

ATF 220G-5

220 TON MAX. LIFTING CAPACITY

EUROMOT 4

ALL TERRAIN CRANE



2 ENGINES

Table of contents · Inhaltsverzeichnis · Table des matières Índice · Sommario · Оглавление

General · Allgemein · Généralités · Generalidades · Generalità · Общие положения

Boom systems · Auslegersysteme · Systèmes de flèche · Sistema de pluma · Sistemi di bracci · Конфигурации стрелы 4 - 5

Vehicle dimensions · Fahrzeugabmessungen · Dimensions du véhicule · Dimensiones del vehículo
Dimensioni veicolo · Габариты машины 6

On-road and off-road driving · Straßen- und Geländefahrt · Marche route et tout terrain Traslado por carretera y todoterreno · Marcia su strada e fuori strada · Движение по дорогам и бездорожью

Axle loads · Achslasten · Charges par essieu · Cargas por eje · Carichi assiali · Нагрузка на ось 8

Speeds and gradeability · Geschwindigkeiten und Steigfähigkeit · Vitesses de conduite et gravissement de pente
Velocidades y pendientes superables · Velocità e pendenza · Скорость и грузоподъемность 8

Steering · Lenkung · Direction · Dirección · Sterzo · Рулевое управление 8

Transport · Transporte · Trasporto · Транспортировка

Counterweight · Gegengewicht · Contrepoids · Contrapeso · Contrappeso · Противовес 10 - 11

Jibs · Spitzen · Fléchettes · Plumines · Punte · гусек 12 - 13

Hose drum for hydraulic jib · Schlauchtrommel für hydraulische Spitze · Tambour de flexible pour fléchette hydraulique
Devanadera para plumín hidráulico · Aspo raccoglitorbo per punta idraulica · Барабан для намотки шланга для гидравлического гуська 13

Auxiliary winch · Zusatzhubwinde · Treuil supplémentaire · Cabrestante auxiliar
Argano aggiuntivo · Дополнительная лебедка 13

Operation · Einsatz · Utilisation · Uso · Эксплуатация

Main boom · Hauptausleger · Flèche principale · Pluma principal · Braccio principale · Главная стрела 16

Swing mechanism · Drehwerk · Groupe de rotation · Mecanismo de giro · Gruppo di rotazione · Поворотный механизм 16

Winches · Hubwinden · Treuils · Cabrestantes · Argani · Лебедки 16

Hook blocks · Unterflaschen · Mouflas · Pastecas de carga · Bozzelli · Крюковые обоймы 16

Working ranges and lifting capacities · Arbeitsbereiche und Traglasten · Rayons de travail et charges de levage
Áreas de trabajo y cargas · Aree di lavoro e portate · Рабочие зоны и грузоподъемность 18 - 46

Equipment · Ausstattung · Équipement · Equipamiento · Equipaggiamento · Оборудование

Equipment · Ausstattung · Équipement · Equipamiento · Equipaggiamento · Оборудование 48 - 54

Additional information · Zusatzinformationen · Informations supplémentaires Información adicional · Altre informazioni · Дополнительная информация

Remarks · Anmerkungen · Remarques · Notas · Annotazioni · Примечания 56 - 57

Symbols · Symbolerklärung · Glossaire des symboles · Glosario de símbolos
Spiegazione dei simboli · Условные обозначения 58

GENERAL TECHNICAL DATA

ALLGEMEINE TECHNISCHE DATEN

CARACTÉRISTIQUES TECHNIQUES GÉNÉRALES

DATOS TÉCNICOS GENERALES

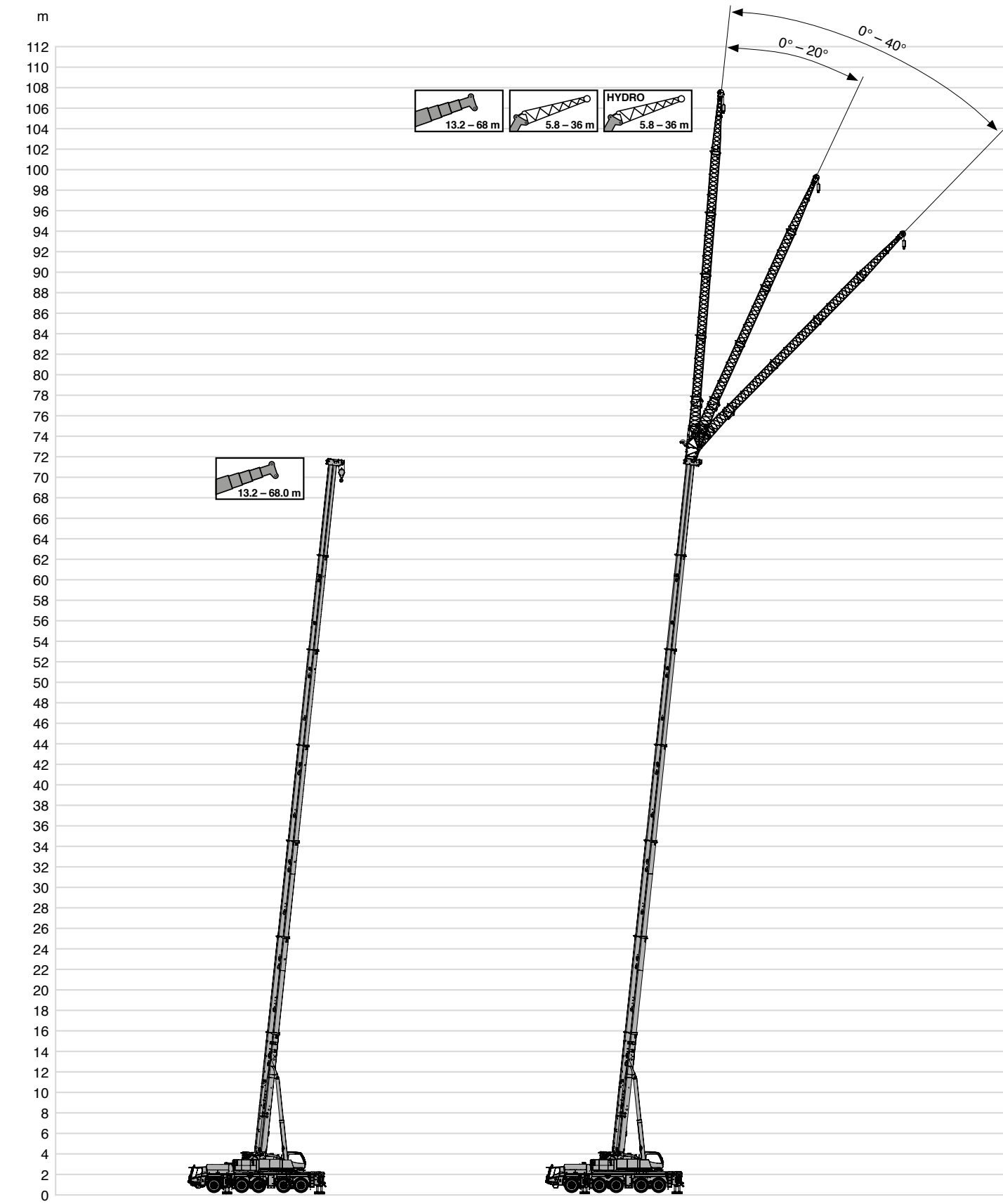
DATI TECNICI GENERALI

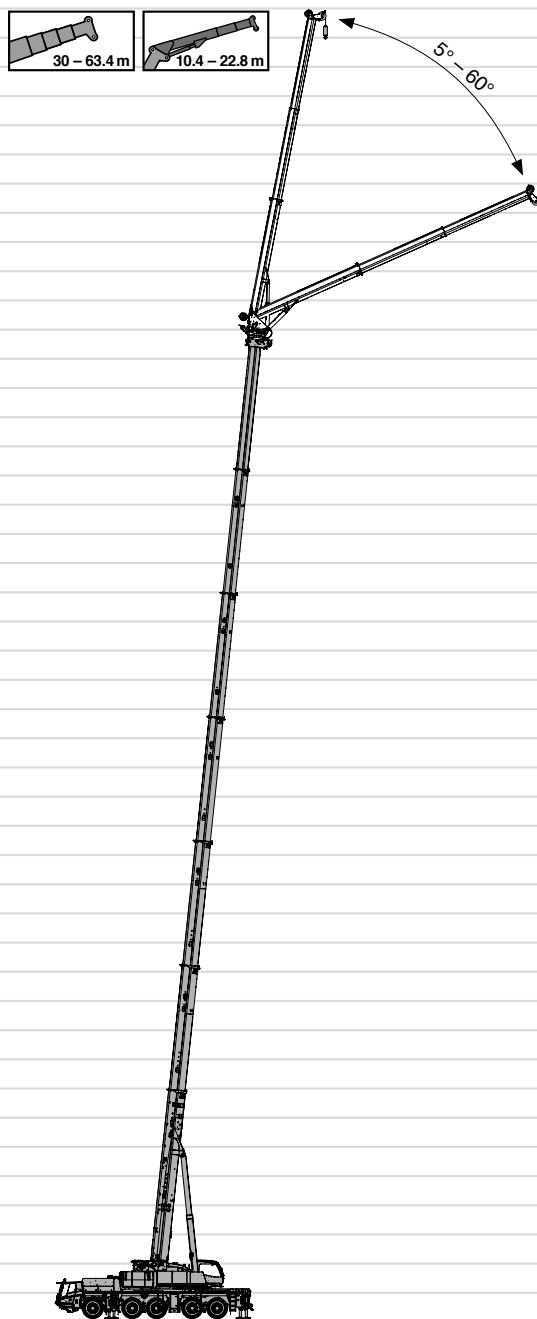
ОБЩИЕ ТЕХНИЧЕСКИЕ ХАРАКТЕРИСТИКИ



General · Allgemein · Généralités
Generalidades · Generalità · Общие положения

Boom systems · Auslegersysteme · Systèmes de flèche
Sistema de pluma · Sistemi di bracci · Конфигурации стрелы



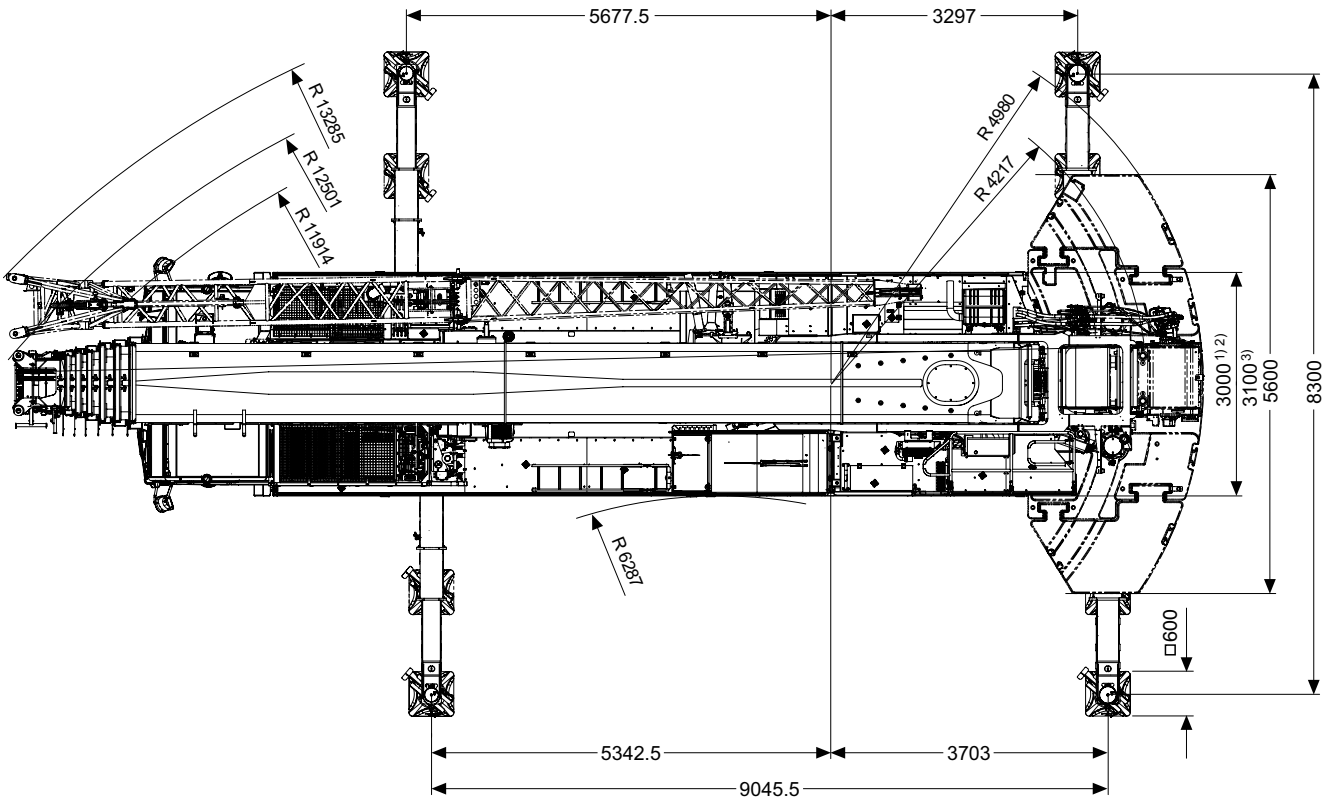
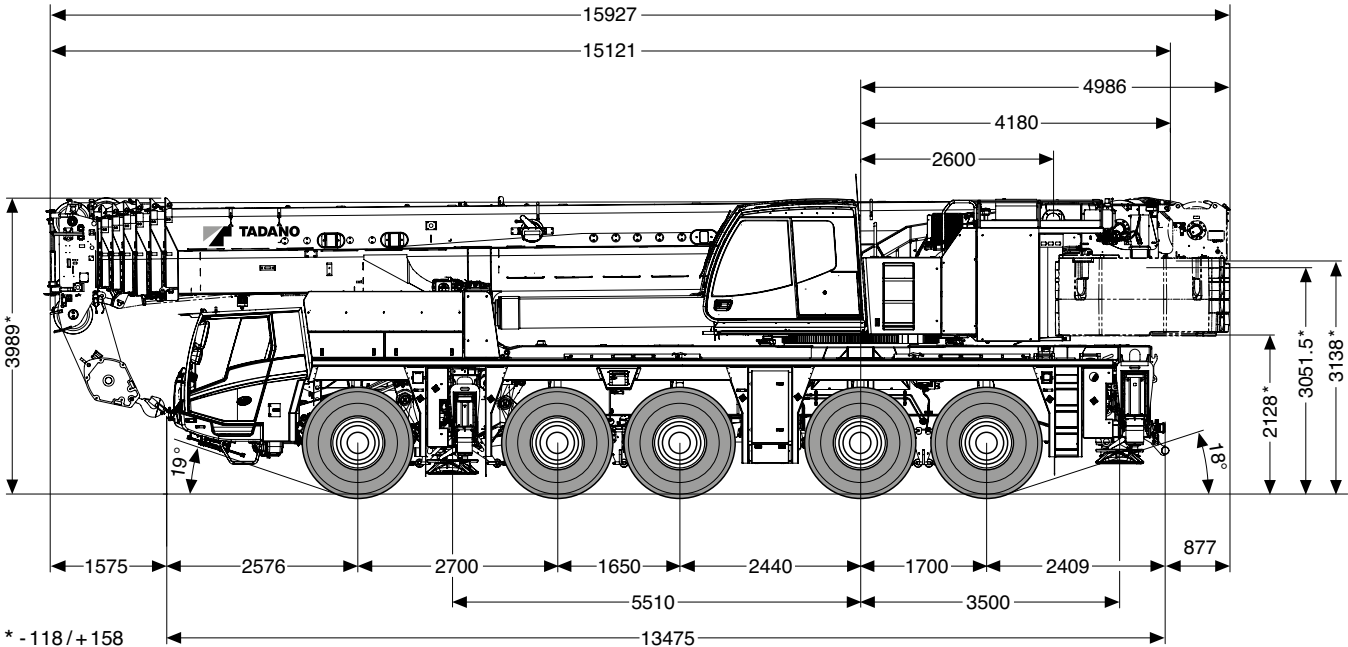


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General · Allgemein · Généralités
 Generalidades · Generalità · Общие положения

Vehicle dimensions · Fahrzeugabmessungen · Dimensions du véhicule
 Dimensiones del vehículo · Dimensioni veicolo · Габариты машины



1) 385/95 R 25 (14.00 R 25)
 2) 445/95 R 25 (16.00 R 25)
 3) 525/80 R 25 (20.5 R 25)

TECHNICAL DATA FOR ON-ROAD AND OFF-ROAD DRIVING

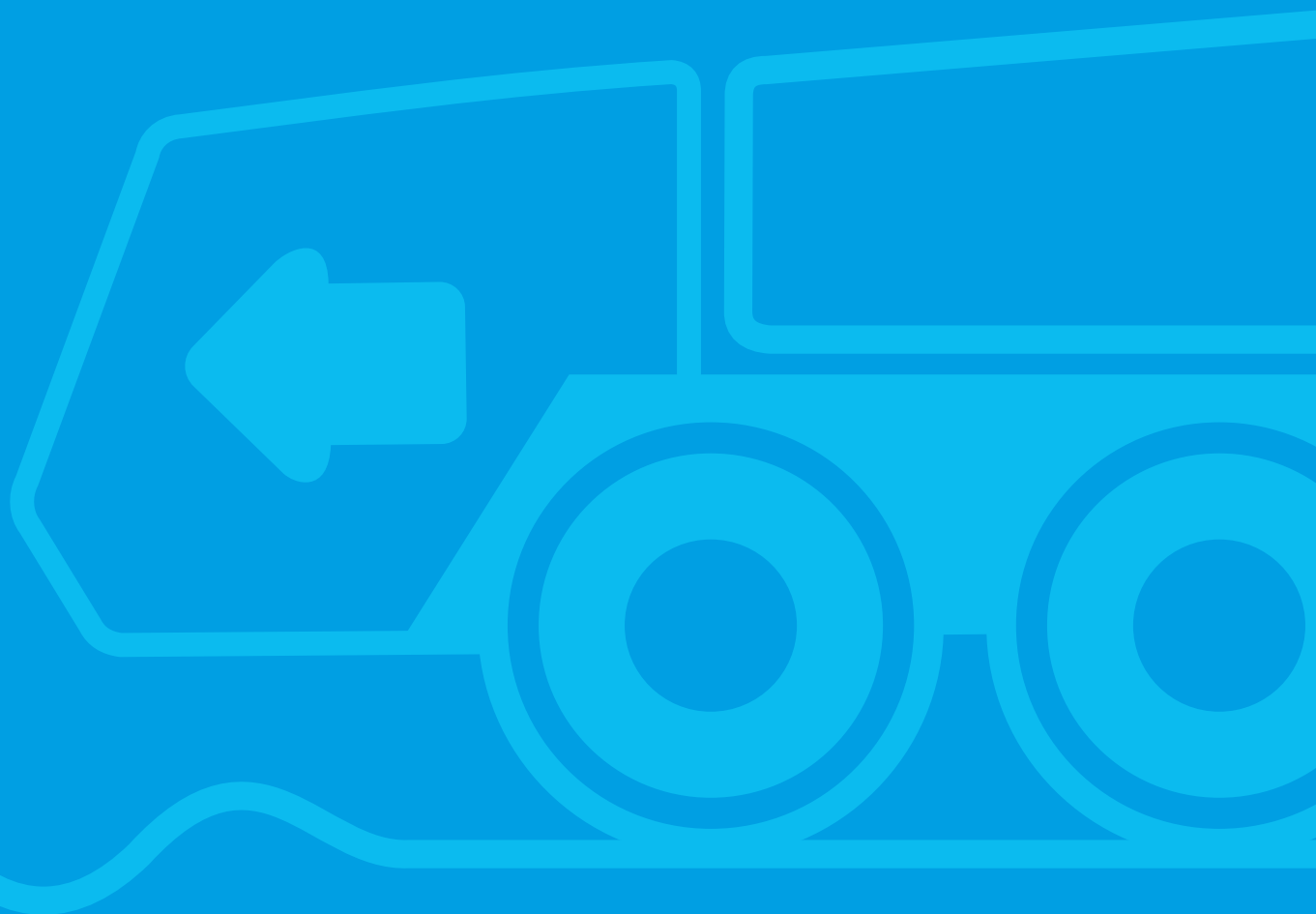
TECHNISCHE DATEN FÜR DIE STRASSEN- UND GELÄNDEFAHRT

CARACTÉRISTIQUES TECHNIQUES POUR MARCHE ROUTE ET TOUT TERRAIN

DATOS TÉCNICOS PARA SU TRASLADO POR CARRETERA Y TODO TERRENO

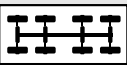
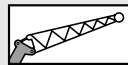
DATI TECNICI PER MARCIA SU STRADA E FUORI STRADA

ТЕХНИЧЕСКИЕ ХАРАКТЕРИСТИКИ ПРИ ДВИЖЕНИИ ПО ДОРОГАМ И БЕЗДОРОЖЬЮ



On-road and off-road driving · Straßen- und Geländefahrt · Marche route et tout terrain
Traslado por carretera y todoterreno · Marcia su strada e fuori strada
Движение по дорогам и бездорожью

Axle loads · Achslasten · Charges par essieu
Cargas por eje · Carichi assiali · Нагрузка на ось

	TOTAL			TYPE 		
≤ 12 t	60.0 t ***	10 x 8	445/95 R 25	80	-	0 t
max **	135.0 t ***	10 x 8	445/95 R 25	32 / 10	1.1 m + 34.9 m	71.0 t

* Axle loads vary depending on equipment mounted. Individual calculation available on demand. · Achslasten variieren je nach Ausrüstungsumfang. Individuelle Berechnung auf Anfrage.
Las cargas por ejes pueden variar según el equipamiento. Cálculo individual sobre pedido. · Les charges par essieux peuvent varier en fonction de l'équipement monté. Calcul individuel sur demande.
I carichi degli assi variano in base all'entità dell'equipaggiamento. Calcolo individuale su richiesta. · Нагрузка на оси зависит от установленного оборудования. Индивидуальный расчет по запросу.

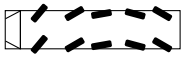
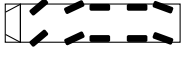
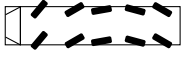
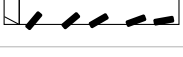
** Construction site · Baustelle · Chantier de construction · Obra · Cantiere · стройплощадка

*** Without second winch · Ohne zweite Winde · Sans deuxième treuil · Sin segundo cabrestante · Senza secondo argano · Без второй лебедки

Speeds and gradeability · Geschwindigkeiten und Steigfähigkeit · Vitesses de conduite et gravisement de pente
Velocidades y pendientes superables · Velocità e pendenza · Скорость и грузоподъемность

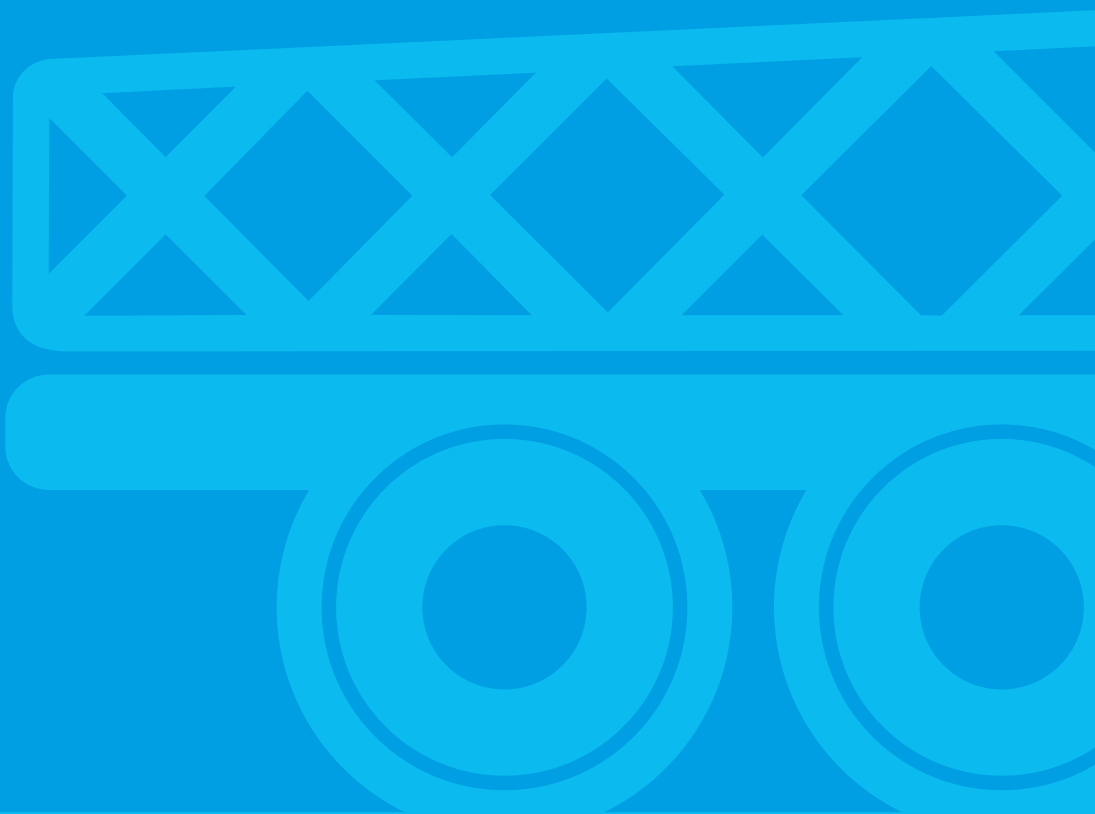
	 	 	 
385/95 R 25	85 km/h max.	38 km/h max.	72 %
445/95 R 25	85 km/h max.	41 km/h max.	63 %

Steering · Lenkung · Direction
Dirección · Sterzo · Рулевое управление

		v < 25 km/h
		v ≥ 25 km/h
		v > 50 km/h
		Manual steering · Manuelle Lenkung · Direction manuelle Dirección manual · Sterzo manuale · Ручное управление
		Smallest turning circle · Kleinster Wendekreis · Rayon de braquage mini. Mínimo radio · Raggio di sterzata minimo · Минимальный радиус поворота
		Diagonal steering · Hundegang · Marche en crabe Marcha cangrejo · Sterzata carrello · Движение по диагонали
		Rear veering suppression · Heck-Ausscher-Unterdrückung Suppression de déboîtement AR · Supresión de movimiento transversal de parte posterior Soppressione oscillazione coda veicolo · Компенсация выноса задней части крана

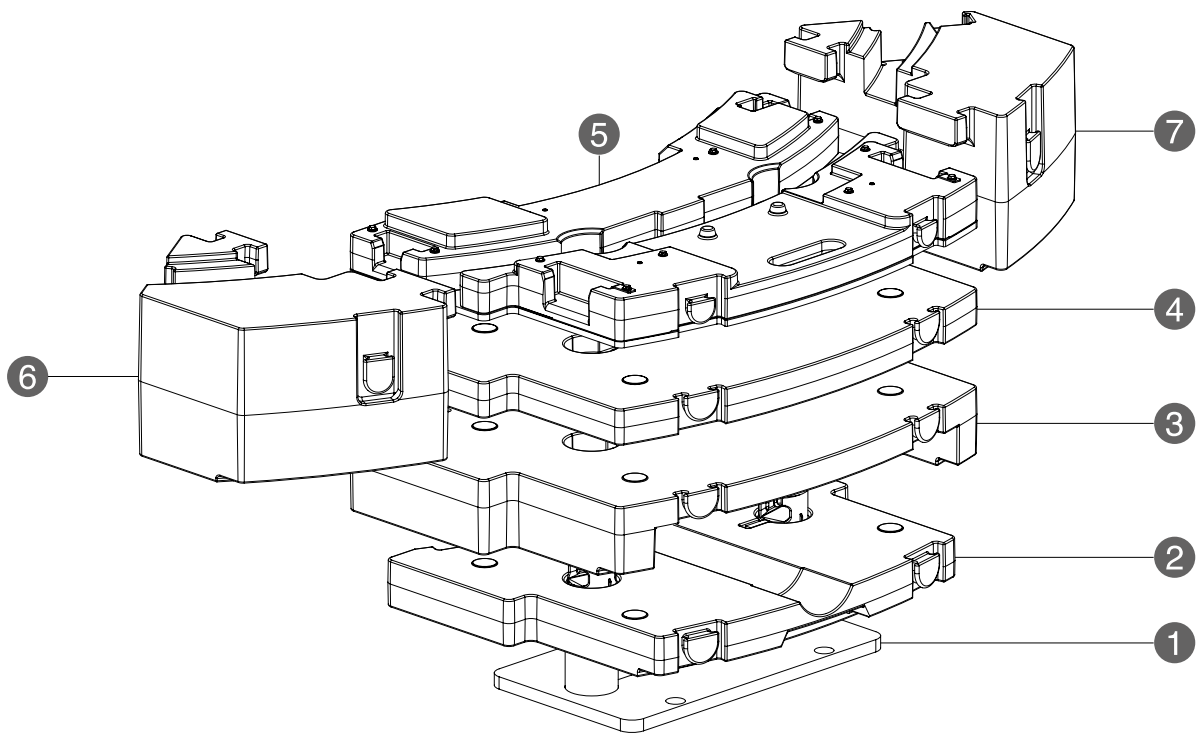
TECHNICAL DATA FOR TRANSPORT

TECHNISCHE DATEN FÜR DEN TRANSPORT
CARACTÉRISTIQUES TECHNIQUES POUR LE TRANSPORT
DATOS TÉCNICOS PARA EL TRANSPORTE
DATI TECNICI PER IL TRASPORTO
ТЕХНИЧЕСКИЕ ДАННЫЕ ДЛЯ ТРАНСПОРТИРОВКИ



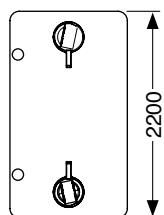
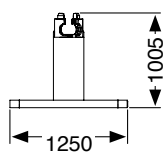
Transport · Transporte
Trasporto · Транспортировка

Counterweight · Gegengewicht · Contrepoids
Contrapeso · Contrappeso · Противовес

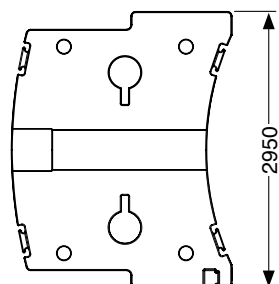
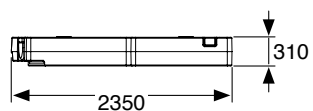


		12.0 t	23.5 t	35.0 t	47.0 t	59.5 t	71.0 t
1	2.0 t	1	1	1	1	1	1
2	10.0 t	1	1	1	1	1	1
3	11.5 t	-	1	1	1	1	1
4	11.5 t	-	-	1	1	-	1
5	12.0 t	-	-	-	1	1	1
6	12.0 t	-	-	-	-	1	1
7	12.0 t	-	-	-	-	1	1

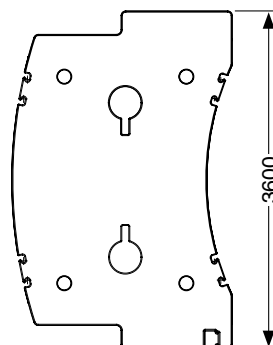
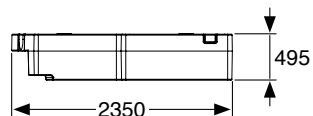
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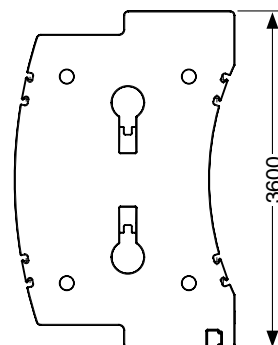
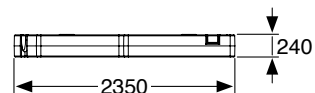
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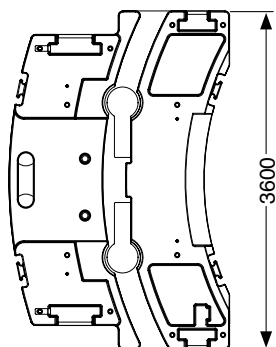
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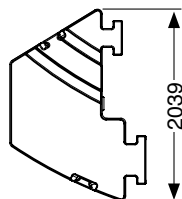
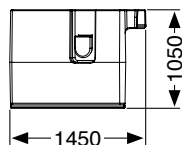
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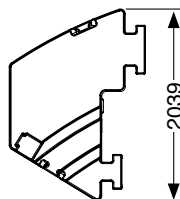
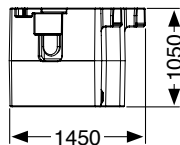
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6



