

# R215 SMART X PLUS



\* Design aesthetics & features may vary from actual

OPERATING WEIGHT: 21700 kgs

GROSS POWER : 140 HP @ 2000 rpm

BUCKET CAPACITY: 0.92 - 1.5 m<sup>3</sup>

 **HD** HYUNDAI  
CONSTRUCTION EQUIPMENT  
INDIA

**Calypso**  
MACHINERY



# DESIGNED FOR SMART WORK

Calypso  
MACHINERY

## BEST-IN-CLASS PERFORMANCE

- Cyclonic Air Precleaner **NEW**
- Wide Range of Bucket **NEW**
- Advanced CAPO System
- Hydraulic Flow Summation
- Swing Priority
- Regeneration System
- Excellent Digging Forces



## OPERATOR COMFORT

- Bluetooth FM Radio **NEW**
- Removable Type Floor Mat **NEW**
- LED Working Lamps **NEW**
- Spacious Cabin
- Fully Adjustable Seat
- Enhanced Visibility
- User-friendly Functionality



## INCREASED MACHINE DURABILITY

- Superior Lubrication and Wear Protection **NEW**
- Polymer Shim **NEW**
- Stub Adapter **NEW**
- Strengthened Undercarriage
- Proven Upper Structure
- Forged Ring Body
- Reinforced Front Attachment





## IMPROVED FUEL EFFICIENCY

- New ECO Mode
- Fuel Saving Kit
- Electro Hydraulic System
- Auto Deceleration System
- Efficient Breaker Mode



## SIMPLIFIED MAINTENANCE

- Fuel Filler Pump\* **NEW**
- Easy Serviceability
- Extended Maintenance
- Large Capacity Fluid Tank
- Low Life Cycle Cost



## PARTS & SUPPORT

- Remote Management System (Hi-Track)
- Hyundai Genuine Parts
- Max Parts Availability
- On-Site Product Support



## ENHANCED SAFETY

- Emergency Shutdown Switch\* **NEW**
- Turbocharge Guard **NEW**
- Cabin Top Guard\* **NEW**
- Beacon Lamp\* **NEW**
- Swing Lock\* **NEW**
- Seat Belt\*

( \* Optional )



## PRIDE AT WORK

Hyundai construction equipment strives to build state-of-the-art earthmoving equipment to give every operator maximum performance, more precision, versatile machine preferences, and proven quality. New technologies designed to improve performance and precision, make the Hyundai excavator smooth, fast and easy to control. Take pride in your work with Hyundai!



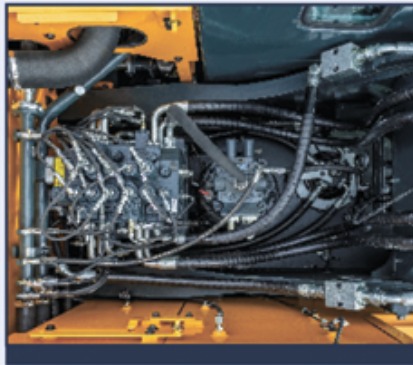
## ENGINE

The water cooled, 4 cycle diesel, 6 cylinder in line, direct injection turbocharged engine is built for power, reliability, efficiency.

The engine is manufactured to perform in wide range of heat, humidity and dust conditions without compromising productivity.







## HYDRAULIC SYSTEM

Electro Hydraulic Control System provides wide range of flow at various workloads for paramount productivity. Open center design of Main Control Valve (MCV) ensures fast response and maximum efficiency in tough conditions.

## CHOICE OF OPERATING MODE

Working Mode	Advantage
<b>P Mode</b>	<ul style="list-style-type: none"> <li>• Maximum Power</li> <li>• Fast Cycle time</li> </ul>
<b>S Mode</b>	<ul style="list-style-type: none"> <li>• Balance between power and fuel efficiency</li> </ul>
<b>Eco Mode</b>	<ul style="list-style-type: none"> <li>• Better fuel efficiency</li> </ul>
<b>Breaker Mode</b>	<ul style="list-style-type: none"> <li>• Sets pump flow to optimal level and boosts efficiency</li> </ul>

## BEST-IN-CLASS DIGGING FORCES

Higher output even in tough working conditions

- **Bucket - 16000 kgf**
- **Arm - 12600 kgf**



## BEST-IN-CLASS TRAVEL PERFORMANCE

- Higher Traction Force
- Dual Travel Option
- High Maneuverability

**Traction Force : 21100 kgf**

## EFFICIENT COMBINED OPERATION

Inbuild **Flow Summation** system and **Swing Priority** function leads to faster swing cycle results in excellent output



# FUEL EFFICIENCY Calypso MACHINERY



## IMPROVED FUEL EFFICIENCY

Advanced CAPO System, Newly Designed CMCU, Power & Working Mode options results in excellent fuel efficiency.

