



# LOAD CHARTS

for Use With

## WRITTEN EXAMINATIONS



## American 9320

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*This load chart has been adapted from the original manufacturer's load chart for use in the NCCER Mobile Crane Certification Examination. It is not to be used for calculating loads, planning lifts, or for any other purpose.*

# AMERICAN

## 900 SERIES

### MODEL 9320

### CRAWLER CRANE

## LIFT CRANE RATINGS IN POUNDS

With 92HT Tubular Chord Boom and "T-T" Counterweight (140,000 lbs.)

BOOM LENGTH	RADIUS IN FEET	BOOM ANGLE DEGREE	LIFT RATING IN POUNDS	FEET FROM BOOM POINT TO GROUND
70 FEET	17	81.4	500,000	76
	20	78.9	425,480	75
	25	74.7	324,680	74
	30	70.4	237,130	72
	35	65.9	185,910	70
	40	61.3	152,340	67
	50	51.3	110,890	61
	60	39.5	86,230	50
80 FEET	70	23.2	69,960	33
	18	81.8	475,930	86
	20	80.3	424,920	85
	25	76.6	324,160	84
	30	72.9	237,060	83
	35	69.1	185,760	81
	40	65.2	152,150	79
	50	56.9	110,660	73
90 FEET	60	47.7	85,970	65
	70	36.8	69,720	54
	80	21.6	58,050	35
	20	81.4	424,090	96
	25	78.2	323,320	95
	30	74.9	236,770	93
	35	71.5	185,430	92
	40	68.1	151,810	90
100 FEET	50	61.0	110,300	85
	60	53.3	85,580	78
	70	44.8	69,350	69
	80	34.6	57,700	57
	90	20.3	48,970	37
	21	81.7	398,300	106
	25	79.4	322,610	105
	30	76.4	236,550	104
110 FEET	35	73.4	185,150	102
	40	70.4	151,500	101
	50	64.2	109,950	96
	60	57.5	85,190	90
	70	50.4	68,970	83
	80	42.3	57,310	73
	90	32.7	48,580	60
	100	19.2	41,800	38

BOOM LENGTH	RADIUS IN FEET	BOOM ANGLE DEGREE	LIFT RATING IN POUNDS	FEET FROM BOOM POINT TO GROUND
110 FEET CONT.	30	77.7	236,290	114
	35	75.0	184,830	113
	40	72.3	151,150	111
	50	66.7	109,580	107
	60	60.8	84,770	102
	70	54.6	68,560	96
	80	47.9	56,880	87
	90	40.2	48,150	77
	100	31.1	41,370	62
	110	18.3	36,030	40
120 FEET	24	81.6	337,760	125
	25	81.1	321,660	125
	30	78.7	236,060	124
	35	76.3	184,670	123
	40	73.8	151,050	122
	50	68.7	109,540	118
	60	63.5	84,780	114
	70	58.0	68,630	108
	80	52.1	56,970	101
	90	45.7	48,250	92
	100	38.4	41,500	80
	110	29.7	36,230	65
130 FEET	120	17.4	31,770	41
	25	81.8	320,990	135
	30	79.6	235,880	134
	35	77.4	184,420	133
	40	75.1	150,750	132
	50	70.4	109,190	129
	60	65.7	84,390	125
	70	60.7	68,230	119
	80	55.5	56,560	113
	90	49.9	47,840	105
	100	43.8	41,060	96
	110	36.8	35,830	84
140 FEET	120	28.5	31,390	68
	130	16.7	27,670	43
	27	81.6	281,750	145
	30	80.4	235,510	145
	35	78.3	180,010	144
	40	76.2	150,330	142
	50	71.9	108,740	139
	60	67.5	63,900	136
	70	63.0	67,760	131

(Continued)

NOTE: These load charts are intended for instructional purposes only. These load charts were derived from manufacturer sales information which may not be complete or machine specific.

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# LIFT CRANE RATINGS IN POUNDS (cont.)

