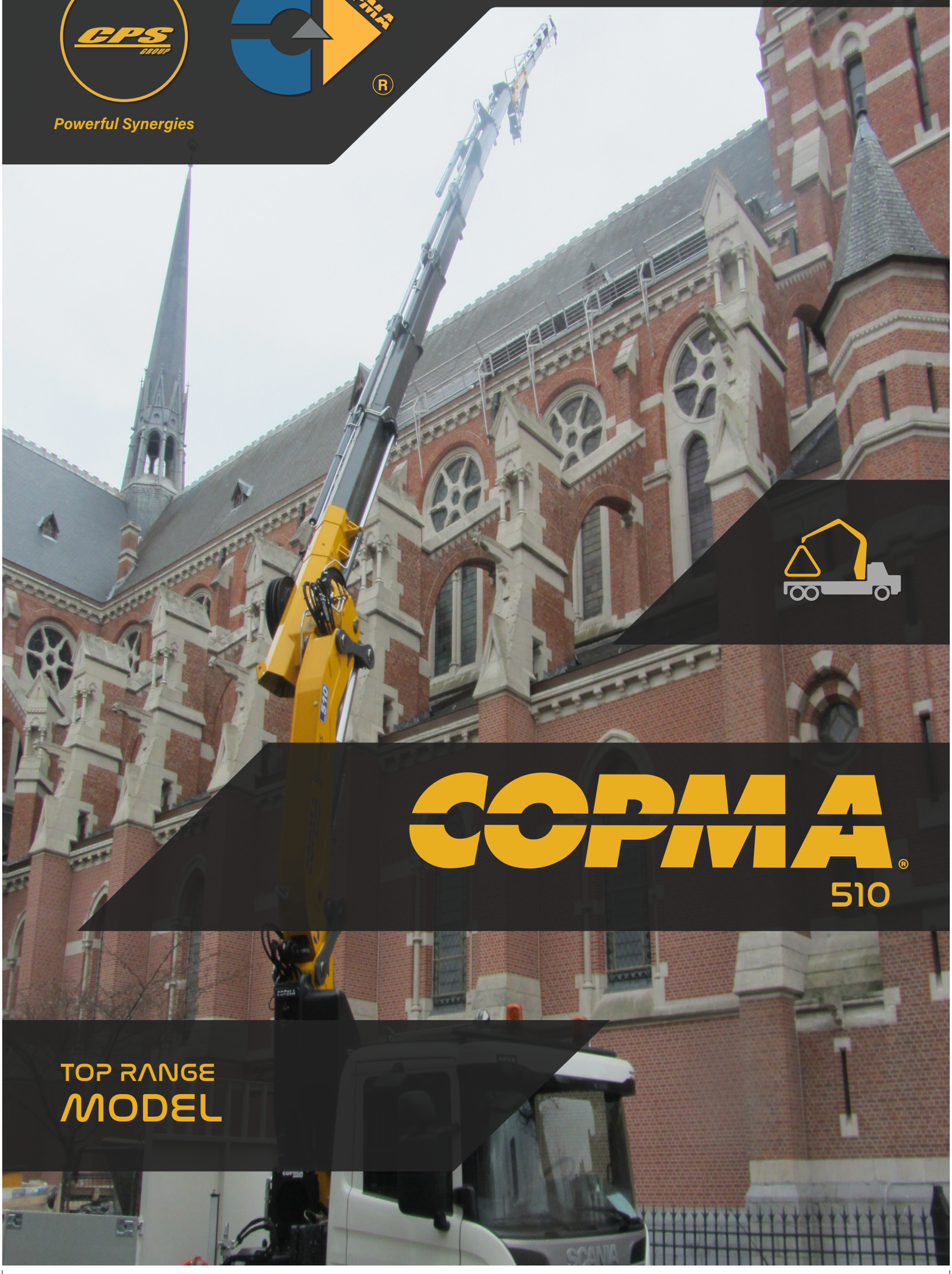
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Powerful Synergies



COPMA®

510

TOP RANGE
MODEL

COPMA 510

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**
- **Easier maintenance operations**

