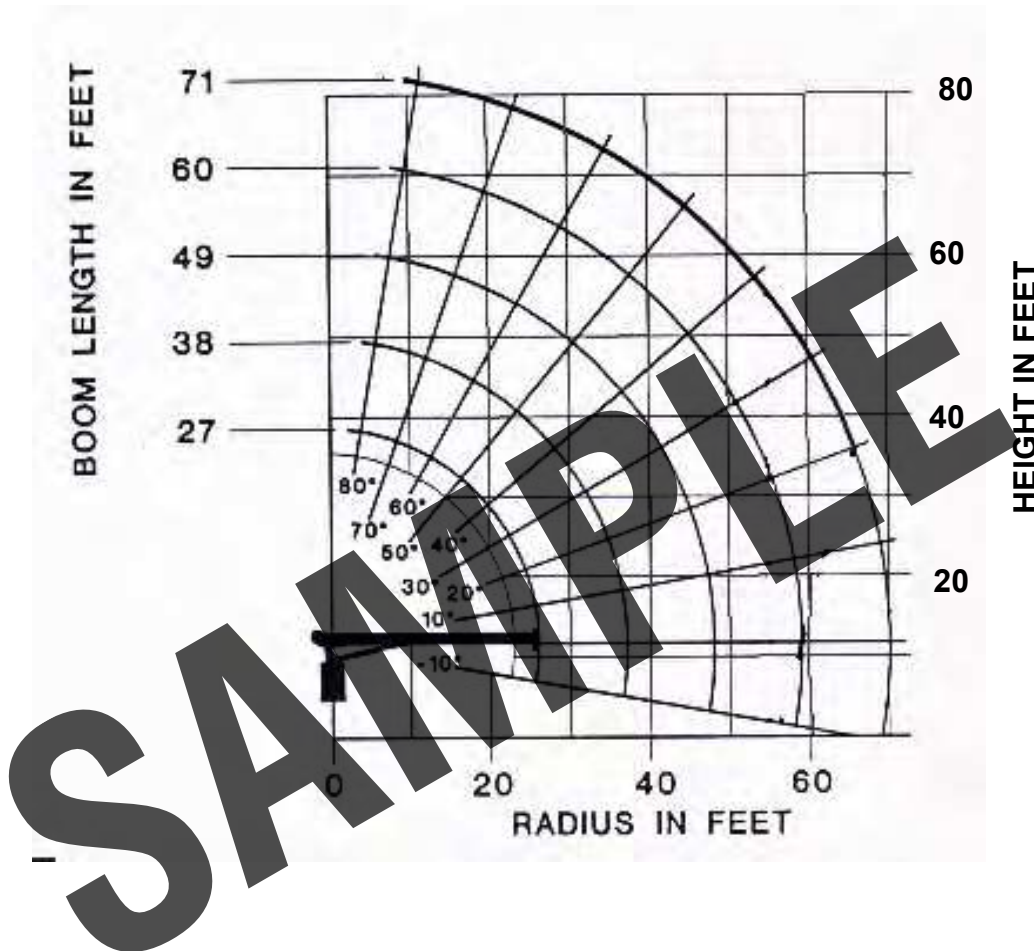


LOAD CHART EXERCISE

Use the load chart below for the load chart exercises



LOAD RADIUS (FEET)	LOADED BOOM ANGLE	27FT BOOM (LBS)	LOADED BOOM ANGLE	38FT BOOM (LBS)	LOADED BOOM ANGLE	49FT BOOM (LBS)	LOADED BOOM ANGLE	60FT BOOM (LBS)	LOADED BOOM ANGLE	71FT BOOM (LBS)	RATED LOAD DEDUCTIONS (LBS)
10	67	17,900	74.5	16,100	78.5	14,900					(LBS)
12	62.5	15,400	71.5	13,900	76	12,800	79	11,800			DOWNHAUL WEIGHT = 150
14	57	13,700	68	12,200	73.5	11,200	77	10,400	79.5	10,000	
16	52	12,300	64.5	10,900	71	9,900	75	9,200	77.5	8,800	
20	39.5	10,000	57	9,000	66	8,200	71.5	7,600	70.5	7,200	ONE SHEAVE BLOCK = 200
25	17	7,600	49	7,500	60	6,800	66.5	6,200	70.5	5,800	
30			37.5	6,300	53	5,700	61	5,200	66	4,900	
35			21	5,000	44.5	4,900	55	4,500	61.5	4,200	TWO SHEAVE BLOCK = 355
40					35	4,200	49	3,900	56.5	3,600	
45					22	3,500	42	3,300	51.5	3,150	
50							34	2,900	46	2,750	STOWED JIB = 500
55							23	2,500	40	2,400	
60									33	2,100	
65									23.5	1,750	
70									4	1,100	
	0	6,000	0	3,800	0	2,400	0	1,550	0	950	