With 92HT Tubular Chord Boom and "T-T" Counterweight (140,000 lbs.)

BOOM LENGTH	RADIUS IN FEET	BOOM ANGLE DEGREE	LIFT RATING IN POUNDS	FEET FROM BOOM POINT TO GROUND
140 FEET CONT.	80	58.3	56,080	125
	90	53.3	47,350	118
	100	47.9	40,570	110
	110	42.1	35,380	99
	120	35.4	30,940	87
	130	27.4	27,220	70
	140	16.1	24,080	44
150 FEET	28	81.8	264,200	155
	30	81.0	235,260	155
	35	79.1	183,700	154
	40	77.1	149,980	153
	50	73.1	108,340	150
	60	69.1	83,470	146
	70	64.9	67,330	142
	80	60.6	55,620	137
	90	56.1	46,880	130
	100	51.3	40,360	123
	110	46.2	34,920	114
	120	40.6	30,480	103
	130	34.2	26,770	90
	140	26.5	23,630	72
	150	15.5	20,930	45
160 FEET	29	81.9	248,500	165
	30	81.6	235,000	165
	35	79.8	183,370	164
	40	77.9	149,610	163
	50	74.2	107,930	160
	60	70.5	83,020	157
	70	66.6	66,880	153
	80	62.6	55,150	148
	90	58.5	46,400	142
	100	54.1	39,890	136
	110	49.6	34,450	128
	120	44.6	30,000	118
	130	39.2	26,290	107
	140	33.0	23,150	93
	150	25.6	20,460	75
	160	15.0	18,120	47
170 FEET	31	81.7	222,010	175
	35	80.4	182,920	174
	40	78.6	149,240	173
	50	75.2	107,630	171
	60	71.6	82,750	168
	70	68.1	66,650	164
	80	64.4	54,950	159
	90	60.5	46,210	154
	100	56.6	39,750	148
	110	52.4	34,320	141
	120	48.0	29,890	132
	130	43.2	26,190	122
	140	38.0	23,060	110
	150	32.0	20,380	96
	160	24.8	18,060	77
	170	14.5	16,030	48
180 FEET	32	81.9	210,500	185
	35	81.0	182,660	184

BOOM LENGTH	RADIUS IN FEET	BOOM ANGLE DEGREE	LIFT RATING IN POUNDS	FEET FROM BOOM POINT TO GROUND
180 FEET CONT.	40	79.3	148,930	183
	50	76.0	107,270	181
	60	72.7	82,340	178
	70	69.3	66,240	175
	80	65.9	54,520	170
	90	62.3	45,770	168
	100	58.6	39,320	160
	110	54.8	33,880	153
	120	50.8	29,440	145
	130	46.5	25,740	136
	140	41.9	22,610	126
	150	36.9	19,930	114
190 FEET	160	31.1	17,610	98
	170	24.1	15,570	79
	180	14.1	13,770	49
	33	82.0	200,260	195
	35	81.4	182,250	194
	40	79.9	148,510	194
	50	76.8	106,810	191
	60	73.6	81,850	189
	70	70.5	65,750	185
	80	67.2	54,020	181
	90	63.9	45,250	177
	100	60.5	38,840	171
	110	56.9	33,390	165
	120	53.2	28,950	158
	130	49.3	25,250	150
	140	45.2	22,120	141
	150	40.7	19,440	130
	160	35.8	17,110	117
	170	30.2	15,070	101
	180	23.4	13,280	81
	190	13.7	11,690	50
200 FEET	35	81.8	181,950	205
	40	80.4	148,160	204
	50	77.4	106,420	202
	60	74.5	81,420	199
	70	71.5	65,320	196
	80	68.4	53,560	192
	90	65.3	44,780	188
	100	62.1	38,370	183
	110	58.8	32,920	177
	120	55.4	28,470	170
	130	51.8	24,770	163
	140	48.0	21,630	154
	150	44.0	18,950	145
	160	39.7	16,620	133
	170	34.9	14,590	120
	180	29.4	12,790	104
	190	22.8	11,190	83
	200	13.4	9,770	52
210 FEET	36	81.9	173,680	215
	40	80.8	147,820	214
	50	78.1	106,020	212
	60	75.2	80,970	210
	70	72.4	64,870	207
	80	69.5	53,090	203

(Continued)

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# LIFT CRANE RATINGS IN POUNDS (cont.)