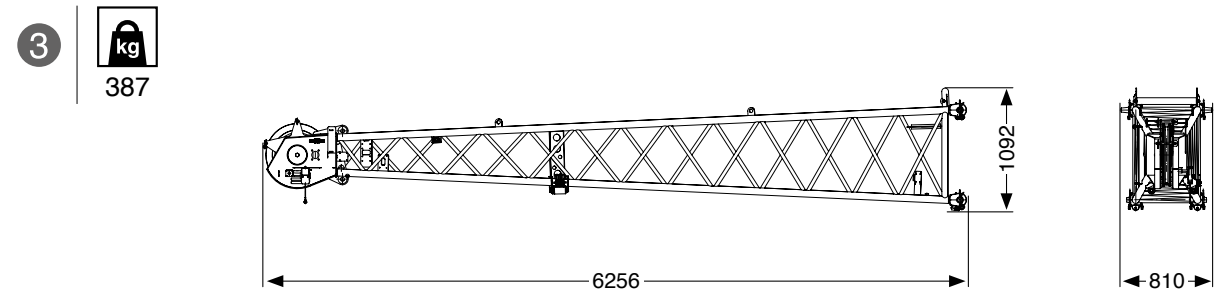
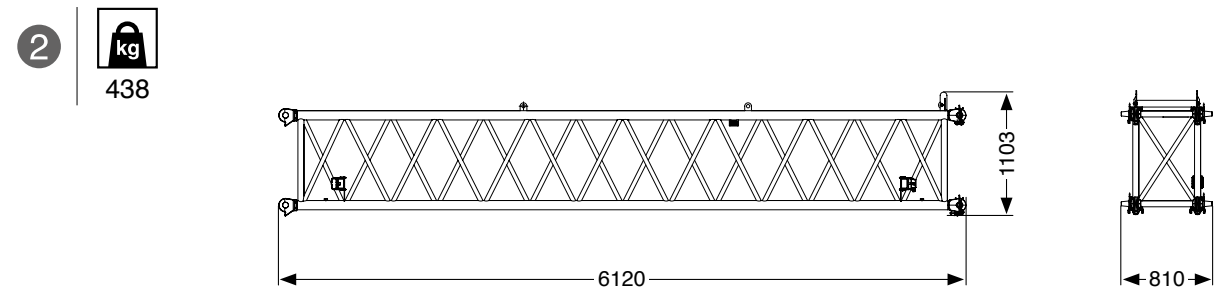
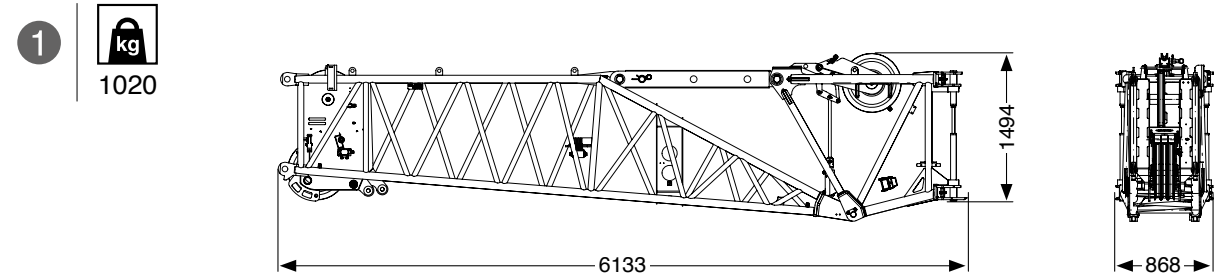
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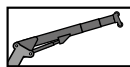


Transport · Transporte
Trasporto · Транспортировка

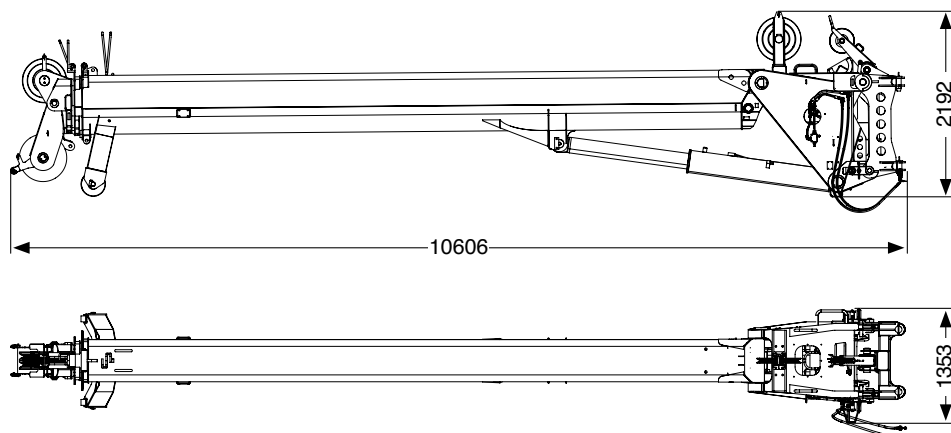
Jibs · Spitzen · Flèches
Plumines · Punte · гусек

	m	
5.8 – 36 m HYDRO 5.8 – 36 m	1.1 m + 4.7 m	1
	1.1 m + 10.9 m	1 + 3
	1.1 m + 16.9 m	1 + 2 + 3
	1.1 m + 22.9 m	1 + 2 + 2 + 3
	1.1 m + 28.9 m	1 + 2 + 2 + 2 + 3
	1.1 m + 34.9 m	1 + 2 + 2 + 2 + 2 + 3





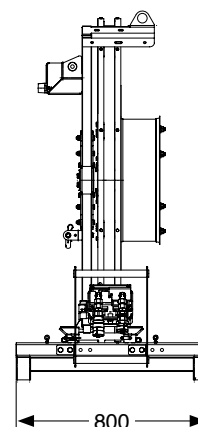
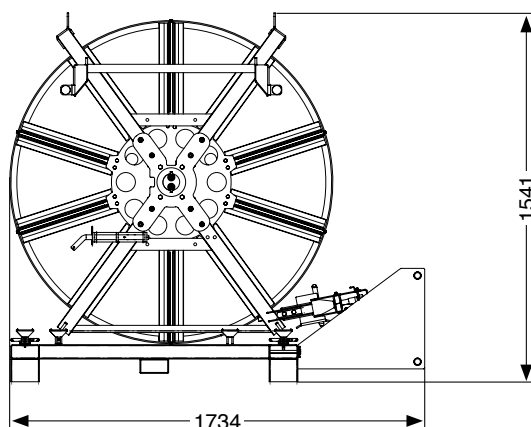
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Hose drum for hydraulic jib · Schlauchtrommel für hydraulische Spitze · Tambour de flexible pour fléchette hydraulique
Devanadera para plumín hidráulico · Aspo raccoglitrubo per punta idraulica · Барабан для намотки шланга для гидравлического гуська



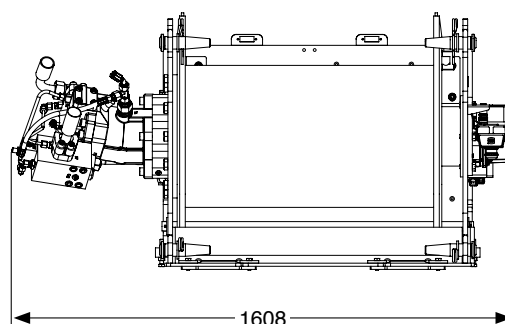
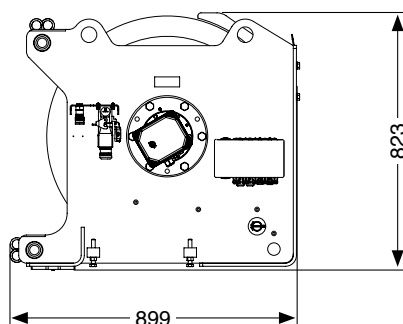
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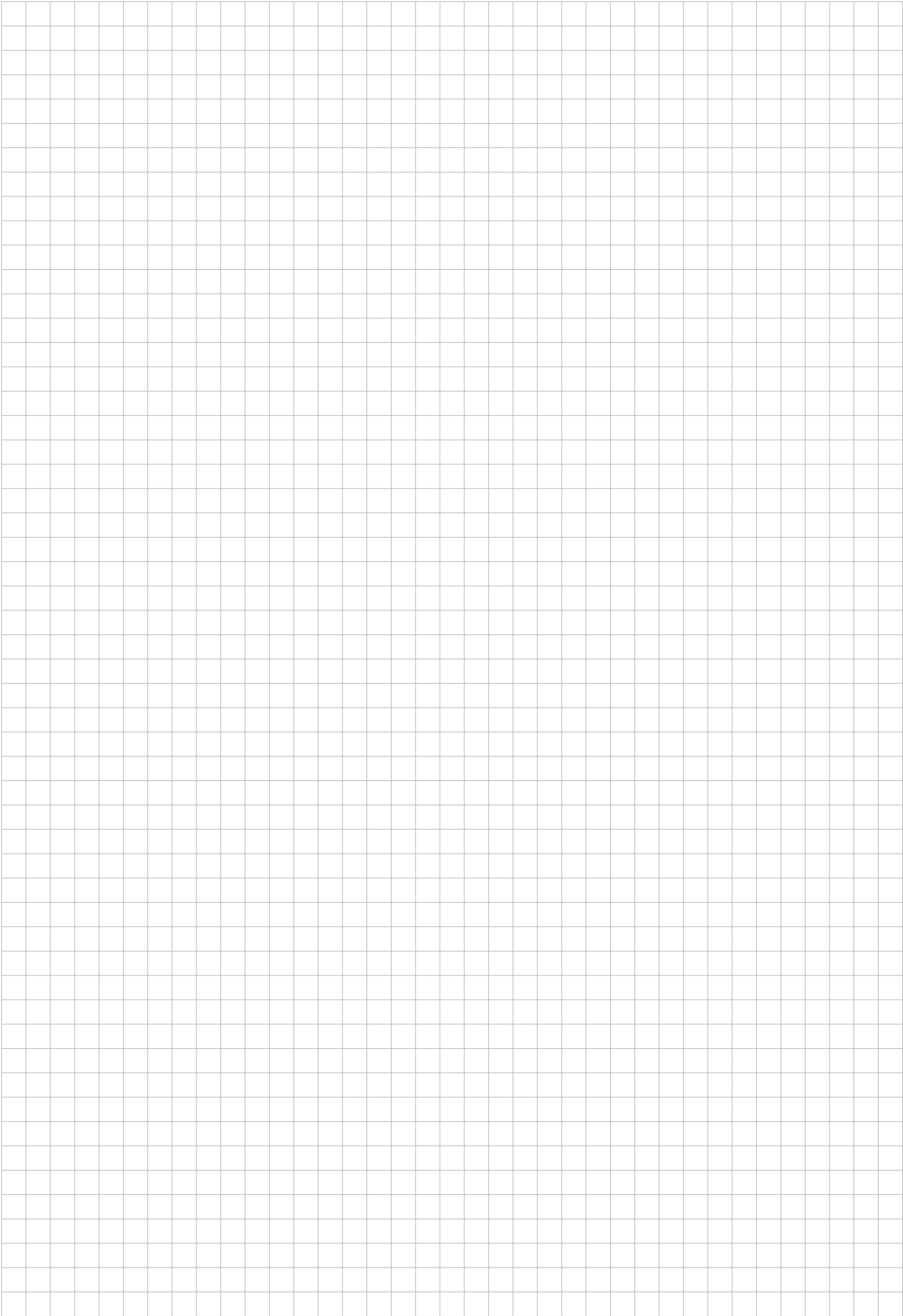
Auxiliary winch · Zusatzhubwinde · Treuil supplémentaire
Cabrestante auxiliar · Argano aggiuntivo · Дополнительная лебедка



937/
1635*



* with rope · mit Seil · avec câble · con cable · con fune · с тросом



TECHNICAL DATA FOR OPERATION

TECHNISCHE DATEN FÜR DEN EINSATZ

CARACTÉRISTIQUES TECHNIQUES POUR L'UTILISATION

DATOS TÉCNICOS PARA EL USO

DATI TECNICI PER L'USO

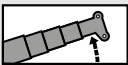
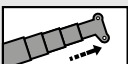
ТЕХНИЧЕСКИЕ ЭКСПЛУАТАЦИОННЫЕ ХАРАКТЕРИСТИКИ



Operation · Einsatz · Utilisation

Uso · Эксплуатация

Main boom · Hauptausleger · Flèche principale Pluma principal · Braccio principale · Главная стрела

	-1.3° – 84°	~ 60 s
	13.2 m – 68.0 m	~ 500 s

Swing mechanism · Drehwerk · Groupe de rotation Mecanismo de giro · Gruppo di rotazione · Поворотный механизм

	0 – 1.2 min ⁻¹		0° / 180°
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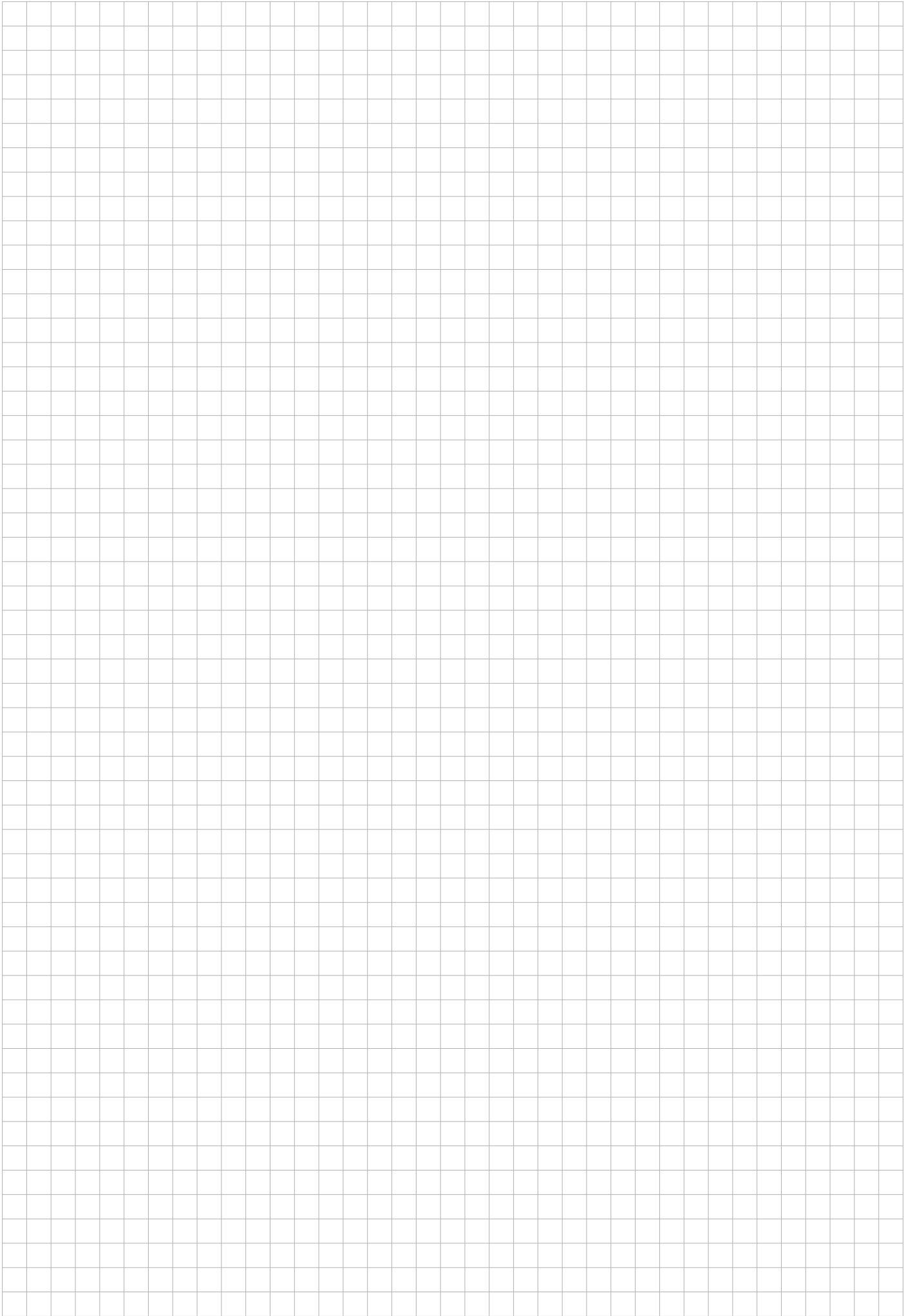
Winches · Hubwinden · Treuils Cabrestantes · Argani · Лебедка

			
	0 – 128 m/min	21 mm / 320 m	98
	0 – 128 m/min	21 mm / 320 m	98

Hook blocks · Unterflaschen · Moufles Pastecas de carga · Bozzelli · Крюковые обоймы

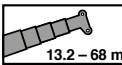
 TYPE				
250*	212.8	11	23	2000
200*	177.9	9	19	1600
160*	142.1	7	15	1350
125*	105.4	5	11	1150
80*	67.9	3	7	850
80	67.9	3	7	850
32	29.4	1	3	450
10	10	-	1	300

* Twin hook · Doppelhaken · Moufle avec crochet marin · Gancho doble · Gancio doppio · Двойной крюк

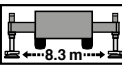


Operation · Einsatz · Utilisation
Uso · Эксплуатация

Working range · Arbeitsbereich · Rayon de travail
Zona de trabajo · Area di lavoro · Рабочая зона



13.2 – 68 m



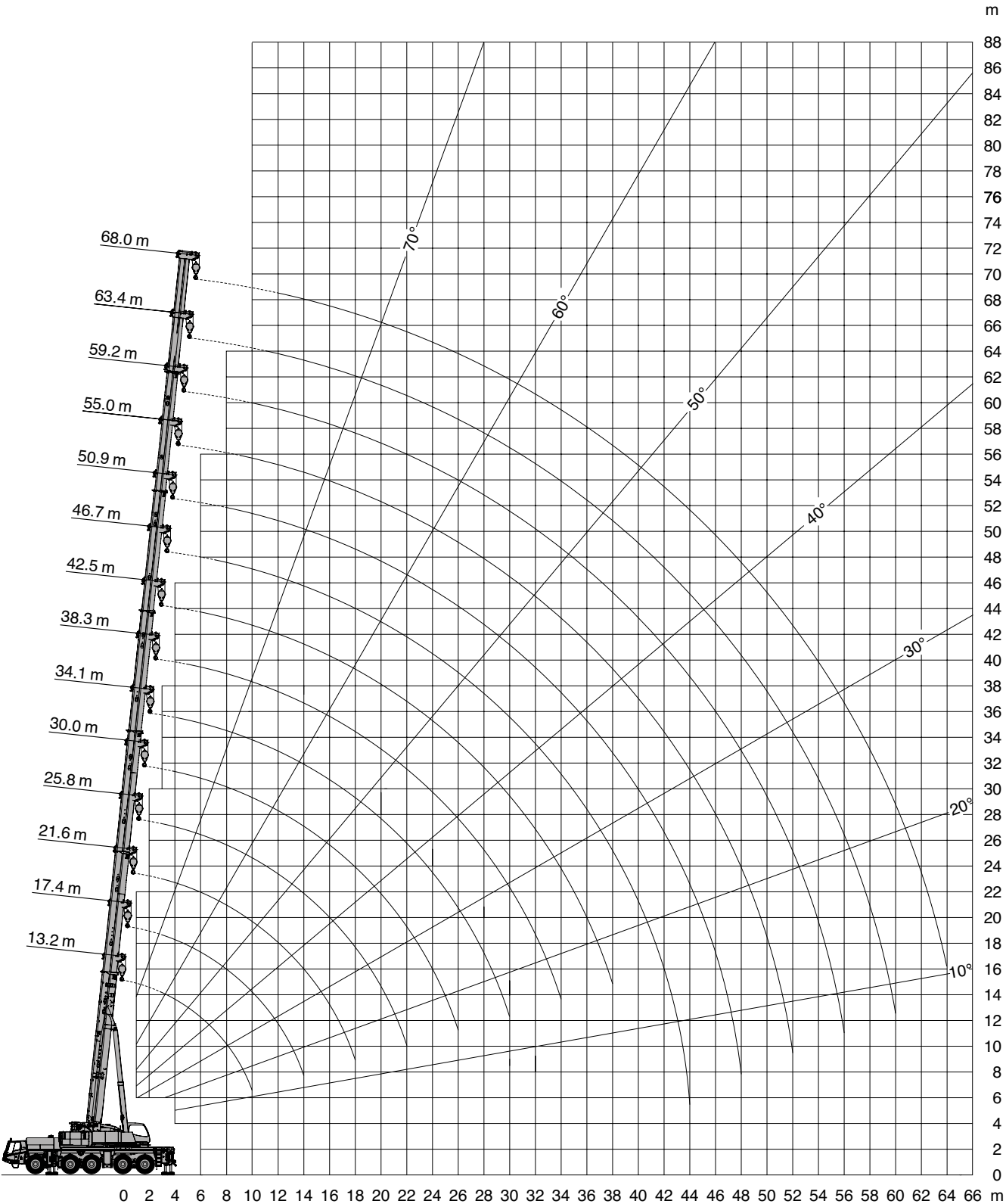
8.3 m



360°

71t

DIN/ISO/EN





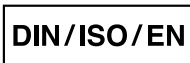
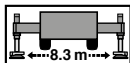
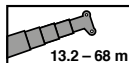
	13.2 m*	13.2 m	17.4 m	21.6 m	25.8 m	30.0 m	34.1 m	38.3 m	42.5 m	46.7 m	50.9 m	55.0 m	59.2 m	63.4 m	68.0 m
2.5	220.0**														
3.0	180.0**	176.5**	140.0**	140.0**	114.4										
3.5	169.5**	160.0**	140.0**	140.0**	114.4	90.5									
4.0	160.0**	150.5**	140.0**	140.0**	111.1	90.5									
4.5	150.5**	138.0**	138.2**	136.9**	104.8	90.5	70.0								
5.0	135.5**	127.0	127.5	126.0	103.0	88.5	70.0	54.5							
6.0	112.5	109.0	109.7	108.2	103.0	79.8	70.0	54.5	43.5						
7.0	96.3	95.5	95.8	95.6	94.9	77.5	66.7	54.5	43.5	34.5					
8.0	83.6	83.6	84.0	84.4	83.1	77.5	61.2	54.5	43.5	34.5	28.5				
9.0	73.5	73.5	73.8	74.2	73.0	73.7	58.0	52.8	43.5	34.5	28.5	23.0			
10.0	65.4	65.4	66.3	66.0	66.2	65.5	58.0	49.0	42.7	34.5	28.5	23.0	18.8		
11.0			59.6	59.7	59.9	58.7	57.7	45.7	40.5	34.5	28.5	23.0	18.8	15.0	
12.0			54.0	54.6	54.2	53.1	54.0	43.4	39.3	33.6	28.5	23.0	18.8	15.0	13.8
14.0			45.2	45.8	45.4	45.8	45.2	40.5	36.0	31.5	27.7	23.0	18.8	15.0	13.8
16.0				39.2	39.6	39.2	38.6	38.0	32.5	29.2	25.5	22.8	18.8	15.0	13.8
18.0				34.1	34.4	34.0	33.4	34.1	29.4	26.8	23.6	21.2	18.7	15.0	13.8
20.0					30.3	29.9	30.6	30.0	26.8	24.8	21.9	20.0	17.4	15.0	13.8
22.0					26.8	26.8	27.1	26.3	24.6	22.9	20.4	18.7	16.5	14.9	13.8
24.0						24.3	23.8	23.0	22.3	21.2	19.1	17.5	15.5	14.0	13.2
26.0						21.6	21.1	20.3	19.6	19.4	17.8	16.4	14.7	13.3	12.4
28.0							18.8	18.0	17.3	18.0	16.8	15.5	13.9	12.6	11.5
30.0							16.9	16.1	16.3	16.1	15.3	14.6	13.1	11.9	10.7
32.0								14.7	15.1	14.4	13.7	13.8	12.5	11.3	10.1
34.0								14.2	13.7	13.0	12.7	12.8	11.9	10.8	9.4
36.0									12.4	11.7	12.1	11.9	11.4	10.2	8.9
38.0									11.3	11.1	11.4	10.8	10.9	9.8	8.3
40.0										10.7	10.4	10.0	10.0	9.3	7.9
42.0										9.9	9.5	9.5	9.1	8.9	7.4
44.0										8.4	8.7	8.9	8.3	8.3	7.0
46.0											8.1	8.2	7.8	7.6	6.6
48.0											7.8	7.5	7.4	6.9	6.2
50.0												6.9	6.8	6.3	5.9
52.0												6.4	6.3	5.7	5.5
54.0													5.8	5.2	5.2
56.0													5.3	4.8	4.7
58.0														4.4	4.3
60.0														4.0	3.9
62.0															3.5
64.0															3.2

* Over rear · Nach hinten · A l'arrière · Hacia atrás · Indietro · Назад

** With additional lifting equipment · Mit Zusatzhubausrüstung · Avec équipement de levage supplémentaire

Con equipamiento de elevación adicional · Con attrezzaggio di sollevamento supplementare · С дополнительным подъемным оборудованием

Operation · Einsatz · Utilisation
Uso · Эксплуатация



	13.2 m*	13.2 m	17.4 m	21.6 m	25.8 m	30.0 m	34.1 m	38.3 m	42.5 m	46.7 m	50.9 m	55.0 m	59.2 m	63.4 m	68.0 m
2.5	220.0**														
3.0	180.0**	176.5**	140.0**	140.0**	114.4										
3.5	169.5**	160.0**	140.0**	140.0**	114.4	90.5									
4.0	160.0**	147.1**	140.0**	140.0**	111.1	90.5									
4.5	145.4**	134.6**	134.8**	133.3**	104.8	90.5	70.0								
5.0	130.9	123.8	124.0	122.5	103.0	88.5	70.0	54.5							
6.0	108.8	106.2	106.4	105.5	103.0	79.8	70.0	54.5	43.5						
7.0	92.7	92.1	92.2	92.6	91.4	77.5	66.7	54.5	43.5	34.5					
8.0	80.2	79.6	79.7	80.1	78.8	77.5	61.2	54.5	43.5	34.5	28.5				
9.0	70.3	69.8	70.7	70.3	70.5	69.8	58.0	52.8	43.5	34.5	28.5	23.0			
10.0	62.5	62.0	62.8	63.0	63.1	62.0	58.0	49.0	42.7	34.5	28.5	23.0	18.8		
11.0			56.4	57.0	56.7	55.6	56.4	45.7	40.5	34.5	28.5	23.0	18.8	15.0	
12.0			51.1	51.7	51.3	51.7	51.1	43.4	39.3	33.6	28.5	23.0	18.8	15.0	13.8
14.0			43.2	43.3	43.7	43.3	42.7	40.5	36.0	31.5	27.7	23.0	18.8	15.0	13.8
16.0				36.9	37.3	36.9	36.1	37.0	32.5	29.2	25.5	22.8	18.8	15.0	13.8
18.0				31.4	31.3	31.0	31.7	30.9	29.4	26.8	23.6	21.2	18.7	15.0	13.8
20.0					26.7	27.6	27.0	26.2	25.5	24.8	21.9	20.0	17.4	15.0	13.8
22.0					24.1	23.9	23.4	22.6	21.9	21.6	20.4	18.7	16.5	14.9	13.8
24.0						21.0	20.4	19.6	19.4	19.7	18.9	17.5	15.5	14.0	13.2
26.0						18.6	18.0	17.6	17.9	17.2	16.5	16.4	14.7	13.3	12.4
28.0							16.0	16.1	15.9	15.2	15.0	15.0	13.9	12.6	11.5
30.0							14.4	15.0	14.2	13.5	13.9	13.7	13.1	11.9	10.7
32.0								13.5	12.7	12.6	12.8	12.3	12.4	11.3	10.1
34.0								12.2	11.4	12.0	11.5	11.6	11.1	10.8	9.4
36.0									10.9	10.9	10.5	10.6	10.0	10.0	8.9
38.0									10.5	9.9	9.9	9.6	9.5	9.0	8.3
40.0										9.0	9.2	8.7	8.6	8.1	7.9
42.0										8.7	8.4	8.2	7.8	7.3	7.3
44.0										8.2	7.7	7.6	7.1	6.6	6.6
46.0											7.2	6.9	6.5	5.9	5.9
48.0											6.8	6.3	5.9	5.4	5.3
50.0												5.8	5.4	4.8	4.8
52.0												5.3	4.9	4.3	4.3
54.0													4.4	3.9	3.8
56.0													4.0	3.5	3.4
58.0														3.1	3.0
60.0														2.8	2.7
62.0															2.4
64.0															2.1

* Over rear · Nach hinten · A l'arrière · Hacia atrás · Indietro · Hazað

** With additional lifting equipment · Mit Zusatzhubausrüstung · Avec équipement de levage supplémentaire

Con equipamiento de elevación adicional · Con attrezzaggio di sollevamento supplementare · С дополнительным подъемным оборудованием



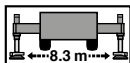
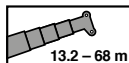
 m	13.2 m*	13.2 m	17.4 m	21.6 m	25.8 m	30.0 m	34.1 m	38.3 m	42.5 m	46.7 m	50.9 m	55.0 m	59.2 m	63.4 m	68.0 m
2.5	220.0**														
3.0	180.0**	174.5**	140.0**	140.0**	114.4										
3.5	169.5**	157.4**	140.0**	140.0**	114.4	90.5									
4.0	154.1**	142.9**	140.0**	140.0**	111.1	90.5									
4.5	137.2**	130.6	130.8	129.2	104.8	90.5	70.0								
5.0	123.4	119.9	120.1	118.6	103.0	88.5	70.0	54.5							
6.0	102.5	102.5	102.7	102.5	101.8	79.8	70.0	54.5	43.5						
7.0	86.8	86.8	87.0	87.4	86.1	77.5	66.7	54.5	43.5	34.5					
8.0	74.9	74.9	75.8	75.5	75.7	75.0	61.2	54.5	43.5	34.5	28.5				
9.0	65.7	65.7	66.5	66.7	66.4	65.7	58.0	52.8	43.5	34.5	28.5	23.0			
10.0	58.3	58.3	59.1	59.8	59.4	58.3	58.0	49.0	42.7	34.5	28.5	23.0	18.8		
11.0			53.0	53.7	53.3	53.7	52.2	45.7	40.5	34.5	28.5	23.0	18.8	15.0	
12.0			48.2	48.5	48.9	48.5	46.7	43.4	39.3	33.6	28.5	23.0	18.8	15.0	13.8
14.0			38.6	39.4	39.4	38.8	39.0	38.2	36.0	31.5	27.7	23.0	18.8	15.0	13.8
16.0				31.9	31.9	32.9	32.3	31.5	30.5	29.2	25.5	22.8	18.8	15.0	13.8
18.0				26.6	27.6	27.4	26.9	26.1	25.5	25.1	23.6	21.2	18.7	15.0	13.8
20.0					23.5	23.3	22.8	22.4	21.8	22.1	21.2	20.0	17.4	15.0	13.8
22.0					20.4	20.1	19.6	19.1	19.5	18.8	18.4	18.6	16.5	14.9	13.8
24.0						17.5	17.1	17.8	16.9	16.5	16.7	16.1	15.5	14.0	13.2
26.0						15.5	15.8	15.6	14.8	15.1	14.9	14.4	14.4	13.3	12.4
28.0							14.4	13.9	13.4	13.7	13.2	13.4	12.8	12.6	11.5
30.0							12.9	12.5	12.5	12.2	12.3	11.9	11.8	11.3	10.7
32.0								11.3	11.5	11.1	11.1	10.8	10.5	10.0	9.9
34.0								10.6	10.4	10.3	10.0	9.8	9.4	8.8	8.8
36.0									9.4	9.5	9.2	8.8	8.4	7.8	7.8
38.0									8.8	8.6	8.4	8.0	7.5	7.0	6.9
40.0										7.8	7.6	7.2	6.7	6.2	6.2
42.0										7.2	6.9	6.5	6.0	5.5	5.5
44.0										6.6	6.3	5.8	5.4	4.9	4.8
46.0											5.7	5.3	4.8	4.3	4.3
48.0											5.2	4.8	4.3	3.8	3.7
50.0												4.3	3.8	3.3	3.3
52.0												3.9	3.4	2.9	2.8
54.0													3.0	2.5	2.5
56.0													2.7	2.1	2.1
58.0														1.8	1.8
60.0														1.5	1.5
62.0															1.2

