

# TMS300B

40 TON CAPACITY  
34 ft. - 136 ft. BOOM

(POWER PINNED)  
85% OF TIPPING  
PCSA CLASS 10-114

## JIB CAPACITIES IN POUNDS 24 ft. JIB and 32 ft. EXT. Combination

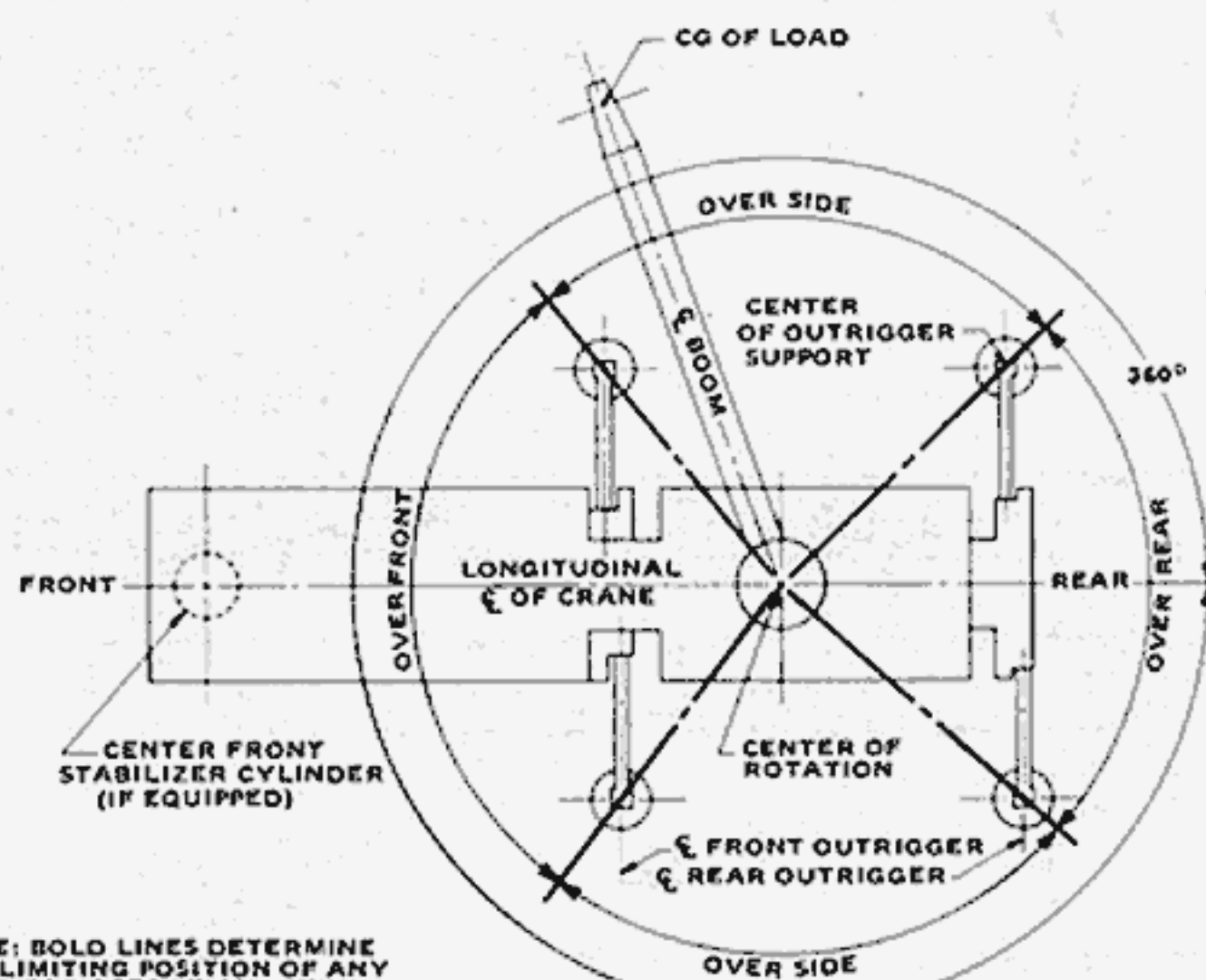
Main Boom Angle	Min. 5° Offset	17° Offset	Max. 30° Offset
76°	6,000	5,200	4,600
70	4,300	3,940	3,650
65	3,430	3,200	3,010
60	2,760	2,600	2,470
55	2,220	2,110	2,020

