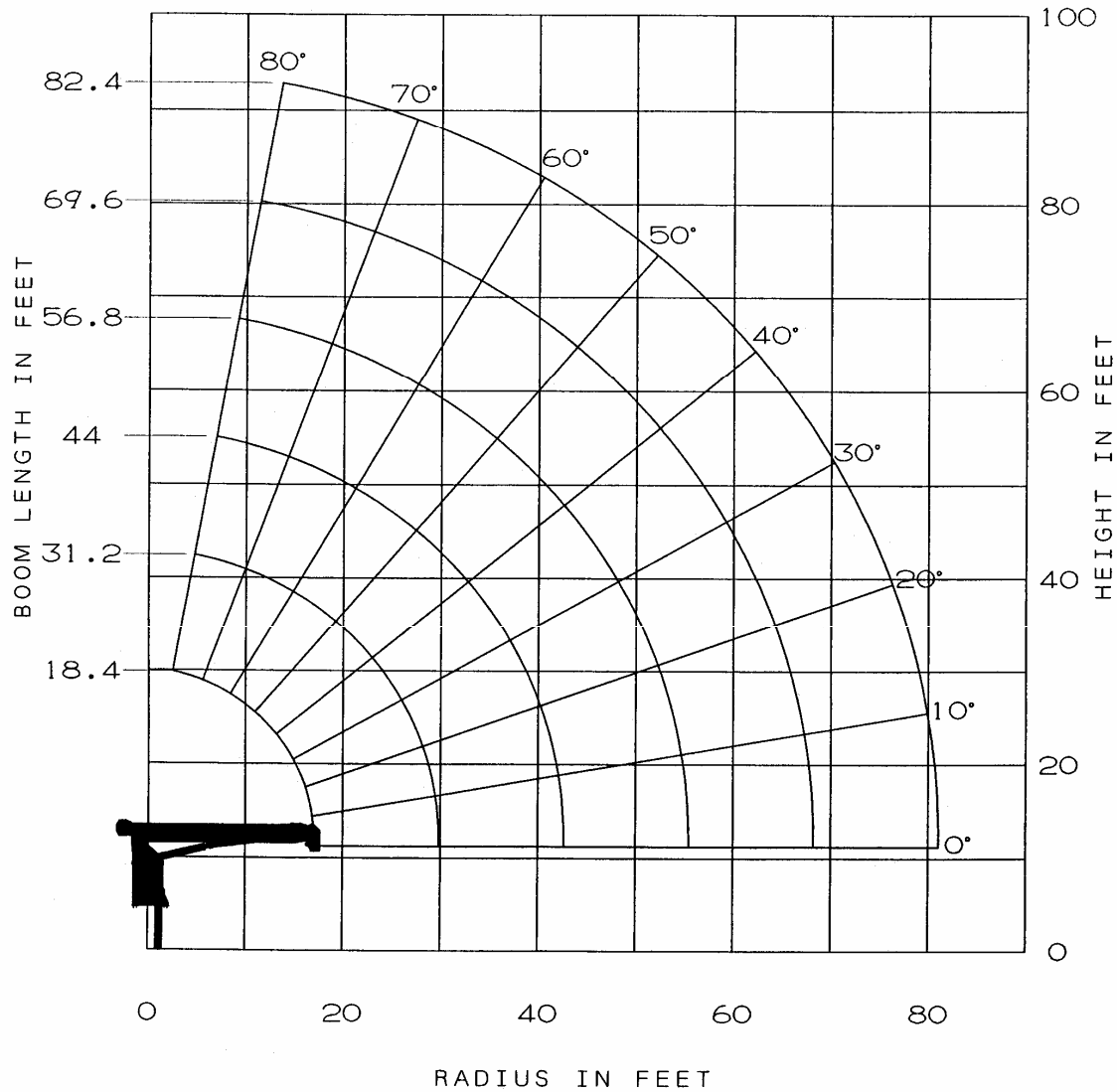




LIFTING CHARTS - Boom Trucks

TADANO MODEL TM1882 - 18 TON CAPACITY

## WORKING RANGE CHART









**NOTE :**

The above lifting heights and boom angles are based on a straight (unladen) boom, and allowance should be made for boom deflection obtained under laden condition.