## FUEL SAVING KIT

- Monitor undue load and cut down losses.
- Provides better fuel efficiency

## NEGATIVE FLOW CONTROL

Optimum balance between pump and engine output for better fuel efficiency



## ONE TOUCH IDLE & AUTO DECELERATION

Prevents fuel losses by reducing engine rpm during no-load condition

## EXCLUSIVE BREAKER MODE

Excellent fuel saving due to exclusive power for breaker operation



## ARM REGENERATION SYSTEM

- Smooth Operation
- Prevent Cavitation
- Increased Performance & Fuel Efficiency



## INSTRUMENT PANEL

The user-friendly multi language option cluster making it easy to check all critical systems like

- Hydraulic oil temperature,
- Coolant temperature
- Fuel level
- Self diagnostic checks
- Maintenance management

to optimizing productivity needs ensuring fuel efficiency



# OPERATOR COMFORT

## OPERATOR DELIGHT

More space, better visibility, powerful air-conditioning and adjustable fully suspension seat, easy to access controls ensure that the operator can work for longer hours without stress or fatigue in the comfortable and safe working environment.

360 degree visibility, fully open sunroof, added side lamp & mirror ensure comfortable, safe working environment.



### OPERATOR SEAT

- Easily adjustable fully suspension seat with adjustable arm rest
- Operator seat belt

### SPACIOUS CABIN

- More head room, large space, large door for easy entry and exit

### REMOVABLE TYPE FLOOR MAT



### AIR CONDITIONER

- High Performance Air Conditioner
- Improved AC Ducting
- Water Bottle Cooling System



### LED LAMP **NEW**



### SUN VISOR (OPTIONAL)



### INTEGRATED AUDIO SYSTEM WITH BLUETOOTH **NEW**





## REINFORCED FRONT ATTACHMENTS

Use of specialized advance steel plates and reinforced design for higher strength and durability

## HEAVY DUTY BUCKET WITH STUB ADAPTER **NEW**

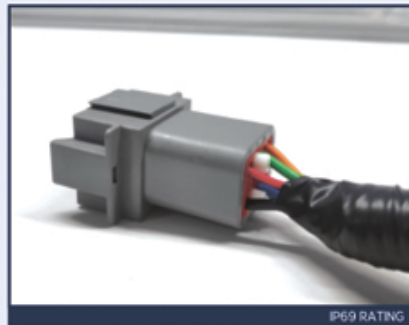
## RUGGED UNDERCARRIAGE

X frame provides excellent resistance to torsional bending to enhance structure life



## RELIABLE ELECTRICALS

- Dust and water proof connectors
- Longer component life



## SWING & TRAVEL SYSTEM

Highly efficient Hyundai designed Swing and Travel System ensure maximum reliability and performance.



## AIR PRE-CLEANER **NEW**

- Improves engine performance
- Removes dirt and debris from air before entering air filter
- Improves air filter life
- Low maintenance cost

## REINFORCED IDLER FRAME



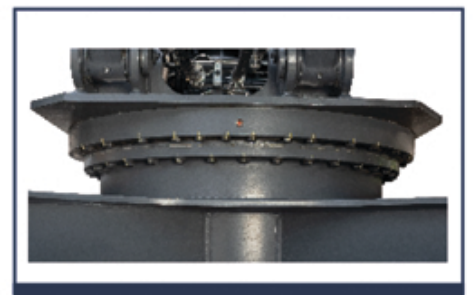
## LOWER FRAME BELLY GUARD



## CASTED BUCKET CONTROL LINK



## FORGED RING BODY





## LEADING SERVICE INTERVAL

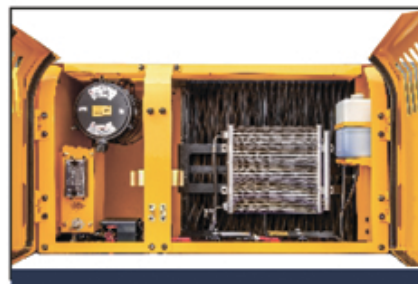
More efficient cooling system which extend service intervals, minimize operating cost and reduce machine down time.

