



Powerful Synergies



# COPMA<sup>®</sup>

650

TOP RANGE  
MODEL

# COPMA 650

Performance & Power

**650 HAS COMPACT DIMENSIONS  
AND OPTIMIZED WEIGHTS WITH A  
CUSTOMIZED DESIGN FOR MORE  
POWER AND RELIABILITY AT  
EVERY OPERATOR NEED.**

- **TOP RANGE - HEAVY RANGE model, load category - 60 Ton/Mt**
- **High tensile strength steel**
- **Efficient safety system**
- **Reliability, speed and precision**
- **Extra long working life cycle**
- **Easier maintenance operations**





**THE MOST  
POWERFUL  
CRANE FOR  
THE TOUGHEST  
MARKETS**

# **COPMA 650**

**More Safety & Security**

**DESIGNED WITH THE HIGHEST  
HYDRAULIC SYSTEMS AND THE  
TOUGHEST STRUCTURAL STEEL  
TO PERFORM THE MAXIMUM  
LIFTING CAPACITY.**

- **Superior Hydraulic Technology**
- **Dynamic Electronic Controls**
- **High Degree of User Friendliness**
- **Efficiency and Reliability thanks to superior structural features**
- **More Efficiency with advanced electronic controls**





**DESIGNED  
FOR FLEXIBLE  
SERVICES**

# COPMA 650

## Technical Features

**CUTTING EDGE FEATURES  
FOR MAXIMUM LIFTING  
POWER, STABILITY AND  
OPERATIONAL SAFETY IN EVERY  
WORKING CONDITION.**

### Standard features

- easy use



- control



- structure



### optional features

- control



\*CEversion  
OPT. for NO CE version





## High Speed Extension

Hydraulic system for reducing load losses and bottlenecks for the correct output sequence of the extensions by increasing the speed of 30%-60% thanks to the regenerative valve. Greater continuous performance thanks to lower fluid temperature.



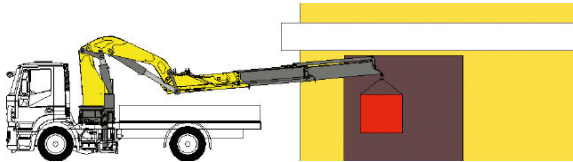
## Transport Alert Device

Sensors on the basement guarantee the correct closing of the beams and a column switch sensor indicates if the crane is in a folded position, no more than 4 Mt in height. The operator is warned with light and sound signals in the truck cabin.



## Negative Boom System

The linkage on the articulation of the secondary boom permits the introduction of loads within restricted spaces. It enables the recovery of the deflection of the extension boom group due to the weight and the load raised on the extensions.



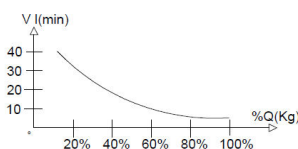
## Crane Monitoring System 2.0

Crane stability control system TES2-TES3 with safety and overload controls and HPVE lifting speed management. Active control on 4-8 working areas according to the model and vehicle stability requirements.



## High Power Velocity Electronic

A valve electronically manages the flow of oil to the distributor by increasing the load capacity of the crane and intervening on the lifting speed. Allowing the reduction of dynamic effects while optimizing performance.



## Electronic Radio Display

A display on the remote control allows the operator to maintain the total control of all the crane functions in real time by managing the work mode, the stability control, and oversee any maintenance and diagnostic messages.



## Hydraulic Lifting Stabilizers 2.0

The stabilizer cylinder is lifted thanks to an auxiliary jack, allowing the vertical movement inside a bush or a rotation around a pin. This easy use system saves time and allows an efficient stabilizer set up.



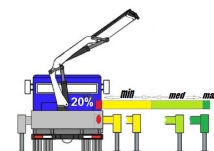
## Radio Remote Control 3.0

Radio control with directly flanged actuation electronics with proportional distribution. The remote control allows operating the crane while constantly monitoring the areas of operation.



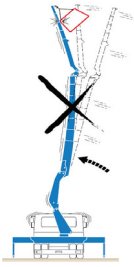
## Truck Electronic Stability 3.0

Active stability control for performance optimization according to the type of stabilization to guarantee maximum safety in all working conditions. Mandatory in the CE market, it helps a better vehicle-crane configuration.



