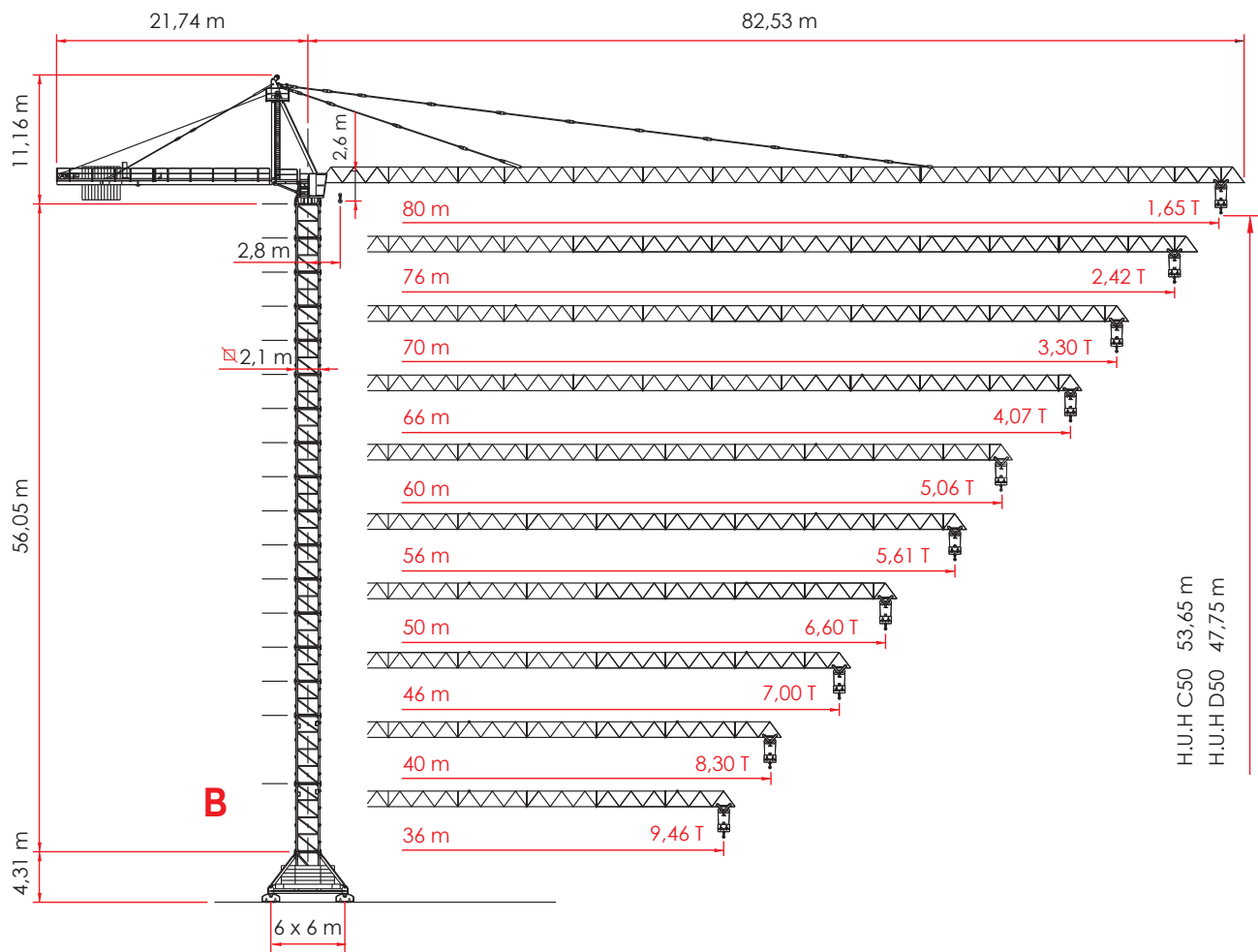




ER 291

HAMMER HEAD CRANE



A4 FEM1.001

H = Height under hook
Altezza sotto gancio
Hauteur sous crochet
Altura bajo el gancho
Высота под крюком



ER 291

TOWER CONFIGURATION - REACTIONS

CONFIGURAZIONE TORRE - REAZIONI / CONFIGURATION TOUR - RÉACTIONS / TORRE DE CONFIGURACIÓN - REACCIONES / КОНФИГУРАЦИЯ БАШНИ — РЕАКЦИИ