With 92HT Tubular Chord Boom and "T-T" Counterweight (140,000 lbs.)

BOOM LENGTH	RADIUS IN FEET	BOOM ANGLE DEGREES	LIFT RATING IN POUNDS	FEET FROM BOOM POINT TO GROUND
210 FEET CONT.	90	66.6	44,290	199
	100	63.5	37,900	194
	110	60.4	32,450	189
	120	57.2	27,990	183
	130	53.9	24,280	176
	140	50.4	21,140	168
	150	46.8	18,450	159
	160	42.9	16,120	149
	170	38.6	14,080	137
	180	34.0	12,280	123
	190	28.7	10,690	106
	200	22.3	9,260	85
220 FEET	210	13.0	7,980	53
	38	81.8	152,560	224
	40	81.3	147,300	224
	50	78.6	105,590	222
	60	75.9	80,580	220
	70	73.2	64,530	217
	80	70.5	52,760	214
	90	67.7	43,980	210
	100	64.8	37,630	205
	110	61.9	32,180	200
	120	58.9	27,730	194
	130	55.8	24,030	188
	140	52.6	20,900	181
	150	49.2	18,220	172
230 FEET	160	45.6	15,890	163
	170	41.8	13,860	152
	180	37.7	12,070	140
	190	33.2	10,480	126
	200	28.0	9,060	109
	210	21.7	7,790	87
	220	12.7	6,640	54
	39	81.9	138,380	234
	40	81.6	138,380	234
	50	79.1	105,230	232
	60	76.6	80,180	230
	70	74.0	64,120	227
240 FEET	80	71.4	52,330	224
	90	68.7	43,530	221
	100	66.0	37,190	216
	110	63.2	31,730	211
	120	60.4	27,280	206
	130	57.5	23,570	200
	140	54.4	20,440	193
	150	51.3	17,740	185
	160	48.0	15,420	177
	170	44.6	13,390	167
	180	40.9	11,590	156
	190	36.9	10,000	144
240 FEET	200	32.4	8,580	129
	210	27.4	7,300	111
	220	21.2	6,140	89
	230	12.4	5,100	55
	40	82.0	132,330	244
	50	79.6	104,780	243
	60	77.1	80,240	240

BOOM LENGTH	RADIUS IN FEET	BOOM ANGLE DEGREES	LIFT RATING IN POUNDS	FEET FROM BOOM POINT TO GROUND
240 FEET CONT.	70	74.7	63,630	238
	80	72.2	51,840	235
	90	69.6	43,030	231
	100	67.1	36,710	227
	110	64.4	31,250	223
	120	61.7	26,780	218
	130	59.0	23,060	212
	140	56.1	19,930	205
	150	53.2	17,240	198
	160	50.1	14,910	190
	170	46.9	12,870	181
	180	43.6	11,080	171
250 FEET	190	39.9	9,480	160
	200	36.0	8,060	147
	210	31.7	5,780	132
	220	26.8	4,630	114
	230	20.8	4,590	91
	42	81.9	120,120	254
	50	80.0	104,400	253
	60	77.6	79,830	251
	70	75.3	63,200	248
	80	72.9	51,380	245
	90	70.5	42,560	242
	100	68.0	36,250	238
260 FEET	110	65.5	30,780	234
	120	63.0	26,300	229
	130	60.4	22,590	223
	140	57.7	19,440	217
	150	54.9	16,750	211
	160	52.1	14,410	203
	170	49.1	12,380	195
	180	45.9	10,580	185
	190	42.6	8,990	175
	200	39.1	7,560	163
	210	35.3	6,280	150
	220	31.1	5,110	134
260 FEET	230	26.2	4,070	116
	43	81.9	109,260	264
	50	80.4	104,010	263
	60	78.1	79,420	261
	70	75.9	62,760	259
	80	73.6	50,920	256
	90	71.3	42,080	253
	100	68.9	35,790	249
	110	66.5	30,310	245
	120	64.1	25,830	240
	130	61.6	22,100	235
	140	59.1	18,950	229
260 FEET	150	56.4	16,250	223
	160	53.8	13,910	216
	170	51.0	11,870	208
	180	48.1	10,070	199
	190	45.0	8,470	190
	200	41.8	7,040	179
260 FEET	210	38.3	5,760	167
	220	34.6	4,600	153

