psi with fill material (109,906 kPa) or 2.29 lbs/sq ft. \*

\*Tested 3/2015.



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