

MODEL 70-D SPECIFICATIONS

80 Ton (72.575 Metric Ton) Crane PCSA Class 12-290

LIFTING CAPACITIES — SAFE-T-LITE™ TUBULAR BOOM Crane Capacities Based On 75% Of Tipping Load

Boom Length In Feet (In Metres)	Radius		Crane		Clamshell or Magnet		Dragline	
	Feet	Metres	lbs	kg	lbs	kg	lbs	kg
50 (15.24)	12	3.66	160,000 A	72 575				
	15	4.57	116,100	52 662				
	20	6.10	73,790	33 471				
	25	7.62	53,740	24 376				
	30	9.14	42,040	19 069	14,500	6 577		
	35	10.67	34,370	15 590	14,500	6 577	14,400	6 532
	40	12.19	28,950	13 131	14,500	6 577	12,110	5 493
	50	15.24	21,800	9 888	10,900	4 944		
60 (18.29)	15	4.57	116,000	52 617				
	20	6.10	73,750	33 452				
	25	7.62	53,660	24 340				
	30	9.14	41,940	19 024				
	35	10.67	34,260	15 540	14,500	6 577		
	40	12.19	28,830	13 077	14,400	6 532		
	50	15.24	21,670	9 829	10,670	4 840	11,860	5 380
60	18.29	17,150	7 779	8,250	3 742	9,170	4 159	
70 (21.34)	20	6.10	73,640	33 403				
	25	7.62	53,550	24 290				
	30	9.14	41,820	18 969				
	35	10.67	34,130	15 481				
	40	12.19	28,700	13 018	14,170	6 427		
	50	15.24	21,540	9 770	10,450	4 740	11,610	5 266
	60	18.29	17,020	7 720	8,030	3 642	8,920	4 046
70	21.34	13,900	6 305	6,380	2 894	7,090	3 216	
80 (24.38)	20	6.10	73,550	33 362				
	25	7.62	53,430	24 235				
	30	9.14	41,680	18 906				
	35	10.67	33,990	15 418				
	40	12.19	28,550	12 950	Maximum Boom Allowed			
	50	15.24	21,380	9 698	10,220	4 636		
	60	18.29	16,860	7 648	7,800	3 538	8,670	3 933
	70	21.34	13,470	6 110	6,160	2 794	6,840	3 103
80	24.38	11,450	5 194	4,950	2 245	5,500	2 495	
100 (30.48)	25	7.62	53,130	24 099				
	30	9.14	41,370	18 765				
	35	10.67	33,660	15 268				
	40	12.19	28,220	12 800				
	45	13.72	24,170	10 963				
	50	15.24	21,030	9 539				
	55	16.76	18,540	8 410				
	60	18.29	16,510	7 489				
	65	19.81	14,820	6 722				
	70	21.34	13,390	6 074				
80	24.38	11,110	5 039					
90	27.43	9,360	4 246					
120 (36.58)	30	9.14	41,030	18 611				
	35	10.67	33,310	15 109				
	40	12.19	27,860	12 637				
	45	13.72	23,810	10 800				
	50	15.24	20,680	9 380				
	55	16.76	18,180	8 246				
	60	18.29	16,150	7 326				
	70	21.34	13,030	5 910				
	80	24.38	10,750	4 876				
	90	27.43	9,020	4 091				
	100	30.48	7,640	3 465				
110	33.53	6,530	2 962					

