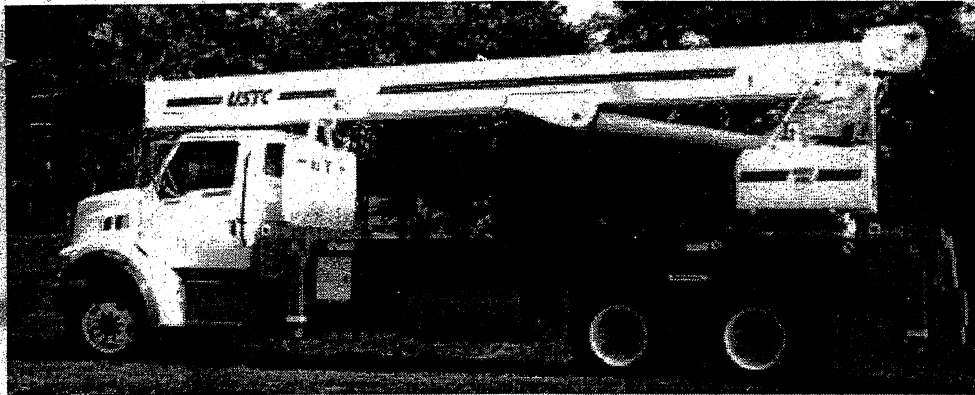


USTCTM **Incorporated**

28L **OPERATING AND SAFETY MANUAL**



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