A6-829-0018231

### NOTES FOR JIB CAPACITIES

1. 24 ft. jib and 32 ft. boom extension combination may be used for single line lifting crane service only. Capacities are based on structural strength of 24 ft. jib and 32 ft. boom extension combination at given main boom angle regardless of main boom length. When lifting with 24 ft. jib and 32 ft. boom extension, capacities must not exceed structural capacity of jib combination at given main boom angle or stability capacity of applicable boom length listed in boom capacity chart for actual working radius, whichever is less. Capacities comply with structural requirements of SAE J-987 or SAE J-1063.
2. Maximum total length of boom including 32 ft. boom extension for purpose of erecting 24 ft. jib below 10° elevation is 92 ft.
3. **WARNING:** Operation of machine with heavier loads than the capacities listed is strictly prohibited. Machine tipping with jib occurs rapidly and without advance warning.
4. **24 ft. JIB WARNING:** For total boom length including 32 ft. boom extension greater than 92 ft. with 24 ft. jib in working position the boom angle must not be less than 50° since loss of stability will occur causing a tipping condition.
5. Lifting over front of machine with 24 ft. jib is strictly prohibited.  
(NOTE: Not applicable to units equipped with front outrigger jack)

### LIFTING AREA DIAGRAM



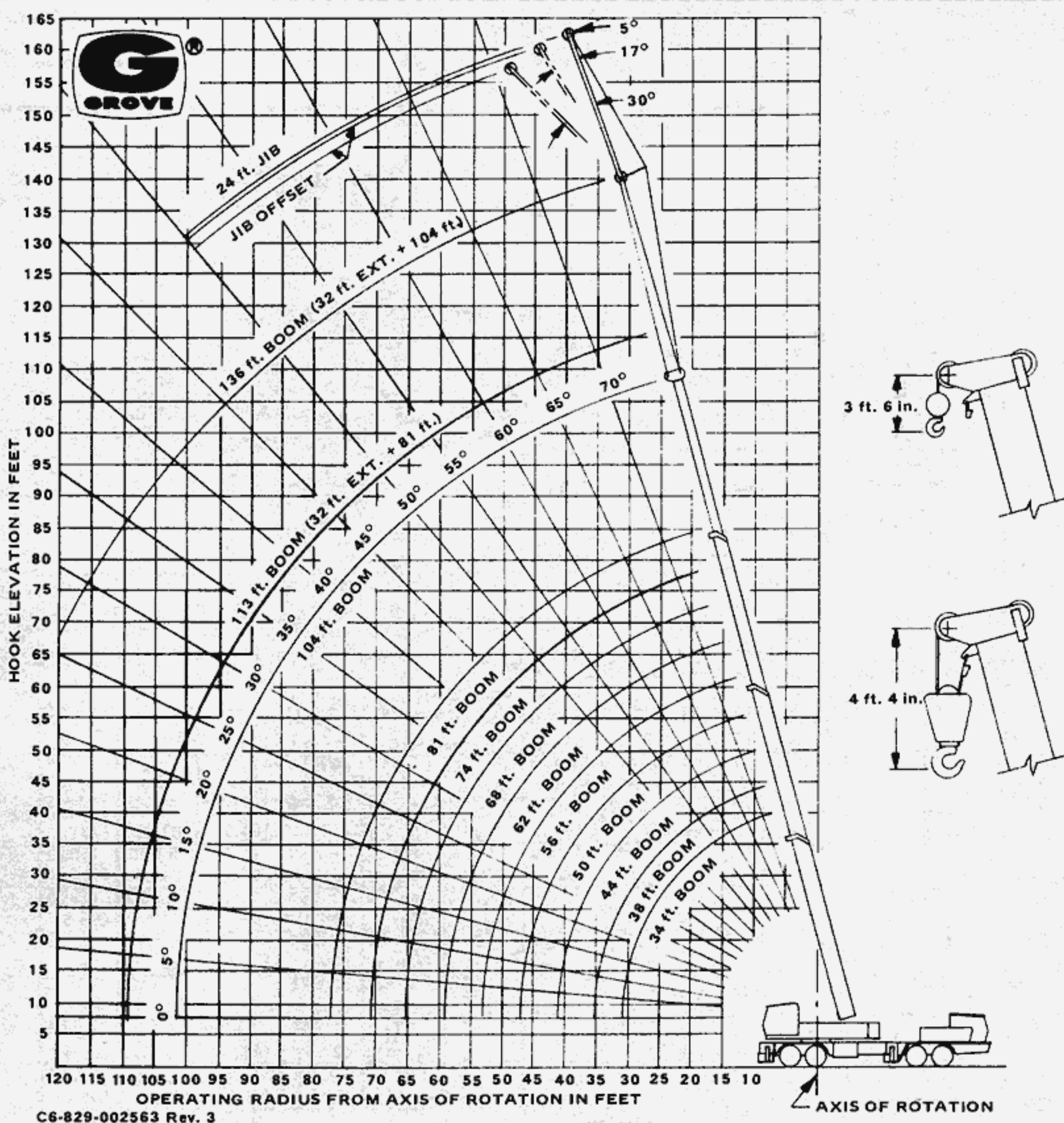
NOTE: BOLD LINES DETERMINE THE LIMITING POSITION OF ANY LOAD FOR OPERATION WITHIN WORKING AREAS INDICATED.

