

AMERICAN MODEL 7510 LIFT CRANE RATINGS

Hammerhead Tip

| Boom Length | Radius Feet | Boom Angle Degrees | Free Over Side | Free Over Rear | Outriggers Extended and Set |
|-------------|-------------|--------------------|----------------|----------------|-----------------------------|
| 40' | 12 | 82 | — | 115,450 | *200,000 |
| | 15 | 77 | — | 93,770 | *179,010 |
| | 20 | 70 | — | 64,360 | *126,710 |
| | 25 | 62 | 30,540 | 48,610 | *97,640 |
| | 30 | 54 | 25,410 | 38,790 | 74,530 |
| | 35 | 44 | 21,580 | 32,070 | 59,130 |
| | 40 | 31 | 18,610 | 27,180 | 48,790 |
| 50' | 12 | 84 | — | 114,890 | *200,000 |
| | 15 | 80 | — | 93,540 | *178,700 |
| | 20 | 74 | — | 64,140 | *126,420 |
| | 25 | 68 | 30,180 | 48,400 | *97,360 |
| | 30 | 62 | 25,060 | 38,580 | 74,430 |
| | 35 | 55 | 21,260 | 31,870 | 59,020 |
| | 40 | 47 | 18,310 | 26,990 | 48,680 |
| | 50 | 28 | 14,030 | 20,350 | 35,650 |
| 60' | 13 | 84 | — | 110,280 | *200,000 |
| | 15 | 82 | — | 93,290 | *178,370 |
| | 20 | 77 | — | 63,890 | *126,090 |
| | 25 | 72 | 29,780 | 48,150 | *97,040 |
| | 30 | 67 | 24,680 | 38,340 | 74,270 |
| | 35 | 62 | 20,890 | 31,630 | 58,850 |
| | 40 | 56 | 17,960 | 26,750 | 48,510 |
| | 50 | 43 | 13,710 | 20,130 | 35,480 |
| | 60 | 25 | 10,760 | 15,820 | 27,600 |
| 70' | 14 | 84 | — | 102,270 | *193,940 |
| | 15 | 83 | — | 93,030 | *178,030 |
| | 20 | 79 | — | 63,620 | *125,750 |
| | 25 | 75 | 29,370 | 47,880 | *96,700 |
| | 30 | 70 | 24,290 | 38,070 | 74,100 |
| | 35 | 66 | 20,510 | 31,370 | 58,660 |
| | 40 | 61 | 17,580 | 26,490 | 48,300 |
| | 50 | 51 | 13,350 | 19,880 | 35,270 |
| | 60 | 40 | 10,430 | 15,580 | 27,400 |
| 80' | 70 | 23 | 8,280 | 12,560 | 22,110 |
| | 16 | 83 | — | 85,000 | *164,120 |
| | 20 | 80 | 36,150 | 63,340 | *125,400 |
| | 25 | 77 | 28,950 | 47,600 | *96,350 |
| | 30 | 73 | 23,880 | 37,790 | 73,900 |
| | 35 | 69 | 20,110 | 31,090 | 58,450 |
| | 40 | 65 | 17,190 | 26,220 | 48,090 |

| Boom Length | Radius Feet | Boom Angle Degrees | Free Over Side | Free Over Rear | Outriggers Extended and Set |
|-------------|-------------|--------------------|----------------|----------------|-----------------------------|
| 80' | 50 | 57 | 12,980 | 19,610 | 35,050 |
| | 60 | 48 | 10,070 | 15,320 | 27,170 |
| | 70 | 37 | 7,940 | 12,310 | 21,890 |
| | 80 | 22 | 6,290 | 10,060 | 18,090 |
| 90' | 17 | 83 | — | 78,110 | *152,090 |
| | 20 | 82 | 35,710 | 63,070 | *125,040 |
| | 25 | 78 | 28,520 | 47,320 | *96,000 |
| | 30 | 75 | 23,460 | 37,500 | 73,700 |
| | 35 | 72 | 19,700 | 30,800 | 58,230 |
| | 40 | 68 | 16,800 | 25,930 | 47,860 |
| | 50 | 61 | 12,600 | 19,320 | 34,810 |
| | 60 | 54 | 9,700 | 15,040 | 26,930 |
| | 70 | 45 | 7,580 | 12,040 | 21,650 |
| | 80 | 35 | 5,950 | 9,810 | 17,860 |
| | 90 | 20 | 4,650 | 8,070 | 14,990 |
| 100' | 18 | 84 | 39,060 | 72,130 | *139,050 |
| | 20 | 82 | 35,270 | 62,790 | *124,690 |
| | 25 | 80 | 28,100 | 47,030 | *95,640 |
| | 30 | 77 | 23,040 | 37,220 | 73,490 |
| | 35 | 74 | 19,290 | 30,510 | 58,010 |
| | 40 | 71 | 16,390 | 25,640 | 47,620 |
| | 50 | 64 | 12,200 | 19,030 | 34,560 |
| | 60 | 58 | 9,320 | 14,760 | 26,670 |
| | 70 | 51 | 7,200 | 11,750 | 21,390 |
| | 80 | 43 | 5,590 | 9,530 | 17,600 |
| | 90 | 33 | 4,300 | 7,810 | 14,750 |
| | 100 | 19 | 3,250 | 6,430 | 12,500 |
| 110' | 19 | 84 | 36,640 | 66,880 | *132,260 |
| | 20 | 83 | 34,830 | 62,510 | *124,330 |
| | 25 | 81 | 27,670 | 46,740 | *95,280 |
| | 30 | 78 | 22,620 | 36,920 | 73,280 |
| | 35 | 75 | 18,880 | 30,220 | 57,780 |
| | 40 | 73 | 15,980 | 25,350 | 47,380 |
| | 50 | 67 | 11,800 | 18,740 | 34,310 |
| | 60 | 61 | 8,930 | 14,460 | 26,410 |
| | 70 | 55 | 6,820 | 11,460 | 21,130 |
| | 80 | 48 | 5,210 | 9,240 | 17,340 |
| | 90 | 41 | 3,940 | 7,530 | 14,490 |
| | 100 | 31 | 2,900 | 6,160 | 12,250 |
| | 110 | 18 | 2,030 | 5,030 | 10,450 |

