



**TEREX** | COMEDIL

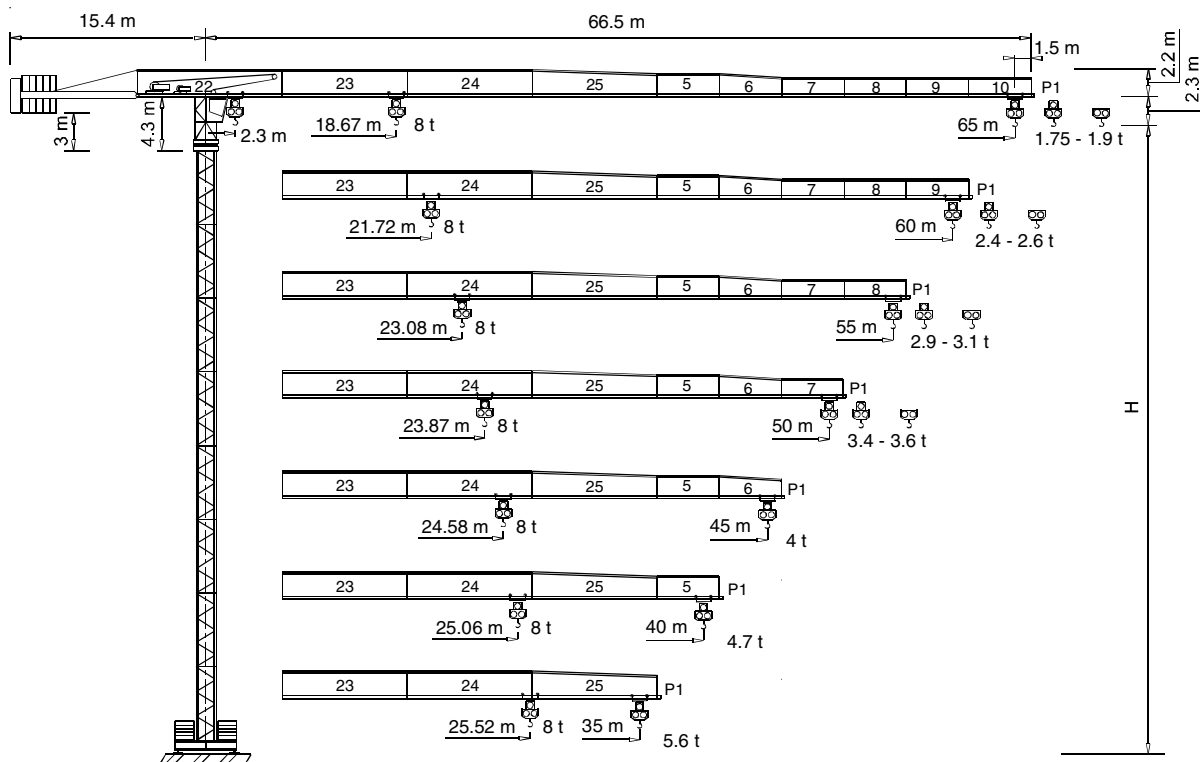
# **CTT 181/A-8 H20**

## **Technical Specifications**

<b>1</b>	<b>SPECIFICATIONS SHEET</b>
<b>2</b>	<b>CRANE CLASSIFICATION</b>
<b>3</b>	<b>LOAD HANDLING DEVICES</b>
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## **Chapter 2**




**TEREX | COMEDIL**
**Gru a torre "Flat Top"**
**"Flat Top" Tower Crane • Grue à tour "Flat Top"**
**"Flat Top" Turmdrehkran • Grua torre "Flat Top"**

**FEM 1.001 A3**
**THE ULTIMATE CRANE™**

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

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Änderungen vorbehalten ohne weitere Mitteilung

Dibujos y datos sin compromiso  
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**"CTT 181/A-8 H20"**