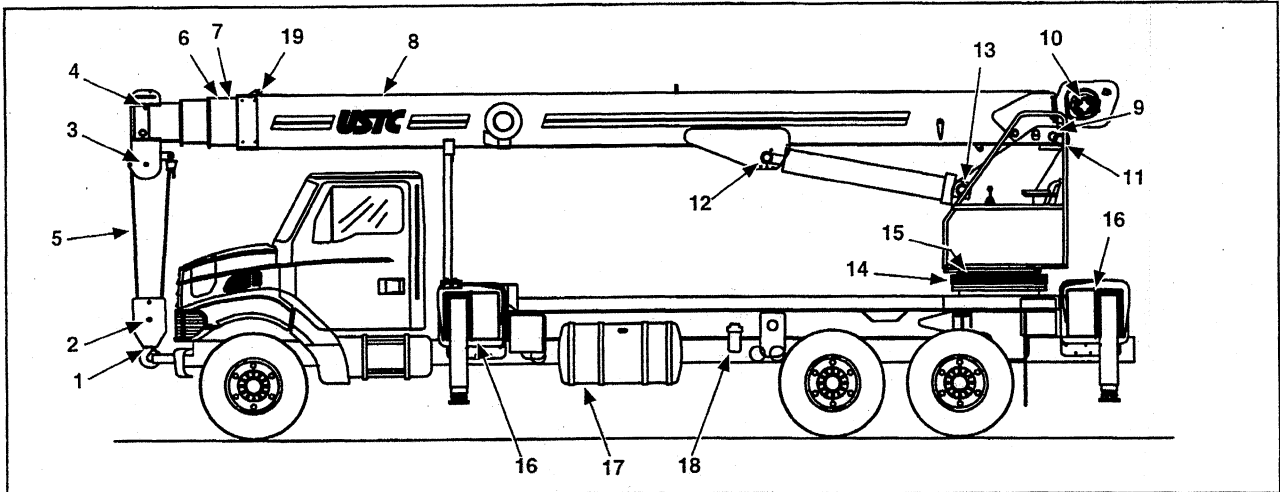
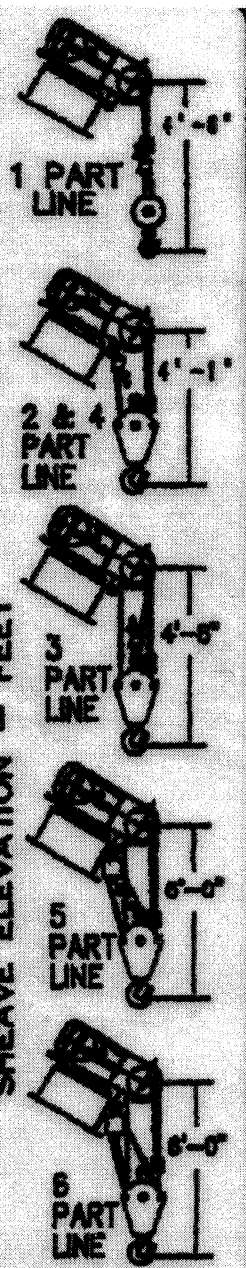
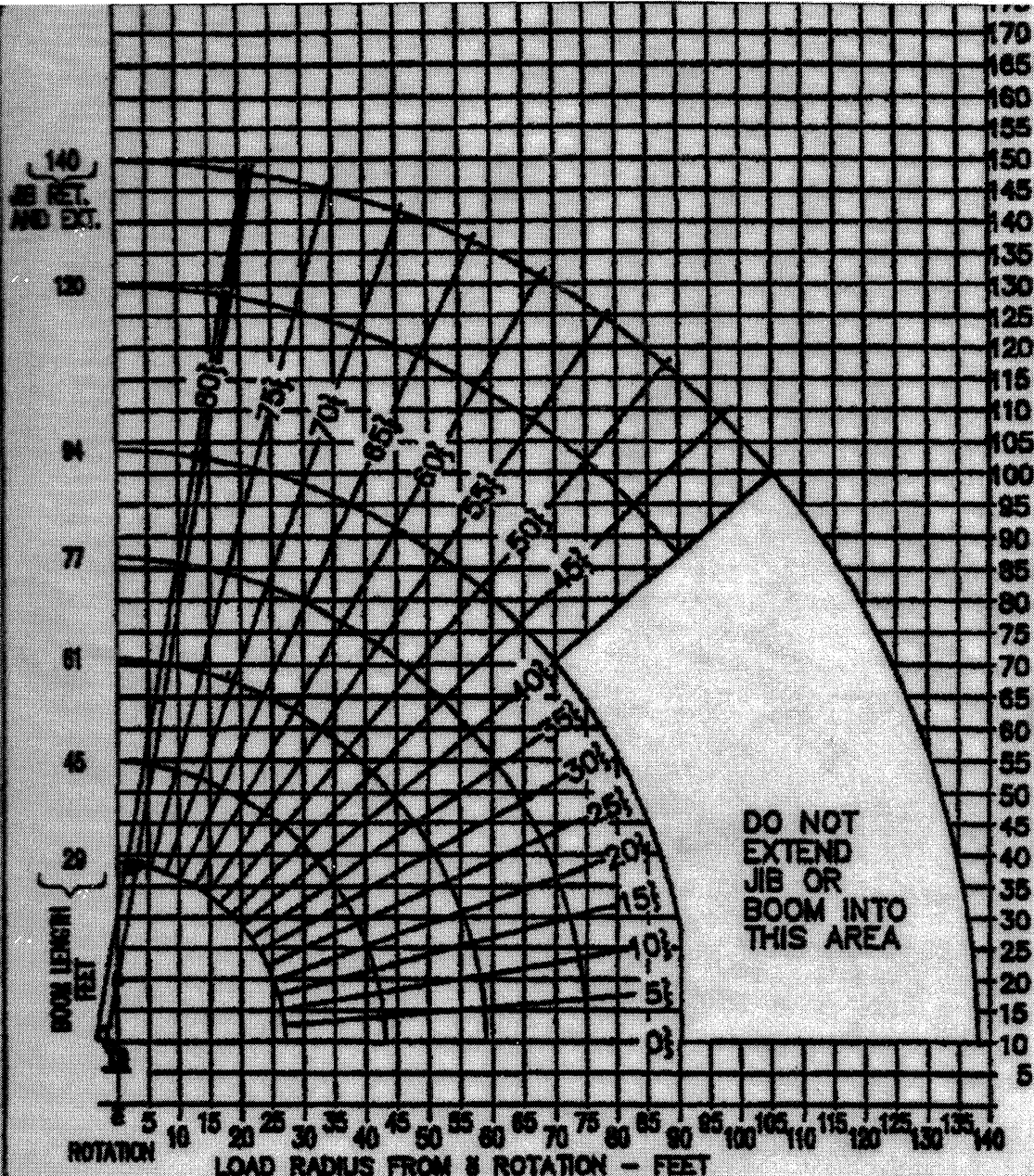


