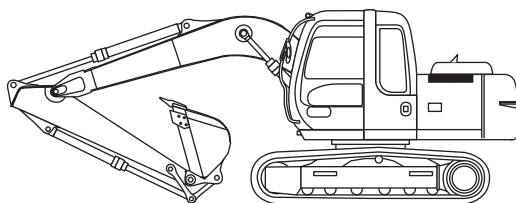


# HITACHI ZAXIS110

engine rated power  
**61 kW / 83 HP**

operating weight  
**10 300 - 12 200 kg**

bucket capacity  
**PCSA heaped : 0.19 - 0.59 m<sup>3</sup>**  
**CECE heaped : 0.17 - 0.50 m<sup>3</sup>**



# HITACHI



## Weights and ground pressure

### ZAXIS110 (WITHOUT BLADE):

Equipped with 4.27 m monoblock boom, 2.26 m arm and 0.45 m<sup>3</sup> PCSA heaped) bucket.

Shoe type	Shoe width	Standard undercarriage	
		Operating weight	Ground pressure
Triple grouser	500 mm	10 400 kg	37 kPa (0.38 kgf/cm <sup>2</sup> )
Triple grouser	600 mm	11 600 kg	32 kPa (0.33 kgf/cm <sup>2</sup> )
Triple grouser	700 mm	10 900 kg	28 kPa (0.29 kgf/cm <sup>2</sup> )
Pad	500 mm	10 300 kg	37 kPa (0.38 kgf/cm <sup>2</sup> )
Flat	510 mm	10 700 kg	37 kPa (0.38 kgf/cm <sup>2</sup> )

### ZAXIS110 (WITH BLADE):

Equipped with 4.27 m monoblock boom, 2.26 m arm and 0.45 m<sup>3</sup> (PCSA heaped) bucket.

Shoe type	Shoe width	Marsh type undercarriage	
		Operating weight	Ground pressure
Triple grouser	500 mm	11 400 kg	41 kPa (0.42 kgf/cm <sup>2</sup> )

### ZAXIS110 WITH OFF-SET FRONT (WITHOUT BLADE):

Equipped with 1.95 m arm and 0.45 m<sup>3</sup> (PCSA heaped) bucket.

Shoe type	Shoe width	Standard undercarriage	
		Operating weight	Ground pressure
Triple grouser	500 mm	11 200 kg	40 kPa (0.41 kgf/cm <sup>2</sup> )
Triple grouser	600 mm	11 400 kg	34 kPa (0.35 kgf/cm <sup>2</sup> )
Triple grouser	700 mm	11 600 kg	30 kPa (0.31 kgf/cm <sup>2</sup> )
Pad	500 mm	11 100 kg	39 kPa (0.40 kgf/cm <sup>2</sup> )
Flat	510 mm	11 500 kg	40 kPa (0.41 kgf/cm <sup>2</sup> )

### ZAXIS110 WITH OFF-SET FRONT (WITH BLADE):

Equipped with 1.95 m arm and 0.45 m<sup>3</sup> (PCSA heaped) bucket.

Shoe type	Shoe width	Marsh type undercarriage	
		Operating weight	Ground pressure
Triple grouser	500 mm	12 200 kg	43 kPa (0.44 kgf/cm <sup>2</sup> )

Weights of the basic machines (including 1 800 kg, counterweight and triple grouser shoes, excluding front-end attachment, fuel, hydraulic oil, engine oil and coolant) are:

- Without blade . . . . . 7 900 kg with 500 mm shoes
- With blade . . . . . 8 900 kg with 500 mm shoes

## Backhoe attachments

Boom and arms are of welded, box-section design. 4.27 m monoblock boom, off-set front and 1.96 m, 2.26 m and 2.81 m arms are available.