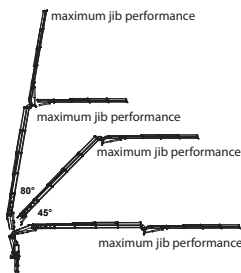
**NCS**  
control  
**Negative Control System**

Slope sensors mounted on the articulated booms of the crane, combined with the electronic control, manage the maximum vertical angle of the arms and the JIB preventing incorrect or dangerous movements by the operator.



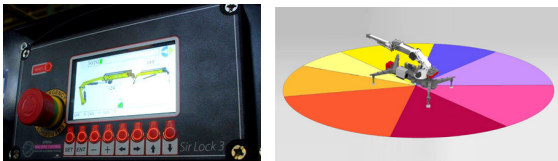
**PJM**  
control  
**Power Jib Monitoring**

The PJM system guarantees to operate with the maximum performance in every working condition thanks to a dynamic variation of the maximum pressure according to the crane arm angles.



**CMS 3.0**  
control  
**Crane Monitoring System 3.0**

Crane stability control system TES2-TES3, with safety and overload controls medium high-range crane and HPVE lifting speed management. Active control on 4-8 working areas according to the model and vehicle stability requirements.



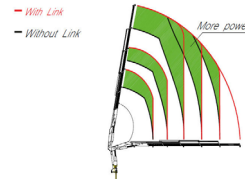
**CRC 4.0**  
control  
**COPMA® Remote Connectivity 4.0**

COPMA® 4.0 remote connectivity to the crane. Bidirectional communication via GPRS for real-time diagnosis and remote setting and / or adjustment of parameters in real time.



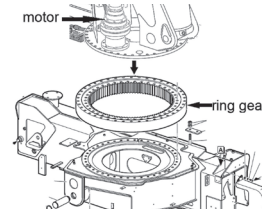
**CCLS**  
structure  
**Constant Control Link**

The cranes equipped with connecting rods on the articulations, with a constant lifting moment over the entire working arc, allow to 100% optimize the crane's capacity in positions close to the maximum vertical.



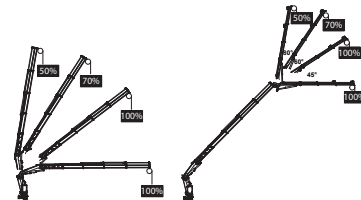
**RES 1.0**  
structure  
**Rotation Endless System 1.0**

A rotating bearing and one gearbox system, the electric wires are linked between base-column with a swivel electrical-hydraulic joint. Allows operator to gain maximum power also at the slowest operational speed and having the highest precision.



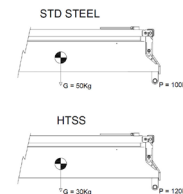
**WLC**  
control  
**Winch Linear Control**

The winch linear electronic control allows pulling the rope according to the working angle of the crane and the JIB. It optimizes the load control and makes every movement easier and safer.



**HTSS**  
structure  
**High Tensile Strength Steel**

The entire high-strength steel structure thanks to an advanced FEM engineering process, develops an extraordinarily light and performing crane structure. In the perfect balance between maximum performance and operational safety.

