

AMERICAN



SPECIFICATIONS

AMERICAN HOIST

ST. PAUL MINNESOTA 55107



AMERICAN MUDEL YZ/U LIFTING CRANE KATINGS - NAMMERNEAD HE

Bessel	Radius in Pest	Angle Degrees	Side Frances Refrestled	A STATE
70'	16	83	272,010	300,000
	20	80	189,820	231,070
	25	75	137,030	162,500
	30	71	106,690	124,730
	35	67	86,980	100,810
	40	62	73,140	84,290
	50	52	54,970	62,940
	60	41	43,560	49,730
	70	26	35,700*	40,720*
80'	17	83	245,390	300,000
	20	81	189,570	230,890
	25	77	136,750	162,270
	30	74	106,390	124,470
	35	70	86,670	100,530
	40	66	72,830	84,000
	50	58	54,660	62,650
	60	49	43,260	49,440
	70	38	35,420	40,450
	80	24	29,670*	33,910*
90'	18	83	223,330	276,920
	20	82	189,320	230,690
	25	79	136,460	162,010
	30	75	106,080	124,180
	35	72	86,350	100,230
	40	69	72,500	83,690
	50	62	54,330	62,330
	60	54	42,920	49,120
	70	46	35,090	40,130
	80	36	29,360	33,610
	90	22	24,980	28,190*
100′	19 20 25 30 35 40 50 60 70 80 90	83 83 80 77 74 71 65 58 51 43 34 21	204,720 189,070 136,160 105,760 86,020 72,160 53,980 42,570 34,740 29,020 24,650 21,190*	251,570 230,500 161,750 123,890 99,910 83,360 61,990 48,780 39,800 33,280 28,330 23,460*
110'	21	83	175,300	212,380
	25	81	135,860	161,490
	30	78	105,430	123,590
	35	75	85,670	99,590
	40	73	71,800	83,030
	50	67	53,620	61,650
	60	61	42,210	48,430
	70	55	34,380	39,440
	80	49	28,660	32,930
	90	41	24,300	27,980
	100	32	20,860	24,090
	110	20	18,050*	19,550*
120'	22 25 30 35 40 50 60 70 80 90 100 110	83 81 79 77 74 69 64 59 53 46 39 31	163,250 135,550 105,100 85,330 71,450 53,250 41,840 34,000 28,290 23,930 20,500 17,700 15,390*	196,740 161,220 123,290 99,270 82,690 61,290 48,070 39,080 32,560 27,620 23,740 20,600* 17,990*
130′	23 25 30 35 40 50 60 70 80 90 100 110 120 130	83 82 80 78 75 71 66 61 56 50 44 38 30 18	152,600 135,250 104,770 84,980 71,090 52,880 41,460 33,630 27,910 23,560 20,120 17,340 15,030 13,080*	183,100 160,950 122,980 98,940 82,350 60,930 47,700 38,700 32,190 27,250 23,370 20,230 17,640*

Room Length	Rodies in Feet	Angle Degrees	Side Premes Retracted	All Target
140′*	24 25 30 35 40 50 60 70 80 90 110 120 130 140	83 81 79 76 72 68 63 59 54 49 36 28 18	143,130 134,940 104,430 84,630 70,730 52,500 41,080 33,240 27,530 23,170 19,740 16,960 14,660 12,720 11,050	171,080 160,680 122,680 98,610 82,000 60,570 47,330 31,810 26,870 22,990 19,860 17,270 15,100 13,240
150'*	26 30 35 40 50 60 70 80 90 100 110 120 130 140 150	83 81 79 77 73 69 65 61 57 52 47 41 35 27	127,270 104,100 84,270 70,360 52,120 40,690 32,850 27,130 22,780 19,350 16,570 14,270 12,340 10,690 9,240	151,130 122,370 98,280 81,660 60,200 46,950 37,950 31,430 26,480 22,600 19,470 16,890 12,880 11,270
160′*	27 30 35 40 50 60 70 80 90 100 110 120 130 140 150 160	83 82 80 78 75 71 67 63 59 55 50 45 40 34 27	120,310 103,760 83,920 70,000 51,740 40,300 32,460 26,740 22,380 18,950 16,170 13,880 11,950 10,300 8,870 7,610	142,530 122,060 97,950 81,310 59,840 37,570 31,040 26,090 22,210 19,080 16,500 14,340 12,500 10,900 9,500
170'*	28 30 35 40 50 60 70 80 90 110 1120 130 140 150 160 170	83 82 81 79 75 72 68 65 61 57 53 48 44 39 33 26	113,960 103,430 83,570 69,630 51,360 26,340 21,980 18,550 15,770 13,480 11,550 9,910 8,490 7,240 6,130	134,740 121,750 97,620 80,960 59,470 46,200 37,180 30,650 25,700 21,820 18,690 16,110 13,950 12,110 10,520 9,130 7,890
180'*	29 30 35 40 50 60 70 80 90 100 110 120 130 140 150 170 180	83 81 80 76 73 70 66 63 59 55 51 47 42 37 32 25 16	108,130 103,090 83,210 69,260 50,980 39,520 31,660 25,940 21,580 18,150 13,080 11,150 9,510 8,090 6,850 5,750 4,760	127,640 121,440 97,280 80,610 59,100 45,820 36,790 21,580 18,150 15,370 13,080 11,150 9,510 8,090 6,850 5,750