# CTT 181/A-8

Diagramma di portata  
Load Diagram



Courbes de charges  
Lastkurven



Curvas de cargas



## CTT 181/A-8

		m	10	15	20	25	30	35	40	45	50	55	60	65
4 t	- 34.97 m	t	4,00	4,00	4,00	4,00	4,00	4,00	3,42	2,98	2,63	2,34	2,10	1,90
4 t	- 34 m	t	4,00	4,00	4,00	4,00	4,00	3,86	3,29	2,84	2,48	2,19	1,95	1,75
8 t	- 18.67 m	t	8,00	8,00	7,40	5,73	4,64	3,86	3,29	2,84	2,48	2,19	1,95	1,75
4 t	- 41.54 m	t	4,00	4,00	4,00	4,00	4,00	4,00	4,00	3,65	3,23	2,89	2,60	
4 t	- 39.67 m	t	4,00	4,00	4,00	4,00	4,00	4,00	3,96	3,44	3,02	2,68	2,40	
8 t	- 21.72 m	t	8,00	8,00	8,00	6,83	5,54	4,64	3,96	3,44	3,02	2,68	2,40	
4 t	- 44.14 m	t	4,00	4,00	4,00	4,00	4,00	4,00	4,00	3,91	3,46	3,10		
4 t	- 42.21 m	t	4,00	4,00	4,00	4,00	4,00	4,00	4,00	3,71	3,26	2,90		
8 t	- 23.08 m	t	8,00	8,00	8,00	7,31	5,95	4,98	4,26	3,71	3,26	2,90		
4 t	- 45.62 m	t	4,00	4,00	4,00	4,00	4,00	4,00	4,00	4,00	3,60			
4 t	- 43.67 m	t	4,00	4,00	4,00	4,00	4,00	4,00	4,00	3,86	3,40			
8 t	- 23.87 m	t	8,00	8,00	8,00	7,59	6,18	5,18	4,44	3,86	3,40			
4 t	- 45 m	t	4,00	4,00	4,00	4,00	4,00	4,00	4,00	4,00				
8 t	- 24.58 m	t	8,00	8,00	8,00	7,85	6,39	5,36	4,59	4,00				
4 t	- 40 m	t	4,00	4,00	4,00	4,00	4,00	4,00	4,00					
8 t	- 25.06 m	t	8,00	8,00	8,00	8,00	6,54	5,48	4,70					
4 t	- 35 m	t	4,00	4,00	4,00	4,00	4,00	4,00						
8 t	- 25.52 m	t	8,00	8,00	8,00	8,00	6,67	5,60						

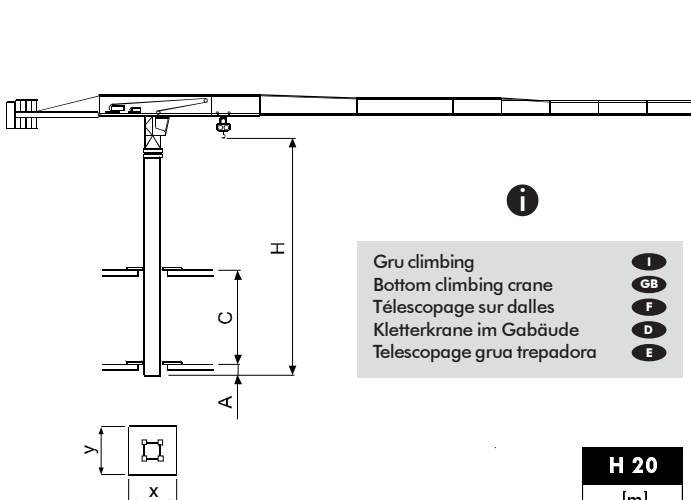
Altre installazioni  
Other configurations



Autres implantations  
Aufstellmöglichkeiten



Otras implantaciones

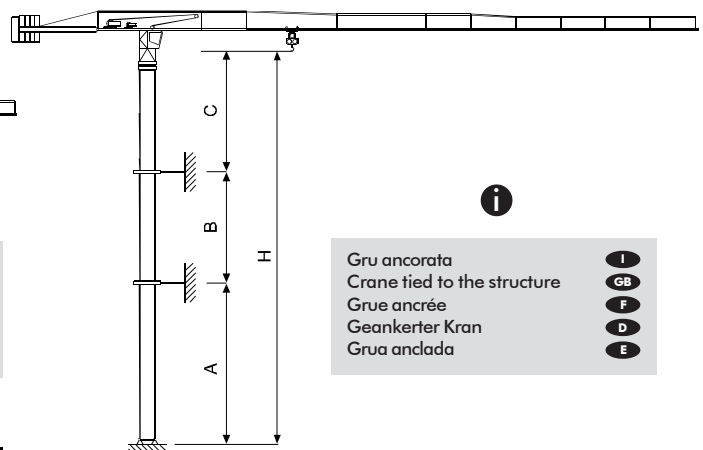


i

Gru climbing  
Bottom climbing crane  
Télescage sur dalles  
Kletterkrane im Gebäude  
Telescage grua trepadora