C6-829-005871



# GROVE® TMS300B

## RANGE DIAGRAM



## NOTES FOR LIFTING CAPACITIES

- Do not exceed any rated lifting capacity. Rated lifting capacities are based on freely suspended loads with the machine leveled and standing on a firm supporting surface. Ratings with outriggers are based on outriggers being extended to their maximum position and tires raised free of crane weight before extending the boom or lifting loads.
- Practical working loads for each particular job shall be established by the user depending on operating condition to include: the supporting surface, wind and other factors affecting stability, hazardous surroundings, experience of personnel, handling of load, etc. No attempt must be made to move a load horizontally on the ground in any direction.
- Operating radius is the horizontal distance from the axis of rotation before loading to the centerline of the vertical hoist line or tackle with loads applied.
- "On Rubber" lifting (if permitted) depends on proper tire inflation, capacity and condition. "On Rubber" loads may be transported at a maximum vehicle speed of 2.5 mi/hr (4 Km/hr) on a firm and level surface under conditions specified.
- Jibs may be used for lifting crane service only. Jib capacities are based on structural strength of jib or main boom and on main boom angle.
- Operation is not intended or approved for any conditions outside of those shown hereon. Handling of personnel from the boom is not authorized except with equipment furnished and installed by Grove Manufacturing Company.
- For clamshell or concrete bucket operation, weight of bucket and load must not exceed 80% of rated lifting capacities.
- Power-telescoping boom sections must be extended equally at all times. Long cantilever booms can create a tipping condition when in extended and lowered position.
- The maximum load which may be telescoped is limited by hydraulic pressure, boom angle, boom lubrication, etc. It is safe to attempt to telescope any load within the limits of rated lifting capacity chart.
- With certain boom and hoist tackle combinations, maximum capacities may not be obtainable with standard cable lengths.
- With certain boom and load combinations, raising of load with boom lift cylinders may not be possible. Operational safety is not affected by this condition.
- Keep load handling devices a minimum of 12 inches (30 cm) below boom head when lowering or extending boom.
- If actual boom length and/or radius is between values listed, use lifting capacity for the next longer rated length and/or radius.
- All load handling devices and boom attachments are considered part of the load and suitable allowances must be made for their combined weights.
- Operation of this equipment in excess of rating charts or disregard of the instructions is hazardous and voids the warranty and manufacturer's liability.

