

**R210**

**SMART** *plus*

**OPERATING WEIGHT: 21200 kgs**

**GROSS POWER : 140 HP @ 2000 rpm**

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



**building a comfortable tomorrow**

# R210

SMART *plus*

## BEST-IN CLASS PERFORMANCE

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



## OPERATOR COMFORT

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



## IMPROVED FUEL EFFICIENCY

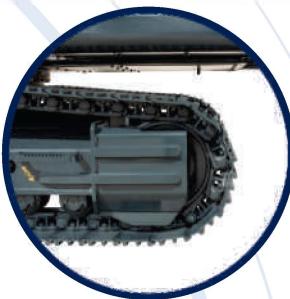
- New ECO mode
- Fuel saving kit
- Electro hydraulic system
- Auto deceleration system
- Efficient breaker mode



# DESIGNED FOR SMART WORK



## INCREASED MACHINE DURABILITY



- Strengthened undercarriage
- Proven upper structure
- Forged ring body
- 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-Track)

## 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!

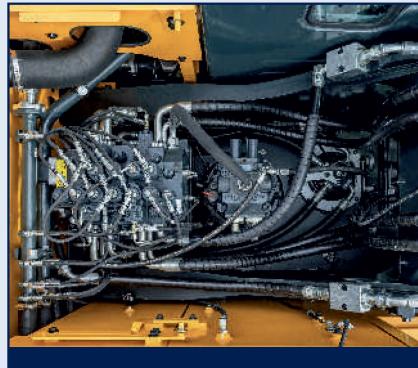
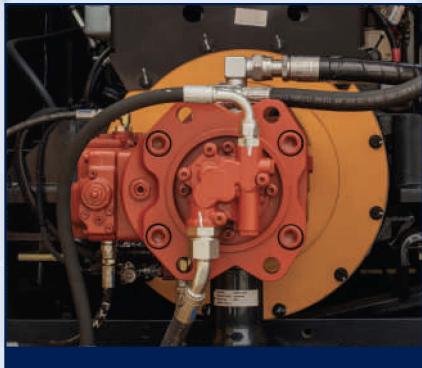


## ENGINE

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.

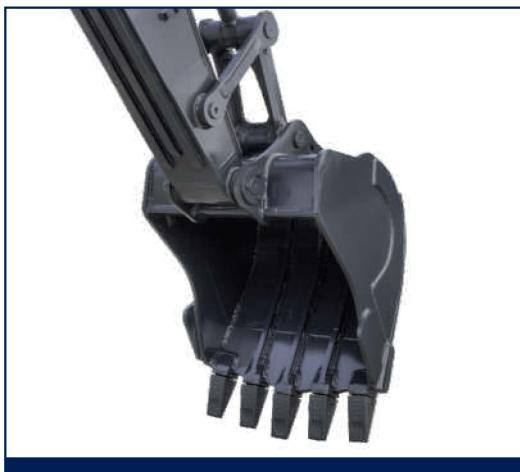
## CHOICE OF OPERATING MODE

Working Mode	Advantage
P 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 - 15600 kgf
- Arm - 12500 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



## 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

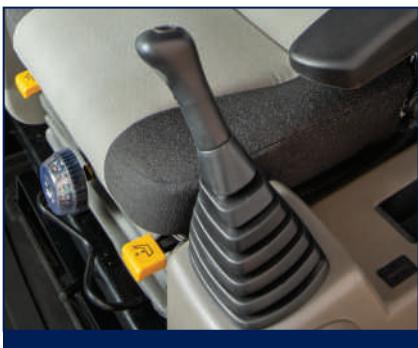


## ARM REGENERATION SYSTEM

- 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 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



New!

SUN VISOR (OPTIONAL)



New!