EN 14439 - C50

2,1 m L = 6,0 m - B

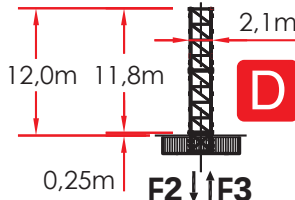
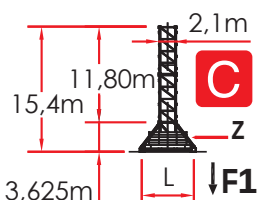
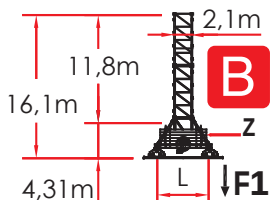
	H (m)	Z (t)	F1(kN)
8	2,95 m	53.65	115.84 1224
7	5,9 m	50.70	109.38 1104
6	5,9 m	44.80	96.46 841
5	5,9 m	38.90	90.00 785
4	5,9 m	33.00	83.54 736
3	5,9 m	27.10	77.08 690
+1	5,9 m	21.20	77.08 663

2,1 m L = 6,0 m - C

	H (m)	Z (t)	F1(kN)
8	2,95 m	52.75	115.84 1180
7	5,9 m	49.80	109.38 1062
6	5,9 m	43.90	96.46 837
5	5,9 m	38.00	90.00 780
4	5,9 m	32.10	83.54 731
3	5,9 m	26.20	77.08 685
+1	5,9 m	20.30	77.08 657

2,1 m - D

	H (m)	F2(kN)	F3(kN)
8	2,95 m	49.55	1756 1346
7	5,9 m	46.60	15.43 1141
6	5,9 m	40.70	1366 996
5	5,9 m	34.80	1269 919
4	5,9 m	28.90	1184 853
3	5,9 m	23.00	1110 796
+1	5,9 m	17.10	1045 749



2,1 / 2,3 m TP2123

	H (m)	F2(kN)	F3(kN)
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+5	5,9 m	78.80	4193 3633
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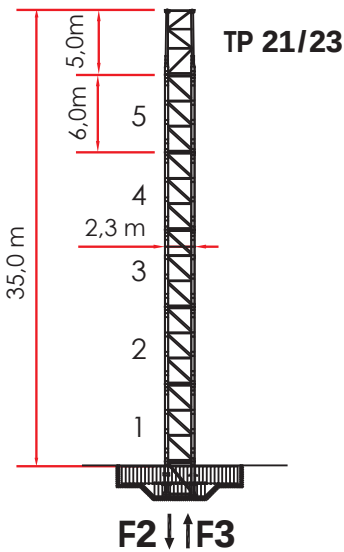
2,1m L - Booster

	H (m)	F2(kN)	F3(kN)
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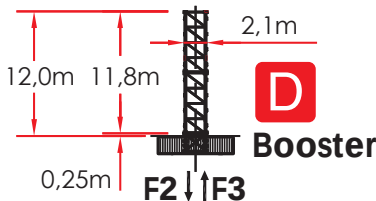
14	2,95 m	58.40	2492 2055
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13	2,95 m	55.45	2229 1802
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12	2,95 m	52.50	1984 1565
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Comply with the specified ballast / Attenersi alla zavorra indicata / S'en tenir au lest indiqué / Respetar el peso de lastre indicado / Соблюдать указанный балласт





ER 291

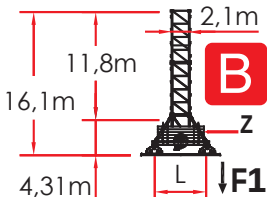
TOWER CONFIGURATION - REACTIONS

CONFIGURAZIONE TORRE - REAZIONI / CONFIGURATION TOUR - RÉACTIONS / TORRE DE CONFIGURACIÓN - REACCIONES / КОНФИГУРАЦИЯ БАШНИ — РЕАКЦИИ

EN 14439 - D50

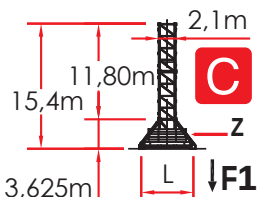
2,1 m L = 6,0 m - B				
H (m)	Z (t)	F1(kN)		

6	2,95m	47.75	102.92	1303
5	5,9 m	44.80	96.46	1137
4	5,9 m	38.90	90.00	841
3	5,9 m	33.00	83.54	736
2	5,9 m	27.10	77.08	690
+1	5,9 m	21.20	77.08	663