Boom	Redius in Feet	Angle Degrees	Side Frames Retreated	Side Frames Extended
190'*	30 35 40 50 60 70 80 90 100 110 120 130 140 150 170 180 190	83 82 80 77 74 71 68 64 61 57 54 50 46 41 36 31 24	102,750 82,860 68,900 50,600 39,130 31,270 25,540 21,170 17,740 14,960 12,670 10,750 9,100 7,690 6,450 5,350 4,380 3,500	121,130 96,950 80,260 58,730 45,430 36,400 29,860 24,910 21,020 17,890 15,310 13,150 11,310 9,730 8,340 7,120 6,040 5,060
200'*	32 35 40 50 70 80 90 100 110 120 130 140 150 170 180 190 200	83 82 81 78 75 72 66 62 59 56 52 48 44 40 35 30 24	93,510 82,500 68,530 50,210 38,730 30,870 25,130 20,770 17,330 14,550 12,260 10,340 8,700 7,280 6,040 4,950 3,980 3,110 2,310	109,940 96,620 79,910 58,360 45,050 36,010 29,460 24,510 20,620 17,490 14,910 12,750 10,910 9,320 7,940 6,730 5,656 4,680 3,790
210'*	33 35 40 50 60 70 80 90 110 120 130 140 150 160 170 180 190 200 210	83 82 81 78 75 73 70 67 64 61 58 54 51 47 43 39 32 29 23	89,220 82,150 68,160 49,830 38,340 30,470 20,360 16,920 14,140 11,850 9,930 8,290 6,870 5,630 4,550 3,580 2,710 1,930 1,200	104,820 96,280 79,560 57,990 44,660 35,620 29,070 24,100 20,210 17,080 14,500 12,340 10,500 8,920 7,540 6,320 5,240 4,280 3,400 2,600
220'*	34 35 40 50 60 70 80 90 110 120 130 140 150 170 180 190 200 210	83 81 79 76 73 71 68 65 65 65 50 46 42 38 34 29 14	85,200 81,790 67,790 49,440 37,950 30,060 24,320 19,950 16,510 13,730 11,440 9,510 7,870 6,460 5,220 4,130 3,170 2,300 1,520	100,060 95,950 79,210 57,620 44,280 35,220 28,670 23,700 19,800 16,670 14,090 11,930 10,090 8,500 7,130 5,920 4,840 3,880 3,000 2,220 1,200





AMERICAN MODEL (A) V BILLING

Boom	Redius in Feet	Angle Degrees	Side Frames Retrocked	Parameter Parame
	35	83	81,440	95,610
	40	82	67,420	78,860
	50	79	49,060	57,240
	60	77	37,550	43,890
	70	74	29,660	34,830
	80	72	23,920	28,270
230'*	90	69	19,540	23,300
	100	66	16,100	19,400
	110	63	13,320	16,260
	120	61	11,020	13,680
	130	58	9,100	11,520
	140	55	7,460	9,680
	150	52	6,040	8,100

Been	R Page	Angle Degrees	Frames Refracted	Promes Extended
230'*	160 170 180 190 200 210 220	48 45 41 37 33 28 22	4,800 3,720 2,760 1,890 1,120	6,720 5,500 4,430 3,470 2,600 1,820 1,100
240'*	36 40 50 60 70 80	83 82 80 77 75 72	77,890 67,050 48,670 37,150 29,260 23,500	91,450 78,500 56,870 43,510 34,430 27,870

English Pangan	11	Angle Degrees	Side Fromms Refronted	Side Frames Extended
	90	70	19,130	22,890
	100	67	15,690	18,990
	110	65	12,900	15,850
	120	62	10,610	13,270
	130	59	8,680	11,100
	140	56	7,040	9,270
240'*	150	54	5,630	7,680
	160	50	4,390	6,300
	170	47	3,310	5,090
	180	44	2,340	4,020
	190	40	1,480	3,060
	200	37	-	2,190
	210	32	_	1,410

Load ratings do not exceed 75% of tipping with crane standing level on firm, uniformly supporting surface. Safe loads depend on ground conditions, boom length, radius of operation and proper handling, all of which must be taken into consideration of user. "Radius in feet" is the horizontal distance at crane base level from center pin to a vertical line through the center of gravity of the suspended load. Blocks, slings, buckets and other load-carrying devices are considered part of the load.

240 ft. Boom plus 20 ft. No. 9 jib 240 ft. Boom plus 30 ft. No. 9 jib 230 ft. Boom plus 40 ft. No. 9 jib 220 ft. Boom plus 50 ft. No. 9 Jib

240 ft. Boom plus 20 ft. No. 15 jib 240 ft. Boom plus 30 ft. No. 15 jib Ratings indicated in *italic* represent boom positions which, without load, provide less than standard backward stability. Machine should be on firm level ground when working in these boom positions.

Ratings marked (*) require retractable A-frame in fully raised position.

Crane, with side frames extended and G-D-E-F counterweight, will self erect 240 ft. main boom with hammerhead less jib or:

220 ft, Boom plus 50 ft, No. 15 jib 240 ft, Boom plus 40 ft, No. 9 HL jib 240 ft, Boom plus 50 ft, No. 9 HL jib 230 ft. Boom plus 60 ft. No. 9 HL, jib 230 ft. Boom plus 70 ft. No. 9 HL jib 220 ft. Boom plus 80 ft. No. 9 HL jib

AMERICAN MODEL 9270 LIFTING CRANE RATINGS-TAPERED TIP

Boom	Rodius in Feet	Angle Degrees	Side Frames Estracted	Side Frames Extended
100'	21 25 30 35 40 50 60 70 80 90	81 78 76 73 70 63 57 50 40 32 18	178,070 138,700 108,330 88,610 74,760 56,600 45,210 37,390 31,680 27,320 23,870	194,000 164,250 126,430 102,480 85,950 64,600 51,400 42,430 35,930 30,990 27,090*
110′	22 25 30 35 40 50 60 70 80 90 100	81 80 77 74 71 66 60 54 47 39 30 17	166,130 138,490 108,100 88,360 74,510 56,340 44,950 37,130 31,420 27,070 23,630 20,840	194,000 164,080 126,230 102,260 85,720 64,360 51,160 42,180 35,680 30,740 26,860 23,710*
120'	24 25 30 35 40 50 60 70 80 90 110 120	76 73 68 63 57 51 45 38 29	146,440 138,270 107,860 88,110 74,250 56,070 44,670 36,850 31,150 26,800 23,370 20,580 18,270	174,280 163,900 126,020 102,030 85,480 64,100 50,900 41,920 35,410 30,480 26,600 23,470 20,870*
130'	25 30 35 40 50 60 70 80 90	79 77 74 70 65 60 55	138,060 107,620 87,853 73,980 55,800 44,390 36,570 30,860 26,520	163,730 125,810 101,800 85,230 63,840 50,630 41,650 35,140 30,200