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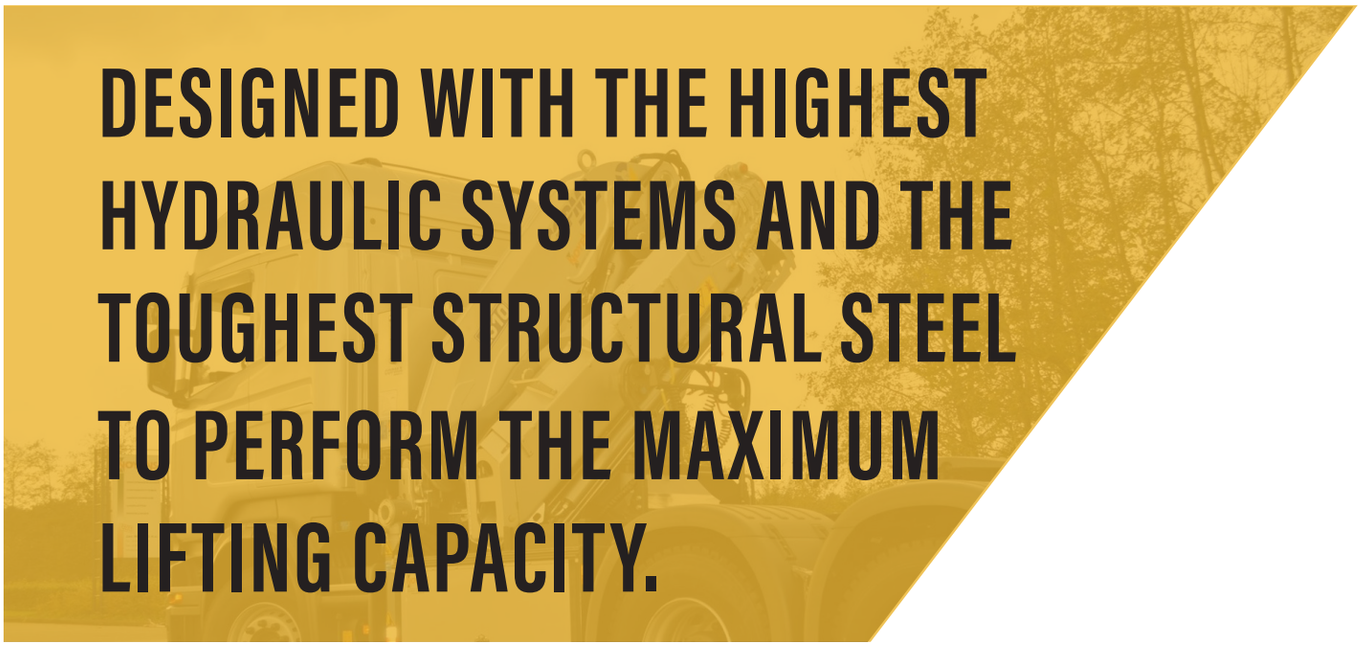


THE MOST POWERFUL CRANE FOR THE TOUGHEST MARKETS

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COPMA 510

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**

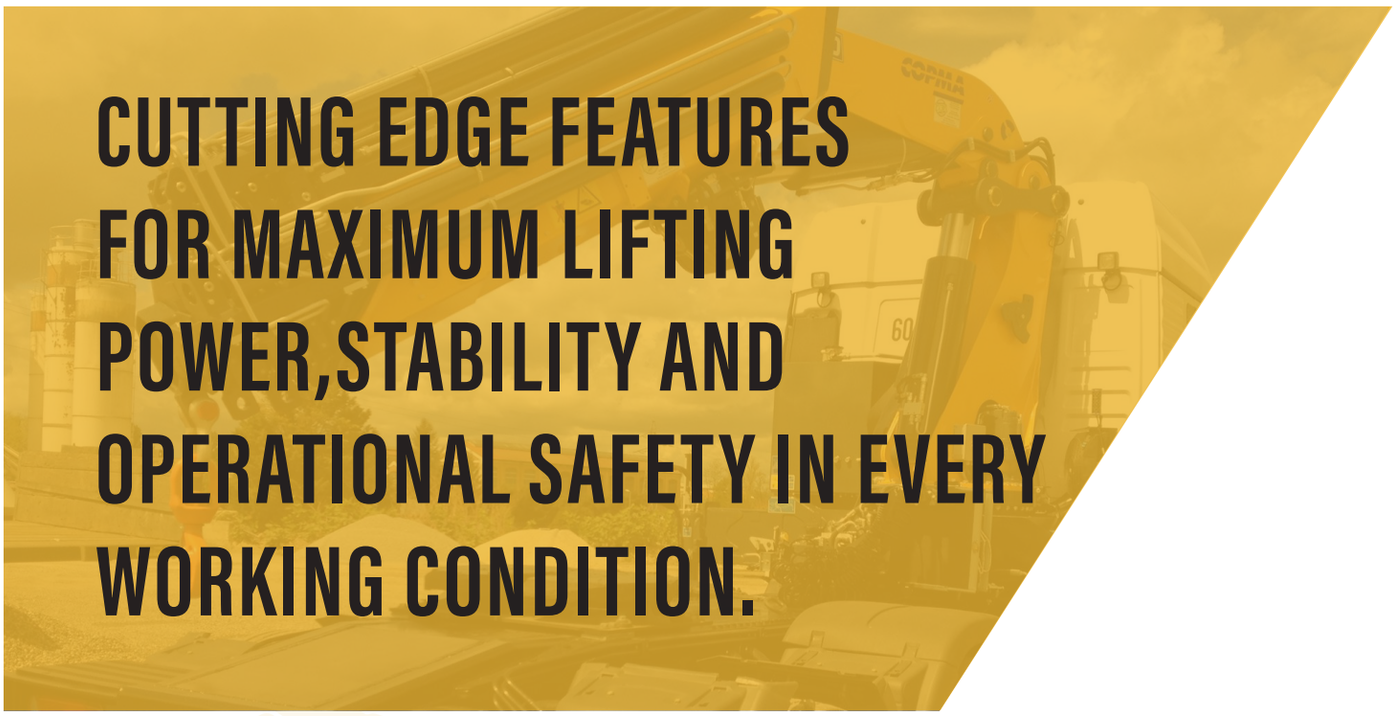
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DESIGNED FOR FLEXIBLE SERVICES