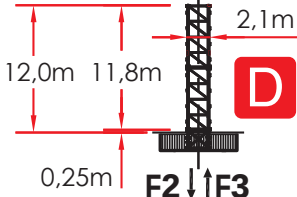
2,1 m L = 6,0 m - C				
H (m)	Z (t)	F1(kN)		

6	2,95m	46.85	102.92	1251
5	5,9 m	43.90	96.46	1088
4	5,9 m	38.00	90.00	799
3	5,9 m	32.10	83.54	731
2	5,9 m	26.20	77.08	685
+1	5,9 m	20.30	77.08	657



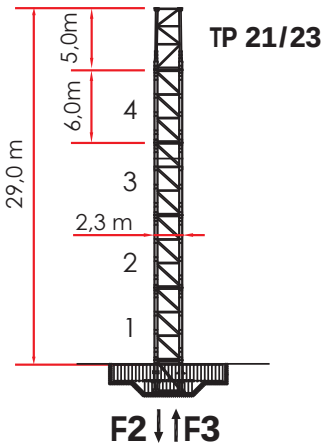
2,1 m - D				
H (m)	F2(kN)	F3(kN)		

7	5,9 m	49.55	1756	1346
6	5,9 m	43.65	1419	1039
5	5,9 m	37.75	1316	956
4	5,9 m	31.85	1225	885
3	5,9 m	25.95	1145	823
+2	5,9 m	20.05	1076	771



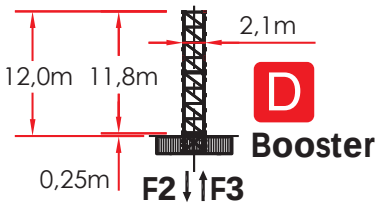
2,1 / 2,3 m TP2123				
H (m)	F2(kN)	F3(kN)		

+4	5,9 m	69.85	4224	3703
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2,1m L - Booster				
H (m)	F2(kN)	F3(kN)		

13	2,95 m	52.50	2654	2236
12	2,95 m	49.55	2356	1945
11	2,95 m	46.60	2078	1676



Comply with the specified ballast / Attenersi alla zavorra indicata / S'en tenir au lest indiqué / Respetar el peso de lastre indicado / Соблюдать указанный балласт



ER 291

LOAD DIAGRAMS 14.0 T / 7.0 T

DIAGRAMMA DI PORTATA / DIAGRAMME DE CHARGE UTILE / CURVAS DE CARGA / ДИАГРАММА ГРУЗОПОДЪЕМНОСТИ

14.000 Kg / 7.000 Kg

JIB	36.0	40.0	46.0	50.0	56.0	60.0	66.0	70.0	76.0	80.0
2,8 ▶	25,5	25,4	24,9	24,7	23,9	23,5	21,5	19,5	16,9	13,9
14	14000	14000	14000	14000	14000	14000	14000	14000	14000	13863
16	14000	14000	14000	14000	14000	14000	14000	14000	14000	11858
18	14000	14000	14000	14000	14000	14000	14000	14000	13051	10325
20	14000	14000	14000	14000	14000	14000	14000	13622	11554	9114
22	14000	14000	14000	14000	14000	14000	13604	12213	10342	9134
24	14000	14000	14000	14000	13949	13638	12319	11049	9340	7325
26	13700	13606	13360	13182	12739	12453	11239	10071	8499	6666
28	12598	12511	12283	12118	12204	11444	10320	9238	7782	6122
30	11648	11567	11355	11201	10820	10574	9527	8520	7165	5654
32	10821	10745	10745	10403	10046	9816	8837	7895	6761	5246
34	10094	10023	9836	9701	9366	9150	8230	7345	6310	4887
36	9450	9383	9207	9080	8764	8560	7692	6858	5911	4569
38		8812	8646	8526	8227	8033	7213	6735	5555	4286
40		8300	8142	8028	7745	7561	6783	6356	5236	4032
42			7688	7579	7310	7153	6814	6013	4948	3802
44			7276	7172	6711	6749	6466	5702	4686	3594
46			6900	6801	6383	6830	6149	5419	4448	3405
48				6909	6668	6511	5859	5159	4230	3231
50				6600	6368	6218	5592	4921	4030	3072
52					6092	5948	5346	4702	3846	2925
54					5837	5698	5119	4499	3675	2789
56					5600	5466	4909	4311	3517	2663
58	*					5251	4713	4136	3370	2543
60						5050	4530	3973	3233	2437
62							4360	3821	3105	2335
64							4200	3678	2985	2240
66							4050	3544	2873	2150
68								3419	2768	2066
70								3300	2676	1987
72									2573	1912
74									2484	1841
76									2400	1774
78										1710
80										1650