Boom	Rodies in Peet	Angle	T. T. S.	Side Frames Extended
130′	100 110 120 130	43 36 28 16	23,090 20,310 18,010 16,070	26,330 23,200 20,620 18,440*
140'*	27 30 35 40 50 60 70 80 90 100 110 120 130	81 80 78 76 71 67 62 58 53 47 41 35 27	123,870 107,370 87,590 73,710 55,510 44,100 36,280 30,570 26,230 22,800 20,030 17,730 15,800 14,140	146,000 125,600 101,570 84,980 63,580 50,350 41,370 34,860 29,920 26,050 22,930 20,350 18,180 16,330
150'*	29 30 35 40 50 60 70 80 90 100 110 120 130 140 150	73 69 64 60 56 51 46 40 34 26	112,140 107,130 87,330 73,440 55,230 43,820 35,990 30,280 25,930 22,500 19,730 17,440 13,520 13,870 12,430	131,550 125,380 101,330 84,730 63,310 50,080 41,080 34,570 29,640 25,760 22,640 20,060 17,900 16,060 14,460
160'*	30 35 40 50 60 70 80 90 100 110	79 77 74 70 66 62 58	106,880 87,070 73,170 54,940 43,520 35,690 29,980 25,630 22,200 19,430 17,150 15,220	125,170 101,090 84,480 63,040 49,790 40,800 34,280 29,340 25,470 22,350 19,770 17,610

Been	Radius in Feet	Angle Depress	Side Fromes Retracted	Side Frames Extended
160'*	140 150 160	33 25 14	13,580 12,160 10,900	15,770 14,180 12,790
170'*	32 35 40 50 60 70 80 90 100 110 120 130 140 150 170	43 37 32	97,770 86,800 72,890 54,650 43,230 35,390 25,330 25,330 21,900 19,130 16,840 14,920 13,280 11,860 10,620 9,520	114,120 100,850 84,220 62,770 49,510 40,510 33,990 29,050 25,170 22,050 19,480 17,320 15,480 13,900 12,510 11,280
180'*	33 35 40 50 60 70 80 90 100 110 120 130 140 150 180	79 76 72 69 65 62 58 54 50 46 41 36	93,580 86,540 72,620 54,360 42,930 29,370 25,020 21,590 16,540 14,610 12,980 10,320 9,230 8,250	109,110 100,610 83,970 62,490 49,220 40,210 33,690 28,750 24,870 21,750 19,170 17,020 15,180 13,600 12,220 11,000 9,910
190'*	35 40 50 60 70 80 90 100 110	81 79 76 73 70 67 63 60 56	86,270 72,340 54,070 42,630 34,780 29,060 24,710 21,280 18,510	100,370 83,710 62,210 48,940 39,920 33,390 28,450 24,570 21,440



Boom	Redius in Feet	Angle Degrees	Side Fromes Retrocted	Side Frommas Extended
190'*	120 130 140 150 160 170 180 190	53 49 45 40 35 30 23 13	16,230 14,300 12,670 11,250 10,020 8,930 7,960 7,080	18,870 16,710 14,880 13,300 11,920 10,700 9,620 8,650
200'*	36 40 50 60 70 80 90 100 110 120 130 140 150 170 180 190 200	81 80 77 74 71 68 65 62 58 55 51 48 44 39 34 29 22 13	82.840 72,060 53,780 42,330 34,480 28,750 24,400 20,970 18,200 15,910 13,990 12,350 10,940 9,710 8,620 7,660 6,790 6,000	96,320 83,450 61,940 48,650 39,620 33,090 28,140 24,260 21,130 18,560 16,400 14,570 12,990 11,610 9,320 8,360 7,480
210'*	38 40 50 60 70 80 90 100 110 120 130 140 150 170 180 200 210	81 80 78 75 72 69 66 63 60 57 53 50 46 42 38 34 28 22 13	76,830 71,780 53,490 42,030 34,170 28,440 24,090 20,660 17,880 15,600 13,680 12,040 10,630 9,400 8,310 7,350 6,490 5,700 4,990	89,210 83,200 61,660 48,360 39,330 32,790 27,840 23,950 20,820 18,250 16,090 14,260 11,300 10,090 9,020 8,060 7,190 6,390
220'*	39 40 50 60 70 80 90 110 120 130 140 170 180 170 200 210 220	78 76 73 70 67 64 62 59 55 52 49 45 41 37 33 28 21	73,950 71,500 53,190 41,720 33,860 28,130 23,770 20,340 17,570 15,280 13,360 11,720 10,310 9,080 8,000 7,030 6,170 5,400 4,690 4,040	85,850 82,940 61,380 48,070 39,030 32,490 27,530 23,640 20,510 17,940 15,780 13,950 12,370 10,990 9,780 8,710 7,750 6,880 6,100 5,380
230'*	41 50 60 70 80	76 74	68,910 52,900 41,420 33,550 27,820	79,940 61,100 47,780 38,730 32,180