	H 20
	[m]
A <sub>min</sub>	1
C <sub>min</sub>	9
H <sub>max</sub>	i
x	2.6
y	2.08



i

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



	H 20 R1	H 20 R2
	[m]	[m]
A <sub>min/max</sub>	25 / 50	36/65
B <sub>min/max</sub>	15 / 22.5	15 / 22.5
C <sub>max</sub>	32	32
H <sub>max</sub>	i	



Consultateci



Consult us



Nous consulter



Auf Anfrage



Consultarnos





# CTT 181/A-8

Torre  
Tower

I  
GB

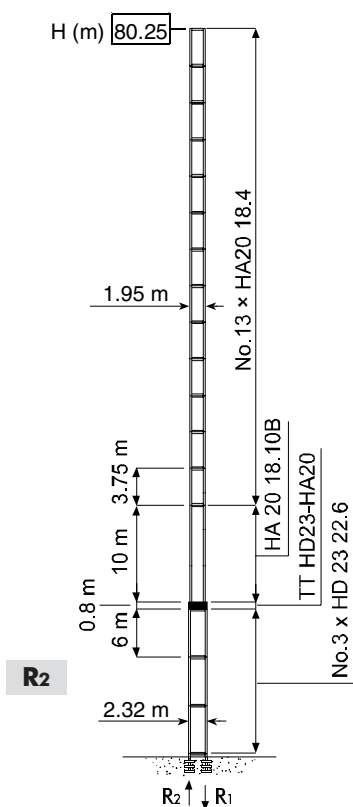
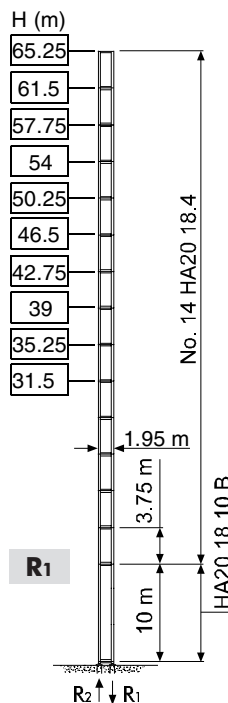
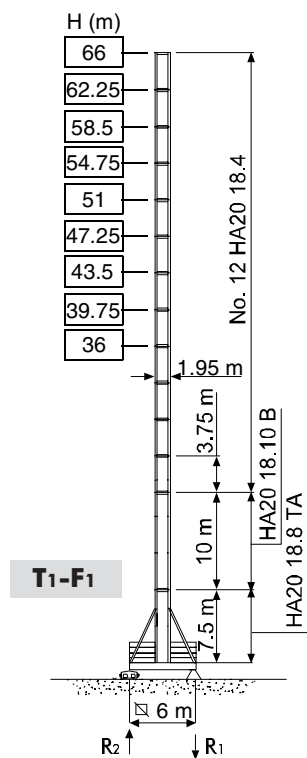
Tour  
Turm

F  
D

Mástil  
Mast

E

## H20



H	Altezza massima sotto gancio	I
●	In servizio	
◆	Fuori servizio	
☰	A vuoto, senza zavorra, braccio max., altezza max.	
H	Max. under hook height	GB
●	In service	
◆	Out of service	
☰	Without load, without ballast, max. jib and max. height	
H	Hauteur maxi. sous crochet	F
●	En service	
◆	Hors service	
☰	A vide, sans lest, avec flèche et hauteur maximum	
H	Höchste Hackenhöhe	D
●	In Betrieb	
◆	Außer Betrieb	
☰	Ohne Last und Ballast, mit Maximalausleger und Maximalhöhe	
H	Maxima altura bajo gancho	E
●	En servicio	
◆	Fuera de servicio	
☰	Sin carga, sin lastre, con pluma y altura máxima	



# CTT 181/A-8

**Meccanismi**  
**Mechanisms**



**Mécanismes**  
**Antriebe**



**Mecanismos**



70 * 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	
	<b>30 AFC 40 F11</b> <b>30 AFC 40 F12</b> <b>(VARIANT)</b>		0 ⇌ 3	4	30	278 m (F12 STD) 350 m (F12 LEBUS) 480 m (F11 LEBUS)
			3 ⇌ 10	4		
			10 ⇌ 41	4		
			41 ⇌ 66	2.38		
			66 ⇌ 82	1.86		
			0 ⇌ 1.5	8		
			1.5 ⇌ 5	8		
			5 ⇌ 20.5	8		
			20.5 ⇌ 33	4.76		
			33 ⇌ 41	3.72		

