

Telescopic Crawler Crane Grue télescopique sur chenilles

LTR 1100

Technical Data
Caractéristiques techniques

LICCON2



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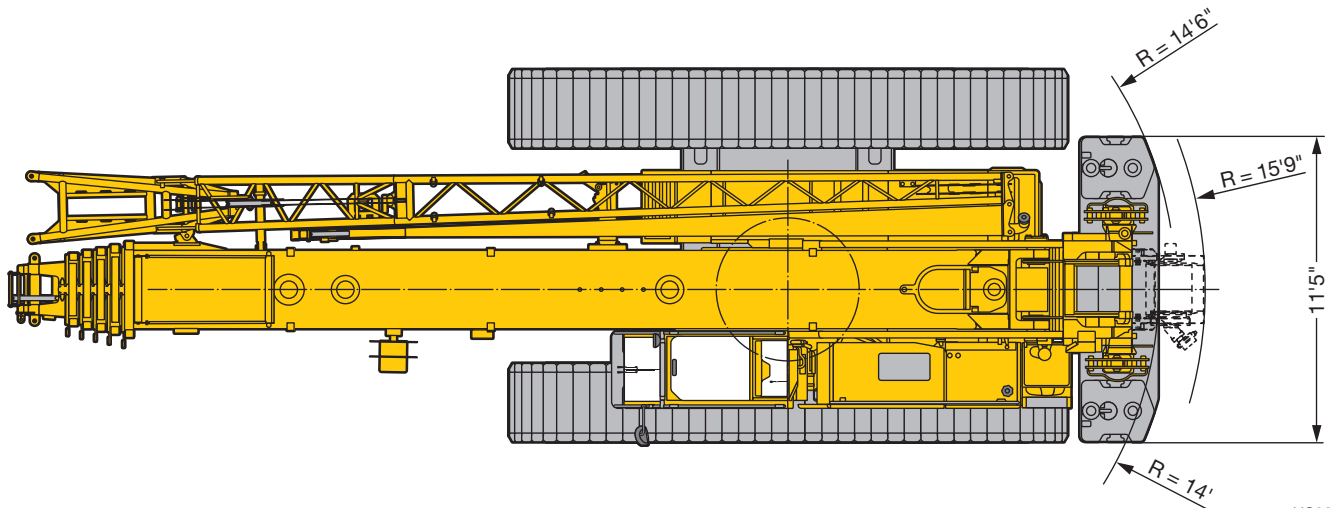
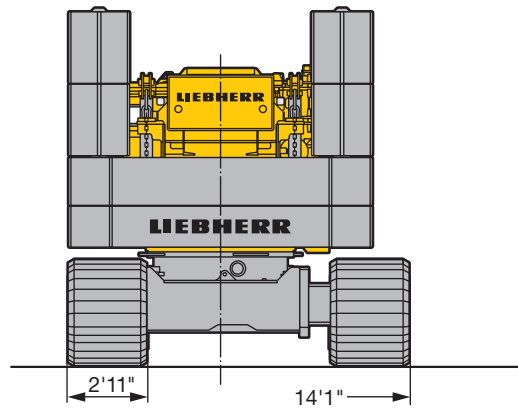
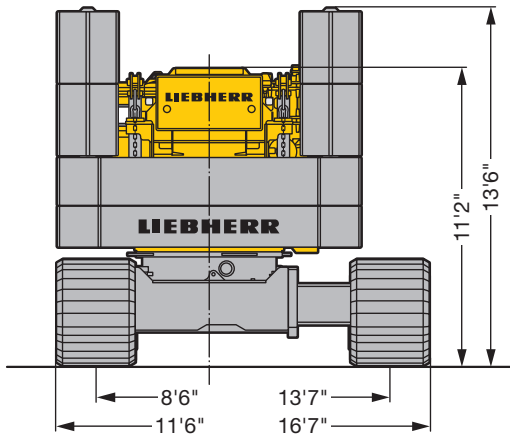
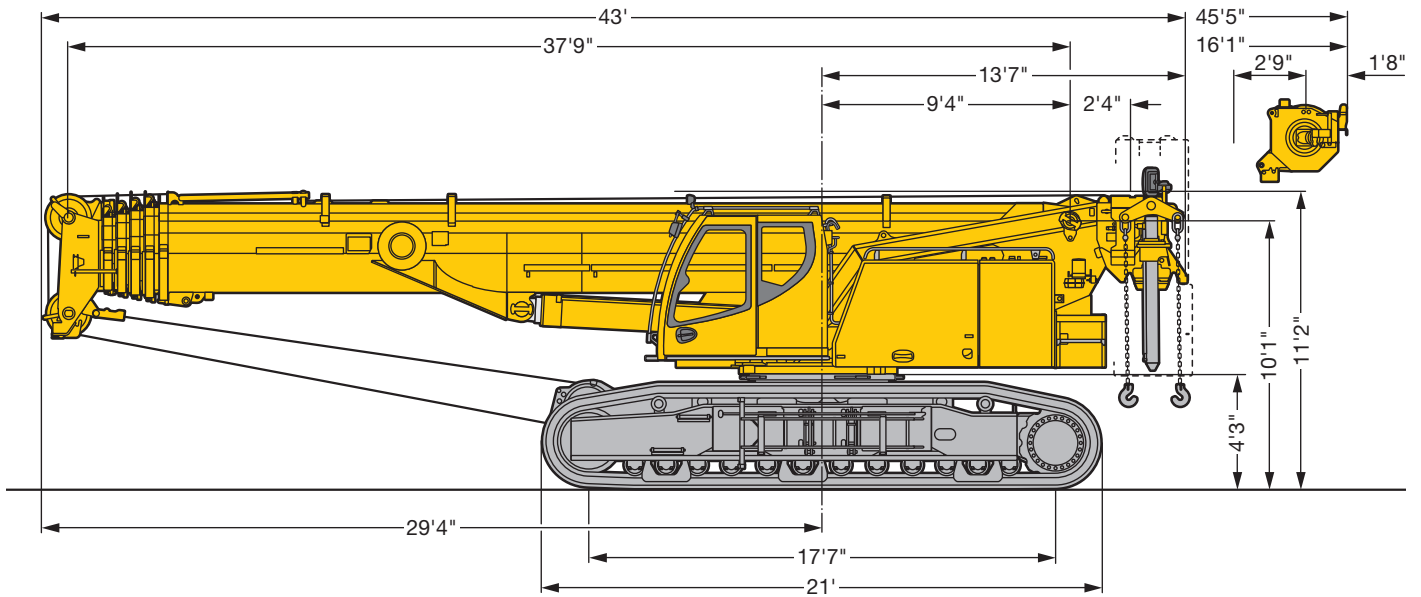
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Dimensions Encombrement








US2863.01

Crane data Dates de la grue

	Total driving force Puissance propulsive totale	148,400 lbs
	Total weight with 70,540 lbs counterweight, 33,070 lbs central ballast and 3-sheave hook block Poids total avec contrepoids de 70,540 lbs, lest central de 33,070 lbs et moufle à crochet à 3 poulies	~ 227,100 lbs
	Average ground pressure without jack-up cylinders at 227,100 lbs total weight and with 2'11" track pads Pression au sol moyenne sans vérin Jack-up pour un poids total de 227,100 lbs et des tuiles de 2'11"	15.4 lbs / inch ²
	normal gear · marche normale rapid gear · marche rapide	0 – 0.6 mph 0 – 1.7 mph
	Max. permissible gradability Pente admissible maxi.	46 %



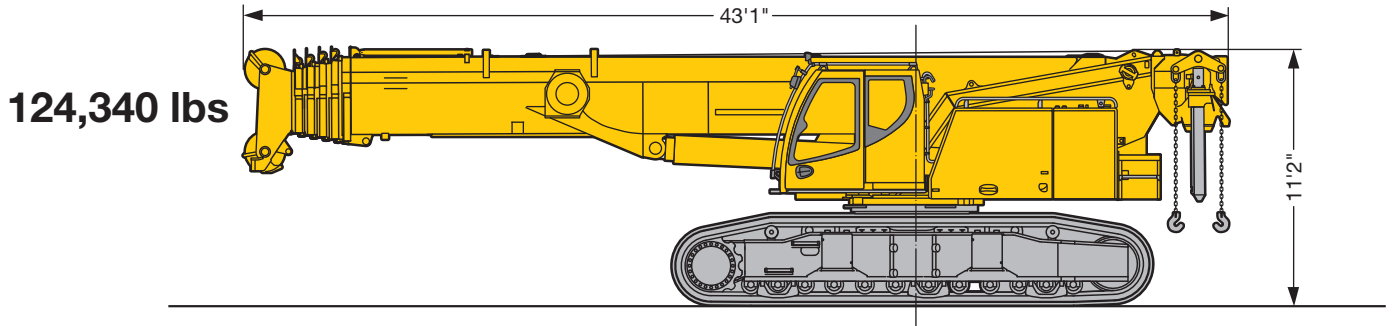
Drive Mécanismes	infinitely variable en continu	Rope diameter / Rope length Diamètre du câble / Longueur du câble	Max. single line pull Effort au brin maxi.
	0 – 361 ft/min single line ft/min au brin simple	0'8" / 672 ft	19,400 lbs
	0 – 361 ft/min single line ft/min au brin simple	0'8" / 672 ft	19,400 lbs
	0 – 1.8 rpm		
	approx. 60 seconds to reach 82° boom angle env. 60 s jusqu'à 82°		
	approx. 360 seconds for boom extension from 38 ft – 171 ft env. 360 s pour passer de 38 ft – 171 ft		



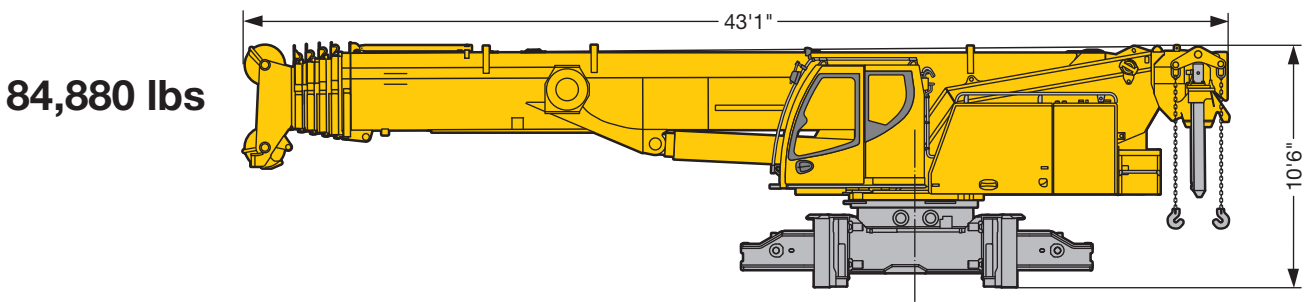
Load lbs Forces de levage lbs	No. of sheaves Poulies	No. of lines Brins	Weight lbs Poids lbs
220,500	7	14	2,730
198,850	5	11	1,540
130,300	3	7	1,102
57,500	1	3	992
19,400	–	1	550

Transportation plan Plan de transport

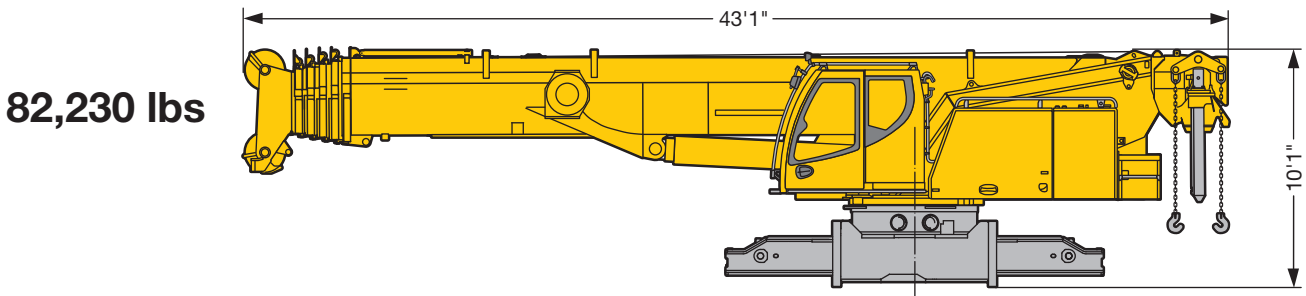
Basic machine, width 11'6", triple grouser crawler carrier 2'11"
Machine de base, largeur 11'6", 3 nervures longerons 2'11"



Basic machine, width 9'10", with jack-Up cylinder (optional)
Machine de base, largeur 9'10", avec verin Jack-Up (option)

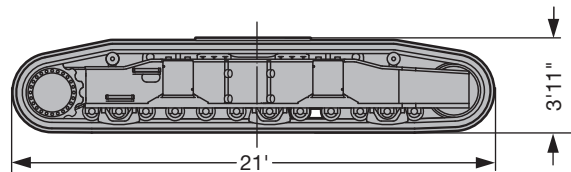


Basic machine, width 9'10"
Machine de base, largeur 9'10"



Crawler carrier, 2 x, width 2'11"
Longerons, 2 x, largeur 2'11"

21,400 lbs (2x) triple grouser
3 nervures

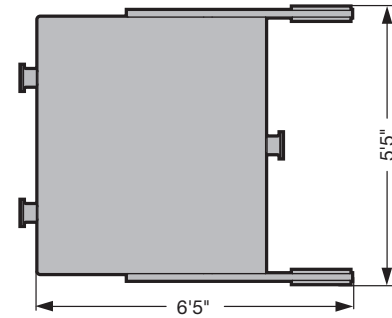
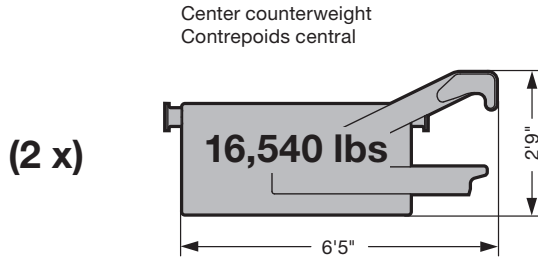


21,400 lbs (2x) Flat track pads (optional)
Tuiles plates (option)

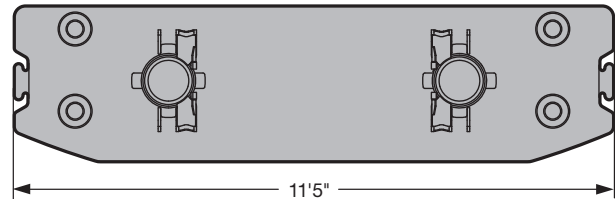
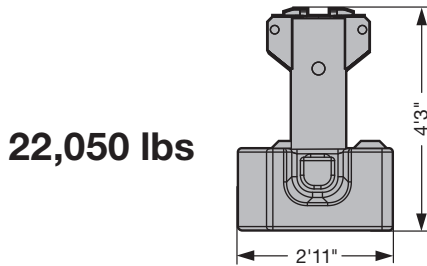
US2868

Transportation plan Plan de transport

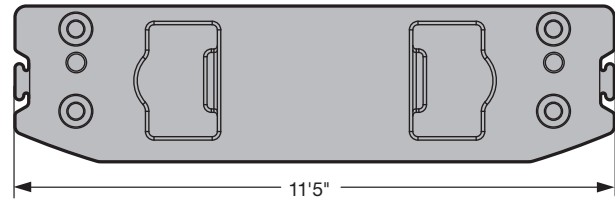
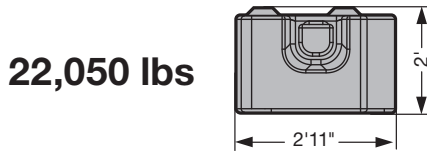
Counterweight versions
Variantes de contrepoids



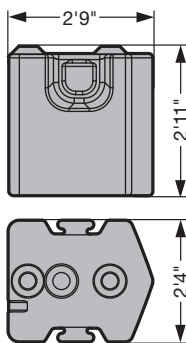
Part A / Partie A
Superstructure ballast
Contrepoids de la partie tournante



Part B / Partie B
Superstructure ballast
Contrepoids de la partie tournante

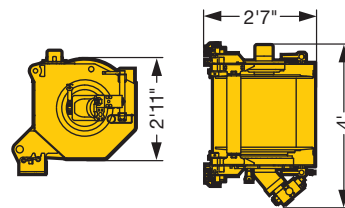


Part C / Partie C
6,610 lbs



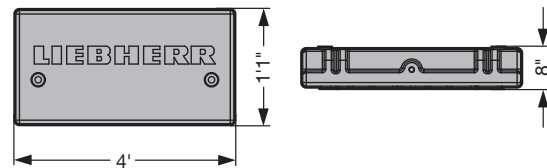
Winch 2 incl. rope
Treuil 2 avec câble

2,865 lbs




Replacement ballast for winch 2
Contrepoids de remplacement pour le treuil 2

1,985 lbs

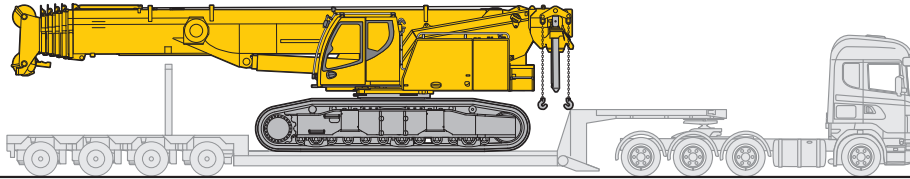


US2136.02

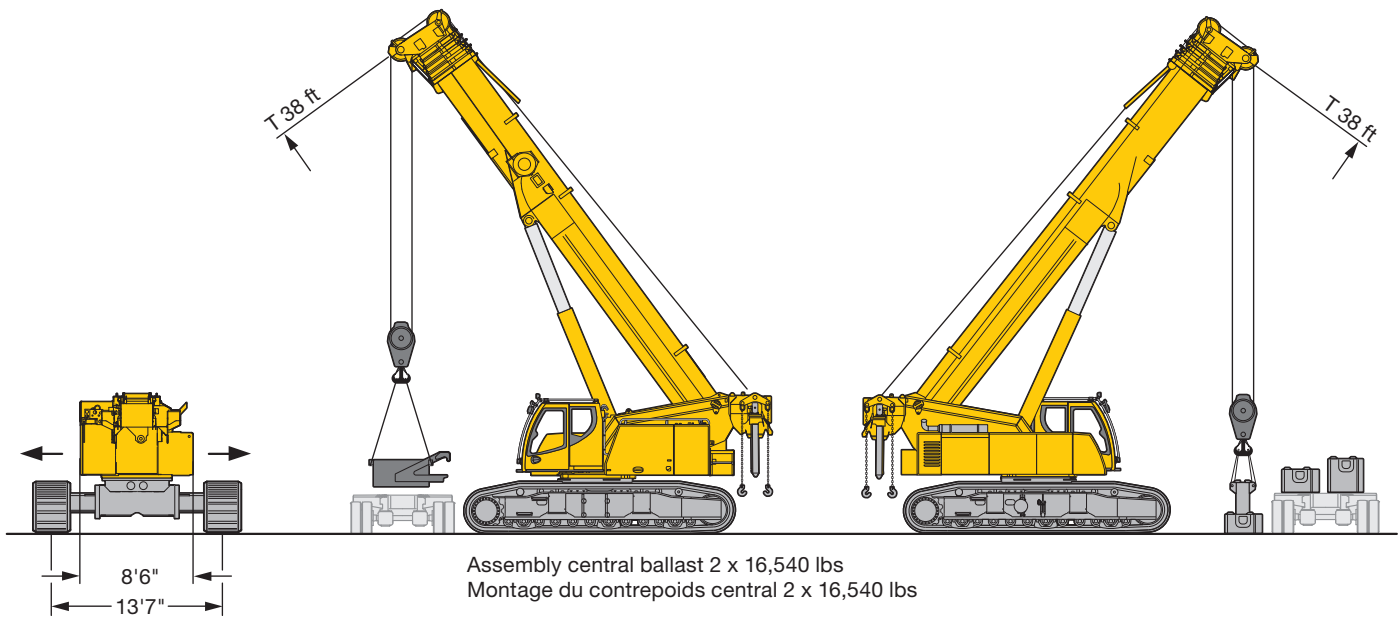
	Part A / Partie A à 22,050 lbs	Part B / Partie B à 22,050 lbs	Part C / Partie C à 6,610 lbs
			
57,320 lbs*	1 x	1 x	2 x
70,540 lbs	1 x	1 x	4 x

* standard · standard

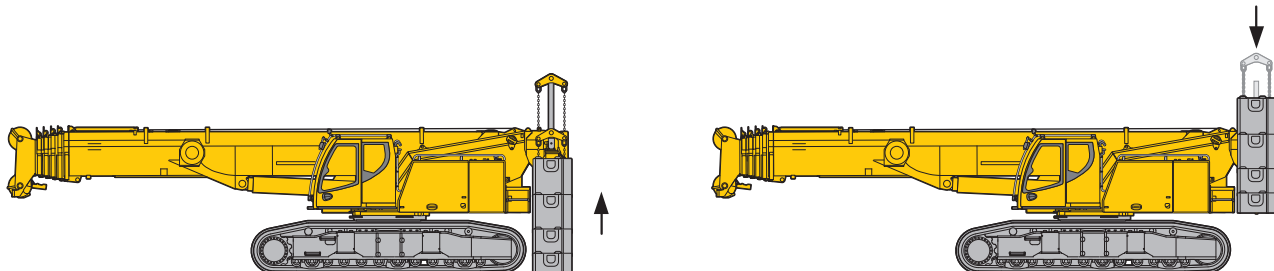
Transportation plan Plan de transport



Transport width 11'6" with crawlers (2'11")
Largeur de transport 11'6" avec chenilles (2'11")

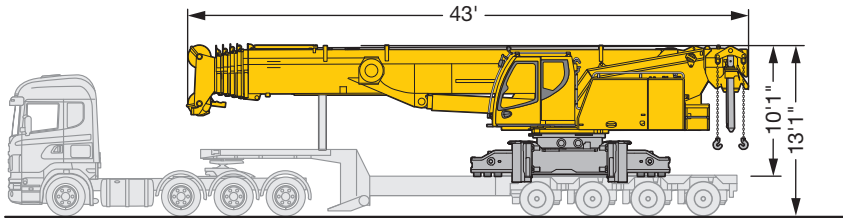


Telescope crawler travel gear out
Elargir le train de chenilles

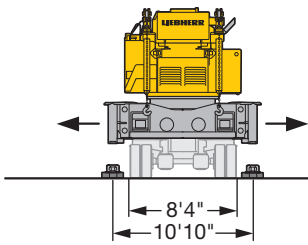


Assembly superstructure ballast
Montage du contrepois de la partie tournante

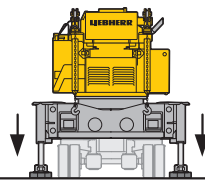
Transportation plan Plan de transport



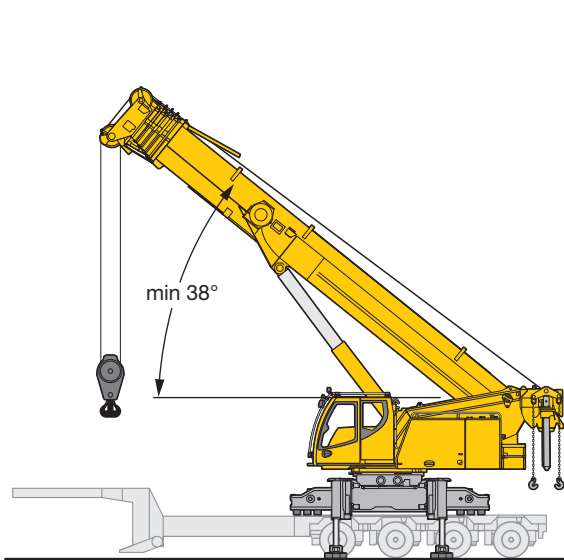
9'10" transport width on low loader up to 8'4" wide
Largeur de transport de 9'10" avec une remorque surbaissée jusqu'à 8'4" de large



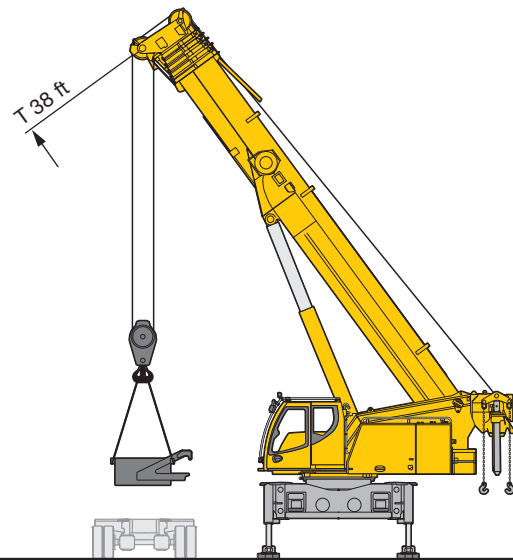
Swinging out the four jack-up cylinders
Extension des 4 vérins Jack-up



