

**WARNINGS:**

BOOM ANGLES AT SPECIFIED BOOM LENGTHS GIVE ONLY AN APPROXIMATION OF THE OPERATING RADIUS. THE BOOM ANGLE BEFORE LOADING SHOULD BE GREATER TO ACCOUNT FOR DEFLECTIONS. DO NOT EXCEED THE OPERATING RADIUS FOR RATED LOADS.

POSITIONING OR OPERATION OF POWERED BOOM LENGTHS AT RADIUS BEYOND THE MAXIMUMS OR MINIMUMS SHOWN, IS NOT INTENDED OR APPROVED.

POSITIONING OR OPERATION OF LATTICE EXTENSIONS AT BOOM ANGLES BEYOND THE MAXIMUMS OR MINIMUMS SHOWN, IS NOT INTENDED OR APPROVED.

FOR POWERED BOOM LENGTHS NOT SHOWN, USE RATING OF NEXT LONGER POWERED BOOM. FOR LOAD RADII NOT SHOWN, USE RATING OF NEXT LONGER RADIUS.

CRANE LOAD RATINGS ON OUTRIGGERS ARE BASED ON FREELY SUSPENDED LOADS WITH THE MACHINE LEVELLED AND STANDING ON A FIRM UNIFORM SUPPORTING SURFACE. AN ATTEMPT SHALL BE MADE TO MOVE A LOAD HORIZONTALLY ON THE GROUND IN ANY DIRECTION.

FACTUAL WORKING LOADS DEPEND ON SUPPORTING SURFACE, WIND, AND OTHER FACTORS AFFECTING STABILITY. DANGEROUS SURROUNDINGS, EXPERIENCE OF PERSONNEL, AND PROPER HANDLING, ALL OF WHICH MUST BE TAKEN INTO ACCOUNT BY THE OPERATOR.

THE MAXIMUM LOAD WHICH MAY BE TELESCOPED IS LIMITED BY HYDRAULIC PRESSURE, BOOM ANGLE, AND POWERED BOOM FABRICATION. IT IS SAFE TO ATTEMPT TO TELESCOPE ANY LOAD WITHIN THE LIMITS OF THE LOAD RATING CHART.

WHEN LIFTING A LOAD ALL SECTIONS OF POWERED BOOM MUST BE EQUALLY EXTENDED WITHIN ONE FOOT.

DEFINITIONS:

OPERATING RADIUS IS THE HORIZONTAL DISTANCE FROM THE AXIS OF ROTATION BEFORE LOADING TO THE CENTER OF THE VERTICAL HOIST LINE OR TACKLE WITH LOAD APPLIED.

BOOM ANGLE, AS SHOWN IN COLUMN HEADED BY Δ , IS THE INCLUDED ANGLE BETWEEN THE HORIZONTAL AND LONGITUDINAL AXES OF THE BOOM BASE AFTER LIFTING RATED LOAD AT RATED RADIUS.



32R1010

DEDUCTIONS TO BE MADE FROM LOAD RATINGS IN POUNDS

DESCRIPTION			WITHOUT HOOK BLOCK ON BOOM POINT	HOOK BLOCK ON POWERED BOOM POINT			
				8.5 - 20 TON	85 TON	8.5 - 20 TON WITH AUXILIARY SHEAVE	85 TON WITH AUXILIARY SHEAVE
HOISTING LOAD FROM POWERED BOOM	HOOK BLOCK WEIGHT		—	580	1130	775	1325
	38 FT. LATTICE EXTENSION	STOWED	—	950	1500	1150	1700
		ERECTED ONLY	—	4000	4550	4200	4750
		8.5-15 TON BALL	—	5850	6200	5850	6400
		20 TON BLOCK	—	8050	8600	8250	8800
	40 FT. LATTICE EXTENSION	STOWED	—	850	1400	1050	1600
		ERECTED ONLY	—	5700	6250	5900	6450
		8.5-15 TON BALL	—	7400	7900	7550	8100
		20 TON BLOCK	—	7800	8300	7950	8500
	60 FT. LATTICE EXTENSION	ERECTED ONLY	—	5700	6250	5900	6450
		8.5-15 TON BALL	—	7800	8350	8000	8550
		20 TON BLOCK	—	8300	8850	8500	9050
HOISTING LOAD FROM EXTENSION	38 FT. LATTICE EXTENSION	8.5-15 TON BALL	470	800	1100	900	1200
		20 TON BLOCK	580	900	1200	1000	1300
	40 FT. LATTICE EXTENSION	8.5-15 TON BALL	470	800	1100	900	1200
		20 TON BLOCK	580	900	1200	1000	1300
	60 FT. LATTICE EXTENSION	8.5-15 TON BALL	470	750	1000	850	1100
		20 TON BLOCK	580	850	1100	950	1200

