

Performance & Power

228 HAS THE HIGHEST LIFTING RANGE AND TOP POWER-WEIGHT RATIO COMBINING ADVANCED TECHNOLOGY FEATURES FOR MORE PERFORMANCE.

- HIGH POWER model, load category 20 Ton/Mt
- Designed for every kind of job
- Strong linkage system on each arm to get maximum performance
- Precise and fast work execution
- High safety standards





More Safety & Security

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

- Performing and reliable electronic devices
- Column with high mechanical characteristics
- High Degree of User Friendliness
- Ready to work in a few movements
- Excellent weight/performance ratio





## **Technical Features**

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

### **Standard features**





control



structure



### optional features

easy use



control



\*E.C. market specific equipment





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.





### 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.





### Negative Control System

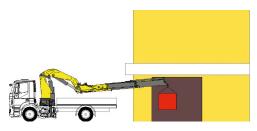
Slope sensors mounted on the articulated booms of the crane, combined with the electronic control, control the maximum vertical angle of the arms and the JIB preventing incorrect or dangerous movements by the operator.





### 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.





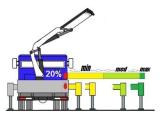
Sensors on the basement controls the correct closing of the beams and a column switch sensor indicates if the crane is in a folded position, no more than 4 mt in height. The operator is warned with light and sound signals in the truck cabin.





# Truck Electronic Stability 3.0

Active stability control for performance optimization according to the type of stabilization (3) to guarantee maximum safety in all working conditions. Mandatory in the CE market, it helps a better vehicle-crane configuration.





### 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.





2019 All rights reserved CPS GROUP

### Rotation Rack Pinion

The rotation system with rack and pinion is the best optimal solution for the most performative lifting capacity, it reduce the weights and crane dimension for the most compact configuration.



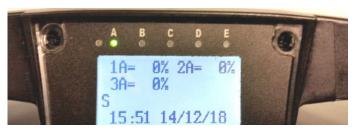


The cylinder of the stabilizer is lifted with an auxiliary jack, allowing the vertical movement within the bushes or rotating around a pin. It saves operative time in increasing the security of the setup.





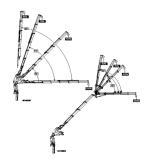
A display on the remote control allows the operator to maintain the total control of all the crane functions in real time by managing the work mode, the stability control, and oversee any maintenance and diagnostic messages.





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.





Manual raising of the stabilizers facilitated by a compressed gas cylinder which assists the operator during the rotation of the jack. This system assists the operator with less effort in adjusting the legs.







Radio Remote Control 3.0

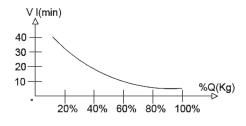
Radio control with directly flanged actuation electronics with proportional distribution.

The remote control allows operating the crane while constantly monitoring the areas of operation.





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 and allowing the reduction of dynamic effects while optimizing performance.