Supporting up the crane
Calage de la grue

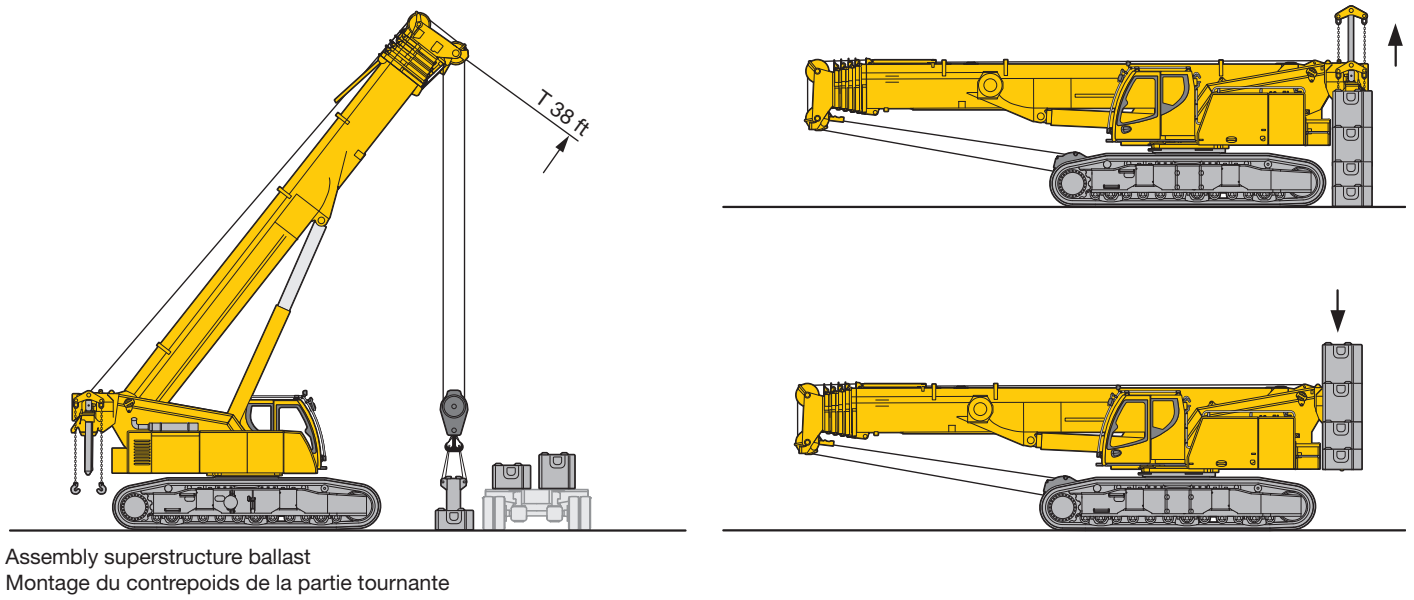
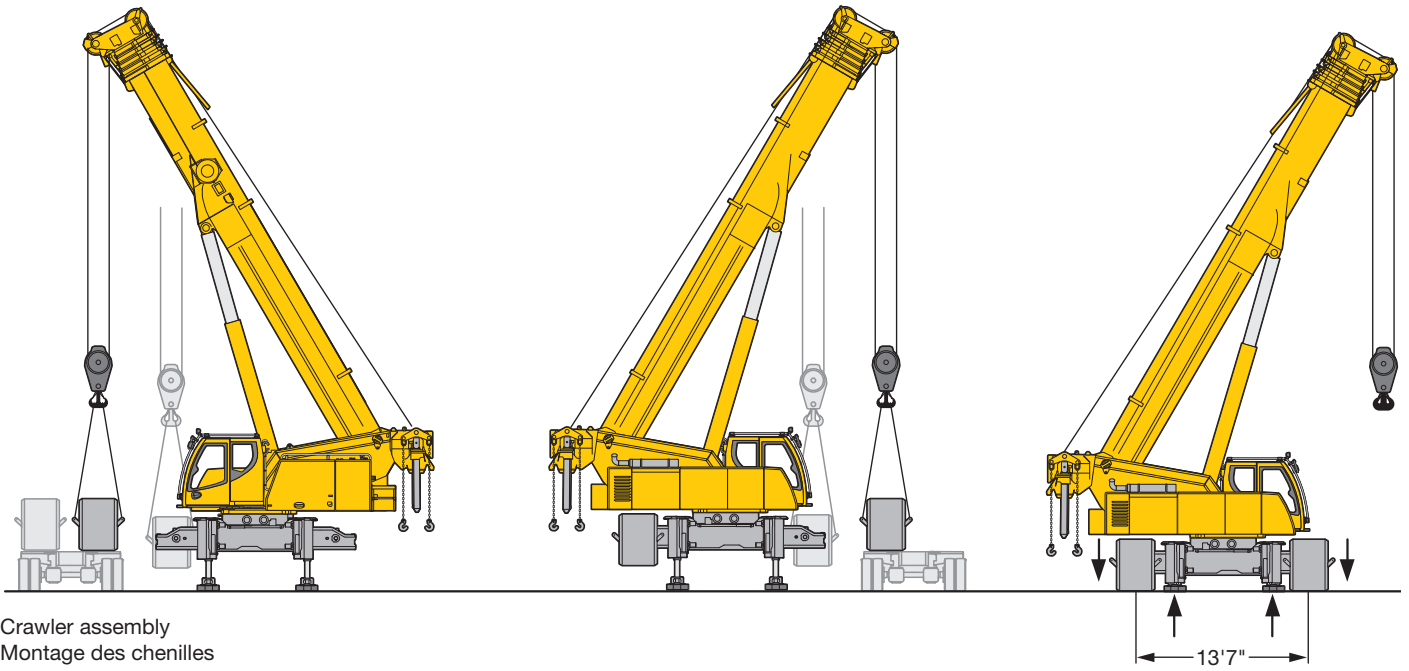


Boom lift to min. 38° on low loader
Relevage à 38° minimum sur la remorque surbaissée
























Central ballast assembly (2 x 16,540 lbs)
Montage du contre poids central (2 x 16,540 lbs)

Transportation plan Plan de transport






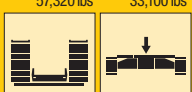




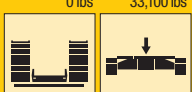





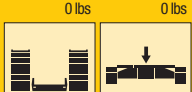


Overview of load charts Aperçu des tableaux de charge

					
70,540 lbs 57,320 lbs 33,100 lbs 					-
48,500 lbs 44,100 lbs 35,300 lbs 22,050 lbs 0 lbs 33,100 lbs 					
0 lbs 0 lbs 					

Ballast versions see operation manual · variantes de lestage, voir le manuel d'instructions

At operation modes TNZK, TVNZK chassis width 16.6 ft · pour les modes de fonctionnement TNZK, TVNZK largeur du véhicule 16.6 ft

 					
70,540 lbs 57,320 lbs 33,100 lbs 					-
48,500 lbs 44,100 lbs 35,300 lbs 22,050 lbs 0 lbs 33,100 lbs 					
0 lbs 0 lbs 	-	-	-	-	-

Ballast versions see operation manual · variantes de lestage, voir le manuel d'instructions

At operation modes TNZK, TVNZK chassis width 16.6 ft · pour les modes de fonctionnement TNZK, TVNZK largeur du véhicule 16.6 ft

Boom/jib combinations Configurations de flèche

- T** Telescopic boom · Flèche télescopique
- K** Mechanical swing away jib/Erection jib 10 ft
Fléchette pliante mécanique/Flechette de montage 10 ft
- NZK** Hydraulic swing away jib · Fléchette pliante hydraulique
- V** Telescopic boom extension · Rallonge de flèche télescopique



T
12 – 25

TK/TNZK
26 – 30 / 31 – 35

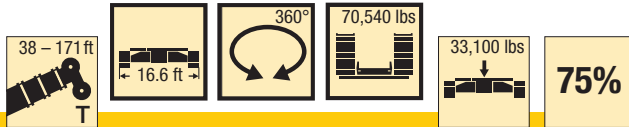
TVK/TVNZK
36 – 41 / 42 – 47

TK
48 – 51

S3119

Lifting capacities Forces de levage

T



ft	38 ft	50 ft	62 ft	74 ft	87 ft	99 ft	111 ft	123 ft	135 ft	148 ft	160 ft	171 ft	ft
9	220.5*												9
10	200.5*	150.7	146.5	124.7									10
11	186 *	152	147	123.1									11
12	176.4	153.3	147.5	120.8	104.4								12
13	171.9	154.3	147.8	118.6	103.6								13
14	164.2	154.8	145.5	119.1	102	84.9							14
15	156.5	152.4	140.8	119.5	99.7	84.1							15
16	149.5	148.6	136.6	119.9	98.5	87.3	70.2						16
17	143	142.5	132.5	119.8	98.2	86.3	69.5						17
18	137	136.7	128.9	117.9	97.8	85.3	68.9	56.5					18
19	131.3	130.7	126.1	116	97.5	84.2	68.2	56	44.2				19
20	124.8	125.1	120.7	111.8	97.1	83.2	67.3	55.5	43.9				20
22	112.3	113	108.7	103.3	95.3	81	65.2	54.5	43.1	36.7			22
24	100.8	102.3	98.2	94.3	88.4	78.9	62.8	53.4	42.3	36.4	29.3		24
26	88.9	90.9	91.2	86.1	83.2	76.8	60.5	51.7	41.5	36.1	29.1	23.6	26
28	78.6	81.2	82.1	79.1	77.3	72.7	58.1	49.9	40.7	35.8	28.8	23.4	28
30		73.3	74	74.3	71.5	67.5	55.7	48.2	39.8	35.5	28.6	23.2	30
32		66.6	67.4	69.1	66.3	62.8	53.7	46.5	39	35.1	28.4	23	32
34		60.9	61.7	63.3	61.9	58.4	51.8	44.8	38.1	34.4	28.1	22.8	34
36		56	57.8	58.3	57.6	54.8	49.8	43.2	37.2	33.6	27.8	22.6	36
38		52.5	53.7	54	53.5	51.4	47.9	41.8	36.4	32.9	27.5	22.5	38
40		48.8	50	50.2	49.6	48.3	46	40.3	35.5	32.2	27.1	22.3	40
45			42.3	42.5	41.9	41.1	40.5	36.8	32.9	30.3	26.3	21.9	45
50			36.4	36.6	36	35.5	36.2	33.4	30.3	28.4	25.3	21.5	50
55				31.9	31.4	31.9	31.5	30.6	27.9	26.5	24	20.9	55
60				28.1	27.6	28.6	27.7	27	25.7	24.5	22.6	20	60
65				25.1	25.5	25.4	24.5	23.8	23.9	22.8	21.1	18.9	65
70					23.3	22.8	22.1	22.3	21.6	21	19.8	17.8	70
75					21.1	20.6	20.3	20.2	19.4	19.7	18.7	16.8	75
80						18.7	18.7	18.2	18.2	18.1	17.4	15.9	80
85						17	17.3	16.5	16.6	16.4	15.8	15	85
90							15.9	15.2	15.1	14.9	14.3	14	90
95							14.6	14.4	13.8	13.6	12.9	12.8	95
100							13.4	13.3	12.8	12.4	11.6	11.6	100
105								12.3	11.7	11.3	10.5	10.5	105
110								11.4	10.7	10.3	9.5	9.5	110
115									9.8	9.4	8.6	8.6	115
120									9	8.5	7.8	7.8	120
125									8.3	7.8	7	7	125
130										7.1	6.3	6.3	130
135										6.5	5.7	5.7	135
140											5.1	5.1	140
145											4.6	4.6	145
150											4.1	4.1	150
155												3.6	155
160												3.2	160

* 35,300 lbs counterweight slabs · 35,300 lbs contrepoids de la partie tournante

† 251_001_00805_01_000 / 00011_01_000

Lifting capacities Forces de levage

T



ft	38 ft	50 ft	62 ft	74 ft	87 ft	99 ft	111 ft	123 ft	135 ft	148 ft	160 ft	171 ft	ft
10	180.2	150.7	146.5	124.7									10
11	178.2	152	147	123.1									11
12	176.5	153.3	147.5	120.8	104.4								12
13	172	154.3	147.8	118.6	103.6								13
14	164.2	154.8	145.5	119.1	102	84.9							14
15	156.5	152.4	140.8	119.5	99.7	84.1							15
16	149.5	148.6	136.6	119.7	98.5	87.3	70.2						16
17	143	142.5	132.5	119	98.2	86.3	69.5						17
18	137	136.7	127.6	113.6	97.8	85.3	68.9	56.5					18
19	131.3	130.7	124.1	108.6	97.5	84.2	68.2	56	44.2				19
20	124.8	125.1	119.2	104.1	94.8	83.2	67.3	55.5	43.9				20
22	112.3	113	108.3	98.9	90.6	80.6	65.2	54.5	43.1	36.7			22
24	100.8	102.3	98.2	91.6	84.8	76.4	62.8	53.4	42.3	36.4	29.3		24
26	88.9	90.9	91.2	85.4	79.3	71.7	60.5	51.7	41.5	36.1	29.1	23.6	26
28	78.6	81.2	82.1	79	74.6	67.5	58.1	49.9	40.7	35.8	28.8	23.4	28
30		73.3	74	74.3	70.2	63.7	55.7	48.2	39.8	35.5	28.6	23.2	30
32		66.6	67.4	69.1	66.2	60.3	53.7	46.5	39	35.1	28.4	23	32
34		60.9	61.7	63.3	61.9	57.1	51.6	44.8	38.1	34.4	28.1	22.8	34
36		56	57.8	58.3	57.6	54.3	49.8	43.2	37.2	33.6	27.8	22.6	36
38		52.5	53.7	54	53.5	51.4	47.9	41.8	36.4	32.9	27.5	22.5	38
40		48.8	50	50.2	49.6	48.3	45.9	40.3	35.5	32.2	27.1	22.3	40
45			42.3	42.5	41.9	41.1	40.5	36.8	32.9	30.3	26.3	21.9	45
50			36.4	36.6	36	35.5	36.2	33.4	30.3	28.4	25.3	21.5	50
55				31.9	31.4	31.9	31.5	30.6	27.9	26.5	24	20.9	55
60				28.1	27.6	28.6	27.7	27	25.7	24.5	22.6	20	60
65				25.1	25.5	25.4	24.5	23.8	23.9	22.8	21.1	18.9	65
70					23.3	22.8	22.1	22.3	21.6	21	19.8	17.8	70
75					21.1	20.6	20.3	20.2	19.4	19.7	18.7	16.8	75
80						18.7	18.7	18.2	18.2	18.1	17.4	15.9	80
85						17	17.3	16.5	16.6	16.4	15.8	15	85
90							15.9	15.2	15.1	14.9	14.3	14	90
95							14.6	14.4	13.8	13.6	12.9	12.8	95
100							13.4	13.3	12.8	12.4	11.6	11.6	100
105								12.3	11.7	11.3	10.5	10.5	105
110								11.4	10.7	10.3	9.5	9.5	110
115									9.8	9.4	8.6	8.6	115
120									9	8.5	7.8	7.8	120
125									8.3	7.8	7	7	125
130										7.1	6.3	6.3	130
135										6.5	5.7	5.7	135
140											5.1	5.1	140
145											4.6	4.6	145
150											4.1	4.1	150
155												3.6	155
160												3.2	160

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Lifting capacities Forces de levage

T



ft	38 ft	50 ft	62 ft	74 ft	87 ft	99 ft	111 ft	123 ft	135 ft	148 ft	160 ft	171 ft	ft
22	94.8	93.7	88.1										22
24	83.1	84	79.5	73.2									24
26	73.8	75.6	74.1	69.1	64.7								26
28	66.1	67.9	68.6	66.2	62.1	58.2							28
30		61.4	62.1	61.2	57.4	53.9							30
32		56.7	58	56.3	53.2	50	49.6						32
34		52	53.2	53.5	49.5	49.5	47.4	44.4					34
36		47.9	49.1	49.4	48.7	46.5	45.2	42.1	37.2				36
38		44.4	45.5	45.8	45.3	43.6	42.9	40.2	36.4	32.9			38
40		41.3	42.4	42.6	42.1	41.9	40.6	38.3	35.5	32.2			40
45			35.9	36.1	35.6	36.5	35.3	33.3	31.7	30.2	26.3	21.9	45
50			30.9	31.1	31.6	31.6	30.7	29.2	28.9	27.4	25.3	21.5	50
55				27.1	28	27.6	27.2	27.1	25.6	25.1	23.9	20.9	55
60				23.9	24.7	24.3	24	23.9	23.4	23.1	21.7	20	60
65				22.2	22	21.6	22	21.2	21.2	20.8	19.4	18.8	65
70					19.8	19.3	19.7	19.3	19.1	18.7	17.4	17.1	70
75					17.9	18.1	17.7	17.7	17.2	16.8	15.7	15.4	75
80						16.5	16	16	15.5	15.1	14.2	13.9	80
85						15	14.6	14.5	14	13.7	12.8	12.5	85
90							13.4	13.2	12.7	12.3	11.5	11.3	90
95							12.3	12.1	11.5	11.1	10.4	10.3	95
100							11.3	11	10.4	10	9.2	9.3	100
105								10	9.4	9	8.3	8.3	105
110								9.2	8.5	8.1	7.4	7.4	110
115									7.8	7.3	6.6	6.6	115
120									7.1	6.6	5.8	5.9	120
125									6.4	5.9	5.2	5.2	125
130										5.3	4.6	4.6	130
135										4.8	4	4	135
140											3.5	3.5	140
145											3	3	145
150											2.6	2.6	150
155												2.2	155
160												1.8	160

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Lifting capacities Forces de levage

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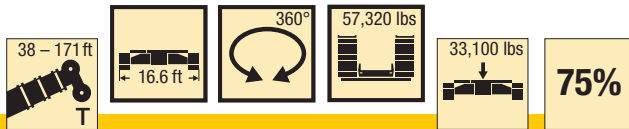


ft	38 ft	50 ft	62 ft	74 ft	87 ft	99 ft	111 ft	123 ft	135 ft	148 ft	160 ft	171 ft	ft
10	180.2	150.7	146.5	122.7									10
11	178.2	152	140	117									11
12	176.5	152.7	131.9	113.4	97.5								12
13	172	149.3	124.5	107.7	95.7								13
14	164.2	140.1	119	102.5	91.8	80.6							14
15	156.5	132.3	113.7	99.2	87.8	77.3							15
16	149.5	125.1	108.4	96.3	84.2	77.2	68.8						16
17	143	119.9	104.3	94.3	80.9	74.8	67.2						17
18	136.5	114.4	100.8	90.9	80.6	72.1	65.1	56.4					18
19	129.9	109	96.5	87.4	77.7	69.6	62.9	55.7	44.2				19
20	123.8	105.2	92.6	84.2	74.9	67.3	60.9	54.7	43.9				20
22	112.3	96.8	85.5	78.2	69.9	63	58.2	52.9	43.1	36.7			22
24	100.8	89.4	79.3	72.9	65.5	59.3	55.3	50.1	42.3	36.4	29.3		24
26	88.9	83.1	74	68.4	61.5	56.3	52.2	47.4	41.5	36.1	29.1	23.6	26
28	78.6	77.7	69.5	64.3	58	53.5	49.4	44.9	40.5	35.8	28.8	23.4	28
30		72.9	66.1	60.6	54.7	50.7	46.9	42.6	39.5	35.5	28.6	23.2	30
32		66.6	63	57.3	51.8	48.1	44.6	40.5	38.2	35.1	28.4	23	32
34		60.9	59.6	54.4	49.2	45.7	42.5	38.6	36.7	33.7	28.1	22.8	34
36		56	56.6	51.6	46.8	43.5	40.5	36.9	35.1	32.2	27.8	22.6	36
38		52.5	53.7	49.2	44.6	41.6	38.7	35.7	33.5	30.9	27.5	22.5	38
40		48.8	50	46.9	42.5	40.4	37	34.5	32.1	30.1	27.1	22.3	40
45			42.3	42.1	38.1	36.7	33.2	31.4	28.9	28.2	25.8	21.9	45
50			36.4	36.6	34.4	33.2	30.1	28.8	26.8	25.7	23.5	21.5	50
55				31.9	31.3	30.3	27.6	26.3	24.8	23.5	21.4	20.4	55
60				28.1	27.6	27.9	25.3	24.2	22.9	21.5	19.6	18.7	60
65				25.1	25.5	25.4	23.6	22.2	21	19.8	17.9	17.2	65
70					23.3	22.8	21.9	20.5	19.5	18.3	16.5	15.8	70
75					21.1	20.6	20.2	19	18	16.9	15.2	14.5	75
80						18.7	18.7	17.7	16.9	15.7	14	13.4	80
85						17	17.3	16.5	15.8	14.5	12.9	12.3	85
90							15.9	15.2	14.8	13.5	12	11.4	90
95							14.6	14.4	13.8	12.6	11.1	10.6	95
100							13.4	13.3	12.8	11.8	10.3	9.8	100
105								12.3	11.7	11	9.5	9.1	105
110								11.4	10.7	10.2	8.9	8.4	110
115									9.8	9.4	8.3	7.8	115
120									9	8.5	7.7	7.2	120
125									8.3	7.8	7	6.7	125
130										7.1	6.3	6.3	130
135										6.5	5.7	5.7	135
140											5.1	5.1	140
145											4.6	4.6	145
150											4.1	4.1	150
155												3.6	155
160												3.2	160

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Lifting capacities Forces de levage

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ft	38 ft	50 ft	62 ft	74 ft	87 ft	99 ft	111 ft	123 ft	135 ft	148 ft	160 ft	171 ft	ft
10	182.1	150.7	146.5	124.7	105.8								10
11	182.1	152	147	123.1	105.1	91.1							11
12	178.3	153.3	147.5	120.8	104.4	90.4							12
13	170.6	154.3	147.8	118.6	103.6	89.6	72.1						13
14	162.3	154.8	145.5	119.1	102	88.8	71.5						14
15	154.7	151.8	140.8	119.5	99.7	88.1	70.9						15
16	147.7	147.3	134.9	119.9	98.5	87.3	70.2	57.5					16
17	140.8	140.5	128.9	119.5	98.2	86.3	69.5	57					17
18	133.2	131.5	121.2	113.1	97.8	85.3	68.9	56.5	44.5				18
19	125.6	124.5	115	106.5	97.5	84.2	68.2	56	44.2				19
20	118.7	116.6	108.7	100.6	94.9	83.2	67.3	55.5	43.9				20
22	103.3	104.7	99	92.9	89.4	81	65.2	54.5	43.1	36.7			22
24	89.7	91.8	89.5	84	81.6	76.4	62.8	53.4	42.3	36.4	29.3		24
26	79.1	81.1	81.3	78.8	74.6	70	60.5	51.7	41.5	36.1	29.1	23.6	26
28	70.4	72.3	73.1	72.7	68.8	64.5	58.1	49.9	40.7	35.8	28.8	23.4	28
30		65.1	66.1	67.1	63.5	59.8	55.7	48.2	39.8	35.5	28.6	23.2	30
32		59.1	61.2	61.6	58.9	55.5	53.1	46.5	39	35.1	28.4	23	32
34		54.7	56.1	56.4	54.9	51.6	49.7	44.8	38.1	34.4	28.1	22.8	34
36		50.3	51.6	51.9	51.1	48.3	46.4	43.2	37.2	33.6	27.8	22.6	36
38		46.5	47.7	48	47.4	45.4	43.9	40.8	36.4	32.9	27.5	22.5	38
40		43.1	44.3	44.5	44	42.8	42.1	39.5	35.5	32.2	27.1	22.3	40
45			37.3	37.5	37	37.4	36.8	34.7	32.6	30.3	26.3	21.9	45
50			32.1	32.2	31.9	32.7	31.8	30.4	29.4	28.2	25.3	21.5	50
55				28	28.9	28.5	27.6	27.3	26.6	25.2	24	20.9	55
60				24.6	25.5	25	24.8	24.7	23.7	23.5	22.4	20	60
65				22.7	22.7	22.2	22.5	21.8	21.8	21.5	20.1	18.9	65
70					20.3	19.8	20.2	19.4	19.5	19.3	18.1	17.6	70
75					18.3	18.1	18.2	18.1	17.6	17.3	16.3	16	75
80						16.9	16.4	16.4	15.9	15.5	14.7	14.4	80
85						15.4	14.9	14.9	14.3	14	13.2	13	85
90							13.6	13.5	13	12.7	11.8	11.7	90
95							12.6	12.3	11.8	11.4	10.6	10.6	95
100							11.6	11.3	10.7	10.3	9.5	9.5	100
105								10.3	9.6	9.2	8.5	8.5	105
110								9.4	8.8	8.4	7.6	7.6	110
115									8	7.5	6.7	6.8	115
120									7.2	6.8	6	6	120
125									6.6	6.1	5.3	5.3	125
130										5.5	4.7	4.7	130
135										4.9	4.1	4.1	135
140											3.6	3.6	140
145											3.1	3.1	145
150											2.7	2.7	150
155												2.3	155
160												1.9	160

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Lifting capacities Forces de levage