Boom Length In Feet (In Metres)	Radius		Crane	
	Feet	Metres	lbs	kg
140 (42.67)	30	9.14	40,650	18 439
	35	10.67	32,920	14 932
	40	12.19	27,460	12 456
	45	13.72	23,410	10 619
	50	15.24	20,270	9 194
	55	16.76	17,770	8 060
	60	18.29	15,730	7 135
	70	21.34	12,620	5 724
	80	24.38	10,430	4 731
	90	27.43	8,600	3 901
	100	30.48	7,220	3 275
	110	33.53	6,110	2 771
	120	36.58	5,200	2 359
130	39.62	4,420	2 005	
150 (45.72)	35	10.67	32,710	14 837
	40	12.19	27,240	12 356
	45	13.72	23,170	10 510
	50	15.24	20,030	9 085
	55	16.76	17,520	7 947
	60	18.29	15,480	7 022
	70	21.34	12,350	5 602
	80	24.38	10,070	4 568
	90	27.43	8,330	3 778
	100	30.48	6,950	3 152
	110	33.53	5,840	2 649
	120	36.58	4,920	2 232
	130	39.62	4,150	1 882
140	42.67	3,480	1 579	
160 (48.77)	35	10.67	32,560	14 769
	40	12.19	27,090	12 288
	45	13.72	23,020	10 442
	50	15.24	19,870	9 013
	55	16.76	17,370	7 879
	60	18.29	15,320	6 949
	70	21.34	12,200	5 534
	80	24.38	9,910	4 495
	90	27.43	8,170	3 706
	100	30.48	6,790	3 080
	110	33.53	5,680	2 576
	120	36.58	4,760	2 159
	130	39.62	3,990	1 810
140	42.67	3,330	1 510	
170 (51.82)	35	10.67	32,330	14 665
	40	12.19	26,850	12 179
	45	13.72	22,780	10 333
	50	15.24	19,630	8 904
	55	16.76	17,120	7 766
	60	18.29	15,080	6 840
	70	21.34	11,950	5 420
	80	24.38	9,660	4 382
	90	27.43	7,920	3 592
	100	30.48	6,540	2 966
	110	33.53	5,430	2 463
	120	36.58	4,510	2 046
	130	39.62	3,740	1 696
140	42.67	3,080	1 397	

(A) Based on Factors other than Tipping. 'Booms 150' (45.72m) and Longer Required Intermediate Suspension [354120]

NORTHWEST ENGINEERING COMPANY • 201 W. Walnut St. • Green Bay, Wisconsin 54305

Because we are continually improving our products, the descriptions and specifications herein are subject to change without notice and do not constitute express warranties. The only warranty applicable is our standard written warranty. We make no other warranty, express or implied, and particularly make no warranty of merchantability or fitness for a particular purpose.

