

CTT 721-40 HD23

Technical Specifications

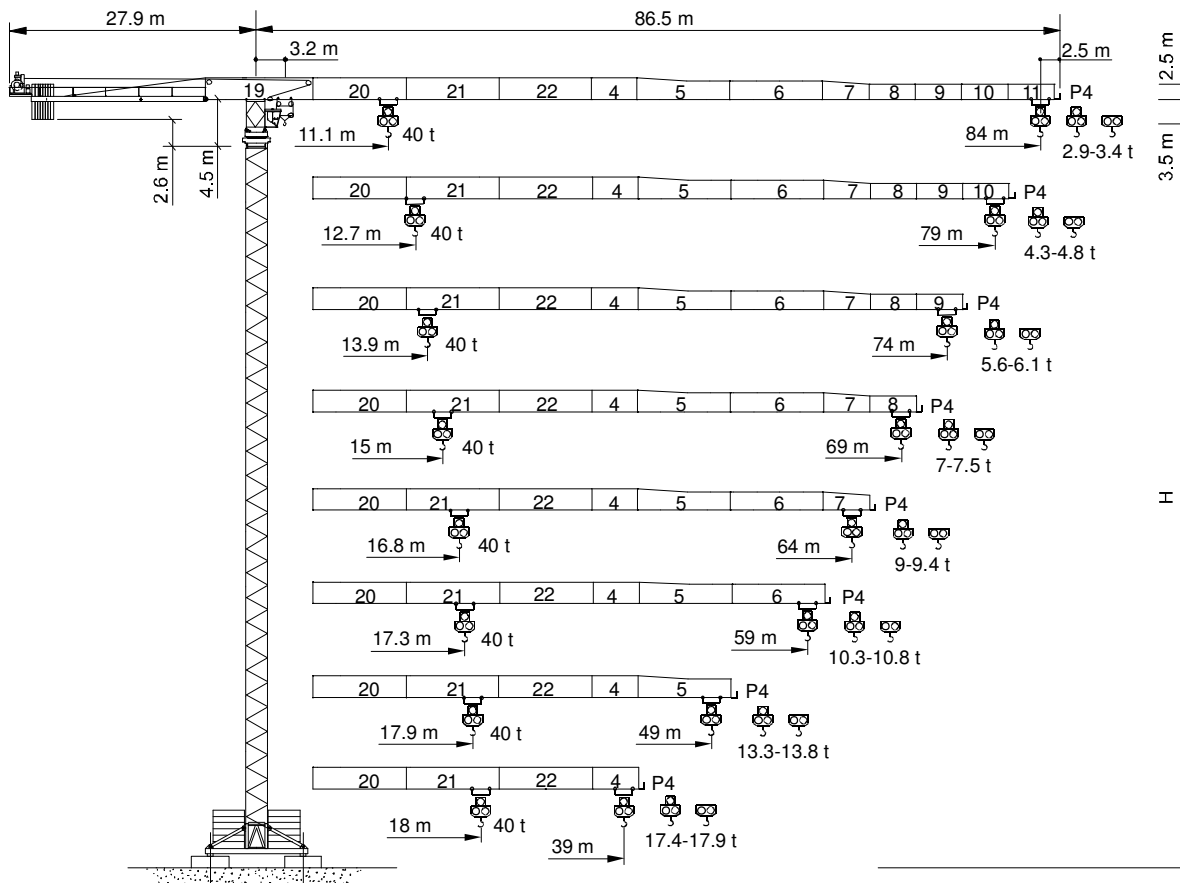
1	SPECIFICATIONS SHEET
2	CRANE CLASSIFICATION
3	LOAD HANDLING DEVICES
4	WORK ENVIRONMENT
5	MAIN CRANE COMPONENTS
5.1	DRIVE ASSEMBLIES (GENERAL INFORMATION)

Chapter 2



Gru a torre "Flat Top"

"Flat Top" Tower Crane • Grue à tour "Flat Top"
"Flat Top" Turmdrehkran • Grua torre "Flat Top"