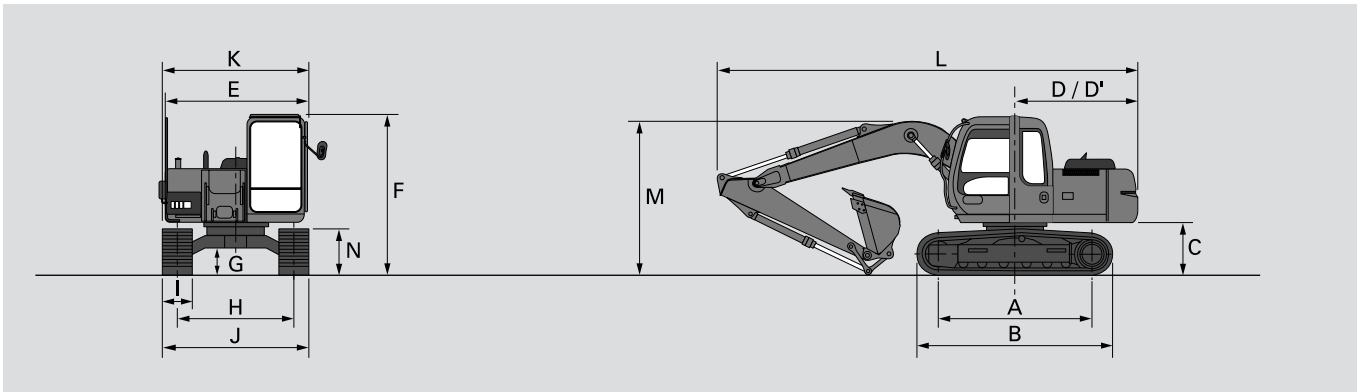
Bucket is of welded steel structure.

### BUCKETS

Capacity PCSA heaped	Width Without side cutters	Weight
0.32 m <sup>3</sup>	600 mm	287 kg
0.39 m <sup>3</sup>	700 mm	322 kg
0.47 m <sup>3</sup>	800 mm	352 kg
0.54 m <sup>3</sup>	900 mm	372 kg
0.62 m <sup>3</sup>	1 000 mm	407 kg

# SPECIFICATIONS

## Dimensions: Monoblock boom



Unit: mm

		ZAXIS110			
A	Sprocket centre to idler centre	2 620			
B	Undercarriage length	3 340			
*C	Counterweight clearance	890			
D	Rear-end swing radius	2 130			
D'	Rear-end length	2 130			
E	Overall width of upper structure	2 460			
F	Overall height of cabin	2 740			
*G	Min. ground clearance	440			
H	Track gauge	1 990			
I	Track shoe width	G 500	G 600	G 700	F 510
J	Undercarriage width	2 490	2 590	2 690	2 500
K	Overall width	2 500	2 590	2 690	2 500
L	Overall length				
	With 1.96 m arm	7 220			
	With 2.26 m arm	7 220			
	With 2.81 m arm	7 240			
M	Overall height of boom				
	With 1.96 m arm	2 600			
	With 2.26 m arm	2 680			
	With 2.81 m arm	**2 680			
N	Track height with triple grouser shoes	785			

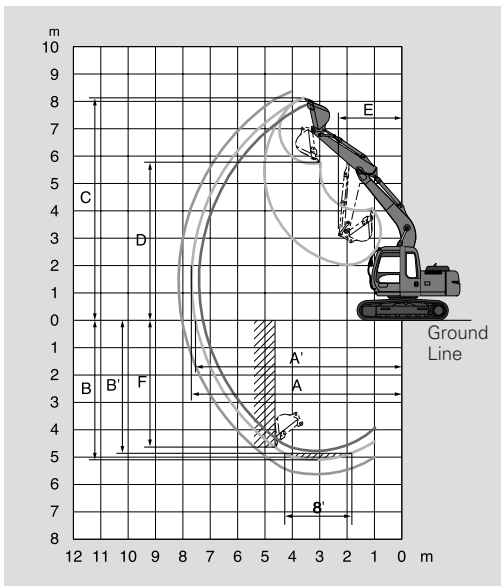
\* Excluding track shoe lug.