LOAD CHART WORKSHEET

Description of Job:

Description of Rigging:

Total Combined Weight:

Load Weight: _____

Hook, Headache Ball, Block Weight: _____

Stowed Jib Weight: _____

Additional Rigging Weight: _____

Total Weight _____

Minimum Distance From Boom Tip to Bottom Of Load:

A-2-B, Hook, Flexibility: _____

Load Height: _____

Rigging Height: _____

Total: _____

Minimum Boom Tip Height:

Minimum distance From Boom Tip to Bottom of Load: _____

Height of Building: _____

Total: _____

Minimum Radius:

Center of Rotation to Outrigger: _____

Outrigger to Center of Load: _____

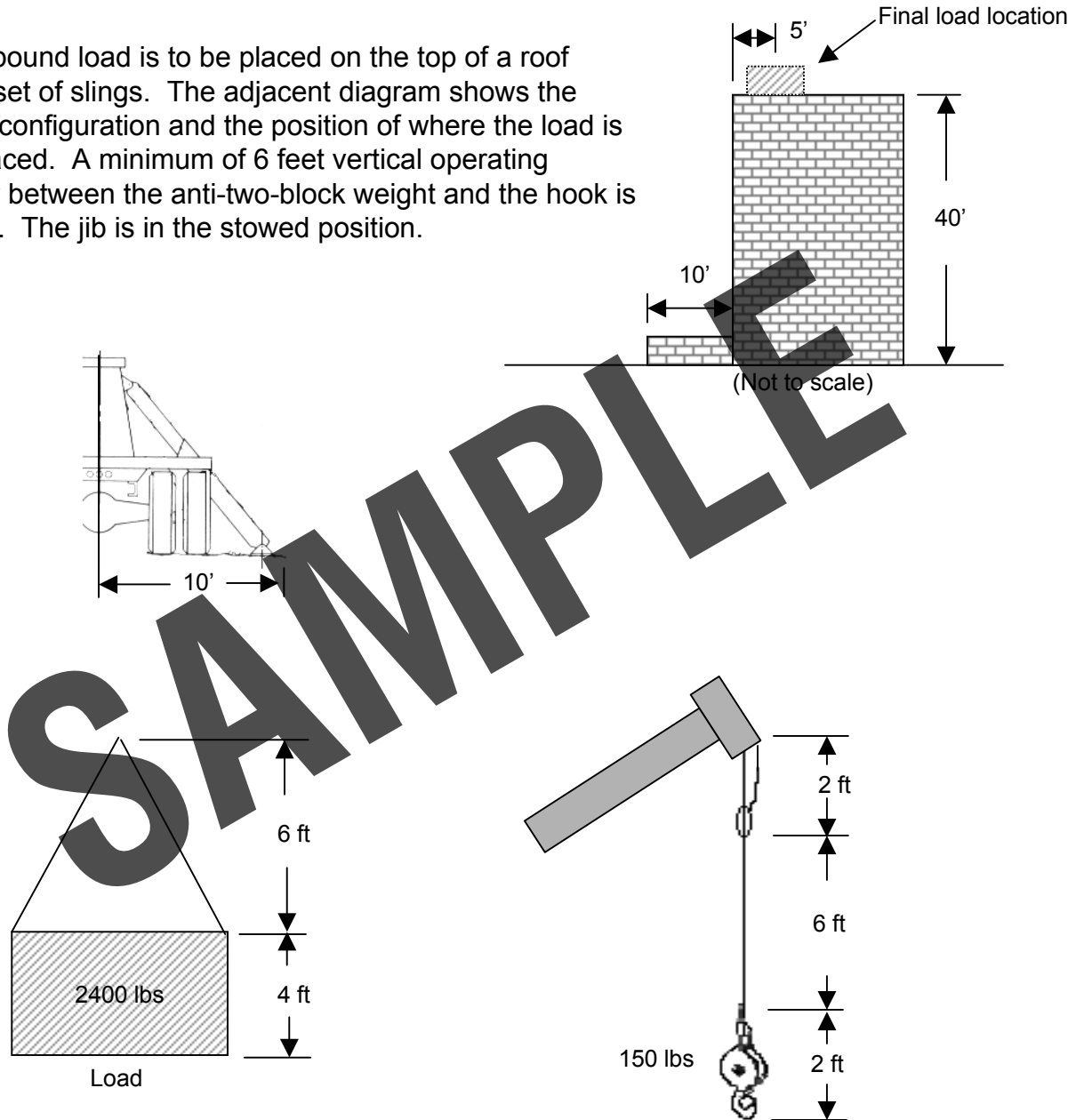
