

LOAD LINE HOISTING RANGE 4600 SERIES-4 RINGER® - SERIES-3

BOOM NO. 65

FRONT DRUM: 40" (1.0m) WIDTH, 28" (.7m) DIAMETER, 63" (1.6m) DIAMETER FLANGE

REAR DRUM: 43" (1.1m) WIDTH, 28" (.7m) DIAMETER, 50½" (1.3m) DIAMETER FLANGE

TABLE 1: CONDITIONS

- Capacities based on capacity chart No. 7300-A and No. 7300-AM.
- Number of "Parts of Line" based on load line specification chart No. 7307-A.
- Minimum block to boom point distance of 21' (6.4m) for 26-21 parts of line 13' (4.0m) for 20 or less (Manitowoc 750 ton (680tm) load block).
- 7.9' (2.4m) distance from center of boom hinge pin to working level and 82 degree boom angle.
- 2 dead wraps (16' (4.9m)) on each drum.
- All figures are based on drum spooling capacity of 1 or 2 drums and without ratchet on rear drum.

TOTAL USABLE DRUM SPOOLING CAPACITIES:

	ONE DRUM	TWO DRUMS
1¼" (31.8mm) Wire Rope	3,905' (1,190.2m)	6,791' (2,069.9m)
1½" (34.9mm) Wire Rope	3,297' (1,004.9m)	5,637' (1,718.2m)
1½" (38.1mm) Wire Rope	2,744' (836.4m)	3,960' (1,207.0m)
1¾" (41.3mm) Wire Rope	1,578' (481.0m)	2,176' (663.2m)

WHEN REAR DRUM IS EQUIPPED WITH DRUM BRAKE ASSEMBLY

	No. 160277	
1½" (38.1mm) Wire Rope	2,744' (836.4m)	4,949' (1,508.5m)
1¾" (41.3mm) Wire Rope	1,578' (481.0m)	3,286' (1,001.6m)

