

# R220LS

SMART *PLUS*



Head Office(Sales Office)  
11F, GLOBAL R&D CENTER, 477 BUNDANG SUSEO-RO, BUNDANG-GU, SEONGNAM-SI, GYEONGGI-DO, 13553, KOREA

PLEASE CONTACT

2025. FEB

OPERATING WEIGHT  
22000kgs

GROSS POWER  
148 HP @ 2000 rpm

BUCKET CAPACITY  
0.95~1.05m<sup>3</sup>



# DESIGNED FOR SMART WORK

## R220LS

**SMART** *plus*

### BEST-IN CLASS PERFORMANCE

- Advanced CAPO system
- Hydraulic flow summation
- Regeneration system
- Excellent digging forces
- Swing priority

### OPERATOR COMFORT

- Spacious cabin
- Fully adjustable seat
- Enhanced visibility
- User friendly functionality

### IMPROVED FUEL EFFICIENCY

- New ECO mode
- Fuel saving kit
- Electro hydraulic system
- Auto deceleration system
- Efficient breaker mode



### INCREASED MACHINE DURABILITY

- Strengthened undercarriage
- Proven upper structure
- Forged ring body
- Reinforced front attachment

### SIMPLIFIED MAINTENANCE

- Easy serviceability
- Extended maintenance
- Large capacity fluid tank
- Low life cycle cost

### PARTS & SUPPORT

- Hyundai genuine parts
- Max parts availability
- On-site product support
- Remote management system (Hi-Mate)



# RELIABILITY



## REINFORCED FRONT STRUCTURE

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

## ULTIMATE RELIABILITY



Reinforced idler frame



Lower frame belly guard



1 pc cast H link



Reinforced bucket link



HD TRACK LINK



ROCK GUARD

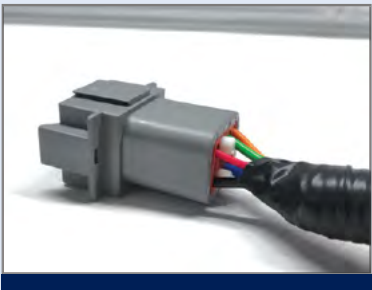


TANK SAFETY COVER



## SWING & TRAVEL SYSTEM

Highly efficient Hyundai designed swing and travel system ensure maximum reliability & performance.



## RELIABLE ELECTRICALS

- Dust and water proof connectors
- Longer component life



## AIR PRE-CLEANER

- Removes dirt and Debris from air before entering air filter
- Improves air filter life
- Low maintenance cost



## RUGGED UNDERCARRIAGE

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

# SERVICEABILITY

## 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 <span>New!</span>
Engine Filter	500 hrs <span>New!</span>



## IMPROVED COOLING EFFICIENCY

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



## 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

## DURABLE MOUNTING PIN BUSH



New!

Hinged type front glass guard for easy cleaning

## EASY ACCESSIBILITY

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





# SAFETY

## SAFETY - PEACE OF MIND AND OPERATOR CONFIDENCE

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



### BATTERY DISCONNECT SWITCH

Cut off power during maintenance and protect batteries from excessive drain



### AUTO ENGINE OVERHEAT PREVENTION

Auto Deceleration with activation of engine overheat warning to avoid catastrophic failure

# 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





Our Unique remote management system allows customers to access machine operating information & obtain service & maintenance alerts at the touch of a button.

### INCREASED PRODUCTIVITY

HI MATE empowers you to enhance the efficiency of your operations. Make better decisions by comparing the machine's operating time with its travelling, idling & breaker use duration.

### CONVENIENT & EASY MONITORING

Enjoy round the clock & on the move access to your machine's information through the website or the mobile app.



### SECURITY & FLEET MONITORING

Protect your machines from theft or unauthorized use. HI MATE's GPS feature allows you to create a geo-fence & alerts you if the machine moves out of the defined boundary.