# STERLING CRANE

## RATED LIFTING CAPACITIES (IN POUNDS)

Load Radius (ft.)	18.4 ft. Boom 			31.2 ft. Boom 			44 ft. Boom 		56.8 ft. Boom 		69.6 ft. Boom 		82.4 ft. Boom 						
	Loaded Boom Angle	Outriggers Extended			Loaded Boom Angle	Outriggers Extended			Loaded Boom Angle	Outriggers Extended		Loaded Boom Angle	Outriggers Extended	Loaded Boom Angle	Outriggers Extended				
		Max.	Mid.	Min.		Max.	Mid.	Min.		Max.	Mid.		Max.		Max.				
5	75°	36,000	30,000	22,000															
8	64°	23,000	23,000	15,200	76°	17,450	17,450	13,200											
10	57°	19,350	19,350	10,100	73°	17,450	17,450	8,750	79°	17,450	17,450								
12	48°	16,550	16,550	7,400	69°	15,600	15,600	6,350	76°	14,650	14,650	80°	9,050	9,050					
14	38°	14,550	14,550	5,650	64°	13,650	13,650	4,800	73°	12,750	12,750	78°	9,050	9,050					
16	24°	13,000	12,700	4,500	60°	12,300	11,600	3,750	70°	11,500	11,000	76°	9,050	9,050					
20					51°	10,000	7,700	2,350	65°	9,400	7,700	72°	8,450	7,700					
25					36°	8,100	4,950	1,300	57°	7,600	4,950	66°	6,900	4,950					
30									48°	6,250	3,350	61°	5,650	3,350					
35									38°	5,050	2,400	54°	4,800	2,400					
40									23°	3,800	1,650	47°	3,800	1,650					
45												39°	3,400	1,150					
50												29°	2,700	900					
55												41°	2,300						
60												33°	2,000						
65												22°	1,600						
70																			
75																			
80																			
	0°	8,400	8,400	4,050	0°	3,950	3,400	600	0°	1,850	1,300	0°	1,100	700	0°	600	0°	350	
		(16.89ft.)				(29.69ft.)				(42.48ft.)			(55.28ft.)			(68.07ft.)			(81.33ft.)

# STERLING CRANE

## TRUCK CHASSIS DATA (TRACTOR MOUNT)

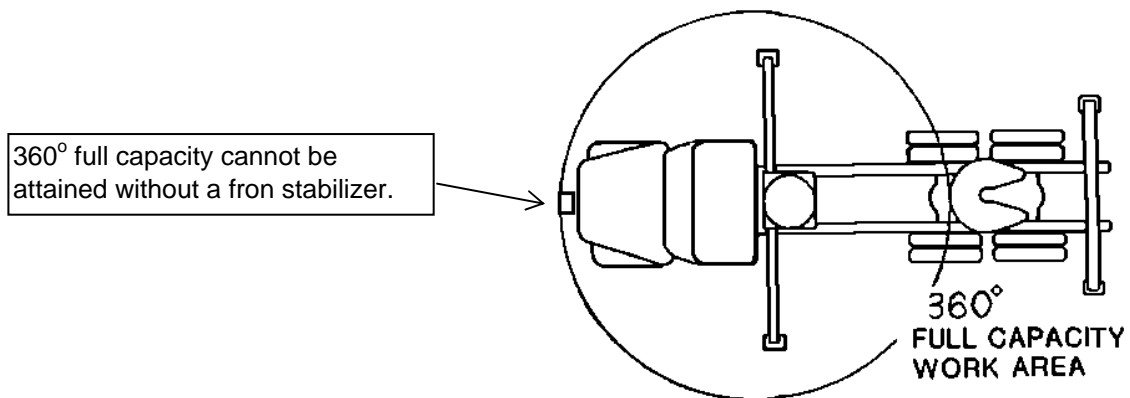
### recommended requirements for TM1882, full capacity 360° around the truck.

