

# R210 **SMART PLUS**

OPERATING WEIGHT: 21200 kgs

GROSS POWER : 140 HP @ 2000 rpm

BUCKET CAPACITY: 0.87 - 0.92m<sup>3</sup>



# R210

**SMART PLUS**

## BEST-IN CLASS PERFORMANCE

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



## 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



# DESIGNED FOR SMART WORK



## Increased Machine Durability

- Strengthened undercarriage
- Proven upper structure
- Forged ring body
- Heavy duty 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
- Hi-Track (RMS - Optional)



# Performance

## 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.





# R210

SMART *plus*



## 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
H Mode	<ul style="list-style-type: none"><li>• Maximum Power</li><li>• Fast Cycle time</li></ul>
S Mode	<ul style="list-style-type: none"><li>• Balance between power and fuel efficiency</li></ul>
Eco Mode	<ul style="list-style-type: none"><li>• Better fuel efficiency</li></ul>
Breaker Mode	<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 - 15500 kgf
- Arm - 12000 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



## 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.

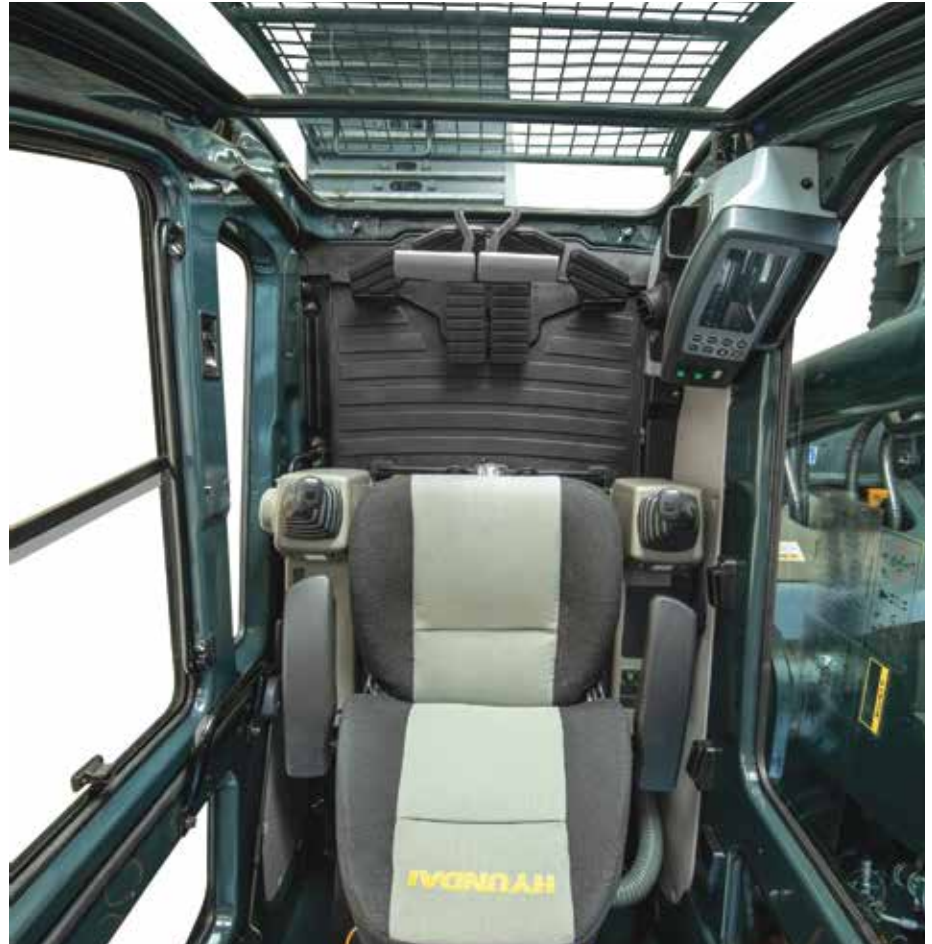


## SPACIOUS CABIN

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

## OPERATOR SEAT

Easily adjustable fully suspension seat with adjustable arm rest



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

## 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



SUN VISOR



- 12V Socket
- AC Front Vent
- Hour Meter



## AIR CONDITIONER

- High performance air conditioner
- Improved AC ducting
- Water bottle cooling system





