

R220LS **SMART PLUS**

OPERATING WEIGHT: 22000kgs

GROSS POWER : 148 HP @ 2000 rpm

BUCKET CAPACITY: 0.95 - 1.05m³



R220LS **SMART PLUS**

DESIGNED FOR SMART WORK

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



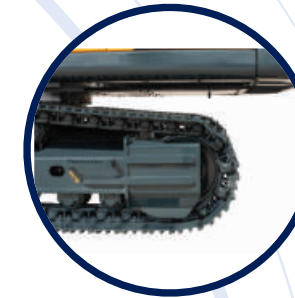
IMPROVED FUEL EFFICIENCY

- 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)

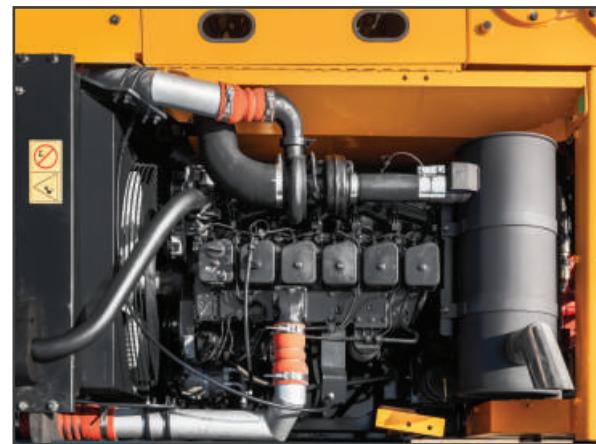


PRIDE AT WORK

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, charge air cooled 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.



R220LS SMART PLUS

New Eco Mode



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.



CHARGE AIR COOLER

- Cools the air as it passes through turbocharger
- Resulting in cool high density, bigger mass of air being pumped to engine
- Increasing the burning efficiency

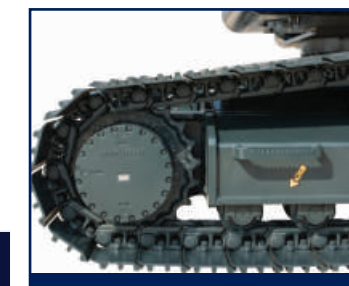


EFFICIENT COMBINED OPERATION

Inbuilt flow summation system and **swing priority** function leads to faster swing cycle results in excellent output

CHOICE OF OPERATING MODE

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



BEST IN CLASS TRAVEL PERFORMANCE

- Higher traction force
 - Dual travel option
 - High maneuverability
- Traction Force : 21100 kgf



DIGGING FORCES

Higher output even in tough working conditions

- Bucket - 15600 kgf
- Arm - 12500 kgf

FUEL EFFICIENCY



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



ARM REGENERATION SYSTEM

- Smooth operation
- Prevent cavitation
- Increased performance & 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



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.

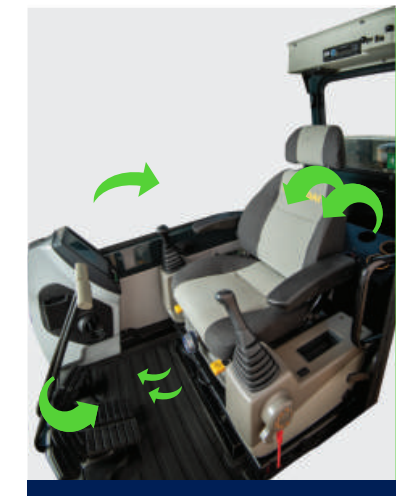
OPERATOR SEAT

Easily adjustable fully suspension seat with adjustable arm rest



SPACIOUS CABIN

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



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



AIR CONDITIONER

- High performance air conditioner
- Improved AC ducting

- Sun visor
- Water bottle cooling system

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

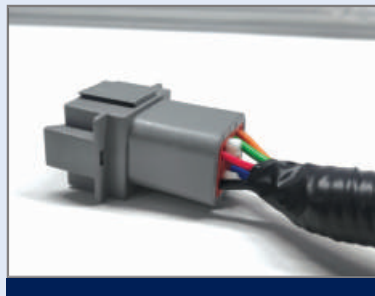


TANK SAFETY COVER



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	2000 hrs
Hydraulic filter	250 hrs
Engine oil	500 hrs
Engine Filter	500 hrs