Maintenance Scheduler					
Maintenance Interval					
Item	Default	Setting	Total	Hours	Replace Date
Engine Oil	500	500	22	818	29-Mar-2018
Travel Reduction Gear Case	1,000	300	8	400	19-Jan-2018
Swing Reduction Gear Case	1,000	200	9	400	19-Jan-2018
Hydraulic Oil	5,000	350	8	154	07-Feb-2018
Pilot Line Filter	1,000	220	8	540	02-Feb-2018
Hydraulic Tank Drain Filter	1,000	250	9	540	02-Feb-2018

### PROACTIVE MAINTENANCE

Access your machine's service & maintenance history with the utmost convenience. Plan your service schedules intelligently with our regular reminders.

Alarm Notice						
Date	Time	Parameter	Alarm Type	Alarm Code (HPI#)	Description	Callback
15-Apr-2018	07:18	810	W	301	Warning! Fuel level low	
16-Apr-2018	17:39	809	W	301	Warning! Fuel level low	
11-Apr-2018	11:23	491	W	303	Warning! Fuel level low	
10-Apr-2018	07:14	484	W	303	Warning! Fuel level low	
09-Apr-2018	07:41	476	W	303	Warning! Fuel level low	
08-Apr-2018	06:58	478	W	303	Warning! Fuel level low	
08-Apr-2018	11:34	469	W	312	Warning! Engine Oil Pressure low	

### ALARMS

Get notified of system alarms & protect your machine from critical faults & experience repairs.

# SPECIFICATIONS

#### Engine

<b>Maker/Model</b>		Cummins6BTAA-5.9C	
Rated flywheel horse power	SAE	J1995 (Gross) J1349 (Net)	148 HP (110KW) @2000rpm 145 HP (108KW) @2000rpm
Max Torque	63.7gfm @1300 rpm		
Displacement	5800cc		

#### 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	25.5
Engine oil	21
Swing device	5
Final drive (each)	5.8
Hydraulic system / Hydraulic tank	260 / 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	49
No. of carrier rollers each side	2
No. of track rollers, each side	9
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")	22,000 (48,502)	0.47 (6.68)

#### Dimensions

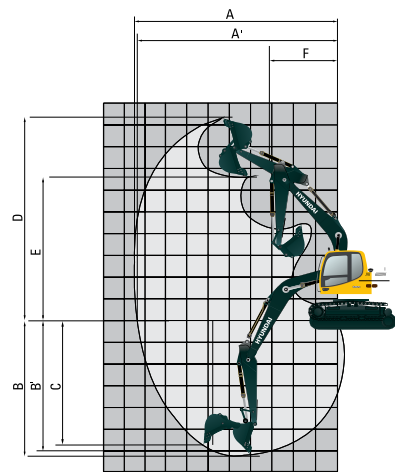
	(mm)
A	Tumbler distance
B	Overall length of crawler
C	Ground clearance of counter weight
D	Tail swing radius
D'	Rear-end length
E	Overall width of upper structure
F	Overall height of cabin
G	Min. ground clearance
H	Track gauge
I	Overall length
J	Overall height of boom
K	Track shoe width
L	Overall width

# SPECIFICATIONS

## Working Ranges

(mm)

Arm length		2000	*2400	2920
A	Max. digging reach	9,105(29'10")	9,474(31'1")	9,945(32'8")
A'	Max. digging reach on ground	8,928(29'4")	9,305(30'6")	9,783(32'1")
B	Max. digging depth	5,680(18'8")	6,079(19'11")	6,600(21'8")
B'	Max. diggign depth(8ft level)	5,448(17'11")	5,876(19'3")	6,424(21'1")
C	Max. Vertical wall digging depth	4,743(15'7")	5,094(16'9")	5,726(18'9")
D	Max. digging height	9,225(30'3")	9,433(30'11")	9,685(31'9")
E	Max. dumping height	6,424(21'1")	6,635(21'9")	6,873(22'7")
F	Min. swing radius	3,759(12'4")	3,573(11'9")	3,508(11'6")