Been	Redice in Feet	Angle	Side Fremes Retrected	Side Promes Brended
230'*	90 100 110 120 130 140 150 170 180 190 200 210 220 230	68 66 63 60 57 54 51 48 44 40 36 32 27 21	23,460 20,020 17,250 14,960 13,040 11,400 9,990 8,760 7,680 6,720 5,860 5,080 4,380 3,740 3,140	27,220 23,330 20,200 17,620 15,470 13,630 12,050 10,670 9,470 8,390 7,440 6,570 5,790 5,080 4,420
240'*	43 50 60 70 80 90 100 130 140 150 150 170 180 190 210 220 230 240	81 79 77 74 72 69 67 64 61 59 56 53 50 47 43 40 36 31 26 20 12	64,390 52,610 41,120 33,240 27,510 23,140 19,700 16,930 14,640 12,720 11,080 9,670 8,440 7,360 6,400 5,540 4,770 4,070 3,430 2,840 2,290	74,660 60,820 47,490 35,430 31,880 26,910 23,020 19,890 17,310 15,150 13,310 11,730 10,360 9,150 8,080 7,120 6,260 5,480 4,770 4,120 3,520
250'*	444 500 600 700 800 900 1100 1200 1300 1400 1500 1700 1800 2100 2200 2200 240	55 52 49 46 42 39 35 31	62,150 52,310 40,810 32,930 27,190 22,820 19,380 16,610 14,320 12,390 10,760 9,350 8,120 7,040 6,080 5,220 4,450 3,750 3,750 3,750 3,110 2,530 1,990	67,240 60,540 47,190 38,130 31,570 26,600 22,710 19,570 14,830 13,000 11,410 10,040 8,830 7,760 6,800 5,940 5,170 4,460 3,810 3,220
260'*	46 50 60 70 80 90 100 110 120 130 140 150	80 78 76 73 71 69 66 64 61 59 56	58,250 52,020 40,510 32,620 26,880 22,500 19,060 16,290 13,990 12,070 10,430 9,020 7,790	61,170 60,260 46,900 37,830 31,260 26,290 22,390 19,260 16,680 14,510 12,680 11,090 9,720

Length .	Rodies in Feet	Angle Pepres	Partie of the Pa	Side Frames Extended
260'*	170 180 190 200 210 220 230 240	51 48 45 41 38 34 30 25	6,710 5,751 4,890 4,120 3,430 2,790 2,210 1,680	8,510 7,440 6,480 5,630 4,850 4,140 3,500 2,900
270'*	47 50 60 70 80 90 100 130 140 150 170 180 190 200 210 220 240	81 80 78 76 74 72 69 67 65 62 60 58 55 52 50 47 44 41 37 34 30	55,020 51,720 40,200 32,310 26,560 22,190 18,740 15,960 13,670 10,110 8,700 7,470 6,390 5,430 4,570 3,800 2,470 1,890 1,360	55,020 53,630 46,610 37,530 30,960 22,080 18,940 16,360 14,190 12,360 10,770 9,400 8,190 7,120 6,160 5,300 4,530 4,530 3,820 3,180 2,590
280'*	49 50 60 70 80 90 110 120 130 140 150 160 170 180 200 210 220 230 240	43 40 37	50,190 49,550 39,900 32,000 26,240 21,870 18,420 15,640 13,350 9,780 8,370 7,140 6,060 5,100 4,240 3,470 2,780 1,570 1,570	50,190 49,550 43,940 37,230 30,650 25,670 21,770 18,620 16,040 13,870 12,030 10,450 9,070 7,870 6,790 5,840 4,980 4,200 3,500 2,860 2,270
290'*	50 60 70 80 90 100 110 120 140 150 160 170 200 210 220 230	79 77 75 73 71 69 67 64 62 60 58 55 53 50 48	45,250 39,590 31,690 25,930 21,550 18,100 15,320 11,100 9,460 8,040 6,810 5,730 4,770 3,920 3,150 2,450 1,820 1,240	45,250 40,550 36,340 25,360 21,450 18,310 15,720 13,550 11,710 10,130 8,750 7,540 6,470 5,510 4,660 3,880 3,180 2,540 1,950

Load ratings do not exceed 75% of tipping with crane standing level on uni-formly supporting surface. Safe loads depend on ground conditions, boom length, radius of operation and proper handling, all of which must be taken into consideration of user. "Radius in feet" is the horizontal distance at crane base level from center pin to a vertical line through the center of gravity of the suspended load. Blocks, slings, buckets and other load-carrying devices are considered part of the load.

Ratings indicated in italic represent boom positions which without load, provide

280 ft. Boom plus 20 ft. No. 9 Jib 280 ft. Boom plus 30 ft. No. 9 Jib 270 ft. Boom plus 40 ft. No. 9 Jib 270 ft. Boom plus 40 ft. No. 9 Jib 270 ft. Boom plus 40 ft. No. 15 Jib 270 ft. Boom plus 40 ft. No. 15 Jib

less than standard backward stability. Machine should be on firm level ground when working in these boom positions.

Hanger block is required for ratings over 55,000 lbs, Deduct 800 lbs. from aboveratings when hanger block is in place.

Ratings marked (*) require retractable A-frame in fully raised position.

Crane, with side frames extended and G-D-E-F counterweight, will self-erect 290 ft. main boom with tapered tip less jib, or:

270 ft. Boom plus 50 ft. No. 15 Jib 290 ft. Boom plus 40 ft. No. 9HL Jib 280 ft. Boom plus 50 ft. No. 9HL Jib

280 ft. Boom plus 60 ft. No. 9HL Jib 270 ft. Boom plus 70 ft. No. 9HL Jib 270 ft. Boom plus 80 ft. No. 9HL Jib



JID KAHNUS

JIB OFFSET "A"

MAXIMUM JIB RATING IN POUNDS

NO. 9 JIB RATINGS							
0 to 6 ft	20 ft. Jib 18,000 18,000 18,000	30 ft. Jib 18,000 17,300 15,300 13,500	40 ft. Jib 14,500 14,100 12,400 10,750 10,000	50 ft. Jil 10,500 10,250 10,000 8,800 8,150 7,750			
Boom Point	1,550	2,100	2,800	3,600			

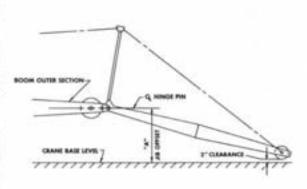
No. 9 Jih ratings are bated on 100 ft, minimum boom length with tubular chord boom with hammer head and 130 ft. minimum boom length with tubular chord boom with tapered tip.