TABLE 2: ILLUSTRATION

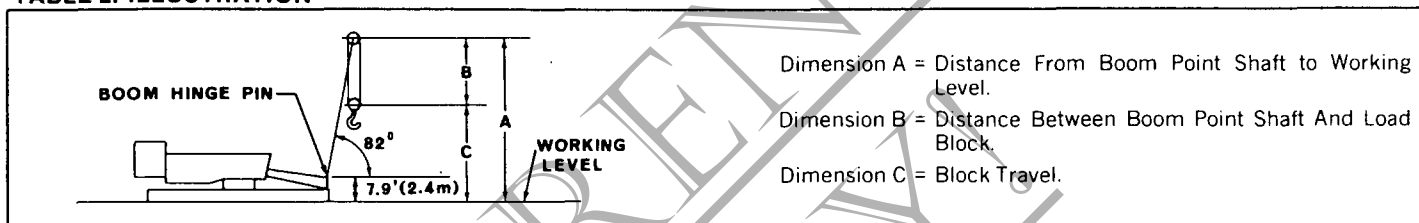


TABLE 3: HOISTING RANGE

1-1/4" (31.8mm) Wire Rope — 1 Full Width Front Drum													
Boom Length — Feet	140	180	200	220	240	260	280	300	320	340	360	380	400
Boom Length — Meter	42.7	54.9	61.0	67.1	73.2	79.2	85.3	91.4	97.5	103.6	109.7	115.8	121.9
A — Feet	146.6	186.2	206.0	225.8	245.6	265.4	285.2	305.0	324.8	344.6	364.4	384.3	404.0
A — Meter	44.7	56.8	62.8	68.8	74.9	80.9	86.9	93.0	99.0	105.0	111.1	117.1	123.1
B — Feet	21.0	36.0	55.8	75.6	75.8	70.1	68.3	44.7	24.4	19.2	13.0	13.0	13.0
B — Meter	6.4	11.0	17.0	23.0	23.1	21.4	20.8	13.6	7.4	5.9	4.0	4.0	4.0
C — Feet	150.2	150.2	150.2	150.2	169.8	195.3	216.9	260.3	300.4	325.4	390.5	433.9	488.1
C — Meter	45.8	45.8	45.8	45.8	51.8	59.5	66.1	79.3	91.6	99.2	119.0	132.3	148.8
(1) Parts of Line	26	26	26	26	23	20	18	15	13	12	10	9	8
(2) Parts of Line	26	23	21	19	17	15	14	13	12	11	10	9	8
1-3/8" (34.9mm) Wire Rope — 1 Full Width Front Drum													
B — Feet	21.0	59.4	79.2	99.0	102.3	100.5	91.3	85.2	71.2	69.8	34.7	18.0	13.0
B — Meter	6.4	18.1	24.1	30.2	31.2	30.6	27.8	26.0	21.7	21.3	10.6	5.5	4.0
C — Feet	126.8	126.8	126.8	126.8	143.3	164.9	193.9	219.8	253.6	274.8	329.7	366.3	412.1
C — Meter	38.6	38.6	38.6	38.6	43.7	50.3	59.1	67.0	77.3	83.8	100.5	111.6	125.6
(1) Parts of Line	26	26	26	26	23	20	17	15	13	12	10	9	8
(2) Parts of Line	26	20	17	16	14	13	12	11	10	9	9	8	8
1-1/2" (38.1mm) Wire Rope — 1 Full Width Front Drum													
A — Feet	146.6	186.2	206.0	225.8	245.6	265.4	285.2	305.0	324.8	344.6	364.4	384.3	404.0
A — Meter	44.7	56.8	62.8	68.8	74.9	80.9	86.9	93.0	99.0	105.0	111.1	117.1	123.1
B — Feet	41.1	80.7	100.5	106.5	114.9	113.0	113.7	109.0	96.1	95.1	59.5	41.3	13.0
B — Meter	12.5	24.6	30.6	32.5	35.0	34.4	34.7	33.2	29.3	29.0	18.1	12.6	4.0
C — Feet	105.5	105.5	105.5	119.3	130.7	152.4	171.5	196.0	228.7	249.5	304.9	343.0	392.0
C — Meter	32.2	32.2	32.2	36.4	39.8	46.5	52.3	59.7	69.7	76.0	92.9	104.5	119.5
(1) Parts of Line	26	26	26	23	21	18	16	14	12	11	9	8	7
(2) Parts of Line	22	16	14	13	12	10	10	9	8	8	7	7	7

- Parts of line required for maximum capacity.
- Maximum parts of line which will allow full hoisting range.

Continued on reverse side

TABLE 3: HOISTING RANGE (Continued)