## AIR CONDITIONER

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



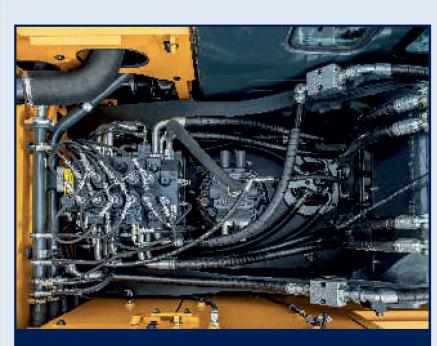
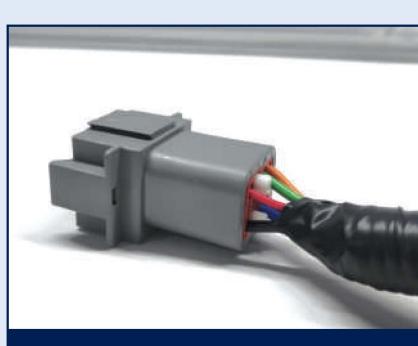
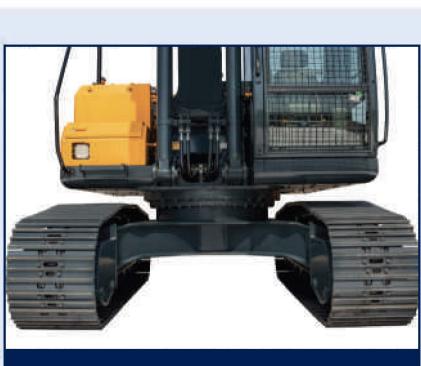
New!

- AC Front Vent
- Hour Meter
- 24V Socket



## REINFORCED FRONT STRUCTURE

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



## RUGGED UNDERCARRIAGE

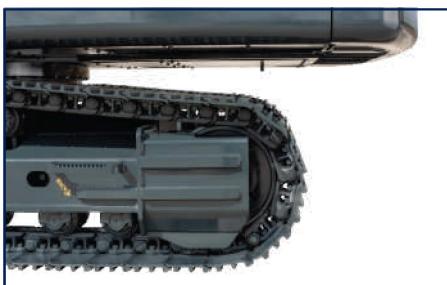
X frame provides excellent resistance to torsional bending to enhance structure life

## RELIABLE ELECTRICALS

- Dust and water proof connectors
- Longer component life

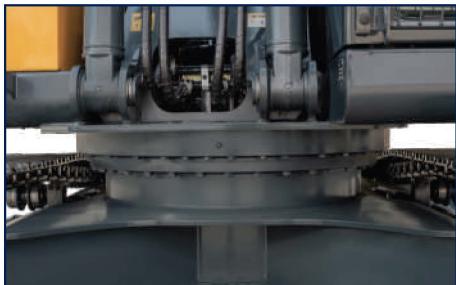
## SWING & TRAVEL SYSTEM

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



## AIR PRE-CLEANER

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



CASTED BUCKET CONTROL LINK

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 side by side 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 - 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.



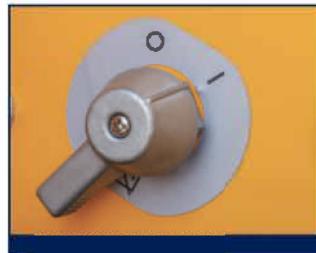
### BOOM & ARM HOLDING SYSTEM

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

## 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

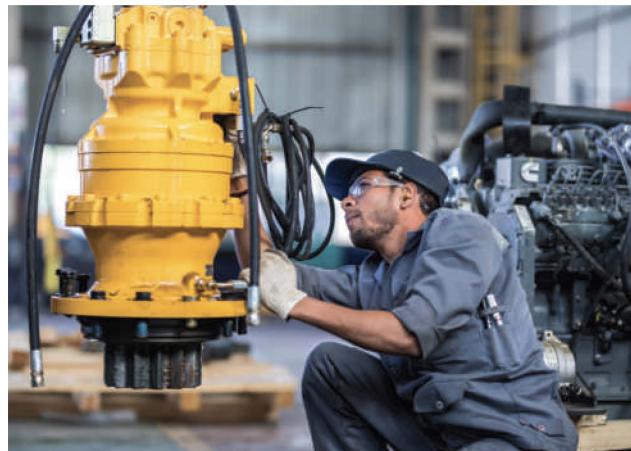
### WHY RISK IT?