Dati illustrativi non impegnativi
 Con riserva di modifica senza preavviso

Specifications and data not binding
 Subject to modification without notice

Données techniques seulement indicatives
 Modifications réservées sans préavis

Angaben und Beschreibung unverbindlich
 Änderungen vorbehalten ohne weitere Mitteilung

Dibujos y datos sin compromiso
 Modificaciones reservadas sin preaviso

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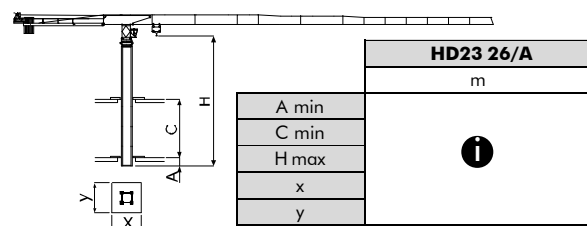
Diagramma di portata **I** **Courbes de charges** **F** **Curvas de cargas** **E**
Load Diagram **GB** **Lastkurven** **D**

i **CTT 721-40**

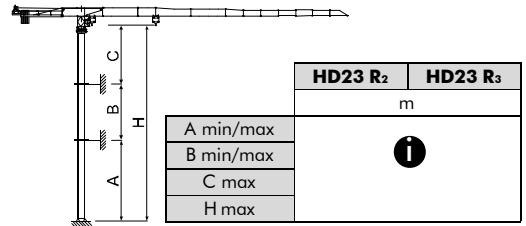
		m															
		19	24	29	34	39	44	49	54	59	64	69	74	79	84		
20 t	- 21,5 m	20,00	17,70	14,25	11,81	10,00	8,60	7,49	6,58	5,82	5,19	4,64	4,17	3,76	3,40		
20 t	- 20,9 m	20,00	17,08	13,65	11,24	9,44	8,05	6,95	6,05	5,30	4,67	4,13	3,67	3,26	2,90		
40 t	- 11,1 m	22,30	17,08	13,65	11,24	9,44	8,05	6,95	6,05	5,30	4,67	4,13	3,67	3,26	2,90		
20 t	- 24,7 m	20,00	20,00	16,73	13,96	11,90	10,30	9,04	8,00	7,15	6,42	5,80	5,27	4,80			
20 t	- 24,0 m	20,00	20,00	16,14	13,39	11,35	9,76	8,51	7,48	6,63	5,91	5,30	4,76	4,30			
40 t	- 12,7 m	25,99	20,04	16,14	13,39	11,35	9,76	8,51	7,48	6,63	5,91	5,30	4,76	4,30			
20 t	- 27,1 m	20,00	20,00	18,54	15,54	13,30	11,57	10,19	9,07	8,14	7,35	6,68	6,10				
20 t	- 26,4 m	20,00	20,00	17,97	14,98	12,75	11,03	9,67	8,55	7,63	6,85	6,18	5,60				
40 t	- 13,9 m	28,67	22,20	17,97	14,98	12,75	11,03	9,67	8,55	7,63	6,85	6,18	5,60				
20 t	- 29,3 m	20,00	20,00	20,00	16,99	14,59	12,74	11,26	10,06	9,06	8,22	7,50					
20 t	- 28,5 m	20,00	20,00	19,65	16,44	14,05	12,21	10,74	9,55	8,55	7,72	7,00					
40 t	- 15,0 m	31,13	24,19	19,65	16,44	14,05	12,21	10,74	9,55	8,55	7,72	7,00					
20 t	- 32,6 m	20,00	20,00	20,00	19,12	16,46	14,41	12,77	11,44	10,33	9,40						
20 t	- 32,1 m	20,00	20,00	20,00	18,77	16,10	14,03	12,39	11,05	9,94	9,00						
40 t	- 16,8 m	35,22	27,45	22,36	18,77	16,10	14,03	12,39	11,05	9,94	9,00						
20 t	- 33,9 m	20,00	20,00	20,00	19,93	17,17	15,03	13,33	11,95	10,80							
20 t	- 33,1 m	20,00	20,00	20,00	19,40	16,64	14,52	12,82	11,45	10,30							
40 t	- 17,3 m	36,34	28,34	23,10	19,40	16,64	14,52	12,82	11,45	10,30							
20 t	- 34,9 m	20,00	20,00	20,00	20,00	17,75	15,55	13,80									
20 t	- 34,1 m	20,00	20,00	20,00	20,00	17,24	15,05	13,30									
40 t	- 17,9 m	37,57	29,31	23,90	20,08	17,24	15,05	13,30									
20 t	- 35,2 m	20,00	20,00	20,00	20,00	17,90											
20 t	- 34,4 m	20,00	20,00	20,00	20,00	17,40											
40 t	- 18,0 m	37,89	29,57	24,11	20,26	17,40											