(Continued)

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## LIFT CRANE RATINGS IN POUNDS (cont.)

With 92HT Tubular Chord Boom and "T-T" Counterweight (140,000 lbs.)

BOOM LENGTH	RADIUS IN FEET	BOOM ANGLE DEGREES	LIFT RATING IN POUNDS	FEET FROM BOOM POINT TO GROUND
270 FEET	45	81.8	95,570	274
	50	80.7	95,200	273
	60	78.6	78,970	271
	70	76.4	62,340	269
	80	74.2	50,520	266
	90	72.0	41,690	263
	100	69.7	35,430	260
	110	67.4	29,960	256
	120	65.1	25,490	251
	130	62.8	21,770	246
	140	60.3	18,630	241
	150	57.9	15,940	235
	160	55.3	13,610	228
	170	52.7	11,570	221
	180	49.9	9,770	212
	190	47.1	8,180	204
	200	44.1	6,760	194
	210	40.9	5,470	183
	220	37.6	4,320	170

BOOM LENGTH	RADIUS IN FEET	BOOM ANGLE DEGREES	LIFT RATING IN POUNDS	FEET FROM BOOM POINT TO GROUND
280 FEET	46	81.9	87,590	284
	50	81.1	87,250	283
	60	79.0	78,600	281
	70	76.9	61,940	279
	80	74.8	50,100	277
	90	72.6	41,250	274
	100	70.5	35,000	270
	110	68.3	29,520	266
	120	66.1	25,050	262
	130	63.8	21,320	257
	140	61.5	18,170	252
	150	59.1	15,470	246
	160	56.7	13,140	240
	170	54.2	11,090	233
	180	51.6	9,290	225
	190	49.0	7,700	217
	200	46.2	6,270	208
	210	43.3	4,990	198

## LOAD HOISTING DATA

Maximum Lifting Capacity in Pounds	Minimum Parts of Load Line	Maximum Hoisting Distance		
		RH Drum with Controlled Load Lowering	LH Drum With Controlled Load Lowering	LH Drum Without Controlled Load Lowering
		Ft.	Ft.	Ft.
*500,000	14	59	30	46
490,280	12	69	35	53
449,427	11	76	38	58
408,570	10	83	42	64
367,710	9	93	47	71
326,850	8	104	52	80
286,000	7	119	60	92
245,140	6	139	70	107
204,280	5	167	84	129
163,420	4	209	105	161
122,570	3	279	141	215
81,710	2	419	211	323
40,850	1	839	423	647

\*Requires boom point hanger block. Based on 1 1/8 in. amper grade load line with 143,000 lbs. minimum breaking strength.