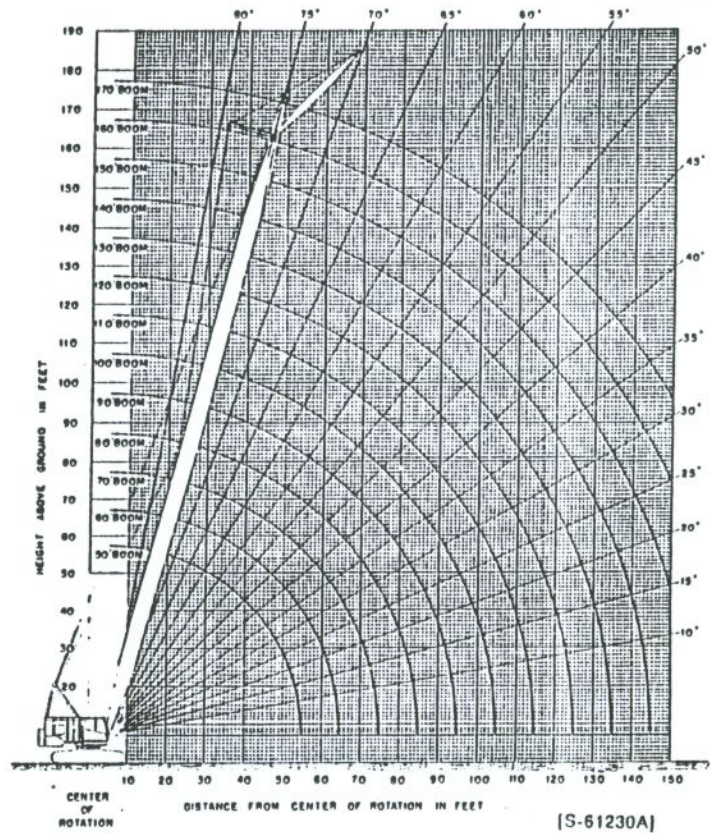


MODEL 70-D SPECIFICATIONS

80 Ton (72.575 Metric Ton) Crane
PCSA Class 12-280

GENERAL DIMENSIONS

CRAWLER BASE		
Overall Length	19' 0"	5.79m
Width with 38" (965.2mm) Treads	15' 2"	4.62m
Width with Retractable Crawler		
Fully Retracted	13' 7"	4.14m
Maximum Height of Crawlers	3' 8 1/4"	1.12m
Height of Crawler Tread Belt at Center of		
End Tumblers	3' 0 1/4"	923.93mm
Overall Width of Cab		
With Catwalk	10' 4"	3.15m
Without Catwalk	12' 2"	3.71m
Swing Clearance		
With Counterweight Installed	12' 5"	3.78m
With Gantry Lowered	13' 2 1/2"	4.03m
With Gantry Lowered	14' 8 1/2"	4.48m
Height of Gantry Lowered		
Raised	13' 4 1/4"	4.08m
	21' 1 1/4"	6.45m
Distance Under Counterweight to Grade	4' 6"	1.37m
Boom Foot Pin to Axis of Rotation	4' 8"	1.42m
Height of Boom Foot Pin Above Grade	7' 3 1/4"	2.21m
SPEEDS		
Swing Speed: Friction	3.7 RPM	
Hydraulic	2.5 RPM	
Travel Speed:	1.0 MPH 1.609 km/h	



HOIST LINE REEVING

For Loads Over		Use Parts of Line
lbs	kg	
20,000	9 072	2
40,000	18 144	3
60,000	27 216	4
80,000	36 287	5
100,000	45 359	6
120,000	54 431	7
140,000	63 503	8
160,000	Max. 72 575	8

SAFE-T-LITE™ JIB CAPACITIES

Horizontal Offset Feet Metres	JIB LENGTH								Maximum Boom and Jib Combinations																
	20' (6.10m)		30' (9.14m)		40' (12.19m)		50' (15.24m)																		
	lbs	kg	lbs	kg	lbs	kg	lbs	kg																	
5 1.52	27,000	12 247	20,000	9 072					<table border="0"> <tr> <td>Boom</td> <td></td> <td>Jib</td> <td></td> </tr> <tr> <td>170'</td> <td>51.82m</td> <td>None</td> <td></td> </tr> <tr> <td>160'</td> <td>48.77m</td> <td>30'</td> <td>9.14m</td> </tr> <tr> <td>150'</td> <td>45.72m</td> <td>50'</td> <td>15.24m</td> </tr> </table>	Boom		Jib		170'	51.82m	None		160'	48.77m	30'	9.14m	150'	45.72m	50'	15.24m
Boom		Jib																							
170'	51.82m	None																							
160'	48.77m	30'	9.14m																						
150'	45.72m	50'	15.24m																						
10 3.05	24,000	10 886	18,000	8 165	15,000	6 804	12,000	5 443																	
15 4.57	22,000	9 979	17,000	7 711	14,000	6 350	11,500	5 216																	
20 6.10	22,000	9 979	16,000	7 257	13,000	5 897	11,000	4 990																	
25 7.62			15,500	7 031	12,500	5 670	10,500	4 763																	
30 9.14			15,000	6 804	12,000	5 443	10,000	4 536																	
35 10.67					11,500	5 216	9,500	4 309																	
40 12.19					11,500	5 216	9,500	4 309																	
45 13.72							9,000	4 082																	
50 15.24							9,000	4 082																	
Reduction in Crane Capacity	1,700	771	1,960	889	2,190	993	2,450	1 111																	

[245238]

WEIGHTS

	Crawler Length, Overall Width, Tread Width	Complete Machine	50' (15.24m) Safe-T-Lite™ Tubular Boom	Removable External (1) Counterweight	Both Crawler Side Frames	Complete Machine Less Attachment, Counterweight, Both Side Frames	Travel And Axles, Less Side Frames
Crane	19'0"x15'2"x38" 5.79mx4.62mx965.2mm	144,490# 65 540kg	5,225# 2 370kg	39,600# 17 962kg	33,460# 15 177kg	66,405# 30 121kg	17,160# 7 784kg
Crane/ Dragline	19'0"x15'2"x38" 5.79mx4.62mx965.2mm	147,470# 66 891kg	5,225# 2 370kg	39,600# 17 962kg	33,460# 15 177kg	69,385# 31 473kg	17,160# 7 784kg
Crane/ Dragline/ Clamshell	19'0"x15'2"x38" 5.79mx4.62mx965.2mm	148,835# 67 510kg	5,615# 2 547kg	39,600# 17 962kg	33,460# 15 177kg	70,360# 31 915kg	17,160# 7 784kg

(1) Three Pieces: 19,830# + 4,620# + 15,150# (8 995kg + 2 096kg + 6 872kg).