### CHANGE INTERVAL

Hydraulic Oil	5000 hrs
Hydraulic Filter	1000 hrs
Engine Oil	500 hrs
Engine Filter	500 hrs

## IMPROVED COOLING EFFICIENCY

- Radiator and oil cooler are arranged side by side to maximize efficiency
- Easily accessible from ground level to clean



## DURABLE MOUNTING PIN BUSH



## FUEL FILLER PUMP

NEW



## DIMPLE BUSH

NEW



## LARGE LCD MONITOR

Operator can check the machine's vital signs without any difficulties

- **Maintenance Management**  
Proactive maintenance
- **Self Diagnostic**  
Reduces down time
- **Warning Indicator**  
Ensures safe working



## HINGED TYPE FRONT GLASS GUARD FOR EASY CLEANING

## EASY ACCESSIBILITY

Easy access for maintenance means regular checks get done faster. Hyundai's SMART X PLUS machines feature easy service access to increase uptime and reduce operating costs.



## SAFETY - PEACE OF MIND AND OPERATOR CONVENIENCE

Cabin is integrally welded with low-stress using high strength steel to provide enhanced protection. Handrails and steps are provided for easy operation. Engine fan guard avoid chances of accidental injury.



### COUNTER BALANCE VALVE

Works as a hydrostatic brake and prevents machine against accidental roll down in steep gradients.



### BOOM & ARM HOLDING SYSTEM

Prevent attachments from drifting against gravity due to prolonged overhanging.



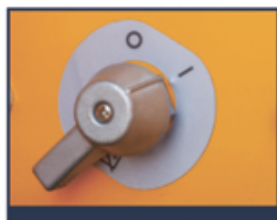
### ANTI RESTART FUNCTION

Prevents starter from damage during engine operation.

### AUTO ENGINE OVERHEAT & WARM UP FUNCTION



### BATTERY DISCONNECT SWITCH



### LOWER BELLY GUARD



### GREASE NIPPLE WITH CAP NEW



### POSITIVE LOCKING CLAMP NEW



### TANK SAFETY COVER



### TURBOCHARGE GUARD NEW



### EMERGENCY SHUTDOWN SWITCH NEW



### FIRE EXTINGUISHER NEW





# PARTS & SUPPORT

## HYUNDAI GENUINE PARTS

Developed in synergy with our machines, Hyundai parts and lubricants ensure that you get the high levels of performance, reliability and safety that come with the complete Hyundai experience. Enjoy the confidence and assurance of the most stringent testing procedures and the high quality manufacturing processes safeguarding your machine's health. Experience the versatility of our 200+ strong outlet network across India.

### WHY RISK IT?

Maximize profits and extend your machine's life.



### BENEFITS OF USING GENUINE HYUNDAI PARTS AND LUBRICANTS

- Genuine Hyundai Parts meet strict specifications and standards in Chemistry, Microstructure and Tensile Strength.
- Benefit from the continuous improvements and advancements made by Hyundai's technical team.
- Improved performance of hydraulics and engine components.
- Enjoy greater productivity with higher uptime
- Higher resale values.
- Reduced oil consumption and unexpected breakdowns.
- Enhanced component life.



# SPECIFICATION

## Engine

Maker/Model		Cummins6BT5.9-C	
Rated flywheel horse power	SAE	J1995 (Gross) J1349 (Net)	140HP (104KW) @2000rpm 136HP (101KW) @2000rpm
Max Torque Displacement		57.6kgf.m @1600rpm 5880cc	

## Hydraulic System

Main pump	
Type	Two variable displacement piston pumps
Max. flow	2x220 lpm
Sub-pump for pilot circuit	Gear pump
Cross-sensing & fuel saving pump system	

## Hydraulic Motors

Travel	Two speed axis piston motor with counter balance valve and parking brake
Swing	Axial piston motor with automatic brake

## Relief Valve Settings

Implement Circuit	330kgf/cm <sup>2</sup>
Travel	330kgf/cm <sup>2</sup>
Swing Circuit	240kgf/cm <sup>2</sup>
Pilot Circuit	35kgf/cm <sup>2</sup>
Service valve	Installed