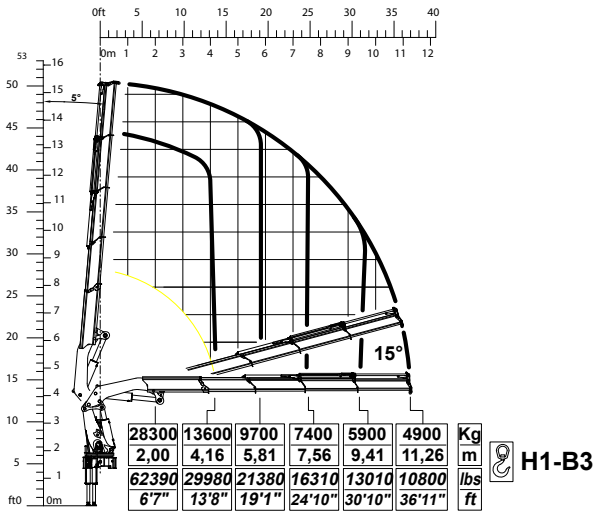




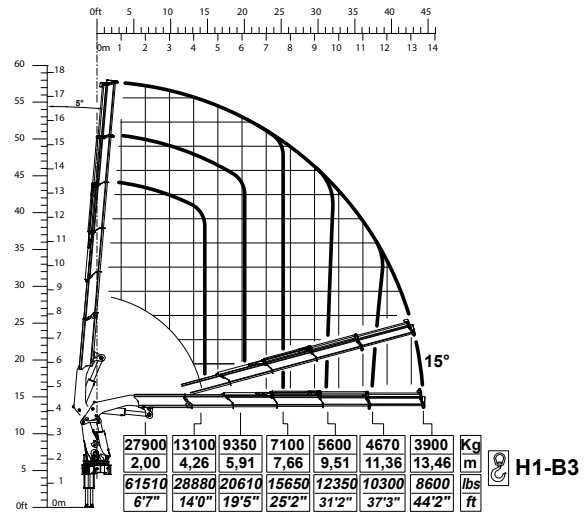
# 650 TOP RANGE

## Load Charts

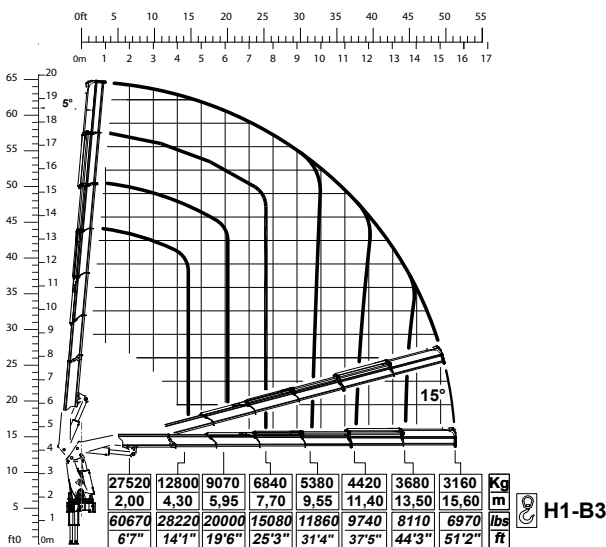
4 extensions



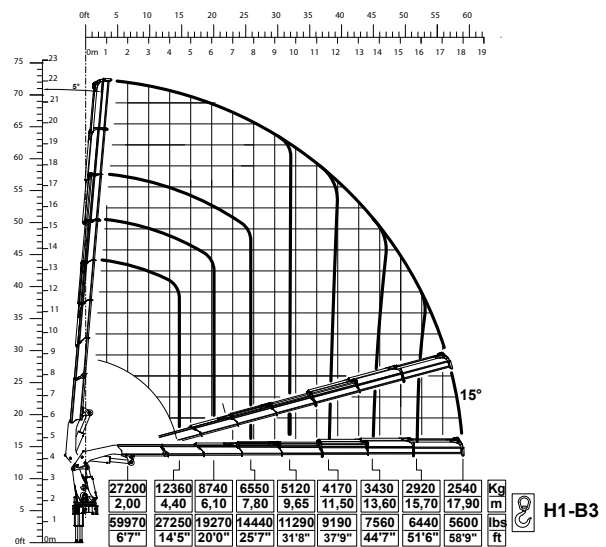
5 extensions



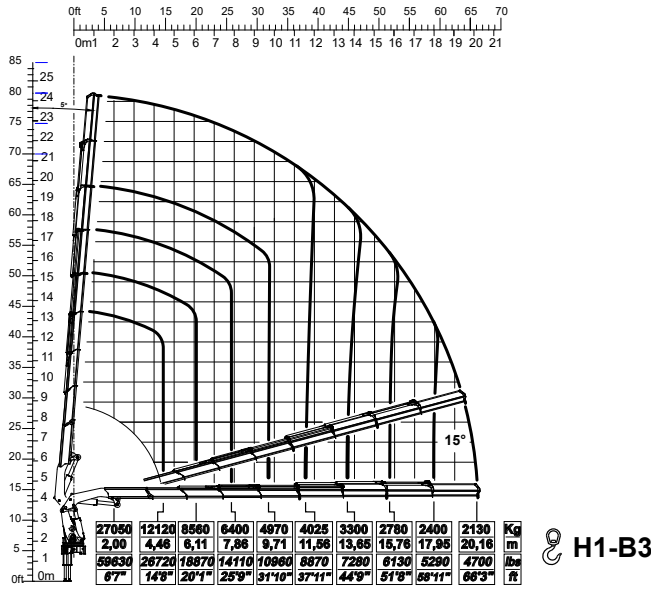
6 extensions



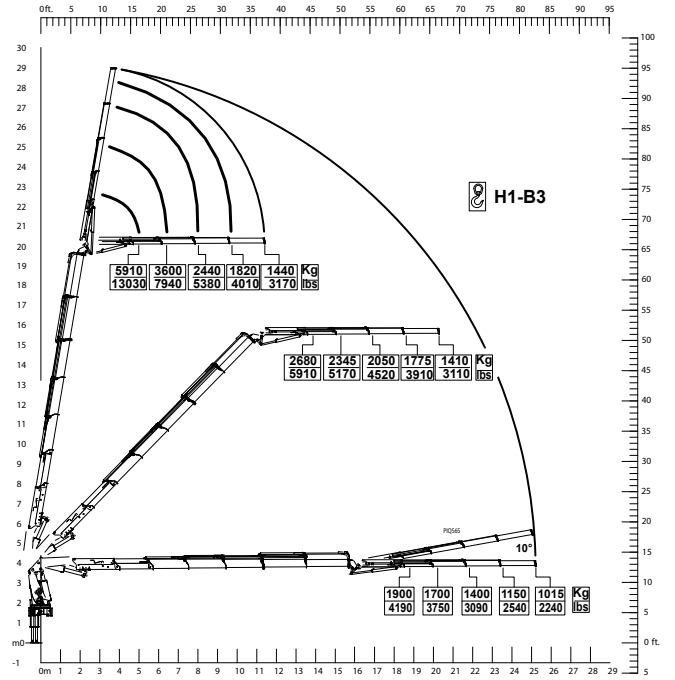
7 extensions



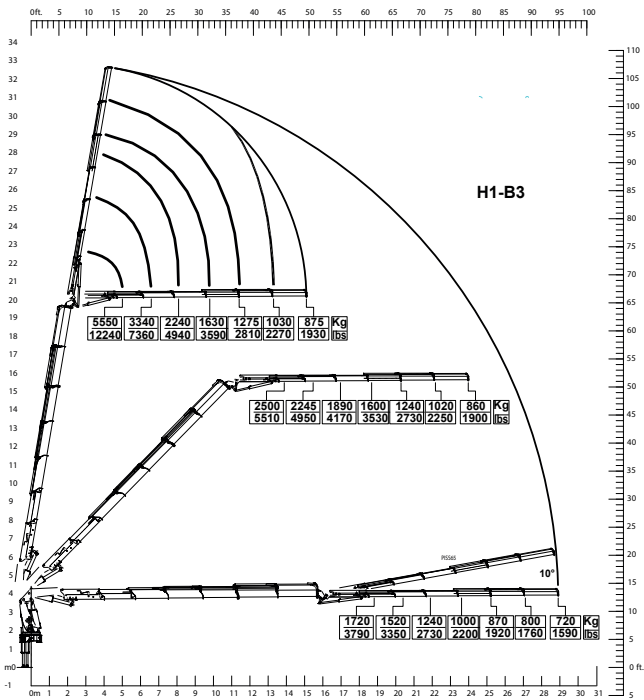
8 extensions



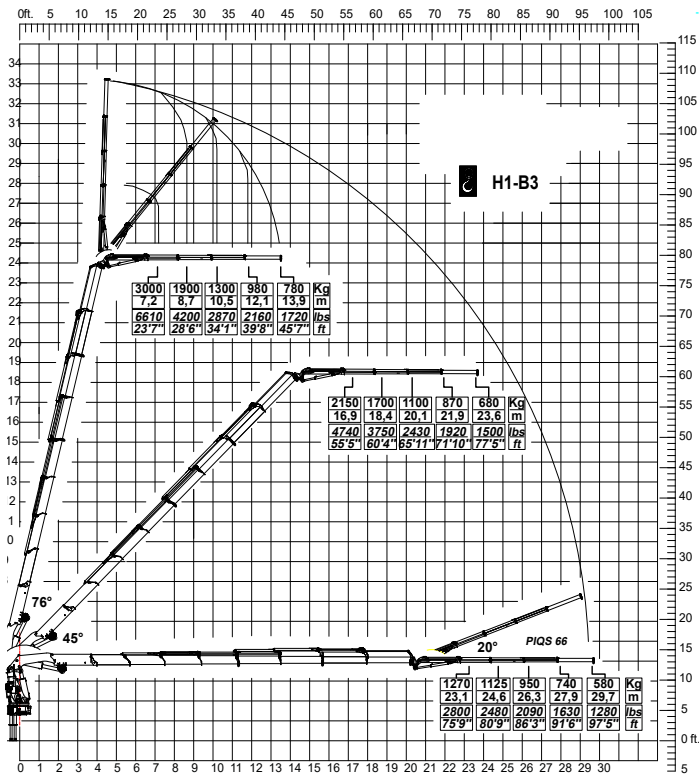
650.6 + J4