T

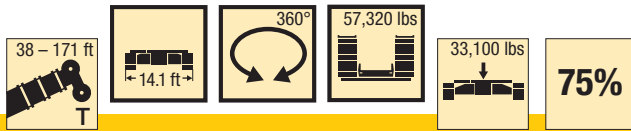


	38 ft	50 ft	62 ft	74 ft	87 ft	99 ft	111 ft	123 ft	135 ft	148 ft	160 ft	171 ft	
10	182.1	150.7	146.5	124.7	105.8								10
11	182.1	152	147	123.1	105.1	91.1							11
12	178.3	153.3	147.5	120.8	104.4	90.4							12
13	170.6	154.3	147.8	118.6	103.6	89.6	72.1						13
14	162.3	154.8	144.1	119.1	102	88.8	71.5						14
15	154.7	151.8	136.5	117.1	99.7	88.1	70.9						15
16	147.7	147.3	129.2	112.6	98.5	87.3	70.2	57.5					16
17	140.8	140.5	123.2	107.1	96.2	86.3	69.5	57					17
18	133.2	131.5	118.3	102.3	94.6	85	68.9	56.5	44.5				18
19	125.6	124.5	112.4	100.1	91.7	81.9	68.2	56	44.2				19
20	118.7	116.6	107.3	96.7	88.3	78.8	67.3	55.5	43.9				20
22	103.3	104.7	99	89	81.9	73.4	65.2	54.5	43.1	36.7			22
24	89.7	91.8	89.5	84	76.3	68.6	62.5	53.4	42.3	36.4	29.3		24
26	79.1	81.1	81.3	78.8	71.3	64.2	59	51.7	41.5	36.1	29.1	23.6	26
28	70.4	72.3	73.1	72.7	67	60.4	55.6	49.9	40.7	35.8	28.8	23.4	28
30		65.1	66.1	67.1	62.9	57	52.6	47.7	39.8	35.5	28.6	23.2	30
32		59.1	61.2	61.6	58.9	53.9	49.8	45.2	39	35.1	28.4	23	32
34		54.7	56.1	56.4	54.9	50.9	47.3	43.6	38.1	34.4	28.1	22.8	34
36		50.3	51.6	51.9	51.1	48.1	45.4	42.1	37.2	33.6	27.8	22.6	36
38		46.5	47.7	48	47.4	45.4	43.9	40.3	36.4	32.9	27.5	22.5	38
40		43.1	44.3	44.5	44	42.8	42	38.5	35.2	32.2	27.1	22.3	40
45			37.3	37.5	37	37.4	36.8	34.4	31.7	30.2	26.3	21.9	45
50			32.1	32.2	31.9	32.7	31.8	30.4	29.4	27.6	25.3	21.5	50
55				28	28.9	28.5	27.6	27.3	26.6	25.1	24	20.9	55
60				24.6	25.5	25	24.8	24.7	23.7	23.5	22.3	20	60
65				22.7	22.7	22.2	22.5	21.8	21.8	21.5	20.1	18.9	65
70					20.3	19.8	20.2	19.4	19.5	19.3	18.1	17.6	70
75					18.3	18.1	18.2	18.1	17.6	17.3	16.3	16	75
80						16.9	16.4	16.4	15.9	15.5	14.7	14.4	80
85						15.4	14.9	14.9	14.3	14	13.2	13	85
90							13.6	13.5	13	12.7	11.8	11.7	90
95							12.6	12.3	11.8	11.4	10.6	10.6	95
100							11.6	11.3	10.7	10.3	9.5	9.5	100
105								10.3	9.6	9.2	8.5	8.5	105
110								9.4	8.8	8.4	7.6	7.6	110
115									8	7.5	6.7	6.8	115
120									7.2	6.8	6	6	120
125									6.6	6.1	5.3	5.3	125
130										5.5	4.7	4.7	130
135										4.9	4.1	4.1	135
140											3.6	3.6	140
145											3.1	3.1	145
150											2.7	2.7	150
155												2.3	155
160												1.9	160

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Lifting capacities Forces de levage

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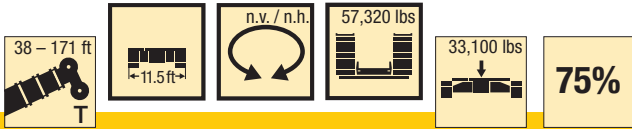


ft	38 ft	50 ft	62 ft	74 ft	87 ft	99 ft	111 ft	123 ft	135 ft	148 ft	160 ft	171 ft	ft
15	121.5	113.3	116.4	109.3									15
16	122.1	113.4	110.8	102.1									16
17	121.4	112.5	105.7	95.4									17
18	115.4	106.4	100.4	92.3	85.4								18
19	105.7	102.2	94.1	87	80.6								19
20	97.4	96.4	91.2	85.4	79.2	73.7							20
22	84	85.8	81.8	76.7	71.4	66.6							22
24	73.5	75.4	75.5	72	67.9	63.5	59.5						24
26	65.1	67	68.8	66	62.2	58.6	55.6	51.6	41.5				26
28	58.2	60.7	62.1	60.7	57.3	54.1	51.9	48.5	40.7	35.8			28
30		54.9	56.2	56.1	53	50.8	49	46.2	39.8	35.5			30
32		50	51.3	51.6	49.2	47.6	45.7	43	39	35.1	28.4	23	32
34		45.8	47	47.3	45.8	44.8	42.8	40.2	37.8	34.4	28.1	22.8	34
36		42.2	43.3	43.6	42.8	42.5	40	37.6	36.2	33.6	27.8	22.6	36
38		38.9	40.1	40.4	40.2	40.1	37.6	35.6	34.7	32.6	27.5	22.5	38
40		36.1	37.3	37.5	38.1	37.7	35.4	34.4	32.8	31	27.1	22.3	40
45			31.4	31.6	32.6	32.2	31.4	30.4	28.8	28.1	26.3	21.9	45
50			27	27.7	28.1	27.6	27.8	26.7	26	25.1	23.5	21.5	50
55				24.5	24.4	24	24.5	24.2	23.2	22.2	20.7	20.1	55
60				21.6	21.5	21.9	21.5	21.5	20.7	19.7	18.4	18	60
65				19.3	19.1	19.4	19.2	19	18.4	17.6	16.3	16	65
70					17	17.4	17.1	16.9	16.4	15.8	14.5	14.2	70
75					15.5	15.6	15.4	15.2	14.6	14.2	13	12.7	75
80						14.1	13.9	13.6	13.1	12.7	11.6	11.3	80
85						12.8	12.5	12.3	11.7	11.3	10.4	10.1	85
90							11.3	11.1	10.5	10.1	9.3	9	90
95							10.3	10	9.4	9	8.2	8.1	95
100							9.3	9	8.4	8	7.3	7.2	100
105								8.2	7.5	7.1	6.4	6.4	105
110								7.4	6.8	6.3	5.6	5.6	110
115									6	5.6	4.9	4.9	115
120									5.4	5	4.2	4.2	120
125									4.9	4.4	3.6	3.6	125
130										3.8	3.1	3.1	130
135										3.4	2.6	2.6	135
140											2.1	2.1	140

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Lifting capacities Forces de levage

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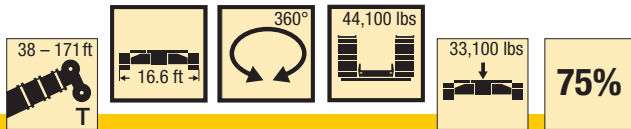


ft	38 ft	50 ft	62 ft	74 ft	87 ft	99 ft	111 ft	123 ft	135 ft	148 ft	160 ft	171 ft	ft
10	182.1	150.7	134.3	113.7	98.1								10
11	182.1	151.9	125.8	107.4	96.8	85.5							11
12	177.7	142.8	119.4	101.6	93.2	81.9							12
13	167.9	134.1	113.7	98.5	89.1	78.4	69.7						13
14	156.4	125.8	107.5	94.8	85.2	75.8	67.4						14
15	146.4	119.9	102.7	92.7	81.5	73.3	65.4						15
16	137.5	113.8	99.1	89	78.3	70.5	63.6	56.2					16
17	129.7	107.9	94.7	85.2	75.2	67.9	61.5	54.9					17
18	122.8	103.2	90.6	81.7	72.3	65.5	59.5	53.4	44.5				18
19	116.6	99	86.8	78.5	69.6	63.2	57.5	51.7	44.2				19
20	111	94.5	84.1	75.6	67.1	61.1	55.7	50.1	43.8				20
22	101.6	86.7	78.3	70.1	62.5	57.5	52.3	48.1	42.8	36.7			22
24	89.7	80	72.7	65.3	58.5	54.7	49.2	45.6	41.4	36.4	29.3		24
26	79.1	74.3	67.8	61.2	54.8	51.6	47	43.1	39.5	35.6	29.1	23.6	26
28	70.4	69.4	63.4	57.5	51.6	48.8	44.7	41.4	37.5	34.3	28.8	23.4	28
30		65	59.6	54.1	48.8	46.2	42.3	39.3	36.3	33.7	28.6	23.2	30
32		59.1	56.2	51.1	46.3	43.8	40.2	37.4	35	32.6	28.4	23	32
34		54.7	53.2	48.4	44	41.6	38.3	35.6	33.4	31.2	27.9	22.8	34
36		50.3	50.4	46	41.9	39.7	36.5	34	32.2	29.8	27.1	22.6	36
38		46.5	47.7	43.7	39.9	37.8	34.9	32.5	30.7	28.5	26	22.5	38
40		43.1	44.3	41.7	38.3	36.1	33.3	31.1	29.4	27.3	24.9	22.3	40
45			37.3	37.2	34.6	32.4	30.1	28.3	26.6	24.7	22.4	21.3	45
50			32.1	32.2	31.6	29.3	27.9	26	24.1	22.4	20.3	19.3	50
55				28	28.9	26.6	25.5	23.9	21.9	20.4	18.4	17.5	55
60				24.6	25.5	24.4	23.4	21.9	20	18.6	16.7	15.9	60
65				22.7	22.7	22.2	21.5	20.2	18.4	17	15.2	14.5	65
70					20.3	19.8	19.9	18.6	16.9	15.6	13.9	13.2	70
75					18.3	18.1	18.2	17.3	15.6	14.4	12.7	12.1	75
80						16.9	16.4	16.1	14.4	13.2	11.6	11.1	80
85						15.4	14.9	14.9	13.4	12.2	10.7	10.1	85
90							13.6	13.5	12.4	11.3	9.8	9.3	90
95							12.6	12.3	11.5	10.5	9	8.5	95
100							11.6	11.3	10.7	9.7	8.3	7.8	100
105								10.3	9.6	9.1	7.6	7.2	105
110								9.4	8.8	8.4	7	6.5	110
115									8	7.5	6.4	6	115
120									7.2	6.8	5.9	5.5	120
125									6.6	6.1	5.3	5	125
130										5.5	4.7	4.6	130
135										4.9	4.1	4.1	135
140											3.6	3.6	140
145											3.1	3.1	145
150											2.7	2.7	150
155												2.3	155
160												1.9	160

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Lifting capacities Forces de levage

T



	38 ft	50 ft	62 ft	74 ft	87 ft	99 ft	111 ft	123 ft	135 ft	148 ft	160 ft	171 ft	
10	182.1	150.7	146.5	124.7	105.8								10
11	182.1	152	147	123.1	105.1	91.1							11
12	177.1	153.3	147.5	120.8	104.4	90.4							12
13	168.6	154.3	147.8	118.6	103.6	89.6	72.1						13
14	160.3	154.8	142.9	119.1	102	88.8	71.5						14
15	152.4	145.2	132.4	118	99.7	88.1	70.9						15
16	143.6	134.4	122.9	113.9	98.5	87.3	70.2	57.5					16
17	134.5	124.5	115.1	106	97.2	86.3	69.5	57					17
18	126.1	117.3	108.4	101.6	94.7	85.3	68.9	56.5	44.5				18
19	116.4	109.4	103.1	96.5	91.8	84	68.2	56	44.2				19
20	106.5	103.5	97.8	91.2	87.6	81.5	67.3	55.5	43.9				20
22	90.7	92	87.1	84.2	78.8	73.6	65.2	54.5	43.1	36.7			22
24	78.7	80.7	78.4	76.1	71.6	66.9	62.6	53.4	42.3	36.4	29.3		24
26	69.2	71.2	72.4	69.5	65.3	61.1	58.3	51.7	41.5	36.1	29.1	23.6	26
28	61.5	63.3	65.6	63.7	60.1	56.6	53.6	49.9	40.7	35.8	28.8	23.4	28
30		57.7	59.1	58.7	55.4	52.4	49.9	46.9	39.8	35.5	28.6	23.2	30
32		52.4	53.7	53.9	51.3	49.2	47.5	44.7	39	35.1	28.4	23	32
34		47.7	49.1	49.4	47.7	46.1	44.4	41.7	38	34.4	28.1	22.8	34
36		43.8	45.1	45.4	44.5	43.1	41.5	39	36.6	33.6	27.8	22.6	36
38		40.4	41.6	41.9	41.3	41.2	38.9	36.7	35.1	32.9	27.5	22.5	38
40		37.4	38.6	38.8	38.6	39	36.6	34.5	33.7	31.9	27.1	22.3	40
45			32.4	32.6	33.6	33.2	32.1	31.1	29.2	28.2	26.3	21.9	45
50			27.7	27.9	28.8	28.4	28	27.4	26.6	25.8	24.2	21.5	50
55				25.1	25	24.6	25	24.2	23.8	22.7	21.3	20.3	55
60				22	21.9	22.1	21.9	21.9	21.2	20.2	18.8	18.4	60
65				19.6	19.4	19.8	19.4	19.4	18.8	18	16.7	16.3	65
70					17.3	17.7	17.4	17.2	16.7	16.1	14.8	14.5	70
75					15.7	15.9	15.6	15.4	14.9	14.5	13.2	12.9	75
80						14.3	14	13.8	13.3	12.8	11.8	11.6	80
85						13	12.7	12.5	11.9	11.5	10.6	10.3	85
90							11.5	11.2	10.6	10.3	9.4	9.2	90
95							10.4	10.1	9.5	9.1	8.4	8.2	95
100							9.4	9.1	8.5	8.1	7.4	7.3	100
105								8.2	7.6	7.2	6.5	6.5	105
110								7.5	6.8	6.4	5.6	5.6	110
115									6.1	5.7	4.9	4.9	115
120									5.5	5	4.2	4.2	120
125									4.9	4.4	3.6	3.6	125
130										3.9	3.1	3.1	130
135										3.4	2.6	2.6	135
140											2.1	2.1	140

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Lifting capacities Forces de levage

T

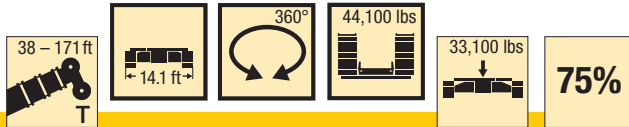


	38 ft	50 ft	62 ft	74 ft	87 ft	99 ft	111 ft	123 ft	135 ft	148 ft	160 ft	171 ft	
10	182.1	150.7	146.5	124.7	105.8								10
11	182.1	152	147	123.1	105.1	91.1							11
12	177.1	153.3	145.7	120.8	104.4	90.4							12
13	168.6	154	137.3	116.2	100.1	89.5	72.1						13
14	160.3	153.9	128.8	111	98.6	87.9	71.5						14
15	152.4	144.8	122.1	105.1	97.2	85.5	70.9						15
16	143.6	134.4	116.9	100.4	92.9	81.8	70.2	57.5					16
17	134.5	124.5	110.5	98.1	88.9	78.5	69.5	57					17
18	126.1	117.3	105	93.6	85.1	75.3	67.6	56.5	44.5				18
19	116.4	109.4	101.8	91.4	81.7	72.5	65.6	56	44.2				19
20	106.5	103.5	97.1	88.5	78.5	70.2	63.4	55.3	43.9				20
22	90.7	92	87.1	81.5	72.6	65.3	59.1	53.1	43.1	36.7			22
24	78.7	80.7	78.4	75.5	67.6	60.9	56.2	51.4	42.3	36.4	29.3		24
26	69.2	71.2	72.4	69.4	63.1	57	53.4	48.4	41.5	36.1	29.1	23.6	26
28	61.5	63.3	65.6	63.7	59.2	54	50.4	45.7	40.7	35.8	28.8	23.4	28
30		57.7	59.1	58.7	55.3	51.3	47.6	43.2	39.5	35.5	28.6	23.2	30
32		52.4	53.7	53.9	51.3	48.7	45	40.9	38.3	35.1	28.4	23	32
34		47.7	49.1	49.4	47.7	46	42.8	38.8	36.9	33.8	28.1	22.8	34
36		43.8	45.1	45.4	44.5	43.1	40.6	36.9	35.2	32.3	27.8	22.6	36
38		40.4	41.6	41.9	41.3	41.2	38.6	35.7	33.5	30.9	27.5	22.5	38
40		37.4	38.6	38.8	38.6	39	36.6	34.5	32	30.1	27.1	22.3	40
45			32.4	32.6	33.6	33.2	32.1	31.1	28.9	28	25.6	21.9	45
50			27.7	27.9	28.8	28.4	28	27.4	26.6	25.3	23.1	21.4	50
55				25.1	25	24.6	25	24.2	23.8	22.7	20.9	20	55
60				22	21.9	22.1	21.9	21.9	21.2	20.2	18.8	18.2	60
65				19.6	19.4	19.8	19.4	19.4	18.8	18	16.7	16.3	65
70					17.3	17.7	17.4	17.2	16.7	16.1	14.8	14.5	70
75					15.7	15.9	15.6	15.4	14.9	14.5	13.2	12.9	75
80						14.3	14	13.8	13.3	12.8	11.8	11.6	80
85						13	12.7	12.5	11.9	11.5	10.6	10.3	85
90							11.5	11.2	10.6	10.3	9.4	9.2	90
95							10.4	10.1	9.5	9.1	8.4	8.2	95
100							9.4	9.1	8.5	8.1	7.4	7.3	100
105								8.2	7.6	7.2	6.5	6.5	105
110								7.5	6.8	6.4	5.6	5.6	110
115									6.1	5.7	4.9	4.9	115
120									5.5	5	4.2	4.2	120
125									4.9	4.4	3.6	3.6	125
130										3.9	3.1	3.1	130
135										3.4	2.6	2.6	135
140											2.1	2.1	140

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Lifting capacities Forces de levage

T



ft	38 ft	50 ft	62 ft	74 ft	87 ft	99 ft	111 ft	123 ft	135 ft	148 ft	160 ft	171 ft	ft
10	152.1	140.2	141.2	124.7	105.8								10
11	151.3	139.8	140.7	123.1	105.1								11
12	150.5	139.5	134.6	120.8	104.4	86.4							12
13	148.1	135.1	123.9	113.1	101.4	85.6							13
14	140.3	125.2	115.5	105.7	98.3	88.8	71.5						14
15	128.4	117.3	107.4	98.8	96.3	86.8	70.9						15
16	118.2	108.5	100.1	94.7	90.4	83.1	70.2	57.5					16
17	109.4	101.5	95.1	91.4	85	78.8	69.5	57					17
18	100.9	95.6	89.8	86	80.1	74.5	68	56.5	44.5				18
19	92.4	89.5	85.8	81.2	75.7	70.7	66.4	56	44.2				19
20	85	84	81.4	76.9	71.7	67.1	63.2	55.4	43.9				20
22	73.1	74.7	73	69.2	64.7	61.7	57.9	53.4	43.1	36.7			22
24	63.8	66.4	66	62.7	58.9	56.4	53.8	50.4	42.3	36.4	29.3		24
26	56.4	59	60	57.3	54.1	52.3	49.4	46.3	41.5	36.1	29.1	23.6	26
28	50.3	52.8	54.2	52.7	50	48.9	45.6	43.2	40.5	35.8	28.8	23.4	28
30		47.6	48.9	48.6	46.6	45.3	42.9	40.9	38.7	35.4	28.6	23.2	30
32		43.3	44.6	44.8	43.8	42.1	40.1	38.5	36.1	33.9	28.4	23	32
34		39.5	40.8	41.1	41.2	39.2	37.5	36	34.1	32.4	28.1	22.8	34
36		36.3	37.5	37.8	38.6	36.8	35.1	33.7	32.7	31.1	27.8	22.6	36
38		33.5	34.6	35	35.9	34.5	33.6	31.8	30.9	29.5	27.5	22.5	38
40		31	32.1	33	33.3	32.3	31.9	30.8	29.1	27.8	26	22.3	40
45			27	28.1	28.1	28.2	27.7	26.8	25.2	24.1	22.5	21.5	45
50			23.1	24.1	24.1	24.5	24.3	23.5	22.1	21	19.5	19	50
55				20.9	21.1	21.3	21	20.7	19.4	18.5	17.1	16.7	55
60				18.3	18.5	18.6	18.4	18.2	17.2	16.3	15	14.6	60
65				16.3	16.3	16.5	16.2	16	15.2	14.4	13.1	12.8	65
70					14.5	14.6	14.4	14.2	13.5	12.8	11.5	11.3	70
75					13	13.1	12.8	12.6	12	11.4	10.2	9.9	75
80						11.7	11.5	11.2	10.6	10.1	9	8.7	80
85						10.6	10.2	10	9.4	9	7.9	7.7	85
90							9.1	8.9	8.2	7.9	6.9	6.7	90
95							8.2	7.9	7.3	6.9	6	5.8	95
100							7.3	7	6.4	6	5.2	5	100
105								6.3	5.6	5.2	4.5	4.3	105
110								5.6	4.9	4.5	3.8	3.7	110
115									4.3	3.9	3.1	3.1	115
120									3.8	3.3	2.6	2.6	120
125									3.3	2.8	1.9	1.9	125
130										2.3			130
135										1.9			135

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Lifting capacities Forces de levage

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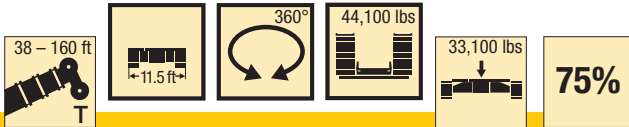


	38 ft	50 ft	62 ft	74 ft	87 ft	99 ft	111 ft	123 ft	135 ft	148 ft	160 ft	171 ft	
10	182.1	145.6	118.6	100.4	91.2								10
11	173.4	135.8	113	97.6	86.7	76.5							11
12	160.8	126.8	106.4	94.5	82.8	73.3							12
13	148.8	120.2	101.1	90.5	79.2	70.6	62.8						13
14	138.5	112.8	98.4	86.4	75.7	68.2	60.6						14
15	129.5	106.4	94.1	82.4	72.4	65.8	58.9						15
16	121.6	101.9	89.8	78.7	69.5	63.3	56.9	50.4					16
17	114.6	96.5	85.5	75.3	66.7	61	54.9	49.5					17
18	108.4	91.8	81.7	72.2	64.1	58.8	53	48.4	41.6				18
19	102.9	87.4	78.1	69.3	61.8	56.8	51.2	46.9	42.4				19
20	97.9	83.3	74.9	66.7	60	54.8	49.6	45.4	41.9				20
22	89.3	76.4	69.1	61.7	56.4	51.3	46.5	42.7	39.6	36			22
24	78.7	70.3	64	57.5	52.8	48.1	44.2	41	37.6	34.5	29.3		24
26	69.2	66	59.6	53.7	49.8	45.2	42.2	39.1	35.6	32.7	28.9	23.6	26
28	61.5	61.7	55.7	50.4	47.1	42.7	40	37	33.8	31.1	28.1	23.4	28
30		57.6	52.3	47.4	44.5	40.4	37.9	35.2	32.1	29.5	26.7	23.2	30
32		52.4	49.3	44.7	42	38.2	36	33.5	30.5	28.1	25.4	23	32
34		47.7	46.5	42.3	39.9	36.2	34.3	31.9	29.1	26.8	24.2	22.6	34
36		43.8	44.1	40.1	37.9	34.5	32.7	30.4	27.7	25.6	23.1	21.9	36
38		40.4	41.6	38.1	36.1	32.9	31.2	29.1	26.5	24.5	22.1	20.9	38
40		37.4	38.6	36.2	34.4	31.3	29.8	27.8	25.3	23.4	21.1	20	40
45			32.4	32.3	30.7	28.3	26.9	24.9	22.7	21	18.9	17.9	45
50			27.7	27.9	27.7	25.8	24.3	22.5	20.5	18.9	16.9	16.1	50
55				25.1	25	23.8	22.1	20.5	18.6	17.1	15.2	14.5	55
60				22	21.9	21.9	20.2	18.7	16.9	15.5	13.7	13.1	60
65				19.6	19.4	19.8	18.5	17.1	15.4	14.1	12.4	11.8	65
70					17.3	17.7	17	15.7	14.1	12.9	11.2	10.7	70
75					15.7	15.9	15.6	14.5	12.9	11.7	10.2	9.6	75
80						14.3	14	13.4	11.9	10.7	9.2	8.7	80
85						13	12.7	12.4	10.9	9.8	8.3	7.9	85
90							11.5	11.2	10	9	7.6	7.1	90
95							10.4	10.1	9.2	8.3	6.8	6.4	95
100							9.4	9.1	8.5	7.6	6.2	5.8	100
105								8.2	7.6	7	5.6	5.2	105
110								7.5	6.8	6.4	5	4.7	110
115									6.1	5.7	4.5	4.2	115
120									5.5	5	4.1	3.7	120
125									4.9	4.4	3.6	3.3	125
130										3.9	3.1	2.9	130
135										3.4	2.6	2.6	135
140											2.1	2.1	140

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Lifting capacities Forces de levage