1-5/8" (41.3mm) Wire Rope — 1 Full Width Front Drum													
Boom Length — Feet	140	180	200	220	240	260	280	300	320	340	360	380	400
Boom Length — Meter	42.7	54.9	61.0	67.1	73.2	79.2	85.3	91.4	97.5	103.6	109.7	115.8	121.9
B — Feet	85.9	125.5	137.4	142.7	152.8	160.2	163.8	161.5	167.0	169.3	167.1	158.9	141.0
B — Meter	26.2	38.3	41.9	43.5	46.6	48.8	49.9	49.2	50.9	51.6	50.9	48.4	43.0
C — Feet	60.7	60.7	68.6	83.1	92.8	105.2	121.4	143.5	157.8	175.3	197.3	225.4	263.0
C — Meter	18.5	18.5	20.9	25.3	28.3	32.1	37.0	43.7	48.1	53.4	60.1	68.7	80.2
(1) Parts of Line	26	26	23	19	17	15	13	11	10	9	8	7	6
(2) Parts of Line	12	9	8	7	6	6	5	5	5	4	4	4	4
1-1/4" (31.8mm) Wire Rope — 2 Full Width Drums													
B — Feet	21.0	21.0	21.0	21.0	21.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0
B — Meter	6.4	6.4	6.4	6.4	6.4	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
C — Feet	261.2	261.2	261.2	261.2	283.0	339.6	377.3	424.4	485.1	565.9	679.1	679.1	848.9
C — Meter	79.6	79.6	79.6	79.6	86.3	103.5	115.0	129.4	147.9	172.5	207.0	207.0	258.7
(3) Parts of Line	26	26	26	26	24	20	18	16	14	12	10	10	8
1-3/8" (34.9mm) Wire Rope — 2 Full Width Drums													
B — Feet	21.0	21.0	21.0	21.0	21.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0
B — Meter	6.4	6.4	6.4	6.4	6.4	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
C — Feet	216.8	216.8	216.8	216.8	234.9	281.9	313.2	352.3	402.6	469.8	563.7	563.7	704.6
C — Meter	66.1	66.1	66.1	66.1	71.6	85.9	95.5	107.4	122.7	143.2	171.8	171.8	214.8
(3) Parts of Line	26	26	26	26	24	20	18	16	14	12	10	10	8
1-1/2" (38.1mm) Wire Rope — 2 Full Width Drums													
A — Feet	146.6	186.2	206.0	225.8	245.6	265.4	285.2	305.0	324.8	344.6	364.4	384.3	404.0
A — Meter	44.7	56.8	62.8	68.8	74.9	80.9	86.9	93.0	99.0	105.0	111.1	117.1	123.1
B — Feet	21.0	33.9	53.7	60.8	65.6	45.4	37.7	22.1	13.0	14.6	13.0	13.0	13.0
B — Meter	6.4	10.3	16.4	18.5	20.0	13.8	11.5	6.7	4.0	4.5	4.0	4.0	4.0
C — Feet	152.3	152.3	152.3	165.0	180.0	220.0	247.5	282.9	330.0	330.0	396.0	495.0	495.0
C — Meter	46.4	46.4	46.4	50.3	54.9	67.1	75.4	86.2	100.6	100.6	120.7	150.9	150.9
(1) Parts of Line	26	26	26	24	22	18	16	14	12	12	10	8	8
(2) Parts of Line	26	24	20	18	16	14	14	12	12	10	10	8	8
1-5/8" (41.3mm) Wire Rope — 2 Full Width Drums													
B — Feet	62.9	102.5	115.3	117.0	124.7	129.4	129.8	123.7	107.2	127.0	92.4	112.3	41.3
B — Meter	19.2	31.2	35.1	35.7	38.0	39.4	39.6	37.7	32.7	38.7	28.2	34.2	12.6
C — Feet	83.7	83.7	90.7	108.8	120.9	136.0	155.4	181.3	217.6	217.6	272.0	272.0	362.7
C — Meter	25.5	25.5	27.6	33.2	36.9	41.5	47.4	55.3	66.3	66.3	82.9	82.9	110.6
(1) Parts of Line	26	26	24	20	18	16	14	12	10	10	8	8	6
(2) Parts of Line	16	12	10	10	8	8	8	6	6	6	4	4	4
Rear Drum Equipped With Drum Brake Assembly No. 160277 1½" (38.1mm) Wire Rope — 2 Full Width Drums													
B — Feet	21.0	21.0	21.0	21.0	21.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0
B — Meter	6.4	6.4	6.4	6.4	6.4	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
C — Feet	190.3	190.3	190.3	206.2	225.0	274.9	309.3	353.5	412.4	412.4	494.9	618.6	618.6
C — Meter	58.0	58.0	58.0	62.8	68.6	83.8	94.3	107.7	125.7	125.7	150.8	188.5	188.5
(3) Parts of Line	26	26	26	24	22	18	16	14	12	12	10	8	8
Rear Drum Equipped With Drum Brake Assembly No. 160277 1" (41.3mm) Wire Rope — 2 Full Width Drums													
B — Feet	21.0	59.8	69.1	61.5	63.0	60.0	50.5	31.2	13.0	16.0	13.0	13.0	13.0
B — Meter	6.4	18.2	21.1	18.7	19.2	18.3	15.4	9.5	4.0	4.9	4.0	4.0	4.0
C — Feet	126.4	126.4	136.9	164.3	182.6	205.4	234.7	273.8	328.6	328.6	410.8	410.8	547.7
C — Meter	38.5	38.5	41.7	50.1	55.7	62.6	71.5	83.5	100.2	100.2	125.2	125.2	166.9
(1) Parts of Line	26	26	24	20	18	16	14	12	10	10	8	8	6
(2) Parts of Line	26	20	16	14	14	12	12	10	10	8	8	8	6

(1) Parts of line required for maximum capacity.

(2) Maximum parts of line which will allow full hoisting range.

(3) Parts of line required for maximum capacity and which will allow full hoisting range.

TABLE 4: NOTES

1. Dimension "C" (block travel) is determined by dividing drum spooling capacity by number of parts of load line.
2. If dimension "C" plus 21' (6.4m) for 26-21 parts of line or 13' (4.0m) for 20 or less is greater than dimension "A" load block can be lowered below working level.

3. Distance load block can be lowered below working level depends on boom length, parts of load line and drum spooling capacity.
4. Total usable drum spooling capacity is drum capacity minus 2 dead wraps per drum.