



125 USt



197 ft



217 ft



299 ft

Engineered for the future, built on experience

LTM 1110-5.2

Mobile crane

Grue mobile

LIEBHERR

Improved load capacity

Capacités de charge améliorées

Mobile and crawler cranes



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Description of symbols

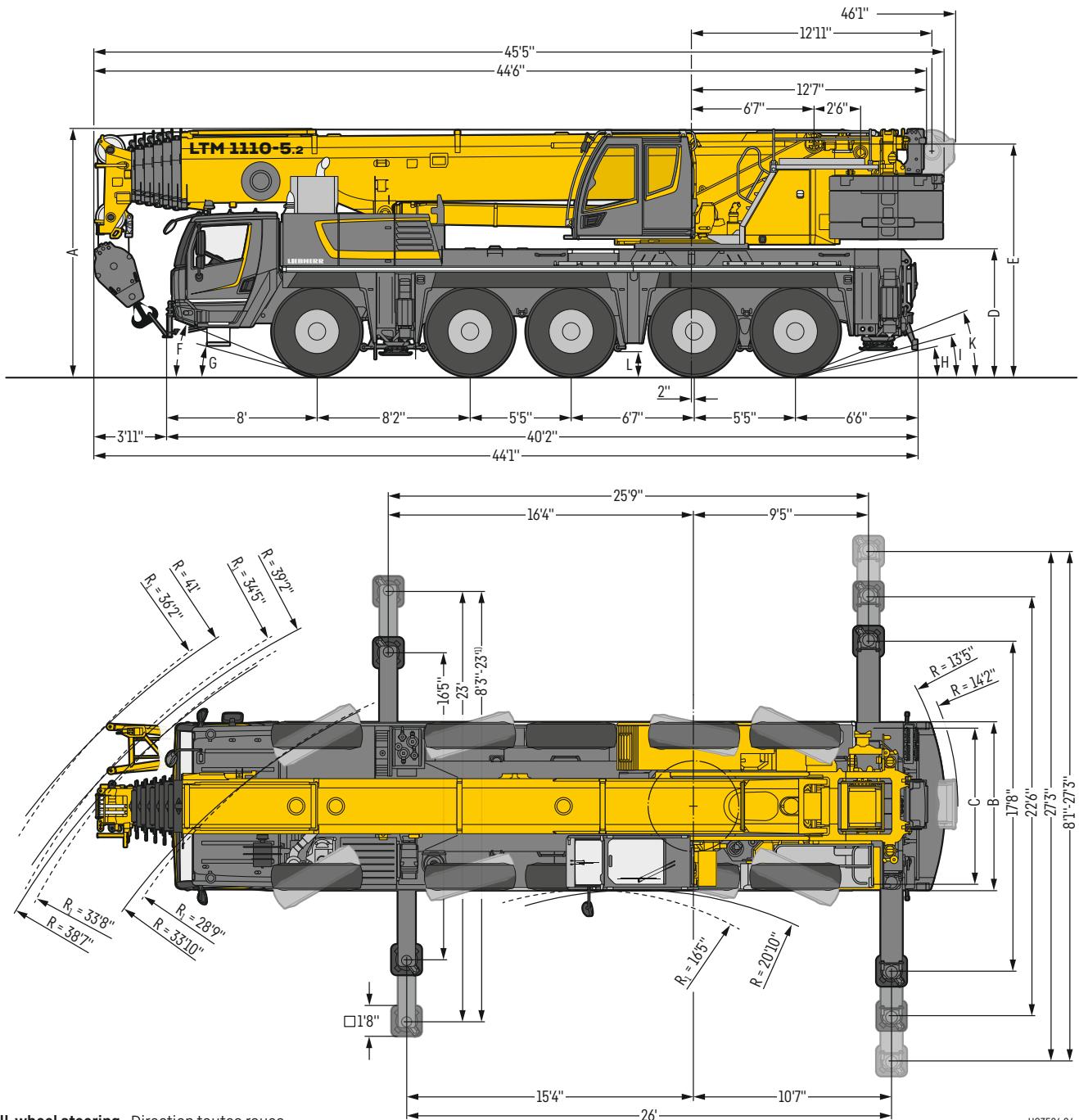
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Dimensions

Encombrement



Dimensions · Encombrement

Symbol	A	A 5"*	B	C	D	E	F	G	H	I	K	L
445/95 R 25 (16.00 R 25)	13'1"	12'9"	9'	7'7"	6'9"	12'4"	23°	16°	12°	15°	21°	1'3"
525/80 R 25 (20.5 R 25)	13'1"	12'9"	9'4"	7'7"	6'9"	12'4"	23°	16°	12°	15°	21°	1'3"

* lowered · abaissé

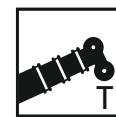
LTM 1110-5.2

LICCON3

The third generation LICCON control system features the same time-tested operation as previous generations and adds a fast data bus, significantly more storage space and greater computing power. LICCON3 cranes are prepared for telemetry and fleet management.

La troisième génération de la commande LICCON est basée sur la commande éprouvée et marque des points avec un bus de données plus rapide, un espace de stockage nettement plus grand et une puissance de calcul plus importante. Les grues LICCON3 sont préparées pour la télémétrie et la gestion de flotte.





197 ft



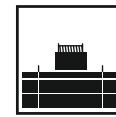
35 ft - 62 ft



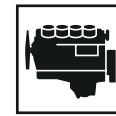
2 x 23 ft



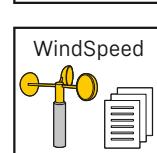
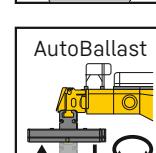
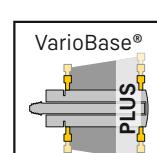
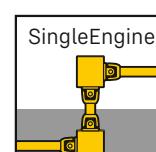
9 ft 6 in



63,900 lb



400 kW (544 h.p.)



New products

Nouveautés



Modern design featuring premium materials and timeless form.

Design moderne grâce à des matériaux de qualité supérieure et une ligne intemporelle.



Ergonomic features such as a side window roller blind and central locking system with remote control key (option).

Détails ergonomiques comme un store latéral et un système de fermeture centrale avec une radiocommande (option).



Spacious driver's cab with lots of useful trays and storage compartments.

Cabine du grutier avec de nombreuses tablettes et de nombreux compartiments de rangement utiles.

Multifunction steering wheel and multifunction display, for example, to control the cruise control function and display the tyre pressures (option).

Volant multifonctions et affichage multifonctions par exemple pour la commande de la fonction régulateur de vitesse et affichage de la pression des pneumatiques (option).

Simple, fast control of all main functions using key modules.

Commande simple et rapide de toutes les fonctions importantes avec des modules de touches.

Functional crane operator's cab with great visibility and useful storage trays, can be tilted 20° backwards.

Cabine de grue fonctionnelle avec un vaste champ de vision et des tablettes utiles, inclinables de 20° en arrière.



Intuitive control using simple key modules, interactive display and time-tested components.

Commande intuitive avec un module de touches simple, un affichage interactif et des composants éprouvés.



LED driving light (option) to improve visibility and durability.

Feux de route version LED (option) pour une meilleure visibilité et une meilleure longévité.



LED working light to perfectly illuminate the complete working area.

Éclairage de travail LED pour un éclairage optimal de la zone de travail complète.



ZF-TraXon

DynamicPerform

ECOdrive
TRAXON
DynamicPerform

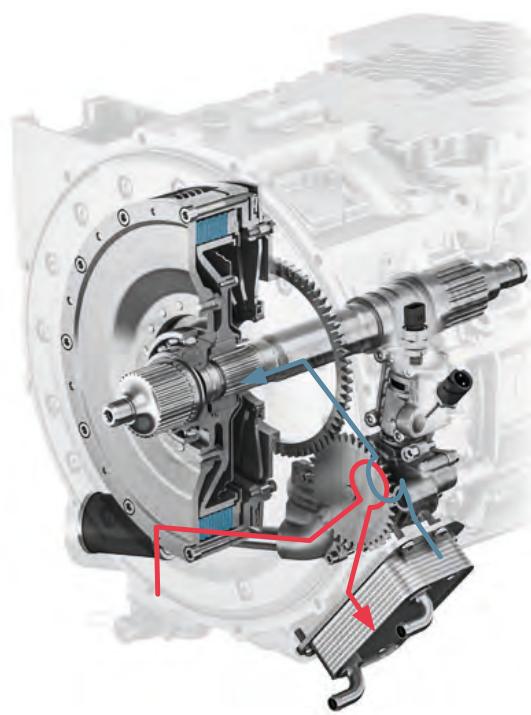
Automated shift gearbox, Oil-cooled multi-disk clutch,
Boîte de vitesses automatisée, Embrayage multidisque sous bain d'huile

Wet multidisks ensure durable starts and wear-free maneuvering

Le multidisque humide garantit un démarrage durable et un maniement sans usure

Cooling oil circuit prevents overheating and downtime

Le circuit d'huile de refroidissement protège contre surchauffes et temps d'arrêt



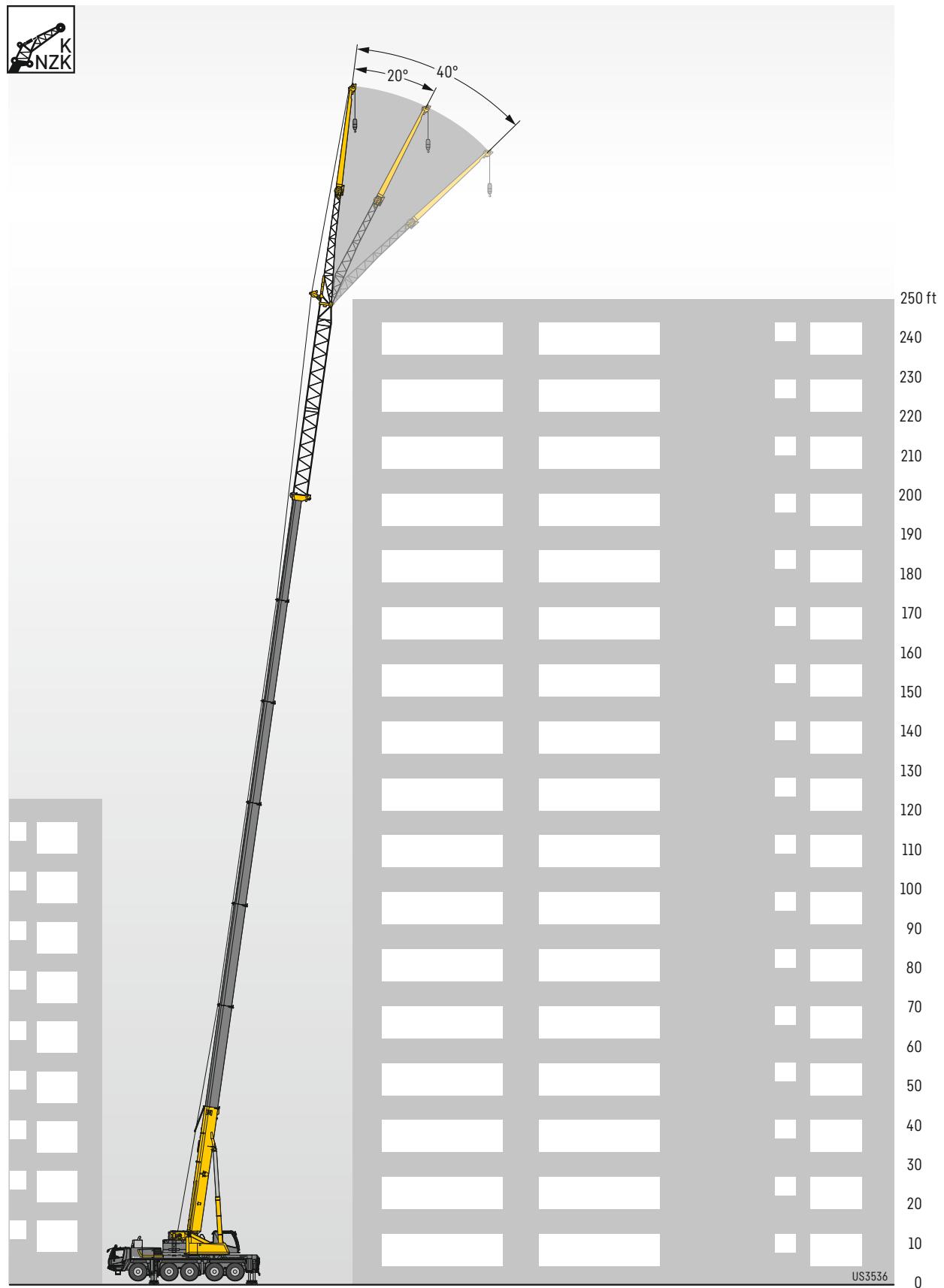
Hillstart-Aid makes starting on gradients easier. Move off safely and easily without rolling backwards.

La fonction Hillstart-Aid facilite le démarrage en côte.
Démarrage sûr et facile sans recul du véhicule.



Mechanically/hydraulically adjustable folding jib

Pointe pliante réglable mécaniquement/hydrauliquement



Practical work equipment

Équipement de travail pratique

- Mechanically or hydraulically adjustable double swing-away jib (option)
- Greater working range and working over difficult edges
- Interchangeable with many of the crane models

- Double fléchette pliante réglable mécaniquement et hydrauliquement (option)
- Grande zone de travail et travail au-dessus d'arêtes gênantes
- Échangeable avec de nombreux autres types de grue



Far away, yet very close

Loin et pourtant si proche

Camera system for telescopic boom and equipment including colour monitor (option)

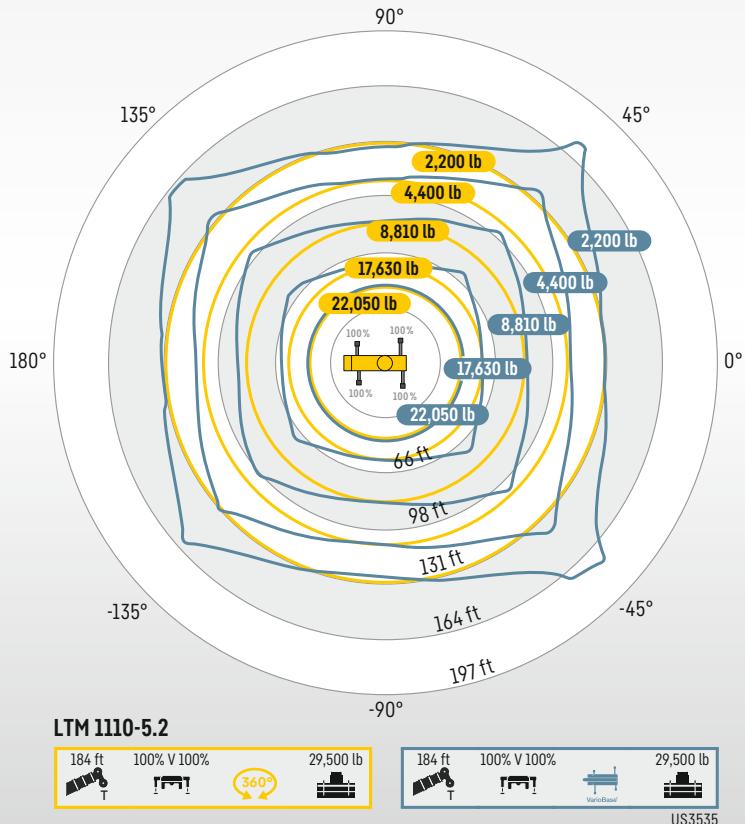
- Ideal for working over difficult edges
- Helpful zoom function

Système de caméra pour flèche télescopique et équipement avec écran couleur (option)

- Idéal pour travailler au-dessus d'arêtes gênantes
- Fonction zoom pratique

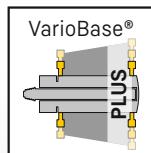


VarioBase® Plus



Greater safety in constricted working conditions
Plus de sécurité dans les zones de travail étroites

Higher lifting capacity and larger working range
Une capacité plus importante et une zone de travail plus large

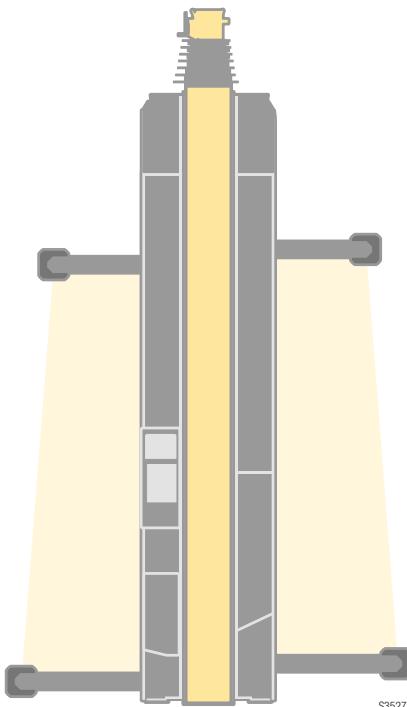


Greater safety

The maximum lifting capacities are calculated individually and precisely for every situation. This ensures safe working practice with any chosen support base.