## WEIGHT REDUCTION FOR LOAD HANDLING DEVICES

32 ft. BOOM EXTENSION	
†STOWED	430 lbs.
†ERECTED	2,985 lbs.
24 ft. JIB & 32 ft. EXT COMB.	
†STOWED	479 lbs.
†ERECTED	7,210 lbs.
††ERECTED	1,739 lbs.

†Reduction of main boom capacities.  
††Reduction of 32 ft. Ext. capacities.

HOOK BLOCK	
40 Ton, 3 Sheave	640 lbs.
15 Ton, 1 Sheave	310 lbs.
Auxiliary Boom Head	190 lbs.
5 Ton Headache Ball	150 lbs.
7 1/2 Ton Headache Ball	300 lbs.
10 Ton Headache Ball	500 lbs.

NOTE: All Load Handling Devices and Boom Attachments are Considered Part of the Load and Suitable Allowances MUST BE MADE for Their Combined Weights. Weights are for Grove furnished equipment.

When lifting over swingaway and/or jib combination, deduct total weight of all load handling devices reeved over main boom nose directly from swingaway or jib capacity.



**GROVE MANUFACTURING COMPANY**

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**KIDDE**

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Distributed by:





# TMS

## 40 TON C 34 ft. - 136

(POWER  
85% OF  
PCSA CLAS

## RATED LIFTING CAP

ON OUTRIGGERS FULLY EXTENDED - OVER SIDE

Radius in Feet	Main Boom Length in Feet (Power Pinned Fly Retracted)									Power Pin. Fly & 81 ft.	32 ft. Ext. & 81 ft.	32 ft. Ext. & 104 ft.
	*34	38	44	50	56	62	68	74	81	104	113	136
10	80,000 (69)	68,000 (71.5)	64,000 (74.5)	60,000 (76.5)						See Warning Note 4	See Warning Note 5	See Warning Note 6
12	65,000 (65)	62,500 (68)	57,500 (71.5)	54,000 (74)	51,000 (76)	49,000 (77.5)						
15	57,000 (59.5)	55,000 (63)	50,000 (67.5)	46,500 (70.5)	43,900 (73)	41,900 (74.5)	40,000 (76.5)	38,600 (77.5)				
20	46,890 (48.5)	43,000 (54)	39,500 (60)	36,500 (64)	34,500 (67.5)	32,700 (70)	31,400 (72)	30,000 (73.5)	28,700 (76)			
25	29,450 (35.5)	29,450 (44)	29,450 (52)	29,450 (57.5)	28,100 (61.5)	26,500 (65)	25,300 (67.5)	24,200 (69.5)	23,100 (72)	20,000 (77)	17,500 (77.5)	
30	20,560 (14)	20,560 (31)	20,560 (43)	20,560 (50)	20,560 (55.5)	20,560 (59.5)	20,560 (62.5)	20,000 (65.5)	19,000 (68)	17,750 (74.5)	15,400 (75.5)	
35			15,450 (31.5)	15,450 (42)	15,450 (49)	15,450 (54)	15,450 (57.5)	15,450 (61)	15,450 (64.5)	15,600 (71.5)	13,700 (73)	9,600 (77.5)
40			11,410 (13.5)	11,410 (32)	11,410 (41.5)	11,410 (47.5)	11,410 (52.5)	11,410 (56.5)	11,410 (60)	13,100 (68.5)	12,200 (70.5)	8,750 (75.5)
45				8,450 (18)	8,450 (32.5)	8,450 (41)	8,450 (47)	8,450 (51.5)	8,450 (56)	10,990 (65.5)	10,800 (67.5)	7,900 (73)
50					6,630 (20.5)	6,630 (33)	6,630 (40.5)	6,630 (46)	6,630 (51.5)	8,750 (62)	8,970 (64.5)	7,050 (71)
55						5,280 (22.5)	5,280 (33)	5,280 (40)	5,280 (46.5)	7,130 (59)	7,300 (61.5)	6,350 (68.5)
60							4,090 (24)	4,090 (33.5)	4,090 (41)	5,650 (55.5)	5,890 (58.5)	5,800 (66)
65							3,060 (3)	3,060 (25)	3,060 (35)	4,500 (52)	4,760 (55.5)	5,190 (63.5)
70								2,150 (11.5)	2,150 (27.5)	3,600 (48)	3,780 (52.5)	4,440 (61.5)
75									1,300 (17)	2,840 (44)	3,000 (49)	3,690 (58.5)
80										2,150 (40)	2,340 (45)	2,950 (56)
85										1,550 (35)	1,740 (41)	2,370 (53.5)
90										1,020 (29.5)	1,170 (37)	1,930 (50.5)
95												1,530 (47.5)
100												1,130 (44.5)