* Over rear · Nach hinten · A l'arrière · Hacia atrás · Indietro · Назад

** With additional lifting equipment · Mit Zusatzhubausrüstung · Avec équipement de levage supplémentaire

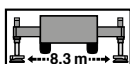
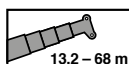
Con equipamiento de elevación adicional · Con attrezzaggio di sollevamento supplementare · С дополнительным подъемным оборудованием

Operation · Einsatz · Utilisation Uso · Эксплуатация



DIN/ISO/EN

 m	13.2 m*	13.2 m	17.4 m	21.6 m	25.8 m	30.0 m	34.1 m	38.3 m	42.5 m	46.7 m	50.9 m	55.0 m	59.2 m	63.4 m	68.0 m
2.5	220.0**														
3.0	180.0**	170.0**	140.0**	140.0**	114.4										
3.5	166.9**	152.9**	140.0**	140.0**	114.4	90.5									
4.0	146.5**	138.6**	138.8**	137.2**	111.1	90.5									
4.5	130.3	126.3	126.5	124.9	104.8	90.5	70.0								
5.0	117.2	115.8	115.9	115.7	103.0	88.5	70.0	54.5							
6.0	96.7	96.7	96.9	96.7	96.0	79.8	70.0	54.5	43.5						
7.0	81.7	81.7	82.6	82.3	82.5	77.5	66.7	54.5	43.5	34.5					
8.0	70.4	70.4	71.3	71.5	71.2	67.7	61.2	54.5	43.5	34.5	28.5				
9.0	61.7	61.7	62.5	63.2	62.6	60.4	56.6	52.8	43.5	34.5	28.5	23.0			
10.0	54.5	54.5	55.3	56.0	54.9	52.7	49.4	46.4	42.7	34.5	28.5	23.0	18.8		
11.0			48.0	48.2	48.9	46.5	43.7	43.3	39.5	34.5	28.5	23.0	18.8	15.0	
12.0			41.4	42.3	42.2	41.5	41.2	38.8	36.6	33.6	28.5	23.0	18.8	15.0	13.8
14.0			32.0	32.8	34.0	33.8	33.3	31.9	30.6	28.9	27.7	23.0	18.8	15.0	13.8
16.0				27.3	27.6	27.3	26.8	26.4	25.7	25.2	23.7	22.8	18.8	15.0	13.8
18.0				22.6	22.9	22.7	22.1	22.0	22.1	21.4	21.2	20.3	18.7	15.0	13.8
20.0					19.3	19.1	19.2	19.4	18.6	18.8	18.3	17.9	17.3	15.0	13.8
22.0					16.6	16.4	17.2	16.8	16.6	16.5	16.0	16.0	15.6	14.9	13.8
24.0						15.2	14.9	14.6	14.8	14.6	14.5	14.0	13.9	13.3	13.1
26.0						13.3	13.1	13.1	13.1	13.0	12.7	12.5	12.1	11.5	11.5
28.0							11.6	11.9	11.6	11.6	11.4	11.0	10.5	10.0	9.9
30.0							10.7	10.6	10.6	10.3	10.1	9.7	9.2	8.7	8.6
32.0								9.5	9.5	9.2	9.0	8.5	8.1	7.5	7.5
34.0								8.6	8.5	8.2	8.0	7.6	7.1	6.6	6.5
36.0									7.7	7.4	7.1	6.7	6.3	5.7	5.7
38.0									6.9	6.6	6.4	5.9	5.5	5.0	4.9
40.0										5.9	5.7	5.3	4.8	4.3	4.3
42.0										5.4	5.1	4.7	4.2	3.7	3.7
44.0										4.9	4.6	4.1	3.7	3.1	3.1
46.0											4.1	3.6	3.2	2.6	2.6
48.0											3.7	3.2	2.7	2.2	2.2
50.0												2.8	2.3	1.8	1.8
52.0												2.4	2.0	1.4	1.4
54.0													1.6	1.1	1.0
56.0													1.3		



DIN/ISO/EN

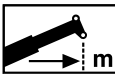
 m	13.2 m*	13.2 m	17.4 m	21.6 m	25.8 m	30.0 m	34.1 m	38.3 m	42.5 m	46.7 m	50.9 m	55.0 m	59.2 m	63.4 m	68.0 m
2.5	217.2**														
3.0	180.0**	165.2**	140.0**	140.0**	114.4										
3.5	158.4**	148.2**	140.0**	140.0**	114.4	90.5									
4.0	139.0**	134.0**	134.2**	132.6	111.1	90.5									
4.5	123.6	121.8	122.0	120.4	104.8	90.5	70.0								
5.0	110.8	110.8	111.0	110.8	103.0	88.5	70.0	54.5							
6.0	90.9	90.9	91.9	91.6	86.1	78.5	70.0	54.5	43.5						
7.0	76.7	76.7	77.7	77.1	71.5	65.8	60.8	54.5	43.5	34.5					
8.0	65.9	65.9	66.8	64.3	61.4	57.5	53.4	49.6	43.5	34.5	28.5				
9.0	53.8	53.8	56.2	54.3	52.3	49.1	47.7	43.5	40.7	34.5	28.5	23.0			
10.0	44.2	44.2	46.3	47.2	45.3	44.1	42.1	39.4	36.9	34.5	28.5	23.0	18.8		
11.0			39.1	40.0	40.2	39.4	37.3	35.3	33.3	31.2	28.5	23.0	18.8	15.0	
12.0			33.5	34.9	35.7	35.2	33.3	31.5	29.7	28.7	27.1	23.0	18.8	15.0	13.8
14.0			26.1	27.3	27.7	27.4	27.0	26.1	25.4	24.2	23.2	21.8	18.8	15.0	13.8
16.0				21.9	22.2	22.0	22.5	22.5	22.1	20.9	20.2	19.2	18.1	15.0	13.8
18.0				18.0	18.3	19.0	18.9	18.6	18.6	18.5	17.8	17.0	15.9	15.0	13.8
20.0					15.8	16.1	15.9	16.1	16.0	16.1	15.6	15.1	14.2	13.2	12.9
22.0					13.7	13.8	13.8	14.0	14.0	13.7	13.5	13.0	12.3	11.4	11.0
24.0						11.8	12.2	12.1	12.1	11.7	11.5	11.1	10.6	9.8	9.5
26.0						10.4	10.6	10.5	10.4	10.1	9.9	9.4	9.0	8.4	8.2
28.0							9.3	9.2	9.1	8.8	8.6	8.1	7.6	7.1	7.0
30.0							8.2	8.0	8.0	7.6	7.4	7.0	6.5	5.9	5.9
32.0								7.1	7.0	6.7	6.5	6.0	5.6	5.0	5.0
34.0								6.3	6.2	5.9	5.6	5.2	4.7	4.2	4.1
36.0									5.5	5.1	4.9	4.5	4.0	3.4	3.4
38.0									4.8	4.5	4.3	3.8	3.4	2.8	2.8
40.0										3.9	3.7	3.3	2.8	2.3	2.2
42.0										3.5	3.2	2.8	2.3	1.8	1.7
44.0										3.1	2.7	2.3	1.9		
46.0											2.3	1.9	1.4		
48.0											2.0	1.5	1.1		
50.0												1.2			

* Over rear · Nach hinten · A l'arrière · Hacia atrás · Indietro · Hazað

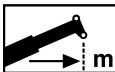
** With additional lifting equipment · Mit Zusatzhubausrüstung · Avec équipement de levage supplémentaire

Con equipamiento de elevación adicional · Con attrezzaggio di sollevamento supplementare · С дополнительным подъемным оборудованием



 m	13.2 m*	13.2 m	17.4 m	21.6 m	25.8 m	30.0 m	34.1 m	38.3 m	42.5 m	46.7 m	50.9 m	55.0 m	59.2 m	63.4 m	68.0 m
2.5	206.8**														
3.0	174.1**	160.1**	140.0**	140.0**	114.4										
3.5	150.0**	143.2**	140.0**	140.0**	114.4	90.5									
4.0	131.6	129.0	129.2	127.6	111.1	90.5									
4.5	116.4	116.4	116.6	116.4	104.7	90.5	70.0								
5.0	103.9	103.9	104.1	102.8	91.3	81.6	70.0								
6.0	85.2	85.2	85.7	78.8	72.0	65.3	59.5	54.5	43.5						
7.0	70.6	70.6	66.7	63.1	59.8	55.4	51.4	46.8	43.5	34.5					
8.0	52.9	52.9	55.0	52.5	49.5	48.2	45.1	41.7	37.6	34.5	28.5				
9.0	41.6	41.6	44.0	44.2	43.5	41.2	38.6	36.3	33.9	31.5	28.5	23.0			
10.0	33.9	33.9	36.0	38.0	37.7	35.8	33.9	32.2	30.9	28.5	26.6	23.0	18.8		
11.0			30.7	32.0	32.4	31.4	29.9	29.7	27.7	25.3	23.3	22.8	18.8	15.0	
12.0			26.2	27.4	27.8	27.6	27.3	26.5	25.5	23.6	22.1	20.5	18.8	15.0	13.8
14.0			19.6	20.8	21.2	22.2	22.0	21.7	21.1	20.6	18.9	17.7	16.4	15.0	13.8
16.0				16.4	17.4	17.5	17.7	17.8	17.8	17.1	16.3	15.3	14.3	13.2	12.8
18.0				13.1	14.0	14.3	14.6	14.5	14.4	14.1	13.7	12.8	11.9	10.9	10.6
20.0					11.5	11.8	12.0	11.9	11.9	11.6	11.3	10.9	10.0	9.1	8.8
22.0					9.6	9.8	10.1	10.0	9.9	9.6	9.4	8.9	8.4	7.6	7.3
24.0						8.3	8.5	8.4	8.4	8.0	7.8	7.4	6.9	6.3	6.1
26.0						7.1	7.3	7.1	7.1	6.8	6.5	6.1	5.6	5.0	5.0
28.0							6.2	6.1	6.0	5.7	5.5	5.0	4.6	4.0	4.0
30.0							5.4	5.2	5.1	4.8	4.6	4.2	3.7	3.1	3.1
32.0								4.5	4.4	4.1	3.8	3.4	2.9		
34.0									3.7	3.4	3.2	2.7	2.3		
36.0									3.2	2.8	2.6	2.2			
38.0									2.7	2.3	2.1	1.7			
40.0										1.9	1.6	1.2			
42.0										1.5	1.2				
44.0										1.2					



 m	13.2 m*	13.2 m	17.4 m	21.6 m	25.8 m	30.0 m	34.1 m	38.3 m	42.5 m	46.7 m	50.9 m	55.0 m	59.2 m	63.4 m	68.0 m
2.5	195.3**														
3.0	164.4**	154.4**	140.0**	140.0**	114.4										
3.5	141.6**	137.6**	137.8**	136.2**	114.4	90.5									
4.0	123.3	123.3	123.5	113.5	96.5	83.3									
4.5	108.6	108.6	104.9	94.1	82.8	72.6	64.2								
5.0	96.9	96.9	87.3	78.3	69.9	62.0	58.0	52.5							
6.0	68.1	68.1	64.1	59.8	55.1	52.7	48.3	43.5	38.1						
7.0	51.4	51.4	49.5	47.2	45.6	42.5	39.6	36.0	32.8	29.7					
8.0	40.2	40.2	40.5	39.4	37.4	34.9	34.0	31.5	28.5	25.9	23.3				
9.0	31.2	31.2	33.0	32.4	31.0	30.4	28.8	27.3	25.7	23.6	21.4	19.5			
10.0	24.8	24.5	27.4	27.2	26.7	26.1	24.8	24.3	23.2	21.4	19.2	18.0	16.6		
11.0			22.3	23.2	23.5	22.6	22.2	21.2	20.3	19.1	18.0	16.7	15.0	14.0	
12.0			18.5	20.1	20.5	20.0	19.5	18.7	17.9	16.8	15.9	14.7	13.5	12.3	11.7
14.0			13.2	14.7	15.8	15.7	15.5	14.8	14.2	13.4	12.6	11.6	10.6	9.5	9.1
16.0				11.1	12.1	12.4	12.6	12.0	11.5	10.8	10.1	9.3	8.4	7.4	7.1
18.0				8.5	9.5	9.8	10.1	9.9	9.5	8.8	8.2	7.4	6.6	5.7	5.5
20.0					7.6	7.8	8.1	8.0	7.9	7.3	6.7	6.0	5.2	4.4	4.2
22.0					6.1	6.3	6.6	6.5	6.4	6.0	5.5	4.8	4.1	3.3	
24.0						5.1	5.4	5.3	5.2	4.9	4.5	3.8	3.1		
26.0						4.2	4.4	4.3	4.2	3.9	3.6	3.0			
28.0							3.6	3.5	3.4	3.1	2.9	2.3			
30.0							2.9	2.8	2.7	2.4	2.2				
32.0								2.2	2.1	1.8	1.6				
34.0								1.7	1.6	1.3					
36.0									1.2						

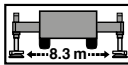
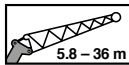
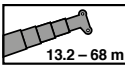
* Over rear · Nach hinten · A l'arrière · Hacia atrás · Indietro · Назад

** With additional lifting equipment · Mit Zusatzhubausrüstung · Avec équipement de levage supplémentaire

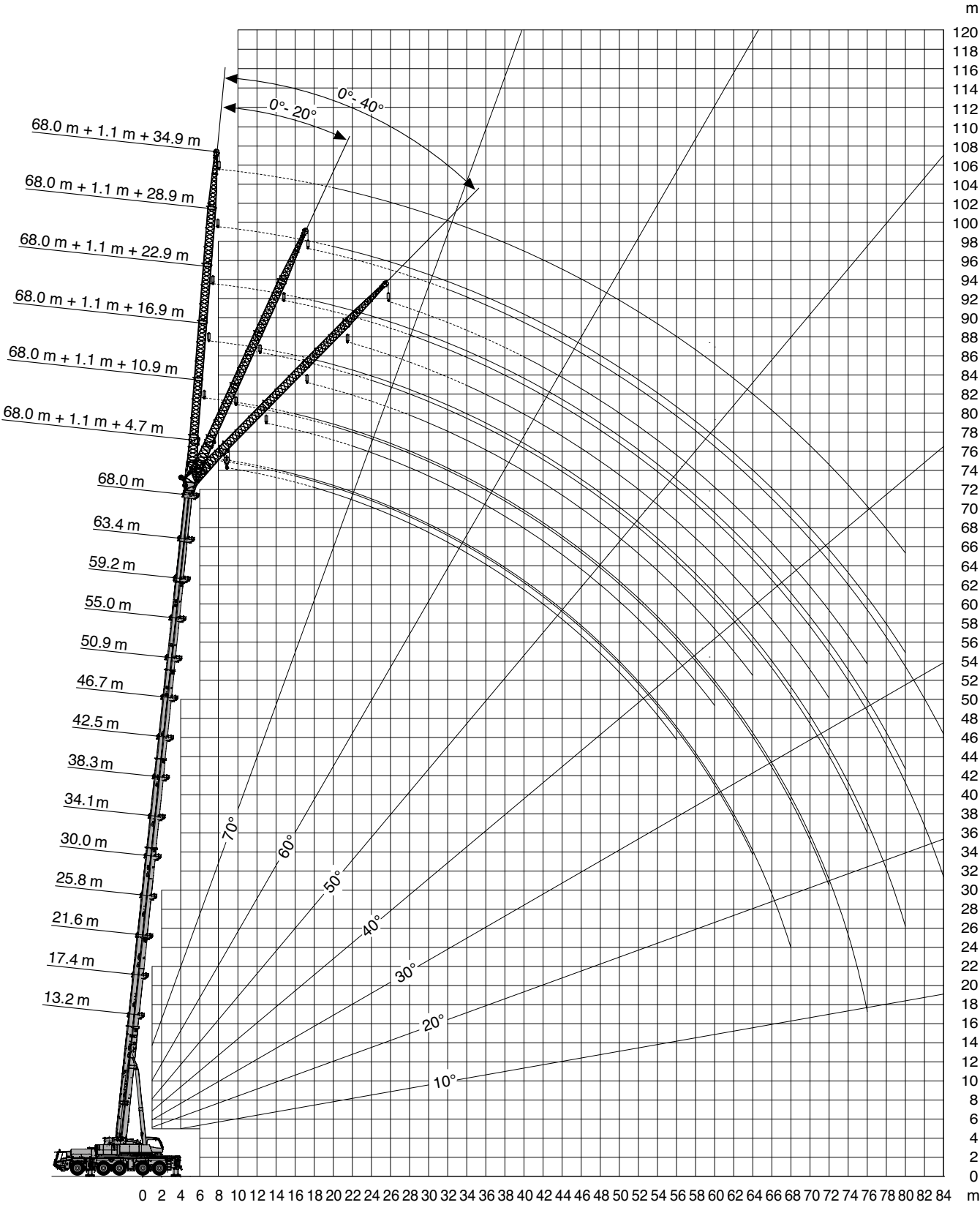
Con equipamiento de elevación adicional · Con attrezzaggio di sollevamento supplementare · С дополнительным подъемным оборудованием

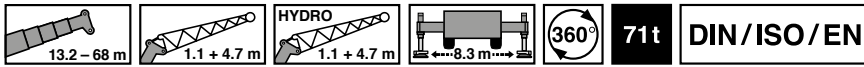
Operation · Einsatz · Utilisation
Uso · Эксплуатация

Working range · Arbeitsbereich · Rayon de travail
Zona de trabajo · Area di lavoro · Рабочая зона



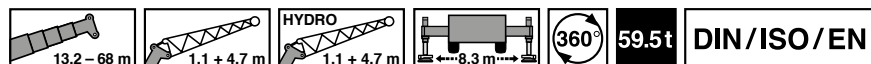
71t **DIN/ISO/EN**

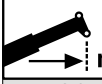


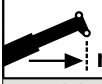


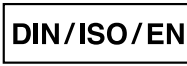
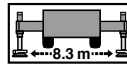
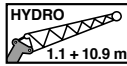
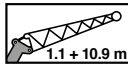
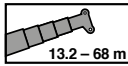
 m	13.2 m + 1.1 m + 4.7 m			21.6 m + 1.1 m + 4.7 m			30.0 m + 1.1 m + 4.7 m			38.3 m + 1.1 m + 4.7 m			46.7 m + 1.1 m + 4.7 m		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
3.0	47.8			52.3											
3.5	45.2	30.5		50.1											
4.0	42.8	29.5		48.1											
4.5	40.8	28.6	22.7	46.2	30.9										
5.0	38.9	27.7	22.2	44.5	30.1		42.9								
6.0	35.6	26.2	21.5	41.4	28.8	22.8	42.9								
7.0	32.9	24.9	20.8	38.8	27.6	22.2	42.7	28.7		30.3					
8.0	30.6	23.8	20.2	36.5	26.5	21.6	40.5	27.8	22.2	30.3			19.8		
9.0	28.6	22.8	19.7	34.4	25.5	21.1	38.5	26.9	21.7	30.3	28.9		19.8		
10.0	26.9	21.9	19.3	32.6	24.7	20.6	36.6	26.2	21.3	30.3	28.1	21.7	19.8	17.0	
11.0	25.5	21.2	18.8	31.0	23.9	20.2	34.9	25.4	20.9	30.3	27.4	21.4	19.2	16.4	14.8
12.0	24.1	20.2	18.4	29.6	23.1	19.8	33.3	24.7	20.6	30.3	26.8	21.1	18.4	15.9	14.4
14.0	20.8	18.6		27.1	21.9	19.2	30.3	23.5	20.0	28.9	25.6	20.6	17.1	14.9	13.6
16.0	18.2			25.1	20.9	18.8	27.6	22.5	19.5	26.3	24.5	20.1	15.9	14.1	12.9
18.0				23.1	19.8	18.4	25.2	21.6	19.0	24.1	23.5	19.7	15.0	13.3	12.3
20.0				21.1	18.7	18.0	23.3	20.9	18.7	22.3	21.8	19.4	14.2	12.7	11.8
22.0				19.3	17.8		21.6	20.2	18.5	20.7	20.3	19.1	13.5	12.2	11.4
24.0				17.8			20.2	19.7	18.2	19.3	18.9	18.7	12.9	11.7	11.0
26.0							18.8	18.7	18.0	18.0	17.8	17.6	12.3	11.3	10.7
28.0							16.6	16.9		16.9	16.7	16.6	11.8	10.9	10.4
30.0							14.7	14.9		15.0	15.4	15.5	11.4	10.5	10.1
32.0							13.1			13.4	13.7	13.8	11.1	10.3	9.9
34.0										11.9	12.2		10.7	10.0	9.7
36.0										10.7	10.9		10.5	9.8	9.5
38.0										9.6	9.7		9.9	9.6	9.4
40.0										8.6			8.9	9.1	
42.0													8.0	8.2	
44.0													7.2	7.4	
46.0													6.5	6.6	
48.0													5.9		

 m	50.9 m + 1.1 m + 4.7 m			55.0 m + 1.1 m + 4.7 m			59.2 m + 1.1 m + 4.7 m			63.4 m + 1.1 m + 4.7 m			68.0 m + 1.1 m + 4.7 m		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
10.0	17.8														
11.0	17.8	15.8		15.5											
12.0	17.2	15.3		15.5	14.0		12.9								
14.0	16.1	14.4	13.2	14.7	13.3	12.3	12.9	12.0		10.9	10.1		10.0		
16.0	15.2	13.6	12.6	13.9	12.6	11.7	12.3	11.4	10.8	10.3	9.6	9.2	9.4	8.8	
18.0	14.4	12.9	12.0	13.2	12.0	11.2	11.6	10.9	10.4	9.8	9.2	8.8	9.0	8.4	8.1
20.0	13.6	12.3	11.5	12.6	11.5	10.7	11.1	10.4	10.0	9.3	8.7	8.4	8.6	8.0	7.8
22.0	12.9	11.7	11.0	12.1	11.0	10.3	10.5	10.0	9.6	8.9	8.4	8.1	8.2	7.7	7.4
24.0	12.4	11.3	10.6	11.5	10.5	10.0	10.1	9.6	9.2	8.5	8.0	7.7	7.8	7.4	7.1
26.0	11.8	10.8	10.3	11.0	10.1	9.6	9.7	9.2	8.9	8.2	7.7	7.5	7.5	7.1	6.9
28.0	11.4	10.5	9.9	10.6	9.8	9.3	9.3	8.8	8.6	7.8	7.5	7.2	7.2	6.9	6.7
30.0	11.0	10.1	9.7	10.2	9.5	9.0	8.9	8.5	8.3	7.5	7.2	7.0	6.9	6.7	6.5
32.0	10.6	9.8	9.4	9.7	9.2	8.8	8.6	8.2	8.1	7.2	7.0	6.8	6.6	6.4	6.3
34.0	10.3	9.6	9.2	9.3	8.9	8.6	8.3	8.0	7.8	7.0	6.7	6.6	6.4	6.2	6.1
36.0	10.0	9.4	9.0	8.9	8.7	8.4	7.9	7.7	7.6	6.8	6.5	6.4	6.2	6.0	5.9
38.0	9.6	9.2	8.9	8.5	8.4	8.3	7.6	7.5	7.4	6.5	6.3	6.2	6.0	5.8	5.7
40.0	8.8	9.0	8.8	8.1	8.1	8.0	7.3	7.2	7.2	6.3	6.1	6.1	5.8	5.6	5.5
42.0	8.1	8.2		7.4	7.7	7.7	7.0	6.9	6.9	6.2	6.0	5.9	5.6	5.5	5.4
44.0	7.3	7.4		7.0	7.0	7.0	6.5	6.5	6.7	6.0	5.8	5.8	5.5	5.3	5.3
46.0	6.6	6.7		6.7	6.7		6.1	6.1	6.1	5.8	5.7	5.6	5.3	5.2	5.1
48.0	5.9	6.0		6.0	6.2		5.8	5.8	5.8	5.5	5.5	5.5	5.2	5.1	5.0
50.0	5.3	5.4		5.4	5.5		5.5	5.5		5.2	5.2	5.2	5.0	5.0	4.9
52.0	4.8			4.9	5.0		5.1	5.2		4.9	4.9	4.9	4.7	4.8	4.8
56.0				3.9			4.2	4.3		4.4	4.4		4.3	4.3	4.3
60.0							3.4			3.7	3.7		3.7	3.8	
64.0										3.0			3.0	3.0	
68.0													2.3		



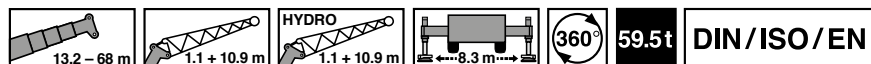
 m	13.2 m + 1.1 m + 4.7 m			21.6 m + 1.1 m + 4.7 m			30.0 m + 1.1 m + 4.7 m			38.3 m + 1.1 m + 4.7 m			46.7 m + 1.1 m + 4.7 m		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
3.0	47.8			52.3											
3.5	45.2	30.5		50.1											
4.0	42.8	29.5		48.1											
4.5	40.8	28.6	22.7	46.2	30.9										
5.0	38.9	27.7	22.2	44.5	30.1		42.9								
6.0	35.6	26.2	21.5	41.4	28.8	22.8	42.9								
7.0	32.9	24.9	20.8	38.8	27.6	22.2	42.7	28.7		30.3					
8.0	30.6	23.8	20.2	36.5	26.5	21.6	40.5	27.8	22.2	30.3			19.8		
9.0	28.6	22.8	19.7	34.4	25.5	21.1	38.5	26.9	21.7	30.3	28.9		19.8		
10.0	26.9	21.9	19.3	32.6	24.7	20.6	36.6	26.2	21.3	30.3	28.1	21.7	19.8	17.0	
11.0	25.5	21.2	18.8	31.0	23.9	20.2	34.9	25.4	20.9	30.3	27.4	21.4	19.2	16.4	14.8
12.0	24.1	20.2	18.4	29.6	23.1	19.8	33.3	24.7	20.6	30.3	26.8	21.1	18.4	15.9	14.4
14.0	20.8	18.6		27.1	21.9	19.2	30.3	23.5	20.0	28.9	25.6	20.6	17.1	14.9	13.6
16.0	18.2			25.1	20.9	18.8	27.6	22.5	19.5	26.3	24.5	20.1	15.9	14.1	12.9
18.0				23.1	19.8	18.4	25.2	21.6	19.0	24.1	23.5	19.7	15.0	13.3	12.3
20.0				21.1	18.7	18.0	23.3	20.9	18.7	22.3	21.8	19.4	14.2	12.7	11.8
22.0				19.3	17.8		21.2	20.2	18.5	20.7	20.3	19.1	13.5	12.2	11.4
24.0				17.8			18.2	18.8	18.2	18.6	18.9	18.7	12.9	11.7	11.0
26.0							15.8	16.3	16.4	16.2	16.7	16.9	12.3	11.3	10.7
28.0							13.8	14.2		14.2	14.6	14.8	11.8	10.9	10.4
30.0							12.1	12.4		12.5	12.8	13.0	11.4	10.5	10.1
32.0							10.7			11.0	11.3	11.4	11.1	10.3	9.9
34.0										9.7	10.0		10.1	10.0	9.7
36.0										8.6	8.8		8.9	9.3	9.4
38.0										7.6	7.8		8.0	8.2	8.3
40.0										6.8			7.1	7.3	
42.0													6.3	6.5	
44.0													5.6	5.7	
46.0													4.9	5.1	
48.0													4.4		

 m	50.9 m + 1.1 m + 4.7 m			55.0 m + 1.1 m + 4.7 m			59.2 m + 1.1 m + 4.7 m			63.4 m + 1.1 m + 4.7 m			68.0 m + 1.1 m + 4.7 m		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
10.0	17.8														
11.0	17.8	15.8		15.5											
12.0	17.2	15.3		15.5	14.0		12.9								
14.0	16.1	14.4	13.2	14.7	13.3	12.3	12.9	12.0		10.9	10.1		10.0		
16.0	15.2	13.6	12.6	13.9	12.6	11.7	12.3	11.4	10.8	10.3	9.6	9.2	9.4	8.8	
18.0	14.4	12.9	12.0	13.2	12.0	11.2	11.6	10.9	10.4	9.8	9.2	8.8	9.0	8.4	8.1
20.0	13.6	12.3	11.5	12.6	11.5	10.7	11.1	10.4	10.0	9.3	8.7	8.4	8.6	8.0	7.8
22.0	12.9	11.7	11.0	12.1	11.0	10.3	10.5	10.0	9.6	8.9	8.4	8.1	8.2	7.7	7.4
24.0	12.4	11.3	10.6	11.5	10.5	10.0	10.1	9.6	9.2	8.5	8.0	7.7	7.8	7.4	7.1
26.0	11.8	10.8	10.3	11.0	10.1	9.6	9.7	9.2	8.9	8.2	7.7	7.5	7.5	7.1	6.9
28.0	11.4	10.5	9.9	10.6	9.8	9.3	9.3	8.8	8.6	7.8	7.5	7.2	7.2	6.9	6.7
30.0	11.0	10.1	9.7	10.2	9.5	9.0	8.9	8.5	8.3	7.5	7.2	7.0	6.9	6.7	6.5
32.0	10.6	9.8	9.4	9.7	9.2	8.8	8.6	8.2	8.1	7.2	7.0	6.8	6.6	6.4	6.3
34.0	10.2	9.6	9.2	9.3	8.9	8.6	8.3	8.0	7.8	7.0	6.7	6.6	6.4	6.2	6.1
36.0	9.0	9.3	9.0	8.9	8.7	8.4	7.9	7.7	7.6	6.8	6.5	6.4	6.2	6.0	5.9
38.0	8.0	8.2	8.4	8.2	8.4	8.3	7.6	7.5	7.4	6.5	6.3	6.2	6.0	5.8	5.7
40.0	7.1	7.3	7.4	7.3	7.5	7.6	7.3	7.2	7.2	6.3	6.1	6.1	5.8	5.6	5.5
42.0	6.3	6.5		6.5	6.7	6.8	6.8	6.9	6.9	6.2	6.0	5.9	5.6	5.5	5.4
44.0	5.6	5.8		5.8	5.9	6.0	6.0	6.2	6.3	6.0	5.8	5.8	5.5	5.3	5.3
46.0	5.0	5.1		5.1	5.3		5.4	5.5	5.6	5.7	5.7	5.6	5.3	5.2	5.1
48.0	4.4	4.5		4.5	4.7		4.8	4.9	5.0	5.1	5.3	5.5	5.2	5.1	5.0
50.0	3.9	3.9		4.0	4.1		4.3	4.4		4.6	4.7	4.9	4.7	4.8	4.9
52.0	3.4			3.5	3.6		3.8	3.9		4.1	4.2	4.4	4.1	4.3	4.3
56.0				2.7			2.9	3.0		3.2	3.3		3.3	3.4	3.4
60.0							2.2			2.5	2.5		2.5	2.6	
64.0										1.8			1.8	1.9	
68.0													1.3		