Sécurité accrue

Les charges autorisées sont calculées individuellement et en fonction de la situation actuelle. Les opérations sont ainsi sécurisées avec chaque base de calage au choix.



Crane data

Dates de la grue

Hook block · Moufles à crochet

			
181,200 lb	7	12	2,750 lb
167,300 lb	5	11	2,100 / 1,650 lb
109,550 lb	3	7	1,550 / 1,100 lb
48,500 lb	1	3	990 lb
16,300 lb	-	1	550 lb

Crane carrier · Châssis porteur

	 min.	 max.	 %		
445/95 R 25 (16.00 R 25)	0.3	53	56,5		12 / R2
525/80 R 25 (20.5 R 25)	0.3	53	56,5		4 / R2

Theoretical gradeability - aptitude théorique en pente

Max. supporting forces · Forces d'appui max.

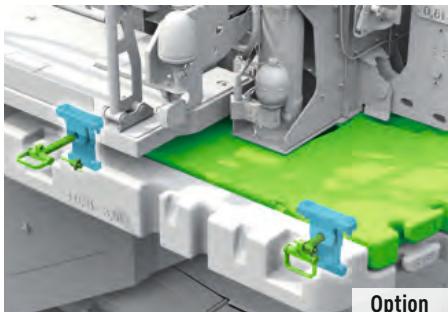
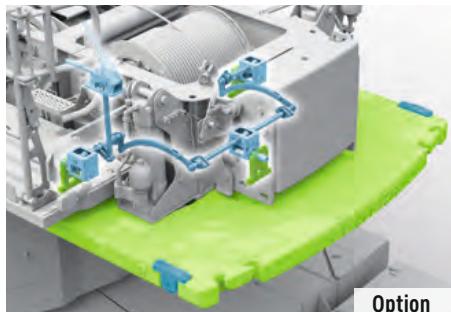
		
F _{max}	130,000 lb	162,000 lb

Crane superstructure · Partie tournante

				
	0 - 410 ft/min single line · au brin simple	19 mm	820 ft	16.635 lb
	0 - 410 ft/min single line · au brin simple	19 mm	820 ft	16.635 lb
	0 - 1.4 rpm			
	approx. 45 seconds to reach 83° boom angle env. 45 s jusqu'à 83°			
	approx. 430 seconds for boom extension from 38 ft - 197 ft env. 430 s pour passer de 38 ft - 197 ft			

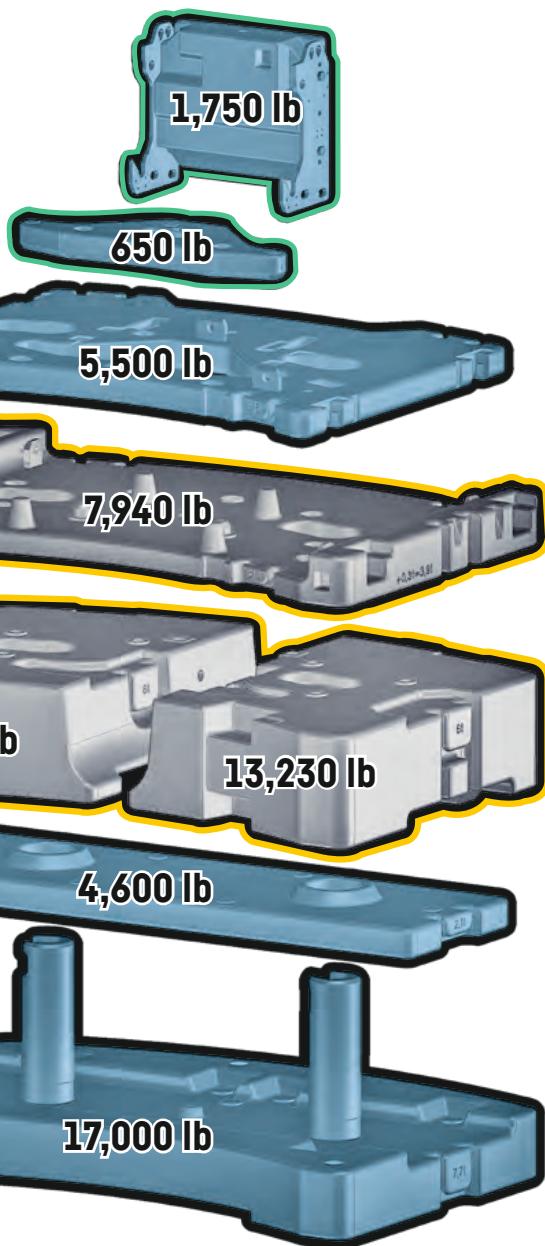
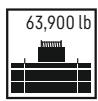
Counterweight

Contrepoids



Fast changing system for various driving situations

Système de changement rapide pour les configurations de conduite les plus diverses



22,050 lb axle load

22,050 lb de charge par essieu

26,400 lb axle load

26,400 lb de charge par essieu

Technically transportable

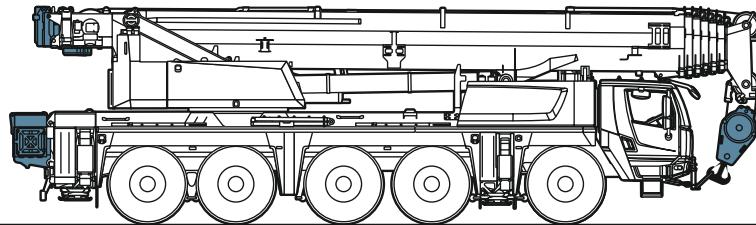
Transport techniquement simplifié

Additional counterweight

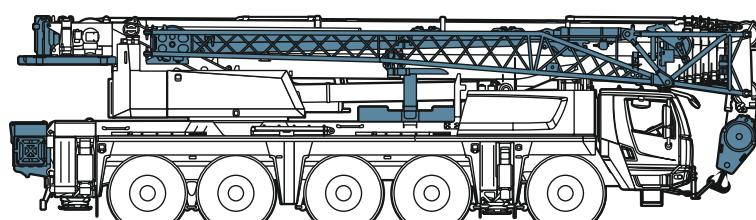
Contrepoids additionnel

On-road driving

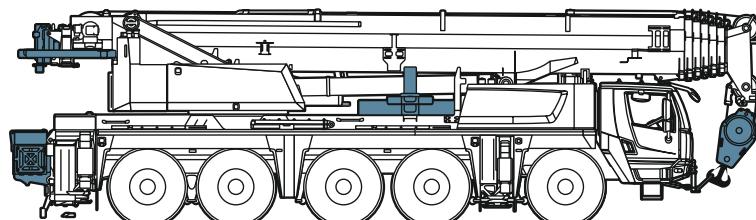
Déplacement sur route



2,400 lb
≤ 105,800 lb



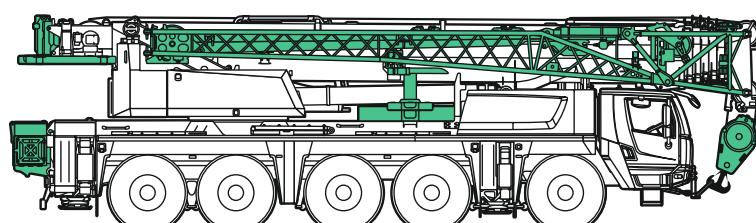
24,900 lb
≤ 132,000 lb



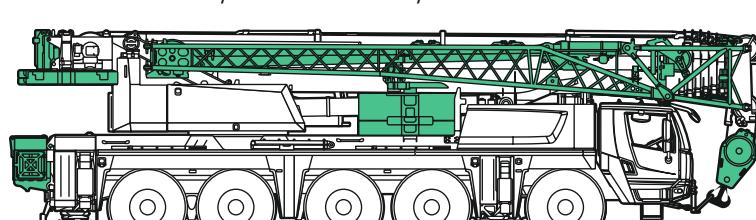
29,500 lb
≤ 132,000 lb

Jobsite driving

Déplacement sur chantier



29,500 lb
≤ 138,900 lb



63,900 lb
≤ 176,500 lb

US3542

Boom/jib combinations

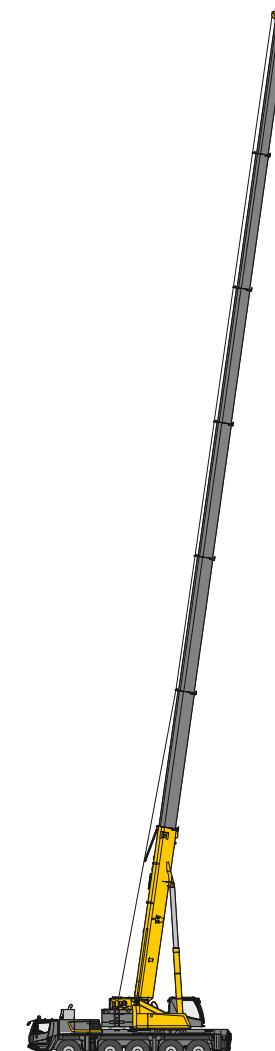
Configurations de flèche

T Telescopic boom - Flèche télescopique

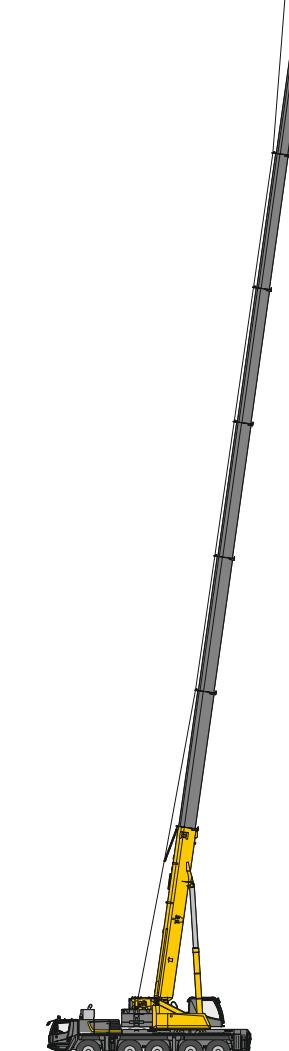
K/NZK Mechanically/hydraulically adjustable folding jib
Pointe pliante reglable mecaniquement/hydrauliquement