5-6. LIFTING CAPACITIES

LIFTING CAPACITIES — SAFE-T-LITE™ TUBULAR BOOM
Crane Capacities Based On 75% Of Tipping Load

Boom Length In Feet (In Metres)	Radius		Crane		Clamshell or Magnet		Dragline		Boom Length In Feet (In Metres)	Radius		Crane	
	Feet	Metres	lbs	kg	lbs	kg	lbs	kg		Feet	Metres	lbs	kg
50 (15.24)	12	3.66	160,000	72 575					140 (42.67)	30	9.14	40,650	18 439
	15	4.57	116,100	52 662						35	10.67	32,920	14 932
	20	6.10	73,790	33 471						40	12.19	27,460	12 456
	25	7.62	53,740	24 376						45	13.72	23,410	10 619
	30	9.14	42,040	19 069	14,500	6 577				50	15.24	20,270	9 194
	35	10.67	34,370	15 590	14,500	6 577	14,400	6 532		55	16.76	17,770	8 060
	40	12.19	28,950	13 131	14,500	6 577	14,400	6 532		60	18.29	15,730	7 135
50	15.24	21,800	9 888	10,900	4 944	12,110	5 493	70		21.34	12,620	5 724	
60 (18.29)	15	4.57	116,000	52 617						80	24.38	10,430	4 731
	20	6.10	73,750	33 452						90	27.43	8,600	3 901
	25	7.62	53,660	24 340						100	30.48	7,220	3 275
	30	9.14	41,940	19 024						110	33.53	6,110	2 771
	35	10.67	34,260	15 540	14,500	6 577				120	36.58	5,200	2 359
	40	12.19	28,830	13 077	14,400	6 532			130	39.62	4,420	2 005	
	50	15.24	21,670	9 829	10,670	4 840	11,860	5 380	150 (45.72)	35	10.67	32,710	14 837
60	18.29	17,150	7 779	8,250	3 742	9,170	4 159	40		12.19	27,240	12 356	
70 (21.34)	20	6.10	73,640	33 403						45	13.72	23,170	10 510
	25	7.62	53,550	24 290						50	15.24	20,030	9 085
	30	9.14	41,820	18 969						55	16.76	17,520	7 947
	35	10.67	34,130	15 481						60	18.29	15,480	7 022
	40	12.19	28,700	13 018	14,170	6 427				70	21.34	12,350	5 602
	50	15.24	21,540	9 770	10,450	4 740	11,610	5 266	80	24.38	10,070	4 568	
	60	18.29	17,020	7 720	8,030	3 642	8,920	4 046	90	27.43	8,330	3 778	
70	21.34	13,900	6 305	6,380	2 894	7,090	3 216	100	30.48	6,950	3 152		
80 (24.38)	20	6.10	73,550	33 362					110	33.53	5,840	2 649	
	25	7.62	53,430	24 235					120	36.58	4,920	2 232	
	30	9.14	41,680	18 906					130	39.62	4,150	1 882	
	35	10.67	33,990	15 418					140	42.67	3,480	1 579	
	40	12.19	28,550	12 950	Maximum Boom Allowed				160 (48.77)	35	10.67	32,560	14 769
	50	15.24	21,380	9 698	10,220	4 636				40	12.19	27,090	12 288
	60	18.29	16,860	7 648	7,800	3 538	8,670	3 933		45	13.72	23,020	10 442
	70	21.34	13,470	6 110	6,160	2 794	6,840	3 103		50	15.24	19,870	9 013
80	24.38	11,450	5 194	4,950	2 245	5,500	2 495	55		16.76	17,370	7 879	
100 (30.48)	25	7.62	53,130	24 099						60	18.29	15,320	6 949
	30	9.14	41,370	18 765						70	21.34	12,200	5 534
	35	10.67	33,660	15 268						80	24.38	9,910	4 495
	40	12.19	28,220	12 800					90	27.43	8,170	3 706	
	45	13.72	24,170	10 963					100	30.48	6,790	3 080	
	50	15.24	21,030	9 539					110	33.53	5,680	2 576	
	55	16.76	18,540	8 410					120	36.58	4,760	2 159	
	60	18.29	16,510	7 489					130	39.62	3,990	1 810	
	65	19.81	14,820	6 722					140	42.67	3,330	1 510	
	70	21.34	13,390	6 074					170 (51.82) Max. Boom Allowed	35	10.67	32,330	14 665
80	24.38	11,110	5 039					40		12.19	26,850	12 179	
90	27.43	9,360	4 246					45		13.72	22,780	10 333	
120 (36.58)	30	9.14	41,030	18 611						50	15.24	19,630	8 904
	35	10.67	33,310	15 109						55	16.76	17,120	7 766
	40	12.19	27,860	12 637						60	18.29	15,080	6 840
	45	13.72	23,810	10 800						70	21.34	11,950	5 420
	50	15.24	20,680	9 380						80	24.38	9,660	4 382
	55	16.76	18,180	8 246						90	27.43	7,920	3 592
	60	18.29	16,150	7 326						100	30.48	6,540	2 966
	70	21.34	13,030	5 910					110	33.53	5,430	2 463	
	80	24.38	10,750	4 876					120	36.58	4,510	2 046	
	90	27.43	9,020	4 091					130	39.62	3,740	1 696	
100	30.48	7,640	3 465					140	42.67	3,080	1 397		
110	33.53	6,530	2 962										