This mount requires front stabilizer, rear stabilizers and additional counterweight in the underside of the tractor frame for full capacity 360° around the truck

Gross Axle Weight Rating(GAWR),front	approx. 20,000 lbs
Gross Axle Weight Rating(GAWR),rear	approx. 34,000 lbs
Gross Vehicle Weight Rating	approx. 54,000 lbs
Wheelbase(WB)	250 to 260"
Cab to axle	160 to 170"
Stability weight, front	10,800 lbs Min*
Stability weight, rear	11,500 lbs Min*
Frame Section Modulus(SM) under crane, spring hunger to spring hunger. 110,000 PSI steel	30 in <sup>3</sup> Min. per rail
Frame Section Modulus(SM) through the front spring area, 110,000 PSI steel	30 in <sup>3</sup> Min. per rail
Frame Section Modulus(SM) at the front stabilizer attachment point, 110,000 PSI steel	2 in <sup>3</sup> Min. per rail
Frame Section Modulus(SM) over rear stabilizers, 110,000 PSI steel	26 in <sup>3</sup> Min. per rail
PTO torque	Approx. 290 ft-lbs Min.
PTO revolution	Approx. 550 to 2,400 rpm.
Width for crane mounting	Approx. 4'7" Min.
Frame width (outside)	Approx. 3' Max.
Frame height (ground to frame top)	Approx. 3'6" Max. (Height of crane mounting base can be changed by combination of jack floats and crane bases)

\*Estimated axle scale weights prior to installation of crane and stabilizers for 85% stability. Include fifth wheel and counterweight.

The complete unit must be installed in accordance with factory requirements and a test performed to determine actual stability and counterweight requirements since individual truck chassis vary.



# STERLING CRANE

## CRANE SPECIFICATIONS

MAXIMUM LIFTING CAPACITY 36,000 lbs. @ 5' (5-part lines)

### BOOM

6-sectioned, fully powered partly synchronized telescoping boom of pentagonal box construction

Retracted length 18.4'

Extended length 82.3'

Extended speed 63.9' / 59 s

Elevation Elevated by a double-acting hydraulic cylinder

Elevation speed  $-7^{\circ}$  to  $80^{\circ}$  / 20 s

NOTE : Extended speed and elevation speed are calculated under the condition that the flow is 25 GPM

Boom point 2 sheaves

### WINCH

Hydraulic motor driven, Planetary gear speed reduction, provided with automatic brake

Single line pull 7,200 lbs.

Single line speed 250FPM (@ 3rd layer)

NOTE : Single line speed is calculated under the condition that the flow is 57 GPM

Wire rope

diameter x length 9/16" x 282'

breaking strength 30,100 lbs.

Hook block Swivel hook with safety latch for single line use  
- 7,000 lbs. capacity

### SWING

Hydraulic motor driven, Planetary gear speed reduction, Non-continuous  $375^{\circ}$  rotation on ball bearing slew ring

Swing speed  $375^{\circ}$  /38 s

# STERLING CRANE

## OUTRIGGERS

Hydraulically extended sliders and hydraulically extended jacks, Integral with crane frame

Extended width           Min. 7.15'  
                                  Mid. 13.1'  
                                  Max. 18.7'

## REAR STABILIZERS

Hydraulically extended jacks, Integral with chassis frame

Span                       7.38'

## HYDRAULICS

Hydraulic motor           For winch and swing  
Control valves            Multiple control valves with integral safety valve  
Hydraulic pump           3-section gear pump  
                                  Winch system : 32GPM (3,000PSI)  
                                  Boom and outriggers system : 25GPM (3,060PSI)  
                                  Swing system : 6.6GPM (1,750PSI)  
Reserve tank              74 Gallons capacity  
※PTO / mounting not included

