

Two Tower Configuration, Unguyed

Single Header Girder*, 38'-0" Tower Spacing

Tower Height (ft)	Tower Sections	3 Leg Configuration		4 Leg Configuration	
		12 ft. gage	14 ft. gage	12 ft. gage	14 ft. gage
59	1	1200	1300	2400	2600
97	2	1100	1200	2200	2400
135	3	900	1000	1900	2200
173	4	700	800	1700	1900
211	5	500	600	1400	1600
249	6	**	**	1100	1300

* Shaded areas require (2) header girders minimum

** Out-of-service wind load is too great for this configuration

Two Tower Configuration, Guyed - (2) Guys per Tower

Double Header Girder*, 38'-0" Tower Spacing, 12 ft. gage

Tower Height (ft)	Tower Sections	4 Leg Tower	Guy Load	3 Leg Tower	Guy Load
59	1	3200	170	1200	104
97	2	3200	169	1200	102
135	3	3200	172	1100	95
173	4	3100	171	1000	88
211	5	3100	173	1000	90
249	6	3100	178		
287	7	3000	181		
325	8	2900	184		
363	9	2800	188		
401	10	2600	175		

Notes:

- Lifted load capacities & guy anchor loads are given in short Tons (1 Ton = 2000 lbs)
- Gross lifting capacity includes the weight of the vessel plus all lifting strand, spreader beams, swivels, etc.
- Tables do not qualify existing fleet of Bigge box header girders (Kaiser & Fought)
- Vertical live load is assumed to be shared equally between two towers.
- Job specific tower capacities shall be verified by Engineering.
- Foundations shall be designed for site specific conditions.
- Tower height is from top of foundation to underside of header girder.
- Design criteria (two tower system):

Dead Load allowance for headers, jacks, jack support beams, power packs, etc. = 150 ton

In service design wind speed = 45 mph (25 mph w/o vessel tailing device engaged)

Out of service design wind speed = 90 mph (no vessel attached)

Vertical Impact Load allowance = 5% of lifted load

Max. strand jack inclination = 1 °

Guy anchor pretension = 75 tons

Guy anchor: strand jack model HSSL235 (235 Ton capacity)

- Refer to LTS Design Basis document for additional, detailed information.