	<b>DVF 3 5 D1</b> <b>(VARIANT)</b>	0 ⇌ 6 ⇌ 32 ⇌ 64 m/min	5 kW
	<b>SSR 2 2 65</b>	0.7 r.p.m. (50 Hz)	0.84 r.p.m. (60 Hz)
	<b>▲ TAD 2RP 2M4</b>	0 - 24 m/min	2 × 4 kW
	<b>● TAD 2RG 4M3</b>		4 × 3 kW

	▲	●
	Max. H [m]	
T <sub>3</sub>	39.1	> 39.1
T <sub>4</sub>	32.9	> 32.9

	Sollevamento	<b>I</b>	Hoisting	<b>GB</b>	Levage	<b>F</b>	Heben	<b>D</b>	Elevación	<b>E</b>
	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



**Divisione Automontanti**

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

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



2

## CRANE CLASSIFICATION

*Standards for structural calculations of the crane:* FEM 1.001

*Machine grade:* A3 (A2 for jibs)

*Standards for the electrical components:* CEI - EN 60204 - 1

3

## LOAD HANDLING DEVICES

8 t (17,640 lbs) - hook 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:*

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



### 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:*

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

- *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:

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

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

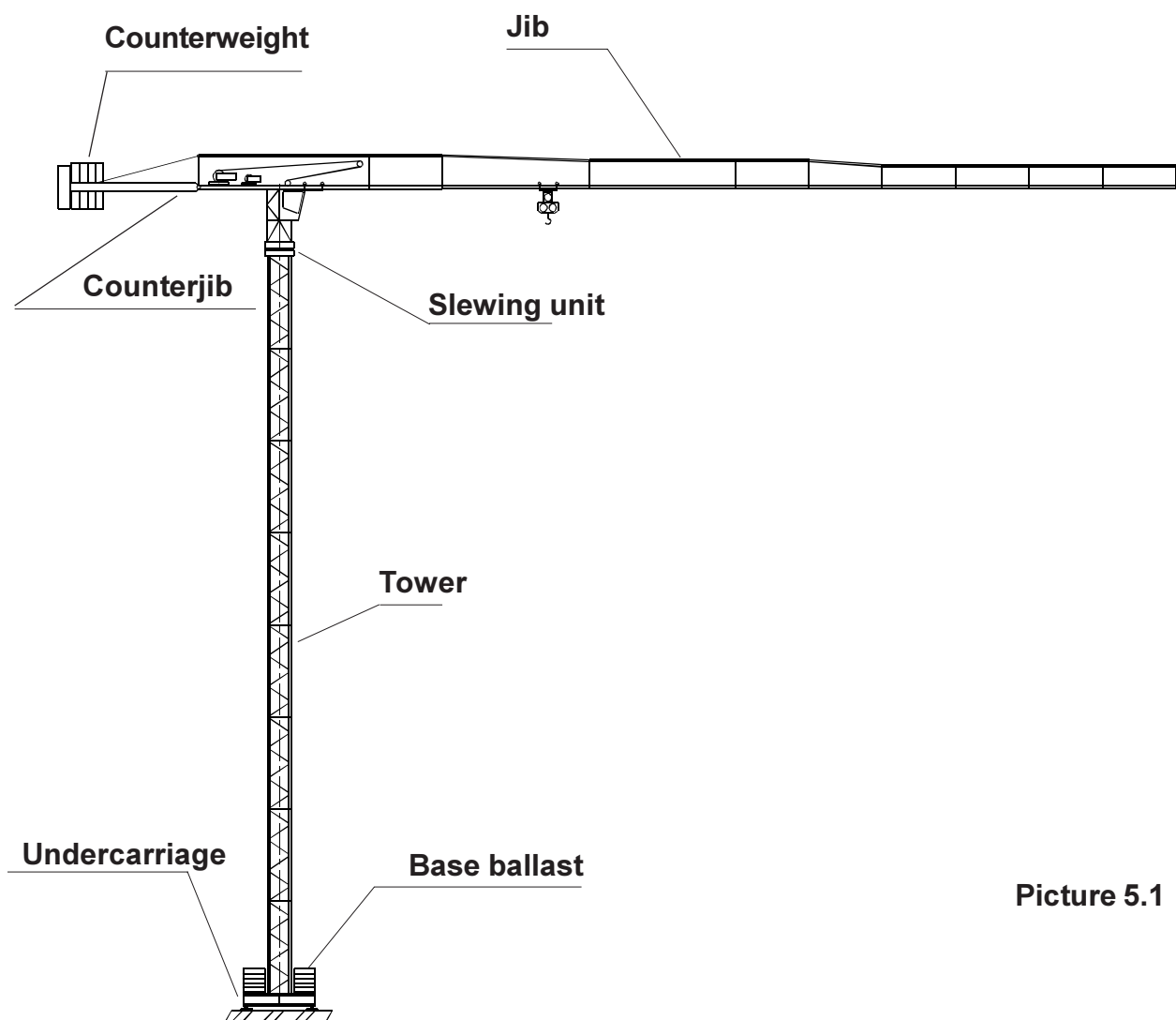


The crane cannot be used in an explosive work environment or a work environment subject to fire risks. Also it cannot be operated in a work environment where flameproof devices are required.



5

## MAIN CRANE COMPONENTS



Picture 5.1

### Undercarriage

There are two types of undercarriages available for **H20** tower:

- “F”** fixed base on 4 support plates and adjustable screw jacks (base ballast placed on the undercarriage);
- “T”** ballasted travelling platform mounted on trucks that ride along rails.

It has a 6 m × 6 m (20 × 20 ft) bearing gauge.

The tower carries stresses directly onto the beams.

## Base ballast

It consists of self-supporting blocks made of reinforced concrete that uniformly distribute their weight on the base supports through the structure of the undercarriage.