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COPMA 510
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 control | * CMS 2.0 control | * TES 3.0 control | * NCS control | RRC 3.0 control

- **structure**

RES 1.0 structure | CCLS structure | NBS structure

optional features

- **control**

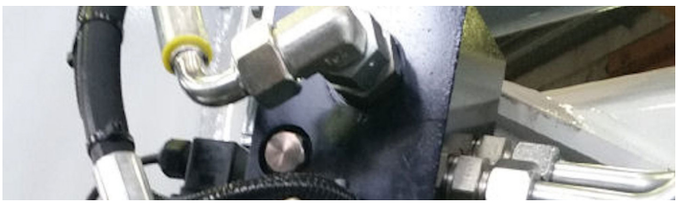
* WLC control | * CMS 3.0 control | CRC 4.0 control

*CEversion
OPT. for NO CE version

CPS STEEL CPS COPMA ® PESCI PESCI MARINE All rights reserved CPS GROUP

HSE easy use — 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.



ERD easy use — 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.



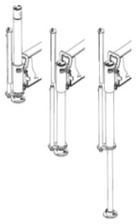
TAD control — Transport Alert Device

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.



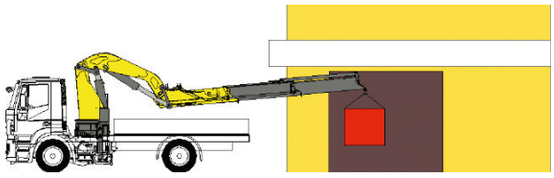
HLS 2.0 easy use — Hydraulic Lifting Stabilizers 2.0

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.



NBS structure — 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.



RRC 3.0 control — Radio Remote Control 3.0

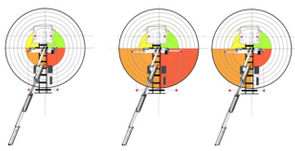
Radio control with directly flanged actuation electronics with proportional distribution.
The remote control allows operating the crane while constantly monitoring the areas of operation.



CMS 2.0 control — Crane Monitoring System 2.0

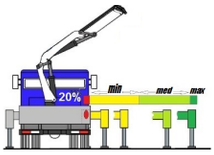
Crane stability control system TES2-TES3 with safety and overload controls and HPVE lifting speed management. Active control on 4-8 working areas according to the model and vehicle stability requirements.





TES 3.0 control — 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.



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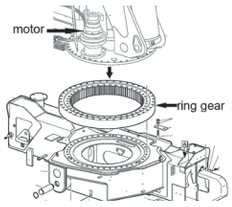
Negative Control System

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.



Endless Rotation System 1.0

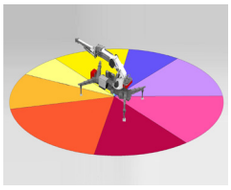
A rotating bearing and one gearbox system, the electric wires are linked between base-column with a swivel electrical-hydraulic joint. Allows operator to gain maximum power also at the slowest operational speed and having the highest precision.



Crane Monitoring System 3.0

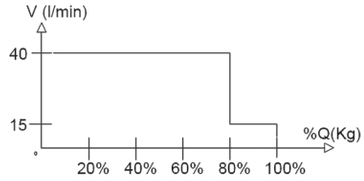
Crane stability control system TES2-TES3, with safety and overload controls medium high-range crane and HPVE lifting speed management. Active control on 4-8 working areas according to the model and vehicle stability requirements.





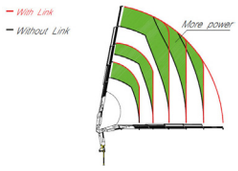
Load Based Hydraulic Speed Reduction System

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.



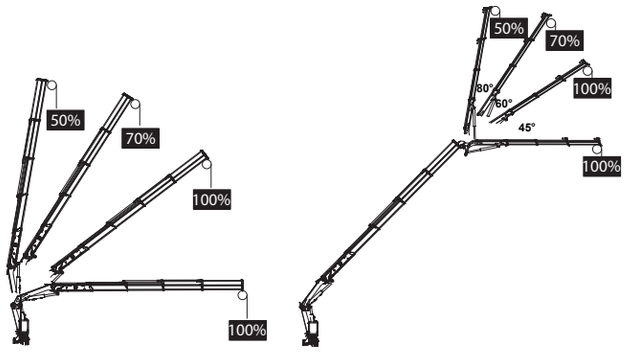
Constant Control Link

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.