NO. 15 JIB RATINGS						
0 to 6 ft	20 ft. Jib 30,000 30,000 30,000	30 ft. Jib 30,000 28,250 23,400 18,500	40 ft. Jib 21,000 21,000 17,500 15,000 13,250	50 ft, Jil 16,500 16,500 14,000 12,000 11,000		
Effective Jib Weight at Boom Point	1,900	2,250	2,800	3,600		

No. 15 jib ratings are based on 120 ft, minimum boom length with tubular choed boom with hammerhead and 150 ft. minimum boom length with tubular chord boom with tapered tip.

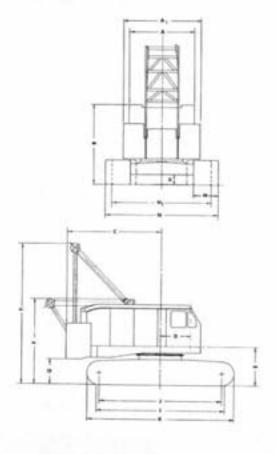
NO. 9HL JIB RATINGS						
0 to 8 ft	40 ft. Jib 19,000 16,600 14,400 12,000	50 ft. Jib 17,000 14,800 12,800 11,000 — — 2,350	60 ft. Jib 14,500 12,600 11,600 10,300 9,000 8,000 	70 ft. Jib 12,500 11,300 10,100 9,000 8,000 7,000 — 3,700	80 ft. Jil 10,500 9,600 8,600 7,000 6,200 5,400 4,300	

No. 9HL. Jib ratings are based on 160 ft, minimum boom length with tubular chord boom with tapered tip or hammerhead.



Jib ratings are based on the minimum boom length specified above. For ratings on shorter booms consult factory. The jib load rating is the lesser of: (a) the maximum jib rating, or (b) the main boom rating at the jib working radius, reduced by the effective jib weight and by the weight of all suspended load-carrying devices. The main boom rating with jib in place must be reduced by the effective jib weight, the weight of main fall blocks and slings, and twice the weight of jib tackle.

GENERAL DIMENSIONS



A	-	Width of Cab
Ai	-	Width over Counterweight
B		Height Over Cab
C	-	Tailswing
D	-	Center of Pivot to Center of Boom Foot5' 34"
E		Ground to Center Boom Foot6' 91/4"
F	_	Height Over A-Frame, Lowered14' 634"
F_1		Height Over A-Frame, Raised
G		Ground to Bottom of Counterweight 4' 4%"
Н		Minimum Ground Clearance Under Crawler Base
1		Crawler Bearing Length21' 0"
1		Center to Center Crawler Tumblers
K		Overall Length of Crawlers23. 9"
M		Width of Tread Shoes (Standard)
400		Width of Tread Shoes (Optional)
M-		Width of Tread Shoes (Optional)
N		Overall Width Over Crawlers —
		Extended (with 38" shoes)
		Overall Width Over Crawlers
		Extended (with 44" shoes)
		Overall Width Over Crawlers — Extended (with 50" shoes)
N.		Overall Width Over Crawlers —
***		Retracted (with 38" shoes)
		Overall Width Over Crawlers
		Retracted (with 44" shoes)
		Overall Width Over Crawlers
		Retracted (with 50" shoes)



MUDEL 74/U GENERAL SPECIFICATIONS

UPPER MACHINERY

STANDARD ENGINE:

CUMMINS MODEL NT-855-P-310 diesel engine with three stage torque converter; six cylinder, 51/2" bore, 6" stroke, 855 cu in. displacement, rated 289 hp @ 2100 rpm converter input; 24 volt electric starting; battery charging alternator, variable speed engine and torque converter governor; glow plug starting; heavy duty dry type air cleaner.

ALTERNATE ENGINES RECOMMENDED FOR EXCA-VATOR OR LIFT CRANE SERVICE.

Alternate Engines with Single Stage Torque Converter: (Delete Controlled Load Lowering)

CUMMINS Model NT-855-P-310 diesel engine with single stage torque converter; six cylinder, 51/2" bore, 6" stroke, 855 cu in. displacement, rated 289 hp @ 2100 rpm converter input; 24 volt electric starting; battery charging alternator; variable speed engine and torque converter governor; glow plug starting; heavy duty dry type air cleaner.

CATERPILLAR Model D-343-A diesel engine with single stage torque converter; six cylinder, turbo-charged, 5.4" bore, 6.5" stroke, 893 cu in. displacement; rated 305 hp @ 2050 rpm converter input; 24 volt electric starting; battery charging generator; variable speed engine and torque converter governor; heavy duty dry type air cleaner.

Alternate Engines with Three Stage Torque Converter:

CATERPILLAR Model D-343-A diesel engine with three stage torque converter; six cylinder, turbo-charged 5.4" bore, 6.5" stroke, 893 cu in. displacement; rated 289 hp @ 2000 rpm converter input; 24 volt electric starting; battery charging generator; variable speed engine and torque converter governor; heavy duty dry type air cleaner.

GENERAL MOTORS Model 12V-71 diesel engine with three stage torque converter; twelve cylinder, 414" bore, 5" stroke, 852 cu in. displacement, two valve; two cycle; rated 310 hp @ 2000 rpm converter input; 24 volt electric starting; battery charging alternator; variable speed engine and torque converter governor; ether starting kit; heavy duty dry type air cleaner.

ALTERNATE ENGINE RECOMMENDED FOR LIFT CRANE SERVICE ONLY.

GENERAL MOTORS Model 8V-71-N diesel engine with three stage torque converter; eight cylinder, 41/4" bore, 5" stroke, 568 cu in. displacement; four valve; two cycle; rated 284 hp @ 2100 rpm converter input; 24 volt electric starting; battery charging alternator; variable speed engine and torque converter governor; ether starting kit; heavy duty dry type air cleaner.

ALTERNATE ELECTRIC POWER:

(Delete Controlled Load Lowering)

150 hp, 220/440 volt, 3-phase, 60 cycle, 1800 rpm, open, squirrel cage electric motor with control equipment (across-the-line start); connection for outside power supply; collector rings at center pin.

FUEL TANK: 190 gallon capacity.

POWER TRANSMISSION: Multiple roller chain transmits power from engine to operating machinery; completely enclosed, running in oil for long trouble-free service.