Figure 2-1. Lubrication Points

TABLE 2-1. Lubrication Points and Intervals

INDEX NO.	DESCRIPTION	LUBRICANT	HOURS	FITTINGS	NOTES
1	Hookblock Hook Bearing	MPG	50	1	
2	Hookblock Sheave	MPG	50	1	
3	Lower Boom Nose Sheaves	MPG	50	1	
4	Upper Boom Nose Sheave	MPG	50	1	
5	Hoist Wire Rope	PL	100	N.A.	Brush on wire rope.
6	Extend Cable Sheaves – Tele Cyl.	MPG	50	1	Extend boom to align holes in mid and fly. See decal. Fittings on left side of boom.
7	Extend Cable Sheaves – Mid Outer	MPG	50	2	Extend boom. Fittings on both sides.
8	Boom Assembly	MPG	500	N.A.	Extend boom, coat wear pad travel area.
9	Retract Cable Sheave – Mid Section	MPG	50	4	Align holes at rear of boom. See decals.
10	Hoist Oil Level – Check w/ boom at 0° by using the large oil level plug located in center of support.	API GL-2/3	100/1000	N.A.	Change oil after first 100 hours and every 1000 hrs thereafter. Applies to auxiliary hoist, if equipped.
11	Boom Pivot Bushing	MPG	50	2	
12	Upper Lift Cylinder Pin	MPG	50	1	
13	Lower Lift Cylinder Pin	MPG	50	1	
14	Swing Bearing	MPG	50	2	Apply MPG, rotate turntable 90° and return, reapply MPG and rotate 90° in opposite direction.
15	Pinion and Swing Bearing Teeth	MPG	500	N.A.	Apply MPG liberally to gear teeth.
N.S.	Swing Gear Box	EPGL	250/1000	N.A.	Change oil after first 250 hrs. and every 1000 hrs. thereafter. Oil level to be 1 1/2" from top of hub.
16	Outriggers	MPG	500	N.A.	Extend beams, coat wear pad travel area.
17	Hydraulic Oil Reservoir	HO	10/2000	N.A.	Check level every 10 hrs. Change oil annually.
18	Hydraulic Oil Filters	N.A.	40/250	N.A.	Change filters after first 40 hrs. and every 250 hrs thereafter.
19					
N.S.	Extend & Retract Cables	MPG	2000	N.A.	Boom must be disassembled.
N.S.	Jib Sheave	MPG	50	1	
N.S.	LMI Dynamometer (If Equipped)	MPG	50	2	

N.S. Not Shown N.A. Not Applicable



HOIST SPECIFICATIONS - BRADEN PD12C

PERFORMANCE @ 3050 PSI	LOW SPEED - 39 GPM			HIGH SPEED - 63 GPM	
	LINE SPEED	LINE FULL LOW ROTATION	LINE FULL @ 37 GPM	LINE SPEED	LINE FULL
1ST LAYER	113 FPM	8100 LBS.	9350 LBS.	183 FPM	9350 LBS.
2ND LAYER	125 FPM	8100 LBS.	9350 LBS.	214 FPM	9350 LBS.
3RD LAYER	138 FPM	8100 LBS.	9350 LBS.	235 FPM	9350 LBS.
4TH LAYER	150 FPM	8100 LBS.	9350 LBS.	256 FPM	9350 LBS.
5TH LAYER	162 FPM	8100 LBS.	9350 LBS.	277 FPM	9350 LBS.