Altre installazioni **I** **Autres implantations** **F** **Otras implantaciones** **E**
Other configurations **GB** **Aufstellmöglichkeiten** **D**

Gru climbing - Bottom climbing crane - Télescopage sur dalles
Kletterkran im Gebäude - Telescopage grúa trepadora



Gru ancorata - Crane tied to the structure - Grue ancrée
Geankerter Kran - Grúa anclada



Torre
Tower

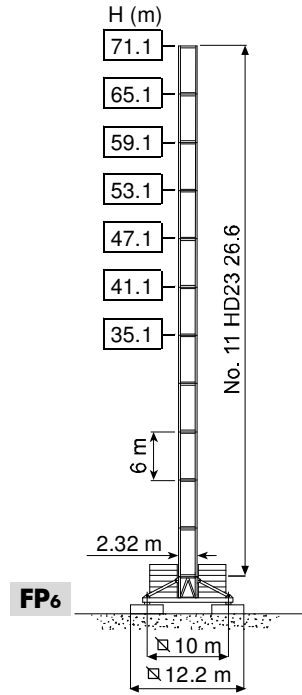
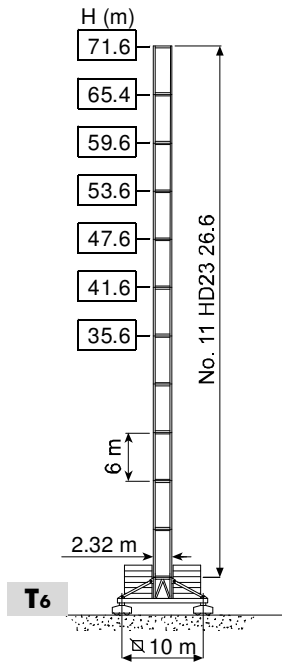
I
GB

Tour
Turm

F
D

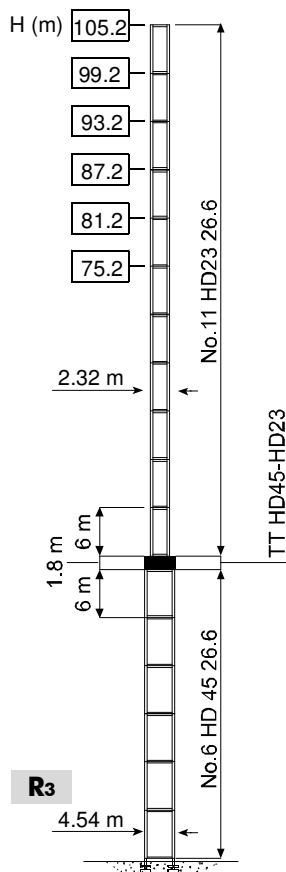
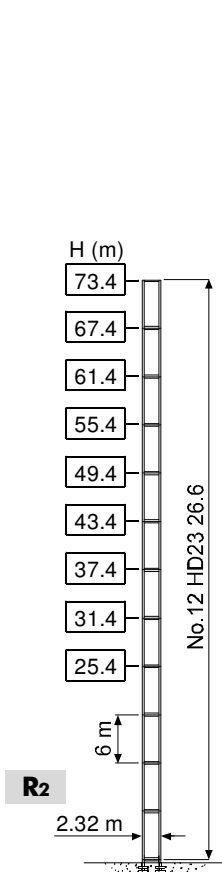
E Torre

