

# Performance & Power

# 510 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 50 Ton/Mt
- High tensile strength steel
- Efficient safety system
- Reliability, speed and precision
- Extra long working life cycle
- Easie<mark>r maintenance operations</mark>



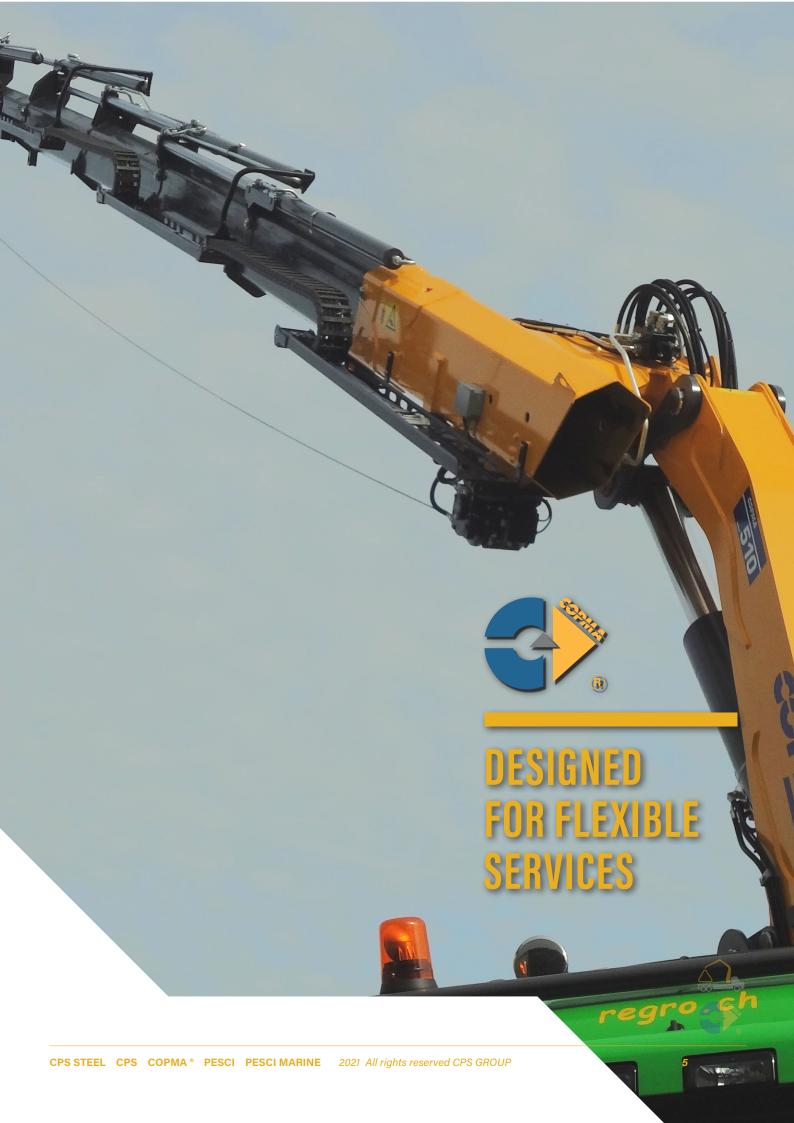


# More Safety & Security

# 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





# Technical Features

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

### Standard features

easy use

HSE easy use

ERD easy use

HLS 2.0 easy use HPVh easy use

control

TAD

CMS 2.0 control TES 3.0 control NCS

RRC 3.0 control

structure



CCLS



### optional features

control



CMS 3.0 control





\*CEversion OPT. for NO CE version





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.



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.







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.



### 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.







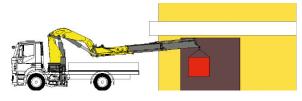
The linkage on the articulation of the secondary boom permits the introduction of loads within restricted spaces. It enables the recovery of the deflection of the extension boom group due to the weight and the load raised on the extensions.



### 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.





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.





# Truck Electronic Stability 3.0

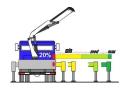
Active stability control for performance optimization according to the type of stabilization to guarantee maximum safety in all working conditions. Mandatory in the CE market, it helps a better vehicle-crane configuration.