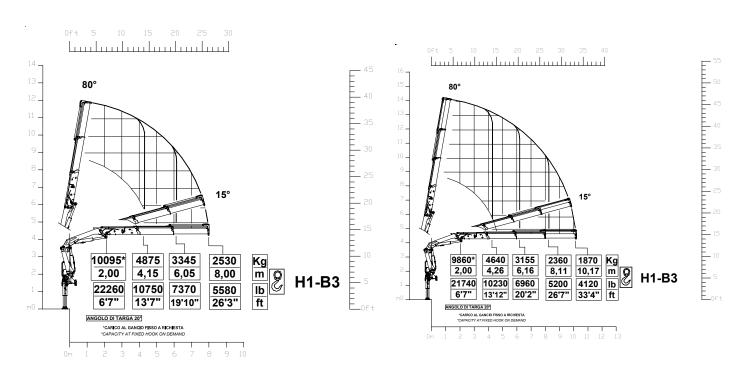


# **228 HIGH POWER**

## **Load Charts**

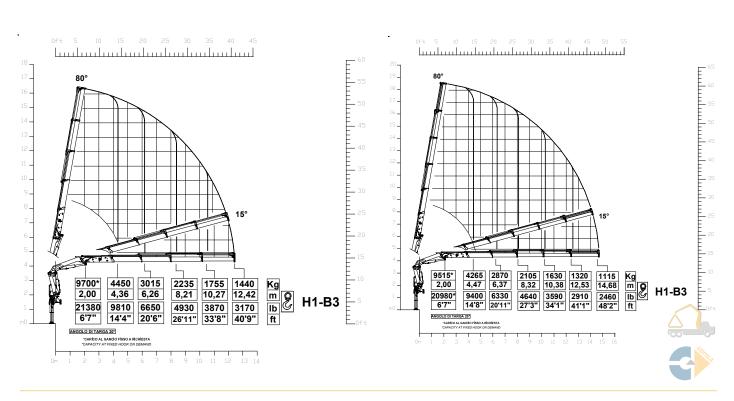
### 2 extensions

### 3 extensions

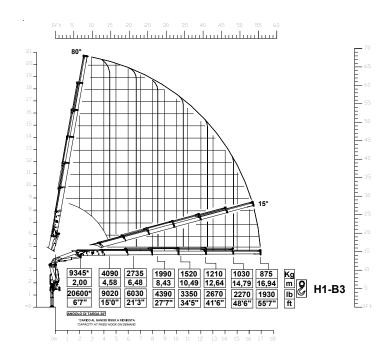


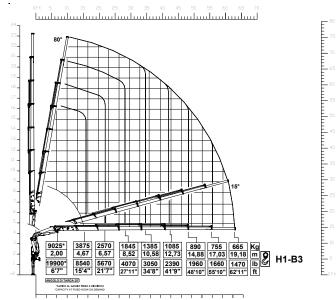
### 4 extensions

### 5 extensions

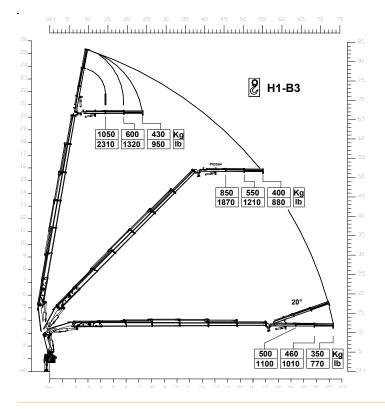


6 extensions 7 extensions





### 228.6 + J2

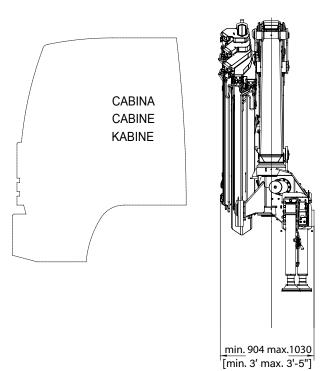


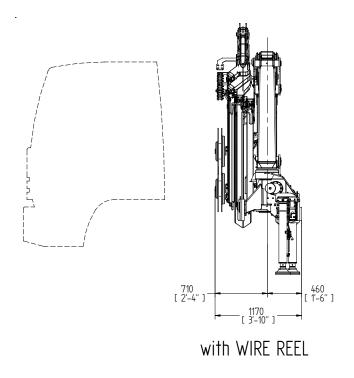


# 228 HIGH POWER

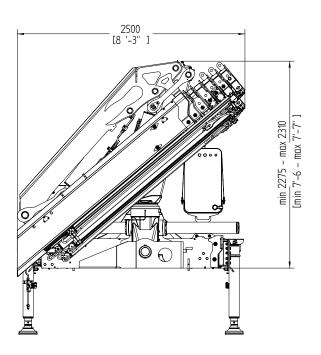
# **Crane Dimensions**

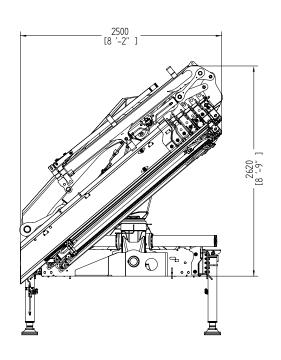
### back cabin left





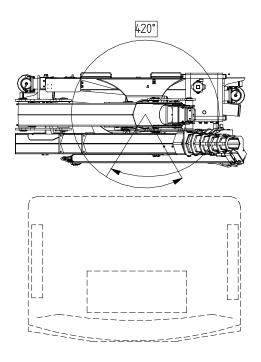
### rear truck

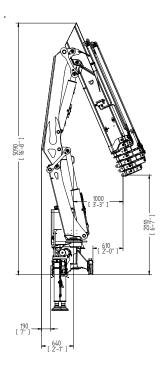




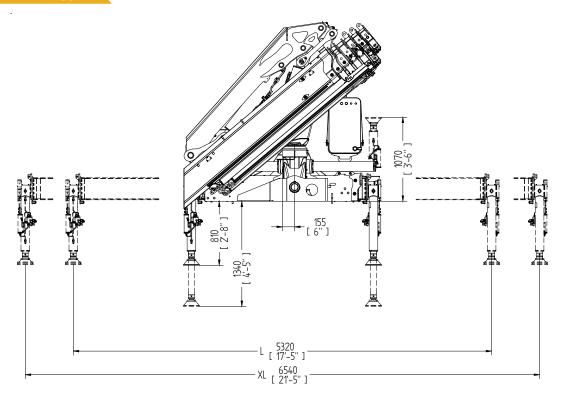


top cabin operational





### extended outriggers



\* Note: Technical features are not binding. The company reserves itself the right to any modification without notice



# **228 HIGH POWER**

# **Technical Data**

SU	ımmarized	data							
	1					7			
	kN.m	bar	I/min	kg	0	mm	mm	mm	mm
228.2	198.5	345	65	2220	420	2500	904	2275	5270/6500
228.3	193	345	65	2360	420	2500	904	2275	5270/6500
228.4	190	345	65	2490	420	2500	935	2275	5270/6500
228.4J2	190	345	65	2855	420	2500	1084	2640	5270/6500
228.4J3	190	345	65	2915	420	2500	1084	2640	5270/6500
228.4J4	190	345	65	2960	420	2500	1084	2640	5270/6500
228.5	186.7	345	65	2960	420	2500	1000	2275	5270/6500
228.5J2	186.7	345	65	2985	420	2500	1084	2640	5270/6500
228.5J3	186.7	345	65	3045	420	2500	1084	2640	5270/6500
228.5J4	186.7	345	65	3090	420	2500	1084	2640	5270/6500
228.6	183	345	65	2710	420	2500	1030	2275	5270/6500
228.6J2	183	345	65	3020	420	2500	1170	2620	5270/6500