HD23



- H Altezza max. sotto gancio (vento max. f.s. 151 km/h)
- H Max. under hook height (out-of-service max wind 151 km/h)
- H Hauteur maxi. sous crochet (vent maxi. h.s. 151 km/h)
- H Höchste Hackenhöhe (a.B. max. Wind 151 km/h)
- H Maxima altura bajo gancho (viento máximo f.d.s. 151 km/h)

I
GB
F
D
E



Meccanismi	I	Mécanismes	F	Mecanismos	E
Mechanisms	GB	Antriebe	D		

94 AFC 200	200 * kVA	400 V - 50 Hz / 460 V - 60 Hz	2000/14/CE

* Gru senza traslazione / Crane without travelling equipment / Grue sans translation / Krane ohne Schienenfahren / Grúa sin traslación

		m/min	t		kW	
 94 AFC 200 D1 (VECTOR 2) 17.10 / 2.70		0 ⇨ 21	20	1°	94	478 m
		0 ⇨ 52	7.5			
		0 ⇨ 58	6.4	2°		
		0 ⇨ 146	2			
		0 ⇨ 11	40	1°		
		0 ⇨ 26	15			
		0 ⇨ 29	12.8	2°		
		0 ⇨ 73	4			

	DVF 5 11 D1	0 ⇨ 88 m/min	11 kW
	SCC 2 2 132 P	0.67 r.p.m.	2 × 18 kW
	▲ TSR 4RG 4M8	12 ⇨ 24 m/min (50 Hz) 14 ⇨ 28 m/min (60 Hz)	4 × 80 Nm
	● TVF 4RT 4M9	0 ⇨ 21 m/min	4 × 9 kW
	i		

	▲	●
	Max. H [m]	
T_s	53.6	> 53.6

	I	GB	F	D	E
Sollevamento	Hoisting	Levage	Heben	Elevación	
Marcia velocità	Gear	Rapport	Gang	Velocidad	
Traslazione carrello	Trolleying	Distribution	Katzfahren	Distribución	
Rotazione	Slewing	Orientation	Schwenken	Orientación	
Traslazione	Travelling	Translation	Schienenfahren	Traslación	
Direttiva sul livello acustico	Directive on noise level	Directive sur le niveau acoustique	Richtlinie für den Schall-Leistungspegel	Directiva sobre el nivel acustico	
Consultateci	Consult us	Nous consulter	Auf Anfrage	Consultarnos	
Potenza totale richiesta	Power requirements	Puissance totale nécessaire	Geforderte Stromstärke	Potencia necesaria	
Alimentazione	Power supply	Alimentation	Stromversorgung	Alimentación	

Gru Comedil s.r.l.
 A Terex Company
 SISTEMA QUALITÀ AZIENDALE
 certificato in accordo alla norma iso 9001:2000

Divisione Automontanti
 Via Alessandrina, 25 - 20095 Cusano Milanino (MI) - Italy
 Tel. (+39) 02 613 16011 - Telefax (+39) 02 613 16034
 Internet e-mail: info.CBR@comedil.com

Via S. Egidio 42/A, 33074 Fontanafredda (PN) - Italy
 Tel. (+39) 0434 567 311 - Telefax (+39) 0434 998631
 Internet e-mail: info@comedil.com
 Internet home page: www.comedil.com

2

CRANE CLASSIFICATION

Standards for structural calculations of the crane: FEM 1.001

Machine grade: A3 (A2 for the jib ranges)

Standards for the electrical components: CEI - EN 60204 - 32

3

LOAD HANDLING DEVICES

40 t (88200 lbs) - hooks UNI 946 S / DIN 15401 .