COUNTERWEIGHT: "G-D-E-F," 96,000 lbs made up of basic hollow casting with inserts and overlays; securely bolted to machinery base; reduced for duty cycle service (drag, clam, grapple, hoe, magnet) to 59,000 lbs by removal of Da, E1 and E2 overlays and F counterweight insert.

ROTATING MACHINERY BASE: Tapered deep girder construction extending straight through from boom foot to engine base and counterweight support; boom foot, shaft pillow blocks, A-frame and counterweight connections fall directly over girder for utmost simplicity and strength; girders wide spaced for wide boom foot and wide drum laggings; electric welded steel plate construction with bored and drilled holes located by jigs and fixtures to insure proper alignment.

LOAD AND HOOK ROLLERS: Large tapered load rollers transmit downward loads to machined upper roller path on carbody; tapered hook rollers transmit uplift loads to lower roller path on carbody; two sets double equalizing load rollers and two sets double equalizing hook rollers in front; two sets double equalizing hook rollers and two single load rollers in rear; rollers mounted on anti-friction bearings; adjustment for wear by means of eccentric hook roller axle.

DRIVE SHAFT ASSEMBLY: Independent primary drive shaft consists of forged alloy steel shaft with integral cut steel pinion; ductile iron roller chain sprocket with steel hub insert splined to shaft; shaft mounted in pressure grease lubricated anti-friction bearings. This shaft assembly has a single purpose of speed reduction and is not compromised by mounting clutches for other functions.

TRAVEL/SWING ASSEMBLY: Main clutch shaft is heattreated alloy steel mounted in anti-friction bearings and splined to clutch spiders and cut tooth driving spur gear; bevel pinions are cut tooth hardened alloy steel, oil lubricated; bevel pinions on anti-friction bearings mounted in case; air controlled, tandem band, internal reversing clutches have extra thick moulded liners for long service life and stable operation; smooth operation for swing and travel assured by high responsive variable pressure air control. Vertical swing shaft is heat-treated alloy steel, mounted on bronze bushings in machinery base cover casting and gear case lower casting; swing pinion is cut tooth alloy steel, accurately matched with revolving bullgear; alloy cast iron brake wheel and cast steel jaw clutch are mounted on accurately cut splines; horizontal cut tooth spur gear is bronze bushed, running in oil; air controlled shifter for swing-travel jaw clutches. Vertical reverse shaft is heat-treated alloy steel, pressed into main swing clutch housing with lower end supported by bore in machinery base; hardened alloy steel integral cut tooth bevel gear and spur pinion is mounted on tapered roller bearings and running in oil; design insures permanent accurate alignment of mating bevel and spur gears; easily removed as a unit with main swing clutch shaft assembly.

INDEPENDENT SWING — AIR CONTROLLED

FOR ERECTION CRANE SERVICE ONLY:

Smaller, moderate speed, internal air controlled tandem band clutches; all gears mounted in anti-friction bearings and running in oil; independent swing clutches connected to swing gearing at all times; main swing clutches may be used for independent travel when this arrangement is provided or may also be used for heavy duty swinging by operation of swing-travel shifter; foot operated contracting band swing brake on independent swing clutch ring.

INDEPENDENT SWING - HYDROSTATIC: (Optional) Variable displacement hydraulic swing motor supplied with constantly available high pressure oil by hydraulic accumulator

AMERICAN MUDEL YZ/U LIFIING CKAI

system; swing torque control in direct relation to swing lever; completely independent of other operations and engine speed; no slippage, hence no heat loss; plugging energy is stored in accumulator and used for accelerating in next cycle; as accumulator system stores swinging energy only a small pump is required; leaving more horsepower available for hoisting operation; hydraulic motor is flange-mounted at top of an inclined drive structure housing a double cut spur reduction and external air-controlled swing brake; ties into same lower bevel gear set as air-controlled independent swing; hydraulic motor is servo-controlled and feel of the load is built in through springs in control linkage.

MAIN DRUM ASSEMBLY: Twin alloy cast iron drums with integral brake and clutch surfaces, drums mounted in anti-friction bearings; drums skeleton type with split cast steel laggings bolted in place; alloy steel drum shaft mounted in anti-friction bearings in machinery base; clutch spiders and spur gear splined to drum shaft; air controlled clutches with tandem internal expanding bands with thick moulded liners; smooth operation assured by high responsive variable pressure air controls; large external contracting band drum brakes with extra thick moulded liners; raised cooling flange on brake drum for efficient, even dissipation of heat; brake foot pedal operated from operator's position; fully compensated air booster cylinder begins to energize at moderate brake pedal force to reduce effort without affecting the sensitive feel required for slipping loads; brake shafts and pins mounted on anti-friction bearings for responsive operation with minimum effort; brake and clutch surfaces stress relieved for smooth operation without scoring.

CONTROLLED LOAD LOWERING: Available for either or both main drums; drum is roller chain driven from clutch shaft forward of and below main drums; air operated internal expanding tandem band clutches controlled by forward motion of drum clutch lever; clutches and clutch shaft mounted on anti-friction bearings; in combination with three-stage torque converter permits lowering loads continuously under full control by engine throttle; can be used in combination with third drum with all controls completely independent whether one or both drums are equipped with load lowering. Controlled load lowering for one drum included as standard equipment; optional on second drum.

THIRD DRUM: (Optional) Mounted on dead shaft at shovel boom foot location forward of cab; roller chain driven from clutch shaft forward of and below main drum shaft; air operated internal expanding tandem band clutch and manual contracting band brake; clutch and clutch shaft mounted in anti-friction bearings; involute splines; may be used in combination with controlled load lowering with controls completely independent.