## METRIC

Maximum Lifting Capacity in Kilograms	Minimum Parts of Load Line	Maximum Hoisting Distance		
		RH Drum with Controlled Load Lowering	LH Drum With Controlled Load Lowering	LH Drum Without Controlled Load Lowering
		M	M	M
*226,800	14	18.3	9.2	14.0
222,390	12	21.0	10.7	16.2
203,860	11	23.2	11.6	17.7
185,320	10	25.3	12.8	19.5
166,790	9	28.3	14.3	21.6
148,260	8	31.7	15.8	24.4
129,720	7	36.3	18.3	28.0
111,190	6	42.4	21.3	32.6
92,660	5	50.9	25.6	39.3
74,130	4	63.7	32.0	49.1
55,590	3	85.0	50.0	65.5
37,060	2	127.7	64.3	98.5
18,530	1	255.7	128.9	197.2

\*Requires boom point hanger block. Based on 28.8 min. dia. load line with 64865 kgs. minimum breaking strength

## BOOM AND JIB ERECTION

92 HT Boom Length In Feet	Maximum No. 30H Jib In Feet
280	0
270	0
260	45
250	85
240	95

## METRIC

92 HT Boom Length In Meters	Maximum No. 30H Jib In Meters
85.3	0
82.3	0
79.3	13.7
76.2	25.9
73.2	29.0

Erection is over the idler and at the crawlers with A-Frame hulls raised and tumblers blocked.

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## 92HT BOOM COMPOSITION

Boom Length		30 Ft. (9.1 m)	20 Ft. (6.1 m)	10 Ft. (3.0 m)	50 Ft. (15.2 m)	40 Ft. (12.2 m)
In Feet	In Meters	92HT Inner	92HT Center	92ST Center	92ST Center	92H Outer
70	21.3	1	—	—	—	1
80	24.4	1	—	1	—	1
90	27.4	1	1	—	—	1
100	30.5	1	1	1	—	1
110	33.5	1	1	2	—	1
120	36.6	1	—	—	1	1
130	39.6	1	—	1	1	1
140	42.7	1	1	—	1	1
150	45.7	1	1	1	1	1
160	48.8	1	1	2	1	1
170	51.8	1	—	—	2	1
180	54.9	1	—	1	2	1
190	57.9	1	1	—	2	1
200	61.0	1	1	1	2	1
210	64.0	1	1	2	2	1
220	67.1	1	—	—	3	1
230	70.1	1	—	1	3	1
240	73.2	1	1	0	3	1
250	76.2	1	1	1	3	1
260	79.3	1	1	2	3	1
270	82.3	1	0	0	4	1
280	85.3	1	0	1	4	1

## PERFORMANCE

Travel Speed ..... 0 to 1.1 MPH maximum (1.77 KmPH)  
Friction Swing ..... 2.28 RPM maximum  
Hydrostatic Swing ..... 1.9 RPM maximum

## HOISTING PERFORMANCE:

Function	Single Line Pull at Single Line Speed	
	SLP (Pounds) at SLS (Feet Per Min.)	SLP (Kilograms) at SLS (Meters Per Min.)
Crane	40,000 lbs. at 165 FPM	18144 kg at 50.1 MPM
Third Drum	15,000 lbs. at 225 FPM	6804 kg at 68.6 MPM
Third Drum	21,000 lbs. at 220 FPM	9525 kg at 67.0 MPM
G.D./S.H. Third Drum	40,000 lbs. at 90 FPM	18144 kg at 27.4 MPM