## Tower

With **"F"** and **"T"** installations the base tower section is **"HA20 18.8 TA"** type 7.5 m (25 ft) long, the remaining ones are **"HA20 18.4"** standard type 3.75 m (12 ft) long, instead.

With **"R1"** installation the base tower section is **"HA20 18.10 B"** type 10 m (33 ft) long, the remaining ones are **"HA20 18.4"** standard type 3.75 m (12 ft) long, instead.

All tower sections have a monolithic structure with 180×18 mm box welded L-section stanchions.

With **"R2"** installation, instead, the **"HA20 18.4"** tower section rests on the **"TT HD23/HA20"** monolithic adapter module: the base tower sections are in fact **"HD23 22.6"** type 6 m (20 ft) long, monolithic with HEM 220 stanchions. The connection of the tower sections is made with four M45 high strength bolts on each stanchion.

## Counterjib and Counterweight

Horizontal member of the crane supported by 2 tie-bars, on which the counterweight is mounted.

It is equipped with protected access footwalks to the counterweight and a movable work platform for making the assembly of the counterweights during the crane erection, easier.

There are two types of counterweights (both made, anyhow, of self-supporting reinforced concrete blocks) to be placed some in the special compartment and some in the ballast basket located on the rear of the counterjib.

For the right counterweight quantity and configuration, refer to **Chapter 3B - "Counterweights"** of the crane operation manual.

## Slewing unit

It consists of the lower slewing ring support (connected to the tower) and the powered upper slewing ring support (rotating with the crane upper part) with the slewing ring placed in the middle.

The cab tower section rests on the upper slewing ring support.

## Jib

Self-supporting type, it does not need any tie-bar and it consists of 10 triangular sections and a jib point section.

Diagonals are made from round-hollow bars; the upper and lower longitudinal spars from square-hollow bars or square sections.

The first jib section partially acts as counterjib, as well (winches and limiters are mounted on it).