G : Triple grouser shoe F : Flat shoe

\*\* The dimension is shown in the transportation hole position of the arm. T : Triangular shoe

## Working ranges

Unit: mm

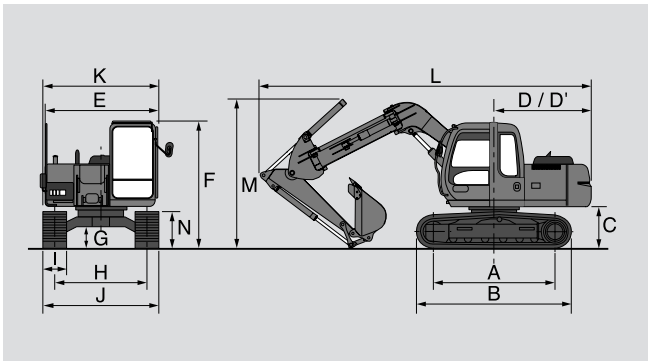


Arm length	ZAXIS110 with Off-set front			
	4.27 m Monoblock boom			
	1.96 m	2.26 m	2.81 m	
A	Max. digging reach	7 430	7 700	8 180
A'	Max. digging reach (on ground)	7 290	7 570	8 060
B	Max. digging depth	4 780	5 080	5 630
B'	Max. digging depth (8' level)	4 520	4 850	5 430
C	Max. cutting height	7 940	8 110	8 360
D	Max. dumping height	5 530	5 700	5 960
E	Min. swing radius	2 310	2 340	2 600
F	Max. vertical wall	4 320	4 620	5 140
	Bucket digging force ISO	90 kN (9 200 kgf)		
	Bucket digging force SAE : PCSA	78 kN (8 000 kgf)		
	Arm crowd force ISO	60 kN	55 kN	48 kN
		(6 100 kgf)	(5 600 kgf)	(4 900 kgf)
	Arm crowd force SAE : PCSA	57 kN	52 kN	47 kN
		(5 900 kgf)	(5 300 kgf)	(4 800 kgf)

Excluding track shoe lug.

# SPECIFICATIONS

## Dimensions: Offset front

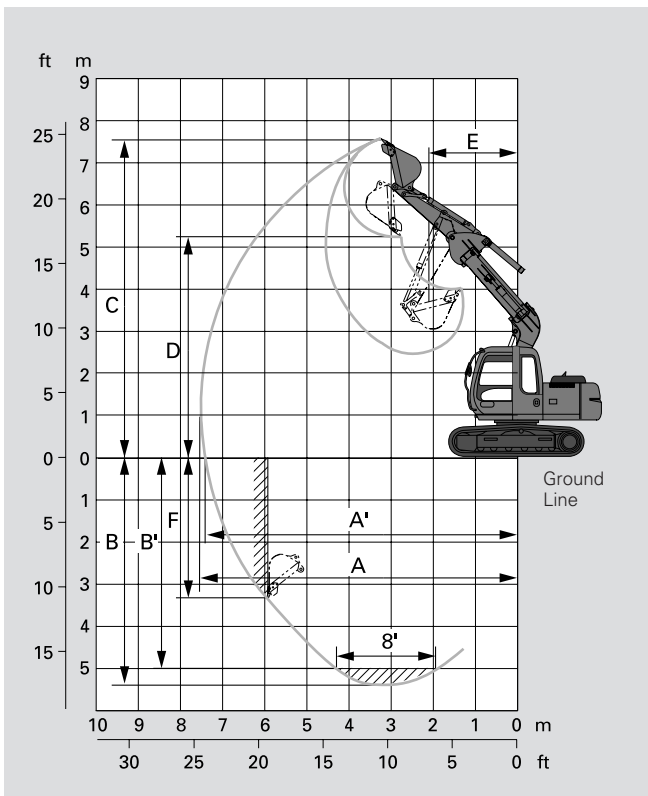


Unit: mm

	ZAXIS110 with Off-set front
A Sprocket centre to idler centre	2 620
B Undercarriage length	3 340
*C Counterweight clearance	890
D Rear-end swing radius	2 130
D' Rear-end length	2 130
E Overall width of upper structure	2 460
F Overall height of cabin	2 740
*G Min. ground clearance	440
H Track gauge	1 990
I Track shoe width	G 500
J Undercarriage width	2 490
K Overall width	2 500
L Overall length	
With 1.96 m arm	7 280
M Overall height of boom	
With 1.96 m arm	3 050
N Track height with triple grouser shoes	785

