

Critical Pick Lift Work Sheet

< Insert Crane Type Here >

Overall Track Width: _____
 Overall Track Length: _____
 Tread Width: _____

Description of Load:

Boom Length: _____

Power Lines

OSHA 1926.550(a)(15)(ii)

- 1 to 50 Kva = 10 ft.
- 51 to 200 Kva = 15 ft.
- 201 to 350 Kva = 20 ft.
- 351 to 500 Kva = 25 ft.
- 501 to 750 Kva = 35 ft.
- 751 to 1000 Kva = 45 ft.

Load Calculations:

Item Weight: _____

(Is Jib Stowed on Boom?) Jib: _____

Main Hook: _____

Headache Ball: _____

Wire Rope: _____

Spreader Bar: _____

Rigging: _____

Check 2 from Wind Loading: _____

Total Pick Weight:

Project: _____
 Date: _____
 Reviewers Statement:
 I have reviewed the information on this sheet and found it to be complete and accurate.
 Date: _____
 Signature: _____

Tandem Picks: Reduce Chart capacity by 25% and create a critical pick sheet for each crane. Cal OSHA Article 98 4994(d)

Wind Load Checks

(Good for winds of 20mph or less)

Check 1:
(Boom structure)

$$50 \sqrt{A} \leq \text{Rated Load at Radius } R$$

Check 1 Solution: _____ D.K. No Good

Check 2:

(Overturning Due to wind on load and boom)

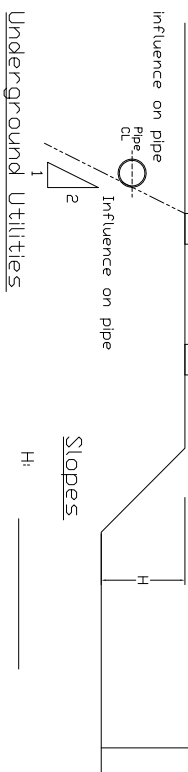
$$\frac{V^2}{300} A \sqrt{\frac{L^2}{R^2} - 1} + \frac{V^2 b}{1200} \left(\frac{L^2 - R^2}{R} \right) = \text{Load to be added to pick weight}$$

Check 2 Solution: _____

- V = wind velocity in mph
- b = width of boom (8 ft.)
- L = Length of boom in ft.
- R = Pick radius in ft.
- A = Area of load in sq.ft.

(Method taken from Shapiro, "Cranes and Derricks", Section 85)

Depth to top of pipe: _____
 Pipe Diameter: _____
 Pipe Wall Thickness: _____
 Pipe Material: _____
 Horizontal Dist. from tracks to pipe CL: _____



Pick Configuration:

Max. Radius to be used: _____

Chart Capacity at Radius: _____

Minimum Boom Angle: _____

Percent of chart capacity: _____

Set-Up Requirements:

Max. ground slope: _____

Max. Wind speed: _____

Min. Ground Bearing Capacity: _____

Estimated Ground Capacities (psf)
 (N = SPT blow count)

- Hard Silt (N<35): 8,000-10,000 psf
- Firm Ground (10KN<35): 5,000 psf
- Soft Ground (4KN<10): 3,000 psf
- Very soft (N<4): 2,000 psf