AMERICAN MODEL 7510 LIFT CRANE RATINGS

Hammerhead Tip (Continued)

| Boom Length | Radius Feet | Boom Angle Degrees | Free Over Side | Free Over Rear | Outriggers Extended and Set |
|-------------|-------------|--------------------|----------------|----------------|-----------------------------|
| 120' | 21 | 83 | 32,730 | 58,350 | *116,910 |
| | 25 | 81 | 27,240 | 46,460 | *94,920 |
| | 30 | 79 | 22,200 | 36,630 | 73,070 |
| | 35 | 77 | 18,460 | 29,920 | 57,550 |
| | 40 | 74 | 15,570 | 25,050 | 47,140 |
| | 50 | 69 | 11,400 | 18,440 | 34,050 |
| | 60 | 64 | 8,530 | 14,170 | 26,150 |
| | 70 | 58 | 6,440 | 11,170 | 20,860 |
| | 80 | 52 | 4,830 | 8,950 | 17,070 |
| | 90 | 46 | 3,560 | 7,240 | 14,220 |
| | 100 | 39 | 2,530 | 5,870 | 11,990 |
| | 110 | 30 | 1,670 | 4,760 | 10,190 |
| | 120 | 18 | — | 3,820 | 8,710 |
| 130' | 22 | 83 | 30,760 | 54,610 | *109,880 |
| | 25 | 82 | 27,810 | 46,170 | *94,560 |
| | 30 | 80 | 21,780 | 36,340 | 72,860 |
| | 35 | 78 | 18,050 | 29,630 | 57,320 |
| | 40 | 75 | 15,160 | 24,750 | 46,890 |
| | 50 | 71 | 11,000 | 18,140 | 33,790 |
| | 60 | 66 | 8,140 | 13,870 | 25,880 |
| | 70 | 61 | 6,040 | 10,870 | 20,590 |
| | 80 | 56 | 4,450 | 8,650 | 16,800 |
| | 90 | 50 | 3,180 | 6,940 | 13,940 |
| | 100 | 44 | 2,160 | 5,580 | 11,710 |
| | 110 | 37 | 1,300 | 4,470 | 9,920 |
| | 120 | 29 | — | 3,540 | 8,450 |
| | 130 | 17 | — | 2,750 | 7,210 |

| Boom Length | Radius Feet | Boom Angle Degrees | Free Over Side | Free Over Rear | Outriggers Extended and Set |
|-------------|-------------|--------------------|----------------|----------------|-----------------------------|
| 140' | 23 | 84 | 28,910 | 51,230 | *104,120 |
| | 25 | 83 | 26,380 | 45,880 | *94,190 |
| | 30 | 81 | 21,360 | 36,050 | 72,650 |
| | 35 | 79 | 17,630 | 29,330 | 57,090 |
| | 40 | 76 | 14,750 | 24,460 | 46,650 |
| | 50 | 72 | 10,600 | 17,840 | 33,530 |
| | 60 | 68 | 7,740 | 13,560 | 25,610 |
| | 70 | 63 | 5,650 | 10,570 | 20,320 |
| | 80 | 59 | 4,060 | 8,350 | 16,520 |
| | 90 | 54 | 2,800 | 6,640 | 13,660 |
| | 100 | 48 | 1,780 | 5,280 | 11,430 |
| | 110 | 42 | — | 4,170 | 9,640 |
| | 120 | 36 | — | 3,250 | 8,170 |
| | 130 | 28 | — | 2,470 | 6,940 |
| | 140 | 16 | — | 1,790 | 5,890 |
| 150' | 24 | 84 | 27,170 | 48,140 | *98,570 |
| | 25 | 83 | 25,950 | 45,590 | *93,830 |
| | 30 | 81 | 20,940 | 35,750 | 72,440 |
| | 35 | 79 | 17,210 | 29,040 | 56,850 |
| | 40 | 77 | 14,340 | 24,160 | 46,400 |
| | 50 | 73 | 10,190 | 17,540 | 33,270 |
| | 60 | 69 | 7,340 | 13,260 | 25,340 |
| | 70 | 65 | 5,250 | 10,270 | 20,040 |
| | 80 | 61 | 3,660 | 8,050 | 16,240 |
| | 90 | 56 | 2,410 | 6,340 | 13,380 |
| | 100 | 52 | 1,390 | 4,980 | 11,150 |
| | 110 | 47 | — | 3,880 | 9,360 |
| | 120 | 41 | — | 2,960 | 7,890 |
| | 130 | 35 | — | 2,180 | 6,660 |
| | 140 | 27 | — | 1,510 | 5,620 |
| | 150 | 16 | — | — | 4,710 |

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Load ratings do not exceed 85% of tipping with crane standing level on firm, uniformly supporting surface. Safe loads depend on ground conditions, boom length, radius of operation, condition and inflation (100 psi) of tires, and proper handling, all of which must be taken into consideration by user. Ratings marked (*) are based on strength not stability.

"Radius in feet" is the horizontal distance at ground 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.

Retractable A-frame must be in fully raised position for above ratings. Free ratings do not exceed maximum permissible tire load. Free ratings are omitted where, without load, backward stability is less than industry standard.

Standard equipped crane with "K-F-L" counterweight and outriggers extended and set, will self erect 150 ft main boom with hammerhead plus 50 ft No 9 jib or 60 ft No 9HL jib.

AMERICAN MODEL 7510 LIFT CRANE RATINGS

Tapered tip

| Boom Length | Radius Feet | Boom Angle Degrees | Free Over Side | Free Over Rear | Outriggers Extended and Set |
|-------------|-------------|--------------------|----------------|----------------|-----------------------------|
| 60' | 14 | 81 | — | 103,580 | *151,200 |
| | 15 | 80 | — | 94,340 | *151,200 |
| | 20 | 75 | — | 64,930 | *127,350 |
| | 25 | 70 | — | 49,190 | *98,300 |
| | 30 | 65 | — | 39,380 | 75,330 |
| | 35 | 60 | 22,150 | 32,680 | 59,900 |
| | 40 | 54 | 19,210 | 27,800 | 49,550 |
| | 50 | 41 | 14,970 | 21,180 | 36,530 |
| | 60 | 22 | 12,030 | 16,870 | 27,940 |
| 70' | 15 | 82 | — | 94,140 | *151,200 |
| | 20 | 77 | — | 64,730 | *127,080 |
| | 25 | 73 | — | 48,990 | *98,030 |
| | 30 | 69 | 25,600 | 39,180 | 75,230 |
| | 35 | 64 | 21,820 | 32,470 | 59,790 |
| | 40 | 60 | 18,900 | 27,600 | 49,430 |
| | 50 | 50 | 14,680 | 20,990 | 36,400 |
| | 60 | 38 | 11,760 | 16,700 | 28,520 |
| | 70 | 20 | 9,610 | 13,670 | 22,980 |
| 80' | 17 | 81 | — | 79,550 | *151,200 |
| | 20 | 79 | — | 64,510 | *126,790 |
| | 25 | 75 | — | 48,770 | *97,750 |
| | 30 | 72 | 25,250 | 38,960 | 75,110 |
| | 35 | 68 | 21,480 | 32,260 | 59,660 |
| | 40 | 64 | 18,570 | 27,390 | 49,280 |
| | 50 | 56 | 14,370 | 20,780 | 36,240 |
| | 60 | 46 | 11,470 | 16,490 | 28,360 |
| 90' | 70 | 35 | 9,340 | 13,480 | 23,080 |
| | 80 | 19 | 7,690 | 11,240 | 19,160 |
| | 18 | 82 | — | 73,620 | *143,360 |
| | 20 | 80 | — | 64,290 | *126,500 |
| | 25 | 77 | 29,940 | 48,540 | *97,460 |
| | 30 | 74 | 24,890 | 38,730 | 74,990 |
| | 35 | 70 | 21,130 | 32,030 | 59,510 |
| | 40 | 67 | 18,230 | 27,160 | 49,130 |
| 100' | 50 | 60 | 14,040 | 20,550 | 36,070 |
| | 60 | 52 | 11,150 | 16,270 | 28,180 |
| | 70 | 43 | 9,040 | 13,270 | 22,900 |
| | 80 | 33 | 7,410 | 11,040 | 19,110 |
| | 90 | 18 | 6,120 | 9,310 | 16,110 |
| | 20 | 81 | — | 64,060 | *126,200 |
| | 25 | 78 | 29,560 | 48,310 | *97,160 |
| | 30 | 76 | 24,520 | 38,500 | 74,850 |
| 100' | 35 | 73 | 20,780 | 31,790 | 59,350 |
| | 40 | 69 | 17,890 | 26,920 | 48,960 |
| | 50 | 63 | 13,710 | 20,320 | 35,880 |
| | 60 | 57 | 10,830 | 16,040 | 27,990 |
| | 70 | 49 | 8,720 | 13,040 | 22,710 |
| | 80 | 41 | 7,110 | 10,820 | 18,910 |
| | 90 | 31 | 5,830 | 9,100 | 16,060 |
| | 100 | 17 | 4,780 | 7,720 | 13,590 |