Minimum Radius: _____

Is Load Within Boom Truck Capacity per Load Chart? _____

LOAD CHART EXERCISE #1

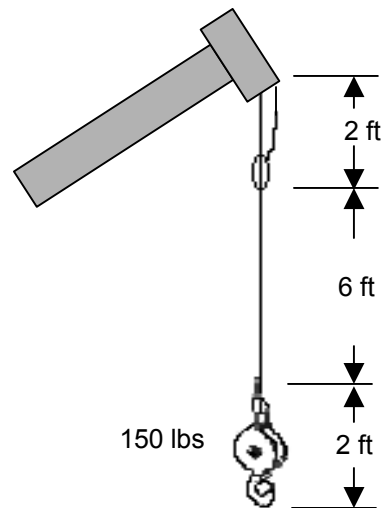
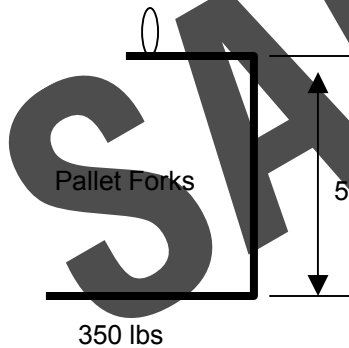
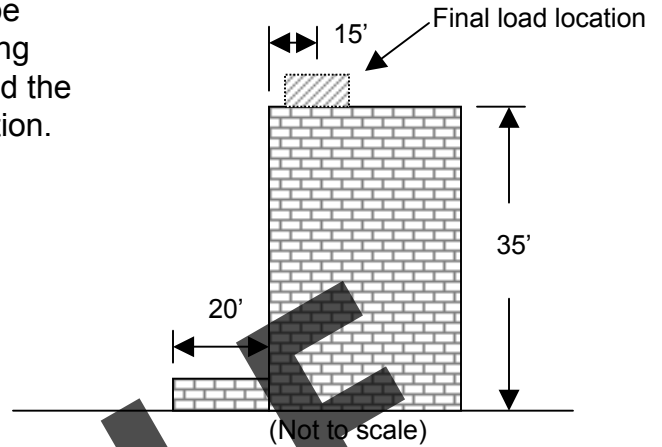
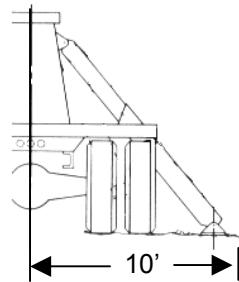
NAME: _____
DATE: _____

A 2400 pound load is to be placed on the top of a roof using a set of slings. The adjacent diagram shows the building configuration and the position of where the load is to be placed. A minimum of 6 feet vertical operating flexibility between the anti-two-block weight and the hook is required. The jib is in the stowed position.



