



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		
	40	12.19	28,950	13 131	14,500	6 577	14,400	6 532
	50	15.24	21,800	9 888	10,900	4 944	12,110	5 493
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
100 (30.48)	80	24.38	11,450	5 194	4,950	2 245	5,500	2 495
	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				
120 (36.58)	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				
	30	9.14	41,030	18 611				
	35	10.67	33,310	15 109				
	40	12.19	27,860	12 637				
140 (42.67)	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				
150 (45.72)	110	33.53	6,530	2 962				
	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				
160 (48.77)	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				
	35	10.67	32,560	14 769				
170 (51.82)	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				
Max. Boom Allowed	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				
	35	10.67	32,330	14 665				
	40	12.19	26,850	12 179				
	45	13.72	22,780	10 333				
Max. Boom Allowed	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				
Max. Boom Allowed	120	36.58	4,510	2 046				
	130	39.62	3,740	1 696				
	140	42.67	3,080	1 397				

[354120]

(A) Based on Factors other than Tipping.

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

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

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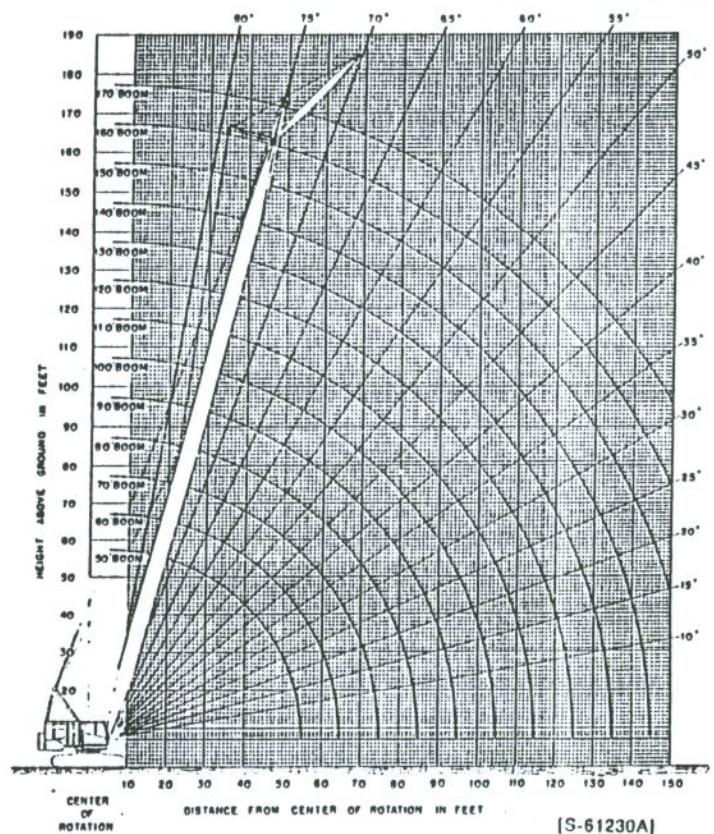
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**nlu****MODEL 70-D SPECIFICATIONS****80 Ton (72.575 Metric Ton) Crane****PCSA Class 12-280****GENERAL DIMENSIONS**

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	10' 4"	3.15m
With Catwalk	12' 2"	3.71m
Swing Clearance	12' 5"	3.78m
With Counterweight Installed	13' 2 1/2"	4.03m
With Gantry Lowered	14' 8 1/2"	4.48m
Height of Gantry Lowered	13' 4 1/4"	4.08m
Raised	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 1/2"	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		JIB LENGTH								Maximum Boom and Jib Combinations <table><thead><tr><th colspan="2">Boom</th><th>Jib</th></tr></thead><tbody><tr><td>170'</td><td>51.82m</td><td>None</td></tr><tr><td>160'</td><td>48.77m</td><td>30' 9.14m</td></tr><tr><td>150'</td><td>45.72m</td><td>50' 15.24m</td></tr></tbody></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																				
Feet	Metres	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																			
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).



NW 70D 5/N 26470

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	
	Feet	Metres	lbs	kg	lbs	kg	lbs	kg
50 (15.24)	12	3.66	160,000	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		
	40	12.19	28,950	13 131	14,500	6 577	14,400	6 532
60 (18.29)	50	15.24	21,800	9 888	10,900	4 944	12,110	5 493
	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		
70 (21.34)	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
	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		
80 (24.38)	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
	20	6.10	73,550	33 362				
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100 (30.48)	40	12.19	28,550	12 950	Maximum Boom Allowed			
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	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
	25	7.62	53,130	24 099				
	30	9.14	41,370	18 765				
120 (36.58)	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				
140 (42.67)	70	21.34	13,390	6 074				
	80	24.38	11,110	5 039				
	90	27.43	9,360	4 246				
	30	9.14	41,030	18 611				
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	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				
160 (48.77)	110	33.53	6,530	2 962				
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	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				
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	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				
Max. Boom Allowed	140	42.67	3,480	1 579				
	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				
180 (51.82)	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				
190 (54.91)	140	42.67	3,330	1 510				
	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				
200 (57.91)	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				
210 (61.00)	140	42.67	3,080	1 397				
	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				

(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 Clutch	.90 psi (620 kPa)
Independent Boom Hoist Brake	.90 psi (620 kPa)
Drag (Right) Drum Clutch.	.90 psi (620 kPa)
Hoist (Left) Drum Clutch	.90 psi (620 kPa)
Engine Clutch.	.90 psi (620 kPa)

5-2. COMPONENT LIQUID CAPACITIES

Alcohol Injector	.40 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 System	.5 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) 6V-71-DETROIT	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)