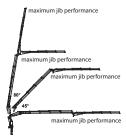
Slope sensors mounted on the articulated booms of the crane, combined with the electronic control, manage the maximum vertical angle of the arms and the JIB preventing incorrect or dangerous movements by the operator.





### Power Jib Monitoring

The PJM system quarantees 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.





## Crane Monitoring System

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.

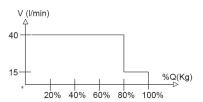






## Velocity Hydraulic

Fully automatic hydraulic system for adjusting the crane lifting speed according to the maximum working pressure. With this system, the load capacity of the machine is optimized by reducing the dynamic structural effects.





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.





## **Rotation Endless** System

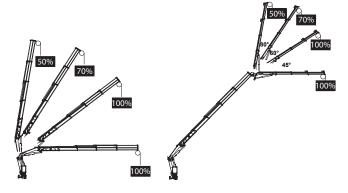
A rotating bearing and one gearbox system, the electric wires are linked between base-column with a swivel electricalhydraulic joint. Allows operator to gain maximum power also at the slowest operational speed and having the highest precision.





### Winch Linear Control

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





### Remote Connectivity 4.0

COPMA® Remote Connectivity 4.0 to the crane. Two-way communication by GPRS for real-time diagnosis and remote real-time parameter setting and/or adjustment.





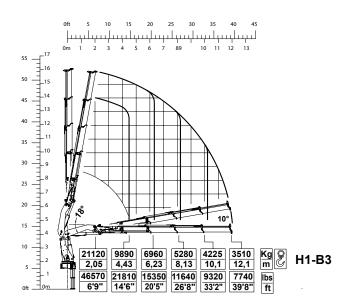
# 510 TOP RANGE

## **Load Charts**

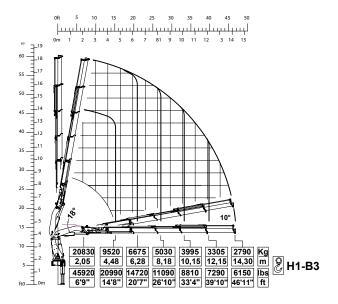
### 3 extensions

# Off 5 10 15 20 25 30 35 40 Om 1 2 3 4 5 6 7 8 91 10 11 2 45 14 45 13 40 12 35 11 30 9 25 8 25 8 27 20 6 6 7 20 6 7 30 9 9 25 8 27 20 10 10 11 2 47620 22590 434 8,07 10,01 mm 10 m