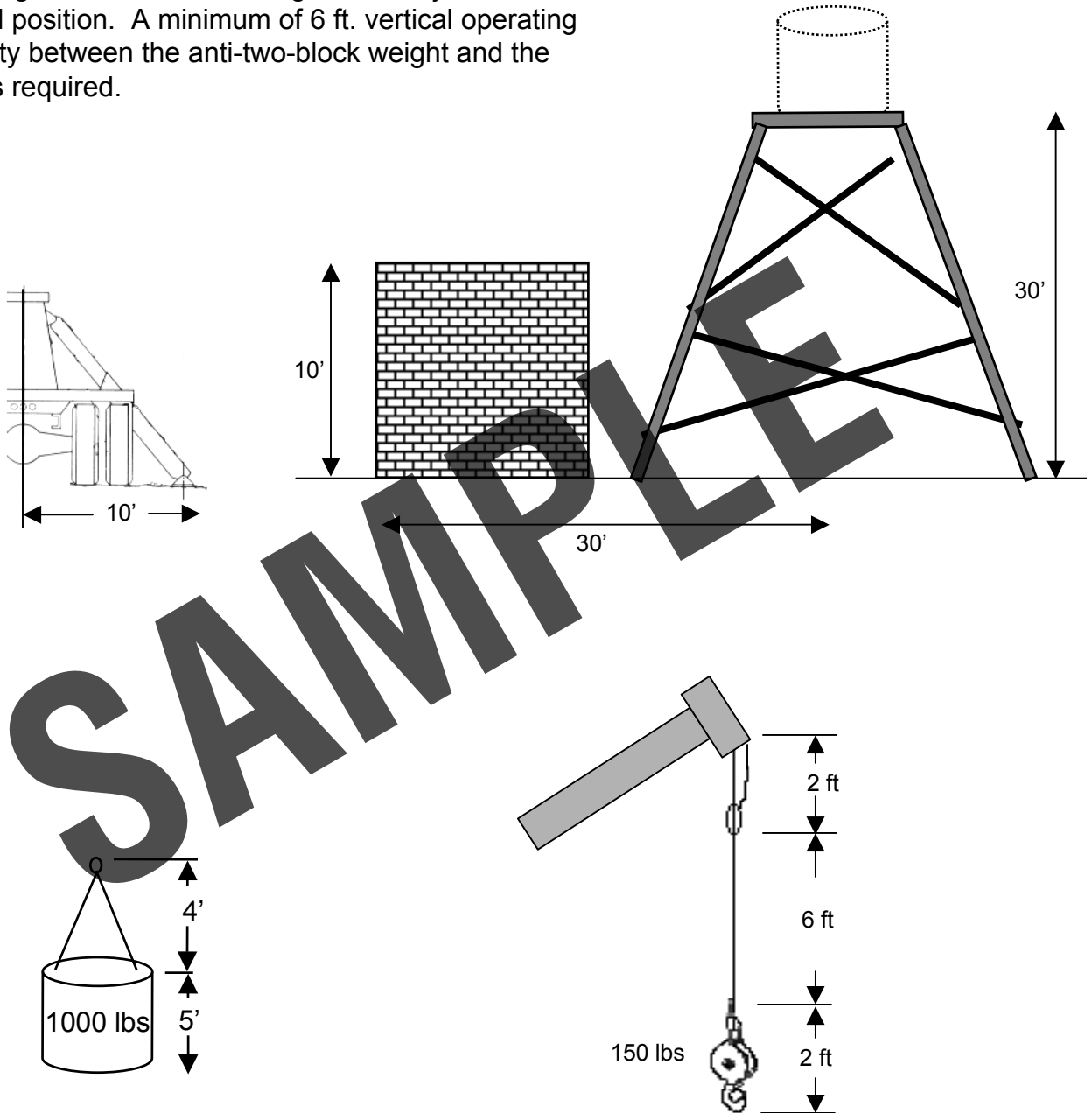
LOAD CHART EXERCISE #2

A 2400 pound load is to be placed on a roof using a set of pallet forks. The diagram below shows the building and the position where the load is to be placed. A minimum of 6 vertical feet of operating flexibility between the anti-two-block weight and the hook is required. The jib is in the stowed position.