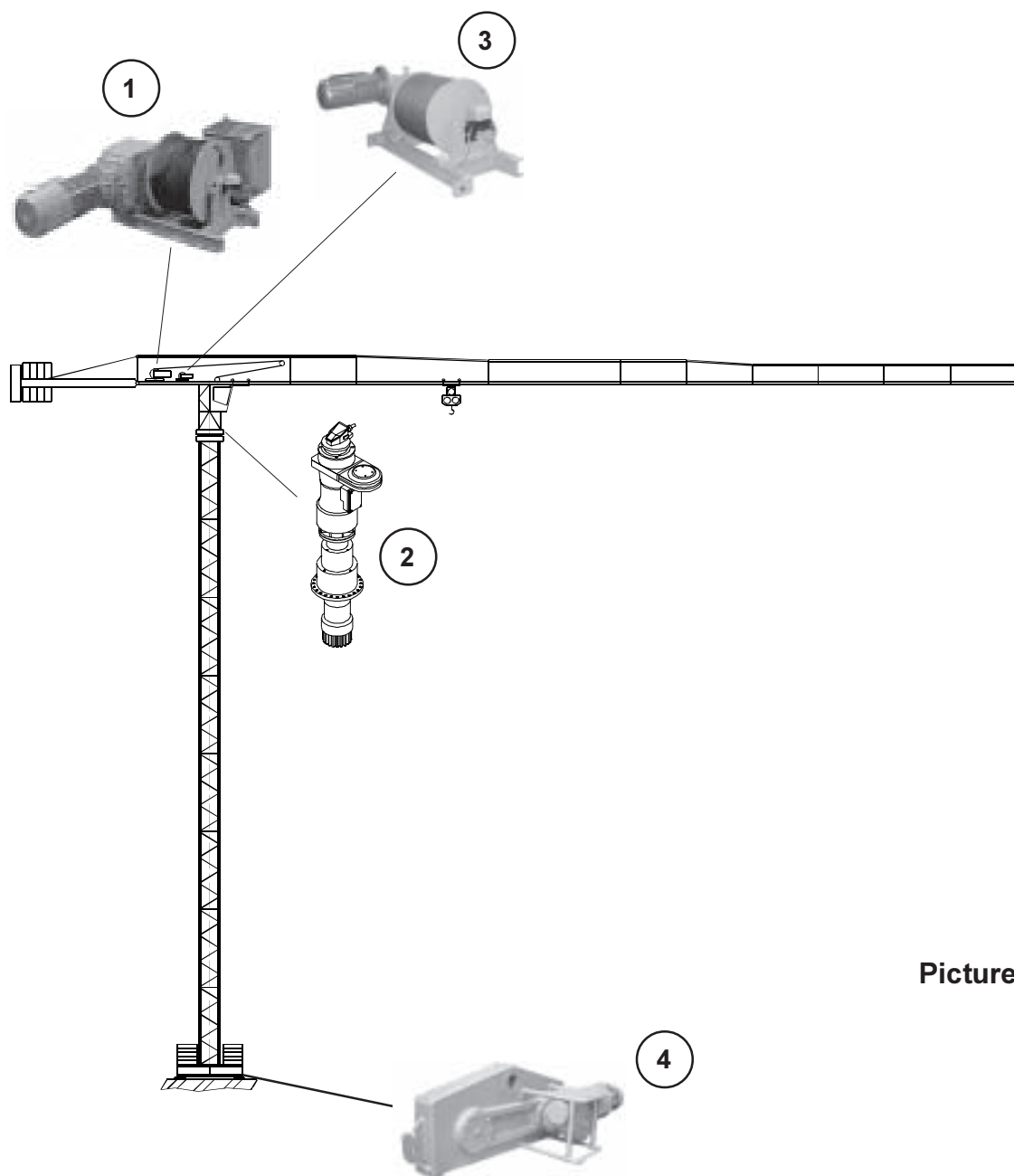
It is equipped with a safety cable, thus allowing the crane operators and maintenance engineers to fasten themselves by the special safety belt when walking along it.

Interpret the jib section definitions (see **Chapter 5B - "Slewing upper part erection"** of the crane operation manual) as follows:

### Example : Jib Section 06

**06 TT 11 16.05:** jib section identification number > Flat Top series jib section > jib section width 11 dm (4ft) > jib section height 16 dm (5ft) > jib section length 5 m (16ft).

## 5.1 DRIVE ASSEMBLIES (GENERAL INFORMATION)



**Picture 5.1.1**

- |                             |   |
|-----------------------------|---|
| 1) HOIST WINCH              | ➔ See <b>Chapter 9</b> of the crane operation manual for technical specifications.  |
| 2) SLEWING UNIT             | ➔ See <b>Chapter 13</b> of the crane operation manual for technical specifications. |
| 3) TROLLEY TRAVERSING WINCH | ➔ See <b>Chapter 10</b> of the crane operation manual for technical specifications. |
| 4) TRAVELLING UNIT          | ➔ See <b>Chapter 12</b> of the crane operation manual for technical specifications. |