NOTE: Boom angles are in degrees.

A6-829-006311 & -002137D

## NOTES FOR ON O

1. Capacities appearing above the bold line are based on structural strength and tipping sho tipping loads as determined by test in accordance with SAE recommended practice-cran
2. Do not exceed any rated load when lifting regardless of whether it is based on structural
3. Boom angle is the included angle between horizontal and the axis of the boom base sect
4. For boom lengths less than 104 ft. with power pinned fly extended, the rated loads are angles not shown, use rating of next lower boom angle.
5. For boom lengths less than 113 ft. with power pinned fly retracted and 32 ft. boom ext by 113 ft. boom. For boom angles not shown, use rating of next lower boom angle.
6. For boom lengths less than 136 ft. with power pinned fly extended and 32 ft. boom ext by 136 ft. boom. For boom angles not shown, use rating of next lower boom angle.
- \*7. Capacities for the 10.3m boom length shall be lifted with boom fully retracted. If boom length.



# TMS300B

**40 TON CAPACITY**  
**34 ft. - 136 ft. BOOM**

**(POWER PINNED)**  
**85% OF TIPPING**  
**PCSA CLASS 10-114**

**GRO**  
**FULL HYD**  
**CARRIER-MOU**

## LIFTING CAPACITIES IN POUNDS

**SIDE**

**ON OUTRIGGERS FULLY EXTENDED - OVER REAR**

	Power Pin. Fly & 81 ft.	32 ft. Ext. & 81 ft.	32 ft. Ext. & 104 ft.
	104 See Warning Note 4	113 See Warning Note 5	136 See Warning Note 6
0			
00	20,000 (77)	17,500 (77.5)	
00	17,750 (74.5)	15,400 (75.5)	
00	15,600 (71.5)	13,700 (73)	9,600 (77.5)
00	13,100 (68.5)	12,200 (70.5)	8,750 (75.5)
00	10,990 (65.5)	10,800 (67.5)	7,900 (73)
00	8,750 (62)	8,970 (64.5)	7,050 (71)
00	7,130 (59)	7,300 (61.5)	6,350 (68.5)
00	5,650 (55.5)	5,890 (58.5)	5,800 (66)
00	4,500 (52)	4,760 (55.5)	5,190 (63.5)
00	3,600 (48)	3,780 (52.5)	4,440 (61.5)
00	2,840 (44)	3,000 (49)	3,690 (58.5)
	2,150 (40)	2,340 (45)	2,950 (56)
	1,550 (35)	1,740 (41)	2,370 (53.5)
	1,020 (29.5)	1,170 (37)	1,930 (50.5)
			1,530 (47.5)
			1,130 (44.5)