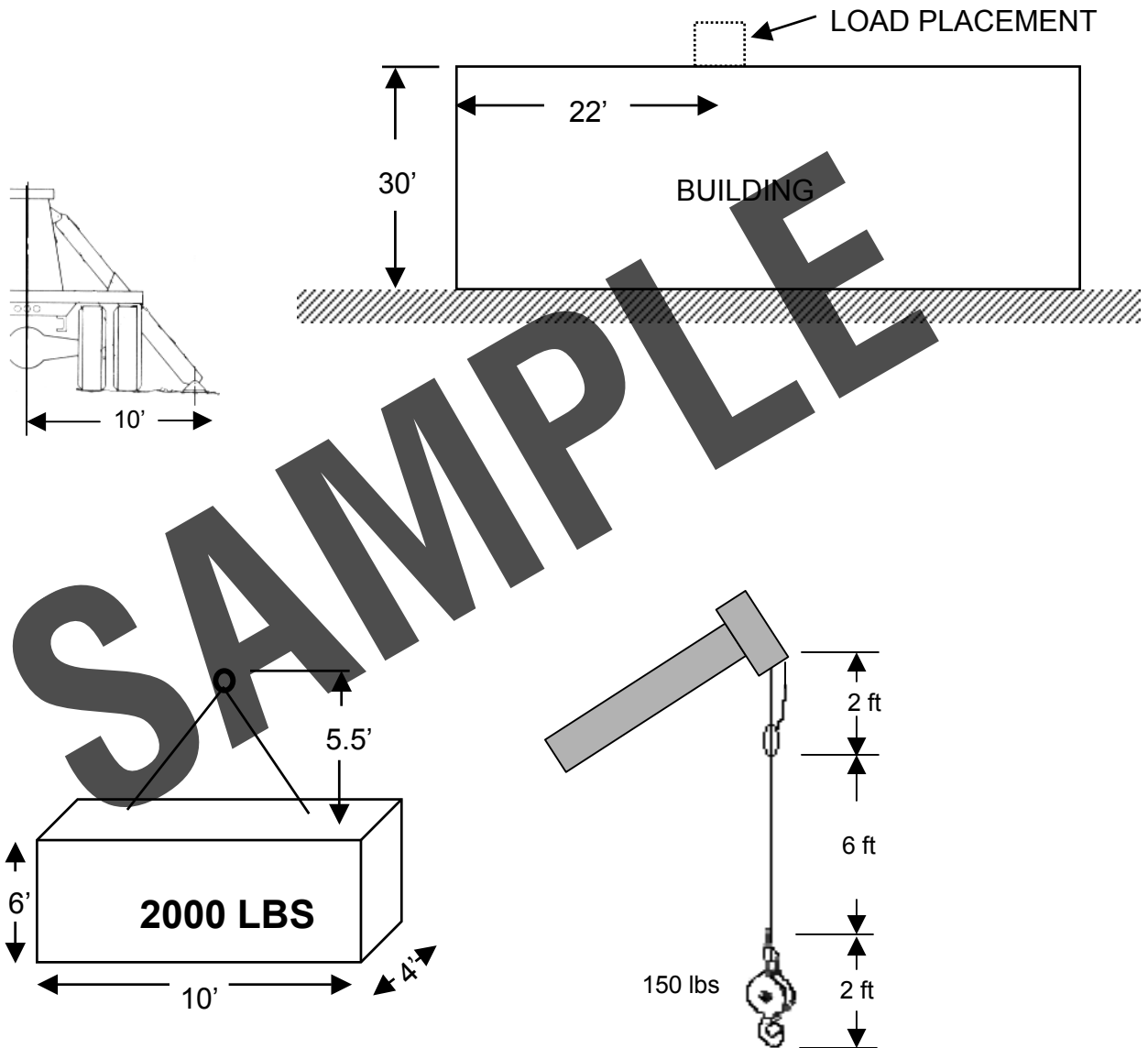
LOAD CHART EXERCISE #3

A 1000 pound tank is to be placed on top of a tower with slings as shown in the diagram. The jib is in the stowed position. A minimum of 6 ft. vertical operating flexibility between the anti-two-block weight and the hook is required.