T

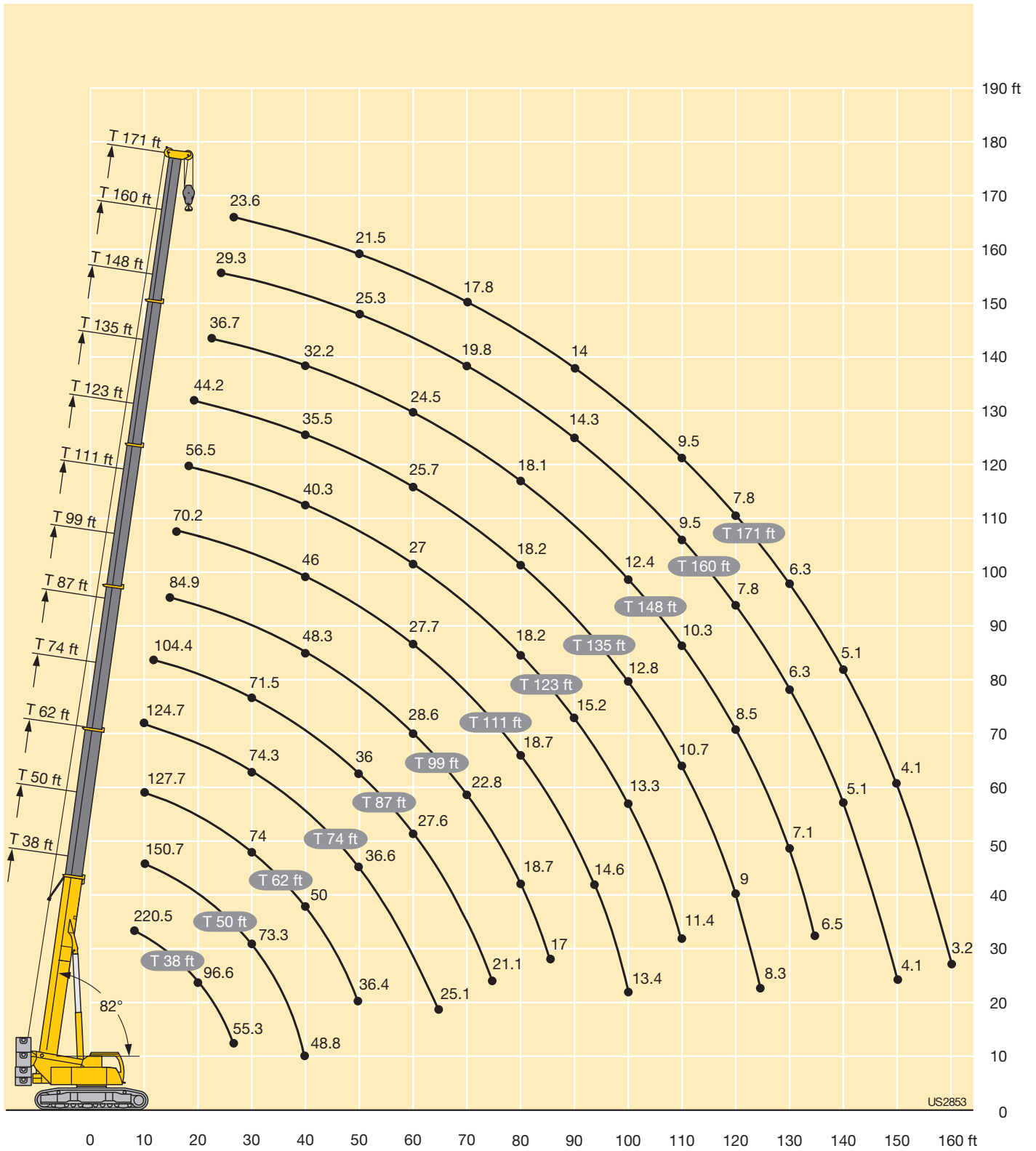


ft	38 ft	50 ft	62 ft	74 ft	87 ft	99 ft	111 ft	123 ft	135 ft	148 ft	160 ft	171 ft	ft
19	71.2	67											19
20	65.9	63	57.8	52.9									20
22	57	58.6	53.9	49.6	45.7								22
24	50	52.5	48.6	44.7	41.2								24
26	44.3	46.8	46.1	43.3	40	36.9							26
28	39.6	42	43.2	39.6	36.6	33.8							28
30		37.9	39.2	38.9	33.6	34	31.1						30
32		34.5	35.8	36	34	31.5	29.7	27.4					32
34		31.5	32.8	34	33.1	31.2	29	26.9	24.9				34
36		28.9	30.2	31.3	30.9	29.2	28.8	26.7	24.7	23.1			36
38		26.7	27.9	29	29.1	28.5	27	25.1	24.2	21.6			38
40		24.7	25.8	26.9	27.1	26.7	25.6	24.4	23	20.2	20.2	19.7	40
45			21.6	22.6	22.8	23	22.1	21.1	19.7	18.8	17.3	16.8	45
50			18.4	19.3	19.5	19.7	19.2	18.4	17.1	16.2	14.9	14.4	50
55				16.7	16.9	17	16.8	16.1	14.9	14.1	12.8	12.5	55
60				14.6	14.7	14.9	14.7	14.2	13	12.3	11	10.7	60
65				12.9	12.9	13	12.8	12.5	11.4	10.7	9.5	9.2	65
70					11.4	11.5	11.3	11	10	9.3	8.2	7.9	70
75					10	10.1	9.9	9.6	8.8	8.1	7	6.8	75
80						8.9	8.7	8.4	7.7	7.1	6	5.8	80
85						7.9	7.6	7.4	6.8	6.1	5	4.9	85
90							6.7	6.4	5.8	5.3	4.2	4.1	90
95							5.9	5.6	5	4.5	3.5	3.3	95
100							5.2	4.9	4.3	3.9	2.8	2.6	100
105								4.2	3.6	3.2	2	1.8	105
110								3.7	3	2.6			110
115									2.5	1.9			115
120									2				120

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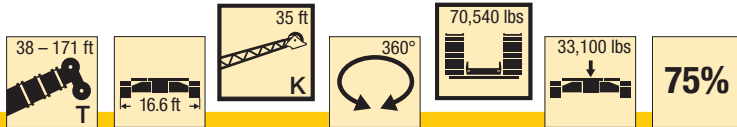
Lifting heights Hauteurs de levage

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Lifting capacities Forces de levage

TK

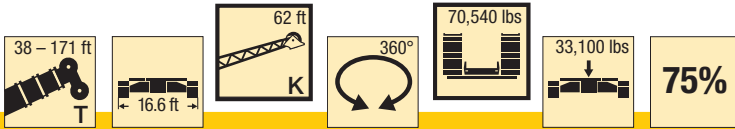


ft	38 ft			123 ft			135 ft			148 ft			160 ft			171 ft			ft
	35 ft			35 ft			35 ft			35 ft			35 ft			35 ft			
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	
16	24.3																		16
17	23.9																		17
18	23.4																		18
19	22.8																		19
20	22.3																		20
22	21.1																		22
24	19.9			29															24
26	18.8	19.3		28.5															26
28	17.8	18.5		28			25.7												28
30	16.8	17.8		27.6			25.4			20.5			16.3						30
32	16	17.1	16.5	27.2			25			20.2			16.2			13.3			32
34	15.1	16.4	16	26.8			24.7			19.9			15.9			13.1			34
36	14.1	15.8	15.5	26.4			24.5			19.6			15.7			12.8			36
38	13	15.2	15	26	22.9		24.2			19.3			15.4			12.6			38
40	11.8	14.4	14.6	25.5	22.5		23.9	21.6		19			15.2			12.4			40
45	9.5	12.1	13.6	24.4	21.4	18.5	23	20.8		18.3	17.2		14.6	14.1		11.8	11.3		45
50	8.8	9.5	11.2	23.3	20.4	17.9	21.9	20	17.7	17.6	16.5	16.1	14.1	13.5	12.9	11.4	10.9		50
55	8.8	8.8	8.8	22	19.4	17.2	20.7	19.2	17.1	16.9	15.9	15.4	13.6	13	12.6	10.9	10.5		55
60	8.8	8.8	5.9	20.7	18.5	16.5	19.4	18.4	16.5	16.2	15.3	14.8	13	12.5	12.2	10.5	10.1	9.9	60
65				19.3	17.7	16	18.2	17.7	16	15.6	14.6	14.2	12.5	12	11.8	10.1	9.7	9.5	65
70				18.1	17	15.5	17	16.9	15.5	14.9	14	13.7	12.1	11.6	11.4	9.7	9.3	9.2	70
75				17	16.3	15	15.9	16.1	15.1	14.2	13.5	13.2	11.6	11.2	11	9.3	9	8.9	75
80				16	15.6	14.6	14.9	15.1	14.6	13.5	13	12.8	11.2	10.8	10.7	9	8.6	8.6	80
85				15	14.9	14.2	13.8	14.1	14.2	12.7	12.6	12.4	10.8	10.5	10.4	8.7	8.3	8.3	85
90				13.8	14.1	13.8	12.8	13.3	13.6	12	12.2	12	10.5	10.2	10	8.3	8	8	90
95				12.5	13.1	13.4	12	12.3	12.9	11.2	11.6	11.7	10.2	9.9	9.7	8.1	7.8	7.7	95
100				11.3	12	12.6	11.2	11.3	11.9	10.4	10.9	11.2	9.8	9.6	9.5	7.8	7.5	7.5	100
105				10.1	10.8	11.3	10.3	10.7	10.9	9.6	10.2	10.6	9.3	9.3	9.2	7.5	7.3	7.3	105
110				9.2	9.8	10.2	9.3	9.9	10.3	9.2	9.2	9.7	8.6	9	9	7.3	7.1	7.1	110
115				8.3	8.8	9.2	8.6	9	9.4	8.6	8.8	8.8	7.9	8.5	8.7	7	6.9	6.9	115
120				8	8	8.2	8.2	8.3	8.5	7.9	8.4	8.5	7.1	7.8	8.2	6.7	6.7	6.7	120
125				7.6	7.7	7.9	7.6	7.9	8	7.1	7.6	8	6.3	6.9	7.4	6.1	6.5	6.6	125
130				7.3	7.4	7.6	7	7.4	7.6	6.4	6.9	7.2	5.6	6.2	6.6	5.5	6.1	6.4	130
135				6.9	7.1	6.6	6.3	6.7	6.9	5.8	6.2	6.5	5	5.5	5.8	4.9	5.4	5.8	135
140				6.5	6.7	4.1	5.8	6.1	6.2	5.2	5.6	5.8	4.4	4.9	5.2	4.3	4.8	5.2	140
145				5.7	5.9		5.2	5.5	5.6	4.7	5	5.2	3.9	4.3	4.6	3.8	4.2	4.5	145
150							4.8	5	4.5	4.2	4.5	4.6	3.4	3.8	4	3.3	3.7	4	150
155							4.3	4.5	3.2	3.7	4	4.1	2.9	3.3	3.4	2.8	3.2	3.4	155
160							3	3		3.3	3.5	3.5	2.5	2.8	2.9	2.4	2.7	2.9	160
165										2.9	3.1	3	2.1	2.4	2.4	2	2.3	2.4	165
170										2.6				2	2		1.9	2	170

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Lifting capacities Forces de levage

TK

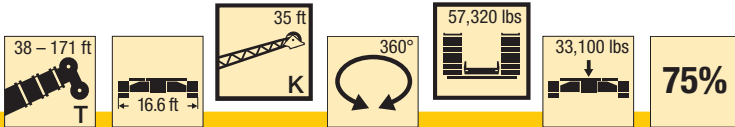


ft	38 ft			123 ft			135 ft			148 ft			160 ft			171 ft			ft
	62 ft			62 ft			62 ft			62 ft			62 ft			62 ft			
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	
22	10			11.7															22
24	9.7			11.6			11.1												24
26	9.4			11.5			11												26
28	9.2			11.5			10.9			10.1									28
30	8.9			11.4			10.9			10			9						30
32	8.6			11.3			10.8			10			9						32
34	8.3			11.1			10.7			9.9			8.9						34
36	8.1			11			10.6			9.9			8.9						36
38	7.9			10.8			10.5			9.8			8.9			7.5			38
40	7.7	6.9		10.7			10.4			9.7			8.8			7.4			40
45	7.3	6.6		10.3	8		10			9.5			8.7			7.4			45
50	6.8	6.2	5.7	9.9	7.7		9.7	7.7		9.2	7.5		8.5			7.2			50
55	6.5	6	5.6	9.5	7.5		9.4	7.4		9	7.2		8.3	7		7.1			55
60	6.2	5.8	5.4	9.2	7.2	6	9	7.2		8.7	7		8.1	6.8		6.9	6.2		60
65	5.9	5.6	5.3	8.8	7	5.9	8.7	7	5.9	8.4	6.8		7.9	6.6		6.8	6.1		65
70	5.7	5.4	5.2	8.4	6.8	5.8	8.4	6.8	5.8	8.2	6.7	5.7	7.7	6.5	5.6	6.7	6		70
75	5.5	5.3	5.2	8.1	6.6	5.7	8.1	6.6	5.7	7.9	6.5	5.6	7.5	6.3	5.5	6.5	5.8		75
80	5.3	5.3	5.2	7.8	6.5	5.6	7.9	6.5	5.6	7.7	6.4	5.5	7.3	6.2	5.4	6.3	5.7		80
85	5.2	5.2	5.2	7.6	6.3	5.5	7.6	6.3	5.5	7.4	6.2	5.5	7.1	6.1	5.4	6.2	5.6	5	85
90	5.2	5.2		7.4	6.1	5.5	7.4	6.2	5.4	7.2	6.1	5.4	7	6	5.3	6	5.5	5	90
95				7.1	6	5.4	7.2	6	5.4	7	6	5.3	6.8	5.9	5.3	5.8	5.5	5	95
100				6.9	5.9	5.3	7	5.9	5.3	6.9	5.9	5.3	6.6	5.8	5.2	5.6	5.4	4.9	100
105				6.6	5.8	5.3	6.8	5.8	5.3	6.7	5.8	5.2	6.5	5.7	5.2	5.5	5.3	4.9	105
110				6.5	5.7	5.3	6.6	5.7	5.3	6.5	5.7	5.2	6.3	5.6	5.1	5.3	5.2	4.9	110
115				6.3	5.6	5.2	6.4	5.6	5.2	6.4	5.6	5.2	6.2	5.5	5.1	5.2	5	4.9	115
120				6.2	5.5	5.2	6.2	5.5	5.2	6.2	5.5	5.2	6.1	5.4	5.1	5	4.9	4.9	120
125				6	5.4	5.2	6.1	5.4	5.2	6	5.4	5.1	6	5.4	5.1	4.9	4.8	4.8	125
130				5.8	5.4	5.2	6	5.4	5.2	5.9	5.4	5.1	5.8	5.3	5.1	4.8	4.7	4.8	130
135				5.7	5.3	5.2	5.8	5.3	5.2	5.7	5.3	5.1	5.7	5.2	5.1	4.6	4.6	4.7	135
140				5.6	5.3	5.2	5.6	5.3	5.2	5.6	5.3	5.1	5.3	5.2	5.1	4.5	4.5	4.6	140
145				5.4	5.3	5.2	5.5	5.2	5.2	5.5	5.2	5.1	4.8	5.1	5.1	4.3	4.4	4.5	145
150				5.2	5.3	5.2	5.4	5.2	5.2	5	5.2	5.1	4.3	5	5.1	4	4.3	4.4	150
155				5.1	5	5.2	5.1	5.1	5.2	4.6	5.1	5.1	3.8	4.6	5.1	3.5	4.1	4.3	155
160				5	5	5.2	4.7	5	5.2	4.1	4.7	5	3.4	4.1	4.5	3.1	3.9	4.1	160
165				4.9	4.9	4.5	4.3	4.7	4.9	3.7	4.2	4.5	2.9	3.6	4	2.7	3.4	3.8	165
170				4.6	4.7		3.9	4.2	4.3	3.3	3.8	4	2.5	3.1	3.5	2.3	2.9	3.4	170
175				4.2			3.5	3.8	3.8	2.9	3.4	3.5	2.2	2.7	3	1.9	2.5	2.9	175
180							3.2	3.4	3.1	2.6	3	3	1.8	2.3	2.5		2.1	2.5	180
185							2.9	3		2.3	2.6	2.6		1.9	2.1			2	185
190										2	2.2	2.1							190
195											1.9								195

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Lifting capacities Forces de levage

TK

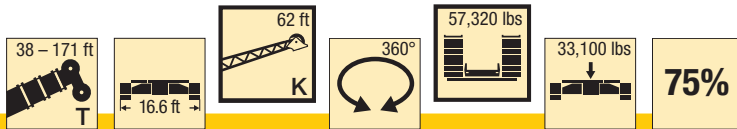


ft	38 ft			123 ft			135 ft			148 ft			160 ft			171 ft			ft
	35 ft			35 ft			35 ft			35 ft			35 ft			35 ft			
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	
10	27.1																		10
11	26.7																		11
12	26.3																		12
13	25.8																		13
14	25.3																		14
15	24.8																		15
16	24.3	23.9																	16
17	23.9	23.5																	17
18	23.4	23																	18
19	22.8	22.5																	19
20	22.3	22																	20
22	21.1	21																	22
24	19.9	20.1	18.5	29															24
26	18.8	19.3	18.5	28.5															26
28	17.8	18.5	17.8	28			25.7												28
30	16.8	17.8	17.1	27.6			25.4			20.5			16.3						30
32	16	17.1	16.5	27.2			25			20.2			16.2			13.3			32
34	15.1	16.4	16	26.8			24.7			19.9			15.9			13.1			34
36	14.1	15.8	15.5	26.4			24.5			19.6			15.7			12.8			36
38	13	15.2	15	26	22.9		24.2			19.3			15.4			12.6			38
40	11.8	14.4	14.6	25.5	22.5		23.9	21.6		19			15.2			12.4			40
45	9.5	12.1	13.6	24.4	21.4	18.5	23	20.8		18.3	17.2		14.6	14.1		11.8	11.3		45
50	8.8	9.5	11.2	23.3	20.4	17.9	21.9	20	17.7	17.6	16.5	16.1	14.1	13.5	12.9	11.4	10.9		50
55	8.8	8.8	8.8	22	19.4	17.2	20.7	19.2	17.1	16.9	15.9	15.4	13.6	13	12.6	10.9	10.5		55
60	8.8	8.8	5.9	20.7	18.5	16.5	19.4	18.4	16.5	16.2	15.3	14.8	13	12.5	12.2	10.5	10.1	9.9	60
65				19.3	17.7	16	18.2	17.7	16	15.6	14.6	14.2	12.5	12	11.8	10.1	9.7	9.5	65
70				18	17	15.5	16.5	16.9	15.5	14.9	14	13.7	12.1	11.6	11.4	9.7	9.3	9.2	70
75				16.2	16.3	15	14.8	16	15.1	14.2	13.5	13.2	11.6	11.2	11	9.3	9	8.9	75
80				14.6	15.5	14.6	13.9	14.4	14.6	13.1	13	12.8	11.2	10.8	10.7	9	8.6	8.6	80
85				13.2	14.1	14.2	13	12.9	13.9	11.8	12.6	12.4	10.8	10.5	10.4	8.7	8.3	8.3	85
90				11.8	12.7	13.4	11.8	12.2	12.6	10.6	11.5	12	10.4	10.2	10	8.3	8	8	90
95				10.5	11.3	12.1	10.7	11.5	11.7	10.2	10.4	11.3	9.9	9.9	9.7	8.1	7.8	7.7	95
100				9.6	10.1	10.8	9.8	10.3	11	9.7	9.6	10.2	8.9	9.5	9.5	7.8	7.5	7.5	100
105				9.1	9.1	9.6	9.4	9.2	9.9	8.8	9.3	9.2	8	8.8	9.1	7.5	7.3	7.3	105
110				8.7	8.7	8.6	8.5	8.9	8.9	7.9	8.7	8.9	7.2	7.9	8.5	6.9	7.1	7.1	110
115				8.3	8.4	8.3	7.7	8.4	8.5	7.1	7.9	8.3	6.5	7.1	7.6	6.2	6.8	6.9	115
120				7.6	7.9	8.1	6.9	7.6	7.9	6.3	7.1	7.4	5.7	6.4	6.8	5.5	6.1	6.6	120
125				6.9	7.3	7.5	6.3	6.8	7.1	5.7	6.3	6.6	5.1	5.6	6	4.8	5.4	5.9	125
130				6.3	6.6	6.8	5.6	6.1	6.3	5	5.6	5.9	4.4	5	5.3	4.3	4.8	5.2	130
135				5.7	6	6.1	5.1	5.5	5.7	4.5	5	5.3	3.8	4.3	4.7	3.7	4.3	4.6	135
140				5.2	5.4	4.1	4.5	4.9	5	3.9	4.5	4.6	3.3	3.8	4	3.2	3.7	4	140
145				4.8	4.9		4.1	4.4	4.4	3.5	3.9	4.1	2.8	3.2	3.5	2.7	3.2	3.4	145
150							3.6	3.9	3.9	3	3.4	3.5	2.4	2.7	2.9	2.2	2.7	2.9	150
155							3.2	3.4	3.2	2.6	2.9	3	1.9	2.3	2.4	1.8	2.2	2.4	155
160							2.9	3		2.2	2.5	2.5		1.8	1.9			1.9	160
165										1.9	2.1	2							165

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Lifting capacities Forces de levage

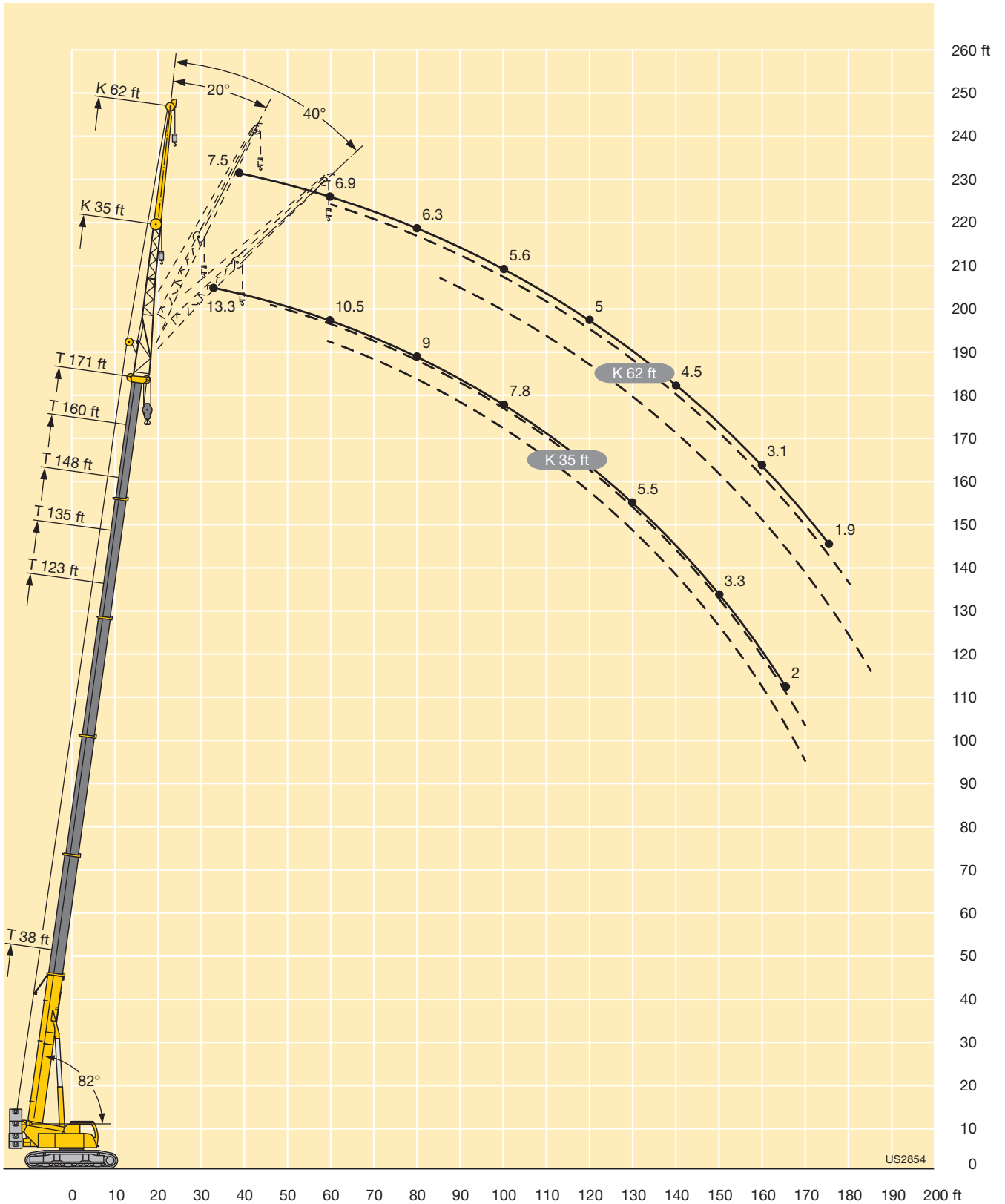
TK



ft	38 ft			123 ft			135 ft			148 ft			160 ft			171 ft			ft
	62 ft			62 ft			62 ft			62 ft			62 ft			62 ft			
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	
10	9.4																		10
11	9.7																		11
12	9.9																		12
13	10.1																		13
14	10.2																		14
15	10.3																		15
16	10.3																		16
17	10.4																		17
18	10.4																		18
19	10.3																		19
20	10.3																		20
22	10			11.7															22
24	9.7			11.6			11.1												24
26	9.4	8.1		11.5			11												26
28	9.2	8		11.5			10.9			10.1									28
30	8.9	7.8		11.4			10.9			10			9						30
32	8.6	7.6		11.3			10.8			10			9						32
34	8.3	7.4		11.1			10.7			9.9			8.9						34
36	8.1	7.3		11			10.6			9.9			8.9						36
38	7.9	7.1		10.8			10.5			9.8			8.9			7.5			38
40	7.7	6.9		10.7			10.4			9.7			8.8			7.4			40
45	7.3	6.6	5.9	10.3	8		10			9.5			8.7			7.4			45
50	6.8	6.2	5.7	9.9	7.7		9.7	7.7		9.2	7.5		8.5			7.2			50
55	6.5	6	5.6	9.5	7.5		9.4	7.4		9	7.2		8.3	7		7.1			55
60	6.2	5.8	5.4	9.2	7.2	6	9	7.2		8.7	7		8.1	6.8		6.9	6.2		60
65	5.9	5.6	5.3	8.8	7	5.9	8.7	7	5.9	8.4	6.8		7.9	6.6		6.8	6.1		65
70	5.7	5.4	5.2	8.4	6.8	5.8	8.4	6.8	5.8	8.2	6.7	5.7	7.7	6.5	5.6	6.7	6		70
75	5.5	5.3	5.2	8.1	6.6	5.7	8.1	6.6	5.7	7.9	6.5	5.6	7.5	6.3	5.5	6.5	5.8		75
80	5.3	5.3	5.2	7.8	6.5	5.6	7.9	6.5	5.6	7.7	6.4	5.5	7.3	6.2	5.4	6.3	5.7		80
85	5.2	5.2	5.2	7.6	6.3	5.5	7.6	6.3	5.5	7.4	6.2	5.5	7.1	6.1	5.4	6.2	5.6	5	85
90	5.2	5.2		7.4	6.1	5.5	7.4	6.2	5.4	7.2	6.1	5.4	7	6	5.3	6	5.5	5	90
95				7.1	6	5.4	7.2	6	5.4	7	6	5.3	6.8	5.9	5.3	5.8	5.5	5	95
100				6.9	5.9	5.3	7	5.9	5.3	6.9	5.9	5.3	6.6	5.8	5.2	5.6	5.4	4.9	100
105				6.6	5.8	5.3	6.8	5.8	5.3	6.7	5.8	5.2	6.5	5.7	5.2	5.5	5.3	4.9	105
110				6.5	5.7	5.3	6.6	5.7	5.3	6.5	5.7	5.2	6.3	5.6	5.1	5.3	5.2	4.9	110
115				6.3	5.6	5.2	6.4	5.6	5.2	6.3	5.6	5.2	6.2	5.5	5.1	5.2	5	4.9	115
120				6.2	5.5	5.2	6.1	5.5	5.2	6.1	5.5	5.2	5.9	5.4	5.1	5	4.9	4.9	120
125				6	5.4	5.2	6	5.4	5.2	5.9	5.4	5.1	5.4	5.4	5.1	4.9	4.8	4.8	125
130				5.7	5.4	5.2	5.8	5.4	5.2	5.7	5.4	5.1	4.8	5.3	5.1	4.5	4.7	4.8	130
135				5.6	5.3	5.2	5.6	5.3	5.2	5.2	5.2	5.1	4.3	5.2	5.1	4	4.6	4.7	135
140				5.5	5.2	5.2	5.2	5.2	5.2	4.6	5.2	5.1	3.8	4.7	5.1	3.5	4.3	4.6	140
145				5.3	5.2	5.2	4.7	5.2	5.2	4.1	4.9	5.1	3.3	4.2	4.8	3	3.9	4.5	145
150				4.9	5.1	5.2	4.2	4.8	5.1	3.6	4.3	4.8	2.9	3.7	4.3	2.6	3.4	4.1	150
155				4.4	4.8	5	3.8	4.3	4.6	3.2	3.8	4.2	2.4	3.2	3.7	2.2	3	3.6	155
160				4	4.4	4.4	3.4	3.9	4.1	2.8	3.4	3.7	2	2.8	3.2	1.8	2.6	3.1	160
165				3.7	3.9	3.9	3	3.4	3.6	2.4	3	3.2		2.3	2.7		2.2	2.6	165
170				3.3	3.5		2.7	3	3.1	2.1	2.6	2.8		1.9	2.3		1.8	2.2	170
175				3			2.3	2.6	2.6		2.2	2.3			1.8			1.8	175
180							2	2.2	2		1.8	1.9							180
185								1.9											185