\* Excluding track shoe lug. G: Triple grouser shoe

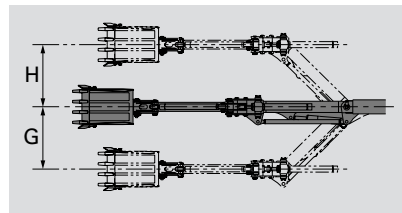
## Working ranges: Offset front



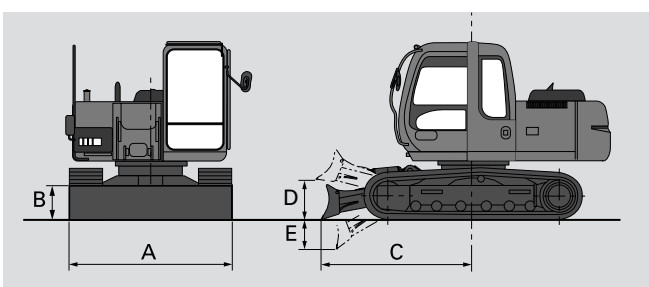
Unit: mm

	ZAXIS110 with Off-set front	
Arm length	1.96 m	1.96 m
Off-set distance	0 m	Max.
A Max. digging reach	7 620	7 090
A' Max. digging reach (on ground)	7 480	6 940
B Max. digging depth	5 340	4 800
B' Max. digging depth (8' level)	5 055	4 510
C Max. cutting height	7 720	7 370
D Max. dumping height	5 330	4 980
E Min. swing radius	2 890	2 450 / 2 450*
F Max. vertical wall	4 719	4 190
G Left side off-set distance	-	1 420
H Right side off-set distance	-	1 420
Bucket digging force ISO	90 kN (9 200 kgf)	
Bucket digging force SAE : PCSA	78 kN (8 000 kgf)	
Arm crowd force ISO	63 kN (6 400 kgf)	
Arm crowd force SAE : PCSA	61 kN (6 200 kgf)	

\* Left/Right side off-set.



## ZAXIS110 with dozer blade (Option)



Equipped with 4.27 m monoblock boom, 1.96 m arm, 500 mm triple grouser shoe and 0.45 m<sup>3</sup> (PCSA heaped) for ZAXIS110 bucket.

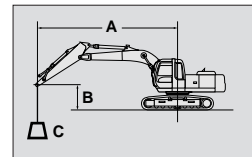
Operating weight	11 400 kg
Ground pressure	41 kPa (0.42 kgf/cm <sup>2</sup> )
A Overall width of blade	2 490 mm
B Overall height of blade	480 mm
C Blade distance	2 480 mm
D Maximum raising height above ground	480 mm
E Maximum lowering depth from ground	510 mm

# LIFTING CAPACITIES

A: Load radius  
B: Load point height  
C: Lifting capacity

## Metric measure

### ZAXIS110 MONOBLOCK BOOM



Unit: kg



Rating over-side or 360 degrees



Rating over-front

Conditions	Load point height	Load radius								At max. reach		
		3 m		4 m		5 m		6 m		meter		
Arm 1.96 m	4 m	*3 750	*3 750	*3 380	*3 380	3 120	2 380			*2 060	1 950	5.63
Shoe 500 mm	2 m	*6 250	4 790	4 190	3 120	2 970	2 250	2 250	1 710	*2 110	1 630	6.18
	0 m	6 350	4 450	3 950	2 900	2 840	2 120	2 190	1 650	2 170	1 640	6.03
	- 1 m	6 340	4 440	3 920	2 870	2 820	2 100			2 350	1 770	5.70
	- 3 m	*5 300	4 580	*3 940	2 960					*3 490	2 700	4.29