LOAD CHART EXERCISE #4

A 2000 pound tank is to be placed on top of a building with slings as shown in the diagram. The jib is in the stowed position. A minimum of 6 ft. vertical operating flexibility between the anti-two-block weight and the hook is required.



LOAD CHART EXERCISE # 1

ANSWERS

Total Combined Weight

- 2400 lbs (load)
 - 150 lbs (hook)
 - 500 lbs (stowed jib)
- 3050 lbs total

Minimum Distance From Boom Tip To Bottom Of Load

- 10 ft (A2B, hook, 6ft flexibility)
 - 4 ft (load height)
 - 6 ft (rigging height)
- 20 ft total

Minimum Boom Tip Height

- 20 ft (Min. dist. from boom tip to bottom of load)
 - 40 ft (Height of building)
- 60 ft total

Minimum Radius

- 10 ft (Crane center of rotation to outrigger)
 - 10 ft (Porch)
 - 5 ft (Center of load from building edge)
- 25 ft minimum radius

Solution:

60 ft boom length (from range diagram)

25 ft radius

6,200 lbs maximum capacity (from load capacity chart)

Lift can be made with this set up.

LOAD CHART EXERCISE # 2

ANSWERS

Total Combined Weight

- 2600 lbs (load)
 - 350 lbs (pallet forks)
 - 150 lbs (hook)
 - 500 lbs (stowed jib)
- 3600 lbs total

Minimum Distance From Boom Tip To Bottom Of Load

- 10 ft (A2B, hook, 6ft flexibility)
 - 5 ft (pallet fork height)
- 15 ft total

Minimum Boom Tip Height

- 15 ft (Min. dist. from boom tip to bottom of load)
 - 35 ft (Height of building)
- 50 ft total

Minimum Radius

- 10 ft (Crane center of rotation to outrigger)
 - 20 ft (Porch)
 - 15 ft (Center of load from building edge)
- 45 ft minimum radius

Solution:

60 ft boom length (from range diagram)

45 ft radius

3,300 lbs maximum capacity (from load capacity chart)

Lift can not be made with this set up.

LOAD CHART EXERCISE # 3

ANSWERS

Total Combined Weight

- 1000 lbs (load)
 - 150 lbs (hook)
 - 500 lbs (stowed jib)
- 1650 lbs total

Minimum Distance From Boom Tip To Bottom Of Load

- 10 ft (A2B, hook, 6ft flexibility)
 - 5 ft (load height)
 - 4 ft (rigging height)
- 19 ft total

Minimum Boom Tip Height

- 19 ft (Min. dist. from boom tip to bottom of load)
 - 30 ft (Height of building)
- 49 ft total

Minimum Radius

- 10 ft (Crane center of rotation to outrigger)
 - 30 ft (Edge of building to center of tower)
- 40 ft minimum radius

Solution:

60 ft boom length (from range diagram)

40 ft radius

3,900 lbs maximum capacity (from load capacity chart)

Lift can be made with this set up.

LOAD CHART EXERCISE # 4

ANSWERS

Total Combined Weight

- 2000 lbs (load)
 - 150 lbs (hook)
 - 500 lbs (stowed jib)
- 2650 lbs total

Minimum Distance From Boom Tip To Bottom Of Load

- 10 ft (A2B, hook, 6ft flexibility)
 - 6 ft (load height)
 - 5.5 ft (rigging height)
- 21.5 ft total

Minimum Boom Tip Height

- 21.5 ft (Min. dist. from boom tip to bottom of load)
 - 30 ft (Height of building)
- 51.5 ft total

Minimum Radius

- 10 ft (Crane center of rotation to outrigger)
 - 22 ft (Center of load from building edge)
- 32 ft minimum radius

Solution:

71 ft boom length (Required to clear building top edge)
35 ft radius
4,200 lbs maximum capacity (from load capacity chart)
Lift can be made with this set up.