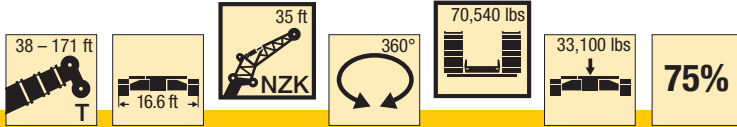
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Lifting heights Hauteurs de levage



Lifting capacities Forces de levage

TNZK

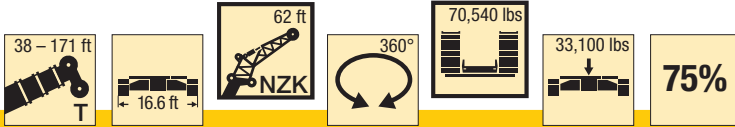


ft	38 ft			123 ft			135 ft			148 ft			160 ft			171 ft			ft
	35 ft			35 ft			35 ft			35 ft			35 ft			35 ft			
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	
17	24.2																		17
18	23.7																		18
19	23.2																		19
20	22.6																		20
22	21.5																		22
24	20.3			29.1															24
26	19.1	19.5		28.6															26
28	18	18.7		28.2			25.8												28
30	17.1	17.9		27.7			25.5												30
32	16.2	17.2	16.6	27.3			25.1			20.3			16.1						32
34	15.4	16.6	16.1	26.9			24.8			20			15.9			13.2			34
36	14.4	16	15.6	26.5			24.5			19.7			15.8			12.9			36
38	13.3	15.3	15.1	26.1	22.7		24.3			19.4			15.5			12.7			38
40	12.1	14.6	14.7	25.7	22.3		24	21.3		19.1			15.3			12.5			40
45	9.7	12.3	13.7	24.5	21.5	18.2	23.1	20.6		18.4	15		14.7			11.9			45
50	8.8	9.6	11.3	23.4	20.5	17.5	22.1	19.9	17.2	17.7	16.6	16.1	14.2	13.6		11.4	10.9		50
55	8.8	8.8	8.8	22.2	19.5	17	20.9	19.2	16.7	17	15.9	15.5	13.6	13	12.6	11	10.5		55
60	8.8	8.8	5.6	20.8	18.6	16.4	19.6	18.5	16.2	16.3	15.3	14.8	13.1	12.5	12.2	10.5	10.1	10	60
65				19.5	17.8	16	18.4	17.8	15.8	15.6	14.7	14.3	12.6	12.1	11.7	10.1	9.7	9.6	65
70				18.2	17.1	15.5	17.1	17	15.4	15	14.1	13.8	12.1	11.6	11.3	9.7	9.3	9.2	70
75				17.1	16.4	15	16	16.2	15.1	14.3	13.6	13.3	11.7	11.2	10.9	9.4	9	8.9	75
80				16.1	15.7	14.6	15	15.2	14.7	13.5	13.1	12.8	11.3	10.8	10.6	9	8.7	8.6	80
85				15.1	15	14.2	14	14.2	14.2	12.8	12.6	12.4	10.9	10.5	10.2	8.7	8.4	8.3	85
90				13.9	14.2	13.9	12.9	13.3	13.7	12	12.2	12	10.5	10.2	9.9	8.4	8.1	8	90
95				12.6	13.2	13.4	12	12.4	12.9	11.3	11.6	11.7	10.2	9.9	9.6	8.1	7.8	7.8	95
100				11.4	12.1	12.6	11.3	11.3	11.9	10.5	11	11.2	9.8	9.6	9.4	7.8	7.6	7.5	100
105				10.2	10.9	11.4	10.4	10.8	10.9	9.6	10.2	10.6	9.4	9.3	9.1	7.5	7.3	7.3	105
110				9.2	9.8	10.2	9.4	10	10.3	9.3	9.3	9.8	8.7	9	8.9	7.3	7.1	7.1	110
115				8.4	8.9	9.2	8.7	9.1	9.4	8.7	8.8	8.8	7.9	8.5	8.7	7.1	6.9	6.9	115
120				8	8	8.2	8.2	8.3	8.5	7.9	8.4	8.4	7.1	7.8	8.2	6.7	6.7	6.7	120
125				7.7	7.7	7.8	7.7	8	8	7.2	7.7	8	6.4	7	7.4	6.2	6.5	6.6	125
130				7.4	7.4	7.6	7	7.4	7.6	6.5	7	7.2	5.7	6.2	6.6	5.6	6.1	6.4	130
135				7	7.1	6.6	6.4	6.7	6.9	5.8	6.3	6.5	5.1	5.6	5.9	5	5.5	5.8	135
140				6.5	6.7	4.1	5.8	6.1	6.2	5.2	5.6	5.8	4.5	4.9	5.2	4.4	4.9	5.2	140
145				5.8	5.9		5.3	5.5	5.6	4.7	5	5.2	3.9	4.3	4.6	3.8	4.3	4.5	145
150							4.8	5	4.5	4.2	4.5	4.6	3.4	3.8	4	3.3	3.7	4	150
155							4.4	4.5	3.1	3.8	4	4.1	3	3.3	3.4	2.8	3.2	3.4	155
160							3.1	2.9		3.3	3.5	3.5	2.5	2.8	2.9	2.4	2.7	2.9	160
165										2.9	3.1	2.9	2.1	2.4	2.4	2	2.3	2.4	165
170										2.6			1.8	2	2		1.9	2	170

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Lifting capacities Forces de levage

TNZK

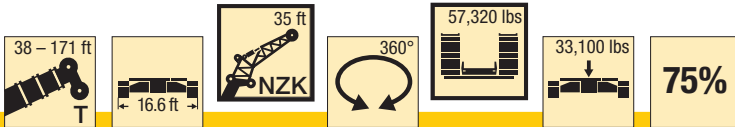


ft	38 ft			123 ft			135 ft			148 ft			160 ft			171 ft			ft
	62 ft			62 ft			62 ft			62 ft			62 ft			62 ft			
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	
22				11.7															22
24	9.6			11.6															24
26	9.3			11.5			11												26
28	9.1			11.4			10.9												28
30	8.8			11.3			10.8			10									30
32	8.6			11.2			10.7			9.9			8.9						32
34	8.3			11.1			10.6			9.9			8.9						34
36	8			10.9			10.6			9.8			8.8						36
38	7.8	7.1		10.8			10.5			9.7			8.8						38
40	7.7	6.9		10.6			10.4			9.6			8.7			7.4			40
45	7.2	6.5		10.2	7.8		10			9.4			8.6			7.4			45
50	6.8	6.2		9.7	7.6		9.6	7.5		9.1			8.4			7.3			50
55	6.4	6	5.5	9.3	7.3		9.3	7.3		8.9	7.2		8.2	6.8		7.1			55
60	6.1	5.7	5.4	9	7.1	5.9	8.9	7.1		8.6	6.9		8	6.7		6.9	6.2		60
65	5.9	5.5	5.3	8.7	6.9	5.8	8.6	6.9	5.8	8.3	6.8		7.8	6.5		6.8	6.1		65
70	5.6	5.4	5.2	8.3	6.7	5.7	8.3	6.7	5.7	8	6.6	5.6	7.6	6.4		6.7	6		70
75	5.5	5.3	5.2	8	6.6	5.6	8	6.5	5.6	7.8	6.4	5.6	7.4	6.3	5.5	6.6	5.9		75
80	5.3	5.2	5.2	7.7	6.4	5.6	7.7	6.4	5.5	7.6	6.3	5.5	7.2	6.1	5.4	6.4	5.7		80
85	5.2	5.2	5.2	7.5	6.2	5.5	7.5	6.3	5.5	7.4	6.2	5.4	7	6	5.3	6.2	5.6	5	85
90	5.2	5.2		7.2	6.1	5.4	7.3	6.1	5.4	7.1	6	5.4	6.9	5.9	5.3	6	5.6	5	90
95				7	6	5.4	7.1	6	5.3	7	5.9	5.3	6.7	5.8	5.2	5.8	5.5	5	95
100				6.8	5.9	5.3	6.9	5.9	5.3	6.8	5.8	5.3	6.5	5.7	5.2	5.7	5.4	5	100
105				6.6	5.8	5.3	6.7	5.8	5.3	6.6	5.7	5.2	6.4	5.6	5.1	5.5	5.3	4.9	105
110				6.4	5.6	5.3	6.5	5.7	5.2	6.5	5.6	5.2	6.3	5.5	5.1	5.3	5.2	4.9	110
115				6.3	5.6	5.2	6.3	5.6	5.2	6.3	5.6	5.2	6.2	5.5	5.1	5.2	5.1	4.9	115
120				6.1	5.5	5.2	6.2	5.5	5.2	6.2	5.5	5.2	6	5.4	5.1	5	4.9	4.9	120
125				5.9	5.4	5.2	6.1	5.4	5.2	6	5.4	5.2	5.9	5.3	5.1	4.9	4.8	4.8	125
130				5.8	5.3	5.2	5.9	5.4	5.2	5.9	5.4	5.1	5.8	5.3	5.1	4.8	4.7	4.8	130
135				5.7	5.3	5.2	5.8	5.3	5.2	5.7	5.3	5.1	5.6	5.2	5.1	4.6	4.6	4.7	135
140				5.6	5.3	5.2	5.6	5.3	5.2	5.6	5.2	5.1	5.2	5.2	5.1	4.5	4.5	4.6	140
145				5.3	5.2	5.2	5.4	5.2	5.2	5.4	5.2	5.1	4.7	5.1	5.1	4.3	4.4	4.5	145
150				5.2	5.2	5.2	5.3	5.1	5.2	4.9	5.1	5.1	4.2	4.9	5.1	4	4.3	4.4	150
155				5	5	5.2	5	5.1	5.2	4.4	5	5.1	3.7	4.4	4.9	3.5	4.2	4.3	155
160				4.9	4.9	5.2	4.5	5	5.2	4	4.6	4.9	3.2	3.9	4.4	3.1	3.8	4.2	160
165				4.8	4.8	4.4	4.1	4.5	4.7	3.6	4.1	4.4	2.8	3.5	3.8	2.6	3.4	3.8	165
170				4.4	4.6		3.7	4.1	4.1	3.2	3.6	3.9	2.4	3	3.3	2.2	2.9	3.3	170
175				4.1			3.4	3.6	3.6	2.8	3.2	3.4	2	2.6	2.8	1.9	2.5	2.8	175
180							3	3.2	2.9	2.4	2.8	2.9		2.2	2.4		2.1	2.4	180
185							2.7	2.8		2.1	2.4	2.4		1.8	1.9			1.9	185
190										1.8	2.1	1.9							190

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Lifting capacities Forces de levage

TNZK

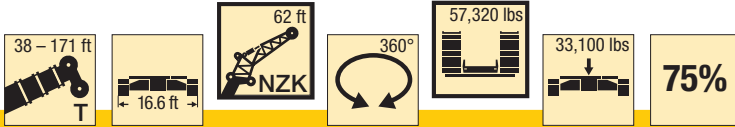


ft	38 ft			123 ft			135 ft			148 ft			160 ft			171 ft			ft
	35 ft			35 ft			35 ft			35 ft			35 ft			35 ft			
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	
10	27.4																		10
11	27																		11
12	26.5																		12
13	26.1																		13
14	25.6																		14
15	25.1																		15
16	24.6	24.1																	16
17	24.2	23.7																	17
18	23.7	23.2																	18
19	23.2	22.7																	19
20	22.6	22.2																	20
22	21.5	21.3																	22
24	20.3	20.4	18.5	29.1															24
26	19.1	19.5	18.5	28.6															26
28	18	18.7	18	28.2			25.8												28
30	17.1	17.9	17.3	27.7			25.5												30
32	16.2	17.2	16.6	27.3			25.1			20.3			16.1						32
34	15.4	16.6	16.1	26.9			24.8			20			15.9			13.2			34
36	14.4	16	15.6	26.5			24.5			19.7			15.8			12.9			36
38	13.3	15.3	15.1	26.1	22.7		24.3			19.4			15.5			12.7			38
40	12.1	14.6	14.7	25.7	22.3		24	21.3		19.1			15.3			12.5			40
45	9.7	12.3	13.7	24.5	21.5	18.2	23.1	20.6		18.4	15		14.7			11.9			45
50	8.8	9.6	11.3	23.4	20.5	17.5	22.1	19.9	17.2	17.7	16.6	16.1	14.2	13.6		11.4	10.9		50
55	8.8	8.8	8.8	22.2	19.5	17	20.9	19.2	16.7	17	15.9	15.5	13.6	13	12.6	11	10.5		55
60	8.8	8.8	5.6	20.8	18.6	16.4	19.6	18.5	16.2	16.3	15.3	14.8	13.1	12.5	12.2	10.5	10.1	10	60
65				19.5	17.8	16	18.2	17.8	15.8	15.6	14.7	14.3	12.6	12.1	11.7	10.1	9.7	9.6	65
70				17.8	17.1	15.5	16.4	17	15.4	15	14.1	13.8	12.1	11.6	11.3	9.7	9.3	9.2	70
75				16.1	16.4	15	14.7	15.8	15.1	14.2	13.6	13.3	11.7	11.2	10.9	9.4	9	8.9	75
80				14.5	15.5	14.6	14	14.3	14.7	13	13.1	12.8	11.3	10.8	10.6	9	8.7	8.6	80
85				13	14	14.2	12.9	12.8	13.6	11.6	12.5	12.4	10.9	10.5	10.2	8.7	8.4	8.3	85
90				11.7	12.6	13.2	11.7	12.2	12.3	10.7	11.4	11.9	10.5	10.2	9.9	8.4	8.1	8	90
95				10.4	11.2	11.8	10.5	11.3	11.7	10.2	10.2	11	9.7	9.9	9.6	8.1	7.8	7.8	95
100				9.6	10	10.5	9.8	10.2	10.7	9.6	9.6	9.8	8.7	9.4	9.4	7.8	7.6	7.5	100
105				9.2	8.9	9.3	9.2	9.1	9.6	8.7	9.2	9.2	7.8	8.6	9	7.4	7.3	7.3	105
110				8.8	8.5	8.5	8.3	8.7	8.7	7.8	8.4	8.7	7	7.7	8.3	6.7	7.1	7.1	110
115				8.2	8.2	8.2	7.5	8.1	8.3	7	7.5	8	6.3	6.9	7.4	6	6.7	6.9	115
120				7.4	7.8	8	6.8	7.2	7.6	6.2	6.7	7.1	5.6	6.2	6.6	5.3	6	6.4	120
125				6.8	7.1	7.3	6.1	6.5	6.8	5.5	6	6.3	4.9	5.5	5.9	4.7	5.3	5.7	125
130				6.1	6.4	6.5	5.4	5.8	6	4.9	5.3	5.6	4.3	4.8	5.1	4.1	4.7	5	130
135				5.6	5.8	5.8	4.9	5.2	5.4	4.3	4.7	4.9	3.7	4.2	4.5	3.5	4.1	4.4	135
140				5.1	5.2	4.1	4.4	4.7	4.8	3.8	4.1	4.3	3.1	3.6	3.9	3	3.5	3.8	140
145				4.6	4.7		3.9	4.1	4.2	3.3	3.6	3.8	2.6	3.1	3.3	2.5	3	3.2	145
150							3.4	3.6	3.6	2.8	3.1	3.2	2.2	2.6	2.7	2.1	2.5	2.7	150
155							3	3.2	3	2.4	2.7	2.7		2.1	2.2	2	2.2		155
160							2.7	2.7		2	2.2	2.2							160
165											1.8	1.8							165

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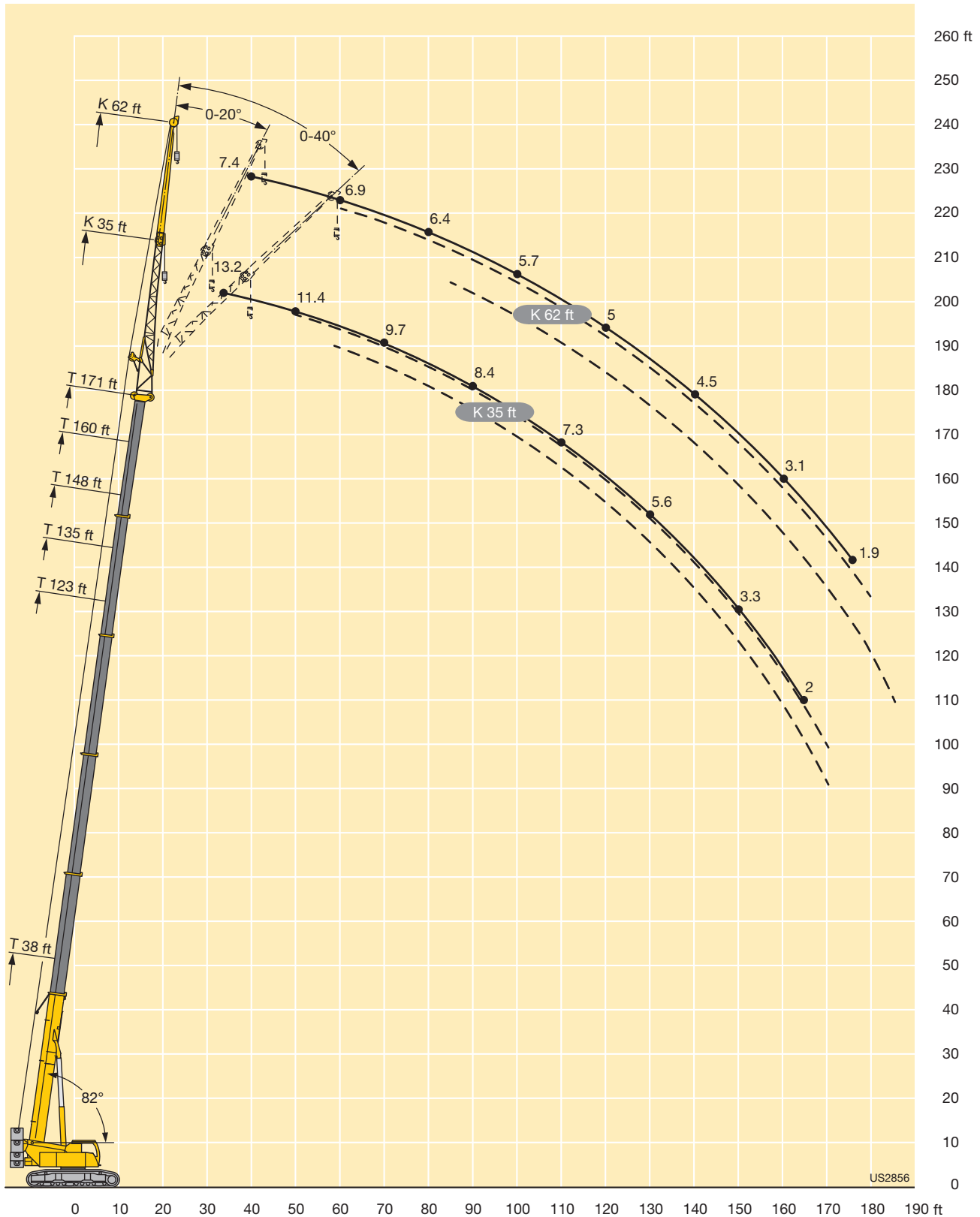
Lifting capacities Forces de levage

TNZK



ft	38 ft			123 ft			135 ft			148 ft			160 ft			171 ft			ft
	62 ft			62 ft			62 ft			62 ft			62 ft			62 ft			
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	
11	9.8																		11
12	10																		12
13	10.2																		13
14	10.3																		14
15	10.4																		15
16	10.4																		16
17	10.4																		17
18	10.4																		18
19	10.4																		19
20	10.2																		20
22	9.9			11.7															22
24	9.6			11.6															24
26	9.3			11.5			11												26
28	9.1	7.9		11.4			10.9												28
30	8.8	7.8		11.3			10.8			10									30
32	8.6	7.6		11.2			10.7			9.9			8.9						32
34	8.3	7.4		11.1			10.6			9.9			8.9						34
36	8	7.2		10.9			10.6			9.8			8.8						36
38	7.8	7.1		10.8			10.5			9.7			8.8						38
40	7.7	6.9		10.6			10.4			9.6			8.7			7.4			40
45	7.2	6.5	5.9	10.2	7.8		10			9.4			8.6			7.4			45
50	6.8	6.2	5.7	9.7	7.6		9.6	7.5		9.1			8.4			7.3			50
55	6.4	6	5.5	9.3	7.3		9.3	7.3		8.9	7.2		8.2	6.8		7.1			55
60	6.1	5.7	5.4	9	7.1	5.9	8.9	7.1		8.6	6.9		8	6.7		6.9	6.2		60
65	5.9	5.5	5.3	8.7	6.9	5.8	8.6	6.9	5.8	8.3	6.8		7.8	6.5		6.8	6.1		65
70	5.6	5.4	5.2	8.3	6.7	5.7	8.3	6.7	5.7	8	6.6	5.6	7.6	6.4		6.7	6		70
75	5.5	5.3	5.2	8	6.6	5.6	8	6.5	5.6	7.8	6.4	5.6	7.4	6.3	5.5	6.6	5.9		75
80	5.3	5.2	5.2	7.7	6.4	5.6	7.7	6.4	5.5	7.6	6.3	5.5	7.2	6.1	5.4	6.4	5.7		80
85	5.2	5.2	5.2	7.5	6.2	5.5	7.5	6.3	5.5	7.4	6.2	5.4	7	6	5.3	6.2	5.6	5	85
90	5.2	5.2		7.2	6.1	5.4	7.3	6.1	5.4	7.1	6	5.4	6.9	5.9	5.3	6	5.6	5	90
95				7	6	5.4	7.1	6	5.3	7	5.9	5.3	6.7	5.8	5.2	5.8	5.5	5	95
100				6.8	5.9	5.3	6.9	5.9	5.3	6.8	5.8	5.3	6.5	5.7	5.2	5.7	5.4	5	100
105				6.6	5.8	5.3	6.7	5.8	5.3	6.6	5.7	5.2	6.4	5.6	5.1	5.5	5.3	4.9	105
110				6.4	5.6	5.3	6.5	5.7	5.2	6.5	5.6	5.2	6.3	5.5	5.1	5.3	5.2	4.9	110
115				6.3	5.6	5.2	6.3	5.6	5.2	6.3	5.6	5.2	6.2	5.5	5.1	5.2	5.1	4.9	115
120				6.1	5.5	5.2	6.1	5.5	5.2	6	5.5	5.2	5.8	5.4	5.1	5	4.9	4.9	120
125				5.9	5.4	5.2	5.9	5.4	5.2	5.9	5.4	5.2	5.3	5.3	5.1	4.8	4.8	4.8	125
130				5.7	5.3	5.2	5.8	5.4	5.2	5.6	5.3	5.1	4.7	5.3	5.1	4.4	4.7	4.8	130
135				5.5	5.3	5.2	5.6	5.3	5.2	5	5.2	5.1	4.2	5	5.1	3.9	4.6	4.7	135
140				5.4	5.2	5.2	5.1	5.2	5.2	4.5	5.2	5.1	3.7	4.6	5.1	3.3	4.2	4.6	140
145				5.2	5.1	5.2	4.6	5.2	5.2	4	4.7	5.1	3.2	4	4.7	2.9	3.8	4.4	145
150				4.7	5	5.2	4.1	4.7	5	3.5	4.2	4.7	2.8	3.5	4.1	2.5	3.3	3.9	150
155				4.3	4.7	4.9	3.6	4.2	4.5	3.1	3.7	4.1	2.3	3.1	3.6	2	2.8	3.4	155
160				3.9	4.2	4.3	3.3	3.7	3.9	2.7	3.3	3.6	1.9	2.6	3.1		2.4	2.9	160
165				3.5	3.8	3.7	2.9	3.3	3.4	2.3	2.8	3.1		2.2	2.6		2	2.5	165
170				3.2	3.4		2.5	2.9	2.9	1.9	2.4	2.6		1.8	2.1			2	170
175				2.9			2.2	2.5	2.4		2	2.2							175
180							1.9	2.1	1.8										180