NOTE: THESE LOAD DEDUCTIONS APPLY ONLY TO P&H SUPPLIED EQUIPMENT.
(SEE INFORMATION NOTE #3)

MAIN HOIST REEVEING

3/4 DIA. WIRE ROPE BREAKING STRENGTH 58,800 LBS. 8 X 25 FW IWRC

PART OF LINE	1	2	3	4	5	6	7	8	9	10
MAXIMUM LOAD	15000	30000	45000	60000	75000	90000	105000	120000	130000	-

AUXILIARY HOIST REEVEING

3/4 DIA. WIRE ROPE BREAKING STRENGTH 51,800 LBS. 8 X 19 IWRC

5/8 DIA. WIRE ROPE BREAKING STRENGTH 41,200 LBS. 8 X 25 FW IWRC

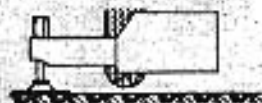
PART OF LINE	1	2	3	4	5	6	7	8	9	10
MAXIMUM LOAD	10000	20000	30000	40000	50000	60000	70000	80000	90000	100000

S/N 37402

NOTE: OPERATION



MODEL CN T650 - 65 TON HYDRAULIC CRANE LOAD RATING CHART

RATED LOADS IN POUNDS
ON OUTRIGGERS

POWERED BOOM LENGTH IN FEET - MANUAL RETRACTED

C T	40 FT.				45 FT.				55 FT.				65 FT.				75 FT.				85 FT.				97.3 FT.				C T
	LOADED BOOM ANGLE △	RATED LOA POUNDS		LOADED BOOM ANGLE △	RATED LOAD POUNDS	LOADED BOOM ANGLE △	RATED LOAD POUNDS	LOADED BOOM ANGLE △	RATED LOAD POUNDS	LOADED BOOM ANGLE △	RATED LOAD POUNDS	LOADED BOOM ANGLE △	RATED LOAD POUNDS	LOADED BOOM ANGLE △	RATED LOAD POUNDS	LOADED BOOM ANGLE △	RATED LOAD POUNDS	LOADED BOOM ANGLE △	RATED LOAD POUNDS	LOADED BOOM ANGLE △	RATED LOAD POUNDS	LOADED BOOM ANGLE △	RATED LOAD POUNDS						
		SIDE	REAR																					SIDE	REAR	SIDE	REAR	SIDE	
10	68	130000		71	102000		73	94800																	10				
12	65	115000		68	98400		72	88000																	12				
15	60	87000		64	86900		61	84000		73	72800		75	60500											15				
20	51	63500		56	63500		61	63400		68	63200		72	53000		74	44500		77	33000					20				
25	40	49000		48	49000		57	49000		63	48900		68	45000		71	39000		74	32500					25				
30	27	35800	36700	38	35800	36700	50	35800	36700	58	35800	36700	63	35800	36700	67	34200		71	29000					30				
35				25	25800	27400	43	25800	27400	52	25800	27400	59	25800	27400	63	25800	27400	67	25500					35				
40							34	19500	21200	46	19500	21200	54	19500	21200	58	19500	21200	64	19500	21200				40				
45							22	14800	16500	39	14800	16500	49	14800	16500	55	14800	16500	61	14800	16500				45				
50										31	11600	13300	43	11600	13300	51	11600	13300	57	11600	13300				50				
55										20	9100	10700	37	9100	10700	46	9100	10700	53	9100	10700				55				
60													29	7000	8500	41	7000	8500	49	7000	8500				60				
65													19	5500	6900	35	5500	6900	45	5500	6900				65				
70																28	4200	5500	40	4200	5500				70				
75																18	3100	4400	35	3100	4400				75				
80																			29	2100	3400				80				
85																			22	-	2500				85				

INFORMATION:

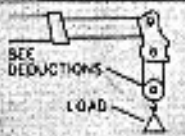
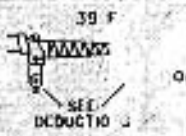
1. CRANE LOAD RATINGS DO NOT EXCEED 85% OF TIPPING.
2. RATINGS ABOVE THE HEAVY LINE ARE BASED ON THE MACHINE'S HYDRAULIC OR STRUCTURAL COMPETENCE AND NOT ON MACHINE STABILITY.
3. DEDUCTIONS MUST BE MADE FROM RATED LOADS FOR STOWED LATTICE EXTENSION, OPTIONAL ATTACHMENTS, HOOKS AND HOOKBLOCKS (SEE DEDUCTIONS CHART). WEIGHTS OF SLINGS AND ALL OTHER LOAD HANDLING DEVICES SHALL BE CONSIDERED A PART OF THE LOAD.
4. CRANE LOAD RATINGS WITH OUTRIGGERS ARE BASED ON OUTRIGGERS FULLY EXTENDED AND SET TO A DISTANCE OF 11 FEET 9 3/4 INCH FROM THE LONGITUDINAL AXIS OF THE CARRIER TO THE OUTRIGGER FLOAT PIVOT CONNECTION WITH ALL LOAD REMOVED FROM CARRIER WHEELS.
5. COUNTERWEIGHT 2500 LBS. WITH NONE REMOVABLE.

USE OF THIS EQUIPMENT IN EXCESS OF RATED LOADS AND DISREGARD OF INSTRUCTIONS IS AN UNSAFE PRACTICE AND WILL R



HART

LOAD RATINGS IN POUNDS WITH OUTRIGGERS EXTENDED

PINNED SECTION EXTENDED				LATTICE EXTENSION WITH PINNED SECTION RETRACTED				LATTICE EXTENSION WITH PINNED SECTION EXTENDED			
											
FOR ALL BOOM LENGTHS 88.7 TO 128 FT.				FOR ALL BOOM LENGTHS 79 TO 134.3 FT.				FOR ALL BOOM LENGTHS 107.7 TO 165 FT.			
FOR 100 FOOT BOOM ONLY	LOADED BOOM ANGLE	RATED LOAD IN POUNDS		FOR 100 FOOT BOOM ONLY	LOADED BOOM ANGLE	RATED LOAD IN POUNDS		FOR 100 FOOT BOOM ONLY	LOADED BOOM ANGLE	RATED LOAD IN POUNDS	
		SIDE	REAR			SIDE	REAR			SIDE	REAR
30	76	20,000	15,000	30	77	16,000	12,000	30	77	10,000	7,500
35	74	19,000	14,000	35	75	14,200	10,800	35	77	9,300	7,000
40	72	17,500	13,000	40	73	13,000	9,800	40	75	8,600	6,500
45	69	16,000	12,000	45	71	12,100	9,000	45	74	8,000	6,000
50	67	14,500	11,000	50	69	11,100	8,200	50	72	7,400	5,600
55	64	13,000	10,000	55	67	10,300	7,500	55	70	6,800	5,100
60	61	11,500	9,000	60	64	9,700	7,000	60	68	6,300	4,800
65	59	10,000	8,000	65	62	8,600	6,500	65	66	5,800	4,400
70	56	8,500	7,000	70	60	7,700	6,000	70	64	5,300	4,000
75	53	7,000	6,000	75	57	6,800	5,500	75	62	4,800	3,600
80	49	5,500	5,000	80	54	5,800	5,000	80	60	4,300	3,200
85	46	4,000	4,000	85	51	4,800	4,000	85	58	3,800	2,800
90	43	2,500	3,000	90	48	2,100	3,200	90	55	2,400	2,000
100	35	-	2,300	100	42	-	1,800	100	53	2,400	2,000

NOTE:

1. WHEN BOOM IS NOT FULLY EXTENDED, USE ONLY BOOM ANGLES, NOT OPERATING RADIUS TO DETERMINE LOAD RATING.
2. FOR BOOM ANGLES NOT SHOWN, USE RATING OF NEXT LOWER BOOM ANGLE.
3. FOR BUCKET RATINGS ON 60 FT. EXTENSION, DEDUCT 20% FROM LOAD RATINGS.

WARNING:

- A TIPPING CONDITION WILL OCCUR (WITH OR WITHOUT A HOOKBLOCK) WITH 39 FT., 40 FT., OR 60 FT. BOOM EXTENSION DUE TO THE FOLLOWING CONDITIONS:
1. DO NOT EXCEED 110 FT. OPERATING RADIUS WITH PINNED MAIN BOOM SECTION RETRACTED.
 2. DO NOT EXCEED 110 FT. OPERATING RADIUS WITH PINNED MAIN BOOM SECTION EXTENDED.