| Boom Length | Radius Feet | Boom Angle Degrees | Free Over Side | Free Over Rear | Outriggers Extended and Set |
|-------------|-------------|--------------------|----------------|----------------|-----------------------------|
| 110' | 21 | 82 | — | 59,960 | *118,840 |
| | 25 | 80 | 29,180 | 48,070 | *96,860 |
| | 30 | 77 | 24,150 | 38,260 | 74,710 |
| | 35 | 74 | 20,420 | 31,550 | 59,190 |
| | 40 | 71 | 17,530 | 26,680 | 48,780 |
| | 50 | 66 | 13,370 | 20,080 | 35,690 |
| | 60 | 60 | 10,500 | 15,800 | 27,800 |
| | 70 | 54 | 8,400 | 12,810 | 22,510 |
| | 80 | 47 | 6,800 | 10,590 | 18,710 |
| | 90 | 39 | 5,530 | 8,870 | 15,860 |
| | 100 | 30 | 4,490 | 7,500 | 13,620 |
| | 110 | 16 | 3,630 | 6,380 | 11,470 |
| 120' | 23 | 81 | 31,320 | 53,170 | *106,470 |
| | 25 | 80 | 28,790 | 47,830 | *96,560 |
| | 30 | 78 | 23,780 | 38,020 | 74,570 |
| | 35 | 76 | 20,050 | 31,310 | 59,030 |
| | 40 | 73 | 17,180 | 26,440 | 48,600 |
| | 50 | 68 | 13,020 | 19,840 | 35,500 |
| | 60 | 63 | 10,170 | 15,560 | 27,590 |
| | 70 | 57 | 8,080 | 12,570 | 22,300 |
| | 80 | 51 | 6,480 | 10,350 | 18,500 |
| | 90 | 45 | 5,210 | 8,640 | 15,650 |
| | 100 | 37 | 4,190 | 7,270 | 13,410 |
| | 110 | 29 | 3,330 | 6,160 | 11,620 |
| | 120 | 16 | 2,600 | 5,230 | 9,650 |
| 130' | 24 | 82 | 29,620 | 50,140 | *100,980 |
| | 25 | 81 | 28,410 | 47,600 | *96,250 |
| | 30 | 79 | 23,400 | 37,780 | 74,420 |
| | 35 | 77 | 19,690 | 31,070 | 58,860 |
| | 40 | 74 | 16,820 | 26,200 | 48,420 |
| | 50 | 70 | 12,680 | 19,590 | 35,300 |
| | 60 | 65 | 9,830 | 15,320 | 27,390 |
| | 70 | 60 | 7,740 | 12,320 | 22,090 |
| | 80 | 55 | 6,150 | 10,110 | 18,290 |
| | 90 | 49 | 4,890 | 8,400 | 15,430 |
| | 100 | 43 | 3,870 | 7,040 | 13,200 |
| | 110 | 36 | 3,030 | 5,930 | 11,410 |
| 140' | 120 | 27 | 2,310 | 5,000 | 9,930 |
| | 130 | 15 | 1,690 | 4,210 | 8,060 |
| | 26 | 82 | 26,890 | 45,040 | *86,130 |
| | 30 | 80 | 23,030 | 37,530 | 74,280 |
| | 35 | 78 | 19,320 | 30,820 | 58,690 |
| | 40 | 76 | 16,460 | 25,950 | 48,240 |
| | 50 | 71 | 12,330 | 19,340 | 35,100 |
| | 60 | 67 | 9,490 | 15,070 | 27,180 |
| | 70 | 62 | 7,410 | 12,080 | 21,870 |
| | 80 | 58 | 5,820 | 9,860 | 18,070 |
| | 90 | 53 | 4,570 | 8,150 | 15,210 |
| | 100 | 47 | 3,550 | 6,790 | 12,980 |
| | 110 | 41 | 2,710 | 5,690 | 11,190 |
| | 120 | 35 | 2,000 | 4,760 | 9,710 |
| | 130 | 26 | 1,390 | 3,980 | 8,480 |
| | 140 | 14 | — | 3,300 | 6,640 |

AMERICAN MODEL 7510 LIFT CRANE RATINGS

Tapered Tip (Continued)

| Boom Length | Radius Feet | Boom Angle Degrees | Free Over Side | Free Over Rear | Outriggers Extended and Set |
|-------------|-------------|--------------------|----------------|----------------|-----------------------------|
| 150' | 28 | 81 | 24,460 | 40,740 | 74,040 |
| | 30 | 81 | 22,650 | 37,290 | 71,550 |
| | 35 | 79 | 18,950 | 30,580 | 58,520 |
| | 40 | 77 | 16,100 | 25,700 | 48,060 |
| | 50 | 73 | 11,980 | 19,090 | 34,900 |
| | 60 | 69 | 9,140 | 14,820 | 26,970 |
| | 70 | 64 | 7,070 | 11,830 | 21,650 |
| | 80 | 60 | 5,490 | 9,610 | 17,850 |
| | 90 | 56 | 4,240 | 7,900 | 14,990 |
| | 100 | 51 | 3,230 | 6,550 | 12,750 |
| | 110 | 46 | 2,390 | 5,440 | 10,960 |
| | 120 | 40 | 1,690 | 4,520 | 9,490 |
| | 130 | 33 | 1,080 | 3,740 | 8,260 |
| | 140 | 26 | — | 3,070 | 7,210 |
| | 150 | 14 | — | 2,490 | 5,370 |
| 160' | 29 | 82 | 23,150 | 38,700 | 78,080 |
| | 30 | 81 | 22,280 | 37,050 | 63,060 |
| | 35 | 79 | 18,590 | 30,330 | 58,150 |
| | 40 | 78 | 15,740 | 25,460 | 47,870 |
| | 50 | 74 | 11,620 | 18,840 | 34,700 |
| | 60 | 70 | 8,800 | 14,570 | 26,750 |
| | 70 | 66 | 6,730 | 11,570 | 21,430 |
| | 80 | 62 | 5,160 | 9,360 | 17,620 |
| | 90 | 58 | 3,910 | 7,650 | 14,760 |
| | 100 | 54 | 2,900 | 6,300 | 12,520 |
| | 110 | 49 | 2,070 | 5,190 | 10,730 |
| | 120 | 44 | 1,370 | 4,280 | 9,260 |
| | 130 | 39 | — | 3,500 | 8,030 |
| | 140 | 32 | — | 2,830 | 6,980 |
| | 150 | 25 | — | 2,250 | 6,080 |
| | 160 | 14 | — | 1,740 | 4,210 |
| 170' | 31 | 81 | 21,080 | 35,260 | 55,000 |
| | 35 | 80 | 18,220 | 30,090 | 51,520 |
| | 40 | 78 | 15,370 | 25,210 | 47,690 |
| | 50 | 75 | 11,270 | 18,590 | 34,500 |
| | 60 | 71 | 8,450 | 14,320 | 26,540 |
| | 70 | 68 | 6,390 | 11,320 | 21,210 |
| | 80 | 64 | 4,820 | 9,110 | 17,400 |
| | 90 | 60 | 3,580 | 7,400 | 14,530 |
| | 100 | 56 | 2,580 | 6,050 | 12,290 |
| | 110 | 52 | 1,740 | 4,940 | 10,500 |
| | 120 | 48 | 1,040 | 4,030 | 9,030 |
| | 130 | 43 | — | 3,250 | 7,800 |
| | 140 | 37 | — | 2,590 | 6,750 |
| | 150 | 31 | — | 2,010 | 5,850 |
| | 160 | 24 | — | 1,500 | 5,070 |
| | 170 | 13 | — | 1,050 | 3,150 |