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.



COPMA ® Remote Connectivity 4.0

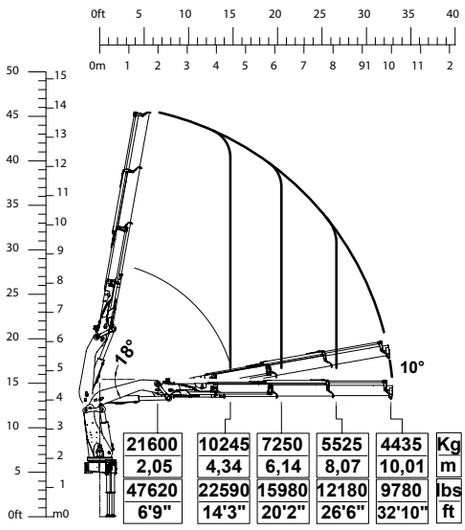
COPMA® Remote Connectivity 4.0 to the crane.
Two-way communication by GPRS for real-time diagnosis and remote real-time parameter setting and/or adjustment.

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510 TOP RANGE

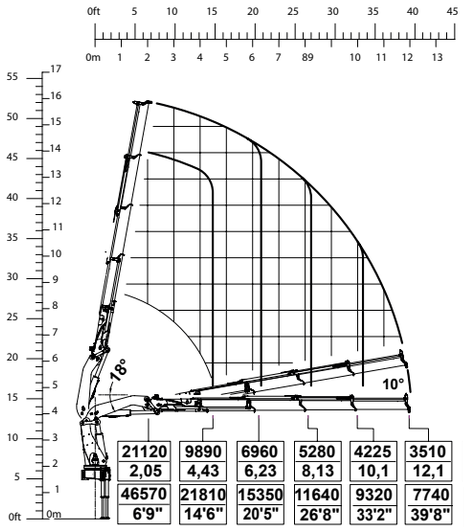
Load Charts

3 extensions



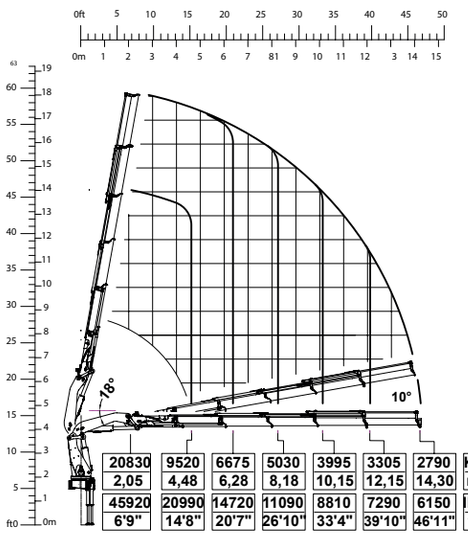
21600	10245	7250	5525	4435	Kg	
2,05	4,34	6,14	8,07	10,01	m	H1-B3
47620	22590	15980	12180	9780	lbs	
6'9"	14'3"	20'2"	26'6"	32'10"	ft	

4 extensions



21120	9890	6960	5280	4225	3510	Kg	
2,05	4,43	6,23	8,13	10,1	12,1	m	H1-B3
46570	21810	15350	11640	9320	7740	lbs	
6'9"	14'6"	20'5"	26'8"	33'2"	39'8"	ft	

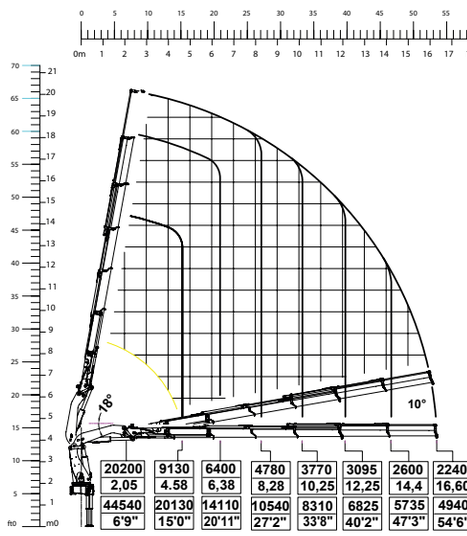
5 extensions



20830	9520	6675	5030	3995	3305	2790	Kg
2,05	4,48	6,28	8,18	10,15	12,15	14,30	m
45920	20990	14720	11090	8810	7290	6150	lbs
6'9"	14'8"	20'7"	26'10"	33'4"	39'10"	46'11"	ft