RESULT IN DENIAL OF WARRANTY CLAIMS.



LOAD RATINGS FOR OFFSET EXTENSION

LOAD RATINGS IN POUNDS FOR 17° OFFSET WITH OUTRIGGERS EXTENDED

LATTICE EXTENSION WITH PINNED SECTION RETRACTED

39 FT.				40 FT.				60 FT.			
OPERATING RADIUS IN FEET				OPERATING RADIUS IN FEET				OPERATING RADIUS IN FEET			
FOR ALL BOOM LENGTHS 79 TO 136.3 FT.				FOR ALL BOOM LENGTHS 80 TO 137.3 FT.				FOR ALL BOOM LENGTHS 100 TO 157.3 FT.			
BOOM ANGLE	RATED LOAD IN POUNDS			BOOM ANGLE	RATED LOAD IN POUNDS			BOOM ANGLE	RATED LOAD IN POUNDS		
ONLY	SIDE	REAR		ONLY	SIDE	REAR		ONLY	SIDE	REAR	
36	78	9300		36				36			
40	76	8900		40	78	8000		40			
45	74	8500		45	74	7700		45			
50	72	8100		50	73	7300		50	77	5100	
55	69	7800		55	70	7000		55	75	4900	
60	67	7500		60	68	6700		60	73	4700	
65	65	7200		65	66	6400		65	71	4500	
70	62	7000		70	63	6200		70	69	4300	
75	60	6400	6800	75	61	5700	6000	75	67	4100	
80	57	5300	6400	80	58	4600	5700	80	65	3900	
85	54	4400	5400	85	55	3700	4700	85	63	3800	
90	52	5500	4500	90	53	2800	3800	90	61	3700	
100	45	2100	3100	100	46	-	2300	100	56	2900	3400
110	37	-	1800					110	51	-	2500

LATTICE EXTENSION WITH PINNED SECTION EXTENDED

39 FT.				40 FT.				60 FT.			
OPERATING RADIUS IN FEET				OPERATING RADIUS IN FEET				OPERATING RADIUS IN FEET			
FOR ALL BOOM LENGTHS 107.7 TO 165 FT.				FOR ALL BOOM LENGTHS 108.7 TO 166 FT.				FOR ALL BOOM LENGTHS 128.7 TO 186 FT.			
BOOM ANGLE	RATED LOAD IN POUNDS			BOOM ANGLE	RATED LOAD IN POUNDS			BOOM ANGLE	RATED LOAD IN POUNDS		
ONLY	SIDE	REAR		ONLY	SIDE	REAR		ONLY	SIDE	REAR	
36				36				36			
40				40				40			
45				45				45			
50	77	8300		50	77	7300		50			
55	75	8100		55	76	7100		55			
60	73	7700		60	74	6900		60	78	4800	
65	71	7300		65	72	6400		65	76	4600	
70	69	6900		70	70	6000		70	74	4400	
75	67	6500		75	68	5700		75	73	4200	
80	65	6000	6200	80	66	5300	5400	80	71	4000	
85	63	5100	5900	85	64	4400	5100	85	69	3800	
90	61	4300	5300	90	62	3600	4600	90	68	3700	
100	57	2900	3800	100	57	2100	3100	100	64	3400	
110	52	1800	2600	110	52	-	1800	110	60	2300	3100
								120	56	-	2100

- NOTES: 1. SEE MAIN LOAD RATING CHART ON OUTRIGGERS FOR WARNINGS, DEFINITIONS, INFORMATION.
 2. FOR BOOM RATINGS ON 60 FT. EXTENSION, DEDUCT 20% FROM RATED RATINGS.
 3. STABILITY RATINGS DO NOT EXCEED 85% OF TIPPING LOADS.
 4. WHEN BOOM IS NOT FULLY EXTENDED USE ONLY BOOM ANGLES, NOT OPERATING RADIUS.
 5. FOR BOOM ANGLES NOT SHOWN, USE RATING OF NEXT LOWER BOOM ANGLE.
 6. 2500 LB. COUNTERWEIGHT WITH NONE REMOVABLE.