V Telescopic boom extension
Rallonge de flèche télescopique

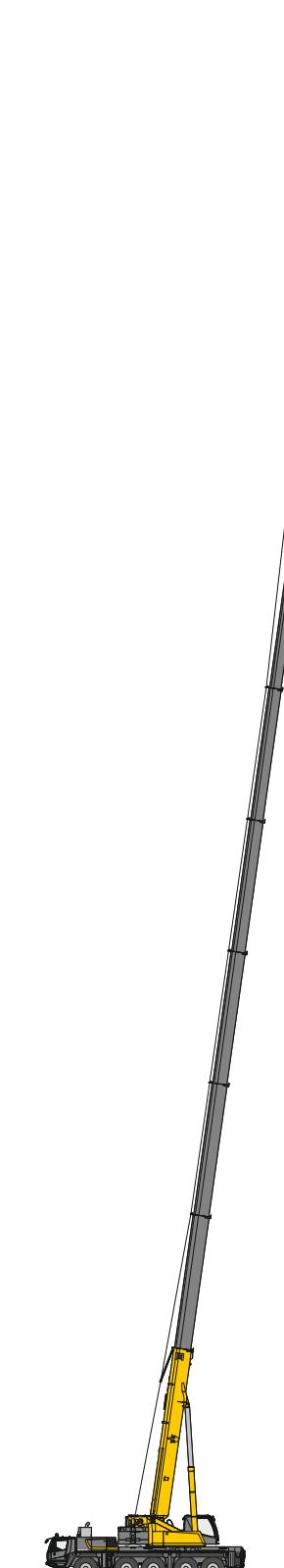
K Assembly jib
Fléchette de montage



T



TK/TNZK



TVK/TVNZK



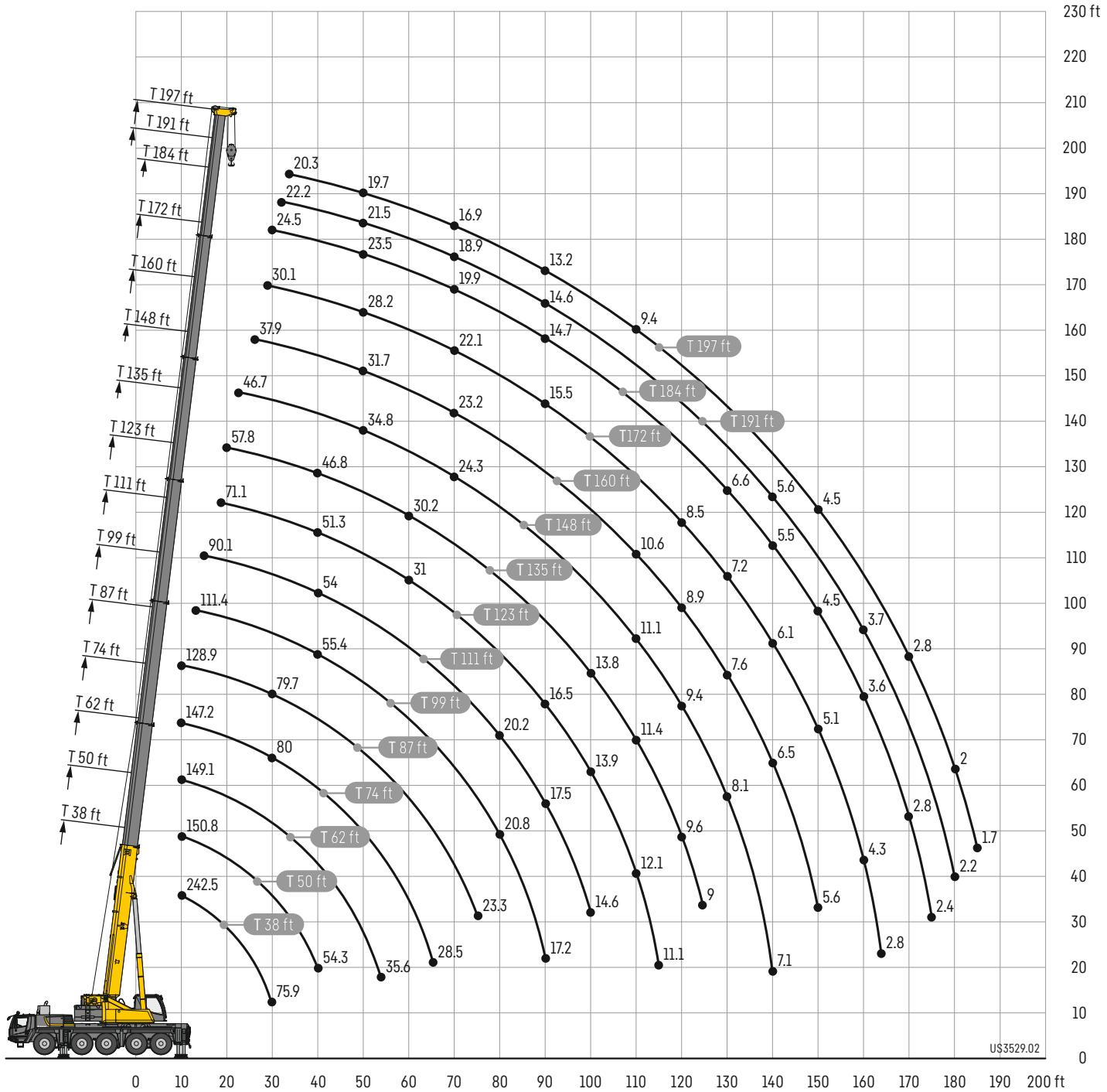
TK

S3537

Lifting heights

Hauteurs de levage

T



Lifting capacities

Forces de levage



Improved load capacity
Capacités de charge améliorées

	38 ft		50 ft	62 ft	74 ft	87 ft	99 ft	111 ft	123 ft	135 ft	148 ft	160 ft	172 ft	184 ft	191 ft	197 ft		
	*																	
10	242.5	181.1	150.8	149.1	147.2	128.9											10	
11	213.2	181.1	151.5	149.8	147.7	132.6											11	
12	212	181.1	151.8	150.5	147.9	133											12	
13	205.9	173.2	152.1	151.3	146.9	132.3	111.4										13	
14	198.3	164.7	152.4	152.1	147.4	131.5	111.4										14	
15	189.7	156.9	152.2	151.8	148	131.4	110.8	90.1									15	
16	181.1	149.9	148.7	147.6	145.9	131.9	110.2	90.3									16	
17	172.6	142.2	141.3	140.3	138.9	131.2	109.6	90	71.1								17	
18	165.4	134.9	133.8	132.5	132	129.1	108.9	89.7	71.3								18	
19	156.9	127.8	126.7	125.7	125.5	122.5	108.3	89.3	71.1								19	
20	147.9	121.2	121.9	122.2	119.4	116.5	107.4	88.9	70.7	57.8							20	
22	132.6	109	110.3	111.4	111.2	107.8	103.5	88.2	69.5	57.5							22	
24	119.8	98.6	100.4	101.2	101.8	98.8	97.4	87.5	68.1	56.9	46.7						24	
26	108.6	89.8	91.8	92.6	92.6	92.5	90.2	85.9	66.6	56.1	46.4	37.9					26	
28	99.6	82.4	84.4	85.1	85.3	86.2	83.4	80.6	64.7	55.2	46	37.9	30.1				28	
30	85.3	75.9	78.2	78.7	80	79.7	77.9	75	62.4	54.2	45.4	37.8	30.1	24.5			30	
32			72.6	72.7	74.2	74.1	72.6	69.9	60	52.8	44.5	37.5	30.1	24.5	22.2		32	
34			67.2	67.6	69	68.9	67.9	65.4	58.1	51.2	43.6	37.2	30.1	24.5	22.2	20.3	34	
36			62.5	63.1	64.1	64.2	63.4	61.4	56	49.7	42.6	36.8	30	24.5	22.2	20.3	36	
38			58.3	59.6	59.9	59.8	59.3	57.4	53.9	48.2	41.4	36.3	29.8	24.5	22.2	20.2	38	
40			54.3	55.8	56.2	56	55.4	54	51.3	46.8	40.3	35.8	29.7	24.4	22.1	20.1	40	
45				47.4	47.7	47.6	46.8	46.2	45.2	43.2	37.5	33.9	29.2	24	21.8	19.9	45	
50					40.8	41.1	40.9	40.4	40	40.5	38.4	34.8	31.7	28.2	23.5	21.5	19.7	50
55					35.6	36.2	35.6	35.1	36	35.2	33.9	32.4	29.6	26.7	23	21	19.4	55
60						32	31.4	32.3	31.7	31	30.2	29.3	27.8	25.1	22.1	20.5	18.7	60
65						28.5	27.8	28.7	28	27.3	27.6	27.2	25.7	23.6	21	19.7	17.8	65
70						25.7	25.7	25	24.9	24.6	24.3	23.2	22.1	19.9	18.9	16.9	70	
75						23.3	23	22.4	22.7	22.1	21.7	21.3	20.4	18.7	17.9	15.9	75	
80							20.8	20.2	20.4	19.7	19.9	19.1	18.4	17.7	16.9	15	80	
85							18.9	18.5	18.3	18	17.8	17	16.9	16.3	15.9	14	85	
90								17.2	17.5	16.5	16.8	16	15.6	15.5	14.7	14.6	90	
95									15.9	14.9	15.3	14.4	14.4	13.9	13.1	13.2	12.4	95
100									14.6	13.9	13.8	13	13	12.4	11.7	11.8	11.5	100
105										13.1	12.6	12.3	11.8	11.2	10.4	10.6	10.3	105
110										12.1	11.4	11.1	10.6	10.1	9.4	9.6	9.4	110
115										11.1	10.4	10.1	9.7	9.2	8.6	8.7	8.5	115
120											9.6	9.4	8.9	8.5	7.9	8	7.8	120
125											9	8.7	8.2	7.8	7.2	7.3	7.1	125
130												8.1	7.6	7.2	6.6	6.7	6.5	130
135												7.5	7	6.6	6	6.1	5.9	135
140												7.1	6.5	6.1	5.5	5.6	5.4	140
145												6	5.6	5	5.1	4.9	4.5	145
150													5.6	5.1	4.5	4.6	4.5	150
155													4.7	4	4.2	4.1	4.55	155
160													4.3	3.6	3.7	3.6	160	
165													2.8	3.2	3.3	3.1	165	
170														2.8	2.9	2.8	170	
175														2.4	2.5	2.4	175	
180															2.2	2	180	
185															1.7	1.7	185	

* ± 0° over rear · en arrière

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Lifting capacities

Forces de levage



	38 ft	50 ft	62 ft	74 ft	87 ft	99 ft	111 ft	123 ft	135 ft	148 ft	160 ft	172 ft	184 ft	191 ft	197 ft		
10	153.2	150.8	149.1	147.2	128.9											10	
11	153.2	151.5	149.8	147.7	132.6											11	
12	153.2	151.8	150.5	147.9	133											12	
13	153.2	152.1	151.3	146.9	132.3	111.4										13	
14	153.2	151.8	152.1	145.9	131.5	111.4										14	
15	146.8	143.9	143.2	140.9	131.4	110.8	90.1									15	
16	137.5	136.1	133.9	132.4	126.5	110.2	90.3									16	
17	128.1	126.9	125.7	123.8	119	109.6	90	71.1								17	
18	120.4	120	121.2	118.8	113.2	106.5	89.7	71.3								18	
19	113.4	114.7	115.5	113.5	107.5	100.8	89	71.1								19	
20	106.9	108.2	109.6	106	101.2	94.9	88.2	70.7	57.8							20	
22	95.4	98	98	94.9	89.3	84.2	79	69.5	57.5							22	
24	85.3	87.9	86.9	85.1	79.8	75.4	70.8	66.1	56.9	46.7						24	
26	75.7	78.8	79.5	76	72.1	68.2	63.9	61.2	56	46.4	37.9					26	
28	67.9	70.8	71.7	68.9	65.8	61.7	58.1	57.2	53.8	46	37.9	30.1				28	
30	61.2	64	65.3	62.9	59.8	56.6	55.1	52.6	49.8	45.4	37.8	30.1	24.5			30	
32		58.3	59.6	57.6	55	52	51.3	48.4	46	43.6	37.5	30.1	24.5	22.2		32	
34		52.5	54.5	53.2	50.8	49.7	47.5	45.1	43.8	41.2	37.2	30.1	24.5	22.2	20.3	34	
36		47.6	49.5	49.7	47.1	46.6	44.3	42.2	40.9	39.5	36.6	30	24.5	22.2	20.3	36	
38		43.4	45.2	46.2	43.7	43.6	41.3	40.3	38.2	36.6	34.6	29.8	24.5	22.2	20.2	38	
40		39.7	41.5	42.6	41	40.7	38.8	38.1	35.8	35	33.1	29.7	24.4	22.1	20.1	40	
45		34.2	35.1	35.9	34.8	33	32.5	31.9	30.5	28.9	27.5	24	21.8	19.9	45		
50			28.6	30	30.2	30	28.5	28.3	27.9	26.5	25.5	24.8	23	21.5	19.7	50	
55			24.4	25.7	25.8	25.5	25.9	24.7	24.8	23.4	22.8	21.6	20.4	20.2	19.3	55	
60				22.2	22.2	22.5	22.3	22.2	21.6	21.1	20.2	19.1	17.8	17.8	17.4	60	
65				19.3	19.3	19.7	19.4	19.3	18.7	18.4	17.7	16.9	15.7	15.7	15.2	65	
70					16.8	17.3	17	16.9	16.3	16	15.4	14.8	13.8	13.8	13.5	70	
75					14.8	15.1	14.9	14.7	14.2	13.9	13.3	12.7	11.8	11.9	11.7	75	
80						13.4	13.1	13	12.4	12.1	11.6	11	10.2	10.2	10.1	80	
85						11.9	11.6	11.4	10.9	10.6	10	9.5	8.8	9	8.7	85	
90						10.6	10.2	10.1	9.6	9.3	8.9	8.5	7.8	7.8	7.7	90	
95							9.2	9.1	8.6	8.4	7.9	7.5	6.8	6.9	6.7	95	
100							8.4	8.2	7.7	7.5	7.1	6.6	6	6.1	5.9	100	
105								7.5	7	6.7	6.3	5.8	5.2	5.3	5.1	105	
110									6.8	6.3	6.1	5.6	5.1	4.5	4.6	4.5	110
115									6.2	5.7	5.4	5	4.5	3.9	4	3.8	115
120										5.1	4.9	4.4	4	3.3	3.5	3.2	120
125										4.7	4.4	3.9	3.5	2.8	2.9	2.7	125
130											3.9	3.4	2.9	2.2	2.4	2.1	130
135											3.5	2.9	2.4	1.6	1.8	135	
140											3	2.4	1.9			140	
145											2					145	
150											1.6					150	

maxt_305_001_02044_00_000

Lifting capacities

Forces de levage



	38 ft	50 ft	62 ft	74 ft	87 ft	99 ft	111 ft	123 ft	135 ft	148 ft	160 ft	172 ft	184 ft	191 ft	197 ft				
10	153.2	150.8	149.1	147.2	128.9											10			
11	153.2	151.5	149.8	147.7	132.6											11			
12	153.2	151.8	150.5	147.9	133											12			
13	153.2	152.1	151.3	146.9	132.3	111.4										13			
14	152.1	151.7	150.1	145.4	131.5	111.4										14			
15	144.6	142.2	140.7	138.4	131.4	110.8	90.1									15			
16	135	133.6	131.6	130	121.8	109.8	90.3									16			
17	125.8	124.6	123.4	121	115	107.3	90	71.1								17			
18	118.3	118.8	120.1	115.8	110.1	102.6	89.7	71.3								18			
19	111.3	112.7	113.8	108	102.5	95.7	87.1	71.1								19			
20	104.8	106.3	107	102.6	95.9	89.8	83.3	70.7	57.8							20			
22	93.1	95.8	93	89.8	84.5	79.5	74.6	68.9	57.5							22			
24	82.2	85.1	83.8	80.5	75.5	71.2	66.8	63.3	56.9	46.7						24			
26	72.9	76	75.1	71.8	68.1	64.3	60.2	59.1	54.7	46.4	37.9					26			
28	65.3	68.2	67.7	65	62.1	58.2	57.1	54	50.6	45.9	37.9	30.1				28			
30	58.1	61.4	61.6	59.4	56.4	53.8	52.5	49.5	47.4	44.6	37.8	30.1	24.5			30			
32		55	56.2	54.9	51.8	50.7	48.3	45.5	44.5	41.9	37.5	30.1	24.5	22.2		32			
34		49.4	51.4	50.6	47.8	47.5	44.8	43.5	41.3	39.8	36.5	30.1	24.5	22.2	20.3	34			
36		44.7	46.6	46.8	44.3	44.1	41.7	40.9	38.4	37.1	34.9	30	24.5	22.2	20.3	36			
38		40.7	42.5	43.5	42.1	41.1	38.8	38.1	36.1	35	33.3	29.8	24.5	22.2	20.2	38			
40		37.2	39.1	40.1	39.9	38.3	36.4	35.7	34.5	33.1	31.6	29.1	24.4	22.1	20.1	40			
45			32	33.1	33.7	32.7	30.9	30.5	30.1	28.5	27.1	26	23.9	21.8	19.9	45			
50				26.8	28.2	28.3	28	26.7	26.3	24.9	24.3	23	21.6	21.2	19.7	50			
55				22.7	24.1	24.1	24.2	24.2	24.1	23.1	22.4	21.2	20	18.7	18.6	18.2	55		
60					20.6	20.6	21	20.8	20.7	20	19.6	18.7	17.5	16.2	15.9	60			
65						17.9	17.8	18.3	18	17.9	17.2	16.9	16.3	15.4	14.2	13.7	65		
70							15.5	15.9	15.7	15.5	14.9	14.6	14	13.3	12.3	12	70		
75							13.4	13.8	13.6	13.4	12.9	12.6	12	11.3	10.5	10.6	75		
80								12.1	11.8	11.7	11.1	10.8	10.3	9.8	9	9.1	80		
85									10.6	10.3	10.2	9.7	9.5	9	8.5	7.8	8	85	
90										9.5	9.2	9.1	8.6	8.4	7.9	7.5	6.8	90	
95											8.3	8.2	7.7	7.5	7	6.6	5.9	6	95
100										7.5	7.4	6.9	6.7	6.2	5.8	5.1	5.2	100	
105											6.7	6.2	6	5.5	5.1	4.4	4.5	105	
110												6	5.5	5.3	4.9	4.4	3.7	110	
115												5.5	5	4.7	4.3	3.8	3.1	115	
120													4.5	4.2	3.8	3.3	2.5	120	
125													4	3.7	3.2	2.7	1.8	125	
130														3.2	2.7	2.2		130	
135														2.8	2.2	1.6		135	
140														2.4	1.8			140	

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Lifting capacities

Forces de levage



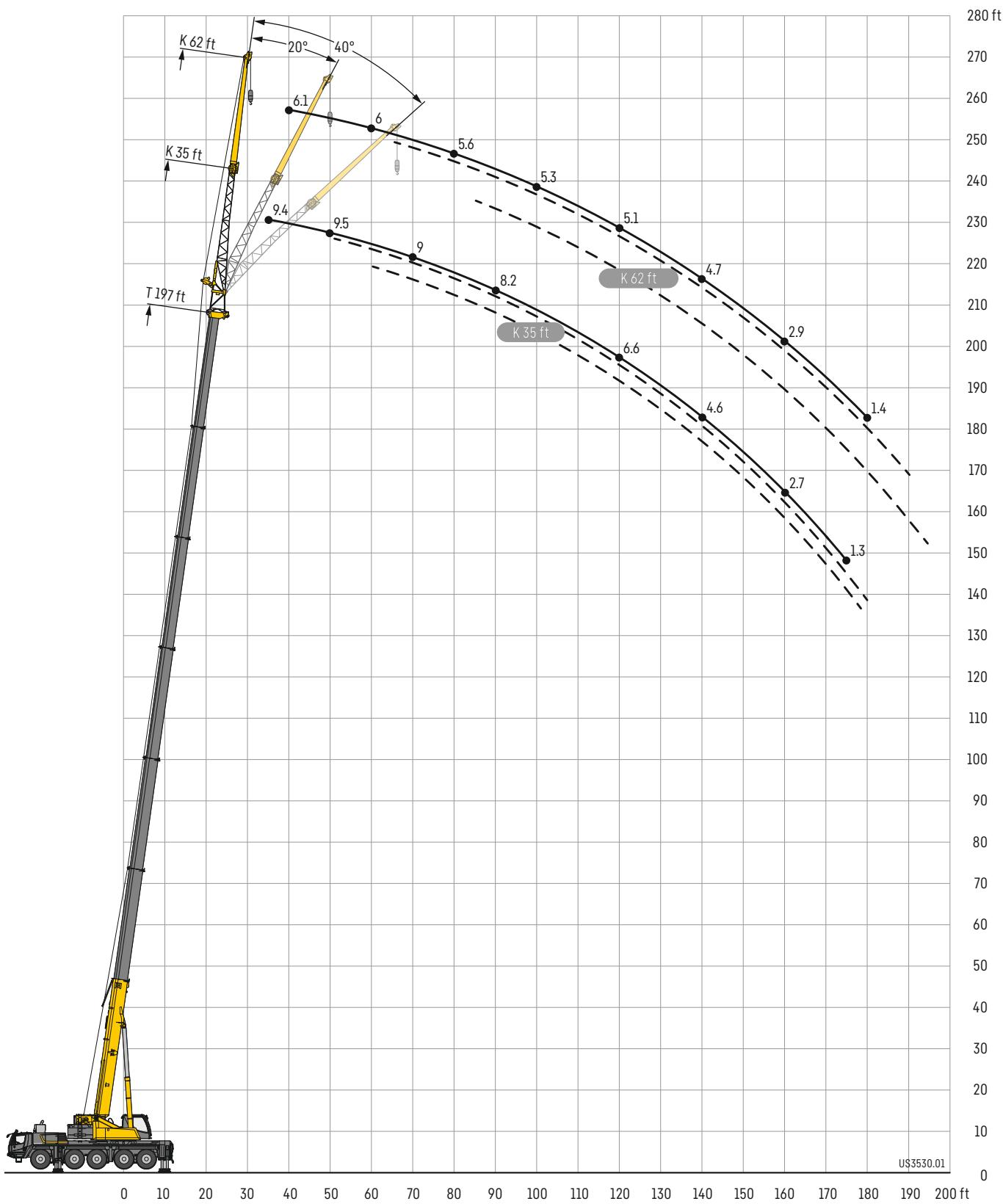
	38 ft	50 ft	62 ft	74 ft	87 ft	99 ft	111 ft	123 ft	135 ft	148 ft	160 ft	172 ft	184 ft	191 ft	197 ft			
10	153.2	150.8	149.1	147.2	128.9											10		
11	153.2	151.5	149.8	147.7	132.6											11		
12	153.2	151.8	150.5	142	132.4											12		
13	151.7	151.3	140.9	131.5	119.9	111.1										13		
14	142.4	140.5	125	118.9	114.3	104.1										14		
15	132.1	125.1	120.7	114.2	104.1	95.3	86.5									15		
16	123	118.3	109.9	104.1	95.3	87.2	80.6									16		
17	113.5	106.7	100.9	94.4	87.5	80.6	74	68.1								17		
18	104.2	98.1	93.2	87	80.7	74.7	70.8	65.8								18		
19	94.8	90.8	86.4	80.6	74.9	69.4	67.4	62.1								19		
20	86.6	83.2	79.7	75	69.8	66.1	62.7	58.1	53.9							20		
22	73.6	71.8	68.8	66	61.2	59.8	56	53.1	49.5							22		
24	63.3	62.4	60.6	59	56.3	53.4	49.9	48.1	44.9	41.9						24		
26	53.6	55.2	54	52.3	50.6	48.2	44.9	43.7	41.1	38.9	35					26		
28	46.2	49.2	48.4	47.6	46	43.4	41.7	39.8	38.2	35.7	33.1	29.3				28		
30	40.1	43.7	43.8	43.4	41.6	39.4	38.5	37	35	33.2	30.6	27.9	24.5			30		
32		38.7	39.4	39.4	37.8	36.4	35.1	33.7	31.9	30.5	28.4	26.5	24.5	22.2		32		
34		34.5	35.7	35.8	34.5	33.9	32.2	31.1	29.2	28	26.3	24.7	22.7	21.8	20.3	34		
36		30.7	32.4	32.6	31.5	31.1	29.7	28.6	26.8	25.8	24.3	22.7	21	20.6	19.6	36		
38		27.3	29.4	29.9	28.8	28.7	27.4	26.4	24.8	23.6	22.3	20.9	19.1	19.2	18.6	38		
40		24.5	26.5	27.6	26.6	25.5	24.5	22.9	21.9	20.7	19.3	17.7	17.5	17.1		40		
45			20.5	21.9	22	22	21.1	20.3	19.2	18.3	17.1	16	14.5	14.5	14	45		
50				16.2	17.6	17.6	18.2	17.7	17.2	16	15.4	14.3	13.2	11.8	11.9	50		
55				13	14.3	14.3	14.9	14.6	14.4	13.6	13	12	11	9.8	9.8	55		
60					11.6	11.7	12.2	11.9	11.8	11.1	10.8	10.1	9.1	8	8	60		
65						9.7	9.7	10.1	9.9	9.8	9.2	9	8.5	7.6	6.5	6.6	6.2	65
70							8.3	8.6	8.5	8.4	7.9	7.6	7.1	6.3	5.2	5.3	5	70
75							7.1	7.5	7.3	7.1	6.7	6.5	5.9	5.1	4	4.1	3.8	75
80								6.5	6.3	6.1	5.7	5.5	4.8	4	2.8	3	2.6	80
85									5.6	5.4	5.3	4.8	4.6	3.9	3	1.7	1.9	85
90									5	4.7	4.5	4.1	3.8	3	2			90
95										4	3.9	3.4	3	2				95
100										3.4	3.3	2.7	2.2					100
105											2.6	1.9						105
110											2.1							110
115											1.7							115