H1-B3

6 extensions

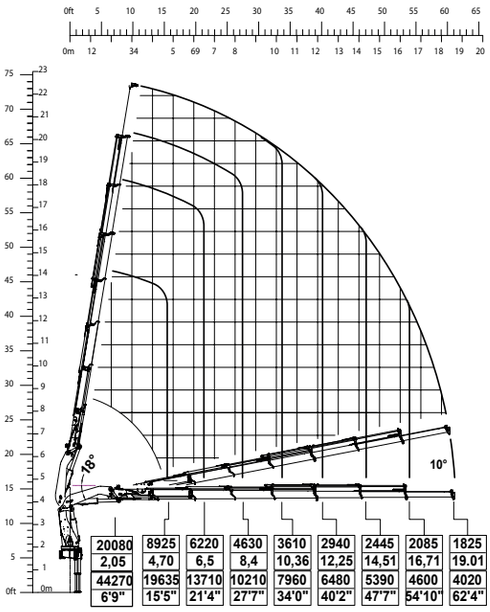


20200	9130	6400	4780	3770	3095	2600	2240	Kg
2,05	4.58	6,38	8,28	10,25	12,25	14,4	16,60	m
44540	20130	14110	10540	8310	6825	5735	4940	lbs
6'9"	15'0"	20'11"	27'2"	33'8"	40'2"	47'3"	54'6"	ft

H1-B3

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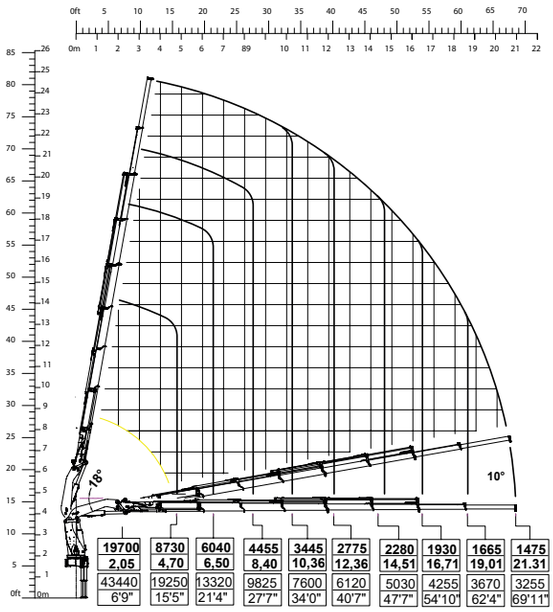
7 extensions



20080	8925	6220	4630	3610	2940	2445	2085	1825	Kg
2,05	4,70	6,5	8,4	10,36	12,25	14,51	16,71	19.01	m
44270	19635	13710	10210	7960	6480	5390	4600	4020	lbs
6'9"	15'5"	21'4"	27'7"	34'0"	40'2"	47'7"	54'10"	62'4"	ft

H1-B3

8 extensions

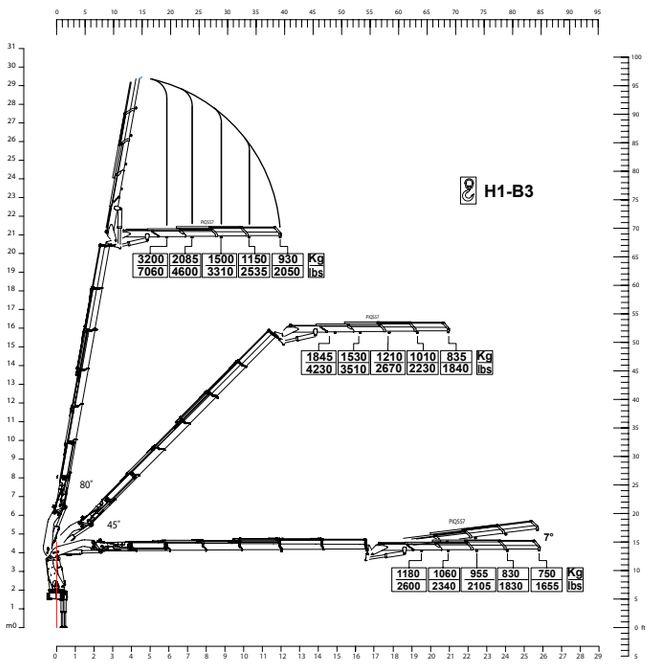


19700	8730	6040	4455	3445	2775	2280	1930	1665	1475	Kg
2,05	4,70	6,50	8,40	10,36	12,36	14,51	16,71	19,01	21.31	m
43440	19250	13320	9825	7600	6120	5030	4255	3670	3255	lbs
6'9"	15'5"	21'4"	27'7"	34'0"	40'7"	47'7"	54'10"	62'4"	69'11"	ft

