

ES-201 Statics

Computer Problem Chapter 2

You are the Field Engineer assigned to a tank installation project at your company. You have hired a contractor with a crane to move the 12' diameter x 25' tall 7500lb tank into position. When you arrive on site you find the contract has neglected to bring the "Strongback" lifting device you requested for the lift. As the project is time sensitive you will need to come up with a solution to keep the project moving forward. You call your maintenance crew and they have several lifting straps available (seen in the table below). When using lifting straps, in the configuration seen below, force in the x-direction will be generated that could cause the tank to collapse. The tank can withstand a 1000lb loading in the x-direction. Please select the appropriate straps that will keep the tank from collapsing while still being strong enough to lift the tank. There are at least two of every strap listed.

Lifting Straps			
Length	Capacity		
	8	2500	3500
10	2500	3500	4000
15	2500	3500	4000
20	2500	x	x
25	x	3500	x
30	x	x	4000