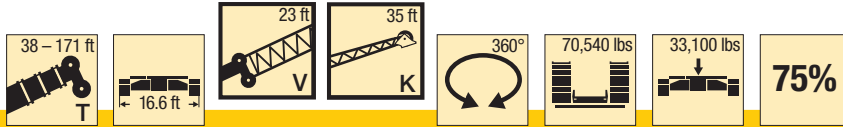
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Lifting capacities Forces de levage

TVK

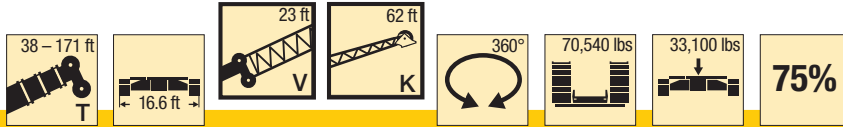


ft	38 ft + 23 ft			135 ft + 23 ft			148 ft + 23 ft			160 ft + 23 ft			171 ft + 23 ft			ft
	35 ft			35 ft			35 ft			35 ft			35 ft			
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	
22	8															22
24	7.9															24
26	7.8															26
28	7.7															28
30	7.5															30
32	7.3	7.3		9.2												32
34	7.1	7.1		9.1			8.5									34
36	6.9	6.9		9			8.4									36
38	6.7	6.8		8.8			8.3			6.7						38
40	6.5	6.6	6.7	8.7			8.2			6.6						40
45	6.1	6.1	6.3	8.4	8		8			6.6			5.2			45
50	5.7	5.7	5.9	8.2	7.8		7.7	7.4		6.6			5.1			50
55	5.3	5.3	5.5	7.9	7.5	7.2	7.5	7.2		6.5	6.5		5	5.2		55
60	4.9	5	5.1	7.6	7.2	7	7.3	6.9	6.7	6.4	6.2	5.8	5	5.1		60
65	4.5	4.7	4.8	7.3	6.9	6.7	7	6.7	6.5	6.3	6	5.8	4.9	4.9	4.8	65
70	4.2	4.3	4.5	7	6.7	6.5	6.8	6.5	6.3	6.1	5.8	5.6	4.8	4.7	4.7	70
75	3.9	4	4.2	6.8	6.5	6.3	6.6	6.3	6.1	5.8	5.6	5.4	4.6	4.5	4.5	75
80	3.6	3.7	3.9	6.6	6.2	6.1	6.3	6.1	5.9	5.6	5.4	5.3	4.4	4.3	4.3	80
85	3.3	3.5	3.6	6.3	6	5.9	6.1	5.8	5.7	5.4	5.2	5.1	4.2	4.2	4.2	85
90	3.1	3.2	3.3	6.1	5.8	5.7	5.9	5.7	5.5	5.3	5	4.9	4	4	4	90
95	2.9	3	3.1	5.8	5.6	5.5	5.7	5.5	5.3	5.1	4.8	4.7	3.9	3.9	3.9	95
100	2.7	2.8	2.8	5.6	5.4	5.3	5.5	5.3	5.2	4.9	4.7	4.6	3.7	3.7	3.7	100
105	2.6	2.7	2.7	5.4	5.2	5.1	5.3	5.1	5	4.8	4.5	4.5	3.6	3.5	3.6	105
110				5.2	5	4.9	5.2	5	4.9	4.6	4.4	4.3	3.4	3.4	3.4	110
115				5	4.8	4.8	5	4.8	4.7	4.5	4.3	4.2	3.3	3.3	3.3	115
120				4.8	4.6	4.6	4.8	4.7	4.6	4.3	4.1	4.1	3.2	3.2	3.2	120
125				4.6	4.5	4.5	4.6	4.5	4.4	4.2	4	3.9	3.1	3	3	125
130				4.4	4.3	4.3	4.5	4.3	4.3	4.1	3.9	3.8	3	2.9	2.9	130
135				4.2	4.1	4.1	4.3	4.2	4.2	3.9	3.8	3.7	2.8	2.8	2.8	135
140				4	3.9	4	4.1	4	4	3.7	3.7	3.6	2.7	2.7	2.7	140
145				3.9	3.8	3.8	3.9	3.9	3.9	3.4	3.6	3.5	2.6	2.6	2.6	145
150				3.7	3.7	3.7	3.8	3.8	3.8	3	3.4	3.4	2.5	2.5	2.5	150
155				3.5	3.5	3.6	3.6	3.6	3.6	2.5	3	3.2	2.2	2.4	2.4	155
160				3.4	3.4	3.4	3.1	3.4	3.5	2.1	2.5	2.8	1.8	2.2	2.3	160
165				3.2	3.3	3.3	2.7	3.1	3.3		2.1	2.4		1.8	2.2	165
170				2.9	3.1	3.2	2.3	2.7	2.8			2				170
175				2.5	2.8	2.9	2	2.3	2.4							175
180				2.2	2.4	2.5		1.9	2							180
185				1.8	2	2.1										185

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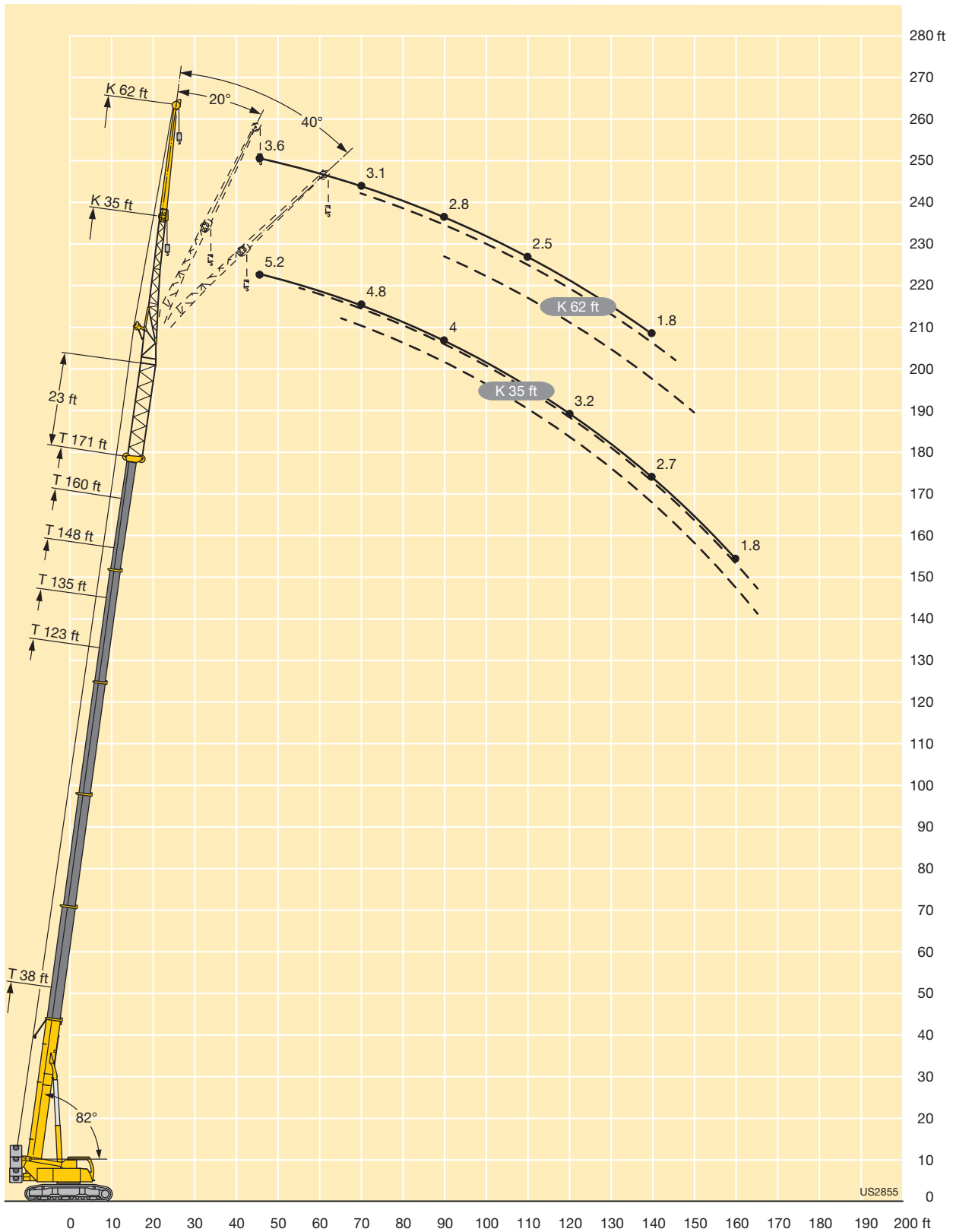
Lifting capacities Forces de levage

TVK



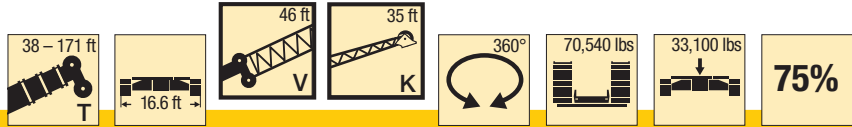
ft	38 ft + 23 ft			135 ft + 23 ft			148 ft + 23 ft			160 ft + 23 ft			171 ft + 23 ft			ft
	62 ft			62 ft			62 ft			62 ft			62 ft			
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	
28	5.8															28
30	5.7															30
32	5.6															32
34	5.4															34
36	5.3															36
38	5.2			6.4												38
40	5			6.3			5.9									40
45	4.7	4.9		6.1			5.8			4.9			3.6			45
50	4.4	4.6		5.9			5.6			4.9			3.5			50
55	4.1	4.3		5.7			5.4			4.8			3.4			55
60	3.9	4	4.2	5.5			5.3			4.6			3.3			60
65	3.6	3.8	3.9	5.3	5		5.1	4.8		4.5			3.2			65
70	3.4	3.5	3.7	5.2	4.8		4.9	4.7		4.4	4.4		3.1	3.3		70
75	3.2	3.3	3.5	5	4.7		4.7	4.5		4.3	4.3		3.1	3.3		75
80	3	3.1	3.2	4.8	4.5	4.3	4.6	4.3	4.1	4.2	4.1		3	3.2		80
85	2.8	2.9	3	4.6	4.3	4.1	4.4	4.2	4	4.1	4	3.9	2.9	3.1		85
90	2.6	2.7	2.9	4.4	4.2	4	4.3	4	3.9	4	3.8	3.8	2.8	3	3	90
95	2.5	2.6	2.7	4.3	4	3.9	4.1	3.9	3.8	3.9	3.7	3.6	2.7	2.9	2.9	95
100	2.4	2.4	2.5	4.1	3.8	3.7	4	3.7	3.6	3.8	3.6	3.5	2.7	2.8	2.8	100
105	2.3	2.4	2.4	3.9	3.7	3.6	3.8	3.6	3.5	3.7	3.5	3.4	2.6	2.7	2.7	105
110	2.2	2.3	2.3	3.8	3.6	3.5	3.7	3.5	3.4	3.5	3.4	3.3	2.5	2.6	2.6	110
115	2.2	2.2	2.2	3.6	3.4	3.4	3.5	3.4	3.3	3.4	3.3	3.2	2.4	2.5	2.5	115
120	2.2	2.2	2.2	3.5	3.3	3.2	3.4	3.2	3.2	3.3	3.2	3.1	2.3	2.4	2.5	120
125	2.2	2.2	2.2	3.4	3.2	3.1	3.3	3.1	3.1	3.2	3.1	3	2.2	2.3	2.4	125
130	2.2	2.2	2.2	3.2	3.1	3	3.2	3	3	3.1	3	2.9	2.1	2.2	2.3	130
135	2.2	2.2		3.1	3	2.9	3.1	2.9	2.9	3	2.9	2.8	1.9	2.1	2.2	135
140				3	2.9	2.9	3	2.8	2.8	2.9	2.8	2.7	1.8	2	2.1	140
145				2.9	2.8	2.8	2.9	2.8	2.7	2.8	2.7	2.7		1.8	2	145
150				2.8	2.7	2.7	2.8	2.7	2.6	2.7	2.6	2.6			1.8	150
155				2.7	2.6	2.6	2.7	2.6	2.6	2.6	2.5	2.5				155
160				2.6	2.5	2.5	2.6	2.5	2.5	2.3	2.5	2.4				160
165				2.5	2.4	2.4	2.5	2.4	2.4	2	2.4	2.4				165
170				2.4	2.3	2.4	2.4	2.3	2.3		2.3	2.3				170
175				2.3	2.3	2.3	2.2	2.2	2.3		2	2.3				175
180				2.2	2.2	2.2	1.9	2.2	2.2			2.1				180
185				2.1	2.1	2.2		2.1	2.2			1.8				185
190				1.8	2.1	2.1		1.8	2.1							190
195					1.9	2			1.8							195
200						1.8										200

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Lifting capacities Forces de levage

TVK

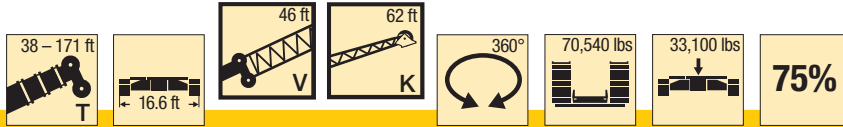


ft	38 ft + 46 ft			135 ft + 46 ft			148 ft + 46 ft			160 ft + 46 ft			171 ft + 46 ft			ft
	35 ft			35 ft			35 ft			35 ft			35 ft			
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	
19	10.8															19
20	10.6															20
22	10.3															22
24	9.9															24
26	9.6															26
28	9.3			12.6												28
30	9	8.9		12.4			11.6									30
32	8.7	8.7		12.1			11.5			10.7						32
34	8.4	8.4		11.9			11.3			10.5						34
36	8.1	8.1	8.1	11.7			11.1			10.4			8.7			36
38	7.9	7.9	7.9	11.5			11			10.3			8.6			38
40	7.6	7.6	7.7	11.4	10.6		10.8			10.1			8.5			40
45	7.1	7.1	7.1	11	10.1		10.4	9.7		9.8	9.3		8.1			45
50	6.6	6.6	6.6	10.6	9.7	8.9	10.1	9.4		9.5	9		7.8	7.4		50
55	6.1	6.2	6.2	10.1	9.3	8.7	9.7	9.1	8.5	9.2	8.7	8.1	7.5	7.3		55
60	5.8	5.9	5.8	9.7	8.9	8.3	9.4	8.8	8.2	8.9	8.4	8	7.2	7	6.8	60
65	5.4	5.5	5.5	9.3	8.6	8.1	9.1	8.5	7.9	8.6	8.1	7.7	6.9	6.7	6.6	65
70	4.7	5.2	5.3	9	8.3	7.8	8.7	8.2	7.7	8.3	7.9	7.5	6.7	6.5	6.4	70
75	4.4	4.5	4.8	8.6	8	7.5	8.4	7.9	7.4	8.1	7.6	7.2	6.4	6.2	6.1	75
80	4.4	4.4	4.4	8.2	7.7	7.3	8.1	7.6	7.2	7.8	7.4	7	6.2	6	5.9	80
85	4.4	4.4		7.9	7.4	7	7.8	7.4	7	7.6	7.2	6.8	6	5.8	5.7	85
90				7.6	7.2	6.8	7.6	7.1	6.8	7.3	6.9	6.6	5.8	5.6	5.5	90
95				7.3	6.9	6.6	7.3	6.9	6.6	7.1	6.7	6.5	5.6	5.4	5.3	95
100				7.1	6.7	6.4	7.1	6.7	6.4	6.9	6.6	6.3	5.4	5.2	5.1	100
105				6.8	6.5	6.2	6.8	6.5	6.2	6.7	6.4	6.1	5.2	5	4.9	105
110				6.6	6.3	6.1	6.6	6.3	6.1	6.5	6.2	6	5	4.8	4.8	110
115				6.4	6.1	5.9	6.4	6.1	5.9	6.3	6.1	5.9	4.9	4.7	4.6	115
120				6.2	6	5.8	6.2	6	5.8	6.1	5.9	5.7	4.7	4.5	4.5	120
125				6	5.8	5.6	6	5.8	5.6	5.9	5.8	5.6	4.5	4.4	4.4	125
130				5.8	5.6	5.5	5.9	5.7	5.5	5.5	5.6	5.5	4.4	4.3	4.2	130
135				5.6	5.5	5.4	5.6	5.6	5.4	5	5.4	5.4	4.2	4.2	4.1	135
140				5.4	5.3	5.3	5.2	5.4	5.3	4.4	5	5.2	4	4	4	140
145				5.2	5.1	5.1	4.7	5.1	5.1	3.9	4.4	4.7	3.7	3.9	3.9	145
150				4.7	4.9	4.9	4.2	4.5	4.7	3.4	3.9	4.2	3.2	3.6	3.8	150
155				4.2	4.5	4.6	3.7	4	4.2	2.9	3.4	3.6	2.7	3.2	3.5	155
160				3.8	4	4.1	3.2	3.6	3.7	2.5	2.9	3.1	2.3	2.7	3	160
165				3.4	3.6	3.6	2.8	3.1	3.2	2.1	2.4	2.6	1.9	2.3	2.6	165
170				3	3.2	3.2	2.4	2.7	2.8		2	2.2		1.9	2.1	170
175				2.6	2.8	2.7	2.1	2.3	2.4							175
180				2.3	2.1			1.9	1.9							180

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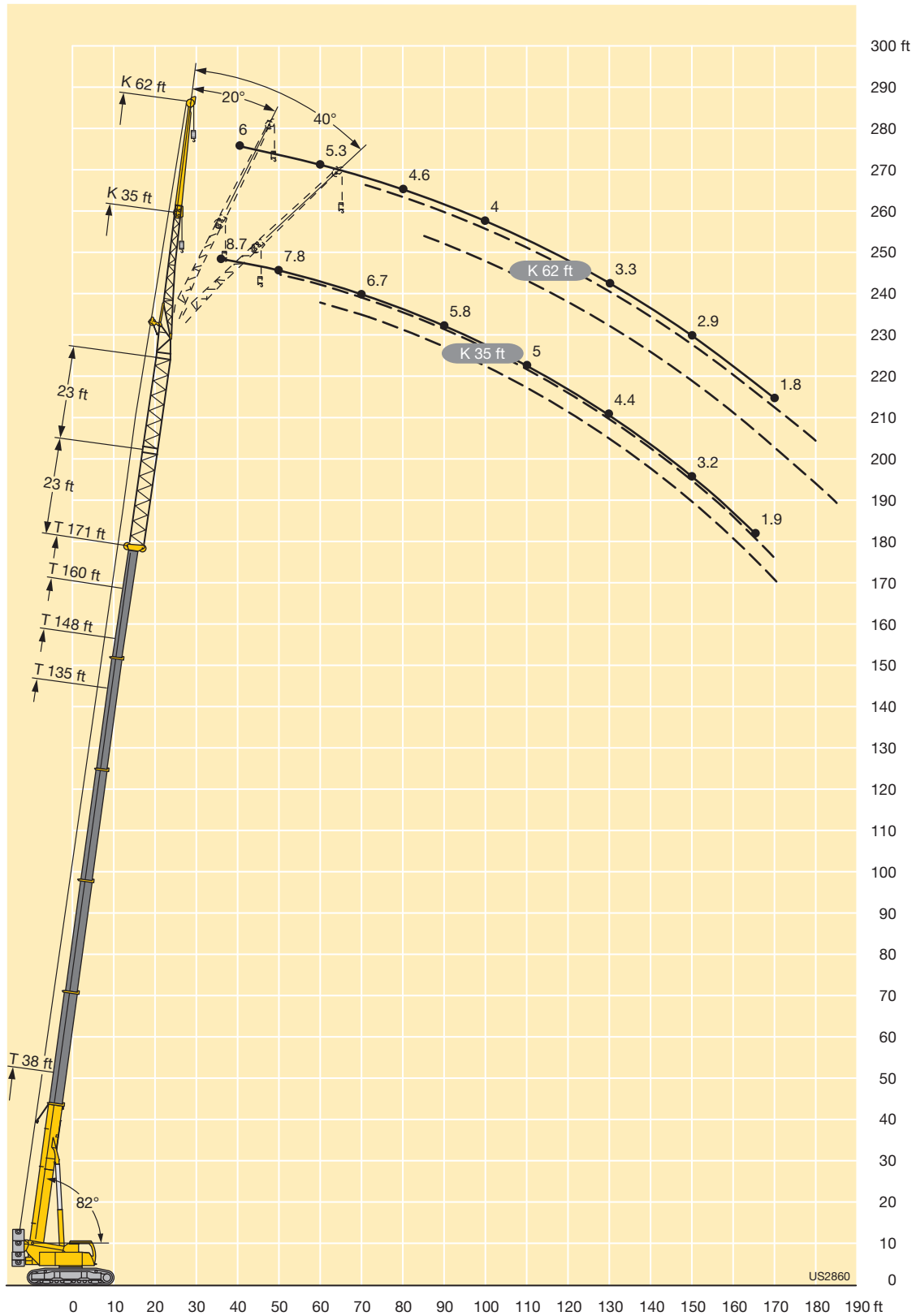
Lifting capacities Forces de levage