## Coolant & Lubricant Capacity

REFILLING	LITER
Fuel tank	340
Engine coolant	35
Engine oil	21
Swing device	5
Final drive (each)	6.0
Hydraulic system / Hydraulic tank	280/150

## Drives & Brakes

Drive method	Fully hydrostatic type
Drive motor	Axial piston motor in-shoe design
Reduction system	Planetary reduction gear
Max.drawbar pull	21100kgf (46500 lbf)
Max.travel speed (high/low)	5.3kmph/3.4kmph
Gradeability	35 Degree (70%)
Parking brake	Multi wet disc

## Undercarriage

X-Leg type centre frame is integrally welded with reinforced box section track frames. The undercarriage includes lubricated rollers, idlers, track adjusters with shock absorbing spring and sprockets and trackchain with triple grouse shoes.

Centre frame	X-leg type
Track frame	Pentagonal box type
No. of shoes on each side	48
No. of carrier rollers each side	2
No. of track rollers each side	8
No. of rail guard each side	2

## Swing System

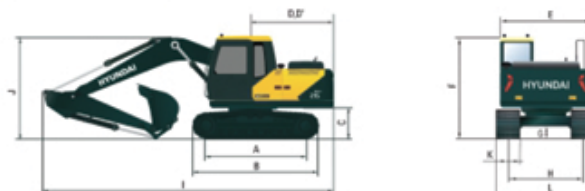
Swing motor	Axial piston motor
Swing reduction	Planetary gear reduction
Swing bearing lubrication	Grease bathed
Swing brake	Multi wet disc
Swing speed	11 rpm

## Operating Weight

Shoe Width mm (in)	Operating weight kg (lb)	Ground pressure kgf/cm <sup>2</sup> (psi)
600 mm (24")	21,700 (47,840)	0.47 (6.68)

## Dimensions

(mm)



A	Tumbler distance	3550
B	Overall distance of crawler	4360
C	Ground clearance of counter weight	1060
D	Tail swing radius	2845
D'	Rear-end length	2770
E	Overall width of upper structure	2700
F	Overall height of cabin	2920
G	Min. ground clearance	480
H	Track gauge	2390
I	Overall length	9610
J	Overall height of boom	3210
K	Track shoe width	600
L	Overall width	2990

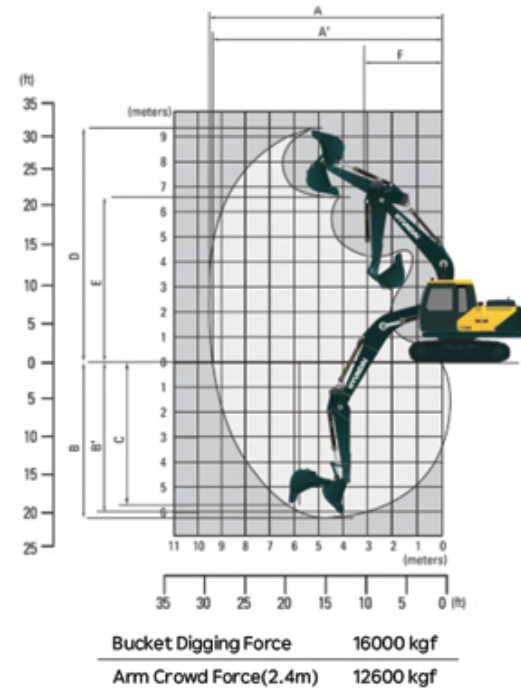


# SPECIFICATION

## Working Ranges

(mm)

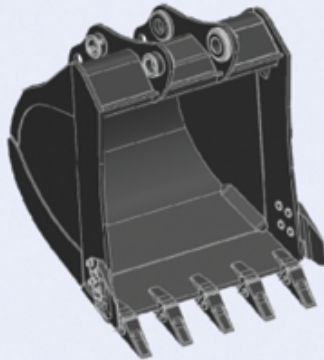
Arm length		2000	*2400	2920
A	Max. digging reach	9,101 (29'10")	9,476 (31'1")	9,952 (32'8")
A'	Max. digging reach on ground	8,928 (29'4")	9,311 (30'7")	9,795 (32'2")
B	Max. digging depth	5,836 (19'2")	6,236 (20'6")	6,756 (22'2")
B'	Max. diggign depth(8ft level)	5,595 (18'4")	6,027 (19'9")	6,575 (21'7")
C	Max. Vertical wall digging depth	4,796 (15'9")	5,190 (17'0")	5,828 (19'1")
D	Max. digging height	9,030 (29'8")	9,245 (30'4")	9,499 (31'2")
E	Max. dumping height	6,254 (20'6")	6,466 (21'3")	6,705 (21'12")
F	Min. swing radius	3,789 (12'5")	3,680 (12'1")	3,696 (12'2")