**USTC INCORPORATED YORK, PA.
MODEL 28L-RATED LIFTING CAPACITIES IN POUNDS
PCSA-RATING 5-70**

LIFTING CAPACITY IN POUNDS	BOOM LENGTH IN FEET									
	29	45	61	77	94	29	45	61	77	94
5	78	56000								
10	69	34000	77	21300						
12	64	30300	75	21300	79	21300				
15	58	24500	69	21300	75	20500	79	16200		
20	44	18000	64	17700	71	16300	75	14100	79	10300
25	25	13700	57	13700	68	13400	72	12000	77	9100
30			49	10700	61	10500	68	10100	75	8100
35			40	8700	55	8700	64	8400	72	7300
40			30	7000	50	7000	60	7000	68	6300
45					43	5800	55	5800	65	5500
50					36	4900	52	4900	62	4800
55					27	4100	44	4100	57	4100
60							38	3500	52	3500
65							32	2900	48	2900
70							26	2600	44	2800
75									40	2200
80									35	1900
85									29	1600

PERMISSIBLE ROPE PULL

NUMBER PARTS LINE	9/16" DIA. 400' OF LOW ROTATION FLEX X 19 PLUS	NUMBER PARTS LINE	9/16" DIA. 340' OF 6X37 IWRC EPS
SINGLE	8100 LBS.	SINGLE	8350 LBS.
TWO	16200 LBS.	TWO	16700 LBS.
THREE	24300 LBS.	THREE	26050 LBS.
FOUR	32400 LBS.	FOUR	37400 LBS.
FIVE	40500 LBS.	FIVE	46750 LBS.
SIX	48600 LBS.	SIX	56000 LBS.

DO NOT OPERATE THIS CRANE UNLESS YOU KNOW THE DIAMETER AND TYPE ROPE CURRENTLY INSTALLED ON THE CRANE. DO NOT EXCEED PERMISSIBLE ROPE PULL OF ROPE INSTALLED ON THIS CRANE. DO NOT USE 3 PART LINE WITH BOOM LENGTH OVER 61 FEET. DO NOT USE 4 PART LINE WITH BOOM LENGTH OVER 45 FEET. DO NOT USE 5 PART OR 6 PART LINE WITH BOOM LENGTH OVER 29 FEET.

DO NOT OPERATE THIS CRANE UNTIL YOU HAVE READ AND UNDERSTOOD "LIFTING NOTES" DECAL ON PEDESTAL.

LOAD CHART

RATED JIB LIFTING CAPACITIES IN POUNDS

26-46 FT. 2 SECTION JIB			26 FT. FIXED JIB	
MINIMUM BOOM ANGLE	JIB FULLY RETRACTED	JIB FULLY EXTENDED	MINIMUM BOOM ANGLE	
78°	5400	3400	78°	5800
75°	4700	3200	75°	4800
70°	3800	2700	70°	4000
65°	3100	2300	65°	3300
60°	2500	1900	60°	2700
55°	2000	1500	55°	2200
50°	1400	1100	50°	1600
45°	1000	800	45°	1200
40°	700	500	40°	800

1. CAPACITIES BASED ON ANGLE OF MAIN BOOM REGARDLESS OF BOOM LENGTH.
2. RATED LIFTING CAPACITY ABOVE THE BOLD LINE IS BASED ON STRUCTURAL STRENGTH. OVERLOADING THE JIB MAY CAUSE STRUCTURAL COLLAPSE OR UPSET.
3. DO NOT USE JIB FOR MULTI-PART LINE OPERATIONS.
4. IF ACTUAL BOOM ANGLE FALLS BETWEEN CHART VALUES LISTED. USE LIFTING CAPACITY FOR NEXT LOWER BOOM ANGLE.

WEIGHT REDUCTION FOR LOAD HANDLING DEVICES

- HEADACHE BALL 170 LBS.
- HOOK BLOCK (SINGLE SHEAVE) 220 LBS.
- HOOK BLOCK (DOUBLE SHEAVE) 300 LBS.
- HOOK BLOCK (TRIPLE SHEAVE) 500 LBS.
- 2-SECTION JIB STOWED 200 LBS.
- 2-SECTION JIB ERECTED (RETRACTED) 1800 LBS.
- 2-SECTION JIB ERECTED (EXTENDED) 1800 LBS.
- 1-SECTION JIB STOWED 100 LBS.
- 1-SECTION JIB ERECTED 1200 LBS.

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