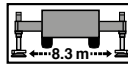
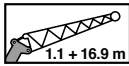
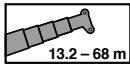
 m	13.2 m + 1.1 m + 10.9 m			21.6 m + 1.1 m + 10.9 m			30.0 m + 1.1 m + 10.9 m			38.3 m + 1.1 m + 10.9 m			46.7 m + 1.1 m + 10.9 m		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
3.0	19.7			19.7											
3.5	19.6			19.7											
4.0	19.1			19.7											
4.5	18.6			19.7			19.7								
5.0	18.0			19.5			19.7								
6.0	17.0	14.1		18.7			19.1								
7.0	16.0	13.2		17.8	14.3		18.5			17.3					
8.0	15.1	12.4		17.0	13.5		17.8			16.9					
9.0	14.3	11.6	9.7	16.3	12.9		17.2	13.6		16.4			14.4		
10.0	13.5	11.0	9.3	15.5	12.3		16.5	13.1		16.0			14.4		
11.0	12.9	10.5	8.9	14.9	11.7	9.4	16.0	12.6		15.6	12.6		14.3		
12.0	12.3	10.0	8.6	14.3	11.2	9.2	15.4	12.1	9.5	15.2	12.3		14.0		
14.0	11.0	9.1	8.1	13.2	10.4	8.7	14.4	11.3	9.1	14.4	11.7	9.3	13.5	11.3	
16.0	9.8	8.4	7.7	12.3	9.7	8.3	13.5	10.6	8.7	13.6	11.1	9.0	13.0	10.8	9.1
18.0	8.8	7.9	7.4	11.4	9.1	8.0	12.7	10.0	8.4	13.0	10.5	8.7	12.3	10.2	8.9
20.0	8.0	7.5		10.4	8.6	7.7	12.0	9.5	8.1	12.4	10.0	8.4	11.6	9.7	8.6
22.0	7.4	7.2		9.6	8.2	7.5	11.4	9.0	7.9	11.8	9.6	8.2	11.0	9.2	8.4
24.0				8.9	7.8	7.3	10.7	8.6	7.7	11.3	9.2	8.0	10.4	8.8	8.1
26.0				8.3	7.5	7.2	10.0	8.3	7.5	10.9	8.8	7.8	9.9	8.5	7.8
28.0				7.8	7.3		9.4	8.0	7.4	10.4	8.5	7.6	9.5	8.1	7.6
30.0				7.4			8.9	7.7	7.3	10.0	8.3	7.5	9.1	7.9	7.3
32.0							8.4	7.5	7.2	9.5	8.0	7.4	8.7	7.6	7.1
34.0							8.0	7.3		9.0	7.8	7.3	8.4	7.4	6.9
36.0							7.6	7.2		8.7	7.6	7.2	8.1	7.1	6.8
38.0							7.4			8.3	7.5	7.2	7.8	7.0	6.6
40.0										8.0	7.3		7.6	6.8	6.5
42.0										7.7	7.2		7.4	6.6	6.4
44.0										7.5	7.2		7.2	6.5	6.3
46.0										7.1			7.1	6.4	
48.0													6.5	6.3	
50.0													5.9	6.1	
52.0													5.3	5.5	

 m	50.9 m + 1.1 m + 10.9 m			55.0 m + 1.1 m + 10.9 m			59.2 m + 1.1 m + 10.9 m			63.4 m + 1.1 m + 10.9 m			68.0 m + 1.1 m + 10.9 m		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
10.0	13.1														
11.0	13.1			10.0											
12.0	13.1			10.0			8.8								
14.0	13.0	10.8		10.0			8.8			7.5					
16.0	12.2	10.3		10.0	9.6		8.8	8.8		7.5			6.6		
18.0	11.6	9.8	8.7	10.0	9.1		8.8	8.4		7.5	7.3		6.6		
20.0	11.0	9.3	8.4	10.0	8.7	7.9	8.8	8.0	7.4	7.5	7.0		6.6	6.5	
22.0	10.5	8.9	8.1	9.7	8.4	7.7	8.4	7.8	7.1	7.2	6.7	6.2	6.6	6.2	5.8
24.0	10.0	8.5	7.8	9.3	8.1	7.4	8.1	7.5	6.9	6.9	6.4	6.0	6.4	6.0	5.6
26.0	9.6	8.2	7.5	8.9	7.8	7.2	7.9	7.2	6.7	6.7	6.1	5.8	6.1	5.7	5.4
28.0	9.1	7.9	7.3	8.6	7.5	6.9	7.6	7.0	6.5	6.5	5.9	5.6	6.0	5.5	5.2
30.0	8.7	7.6	7.1	8.2	7.3	6.7	7.3	6.7	6.2	6.2	5.7	5.4	5.8	5.3	5.0
32.0	8.4	7.3	6.9	8.0	7.1	6.5	7.0	6.5	6.1	6.0	5.5	5.2	5.5	5.1	4.9
34.0	8.1	7.1	6.7	7.7	6.9	6.4	6.8	6.3	5.9	5.8	5.3	5.1	5.3	5.0	4.7
36.0	7.8	6.9	6.5	7.5	6.7	6.2	6.6	6.1	5.8	5.6	5.2	4.9	5.2	4.8	4.6
38.0	7.6	6.7	6.4	7.2	6.5	6.1	6.3	5.9	5.6	5.4	5.0	4.8	5.0	4.7	4.4
40.0	7.3	6.5	6.2	7.0	6.4	5.9	6.1	5.7	5.5	5.2	4.9	4.6	4.8	4.5	4.3
42.0	7.1	6.4	6.1	6.8	6.2	5.8	6.0	5.6	5.4	5.1	4.8	4.5	4.7	4.4	4.2
44.0	7.0	6.2	6.0	6.5	6.1	5.7	5.8	5.4	5.3	4.9	4.6	4.4	4.5	4.3	4.1
46.0	6.8	6.1	5.9	6.0	5.9	5.6	5.6	5.3	5.1	4.8	4.5	4.3	4.4	4.2	4.0
48.0	6.4	6.0	5.8	5.7	5.7	5.5	5.2	5.2	5.0	4.6	4.4	4.3	4.3	4.1	3.9
50.0	5.8	5.9		5.4	5.4	5.4	4.9	5.0	4.9	4.5	4.3	4.2	4.2	4.0	3.9
52.0	5.2	5.5		5.1	5.1		4.7	4.7	4.8	4.4	4.2	4.1	4.0	3.9	3.8
56.0	4.3	4.4		4.4	4.6		4.2	4.3		4.0	4.0	3.9	3.8	3.7	3.6
60.0	3.3			3.6	3.8		3.8	3.8		3.6	3.6		3.5	3.5	3.5
64.0				2.9			3.1	3.2		3.2	3.3		3.1	3.2	
68.0							2.5			2.7	2.8		2.6	2.7	
72.0										2.1			2.0	2.1	
76.0													1.5		

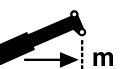


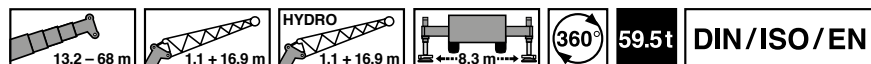
 m	13.2 m + 1.1 m + 10.9 m			21.6 m + 1.1 m + 10.9 m			30.0 m + 1.1 m + 10.9 m			38.3 m + 1.1 m + 10.9 m			46.7 m + 1.1 m + 10.9 m		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
3.0	19.7			19.7											
3.5	19.6			19.7											
4.0	19.1			19.7											
4.5	18.6			19.7			19.7								
5.0	18.0			19.5			19.7								
6.0	17.0	14.1		18.7			19.1								
7.0	16.0	13.2		17.8	14.3		18.5			17.3					
8.0	15.1	12.4		17.0	13.5		17.8			16.9					
9.0	14.3	11.6	9.7	16.3	12.9		17.2	13.6		16.4			14.4		
10.0	13.5	11.0	9.3	15.5	12.3		16.5	13.1		16.0			14.4		
11.0	12.9	10.5	8.9	14.9	11.7	9.4	16.0	12.6		15.6	12.6		14.3		
12.0	12.3	10.0	8.6	14.3	11.2	9.2	15.4	12.1	9.5	15.2	12.3		14.0		
14.0	11.0	9.1	8.1	13.2	10.4	8.7	14.4	11.3	9.1	14.4	11.7	9.3	13.5	11.3	
16.0	9.8	8.4	7.7	12.3	9.7	8.3	13.5	10.6	8.7	13.6	11.1	9.0	13.0	10.8	9.1
18.0	8.8	7.9	7.4	11.4	9.1	8.0	12.7	10.0	8.4	13.0	10.5	8.7	12.3	10.2	8.9
20.0	8.0	7.5		10.4	8.6	7.7	12.0	9.5	8.1	12.4	10.0	8.4	11.6	9.7	8.6
22.0	7.4	7.2		9.6	8.2	7.5	11.4	9.0	7.9	11.8	9.6	8.2	11.0	9.2	8.4
24.0				8.9	7.8	7.3	10.7	8.6	7.7	11.3	9.2	8.0	10.4	8.8	8.1
26.0				8.3	7.5	7.2	10.0	8.3	7.5	10.9	8.8	7.8	9.9	8.5	7.8
28.0				7.8	7.3		9.4	8.0	7.4	10.4	8.5	7.6	9.5	8.1	7.6
30.0				7.4			8.9	7.7	7.3	10.0	8.3	7.5	9.1	7.9	7.3
32.0							8.4	7.5	7.2	9.5	8.0	7.4	8.7	7.6	7.1
34.0							8.0	7.3		9.0	7.8	7.3	8.4	7.4	6.9
36.0							7.6	7.2		8.7	7.6	7.2	8.1	7.1	6.8
38.0							7.4			8.3	7.5	7.2	7.8	7.0	6.6
40.0										7.6	7.3		7.6	6.8	6.5
42.0										6.8	7.1		6.9	6.6	6.4
44.0										6.1	6.4		6.2	6.5	6.3
46.0										5.5			5.5	5.9	
48.0													4.9	5.2	
50.0													4.4	4.7	
52.0													3.9	4.1	

 m	50.9 m + 1.1 m + 10.9 m			55.0 m + 1.1 m + 10.9 m			59.2 m + 1.1 m + 10.9 m			63.4 m + 1.1 m + 10.9 m			68.0 m + 1.1 m + 10.9 m		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
10.0	13.1														
11.0	13.1			10.0											
12.0	13.1			10.0			8.8								
14.0	13.0	10.8		10.0			8.8			7.5					
16.0	12.2	10.3		10.0	9.6		8.8	8.8		7.5			6.6		
18.0	11.6	9.8	8.7	10.0	9.1		8.8	8.4		7.5	7.3		6.6		
20.0	11.0	9.3	8.4	10.0	8.7	7.9	8.8	8.0	7.4	7.5	7.0		6.6	6.5	
22.0	10.5	8.9	8.1	9.7	8.4	7.7	8.4	7.8	7.1	7.2	6.7	6.2	6.6	6.2	5.8
24.0	10.0	8.5	7.8	9.3	8.1	7.4	8.1	7.5	6.9	6.9	6.4	6.0	6.4	6.0	5.6
26.0	9.6	8.2	7.5	8.9	7.8	7.2	7.9	7.2	6.7	6.7	6.1	5.8	6.1	5.7	5.4
28.0	9.1	7.9	7.3	8.6	7.5	6.9	7.6	7.0	6.5	6.5	5.9	5.6	6.0	5.5	5.2
30.0	8.7	7.6	7.1	8.2	7.3	6.7	7.3	6.7	6.2	6.2	5.7	5.4	5.8	5.3	5.0
32.0	8.4	7.3	6.9	8.0	7.1	6.5	7.0	6.5	6.1	6.0	5.5	5.2	5.5	5.1	4.9
34.0	8.1	7.1	6.7	7.7	6.9	6.4	6.8	6.3	5.9	5.8	5.3	5.1	5.3	5.0	4.7
36.0	7.8	6.9	6.5	7.5	6.7	6.2	6.6	6.1	5.8	5.6	5.2	4.9	5.2	4.8	4.6
38.0	7.6	6.7	6.4	7.2	6.5	6.1	6.3	5.9	5.6	5.4	5.0	4.8	5.0	4.7	4.4
40.0	7.3	6.5	6.2	7.0	6.4	5.9	6.1	5.7	5.5	5.2	4.9	4.6	4.8	4.5	4.3
42.0	6.8	6.4	6.1	6.8	6.2	5.8	6.0	5.6	5.4	5.1	4.8	4.5	4.7	4.4	4.2
44.0	6.1	6.2	6.0	6.3	6.1	5.7	5.8	5.4	5.3	4.9	4.6	4.4	4.5	4.3	4.1
46.0	5.4	5.8	5.9	5.6	5.9	5.6	5.6	5.3	5.1	4.8	4.5	4.3	4.4	4.2	4.0
48.0	4.8	5.2	5.5	5.1	5.4	5.5	5.2	5.2	5.0	4.6	4.4	4.3	4.3	4.1	3.9
50.0	4.3	4.6		4.5	4.9	5.1	4.7	5.0	4.9	4.5	4.3	4.2	4.2	4.0	3.9
52.0	3.8	4.1		4.0	4.3		4.2	4.5	4.7	4.4	4.2	4.1	4.0	3.9	3.8
56.0	3.0	3.2		3.2	3.4		3.3	3.6		3.6	3.9	3.9	3.5	3.7	3.6
60.0	2.3			2.4	2.6		2.6	2.8		2.8	3.1		2.7	3.0	3.2
64.0				1.8			2.0	2.1		2.2	2.4		2.1	2.3	
68.0							1.4			1.6	1.8		1.5	1.7	
72.0										1.2			1.0	1.2	



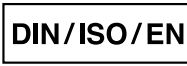
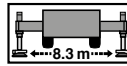
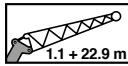
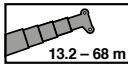
 m	13.2 m + 1.1 m + 16.9 m			21.6 m + 1.1 m + 16.9 m			30.0 m + 1.1 m + 16.9 m			38.3 m + 1.1 m + 16.9 m			46.7 m + 1.1 m + 16.9 m		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
3.0	17.6														
3.5	17.3														
4.0	17.0			15.1											
4.5	16.7			15.1											
5.0	16.3			15.1											
6.0	15.5			15.1			14.8								
7.0	14.8			15.1			14.8								
8.0	14.1			14.9			14.8			12.4					
9.0	13.5	11.1		14.3			14.5			12.4					
10.0	12.8	10.4		13.8			14.1			12.4			9.0		
11.0	12.3	9.7		13.3	10.7		13.7			12.4			9.0		
12.0	11.6	9.1		12.8	10.2		13.3	10.8		12.4			9.0		
14.0	10.0	8.1	6.8	12.0	9.2		12.5	9.9		12.0	10.1		9.0		
16.0	8.7	7.3	6.2	11.1	8.4	6.7	11.9	9.1		11.5	9.5		9.0	8.5	
18.0	7.7	6.7	5.8	9.9	7.7	6.2	11.2	8.5	6.5	11.0	8.9		9.0	8.1	
20.0	6.9	6.1	5.4	8.9	7.2	5.9	10.7	7.9	6.2	10.6	8.4	6.4	9.0	7.8	
22.0	6.3	5.7	5.1	8.1	6.7	5.6	9.8	7.4	5.9	10.1	7.9	6.1	9.0	7.4	6.2
24.0	5.7	5.3	4.8	7.4	6.2	5.3	8.9	7.0	5.7	9.8	7.5	5.9	8.5	7.1	6.0
26.0	5.2	4.9		6.8	5.9	5.1	8.2	6.6	5.5	9.3	7.1	5.7	8.1	6.8	5.8
28.0	4.8	4.7		6.3	5.5	4.9	7.7	6.2	5.3	8.6	6.8	5.5	7.8	6.6	5.6
30.0				5.9	5.2	4.8	7.1	5.9	5.1	8.1	6.5	5.3	7.5	6.4	5.5
32.0				5.5	5.0	4.6	6.7	5.6	4.9	7.6	6.2	5.2	7.2	6.2	5.4
34.0				5.1	4.8		6.3	5.4	4.8	7.2	5.9	5.1	6.9	6.0	5.2
36.0				4.8			5.9	5.2	4.7	6.8	5.7	4.9	6.7	5.8	5.1
38.0							5.6	5.0	4.6	6.4	5.5	4.8	6.5	5.6	5.0
40.0							5.3	4.8		6.1	5.3	4.7	6.2	5.5	4.9
42.0							5.0	4.7		5.8	5.1	4.7	6.1	5.3	4.8
44.0							4.8			5.6	5.0	4.6	5.9	5.2	4.7
46.0										5.3	4.8		5.7	5.1	4.7
48.0										5.1	4.7		5.6	4.9	4.6
50.0										4.9	4.6		5.4	4.8	4.6
52.0										4.7			5.3	4.8	
56.0													4.8	4.6	
60.0													4.0		

 m	50.9 m + 1.1 m + 16.9 m			55.0 m + 1.1 m + 16.9 m			59.2 m + 1.1 m + 16.9 m			63.4 m + 1.1 m + 16.9 m			68.0 m + 1.1 m + 16.9 m		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
11.0	8.3														
12.0	8.3			7.4											
14.0	8.3			7.4			6.5								
16.0	8.3			7.4			6.5			5.6					
18.0	8.3	7.8		7.4			6.5			5.6			5.1		
20.0	8.3	7.4		7.4	7.0		6.5	6.5		5.6			5.1		
22.0	8.3	7.1		7.4	6.7		6.5	6.3		5.6	5.5		5.1		
24.0	8.1	6.8	6.0	7.4	6.5	5.8	6.5	6.0		5.6	5.2		5.1	4.9	
26.0	7.8	6.6	5.9	7.3	6.2	5.6	6.5	5.8	5.3	5.6	5.0		5.1	4.7	
28.0	7.5	6.3	5.7	7.0	6.0	5.4	6.3	5.6	5.1	5.4	4.9	4.5	5.0	4.6	4.2
30.0	7.2	6.1	5.5	6.8	5.8	5.3	6.0	5.4	5.0	5.2	4.7	4.3	4.8	4.4	4.1
32.0	6.9	5.9	5.4	6.5	5.6	5.1	5.9	5.2	4.8	5.0	4.5	4.2	4.6	4.2	3.9
34.0	6.6	5.7	5.2	6.3	5.4	5.0	5.7	5.1	4.7	4.9	4.4	4.1	4.6	4.1	3.8
36.0	6.4	5.6	5.1	6.1	5.3	4.9	5.5	4.9	4.6	4.7	4.2	3.9	4.4	4.0	3.7
38.0	6.2	5.4	5.0	5.9	5.1	4.7	5.3	4.8	4.5	4.6	4.1	3.8	4.2	3.8	3.6
40.0	6.0	5.3	4.9	5.7	5.0	4.6	5.2	4.6	4.4	4.4	4.0	3.7	4.1	3.7	3.5
42.0	5.8	5.1	4.7	5.5	4.9	4.5	5.0	4.5	4.2	4.3	3.8	3.6	4.0	3.6	3.4
44.0	5.7	5.0	4.6	5.4	4.8	4.4	4.9	4.4	4.1	4.1	3.7	3.5	3.8	3.5	3.3
46.0	5.5	4.9	4.6	5.2	4.6	4.3	4.7	4.3	4.0	4.0	3.6	3.5	3.7	3.4	3.2
48.0	5.4	4.8	4.5	5.1	4.5	4.3	4.6	4.2	4.0	3.9	3.5	3.4	3.6	3.3	3.1
50.0	5.3	4.7	4.4	5.0	4.5	4.2	4.5	4.1	3.9	3.8	3.4	3.3	3.5	3.2	3.0
52.0	5.2	4.6	4.3	4.7	4.4	4.1	4.3	4.0	3.8	3.7	3.4	3.2	3.4	3.1	3.0
56.0	4.7	4.5		4.3	4.3	4.0	3.9	3.8	3.7	3.5	3.2	3.1	3.2	3.0	2.9
60.0	3.8	4.1		3.8	3.9		3.5	3.6	3.6	3.2	3.1	3.0	3.0	2.9	2.8
64.0	3.1			3.1	3.4		3.1	3.2		2.9	2.9	2.9	2.8	2.7	2.7
68.0				2.5			2.6	2.8		2.6	2.7		2.5	2.6	
72.0							2.1			2.2	2.4		2.1	2.3	
76.0										1.8			1.6	1.8	
80.0													1.2		



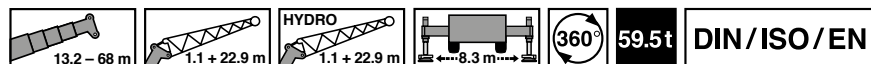
 m	13.2 m + 1.1 m + 16.9 m			21.6 m + 1.1 m + 16.9 m			30.0 m + 1.1 m + 16.9 m			38.3 m + 1.1 m + 16.9 m			46.7 m + 1.1 m + 16.9 m		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
3.0	17.6														
3.5	17.3														
4.0	17.0			15.1											
4.5	16.7			15.1											
5.0	16.3			15.1											
6.0	15.5			15.1			14.8								
7.0	14.8			15.1			14.8								
8.0	14.1			14.9			14.8			12.4					
9.0	13.5	11.1		14.3			14.5			12.4					
10.0	12.8	10.4		13.8			14.1			12.4			9.0		
11.0	12.3	9.7		13.3	10.7		13.7			12.4			9.0		
12.0	11.6	9.1		12.8	10.2		13.3	10.8		12.4			9.0		
14.0	10.0	8.1	6.8	12.0	9.2		12.5	9.9		12.0	10.1		9.0		
16.0	8.7	7.3	6.2	11.1	8.4	6.7	11.9	9.1		11.5	9.5		9.0	8.5	
18.0	7.7	6.7	5.8	9.9	7.7	6.2	11.2	8.5	6.5	11.0	8.9		9.0	8.1	
20.0	6.9	6.1	5.4	8.9	7.2	5.9	10.7	7.9	6.2	10.6	8.4	6.4	9.0	7.8	
22.0	6.3	5.7	5.1	8.1	6.7	5.6	9.8	7.4	5.9	10.1	7.9	6.1	9.0	7.4	6.2
24.0	5.7	5.3	4.8	7.4	6.2	5.3	8.9	7.0	5.7	9.8	7.5	5.9	8.5	7.1	6.0
26.0	5.2	4.9		6.8	5.9	5.1	8.2	6.6	5.5	9.3	7.1	5.7	8.1	6.8	5.8
28.0	4.8	4.7		6.3	5.5	4.9	7.7	6.2	5.3	8.6	6.8	5.5	7.8	6.6	5.6
30.0				5.9	5.2	4.8	7.1	5.9	5.1	8.1	6.5	5.3	7.5	6.4	5.5
32.0				5.5	5.0	4.6	6.7	5.6	4.9	7.6	6.2	5.2	7.2	6.2	5.4
34.0				5.1	4.8		6.3	5.4	4.8	7.2	5.9	5.1	6.9	6.0	5.2
36.0				4.8			5.9	5.2	4.7	6.8	5.7	4.9	6.7	5.8	5.1
38.0							5.6	5.0	4.6	6.4	5.5	4.8	6.5	5.6	5.0
40.0							5.3	4.8		6.1	5.3	4.7	6.2	5.5	4.9
42.0							5.0	4.7		5.8	5.1	4.7	6.1	5.3	4.8
44.0							4.8			5.6	5.0	4.6	5.9	5.2	4.7
46.0										5.3	4.8		5.7	5.1	4.7
48.0										5.1	4.7		5.4	4.9	4.6
50.0										4.8	4.6		4.9	4.8	4.6
52.0										4.4			4.4	4.8	
56.0													3.5	3.8	
60.0													2.8		

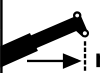
 m	50.9 m + 1.1 m + 16.9 m			55.0 m + 1.1 m + 16.9 m			59.2 m + 1.1 m + 16.9 m			63.4 m + 1.1 m + 16.9 m			68.0 m + 1.1 m + 16.9 m		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
11.0	8.3														
12.0	8.3			7.4											
14.0	8.3			7.4			6.5								
16.0	8.3			7.4			6.5			5.6					
18.0	8.3	7.8		7.4			6.5			5.6			5.1		
20.0	8.3	7.4		7.4	7.0		6.5	6.5		5.6			5.1		
22.0	8.3	7.1		7.4	6.7		6.5	6.3		5.6	5.5		5.1		
24.0	8.1	6.8	6.0	7.4	6.5	5.8	6.5	6.0		5.6	5.2		5.1	4.9	
26.0	7.8	6.6	5.9	7.3	6.2	5.6	6.5	5.8	5.3	5.6	5.0		5.1	4.7	
28.0	7.5	6.3	5.7	7.0	6.0	5.4	6.3	5.6	5.1	5.4	4.9	4.5	5.0	4.6	4.2
30.0	7.2	6.1	5.5	6.8	5.8	5.3	6.0	5.4	5.0	5.2	4.7	4.3	4.8	4.4	4.1
32.0	6.9	5.9	5.4	6.5	5.6	5.1	5.9	5.2	4.8	5.0	4.5	4.2	4.6	4.2	3.9
34.0	6.6	5.7	5.2	6.3	5.4	5.0	5.7	5.1	4.7	4.9	4.4	4.1	4.6	4.1	3.8
36.0	6.4	5.6	5.1	6.1	5.3	4.9	5.5	4.9	4.6	4.7	4.2	3.9	4.4	4.0	3.7
38.0	6.2	5.4	5.0	5.9	5.1	4.7	5.3	4.8	4.5	4.6	4.1	3.8	4.2	3.8	3.6
40.0	6.0	5.3	4.9	5.7	5.0	4.6	5.2	4.6	4.4	4.4	4.0	3.7	4.1	3.7	3.5
42.0	5.8	5.1	4.7	5.5	4.9	4.5	5.0	4.5	4.2	4.3	3.8	3.6	4.0	3.6	3.4
44.0	5.7	5.0	4.6	5.4	4.8	4.4	4.9	4.4	4.1	4.1	3.7	3.5	3.8	3.5	3.3
46.0	5.5	4.9	4.6	5.2	4.6	4.3	4.7	4.3	4.0	4.0	3.6	3.5	3.7	3.4	3.2
48.0	5.3	4.8	4.5	5.1	4.5	4.3	4.6	4.2	4.0	3.9	3.5	3.4	3.6	3.3	3.1
50.0	4.7	4.7	4.4	4.8	4.5	4.2	4.5	4.1	3.9	3.8	3.4	3.3	3.5	3.2	3.0
52.0	4.2	4.6	4.3	4.3	4.4	4.1	4.3	4.0	3.8	3.7	3.4	3.2	3.4	3.1	3.0
56.0	3.4	3.7		3.4	3.8	4.0	3.5	3.8	3.7	3.5	3.2	3.1	3.2	3.0	2.9
60.0	2.6	2.9		2.7	3.0		2.8	3.2	3.4	3.0	3.1	3.0	2.9	2.9	2.8
64.0	2.0			2.0	2.3		2.1	2.4		2.3	2.7	2.8	2.2	2.6	2.7
68.0				1.5			1.6	1.8		1.8	2.0		1.6	1.9	
72.0							1.1			1.3	1.5		1.1	1.4	

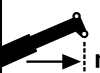


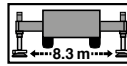
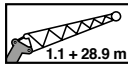
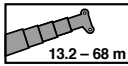
 m	13.2 m + 1.1 m + 22.9 m			21.6 m + 1.1 m + 22.9 m			30.0 m + 1.1 m + 22.9 m			38.3 m + 1.1 m + 22.9 m			46.7 m + 1.1 m + 22.9 m		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
3.5	11.1														
4.0	11.1														
4.5	11.1														
5.0	10.9			9.3											
6.0	10.5			9.3											
7.0	10.1			9.3			8.8								
8.0	9.7			9.3			8.8								
9.0	9.3			9.3			8.8			7.7					
10.0	8.9			9.3			8.8			7.7					
11.0	8.6			9.1			8.8			7.7					
12.0	8.2	7.6		8.8			8.8			7.7			6.4		
14.0	7.6	6.8		8.3	7.2		8.5			7.7			6.4		
16.0	7.0	6.1		7.8	6.6		8.1	6.8		7.7			6.4		
18.0	6.4	5.5		7.3	6.2		7.7	6.4		7.5	6.3		6.4		
20.0	5.7	5.0	4.3	6.9	5.7	4.5	7.3	6.1		7.2	6.0		6.4	5.8	
22.0	5.1	4.6	4.0	6.5	5.3	4.3	6.9	5.7	4.4	6.9	5.8		6.4	5.6	
24.0	4.7	4.2	3.8	6.1	4.9	4.0	6.6	5.4	4.2	6.6	5.5	4.3	6.4	5.4	
26.0	4.3	3.9	3.5	5.7	4.6	3.8	6.3	5.0	4.0	6.4	5.3	4.1	6.2	5.2	
28.0	3.9	3.6	3.4	5.2	4.3	3.6	6.0	4.7	3.8	6.1	5.1	4.0	6.0	5.0	4.0
30.0	3.7	3.4	3.2	4.8	4.0	3.5	5.8	4.5	3.7	5.9	4.8	3.8	5.8	4.9	3.9
32.0	3.4	3.2		4.4	3.8	3.4	5.4	4.3	3.6	5.7	4.6	3.7	5.6	4.7	3.8
34.0	3.2	3.0		4.1	3.6	3.2	5.0	4.0	3.4	5.5	4.4	3.6	5.4	4.6	3.7
36.0				3.8	3.4	3.1	4.7	3.8	3.3	5.3	4.2	3.5	5.3	4.4	3.6
38.0				3.6	3.2	3.1	4.4	3.7	3.2	5.1	4.0	3.4	5.1	4.3	3.5
40.0				3.3	3.1		4.1	3.5	3.2	4.9	3.9	3.3	5.0	4.1	3.4
42.0				3.1			3.9	3.4	3.1	4.6	3.7	3.2	4.9	4.0	3.3
44.0							3.6	3.3	3.0	4.3	3.6	3.2	4.7	3.8	3.3
46.0							3.5	3.1		4.1	3.5	3.1	4.6	3.7	3.2
48.0							3.3	3.0		3.9	3.3	3.1	4.4	3.6	3.2
50.0							3.1			3.7	3.2	3.0	4.2	3.5	3.1
52.0										3.5	3.1		4.0	3.4	3.1
56.0										3.2	3.0		3.7	3.2	3.0
60.0													3.4	3.1	
64.0													3.2	3.0	

 m	50.9 m + 1.1 m + 22.9 m			55.0 m + 1.1 m + 22.9 m			59.2 m + 1.1 m + 22.9 m			63.4 m + 1.1 m + 22.9 m			68.0 m + 1.1 m + 22.9 m		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
14.0	6.0														
16.0	6.0			5.5											
18.0	6.0			5.5											
20.0	6.0			5.5			4.9			4.3			4.0		
22.0	6.0	5.5		5.5	5.4		4.9			4.3			4.0		
24.0	6.0	5.3		5.5	5.2		4.9	4.9		4.3			4.0		
26.0	6.0	5.2		5.5	5.1		4.9	4.8		4.3	4.2		4.0		
28.0	5.9	5.0	4.0	5.5	4.9		4.9	4.6		4.3	4.0		4.0	3.8	
30.0	5.7	4.8	3.9	5.5	4.7	3.9	4.9	4.4		4.3	3.9		4.0	3.6	
32.0	5.6	4.7	3.8	5.4	4.6	3.8	4.9	4.3	3.8	4.3	3.7	3.4	3.9	3.5	
34.0	5.4	4.6	3.7	5.2	4.4	3.7	4.7	4.2	3.7	4.1	3.6	3.3	3.8	3.4	3.1
36.0	5.3	4.5	3.6	5.0	4.3	3.6	4.6	4.0	3.7	3.9	3.5	3.2	3.6	3.3	3.0
38.0	5.1	4.3	3.5	4.9	4.1	3.6	4.4	3.9	3.6	3.8	3.4	3.1	3.5	3.2	2.9
40.0	4.9	4.2	3.5	4.7	4.0	3.5	4.4	3.8	3.5	3.7	3.2	3.0	3.4	3.1	2.8
42.0	4.8	4.1	3.4	4.5	3.9	3.4	4.2	3.7	3.4	3.6	3.1	2.9	3.3	3.0	2.8
44.0	4.6	3.9	3.3	4.4	3.8	3.3	4.1	3.6	3.3	3.4	3.0	2.8	3.2	2.9	2.7
46.0	4.5	3.8	3.2	4.3	3.7	3.3	4.0	3.5	3.2	3.3	3.0	2.8	3.1	2.8	2.6
48.0	4.4	3.7	3.2	4.2	3.6	3.2	3.8	3.4	3.2	3.2	2.9	2.7	3.0	2.7	2.5
50.0	4.3	3.6	3.1	4.0	3.5	3.2	3.7	3.3	3.1	3.1	2.8	2.6	2.9	2.6	2.5
52.0	4.1	3.5	3.1	3.9	3.5	3.1	3.6	3.2	3.0	3.0	2.7	2.6	2.8	2.5	2.4
56.0	3.9	3.3	3.0	3.8	3.3	3.0	3.4	3.1	2.9	2.9	2.6	2.4	2.7	2.4	2.3
60.0	3.6	3.2	3.0	3.5	3.2	3.0	3.2	3.0	2.8	2.7	2.4	2.3	2.5	2.3	2.2
64.0	3.3	3.0		3.2	3.1		2.9	2.8	2.7	2.5	2.3	2.2	2.4	2.2	2.0
68.0	2.7	2.9		2.7	2.9		2.5	2.6		2.4	2.2	2.1	2.2	2.1	2.0
72.0				2.1	2.3		2.2	2.4		2.1	2.1		2.0	2.0	1.9
76.0							1.7	1.9		1.8	1.9		1.7	1.9	
80.0							1.3			1.4	1.6		1.2	1.5	
84.0										1.0				1.0	