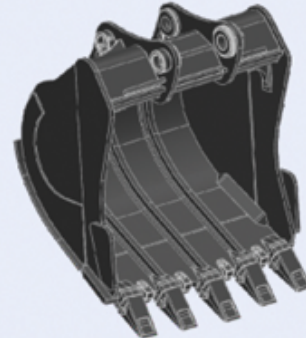
## BUCKETS

All buckets are welded with high-strength steel.

### GENERAL PURPOSE



### HEAVY DUTY



Capacity - M³			Width - mm	Weight - kg	Tooth EA	Recommendation		
						5.68m Boom		
						3.8t CWT		
Bucket Type	SAE Heaped	CECE heaped				2.0m Arm	2.4m Arm	2.92m Arm
GP	1.00	0.88	1116	797	5	●	●	●
GP	1.05	0.92	1132	803	5	●	●	●
HD	0.92	0.81	1041	1033	5	●	●	●
HD	0.95	0.83	1091	1059	5	●	●	●
Coal	1.50	1.32	1258	854	5	■	■	■

- : Applicable for materials with density of  $\leq 2,000 \text{ kg/m}^3$
- : Applicable for materials with density of  $\leq 1,600 \text{ kg/m}^3$
- ▲ : Applicable for materials with density of  $\leq 1,100 \text{ kg/m}^3$

## ATTACHMENT

Boom and arm are of all-welded with a low-stress, full-box section desing. 5.68m (18'8") mono boom and 2.m (6'7"), 2.4m (7',10") 2.92m (9'7") Arm are availble. Buckets are all-welded, high-steel implements.

## DIGGING FORCE

Arm	Length	mm(ft.in)	2,000 (6'7")	*2,400 (7'10")	2,920 (9'7")
	Weight	kg(lbs)	614 (1,354)	718 (1,583)	735 (1,620)
Bucket Digging Force	SAE	kN	134	134	134
		kgf	13,600	13,600	13,600
		lbf	30,100	30,100	30,100
	ISO	kN	157	157	157
		kgf	16,000	16,000	16,000
		lbf	35,200	35,200	35,200
Arm Crowd Force	SAE	kN	140	118	99
		kgf	14,300	12,000	10,100
		lbf	31,500	26,500	22,300
	ISO	kN	148	124	104
		kgf	15,100	12,600	10,600
		lbf	33,300	27,800	23,300

\*Standard arm



# LIFTING CAPACITIES











## LIFTING CAPACITIES R215 SMART PLUS















Rating over-front















Rating over-side

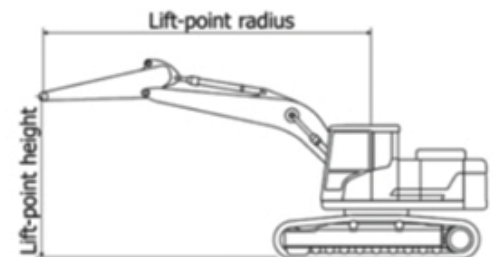
Boom type	Length[mm]	Arm type		Length[mm]		BK type		Capa.[m]		CWT[kg]		Shoe(wheel)[mm]		
GP	5680	GP		2000		HD		0.95		3800		600		
Lift-point height (m/ft)		Lift-point radius								At max. reach				
		3.0m (9.8ft)		4.5m (14.8ft)		6.0m (19.7ft)		7.5m (24.6ft)		Capacity		Reach		
												m(ft)		
7.5m	kg											*5,280	*5,280	4.94
24.6ft	lb											*11,640	*11,640	(16.2)
6.0m	kg						*5,010	4,510				*5,070	4,120	6.32
19.7ft	lb						*11,050	9,940				*11,180	9,080	(20.7)
4.5m	kg				*6,300	*6,300	*5,310	4,390				*5,090	3,310	7.12
14.8ft	lb				*13,890	*13,890	*11,710	9,680				*11,220	7,300	(23.4)
3.0m	kg						*5,970	4,160	4,950	2,970		4,910	2,940	7.54
9.8ft	lb						*13,160	9,170	10,910	6,550		10,820	6,480	(24.7)
1.5m	kg						*6,640	3,950	4,860	2,890		4,730	2,810	7.64
4.9ft	lb						*14,640	8,710	10,710	6,370		10,430	6,190	(25.1)
0.0m	kg				*9,660	5,690	6,630	3,830				4,860	2,870	7.44
0.0ft	lb				*21,300	12,540	14,620	8,440				10,710	6,330	(24.4)
-1.5m	kg				*9,410	5,700	6,610	3,810				5,420	3,180	6.90
-4.9ft	lb				*20,750	12,570	14,570	8,400				11,950	7,010	(22.6)
-3.0m	kg	*11,430	11,240	*8,420	5,830							*6,090	3,990	5.95
-9.8ft	lb	*25,200	24,780	*18,560	12,850							*13,430	8,800	(19.5)
-4.5m	kg													
-14.8ft	lb													

