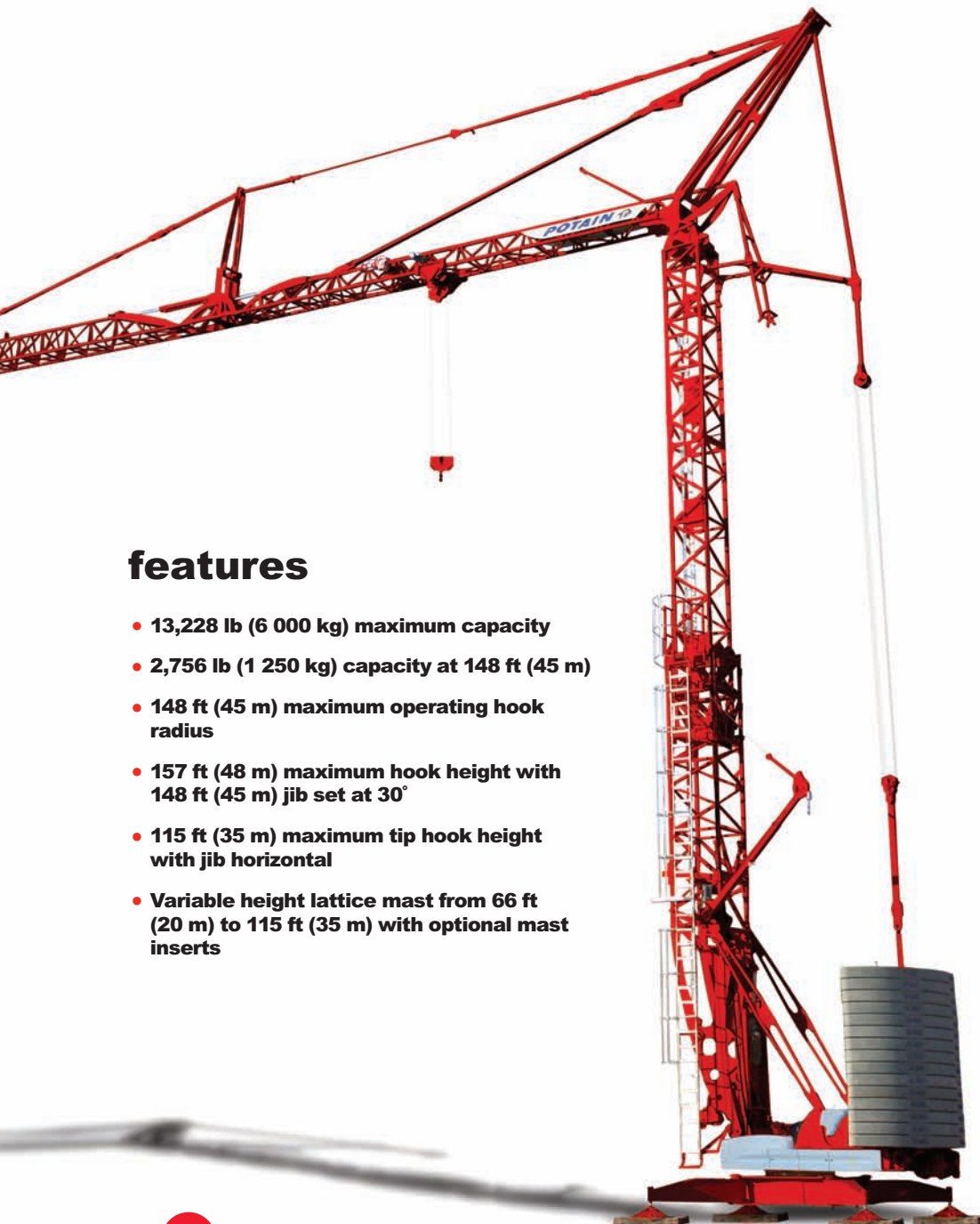


# Igo T 85

## product guide



### features

- 13,228 lb (6 000 kg) maximum capacity
- 2,756 lb (1 250 kg) capacity at 148 ft (45 m)
- 148 ft (45 m) maximum operating hook radius
- 157 ft (48 m) maximum hook height with 148 ft (45 m) jib set at 30°
- 115 ft (35 m) maximum tip hook height with jib horizontal
- Variable height lattice mast from 66 ft (20 m) to 115 ft (35 m) with optional mast inserts

### contents

Features	2
Specifications	3
Transport	4
Weights	5
Dimensions	6
Crane Profile	7
Load Charts	8
Mechanical Data	10
Metric Dimensions	11
Metric Crane Profile	12
Metric Load Charts	13
Metric Mechanical Data	15
Symbols Glossary	16

# features

2



The optional hydraulic ballasting derrick arm is removable and controlled by the radio remote control. This derrick can be adjusted to both radii of the Igo T 85 as well as the radius of the Igo T 70.



Increase your working height by up to 39.4 ft (12 m) with optional mast inserts. Each insert is 19.7 ft (6 m) and provides the operator with two (2) additional heights under hook.



The optional Vision 140CN cab bolts onto the crane at a fixed height. Controls are integrated into the cab and operator's seat provides ergonomic comforts from an aerial position.

Standard wireless radio remote control with indicators and auxiliary control unit can be supplemented with an optional tethered joystick control unit with 98 ft (30 m) cable.



Igo T 85

# specifications

3

## Jib

104 ft (31.7 m) radius standard tri-folding offsettable lattice jib. Two (2) tie bar lines with adjustable lengths allow jib to be offset to 30°. Opening and aligning are carried out automatically by three (3) hydraulic cylinders.

## \*Optional Jib Extensions

Two (2) removable jib extensions allow for a radius of 131 ft (40 m) or maximum radius of 148 ft (45 m).

## Mast

Telescoping lattice mast raised by one (1) hydraulic cylinder. Hook heights of 66 ft (20 m) and 75 ft (23 m) achievable with standard mast. 360° rotation possible during raising sequence.

## \*Optional Mast Inserts

Two (2) 20 ft (6 m) mast inserts available to reach a maximum hook height of 115 ft (35 m). Increasing mast height with one insert provides hook heights of 85 ft (26 m) and 95 ft (29 m); second mast insert provides hook heights of 105 ft (32 m) and 115 ft (35 m).

## Chassis

Outriggers swing and lock into position. 14.8 ft (4.5 m) square outrigger spread with 10.8 ft (3.3 m) maximum turning radius. Outrigger pads are stowed on the crane during transport (23.6 in x 23.6 in [600 x 600 mm]).

## \*Ballast

Ballast requirement for the crane consists of, at minimum, fifteen (15) slabs each weighing 4,850 lb (2 200 kg). An additional slab is required if cab is mounted as well as another if mast insert(s) is used. Two ballast forms can be produced to obtain either a 9.8 ft (3 m) or 10.8 ft (3.3 m) turning radius.