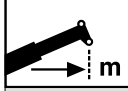


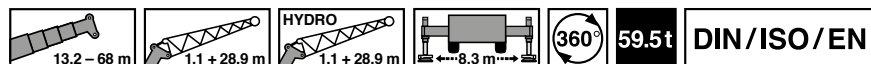
 m	13.2 m + 1.1 m + 22.9 m			21.6 m + 1.1 m + 22.9 m			30.0 m + 1.1 m + 22.9 m			38.3 m + 1.1 m + 22.9 m			46.7 m + 1.1 m + 22.9 m		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
3.5	11.1														
4.0	11.1														
4.5	11.1														
5.0	10.9			9.3											
6.0	10.5			9.3											
7.0	10.1			9.3			8.8								
8.0	9.7			9.3			8.8								
9.0	9.3			9.3			8.8			7.7					
10.0	8.9			9.3			8.8			7.7					
11.0	8.6			9.1			8.8			7.7					
12.0	8.2	7.6		8.8			8.8			7.7			6.4		
14.0	7.6	6.8		8.3	7.2		8.5			7.7			6.4		
16.0	7.0	6.1		7.8	6.6		8.1	6.8		7.7			6.4		
18.0	6.4	5.5		7.3	6.2		7.7	6.4		7.5	6.3		6.4		
20.0	5.7	5.0	4.3	6.9	5.7	4.5	7.3	6.1		7.2	6.0		6.4	5.8	
22.0	5.1	4.6	4.0	6.5	5.3	4.3	6.9	5.7	4.4	6.9	5.8		6.4	5.6	
24.0	4.7	4.2	3.8	6.1	4.9	4.0	6.6	5.4	4.2	6.6	5.5	4.3	6.4	5.4	
26.0	4.3	3.9	3.5	5.7	4.6	3.8	6.3	5.0	4.0	6.4	5.3	4.1	6.2	5.2	
28.0	3.9	3.6	3.4	5.2	4.3	3.6	6.0	4.7	3.8	6.1	5.1	4.0	6.0	5.0	4.0
30.0	3.7	3.4	3.2	4.8	4.0	3.5	5.8	4.5	3.7	5.9	4.8	3.8	5.8	4.9	3.9
32.0	3.4	3.2		4.4	3.8	3.4	5.4	4.3	3.6	5.7	4.6	3.7	5.6	4.7	3.8
34.0	3.2	3.0		4.1	3.6	3.2	5.0	4.0	3.4	5.5	4.4	3.6	5.4	4.6	3.7
36.0				3.8	3.4	3.1	4.7	3.8	3.3	5.3	4.2	3.5	5.3	4.4	3.6
38.0				3.6	3.2	3.1	4.4	3.7	3.2	5.1	4.0	3.4	5.1	4.3	3.5
40.0				3.3	3.1		4.1	3.5	3.2	4.9	3.9	3.3	5.0	4.1	3.4
42.0				3.1			3.9	3.4	3.1	4.6	3.7	3.2	4.9	4.0	3.3
44.0							3.6	3.3	3.0	4.3	3.6	3.2	4.7	3.8	3.3
46.0							3.5	3.1		4.1	3.5	3.1	4.6	3.7	3.2
48.0							3.3	3.0		3.9	3.3	3.1	4.4	3.6	3.2
50.0							3.1			3.7	3.2	3.0	4.2	3.5	3.1
52.0										3.5	3.1		4.0	3.4	3.1
56.0										3.2	3.0		3.7	3.2	3.0
60.0													3.0	3.1	
64.0													2.4	2.6	

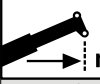
 m	50.9 m + 1.1 m + 22.9 m			55.0 m + 1.1 m + 22.9 m			59.2 m + 1.1 m + 22.9 m			63.4 m + 1.1 m + 22.9 m			68.0 m + 1.1 m + 22.9 m		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
14.0	6.0														
16.0	6.0			5.5											
18.0	6.0			5.5			4.9								
20.0	6.0			5.5			4.9			4.3			4.0		
22.0	6.0	5.5		5.5	5.4		4.9			4.3			4.0		
24.0	6.0	5.3		5.5	5.2		4.9	4.9		4.3			4.0		
26.0	6.0	5.2		5.5	5.1		4.9	4.8		4.3	4.2		4.0		
28.0	5.9	5.0	4.0	5.5	4.9		4.9	4.6		4.3	4.0		4.0	3.8	
30.0	5.7	4.8	3.9	5.5	4.7	3.9	4.9	4.4		4.3	3.9		4.0	3.6	
32.0	5.6	4.7	3.8	5.4	4.6	3.8	4.9	4.3	3.8	4.3	3.7	3.4	3.9	3.5	
34.0	5.4	4.6	3.7	5.2	4.4	3.7	4.7	4.2	3.7	4.1	3.6	3.3	3.8	3.4	3.1
36.0	5.3	4.5	3.6	5.0	4.3	3.6	4.6	4.0	3.7	3.9	3.5	3.2	3.6	3.3	3.0
38.0	5.1	4.3	3.5	4.9	4.1	3.6	4.4	3.9	3.6	3.8	3.4	3.1	3.5	3.2	2.9
40.0	4.9	4.2	3.5	4.7	4.0	3.5	4.4	3.8	3.5	3.7	3.2	3.0	3.4	3.1	2.8
42.0	4.8	4.1	3.4	4.5	3.9	3.4	4.2	3.7	3.4	3.6	3.1	2.9	3.3	3.0	2.8
44.0	4.6	3.9	3.3	4.4	3.8	3.3	4.1	3.6	3.3	3.4	3.0	2.8	3.2	2.9	2.7
46.0	4.5	3.8	3.2	4.3	3.7	3.3	4.0	3.5	3.2	3.3	3.0	2.8	3.1	2.8	2.6
48.0	4.4	3.7	3.2	4.2	3.6	3.2	3.8	3.4	3.2	3.2	2.9	2.7	3.0	2.7	2.5
50.0	4.3	3.6	3.1	4.0	3.5	3.2	3.7	3.3	3.1	3.1	2.8	2.6	2.9	2.6	2.5
52.0	4.1	3.5	3.1	3.9	3.5	3.1	3.6	3.2	3.0	3.0	2.7	2.6	2.8	2.5	2.4
56.0	3.6	3.3	3.0	3.6	3.3	3.0	3.4	3.1	2.9	2.9	2.6	2.4	2.7	2.4	2.3
60.0	2.8	3.2	3.0	2.8	3.2	3.0	2.9	3.0	2.8	2.7	2.4	2.3	2.5	2.3	2.2
64.0	2.2	2.6		2.2	2.6		2.3	2.7	2.7	2.4	2.3	2.2	2.3	2.2	2.0
68.0	1.6	1.9		1.6	1.9		1.7	2.1		1.9	2.2	2.1	1.7	2.1	2.0
72.0				1.1	1.3		1.2	1.5		1.3	1.7		1.2	1.6	1.8
76.0								1.0			1.2			1.1	

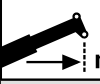


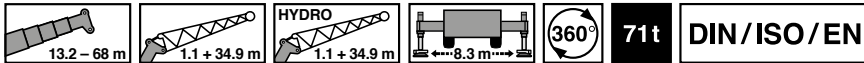
 m	13.2 m + 1.1 m + 28.9 m			21.6 m + 1.1 m + 28.9 m			30.0 m + 1.1 m + 28.9 m			38.3 m + 1.1 m + 28.9 m			46.7 m + 1.1 m + 28.9 m		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
5.0	6.5														
6.0	6.5			6.2											
7.0	6.5			6.2											
8.0	6.5			6.2			6.2								
9.0	6.5			6.2			6.2								
10.0	6.5			6.2			6.2								
11.0	6.4			6.2			6.2			5.4					
12.0	6.2			6.2			6.2			5.4					
14.0	5.8			6.0			6.1			5.4			4.6		
16.0	5.4	4.9		5.7			5.8			5.4			4.6		
18.0	5.0	4.5		5.4	4.7		5.6			5.3			4.6		
20.0	4.7	4.2		5.1	4.4		5.3	4.5		5.2			4.6		
22.0	4.4	3.9		4.8	4.1		5.1	4.3		5.0	4.2		4.6		
24.0	4.1	3.6	3.1	4.6	3.9		4.9	4.1		4.8	4.0		4.5	3.9	
26.0	3.8	3.3	2.9	4.3	3.7	3.0	4.6	3.9		4.6	3.9		4.4	3.8	
28.0	3.4	3.0	2.7	4.1	3.5	2.9	4.4	3.7	3.0	4.5	3.7		4.3	3.6	
30.0	3.1	2.8	2.5	3.9	3.2	2.7	4.2	3.6	2.8	4.3	3.6	2.9	4.2	3.5	
32.0	2.9	2.6	2.4	3.7	3.0	2.6	4.1	3.4	2.7	4.2	3.5	2.8	4.0	3.4	2.8
34.0	2.6	2.4	2.3	3.4	2.9	2.5	3.9	3.2	2.6	4.0	3.3	2.7	3.9	3.3	2.7
36.0	2.4	2.3	2.2	3.1	2.7	2.4	3.7	3.0	2.5	3.9	3.2	2.6	3.8	3.2	2.6
38.0	2.3	2.2		2.9	2.5	2.3	3.5	2.9	2.4	3.7	3.1	2.5	3.7	3.1	2.6
40.0	2.1	2.0		2.7	2.4	2.2	3.3	2.7	2.3	3.6	3.0	2.4	3.6	3.0	2.5
42.0				2.5	2.3	2.1	3.1	2.6	2.3	3.5	2.8	2.4	3.5	2.9	2.4
44.0				2.4	2.2	2.1	2.9	2.5	2.2	3.4	2.7	2.3	3.4	2.9	2.4
46.0				2.2	2.1		2.7	2.4	2.1	3.2	2.6	2.2	3.3	2.8	2.3
48.0				2.1			2.6	2.3	2.1	3.0	2.5	2.2	3.2	2.7	2.3
50.0							2.4	2.2	2.0	2.9	2.4	2.1	3.1	2.6	2.2
52.0							2.3	2.1		2.7	2.3	2.1	3.1	2.5	2.2
56.0							2.1			2.5	2.2	2.0	2.8	2.4	2.1
60.0										2.3	2.1		2.6	2.2	2.0
64.0										2.1			2.4	2.1	
68.0													2.2	2.0	
72.0													2.0		

 m	50.9 m + 1.1 m + 28.9 m			55.0 m + 1.1 m + 28.9 m			59.2 m + 1.1 m + 28.9 m			63.4 m + 1.1 m + 28.9 m			68.0 m + 1.1 m + 28.9 m		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
16.0	4.4														
18.0	4.4			4.1											
20.0	4.4			4.1			3.8			3.3			3.1		
22.0	4.4			4.1			3.8			3.3			3.1		
24.0	4.4	3.9		4.1			3.8			3.3			3.1		
26.0	4.3	3.7		4.1	3.6		3.8			3.3			3.1		
28.0	4.2	3.6		4.0	3.5		3.8	3.4		3.3			3.1		
30.0	4.1	3.5		3.9	3.4		3.7	3.3		3.3	3.1		3.1		
32.0	4.0	3.4		3.8	3.3		3.6	3.2		3.3	3.0		3.1	2.9	
34.0	3.9	3.3	2.7	3.7	3.2		3.6	3.1		3.3	3.0		3.1	2.8	
36.0	3.8	3.2	2.7	3.7	3.1	2.7	3.5	3.1	2.6	3.3	2.9		3.1	2.7	
38.0	3.7	3.1	2.6	3.6	3.1	2.6	3.4	3.0	2.6	3.2	2.8	2.5	3.0	2.6	
40.0	3.6	3.0	2.5	3.5	3.0	2.5	3.4	2.9	2.5	3.1	2.7	2.4	2.9	2.5	2.3
42.0	3.5	2.9	2.4	3.4	2.9	2.5	3.3	2.9	2.5	3.0	2.6	2.4	2.8	2.4	2.2
44.0	3.4	2.9	2.4	3.4	2.8	2.4	3.2	2.8	2.4	2.9	2.5	2.3	2.7	2.4	2.2
46.0	3.3	2.8	2.3	3.3	2.8	2.3	3.2	2.7	2.4	2.8	2.4	2.2	2.5	2.3	2.1
48.0	3.2	2.7	2.3	3.2	2.7	2.3	3.1	2.7	2.3	2.7	2.3	2.2	2.4	2.2	2.0
50.0	3.2	2.7	2.2	3.1	2.7	2.2	3.0	2.6	2.3	2.6	2.3	2.1	2.4	2.1	2.0
52.0	3.1	2.6	2.2	3.1	2.6	2.2	3.0	2.6	2.2	2.5	2.2	2.0	2.3	2.0	1.9
56.0	2.9	2.4	2.1	2.9	2.5	2.1	2.8	2.5	2.1	2.3	2.1	1.9	2.2	1.9	1.8
60.0	2.7	2.3	2.0	2.8	2.3	2.1	2.7	2.3	2.1	2.2	1.9	1.8	2.0	1.8	1.7
64.0	2.5	2.2	2.0	2.6	2.2	2.0	2.5	2.2	2.0	2.0	1.8	1.7	1.9	1.7	1.6
68.0	2.3	2.1		2.5	2.1	2.0	2.3	2.1	2.0	1.9	1.7	1.6	1.8	1.6	1.5
72.0	2.2	2.0		2.2	2.0		2.0	2.0	1.9	1.7	1.6	1.5	1.7	1.5	1.4
76.0	1.8			1.7	2.0		1.8	1.9		1.6	1.5	1.4	1.5	1.4	1.3
80.0				1.3			1.3	1.6		1.4	1.4		1.3	1.3	
84.0										1.0	1.3			1.2	



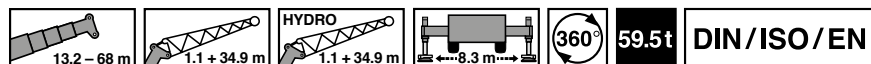
 m	13.2 m + 1.1 m + 28.9 m			21.6 m + 1.1 m + 28.9 m			30.0 m + 1.1 m + 28.9 m			38.3 m + 1.1 m + 28.9 m			46.7 m + 1.1 m + 28.9 m		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
5.0	6.5														
6.0	6.5			6.2											
7.0	6.5			6.2											
8.0	6.5			6.2			6.2								
9.0	6.5			6.2			6.2								
10.0	6.5			6.2			6.2								
11.0	6.4			6.2			6.2			5.4					
12.0	6.2			6.2			6.2			5.4					
14.0	5.8			6.0			6.1			5.4			4.6		
16.0	5.4	4.9		5.7			5.8			5.4			4.6		
18.0	5.0	4.5		5.4	4.7		5.6			5.3			4.6		
20.0	4.7	4.2		5.1	4.4		5.3	4.5		5.2			4.6		
22.0	4.4	3.9		4.8	4.1		5.1	4.3		5.0	4.2		4.6		
24.0	4.1	3.6	3.1	4.6	3.9		4.9	4.1		4.8	4.0		4.5	3.9	
26.0	3.8	3.3	2.9	4.3	3.7	3.0	4.6	3.9		4.6	3.9		4.4	3.8	
28.0	3.4	3.0	2.7	4.1	3.5	2.9	4.4	3.7	3.0	4.5	3.7		4.3	3.6	
30.0	3.1	2.8	2.5	3.9	3.2	2.7	4.2	3.6	2.8	4.3	3.6	2.9	4.2	3.5	
32.0	2.9	2.6	2.4	3.7	3.0	2.6	4.1	3.4	2.7	4.2	3.5	2.8	4.0	3.4	2.8
34.0	2.6	2.4	2.3	3.4	2.9	2.5	3.9	3.2	2.6	4.0	3.3	2.7	3.9	3.3	2.7
36.0	2.4	2.3	2.2	3.1	2.7	2.4	3.7	3.0	2.5	3.9	3.2	2.6	3.8	3.2	2.6
38.0	2.3	2.2		2.9	2.5	2.3	3.5	2.9	2.4	3.7	3.1	2.5	3.7	3.1	2.6
40.0	2.1	2.0		2.7	2.4	2.2	3.3	2.7	2.3	3.6	3.0	2.4	3.6	3.0	2.5
42.0				2.5	2.3	2.1	3.1	2.6	2.3	3.5	2.8	2.4	3.5	2.9	2.4
44.0				2.4	2.2	2.1	2.9	2.5	2.2	3.4	2.7	2.3	3.4	2.9	2.4
46.0				2.2	2.1		2.7	2.4	2.1	3.2	2.6	2.2	3.3	2.8	2.3
48.0				2.1			2.6	2.3	2.1	3.0	2.5	2.2	3.2	2.7	2.3
50.0							2.4	2.2	2.0	2.9	2.4	2.1	3.1	2.6	2.2
52.0							2.3	2.1		2.7	2.3	2.1	3.1	2.5	2.2
56.0							2.1			2.5	2.2	2.0	2.8	2.4	2.1
60.0										2.3	2.1		2.6	2.2	2.0
64.0										2.1			2.4	2.1	
68.0													1.9	2.0	
72.0													1.5		

 m	50.9 m + 1.1 m + 28.9 m			55.0 m + 1.1 m + 28.9 m			59.2 m + 1.1 m + 28.9 m			63.4 m + 1.1 m + 28.9 m			68.0 m + 1.1 m + 28.9 m		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
16.0	4.4														
18.0	4.4			4.1											
20.0	4.4			4.1			3.8			3.3			3.1		
22.0	4.4			4.1			3.8			3.3			3.1		
24.0	4.4	3.9		4.1			3.8			3.3			3.1		
26.0	4.3	3.7		4.1	3.6		3.8			3.3			3.1		
28.0	4.2	3.6		4.0	3.5		3.8	3.4		3.3			3.1		
30.0	4.1	3.5		3.9	3.4		3.7	3.3		3.3	3.1		3.1		
32.0	4.0	3.4		3.8	3.3		3.6	3.2		3.3	3.0		3.1	2.9	
34.0	3.9	3.3	2.7	3.7	3.2		3.6	3.1		3.3	3.0		3.1	2.8	
36.0	3.8	3.2	2.7	3.7	3.1	2.7	3.5	3.1	2.6	3.3	2.9		3.1	2.7	
38.0	3.7	3.1	2.6	3.6	3.1	2.6	3.4	3.0	2.6	3.2	2.8	2.5	3.0	2.6	
40.0	3.6	3.0	2.5	3.5	3.0	2.5	3.4	2.9	2.5	3.1	2.7	2.4	2.9	2.5	2.3
42.0	3.5	2.9	2.4	3.4	2.9	2.5	3.3	2.9	2.5	3.0	2.6	2.4	2.8	2.4	2.2
44.0	3.4	2.9	2.4	3.4	2.8	2.4	3.2	2.8	2.4	2.9	2.5	2.3	2.7	2.4	2.2
46.0	3.3	2.8	2.3	3.3	2.8	2.3	3.2	2.7	2.4	2.8	2.4	2.2	2.5	2.3	2.1
48.0	3.2	2.7	2.3	3.2	2.7	2.3	3.1	2.7	2.3	2.7	2.3	2.2	2.4	2.2	2.0
50.0	3.2	2.7	2.2	3.1	2.7	2.2	3.0	2.6	2.3	2.6	2.3	2.1	2.4	2.1	2.0
52.0	3.1	2.6	2.2	3.1	2.6	2.2	3.0	2.6	2.2	2.5	2.2	2.0	2.3	2.0	1.9
56.0	2.9	2.4	2.1	2.9	2.5	2.1	2.8	2.5	2.1	2.3	2.1	1.9	2.2	1.9	1.8
60.0	2.7	2.3	2.0	2.8	2.3	2.1	2.7	2.3	2.1	2.2	1.9	1.8	2.0	1.8	1.7
64.0	2.3	2.2	2.0	2.3	2.2	2.0	2.4	2.2	2.0	2.0	1.8	1.7	1.9	1.7	1.6
68.0	1.8	2.1		1.7	2.1	2.0	1.8	2.1	2.0	1.9	1.7	1.6	1.7	1.6	1.5
72.0	1.3	1.6		1.2	1.6		1.3	1.7	1.9	1.4	1.6	1.5	1.2	1.5	1.4
76.0					1.1			1.2			1.4	1.4		1.3	1.3



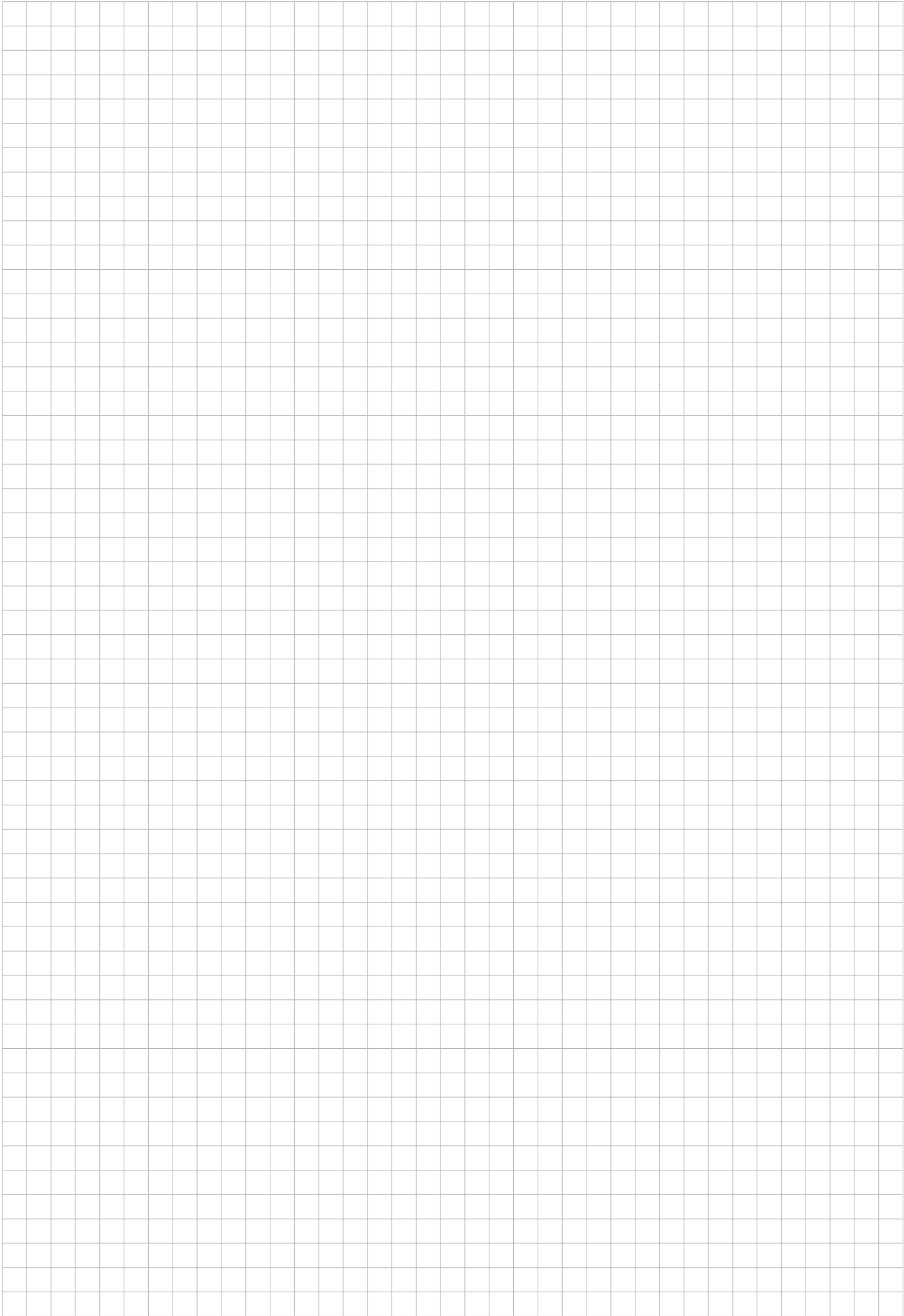
 m	13.2 m + 1.1 m + 34.9 m			21.6 m + 1.1 m + 34.9 m			30.0 m + 1.1 m + 34.9 m			38.3 m + 1.1 m + 34.9 m			46.7 m + 1.1 m + 34.9 m		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
6.0	4.7														
7.0	4.7			4.5											
8.0	4.7			4.5											
9.0	4.7			4.5											
10.0	4.7			4.5			4.5								
11.0	4.7			4.5			4.5								
12.0	4.5			4.5			4.5			4.0					
14.0	4.3			4.4			4.4			4.0					
16.0	4.0			4.1			4.2			3.9					
18.0	3.8			3.9			4.0			3.8			3.5		
20.0	3.6	3.3		3.7	3.3		3.8			3.7			3.4		
22.0	3.4	3.1		3.6	3.1		3.7	3.2		3.5			3.3		
24.0	3.2	2.9		3.4	3.0		3.5	3.0		3.4	2.9		3.2		
26.0	3.0	2.7		3.2	2.8		3.4	2.9		3.3	2.8		3.1	2.7	
28.0	2.8	2.6		3.1	2.7		3.2	2.7		3.2	2.7		3.0	2.6	
30.0	2.7	2.4	2.1	2.9	2.6	2.1	3.1	2.6		3.1	2.6		2.9	2.5	
32.0	2.5	2.2	1.9	2.8	2.5	2.0	3.0	2.5	2.1	3.0	2.5		2.8	2.4	
34.0	2.2	2.0	1.8	2.7	2.3	1.9	2.9	2.4	2.0	2.9	2.4	2.0	2.8	2.3	
36.0	2.1	1.9	1.7	2.6	2.2	1.8	2.7	2.3	1.9	2.8	2.3	1.9	2.7	2.3	
38.0	1.9	1.7	1.6	2.4	2.0	1.7	2.6	2.2	1.8	2.7	2.3	1.9	2.6	2.2	1.9
40.0	1.7	1.6	1.5	2.2	1.9	1.6	2.5	2.1	1.7	2.6	2.2	1.8	2.5	2.1	1.8
42.0	1.6	1.5	1.4	2.1	1.8	1.6	2.4	2.0	1.7	2.5	2.1	1.7	2.5	2.1	1.8
44.0	1.5	1.4		1.9	1.7	1.5	2.3	1.9	1.6	2.4	2.1	1.7	2.4	2.0	1.7
46.0	1.3	1.3		1.8	1.6	1.4	2.2	1.8	1.5	2.4	2.0	1.6	2.3	2.0	1.7
48.0				1.7	1.5	1.4	2.1	1.7	1.5	2.3	1.9	1.6	2.3	1.9	1.6
50.0				1.5	1.4	1.3	1.9	1.6	1.4	2.2	1.8	1.5	2.2	1.9	1.6
52.0				1.4	1.4		1.8	1.6	1.4	2.1	1.7	1.5	2.2	1.8	1.5
56.0							1.6	1.4	1.3	1.9	1.6	1.4	2.0	1.7	1.4
60.0							1.4	1.3		1.7	1.5	1.3	2.0	1.6	1.4
64.0										1.5	1.4		1.8	1.5	1.3
68.0										1.4	1.3		1.6	1.4	1.3
72.0													1.5	1.3	
76.0													1.4	1.3	

 m	50.9 m + 1.1 m + 34.9 m			55.0 m + 1.1 m + 34.9 m			59.2 m + 1.1 m + 34.9 m			63.4 m + 1.1 m + 34.9 m			68.0 m + 1.1 m + 34.9 m		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
20.0	3.3			3.1			2.9			2.6			2.4		
22.0	3.2			3.0			2.8			2.6			2.4		
24.0	3.1			3.0			2.8			2.5			2.4		
26.0	3.0			2.9			2.7			2.5			2.3		
28.0	2.9	2.5		2.8			2.6			2.4			2.3		
30.0	2.9	2.4		2.7	2.4		2.6			2.4			2.2		
32.0	2.8	2.4		2.7	2.3		2.5	2.2		2.3			2.2		
34.0	2.7	2.3		2.6	2.2		2.5	2.2		2.3	2.0		2.2		
36.0	2.6	2.2		2.6	2.2		2.4	2.1		2.3	2.0		2.1		
38.0	2.6	2.2		2.5	2.1		2.4	2.0		2.2	1.9		2.1		
40.0	2.5	2.1	1.8	2.4	2.1	1.8	2.3	2.0		2.2	1.9		2.1		
42.0	2.4	2.1	1.8	2.4	2.0	1.8	2.3	1.9	1.8	2.1	1.8		2.0		
44.0	2.4	2.0	1.7	2.3	2.0	1.7	2.2	1.9	1.7	2.1	1.8		2.0		
46.0	2.3	2.0	1.7	2.3	1.9	1.7	2.2	1.9	1.7	2.0	1.8		1.9		
48.0	2.3	1.9	1.6	2.2	1.9	1.6	2.1	1.8	1.6	2.0	1.7		1.9		
50.0	2.2	1.9	1.6	2.2	1.8	1.6	2.1	1.8	1.6	2.0	1.7		1.9		
52.0	2.1	1.8	1.5	2.1	1.8	1.5	2.0	1.7	1.5	1.9	1.7		1.8		
56.0	2.0	1.7	1.5	2.0	1.7	1.5	1.9	1.7	1.5	1.8	1.6		1.7		
60.0	2.0	1.6	1.4	1.9	1.7	1.4	1.9	1.6	1.4	1.7	1.5		1.6		
64.0	1.9	1.5	1.3	1.8	1.6	1.4	1.8	1.6	1.4	1.6	1.4		1.5		
68.0	1.7	1.4	1.3	1.8	1.5	1.3	1.7	1.5	1.3	1.5	1.3		1.3		
72.0	1.6	1.4	1.3	1.7	1.4	1.3	1.7	1.4	1.3	1.3	1.2		1.2		
76.0	1.5	1.3		1.6	1.3		1.5	1.4	1.3	1.1	1.0		1.1		
80.0	1.3	1.3		1.3	1.3		1.3	1.3		1.0			1.0		
84.0					1.2		1.0	1.2							



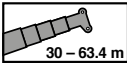
 m	13.2 m + 1.1 m + 34.9 m			21.6 m + 1.1 m + 34.9 m			30.0 m + 1.1 m + 34.9 m			38.3 m + 1.1 m + 34.9 m			46.7 m + 1.1 m + 34.9 m		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
6.0	4.7														
7.0	4.7			4.5											
8.0	4.7			4.5											
9.0	4.7			4.5											
10.0	4.7			4.5			4.5								
11.0	4.7			4.5			4.5								
12.0	4.5			4.5			4.5			4.0					
14.0	4.3			4.4			4.4			4.0					
16.0	4.0			4.1			4.2			3.9					
18.0	3.8			3.9			4.0			3.8			3.5		
20.0	3.6	3.3		3.7	3.3		3.8			3.7			3.4		
22.0	3.4	3.1		3.6	3.1		3.7	3.2		3.5			3.3		
24.0	3.2	2.9		3.4	3.0		3.5	3.0		3.4	2.9		3.2		
26.0	3.0	2.7		3.2	2.8		3.4	2.9		3.3	2.8		3.1	2.7	
28.0	2.8	2.6		3.1	2.7		3.2	2.7		3.2	2.7		3.0	2.6	
30.0	2.7	2.4	2.1	2.9	2.6	2.1	3.1	2.6		3.1	2.6		2.9	2.5	
32.0	2.5	2.2	1.9	2.8	2.5	2.0	3.0	2.5	2.1	3.0	2.5		2.8	2.4	
34.0	2.2	2.0	1.8	2.7	2.3	1.9	2.9	2.4	2.0	2.9	2.4	2.0	2.8	2.3	
36.0	2.1	1.9	1.7	2.6	2.2	1.8	2.7	2.3	1.9	2.8	2.3	1.9	2.7	2.3	
38.0	1.9	1.7	1.6	2.4	2.0	1.7	2.6	2.2	1.8	2.7	2.3	1.9	2.6	2.2	1.9
40.0	1.7	1.6	1.5	2.2	1.9	1.6	2.5	2.1	1.7	2.6	2.2	1.8	2.5	2.1	1.8
42.0	1.6	1.5	1.4	2.1	1.8	1.6	2.4	2.0	1.7	2.5	2.1	1.7	2.5	2.1	1.8
44.0	1.5	1.4		1.9	1.7	1.5	2.3	1.9	1.6	2.4	2.1	1.7	2.4	2.0	1.7
46.0	1.3	1.3		1.8	1.6	1.4	2.2	1.8	1.5	2.4	2.0	1.6	2.3	2.0	1.7
48.0				1.7	1.5	1.4	2.1	1.7	1.5	2.3	1.9	1.6	2.3	1.9	1.6
50.0				1.5	1.4	1.3	1.9	1.6	1.4	2.2	1.8	1.5	2.2	1.9	1.6
52.0				1.4	1.4		1.8	1.6	1.4	2.1	1.7	1.5	2.2	1.8	1.5
56.0							1.6	1.4	1.3	1.9	1.6	1.4	2.0	1.7	1.4
60.0							1.4	1.3		1.7	1.5	1.3	2.0	1.6	1.4
64.0										1.5	1.4		1.8	1.5	1.3
68.0										1.4	1.3		1.6	1.4	1.3
72.0													1.5	1.3	
76.0													1.1	1.3	