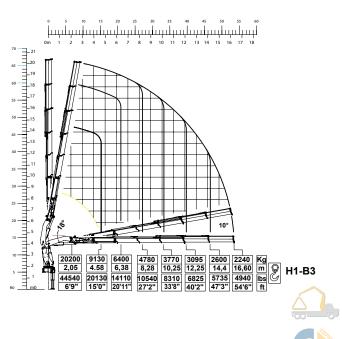
### 4 extensions



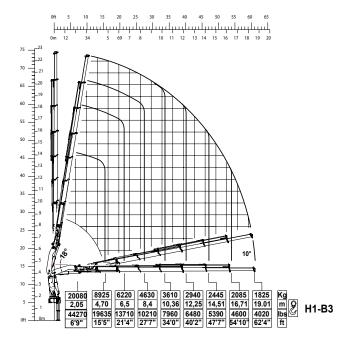
### 5 extensions



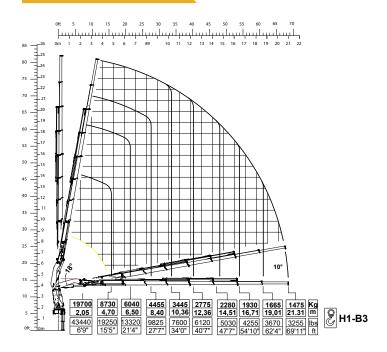
### 6 extensions



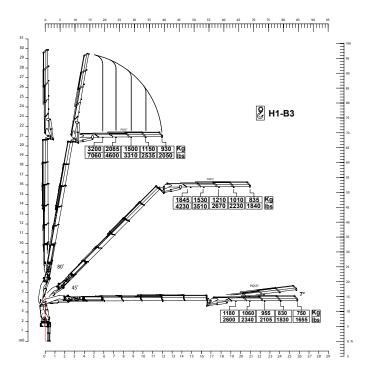
### 7 extensions



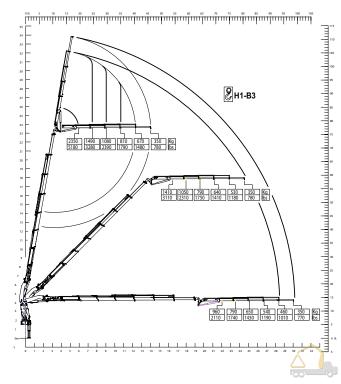
### 8 extensions



### 510.6 + J4



### $510.7 \pm 14$

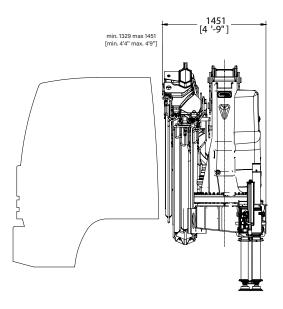


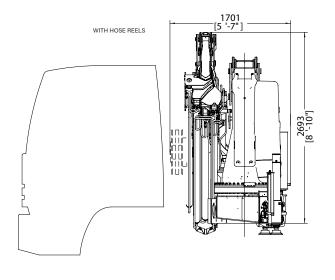


# 510 TOP RANGE

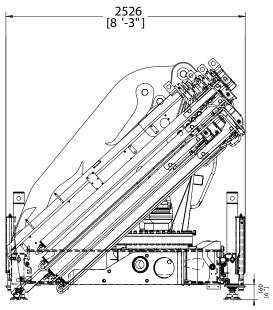
# Crane Dimensions

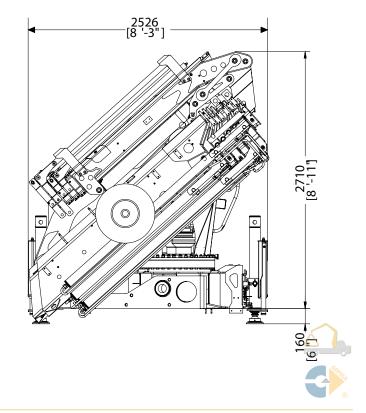
back cabin left



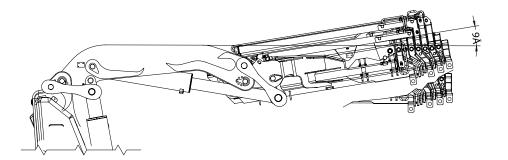


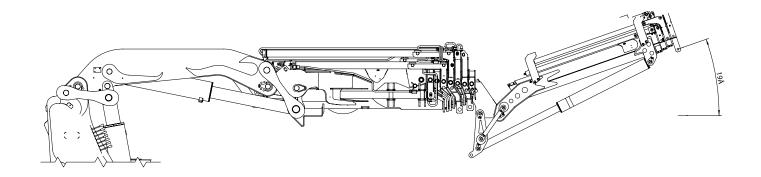
# rear truck

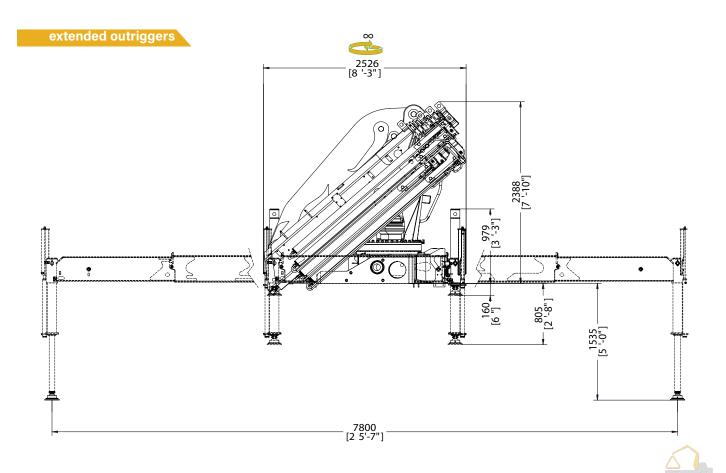


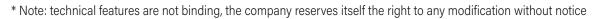


### operational









# 510 TOP RANGE

# Technical Data

### summarized data

|         | 1    |     |       | <u> </u> |   |      |      |      |      |
|---------|------|-----|-------|----------|---|------|------|------|------|
|         | kN.m | bar | l/min | kg       | 0 | mm   | mm   | mm   | mm   |
| 510.3   | 437  | 325 | 70    | 4960     | ∞ | 2525 | 1329 | 2349 | 7800 |
| 510.4   | 429  | 325 | 70    | 5140     | ∞ | 2525 | 1329 | 2349 | 7800 |
| 510.5   | 418  | 325 | 70    | 5300     | ∞ | 2525 | 1345 | 2349 | 7800 |
| 510.6   | 411  | 320 | 70    | 5480     | ∞ | 2525 | 1437 | 2349 | 7800 |
| 510.6J4 | 411  | 320 | 70    | 6360     | ∞ | 2525 | 1570 | 2800 | 7800 |
| 510.7   | 410  | 320 | 70    | 5540     | ∞ | 2525 | 1451 | 2388 | 7800 |
| 510.7j3 | 410  | 320 | 70    | 6070     | ∞ | 2525 | 1701 | 2710 | 7800 |
| 510.7j4 | 410  | 320 | 70    | 6135     | ∞ | 2525 | 1701 | 2710 | 7800 |
| 510.8   | 402  | 320 | 70    | 5670     | ∞ | 2525 | 1451 | 2388 | 7800 |

|         | 1      |      |         |       |   |        |        |        |        |
|---------|--------|------|---------|-------|---|--------|--------|--------|--------|