TUBULAR CHORD CRANE BOOM: Lightweight, pin-connected, deep section crane boom with chords of tubular T-1 steel and with tubular lattice; boom is 77" cross section and can be extended to 290 feet; the basic inner section is 30 ft long; a 40 ft long tapered intermediate section can be fitted either with a five sheave pin-connected hammerhead or with a 30 ft two sheave pin-connected outer section; the hammerhead is for heavy lifts; the tapered outer section is for long boom operations and has a second sheave for an auxiliary load line or for clamshell service; tapered tip is closed throat design; a hanger block is included for multiple reeving of the load line with the tapered tip; center sections are available in 20 ft and 50 ft lengths, pinconnected; boom sections have built-in camber and belly lines are not required for long booms; boom suspension arrangement consists of two double 136" diameter pendant suspension cables extending from the outer bail to the boom point with thirteen part boom hoist line; pendants are added or removed for boom length changes; boom lengths of 250 ft or more require not less than three 50 ft center sections.

JIBS; Three different jibs are offered for single load line operation; the No. 9 and No. 15 jibs are basic 20 ft, two piece alloy steel chord angle construction with tubular lattice; both can be extended to 50 ft maximum length with the addition of 10 ft inserts; the lightweight No. 9HL jib is constructed with T-1 tubular chords and tubular lattice; basic length is 40 ft two piece which can be extended to 80 ft with the addition of 10 ft and 20 ft inserts.

SAFETY BOOM STOPS: Telescoping pipe safety boom stops for any length boom prevent overhoisting and backward boom motion due to failure of hoisting line or hoisting tackle; standard on all machines.

BOOM HOIST SAFETY SHUT OFF: Prevents the operator from over hoisting the boom; located at the bottom of boom and actuated when the boom reaches a predetermined angle; when actuated this valve cuts off air supply to boom hoist clutch and sets the boom hoist brake.

RETRACTABLE A-FRAME: Is raised or lowered by means of bail rigging with no special equipment required; standard on all machines, the counterweight is easily removed without outside assistance.

INDEPENDENT BOOM HOIST: Cast steel drum and integral cut steel spur gear operate on bronze bushings; boom hoist drum shaft is high carbon steel, mounted in bored holes in machinery base; single boom hoist drum with spring set, air released locking pawl provided to hold boom during operation or when machine is standing idle; integral cut tooth spur gear and clutch ring are mounted on anti-friction bearings on clutch shaft; shaft is high carbon steel and operates in bronze bushings pressed into machinery deck; clutch spider and pinion splined to clutch shaft. Boom hoist clutch is air controlled, internal expanding band; alloy cast iron brake wheel is keyed to shaft to facilitate removal; brake is spring set and air released with single valve control for both hoisting and lowering.

CONTROLLED BOOM LOWERING: Boom lowering speed limited by speed of engine; rapid, safe boom handling; slower boom lowering by reduced engine speed; overrunning sprag clutch mechanism mounted on independent shaft engages positively and smoothly; disconnect provided for reversed gear operations; shifter interlocked with boom brake to prevent "live boom."

CAB: Fully enclosed with glazed doors and windows; all safety glass windows mounted in rubber; removable windows in operator's cab; operator's compartment totally enclosed, shielding him from engine and machinery noise; door at rear of operator's compartment provides direct access to machinery; sliding doors on sides and rear; hinged door on operator's cab roof for vision; ladder to roof at left front; running boards standard; elevated operator's cab optional.

LOWER MACHINERY

CARBODY: Heavy duty cast alloy steel carbody of deep box construction; through-bored for accurate alignment of crawler axles and horizontal travel shaft; alloy cast steel bullgear and roller path welded to machined top of carbody; double tapered roller path is accurately machined to roller contour.

CENTER PIVOT TUBE: Cast steel center pivot tube integral with carbody; pressure lubricated bronze pivot bushings in rotating machinery base; horizontal load only — no uplift.



TRAVEL AND STEERING: Three section horizontal travel shaft for easy assembly and removal; bevel gearing and sliding jaw clutches fully enclosed and running in oil; single lever air control provides engaged, neutral and locked position of each multiple jaw clutch permitting straight ahead, long radius and short radius turns; interlock keeps one clutch engaged at all times eliminating danger of machine running away on a grade.

TRAVEL LOCK: Ratchet arrangement, air controlled from operator's position; permits travel in one direction while preventing movement in opposite direction; lock may also be set to prevent travel in either direction.

CRAWLER SIDE FRAMES: Cast steel tumbler yokes and axle sleeves electrically welded to rolled steel shapes form rigid crawler side frames; axle sleeves accurately bored for mounting to crawler axle.

CRAWLER ROLLERS: Large hardened cast steel crawler rollers mounted on heavy bronze bushings; spaced close together to prevent any possibility of tread shoes buckling up between rollers; axles drilled for pressure grease lubrication.

CRAWLER SHOES: Heavy, double wall, box section alloy steel castings for maximum strength and long wear; selfcleaning design prevents shoe breakage; 45 shoes on each side frame: 44" width standard; 38" or 50" width optional; through hardened pins, loaded in multiple shear.

CRAWLER DRIVE: Heavy cast steel drive tumblers, splined to drive sprocket axles; self-cleaning design; self-cleaning idler tumblers bronze bushed with pressure grease lubrication; stationary shafts mounted in side frames; alloy steel drive sprocket axles, splined to drive tumblers and sprockets; axles mounted in pressure grease lubricated bronze bushings; crawler chain is heavy alloy roller chain; cast steel self-cleaning sprockets, mounted outside crawler side frames for easy maintenance; unnecessary to brake chain when removing side frames.

CRAWLER DRIVE ADJUSTMENT: Drive chain and crawler shoe adjustment by means of hydraulic jack; rigid holding and positioning by shims; motion and wear between sprocket and crawler side frame eliminated; positive alignment of sprockets; hydraulic jack carried in tool box.

CRAWLER WIDTH ADJUSTMENT: Removable cast steel jaw clutch torque tubes are furnished between the carbody and side frames; in retracted position the side frame jaw clutch directly engages the jaw clutch at side of carbody; machine can be operated in narrow position under restricted conditions or in extended position with full crane ratings.

GENERAL

CONTROLS: Graduated air controls, pioneered by AMERI-CAN, put "feel" at every operator's finger-tips, insure higher production, more accurate control; air line alcohol dispenser, to absorb excess moisture in air system due to condensation.