## ELECTRICAL SYSTEM

Power supply            DC12V

## SAFETY DEVICES

Anti-two-block with alarm  
Hook safety latch  
Level gauge  
Hydraulic safety valves, check valves and holding valves  
Over load shutoff with load indicator  
  Load / Boom angle indication  
  Audible warning  
  External warning lamps

## BOOM REST

Behind cab, removable

## CRANE WEIGHT

Approx. 12,800 lbs. (crane bare)  
Approx. 15,700 lbs. (include all items (crane, tank, oil, front stabilizer, rear stabilizer, boom rest, hook, etc. ))

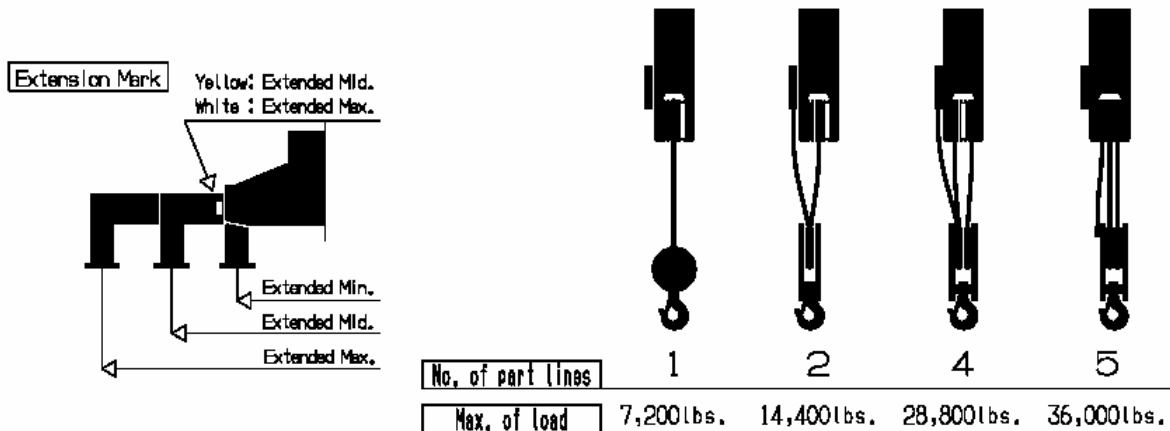
## OPTIONAL EQUIPMENT

Hook block - 36,000 lbs. capacity  
  2 sheaves, swivel type hook with safety latch  
Hook block - 14,000 lbs. capacity  
  1 sheave, swivel type hook with safety latch  
Front stabilizer (hydraulic extended jack)  
  Necessary for full capacity 360° around the truck