## \* Optional Hydraulic Ballasting Derrick

Removable and able to be used on other Igo T 85 and Igo T 70 units, the hydraulic ballasting derrick uses the hoisting winch and is controlled by the remote control.

## Electrical Requirement

480 volt, 60 Hz measured at the turntable. Earth rod and electric cable stored on the crane during transport.

## Reeving

SM/DM block for 2 (SM) or 4-part line (DM). Manual removal of one pin to change between SM and DM.

## Controls

Wireless remote control provides information to the operator about \*\*wind speed, radius, hook height, load, and moment. Lights and buzzers alert the operator when nearing limits of operation. Battery charger and extra battery are provided with crane.

Auxiliary remote attached by umbilical cord ensures continual operation in case of battery or other malfunction of the wireless remote control.

\*Denotes optional equipment

## \*Optional Anemometer

Electronic wind speed meter to alert the operator of wind speed conditions. Provides selective display on the radio remote. Crane can be erected in wind speeds up to 45 MPH (72 KPH) and weather vane in winds up to 93 MPH (150 KPH).

## Swing

RVF 51 Optima + slewing mechanism with maximum swing speed of 0.8 RPM. Progressive control of speed with counter-slewing possible, anti-load swinging system makes aligning the load and jib easier. Multiple RPM speeds possible depending upon parameter selected.

## Hoist

20 LVF 15 Optima: 20 HP variable frequency hoist with 1.7 UST (1.5 t) line pull. 3 notch, progressive speed change according to the accelerating or decelerating ramps. Optima allows the hoist to adapt its speed to the weight of the load.

## Trolley

5 DVF 5: 5.5 HP variable frequency hoist with 1,102 lb (500 kg) line pull. 3 notch winch, progressive speed change according to acceleration or deceleration ramps controlled by the frequency converter.

## Hydraulic Equipment

Hydraulic cylinders are used for raising the mast, unfolding the jib, and slewing the derrick. All actions are carried about by the remote control.

## \*Optional Transport Axle Sets

Axle sets are available for both jobsite and highway applications. Jobsite axles are rated at either 6 MPH (10 KPH) or 15.5 MPH (25 KPH); highway axle set is rated at 50 MPH (80 KPH)

## \*Optional Equipment

- \* STANDARD NORTH AMERICAN SPECIFICATION: includes 148 ft (45 m) jib, offsettable jib, 2 mast inserts, sole plates with screw jacks and Dialog Wind GMA
- \* Mast inserts 19.7 ft (6 m)
- \* Outrigger pads with screw jacks for transport equipment
- \* Fixed height Vision cab
- \* Access ladders
- \* Transport axles and kits
- \* Top Zone
- \* Top Tracing
- \* Dialog Wind