| Boom Length | Radius Feet | Boom Angle Degrees | Free Over Side | Free Over Rear | Outriggers Extended and Set |
|-------------|-------------|--------------------|----------------|----------------|-----------------------------|
| 180' | 32 | 82 | 19,930 | 33,590 | 47,440 |
| | 35 | 81 | 17,850 | 29,840 | 45,910 |
| | 40 | 79 | 15,010 | 24,960 | 42,530 |
| | 50 | 76 | 10,920 | 18,340 | 34,290 |
| | 60 | 72 | 8,100 | 14,060 | 26,320 |
| | 70 | 69 | 6,050 | 11,070 | 20,990 |
| | 80 | 66 | 4,480 | 8,850 | 17,170 |
| | 90 | 62 | 3,250 | 7,150 | 14,300 |
| | 100 | 58 | 2,240 | 5,790 | 12,060 |
| | 110 | 54 | 1,420 | 4,690 | 10,270 |
| | 120 | 50 | — | 3,770 | 8,790 |
| | 130 | 46 | — | 3,000 | 7,560 |
| | 140 | 41 | — | 2,340 | 6,520 |
| | 150 | 36 | — | 1,760 | 5,620 |
| | 160 | 31 | — | 1,260 | 4,840 |
| | 170 | 23 | — | — | 4,110 |
| 190' | 34 | 81 | 18,140 | 30,760 | 41,800 |
| | 35 | 81 | 17,480 | 29,590 | 41,110 |
| | 40 | 80 | 14,650 | 24,710 | 38,020 |
| | 50 | 77 | 10,560 | 18,090 | 33,110 |
| | 60 | 73 | 7,760 | 13,810 | 26,110 |
| | 70 | 70 | 5,710 | 10,820 | 20,770 |
| | 80 | 67 | 4,140 | 8,600 | 16,950 |
| | 90 | 64 | 2,910 | 6,890 | 14,070 |
| | 100 | 60 | 1,910 | 5,540 | 11,830 |
| | 110 | 57 | 1,090 | 4,440 | 10,030 |
| | 120 | 53 | — | 3,520 | 8,560 |
| | 130 | 49 | — | 2,750 | 7,330 |
| | 140 | 45 | — | 2,090 | 6,280 |
| | 150 | 40 | — | 1,510 | 5,390 |
| | 160 | 35 | — | 1,010 | 4,600 |
| | 170 | 30 | — | — | 3,920 |
| 200' | 35 | 82 | 17,110 | 29,340 | 36,360 |
| | 40 | 80 | 14,290 | 24,460 | 34,120 |
| | 50 | 77 | 10,210 | 17,840 | 29,620 |
| | 60 | 74 | 7,410 | 13,560 | 25,890 |
| | 70 | 71 | 5,360 | 10,560 | 20,550 |
| | 80 | 68 | 3,800 | 8,340 | 16,720 |
| | 90 | 65 | 2,570 | 6,640 | 13,840 |
| | 100 | 62 | 1,580 | 5,280 | 11,600 |
| | 110 | 59 | — | 4,180 | 9,800 |
| | 120 | 55 | — | 3,270 | 8,320 |
| | 130 | 51 | — | 2,490 | 7,090 |
| | 140 | 48 | — | 1,830 | 6,050 |
| | 150 | 44 | — | 1,260 | 5,150 |
| | 160 | 39 | — | — | 4,370 |
| | 170 | 34 | — | — | 3,680 |

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Load ratings do not exceed 85% of tipping with crane standing level on firm, uniformly supporting surface. Safe loads depend on ground conditions, boom length, radius of operation, condition and inflation (100 PSI) of tires, and proper handling, all of which must be taken into consideration by user. Ratings marked (*) are based on strength, not stability. "Radius in feet" is the horizontal distance at ground 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.

Retractable A-frame must be in fully raised position for above ratings. Free ratings do not exceed maximum permissible tire load. Free ratings are omitted where, without load, backward stability is less than industry standard.

For loads up to 46,500 lbs. use 2-part maximum reeving without hanger block. Reduce ratings 800 lbs. when using optional double sheave hanger block (for up to 6-part line).

Standard equipped crane with "K-F-L" counterweight and outriggers extended and set will self erect 200 ft. main boom plus 50 ft. No. 9 jib or 60 ft. No. 9HL jib.

Jib Ratings

JIB OFFSET "A"

MAXIMUM JIB RATING IN POUNDS

| NO. 9 JIB RATINGS | | | | |
|------------------------------------|-----------|-----------|-----------|-----------|
| | 20 ft Jib | 30 ft Jib | 40 ft Jib | 50 ft Jib |
| 0 to 6 ft | 18,000 | 18,000 | 14,500 | 10,500 |
| 9 ft | 18,000 | 17,300 | 14,100 | 10,250 |
| 12 ft | 18,000 | 15,300 | 12,400 | 10,000 |
| 15 ft | — | 13,500 | 10,750 | 8,800 |
| 18 ft | — | — | 10,000 | 8,150 |
| 21 ft | — | — | — | 7,750 |
| Effective Jib Weight at Boom Point | 1,550 | 2,100 | 2,800 | 3,600 |

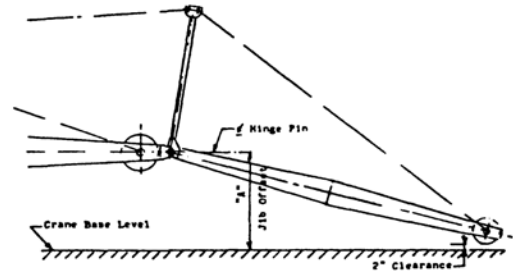
No 9 Jib ratings are based on 80 ft minimum boom length

| NO. 9HL JIB RATINGS | | | |
|------------------------------------|------------|-----------|------------|
| | 40 ft. Jib | 50 ft Jib | 60 ft. Jib |
| 0 to 8 ft | 19,000 | 17,000 | 14,500 |
| 12 ft | 16,600 | 14,800 | 12,600 |
| 16 ft | 14,400 | 12,800 | 11,600 |
| 20 ft | 12,000 | 11,000 | 10,300 |
| 24 ft | — | — | 9,000 |
| 28 ft | — | — | 8,000 |
| Effective Jib Weight at Boom Point | 1,850 | 2,350 | 2,750 |

No 9HL Jib ratings are based on 120 ft minimum boom length

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 shown above or (b) the main boom rating at the jib working radius reduced by 600# for the No 9 jib or 200# for the No 9HL jib. The weight of all suspended load carrying devices including main boom block must be deducted from jib ratings.