4

WORK ENVIRONMENT



- Working temperature: **0 °C ➔ 40 °C** (upon the customer's request, cranes withstanding temperatures up to -20 °C can be supplied)
- Maximum relative humidity: **90%**
- Maximum wind speed:

<u>during assembly</u>	14	m/s	(~50 km/h)
<u>in service</u>	20	m/s	(~72 km/h)
<u>out of service</u>	42	m/s	(~150 km/h)



U.S. Customery units

- Working temperature: **32 °F ➔ 104 °F** (upon the customer's request, cranes withstanding temperatures up to -4 °F can be supplied)
- Maximum relative humidity: **90%**
- Maximum wind speed:

<u>during assembly</u>	46	ft/s	(~31 mph)
<u>in service</u>	66	ft/s	(~45 mph)
<u>out of service</u>	138	ft/s	(~93 mph)

- Maximum front surface:

the maximum admitted surface exposed to the wind in corrispondence of the full load allowed at a certain jib length during hoisting is obtained by the ratio:

$$A = \frac{0.03 \times P}{q \times 1.2} \quad \text{where}$$

A = Front surface exposed to the wind [m²]
P = Weight of the load hanging from the hook [daN]
q = Pressure factor = $\frac{v^2}{16}$ [daN/m²]
v = Wind speed [m/s]