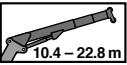
 m	50.9 m + 1.1 m + 34.9 m			55.0 m + 1.1 m + 34.9 m			59.2 m + 1.1 m + 34.9 m			63.4 m + 1.1 m + 34.9 m			68.0 m + 1.1 m + 34.9 m		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
20.0	3.3			3.1			2.9			2.6			2.4		
22.0	3.2			3.0			2.8			2.6			2.4		
24.0	3.1			3.0			2.8			2.5			2.4		
26.0	3.0			2.9			2.7			2.5			2.3		
28.0	2.9	2.5		2.8			2.6			2.4			2.3		
30.0	2.9	2.4		2.7	2.4		2.6			2.4			2.2		
32.0	2.8	2.4		2.7	2.3		2.5	2.2		2.3			2.2		
34.0	2.7	2.3		2.6	2.2		2.5	2.2		2.3	2.0		2.2		
36.0	2.6	2.2		2.6	2.2		2.4	2.1		2.3	2.0		2.1		
38.0	2.6	2.2		2.5	2.1		2.4	2.0		2.2	1.9		2.1		
40.0	2.5	2.1	1.8	2.4	2.1	1.8	2.3	2.0		2.2	1.9		2.1		
42.0	2.4	2.1	1.8	2.4	2.0	1.8	2.3	1.9	1.8	2.1	1.8		2.0		
44.0	2.4	2.0	1.7	2.3	2.0	1.7	2.2	1.9	1.7	2.1	1.8		2.0		
46.0	2.3	2.0	1.7	2.3	1.9	1.7	2.2	1.9	1.7	2.0	1.8		1.9		
48.0	2.3	1.9	1.6	2.2	1.9	1.6	2.1	1.8	1.6	2.0	1.7		1.9		
50.0	2.2	1.9	1.6	2.2	1.8	1.6	2.1	1.8	1.6	2.0	1.7		1.9		
52.0	2.1	1.8	1.5	2.1	1.8	1.5	2.0	1.7	1.5	1.9	1.7		1.8		
56.0	2.0	1.7	1.5	2.0	1.7	1.5	1.9	1.7	1.5	1.8	1.6		1.7		
60.0	2.0	1.6	1.4	1.9	1.7	1.4	1.9	1.6	1.4	1.7	1.5		1.6		
64.0	1.9	1.5	1.3	1.8	1.6	1.4	1.8	1.6	1.4	1.6	1.4		1.5		
68.0	1.7	1.4	1.3	1.8	1.5	1.3	1.7	1.5	1.3	1.5	1.3		1.3		
72.0	1.4	1.4	1.3	1.3	1.4	1.3	1.3	1.4	1.3	1.3	1.2				
76.0		1.3			1.3			1.4	1.3		1.0				

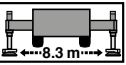


Operation · Einsatz · Utilisation
 Uso · Эксплуатация

Working range · Arbeitsbereich · Rayon de travail
 Zona de trabajo · Area di lavoro · Рабочая зона


30 – 63.4 m

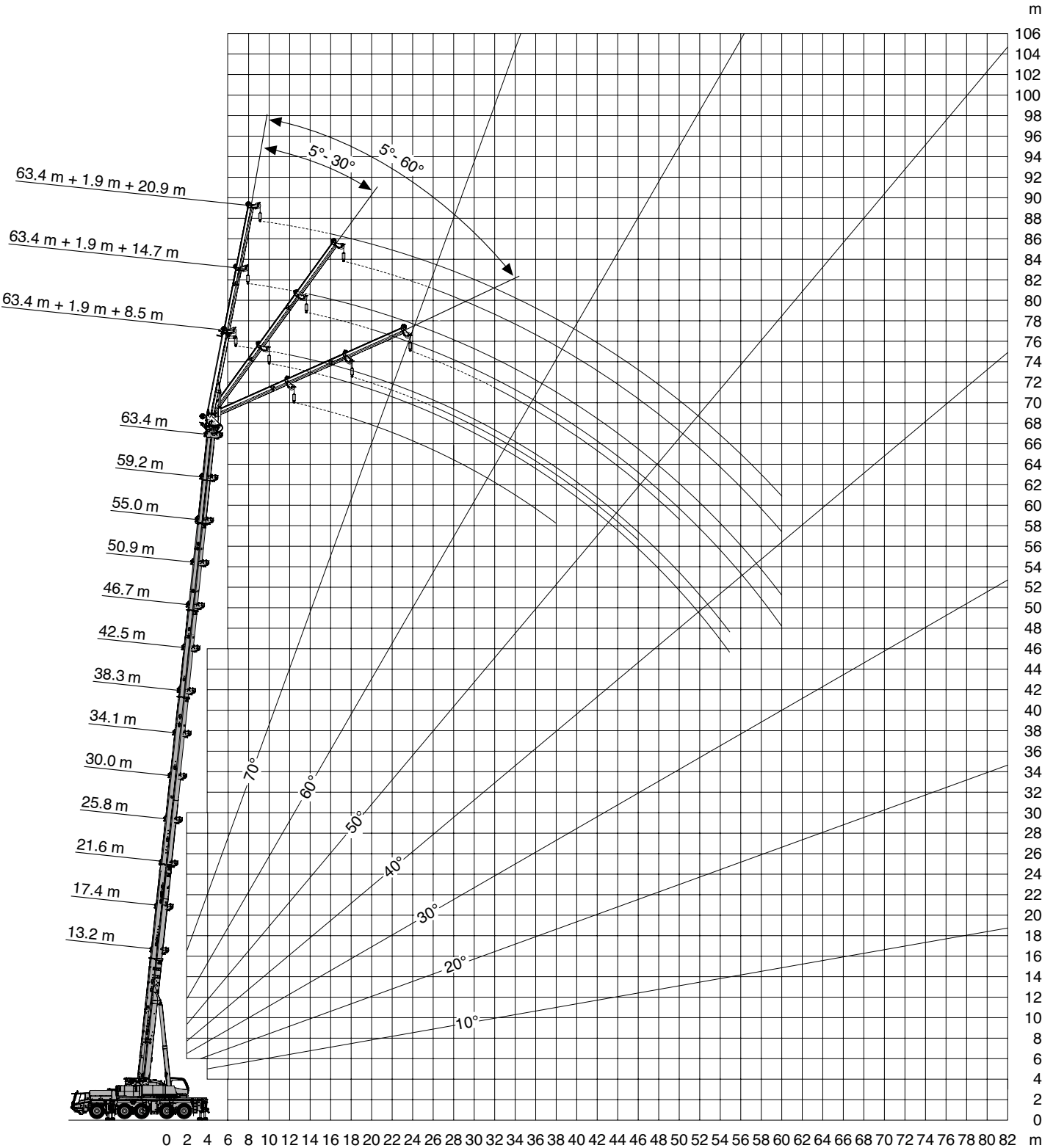

10.4 – 22.8 m

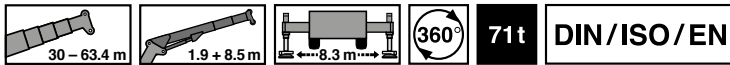

8.3 m

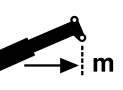

360°

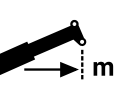

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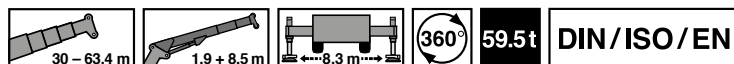

DIN/ISO/EN





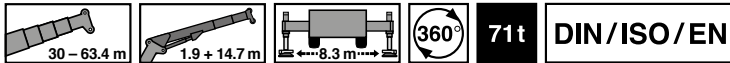
 m	30.0 m + 1.9 m + 8.5 m			38.3 m + 1.9 m + 8.5 m			42.5 m + 1.9 m + 8.5 m			46.7 m + 1.9 m + 8.5 m		
	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°
5.0	30.0											
6.0	28.1			23.4								
7.0	26.1			25.0			21.3					
8.0	24.4			25.0			21.3			17.5		
9.0	22.8	15.9		25.0			21.3			17.5		
10.0	21.5	15.4		24.7	16.1		21.3			17.5		
11.0	20.3	15.0	12.4	23.4	15.7		21.3	15.9		17.5		
12.0	19.2	14.6	12.3	22.2	15.3	12.4	21.0	15.6		17.5	15.8	
14.0	17.3	13.9	12.1	20.2	14.6	12.2	19.5	14.9	12.3	16.9	15.2	12.3
16.0	15.8	13.2	12.0	18.4	14.0	12.1	18.1	14.3	12.1	15.5	14.6	12.2
18.0	14.5	12.7	11.9	17.0	13.5	12.0	16.7	13.8	12.0	14.3	13.7	11.9
20.0	13.4	12.2	11.9	15.7	13.0	11.9	15.4	13.3	11.9	13.2	12.7	11.8
22.0	12.4	11.8		14.6	12.6	11.9	14.3	12.9	11.9	12.3	11.8	11.7
24.0	11.6	11.5		13.7	12.2	11.9	13.2	12.5	11.7	11.4	11.1	11.0
26.0	10.9	11.2		12.9	11.8		12.3	12.1	11.7	10.6	10.3	10.4
28.0	10.3	11.0		12.1	11.5		11.5	11.3		9.8	9.7	9.7
30.0	9.7	10.8		11.3	11.3		10.7	10.6		9.1	9.1	
32.0	9.2	10.8		9.7	10.4		10.0	9.9		8.5	8.5	
34.0	8.8			8.9	8.9		8.6	9.1		7.9	7.9	
36.0	8.4			7.9	8.2		7.3	7.8		7.4	7.4	
38.0				6.8	7.1		6.5	6.6		6.4	6.8	
40.0				5.9	6.1		5.9	6.0		5.4	5.8	
42.0				5.0			5.2	5.4		4.8	4.9	
44.0				4.4			4.4	4.5		4.3	4.4	
46.0				2.1			3.7			3.9	4.0	
48.0							3.0			3.3		
50.0							2.6			2.7		

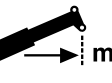
 m	50.9 m + 1.9 m + 8.5 m			55.0 m + 1.9 m + 8.5 m			59.2 m + 1.9 m + 8.5 m			63.4 m + 1.9 m + 8.5 m		
	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°
9.0	13.8			10.2								
10.0	13.8			11.5			8.5					
11.0	13.8			11.5			9.6					
12.0	13.8			11.5			9.6			7.0		
14.0	13.8	13.3		11.5	11.4		9.0	8.3		7.0		
16.0	13.4	12.5	12.1	11.2	10.6	10.4	8.4	7.7		6.8	6.3	
18.0	12.3	11.7	11.4	10.5	9.9	9.7	8.1	7.3	7.0	6.3	5.9	5.6
20.0	11.4	11.0	10.8	9.8	9.3	9.1	7.5	6.9	6.6	6.0	5.5	5.3
22.0	10.5	10.3	10.2	9.2	8.7	8.6	7.1	6.6	6.3	5.6	5.1	5.0
24.0	9.8	9.6	9.6	8.5	8.2	8.1	6.6	6.2	6.0	5.3	4.8	4.7
26.0	9.1	8.9	8.9	7.9	7.7	7.6	6.2	5.8	5.7	4.9	4.6	4.4
28.0	8.5	8.3	8.3	7.3	7.2	7.2	5.9	5.5	5.4	4.6	4.3	4.2
30.0	7.9	7.8	7.8	6.8	6.7	6.8	5.5	5.2	5.2	4.3	4.1	4.0
32.0	7.4	7.3		6.3	6.3	6.3	5.2	4.9	4.9	4.0	3.9	3.8
34.0	6.9	6.8		5.9	5.9	5.9	4.9	4.7	4.7	3.8	3.6	3.6
36.0	6.4	6.4		5.5	5.5		4.7	4.4	4.4	3.6	3.4	3.4
38.0	6.0	6.0		5.1	5.1		4.4	4.2		3.3	3.2	3.2
40.0	5.2	5.6		4.8	4.8		4.1	4.0		3.1	3.0	
42.0	4.8	4.8		4.1	4.5		3.8	3.8		3.0	2.8	
44.0	4.1	4.4		3.8	3.8		3.3	3.6		2.8	2.7	
46.0	3.4	3.6		3.5	3.5		3.0	3.1		2.4	2.5	
48.0	3.0	3.1		3.0	3.2		2.8	2.8		2.3	2.2	
50.0	2.3	2.8		2.4	2.6		2.5	2.6		2.1	2.1	
55.0	1.6			1.4	1.4		1.4	1.5		1.6	1.7	



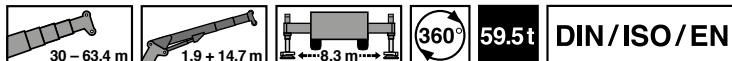
 m	30.0 m + 1.9 m + 8.5 m			38.3 m + 1.9 m + 8.5 m			42.5 m + 1.9 m + 8.5 m			46.7 m + 1.9 m + 8.5 m		
	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°
5.0	30.0											
6.0	28.1			23.4								
7.0	26.1			25.0			21.3					
8.0	24.4			25.0			21.3			17.5		
9.0	22.8	15.9		25.0			21.3			17.5		
10.0	21.5	15.4		24.7	16.1		21.3			17.5		
11.0	20.3	15.0	12.4	23.4	15.7		21.3	15.9		17.5		
12.0	19.2	14.6	12.3	22.2	15.3	12.4	21.0	15.6		17.5	15.8	
14.0	17.3	13.9	12.1	20.2	14.6	12.2	19.5	14.9	12.3	16.9	15.2	12.3
16.0	15.8	13.2	12.0	18.4	14.0	12.1	18.1	14.3	12.1	15.5	14.6	12.2
18.0	14.5	12.7	11.9	17.0	13.5	12.0	16.7	13.8	12.0	14.3	13.7	11.9
20.0	13.4	12.2	11.9	15.7	13.0	11.9	15.4	13.3	11.9	13.2	12.7	11.8
22.0	12.4	11.8		14.6	12.6	11.9	14.3	12.9	11.9	12.3	11.8	11.7
24.0	11.6	11.5		13.7	12.2	11.9	13.2	12.5	11.7	11.4	11.1	11.0
26.0	10.9	11.2		12.6	11.8		12.3	12.1	11.7	10.6	10.3	10.4
28.0	10.3	11.0		11.4	11.5		10.8	11.3		9.8	9.7	9.7
30.0	9.7	10.7		9.7	10.5		9.4	9.9		9.1	9.1	
32.0	9.2	9.7		8.3	8.9		8.5	8.6		7.8	8.5	
34.0	8.2			7.2	7.5		7.2	7.7		7.0	7.2	
36.0	7.4			6.6	6.6		6.1	6.5		6.3	6.4	
38.0				5.6	5.9		5.3	5.5		5.3	5.8	
40.0				4.9	5.0		4.8	4.9		4.5	4.9	
42.0				4.5			4.2	4.4		3.8	4.0	
44.0				4.0			3.5	3.6		3.4	3.5	
46.0				2.1			3.1			3.0	3.1	
48.0							2.8			2.4		
50.0							2.5			2.1		

 m	50.9 m + 1.9 m + 8.5 m			55.0 m + 1.9 m + 8.5 m			59.2 m + 1.9 m + 8.5 m			63.4 m + 1.9 m + 8.5 m		
	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°
9.0	13.8			10.2								
10.0	13.8			11.5			8.5					
11.0	13.8			11.5			9.6					
12.0	13.8			11.5			9.6			7.0		
14.0	13.8	13.3		11.5	11.4		9.0	8.3		7.0		
16.0	13.4	12.5	12.1	11.2	10.6	10.4	8.4	7.7		6.8	6.3	
18.0	12.3	11.7	11.4	10.5	9.9	9.7	8.1	7.3	7.0	6.3	5.9	5.6
20.0	11.4	11.0	10.8	9.8	9.3	9.1	7.5	6.9	6.6	6.0	5.5	5.3
22.0	10.5	10.3	10.2	9.2	8.7	8.6	7.1	6.6	6.3	5.6	5.1	5.0
24.0	9.8	9.6	9.6	8.5	8.2	8.1	6.6	6.2	6.0	5.3	4.8	4.7
26.0	9.1	8.9	8.9	7.9	7.7	7.6	6.2	5.8	5.7	4.9	4.6	4.4
28.0	8.5	8.3	8.3	7.3	7.2	7.2	5.9	5.5	5.4	4.6	4.3	4.2
30.0	7.9	7.8	7.8	6.8	6.7	6.8	5.5	5.2	5.2	4.3	4.1	4.0
32.0	7.4	7.3		6.3	6.3	6.3	5.2	4.9	4.9	4.0	3.9	3.8
34.0	6.9	6.8		5.9	5.9	5.9	4.9	4.7	4.7	3.8	3.6	3.6
36.0	5.8	6.4		5.5	5.5		4.7	4.4	4.4	3.6	3.4	3.4
38.0	5.1	5.3		5.1	5.1		4.4	4.2		3.3	3.2	3.2
40.0	4.7	4.7		4.2	4.7		4.1	4.0		3.1	3.0	
42.0	4.0	4.3		3.7	3.8		3.7	3.8		3.0	2.8	
44.0	3.3	3.6		3.4	3.4		3.0	3.4		2.8	2.7	
46.0	2.8	2.9		2.9	3.1		2.6	2.7		2.4	2.5	
48.0	2.1	2.5		2.3	2.6		2.3	2.4		2.2	2.2	
50.0	1.8	1.8		1.8	2.0		2.0	2.1		1.7	1.9	
55.0	1.2							1.2				



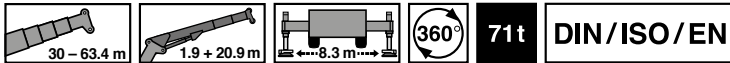
 m	30.0 m + 1.9 m + 14.7 m			38.3 m + 1.9 m + 14.7 m			42.5 m + 1.9 m + 14.7 m			46.7 m + 1.9 m + 14.7 m		
	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°
7.0	13.9											
8.0	13.9			13.9								
9.0	13.9			13.9			13.9			10.2		
10.0	13.9			13.9			13.9			12.0		
11.0	13.9			13.9			13.9			12.0		
12.0	13.4	9.3		13.9			13.8			12.0		
14.0	12.0	8.8		13.6	9.1		13.1			12.0		
16.0	10.8	8.3		12.3	8.6		12.4	8.8		12.0	8.9	
18.0	9.8	7.8	6.5	11.2	8.2	6.6	11.9	8.4		11.5	8.5	
20.0	8.9	7.5	6.4	10.3	7.9	6.5	10.9	8.0	6.5	11.2	8.2	6.4
22.0	8.2	7.1	6.3	9.5	7.5	6.4	10.1	7.7	6.4	10.7	7.9	6.5
24.0	7.6	6.8	6.3	8.8	7.2	6.3	9.3	7.4	6.4	9.9	7.6	6.4
26.0	7.0	6.6	6.3	8.1	7.0	6.3	8.7	7.2	6.3	9.2	7.3	6.3
28.0	6.5	6.3		7.6	6.7	6.3	8.1	6.9	6.3	8.6	7.1	6.3
30.0	6.1	6.1		7.1	6.5	6.2	7.6	6.7	6.2	8.1	6.9	6.3
32.0	5.7	6.0		6.7	6.3	6.2	7.2	6.5	6.2	7.6	6.7	6.2
34.0	5.4	5.8		6.3	6.1		6.8	6.3	6.2	7.2	6.5	6.2
36.0	5.1	5.7		6.0	6.0		6.4	6.2		6.8	6.3	6.2
38.0	4.8	5.7		5.7	5.9		6.1	6.0		6.5	6.1	
40.0	4.6			5.4	5.8		5.8	5.9		6.2	6.0	
42.0	4.4			5.1	5.7		5.5	5.8		5.8	5.9	
44.0				4.9	5.6		5.2	5.5		5.0	5.6	
46.0				4.7	5.1		4.8	4.9		4.2	4.8	
48.0				4.2			4.2	4.5		3.8	4.1	
50.0				3.6			3.6	3.8		3.5	3.6	
55.0							2.3			2.4	1.6	
60.0										1.1		

 m	50.9 m + 1.9 m + 14.7 m			55.0 m + 1.9 m + 14.7 m			59.2 m + 1.9 m + 14.7 m			63.4 m + 1.9 m + 14.7 m		
	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°
10.0	8.8											
11.0	10.1			6.9								
12.0	10.1			6.9			5.7					
14.0	10.1			6.9			6.5			5.4		
16.0	10.1			6.9			6.5			5.4		
18.0	10.1	8.5		6.9	6.9		6.5			5.4		
20.0	10.0	8.2		6.9	6.9		6.3	5.5		5.2	4.6	
22.0	9.4	7.9	6.5	6.9	6.9		5.9	5.2		4.8	4.3	
24.0	9.1	7.7	6.4	6.9	6.9	6.4	5.7	5.0	4.7	4.5	4.1	
26.0	8.5	7.4	6.4	6.9	6.7	6.3	5.4	4.8	4.5	4.3	3.9	3.7
28.0	7.9	7.2	6.3	6.7	6.3	6.2	5.1	4.5	4.3	4.0	3.6	3.5
30.0	7.4	7.0	6.3	6.3	6.0	5.9	4.8	4.3	4.2	3.8	3.5	3.3
32.0	7.0	6.8	6.1	6.0	5.7	5.6	4.5	4.1	4.0	3.6	3.3	3.2
34.0	6.5	6.4	6.1	5.6	5.4	5.4	4.3	3.9	3.8	3.4	3.1	3.0
36.0	6.1	6.1	6.1	5.2	5.1	5.1	4.1	3.8	3.7	3.2	2.9	2.8
38.0	5.8	5.7	5.8	4.9	4.9	4.9	3.9	3.6	3.5	3.0	2.8	2.7
40.0	5.4	5.4		4.6	4.6	4.6	3.7	3.4	3.4	2.8	2.6	2.6
42.0	5.1	5.1		4.3	4.3		3.5	3.3	3.3	2.7	2.5	2.4
44.0	4.8	4.8		4.0	4.0		3.3	3.1		2.5	2.4	2.3
46.0	4.2	4.5		3.5	3.8		3.2	3.0		2.4	2.3	2.2
48.0	3.8	4.0		3.3	3.6		2.8	2.8		2.2	2.1	
50.0	3.2	3.6		3.0	3.1		2.6	2.7		2.1	2.0	
55.0	2.3	2.4		2.1	2.5		2.1	2.2		1.6	1.6	
60.0	1.4			1.2	1.3		1.3	1.6		1.4	1.3	



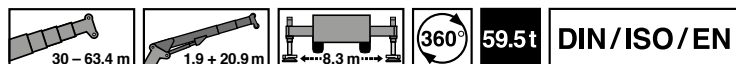
 m	30.0 m + 1.9 m + 14.7 m			38.3 m + 1.9 m + 14.7 m			42.5 m + 1.9 m + 14.7 m			46.7 m + 1.9 m + 14.7 m		
	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°
7.0	13.9											
8.0	13.9			13.9								
9.0	13.9			13.9			13.9			10.2		
10.0	13.9			13.9			13.9			12.0		
11.0	13.9			13.9			13.9			12.0		
12.0	13.4	9.3		13.9			13.8			12.0		
14.0	12.0	8.8		13.6	9.1		13.1			12.0		
16.0	10.8	8.3		12.3	8.6		12.4	8.8		12.0	8.9	
18.0	9.8	7.8	6.5	11.2	8.2	6.6	11.9	8.4		11.5	8.5	
20.0	8.9	7.5	6.4	10.3	7.9	6.5	10.9	8.0	6.5	11.2	8.2	6.4
22.0	8.2	7.1	6.3	9.5	7.5	6.4	10.1	7.7	6.4	10.7	7.9	6.5
24.0	7.6	6.8	6.3	8.8	7.2	6.3	9.3	7.4	6.4	9.9	7.6	6.4
26.0	7.0	6.6	6.3	8.1	7.0	6.3	8.7	7.2	6.3	9.2	7.3	6.3
28.0	6.5	6.3		7.6	6.7	6.3	8.1	6.9	6.3	8.6	7.1	6.3
30.0	6.1	6.1		7.1	6.5	6.2	7.6	6.7	6.2	8.1	6.9	6.3
32.0	5.7	6.0		6.7	6.3	6.2	7.2	6.5	6.2	7.6	6.7	6.2
34.0	5.4	5.8		6.3	6.1		6.8	6.3	6.2	7.2	6.5	6.2
36.0	5.1	5.7		6.0	6.0		6.4	6.2		6.8	6.3	6.2
38.0	4.8	5.7		5.7	5.9		6.1	6.0		5.9	6.1	
40.0	4.6			5.4	5.8		5.5	5.9		5.5	5.7	
42.0	4.4			5.1	5.3		4.7	5.3		4.8	5.1	
44.0				4.5	4.9		4.2	4.5		4.1	4.7	
46.0				3.9	4.1		3.8	4.0		3.5	4.0	
48.0				3.6			3.4	3.6		3.0	3.3	
50.0				3.3			2.8	3.1		2.7	2.9	
55.0							2.1			1.8	1.6	
60.0										1.1		

 m	50.9 m + 1.9 m + 14.7 m			55.0 m + 1.9 m + 14.7 m			59.2 m + 1.9 m + 14.7 m			63.4 m + 1.9 m + 14.7 m		
	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°
10.0	8.8											
11.0	10.1			6.9								
12.0	10.1			6.9			5.7					
14.0	10.1			6.9			6.5			5.4		
16.0	10.1			6.9			6.5			5.4		
18.0	10.1	8.5		6.9	6.9		6.5			5.4		
20.0	10.0	8.2		6.9	6.9		6.3	5.5		5.2	4.6	
22.0	9.4	7.9	6.5	6.9	6.9		5.9	5.2		4.8	4.3	
24.0	9.1	7.7	6.4	6.9	6.9	6.4	5.7	5.0	4.7	4.5	4.1	
26.0	8.5	7.4	6.4	6.9	6.7	6.3	5.4	4.8	4.5	4.3	3.9	3.7
28.0	7.9	7.2	6.3	6.7	6.3	6.2	5.1	4.5	4.3	4.0	3.6	3.5
30.0	7.4	7.0	6.3	6.3	6.0	5.9	4.8	4.3	4.2	3.8	3.5	3.3
32.0	7.0	6.8	6.1	6.0	5.7	5.6	4.5	4.1	4.0	3.6	3.3	3.2
34.0	6.5	6.4	6.1	5.6	5.4	5.4	4.3	3.9	3.8	3.4	3.1	3.0
36.0	6.1	6.1	6.1	5.2	5.1	5.1	4.1	3.8	3.7	3.2	2.9	2.8
38.0	5.8	5.7	5.8	4.9	4.9	4.9	3.9	3.6	3.5	3.0	2.8	2.7
40.0	5.1	5.4		4.6	4.6	4.6	3.7	3.4	3.4	2.8	2.6	2.6
42.0	4.3	5.1		4.3	4.3		3.5	3.3	3.3	2.7	2.5	2.4
44.0	4.0	4.2		3.9	4.0		3.3	3.1		2.5	2.4	2.3
46.0	3.6	3.7		3.2	3.8		3.2	3.0		2.4	2.3	2.2
48.0	3.0	3.4		2.9	3.2		2.8	2.8		2.2	2.1	
50.0	2.5	2.9		2.7	2.8		2.3	2.7		2.1	2.0	
55.0	1.5	1.9		1.6	2.0		1.7	1.8			1.6	
60.0	1.0											



 m	30.0 m + 1.9 m + 20.9 m			38.3 m + 1.9 m + 20.9 m			42.5 m + 1.9 m + 20.9 m			46.7 m + 1.9 m + 20.9 m		
	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°
8.0	5.6											
9.0	5.6			5.6								
10.0	5.6			5.6			5.6					
11.0	5.6			5.6			5.6			5.6		
12.0	5.6			5.6			5.6			5.6		
14.0	5.6			5.6			5.6			5.6		
16.0	5.6			5.6			5.6			5.6		
18.0	5.6	5.6		5.6			5.6			5.6		
20.0	5.6	5.6		5.6	5.6		5.6	5.6		5.6		
22.0	5.6	5.3		5.6	5.5		5.6	5.5		5.6	5.4	
24.0	5.6	5.0	4.0	5.6	5.3		5.6	5.3		5.6	5.2	
26.0	5.4	4.8	3.9	5.6	5.1	3.9	5.6	5.1	3.9	5.6	5.1	
28.0	5.0	4.6	3.9	5.6	4.9	3.8	5.6	4.9	3.9	5.6	4.9	3.9
30.0	4.7	4.4	3.8	5.4	4.7	3.8	5.6	4.8	3.8	5.6	4.7	3.8
32.0	4.3	4.2	3.8	5.1	4.5	3.8	5.4	4.6	3.8	5.6	4.6	3.8
34.0	4.1	4.1	3.7	4.8	4.3	3.7	5.1	4.5	3.7	5.4	4.5	3.7
36.0	3.8	3.9		4.5	4.2	3.7	4.8	4.3	3.7	5.1	4.4	3.7
38.0	3.6	3.8		4.2	4.1	3.7	4.5	4.2	3.7	4.8	4.3	3.7
40.0	3.4	3.7		4.0	3.9		4.3	4.1	3.7	4.6	4.2	3.7
42.0	3.2	3.6		3.8	3.8		4.0	4.0		4.3	4.1	3.7
44.0	3.0	3.6		3.6	3.7		3.8	3.9		4.1	4.0	
46.0	2.8	3.6		3.4	3.7		3.6	3.8		3.9	3.9	
48.0	2.7			3.2	3.6		3.5	3.7		3.7	3.8	
50.0	2.6			3.1	3.6		3.3	3.6		3.6	3.7	
55.0				2.7			3.0	3.5		3.0	3.2	
60.0							2.2			2.3	2.5	

 m	50.9 m + 1.9 m + 20.9 m			55.0 m + 1.9 m + 20.9 m			59.2 m + 1.9 m + 20.9 m			63.4 m + 1.9 m + 20.9 m		
	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°
12.0	5.6											
14.0	5.6			5.6			4.2					
16.0	5.6			5.6			5.0			4.2		
18.0	5.6			5.6			5.0			4.2		
20.0	5.6			5.6			5.0			4.2		
22.0	5.6	5.3		5.6			5.0			4.2		
24.0	5.6	5.1		5.6	5.0		4.8	4.2		4.0		
26.0	5.6	5.0		5.6	4.8		4.6	4.0		3.8	3.3	
28.0	5.6	4.8	3.9	5.6	4.7		4.3	3.8		3.6	3.1	
30.0	5.6	4.7	3.8	5.5	4.6	3.9	4.2	3.6		3.3	3.0	
32.0	5.6	4.5	3.8	5.3	4.4	3.8	4.0	3.5	3.3	3.2	2.8	2.7
34.0	5.6	4.4	3.8	5.2	4.3	3.8	3.8	3.3	3.2	3.0	2.7	2.6
36.0	5.4	4.3	3.7	4.9	4.2	3.7	3.6	3.2	3.1	2.8	2.6	2.4
38.0	5.1	4.2	3.7	4.7	4.1	3.7	3.4	3.0	3.0	2.7	2.4	2.3
40.0	4.8	4.1	3.7	4.4	4.0	3.7	3.3	2.9	2.9	2.5	2.3	2.2
42.0	4.6	4.0	3.7	4.2	3.9	3.7	3.1	2.8	2.7	2.4	2.2	2.1
44.0	4.3	3.9	3.7	3.9	3.8	3.7	2.9	2.7	2.6	2.3	2.0	2.0
46.0	4.1	3.9	3.7	3.7	3.7	3.7	2.8	2.6	2.5	2.2	1.9	1.9
48.0	3.9	3.7		3.5	3.5	3.6	2.7	2.5	2.5	2.0	1.8	1.8
50.0	3.6	3.7		3.3	3.3		2.5	2.4	2.4	1.9	1.8	1.7
55.0	2.8	3.2		2.6	2.9		2.1	2.1		1.6	1.6	
60.0	2.0	2.2		1.9	2.3		1.8	1.8		1.3	1.3	



 m	30.0 m + 1.9 m + 20.9 m			38.3 m + 1.9 m + 20.9 m			42.5 m + 1.9 m + 20.9 m			46.7 m + 1.9 m + 20.9 m		
	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°
8.0	5.6											
9.0	5.6			5.6								
10.0	5.6			5.6			5.6					
11.0	5.6			5.6			5.6			5.6		
12.0	5.6			5.6			5.6			5.6		
14.0	5.6			5.6			5.6			5.6		
16.0	5.6			5.6			5.6			5.6		
18.0	5.6	5.6		5.6			5.6			5.6		
20.0	5.6	5.6		5.6	5.6		5.6	5.6		5.6		
22.0	5.6	5.3		5.6	5.5		5.6	5.5		5.6	5.4	
24.0	5.6	5.0	4.0	5.6	5.3		5.6	5.3		5.6	5.2	
26.0	5.4	4.8	3.9	5.6	5.1	3.9	5.6	5.1	3.9	5.6	5.1	
28.0	5.0	4.6	3.9	5.6	4.9	3.8	5.6	4.9	3.9	5.6	4.9	3.9
30.0	4.7	4.4	3.8	5.4	4.7	3.8	5.6	4.8	3.8	5.6	4.7	3.8
32.0	4.3	4.2	3.8	5.1	4.5	3.8	5.4	4.6	3.8	5.6	4.6	3.8
34.0	4.1	4.1	3.7	4.8	4.3	3.7	5.1	4.5	3.7	5.4	4.5	3.7
36.0	3.8	3.9		4.5	4.2	3.7	4.8	4.3	3.7	5.1	4.4	3.7
38.0	3.6	3.8		4.2	4.1	3.7	4.5	4.2	3.7	4.8	4.3	3.7
40.0	3.4	3.7		4.0	3.9		4.3	4.1	3.7	4.6	4.2	3.7
42.0	3.2	3.6		3.8	3.8		4.0	4.0		4.3	4.1	3.7
44.0	3.0	3.6		3.6	3.7		3.8	3.9		4.1	4.0	
46.0	2.8	3.6		3.4	3.7		3.6	3.8		3.9	3.9	
48.0	2.7			3.2	3.6		3.5	3.7		3.7	3.8	
50.0	2.6			3.1	3.6		3.3	3.6		3.3	3.7	
55.0				2.7			2.6	2.9		2.3	2.6	
60.0							1.8			1.5	1.9	

 m	50.9 m + 1.9 m + 20.9 m			55.0 m + 1.9 m + 20.9 m			59.2 m + 1.9 m + 20.9 m			63.4 m + 1.9 m + 20.9 m		
	5°	30°	60°	5°	30°	60°	5°	30°	60°	5°	30°	60°
12.0	5.6											
14.0	5.6			5.6			4.2					
16.0	5.6			5.6			5.0			4.2		
18.0	5.6			5.6			5.0			4.2		
20.0	5.6			5.6			5.0			4.2		
22.0	5.6	5.3		5.6			5.0			4.2		
24.0	5.6	5.1		5.6	5.0		4.8	4.2		4.0		
26.0	5.6	5.0		5.6	4.8		4.6	4.0		3.8	3.3	
28.0	5.6	4.8	3.9	5.6	4.7		4.3	3.8		3.6	3.1	
30.0	5.6	4.7	3.8	5.5	4.6	3.9	4.2	3.6		3.3	3.0	
32.0	5.6	4.5	3.8	5.3	4.4	3.8	4.0	3.5	3.3	3.2	2.8	2.7
34.0	5.6	4.4	3.8	5.2	4.3	3.8	3.8	3.3	3.2	3.0	2.7	2.6
36.0	5.4	4.3	3.7	4.9	4.2	3.7	3.6	3.2	3.1	2.8	2.6	2.4
38.0	5.1	4.2	3.7	4.7	4.1	3.7	3.4	3.0	3.0	2.7	2.4	2.3
40.0	4.8	4.1	3.7	4.4	4.0	3.7	3.3	2.9	2.9	2.5	2.3	2.2
42.0	4.6	4.0	3.7	4.2	3.9	3.7	3.1	2.8	2.7	2.4	2.2	2.1
44.0	4.3	3.9	3.7	3.9	3.8	3.7	2.9	2.7	2.6	2.3	2.0	2.0
46.0	3.9	3.9	3.7	3.7	3.7	3.7	2.8	2.6	2.5	2.2	1.9	1.9
48.0	3.5	3.7		3.4	3.5	3.6	2.7	2.5	2.5	2.0	1.8	1.8
50.0	3.2	3.6		2.9	3.3		2.5	2.4	2.4	1.9	1.8	1.7
55.0	2.2	2.7		2.2	2.4		1.9	2.1		1.6	1.6	
60.0	1.3	1.7		1.4	1.8		1.5	1.4				

EQUIPMENT

AUSSTATTUNG
ÉQUIPEMENT
EQUIPAMIENTO
EQUIPAGGIAMENTO
ОБОРУДОВАНИЕ



Equipment

Carrier

Frame: Torsion-resistant, welded construction made from high strength, fine-grained steel. Central lubricating system.