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



# SPECIFICATIONS

Calypso  
MACHINERY

## 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

## 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

## 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

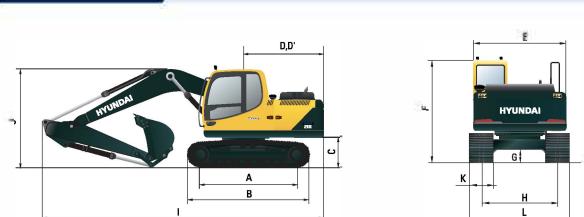
## Undercarriage

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	46
No. of carrier rollers each side	2
No. of track rollers each side	7
No. of rail guard each side	1

## Operating Weight

Shoe Width mm (in)	Operating weight kg (lb)	Ground pressure kgf/cm <sup>2</sup> (psi)
600 mm (24")	21,200 (46,738)	0.48 (6.83)

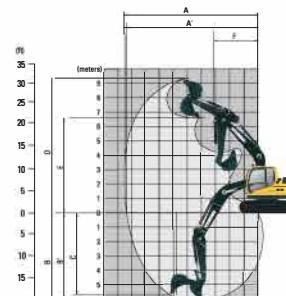
## Dimensions



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

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

Calypso  
MACHINERY

## LIFTING CAPACITIES R210 SMART PLUS



Rating over-front



Rating over-side

Boom: 5.68 m (18' 8") / Arm: 2.4 m (7' 10") / Bucket: 0.92 m <sup>3</sup> (1.20 yd <sup>3</sup> ) SAE heaped/ Shoe: 600mm(24") triple grouser with 3,800kg (8,308 lb) counterweight														
Lift-point height (m/ft)	Lift-point radius										At max. reach			
	1.5 m (5.0 ft)		3 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		Capacity	Reach		
											m (ft)			
7.5m (24.6ft)	kg lb										*3970 *8750	*3970 *8750	5.70 (18.7)	
6.0m (19.7ft)	kg lb						*3900 *8600	*3900 *8600			*3920 *8640	3100 6830	6.91 (22.7)	
4.5m (14.8ft)	kg lb			*5070 *11180	*5070 *11180	*4320 *9520	3910 8620	*4010 *8840	2560 5640	*3950 *8710	2470 5450	7.64 (25.1)		
3.0m (9.8ft)	kg lb			*6630 *14620	5760 12700	*5020 *11070	3630 8000	4060 8950	2450 5400	3610 7960	2150 4740	8.02 (26.3)		
1.5 m (4.9ft)	kg lb			*8060	5200	5640	3360	3920	2320	3450	2020	8.11 (26.6)		
0.0m (0.0ft)	kg lb			*17770	11460	12430	7410	8640	5110	7610	4450			
-1.5m (-4.9ft)	kg lb			*6120 *13490	*6120 *13490	8700 19180	4920 10850	5440 11990	3180 7010	3830 8440	2230 4920	3520 7760	2040 4500	7.90 (25.9)
-3.0m (-9.8ft)	kg lb			*11080 *24430	9730 21450	8640 19050	4870 10740	5370 11840	3110 6860			3900 8600	2260 4980	7.39 (24.2)
-4.5m (-14.8ft)	kg lb			*11680 *25750	9970 21980	*8120 *17900	4970 10960	5440 11990	3180 7010			4830 10650	2840 6260	6.49 (21.3)
				*8970 *19780	*8970 *19780	*6300 *13890	5260 11600					*5510 *12150	4480 9880	5.00 (16.4)