H1-B3

510.6 + J4

PIQS57



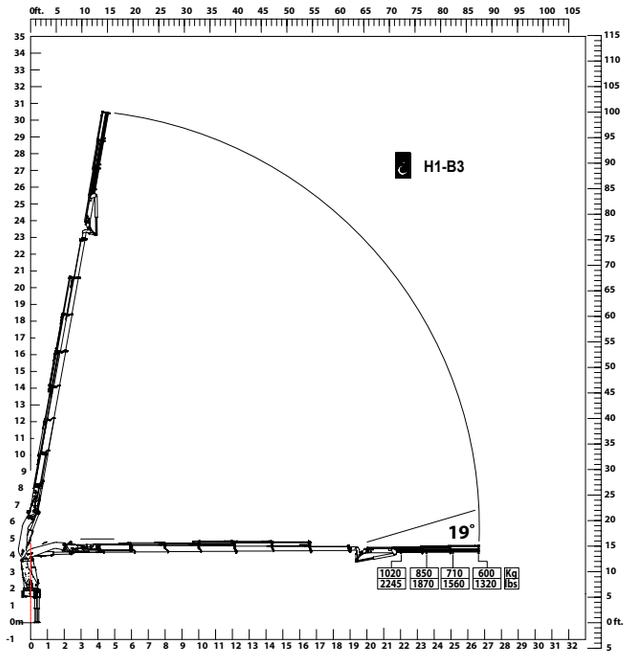
3200	2085	1500	1150	930	Kg
7060	4600	3310	2535	2050	lbs

1845	1530	1210	1010	835	Kg
4230	3510	2670	2230	1840	lbs

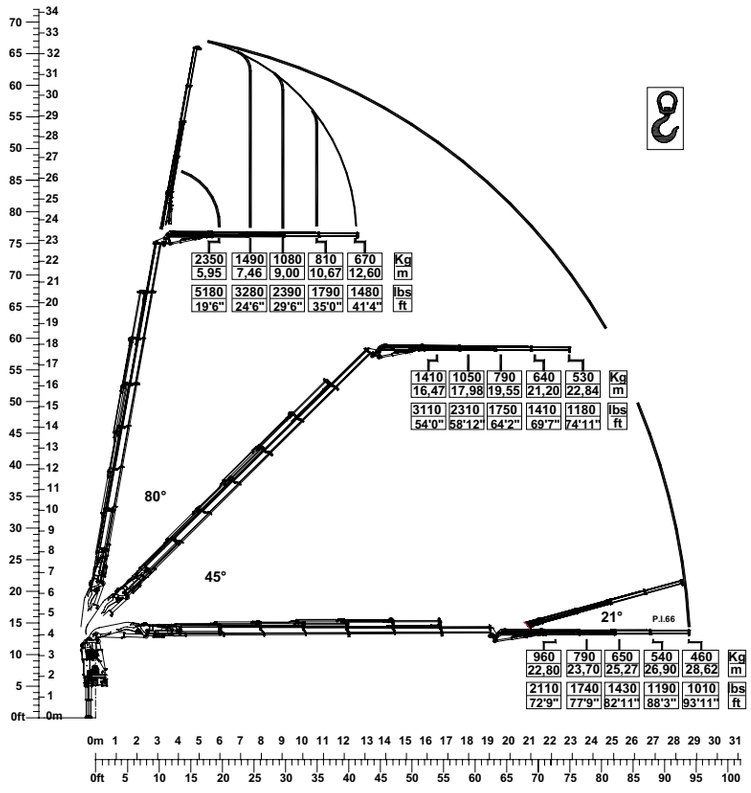
1180	1060	955	830	750	Kg
2600	2340	2105	1830	1655	lbs