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Lifting heights

Hauteurs de levage

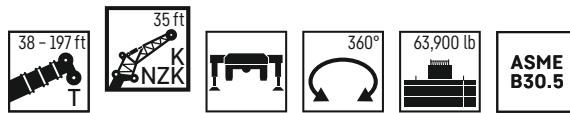
TK/TNZK



Lifting capacities

Forces de levage

TK/TNZK



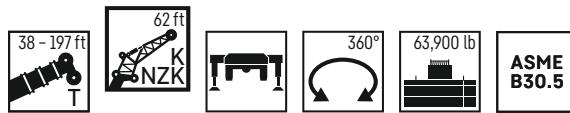
	38 ft			111 ft			123 ft			135 ft			148 ft			
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	
10	32.5															10
11	32.5															11
12	32.5															12
13	32.5															13
14	32.5															14
15	32.5															15
16	32.5	32.5														16
17	32.5	32.5														17
18	32.5	32.5														18
19	32.5	32.5														19
20	32.5	32.5	32.5													20
22	32.5	32.5	32.5													22
24	32.5	32.3	23.7	32.5			32.5									24
26	32.5	31.3	22.8	32.5			32.5									26
28	32	29.9	22	32.5			32.5									28
30	30.8	28.4	21.2	32.5	32.4		32.5									30
32	29.5	26.8	20.6	32.5	32.1		32.5									32
34	28.1	25.5	20	32.5	31.4		32.5	30.9								34
36	26.6	24.4	19.4	32.5	30.6		32.5	30.4								36
38	24.9	23.4	18.8	32.5	29.8	20.9	32.5	30								38
40	23.4	22.5	18.3	32.4	29	20.6	32.5	29.6								40
45	20	20.3	17.3	31.6	27.3	19.9	32.5	28.3	20.3	28.5	26.2	20	23.6	22.2	45	
50	17.5	18.6	16.4	30.6	25.8	19.2	31.3	26.8	19.6	27.3	25.5	19.4	23	21.9	19	50
55	15.3	17.3	15.9	29.6	24.5	18.6	29.6	25.4	19	25.8	24.7	18.8	22.2	21.2	18.4	55
60	13.6	16.2	15.7	28.2	23.3	18.1	27.9	24.2	18.5	24.1	23.6	18.3	21.1	20.2	18	60
65	12.1	15.5		26.2	22.2	17.6	25.3	23.2	18	22.6	22.2	17.9	19.9	19.2	17.6	65
70				23.8	21.2	17.2	22.7	22.2	17.6	20.8	17.4	18.7	18.2	17.2	17.2	70
75				21.3	20.3	16.8	20.1	20.7	17.1	18.8	19.5	17.1	17.4	17.2	16.7	75
80				18.8	19.5	16.4	17.7	19	16.7	17.3	17.8	16.8	16.2	16.3	16	80
85				16.8	17.8	16.2	15.7	16.8	16.3	15.4	15.8	16.4	14.5	15.2	15.2	85
90				15	15.9	15.9	14.3	14.8	15.5	13.7	14.6	14.8	13.3	13.9	14.4	90
95				13.4	14.2	14.7	12.8	13.6	13.9	12.2	13.1	13.7	12.2	12.2	13.1	95
100				12	12.7	13.1	11.4	12.1	12.7	11.4	11.6	12.2	10.9	11.4	11.5	100
105				10.7	11.3	11.7	10.4	10.8	11.3	10.3	10.6	9.7	10.4	10.9	10.9	105
110				9.7	10.1	10.4	9.8	9.7	10.1	9.3	9.8	10.1	9.1	9.4	9.8	110
115				8.8	9.2	9.4	9	9.3	9.3	8.5	8.9	9.3	8.6	8.7	8.9	115
120				8.1	8.4	8.6	8.3	8.7	8.9	8.1	8.2	8.5	7.9	8.3	8.3	120
125				7.4	7.7	7.8	7.6	8	8.1	7.7	7.8	7.2	7.7	7.9	7.9	125
130				6.8	7	7	7	7.3	7.4	7.3	7.4	7.4	6.7	7	7.2	130
135				6.3	6.4		6.6	6.3	6.5	6.5	6.7	6.7	6.2	6.1	6.2	135
140						6.1	6.2	6	6.1	6.1	6.3	6.4	5.7	5.9	6	140
145							6	6.1		5.6	5.8	5.9	5.3	5.6	5.7	150
150										5.2	5.3	5.4	4.9	5.2	5.2	155
155										4.9	4.9		4.5	4.7	4.8	160
160												4.1	4.3	4.3	4.3	165
165												3.7	3.9	3.9		170
170																170
175																175

	160 ft			172 ft			184 ft			191 ft			197 ft			
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	
30	14.9			14.7						10.2			9.4			50
32	19.8						11.6			10.2			9.4			34
34	19.8			14.7			11.6			10.2			9.4			36
36	19.8			14.7			11.6			10.2			9.4			38
38	19.8			14.7			11.6			10.2			9.4			40
40	19.6			14.7			11.6			10.2			9.4			45
45	19.3	18.1		14.7	14.6		11.5	11.3		10.2			9.5			55
50	18.9	17.7		14.5	14.3		11.5	11.3		10.2			9.5	9.3		60
55	18.4	17.6	17.3	14.2	14.1	13.8	11.4	11.1		10.1	9.8		9.4	9.1		65
60	17.8	17.1	16.7	13.9	13.7	13.7	11.2	10.8	10.4	9.9	9.6	9.7	9.3	9	9	70
65	17	16.3	15.9	13.5	13.3	13.2	10.9	10.5	10.1	9.7	9.5	9.2	8.9	8.9	9	75
70	16.2	15.5	15.2	13	12.7	12.6	10.7	10.2	9.8	9.5	9.3	9	8.9	8.9	8.9	80
75	15.4	14.8	14.4	12.5	12.2	12.1	10.4	9.8	9.5	9.3	9.1	9	8.8	8.7	8.7	85
80	14.6	14.1	13.8	12	11.6	11.5	10.1	9.5	9.2	9.1	8.9	8.8	8.6	8.5	8.5	85
85	13.8	13.4	13.2	11.4	11.2	11	9.7	9.3	9	8.8	8.7	8.6	8.4	8.4	8.3	85
90	12.7	12.8	12.6	10.9	10.7	10.6	9.4	9	8.8	8.6	8.4	8.4	8.2	8.2	8.1	90
95	11.3	12.1	12	10.4	10.3	10.2	9	8.8	8.5	8.4	8.2	8.2	7.9	7.9	8	95
100	10.3	11	11.4	10	9.8	9.8	8.7	8.5	8.4	8.1	8	7.9	7.7	7.7	7.8	100
105	9.7	9.8	10.3	9.3	9.4	9.4	8.4	8.3	8.2	7.9	7.8	7.7	7.5	7.5	7.5	105
110	9	9.3	9.3	8.5	9	9.1	8.1	8	8	7.6	7.5	7.5	7.2	7.2	7.3	110
115	8.2	8.7	8.8	7.9	8.3	8.6	7.7	7.8	7.4	7.3	7.3	7.3	6.9	7	7.1	115
120	7.4	7.9	8.3	7.6	7.5	7.9	7.1	7.5	7.1	7.1	7.1	7.1	6.6	6.8	6.8	120
125	7.1	7.2	7.7	7.1	7.3	7.3	6.4	7	7.3	6.5	6.8	6.9	6.3	6.5	6.6	125
130	6.9	6.9	7	6.4	6.9	7	5.8	6.3	6.7	5.9	6.4	6.6	5.7	6.1	6.3	130
135	6.3	6.6	6.7	5.8	6.3	6.6	5.2	5.7	6	5.3	5.8	6.1	5.1	5.6	5.9	135
140	5.8	6.1	6.3	5.3	5.7	6	4.7	5.2	5.5	4.7	5.2	5.5	4.6	5	5.4	140
145	5.3	5.6	5.8	4.8	5.2	5.4	4.2	4.6	4.9	4.3	4.7	5	4.1	4.5	4.8	145
150	4.8	5.1	5.3	4.4	4.7	4.9	3.8	4.1	4.4	3.8	4.2	4.5	3.6			

Lifting capacities

Forces de levage

TK/TNZK



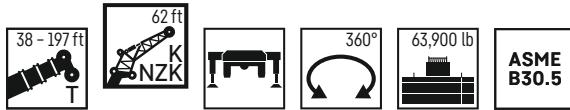
	38 ft			111 ft			123 ft			135 ft			148 ft			
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	
11	20.6															11
12	20.4															12
13	20.2															13
14	19.9															14
15	19.6															15
16	19.3															16
17	19															17
18	18.7															18
19	18.4															19
20	18															20
22	17.3															22
24	16.7			15.1												24
26	16			15			14.7									26
28	15.5			15			14.6			13.4						28
30	14.8	11.3		14.8			14.5			13.3			11.9			30
32	14.2	11		14.6			14.4			13.3			11.8			32
34	13.6	10.6		14.4			14.3			13.2			11.8			34
36	13.1	10.3		14.2			14.1			13.1			11.7			36
38	12.6	10		14			13.9			13			11.7			38
40	12.1	9.8		13.8			13.8			12.8			11.6			40
45	11	9.3	8.1	13.2	9.9		13.3	10		12.5			11.4			45
50	10	8.8	7.8	12.7	9.6		12.8	9.7		12.2	9.6		11.2			50
55	9	8.4	7.5	12.1	9.3		12.3	9.4		11.8	9.3		11	9.1		55
60	8.3	8.1	7.3	11.6	9	7.6	11.8	9.2	7.6	11.4	9.1		10.7	8.9		60
65	7.6	7.8	7.1	11.1	8.8	7.5	11.3	8.9	7.5	11.1	8.8	7.5	10.4	8.7		65
70	7	7.5	7	10.5	8.6	7.3	10.9	8.7	7.4	10.7	8.6	7.4	10.2	8.5	7.3	70
75	6.5	7.3	6.9	10.1	8.4	7.2	10.4	8.5	7.3	10.3	8.4	7.3	9.9	8.3	7.2	75
80	6.1	7.1	6.9	9.7	8.1	7.1	10	8.3	7.2	10	8.2	7.2	9.7	8.1	7.1	80
85	5.7	7	6.9	9.5	8	7.1	9.7	8.1	7.1	9.6	8.1	7.1	9.4	8	7	85
90	5.3	6.9		9.2	7.8	7	9.4	7.9	7.1	9.4	7.9	7	9.2	7.8	7	90
95				8.9	7.6	6.9	9.1	7.8	7	9.1	7.8	7	9	7.7	6.9	95
100				8.6	7.5	6.9	8.9	7.6	6.9	8.9	7.6	6.9	8.7	7.6	6.9	100
105				8.3	7.4	6.8	8.6	7.5	6.9	8.7	7.5	6.8	8.5	7.5	6.8	105
110				8	7.3	6.8	8.4	7.4	6.8	8.5	7.4	6.8	8.3	7.3	6.8	110
115				7.6	7.2	6.8	8	7.3	6.8	8.1	7.3	6.8	8	7.3	6.8	115
120				7.3	7.1	6.8	7.7	7.2	6.8	7.8	7.2	6.7	7.7	7.2	6.7	120
125				7	7	6.8	7.3	7.1	6.8	7.4	7.1	6.7	7.2	7.1	6.7	125
130				6.8	6.9	6.8	7	7	6.8	7	7	6.7	6.5	7	6.7	130
135				6.5	6.9	6.8	6.7	6.9	6.8	6.5	6.8	6.7	6.3	6.7	6.7	135
140				6.3	6.9	6.8	6.4	6.5	6.8	5.9	6.6	6.7	6	6.2	6.6	140
145				5.9	6.3	6.5	6	6.3	6.4	5.7	6	6.4	5.5	5.8	6.1	145
150				5.5	5.8	5.9	5.6	6	6.2	5.4	5.5	5.9	5.1	5.6	5.7	150
155				5	5.3	5.3	5.1	5.5	5.7	5.2	5.3	5.4	4.7	5.2	5.5	155
160				4.6	4.8		4.7	5.1	5.2	4.8	5.1	5.2	4.5	4.8	5.1	160
165				4.2			4.5	4.6	4.7	4.5	4.8	4.9	4.3	4.4	4.6	165
170							4.3	4.4		4.3	4.4	4.5	4.1	4.2	4.3	170
175							4.1	4.2		4.2	4.2	4.4	3.8	4.1	4.2	175
180										3.8	4		3.4	3.8	3.9	180
185										3.5	3.6		3.1	3.4	3.4	185
190										3.1			2.8	3	3	190
195													2.5	2.7		195
200													2.2			200