TVK



ft	38 ft + 46 ft			162 ft + 46 ft			148 ft + 46 ft			160 ft + 46 ft			171 ft + 46 ft			ft
	62 ft			62 ft			62 ft			62 ft			62 ft			
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	
26	7.5															26
28	7.5															28
30	7.5															30
32	7.3			8.5												32
34	7.1			8.4			8									34
36	7			8.4			7.9									36
38	6.8			8.3			7.9			7.4						38
40	6.7			8.3			7.8			7.3			6			40
45	6.3	6.2		8.2			7.7			7.2			5.9			45
50	6	6		8			7.6			7.1			5.7			50
55	5.6	5.7	5.4	7.8	6.8		7.4			7			5.5			55
60	5.3	5.3	5.3	7.5	6.7		7.2	6.5		6.8			5.3			60
65	4.9	5	5.1	7.3	6.5		7	6.4		6.7	6.2		5.1			65
70	4.6	4.8	4.9	7.1	6.4		6.9	6.3		6.5	6.1		5	4.8		70
75	4.3	4.5	4.6	6.9	6.2	5.5	6.7	6.1	5.4	6.3	5.9		4.8	4.7		75
80	4.1	4.3	4.4	6.7	6.1	5.4	6.5	5.9	5.4	6.2	5.8	5.3	4.6	4.5		80
85	3.8	4	4.2	6.5	5.9	5.3	6.3	5.8	5.3	6	5.6	5.2	4.5	4.4	4.3	85
90	3.6	3.8	4	6.3	5.7	5.3	6.1	5.6	5.2	5.9	5.5	5.2	4.3	4.2	4.2	90
95	3.4	3.5	3.7	6	5.6	5.2	5.9	5.5	5.1	5.7	5.3	5.1	4.2	4.1	4.1	95
100	3.2	3.3	3.4	5.9	5.4	5.1	5.7	5.3	5	5.6	5.2	4.9	4	3.9	3.9	100
105	3	3.1	3.3	5.7	5.2	5	5.6	5.2	4.9	5.4	5	4.8	3.9	3.8	3.8	105
110	2.9	3		5.5	5.1	4.9	5.4	5	4.8	5.3	4.9	4.7	3.8	3.7	3.7	110
115				5.3	4.9	4.7	5.3	4.9	4.7	5.1	4.8	4.6	3.6	3.6	3.6	115
120				5.1	4.8	4.6	5.1	4.8	4.6	5	4.7	4.5	3.5	3.5	3.5	120
125				4.9	4.7	4.5	4.9	4.7	4.5	4.9	4.6	4.4	3.4	3.4	3.4	125
130				4.7	4.5	4.4	4.8	4.5	4.4	4.7	4.5	4.3	3.3	3.2	3.3	130
135				4.5	4.4	4.3	4.6	4.4	4.3	4.6	4.3	4.3	3.2	3.1	3.2	135
140				4.4	4.2	4.2	4.5	4.3	4.2	4.5	4.2	4.2	3.1	3.1	3.1	140
145				4.2	4.1	4.1	4.3	4.2	4.1	4.2	4.1	4.1	3	3	3	145
150				4.1	4	4	4.2	4.1	4	3.9	4	4	2.9	2.9	2.9	150
155				3.9	3.9	3.9	4.1	3.9	3.9	3.4	4	3.9	2.8	2.8	2.9	155
160				3.8	3.7	3.8	3.8	3.8	3.8	3	3.7	3.9	2.5	2.7	2.8	160
165				3.6	3.6	3.6	3.4	3.7	3.7	2.6	3.4	3.7	2.2	2.6	2.7	165
170				3.5	3.5	3.5	3	3.6	3.6	2.2	2.9	3.4	1.8	2.5	2.6	170
175				3.2	3.4	3.5	2.6	3.2	3.5	1.9	2.6	3		2.2	2.6	175
180				2.9	3.2	3.4	2.3	2.8	3.1		2.2	2.6		1.9	2.3	180
185				2.5	2.9	3	2	2.4	2.7		1.8	2.1			1.9	185
190				2.2	2.5	2.6		2.1	2.3							190
195				1.9	2.2	2.2			1.9							195
200					1.9	1.8										200

t_251_005_04111_00_000 / 04211_00_000 / 04311_00_000



Lifting capacities Forces de levage

TVNZK

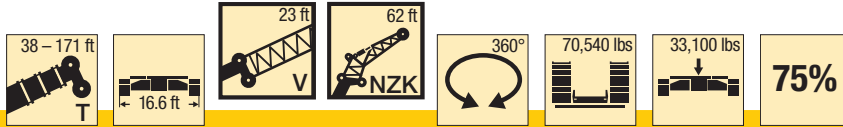


ft	38 ft + 23 ft			135 ft + 23 ft			148 ft + 23 ft			160 ft + 23 ft			171 ft + 23 ft			ft
	35 ft			35 ft			35 ft			35 ft			35 ft			
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	
24	7.8															24
26	7.7															26
28	7.5															28
30	7.4															30
32	7.2	7.2		9												32
34	7	7		9												34
36	6.8	6.9		8.8			8.3									36
38	6.6	6.7		8.7			8.2			6.8						38
40	6.4	6.5	6.6	8.6			8.1			6.7						40
45	6	6	6.2	8.3	7.9		7.8			6.6			5.2			45
50	5.6	5.6	5.8	8	7.7		7.6	7.3		6.6			5.1			50
55	5.2	5.3	5.4	7.7	7.4	7.1	7.4	7.1		6.5	6.5		5	5.2		55
60	4.8	4.9	5	7.5	7.1	6.9	7.1	6.8	6.6	6.5	6.2		5	5.1		60
65	4.4	4.6	4.7	7.2	6.8	6.6	6.9	6.6	6.4	6.3	6	5.8	5	4.9	4.8	65
70	4	4.2	4.4	6.9	6.6	6.4	6.7	6.4	6.2	6.1	5.8	5.6	4.8	4.7	4.7	70
75	3.8	3.9	4.1	6.6	6.3	6.2	6.4	6.1	6	5.9	5.6	5.4	4.6	4.5	4.5	75
80	3.5	3.6	3.7	6.4	6.1	5.9	6.2	5.9	5.8	5.7	5.4	5.3	4.4	4.4	4.3	80
85	3.2	3.4	3.5	6.2	5.9	5.7	6	5.7	5.6	5.5	5.2	5.1	4.2	4.2	4.2	85
90	3	3.1	3.2	5.9	5.7	5.5	5.8	5.5	5.4	5.3	5	4.9	4.1	4	4	90
95	2.8	2.9	2.9	5.7	5.5	5.4	5.6	5.4	5.2	5.1	4.9	4.8	3.9	3.9	3.9	95
100	2.6	2.7	2.7	5.5	5.3	5.2	5.4	5.2	5.1	4.9	4.7	4.6	3.7	3.7	3.7	100
105	2.5	2.5	2.6	5.3	5.1	5	5.2	5	4.9	4.8	4.6	4.5	3.6	3.5	3.6	105
110				5.1	4.9	4.8	5	4.8	4.8	4.6	4.4	4.3	3.5	3.4	3.4	110
115				4.8	4.7	4.7	4.8	4.7	4.6	4.5	4.3	4.2	3.3	3.3	3.3	115
120				4.6	4.5	4.5	4.7	4.5	4.5	4.4	4.1	4.1	3.2	3.2	3.2	120
125				4.4	4.4	4.3	4.5	4.4	4.3	4.2	4	3.9	3.1	3	3.1	125
130				4.2	4.2	4.2	4.3	4.2	4.2	4.1	3.9	3.8	3	2.9	2.9	130
135				4	4	4	4.1	4.1	4.1	3.9	3.8	3.7	2.9	2.8	2.8	135
140				3.9	3.8	3.9	4	3.9	3.9	3.8	3.7	3.6	2.8	2.7	2.7	140
145				3.7	3.7	3.7	3.8	3.8	3.8	3.4	3.6	3.5	2.7	2.6	2.6	145
150				3.6	3.6	3.6	3.7	3.7	3.7	2.9	3.4	3.4	2.5	2.5	2.5	150
155				3.4	3.4	3.4	3.4	3.5	3.5	2.5	3	3.2	2.2	2.4	2.4	155
160				3.3	3.3	3.3	3	3.3	3.4	2.1	2.5	2.8		2.2	2.3	160
165				3.1	3.1	3.1	2.5	2.9	3.1		2.1	2.3		1.8	2.1	165
170				2.7	2.9	3	2.1	2.5	2.7			1.9				170
175				2.3	2.6	2.7	1.8	2.1	2.2							175
180				2	2.2	2.3			1.8							180
185					1.9	1.9										185

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Lifting capacities Forces de levage

TVNZK

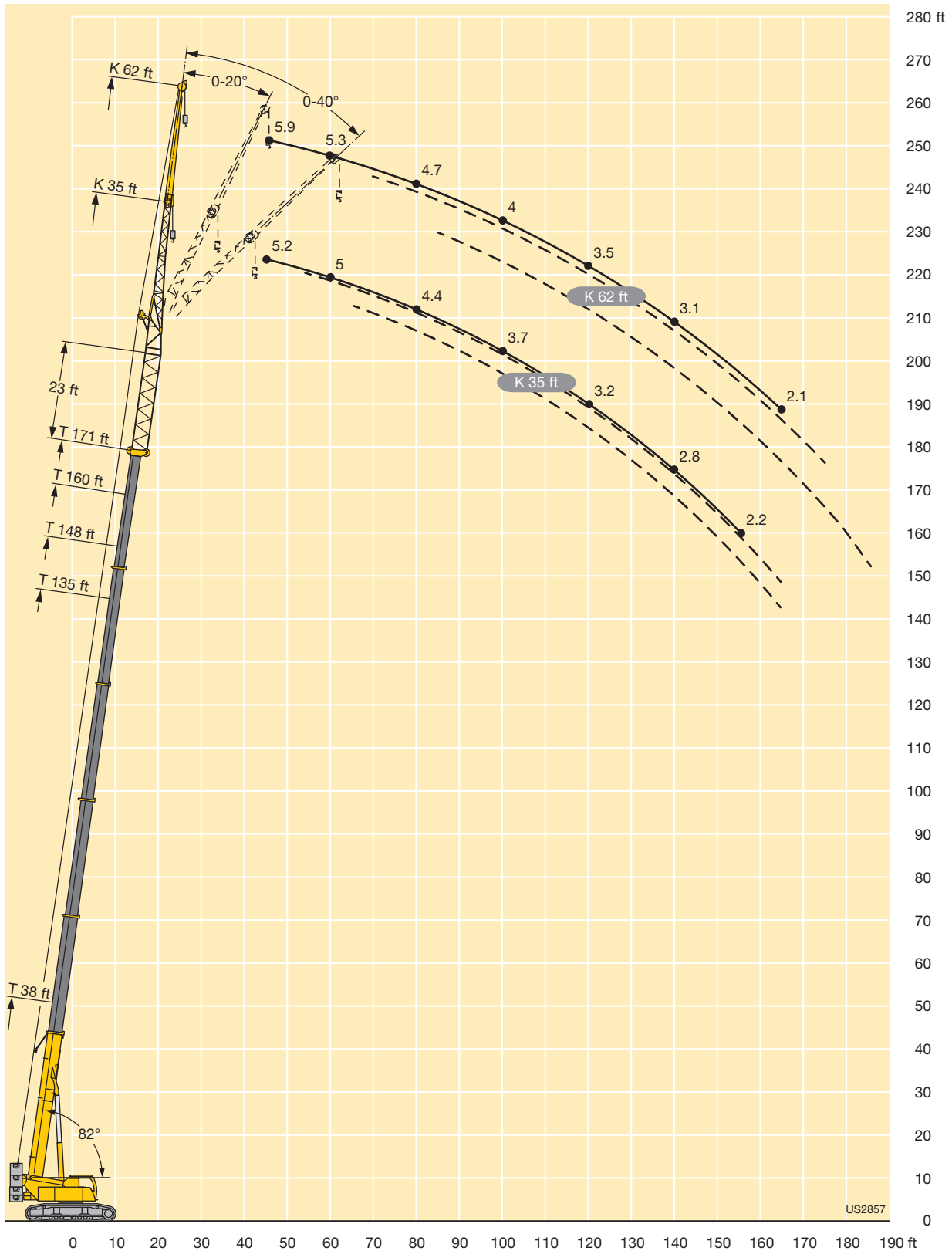


ft	38 ft + 23 ft			135 ft + 23 ft			148 ft + 23 ft			160 ft + 23 ft			171 ft + 23 ft			ft
	62 ft			62 ft			62 ft			62 ft			62 ft			
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	
26	7.4															26
28	7.4															28
30	7.4															30
32	7.3															32
34	7.1			8.4												34
36	6.9			8.3			7.9									36
38	6.8			8.3			7.8									38
40	6.7			8.2			7.8			7.3						40
45	6.3	6.2		8.1			7.6			7.2			5.9			45
50	5.9	5.9		7.9			7.5			7			5.7			50
55	5.6	5.6	5.4	7.7			7.3			6.9			5.5			55
60	5.2	5.3	5.2	7.4	6.6		7.1	6.5		6.7			5.3			60
65	4.9	5	5.1	7.2	6.4		6.9	6.3		6.6	6.1		5.2			65
70	4.5	4.7	4.8	7	6.3		6.8	6.2		6.4	6		5	4.9		70
75	4.2	4.5	4.6	6.8	6.1	5.4	6.6	6	5.4	6.3	5.8		4.9	4.7		75
80	4	4.2	4.4	6.6	6	5.4	6.4	5.9	5.3	6.1	5.7	5.2	4.7	4.6		80
85	3.7	3.9	4.1	6.4	5.8	5.3	6.2	5.7	5.3	5.9	5.5	5.2	4.5	4.4	4.3	85
90	3.5	3.7	3.9	6.2	5.7	5.2	6	5.5	5.2	5.8	5.4	5.1	4.3	4.3	4.2	90
95	3.3	3.4	3.6	6	5.5	5.1	5.9	5.4	5.1	5.6	5.2	5	4.2	4.1	4.1	95
100	3.1	3.2	3.4	5.8	5.3	5.1	5.7	5.2	5	5.5	5.1	4.9	4	4	4	100
105	2.9	3	3.2	5.6	5.2	4.9	5.5	5.1	4.9	5.3	5	4.8	3.9	3.8	3.9	105
110	2.8	2.9		5.4	5	4.8	5.3	4.9	4.8	5.2	4.9	4.7	3.8	3.7	3.8	110
115				5.2	4.9	4.7	5.2	4.8	4.7	5	4.7	4.6	3.7	3.6	3.6	115
120				5	4.7	4.6	5	4.7	4.5	4.9	4.6	4.5	3.5	3.5	3.5	120
125				4.8	4.6	4.5	4.9	4.6	4.4	4.8	4.5	4.4	3.4	3.4	3.4	125
130				4.6	4.4	4.4	4.7	4.4	4.3	4.6	4.4	4.3	3.3	3.3	3.3	130
135				4.4	4.3	4.3	4.5	4.3	4.2	4.5	4.3	4.2	3.2	3.2	3.2	135
140				4.3	4.2	4.2	4.4	4.2	4.1	4.4	4.2	4.1	3.1	3.1	3.1	140
145				4.1	4	4	4.2	4.1	4.1	4.1	4.1	4	3	3	3.1	145
150				4	3.9	3.9	4.1	4	4	3.7	4	4	2.9	2.9	3	150
155				3.8	3.8	3.8	3.9	3.9	3.9	3.3	3.9	3.9	2.8	2.8	2.9	155
160				3.7	3.6	3.7	3.7	3.7	3.8	2.8	3.6	3.8	2.5	2.7	2.8	160
165				3.5	3.5	3.6	3.2	3.6	3.7	2.4	3.2	3.7	2.1	2.6	2.7	165
170				3.4	3.4	3.5	2.9	3.4	3.6	2.1	2.8	3.3		2.5	2.6	170
175				3.1	3.3	3.4	2.5	3.1	3.3		2.4	2.8		2.1	2.5	175
180				2.7	3.1	3.2	2.1	2.7	2.9		2	2.4			2.2	180
185				2.4	2.8	2.9	1.8	2.3	2.5			2			1.8	185
190				2.1	2.4	2.4		1.9	2.1							190
195				1.8	2.1	2										195

t_251_004_04011_00_000

Lifting heights Hauteurs de levage

TVNZK



Lifting capacities Forces de levage

TVNZK

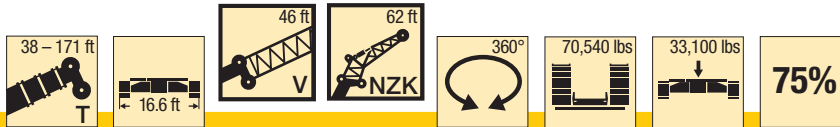


ft	38 ft + 46 ft			135 ft + 46 ft			148 ft + 46 ft			160 ft + 46 ft			171 ft + 46 ft			ft
	35 ft			35 ft			35 ft			35 ft			35 ft			
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	
20	10.7															20
22	10.4															22
24	10															24
26	9.7															26
28	9.4	9.3		12.6												28
30	9.1	9		12.4			11.7									30
32	8.8	8.7		12.2			11.5									32
34	8.5	8.5		12			11.4			10.6						34
36	8.2	8.2	8.2	11.8			11.2			10.4			8.7			36
38	7.9	8	7.9	11.6			11			10.3			8.6			38
40	7.7	7.7	7.7	11.4	10.6		10.9			10.2			8.5			40
45	7.1	7.2	7.1	11	10.2		10.5	9.8		9.8			8.1			45
50	6.6	6.7	6.6	10.6	9.8	8.9	10.1	9.5		9.5	9.1		7.8	7.4		50
55	6.2	6.2	6.2	10.2	9.4	8.7	9.8	9.1	8.6	9.2	8.8		7.5	7.3		55
60	5.8	5.9	5.8	9.8	9	8.4	9.4	8.8	8.3	9	8.5	8	7.2	7	6.8	60
65	5.5	5.6	5.6	9.4	8.6	8.1	9.1	8.5	7.9	8.7	8.2	7.7	7	6.8	6.6	65
70	4.7	5.2	5.3	9	8.3	7.8	8.8	8.2	7.7	8.4	7.9	7.5	6.7	6.5	6.4	70
75	4.4	4.6	4.8	8.6	8	7.5	8.5	7.9	7.5	8.1	7.7	7.3	6.5	6.3	6.1	75
80	4.4	4.4	4.4	8.3	7.7	7.3	8.2	7.6	7.2	7.9	7.4	7	6.2	6	5.9	80
85	4.4	4.4		8	7.4	7	7.9	7.4	7	7.6	7.2	6.8	6	5.8	5.7	85
90				7.7	7.2	6.8	7.6	7.1	6.8	7.4	7	6.6	5.8	5.6	5.5	90
95				7.4	6.9	6.6	7.3	6.9	6.6	7.1	6.8	6.5	5.6	5.4	5.3	95
100				7.1	6.7	6.4	7.1	6.7	6.4	6.9	6.6	6.3	5.4	5.2	5.1	100
105				6.8	6.5	6.2	6.9	6.5	6.2	6.7	6.4	6.1	5.2	5	4.9	105
110				6.6	6.3	6.1	6.6	6.3	6.1	6.5	6.3	6	5	4.8	4.8	110
115				6.4	6.1	5.9	6.4	6.1	5.9	6.4	6.1	5.9	4.9	4.7	4.6	115
120				6.2	6	5.8	6.2	6	5.8	6.2	6	5.7	4.7	4.5	4.5	120
125				6	5.8	5.6	6	5.8	5.6	5.9	5.8	5.6	4.6	4.4	4.4	125
130				5.8	5.6	5.5	5.9	5.7	5.5	5.6	5.6	5.5	4.4	4.3	4.2	130
135				5.6	5.5	5.4	5.6	5.6	5.4	5	5.4	5.4	4.3	4.2	4.1	135
140				5.4	5.3	5.3	5.2	5.4	5.3	4.5	5	5.2	4	4.1	4	140
145				5.1	5.1	5.1	4.7	5.1	5.2	3.9	4.4	4.7	3.7	3.9	3.9	145
150				4.7	4.9	4.9	4.2	4.6	4.7	3.4	3.9	4.1	3.2	3.6	3.8	150
155				4.2	4.5	4.6	3.7	4.1	4.2	2.9	3.3	3.6	2.7	3.2	3.4	155
160				3.8	4.1	4.1	3.2	3.6	3.7	2.5	2.9	3.1	2.3	2.7	3	160
165				3.4	3.6	3.6	2.8	3.1	3.2	2.1	2.4	2.6	1.9	2.3	2.5	165
170				3	3.2	3.2	2.4	2.7	2.7		2	2.1		1.9	2.1	170
175				2.6	2.8	2.7	2.1	2.3	2.3							175
180				2.3	2.1			1.9	1.9							180

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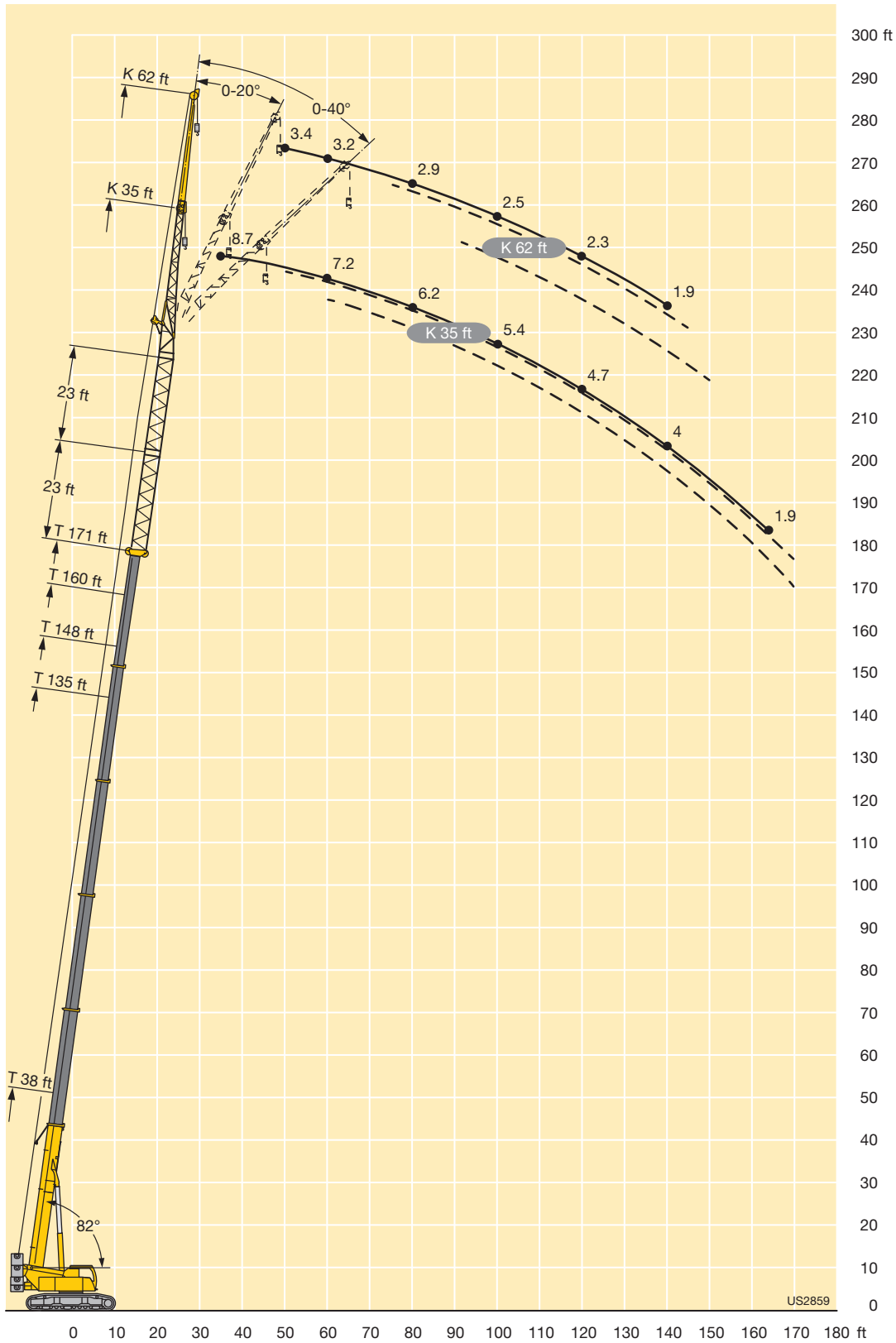
Lifting capacities Forces de levage

TVNZK



ft	38 ft + 46 ft			135 ft + 46 ft			148 ft + 46 ft			160 ft + 46 ft			171 ft + 46 ft			ft
	62 ft			62 ft			62 ft			62 ft			62 ft			
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	
28	5.8															28
30	5.6															30
32	5.5															32
34	5.4															34
36	5.2															36
38	5.1															38
40	5			6.2												40
45	4.6	4.8		6			5.6			4.8						45
50	4.3	4.5		5.8			5.5			4.8			3.4			50
55	4	4.2		5.7			5.3			4.7			3.3			55
60	3.8	3.9	4.1	5.4			5.2			4.5			3.2			60
65	3.5	3.7	3.9	5.3	4.9		5	4.7		4.4			3.1			65
70	3.3	3.5	3.6	5	4.7		4.8	4.6		4.3	4.3		3			70
75	3.1	3.2	3.4	4.9	4.6		4.7	4.4		4.2	4.2		2.9	3.2		75
80	2.9	3	3.2	4.7	4.4	4.2	4.5	4.2		4.1	4.1		2.9	3.1		80
85	2.7	2.9	3	4.5	4.2	4.1	4.3	4.1	4	4	3.9	3.8	2.8	3		85
90	2.6	2.7	2.8	4.3	4.1	3.9	4.2	4	3.8	3.9	3.8	3.7	2.7	2.9	3	90
95	2.5	2.5	2.6	4.1	3.9	3.8	4	3.8	3.7	3.8	3.7	3.6	2.6	2.8	3	95
100	2.4	2.4	2.5	4	3.8	3.7	3.9	3.7	3.6	3.7	3.6	3.5	2.5	2.7	2.8	100
105	2.3	2.3	2.4	3.8	3.6	3.5	3.7	3.5	3.5	3.6	3.4	3.4	2.5	2.7	2.7	105
110	2.2	2.3	2.3	3.7	3.5	3.4	3.6	3.4	3.3	3.5	3.3	3.2	2.5	2.6	2.7	110
115	2.2	2.2	2.2	3.5	3.4	3.3	3.4	3.3	3.2	3.3	3.2	3.1	2.4	2.5	2.6	115
120	2.2	2.2	2.2	3.4	3.2	3.2	3.3	3.2	3.1	3.2	3.1	3	2.3	2.4	2.5	120
125	2.2	2.2	2.2	3.3	3.1	3.1	3.2	3.1	3	3.1	3	2.9	2.2	2.3	2.4	125
130	2.2	2.2		3.1	3	3	3.1	3	2.9	3	2.9	2.8	2.1	2.2	2.3	130
135	2.2	2.2		3	2.9	2.9	3	2.8	2.8	2.9	2.8	2.8	2	2.1	2.2	135
140				2.9	2.8	2.8	2.9	2.8	2.7	2.8	2.7	2.7	1.9	2	2.1	140
145				2.8	2.7	2.7	2.8	2.7	2.7	2.7	2.6	2.6		1.8	2	145
150				2.7	2.6	2.6	2.7	2.6	2.6	2.6	2.5	2.5			1.9	150
155				2.6	2.5	2.5	2.6	2.5	2.5	2.5	2.4	2.4				155
160				2.5	2.4	2.4	2.5	2.4	2.4	2.2	2.4	2.4				160
165				2.4	2.3	2.4	2.4	2.3	2.4	1.8	2.3	2.3				165
170				2.3	2.2	2.3	2.3	2.2	2.3		2.2	2.3				170
175				2.2	2.2	2.2	2	2.2	2.2		1.9	2.2				175
180				2.1	2.1	2.1		2.1	2.2			2				180
185				2	2	2.1		1.9	2.1							185
190					2	2			1.9							190
195					1.8	1.9										195