(A) Based on Factors other than Tipping.

*Booms 150' (45.72m) and Longer Required Intermediate Suspension

[354120]

SECTION V SPECIFICATIONS

5-1. AIR OPERATING PRESSURES

Compressor	120-135 psi (827-931 kPa)
Receiver Tanks	120-135 psi (827-931 kPa)
Travel Clutches	120-135 psi (827-931 kPa)
Travel Brakes	120-135 psi (827-931 kPa)
Independent Boom Hoist Clutch90 psi (620 kPa)
Independent Boom Hoist Brake90 psi (620 kPa)
Drag (Right) Drum Clutch90 psi (620 kPa)
Hoist (Left) Drum Clutch90 psi (620 kPa)
Engine Clutch90 psi (620 kPa)

5-2. COMPONENT LIQUID CAPACITIES

Alcohol Injector40 oz (1 183 mL)
Air Supply Lubricator	1 pt (.473 L)
Engine Crankcase (GMC 6V-71N)	19 qt (18 L)
Engine Radiator (GMC 6V-71N)13 gal (49.2 L)
Fuel Tank	75 gal (284 L)
Centralized Oiling System Reservoir	2 qt (1.89 L)
Chain & Bevel Gear System5 gal (19 L)
Travel Base Center Gear Case	approx. 3 gal (11.4 L)
Hydraulic Reservoir	65 gal (274 L)
Swing Reducer Case	6 gal (22.8 L)

5-3. WEIGHTS

Attachment (50' [15.24 m] Boom)	6,190 lb (2 808 kg)
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Complete Machine (Crane)	144,490 lb (65 540 kg)
Counterweight (total)	39,400 lb (17 872 kg)
Crawler Side Frames	33,700 lb (15 286 kg)
Engine (GMC 6V-71N) 671-DET-101	3,200 lb (1 453 kg)
Travel Base and Axles Only	17,160 lb (7 784 kg)
Complete Machine (Crane) Less Attachment, Counterweight and Both Crawler Side Frames	65,200 lb (29 574 kg)

5-4. GENERAL DIMENSIONS

Overall Length	19' 0" (5.79 m)
Width with 38" (965.2 mm) Treads	15' 2" (4.62 m)
Maximum Height of Crawlers	3' 8 1/4" (1.12 m)
Height of Crawler Tread Belt at Center of End Tumblers	3' 2" (939.8 mm)
Overall Width of Cab	10' 4" (3.15 m)
With Catwalk	12' 2" (3.71 m)
Swing Clearance	12' 5" (3.78 m)
With Counterweight Installed	13' 2 1/2" (4.03 m)
With Gantry Lowered	14' 8 1/2" (4.48 m)
Height of Gantry Lowered	13' 4 3/4" (4.08 m)
Raised	21' 1 3/4" (6.45 m)
Distance Under Counterweight to Grade	4' 6" (1.37 m)
Boom Foot Pin to Axis of Rotation	4' 8" (1.42 m)
Height of Boom Foot Pin Above Grade	7' 3 1/8" (2.21 m)

5-5. SPEEDS

Swing Speed	2.50 rpm
Travel Speed	1.0 mph (1.609 Km/h)