6-829-006311 & -002137D

Radius in Feet	Main Boom Length in Feet (Power Pinned Fly Retracted)									PowerPin Fly & 81 ft.  See Warning Note 4	32 ft. Ext. & 81 ft.  See Warning Note 5	32 ft. Ext. & 104 ft.  See Warning Note 6
	*34	38	44	50	56	62	68	74	81			
10	80,000 (69)	68,000 (71.5)	64,000 (74.5)	60,000 (76.5)						104	113	136
12	65,000 (65)	62,500 (68)	57,500 (71.5)	54,000 (74)	51,000 (76)	49,000 (77.5)						
15	57,000 (59.5)	55,000 (63)	50,000 (67.5)	46,500 (70.5)	43,900 (73)	41,900 (74.5)	40,000 (76.5)	38,600 (77.5)				
20	47,000 (48.5)	43,000 (54)	39,500 (60)	36,500 (64)	34,500 (67.5)	32,700 (70)	31,400 (72)	30,000 (73.5)	28,700 (76)			
25	35,675 (35.5)	33,300 (44)	31,000 (52)	30,000 (57.5)	28,100 (61.5)	26,500 (65)	25,300 (67.5)	24,200 (69.5)	23,100 (72)	20,000 (77)	17,500 (77.5)	
30	25,200 (14)	25,200 (31)	25,200 (43)	25,200 (50)	23,500 (55.5)	22,100 (59.5)	21,000 (62.5)	20,000 (65.5)	19,000 (68)	17,750 (74.5)	15,400 (75.5)	
35			19,340 (31.5)	19,340 (42)	19,340 (49)	18,700 (54)	17,700 (57.5)	16,800 (61)	16,000 (64.5)	15,600 (71.5)	13,700 (73)	9,600 (77.5)
40			15,190 (13.5)	15,190 (32)	15,190 (41.5)	15,190 (47.5)	15,190 (52.5)	14,400 (56.5)	13,600 (60)	13,100 (68.5)	12,200 (70.5)	8,750 (75.5)
45				12,310 (18)	12,310 (32.5)	12,310 (41)	12,310 (47)	12,310 (51.5)	11,700 (56)	11,300 (65.5)	10,800 (67.5)	7,900 (73)
50					10,000 (20.5)	10,000 (33)	10,000 (40.5)	10,000 (46)	10,000 (51.5)	9,930 (62)	9,410 (64.5)	7,050 (71)
55						8,180 (22.5)	8,180 (33)	8,180 (40)	8,180 (46.5)	8,710 (59)	8,230 (61.5)	6,350 (68.5)
60							6,650 (24)	6,650 (33.5)	6,650 (41)	7,680 (55.5)	7,240 (58.5)	5,800 (66)
65							5,280 (3)	5,280 (25)	5,280 (35)	6,800 (52)	6,380 (55.5)	5,200 (63.5)
70								4,140 (11.5)	4,140 (27.5)	5,990 (48)	5,640 (52.5)	4,750 (61.5)
75									3,320 (17)	5,000 (44)	4,910 (49)	4,350 (58.5)
80										4,060 (40)	4,090 (45)	4,050 (56)
85										3,290 (35)	3,420 (41)	3,700 (53.5)
90										2,730 (29.5)	2,830 (37)	3,280 (50.5)
95										2,210 (22.5)	2,330 (32)	2,870 (47.5)
100										1,680 (10.5)	1,890 (26.5)	2,470 (44.5)
105											1,470 (19)	2,080 (41)
110												1,700 (37.5)
115												1,340 (33.5)
120												1,010 (29)

NOTE: Boom angles are in degrees.

A6-829-006309A & -002137D

### NOTES FOR ON OUTRIGGERS

On structural strength and tipping should not be relied upon as a capacity limitation. Capacities do not exceed 85% of with SAE recommended practice-crane load stability test code - SAE J-765.

of whether it is based on structural strength or stability.

l and the axis of the boom base section after lifting rated load.

ed fly extended, the rated loads are determined by boom angle only in the column headed by 104 ft. boom. For boom gle.

ed fly retracted and 32 ft. boom ext. erected, the rated loads are determined by boom angle only in the column headed ating of next lower boom angle.

ed fly extended and 32 ft. boom ext. erected, the rated loads are determined by boom angle only in the column headed ating of next lower boom angle.

with boom fully retracted. If boom is not fully retracted, capacities shall not exceed those shown for the 11.6m boom