Consult price list for additional options

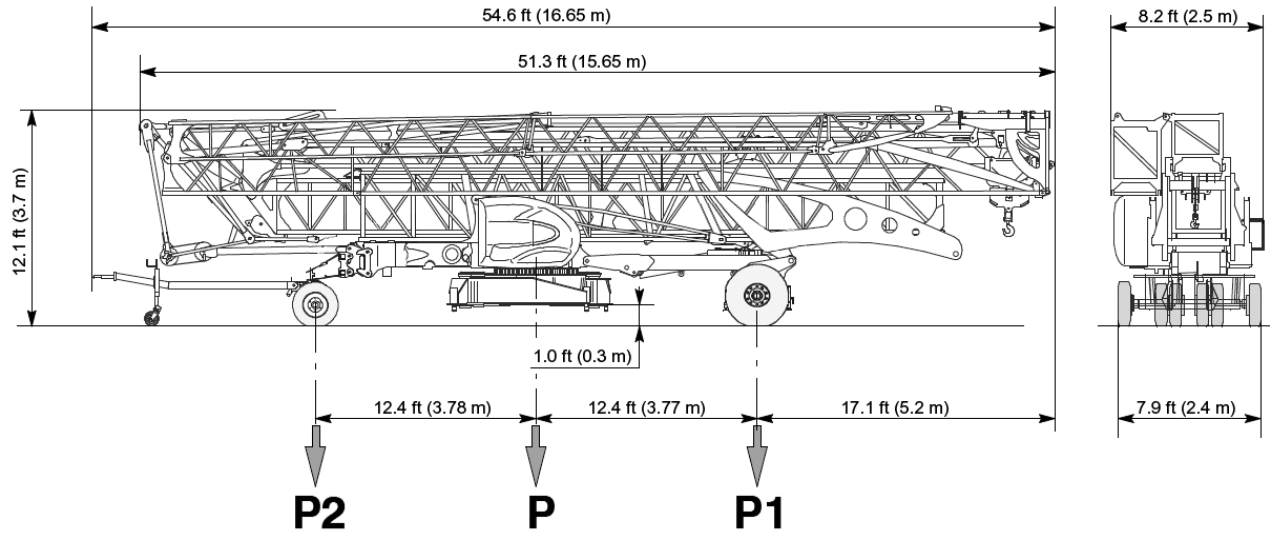
\*\*Requires optional anemometer

Igo T 85

4

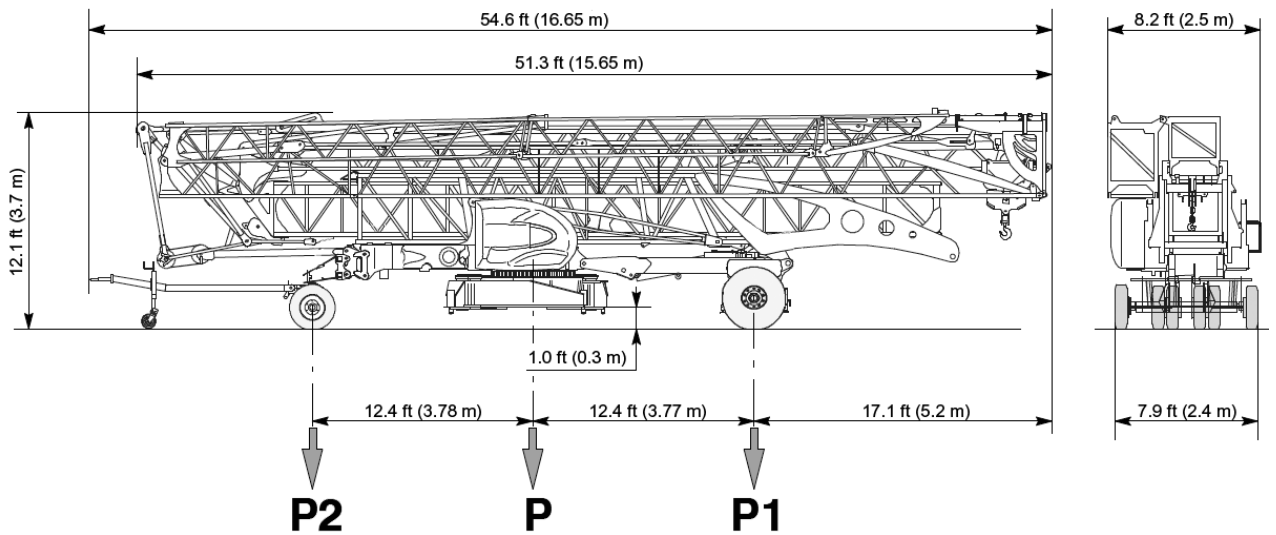
### DJ100 / S120

6 MPH / 10 KPH



### DJ105 / S125

15.5 MPH / 25 KPH



Igo T 85

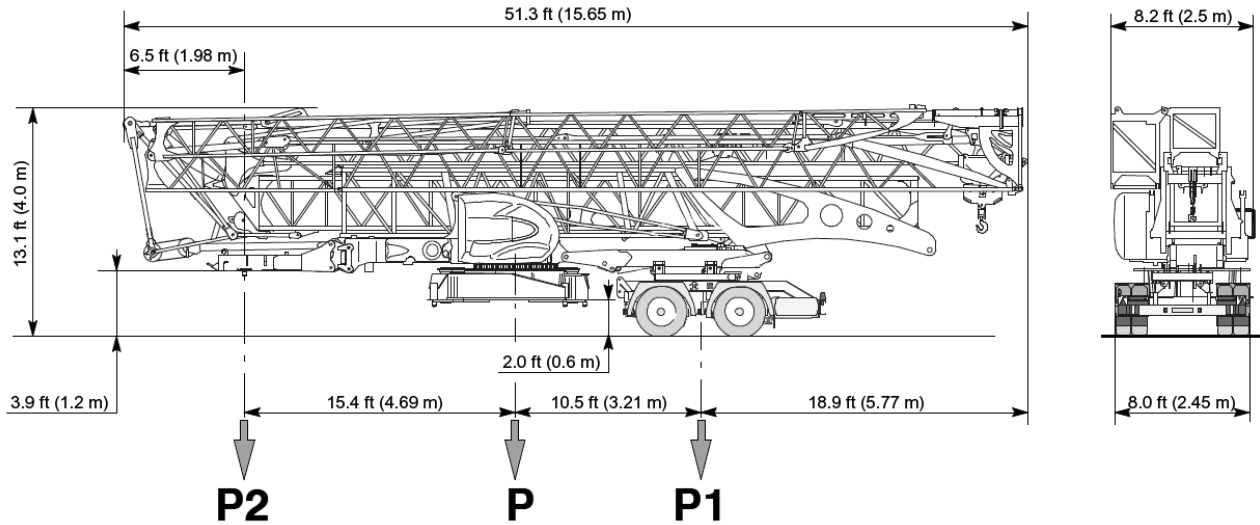
NOTE: Dimensions and weights may vary due to manufacturing tolerances.

# weights

## SL122 / J215M

50 MPH / 80 KPH

5



\*Other axle sets are available.

### Chassis Data (in transport position)

	DJ100 / S120		DJ105 / S125		SL122 / J215M	
	6 MPH / 10 KPH		15.5 MPH / 25 KPH		50 MPH / 80 KPH	
	(feet)	(meters)	(feet)	(meters)	(feet)	(meters)
<b>Overall Length</b>	54.63	16.65	54.63	16.65	51.35	15.65
<b>Overall Height</b>	12.14	3.70	12.14	3.70	13.12	4.00
<b>Overall Width</b>	8.20	2.50	8.20	2.50	8.20	2.50
<b>Overhang</b>	17.06	5.20	17.06	5.20	18.93	5.77