|         | lbs.ft | psi  | gal/min | lbs   | 0 | ft/inc | ft/inc | ft/inc | ft/inc |
| 510.3   | 310299 | 4712 | 18.4    | 10912 | ∞ | 8'3"   | 4'4"   | 7'8"   | 25′7″  |
| 510.4   | 310802 | 4712 | 18.4    | 11308 | ∞ | 8'3"   | 4'4"   | 7'8"   | 25′7″  |
| 510.5   | 302918 | 4712 | 18.4    | 11680 | ∞ | 8'3"   | 4'5"   | 7'8"   | 25′7″  |
| 510.6   | 297566 | 4640 | 18.4    | 12056 | ∞ | 8'3"   | 4'8"   | 7'8"   | 25′7″  |
| 510.6J4 | 297566 | 4640 | 18.4    | 13996 | ∞ | 8'3"   | 5'2"   | 7'8"   | 25′7″  |
| 510.7   | 296625 | 4640 | 18.4    | 12188 | ∞ | 8'3"   | 4'9''" | 7'10"  | 25′7″  |
| 510.7j3 | 296625 | 4640 | 18.4    | 13356 | ∞ | 8'3"   | 5′7″   | 8'11"  | 25′7″  |
| 510.7j4 | 296625 | 4640 | 18.4    | 13500 | ∞ | 8'3"   | 5′7″   | 8'11"  | 25′7″  |
| 510.8   | 291128 | 4640 | 18.4    | 12474 | ∞ | 8'3"   | 4'9"   | 7′10″  | 25′7″  |

### technical data

| BA 1161                           | 40711         | 040000 6 11      |  |
|-----------------------------------|---------------|------------------|--|
| Max. lifting moment               | 437 kNm       | 316299 ft.lbs    |  |
| Max. hydraulic outreach           | 21,31 m       | 69'11"           |  |
| Slewing angle                     | ∞             | ∞                |  |
| Slewing torque                    | 5500 daNm     | 23652 ft.lbs     |  |
| Stabilizer spread                 | 7,8 mt        | 25′7″            |  |
| Fitting space required (min./max) | 1,33 m/1,70 m | 4'9"/5'7"        |  |
| Width folded                      | 2,53 m        | 8'3"             |  |
| Max. operating pressure           | 325 bar       | 4640 psi         |  |
| Recommended pump capacity         | 70 l/min      | 18,4 US gal./min |  |
| Dead weight (vers. 4)             | 4960 kg       | 10912 lbs        |  |



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









knuckle boom cranes



**Powerful Synergies** 



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