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.



7510 GENERAL SPECIFICATIONS

UPPER MACHINERY:

POWER:

Standard: General Motors Model 6-71-N diesel engine with three stage hydraulic torque converter; six cylinder, 4¼" bore, 5" stroke, 426 cu in displacement, rated 208 HP at 2100 RPM converter input, 12 volt electric starting

Alternate Engines with Three Stage Hydraulic Torque Converter:

Cummins Model N-743-P diesel engine, six cylinder, 5½" bore, 6" stroke, 743 cu in displacement, rated 187 HP at 2100 RPM converter input, 24 volt electric starting

Caterpillar Model D-333C-T diesel engine, 6 cylinder, turbocharged, 4¾" bore, 6" stroke, 638 cu in displacement, rated 200 HP at 2050 RPM converter input, 24 volt electric starting

NOTE: Power ratings are nominal and may vary $\pm 5\%$

FUEL TANK: 117 gallons capacity

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

ROTATING MACHINERY BASE: Tapered deep girder, electric welded steel plate construction with integral walkways; deep rigid sections with bored and

drilled holes located by jigs and fixtures to keep machinery in alignment under most severe operating conditions and assure fit of replacement parts

COUNTERWEIGHT: K-F-L, 31,000 lbs made up of basic hollow casting with corner and center inserts

ROLLER PATH AND BULLGEAR: Roller path and bullgear are a single unit casting, internal tooth bullgear; outer surface of the bullgear has double tapered roller paths accurately machined to roller contour, welded to chassis of carrier with suitable reinforcement and bracing

CENTER PIVOT TUBE: Center pivot tube cast integral with roller path and bullgear, pressure grease lubricated bronze pivot bushings in rotating machinery base; horizontal loads only — no uplift

LOAD AND HOOK ROLLERS: Large tapered load rollers transmit downward loads to machined upper roller path on carrier; tapered hook rollers transmit up-lift loads to lower path on carrier; two sets double equalizing load rollers and two single hook rollers in front; two sets double equalizing hook rollers and two single load rollers in rear; all rollers mounted on anti-friction bearings; hook rollers easily adjustable by eccentric shaft take-up

DRIVE SHAFT ASSEMBLY: Independent primary drive shaft consists of forged alloy steel shaft with cut steel pinion splined to shaft; roller chain sprocket is

7510 GENERAL SPECIFICATIONS (Cont.)

splined to other end of 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.

SWING ASSEMBLY: Alloy steel horizontal reversing shaft is mounted in anti-friction bearings; reversing bevel pinions are mounted on independent tapered roller bearings in rigid housing so that shaft is not subjected to bending loads; hardened alloy steel bevel and spur gears have accurately cut teeth and run in oil bath for maximum service life; air controlled, tandem band, internal swing clutches have extra thick moulded linings for long service life and stable operation; the air control system consists of a graduated air valve with ample hand lever travel to assure close control.

Vertical reverse shaft is heat-treated alloy steel, pressed into machinery base casting; integral cast alloy steel bevel gear and spur pinion mounted on anti-friction bearings; oil lubricated gearing; accurate, permanent gear alignment with long wear due to anti-friction mounting of bevel pinions and gear in rigid castings forming the machinery case.

Vertical swing shaft is heat-treated alloy steel mounted on bronze bushings in machinery base cover casting and gear case lower casting; forged alloy steel swing pinion; alloy cast iron brake wheel mounted on accurately cut splines; cast steel horizontal spur gear, running in oil; air-controlled swing brake is spring set, air released, controlled by a graduated air valve; swing brake is also set by side motion of the swing lever.

HYDROSTATIC SWING (Optional): Variable displacement piston pump is direct driven off the front of the engine; constant displacement piston motor is geared to swing turntable through 3-spur reduction; closed hydraulic circuit between pump and motor; operator has direct control of the pressure exerted on the motor for swinging in either direction; swing motion is substantially independent of engine speed.

MAIN DRUM ASSEMBLY: Twin alloy cast ductile iron drums with integral brake and clutch surfaces are mounted on 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 splined to drum shaft; air controlled clutches with tandem external contracting bands with thick moulded linings; smooth operation assured by highly responsive variable pressure air controls; large external contracting band drum brakes with extra thick moulded linings; brake foot pedal operated from operator's position; 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; cooling fins on brake ring assure maximum dissipation of heat.

A spring set, air released brake mechanism, controlled from the operator's lever stand, holds the drum from rotating in the lowering direction and is capable of holding a maximum load indefinitely in the event that there is a loss of air during crane operations; this is standard equipment on all machines furnished with crane boom.

CONTROLLED LOAD LOWERING: The controlled load lowering shaft is mounted behind and above the main drum shaft; shaft is alloy steel mounted in anti-friction bearings in the standard A-frame; roller chain

sprocket is bolted to a special drum lagging; a mating drive sprocket is provided on the load lowering shaft; clutch is internal expanding band type. Controlled load lowering can be provided for either the right hand or left hand drum, but not both simultaneously; the large driven sprocket is bolted to the special lagging and can be bolted to either right or left lagging as desired.

Loads are lowered through the chain drive to the lowering shaft, then through the lowering clutch to the gear train and back to the engine where they are resisted by the over-running friction torque of the engine and torque converter. A single air valve controls both hoisting and lowering. The foot brake stops the load.

The controlled load lowering is completely independent of all other operations.

NOTE: Three stage torque converter must be used with controlled load lowering for required gear ratios.

THIRD DRUM (Optional): Forward and below main drum, heat-treated alloy steel shaft splined for clutch spider and third drum; shaft mounted on anti-friction bearings in integral pillow block casting; clutch gear mounted on anti-friction bearings; air-controlled tandem external contracting clutch bands; moulded liners; third drum 10" dia x 15" long, 15,000 lbs SLP at 185 FPM; latched foot brake at operator's position.

CRANE BOOM: A special lightweight, pin connected deep section crane boom is furnished with chords of tubular T-1 steel and with tubular lattice; boom is 59" cross section and can be extended to 200 ft plus jib; the basic inner section is 20 ft long; the tapered intermediate section can be fitted either with a 5-sheave pin connected hammerhead or with a 20 ft 2-sheave pin connected (tapered tip) outer section; minimum length hammerhead boom is 40 feet; minimum tapered tip boom is 60 feet; tapered tip boom includes two sheave hanger block, which with lower hook block permits reeving up to six part line; hammerhead tip boom permits reeving up to nine part line; hammerhead tip is required for loads requiring less than 60 foot boom, and for maximum crane rating of 100 tons (on 40 foot boom); center sections with matching pendants available in 10 ft, 20 ft and 40 ft lengths; no belly lines required for maximum length booms; jib can be fitted to either hammerhead or tapered tip.