Boom: 5.68 m (18' 8") / Arm: 2.92 m (9' 7") / Bucket: 0.92 m <sup>3</sup> (1.20 yd <sup>3</sup> ) SAE heaped/ Shoe: 600mm(24") triple grouser with 3,800kg (8,308 lb) counterweight														
Lift-point height (m/ft)	Lift-point radius										At max. reach			
	1.5 m (5.0 ft)		3 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		Capacity	Reach		
											m (ft)			
7.5m (24.6ft)	kg lb										*2690 *5930	*2690 *5930	6.44 (21.1)	
6.0m (19.7ft)	kg lb						*3400 *7500	*3400 *7500	*2630 *5800	*2630 *5800	*2540 *5600	*2540 *5600	7.53 (24.7)	
4.5m (14.8ft)	kg lb						*3870 *8530	*3870 *8530	*3630 *8000	2620 5780	*2540 *5600	2160 4760	8.20 (26.9)	
3.0m (9.8ft)	kg lb			*9610 *21190	*9610 *21190	*5970 *13160	*5970 *13160	*4630 *10210	3710 8180	*3980 *8770	2480 5470	*2670 *5890	1900 4190	8.56 (28.1)
1.5 m (4.9ft)	kg lb			*5920 *13050	*5920 *13050	*7570 *16690	5370 11840	*5440 *11990	3420 7540	3950 8710	*2940 5160	*2940 *6480	1790 3950	8.64 (28.3)
0.0m (0.0ft)	kg lb			*6910 *15230	*6910 *15230	*8590 *18940	5010 11050	5480 12080	321C 7080	3820 8420	3140 4890	1800 6920	8.45 (27.7)	
-1.5m (-4.9ft)	kg lb	*6250 *13780	*6250 *13480	*10050 *22160	9670 21320	8650 19070	4880 10760	5360 11820	3100 6830	3760 8290	2170 4780	3430 7560	1970 4340	7.97 (26.1)
-3.0m (-9.8ft)	kg lb	*9780 *21560	*9780 *21560	*12630 *27840	9850 21720	*8490 *18720	4910 10820	5370 11840	3110 6860			4100 9040	2380 5250	7.15 (23.4)
-4.5m (-14.8ft)	kg lb			*10420 *22970	10230 22550	*7180 *15830	5110 11270					*5160 *11380	3430 7560	5.83 (19.1)

1. Lifting capacity is based on ISO 10567.

2. 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.

3. The Lift-point is a hook (standard equipment) located on the back of the bucket.

4. (\*) indicates the load limited by hydraulic capacity.

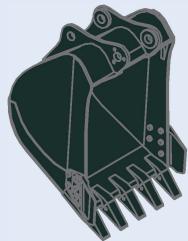
# SPECIFICATIONS

Calypso  
MACHINERY

## 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		2.92m (9' 7") Arm
		1150 (45.3")	1270 (50.0")		*2.4m (7' 10") Arm		
* 0.92m <sup>3</sup> (1.20 yd <sup>3</sup> )GP	0.80m <sup>3</sup> (1.05 yd <sup>3</sup> )	1150 (45.3")	1270 (50.0")	785 (1731)	●	■	
◉ 0.87m <sup>3</sup> (1.14 yd <sup>3</sup> )HD	0.75m <sup>3</sup> (0.98 yd <sup>3</sup> )	1140 (44.9")	-	946 (2086)	●	■	

\* : Standard backhoe bucket  
◉ : Rock Heavy Duty bucket

● Applicable for materials with density of 2,000kg/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 2.4m (7'10"), 2.92m (9'7") Arm are available. Buckets are all-welded, high-strength steel implements.

## DIGGING FORCE

Arm	Length	mm (ft.in)	*2,400 (7' 10")	2,920 (9' 7")
	Weight	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
		kN	122.6	103.0
	ISO	kgf	12,500	10,500
		lbf	27,560	23,150

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