### ZAXIS110 MONOBLOCK BOOM

Unit: kg

Conditions	Load point height	Load radius								At max. reach		
		3 m		4 m		5 m		6 m		meter		
Arm 2.26 m	4 m			*3 120	*3 120	2 990	2 400			*1 740	1 740	5.93
Shoe 500 mm	2 m	*5 840	4 870	4 220	3 140	2 980	2 260	2 250	1 710	*1 780	1 520	6.45
	0 m	6 350	4 450	3 950	2 900	2 830	2 110	2 170	1 640	2 020	1 520	6.31
	- 1 m	6 310	4 410	3 900	2 850	2 800	2 080			2 170	1 630	5.99
	- 3 m	*5 710	4 520	3 960	2 910					3 150	2 350	4.68

### ZAXIS110 MONOBLOCK BOOM

Unit: kg

Conditions	Load point height	Load radius								At max. reach		
		3 m		4 m		5 m		6 m		meter		
Arm 2.81 m	6 m					*2 020	*2 020			*1 670	*1 670	5.19
Shoe 500 mm	4 m			*2 620	*2 620	*2 610	2 440	*2 310	1 800	*1 510	*1 510	6.45
	2 m	*5 020	*5 020	*3 860	3 200	3 000	2 270	2 260	1 710	*1 560	*1 350	6.93
	0 m	6 360	4 450	3 950	2 890	2 820	2 100	2 150	1 610	1 790	1 340	6.80
	- 1 m	6 250	4 350	3 860	2 810	2 760	2 050	2 120	1 590	1 890	1 420	5.51
	- 3 m	*6 280	4 390	3 870	2 820	2 770	2 060			2 540	1 900	5.32

### ZAXIS110 OFF-SET FRONT

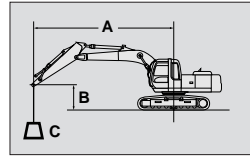
Unit: kg

Conditions	Load point height	Load radius								At max. reach		
		3 m		4 m		5 m		6 m		meter		
Arm 1.95 m	4 m			*2 310	*2 310	*2 300	*2 300			*1 620	*1 620	5.83
Shoe 500 mm	2 m			*3 510	2 880	2 800	2 050	2 080	1 520	*1 630	1 630	6.35
	0 m	*4 760	3 820	3 580	2 510	2 560	1 830	1 960	1 400	*1 850	1 330	6.22
	- 1 m	5 690	3 800	3 510	2 450	2 520	1 780			2 000	1 430	5.89
	- 3 m	*5 870	4 000	3 640	2 560					3 030	2 170	4.54

- Notes:
1. Ratings are based on SAE J1097.
  2. Lifting capacity of the ZAXIS Series does not exceed 75% of tipping load with the machine on firm, level ground or 87% full hydraulic capacity.
  3. The load point is a hook (not standard equipment) located on the back of the bucket.
  4. \*Indicates load limited by hydraulic capacity.
  5. 0 m = Ground.

# LIFTING CAPACITIES

## Metric measure



A: Load radius  
B: Load point height  
C: Lifting capacity

### ZAXIS110 BLADE (DOWN) MONOBLOCK BOOM



Rating over-side or 360 degrees



Rating over-front

Unit: kg

Conditions	Load point height	Load radius								At max. reach		
		3 m		4 m		5 m		6 m		meter		
Arm 1.96 m	4 m	*3 750	*3 750	*3 380	3 380	*3 200	2 600			*2 060	2 060	5.63
Shoe 500 mm	2 m	*6 250	5 230	*4 530	3 410	*3 740	2 460	*3 130	1 880	*2 110	1 800	6.18
	0 m	*6 810	4 890	*5 320	3 190	*4 190	2 340	*2 800	1 820	*2 460	1 810	6.03
	- 1 m	*7 030	4 880	*5 280	3 160	*4 150	2 320			*2 840	1 950	5.70
	- 3 m	*5 300	5 020	*3 940	3 250					*3 490	2 960	4.29