# Reliability



## HEAVY DUTY FRONT STRUCTURE

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



## RUGGED UNDERCARRIAGE

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



## RELIABLE ELECTRICALS

- Dust and water proof connectors
- Longer component life



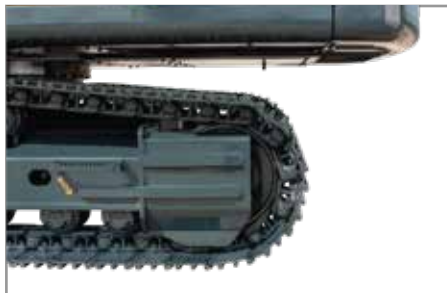
## SWING & TRAVEL SYSTEM

Highly efficient Hyundai designed swing and travel system ensure minimum failure.



## AIR PRE-CLEANER

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



## REINFORCED IDLER FRAME



## CASTED BUCKET CONTROL LINK



## LOWER FRAME BELLY GUARD



## FORGED RING BODY





# 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 <b>NEW</b>
Engine Filter	500 hrs <b>NEW</b>



## 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



Hinged type front glass guard for easy cleaning

## EASY ACCESSIBILITY

Easy access for maintenance means regular checks get done faster. Hyundai's SMART 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



**AUTO ENGINE OVERHEAT & WARM UP FUNCTION**



**BATTERY DISCONNECT SWITCH**



**LOWER BELLY GUARD**



**TANK SAFETY COVER**



# 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

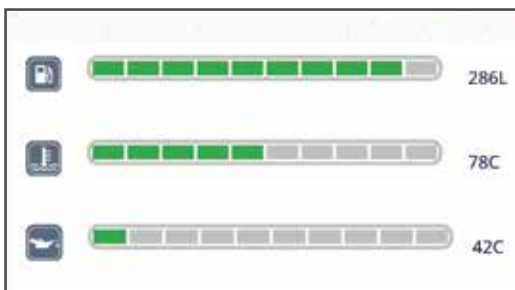


## INCREASED PRODUCTIVITY

Remote management system empowers you to enhance the efficiency of your operations. Make better decision by comparing the machine's operating time with its travelling idling & breaker use duration.

## CONVENIENT & EASY MONITORING

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



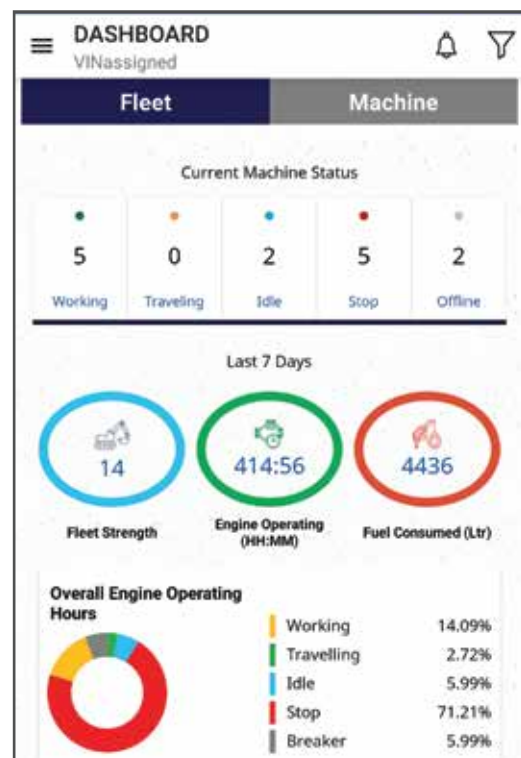
## PROACTIVE MAINTENANCE

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

SELECT REPORTS	
Geo Zone In/Out Detail	<input checked="" type="radio"/>
Fault Code	<input type="radio"/>
Vehicle Usage Summary	<input type="radio"/>
Temperature Record	<input type="radio"/>

## ALARMS

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



## SECURITY & FLEET MONITORING

Protect your machine from theft or unauthorized use. GPS features allows you to create a geo-fence & alerts you if the machine moves out of the defined boundary.