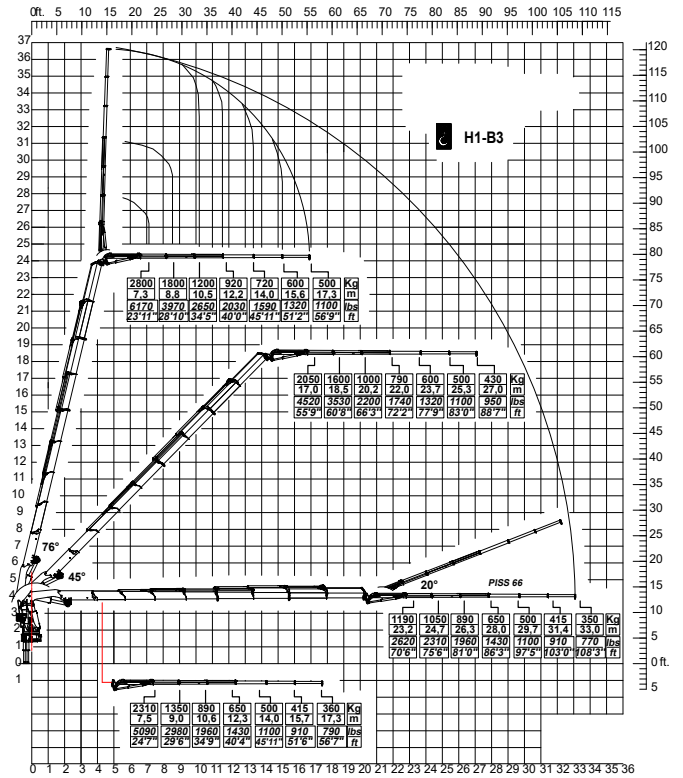
650.6 + J6



650.8 + J4



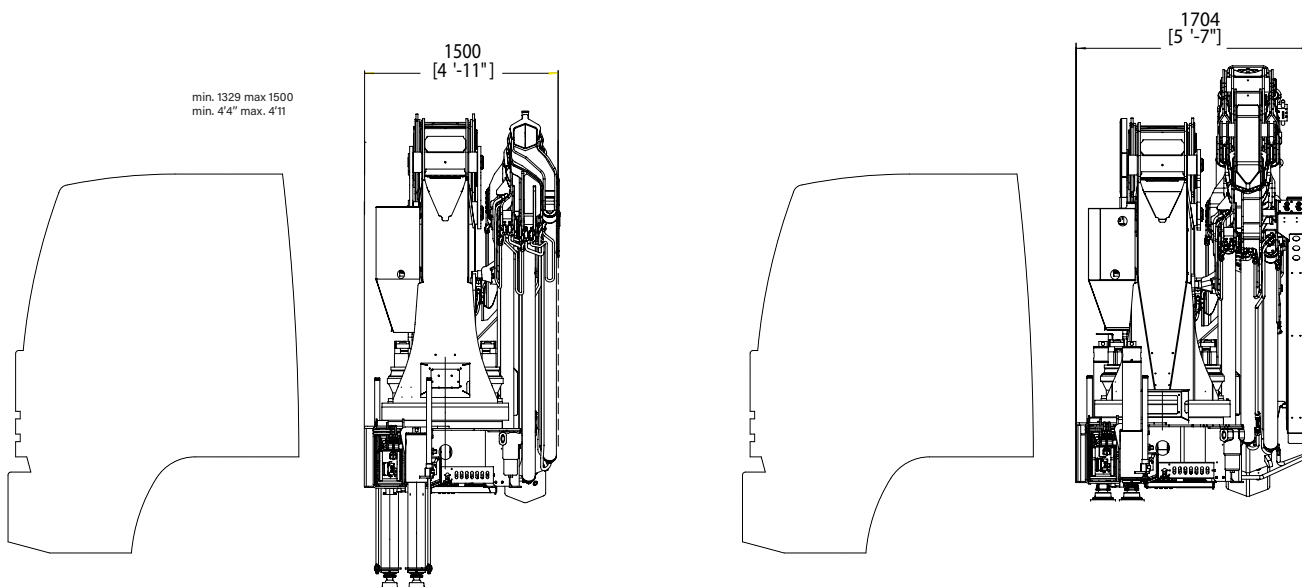
650.8 + J6



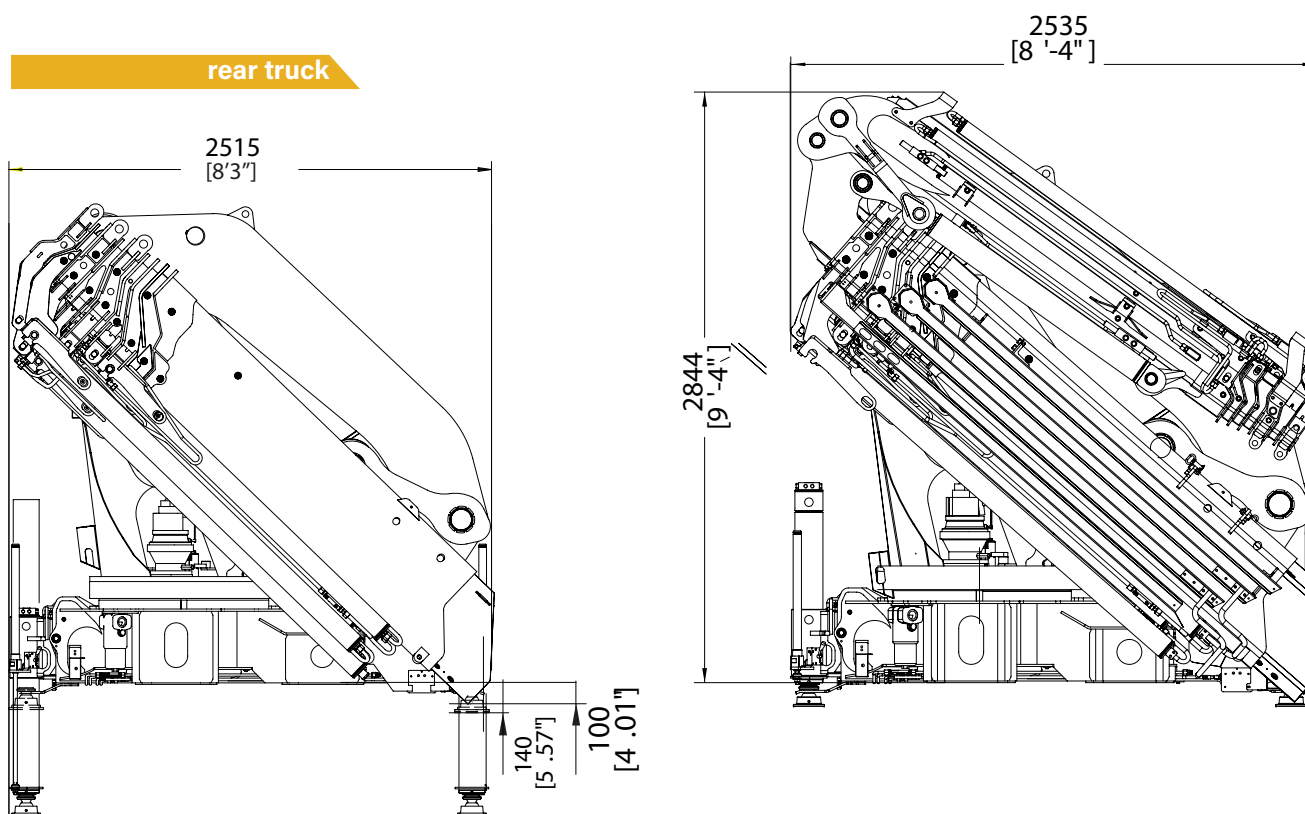
# 650 TOP RANGE

## Crane Dimensions

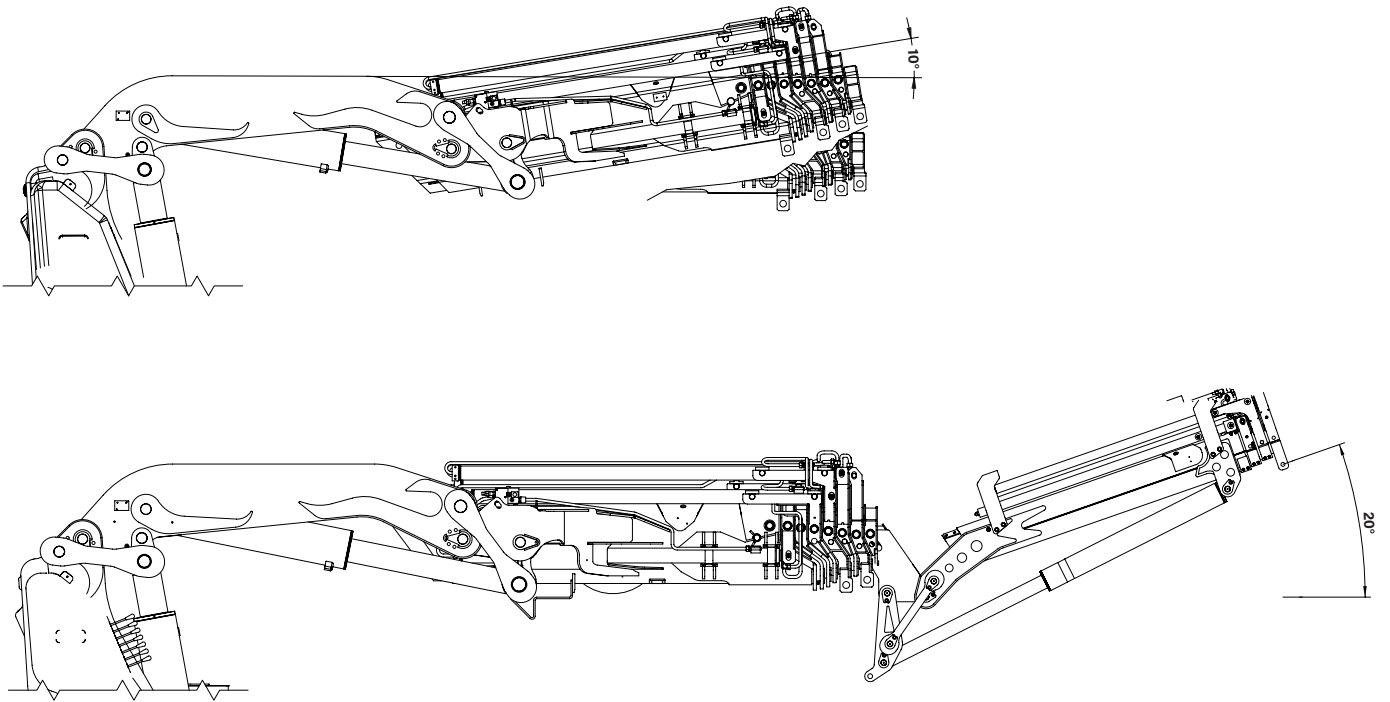
### back cabin left



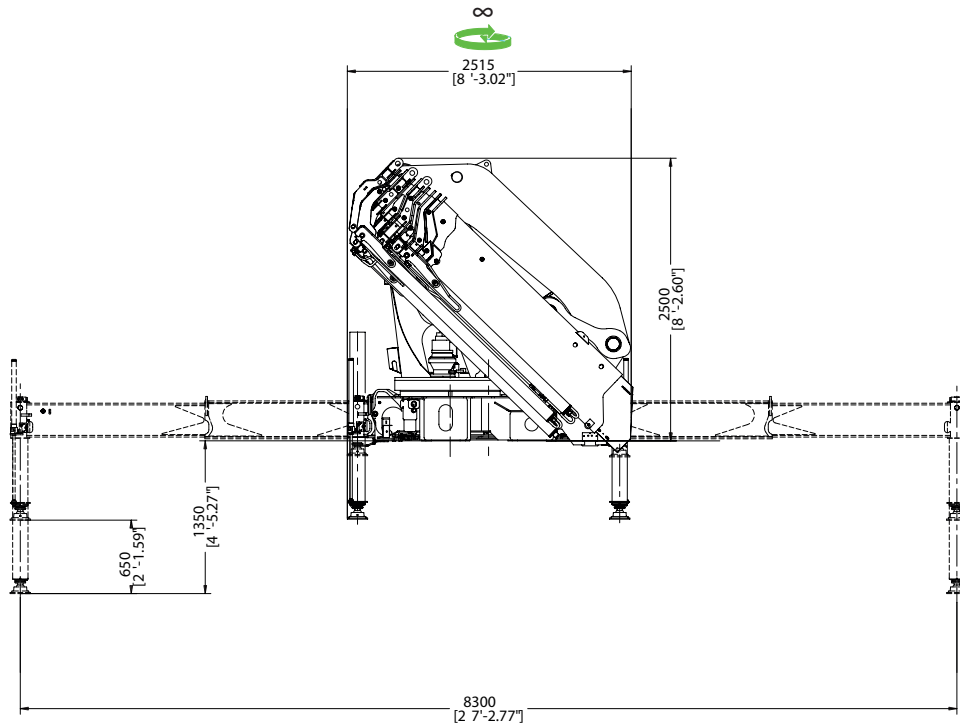
### rear truck



operational



extended outriggers












\* Note: technical features are not binding, the company reserves itself the right to any modification without notice