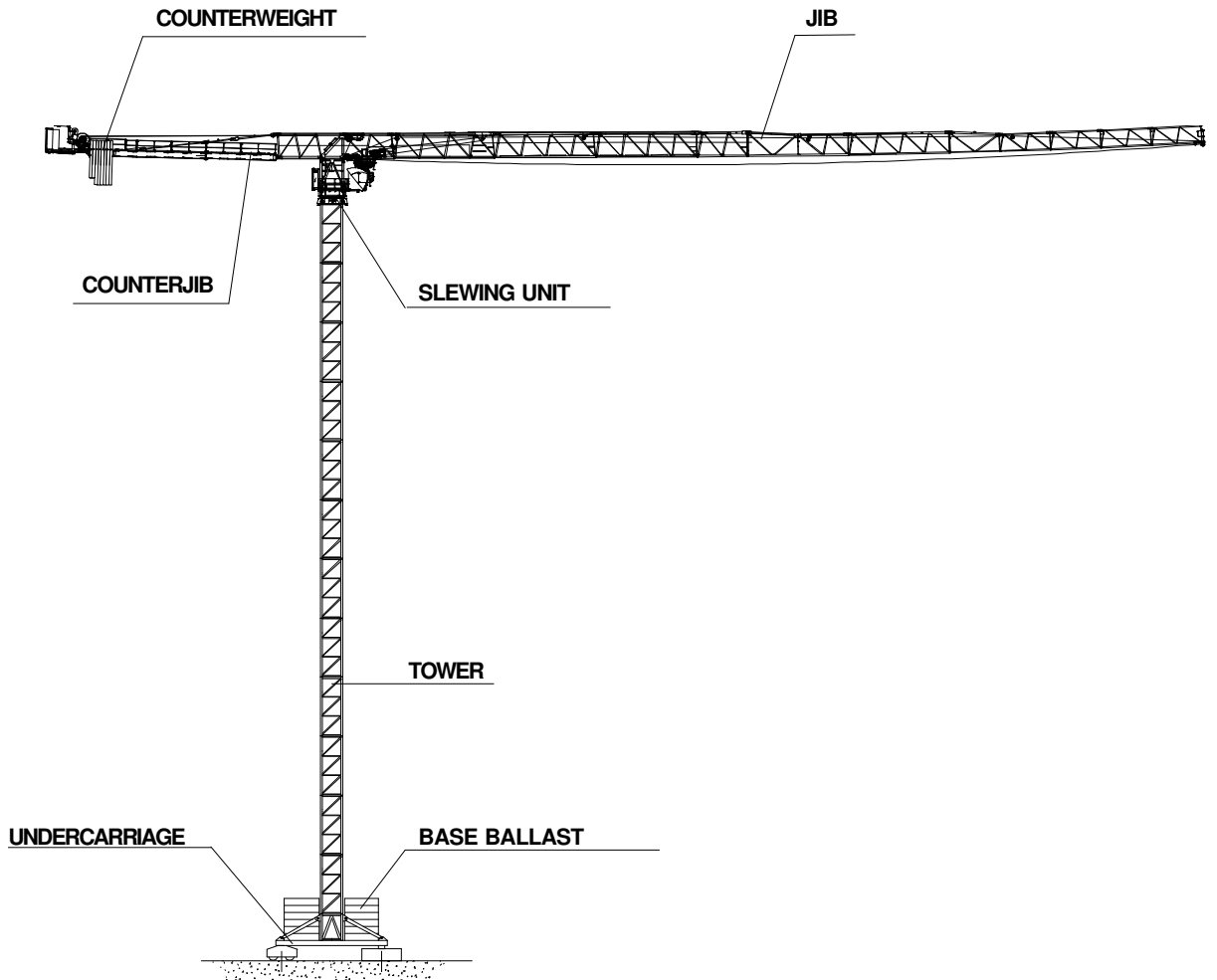
Important



The crane cannot be used in an explosive work environment or a work environment subject to fire risks. Also it cannot be operated in a work environment where flameproof devices are required.

5

MAIN CRANE COMPONENTS



Picture 5.1

Undercarriage

Found in the following configurations:

“FP” fixed base on 4 ballast blocks connected to the undercarriage edges and additional base ballast on the undercarriage;

“T” ballasted travelling platform mounted on trucks that ride along rails.

The 10×10 m (33×33 ft) undercarriages are made of a strut mounting tower section, of 4 struts, of 4 short sleepers and 4 long sleepers.

Base ballast

Made of self-supporting reinforced concrete blocks, which uniformly distribute their own weight on the undercarriage structure and, therefore, on the supports.

HD23 Tower

All tower sections are made of different HEM-sectioned stanchions depending on the tower type (HD23 22 or 26). Lugs are welded externally on one side, specifically designed for the tower raising by top climbing unit.



The tower denominations must be interpreted as follows:

example:

HD 23 26.6 : HD type tower element > width 23 dm (8 ft) > stanchion thickness = 26 mm (1.02in.)
> height 6 m (20 ft) approx.

Counterjib and counterweight

It is a platform on which the hoist winch and the counterweights are placed.

It is equipped with platforms with handrails so that the operators can move about safely.

There are two types of counterweights (all made of self-supporting reinforced concrete blocks or, on request, contained by a steel frame).

The quantity and composition vary depending on the jib length, as specified in **chapter 3B “Counterweights”** of the crane operation manual.

Slewing unit

It consists of a lower slewing ring support (connected to the tower) and a motorized upper slewing ring support (which rotates together with the upper part of the crane) with the slewing ring placed in the middle.

The cab section is placed above the upper slewing ring support.