Outriggers: 4-point double telescopic hydraulic outriggers incl. asymmetric outrigger base and automatic length detection. Controls on both sides of carrier and in superstructure cab. Outrigger base 8.3 m/ 7.0 m/ 5.6 m/ 4.6 m x 9.01 m.

Carrier engine: Mercedes-Benz 6 cylinder model OM 471 LA (Euromot IV / EPA Tier 4f), water-cooled diesel engine. Rated at 390 kW (530 HP) at 1700 min⁻¹. Torque 2460 Nm (251 kpm) at 1300 min⁻¹. Engine rating according to ECE R 120. Fuel tank 600 l. AdBlue tank 40 l.

Transmission: ZF-AS-Tronic 12 AS 2531 mechanical transmission with electro-pneumatically operated dry-type clutch and automatic gear shifting with 12 forward gears and 2 reverse gears.

Transfer case: Two stage.

Drive: 10 x 8

Axes:

- 1st axle: steered, driven, with differential lock, transverse.
- 2nd axle: steered, driven, shiftable, with differential lock, transverse.
- 3rd axle: steered, not driven.
- 4th axle: steered, driven, with differential lock, longitudinal and transverse.
- 5th axle: steered, driven, with differential lock, transverse.

Suspension: Hydro-pneumatic with levelling adjustment.

Brake system: Service disk brakes: dual circuit compressed air system with electronic wear indicator. Parking brake: spring loaded type acting on 2nd, 4th and 5th axles. Auxiliary brakes: Intarder and engine brake.

Tyres: (10) 385/95 R 25 (14.00 R 25)

Steering system: ZF-Servocom, dual circuit hydraulic steering with emergency steering pump, mechanical steering of front two axles and automatic steering of the 3rd and 4th axles up to a travel speed of 25 km/h and of the 5th axle up to 50 km/h.

Carrier cab: Two man full width cab of composite (steel sheet metal and fibre-glass) structure, with safety glass, central locking system, air-cushioned seats, driver's seat offering various adjustment options, with memory function and heater, engine dependent water heater, air conditioning, Bluetooth hands-free equipment, multifunction display, rear view camera, radio/CD player with USB port, control and operating elements for driving operation, Cruise Control and hill braking feature.

Electrical system: 24 V DC, 2 batteries, outrigger area lighting, acoustic back-up alarm, lighting system with Bi halogen headlights; LED daytime running light; LED foglights, CAN bus system.

Optional equipment: (at extra charge)

Towing attachment, engine independent additional heater with engine pre-heat, drive 10 x 6, ABS system, 445/95 R 25 (16.00 R 25), 525/80 R 25 (20.5 R 25) tyres, spare wheel and tyre, special painting and lettering. Further optional equipment available upon request.

Superstructure

Frame: Torsion-resistant, all-welded structure. Connected to carrier by single-row, ball-bearing slewing ring with external gearing for 360° continuous rotation. Central lubricating system.

Superstructure engine: Mercedes-Benz 4 cylinder model OM 934 LA (Euromot IV / EPA Tier 4f), water cooled diesel engine. Rated at 145 kW (197 HP) at 1800 min⁻¹. Torque 800 Nm (82 kpm) at 1200 - 1600 min⁻¹. Engine rating according to ECE R 120. Fuel tank 250 l. AdBlue tank 10 l.

Hydraulic system: Three-circuit diesel-hydraulic system, 1 power-controlled axial piston twin pump (electro-hydraulically adjustable) with accumulative power control and 1 axial piston pump, oil cooler.

Controls: Electrical, 2 joy-stick levers for simultaneous operation of crane motions.

Telescopic boom: 7 sections, made of high tensile, fine-grained steel, consisting of 1 base section and 6 telescoping sections extended by means of a single telescopic cylinder. All telescope sections extendable hydraulically under partial load. 13.2 m to 68.0 m long. Boom head with 7 sheaves.

Boom elevation: 1 double acting hydraulic cylinder with integral brake and holding valve.

Main winch: Axial piston motor, winch drum with integrated planetary reduction and hydraulically controlled spring-loaded multiple disc brake and integrated free rotation (no sagging of load when hoisting), drum turn indicator. Hoist cable with 'Super-Stop' easy reeving system.

Slewing system: Axial piston constant motor, three-stage planetary gear with service and parking brake. Open hydraulic circuit with wearless, dynamic free slewing function. Speed infinitely variable from 0 to 1.2 rpm.

Counterweight: Total 71 t divisible. Controlled from superstructure cab.

Superstructure cab: Spacious crane cab in steel / plastic design with laterally extended tread plate, safety glass windows with tinted panes, tilting working place with adjustable, mechanically cushioned driver's seat with heating, engine-fed and autonomous water heating (with engine pre-heating), air conditioning, radio/CD player with MP3/USB/SD Card port, control and operating elements for crane operation, outrigger actuation and carrier engine features.

Electrical system: 24 V DC, 2 batteries. 2 working floodlights on base boom, 2 integrated in crane cab.

Safety devices: 'Lift Adjuster', electronic load moment limiter (LMB) with pilot lamp in several colors, anemometer, slewing area and working area limitation with 'Slow-Stop' feature, hoist limit switch, lower limit switch, safety valves against pipe and hose ruptures.

Optional equipment: (at extra charge)

Jib from 1.1 m + 4.7 m to 1.1 m + 34.9 m, tiltable at choice 0°, 20° and 40° or hydraulically 0° to 40°, HTLJ jib 1.85 m + 8.5 m to 1.85 m + 20.9 m (hydraulically tiltable and telescopable 0° to 60°), hook blocks from 32 t to 250 t, 2nd hoisting winch (as main winch), supported forces display, special paint and lettering. Further optional equipment available on request.

Unterwagen

Rahmen: Verwindungs- und biegesteife Schweißkonstruktion aus hochfestem Feinkornstahl. Zentralschmieranlage.

Abstützung: Hydraulische 4-Punkt-Doppelteleskopabstützung, inkl. asymmetrischer Abstützbasis und automatischer Längen-erkennung, Bedienungsmöglichkeiten an beiden Seiten des Fahrgestelles und in der Oberwagenkabine. Abstützbasis 8,3 m / 7,0 m / 5,6 m / 4,6 m x 9,01 m.

Motor: Mercedes-Benz 6-Zylinder-Dieselmotor OM 471 LA (Euromot IV / EPA Tier 4f), wassergekühlt, Leistung 390 kW (530 PS) bei 1700 min⁻¹. Drehmoment 2460 Nm (251 kpm) bei 1300 min⁻¹. Motorleistung nach ECE R 120. Kraftstoffbehälter 600 l. AdBlue-Behälter 40 l.

Getriebe: ZF-AS-Tronic 12 AS 2531 mechanisches Schaltgetriebe mit elektronisch-pneumatisch betätigter Trockenkupplung und vollautomatischer Schaltung mit 12 Vorwärts- und 2 Rückwärtsgängen.

Verteilergetriebe: 2-stufiges Verteilergetriebe.

Antrieb: 10 x 8

Achsen:

1. Achse: gelenkt, angetrieben, Differentialsperre quer.
2. Achse: gelenkt, angetrieben, zuschaltbar, Differentialsperre quer.
3. Achse: gelenkt, nicht angetrieben.
4. Achse: gelenkt, angetrieben, Differentialsperre längs und quer.
5. Achse: gelenkt, angetrieben, Differentialsperre quer.

Achsaufhängung: Hydropneumatische Federung mit Niveauregulierung.

Bremsen: Druckluft-Zweikreis-Scheibenbremsanlage mit elektronischer Verschleißanzeige. Feststellbremse als Federspeicherbremse an der 2., 4. und 5. Achse wirkend. Intarder und Motorbremse als Dauerbremse.

Räder: 10-fach 385/95 R 25 (14.00 R 25)

Lenkung: ZF-Servocom-Zweikreis-Hydraulenlenkung mit Notlenkpumpe. Mechanische Lenkung der 1. und 2. Achse und Mitlenken der 3. und 4. Achse bis zu einer Geschwindigkeit von 25 km/h und der 5. Achse bis zu einer Fahrgeschwindigkeit von 50 km/h.

Unterwagenkabine: Zwei-Mann-Frontfahrerhaus in Stahl-Kunststoff-Verbund-Konstruktion, Sicherheitsverglasung, Zentralverriegelung, luftgefederte Sitze, Fahrersitz vielseitig einstellbar mit Memoryfunktion und beheizbar, motorabhängige Wasserheizung, Klimaanlage, Bluetooth Freisprecheinrichtung, Multifunktionsdisplay, Rückfahrkamera, Radio/CD-Player mit USB Anschluss, Kontroll- und Bedienungselemente für den Fahrbetrieb, Tempomat- / Bremsomat-Funktion.

Elektrische Anlage: 24 Volt-Gleichstrom, 2 Batterien, Abstützfeldbeleuchtung, akustischer Rückfahralarm, Beleuchtungsanlage mit Bi-Halogencheinwerfern, LED Tagfahrlicht, LED Nebelscheinwerfer, CAN-Bus System.

Zusatzrüstung: (gegen Mehrpreis) Anhängerkupplung, motorunabhängige Zusatzheizung mit Motorvorwärmung, 10 x 6 Antrieb, ABS, 445/95 R 25 (16.00 R 25), 525/80 R 25 (20.5 R 25) Bereifung, Reserverad, Sonderlackierung und Beschriftung. Weitere Zusatzrüstung auf Anfrage.

Oberwagen

Rahmen: Verwindungssteife Schweißkonstruktion mit einer außenverzahnten, einreihigen Kugeldrehverbindung, um 360° unbegrenzt drehbar. Zentralschmieranlage.

Motor: Mercedes-Benz 4-Zylinder-Dieselmotor OM 934 LA (Euromot IV / EPA Tier 4f), wassergekühlt. Drehzahl ist über Fußpedal stufenlos regelbar, Leistung 145 kW (197 PS) bei 1800 min⁻¹. Drehmoment 800 Nm (82 kpm) bei 1200 - 1600 min⁻¹. Motorleistung nach ECE R 120. Kraftstoffbehälter 250 l. AdBlue-Behälter 10 l.

Hydraulik System: Diesel-hydraulisch mit 3-Kreis-Hydraulik, 1 leistungsgeregelte Axialkolbendoppelpumpe (elektro-hydraulisch verstellbar) mit Summenschaltung und 1 Axialkolbenpumpe, Ölkühler.

Steuerung: Zwei 4-fach Kreuzsteuerhebel mit elektrischer Vorsteuerung.

Teleskopausleger: Siebenteiliger Teleskopausleger aus hochfestem Feinkornstahl, bestehend aus einem Grundausleger und 6 Teleskopteilen, 1 Teleskopzylinder, hydraulisch unter Teillast teleskopierbar. 13,2 m - 68,0 m lang. Rollenkopf mit 7 Seilrollen.

Wippwerk: Ein Differentialzylinder mit angebautem Senkbremsventil.

Hubwerk: Axialkolben-Motor, Hubwerkstrommel mit eingebautem Planetengetriebe und federbelasteter Hydro-Lamellenbremse mit integriertem Freilauf beim Heben, Seilwindendrehmelder. Hubseil mit 'Super-Stop' Einrichtung.

Drehwerk: Axialkolben-Konstant-Motor, dreistufiges Planetengetriebe mit Betriebs- und Feststellbremse. Offener Hydraulikkreislauf mit verschleißfreier, dynamischer Drehwerk-Freischtaltung. Drehgeschwindigkeit stufenlos von 0 - 1,2 min⁻¹.

Gegengewicht: Gesamtgewicht 71 t teilbar. Die Bedienung erfolgt aus der Oberwagenkabine.

Oberwagenkabine: Großräumige Krankabine in Stahl- Kunststoffausführung mit seitlich ausfahrbarem Auftrittblech, Sicherheitsverglasung und getönten Scheiben, kippbarem Arbeitsplatz mit verstellbarem, mechanisch gedämpftem Fahrersitz mit Heizung, motorabhängige und motorunabhängige Wasserheizung (mit Motorvorwärmung), Klimaanlage, Radio/CD-Player mit MP3/USB/SD Card Anschluss, Kontroll- und Bedienungselemente für Kranbetrieb, Betätigung der Abstützung und Motorfunktionen des Unterwagens.

Elektrische Anlage: 24 Volt-Gleichstrom, 2 Batterien. 2 Arbeitscheinwerfer am Grundausleger, 2 integriert in die Krankabine.

Sicherheitseinrichtungen: 'Lift Adjuster', elektronische Lastmomentbegrenzung (LMB) mit Ampelkennleuchte, Windmesser, Dreh- und Arbeitsbereichsbegrenzung mit 'Slow-Stop' Funktion, Hubendschalter, Windenendschalter, Sicherheitsventile gegen Rohr- und Schlauchbrüche.

Zusatzrüstung: (gegen Mehrpreis) Auslegerverlängerung von 1,1 m + 4,7 m bis 1,1 m + 34,9 m, wahlweise abwinkelbar 0°, 20° und 40° oder hydraulisch 0° - 40°, Auslegerverlängerung HTLJ 1,85 m + 8,5 m bis 1,85 m + 20,9 m (hydraulisch abwinkel- und teleskopierbar 0° - 60°), Unterflaschen von 32 t bis 250 t, 2. Hubwinde (wie Hauptwinde), Stützkraftanzeige, Sonderlackierung und Beschriftung. Weitere Zusatzrüstung auf Anfrage.

Équipement

Châssis

Châssis: Construction mécano-soudée, en acier à grain fin très rigide, résistant aux flexions et aux torsions. Graissage centralisé.

Calage: Dispositif de calage horizontal et vertical double en 4 points, entièrement déployable hydrauliquement, y compris distance entre appuis asymétrique, détection de longueur automatique et commande des mouvements sur les deux côtés du porteur et depuis la cabine de la superstructure. Calage 8,3 m/ 7,0 m/ 5,6 m/ 4,6 m x 9,01 m.

Moteur: Mercedes Benz diesel 6 cylindres, modèle OM 471 LA (Euromot IV / EPA Tier 4f), refroidi par eau, de 390 kW (530 CV) à 1700 min⁻¹. Couple: 2460 Nm (251 kpm) à 1300 min⁻¹. Puissance selon ECE R 120. Capacité du réservoir 600 l. Capacité du réservoir AdBlue 40 l.

Boîte de vitesse: Boîte mécanique ZF-AS-Tronic, modèle 12 AS 2531 avec embrayage à sec électro-pneumatique et commande des vitesses automatique, 12 vitesses AV et 2 vitesses AR.

Boîte de transfert: à 2 gammes.

Entraînement: 10 x 8

Essieux:

- 1^{er} essieu: directeur, entraîné, blocage de différentiel transversal.
- 2^{ème} essieu: directeur, entraîné, entraîné sur commande, blocage de différentiel transversal.
- 3^{ème} essieu: directeur, non entraîné.
- 4^{ème} essieu: directeur, entraîné, blocage de différentiel longitudinal et transversal.
- 5^{ème} essieu: directeur, entraîné, blocage de différentiel transversal.

Suspension: Hydro-pneumatique, avec réglage de niveau.

Freins: Système de freinage à disque à air comprimé, à deux circuits, avec indicateur d'usure électronique. Frein de stationnement, agit sur les essieux 2, 4 et 5 comme frein à ressorts accumulateurs. Intarder et frein moteur comme frein continu.

Pneus: 10 x 385/95 R 25 (14.00 R 25)

Direction: Servocom à double circuit, marque ZF avec pompe de secours pour direction. Direction mécanique du 1^{er} et 2^{ème} essieu, direction à assistance hydraulique du 3^{ème} et 4^{ème} essieu jusqu'à une vitesse de 25 km/h, et du 5^{ème} essieu jusqu'à une vitesse de 50 km/h.

Cabine: Cabine bi-place, construction en matière combinée (acier/matière plastique), vitres en verre de sécurité, système de verrouillage central, sièges à suspension pneumatique, siège du conducteur à plusieurs réglages, avec fonction de mémoire et chauffant, chauffage d'eau alimenté par le moteur, climatiseur, dispositif mains libres Bluetooth, affichage multi-fonctions, caméra de recul, radio / CD-player avec connecteur USB, éléments de contrôle et de commande pour la conduite, régulateur de vitesse, système automatique de freinage.

Système électrique: 24 V CC, 2 batteries, allumage de la zone d'appui, alarme de recul acoustique, système d'éclairage avec des projecteurs halogène Bi ; feu de circulation diurne DEL ; feux-brouillard DEL, système du bus CAN.

Équipement supplémentaire: (avec supplément de prix) Attache-remorque, chauffage auxiliaire indépendant du moteur avec préchauffage du moteur, entraînement 10 x 6, système ABS, pneus 445/95 R 25 (16.00 R 25), 525/80 R 25 (20.5 R 25), roue de secours, peinture spéciale et inscription. Autres équipements supplémentaires sur demande.

Superstructure

Plate forme: Construction mécano-soudée résistante à la torsion. Couronne d'orientation à billes à une rangée, à denture extérieure, permettant une rotation illimitée sur 360°. Graissage centralisé.

Moteur: Mercedes Benz diesel 4 cylindres, modèle OM 934 LA (Euromot IV / EPA Tier 4f), refroidi par eau. Réglage en continu du nombre de tours par pédale, de 145 kW (197 CV) à 1800 min⁻¹. Couple: 800 Nm (82 kpm) à 1200 - 1600 min⁻¹. Puissance selon ECE R 120. Capacité du réservoir 250 l. Capacité du réservoir AdBlue 10 l.

Système hydraulique: Diesel-hydraulique à 3 circuits, 1 double pompe à piston axial réglée en fonction de la puissance (à réglage électro-hydraulique) avec circuit de la somme et 1 pompe à piston axial, refroidisseur d'huile.

Commande: 2 manipulateurs à commande en croix (4 sens), assistés électriquement.

Flèche télescopique: Flèche télescopique à 7 éléments en acier à texture fine et très résistant, se composant de 1 flèche de base et 6 éléments télescopiques en acier fin, 1 vérin télescopique, hydrauliquement télescopable avec charge partielle. Longueur de 13,2 m à 68,0 m. Tête de flèche avec 7 poulies.

Mécanisme de relevage: 1 vérin différentiel muni de clapet de freinage de descente.

Mécanisme de levage: Moteur à pistons axiaux, tambour de levage avec boîte planétaire incorporée, frein d'arrêt à disques multiples à ressort, libéré lors du levage, indicateur de rotation du treuil. Câble de levage avec dispositif 'Super-Stop'.

Groupe de rotation: Moteur à cylindrée constante à pistons axiaux, avec engrenage planétaire à trois étages avec frein de service et frein d'arrêt. Circuit hydraulique ouvert avec déconnexion du groupe de rotation dynamique sans usure. Vitesse de rotation 0 à 1,2 min⁻¹ en continu.

Contrepoids: Poids total 71 t divisible, commandé depuis la cabine du grutier.

Cabine du grutier: Cabine de grue spacieuse, construction en acier/plastique avec tôle marche-pied extensible latéralement, vitrage de sécurité en verre teinté, place de travail inclinable avec siège du conducteur réglable, amorti mécaniquement, chauffant ; chauffage à eau chaude alimenté par le moteur et autonome (avec préchauffage du moteur), climatiseur, radio / CD-player avec connecteur pour carte MP3/USB/SD, éléments de commande et de contrôle pour le service de grue, actionnement des outriggers et fonctions du moteur dans le châssis.

Système électrique: 24 V CC, 2 batteries. 2 phares de travail sur la flèche de base, 2 intégrés dans la cabine de grue.

Dispositifs de sécurité: 'Lift Adjuster', contrôleur de l'état de charge (CEC) électronique avec lampe de signalisation, anémomètre, limitation de rotation et limitation de la zone de travail avec fonction « Slow-Stop », interrupteur de fin de course de levage et de treuil, soupapes de sécurité contre ruptures des conduites et flexibles.

Équipement supplémentaire: (avec supplément de prix) Rallonge de flèche de 1,1 m + 4,7 m à 1,1 m + 34,9 m, au choix inclinables 0°, 20° et 40° ou hydrauliquement de 0° à 40°, rallonge de flèche HTLJ 1,85 m + 8,5 m à 1,85 m + 20,9 m (inclinable et télescopable hydrauliquement de 0° à 60°), moufles inférieures de 32 t à 250 t, 2^{ème} treuil de levage (identique au treuil principal), affichage des forces d'appui, peinture spéciale et inscription. Autres équipements supplémentaires sur demande.

Chasis

Chasis portante: Construcción de acero de alta resistencia soldado, resistente a la torsión y a la flexión. Sistema de engrase central.

Estabilizadores: Estabilizadores telescópicos hidráulicos dobles de 4 puntos, incl. base de apoyo asimétrica y detección automática de longitud, posibilidad de manejo desde ambos lados del chasis portante y desde la cabina de la grúa. Extensión de los estabilizadores 8,3 m/ 7,0 m/ 5,6 m/ 4,6 m x 9,01 m.

Motor: Mercedes Benz modelo OM 471 LA (Euromot IV / EPA Tier 4f), 6 cilindros, diesel, refrigerado por agua. Nominal 390 kW (530 CV) a 1700 min⁻¹. Par 2460 Nm (251 kpm) a 1300 min⁻¹. Potencia del motor según ECE R 120. Depósito de combustible de 600 l. Depósito AdBlue 40 l.

Transmisión: Transmisión mecánica tipo ZF-AS Tronic modelo 12 AS 2531 con accionamiento electro-neumático, embrague en seco y cambio automático 12 marchas delanteras y 2 marchas traseras.

Caja transfer: Caja de distribución (transfer) con 2 relaciones de velocidad.

Tracción: 10 x 8

Ejes:

- 1º eje: de dirección, accionado, con bloqueo diferencial transversal.
- 2º eje: de dirección, accionado, conectar según necesidad, con bloqueo diferencial transversal.
- 3º eje: de dirección, no accionado.
- 4º eje: de dirección, accionado, con bloqueo diferencial longitudinal y transversal.
- 5º eje: de dirección, accionado, con bloqueo diferencial transversal.

Suspensión: Suspensión hidroneumática con regulación de nivel.

Sistemas de frenos: Sistema de frenos de disco neumático de doble circuito con indicador electrónico de desgaste. Freno de estacionamiento como freno de acumuladores a resorte accionando en los ejes 2, 4 y 5. Intarder y freno de motor como freno continuo.

Neumáticos: 10 x 385/95 R 25 (14.00 R 25)

Dirección: Hidráulica ZF Servocom de doble circuito. Bomba hidráulica de emergencia. Dirección mecánica al 1º y 2º eje y direccionable al 3º y 4º eje hasta una velocidad de 25 km/h y al 5º eje hasta una velocidad de conducción de 50 km/h.

Cabina: Cabina de conductor frontal para dos personas construida en material compuesto de chapa de acero y plástico, acristalamiento de seguridad, bloqueo central, asientos neumáticos, asiento del conductor regulable en múltiples posiciones con función memoria y calefactable, calefacción por agua dependiente del motor, climatizador, dispositivo manos libres con Bluetooth, display multifunción, cámara de marcha atrás, radio/reproductor CD con toma USB, elementos de control y mando para el modo de conducción, regulador de velocidad, sistema automático de frenado.

Sistema eléctrico: 24 voltios de corriente continua, 2 baterías, iluminación de la zona de apoyo, alarma acústica para indicar la marcha atrás, sistema de luces con faros bialógenos, luz LED de marcha diurna, faro LED antiniebla, sistema de bus CAN.

Equipo adicional: (con suplemento de precio)

Enganche de remolque, calefacción adicional independiente del motor con precalefacción del motor, tracción 10 x 6, sistema anti bloqueo ABS, neumáticos 445/95 R 25 (16.00 R 25), 525/80 R 25 (20.5 R 25), rueda de repuesto, pintura especial y rotulación. Otros equipamientos sobre pedido.

Superestructura

Superestructura: Construida en aceros soldados, resistente a la torsión. Corona de giro con rodamiento de una fila de bolas con dientes externos para giro continuo a 360°. Sistema de engrase central.

Motor: Mercedes Benz modelo OM 934 LA (Euromot IV / EPA Tier 4f), 4 cilindros, diesel, refrigerado por agua. Las revoluciones aumentan de forma gradual accionando el acelerador. Nominal 145 kW (197 CV) a 1800 min⁻¹. Par 800 Nm (82 kpm) a 1200 - 1600 min⁻¹. Potencia del motor según ECE R 120. Depósito de combustible de 250 l. Depósito AdBlue 10 l.

Sistema hidráulico: Dieselhidráulico con sistema hidráulico de 3 circuitos, 1 bomba doble de pistones axiales de caudal variable (regulable electro-hidráulicamente) con regulación a caudal total y 1 bomba de pistones axiales, enfriador de aceite.

Mandos: 2 palancas de control de tipo joy-stick para movimientos simultáneos de la grúa (4 direcciones), asistidos eléctricamente.

Pluma telescópica: 7 secciones, un tramo base y 6 telescópicos de acero de alta resistencia soldado, 1 cilindro hidráulico, los tramos se pueden telescopar hidráulicamente bajo carga parcial. Longitud de 13,2 m a 68,0 m. Cabeza de pluma con 7 poleas.

Elevación de pluma: Mediante un cilindro hidráulico de doble efecto con válvula de retención integrada.

Cabrestante principal: Motor hidráulico de pistones axiales. Tambor del cabrestante con reducción planetaria y frenos de disco múltiples, cargado a resorte, con sistema libre de elevación, indicador de giros del cabrestante. Cable de elevación con sistema fácil de guiado y 'Super-Stop'.

Sistema de giro: Motor de cilindrada constante de émbolos axiales, engranaje planetario de tres etapas con freno de servicio y estacionamiento. Circuito hidráulico abierto con desbloqueo del mecanismo giratorio dinámico sin desgaste, Velocidad de giro gradual de 0 a 1,2 min⁻¹.

Contrapeso: Peso total 71 t divisible, se acciona desde la cabina de la grúa.

Cabina de la grúa: Amplia cabina de grúa construida en chapa de acero y plástico con chapa pisadera lateral extensible, acristalamiento de seguridad coloreado, puesto de trabajo abatible con asiento de conductor regulable amortiguado mecánicamente con calefacción, calefacción por agua dependiente e independiente del motor (con precalentamiento del motor), climatizador, radio/CD-player con toma para MP3/USB/tarjeta SD, elementos de control y mando para el servicio de la grúa, accionamiento de estabilizadores y funciones chasis-motor.

Sistema eléctrico: 24 voltios de corriente continua, 2 baterías. 2 faros de trabajo en pluma base, 2 integrados en la cabina de grúa.

Medidas de seguridad: "Lift Adjuster", limitador electrónico del momento de carga (LMC) con luz de señalización tipo semáforo, anemómetro, limitación de la zona de giro y del área de trabajo con función "Slow Stop", interruptor de fin de carrera, interruptor de fin de carrera del cabrestante. Válvulas de seguridad contra roturas de tubos y de tubos flexibles.

Equipo adicional: (con suplemento de precio)

Alargamiento de pluma 1,1 m + 4,7 m a 1,1 m + 34,9 m, regulables opcionalmente entre 0°, 20° y 40° o hidráulicamente de 0° a 40°, alargamiento de pluma HTLJ de 1,85 m + 8,5 m a 1,85 m + 20,9 m (telescopable y regulable hidráulicamente de 0° a 60°), pastecas de carga de 32 t a 250 t, 2º cabrestante (similar al cabrestante principal), indicador de la fuerza de apoyo, pintura especial y rotulación. Otros equipamientos sobre pedido.

Equipaggiamento

Carro

Telaio: Struttura saldata resistente a sollecitazioni a torsione e flessione in acciaio a grano fine ad alta resistenza. Impianto di lubrificazione centrale.

Stabilizzazione: Stabilizzazione telescopica doppia su 4 punti, di tipo idraulico, incl. base di appoggio asimmetrica, rilevamento automatico lunghezza, possibilità di comando dai due lati del telaio e dalla cabina della sovrastruttura. Base di appoggio 8,3 m/ 7,0 m/ 5,6 m/ 4,6 m x 9,01 m.

Motore: Motore Diesel a 6 cilindri Mercedes-Benz OM 471 LA, (Euromot IV / EPA Tier 4f), raffreddato ad acqua, potenza 390 kW (530 PS) a 1700 min⁻¹. Coppia 2460 Nm (251 kpm) a 1300 min⁻¹. Potenza motore conforme a ECE R 120. Serbatoio carburante 600 l. Serbatoio AdBlue 40 l.

Cambio: Cambio meccanico ZF-AS-Tronic 12 AS 2531 con frizione a secco ad azionamento elettro-pneumatico e innesto marce automatico, con 12 marce avanti e 2 retromarce.

Gruppo di rinvio: Gruppo di rinvio a 2 stadi.

Trasmissione: 10 x 8

Assi:

- 1° asse: snodato, asse motore, bloccaggio differenziale trasversale.
- 2° asse: snodato, asse motore, regolabile, bloccaggio differenziale trasversale.
- 3° asse: snodato, non asse motore.
- 4° asse: snodato, asse motore, bloccaggio differenziale longitudinale e trasversale.
- 5° asse: snodato, asse motore, bloccaggio differenziale trasversale.