Boom type	Length[mm]	Arm type		Length[mm]		BK type		Capa.[m]		CWT[kg]	Shoe(wheel)[mm]		
GP	5680	GP		2400		HD		0.95		3800	600		
Lift-point height (m/ft)		Lift-point radius									At max. reach		
		3.0m (9.8ft)		4.5m (14.8ft)		6.0m (19.7ft)		7.5m (24.6ft)		Capacity		Reach	
													
7.5m 24.6ft	kg lb										<b>*4,780</b>	<b>*4,780</b>	<b>5.51</b>
											<b>*10,540</b>	<b>*10,540</b>	<b>(18.1)</b>
6.0m 19.7ft	kg lb					<b>*4,570</b>	<b>4,560</b>				<b>*4,670</b>	<b>3,680</b>	<b>6.77</b>
						<b>*10,080</b>	<b>10,050</b>				<b>*10,300</b>	<b>8,110</b>	<b>(22.2)</b>
4.5m 14.8ft	kg lb			<b>*5,770</b>	<b>*5,770</b>	<b>*4,960</b>	<b>4,410</b>	<b>*4,720</b>	<b>3,040</b>		<b>*4,720</b>	<b>3,020</b>	<b>7.52</b>
				<b>*12,720</b>	<b>*12,720</b>	<b>*10,930</b>	<b>9,720</b>	<b>*10,410</b>	<b>6,700</b>		<b>*10,410</b>	<b>6,660</b>	<b>(24.7)</b>
3.0m 9.8ft	kg lb			<b>*7,400</b>	<b>6,330</b>	<b>*5,660</b>	<b>4,170</b>	<b>*4,930</b>	<b>2,960</b>		<b>4,530</b>	<b>2,700</b>	<b>7.92</b>
				<b>*16,310</b>	<b>13,960</b>	<b>*12,480</b>	<b>9,190</b>	<b>*10,780</b>	<b>6,530</b>		<b>9,990</b>	<b>5,950</b>	<b>(26.0)</b>
1.5m 4.9ft	kg lb			<b>*8,850</b>	<b>5,850</b>	<b>*6,390</b>	<b>3,930</b>	<b>4,830</b>	<b>2,850</b>		<b>4,370</b>	<b>2,580</b>	<b>8.02</b>
				<b>*19,510</b>	<b>12,900</b>	<b>*14,090</b>	<b>8,660</b>	<b>10,650</b>	<b>6,280</b>		<b>9,630</b>	<b>5,690</b>	<b>(26.3)</b>
0.0m 0.0ft	kg lb			<b>*9,510</b>	<b>5,630</b>	<b>*6,580</b>	<b>3,780</b>	<b>4,750</b>	<b>2,780</b>		<b>4,470</b>	<b>2,630</b>	<b>7.82</b>
				<b>*20,970</b>	<b>12,410</b>	<b>14,510</b>	<b>8,330</b>	<b>10,470</b>	<b>6,130</b>		<b>9,850</b>	<b>5,800</b>	<b>(25.7)</b>
-1.5m -4.9ft	kg lb	<b>*9,900</b>	<b>*9,900</b>	<b>*9,460</b>	<b>5,600</b>	<b>6530</b>	<b>3,730</b>				<b>4,920</b>	<b>2,880</b>	<b>7.32</b>
		<b>*21,830</b>	<b>*21,830</b>	<b>*20,860</b>	<b>12,350</b>	<b>14,400</b>	<b>8,220</b>				<b>10,850</b>	<b>6,350</b>	<b>(24.0)</b>
-3.0m -9.8ft	kg lb	<b>*12,200</b>	<b>11,000</b>	<b>*8,710</b>	<b>5,700</b>	<b>*6,380</b>	<b>3,810</b>				<b>*5,760</b>	<b>3,500</b>	<b>6.42</b>
		<b>*26,900</b>	<b>24,250</b>	<b>*19,200</b>	<b>12,570</b>	<b>*14,070</b>	<b>8,400</b>				<b>*12,700</b>	<b>7,720</b>	<b>(21.1)</b>
-4.5m -14.8ft	kg lb	<b>*9,360</b>	<b>*9,360</b>	<b>*6,620</b>	<b>6,000</b>						<b>*5,800</b>	<b>5,300</b>	<b>4.93</b>
		<b>*20,640</b>	<b>*20,640</b>	<b>*14,590</b>	<b>13,230</b>						<b>*12,790</b>	<b>11,680</b>	<b>(16.2)</b>