* LOAD DIAGRAM FOR SPECIFIC EXERCISE TO ONE TROLLEY / DIAGRAMMA DI PORTATA PER ESERCIZIO SPECIFICO DI 1 CARRELLO

ULTRALIFT _ALL INTERMEDIATE LOADS ARE DECREASED OF 10% IF THE CRANE IS NOT EQUIPPED WITH ULTRALIFT CONTROL / SENZA IL SISTEMA ULTRALIFT TUTTE LE PORTATE INTERMEDIE DIMINUISCONO IL CARICO DEL 10% / LES CHARGES INTERMEDIAIRES SONT DIMINUÉES DE 10% SI LA GRUE N'EST PAS ÉQUIPÉ D'UN CONTROLE ULTRALIFT / SIN EL SISTEMA ULTRALIFT LOS MISURA INTERMEDIOS DISMINUIR EL CARICO DEL 10% / БЕЗ ULTRALIFT ПРОМЕЖУТОЧНОЙ УМЕНЬШАЕТСЯ НА 10% НАГРУЗКИ.



ER 291

LOAD DIAGRAMS 16.0 T / 8.0 T

DIAGRAMMA DI PORTATA / DIAGRAMME DE CHARGE UTILE / CURVAS DE CARGA / ДИАГРАММА ГРУЗОПОДЪЕМНОСТИ

16.000 Kg / 8.000 Kg

JIB	36.0	40.0	46.0	50.0	56.0	60.0	66.0
2,8 ▶	25,5						
15	16000	16000	16000	16000	16000	16000	16000
16	16000	16000	16000	16000	16000	16000	16000
18	16000	16000	16000	16000	16000	16000	16000
20	16000	16000	16000	16000	16000	16000	15159
22	16000	16000	16000	16000	15390	15049	13604
24	14993	14891	14623	14430	13949	13638	12319
26	13700	13606	13360	13182	12739	12453	11239
28	12598	12511	12283	12118	11709	11444	10320
30	11648	11567	11355	11201	10820	10574	9527
32	10821	10745	10547	10403	10046	9816	8837
34	10094	10023	9836	9701	9366	9150	8230
36	9450	9383	9207	9080	8764	8560	7692
38		8812	8646	8526	8227	8033	7624
40		8300	8142	8028	7745	7984	7198
42			7688	7579	7742	7562	6814
44			7723	7615	7350	7179	6466
46			7350	7246	6994	6830	6149
48	*			6909	6668	6511	5859
50				6600	6368	6218	5592
52					6092	5948	5346
54					5837	5698	5119
56					5600	5466	4909
58						5251	4713
60						5050	4530
62							4360
64							4200
66							4050

- 250 Kg

* LOAD DIAGRAM FOR SPECIFIC EXERCISE TO ONE TROLLEY / DIAGRAMMA DI PORTATA PER ESERCIZIO SPECIFICO DI 1 CARRELLO

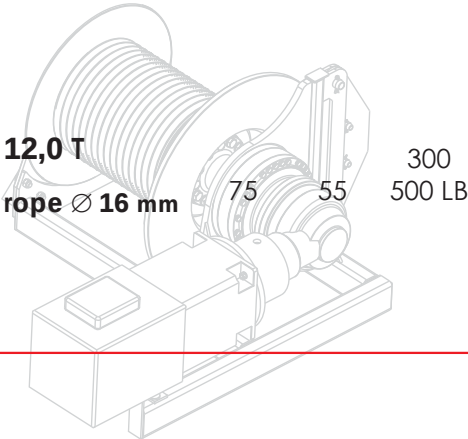
ULTRALIFT _ALL INTERMEDIATE LOADS ARE DECREASED OF 10% IF THE CRANE IS NOT EQUIPPED WITH ULTRALIFT CONTROL / SENZA IL SISTEMA ULTRALIFT TUTTE LE PORTATE INTERMEDIE DIMINUISCONO IL CARICO DEL 10% / LES CHARGES INTERMEDIAIRES SONT DIMINUÉES DE 10% SI LA GRUE N'EST PAS ÉQUIPÉ D'UN CONTROLE ULTRALIFT / SIN EL SISTEMA ULTRALIFT LOS MISURA INTERMEDIOS DISMINUIR EL CARICO DEL 10% / БЕЗ ULTRALIFT ПРОМЕЖУТОЧНОЙ УМЕНЬШАЕТСЯ НА 10% НАГРУЗКИ.