Sospensione assiale: Sospensione idro-pneumatica con regolazione di livello.

Freni: Impianto ad aria compressa per freno a doppio circuito e a disco con indicazione usura elettronica. Freno di stazionamento con funzione di freno a molla a rilascio pneumatico sul 2°, 4° e 5° asse. Intarder e freno motore come freno continuo.

Ruote: 10x 385/95 R 25 (14.00 R 25)

Sterzo: Sistema idroguida a doppio circuito ZF Servocom con pompa sterzo di emergenza. Sterzata meccanica del 1° e 2° asse e attivazione sul 3° e 4° asse fino a una velocità di 25 km/h e sul 5° asse fino a una velocità di 50 km/h.

Cabina del carro: Cabina conducente frontale per due in struttura composita acciaio-plastica, vetratura di sicurezza, chiusura centralizzata, sedili molleggiati, sedile conducente impostabile in vari modi con funzione memory e riscaldamento, riscaldamento acqua dipendente dal motore, climatizzatore, vivavoce Bluetooth, display multifunzione, telecamera retromarcia, radio/lettore CD con collegamento USB, elementi di controllo e comando per la marcia e funzioni Tempomat e Bremsomat.

Impianto elettrico: Corrente continua 24 volt, 2 batterie, illuminazione zona di stabilizzazione, segnale acustico retromarcia, impianto di illuminazione con faro bi-alogeno, luce diurna LED, fendinebbia LED, sistema CAN-Bus.

Equipaggiamento aggiuntivo: (a sovrapprezzo)

Gancio di traino, riscaldamento supplementare indipendente dal motore con preriscaldamento motore, trasmissione 10 x 6, ABS, pneumatici 445/95 R 25 (16.00 R 25), 525/80 R 25 (20.5 R 25), ruota di scorta, verniciatura speciale e diciture. Altro equipaggiamento aggiuntivo su richiesta.

Sovrastruttura

Telaio: Struttura saldata resistente alla torsione con corona di rotazione a sfere ad una fila, dentata esternamente, ruotabile di 360° senza limitazioni. Impianto di lubrificazione centrale.

Motore: Motore Diesel a 4 cilindri Mercedes-Benz OM 934 LA, (Euromot IV / EPA Tier 4f), raffreddato ad acqua. Regolazione continua numero di giri da pedale, potenza 145 kW (197 PS) a 1800 min⁻¹. Coppia 800 Nm (82 kpm) a 1200 - 1600 min⁻¹. Potenza motore conforme a ECE R 120. Serbatoio carburante 250 l. Serbatoio AdBlue 10 l.

Impianto idraulico: Diesel-idraulico con idraulica a 3 circuiti, 1 pompa doppia a pistoni assiali con regolazione di potenza (regolazione elettroidraulica) e circuito a somma di portate e 1 pompa a pistoni assiali, radiatore olio.

Comando: Due leve di comando gru x4 con precomando elettrico.

Braccio telescopico: Braccio telescopico in sette sezioni in acciaio a grano fine ad alta resistenza, composto da un braccio base e 6 sezioni telescopiche, 1 cilindro telescopico, funzione telescopica ad azionamento idraulico sotto carico parziale. Lunghezza 13,2 m - 68,0 m. Testa rullo con 7 pulegge.

Gruppo di brandeggio: Un cilindro differenziale con valvola di frenata caduta verticale montata.

Meccanismo di sollevamento: Motore a pistone assiale, tamburo del meccanismo di sollevamento con rotismo epicicloidale incorporato e freno a disco idraulico sollecitato a molla con ruota libera integrata nel sollevamento, indicatore delle rotazioni dei verricelli. Fune di sollevamento con dispositivo 'Super-Stop'.

Gruppo di rotazione: Motore costante a pistoni assiali, ingranaggio epicicloidale a tre stadi con freno di servizio e di stazionamento. Circuito idraulico aperto con attivazione gruppo di rotazione privo di usura e dinamica. Velocità di rotazione regolabile in continuo da 0 a 1,2 min⁻¹.

Contrappeso: Peso complessivo 71 t divisibile.

L'azionamento si effettua dalla cabina della sovrastruttura.

Cabina della sovrastruttura: Cabina della gru spaziosa realizzata in acciaio-plastica, con piastra di accesso abbassabile laterale, vetratura di sicurezza e cristalli oscurati, postazione di lavoro ribaltabile con sedile conducente regolabile, con molleggio meccanico e riscaldamento, riscaldamento dell'acqua dipendente e indipendente dal motore (con preriscaldamento motore), climatizzatore, radio/lettore CD con collegamento MP3/USB/SD, elementi di controllo e comando per esercizio gru, azionamento stabilizzazione e funzioni motore del carro.

Impianto elettrico: Corrente continua 24 Volt, 2 batterie. 2 proiettore di lavoro sul braccio base, 2 integrati nella cabina della gru.

Dispositivi di sicurezza: 'Lift Adjuster', limitatore del momento di carico (LMC) elettronico con luce di riferimento a semaforo, anemometro, delimitazione dell'area di rotazione e delimitazione dell'area di lavoro con funzione Slow-Stop, interruttore di fine corsa, fine corsa argani, valvole di sicurezza contro rottura tubi e tubi flessibili.

Equipaggiamento aggiuntivo: (a sovrapprezzo)

Prolunga del braccio da 1,1 m + 4,7 m a 1,1 m + 34,9 m, con angolo di 0°, 20° e 40° o a regolazione idraulica 0° - 40°, prolunga del braccio HTLJ da 1,85 m + 8,5 m a 1,85 m + 20,9 m (a regolazione idraulica e telescopica 0° - 60°), bozzelli da 32 t a 250 t, 2° argano di sollevamento (come argano principale), indicazione della capacità di appoggio, verniciatura speciale e diciture. Altro equipaggiamento aggiuntivo su richiesta.

Ходовая платформа

Рама: Жёсткая на скручивание и изгиб сварная конструкция из высокопрочной мелкозернистой стали. Централизованная смазочная система.

Аутригеры: Гидравлическая опора в четырех точках, включая поддержку асимметричной базы аутригеров и автоматическое распознавание положения стрелы, возможность управления с обеих сторон ходовой части и из кабины на поворотной платформе. Опорная база 8,3 м / 7,0 м / 5,6 м / 4,6 м x 9,01 м.

Двигатель: 6-цилиндровый дизельный двигатель Mercedes-Benz OM 471 LA, (Euromot IV / EPA Tier 4f), с водяным охлаждением, мощность 390 кВт (530 л.с.) при 1 700 об/мин. Крутящий момент 2 460 Н·м (251 кгс·м) при 1 300 об/мин. Мощность двигателя согласно ECE R 120. Топливный бак 600 л. Бак для присадки AdBlue 40 л.

Коробка передач: Механическая коробка передач ZF-AS-Tronic 12 AS 2531 с электронно-пневматическим управлением сухим дисковым сцеплением и полностью автоматическим переключением 12 передач переднего и 2 передач заднего хода.

Раздаточная коробка: 2-ступенчатая раздаточная коробка.

Привод: 10 x 8

Оси:

- 1-я ось: управляемая, приводная, с поперечной блокировкой межколёсного дифференциала.
- 2-я ось: управляемая, приводная, подключаемая, с поперечной блокировкой межколёсного дифференциала.
- 3-я ось: управляемая, не приводная.
- 4-я ось: управляемая, приводная, с продольной и поперечной блокировкой межколёсного дифференциала.
- 5-я ось: управляемая, приводная, с поперечной блокировкой межколёсного дифференциала.

Подвеска оси: Гидропневматическая подвеска с регулировкой уровня.

Тормоза: Пневматическая двухмагистральная дисковая тормозная система с электронным индикатором износа. Стояночный тормоз, представляющий собой тормозной механизм с пружинным энергоаккумулятором, воздействует на 2-ю, 4-ю и 5-ю оси. Интардер и моторный тормоз в качестве постоянного тормоза.

Колеса: 10-ные 385/95 R 25 (14.00 R 25)

Рулевое управление: Двухконтурное гидравлическое рулевое управление ZF-Servocom с резервным насосом рулевого управления. Механическое рулевое управление 1-й и 2-й осями и автоматическое подруливание 3-й и 4-й осью при скорости до 25 км/ч и 5-й осью при скорости движения до 50 км/ч.

Кабина ходовой платформы: Двухместная передняя кабина водителя композитной конструкции (металлический лист и стекловолокно), безосколочное стекло, центральный замок, сиденья с пневматической подвеской, сиденье водителя регулируемое по многим параметрам, с функцией памяти и подогревом), водяной отопитель, зависящий от работы двигателя, кондиционер, спикерфон с функцией Bluetooth, многофункциональный дисплей, камера заднего вида, радиоприемник / CD-плеер с портом USB, элементы управления и индикации для ходового режима, функция темпомата / автоматического торможения.

Система электрооборудования: 24 вольт пост. тока, 2 аккумуляторные батареи, подсветка аутригеров, звуковой сигнал при движении задним ходом, система световых приборов с бигалогеновыми фарами, светодиодные дневные ходовые огни, светодиодные противотуманные фары, система шины CAN.

Дополнительное оборудование: (за надбавку к цене) Тягово-сцепное устройство, независимый от работы двигателя дополнительный отопитель с подогревом двигателя, привод 10 x 6, ABS, шины 445/95 R 25 (16.00 R 25), 525/80 R 25 (20.5 R 25), запасное колесо, специальное лаковое покрытие и нанесение надписей. Другое дополнительное оборудование – по запросу.

Оборудование

Поворотная платформа

Рама: Жёсткая на скручивание сварная конструкция с однорядным сферическим поворотным соединением с внешними зубьями, с неограниченным поворотом на 360°. Централизованная смазочная система.

Двигатель: 4-цилиндровый дизельный двигатель Mercedes-Benz OM 934 LA, (Euromot IV / EPA Tier 4f), с водяным охлаждением. Бесступенчатая регулировка оборотов посредством педали, мощность 145 кВт (197 л.с.) при 1 800 об/мин. Крутящий момент 800 Н·м (82 кгс·м) при 1 200 – 1 600 об/мин. Мощность двигателя согласно ECE R 120.

Топливный бак 250 л. Бак для присадки AdBlue 10 л.

Гидравлическая система: Дизельно-гидравлическая с 3-контурным гидроагрегатом, 1 аксиально-поршневой насос двойного действия (с электрогидравлической регулировкой) с суммирующей схемой и 1 аксиально-поршневой насос одинарного действия, масляный радиатор.

Система управления: Два 4-сторонних крестовых рычага управления с предварительным электрическим регулированием.

Телескопическая стрела: Семисекционная телескопическая стрела из высокопрочной мелкозернистой стали, включает основную секцию стрелы и 6 телескопических секций, 1 телескопический цилиндр, выдвигается гидравлическим способом по мере создания нагрузки. Длина 13,2 – 68,0 м. Роликовая обойма с 7-ю канатными шкивами.

Механизм изменения подъёма стрелы: Дифференциальный цилиндр со смонтированным на нем клапаном спускового тормоза.

Подъемный механизм: Аксиально-поршневой двигатель с постоянным рабочим объемом, барабан подъемного механизма с встроенной планетарной коробкой передач и пружинным гидравлическим многодисковым тормозом с встроенным механизмом свободного хода при подъеме, сигнализатор вращения барабана лебедки. Подъемный трос с тормозным приспособлением 'Super-Stop'.

Поворотный механизм: Аксиально-поршневой двигатель с постоянным рабочим объемом, трехступенчатый планетарный редуктор с рабочим и стояночным тормозом. Гидравлический контур, работающий по разомкнутой схеме, с износостойкой динамической схемой включения поворотного механизма. Бесступенчатое изменение скорости вращения, 0 – 1,2 об/мин.

Противовес: Общий вес 71 т, составной. Управление осуществляется из кабины на поворотной платформе.

Кабина на поворотной платформе: Просторная кабина крана композитной конструкции (металл и пластик) с выдвижной боковой подножкой, остекление тонированным безосколочным стеклом, откидное рабочее место с регулируемым по высоте сиденьем водителя с механическим амортизатором и подогревом, зависимый или независимый от работы двигателя отопитель (с подогревом двигателя), кондиционер, радио / CD-плеер с портом для подключения MP3/USB/карты памяти SD, элементы управления и индикации для режима работы крана, выдвигания аутригеров и перемещения крана по рабочей площадке.

Система электрооборудования: 24 вольт пост. тока, 2 аккумуляторные батареи. 2 рабочий прожектор на основной секции стрелы, 2 встроены в кабине крана.

Устройства безопасности: Регулятор подъема 'Lift Adjuster', электронный ограничитель момента нагрузки (LMB) с подачей опознавательных световых сигналов, анемометр, ограничитель зоны поворота и рабочей зоны с функцией медленной остановки 'Slow-Stop', концевой выключатель лебедки, клапаны безопасности на случай повреждения гидравлических трубок и шлангов.

Дополнительное оборудование: (за надбавку к цене) Удлинитель стрелы от 1,1 м + 4,7 м до 1,1 м + 34,9 м, изменение угла наклона по выбору 0°, 20° и 40° либо гидравлическим способом 0° - 40°, удлинитель стрелы HTLJ от 1,85 м + 8,5 м до 1,85 м + 20,9 м (гидравлическое изменение угла и телескопирование 0° - 60°), крюковые обоймы от 32 т до 250 т, 2-я подъемная лебедка (аналогичная главной лебедке), индикатор опорного усилия, специальное лаковое покрытие и нанесение надписей. Другое дополнительное оборудование – по запросу.

ADDITIONAL INFORMATION

ZUSATZINFORMATIONEN

INFORMATIONS SUPPLÉMENTAIRES

INFORMACIÓN ADICIONAL

ALTRE INFORMAZIONI

ДОПОЛНИТЕЛЬНАЯ ИНФОРМАЦИЯ



Additional information · Zusatzinformationen · Informations supplémentaires

Remarks relating to the capacity charts · Anmerkungen zu den Traglasttabellen Remarques relatives aux tableaux des charges

1. The lifting capacities in the structural area are based on EN 13000.
 2. The lifting capacities in the stability area are based on ISO 4305 / EN 13000.
 3. Depending on the boom length, with the lifting capacity charts, wind speeds up to max. 15 m/s are admissible. Due to the different extension sequences of the various telescopes, the boom lengths may differ slightly from those indicated in the lifting capacity charts.
 4. The lifting capacities are shown in metric tons.
 5. The weight of load handling devices such as hook blocks, slings, etc., must be considered as part of the load and must be deducted from the lifting capacities.
 6. The lifting capacities for the telescopic boom apply to a crane with no jib being stowed or mounted on the crane.
 7. The working radius is the horizontal distance from the centre of rotation to the centre of the freely suspended non-oscillating load.
-
1. Die Tragfähigkeiten im Festigkeitsbereich basieren auf EN 13000.
 2. Die Tragfähigkeiten im Standsicherheitsbereich entsprechen ISO 4305 / EN 13000.
 3. In Abhängigkeit der Auslegerlänge sind bei den Traglasttabellen Windgeschwindigkeiten bis max. 15 m/s zulässig. Aufgrund unterschiedlicher Ausfahrfolgen der Teleskope können die in den Traglasttabellen angegebenen Auslegerlängen geringfügig abweichend sein.
 4. Die Tragfähigkeiten sind in metrischen Tonnen angegeben.
 5. Das Gewicht des Lasthakens bzw. der Unterflasche und weiterer Anschlagmittel ist von der Tragfähigkeit abziehen.
 6. Die Tragfähigkeiten für den Teleskopausleger gelten nur bei demontierter Auslegerverlängerung.
 7. Die Ausladung ist der horizontale Abstand von Mitte Drehkranz bis Mitte freihängender, nicht schwingender Last.
-
1. Les forces de levage sont conformes aux normes EN 13000.
 2. Les forces de levage dans la partie de stabilité au renversement sont conformes aux normes ISO 4305 / EN 13000.
 3. En fonction de la longueur de la flèche, des vitesses du vent jusqu'à 15 m/s maxi. sont admissibles avec les tableaux des charges. A cause des séquences d'extension différentes des télescopes individuels, les longueurs de flèche peuvent varier légèrement par rapport aux valeurs indiquées dans les tableaux de charge.
 4. Les forces de levage sont données en tonnes métriques.
 5. Le poids du crochet-moufle et de tous les accessoires d'élévation font partie de la charge et sont à déduire des charges indiquées.
 6. Les forces de levage indiquées pour la flèche télescopique s'entendent rallonge de flèche déposée.
 7. Comme portée, on entend la distance horizontale du centre de la couronne de rotation au centre de la charge librement suspendue et non oscillante.

General remarks · Allgemeine Anmerkungen · Remarques générales

Unless otherwise specified, all the information given in this brochure refers to the standard equipment of the crane and only is intended as general information. For correct crane operation, the original operating manual and lifting capacity charts are essential. No liability is accepted for the accuracy of this information. Errors and omissions excepted. Illustrations are similar only. All dimensions - unless otherwise specified - in mm.

Alle Angaben in dieser Broschüre beziehen sich - wenn nicht anderweitig aufgeführt - auf die Standard-Ausstattung des Krans und dienen nur zur allgemeinen Information. Zum ordnungsgemäßen Betrieb des Krans sind die original Bedienungsanleitung und Traglasttabellen maßgeblich. Alle Angaben erfolgen ohne Gewähr. Änderungen und Irrtümer vorbehalten. Abbildungen ähnlich. Alle Bemaßungen - wenn nicht anders angegeben - in mm.

Sauf indication contraire, toutes les informations dans cette brochure se rapportent à l'équipement standard de la grue et constituent uniquement des informations générales. Pour le fonctionnement correct de la grue, le manuel d'instructions original et les tableaux des charges de levage sont déterminants. Toutes les informations sont fournies sans garantie. Sous réserve de modifications techniques et d'erreurs. Illustrations similaires mais pas identiques à l'engin montré. Toutes les cotes - sauf indication différente - en mm.

Notas relativas a los graficos de carga · Annotazioni sulle tabelle delle portate
Примечания к таблицам грузоподъемности

1. En cuanto a los datos referentes a resistencia, las capacidades de carga están basados sobre las normas EN 13000.
2. En cuanto a los datos referentes a estabilidad anti-vuelco, las capacidades de carga están basados sobre las normas ISO 4305 / EN 13000.
3. En función de la longitud de la pluma, las tablas de carga permiten velocidades del viento hasta un máximo de 15 m/s. Debido a las diferentes secuencias de extensión de los telescopios, puede haber algunas variaciones insignificantes con respecto a las longitudes de pluma indicadas en las tablas de carga.
4. Las capacidades de carga indicadas en las tablas corresponden a toneladas métricas.
5. Hay que deducir los pesos del gancho, eslingas y de otros dispositivos para fijación de cargas de los valores indicados en las tablas.
6. Las capacidades de carga referentes a la pluma telescópica valen solamente si el alargamiento de pluma está desmontado.
7. Como alcance se entiende la distancia horizontal desde el centro de la corona de giro hasta el centro de la carga suspendida libremente y no oscilante.

1. Le capacità di carico nel range di resistenza sono riferite alla norma EN 13000.
2. Le capacità di carico nel range di stabilità sono conformi alle norme ISO 4305 / EN 13000.
3. Nelle tabelle delle portate sono ammesse velocità del vento fino a max. 15 m/s in funzione della lunghezza del braccio. Considerata la diversa sequenza di sfilo dei telescopi, le lunghezze del braccio indicate nelle tabelle delle portate possono essere lievemente differenti.
4. Le capacità di carico sono indicate in tonnellate metriche.
5. Il peso del gancio di carico, ovvero del bozzello e delle altre imbracature deve essere detratto dalla capacità di carico.
6. Le capacità di carico per il braccio telescopico sono applicabili soltanto con prolunga del braccio smontata.
7. Per sbraccio si intende la distanza orizzontale dal centro della corona rotante al centro del carico sospeso, ma non oscillante.

1. Значения грузоподъемности в пределах категории прочности основаны на положениях стандарта EN 13000.
2. Значения грузоподъемности в пределах области устойчивости соответствуют стандарту ISO 4305 / EN 13000.
3. В зависимости от длины стрелы таблицы грузоподъемности допускают скорость ветра до макс. 15 м/с. При разных вариантах телескопирования стрелы её длина может незначительно отличаться от указанной в таблицах грузоподъемности.
4. Грузоподъемность указана в метрических тоннах.
5. Из грузоподъемности необходимо вычесть вес грузового крюка или крюковой обоймы, а также других грузозахватных приспособлений.
6. Значения грузоподъемности для телескопической стрелы действительны только при демонтированном удлинителе стрелы (гуське).
7. Вылет — это расстояние по горизонтали от центра поворотного круга до центра свободно подвешенного груза без раскачивания.

Notas adicionales · Annotazioni generali · Общие примечания

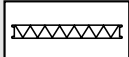
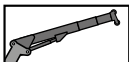
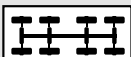
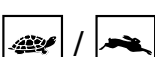
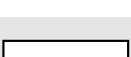
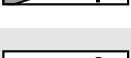
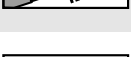
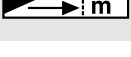
A no ser que se indique lo contrario, todos los datos incluidos en este folleto hacen referencia al equipamiento estándar de la grúa y sólo tienen un carácter informativo general. El manual de instrucciones original y las tablas de capacidades de carga son determinantes para lograr un correcto funcionamiento de la grúa. Todos los datos se facilitan sin garantía. Reservadas las modificaciones y los errores. Ilustraciones similares. Todas las dimensiones - salvo indicación en contrario - en mm.

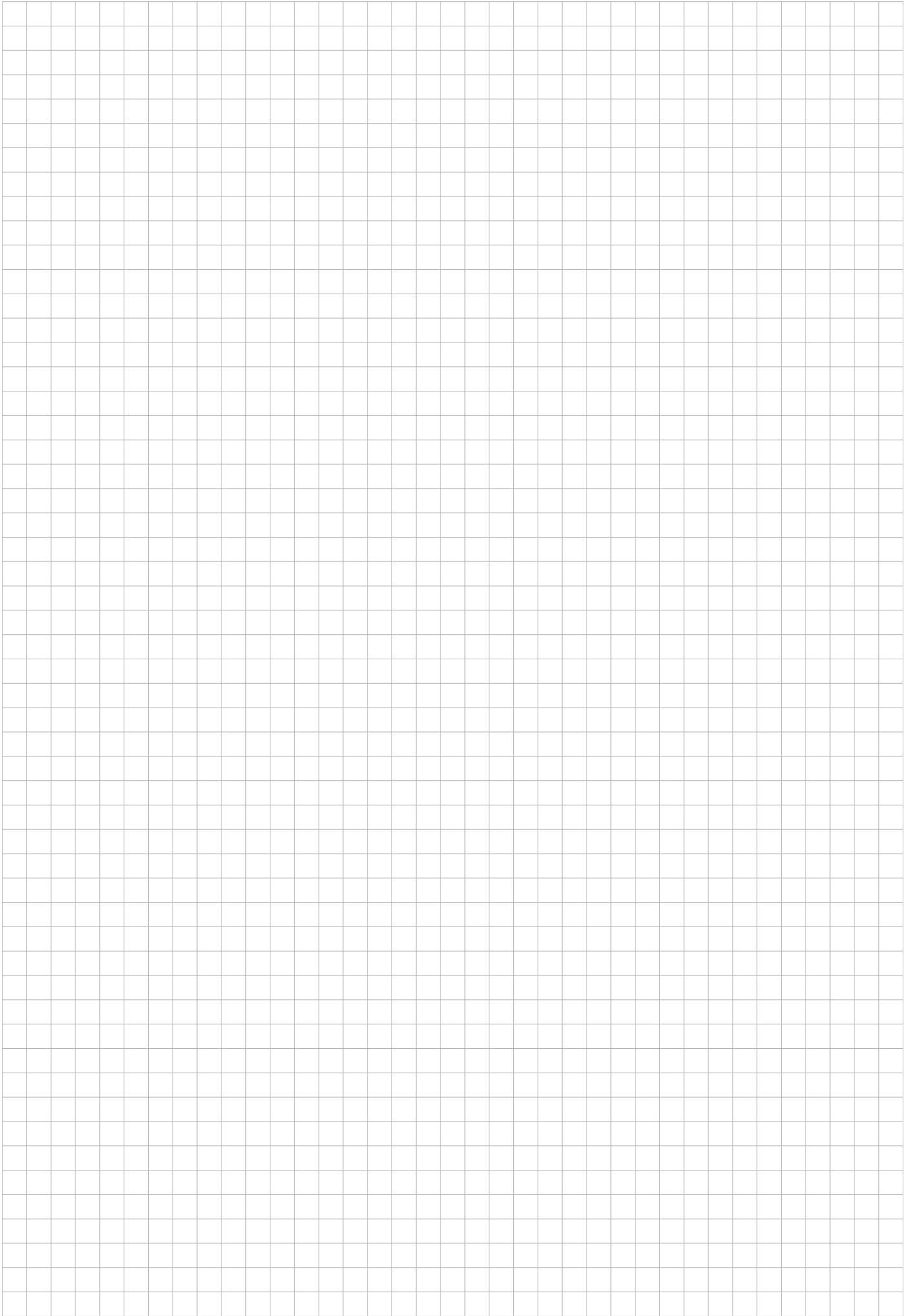
Se non diversamente specificato, tutti i dati di questa brochure si riferiscono alla dotazione standard della gru e sono da considerarsi come informazioni generali. Per un esercizio corretto della gru, sono determinanti il manuale d'uso originale e le tabelle delle portate. Si declina ogni responsabilità per tutti i dati. Con riserva di modifiche ed errori. Figure simili. Tutte le quotature sono in mm (se non diversamente specificato).

Все данные, приведенные в этой брошюре, относятся — если не указано иное — к стандартному оснащению крана и служат лишь для общей информации. Порядок надлежащей эксплуатации крана определяется оригиналом руководства по эксплуатации и таблицами грузоподъемности. Все данные приведены без обязательств. Возможны изменения и ошибки. Иллюстрации являются приблизительными. Все размеры — если не указано другое — в мм.

Symbols · Symbolerklärung · Glossaire des symboles

Glosario de simbolos · Spiegazione dei simboli · Условные обозначения

	Gross weight · Gesamtgewicht Poids total · Peso total Peso totale · Полная масса		Fly jib section · Spitzenteil Élément de fléchette · Plumin Parte punta · Головная секция
	Axle load · Achslast Charge à l'essieu · Carga por eje Carico assiale · Осевая нагрузка		Hydraulic telescopic and luffing jib HTLJ · Hydraulische Teleskop- und Wippspitze HTLJ · Fléchette télescopique relevable hydrauliquement HTLJ · Plumin hidráulicamente telescópico y regulable HTLJ Punta oscilante e telescópica idraulica HTLJ · Телескопическая секция и оголовок с гидравлическим приводом HTLJ
	Drive · Antrieb Entraînement · Tracción Trazione · Привод		Swing area · Drehbereich Rayon de rotation · Zona de giro Area di rotazione · Область поворота
	Tyres · Bereifung Pneus · Neumáticos Pneumatici · Шины		Hydraulically lockable · Hydraulisch verriegelbar Verrouillable hydrauliquement · Con embulonamiento hidráulico · Con dispositivo di bloccaggio idraulico Гидравлическая блокировка
	Gradeability · Steigfähigkeit · Capacité de gravisement de pente · Superación de pendientes · Capacità di salita Способность преодолевать подъем		Main winch · Hubwinde · Mécanisme de levage Cabrestante principal · Meccanismo di sollevamento Главная лебедка
	Off road / On road · Gelände / Straße Tout-terrain / Mode "Route" · Todo terreno / En carretera Fuori strada / Su strada · Бездорожье / Дорога		Auxiliary winch · Zusatzhubwinde Treuil supplémentaire · Cabrestante auxiliar Argano aggiuntivo · Дополнительная лебедка
	Speed · Geschwindigkeit Vitesse · Velocidad Velocità · Скорость		Type · Typ Tipo · Тип
	Outriggers · Abstützung Calage · Estabilizadores Stabilizzazione · На аутригерах		Lifting capacity · Traglast Charge de levage · Carga Portata · Грузоподъемность
	Counterweight · Gegengewicht Contrepoids · Contrapeso Contrappeso · Противовес		Rope sheaves · Seilrollen Poules de câbles · Poleas de cable Pulegge · Канатные шкивы
	Counterweight element · Gegengewichtsteil Élément de contrepoids · Parte del contrapeso Parte contrappeso · Деталь противовеса		Parts of line · Seilstränge Brins de câble · Ramales de cable Spire della fune · Запасовка
	Length · Länge Longueur · Longitud Lunghezza · Длина		Dead-weight · Eigengewicht Poids total · Tara Peso proprio · Собственный вес
	Boom elevation · Wippwerk · Mécanisme de relevage Elevación de pluma · Gruppo di brandeggio Механизм изменения подъема стрелы		Wire rope length · Hubseillänge Longueur du câble de levage · Longitud del cable de izaje · Lunghezza fune di sollevamento Длина подъемного троса
	Boom telescoping · Teleskopieren Télescopage de flèche · Telescopaje de pluma Telescopaggio · Телескопирование		Wire rope diameter · Hubseildurchmesser Diamètre du câble de levage · Diámetro del cable de elevación · Diametro fune di sollevamento Диаметр подъемного троса
	Telescopic boom · Teleskopausleger Flèche télescopique · Pluma telescópica Braccio telescopico · Телескопическая стрела		Wire rope pulling force · Hubseilzugkraft Force de traction du câble de levage · Fuerza de tracción del cable de elevación · Forza di trazione fune di sollevamento Тяговое усилие подъемного троса
	Radius · Ausladung Portée · Radio Sbraccio · Вылет		Weight · Gewicht Poids · Peso Peso · Bec
	Tilttable jib · abwinkelbare Spitze Fléchette inclinable · Plumin regulable Punta con regolazione angolo Гусек с изменением угла наклона		
	Hydraulically tilttable jib · hydraulisch abwinkelbare Spitze Fléchette inclinable hydrauliquement · Plumin regulable hidráulicamente · Punta con regolazione angolo idraulica Гусек гидравлический с изменением угла наклона		





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PRELIMINARY

Boom length														
	13.2	17.4	21.6	25.8	30.0	34.1	38.3	42.5	46.7	50.9	55.0	59.2	63.4	68.0
2.5	163													
3	163.4	140	140	103										
3.5	146.4	140	140	103	90.5									
4	132.2	131.7	130.8	103	90.5									
4.5	120	119.5	118.6	103	90.5	70								
5	108	107.5	106.6	98.6	87	70	54.5							
6	88.6	88.1	79.8	74.7	70.7	64.6	54.5	43.5						
7	74.7	69.3	62.6	59.4	57	55.2	50.9	43.5	34.5					
8	60.9	56.1	50.9	48.7	47.9	48.8	43.5	40.5	34.5	28.5				
9	48.1	46.6	42.4	43.8	44.6	41.9	38.9	36.2	34.4	28.5	23			
10	39.4	38.6	39.1	40.8	38.8	36.5	33.9	31.6	30.1	28.5	23	18.8		
11		33.5	36.8	35.8	34.1	32.2	29.9	26.6	26.5	25.8	23	18.8	15	
12		30.4	31.7	31.8	30.4	28.6	26.6	26.6	23.6	22.6	22.5	18.8	15	13.8
14		23.2	24.3	24.7	24.5	23.2	21.3	21.6	21.4	19.8	19.2	18	15	13.8
16			19.4	19.7	19.5	19	17.4	18.3	18.8	18.2	16.9	15	14.9	13.8
18			15.8	16.8	15.8	16	15.7	16.7	16.1	15.4	14.4	13.5	12.5	12.1
20				14	13.3	14.5	14.3	14.4	13.8	13.1	12.3	11.4	10.5	10.2
22				11.8	12	12.3	12.2	12.1	11.8	11.3	10.6	9.8	8.9	8.6
24					10.3	10.5	10.4	10.3	10	9.8	9.1	8.3	7.5	7.3
26					8.8	9.1	8.9	8.9	8.6	8.3	7.9	7.1	6.3	6.1
28						7.9	7.7	7.7	7.3	7.1	6.7	6.1	5.3	5.1
30						6.9	6.7	6.7	6.3	6.1	5.7	5.2	4.5	4.3
32							5.9	5.8	5.5	5.2	4.8	4.3	3.7	3.6
34							5.1	5	4.7	4.5	4	3.6	3	2.9
36								4.4	4.1	3.8	3.4	2.9	2.4	2.3
38								3.8	3.5	3.2	2.8	2.4		
40									3	2.7	2.3	1.9		
42									2.6	2.3	1.9	1.4		
44									2.2	1.9	1.4			
46										1.5	1.1			
48										1.2				