# Specifications

## Specifications

### Engine

<b>Maker/Model</b>		Cummins6BT5.9-C	
Rated flywheel horse power	SAE	J1995 (Gross) J1349 (Net)	140HP (104KW) @2000rpm 136HP (101KW) @2000rpm
<b>Max Torque</b>		57.6kgfm (417lbfft) @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)	5.8
Hydraulic system / Hydraulic tank	290 / 180

#### 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

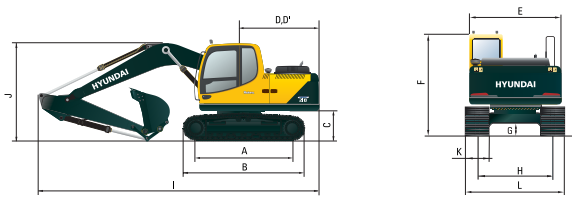
X-Leg type centre frame is integrally welded with reinforced box section track frames. The undercarriage includes lubricated rollers, idlers, track adjusters with shock absorbing spring and sprockets and trackchain with triple grouse shoes.

Centre frame	X-leg type
Track frame	Pentagonal box type
No. of shoes on each side	46
No. of carrier rollers each side	2
No. of track rollers each side	7
No. of rail guard each side	1

### 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

### Dimensions



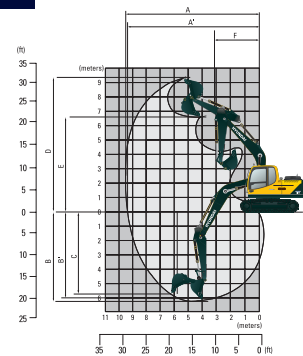
#### Dimensions

	(mm)	
A	Tumbler distance	3370
B	Overall length of crawler	4160
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	2200
I	Overall length	9570
J	Overall height of boom	3110
K	Track shoe width	600
L	Overall width	2800

#### Working Ranges (mm)

Boom length (std.)	5680
Arm length (std.)	2400

A	Maximum Digging Reach.	9500
A'	Digging Reach on Ground.	9330
B	Max Digging Depth	6220
B'	Max- Digging Depth (8' level).	6010
C	Vertical Wall Digging Depth	5720
D	Maximum Digging Height	9340
E	Maximum Dumping Height.	6520
F	Minimum Swing Radius.	3740



Bucket Digging Force	15550kgf
Arm Crowd Force	12000kgf



# Lifting Capacities

## LIFTING CAPACITIES R210 SMART PLUS



Rating over-front



Rating over-side

Boom: 5.68 m (18' 8") / Arm: 2.0 m (6' 7") / Bucket: 0.92 m<sup>3</sup> (1.20yd<sup>3</sup>) SAE heaped/ Shoe: 600mm(24") triple grouser with 3,800kg (8,308 lb) counterweight

Load point height m (ft)		Load radius								At max. reach		
		3.0 m (10.0 ft)		4.5 m (15.0 ft)		6.0 m (20.0 ft)		7.5 m (25.0 ft)		Capacity		Reach m (ft)
7.5m (25.0ft)	kg lb									*3750 *8270	*3750 *8270	6.64 (21.8)
6.0m (20.0ft)	kg lb					*4150 *9150	*4150 *9150			*3800 *8380	2910 6420	7.78 (25.5)
4.5m (15.0ft)	kg lb			*5360 *11820	*5360 *11820	*4140 *10010	4440 9790			3620 7980	2430 5360	8.43 (27.7)
3.0m (10.0ft)	kg lb			*6970 *15370	6540 14420	*5240 *11550	4180 9220	4280 9440	2870 6330	3340 7360	2210 4870	8.74 (28.7)
1.5 m (5.0ft)	kg lb			*8380 *18470	6020 13270	*5930 *13070	3920 8640	4160 9170	2750 6060	3280 7230	2160 4760	8.73 (28.6)
Ground	kg lb			*9020 *19890	5790 12760	*5750 *12680	3760 8290	4070 8970	2680 5910	3460 7630	2270 5000	8.42 (27.6)
-1.5m (-5.0ft)	kg lb	*13020 *28700	11630 25640	*8960 *19750	5760 12700	*5680 *12540	3710 8180			3960 8730	2620 5780	7.76 (25.5)
-3.0m (-10.0ft)	kg lb	*11620 *25620	*11620 *25620	*8210 *18100	5870 12940	*5790 *12760	3800 8380			*4510 *9940	3480 7670	6.61 (21.7)
-4.5m (-15.0ft)	kg lb	*8770 *19330	*8770 *19330									