OPERATION OF THIS EQUIPMENT IN EXCESS OF RATED LOADS A

PPM CRANES, INC.
Manufacturers of P&H Mobile Cranes

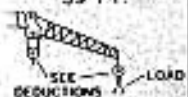
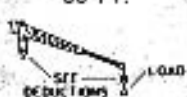
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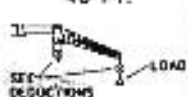
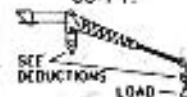
EXTENSION WITH 126 FOOT BOOM

LOAD RATINGS IN POUNDS FOR 30° OFFSET WITH OUTRIGGERS EXTENDED

LATTICE EXTENSION WITH PINNED SECTION RETRACTED

39 FT.				40 FT.				60 FT.			
 FOR ALL BOOM LENGTHS 78 TO 156.3 FT.				 FOR ALL BOOM LENGTHS 80 TO 157.5 FT.				 FOR ALL BOOM LENGTHS 100 TO 157.3 FT.			
OPERATING RADIUS IN FEET FOR 126.3 FOOT BOOM ONLY				OPERATING RADIUS IN FEET FOR 126.3 FOOT BOOM ONLY				OPERATING RADIUS IN FEET FOR 126.3 FOOT BOOM ONLY			
LOADED BOOM ANGLE		RATED LOAD IN POUNDS		LOADED BOOM ANGLE		RATED LOAD IN POUNDS		LOADED BOOM ANGLE		RATED LOAD IN POUNDS	
		SIDE	REAR			SIDE	REAR			SIDE	REAR
36				36				36			
40				40				40			
45	77	7100		45	77	6300		45			
50	75	6900		50	76	6100		50			
55	73	6700		55	73	5900		55			
60	71	6500		60	71	5700		60	77	3900	
65	68	6300		65	69	5500		65	75	3700	
70	66	6100		70	66	5400		70	73	3600	
75	63	6000		75	63	5200		75	71	3500	
80	60	5900		80	61	5100		80	69	3400	
85	57	4900	5800	85	58	4200	5000	85	67	3300	
90	55	4000	5000	90	55	3300	4300	90	64	3200	
100	48	2400	3400	100	48	-	2700	100	60	3000	
110	40	-	2000					110	54	2200	2900
								120	48	-	1800

LATTICE EXTENSION WITH PINNED SECTION EXTENDED

39 FT.				40 FT.				60 FT.			
 FOR ALL BOOM LENGTHS 107.7 TO 165 FT.				 FOR ALL BOOM LENGTHS 108.7 TO 166 FT.				 FOR ALL BOOM LENGTHS 128.7 TO 186 FT.			
OPERATING RADIUS IN FEET FOR 165 FOOT BOOM ONLY				OPERATING RADIUS IN FEET FOR 165 FOOT BOOM ONLY				OPERATING RADIUS IN FEET FOR 165 FOOT BOOM ONLY			
LOADED BOOM ANGLE		RATED LOAD IN POUNDS		LOADED BOOM ANGLE		RATED LOAD IN POUNDS		LOADED BOOM ANGLE		RATED LOAD IN POUNDS	
		SIDE	REAR			SIDE	REAR			SIDE	REAR
36				36				36			
40				40				40			
45				45				45			
50				50				50			
55	78	6800		55	78	5900		55			
60	76	6600		60	76	5800		60			
65	74	6500		65	74	5600		65			
70	72	6400		70	73	5500		70	78	3700	
75	70	6300		75	71	5300		75	76	3600	
80	68	5800		80	69	5000		80	74	3500	
85	66	5600		85	66	4700		85	73	3400	
90	64	4800	5300	90	64	4100	4500	90	71	3300	
100	59	3300	4200	100	60	2500	3500	100	67	3200	
110	54	2000	3000	110	55	-	2200	110	63	2800	3000
120	49	-	1800					120	59	-	2400

ATION AND REEVING.

- WARNINGS:**
- DO NOT EXCEED 120 FT. RADIUS (WITH OR WITHOUT HOOK BLOCK) WITH 39 FT., 40 FT. OR 60 FT. BOOM EXTENSION OR A TIPPING CONDITION WILL OCCUR.
 - DEDUCTIONS FROM OFFSET EXTENSION LOAD RATINGS MUST BE APPLIED ACCORDING TO DEDUCTION TABLE SHOWN ON MAIN LOAD RATING CHART.

HUS TO DETERMINE LOAD RATING.

AND DISREGARD OF INSTRUCTIONS IS AN UNSAFE PRACTICE AND WILL RESULT IN DENIAL OF WARRANTY CLAIMS