### Weights

#### Crane Weight

less Counterweight: 39,903 lb 18,100 kg

#### Couterweight

for Operation (15 slabs): 72,751 lb 33,000 kg

#### Crane with Counterweight:

112,654 lb 51,100 kg

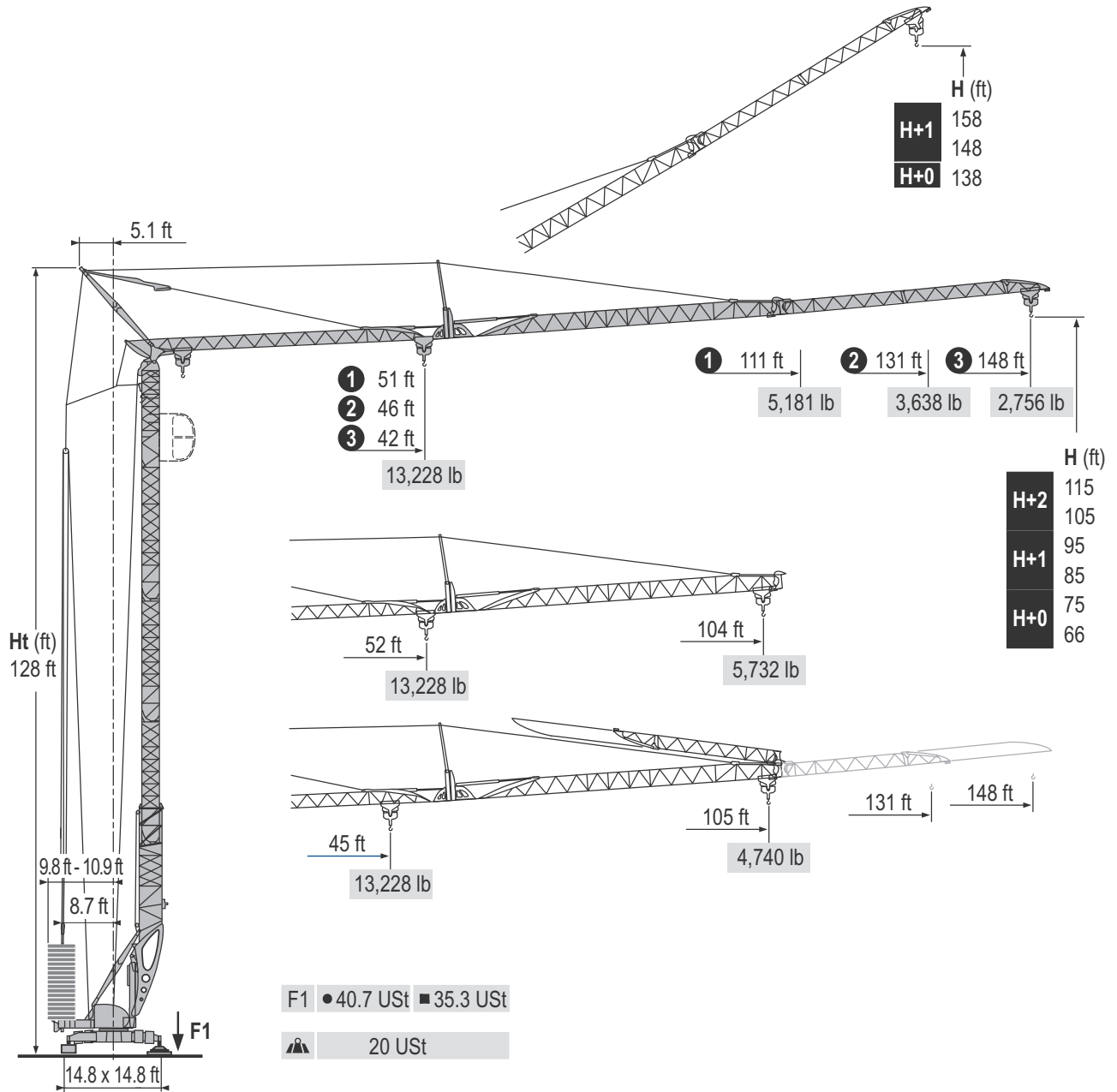
### Crane with Transport Equipment

	DJ100 / S120		DJ105 / S125		SL122 / J215M	
	6 MPH / 10 KPH		15.5 MPH / 25 KPH		50 MPH / 80 KPH	
	(pounds)	(kilograms)	(pounds)	(kilograms)	(pounds)	(kilograms)
<b>In Transport with no counterweight:</b>						
<b>Gross (P)</b>	42,681	19,360	43,320	19,650	46,407	21,050
<b>Rear (P1)</b>	25,333	11,491	25,796	11,701	33,234	15,075
<b>Front (P2)</b>	17,348	7,869	17,524	7,949	13,172	5,975

NOTE: Dimensions and weights may vary due to manufacturing tolerances.

# dimensions

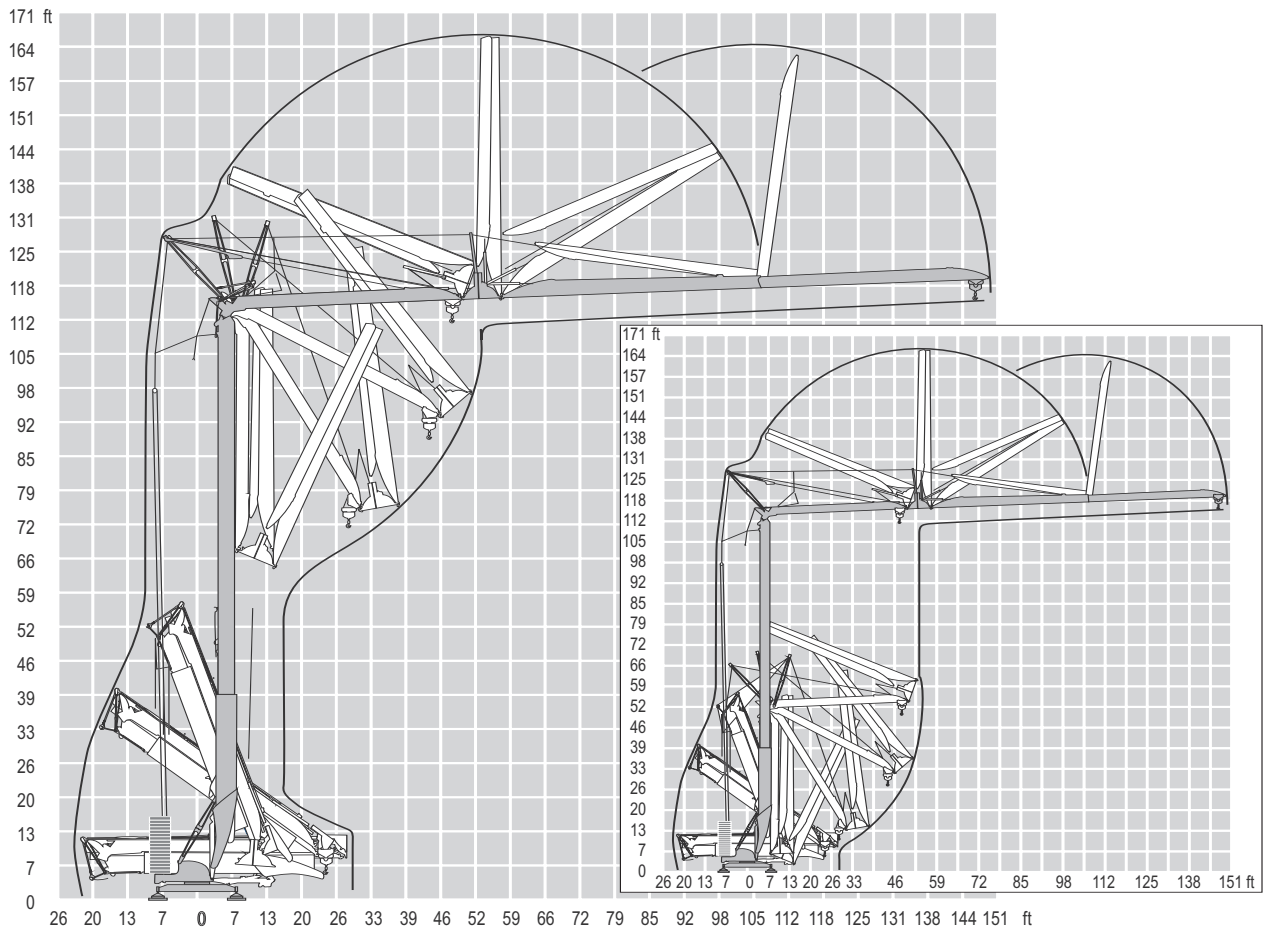
6



Igo T 85

THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE. The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.

# crane profile



THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE. The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.

Igo T 85

# load charts

88



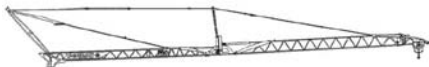
**Jib Configuration: L45 with maximum hook reach of 148 ft at 0°**

Hook Reach (ft)	10.2	41.7	45.9	52.5	59.1	65.6	73.5	78.7	85.3	91.9	98	105	112	118	125	131	138	148
Reeving	Capacities (lb)																	
SM	6,614	6,614	6,614	6,614	6,614	6,614	6,614	6,085	5,512	5,038	4,630	4,266	3,957	3,682	3,428	3,219	3,020	2,756
DM	13,228	13,228	11,751	9,965	8,631	7,595	6,614	6,085	5,512	5,038	4,630	4,266	3,957	3,682	3,428	3,219	3,020	2,756



**Jib Configuration: L40 with maximum hook reach of 131 ft at 0°**

Hook Reach (ft)	10.2	45.6	52.5	59.1	65.6	72.2	80.7	85.3	91.9	98.4	105	112	118	125	131
Reeving	Capacities (lb)														
SM	6,614	6,614	6,614	6,614	6,614	6,614	6,614	6,184	5,655	5,192	4,806	4,453	4,156	3,880	3,638
DM	13,228	13,228	11,122	9,645	8,488	7,562	6,614	6,184	5,655	5,192	4,806	4,453	4,156	3,880	3,638