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Lifting capacities Forces de levage

TK

	38 ft	50 ft	62 ft	74 ft	87 ft	99 ft	111 ft	123 ft	135 ft	148 ft	160 ft	171 ft	
13		76.2	76.2	76.2									13
14	76.2	76.2	76.2	76.2									14
15	76.2	76.2	76.2	76.2	76.2								15
16	75.9	76.2	76.2	76.2	76.2								16
17	75.7	76.2	76.2	76.2	76.2	72.3							17
18	75.4	76.2	76.2	76.2	76.2	71.4							18
19	75.2	76.2	76.2	76.2	76.2	70.5							19
20	74.9	76.1	76.2	76.2	76.2	69.6	58.8						20
22	74.2	75.4	76.2	76.2	76.2	67.4	57.4	47.2					22
24	72.7	74.6	76.2	76.1	76.2	64.8	56	46.4	36				24
26	71	73.8	75.8	76	76.1	62	54.4	45.5	35.4	31.2			26
28	69.2	73	74.9	74.8	73.4	59.3	52.5	44.7	34.8	31			28
30	67	71.9	72.6	72	68	56.5	50.5	43.5	34.1	30.7	24.5		30
32	64.6	68.8	68.7	67	63	54.1	48.6	42.2	33.5	30.5	24.3	19.5	32
34	60.8	63	63.3	62.4	58.8	52.1	46.7	40.8	32.9	30.2	24.1	19.3	34
36	56.5	58	58.3	57.8	55	50.1	44.9	39.4	32.3	30	23.8	19.2	36
38	45.1	53.6	53.9	53.4	51.5	47.8	43.3	38	31.8	29.5	23.6	19	38
40		49.8	50.1	49.6	48.4	45.9	41.8	36.7	31.2	28.9	23.4	18.8	40
45		42	42.2	41.8	41.5	41.5	38.1	33.8	29.7	27.3	22.6	18.4	45
50		35.9	36.2	36.3	36.7	35.7	34.3	31.1	27.8	25.7	21.8	18.1	50
55			31.5	32.4	31.9	31	30.7	28.5	25.8	24.1	20.9	17.7	55
60			28.6	28.6	28.1	27.4	26.9	26	23.8	22.6	20	17.3	60
65				25.4	24.9	24.3	24.3	23.8	22.1	21.1	18.9	16.7	65
70				22.7	22.2	22.2	22.1	21.2	20.5	19.6	17.9	15.9	70
75					19.9	20.2	19.8	19	18.8	18.3	16.9	15.1	75
80					18	18.6	17.8	17	17.4	16.7	15.9	14.2	80
85					16.9	16.9	16.1	15.7	15.7	15.6	15.1	13.5	85
90						15.4	15	14.9	14.2	14.6	13.9	12.8	90
95						14.1	13.8	13.7	13.4	13.3	12.5	12.1	95
100							12.6	12.4	12.4	12.1	11.3	11.2	100
105							12	11.3	11.3	10.9	10.2	10.1	105
110							11.1	10.7	10.4	9.9	9.2	9.1	110
115								10.1	9.5	9	8.2	8.2	115
120								9.2	8.6	8.1	7.4	7.4	120
125									7.9	7.3	6.6	6.6	125
130									7.2	6.6	5.9	5.9	130
135									6.5	6	5.3	5.2	135
140										5.4	4.6	4.6	140
145										4.8	4.1	4	145
150											3.6	3.5	150
155											3.1	3.1	155
160											2.7	2.6	160
165												2.2	165
170												1.9	170

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Lifting capacities Forces de levage

TK

	38 ft	50 ft	62 ft	74 ft	87 ft	99 ft	111 ft	123 ft	135 ft	148 ft	160 ft	171 ft	
10	76.2	76.2	76.2	76.2									10
11	76.2	76.2	76.2	76.2									11
12	76.2	76.2	76.2	76.2	76.2								12
13	76.2	76.2	76.2	76.2	76.2								13
14	76.2	76.2	76.2	76.2	76.2								14
15	76.2	76.2	76.2	76.2	76.2	74.2							15
16	75.9	76.2	76.2	76.2	76.2	73.3							16
17	75.7	76.2	76.2	76.2	76.2	72.3							17
18	75.4	76.2	76.2	76.2	76.2	71.4	60						18
19	75.2	76.2	76.2	76.2	76.2	70.5	59.4						19
20	74.9	76.1	76.2	76.2	76.2	69.6	58.8	37.7					20
22	74.2	75.4	76.2	76.2	76.2	67.4	57.4	47.2					22
24	72.7	74.6	76.2	76.1	76.2	64.8	56	46.4	36				24
26	71	73.8	75.5	73.6	70.8	62	54.4	45.5	35.4	31.2			26
28	69.2	72.8	72.7	69.5	65.1	59.3	52.5	44.7	34.8	31			28
30	66.4	67.5	67.5	64	60.3	56.2	50.5	43.5	34.1	30.7	24.5		30
32	60.6	61.3	61.6	59.4	55.7	52.3	48.6	42.2	33.5	30.5	24.3	19.5	32
34	55.4	56.1	56.3	55.3	51.9	49.4	46.7	40.8	32.9	30.2	24.1	19.3	34
36	50.8	51.5	51.8	51.3	48.5	47.5	44.6	39.4	32.3	30	23.8	19.2	36
38	45.1	47.6	47.8	47.4	45.3	44.9	42.1	38	31.8	29.5	23.6	19	38
40		44.1	44.4	43.9	44	42.1	40	36.7	31.2	28.9	23.4	18.8	40
45		37	37.3	38.1	37.8	36.5	34.8	32.8	29.7	27.3	22.6	18.4	45
50		31.6	32.7	32.8	32.3	31.6	30.5	29.8	27.8	25.7	21.8	18.1	50
55			28.6	28.5	28	27.9	27.5	26.3	24.8	24.1	20.9	17.7	55
60			25.1	25	24.5	24.5	24.4	23.3	22.7	21.8	20	17.3	60
65				22.2	21.8	22.4	21.5	20.8	20.8	19.4	18.9	16.7	65
70				19.8	19.7	19.9	19.3	19.1	18.7	18.2	17.4	15.9	70
75					18.4	17.8	17.5	17.3	16.9	16.9	15.6	15	75
80					16.6	16.1	15.8	15.6	15.6	15.3	14.1	13.7	80
85					15.1	14.6	14.5	14.2	14.2	13.8	12.7	12.4	85
90						13.2	13.4	13.3	12.9	12.3	11.4	11.1	90
95						12.1	12.2	12.2	11.6	11.1	10.3	10	95
100							11.1	11	10.4	9.9	9.2	9	100
105							10.2	10	9.4	8.9	8.1	8.1	105
110							9.3	9.1	8.5	8	7.2	7.2	110
115								8.2	7.6	7.1	6.4	6.4	115
120								7.5	6.9	6.4	5.6	5.6	120
125									6.2	5.7	4.9	4.9	125
130									5.5	5	4.3	4.2	130
135									5	4.4	3.7	3.7	135
140										3.9	3.1	3.1	140
145										3.4	2.6	2.6	145
150											2.2	2.1	150
155											1.8		155

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Lifting capacities Forces de levage

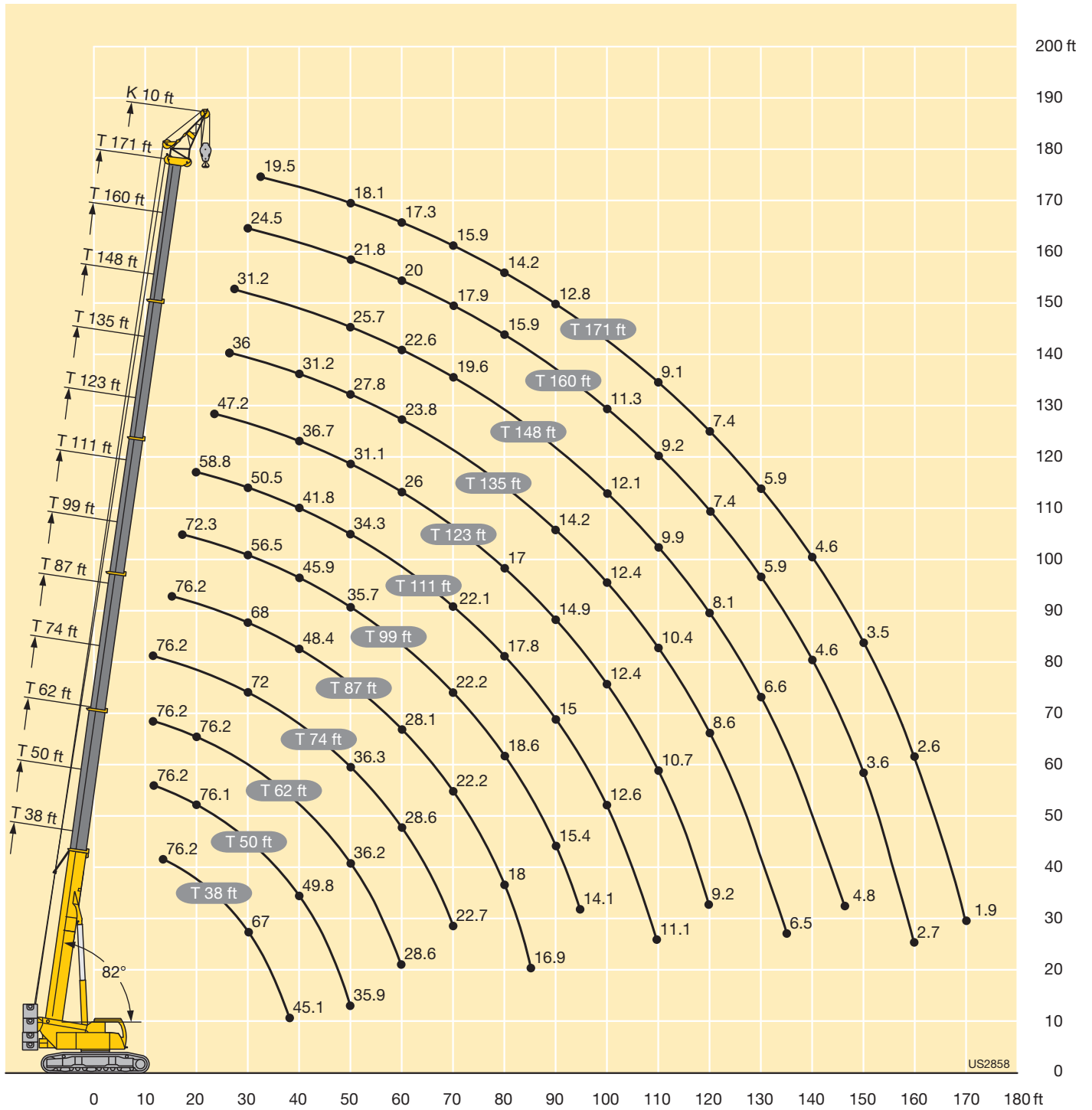
TK

	38 ft	50 ft	62 ft	74 ft	87 ft	99 ft	111 ft	123 ft	135 ft	148 ft	160 ft	171 ft	
10	76.2	76.2	76.2	76.2									10
11	76.2	76.2	76.2	76.2									11
12	76.2	76.2	76.2	76.2	76.2								12
13	76.2	76.2	76.2	76.2	76.2								13
14	76.2	76.2	76.2	76.2	76.2								14
15	76.2	76.2	76.2	76.2	76.2	74.2							15
16	75.9	76.2	76.2	76.2	76.2	73.3							16
17	75.7	76.2	76.2	76.2	76.2	72.3							17
18	75.4	76.2	76.2	76.2	76.2	71.4	60						18
19	75.2	76.2	76.2	76.2	76.2	70.5	59.4						19
20	74.9	76.1	76.2	76.2	76.2	69.6	58.8	37.7					20
22	74.2	75.4	76.2	76.1	73.8	67.4	57.4	47.2					22
24	72.7	74.6	74.8	72.6	67.7	63	56	46.4	36				24
26	71	72.2	70.4	66.3	61.8	57.6	54.4	45.5	35.4	31.2			26
28	65.2	66	64.4	60.8	56.7	54.1	51.8	44.7	34.8	31			28
30	58.6	59.3	59.1	55.9	52.4	51.3	48.4	43.5	34.1	30.7	24.5		30
32	53.1	53.8	54.1	51.8	49.6	47.6	45.4	42.2	33.5	30.5	24.3	19.5	32
34	48.4	49.1	49.4	48.1	47	44.5	42.2	39.8	32.9	30.2	24.1	19.3	34
36	44.3	45	45.3	44.6	44.2	41.7	39.4	37.5	32.3	30	23.8	19.2	36
38	40.7	41.5	41.8	42.4	41.3	39.1	37	35.9	31.8	29.5	23.6	19	38
40		38.4	38.7	39.6	38.9	36.6	35.2	33.8	31.2	28.9	23.4	18.8	40
45		32.1	33.4	33.3	32.8	32.4	31.2	29.1	28	27.1	22.6	18.4	45
50		27.8	28.5	28.5	28.1	28	27.2	26.1	25.1	23.6	21.8	18.1	50
55			24.6	24.6	24.3	24.8	24.2	23.2	22.1	21.6	20.6	17.7	55
60			21.5	21.5	22.2	21.7	21.4	20.7	20.1	19.6	18.2	17	60
65				18.9	19.6	19.1	18.8	18.7	18.4	17.4	16.1	15.7	65
70				17.4	17.5	16.9	17.2	17.2	16.6	15.5	14.2	13.9	70
75					15.6	15.1	15.3	15.4	14.8	13.9	12.7	12.3	75
80					14	14.2	13.9	13.7	13.2	12.4	11.2	10.9	80
85					12.7	12.8	12.6	12.4	11.8	11.1	10	9.7	85
90						11.6	11.3	11.1	10.5	10	8.9	8.6	90
95						10.5	10.2	9.9	9.3	8.8	7.8	7.6	95
100							9.1	8.9	8.3	7.8	6.9	6.7	100
105							8.2	7.9	7.4	6.8	6.1	5.9	105
110							7.4	7.1	6.5	6	5.3	5.1	110
115								6.4	5.8	5.3	4.5	4.4	115
120								5.7	5.1	4.6	3.8	3.8	120
125									4.5	4	3.2	3.2	125
130									3.9	3.4	2.7	2.6	130
135									3.4	2.9	2.1	2.1	135
140										2.4			140
145										2			145

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Lifting heights Hauteurs de levage

TK



Technical description

Description techniques

Crawler travel gear

Frame	Low torsion box construction, consisting of crawler center section and two crawler carriers. The crawler carriers can be removed from the telescoping beams. Hydraulic track width adjustment.
Tracks	Maintenance free crawler tracks with 2'11" wide triple grouser track pads.
Travel drive	Per crawler carrier, a hydraulic travel drive consisting of an axial piston motor, planetary gear with spring-loaded hydraulically-releasable travel brake. The crawler chains can be controlled synchronously as well as independently and counter-rotating. Travel speed: 0 – 1.7 mph.
Central ballast	33,080 lbs, placement blocks at 16,540 lbs each, mounting on crawler center section.

Crane superstructure

Frame	Liebherr-manufactured, torsionally rigid steel construction made from high-tensile fine-grain steel. Triple-roller slewing rim.
Crane engine	4-cylinder Diesel, make Liebherr, water-cooled, output 129 kW (175 h.p.), max. torque 908 lbs-ft. Exhaust emissions acc. to 97/68/EG, EPA/CARB, ECE-R.96. Fuel reservoir: 192 gallons.
Crane drive	Diesel-hydraulic, with 2 axial piston variable displacement pumps, with servo-control and capacity control, 1 double gear pump, open controlled oil circuits. Compact hydraulic drive flanged to the Diesel engine. Drive assembly completely enclosed for noise abatement.
Control	Electric "Load Sensing" control, simultaneous operation of 4 working motions, 2 self-centering hand control levers (joy-stick type). The crawler travel gear is operated via the 2 two-way controllable foot pedals. The crawler travel gear and the crane superstructure can be driven simultaneously.
ECOmode	Automatic adaption of the diesel engine speed, fuel saving and reduction of the noise emission.
Hoist gear	Axial piston fixed displacement motor, Liebherr hoist drum with integrated planetary gear and spring-loaded static brake.
Luffing gear	1 differential ram with safety check valves.
Slewing gear	Axial piston fixed displacement motor, planetary gear, spring-loaded static brake, slewing gear invertible.
Crane cab	Large screen area, compound glass, comfort furnishing, cab tiltable backwards.

Safety devices	LICCON2 safe load indicator, test system hoist limit switch, safety valves to prevent pipe and hose ruptures.
Telescopic boom	1 base section and 5 telescopic sections. All telescopic sections extendable individually by means of the rapid-cycle telescoping system Telematik. Boom length: 38 ft – 171 ft.
Counterweight	57,320 lbs
Electrical system	Modern data bus technique, 24 Volt DC, 2 batteries of 170 Ah each.
Lateral inclination	0.3°, 1.5°, 2.5° and 4° lateral inclination on tables for the telescopic boom and 9'6" folding jib.

Additional equipment

Swing-away jib K/NZK	35 ft – 62 ft long, mountable to the telescopic boom at 0°, 20° or 40°. Hydraulic ram for operating the swing-away jib from 0° – 40° (option).
Erection jib K	9'6" with steel cable pulleys.
2nd hoist gear	For two-hook operation or for operation with swing-away jib if the hoist rope shall remain reeved.
Additional counterweight	13,220 lbs for a total counterweight of 70,540 lbs.
Jack-up cylinder incl. folding brackets	For crawler removal, flatbed trailer transit height 3'7", flatbed trailer transit width 9'10".
Track pads	2'11" flat track pads.

Other items of equipment available on request.

The pictures contain also accessories and special equipment not included in the standard scope of delivery.

Technical description Description techniques

Train de chenilles

Châssis	Construction en caisson indéformable haute résistance, constitué de la partie centrale du train de roulement et de deux longerons. Les longerons peuvent être démontés des poutres télescopiques. Réglage hydraulique de la voie.
Train de roulement	Train de roulement sans entretien, muni de tuiles à 3 nervures, de 2'11" de large.
Transmission	Une transmission hydraulique par longeron, comprenant un moteur à cylindrée variable et pistons axiaux, un réducteur planétaire avec frein à ressort et à déblocage hydraulique. Les chaînes sont synchrones, indépendantes et une commande inversée est possible. Vitesse de translation: 0 – 1.7 mph.
Contrepoids central	33,080 lbs, blocs de suspension de 16,540 lbs chacun, fixation sur la partie centrale du train de roulement.

Partie tournante

Cadre	Fabrication Liebherr, construction soudée indéformable, en acier à grain fin haute résistance. Couronne d'orientation à triple rangée de rouleaux.
Moteur	Moteur diesel Liebherr, 4 cylindres, à refroidissement par eau, de 129 kW (175 ch), couple max. 908 lbs-ft. Emissions des gaz d'échappement conformes aux directives 97/68/EG, EPA/CARB, ECE-R.96. Capacité du réservoir à carburant: 192 gallons.
Entraînement de la grue	Diesel hydraulique avec 2 pompes à débit variable à pistons axiaux, servocommande et régulation de la puissance, 1 double pompe à engrenages, circuits hydrauliques ouverts et régulés. Entraînement hydraulique compact, accouplé directement au moteur Diesel, mécanisme d'entraînement total fermé pour une bonne insonorisation.
Direction	Direction électrique «Load Sensing», 4 mouvements de travail dirigeable simultanément, deux leviers de commande à 4 positions et à autocentrage. Le train de chenilles est actionné par 2 pédales à double commande. Le train de chenilles et la partie tournante de la grue peuvent être déplacés simultanément.
Mode ECO	Adaptation automatique du régime du moteur diesel, économie de carburant et réduction des émissions sonores.
Mécanisme de levage	Moteur à cylindrée constante et à pistons axiaux. Treuil de marque Liebherr équipé d'un engrenage planétaire et d'un frein d'arrêt commandé par ressort.
Mécanisme de relevage	1 vérin différentiel avec soupapes de retenu.

Dispositif de rotation	Moteur à cylindrée constante à pistons axiaux, engrenage planétaire, frein d'arrêt commandé par ressort, mécanisme d'orientation commutable.
Cabine du grutier	Large champ de vision, vitrage de sécurité, équipement pour un confort idéal, cabine inclinable vers l'arrière.
Dispositif de sécurité	Contrôleur de charge «LICCON2», système test limitation de la course pour le levage, soupape de sûreté contre la rupture de tubes et de tuyaux.
Flèche télescopique	Un élément de base et de 5 télescopes. Chaque partie peut être télescopée individuellement à l'aide du système de télescopage séquentiel rapide Telematik. Longueur de flèche: 38 ft – 171 ft.
Contrepoids	57,320 lbs
Installation électrique	Technique moderne de transmission de données par BUS de données. Courant continu 24 Volts, 2 batteries de 170 Ah chacune.
Inclinaison latérale	Inclinaison latérale de 0,3°, 1,5°, 2,5° et 4° avec les tableaux correspondants à la flèche télescopique et à la fléchette pliante de 9'6".

Équipement supplémentaire

















Fléchette pliante K/NZK	Longueur: 35 ft – 62 ft, montable sous un angle de 0°, 20° ou 40°. Vérin hydraulique pour le relevage de la fléchette pliante de 0° à 40° (en option).
Fléchette de montage K	9'6" avec poulies de câble en acier.
2ème mécanisme de levage	Pour l'utilisation du deuxième crochet, ou bien pour une utilisation avec fléchette pliante lorsque le câble de levage principal rest mouflé.
Contrepoids supplémentaire	13,220 lbs pour un contrepoids total de 70,540 lbs.
Vérin Jack-up, consoles rabattables incl.	Pour le démontage des chenilles, hauteur de passage des remorques surbaissées 3'7", largeur de passage des remorques surbaissées 9'10".
Tuiles	Tuiles plates de 2'11".

Autres équipements supplémentaires sur demande.






Les figures contiennent également des accessoires et des équipements spéciaux non inclus de série dans la livraison.

Description of symbols Explication des symboles

General symbols Symboles généraux

	Radius Portée		Width crawler chassis Largeur du train de chenilles
	Boom length Longueur de la flèche		Total weight Poids total
	Boom position Position de la flèche		Hookblock / Capacity Moufle à crochet / Capacité de charge
	Ground pressure Pression au sol		Hoist gear Treuil de levage
	Slewing gear / Working area Mécanisme d'orientation / Plage de travail		Crane superstructure Partie tournante de la grue
	Driving speed Vitesse de translation		Standard Norme
	Counterweight Contrepoids		Gradability Aptitude à gravir les pentes
	Central ballast Contrepoids central		Driving force Puissance propulsive

Crane specific symbols Symboles spécifiques à la grue

	Telescopic boom Flèche télescopique		Telescopic boom extension Rallonge fleche telescopique
	Swing away jib Fléchette pliante		Erection jib Fléchette de montage
	Hydraulic swing away jib Fléchette pliante hydraulique		

Remarks referring to load charts

1. The lifting capacities do not exceed 75 % of the tipping load according to ASME B 30.5.
The crane's structural steelwork is in accordance with EN 13000 and ASME B 30.5.
2. For the calculation of the load charts at least a wind speed of 30 ft/s (9 m/s, 20.1 mph) and regarding the load a sail area of 1 m² per ton load and a wind resistance coefficient of 1.2 on the load have been taken into account. For lifting of loads with large sail areas and/or high wind resistance coefficients the maximum wind speed as stated in the load charts has to be reduced.
3. Lifting capacities are given in kips.
4. The weight of the hook blocks and hooks is part of the load and therefore it must be deducted from the lifting capacities.
5. Working radii are measured from the slewing centre.
6. The lifting capacities given for the telescopic boom apply if the folding jib is removed.
7. Lifting capacities above 183,000 lbs only with additional pulley block.
8. Lateral inclination $\pm 0.3^\circ$.
9. The data of this brochure serves only for general information. All information is provided without warranty. Instructions for the correct commissioning of the crane please take from the operation manual and the load chart book.

Remarques relatives aux tableaux des charges

1. La capacité de charge ne doit pas dépasser 75 % de la charge de basculement conformément à ASME B 30.5.
La structure métallique de la grue est conforme à EN 13000 et ASME B 30.5.
2. Une vitesse de vent de 30 ft/s (9 m/s, 20.1 mph) minimum, une surface de prise au vent de 1 m² par tonne ainsi qu'un coefficient de résistance au vent de la charge 1,2 sont pris en compte pour le calcul des tableaux de charge. Lorsque des charges ayant une surface de prise au vent et/ou un coefficient de résistance au vent plus élevé(e)(s) sont levées, la vitesse de vent maximale indiquée dans les tableaux de charge doit être réduite.
3. Les charges sont indiquées en kips.
4. Le poids du crochet de levage resp. de la moufle à crochet est une partie de la charge et doit donc être déduit de la capacité de charge.
5. Les portées sont calculées à partir de l'axe de rotation.
6. Les charges indiquées pour la flèche télescopique sont valables lorsque la fléchette pliante est démontée.
7. Forces de levage plus de 183,000 lbs seulement avec moufle additionnel.
8. Inclinaison latérale $\pm 0,3^\circ$.
9. Les données de cette brochure sont données à titre informatif. Ces renseignements sont sans garantie. Les consignes relatives à la bonne mise en service de la grue sont disponibles dans le manuel d'utilisation et le manuel de tableaux de charge.

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