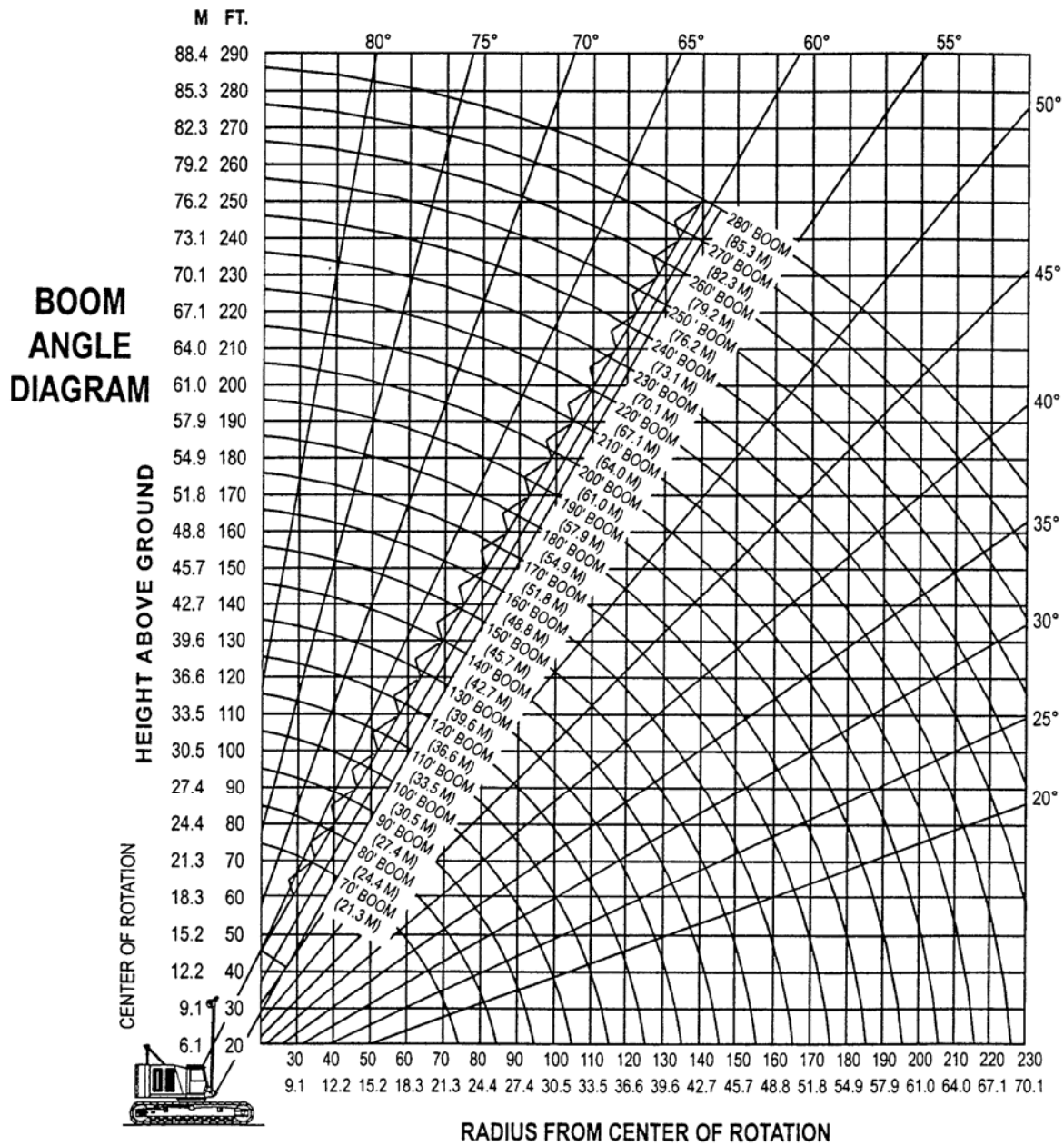
Performance figures are based on machine equipped with standard engine and torque converter.

## WEIGHTS

	Lbs.	Kgs.
Lifting Crane with Basic 70 ft.		
92 HT Crane Boom	384,280	174,306
Components Removable for Shipment:		
Counterweight	140,000	63,504
Boom Outer	10,070	4,568
Boom Inner	8,560	3,883
Telescopic Boom Stops	300	136
Outer Bail Assembly	2,450	1,111
A-Frame	5,320	2,413
Side Frames, 50 in. (1270 mm)		
Shoes (2)	91,260	41,395
Torque Tubes (2)	2,670	1,211
Carbody	47,460	21,528
Ground Bearing Pressure:		8,085
Standard Equipped Lift Crane	11.5 PSI	kg/m <sup>2</sup>

NOTE: In accordance with varying material situations and the Company's policy of constant product improvement, these specifications are subject to change without notice and without incurring responsibility to units previously sold.

# AMERICAN MODEL 9320 CRAWLER CRANE WORKING RANGES



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