**Jib Configuration: L33.8 with maximum hook reach of 111 ft at 0°**

Hook Reach (ft)	10.2	50.5	59.1	65.6	72.2	78.7	85.3	90.6	98	105	111
Reeving	Capacities (lb)										
SM	6,614	6,614	6,614	6,614	6,614	6,614	6,614	6,614	5,986	5,534	5,181
DM	13,228	13,228	11,012	9,711	8,664	7,815	7,099	6,614	5,986	5,534	5,181



**Jib Configuration: L31.7 with maximum hook reach of 104 ft at 0°**

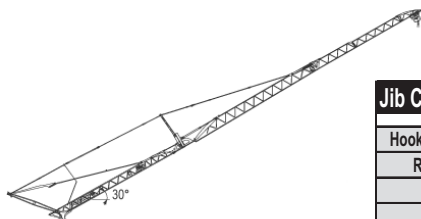
Hook Reach (ft)	10.2	51.5	59.1	65.6	72.2	78.7	85.3	92.2	98.4	104.0
Reeving	Capacities (lb)									
SM	6,614	6,614	6,614	6,614	6,614	6,614	6,614	6,614	6,129	5,732
DM	13,228	13,228	11,266	9,932	8,863	7,992	7,264	6,614	6,129	5,732



**Jib Configuration: L40 or L45 with maximum hook reach of 105 ft at 0°**

Hook Reach (ft)	10.2	44.9	52.5	59.1	65.6	72.2	79.7	85.3	91.9	98.4	105.0
Reeving	Capacities (lb)										
SM	6,614	6,614	6,614	6,614	6,614	6,614	6,614	6,107	5,578	5,126	4,740
DM	13,228	13,228	10,990	9,524	8,389	7,474	6,614	6,107	5,578	5,126	4,740

Igo T 85



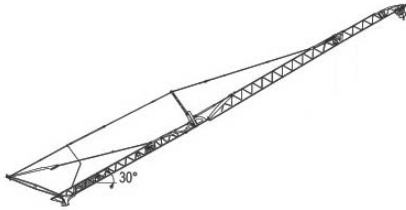
**Jib Configuration: L45 with maximum hook reach of 128 ft at 30°**

Hook Reach (ft)	10.2	64.0	72.2	78.7	85	92	98	105	112	118	125	128
Reeving	Capacities (lb)											
SM	6,614	6,614	5,721	5,126	4,641	4,233	3,880	3,571	3,307	3,064	2,855	2,756
DM												

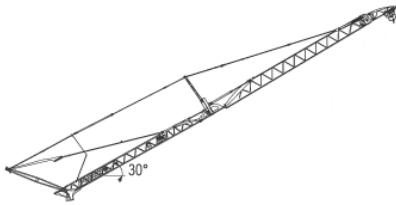
THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE. The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.

# load charts

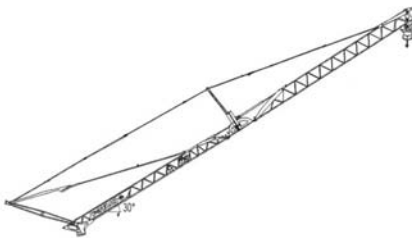
9



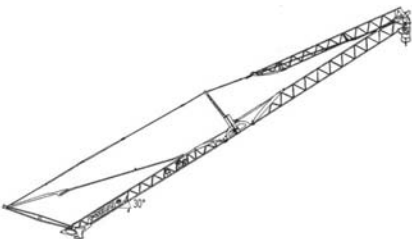
Jib Configuration: L40 with maximum hook reach of 114 ft at 30°								
Hook Reach (ft)	10.2	70.5	78.7	85.3	92	98	105	114
Reeving	Capacities (lb)							
SM	6,614	6,614	5,787	5,236	4,784	4,387	4,045	3,638
DM								



Jib Configuration: L33.8 with maximum hook reach of 96.1 ft at 30°							
Hook Reach (ft)	10.2	78.7	85.3	91.9	96.1		
Reeving	Capacities (lb)						
SM	6,614	6,614	5,997	5,478	5,181		
DM							



Jib Configuration: L31.7 with maximum hook reach of 90.6 ft at 30°						
Hook Reach (ft)	10.2	80.4	85.3	90.6		
Reeving	Capacities (lb)					
SM	6,614	6,614	6,162	5,732		
DM						



Jib Configuration: L40 of L45 with maximum hook reach of 91.5 ft at 30°								
Hook Reach (ft)	10.2	69.9	72.2	75.5	78.7	82.0	85.3	91.5
Reeving	Capacities (lb)							
SM	6,614	6,614	6,349	6,019	5,710	5,423	5,170	4,740
DM								

## Jib Configurations

L45 (148 ft / 45 m) = standard jib with two (2) jib extensions and jib nose

L40 (131 ft / 40 m) = standard jib with one (1) jib extension and jib nose

L33.8 (111 ft / 33.8 m) = standard jib with jib nose

L31.7 (104 ft / 31.7 m) = standard jib with jib nose removed

## Reeving Abbreviations

SM = 2-part line configuration with section of hookblock stowed at jib

DM = 4-part line configuration

THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE. The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.

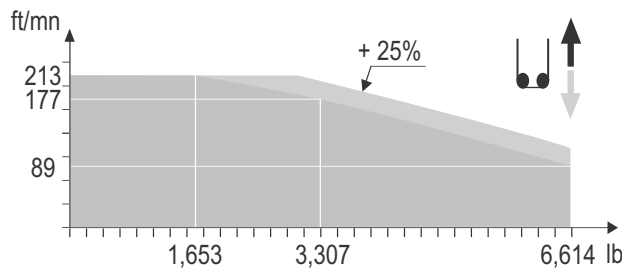
Igo T 85

# mechanical data

10

		♁					♁♁					hp	kW	
▲ ▼	20 LVF 15 Optima	ft/min	11	53	89	177	213	5	26	44	89	107	20	15
		lb	6,614	6,614	6,614	3,307	1,653	13,228	13,228	13,228	6,614	3,307		
◀▶	5 DVF 5	ft/min	49 - 98 - 180 (0 → 4,409 lb) - 49 - 98 - 131 (4,409 → 13,228 lb)										5.5	4
⦿	RVF 51 Optima +	rpm	0 → 0,8										5.5	4
◀●▶	TVF 324	ft/min	82										2 x 4	2 x 3
		CEI 38	IEC 38		kVA									
		400 V (+6% -10%) 50 Hz					20 LVF 15 : 31 kVA							
		480 V (+6% -10%) 60 Hz					20 LVF 15 : 31 kVA							