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

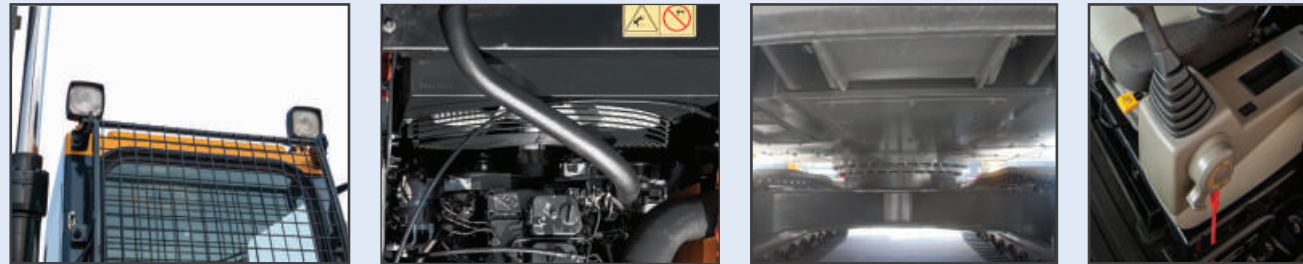
Easy access for maintenance means regular checks get done faster. Hyundai's SMART PLUS machines feature easy service access to increase uptime and reduce operating costs.



> 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.

Item	Default	Setting	Total	Hours	Reserve Date	Reschedule Date to next maintenance	Alert
Engine Oil	500	62	22	658	29-Mar-2018		100%
Travel Reduction Gear Case	1,000	300	8	400	19-Mar-2018		100%
Swing Reduction Gear Case	1,000	300	0	400	19-Mar-2018		100%
Hydraulic Oil	5,000	300	0	154	02-Feb-2018		100%
Pilot Line Filter	1,000	220	0	340	02-Feb-2018		100%
Hydraulic Tank Drain Filter	1,000	220	0	340	02-Feb-2018		100%

PROACTIVE MAINTENANCE

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

Date	Time	Message	Alarm Type	Alarm	Error Code (SPN)	Description	Feedback
15-Apr-2018	07:10	001	W	001	001	Warning! Fuel level low.	
16-Apr-2018	13:30	000	W	001	001	Warning! Fuel level low.	
16-Apr-2018	11:21	491	W	002	002	Warning! Fuel level low.	
19-Apr-2018	07:14	484	W	700	700	Warning! Battery Voltage low.	
08-Apr-2018	07:41	476	W	003	003	Warning! Fuel level low.	
08-Apr-2018	09:58	476	W	003	003	Warning! Fuel level low.	
08-Apr-2018	11:34	469	W	010	010	Warning! Engine Oil Pressure low.	

ALARMS

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

SPECIFICATIONS

Engine

Maker/Model		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		Two variable displacement piston pumps	
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 ²
Travel	330kgf/cm ²
Swing Circuit	240kgf/cm ²
Pilot Circuit	35kgf/cm ²
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 ² (psi)
600 mm (24")	22,000 (48,502)	0.47 (6.68)

Dimensions

Dimensions	(mm)
A Tumbler distance	3640
B Overall length of crawler	4440
C Ground clearance of counter weight	1060
D Tail swing radius	2830
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	9570
J Overall height of boom	3110
K Track shoe width	600
L Overall width	2990

Working Ranges

Arm length (std.)	2400	2920	Boom length (std.)	5680
A Maximum Digging Reach.	9480	9950		
A' Digging Reach on Ground.	9300	9780		
B Max Digging Depth	6050	6570		
B' Max- Digging Depth (8' level).	5840	6390		
C Vertical Wall Digging Depth	5100	5710		
D Maximum Digging Height	9470	9720		
E Maximum Dumping Height.	6670	6910		
F Minimum Swing Radius.	3580	3510		