t_305_002_01001_00_000

Lifting capacities

Forces de levage

TK/TNZK



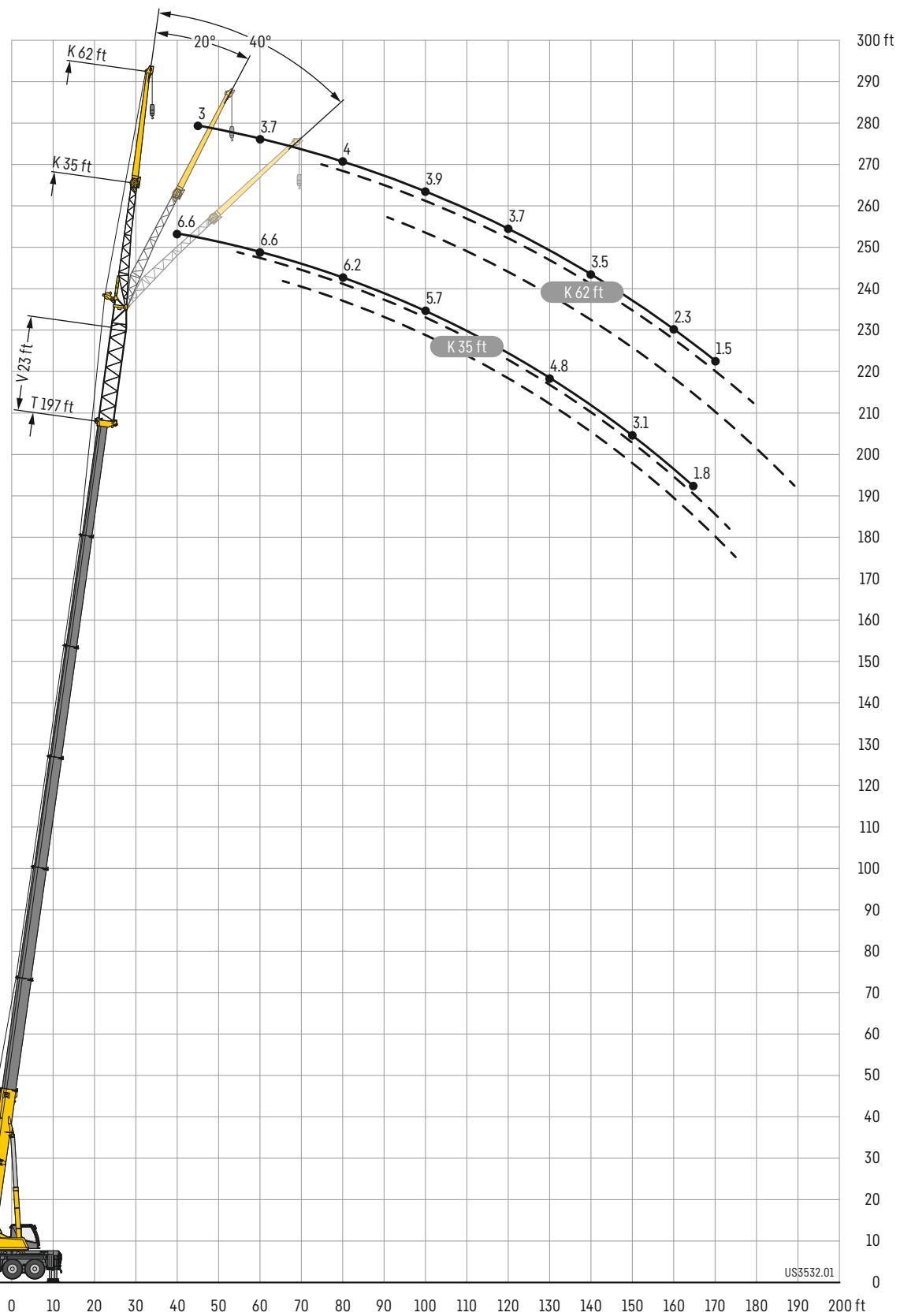
	160 ft			172 ft			184 ft			191 ft			197 ft			
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	
32	10.4															32
34	10.4			9.1												34
36	10.3			9.1			7.7									36
38	10.3			9			7.7			6.9						38
40	10.2			9			7.7			6.9			6.1			40
45	10.2			8.9			7.7			6.8			6.1			45
50	10.1			8.9			7.4			6.7			6.1			50
55	9.9	8.8		8.7			7.2			6.5			6.1			55
60	9.8	8.6		8.6	8		7			6.4			6			60
65	9.7	8.4		8.4	8		6.9	6.6		6.3	5.9		5.8	5.5		65
70	9.5	8.3		8.3	7.9		6.7	6.5		6.1	5.9		5.7	5.5		70
75	9.4	8.1	7.1	8.2	7.8	7	6.7	6.5		6	5.9		5.6	5.5		75
80	9.2	8	7	8.1	7.7	6.9	6.6	6.5	6.5	6	5.9		5.6	5.4		80
85	9	7.8	7	8	7.6	6.8	6.5	6.5	6.5	5.9	5.8	5.9	5.5	5.4	5.5	85
90	8.9	7.7	6.9	7.9	7.5	6.8	6.4	6.4	6.4	5.8	5.8	5.9	5.4	5.4	5.5	90
95	8.7	7.6	6.9	7.8	7.4	6.8	6.4	6.4	6.2	5.8	5.8	5.9	5.3	5.4	5.5	95
100	8.5	7.5	6.8	7.7	7.3	6.7	6.3	6.3	6.1	5.7	5.7	5.9	5.3	5.4	5.5	100
105	8.4	7.4	6.8	7.6	7.2	6.7	6.3	6.1	5.9	5.7	5.7	5.7	5.2	5.4	5.5	105
110	8.2	7.3	6.7	7.4	7.1	6.7	6.2	6	5.8	5.6	5.7	5.6	5.2	5.4	5.5	110
115	7.8	7.2	6.7	7.3	7	6.6	6.1	5.8	5.7	5.6	5.6	5.5	5.2	5.3	5.4	115
120	7.2	7.1	6.7	7	6.9	6.6	6	5.7	5.5	5.5	5.5	5.4	5.1	5.2	5.3	120
125	6.9	7	6.7	6.6	6.7	6.5	5.9	5.6	5.4	5.4	5.4	5.3	5.1	5.2	5.2	125
130	6.6	6.7	6.1	6.6	6.5	5.7	5.4	5.3	5.3	5.2	5.2	5.2	5	5.1	5.1	130
135	6.1	6.4	6.6	5.6	6.3	6.4	5.4	5.3	5.2	5.3	5.1	5.1	4.9	5	5	135
140	5.5	6.2	6.3	5.4	5.8	6.2	5	5.2	5.1	5	5	5	4.7	4.9	4.9	140
145	5.2	5.8	6.1	5.1	5.2	5.8	4.6	5	5	4.6	4.9	4.8	4.3	4.8	4.8	145
150	5	5.2	5.7	4.7	4.9	5.3	4.1	4.8	4.9	4.1	4.8	4.8	3.8	4.6	4.7	150
155	4.7	4.8	5.2	4.3	4.8	4.8	3.7	4.4	4.8	3.7	4.4	4.6	3.3	4.2	4.6	155
160	4.3	4.6	4.7	3.9	4.5	4.7	3.3	4	4.4	3.2	4	4.5	2.9	3.8	4.3	160
165	4	4.5	4.6	3.5	4.1	4.4	2.8	3.5	4	2.8	3.6	4	2.6	3.3	3.9	165
170	3.6	4.1	4.3	3.1	3.7	4	2.4	3.1	3.6	2.4	3.2	3.6	2.2	2.9	3.5	170
175	3.2	3.7	3.9	2.7	3.3	3.6	2	2.7	3.1	2	2.8	3.2	1.8	2.5	3	175
180	2.8	3.3	3.5	2.3	2.9	3.2	1.6	2.3	2.7	1.7	2.4	2.8	1.4	2.2	2.6	180
185	2.5	2.9	3.1	2	2.5	2.8		1.9	2.3		2	2.4		1.8	2.2	185
190	2.1	2.5	2.6	1.6	2.1	2.3		1.5	1.8		1.6	1.9		1.4	1.8	190
195	1.9	2.2	2.2		1.8	1.9			1.4			1.5			1.4	195
200	1.6	1.8	1.8		1.4	1.5										200
205		1.5														205

t_305_002_01001_00_000

Lifting heights

Hauteurs de levage

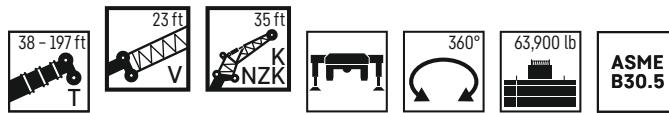
TVK/TVNZK



Lifting capacities

Forces de levage

TVK/TVNZK



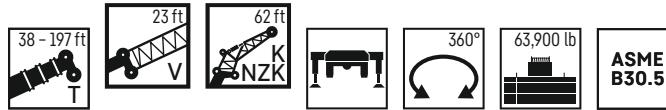
	38 ft + 23 ft			111 ft + 23 ft			123 ft + 23 ft			135 ft + 23 ft			148 ft + 23 ft			
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	
10	32.5															10
11	32.5															11
12	32.5															12
13	32.5															13
14	32.5															14
15	32.5															15
16	32.5															16
17	32.5															17
18	32.5															18
19	32.5															19
20	32.5	31.6														20
22	32.4	29.8		28.2												22
24	31.3	28		28.2												24
26	29.9	26.5		28.3				26.9								26
28	28.6	25.1	22	27.9				26.8								28
30	27.3	23.7	20.9	27.5				26.6								30
32	26	22.5	20	27				26.3								32
34	24.6	21.5	19.1	26.5	22.1			25.8								34
36	23.3	20.5	18.3	25.9	21.5			25.5								36
38	22.1	19.6	17.5	25.3	20.9			25	21.4							38
40	20.9	18.6	16.8	24.6	20.4			24.6	20.8							40
45	18.6	16.5	15.3	23	19	16.4	23.3	19.6	16.9	20.6	18.2					45
50	16.3	14.9	13.8	21.5	17.9	15.6	22.1	18.4	16	19.8	17.3	15.5	16.9	15.2		50
55	14.6	13.5	12.7	20.3	16.8	14.7	20.8	17.5	15.2	19.1	16.4	14.8	16.4	14.7		55
60	13.2	12.2	11.7	19	15.9	14	19.7	16.5	14.4	18.2	15.7	14.2	15.9	14.2		60
65	11.9	11.2	10.8	17.7	15.1	13.3	18.6	15.6	13.8	17.4	14.9	13.6	15.4	13.7		65
70	10.8	10.3	10.1	16.6	14.3	12.8	17.6	14.9	13.2	16.6	14.2	13	14.7	13.1		70
75	9.9	9.6	9.5	15.6	13.5	12.3	16.5	14.2	12.7	15.8	13.6	12.5	14.1	12.6		75
80	9.3	9	9	14.8	12.8	11.7	15.5	13.5	12.2	15	13.1	12.1	13.3	12.2		80
85	8.7	8.6	8.7	14	12.2	11.2	14.7	12.8	11.7	14.2	12.5	11.6	12.7	11.7		85
90				13.3	11.7	10.8	13.7	12.2	11.2	12.8	12	11.2	11.9	11.2		90
95				12.6	11.2	10.4	12.4	11.7	10.8	11.4	11.5	10.8	11	10.7		95
100				11.8	10.6	10.1	11	11	10.4	10.5	10.9	10.4	9.9	10.2		100
105				10.8	10.2	9.8	10	10.4	10.1	9.5	10	10.1	8.9	9.7		105
110				9.7	9.9	9.5	9.2	9.5	9.7	8.6	9.3	9.4	8.4	8.8		110
115				8.9	9.4	9.3	8.4	8.9	9.1	7.9	8.4	8.9	8	7.9		115
120				8.1	8.6	8.8	7.6	8.1	8.5	7.5	7.6	8.1	7.2	7.6		120
125				7.4	7.8	8.1	7	7.4	7.8	6.9	7.2	7.4	6.6	7.1		125
130				6.8	7.1	7.3	6.6	6.7	7.1	6.3	6.7	6.9	6.1	6.4		130
135				6.2	6.5	6.7	6.3	6.4	6.4	5.7	6.1	6.5	5.9	5.9		135
140				5.7	6	6.1	5.8	6	6.1	5.4	5.6	5.9	5.4	5.6		140
145				5.2	5.4	5.5	5.3	5.6	5.8	5.2	5.3	4.9	5.3	5.4		145
150				4.7	4.9	4.9	4.9	5.1	5.3	5	5	5.1	4.5	4.8		150
155				4.2	4.4	4.3	4.4	4.6	4.8	4.6	4.8	4.2	4.4	4.5		155
160				3.8	3.9			4.2	4.3	4.2	4.4	4.5	4.1	4.1		160
165							4	4	4.1	4	4	4.1	3.9	3.9		165
170							3.8	3.9		3.8	3.9	3.5	3.5	3.7		170
175								3.4		3.4	3.6	3.5	3.1	3.3		175
180									3.1		3.2	3.1	2.7	2.9		180
185										2.8		2.9	2.4	2.5		185
190											2.1		2.2	2.1		190
195											1.8		1.8	1.8		195

	160 ft + 23 ft			172 ft + 23 ft			184 ft + 23 ft			191 ft + 23 ft			197 ft + 23 ft			
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	
32	12.8			10.1												32
34	12.8															34
36	12.8			10.1			8			7.1						36
38	12.8			10.1			8			7.2			6.6			38
40	12.8			10.1			8			7.2			6.6			40
45	12.8	13		10.1			8			7.2			6.6			45
50	12.7	12.4	11.7	10.1	9.8	10	7.9	7.9	7.2	7.1	7	6.7	6.6	6.6		50
55	12.5	12.4	11.6	9.8	9.7	9.3	7.8	7.7	7.1	7.1	7	6.9	6.6	6.5		55
60	12.2	12.2	11.6	9.6	9.5	9.5	7.6	7.5	7.4	7.1	7	6.9	6.7	6.4		60
65	11.9	11.8	11.4	9.6	9.5	9.5	7.6	7.4	7.3	6.8	6.7	6.7	6.4	6.4		65
70	11.5	11.4	11.1	9.5	9.4	9.2	7.5	7.4	7.3	6.8	6.7	6.7	6.4	6.3		70
75	11.1	10.9	10.8	9.2	9.2	9	7.3	7.2	7	6.7	6.6	6.6	6.3	6.3		75
80	10.7	10.4	10.4	9	8.9	8.9	7.2	7.2	7	6.8	6.5	6.5	6.2	6.1		80
85	10.2	10	9.9	8.7	8.6	8.7	7	6.8	6.6	6.4	6.4	6.3	6.3	6.1		85
90	9.8	9.6	9.5	8.4	8.3	8.4	6.8	6.5	6.4	6.2	6.2	6.2	6	5.9		90
95	9.4	9.3	9.2	8.1	8.1	8.1	6.6	6.3	6.2	6.1	6	6	5.8	5.8		95
100	9	8.9	8.9	7.8	7.8	7.8	6.4	6.2	6.1	5.9	5.9	5.9	5.7	5.6		100
105	8.6	8.6	8.6	7.6	7.5	7.5	6.2	6	5.9	5.7	5.7	5.6	5.5	5.5		105
110	8.1	8.2	8.2	7.3	7.2	7.3	6	5.8	5.7	5.6	5.5	5.5	5.4	5.4		110
115	7.3	7.8	7.9	7	7	7	5.8	5.6	5.6	5.5	5.4	5.4	5.3	5.3		115
120	6.8	7.2	7.5	6.6	6.7	6.8	5.6	5.5	5.4	5.3	5.2	5.3	5.2	5.1		120
125	6.5	6.5	6.9	6	6.4	6.5	5.4	5.3	5.2	5.2	5.1	5	4.9	4.9		125
130	6.1	6.3	6.3	5.4	6	6.3	5.3	5.1	5.1	5	4.9	4.8	4.8	4.9		130
135	5.5	5.9	6.1	5.2	5.4	5.7	4.9	5	4.8	4.8	4.8	4.8	4.5	4.7		135
140	4.9	5.4	5.6	4.9	4.9	5.1	4.4	4.8	4.8	4.4	4.7	4.7	4.1	4.5		140
145	4.7	4.9	5.1	4.6	4.7	4.7	3.9	4.4	4.6	3.8	4.3	4.6	3.5	4.1		145
150	4.6	4.5	4.6	4.1	4.5	4.6	3.4	3.9	4.2	3.4	3.9	4.2	3.1	3.6		150
155	4.2	4.4	4.4	3.7	4	4.3	3	3.4	3.8	2.9	3.4	3.8	2.6	3.1		155
160	3.7	4.1	4.2	3.2	3.6	3.9	2.									