20 LVF 15 Optima



## Warning Systems

**Limit Moment Cut-Out** – Prevents a moment that is more than +10%.

## Warning

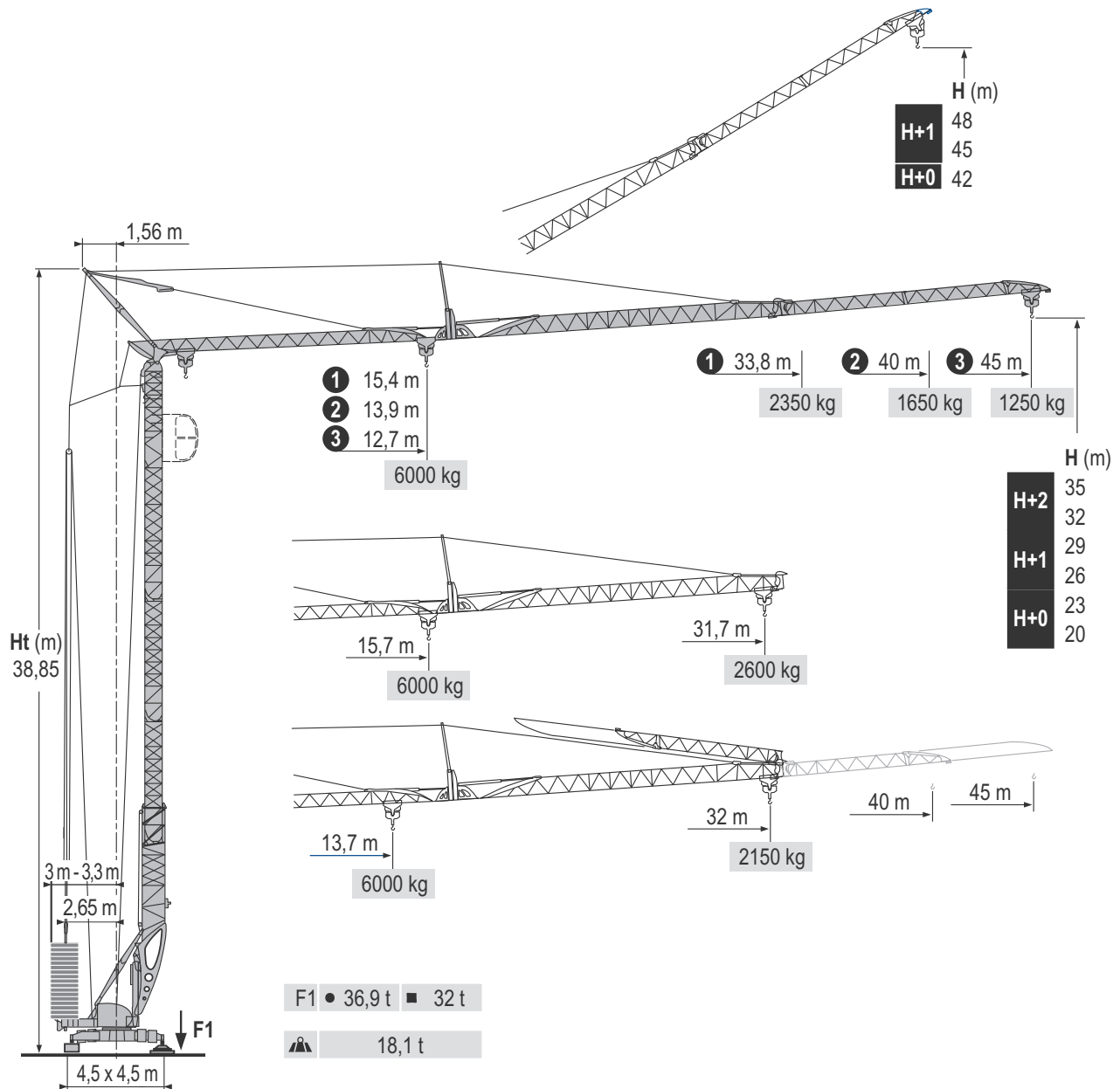
1. The operator must read and understand the owner's manual before operating this crane.
2. Positioning or operation of crane beyond areas shown is not intended or approved except where specified in owner's manual.
3. Practical working loads depend on supporting surface, wind, and other factors affecting stability such as hazardous surroundings, experience of personnel, and proper handling, all of which must be taken into account by the operator.

Igo T 85

THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE. The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.