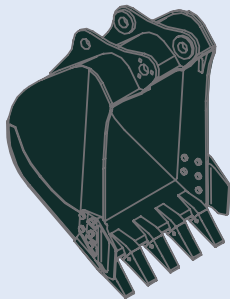


Bucket Digging Force 15729 kgf  
Arm Crowd Force(2.4m) 12571 kgf

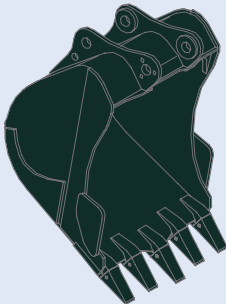
## BUCKETS

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	0.92	0.81	1148	758	5	●	●	●
GP	1.20	1.06	1398	790	5	■	■	▲
GP	1.00	0.88	1232	797	5	●	●	■
GP	1.05	0.92	1248	803	5	●	■	■
HD	0.87	0.77	1147	926	5	●	●	■
HD	0.92	0.81	1220	978	5	●	●	■
HD	0.95	0.84	1270	1056	5	●	●	■
HD	1.10	0.97	1435	1112	5	■	■	▲

● : Applicable for materials with density of 2,100 kg/m³ (3,500 lb/yd³) or less  
● : Applicable for materials with density of 1,800 kg/m³ (3,000 lb/yd³) or less

■ : Applicable for materials with density of 1,500 kg/m³ (2,500 lb/yd³) or less  
▲ : Applicable for materials with density of 1,200 kg/m³ (2,000 lb/yd³) or less  
x : Not Recommended

# SPECIFICATIONS

## 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(97") Arm are available. Buckets are all-welded, high-steel implements.

	Length	mm(ft.in)	2,000 (6'7")	*2,400 (7'10")	2,920 (9'7")
Arm	Weight	kg(lb)	614 (1,354)	718 (1,583)	735 (1,620)
Bucket Digging Force	SAE	kN	133	133	134
		kgf	13,591	13,596	13,646
		lbf	29,963	29,973	30,084
	ISO	kN	154	154	155
		kgf	15,724	15,729	15,788
		lbf	34,666	34,677	34,806
Arm Crowd Force	SAE	kN	140	118	99
		kgf	14,290	11,995	10,111
		lbf	31,504	26,445	22,292
	ISO	kN	148	123	103
		kgf	15,065	12,571	10,543
		lbf	33,213	27,715	23,244