# 650 TOP RANGE

## Technical Data

### summarized data

	 kN.m	 bar	 l/min	 kg	 °	 mm	 mm	 mm	 mm
650.4	555	330	70	6280	∞	2515	1500	2470	8300
650.5	548	330	70	6520	∞	2515	1500	2470	8300
650.6	540	330	70	6770	∞	2515	1500	2470	8300
650.6j4	540	330	70	7695	∞	2535	1700	2844	8300
650.6j6	540	330	70	7875	∞	2535	1700	2844	8300
650.7	533	330	70	6700	∞	2515	1500	2500	8300
650.8	530	330	70	7100	∞	2515	1500	2500	8300
650.8j4	530	330	70	7675	∞	2515	1700	2844	8300
650.8j6	530	330	70	7760	∞	2515	1700	2844	8300

### summarized data

	 lbs.ft	 psi	 gal/min	 lbs	 °	 ft/inc	 ft/inc	 ft/inc	 ft/inc
650.4	401431	4785	18.4	13840	∞	8'3"	4'11"	8'11"	27'3"
650.5	396368	4785	18.4	14370	∞	8'3"	4'11"	8'11"	27'3"
650.6	390582	4785	18.4	14930	∞	8'3"	4'11"	8'11"	27'3"
650.6j4	390582	4785	18.4	16960	∞	8'4"	5'7"	9'4"	27'3"
650.6j6	390582	4785	18.4	17360	∞	8'4"	5'7"	9'4"	27'3"
650.7	385518	4785	18.4	15210	∞	8'3"	4'11"	8'2"	27'3"
650.8	383349	4785	18.4	15650	∞	8'3"	4'11"	8'11"	27'3"
650.8j4	383349	4785	18.4	16921	∞	8'3"	5'7"	9'4"	27'3"
650.8j6	383349	4785	18.4	17110	∞	8'3"	5'7"	9'4"	27'3"

### technical data

Max. lifting moment	555 kNm	401431 ft.lbs
Max. hydraulic outreach	20,16m	66'3"
Slewing angle	∞	∞
Slewing torque	6400 daNm	46291 ft.lbs
Stabilizer spread	8,3 mt	27'3"
Fitting space required (min./max)	1.33m/ 1.70m	4'4"/5'7"
Width folded	2,52 m	8'3"
Max. operating pressure	330 bar	4785 psi
Recommended pump capacity	70 l/min	18.4 US gal./min
Dead weight (vers. 3)	6060 kg	13375 lbs

\* Note: technical features are not binding, the company reserves itself the right to any modification without notice





**SUPERIOR  
RELIABILITY  
FOR EVERY  
OPERATOR**



# COPMA 650



knuckle  
boom  
cranes



Powerful Synergies



**CPS**



**CPS  
STEEL**

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ISO 9001:2008