MATERIALS: Gear and pinions are heat-treated alloy or high carbon steel; cut teeth on all gears except rotating ring gear which has accurately moulded teeth.

Involute splines are used throughout machine for maximum tooth strength through minimum diameter where needed; self centering; equalized bearing and stresses among all teeth; smooth tooth surface; easy interchangeability of parts. Anti-friction bearings are used on all main or high speed shafts and wherever practical to provide friction-free, smooth operation with minimum maintenance.

LUBRICATION: All anti-friction bearings and bronze bushings requiring short period lubrication are provided with pressure grease fittings; swing deck gears are provided with oil bath lubrication; drum gear train and the swing bullgear are arranged for grease lubrication.

ATTACHMENTS: Attachments for duty cycle work in combination with lift crane service are available for 9270. Counterweight must be reduced to 59,000 lbs.

Dragline attachment includes full revolving fairlead, dirtguard under dragline drum, drum lagging, 11/4" hoist line and 134" dragline.

Clamshell attachment for clam or grapple work includes Rud-O-Matic tagline winder mounted in boom, drum lagging, 11/6" holding line and 11/6" closing line.

PERFORMANCE

Rated Travel Speed: 0.8 MPH
Rated Swing Speed: 2.28 RPM
Single Line Speed:
Crane-Clam Hoist
Magnet, Drag Hoist
Drag Pull-In
Third Drum 192 FPM
OR 142 FPN
Line Pull:
Crane-Clam Hoist 40,000 LBS SLI
Magnet, Drag Hoist 33,000 LBS SLI
Drag Pull-In
Third Drum 15,000 LBS SLI
OR 21,000 LBS SLI
Weight: Basic 9270 Lift Crane (70 FT Boom With Hammerhead)
Ground Pressure
Ground Fressure
Components removable for shipment:
Counterweight 96,000 LB
Crane block
Hammerhead 4,600 LBS
Boom outer 2,325 LB
Boom inner
Telescopic boom stops
Outer bail assembly 2,450 LBS
A-frame 3,900 LB:
Side frames (2)
Crawler axles (4) 11,680 LBS
Torque tubes (2)
Carbody 24,200 LBS

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



MODEL 74/ U DULL CICLE KALINGS WILL ST, OUG LD. COUNTERWEIGHT

Boom Length	Radius in Feet	Boom Angle Degrees	Lifting Crane Rating	Clamshell & Magnet Rating	Dragline Rating
	21	81	168,270	28,000	27,000
	25	78	128,320	28,000	27,000
	30	76	98,580	28,000	27,000
	35	73	79,740	28,000	27,000
	40	70	66,730	28,000	27,000
100'	50	63	49,930	28,000	27,000
	60	57	39,540	28,000	27,000
	70	50	32,480	28,000	27,000
	80	41	27,350	24,620	27,000
	90	32	23,450	21,110	23,450
	100	18	20,370	18,330	20,370
	23	81	145,530	28,000	27,000
	25	80	128,150	28,000	27,000
	30	77	98,380	28,000	27,000
	35	74	79,520	28,000	27,000
	40	71	66,500	28,000	27,000
110'	50	66	49,690	28,000	27,000
	60	60	39,290	28,000	27,000
	70	54	32,220	28,000	27,000
	80	47	27,100	24,390	27,000
	90	39	23,200	20,880	23,200
	100	30	20,140	18,130	20,140
	110	17	17,650	15,890	17,650
	24	81	136,140	28,000	27,000
	25	80	127,980	28,000	27,000
	30	78	98,170	28,000	27,000
	35	76	79,290	28,000	27,000
	40	73	66,260	28,000	27,000
	50	68	49,440	28,000	27,000
120'	60	63	39,030	28,000	27,000
	70	57	31,960	28,000	27,000
	80	51	26,830	23,740	26,830
	90	45	22,940	20,650	22,940
	100	38	19,880	17,890	19,880
	110	29	17,410	15,670	17,410
	120	17	15,350	13,820	15,350
j _{edergo} oo	26	81	120,530	28,000	_
130'	30	79	97,960	28,000	-
	35	77	79,060	28,000	-

Boom Longth	Radius in Feet	Boom Angle Degrees	Lifting Crone Rating	Clamshell & Magnet Rating	Dragline Rating
	40	74	66,020	28,000	
	50	70	49,170	28,000	
	60	65	38,770	28,000	_
	70	60	31,690	28,000	
130′	80	55	26,560	23,900	
	90	49	22,670	20,400	
	100	43	19,610	17,650	
	110	36	17,140	15,430	
	120	28	15,100	13,590	
	130	16	13,370	12,030	
	27	81	113,810	28,000	
	30	80	97,750	28,000	
	35	78	78,830	28,000	
	40	76	65,770	28,000	
	50	71	48,910	28,000	
	60	67	38,490	28,000	
140'*	70	62	31,410	28,000	
140	80	58	26,280	23,650	_
	90	53	22,390	20,150	-
	100	47	19,330	17,400	
	110	41	16,860	15,140	
	120	35	14,830	13,350	-
	130	27	13,110	11,800	-
	140	15	11,640	10,480	
	29	81	102,390		
	30	80	97,530		
	35	78	78,590		
	40	77	65,520	1	
	50	73	48,640	-	_
	60	69	38,210		
	70	64	31,130		
150′*	80	60	25,990		
	90	56	22,100		
	100	51	19,040		
	110	46	16,580		
	120	40	14,540		
	130	34	12,830		1
	140	26	11,370		
	150	15	10,100		
	100		10,100		(

9.18 10-15-43

Rating marked (*) require retractable A-Frame in fully raised position,

Crane ratings do not exceed 75% of tipping load with side frames extended.

Maximum recommended dragline boom length is 100 ft. For duty cycle service (dragline, clamshell, grapple, backhoe, magnet, etc.) counterweight must be reduced to 59,000 lb. by removing D₂, E₁ and E₂ overlays and F counterweight insert.