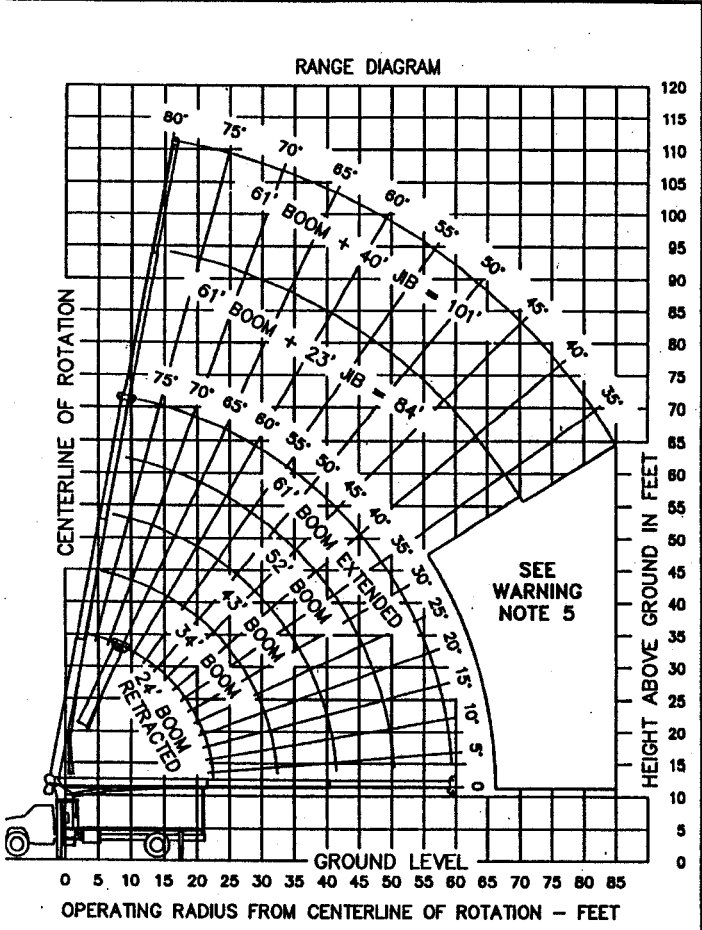


STERLING CRANE



LIFTING CHARTS - Boom Trucks

MANITEX MODEL M1461 - 14 TON CAPACITY



BOOM LENGTH BOOM ANGLE BOOM EXTENDED	LOAD RATINGS IN LBS WITH OUTRIGGERS AND STABILIZERS EXTENDED					JOB LOAD RATINGS WITH OUTRIGGERS AND STABILIZERS EXTENDED			
	24 FT	34 FT	43 FT	52 FT	81 FT	23 FT JOB FOR ALL BOOM LENGTHS SEE WARNING NOTE 4	33 FT JOB FOR ALL BOOM LENGTHS SEE WARNING NOTE 4	40 FT JOB FOR ALL BOOM LENGTHS SEE WARNING NOTE 4	40 FT JOB FOR ALL BOOM LENGTHS SEE WARNING NOTE 4
	28000	19500	18100	79	14460				
5	78	88	10	12	15	20	25	30	35
10	63	69	76	82	88	94	100	106	112
15	49	55	61	67	73	79	85	91	97
20	28	34	40	46	52	58	64	70	76
25		24	30	36	42	48	54	60	66
30			17	23	29	35	41	47	53
35				10	16	22	28	34	40
40					10	16	22	28	34
45						10	16	22	28
50							10	16	22
55								10	16
60									10
65									
70									
75									
80									
85									
90									
95									
100									

ALLOWABLE LINE PULL				WARNING
1 PART LINE	2 PART LINE	3 PART LINE	4 PART LINE	
				<p>ANTI-TWO-BLOCK SYSTEM MUST BE IN GOOD OPERATING CONDITION BEFORE OPERATING CRANE. REFER TO OWNER'S MANUAL.</p> <p>KEEP AT LEAST 3 WRAPS OF LOAD LINE ON DRUM AT ALL TIMES.</p>
7800 LBS	15200 LBS	22800 LBS	28000 LBS	
7400 LBS	14800 LBS	22200 LBS	28000 LBS	<p>1/2" OR 9/16" - 6025 HRC (L.S.1) 2800 LBS MIN BREAKING STRENGTH</p> <p>5/8" NOT RESISTANT (L.S.1) 3700 LBS MIN BREAKING STRENGTH</p>