JIBS: No. 9 jib is 20 ft, 2-piece with alloy steel chord angles and tubular lattice; 20" AFB sheave is grooved for $\frac{7}{8}$ " rope for single part whipline; 10 ft center sections with matching pendants are available to extend total jib length to 30 ft, 40 ft or 50 ft length.

No 9HL jib is 40 ft, 2-piece with T-1 tubular alloy steel chords and tubular lattice; 20 ft inner; 20 ft. outer; 24" AFB aluminum sheave is grooved for $\frac{7}{8}$ " or 1" rope; 10 ft and 20 ft center sections with matching pendants are available to extend total length to 50 ft or 60 ft.

Jib back stay ears are located on the 20 ft outer base section; jib back stay length must equal or exceed jib length, for longer jibs the back stay line is attached at boom inner section or optional ears on center boom section.

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

7510 GENERAL SPECIFICATIONS (Cont.)

hoisting tackle Standard on all machines with crane boom

BOOM HOIST SAFETY SHUT-OFF: Prevents the operator from over hoisting the boom, located at the bottom of the boom and actuated when the boom reaches a predetermined angle; when activated this valve cuts off the air supply to boom hoist clutch and sets the boom hoist brake Standard on all machines with crane boom

BOOM HOIST: Bronze bushed cast steel boom hoist drum mounted on stationary shaft in machinery base; powered through gear train from engine through swing shaft to boom hoist shaft; single lever graduated air valve controls both raising and lowering; cut tooth spur gear is mounted on anti-friction bearings with alloy cast iron clutch ring keyed to gear hub; clutch spider is splined to clutch shaft; air controlled clutch is external contracting band; clutch shaft is mounted on bronze bushings in machinery base; spring set, air released contracting band brake; spring set, air released locking pawl holds boom during operation or when machine is idle

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"

RETRACTABLE A-FRAME is raised or lowered by means of bail rigging with no special equipment required; standard on all machines, complete counterweight removed easily and quickly, without assistance, through use of retractable A-frame and counterweight removal attachment; two alloy cast steel arms are pivoted from rear of machinery deck; alloy steel hooks suspend the counterweight from these arms and machined cast steel latches secure the arms; counterweight is further secured by two over-center locking arms; no bolts are employed; attaching counterweight is an equally simple procedure

CAB: Fully enclosed 10'6" wide steel; all safety glass windows mounted in rubber; removable windows in operator's cab; sliding doors on sides and rear; hinged door on operator's cab roof; ladder to roof at left front; operator located at right hand forward corner to provide unobstructed visibility.

ATTACHMENTS:

DRAGLINE ATTACHMENT: Includes full revolving fairlead, dirt guard under dragline drum, drum lagging, $\frac{7}{8}$ " hoist line and $1\frac{1}{8}$ " dragline for applicable boom length

CLAMSHELL ATTACHMENT: For clam or grapple work includes Rud-O-Matic tagline winder mounted in boom, drum lagging, $\frac{7}{8}$ " holding line and $\frac{7}{8}$ " closing line for applicable boom length

MAGNET ARRANGEMENT: 21 KW constant voltage magnet generator is belt driven from main engine, eliminating extra fuel costs and maintenance of second engine; voltage regulator holds voltage constant under all operating conditions; magnet controller mounted on operator's cab wall; pushbuttons mounted in operating levers so operator need not release control lever while operating magnet

Over-excitation arrangement increases magnet pick-up capacity up to 20%, increasing daily output; when magnet is dropped on pile of material the operator pushes "LIFT" button on hoist lever which raises generator voltage to 275, materially increasing magnet pick-up capacity; when free from pile the button is released and voltage drops to 200, which is ample to hold the load, to release the load the operator pushes the "DROP" button on the swing lever

Included with magnet arrangement are Gleason cable reel, Rud-O-Matic tagline winder, single sheave crane block with bronze bushed sheave and two-part magnet hoist line

GUY DERRICK ATTACHMENT: Lifting capacity is increased to 280,000 lbs Special mast boom and derrick boom component parts include a modified derrick boom inner to be used as the mast inner, a mast tip with guy cap, derrick boom inner, derrick boom intermediate section, and a special 8 sheave derrick boom outer section Center boom sections and pendants are interchangeable with derrick mast and boom sections A special auxiliary third drum is used which has a larger rope capacity, and the 140 ton load block is furnished

GENERAL

CONTROLS: Graduated air controls, pioneered by AMERICAN, put "feel" at every operator's fingertips, insure higher production, more accurate control

MATERIALS: Gears 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 stress 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

CARRIER: For carrier details and general dimensions see separate specification

PERFORMANCE:

SWING SPEED 3 RPM

SINGLE LINE SPEED:

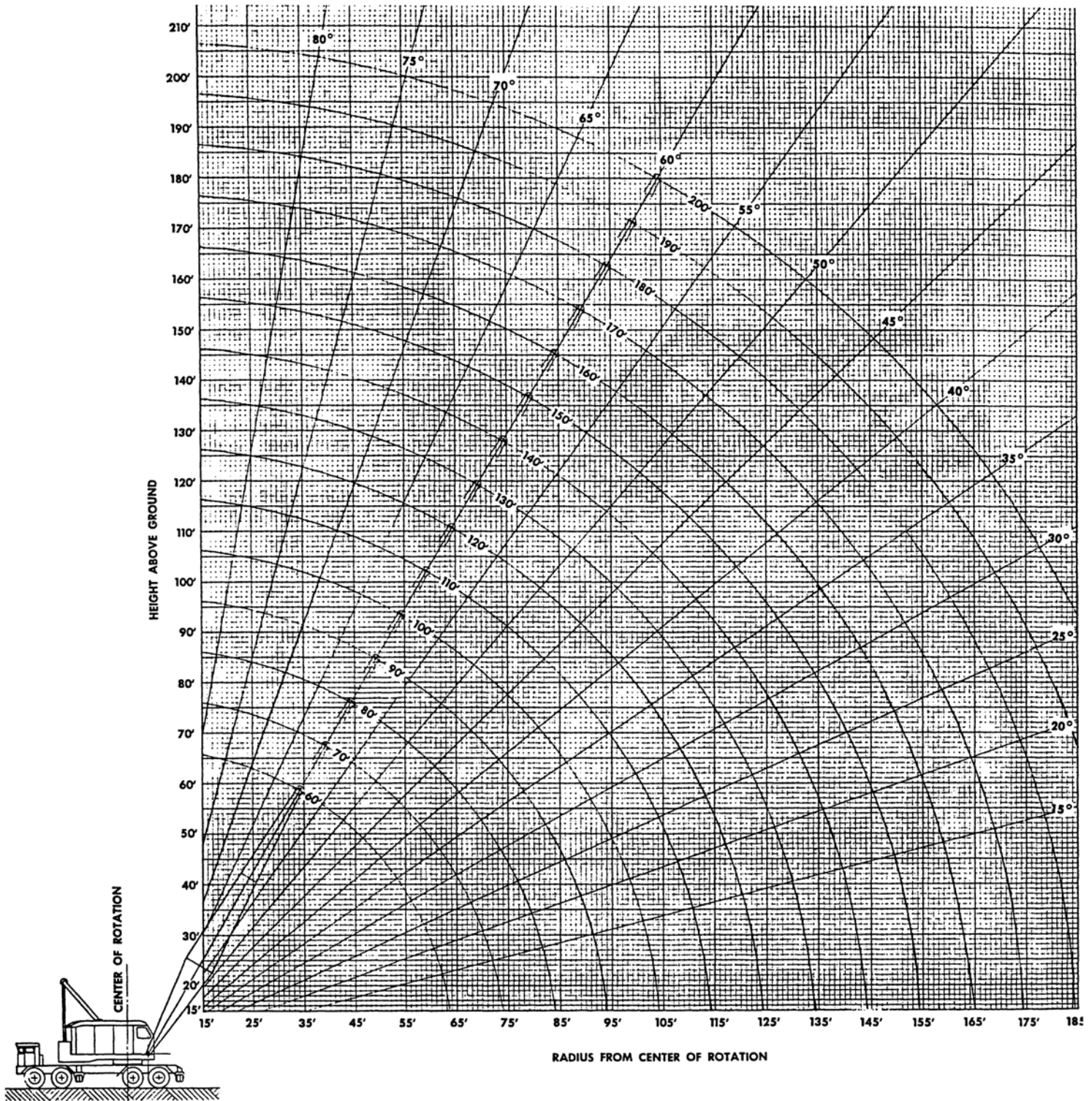
| | |
|-------------|---------|
| Crane Hoist | 165 FPM |
| Dragline | 140 FPM |
| Magnet | 200 FPM |
| Third Drum | 185 FPM |