Boom: 5.68 m (18' 8") / Arm: 2.4 m (7' 10") / Bucket: 0.92 m<sup>3</sup> (1.20yd<sup>3</sup>) SAE heaped/ Shoe: 600mm(24") triple grouser with 3,800kg (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 m (ft)
7.5m (25.0ft)	kg lb											*3450 *7610	*3450 *7610	7.15 (23.5)
6.0m (20.0ft)	kg lb							*3750 *8270	*3750 *8270			*3520 *7760	2640 5820	8.20 (26.9)
4.5m (15.0ft)	kg lb							*4190 *9240	*4190 *9240	*3940 *8690	2990 6590	3350 7390	2230 4920	8.82 (28.9)
3.0m (10.0ft)	kg lb					*6420 *14150	*6420 *14150	*4920 *10850	4210 9280	*4240 *9350	2870 6330	3090 6810	2030 4480	9.11 (29.9)
1.5 m (5.0ft)	kg lb					*7960 *17550	6060 13360	*5690 *12540	3930 8660	4140 9130	2740 6040	3304 6700	1980 4370	9.10 (29.9)
Ground	kg lb			*8300 *18300	*8300 *18300	*8820 *19440	5760 12700	5720 12610	3730 8220	4040 8910	2640 5820	3180 7010	2070 4560	8.81 (28.9)
-1.5m (-5.0ft)	kg lb	*9220 *20330	*9220 *20330	*12750 *28110	11400 25130	*8970 *19720	5670 12500	5630 12410	3650 8050			3590 7910	2360 5200	8.18 (26.8)
-3.0m (-10.0ft)	kg lb	*13340 *29410	*13340 *29410	*12280 *27070	11620 25620	*8430 *18580	5750 12680	5680 12520	3690 8140			*4360 *9610	3030 6680	7.12 (23.4)
-4.5m (-15.0ft)	kg lb			*9840 *21690	*9840 *21690	*6850 *15100	6000 13230							

Boom: 5.68 m (18' 8") / Arm: 2.92 m (9' 7") / Bucket: 0.92 m<sup>3</sup> (1.20yd<sup>3</sup>) SAE heaped/ Shoe: 600mm(24") triple grouser with 3,800kg (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 m (ft)		
7.5m (25.0ft)	kg lb											*3120 *6880	3090 6210	7.72 (25.3)		
6.0m (20.0ft)	kg lb											*3210 *7080	2400 5290	8.69 (28.5)		
4.5m (15.0ft)	kg lb							*3770 *8310	*3770 *8310	*3590 *7910	3060 6750	3090 6810	2050 4520	9.27 (30.4)		
3.0m (10.0ft)	kg lb					*9160 *20190	*9160 *20190	*5760 *12700	*5760 *12700	*4530 *9990	4290 9460	*3950 *8710	2920 6440	2870 6330	1870 4120	9.55 (31.3)
1.5 m (5.0ft)	kg lb					*8660 *19090	*8660 *19090	*7430 *16380	6200 13620	*5380 *11860	3980 8770	4170 9190	2760 6080	2810 6190	1820 4010	9.54 (31.3)
Ground	kg lb			*9310 *20530	*9310 *20530	*8550 *18850	5800 12790	5740 12650	3750 8270	4040 8910	2630 5800	2920 6440	2920 4140	1880 4140	9.26 (30.4)	
-1.5m (-5.0ft)	kg lb	*8550 *18850	*8550 *18850	*12160 *26810	11270 24850	*8950 *19730	5650 12460	5610 12370	3620 7980	3970 8750	2570 5670	3240 7140	2110 4650	8.67 (28.4)		
-3.0m (-10.0ft)	kg lb	*11700 *25790	*11700 *25790	*13020 *28700	11430 25200	*8680 *19140	5660 12480	5600 12350	3620 7980			3970 8750	2620 5780	7.69 (25.2)		

- Lifting capacity is based on SAE J1097, ISO 10567.
- Lifting capacity of the Robex Series does not exceed 75% of the tipping load with the machine on firm, level ground or 87% of full hydraulic capacity.
- The load point is a hook located on the back of the bucket.
- (\*) indicates the load limited by hydraulic capacity.