Note: Arm weight includes cylinder and linkage  
\*Standard arm

LIFTING CAPACITIES

LIFTING CAPACITIES R215 SMART PLUS



Rating over-front



Rating over-side

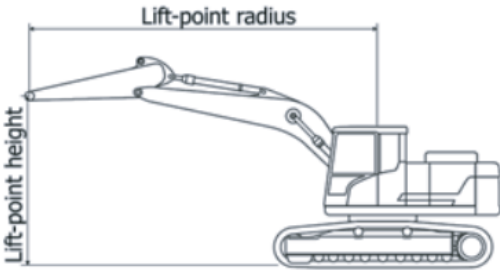
Boom type	Length[mm]	Arm type	Length[mm]	BK type	Capa.[m³]	QC	Swing Post	CWT[kg]	Shoe(wheel)	Outtriger[F]	Outtriger[R]	Cabin type
GP	5680	GP	2000	GP	1.05	NO	NO	3800	600[mm]	NONE	NONE	CABIN
Lift-point height (m/ft)		Lift-point radius								At max. reach		
		3.0m (9.8ft)		4.5m (14.8ft)		6.0m (19.7ft)		7.5m (24.6ft)		Capacity		Reach
												m(ft)
7.5m	kg									*5,520	*5,520	4.97
24.6ft	lb									*12,170	*12,170	(16.3)
6.0m	kg					*5,200	4,530			*5,250	4,120	6.33
19.7ft	lb					*11,460	9,990			*11,570	9,080	(20.8)
4.5m	kg			*6,590	*6,590	*5,500	4,410			*5,230	3,340	7.13
14.8ft	lb			*14,530	*14,530	*12,130	9,720			*11,530	7,360	(23.4)
3.0m	kg					*6,150	4,190	5,280	3,000	5,230	2,970	7.54
9.8ft	lb					*13,560	9,240	11,640	6,610	11,530	6,550	(24.7)
1.5m	kg					*6,780	3,990	5,190	2,930	5,050	2,850	7.64
4.9ft	lb					*14,950	8,800	11,440	6,460	11,130	6,280	(25.1)
0.0m	kg			*9,740	5,770	*7,120	3,880			5,210	2,920	7.43
0.0ft	lb			*21,470	12,720	*15,700	8,550			11,490	6,440	(24.4)
-1.5m	kg			*9,370	5,790	*6,980	3,870			5,830	3,240	6.89
-4.9ft	lb			*20,660	12,760	*15,390	8,530			12,850	7,140	(22.6)
-3.0m	kg	*10,990	*10,990	*8,230	5,930					*5,960	4,070	5.93
-9.8ft	lb	*24,230	*24,230	*18,140	13,070					*13,140	8,970	(19.4)
-4.5m	kg											
-14.8ft	lb											

Boom type	Length[mm]	Arm type	Length[mm]	BK type	Capa.[m³]	QC	Swing Post	CWT[kg]	Shoe(wheel)	Outtriger[F]	Outtriger[R]	Cabin type
GP	5680	GP	2400	GP	1.05	NO	NO	3800	600[mm]	NONE	NONE	CABIN
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									*5,000	*5,000	5.53
24.6ft	lb									*11,020	*11,020	(18.1)
6.0m	kg					*4,770	4,570			*4,840	3,700	6.78
19.7ft	lb					*10,520	10,080			*10,670	8,160	(22.2)
4.5m	kg			*6,050	*6,050	*5,150	4,420	*4,850	3,060	*4,850	3,040	7.52
14.8ft	lb			*13,340	*13,340	*11,350	9,740	*10,690	6,750	*10,690	6,700	(24.7)
3.0m	kg			*7,650	6,330	*5,830	4,180	*5,040	2,980	4,830	2,730	7.92
9.8ft	lb			*16,870	13,960	*12,850	9,220	*11,110	6,570	10,650	6,020	(26.0)
1.5m	kg			*9,030	5,870	*6,530	3,950	5,150	2,880	4,670	2,610	8.01
4.9ft	lb			*19,910	12,940	*14,400	8,710	11,350	6,350	10,300	5,750	(26.3)
0.0m	kg			*9,600	5,680	*6,970	3,810	5,080	2,810	4,790	2,660	7.81
0.0ft	lb			*21,160	12,520	*15,370	8,400	11,200	6,190	10,560	5,860	(25.6)
-1.5m	kg	*9,680	*9,680	*9,430	5,660	*6,970	3,770			5,280	2,920	7.30
-4.9ft	lb	*21,340	*21,340	*20,790	12,480	*15,370	8,310			11,640	6,440	(24.0)
-3.0m	kg	*11,800	11,130	*8,540	5,770	*6,260	3,860			*5,650	3,560	6.40
-9.8ft	lb	*26,010	24,540	*18,830	12,720	*13,800	8,510			*12,460	7,850	(21.0)
-4.5m	kg			*6,220	6,070					*5,490	5,420	4.89
-14.8ft	lb			*13,710	13,380					*12,100	11,950	(16.0)