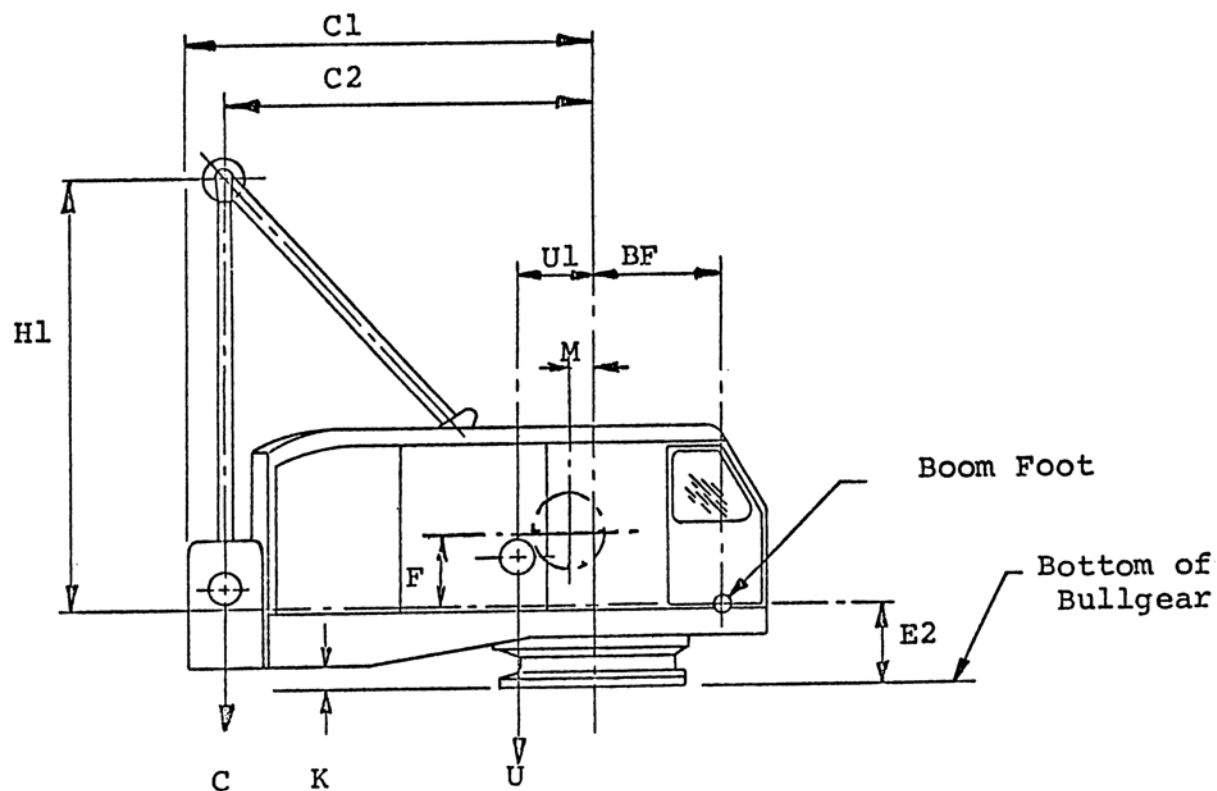
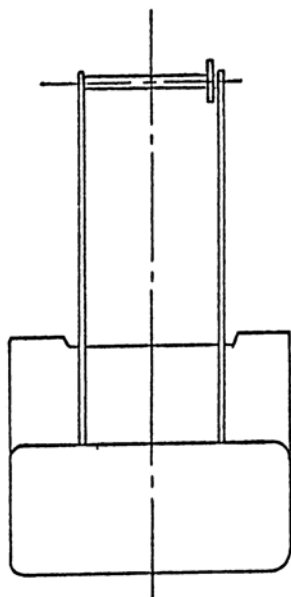
SINGLE LINE PULL (with standard engine):

| | | |
|-------------|------------|-----|
| Crane Hoist | 27,000 lbs | SLP |
| Dragline | 32,000 lbs | SLP |
| Magnet | 22,000 lbs | SLP |
| Third Drum | 15,000 lbs | SLP |