228.7	177	345	65	2810	420	2500	1030	2310	5270/6500

	1			<u> </u>		8	18		
	lbs.ft	psi	gal/min	lbs	0	ft/inc	ft/inc	ft/inc	ft/inc
228.2	146406	5003	17.17	4890	420	8'2"	3′	7'6"	17'3"-21'3"
228.3	142349	5003	17.17	5200	420	8'2"	3′	7'6"	17'3"-21'3"
228.4	140317	5003	17.17	5490	420	8'2"	3'1'	7'6"	17'3"-21'3"
228.4J2	140317	5003	17.17	6290	420	8'2"	3′7″	8'8"	17'3"-21'3"
228.4J3	140317	5003	17.17	6430	420	8'2"	3′7″	8'8"	17'3"-21'3"
228.4J4	140317	5003	17.17	6530	420	8'2"	3′7″	8'8"	17'3"-21'3"
228.5	137703	5003	17.17	5750	420	8'2"	3'3"	7'6"	17'3"-21'3"
228.5J2	137703	5003	17.17	6580	420	8'2"	3′7″	8'8"	17'3"-21'3"
228.5J3	137703	5003	17.17	6710	420	8'2"	3′7′′	8'8"	17'3"-21'3"
228.5J4	137703	5003	17.17	6810	420	8'2"	3′7″	8'8"	17'3"-21'3"
228.6	134974	5003	17.17	5970	420	8'2"	3′5″	7'6"	17'3"-21'3"
228.6J2	134974	5003	17.17	6660	420	8'2"	3'10"	8'7"	17'3"-21'3"
228.7	130549	5003	17.17	6190	420	8'2"	3′5″	7'7''	17'3"-21'3"

### technical data

Max. lifting moment	198.5 kNm	146406 ft.lbs	
Max. hydraulic outreach	19.32 m	63'39"	
Slewing angle	420°	420°	
Slewing torque	2840 daNm	20939 ft.lbs	
Stabilizer spread	5.27/6.5 mt	17'3"/21'3"	
Fitting space required (min./max)	0.9 m/1.03 m	2'12"/3'5"	
Width folded	2,50 m	8'2"	
Max. operating pressure	345 bar	5003 psi	À
Recommended pump capacity	65 l/min	17.17 US gal./min	00
Dead weight (vers .2)	2220 kg	4890 lbs	No.
	- J		

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









knuckle boom cranes





# CPS GROUP S.P.A.

281 Via Emilia , Castel Bolognese (RA) , 48014 Italy

T +39 0546 653 711 sales.cpsgroup@cps-group.com service.cpsgroup@cps-group.com

cps-group.com