Lifting capacities

Forces de levage

TVK/TVNZK



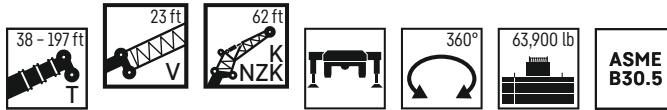
Lever arm length Lever arm length	38 ft + 23 ft			111 ft + 23 ft			123 ft + 23 ft			135 ft + 23 ft			148 ft + 23 ft			Lever arm length	
							K/NZK 62 ft										
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°		
12	19															12	
13	18.9															13	
14	18.8															14	
15	18.7															15	
16	18.6															16	
17	18.5															17	
18	18.4															18	
19	18.2															19	
20	18															20	
22	17.7															22	
24	17.2			13.1												24	
26	16.8			13												26	
28	16.4			12.9			12.7									28	
30	15.9			12.9			12.6			11.3						30	
32	15.5			12.8			12.5			11.2						32	
34	15	11		12.7			12.4			11.1			9.7			34	
36	14.6	10.7		12.6			12.4			11.1			9.7			36	
38	14.1	10.4		12.5			12.3			11			9.7			38	
40	13.7	10.2		12.4			12.2			11			9.6			40	
45	12.6	9.7		12.1			12			10.8			9.6			45	
50	11.7	9.3	7.9	11.8	9.5		11.8	9.6		10.7			9.5			50	
55	10.9	8.9	7.7	11.5	9.2		11.5	9.3		10.5	9.1		9.4			55	
60	10.1	8.6	7.5	11.2	9		11.2	9.1		10.4	8.9		9.4	8.5		60	
65	9.3	8.3	7.3	10.8	8.8	7.4	10.9	8.9		10.2	8.7		9.3	8.4		65	
70	8.6	8	7.2	10.5	8.6	7.3	10.6	8.7	7.4	10	8.5	7.3	9.2	8.2		70	
75	8.1	7.7	7.1	10.1	8.4	7.3	10.3	8.5	7.3	9.7	8.4	7.2	9	8.1	7.1	75	
80	7.5	7.4	6.9	9.8	8.2	7.2	10	8.3	7.2	9.5	8.2	7.1	8.9	8	7	80	
85	7	7	6.7	9.4	8	7.1	9.7	8.1	7.1	9.2	8.1	7.1	8.7	7.8	7	85	
90	6.6	6.6	6.5	9.1	7.8	7	9.4	8	7	9	7.9	7	8.4	7.6	6.9	90	
95	6.2	6.3	6.2	8.7	7.6	6.9	9	7.8	7	8.8	7.7	6.9	8.2	7.4	6.9	95	
100	5.9	5.9	5.9	8.4	7.4	6.8	8.7	7.6	6.8	8.5	7.5	6.9	8	7.2	6.7	100	
105	5.6	5.6	5.7	8.1	7.2	6.7	8.4	7.4	6.7	8.2	7.3	6.7	7.8	7.1	6.6	105	
110	5.3	5.4		7.7	6.9	6.5	8.1	7.2	6.6	7.9	7.1	6.6	7.6	6.9	6.4	110	
115	5.1			7.4	6.7	6.3	7.8	7	6.5	7.7	6.9	6.5	7.3	6.7	6.3	115	
120				7.2	6.5	6.2	7.4	6.8	6.4	7.2	6.7	6.3	6.9	6.5	6.1	120	
125				6.9	6.3	6.1	7	6.6	6.2	6.9	6.5	6.2	6.3	6.3	6	125	
130				6.7	6.1	5.9	6.7	6.4	6.1	6.4	6.3	6	6.1	6.2	5.9	130	
135				6.5	6	5.8	6.3	6.2	6	5.8	6	5.9	5.7	5.9	5.8	135	
140				6.2	5.8	5.7	5.8	6	5.8	5.5	5.8	5.8	5.2	5.6	5.7	140	
145				5.8	5.7	5.6	5.3	5.7	5.7	5.2	5.5	5.6	4.7	5.4	5.5	145	
150				5.3	5.5	5.5	4.9	5.4	5.5	4.8	5.1	5.4	4.5	5	5.3	150	
155				4.9	5.4	5.4	4.7	4.9	5.3	4.3	4.9	5	4.3	4.5	5	155	
160				4.5	4.9	5.1	4.4	4.5	4.8	4	4.5	4.8	4	4.2	4.5	160	
165				4	4.5	4.6	4.1	4.3	4.5	3.8	4.1	4.4	3.6	4	4.1	165	
170				3.6	4	4.1	3.7	4.1	4.2	3.6	3.7	4	3.2	3.8	3.9	170	
175				3.2	3.6	3.6	3.3	3.7	3.9	3.3	3.5	3.6	3	3.4	3.7	175	
180				2.9	3.1		3	3.3	3.4	3	3.4	3.5	2.8	2.9	3.3	180	
185				2.5	2.7		2.9	3	3	2.7	3.1	3.2	2.7	2.7	2.8	185	
190							2.8	2.8	2.9	2.6	2.7	2.8	2.4	2.6	2.7	190	
195							2.5	2.6		2.4	2.5	2.6	2.1	2.5	2.6	195	
200							2.4			2.2	2.4	2.4	1.8	2.1	2.2	200	
205										2	2.1		1.5	1.8	1.9	205	
210										1.7	1.8		1.5	1.5	1.5	210	

t_305_004_01001_00_000

Lifting capacities

Forces de levage

TVK/TVNZK



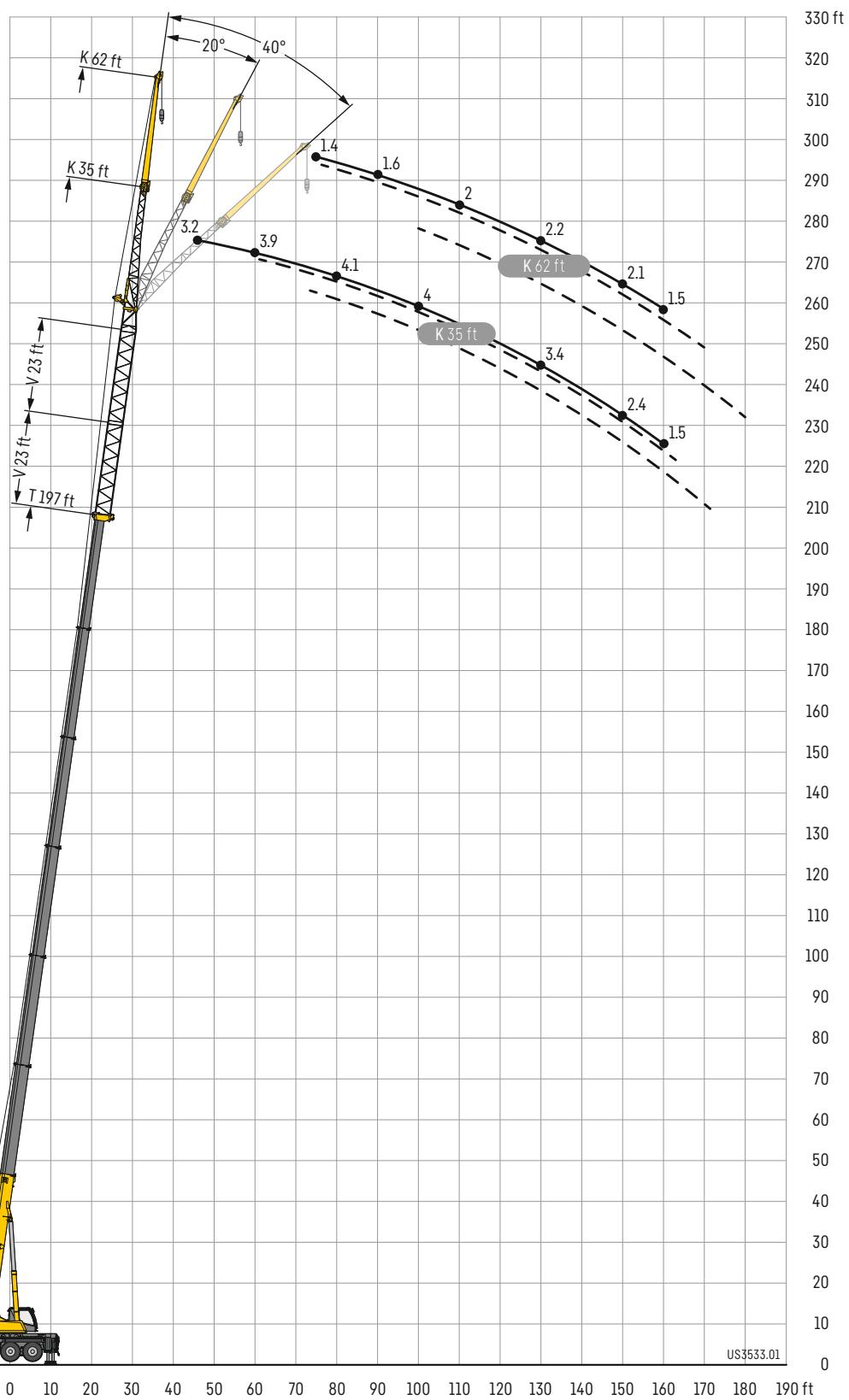
Lever arm length Lever arm length	160 ft + 23 ft			172 ft + 23 ft			184 ft + 23 ft			191 ft + 23 ft			197 ft + 23 ft			Lever arm length	
							K / NZK 62 ft										
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°		
36	8.5															36	
38	8.5															38	
40	8.5			7												40	
45	8.5			7			5.2			3.9			3			45	
50	8.4			7			5.3			4.2			3.3			50	
55	8.3			6.8			5.3			4.4			3.5			55	
60	8.1	7.4		6.6			5.3			4.5			3.7			60	
65	7.9	7.4		6.4	6		5.2			4.5			3.9			65	
70	7.7	7.4		6.2	6		5.1	4.8		4.5	4.3		3.9			70	
75	7.6	7.3		6.2	6		5	4.8		4.5	4.3		4	3.9		75	
80	7.4	7.2	6.7	6.1	5.9		4.9	4.8		4.4	4.3		4	3.9		80	
85	7.3	7.2	6.7	6	5.9	5.6	4.9	4.7	4.6	4.3	4.2		4	3.9		85	
90	7.2	7.1	6.7	5.9	5.8	5.7	4.8	4.7	4.6	4.3	4.2	4.1	4	3.9	3.8	90	
95	7.1	7	6.6	5.9	5.8	5.6	4.8	4.6	4.5	4.2	4.2	4.1	3.9	3.9	3.8	95	
100	7	6.9	6.4	5.8	5.8	5.6	4.7	4.6	4.5	4.2	4.2	4.1	3.9	3.8	3.8	100	
105	6.9	6.7	6.3	5.7	5.8	5.6	4.6	4.5	4.5	4.1	4.1	4.1	3.8	3.8	3.8	105	
110	6.8	6.5	6.2	5.7	5.7	5.6	4.5	4.4	4.4	4.1	4.1	4.1	3.8	3.8	3.9	110	
115	6.7	6.4	6.1	5.6	5.6	5.6	4.4	4.3	4.3	4	4.1	4.1	3.7	3.8	3.8	115	
120	6.5	6.3	6	5.5	5.4	5.6	4.3	4.2	4.1	3.9	4	4	3.7	3.8	3.8	120	
125	6.2	6.1	5.8	5.4	5.3	5.5	4.2	4.1	4	3.9	3.9	3.9	3.7	3.8	3.7	125	
130	5.7	6	5.7	5.2	5.2	5.4	4.1	4	3.9	3.8	3.8	3.8	3.6	3.7	3.7	130	
135	5.1	5.8	5.6	5	5	5.2	4	3.8	3.8	3.7	3.7	3.7	3.6	3.6	3.6	135	
140	4.9	5.5	5.5	4.6	4.9	5	3.8	3.7	3.7	3.7	3.6	3.6	3.5	3.5	3.5	140	
145	4.7	4.9	5.4	4	4.8	4.9	3.7	3.6	3.6	3.6	3.5	3.5	3.4	3.4	3.5	145	
150	4.3	4.6	5	3.6	4.4	4.7	3.4	3.5	3.5	3.4	3.4	3.4	3.1	3.4	3.4	150	
155	3.9	4.4	4.6	3.5	4	4.5	3.1	3.4	3.4	3	3.3	3.3	2.7	3.3	3.3	155	
160	3.5	4.2	4.4	3.4	3.5	4.2	2.7	3.3	3.3	2.6	3.2	3.2	2.3	3.1	3.2	160	
165	3.2	3.7	4.1	3.1	3.2	3.7	2.3	3	3.2	2.2	3	3.1	1.9	2.8	3.1	165	
170	3.1	3.3	3.8	2.7	3.1	3.3	1.9	2.7	3.1	1.8	2.6	3.1	1.5	2.4	3	170	
175	2.8	3	3.3	2.3	2.9	3.1	1.4	2.3	2.8	1.4	2.2	2.8	2	2.6	2.6	175	
180	2.5	2.9	2.9	1.9	2.6	3		1.9	2.4		1.9	2.4		1.6	2.2	180	
185	2.1	2.6	2.8	1.6	2.2	2.6		1.5	2		1.5	2			1.8	185	
190	1.8	2.3	2.6		1.9	2.2			1.6			1.6			1.4	190	
195	1.5	2	2.2		1.5	1.8										195	
200		1.6	1.8			1.4										200	
205			1.5													205	
210																210	

t_305_004_01001_00_000

Lifting heights

Hauteurs de levage

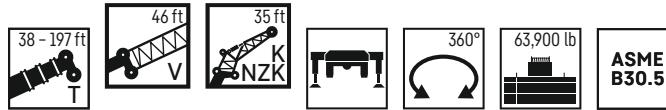
TVK/TVNZK



Lifting capacities

Forces de levage

TVK/TVNZK



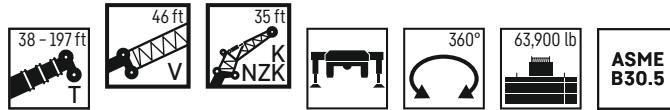
	38 ft + 46 ft			111 ft + 46 ft			123 ft + 46 ft			135 ft + 46 ft			148 ft + 46 ft				
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°		
12	32.5															12	
13	32.5															13	
14	32.5															14	
15	32.5															15	
16	32.4															16	
17	32.3															17	
18	31.9															18	
19	31.5															19	
20	30.4															20	
22	28.5															22	
24	26.7	23.5			19.8											24	
26	25	22.1														26	
28	23.4	20.9		19.4			19									28	
30	22.1	19.8		19.1			18.8			14.6						30	
32	20.9	18.7	17.2	18.7			18.4			14.5						32	
34	19.9	17.6	16.4	18.3			18.2			14.5			11.5			34	
36	18.8	16.8	15.6	17.9			17.8			14.4			11.5			36	
38	17.8	15.9	14.9	17.5	15.3		17.5			14.3			11.5			38	
40	16.7	15.1	14.2	17.1	14.9		17.1	15.3		14.2			11.5			40	
45	14.4	13.5	12.7	16	13.9		16.3	14.4		13.7	12.8		11.3			45	
50	12.7	12	11.5	14.8	13	11.8	15.3	13.4	12.2	13.2	12.2		11	10.5		50	
55	11.4	10.6	10.4	13.8	12.1	11.1	14.4	12.7	11.5	12.6	11.6	10.7	10.7	10.1		55	
60	10.1	9.7	9.4	13	11.4	10.5	13.4	11.9	10.9	12.1	11	10.2	10.3	9.8	9.3	60	
65	9.2	8.9	8.7	12.2	10.7	9.9	12.7	11.2	10.3	11.5	10.4	9.7	10	9.4	9	65	
70	8.5	8.2	8.1	11.3	10.2	9.5	12	10.5	9.8	10.9	9.9	9.3	9.6	9.1	8.7	70	
75	7.8	7.6	7.5	10.6	9.7	9.1	11.3	10.1	9.4	10.5	9.5	9	9.3	8.8	8.4	75	
80	7.3	7.1	7	9.8	9.2	8.7	10.5	9.6	9	10	9.1	8.6	9.1	8.5	8.1	80	
85	6.7	6.6	6.6	9.4	8.8	8.3	9.9	9.2	8.7	9.6	8.8	8.3	8.8	8.2	7.9	85	
90	6.3	6.2	6.2	8.9	8.3	8	9.3	8.8	8.3	9.1	8.5	8.1	8.4	7.9	7.6	90	
95	5.8	5.8	5.8	8.5	8	7.6	8.9	8.4	8	8.7	8.1	7.8	8.1	7.7	7.4	95	
100	5.5	5.5	5.5	8.1	7.6	7.4	8.5	8	7.7	8.3	7.8	7.5	7.8	7.4	7.2	100	
105	5.2	5.1	5.2	7.8	7.4	7.1	8.2	7.7	7.4	8	7.5	7.3	7.6	7.2	7	105	
110	4.9	4.9		7.4	7.1	6.8	7.8	7.4	7.1	7.7	7.2	7	7.3	6.9	6.7	110	
115				7.1	6.8	6.6	7.4	7.1	6.9	7.2	7	6.8	7.1	6.7	6.5	115	
120				6.8	6.5	6.4	7	6.9	6.7	6.9	6.8	6.6	6.4	6.5	6.3	120	
125				6.5	6.3	6.2	6.6	6.5	6.5	6.4	6.4	6.4	5.9	6.2	6.2	125	
130				6.3	6.1	5.9	6.3	6.2	6.2	5.7	6.1	6.1	5.6	5.7	6	130	
135				6	5.9	5.8	5.7	5.9	5.9	5.3	5.7	5.8	5.2	5.5	5.5	135	
140				5.5	5.7	5.6	5.2	5.5	5.6	5	5.1	5.4	4.6	5.1	5.3	140	
145				5	5.4	5.5	4.7	5.1	5.3	4.6	4.9	4.9	4.2	4.6	4.8	145	
150				4.6	5	5.1	4.4	4.6	4.8	4.2	4.5	4.7	4	4.1	4.4	150	
155				4.1	4.5	4.6	4.2	4.3	4.3	3.7	4.1	4.3	3.7	3.9	4	155	
160				3.6	4	4.1	3.8	4.1	4.1	3.5	3.6	3.8	3.3	3.7	3.8	160	
165				3.2	3.5	3.6	3.4	3.7	3.8	3.3	3.4	3.5	2.8	3.2	3.5	165	
170				2.8	3.1	3.1	2.9	3.2	3.3	3	3.2	3.3	2.6	2.8	3	170	
175				2.4	2.6	2.6	2.7	2.8	2.9	2.6	2.9	3	2.5	2.5	2.5	175	
180					2.1	2.2		2.6	2.6	2.3	2.5	2.6	2.3	2.4	2.4	180	
185								2.4	2.5	2.5	2.2	2.3	2	2.3	2.3	185	
190								2.1	2.2	2.1	2	2.1	2.2	1.7	1.9	2	190
195								2	2		1.8	1.9	1.4	1.6	1.6	195	
200										1.5	1.6	1.6				200	