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510.7 + J3 PIQS60



510.7 + J4 PIQS60



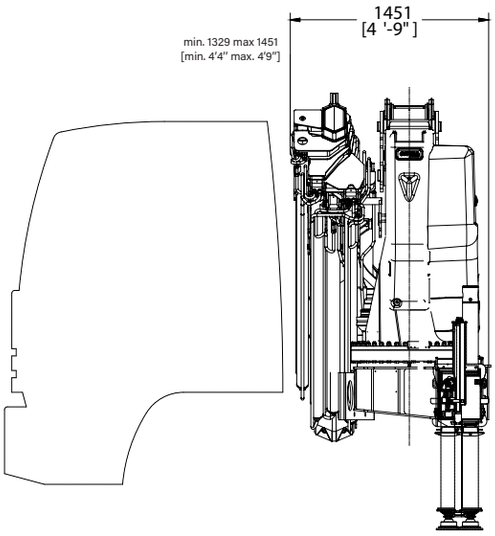


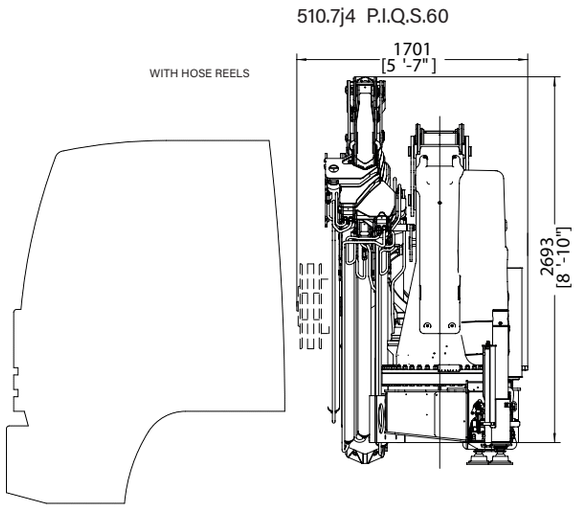
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510 TOP RANGE