LIFTING CAPACITIES

Boom type	Length[mm]	Arm type	Length[mm]	BK type	Capa.[m³]	QC	Swing Post	CWT[kg]	Shoe(wheel)	Outtriger[F]	Outtriger[R]	Cabin type	
GP	5680	GP	2920	GP	1.05	NO	NO	3800	600[mm]	NONE	NONE	CABIN	
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	
7.5m	kg							*4,400	*4,400			*3,840	*3,840
24.6ft	lb							*9,700	*9,700			*8,470	*8,470
6.0m	kg							*4,290	*4,290			*3,550	3,290
19.7ft	lb							*9,460	*9,460			*7,830	7,250
4.5m	kg							*4,750	4,510	*4,460	3,120	*3,480	2,770
14.8ft	lb							*10,470	9,940	*9,830	6,880	*7,670	6,110
3.0m	kg							*7,060	6,540	*5,500	4,260	*4,780	3,020
9.8ft	lb							*15,560	14,420	*12,130	9,390	*10,540	6,660
1.5m	kg							*8,620	6,030	*6,290	4,020	*5,160	2,900
4.9ft	lb							*19,000	13,290	*13,870	8,860	*11,380	6,390
0.0m	kg			*5,110	*5,110	*9,490	5,750	*6,850	3,850	5,080	2,810	*4,190	2,440
0.0ft	lb			*11,270	*11,270	*20,920	12,680	*15,100	8,490	11,200	6,190	*9,240	5,380
-1.5m	kg	*5,680	*5,680	*9,430	*9,430	*9,600	5,670	7,010	3,780	5,050	2,790	4,770	2,640
-4.9ft	lb	*12,520	*12,520	*20,790	*20,790	*21,160	12,500	15,450	8,330	11,130	6,150	10,520	5,820
-3.0m	kg	*10,230	*10,230	*12,880	11,040	*9,000	5,730	*6,630	3,810			*5,370	3,130
-9.8ft	lb	*22,550	*22,550	*28,400	24,340	*19,840	12,630	*14,620	8,400			*11,840	6,900
-4.5m	kg			*10,310	*10,310	*7,340	5,940					*5,460	4,360
-14.8ft	lb			*22,730	*22,730	*16,180	13,100					*12,040	9,610

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



# STANDARD / OPTIONAL LIST

# NOTES

## Standard Equipment

ISO standard cabin
All-weather steel cab with all-around visibility
Safety glass windows
Sliding fold-in front window
Sliding side window
Air-conditioner (5000kcal/hr, 20000 BTU/hr)
Accessory box & Ashtray

## Computer Aided Power Optimization (New CAPO) system

3-power mode, 2-work mode
Auto deceleration & one touch deceleration system
Auto engine overheat prevention system
Self diagnostic system
Centralized monitoring

LCD display
Engine speed
Clock & Error code
Mobile charging point
Fuel level gauge
Engine coolant temperature gauge
Hyd. oil temperature gauge

## Warning

Fuel level
CPU
Engine oil pressure
Engine coolant temperature
Hyd. oil temperature
Low battery
Air cleaner clogging
Door and cab locks, one key
One outside rearview mirror
Dual channel fully adjustable suspension seat
Slidable joystick, pilot-operated
Two front working lights and two cabin work lights
Electric horn
Batteries (2 x 12V x 100 AH)
Battery master switch
Removable clean out screen for oil cooler
Automatic swing brake
Removable reservoir tank
24V Power Socket

Fuel pre-filter
Boom holding system
Arm holding system
Counter weight (3800kg)
Radio / USB player
Mono boom (5.68m, 18' 8")
Arm (2.4m, 7' 10") 2.m(6'7"),
Standard bucket (1.05GP m³, 1.37 yd³)
Track shoes (600mm, 24")
Track rail guard
Cabin front protector
Operator kit
Tool kit
Remote management system (HI-MATE)

## Optional Equipment

Fuel Refilling Pump
Beacon lamp
Single acting piping kit
Sun visor for cabin inside

## Various optional Arms (SAE heaped)

Arm 2.0 m (6'7") & 2.92 m, (9'7")
Remote management system (Hi-Mate)
Travel alarm
Operator seat belt
Fire extinguisher
Rock Breaker