# STERLING CRANE

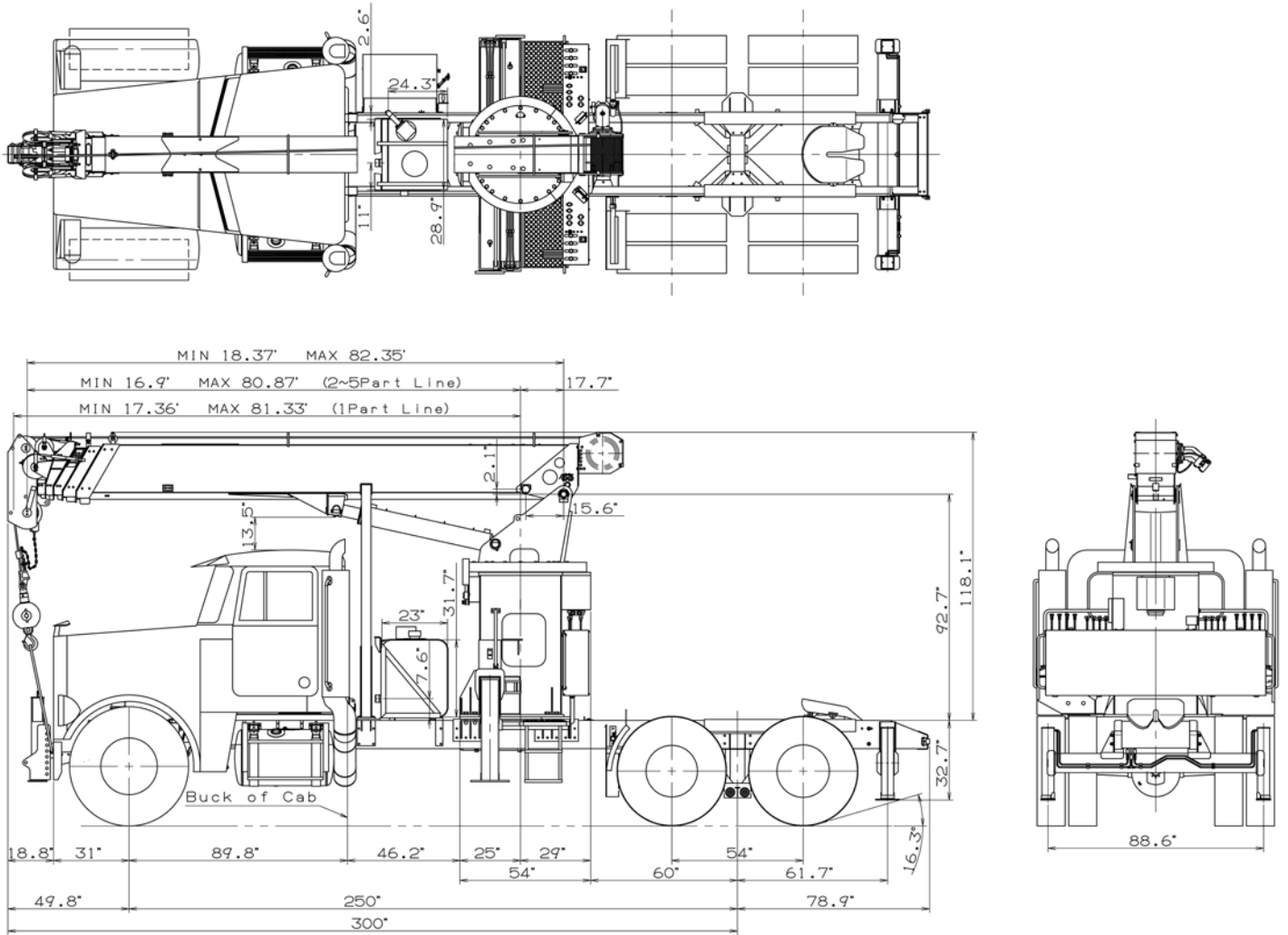
NOTE :

- 1 Rated lifting capacities on this chart show maximum allowable loads with outriggers properly extended on a firm surface and the crane leveled and mounted on a factory recommended truck. The rated lifting capacities in shaded areas are based on crane strength and others, on its stability (not to exceed 85% of tipping).
- 2 The weight of handling devices such as hook block, slings, etc., must be considered part of the load and must be deducted from the rated lifting capacities.
- 3 Weights of any accessories attached to the boom or loadline must be deducted from the rated lifting capacities.
- 4 The operator must reduce loads to allow for such factors as wind, ground conditions, operating speed and the effects of freely suspended loads such as boom deflection.
- 5 For full capacity 360° around the truck, the chassis requires the front stabilizer and additional counterweight in the underside of the bed.
- 6 For boom lengths or radius not shown, use the rated lifting capacity of next longer boom lengths or radius.
- 7 For boom lengths longer than 31.2 ft., extend outriggers to max. or mid.
- 8 For boom lengths longer than 56.8 ft., extend outriggers to max.
- 9 56.8 ft. boom means 1st mark on 4th boom section side plate is half visible.
- 10 69.6 ft. boom means 2nd mark on 4th boom section side plate is half visible.
- 11 Winch wire rope: diameter x length 9/16" x 282', breaking strength 30,100 lbs.
- 12 Keep at least 3 wraps of loadline on winch drum.
- 13 Maximum load for number of part lines is as shown below.



# STERLING CRANE

## DIMENSIONS



# STERLING CRANE

## DIMENSIONS