# metric dimensions

11

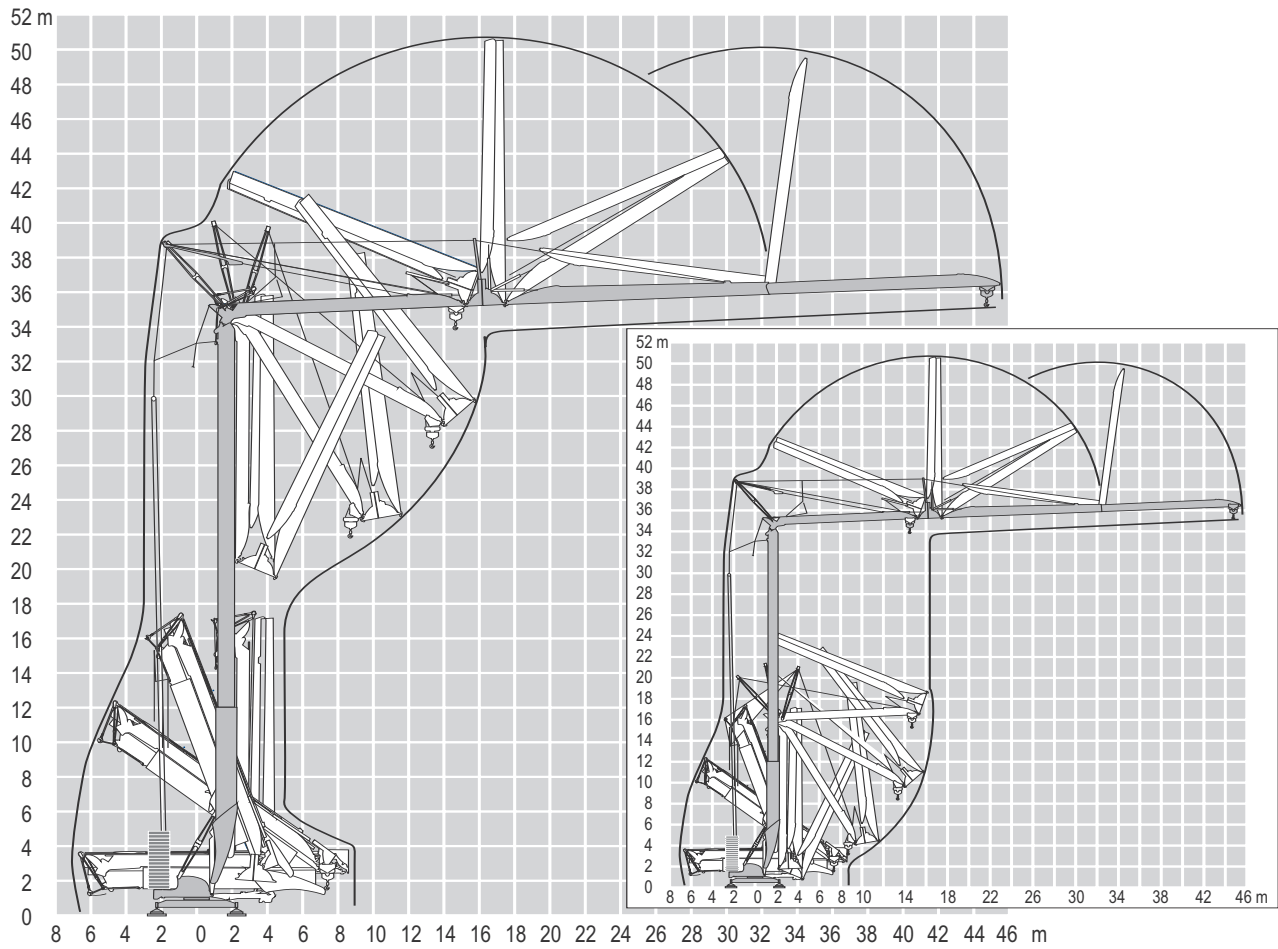


THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE. The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.

Igo T 85

# metric crane profile

12



Igo T 85

THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE. The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.

# metric load charts

13



**Jib Configuration: L45 with maximum hook reach of 45.0 m at 0°**

Hook Reach (m)	3.1	12.7	14	16	18	20	22.4	24	26	28	30	32	34	36	38	40	42	45
Reeving	Capacities (kg)																	
SM	3,000	3,000	3,000	3,000	3,000	3,000	3,000	2,760	2,500	2,285	2,100	1,935	1,795	1,670	1,555	1,460	1,370	1,250
DM	6,000	6,000	5,330	4,520	3,915	3,445	3,000	2,760	2,500	2,285	2,100	1,935	1,795	1,670	1,555	1,460	1,370	1,250



**Jib Configuration: L40 with maximum hook reach of 40.0 m at 0°**

Hook Reach (m)	3.1	13.9	16	18	20	22	24.6	26	28	30	32	34	36	38	40
Reeving	Capacities (kg)														
SM	3,000	3,000	3,000	3,000	3,000	3,000	3,000	2,805	2,565	2,355	2,180	2,020	1,885	1,760	1,650
DM	6,000	6,000	5,045	4,375	3,850	3,430	3,000	2,805	2,565	2,355	2,180	2,020	1,885	1,760	1,650



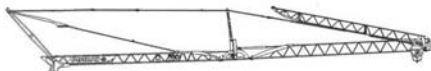
**Jib Configuration: L33.8 with maximum hook reach of 33.8 m at 0°**

Hook Reach (m)	3.1	15.4	18	20	22	24	26	27.6	30	32	33.8
Reeving	Capacities (kg)										
SM	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	2,715	2,510	2,350
DM	6,000	6,000	4,995	4,405	3,930	3,545	3,220	3,000	2,715	2,510	2,350



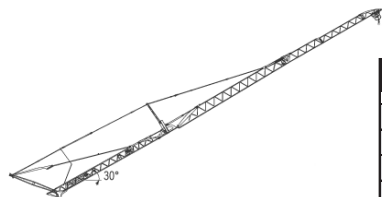
**Jib Configuration: L31.7 with maximum hook reach of 31.7 m at 0°**

Hook Reach (m)	3.1	15.7	18	20	22	24	26	28.1	30	31.7
Reeving	Capacities (kg)									
SM	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	2,780	2,600
DM	6,000	6,000	5,110	4,505	4,020	3,625	3,295	3,000	2,780	2,600



**Jib Configuration: L40 or L45 with maximum hook reach of 32 m at 0°**

Hook Reach (m)	3.1	13.7	16	18	20	22	24.3	26	28	30	32
Reeving	Capacities (kg)										
SM	3,000	3,000	3,000	3,000	3,000	3,000	3,000	2,770	2,530	2,325	2,150
DM	6,000	6,000	4,985	4,320	3,805	3,390	3,000	2,770	2,530	2,325	2,150



**Jib Configuration: L45 with maximum hook reach of 39 m at 30°**

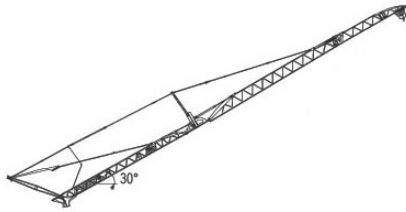
Hook Reach (m)	3.1	19.5	22	24	26	28	30	32	34	36	38	39
Reeving	Capacities (kg)											
SM	3,000	3,000	2,595	2,325	2,105	1,920	1,760	1,620	1,500	1,390	1,295	1,250
DM												

THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE. The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.

Igo T 85

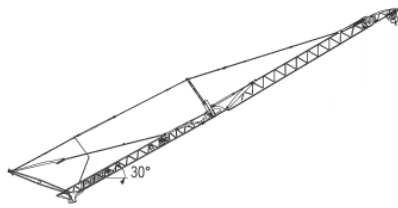
# metric load charts

14



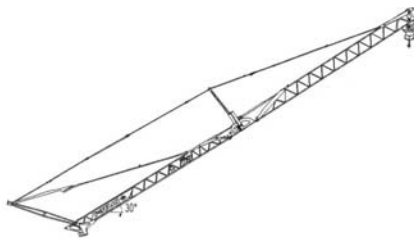
**Jib Configuration: L40 with maximum hook reach of 34.8 m at 30°**

Hook Reach (m)	3.1	21.5	24	26	28	30	32	34.8
Reeving	Capacities (kg)							
SM	3,000	3,000	2,625	2,375	2,170	1,990	1,835	1,650
DM								



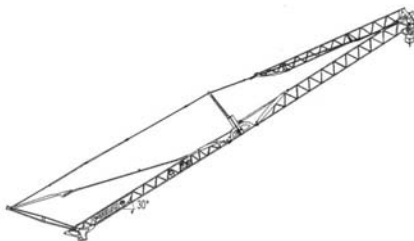
**Jib Configuration: L33.8 with maximum hook reach of 29.3 m at 30°**

Hook Reach (m)	3.1	24	26	28	29.3
Reeving	Capacities (kg)				
SM	3,000	3,000	2,720	2,485	2,350
DM					



**Jib Configuration: L31.7 with maximum hook reach of 27.6 m at 30°**

Hook Reach (m)	3.1	24.5	26	27.6
Reeving	Capacities (kg)			
SM	3,000	3,000	2,795	2,600
DM				



**Jib Configuration: L32 with maximum hook reach of 27.9 m at 30°**

Hook Reach (m)	3.1	21.3	22	23	24	25	26	27.9
Reeving	Capacities (kg)							
SM	3,000	3,000	2,880	2,730	2,590	2,460	2,345	2,150
DM								

## Jib Configurations

L45 (148 ft / 45 m) = standard jib with two (2) jib extensions and jib nose

L40 (131 ft / 40 m) = standard jib with one (1) jib extension and jib nose

L33.8 (111 ft / 33.8 m) = standard jib with jib nose

L31.7 (104 ft / 31.7 m) = standard jib with jib nose removed

## Reeving Abbreviations

SM = 2-part line configuration with section of hookblock stowed at jib

DM = 4-part line configuration


Igo T 85

THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE. The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.