ER 291

HOISTING WINCH INVERTER - PERFORMANCES
MECCANISMI / MÉCANISMES / MECANISMOS / МЕХАНИЗМЫ

400 VOLT ± 5% - 50Hz _DIRECTIVE 14/12 - 2005/88/CE

HOISTING WINCH	POWER POTENZA	ROPE FUNE	STEP MARCIA	LOAD CARICO	SPEED VELOCITÀ	LOAD CARICO	SPEED VELOCITÀ
ARGANO	CV-ch Ps-hp	kW	m.	Kg.	 m/min.	Kg.	 m/min.
	12,0 T	rope Ø 16 mm	1	6000	8	12000	4
			2	6000	24	12000	12
			3	6000	40	12000	20
			4	3600	64	7200	32
			5	2500	80	5000	40
	14,0 T	rope Ø 16 mm		0 – 1000 (*)	104 (*)	0 – 2000 (*)	52 (*)
			1	7000	8	14000	4
			2	7000	24	14000	12
			3	7000	40	14000	20
			4	3600	64	7200	32
	16,0 T	rope Ø 16 mm		2500	80	5000	40
			5	0 – 1000 (*)	104 (*)	0 – 2000 (*)	52 (*)
			1	8000	6	16000	3
			2	8000	20	16000	10
			3	8000	34	16000	17
			4	4000	52	8000	26
				2500	70	5000	35
			5	0 – 1200 (*)	84 (*)	0 – 2400 (*)	42 (*)

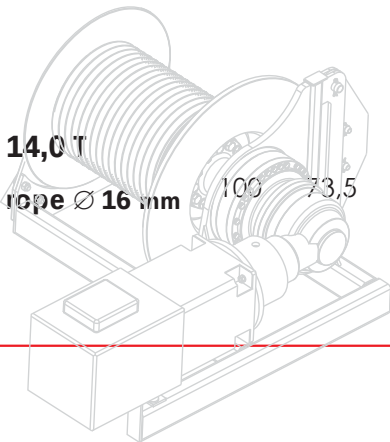
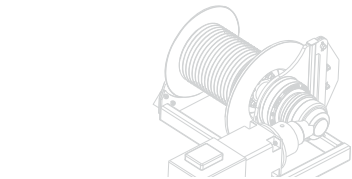


ER 291

HOISTING WINCH INVERTER - PERFORMANCES

MECCANISMI / MÉCANISMES / MECANISMOS / МЕХАНИЗМЫ

400 VOLT ± 5% - 50Hz _DIRECTIVE 14/12 - 2005/88/CE

HOISTING WINCH	POWER POTENZA		ROPE FUNÈ	STEP MARCIA	LOAD CARICO	 SPEED VELOCITÀ	LOAD CARICO	 SPEED VELOCITÀ
ARGANO	CV-ch Ps-hp	kW	m.		Kg.	m/min.	Kg.	m/min.
 14,0 T rope Ø 16 mm	100	73,5	700 LB	1	7000	8	14000	4
				2	7000	30	14000	15
				3	7000	52	14000	26
				4	3750	92	7500	46
				5	2500	136	5000	68
 16,0 T rope Ø 16 mm	100	73,5	700 LB	1	8000	8	16000	4
				2	8000	30	16000	15
				3	8000	52	16000	26
				4	4000	92	8000	46
				5	2500	136	5000	68
				45 kW	55 kW	73,5 kW		
ABSORPTIONS / ASSORBIMENTI				54 kW	62 kW	77 kW		

	SLEWING	0,26 / 0,48 / 0,7 min ⁻¹	4 X 4 kW	(*) SPEED AUTOMATICALLY CONTROLLED BY A CURRENT SENSOR / VELOCITÀ REGOLATA AUTOMATICAMENTE DA SENSORE DI CORRENTE / VITESSE RÉGLÉE AUTOMATIQUEMENT PAR CAPTEUR DE COURANT / ACELERAR CONTROLADO AUTOMÁTICAMENTE POR UN SENSOR DE CORRIENTE / СКОРОСТЬ АВТОМАТИЧЕСКИ РЕГУЛИРУЕТСЯ ДАТЧИКОМ ТОКА
	TROLLEY	13,0/35,0/56,0 m/min	6,6 kW	
	TRAVELLING	19 m/min	4 X 4 kW	