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

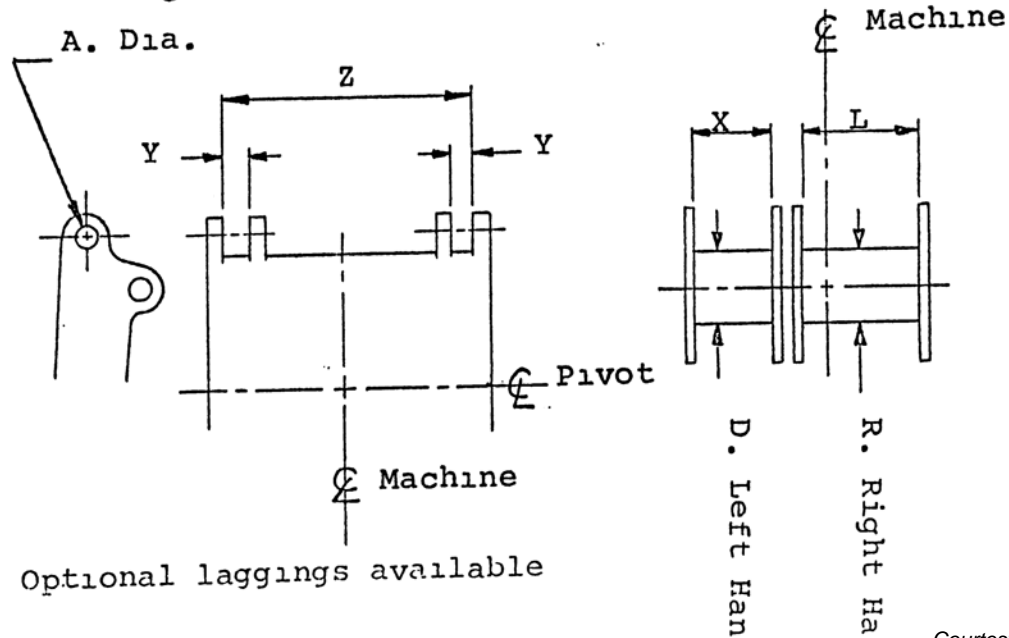
Boom Angle Diagram





Boom Foot

Bottom of Bullgear



* Optional laggings available

AMERICAN HOIST & DERRICK CO
SAINT PAUL, MINNESOTA

Courtesy of CraneMarket

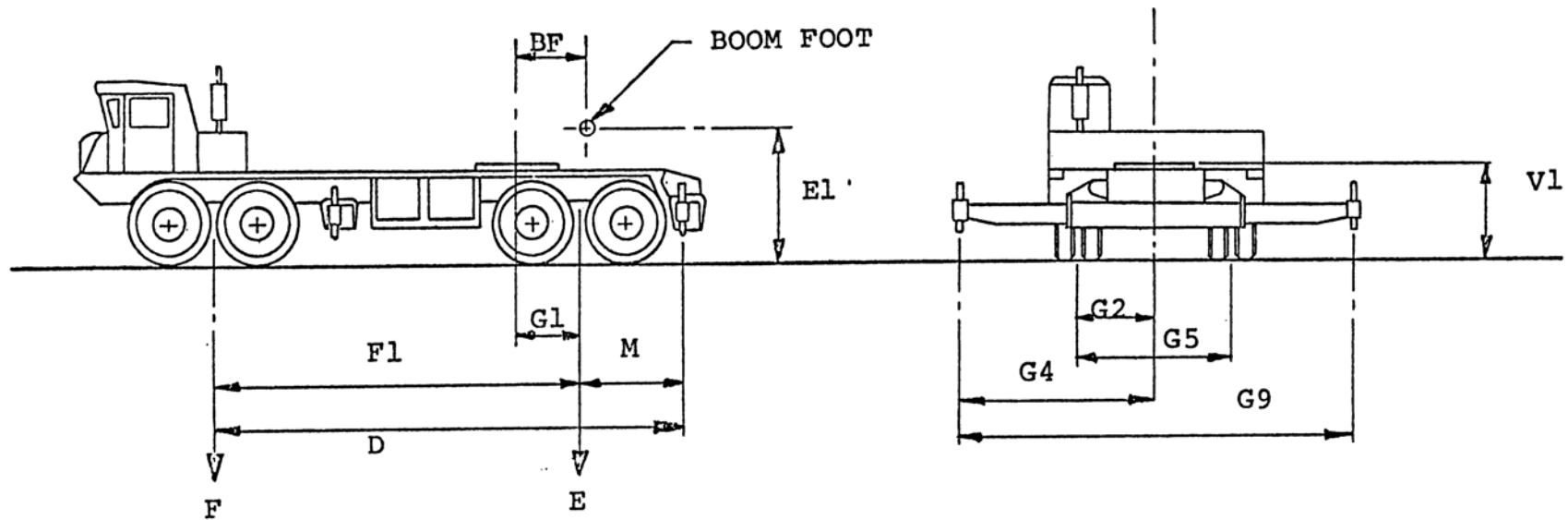
| | | | |
|----|------------------|-----|----------------|
| A. | <u>3.255"</u> | Y. | <u>4"</u> |
| C. | <u>31,000#</u> | Z. | <u>5.0'</u> |
| D. | <u>21-1/2" *</u> | BF. | <u>4.125'</u> |
| F. | <u>28.382"</u> | C1 | <u>14.125'</u> |
| L. | <u>17.5"</u> | C2 | <u>12.7'</u> |
| M. | <u>15.375"</u> | E2 | <u>2.0156'</u> |
| R. | <u>21-1/2"</u> | H1 | <u>14.396'</u> |
| U. | <u>47,070#</u> | U1 | <u>3.24'</u> |
| X. | <u>12 5"</u> | K | <u>.4896'</u> |

TRUCK CRANE CARRIER

MODEL: 7510

MAKE: AMERICAN

TYPE: 8 x 4



BF - 4.125 FT.
 E1 - 6.77 FT.
 E - 37.6 KIPS
 D - 20.0 FT.
 F1 - 19.85 FT.
 M - 6.4 FT.
 F - 23.8 KIPS

G1 - 3.5 FT.
 G2 - 3.75 FT.
 G4 - 9.65 FT.
 G5 - 7.5 FT.
 G9 - 19.30 FT.
 V1 - 4.750 FT.

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KIPS MAXIMUM ALLOWABLE TIRE LOAD OVER SIDE.

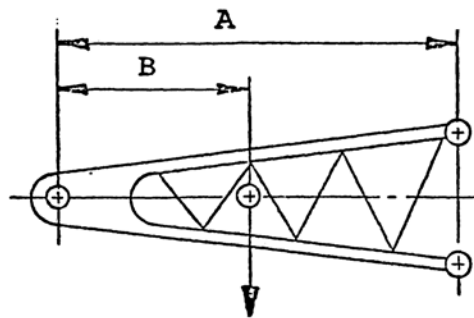
210

KIPS MAXIMUM ALLOWABLE TIRE LOAD OVER END.

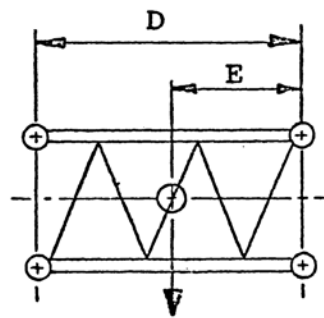
WEIGHT AND CENTER OF GRAVITY

59" HEAVY DUTY TUBULAR BOOM

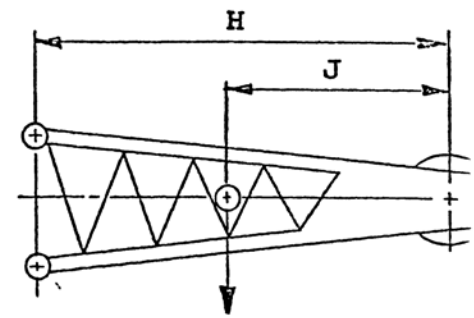
SR-70-12-24-WB
AMERICAN HOIST & DERRICK CO
SAINT PAUL, MINNESOTA



C
INNER



F
CENTER



K
OUTER

20'-0" Inner

A = 20'-0", B = 8'-2", C = 2,200#

20'-0" Outer Base

D = 19'-11-3/4", E = 11'-0", F = 980#

20'-0" Taper Tip

H = 20'-0", J = 11'-0", K = 1,570#

10'-0" Center

D = 10'-0", E = 5'-0", F = 604#

20'-0" Center

D = 20'-0", E = 10'-0", F = 1,208#

40'-0" Center

D = 40'-0", E = 20'-0", F = 2,318#

Hammerhead weighs 2,150#