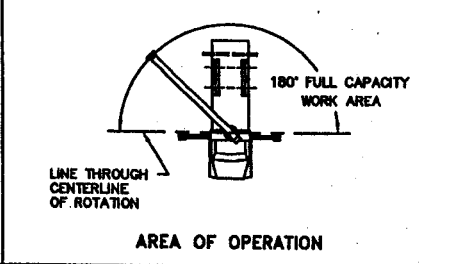
DEDUCTIONS FROM RATED LOADS FOR MANITEX SUPPLIED LOAD HANDLING DEVICES	
AUXILIARY BLOCK	50 LBS
OVERHAUL BALL	120 LBS
SINGLE SHEAVE LOAD BLOCK	250 LBS
DOUBLE SHEAVE LOAD BLOCK	350 LBS
HOSE REEL	190 LBS
SWING AROUND JIB (STOWED)	SEE LOAD CHART

WARNING
LIFTING OFF THE MAIN BOOM POINT WHILE THE SWING AROUND JIB IS ERRECTED IS NOT INTENDED OR APPROVED.

- WARNING**
- THE OPERATOR MUST READ AND UNDERSTAND THE OWNER'S MANUAL BEFORE OPERATING THIS CRANE.
 - POSITIONING OR OPERATION OF CRANE BEYOND AREAS SHOWN ON THIS CHART IS NOT INTENDED OR APPROVED EXCEPT WHERE SPECIFIED IN OWNER'S MANUAL.
 - LOADED 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.
 - THE OPERATING RADIUS SHOWN IN THE JOB RATING CHART IS FOR FULLY EXTENDED BOOM ONLY. WHEN BOOM IS NOT FULLY EXTENDED, USE ONLY LOADED BOOM ANGLE TO DETERMINE LOAD RATING OF JIB. DO NOT RELY ON CAPACITY ALERT SYSTEM WHEN LIFTING FROM JIB.
 - BOOM MUST BE FULLY RETRACTED WHEN JIB IS ERRECTED, BEFORE LOWERING BOOM THRU THIS AREA.
 - FOR BOOM ANGLES NOT SHOWN ON JOB LOAD RATING CHART, USE RATING OF NEXT LOWER BOOM ANGLE.
 - FOR BOOM LENGTHS NOT SHOWN, USE RATING OF NEXT LONGER BOOM LENGTH. FOR RADI NOT SHOWN, USE RATING OF NEXT LONGER RADIUS.
 - CRANE LOAD RATINGS ON OUTRIGGERS ARE BASED ON FREELY SUSPENDED LOADS WITH THE MACHINE LEVELED AND STANDING ON A FIRM UNIFORM SUPPORTING SURFACE. NO ATTEMPT SHALL BE MADE TO MOVE A LOAD HORIZONTALLY ON THE GROUND IN ANY DIRECTION.
 - PRACTICAL WORKING LOADS DEPEND ON SUPPORTING SURFACE, WIND, AND OTHER FACTORS AFFECTING STABILITY SUCH AS HAZARDOUS 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 BOOM LUBRICATION. IT IS SAFE TO ATTEMPT TO TELESCOPE ANY LOAD WITHIN THE LIMITS OF THE LOAD RATING CHART.

- INFORMATION**
- DEDUCTIONS MUST BE MADE FROM RATED LOADS FOR STOWED JIB, OPTIONAL ATTACHMENTS, HOOKS, AND LOAD-BLOCKS (SEE DEDUCTION CHART). WEIGHTS OF SLINGS AND ALL OTHER LOAD HANDLING DEVICES SHALL BE CONSIDERED A PART OF THE LOAD.
 - CRANE LOAD RATINGS WITH OUTRIGGERS ARE BASED ON OUTRIGGERS AND STABILIZERS EXTENDED AND SET WITH MACHINE LEVELED.
 - LOAD RATINGS ABOVE THE HEAVY LINE ARE STRUCTURALLY LIMITED CAPACITIES. LOAD RATINGS BELOW THE HEAVY LINE ARE STABILITY LIMITED CAPACITIES AND DO NOT EXCEED 85% OF TIPPING.
- DEFINITIONS**
- OPERATING RADIUS IS THE HORIZONTAL DISTANCE FROM THE AXIS OF ROTATION TO THE CENTER OF THE VERTICAL HOIST LINE OR TACKLE WITH LOAD APPLIED.
 - LOADED BOOM ANGLE AS SHOWN IN THE COLUMN HEADED BY ∠ IS THE INCLUDED ANGLE BETWEEN THE HORIZONTAL AND LONGITUDINAL AXES OF THE BOOM BASE AFTER LIFTING RATED LOAD AT RATED RADIUS.