ER 291

PACKING LIST

LISTA DEI COLLI / LISTE DE COLISAGE / LISTA DE CONTENIDO / ВЕС И ГАБАРИТНЫЕ РАЗМЕРЫ

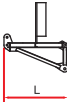
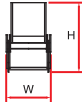
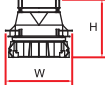
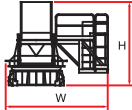
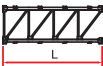
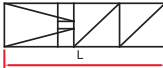
DESCRIPTION DENOMINAZIONE	ITEM POS.	PIECES PEZZI	DRAWING DISEGNO	DIMENSIONS mm			WEIGHT kg	
				L	W	H	UNIT	TOTAL
JIB ELEMENT / ELEMENTO DI FRECCIA / ELÈMENT DE FLÈCHE / ELEMENTO DE FLECHA / элемент стрелка	1	1 n. 1		6,200	1,500	1,670	1045	-
		2 n. 2 - 5		6,240	1,500	1,670	968	-
		1 n. 3		4,240	1,500	1,670	670	-
		1 n. 4		6,240	1,500	1,670	1000	-
		4 n. 6 - 7 7A - 8		6,240	1500	1,650	752	-
		1 n. 9		6,240	1,500	1,650	813	-
		2 n. 10 - 11		6,240	1,500	1,630	615	-
		2 n. 12		4,200	1,500	1,610	328	-
		1 n. 13		2,210	1,500	1,610	198	-
		1		0,740	1,510	0,340	118	-
JIB POINT / PUNTALE FRECCIA / ELÈMENT POINTE / PUNTALE DE FLECHA / наконечник стрелка								
A FRAME / CUSPIDE / POINTE / CÙSPIDE / ШПИЛЬ	2	1		9,500	1,550	0,800	3500	-
EXTERNAL COUNTERJIB SECTION WITH HOISTING WINCH, ELECTRICAL BOX, TERMINAL ELEMENT* / ELEMENTO ESTERNO CONTROFRECCIA, ARGANO SOLL., QUADRO ELETR., PORTABLOCCHI* / CONTREFLÈCHE EXTÉRIEURE PORTE TREUIL DE LEVAGE, ARMOIRE ELECTRIQUE, ELÈMENT TERMINAL* / CONTRAFLECHA, CABRESTANTE DE ELEVACIÓN, CUADRO ELÉCTRICO / контрстрела лебедка, электрические, блокодержатель*	3	1		7,100	2,270	2,040	3600	-
INTERNAL COUNTERJIB SECTION / ELEMENTO INTERNO CONTROFRECCIA / CONTREFLÈCHE INTÉRIEUR / ELEMENTO INTERNO DE LA CONTRAFLECHA / внутренний элемент контрстрелы	4	1		11,830	2,270	1,100	2100	-
COMPLETE COUNTERJIB / CONTROFRECCIA COMPLETA / CONTREFLÈCHE COMPLÈTE / CONTRAFLECHA COMPLETA / полная контрстрела	5	1		18,830	2,270	2,040	7000	-