# LIFTING CAPACITIES

Boom type	Length[mm]	Arm type		Length[mm]		BK type		Capa.[m]		CWT[kg]		Shoe(wheel)[mm]		
GP	5680	GP		2920		HD		0.95		3800		600		
Lift-point height (m/ft)		Lift-point radius										At max. reach		
		1.5m (4.9ft)		3.0m (9.8ft)		4.5m (14.8ft)		6.0m (19.7ft)		7.5m (24.6ft)		Capacity		Reach
														m(ft)
7.5m	kg							*4,210	*4,210			*3,550	*3,550	6.19
24.6ft	lb							*9,280	*9,280			*7,830	*7,830	(20.3)
6.0m	kg							*4,090	*4,090			*3,260	*3,260	7.33
19.7ft	lb							*9,020	*9,020			*7,190	*7,190	(24.0)
4.5m	kg							*4,540	4,500	*4,310	3,100	*3,190	2,740	8.03
14.8ft	lb							*10,010	9,920	*9,500	6,830	*7,030	6,040	(26.3)
3.0m	kg					*6,780	6,520	*5,300	4,240	*4,640	3,000	*3,250	2,470	8.40
9.8ft	lb					*14,950	14,370	*11,680	9,350	*10,230	6,610	*7,170	5,450	(27.6)
1.5m	kg					*8,390	5,980	*6,120	3,990	4,850	2,870	*3,450	2,360	8.49
4.9ft	lb					*18,500	13,180	*13,490	8,800	10,690	6,330	*7,610	5,200	(27.9)
0.0m	kg					*9,340	5,680	6,610	3,800	4,750	2,780	*3,820	2,390	8.31
0.0ft	lb					*20,590	12,520	14,570	8,380	10,470	6,130	*8,420	5,270	(27.3)
-1.5m	kg	*5,890	*5,890	*9,640	*9,640	*9,550	5,590	6,520	3,720	4,710	2,740	4,430	2,590	7.84
-4.9ft	lb	*12,990	*12,990	*21,250	*21,250	*21,050	12,320	14,370	8,200	10,380	6,040	9,770	5,710	(25.7)
-3.0m	kg	*10,380	*10,380	*13,140	10,860	*9,080	5,640	6,550	3,740			5,240	3,060	7.01
-9.8ft	lb	*22,880	*22,880	*28,970	23,940	*20,020	12,430	14,440	8,250			11,550	6,750	(23.0)
-4.5m	kg			*10,800	*10,800	*7,600	5,850					*5,630	4,240	5.68
-14.8ft	lb			*23,810	*23,810	*16,760	12,900					*12,410	9,350	(18.6)

- Notes:
1. Lifting capacity are based on ISO 10567.
  2. Lifting capacity does not exceed 75% of tipping load with the machine on firm, level ground or 87% of full hydraulic capacity.
  3. The Lift-point is bucket pivot mounting pin on the arm(without bucket mass).
  4. (\*) indicates load limited by hydraulic capacity.



**Calypso**  
MACHINERY