Bucket Digging Force	15600kgf
Arm Crowd Force	12500kgf

LIFTING CAPACITIES

LIFTING CAPACITIES R220LS SMART PLUS



Rating over-front



Rating over-side

Boom: 5.68 m (18' 8") / Arm: 2.4 m (7' 10") / Bucket: 1.05 m³ (1.20yd³) SAE heaped/ Shoe: 600mm(24") triple grouser with 3800 kg (8,308 lb) counterweight

Load point height m (ft)	Load radius										At max. reach		
	1.5 m (5.0 ft)		3 m (10.0 ft)		4.5 m (15 ft)		6.0 m (20.0 ft)		7.5 m (25.0 ft)		Capacity	Reach	
	Rating over-front	Rating over-side	Rating over-front	Rating over-side	Rating over-front	Rating over-side	Rating over-front	Rating over-side	Rating over-front	Rating over-side	Capacity	Reach	
7.5m (24.6ft)											*3970 *8750	*3970 *8750	5.70 (18.7)
6.0m (19.7ft)							*3900 *8600	*3900 *8600			*3920 *8640	3470 7650	6.91 (22.7)
4.5m (14.8ft)					*5070 11180	*5070 11180	*4320 *9520	*4320 *9520	*4010 8840	2890 6370	*3950 *8710	2780 6130	7.64 (25.1)
3.0m (9.8ft)					*6630 14620	6490 14310	*5020 *11070	4080 8990	*4280 *9440	2770 6110	4150 9150	2440 5380	8.02 (26.3)
1.5 m (4.9ft)					*8060 *17770	5910 13030	*5740 *12650	3810 8400	4540 10010	2640 5820	3990 8800	2310 5090	8.11 (26.6)
0.0m			*6120	*6120	*8790	5630	6240	3620	4440	2550	4090	2340	7.90
0.0ft			*13490	*13490	*19380	12410	13760	7980	9790	5620	9020	5160	(25.9)
-1.5m (-4.9ft)			*11080	*11080	*8810	5570	6250	3560			4520	2590	7.39
-4.9ft			*24430	*24430	*19420	12280	13780	7850			9960	5710	(24.2)
-3.0m (-9.8ft)			*11680	11570	*8120	5670	*5870	3620			*5250	3230	6.49
-9.8ft			*25750	25510	*17900	12500	*12940	7980			*11570	7120	(21.3)
-4.5m (-14.8ft)			*8970	*8970	*6300	5970					*5510	5080	5.00
-14.8ft			*19780	*19780	*13890	13160					*12150	11200	(16.4)

Boom : 5.68m (18' 8") / Arm : 2.92m (7' 10") / Bucket 1.05m³ / 600mm Triple Grouser Shoe with 3800kg CWT

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	
	Rating over-front	Rating over-side	Rating over-front	Rating over-side	Rating over-front	Rating over-side	Rating over-front	Rating over-side	Rating over-front	Rating over-side	Capacity	Reach	
7.5m (24.6ft)											*2690 *5930	*2690 *5930	6.44 (21.1)
6.0m (19.7ft)							*3400 *7500	*3400 *7500	*2630 *5800	*2630 *5800	*2540 *5600	*2540 *5600	7.53 (24.7)
4.5m (14.8ft)							*3870 *8530	*3870 *8530	*3630 *8000	2950 6500	*2540 *5600	2450 5400	8.20 (26.9)
3.0m (9.8ft)			*9610	*9610	*5970	*5970	*4630	4170	*3980	2810	*2670	2170	8.56
9.8ft			*21190	*21190	*13160	*13160	*10210	9190	*8770	6190	*5890	4780	(28.1)
1.5m (4.9ft)			*5920	*5920	*7570	6090	*5440	3870	4400	2660	*2940	2050	8.64
4.9ft			*13050	*13050	*16690	13430	*11990	8530	9700	5860	*6480	4520	(28.3)
0.0m (0.0ft)			*6910	*6910	*8590	5710	*6070	3650	4430	2540	*3400	2070	8.45
0.0ft			*15230	*15230	*18940	12590	*13380	8050	9770	5600	*7500	4560	(27.7)
-1.5m (-4.9ft)			*6250	*6250	*10050	5580	6240	3550	4370	2490	3980	2260	7.97
-4.9ft			*13780	*13780	*22160	12300	13760	7830	9630	5490	8770	4980	(26.1)
-3.0m (-9.8ft)			*9780	*9780	*12630	11450	*8490	5620	*6120	3560	4760	2730	7.15
-9.8ft			*21560	*21560	*27840	25240	*18720	12390	*13490	7850	10490	6020	(23.4)
-4.5m (-14.8ft)					*10420	5820	*7180				*5160	3900	5.83
-14.8ft					*22970	12830					*11380	8600	(19.1)