ER 291

PACKING LIST

LISTA DEI COLLI / LISTE DE COLISAGE / LISTA DE CONTENIDO / ВЕС И ГАБАРИТНЫЕ РАЗМЕРЫ

DESCRIPTION DENOMINAZIONE	ITEM POS.	PIECES PEZZI	DRAWING DISEGNO	DIMENSIONS mm			WEIGHT Kg				
				L	W	H	UNIT	TOTAL			
SWITCHBOARD SUPPORT FRAME / CODA TELAIO GIREVOLE / SUPPORT DE L'ARMOIRE ÉLECTRIQUE / COLA BASTIDOR GIRATORIA / поворотный хвост станины	6	1			2,470	1,700	2,530	1300	-		
SLEWING TABLE / GRUPPO GIREVOLE / TABLE TOURNANTE / GIRATORIO / вращения	7	1			2,300	2,540	2,270	5500	-		
ACCESS BALCONY, CABIN / BALLATOIO CABINA, CABINA / PORTE CABINE / BALCÓN CORRIDO CABINA, CABINA / площадка кабины, кабина	8	1			3,450	2,000	2,240	930	-		
ASSEMBLY OF POS. 6 - 7 - 8 / ASSIEME MONTATO N. 6 - 7 - 8 / GROUPE 6 - 7 - 8 / CONJUNTO MONTADO 6 - 7 - 8 / монтированный сборочный узел 6 - 7 - 8	9	1			5,890	4,240	3,350	8180	-		
COUNTERWEIGHT BLOCK / BLOCCHI DI CONTRAPPESO / CONTRE-POIDS / BLOQUES DE CONTRAPESO / блоки противовеса	10	12			A	W	2,870	1,200	0,275	2022	20220
TOWER ELEMENT / ELEMENTO DI TORRE ELÈMENT DE MATURE / ELEMENTO DE TORRE / башенный элемент	11	-			GR5	5,90	2,300	2,300	3450	-	
	12	-				2,95	2,300	2,300	1900	-	
BASE ELEMENT / ELEMENTO DI BASE / MAT DE BASE /ELEMENTO DE BASE / элемент основания	13	1			3,000	2,400	2,400	1950	-		
CLIMBING CAGE / GABBIA DI MONTAGGIO / CAGE DE MONTAGE / JAULA DE MONTAJE / монтажная клеть	14	1			8,530	3,100	2,300	7670	-		
EXPENDABLE FOUNDATION ELEMENT / TRONCHETTO DI FONDAZIONE / ELÈMENT A SCELLER / TRONCO DE FUNDACIÓN / ствол основания	15	1			1,820	2,400	2,400	1370	-		
FIXING ANGLES / GAMBE DI FONDAZIONE / PIEDS DE SCELLEMENT / PATAS DE FUNDACIÓN / ножки основания	16	4			1,820	0,470	0,470	280	1120		



ER 291

PACKING LIST

LISTA DEI COLLI / LISTE DE COLISAGE / LISTA DE CONTENIDO / ВЕС И ГАБАРИТНЫЕ РАЗМЕРЫ

DESCRIPTION DENOMINAZIONE	ITEM POS.	PIECES PEZZI	DRAWING DISEGNO	DIMENSIONS mm			WEIGHT Kg	
				L	W	H	UNIT	TOTAL
OBLIQUAL LEGS / PUNTONI DI BASE / JAMBES DE FORCE / CABRIOS DE BASE / СТОЙКИ ОСНОВАНИЯ	17	4		3,770	0,230	0,260	340	1360
BASE MAIN BEAM / TRAVE PRINCIPALE CROCIERA DI BASE / POUTRE DE CHASSIS DE BASE / VIGA PRINCIPAL DE LA CRUCETA DE BASE / главная балка крестовины основания	18	1		8,900	0,720	0,760	1650	-
HALF BASE BEAM / SEMITRAVE DI BASE / SEMIPOUTRE DE CHASSIS DE BASE / MEDIA VIGA DE LA CRUCETA DE BASE / полубалка крестовины основания	19	2		4,350	0,600	0,760	750	1500
DRIVEN BOGIE / BILANCINO TRASLAZIONE MOTORIZZATO / BOGGIE MOTORISÉE / BALANCÍN DE TRASLACIÓN MOTORIZADO / приводной балансир горизонтального перемещения	20	4		1,750	0,705	0,790	1000	4000
BASE BALLAST BLOCK / BLOCCO DI ZAVORRA / LEST DE BASE / BLOQUE DE LASTRE / блок балласта	21	-		4,200	0,320	1,400	3230	-
		-		5,200	0,400	1,400	6240	-