t_305_004_02001_00_000

Lifting capacities

Forces de levage

TVK/TVNZK



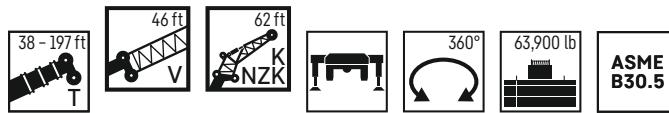
Lift height Highteilehreng Hauteur de levage	160 ft + 46 ft						172 ft + 46 ft						184 ft + 46 ft						191 ft + 46 ft						197 ft + 46 ft						
							K/NZK 35 ft																								
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°				
36	9.1																												36		
38	9.1																												38		
40	9.1			7.3																									40		
45	9.1			7.3																									45		
50	9.1	9		7.3																									50		
55	9.1	8.8		7.3	7.3																								55		
60	8.9	8.6	8.4	7.2	7.3			5.5	5.5																				60		
65	8.7	8.4	8.2	7.2	7.2	6.8		5.4	5.4																				65		
70	8.6	8.2	8	7.1	7	6.8		5.3	5.3	5.3																			70		
75	8.4	8	7.7	6.9	6.9	6.7		5.2	5.2	5.2																			75		
80	8.1	7.8	7.5	6.8	6.8	6.7		5.1	5.1	5.1																			80		
85	7.9	7.5	7.3	6.7	6.6	6.5		5	4.9	5																				85	
90	7.7	7.3	7.1	6.5	6.4	6.4		4.9	4.8	4.8																			90		
95	7.4	7.1	6.9	6.3	6.2	6.2		4.7	4.6	4.6																			95		
100	7.1	6.9	6.7	6.1	6.1	6.1		4.6	4.5	4.5																			100		
105	6.9	6.7	6.6	5.9	5.9	5.9		4.4	4.3	4.3																			105		
110	6.6	6.5	6.4	5.7	5.7	5.7		4.3	4.2	4.2																			110		
115	6.4	6.3	6.2	5.5	5.5	5.5		4.1	4.1	4																			115		
120	6.1	6.1	6.1	5.3	5.3	5.3		4	3.9	3.9	3.7																		120		
125	5.6	5.9	5.9	5.1	5.1	5.1		3.8	3.8	3.8																			125		
130	5	5.6	5.7	4.8	4.9	4.9		3.7	3.6	3.6																			130		
135	4.7	5.1	5.4	4.4	4.7	4.8		3.5	3.5	3.5																			135		
140	4.5	4.6	4.9	3.8	4.3	4.6		3.4	3.4	3.4																			140		
145	4.2	4.4	4.4	3.3	3.9	4.3		3.2	3.3	3.3																			145		
150	3.7	4.1	4.2	3.2	3.4	3.8		2.8	2.8	3.2																			150		
155	3.2	3.7	4	3.1	3.1	3.3		2.4	2.8	3.1																			155		
160	2.9	3.2	3.5	2.8	2.9	3		1.9	2.4	2.7																			160		
165	2.8	2.8	3	2.4	2.8	2.9		1.4	2	2.4																			165		
170	2.5	2.7	2.7	1.9	2.4	2.7			1.5	1.9																			170		
175	2.1	2.5	2.6	1.5	2	2.2				1.4																				175	
180	1.7	2.1	2.3		1.6	1.8																								180	
185	1.3	1.7	1.9			1.4																									185
190		1.3	1.5																											190	

t_305_004_02001_00_000

Lifting capacities

Forces de levage

TVK/TVNZK



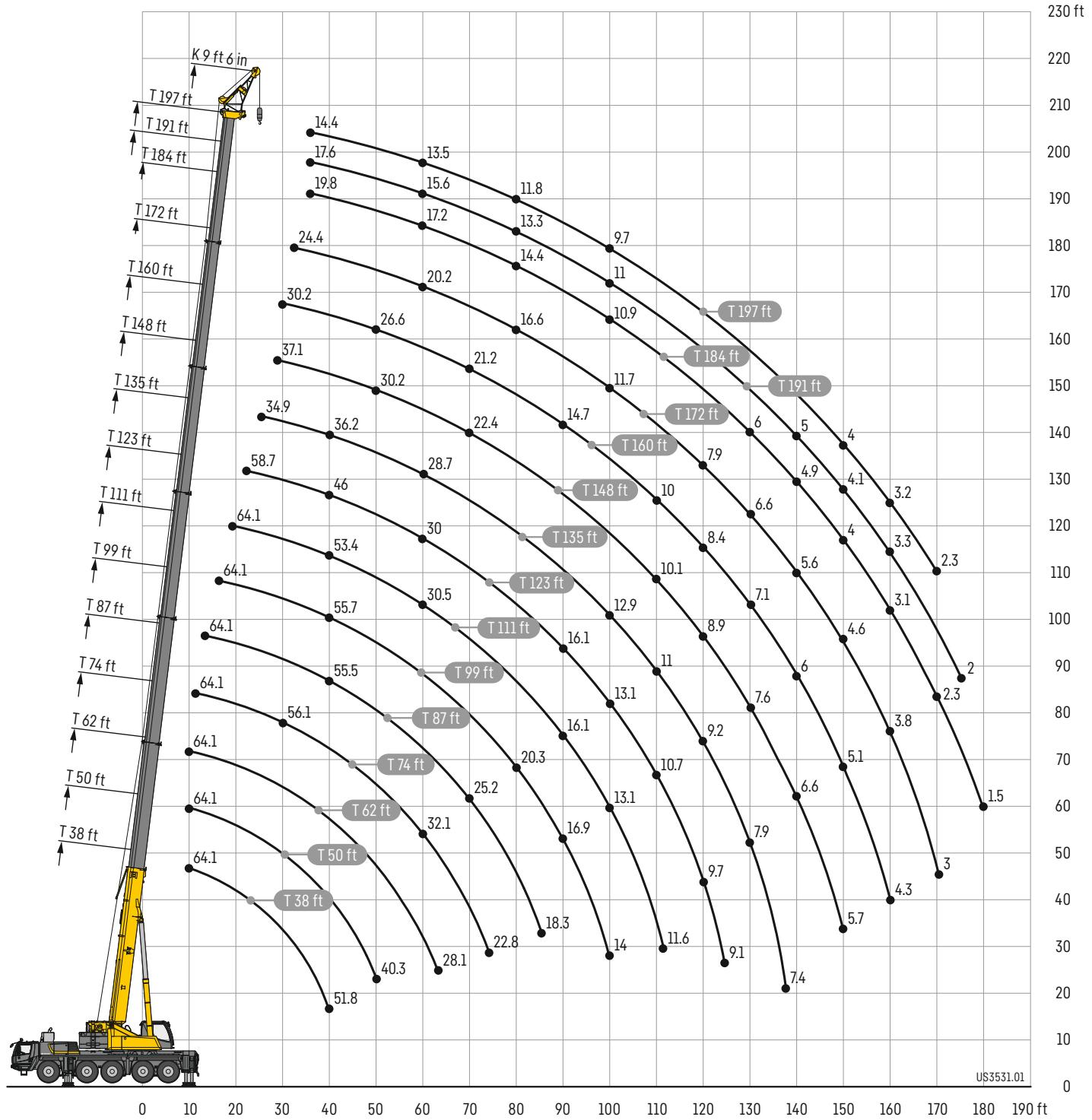
Leverage T	38 ft + 46 ft			111 ft + 46 ft			123 ft + 46 ft			135 ft + 46 ft			148 ft + 46 ft			Leverage T	
							K/NZK 62 ft										
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°		
15	15.7															15	
16	15.6															16	
17	15.5															17	
18	15.5															18	
19	15.4															19	
20	15.3															20	
22	15.2															22	
24	15.1															24	
26	15															26	
28	14.9															28	
30	14.7			10.7												30	
32	14.5			10.6												32	
34	14.2			10.5												34	
36	14			10.5												36	
38	13.7	10.6		10.4				10.3			9.2					38	
40	13.3	10.4		10.4				10.2			9.2					40	
45	12	9.9		10.2				10.1			9.1					45	
50	10.8			10				10			9					50	
55	9.7	9.1	7.8	9.6	8.6		9.7	8.8		8.8						55	
60	8.8	8.4	7.6	9.2	8.2		9.4	8.5		8.5	7.9					60	
65	8.1	7.8	7.4	8.8	7.9		9	8.1		8.3	7.6					65	
70	7.5	7.2	7	8.4	7.5	6.9	8.6	7.7		8	7.3					70	
75	6.9	6.7	6.6	8	7.2	6.7	8.3	7.4	6.8	7.7	6.5	7	6.5			75	
80	6.4	6.2	6.2	7.6	6.9	6.4	7.9	7.1	6.6	7.4	6.8	6.3	6.8	6.3	5.9	80	
85	5.9	5.8	5.8	7.3	6.6	6.1	7.6	6.8	6.3	7.2	6.1	6.6	6.1	5.7	85		
90	5.5	5.5	5.4	6.9	6.3	5.9	7.3	6.5	6.1	6.9	6.3	5.9	6.4	5.9	5.6	90	
95	5.2	5.1	5.1	6.6	6	5.7	6.9	6.3	5.9	6.6	6	5.7	6.2	5.7	5.4	95	
100	4.8	4.8	4.8	6.3	5.8	5.5	6.6	6	5.6	6.4	5.8	5.5	6	5.5	5.2	100	
105	4.5	4.5	4.5	6	5.6	5.3	6.3	5.8	5.4	6.1	5.6	5.3	5.7	5.3	5	105	
110	4.3	4.2	4.3	5.8	5.3	5.1	6	5.5	5.3	5.8	5.4	5.1	5.5	5.1	4.9	110	
115	4	4	4	5.5	5.1	4.9	5.8	5.3	5.1	5.6	5.2	5	5.3	5	4.8	115	
120	3.8	3.7	3.8	5.3	4.9	4.7	5.6	5.1	4.9	5.4	5	4.8	5.1	4.8	4.6	120	
125	3.5	3.5	3.6	5.1	4.7	4.6	5.3	4.9	4.7	5.2	4.8	4.7	5	4.7	4.5	125	
130	3.3	3.3	3.4	4.8	4.6	4.4	5.1	4.8	4.6	5	4.7	4.5	4.8	4.5	4.4	130	
135	3.2	3.2		4.6	4.4	4.3	4.9	4.6	4.4	4.9	4.5	4.4	4.6	4.4	4.2	135	
140				4.5	4.2	4.1	4.7	4.4	4.3	4.6	4.4	4.2	4.3	4.2	4.1	140	
145				4.3	4.1	4	4.5	4.3	4.2	4.3	4.2	4.1	4.2	4.1	4	145	
150				4.1	3.9	3.9	4.2	4.1	4	4.1	4	3.9	4	3.9	3.9	150	
155				4	3.8	3.8	4	4	3.9	3.8	3.9	3.9	3.4	3.8	3.8	155	
160				3.8	3.7	3.6	3.7	3.8	3.8	3.5	3.8	3.8	3.2	3.6	3.7	160	
165				3.7	3.6	3.5	3.4	3.6	3.6	3.2	3.5	3.6	3	3.4	3.5	165	
170				3.4	3.5	3.4	3.2	3.4	3.5	2.8	3.4	3.4	2.8	3	3.4	170	
175				3	3.4	3.4	3	3.1	3.3	2.6	3	3.3	2.4	2.8	3.1	175	
180				2.6	3.1	3.3	2.6	3	3.1	2.5	2.6	3	2	2.6	2.8	180	
185				2.3	2.7	2.8	2.3	2.7	2.9	2.3	2.4	2.6	1.7	2.3	2.6	185	
190				1.9	2.3	2.4	2	2.4	2.6	1.9	2.3	2.4	1.6	1.9	2.3	190	
195				1.6	1.9	1.9	1.8	2	2.2	1.6	2.1	2.2	1.5	1.6	1.9	195	
200				1.3	1.6	1.5	1.7	1.8	1.8	1.4	1.8	2	1.5	1.5	1.5	200	
205							1.5	1.7	1.7		1.5	1.6		1.4	1.5	205	
210							1.5	1.5	1.5		1.5	1.6		1.3	1.3	210	

Leverage T	160 ft + 46 ft			172 ft + 46 ft			184 ft + 46 ft			191 ft + 46 ft			197 ft + 46 ft			Leverage T	
							K / NZK 62 ft										
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°		
45	6.3			4.2			2.3			1.6						45	
50	6.4			4.4			2.4			1.7						50	
55	6.4			4.6			2.4			1.7						55	
60	6.4			4.7			2.6			1.7						60	
65	6.2	5.7		4.7			2.8			1.8						65	
70	6.1	5.6		4.7	4.5		2.9			1.9						70	
75	6	5.6		4.7	4.5		3.1	3.5		2	2.5		1.4	1.7		75	
80	5.9	5.6		4.7	4.4		3.2	3.4		2.1	2.7		1.4	1.7		80	
85	5.8	5.5	5.1	4.6	4.4		3.3	3.4		2.2	2.9		1.5	1.9		85	
90	5.7	5.4	5	4.5	4.4	4.1	3.3	3.4		2.4	2.9		1.6	2		90	
95	5.6	5.3	5	4.4	4.3	4.1	3.4	3.4	3.2	2.5	2.9		2.8	2.2		95	
100	5.5	5.1	4.9	4.4	4.3	4.1	3.4	3.4	3.2	2.6	2.9		2.8	2.4		100	
105	5.3	5	4.8	4.3	4.3	4.1	3.3	3.3	3.2	2.7	2.9		2.8	1.9		105	
110	5.2	4.8	4.6	4.2	4.3	4.1	3.3	3.2	3.2	2.7	2.9		2.8	2.6		110	
115	5	4.7	4.5	4.1	4.2	4.1	3.2	3.1	3.2	2.8	2.9		2.8	2.1		115	
120	4.9	4.6	4.4	4.1	4.1	4	3.1	3	3.1	2.7	2.8		2.8	2.2		120	
125	4.7	4.4	4.3	4	4.1	4	3	2.9	3	2.6	2.8		2.8	2.2		125	
130	4.6	4.3	4.2	3.9	4	3.8	2.8	2.8	2.9	2.6	2.7		2.7	2.2		130	
135	4.4	4.2	4.1	3.8	3.8	3.8	2.7	2.7	2.8	2.5	2.6		2.6	2.2		135	
140	4	4.1	4	3.7	3.7	3.7	2.6	2.6	2.6	2.4	2.5		2.5	2.1		140	
145	3.7	3.9	3.9	3.4	3.6	3.6	2.5	2.5	2.5	2.4	2.4		2.4	2.1		145	
150	3.5	3.8	3.8	2.9	3.5	3.5	2.4	2.4	2.5	2.3	2.4		2.4	2.1		150	
155	3.2	3.5	3.7	2.5	3.3	3.5	2.3	2.3	2.4	2.2	2.3		2.3	2		155	
160	2.9	3.3	3.6	2.3	3	3.4	2	2.2	2.3	1.9	2.2		2.2	1.5		160	
165	2.5	3.2	3.5	2.2	2.6	3.2	1.6	2.1	2.2	1.4	2.1		2.1	2		165	
170	2.1	2.9	3.1	2	2.2	2.8		2	2.1	1.9	2		2	1.7		170	
175	1.9	2.5	3	1.7	2	2.4		1.7	2	1.9	1.7		1.9				