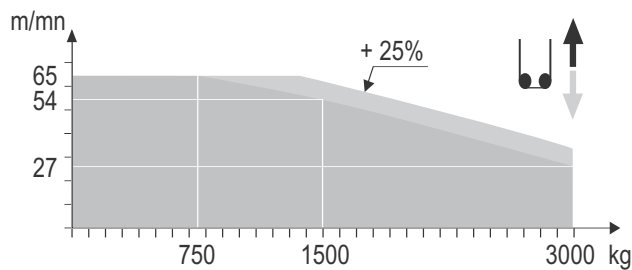
# metric mechanical data

15

		⚖					⚖					ch - PS hp	kW	
▲ ▼	20 LVF 15 Optima	m/min kg	3,2 3000	16 3000	27 3000	54 1500	65 750	1,6 6000	8 6000	13,5 6000	27 3000	32,5 1500	20	15
◀ ▶	5 DVF 5	m/min	15 - 30 - 55 (0 → 2000 kg) - 15 - 30 - 40 (2000 → 6000 kg)									5,5	4	
⦿	RVF 51 Optima +	tr/min U/min - rpm	0 → 0,8									5,5	4	
◀ ▶	TVF 324	m/min	25									2 x 4	2 x 3	

CEI 38 	IEC 38	kVA
400 V (+6% -10%) 50 Hz		20 LVF 15 : 31 kVA
480 V (+6% -10%) 60 Hz		20 LVF 15 : 31 kVA

20 LVF 15 Optima



## Warning Systems

**Limit Moment Cut-Out** – Prevents a moment that is more than +10%.

## Warning

1. The operator must read and understand the owner's manual before operating this crane.
2. Positioning or operation of crane beyond areas shown is not intended or approved except where specified in owner's manual.
3. Practical working loads depend on supporting surface, wind, and other factors affecting stability such as hazardous surroundings, experience of personnel, and proper handling, all of which must be taken into account by the operator.

THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE. The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.

Igo T 85

# symbols glossary

16



Anemometer



Hoist



Outrigger



Traveling



Ballast



Hoisting Mechanism



Reeving



Traversing Trolley



Ballasting Derrick



Hydraulic Equipment



Reeving 2-Part



Traversing Trolley & Load Diagrams



Chassis



Jib



Reeving 4-Part



Trolley



Controls



Jib Extension



Swing



Wireless Control



Electrical Requirement



Mast



Transport Axle







## Regional Headquarters

### Americas

Manitowoc, Wisconsin, USA

Tel: +1 920 684 6621

Fax: +1 920 683 6278

Shady Grove, Pennsylvania, USA

Tel: +1 717 597 8121

Fax: +1 717 597 4062

## Regional Offices

### Americas

#### Brazil

Alphaville

Tel: +55 11 3103 0200

Fax: +55 11 4688 2013

#### Mexico

Monterrey

Tel: +52 81 8124 0128

Fax: +52 81 8124 0129

### Europe, Middle East, Africa

#### Algeria

Hydra

Tel: +21 3 21 48 1173

Fax: +21 3 21 48 1454

#### Czech Republic

Netvorice

Tel: +420 317 78 9313

Fax: +420 317 78 9314

#### France

Baudemont

Tel: +33 385 28 2589

Fax: +33 385 28 0430

#### Cergy

Tel: +33 130 31 3150

Fax: +33 130 38 6085

#### Decines

Tel: +33 472 81 5000

Fax: +33 472 81 5010

#### Germany

Langenfeld

Tel: +49 21 73 8909-0

Fax: +49 21 73 8909 30

#### Hungary

Budapest

Tel: +36 13 39 8622

Fax: +36 13 39 8622

#### Italy

Parabiago

Tel: +390 331 49 3311

Fax: +390 331 49 3330

### Europe, Middle East, Africa

Ecully, France

Tel: +33 472 18 2020

Fax: +33 472 18 2000

#### Netherlands

Breda

Tel: +31 76 578 3999

Fax: +31 76 578 3978

#### Poland

Warsaw

Tel: +48 22 843 3824

Fax: +48 22 843 3471

#### Portugal

Alfena

Tel: +351 229 69 8840

Fax: +351 229 69 8848

Lisbon

Tel: +351 212 109 340

Fax: +351 212 109 349

#### Russia

Moscow

Tel: +7 495 641 2359

Fax: +7 495 641 2358

#### U.A.E.

Dubai

Tel: +971 4 3381 861

Fax: +971 4 3382 343

#### U. K.

Middlesex

Tel: +44 1 895 43 0053

Fax: +44 1 895 45 9500

Sunderland

Tel: +44 191 522 2000

Fax: +44 191 522 2052

### Asia – Pacific

#### Australia

Brisbane

38 Suscatand Street

Rocklea Queensland 4106

Tel: +617 3274 5879

Fax: +617 3274 6558

Melbourne

1/46 Venture Drive

Sunshine West VIC 3020

Tel: +(03) 9336 1322

Fax: +(03) 9336 1300

### Asia – Pacific

Shanghai, China

Tel: +86 21 51113579

Fax: +86 21 51113578

Singapore

Tel: +65 6264 1188

Fax: +65 6862 4142

#### China

Beijing

Tel: +86 10 58674761

Fax: +86 10 58674760

Xi'an

Tel: +86 29 87891465

Fax: +86 29 87884504

#### Korea

Seoul

Tel: +82 2 3439 0400

Fax: +82 2 3439 0405

#### Philippines

Makati City

Tel: +63 2 844 9437

Fax: +63 2 844 4712

#### Factories

Brazil

Alphaville

China

Zhangjiagang

France

Charlieu

La Clayette

Moulins

Germany

Wilhelmshaven

India

Calcutta

Pune

Italy

Niella Tanaro

Portugal

Baltar

Fânzeres

Slovakia

Saris

U.S.A.

Manitowoc

Port Washington

Shady Grove

Constant improvement and engineering progress make it necessary that we reserve the right to make specification, equipment and price changes without notice. Illustrations shown may include optional equipment and accessories, and may not include all standard equipment.