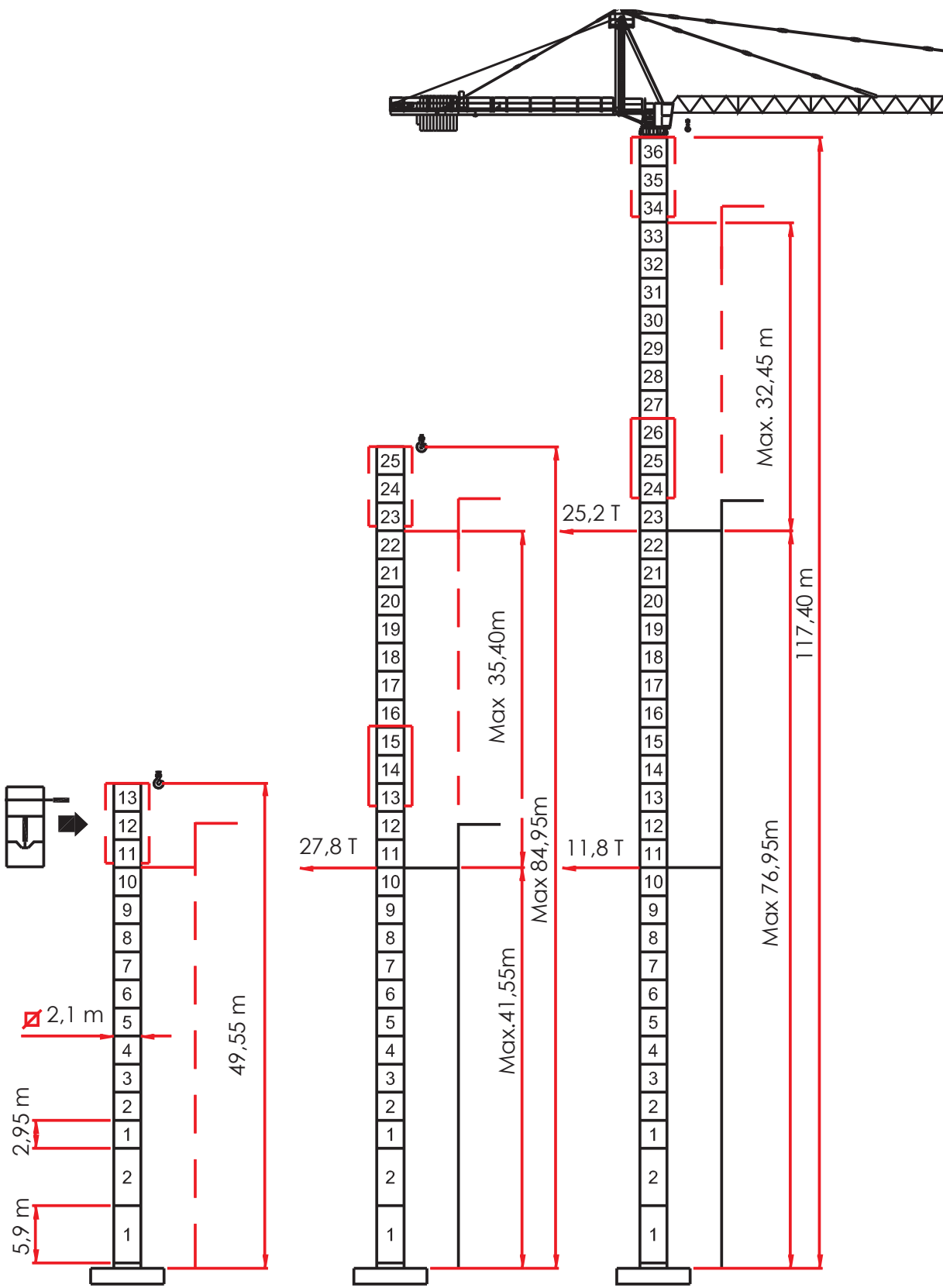
ER 291

INTERNAL CLIMBING

GRU IN CAVEDIO / TÉLESCOPAGE SUR DALLES /
GRUA EN CAVEDIO / ПОДНИМАЮЩИЙСЯ НА
ПЛИТАХ ПЕРЕКРЫТИЯ

EXTERNAL CLIMBING

SOPRALZO IDRAULICO / TELESOPABE / ELEVACIÓN
HIDRÁULICA / ГИДРАВЛИЧЕСКОЕ НАРАЩИВАНИЕ





[ER 291 _REV. _0413] ADL / TECHNICAL DEPARTEMENT

THE DATA OBJECT OF THESE SHEETS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE / I DATI OGGETTO DELLE PRESENTI SCHEDE POTREBBERO SUBIRE MODIFICHE SENZA PREAVVISO / LES INFORMATIONS DONNÉES DANS LES PRÉSENTES FICHES POURRAIENT SUBIR DES MODIFICATIONS SANS PRÉAVIS / LOS DATOS CONTENIDOS EN ESTE FORMULARIO ESTÁN SUJETAS A CAMBIOS SIN PREVIO AVISO / ДАННЫЕ, УКАЗАННЫЕ В НАСТОЯЩИХ СПЕЦИФИКАЦИЯХ, МОГУТ ИЗМЕНЯТЬСЯ БЕЗ ПРЕДВАРИТЕЛЬНОГО ПРЕДУПРЕЖДЕНИЯ.