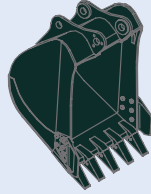
- Lifting capacity are based on ISO 10567.
- Lifting capacity of the Robex Series does not exceed 75% of tipping load with the machine on firm, level ground or 87% of full hydraulic capacity.
- The Lift-point is a hook (standard equipment) located on the back of the bucket.
- (*) indicates the load limited by hydraulic capacity.

SPECIFICATIONS

BUCKETS

All buckets are welded with high-strength steel.

GENERAL PURPOSE



*1.05 m³ (1.37 yd³)

HEAVY DUTY



0.95 m³ (1.25 yd³)

Capacity m ³ (yd ³)		Width mm (in)		Weight kg (lb)	Recommendation mm (ft.in)	
SAE heaped	CECE heaped	Without side cutters	With side cutters		5,680 (18' 8") Boom	
					*2,400 (7' 10") Arm	2,920 (9' 7") Arm
* 1.05 (1.37)	0.92 (1.20)	1250 (49.2)	1370 (53.9)	807 (1,779)	●	■
● 0.95 (1.25)	0.83 (1.09)	1240 (44.9)	-	1026 (2,262)	●	■

- *: Standard backhoe bucket
- : Rock-Heavy duty bucket

- Applicable for materials with density of 2,000 kg/m³ (3,370 lb / yd³) or less
- Applicable for materials with density of 1,600 kg/m³ (2,700 lb / yd³) or less

ATTACHMENT

Boom and arms are welded with a low-stress, full-box section design 5.68m (18' 8") mono boom and 2.4m (7' 10"), 2.92m (9' 7") Arms available. Buckets are all-welded, high-strength steel equipments.

DIGGING FORCE

Arm	Length	mm (ft.in)		*2,400 (7' 10")	2,920 (9' 7")
		kg (lb)		720 (1,590)	750 (1,650)
Bucket digging force	SAE	kN		133.4	133.4
		kgf		13,600	13,600
		lbf		29,980	29,980
	ISO	kN		153.0	154.0
		kgf		15,600	15,700
		lbf		34,390	34,610
Arm crowd force	SAE	kN		117.7	99.0
		kgf		12,000	10,100
		lbf		26,460	22,270
	ISO	kN		122.6	103.0
		kgf		12,500	10,500
		lbf		27,560	23,150

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

> STANDARD / OPTIONAL LIST

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")
 Standard bucket (1.05GP m³, 1.37 yd³)
 Track shoes (600mm, 24")
 Track rail guard
 Cabin front protector
 Operator kit
 Tool kit

Optional Equipment

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

Various optional Arms (SAE heaped)

Arm (2.92 m, 9' 7")

Various optional Buckets (SAE heaped)

Rock heavy duty bucket (0.95 m³, 1.25 yd³)
 Remote management system (Hi-Mate)
 Travel alarm
 Operator seat belt
 Fire extinguisher
 Rock Breaker



HD Hyundai Construction Equipment India Pvt. Ltd.

Factory Location

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Oct 2023