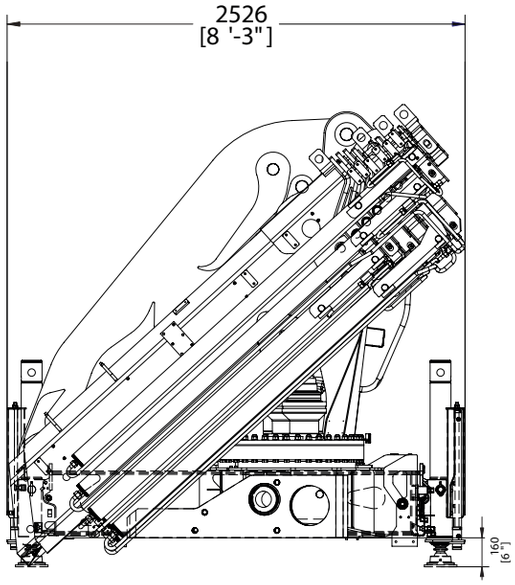
Crane Dimensions

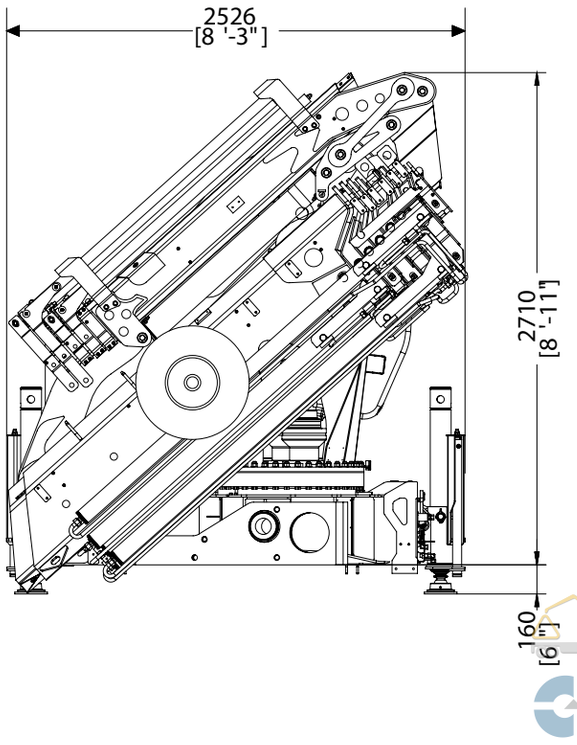
back cabin left





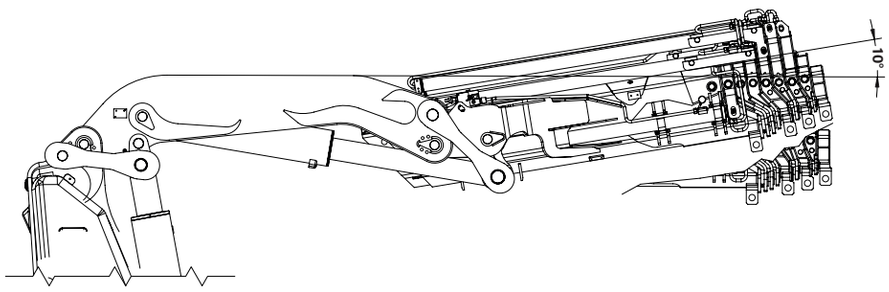
rear truck

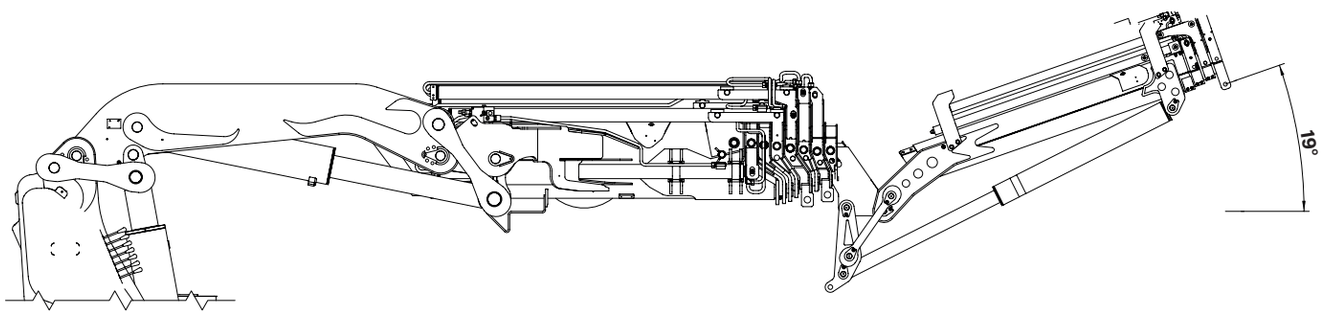




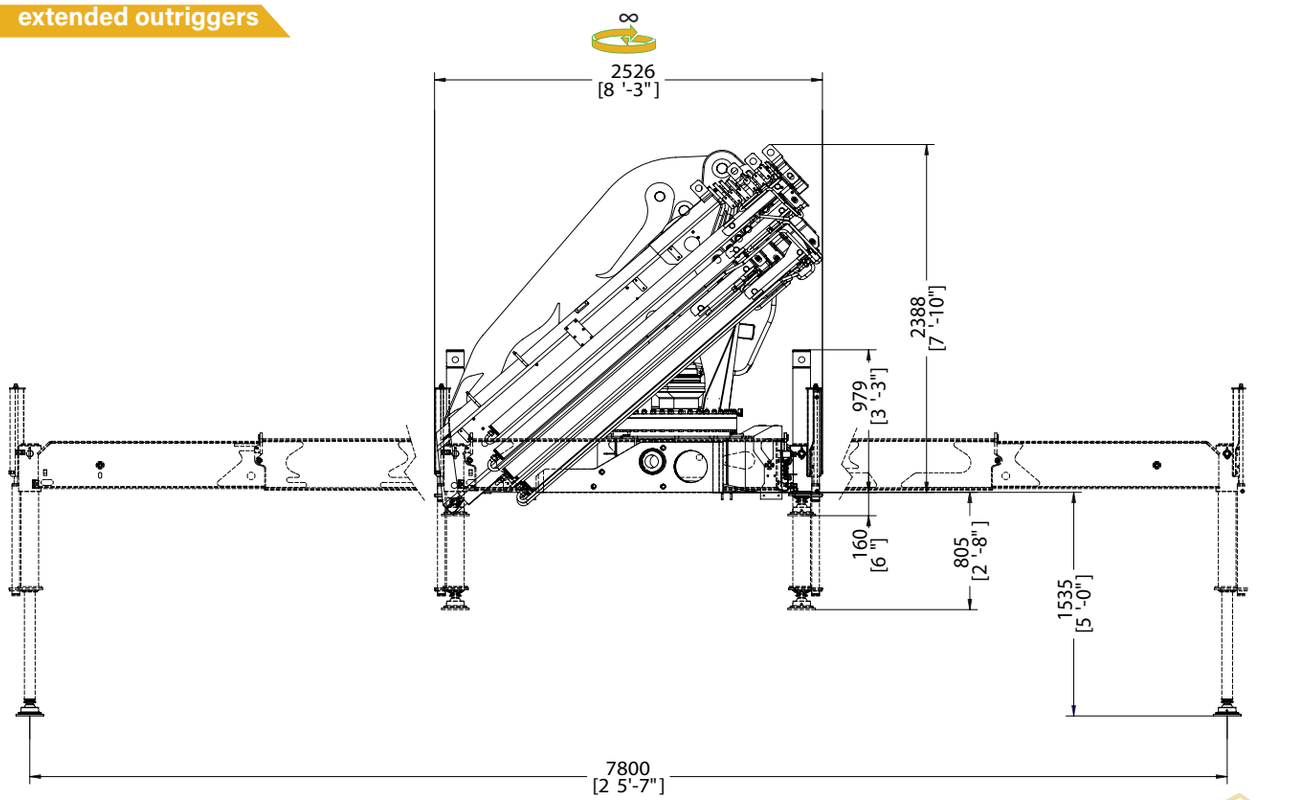
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operational





extended outriggers



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

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510 TOP RANGE

Technical Data

summarized data

	kN.m	bar	l/min	kg	°	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
510.6J	411	320	70	6360	∞	2525	1570	2800	7800
510.6J4	411	320	70	6420	∞	2525	1623	2678	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

	lbs.ft	psi	gal/min	lbs	°	ft/inc	ft/inc	ft/inc	ft/inc
510.3	316299	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"
510.6J4	297566	4640	18.4	14150	∞	8'3"	5'2"	8'9"	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

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. 3)	4960 kg	10912 lbs

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

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SUPERIOR RELIABILITY FOR EVERY OPERATOR

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COPMA
510



knuckle boom cranes

Powerful Synergies

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