MODEL M1461
MANITEX INC.
CRANE MEETS ANSI B30.5 REQUIREMENTS
DWG NO. 7300047-001 REV. [A]



STERLING CRANE

CENTER OF GRAVITY AND AXLE LOAD ANALYSIS

MODEL: 1401 S/N-39824 ESTIMATED TRUCK INFORMATION USED!

FOR: STERLING CRANE

BY: RANDY ROBERTSON

DATE: 1/17/2005

PROGRAM NAME: WTCGAXLE

PROGRAM DATE: 6/30/1992

DEVELOPED BY: MANITEX INC

CODE	DESCRIPTION	WEIGHT (LBS)	CG FROM CENTERLINE	MOMENT (IN-LBS)
	1 BOOM & WINCH INST (61 FT)	4166	105.89	441138
	(1) JIB INST TELE (23 TO 40 FT)	823	142.75	117483
	BOOM & WINCH INST (40 FT)	3236	64.51	
	JIB INST TELE (16 TO 27 FT)	590	95.75	
	1 WIRE ROPE	108	-23	-2484
	1 TURRET INSTALLATION	436	-3	-1308
	1 BOOM HOIST CYLINDER	270	46	12420
	1 BOOM REST INSTALLATION	125	246.81	30851
	1 OVERHAUL BALL & ROPE SOCK	120	256	30720
	1 SHV LOAD BLOCK & ROPE SOCK	260	109	
	1 2 SHV LOAD BLOCK & ROPE SOCK	350	256	89600
	HANGER SHEAVE	50	258	
	1 PEDESTAL & SWING INST	1833		
	1 OUTRIGGER INSTALLATION	1814	-11.5625	-20974
	1 CONTROL CONSOLE	335	18	6030
	1 PLATFORM & THROTTLE	182	4.75	865
	1 SUBFRAME INSTALLATION (18 FT BED)	1762	109.62	193150
	SUBFRAME INSTALLATION (20 FT BED)	1907	119	
	1 FLATBED INSTALLATION (18 FT)	1550	134.68	208754
	FLATBED INSTALLATION (20 FT)	1720	146.68	
	FLATBED INST (18 FT SPECIAL)	2100	134.68	
	REAR STABILIZER ("H" STYLE)	600	158.69	
	1 REAR STABILIZER (A-FRAME)	817	158.69	129650
	1 PUMP & PTO INSTALLATION	125	-35	-4375
	1 HYDRAULIC TANK (WITH 70 GAL OF OIL)	717	46	32982
	1 UNDERRIDE PROTECTION	90	242	21780
	BULKHEAD	125		
	TOOL BOX	80		
	OPTION			
	OPTION			
	OPTION			
TOTAL =		15623	82.333	1286282

GMC

FRONT AXLE WEIGHT (LBS)	= 7800	ESTIMATED WEIGHTS
REAR AXLE WEIGHT (LBS)	= 7200	
WHEELBASE (IN)	= 236	NOTE: IF WHEELBASE CHANGES
CAB TO TANDEM (IN)	= 168	SO MUST THE CAB TO TANDEM.
CENTERLINE ROT TO CAB (IN)	= 21	

MISCELLANEOUS ADDITIONS:

	WEIGHT (LBS)	CG FROM FRONT AXLE
90 GALLONS OF FUEL AT 7.4 LBS/GAL	7.4	53
1 DRIVER	200	53
OPTIONAL		

TOTAL WEIGHT OF TRUCK AND CRANE	LBS	KG
FRONT AXLE WEIGHT (LBS)	= 12752	5784
REAR AXLE WEIGHT (LBS)	= 18737	8499
GROSS VEHICLE WEIGHT (LBS)	= 31489	14283

NOTICE:

Axle loadings are an estimate

The crane weight and axle loadings are based on theoretical calculated crane and truck weights. Truck weights are dependent on variations in wheelbase, equipment, fuel, fuel capacity, driver weight and scale accuracy. Actual truck axle loadings may differ from those shown and can only be verified by a certified scale after mounting.

STERLING CRANE

Dimensions