# 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

12V power outlet (24V DC to 12 V DC converter)

Door and cab locks, one key

One outside rearview mirror

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

Fuel pre-filter

Boom holding system

Arm holding system

Counter weight (3800kg)

Mono boom (5.68m, 18' 8")

Arm (2.4m, 7' 10")

Standard bucket (0.92GP m<sup>3</sup>, 1.20 yd<sup>3</sup>)

Track shoes (600mm, 24")

Track rail guard

Cabin front protector

Radio / USB player

Operator kit

Sun visor for cabin inside

Tool kit

## Optional Equipment

Beacon lamp

Single acting piping kit

Quick coupler

Accumulator, work equipment lowering

### Various optional Arms (SAE heaped)

Arm (2.00 m, 6' 7")

Arm (2.92 m, 9' 7")

### Various optional Buckets (SAE heaped)

Rock bucket (0.87 m<sup>3</sup>, 1.14 yd<sup>3</sup>)

Remote management system

Travel alarm

Operator seat belt

Fire extinguisher



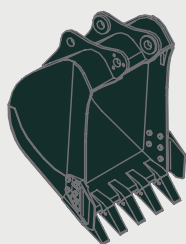


# Specifications

## BUCKETS

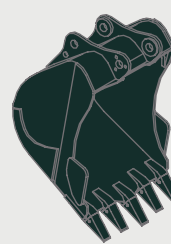
All buckets are welded with high-strength steel.

### GENERAL PURPOSE



SAE heaped \*0.92m<sup>3</sup>(1.20 yd<sup>3</sup>)

### HEAVY DUTY



SAE heaped ◎ 0.87m<sup>3</sup>(1.14 yd<sup>3</sup>)

Capacity m <sup>3</sup> (yd <sup>3</sup> )		Width mm (in)		Weight. kg (lb)	Recommendation mm (ft -in)		
SAE heaped	CECE heaped	Without side cutters	With side cutters		5.68m (18' 8") Boom		
					2.0m (6' 7") Arm	2.4m (7' 10") Arm	2.92m (9' 7") Arm
* 0.92m <sup>3</sup> (1.20yd <sup>3</sup> )GP	0.80m <sup>3</sup> (1.05yd <sup>3</sup> )	1150 (45.3")	1270 (50.0")	770 kg (1700lb)	●	●	■
◎ 0.87m <sup>3</sup> (1.14yd <sup>3</sup> )HD	0.75m <sup>3</sup> (0.98yd <sup>3</sup> )	1140 (44.9")	-	900 kg (1980lb)	●	●	■

\* : Standard backhoe bucket

◎ : Heavy Duty bucket

● Applicable for materials with density of 2,000 kg/m<sup>3</sup> (3,370lb yd<sup>3</sup>) or less

■ Applicable for materials with density of 1,600 kg/m<sup>3</sup> (2,700 lb/yd<sup>3</sup>) or less

## ATTACHMENT

Boom and arm are of all-welded with a low-stress, full-box section design. 5.68m (18'8") mono boom and 2.0m (6'7"), 2.4m (7'10"), 2.92m (9'7") Arm are available.

Buckets are all-welded, high-strength steel implements.

## DIGGING FORCE

Arm	Length	mm (ft.in)	2,000 (6' 7")	*2,400 (7' 10")	*2,920 (9' 7")
	Weight	kg (lb)	860 (1,890)	950 (2,090)	990 (2,180)
Bucket digging force	SAE	kN	133.4	133.4	133.4
		kgf	13,600	13,600	13,600
		lbf	29,980	29,980	29,980
	ISO	kN	152.0	152.0	152.0
		kgf	15,500	15,500	15,500
		lbf	34,170	34,170	34,170
Arm crowd force	SAE	kN	135.3	112.8	97.1
		kgf	13,800	11,500	9,900
		lbf	30,400	25,350	21,830
	ISO	kN	142.2	117.7	101.0
		kgf	14,500	12,000	10,300
		lbf	31,970	26,460	22,710

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