Lifting heights

Hauteurs de levage

TK



Lifting capacities

Forces de levage



	38 ft	50 ft	62 ft	74 ft	87 ft	99 ft	111 ft	123 ft	135 ft	148 ft	160 ft	172 ft	184 ft	191 ft	197 ft		
	K 9 ft 6 in																
10	64.1	64.1	64.1	64.1												10	
11	64.1	64.1	64.1	64.1												11	
12	64.1	64.1	64.1	64.1												12	
13	64.1	64.1	64.1	64.1												13	
14	64.1	64.1	64.1	64.1	64.1											14	
15	64.1	64.1	64.1	64.1	64.1											15	
16	64.1	64.1	64.1	64.1	64.1	64.1										16	
17	64.1	64.1	64.1	64.1	64.1	64.1										17	
18	64.1	64.1	64.1	64.1	64.1	64.1										18	
19	64.1	64.1	64.1	64.1	64.1	64.1	64.1									19	
20	64.1	64.1	64.1	64.1	64.1	64.1	64.1									20	
22	64.1	64.1	64.1	64.1	64.1	64.1	64.1	58.7								22	
24	64.1	64.1	64.1	64.1	64.1	64.1	64.1	57.4	34.9							24	
26	64.1	64.1	64.1	64.1	64.1	64.1	64.1	56.1	42.7							26	
28	64.1	64.1	64.1	64.1	64.1	64.1	64.1	54.8	41.8	37.1						28	
30	64.1	64.1	64.1	64.1	64.1	64.1	63.9	53.4	40.9	36.6	30.2					30	
32	64.1	64.1	64.1	64.1	64.1	64.1	62.4	51.9	39.9	36.1	30	24.4				32	
34	64.1	64.1	64.1	64.1	64.1	64.1	60.8	50.5	39	35.5	29.8	24.2				34	
36	62	63.6	63.6	63.1	62.4	61.7	59.3	49	38.1	35	29.6	24	19.8	17.6	14.4	36	
38	58.1	59.4	60	59.8	59.2	57.9	56.8	47.5	37.2	34.4	29.3	23.8	19.7	17.5	14.4	38	
40	51.8	55.6	56.1	56.1	55.5	55.7	53.4	46	36.2	33.8	28.9	23.6	19.5	17.4	14.4	40	
45		47	47.5	48	48.4	47.7	46.1	42.4	34	32.1	27.8	22.9	19.1	17.1	14.2	45	
50		40.3	40.9	41.9	41.7	41.1	40.2	38.2	32.2	30.2	26.6	22.2	18.6	16.6	14	50	
55			36.3	36.5	36.3	35.7	34.8	34.1	30.4	28.3	25.3	21.2	18	16.1	13.8	55	
60				32	32.1	31.9	31.4	30.5	30	28.7	26.5	24	20.2	17.2	15.6	13.5	60
65				28.1	28.5	28.3	27.7	26.8	26.8	26.2	24.7	22.6	19.2	16.5	15	13.1	65
70					25.4	25.2	24.6	24.2	24.1	23.1	22.4	21.2	18.3	15.7	14.5	12.7	70
75					22.8	22.5	21.9	22.4	21.3	20.9	20.4	19.6	17.5	15.1	13.9	12.3	75
80						20.2	20.3	20	18.9	19	18.5	17.6	16.6	14.4	13.3	11.8	80
85						18.3	18.8	17.9	17.7	17	16.4	16.1	15.6	13.7	12.8	11.2	85
90							16.9	16.1	16.1	15.2	15.2	14.7	13.8	13	12.2	10.7	90
95							15.4	14.5	14.6	13.8	13.8	13.2	12.4	12.2	11.7	10.2	95
100							14	13.1	13.1	12.9	12.5	11.7	11.7	10.9	11	9.7	100
105								11.9	11.9	11.9	11.2	10.9	10.5	9.7	9.8	9.3	105
110								11.6	10.7	11	10.1	10	9.5	8.8	8.9	8.7	110
115									10.1	10	9.5	9.2	8.7	8	8.1	8	115
120									9.7	9.2	8.9	8.4	7.9	7.3	7.3	7.3	120
125									9.1	8.5	8.3	7.7	7.3	6.6	6.7	6.6	125
130										7.9	7.6	7.1	6.6	6	6.1	6	130
135										7.4	7.1	6.5	6.1	5.4	5.5	5.5	135
140											6.6	6	5.6	4.9	5	5	140
145											6.1	5.5	5.1	4.4	4.5	4.5	145
150											5.7	5.1	4.6	4	4.1	4	150
155											4.7	4.2	3.6	3.7	3.6	155	
160											4.3	3.8	3.1	3.3	3.2	160	
165												3.4	2.7	2.8	2.8	165	
170												3	2.3	2.4	2.3	170	
175													1.9	2		175	
180													1.5			180	

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Equipment

Crane carrier

Frame	Liebherr designed and manufactured, box-type, torsion resistant design of hightensile fine grained structural steel.
Outriggers	4-point supporting system, hydraulically telescopic into horizontal and vertical direction. Operation with remote control, automatic support leveling, electronic inclination display.
Engine	6-cylinder Diesel, make Liebherr, watercooled, output 400 kW (544 h.p.), max. torque 1856 lb·ft. Exhaust emissions to (EU 2016/1628 and EPA/CARB or ECE-R.96, spark arrestor. Fuel reservoir: 148 gallons.
Transmission	Automated 12-speed manual gearbox with oil-cooled multi-disk clutch including intarder. Distributor gear, two-stage, with locking differential.
Axles	Low maintenance carrier axles, all 5 axles steered. Axle 2, 4 and 5 are equipped with planetary gears, all driven axles with transverse differential locks, axle 4 with longitudinal differential lock.
Cardan shaft	All cardan shafts with 70° diagonal toothed and maintenance free.
Suspension	All axles are mounted on hydropneumatic suspension – "Niveumatik suspension" and are lockable hydraulically.
Tyres	10 tyres, size: 445/95 R 25 (16.00 R 25).
Steering	2-circuit system with hydraulic servo steering. Active speed depending rear axle steering, special steering programs for various driving situations.
Brakes	Service brake: all-wheel servo-air brake, all axles are equipped with disc brakes, dual circuit. Parking brake: Spring brake actuator, acting on the wheels of the 2nd to 5th axle. Sustained-action brakes: Engine brake as exhaust retarder with Liebherr additional brake system ZBS. Intarder in gearbox.
Driver's cab	Spacious, corrosion-resistant driver's cab which is disconnected from the vehicle frame using spring and damper systems.
Electrical system	Modern data bus technique, 24 Volt DC.

Crane superstructure

Frame	Liebherr-manufactured, torsionally rigid steel construction made from high-tensile fine-grain steel. Slewing ring.
Crane drive	Mechanical drive of the crane hydraulic from the chassis. Variable axial piston pumps with servo control and power regulation.
Control	Electric "Load Sensing" control, simultaneous operation of 4 working motions, 2 self-centering hand control levers (joy-stick type).
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 pilot-controlled brake valve.
Slewing gear	Axial piston fixed displacement motor, planetary gear, spring-loaded static brake. Slewing gear invertible from released to locked as a standard feature.
Crane cab	Large screen area, compound glass, comfort furnishing, cabin tilttable 20° to rear.
Safety devices	LICCON3 safe load indicator, test system hoist limit switch, safety valves to prevent pipe and hose ruptures.
Telescopic boom	1 base section and 6 telescopic sections. All telescopic sections hydraulically extendable independent of one another. Rapid-cycle telescoping system TELEMATIK. Boom length: 38 ft - 197 ft.
Counterweight	29,500 lb
Electrical system	Modern data bus technique, 24 Volt DC.

Additional equipment

K	Assembly jib 9 ft 6 in
K	Single folding jib, 35 ft. Double swing-away jib 35 ft - 62 ft. Mechanical adjustment 0°; 20°; 40°.
NZK	Single folding jib, 35 ft. Double swing-away jib 35 ft - 62 ft. Hydraulic adjustment 0° - 40°.
V	Telescopic boom extension 2 x 23 ft
2nd hoist gear	For two-hook operation or for operation with swing-away jib if the hoist rope shall remain reeved.
Additional counterweight	34,400 lb for a total counterweight of 63,900 lb.
Tyres	10 tyres, size 525/80 R 25 (20.5 R 25).
Drive 10 x 8	Additional drive of the 1st axle.

Other items of equipment available on request.

Equipement

Châssis porteur

Cadre	Fabrication Liebherr, construction en caisson indéformable, en acier à haute résistance à grains fins.
Calage	Dispositif de calage horizontal et vertical en 4 points, entièrement déployable hydrauliquement. Utilisation avec commande à distance, mise à niveau automatique du calage, inclinomètre électronique.
Moteur	Moteur diesel, 6 cylindres, fabriqué par Liebherr, à refroidissement par eau, de 400 kW (544 ch), couple max. 1856 lb-ft. Emissions des gaz d'échappement conformes aux directives (EU) 2016/1628 et EPA/CARB ou ECE-R.96, pare-étincelles. Capacité du réservoir à carburant: 148 gallons.
Boîte de vitesse	Boîte de vitesses 12 rapports automatisée avec embrayage multidisque sous bain d'huile, incl. ralentisseur. Mécanisme de distribution deux étages avec blocage du différentiel de distribution.
Essieux	Essieux nécessitant peu d'entretien, les 5 essieux sont directeurs. Les essieux 2, 4 et 5 sont des essieux planétaires, tous les essieux moteurs avec différentiel transversal et l'essieu 4 avec différentiel longitudinal.
Arbres articulés	Tous les flasques de croisillons avec denture en croix 70° et sans entretien.
Suspension	Suspension hydropneumatique «Niveumatik» – sur tous les essieux. Chaque essieu peut être bloqué hydrauliquement.
Pneumatiques	10 pneus de taille: 445/95 R 25 (16.00 R 25).
Direction	2 circuits avec direction assistée hydraulique. Direction active des essieux arrière et dépendante de la vitesse, programmes de direction spéciaux pour les différents modes de déplacement.
Freins	Freins de service: servofrein à air comprimé, tous les essieux sont munis de freins à disque, à 2 circuits. Frein à main: ressort accumulé agissant sur les roues des essieux 2 à 5. Freins continus: frein moteur par clapet sur échappement avec système de ralentissement Liebherr ZBS. Ralentisseur monté sur boîte de vitesse.
Cabine	Cabine du grutier spacieuse, résistant à la corrosion, découpée du châssis de l'engin grâce à des systèmes à ressorts amortisseurs.
Installation électrique	Technique moderne de transmission de données par BUS de données, courant continu 24 Volts.

Partie tournante

Cadre	Fabrication Liebherr, construction soudée indéformable, en acier à grain fin haute résistance. Couronne pivotante à billes.
Entraînement	Entraînement mécanique de l'hydraulique de la grue par le châssis de la grue. pompes réglables à pistons axiaux avec servocommande et réglage de puissance.
Commande	Direction électrique «Load Sensing», 4 mouvements de travail dirigeable simultanément, deux leviers de commande à 4 positions et à autocentrage.
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 clapet de frein commandé.
Dispositif de rotation	Moteur à cylindrée constante à pistons axiaux, engrenage planétaire, frein d'arrêt commandé par ressort. Orientation de série commutable en circuit hydraulique ouvert ou fermé (freinage automatique ou au pied).
Cabine de grue	Large champ de vision, vitrage de sécurité, équipement pour un confort idéal, cabine inclinable de 20° vers l'arrière.
Dispositif de sécurité	Contrôleur de charge «LICCON3», système test limitation de la course pour le levage, soupape de sûreté contre la rupture de tubes et de tuyaux.
Flèche télescopique	1 élément de base et 6 éléments télescopiques. Tous les éléments télescopables indépendamment les uns des autres. Système de télescopage séquentiel rapide, TELEMATIK. Longueur de flèche: 38 ft - 197 ft.
Contrepoids	29,500 lb
Installation électrique	Technique moderne de transmission de données par BUS de données. Courant continu 24 Volts.

Equipement supplémentaire

K	Flechette de montage 9 ft 6 in
K	Flechette pliante simple, longueur 35 ft. Double flechette pliante 35 ft - 62 ft. Reglage mécanique 0°; 20°; 40°.
NZK	Flechette pliante simple, longueur 35 ft. Double flechette pliante 35 ft - 62 ft. Reglage hydraulique 0° - 40°.
V	Rallonge flèche télescopique 2 x 23 ft
2ème mécanisme de levage	Pour l'utilisation du deuxième crochet, ou bien pour une utilisation avec flèchette pliante lorsque le câble de levage principal est mouflé.
Contrepoids additionnel	34,400 lb pour un contrepoids total de 63,900 lb.
Pneumatiques	10 pneus. Taille: 525/80 R 25 (20.5 R 25).
Entraînement 10 x 8	Essieu 1 est entraîné additionnellement.

Autres équipements supplémentaires sur demande.

Description of symbols

Explication des symboles

	Max. capacity Capacité max.		Gear Vitesse		Radius Portée
	Max. hoist height Hauteur de levage max.		Onroad gear Vitesse de route		Counterweight Contrepoids
	Max. radius Portée max.		Crawl speed Marche lente		Outriggers Calage
	Tires Pneumatiques		Max. supporting forces Forces d'appui max.		Slewing gear / Working area Mécanisme d'orientation / Plage de travail
	Hookblock/Capacity Moufle à crochet/Capacité de charge		Crane superstructure Partie tournante de la grue		Standard Norme
	No. of sheaves Poulies		infinitely variable en continu		Telescopic boom Flèche télescopique
	No. of lines Brins		Rope diameter Diamètre		Mechanically/hydraulically adjustable folding jib Pointe pliante reglable mecaniquement/ hydrauliquement
	Weight Poids		Rope length Longueur du câble		Telescopic boom extension Rallonge flèche télescopique
	Engine Moteur		Max. single line pull Effort au brin maxi.		Assembly jib Flechette de montage
	Crane carrier Châssis porteur		Hoist gear Treuil de levage		
	Driving speed Vitesse de translation		Slewing speeds Vitesses d'orientation		
	Gradability Aptitude à gravir les pentes		Boom length Longueur de la flèche		
	Transmission Boîte de vitesse		Boom position Position de la flèche		

Remarks

1. The lifting capacities do not exceed 85 % 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 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. The lifting capacities stated are valid for lifting operation only (corresponding with crane classification according to ISO 4301-1, crane group A1).
4. Lifting capacities are given in kip.
5. The weight of the hook blocks and hooks is part of the load and therefore it must be deducted from the lifting capacities.
6. Working radii are measured from the slewing center.
7. The stated lengths of the telescopic boom are maximum values and may deviate slightly.
8. The lifting capacities given for the telescopic boom apply if the folding jib is removed.
9. Subject to modification of lifting capacities.
10. Lifting capacities above 153,200 lb/181,200 lb only with additional pulley block/special equipment.
11. 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.
12. The illustrations in this brochure may feature accessories and special equipment not included in the standard scope of delivery.

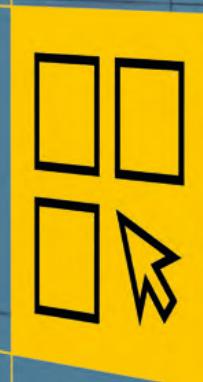
Remarques

1. La capacité de charge ne doit pas dépasser 85 % 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 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. Forces de levage pour application de grue de montage (correspond à la classification de grues selon ISO 4301-1, groupe de grues A1).
4. Les charges sont indiquées en kip.
5. 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.
6. Les portées sont calculées à partir de l'axe de rotation.
7. Les longueurs indiquées pour la flèche télescopique sont des valeurs maximales et peuvent légèrement varier dans la réalité.
8. Les charges indiquées pour la flèche télescopique sont valables lorsque la fléchette pliante est démontée.
9. Charges données sous réserve de modification.
10. Forces de levage plus de 153,200 lb/181,200 lb seulement avec moufle additionnel/équipement supplémentaire.
11. 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.
12. Les figures contiennent également des accessoires et des équipements spéciaux non inclus de série dans la livraison.

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