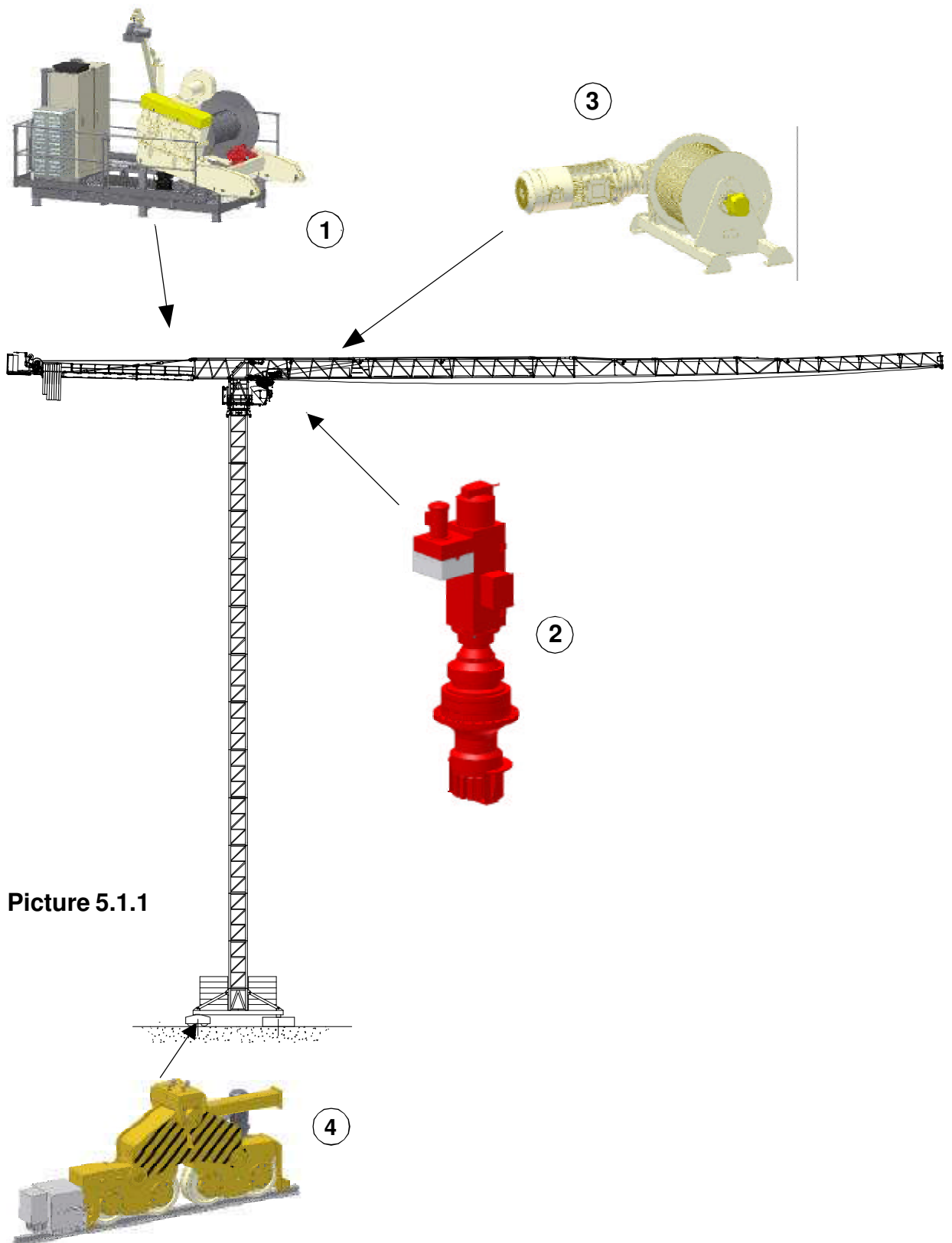
Jib

Self-supporting type, it does not need tie-bars and it is made of 12 triangular-section elements and a jib tip (for maximum jib extension 84 m / 276 ft).

The diagonals are made of round-hollow bars; the upper and lower longitudinal spars are made of square-hollow bars or of square-hollow section.

It is equipped with a safety cable (for the whole length of the jib) thus allowing the crane operators and maintenance engineers to fasten themselves with the special safety belt when walking along it.

5.1 DRIVE ASSEMBLIES (GENERAL INFORMATION)



Picture 5.1.1

- 1) HOIST WINCH
- 2) SLEWING UNIT
- 3) TROLLEY TRAVERSING WINCH
- 4) TRAVELLING UNIT

- ➔ See **Chapter 9** for technical specifications.
- ➔ See **Chapter 13** for technical specifications.
- ➔ See **Chapter 10** for technical specifications.
- ➔ See **Chapter 12** for technical specifications.