### ZAXIS110 BLADE (DOWN) MONOBLOCK BOOM

Unit: kg

Conditions	Load point height	Load radius								At max. reach		
		3 m		4 m		5 m		6 m		meter		
Arm 2.26 m	4 m			*3 120	*3 120	*2 990	2 620			*1 740	*1 740	5.93
Shoe 500 mm	2 m	*5 840	5 310	*4 320	3 430	*3 590	2 470	*3 200	1 880	*1 780	1 690	6.45
	0 m	*7 230	4 890	*5 240	3 190	*4 130	2 330	*3 430	1 810	*2 060	1 680	6.31
	- 1 m	*7 140	4 850	*5 300	3 140	*4 170	2 300			*2 360	1 800	5.99
	- 3 m	*5 710	4 960	*4 310	3 200					*3 410	2 580	4.68

### ZAXIS110 BLADE (DOWN) MONOBLOCK BOOM

Unit: kg

Conditions	Load point height	Load radius								At max. reach		
		3 m		4 m		5 m		6 m		meter		
Arm 2.81 m	6 m					*2 020	*2 020			*1 670	*1 670	5.19
Shoe 500 mm	4 m			*2 620	*2 620	*2 610	*2 610	*2 310	1 970	*1 510	*1 510	6.45
	2 m	*5 020	*5 020	*3 860	3 490	*3 290	2 490	*2 960	1 880	*1 560	1 500	6.93
	0 m	*6 980	4 890	*5 020	3 180	*3 970	2 310	*3 330	1 790	*1 790	1 490	6.31
	- 1 m	*7 170	4 790	*5 240	3 100	*4 120	2 260	*3 380	1 760	2 030	1 570	6.51
	- 3 m	*6 280	4 830	*4 730	3 110	*3 600	2 270			*3 200	2 100	5.32

### ZAXIS110 BLADE (DOWN) OFF-SET FRONT

Unit: kg

Conditions	Load point height	Load radius								At max. reach		
		3 m		4 m		5 m		6 m		meter		
Arm 1.95 m	4 m			*2 310	*2 310	*2 300	*2 300			*1 630	*1 630	5.83
Shoe 500 mm	2 m			*3 510	3 170	*2 910	2 270	*2 260	1 690	*1 630	1 520	6.35
	0 m	*4 770	4 260	*4 550	2 800	*3 570	2 050	*3 040	1 580	*1 860	1 500	6.22
	- 1 m	*6 530	4 240	*4 760	2 740	*3 750	2 000			*2 100	1 610	5.89
	- 3 m	5 710	4 520	3 960	2 910					*3 520	2 420	4.54

- Notes:
1. Ratings are based on SAE J1097.
  2. Lifting capacity of the ZAXIS Series does not exceed 75% of tipping load with the machine on firm, level ground or 87% full hydraulic capacity.
  3. The load point is a hook (not standard equipment) located on the back of the bucket.
  4. \*Indicates load limited by hydraulic capacity.
  5. 0 m = Ground.

## Standard Equipment

Standard equipment may vary by country, so please consult your Hitachi dealer for details.

### ENGINE

- H/P mode control
- E mode control
- 50 A alternator
- Dry-type air filter with evacuator val (with safety element)
- Cartridge-type engine oil filter
- Cartridge-type fuel filter
- Air cleaner double filters
- Radiator and oil cooler with dust protective net
- Radiator reserve tank
- Fan guard
- Isolation-mounted engine
- Auto-idle system
- Auto acceleration system

### HYDRAULIC SYSTEM

- Work mode selector
- Engine speed sensing system
- E-P control system
- Quick warm-up system for pilot circuit
- Shockless valve in pilot circuit
- Boom-arm anti-drift valve
- Control valve with main relief valve
- Extra port for control valve
- Suction filter
- Full-flow filter
- Pilot filter

### CABIN

- CRES (Center pillar Reinforced Structure) cabin
- OPG top guard Level I (ISO) compliant cabin
- All-weather sound-suppressed steel cabin
- Equipped with reinforced, tinted (bronze color) glass windows
- 4 fluid-filled elastic mounts
- Front window-upper, lower and left side windows can be opened
- Intermittant windshield retractable wipers
- Front window washer
- Adjustable reclining seat with adjustable armrests
- Footrest
- Electric double horn
- AM - FM radio with digital clock
- Auto-idle / acceleration selector
- Seat belt
- Drink holder
- Cigar lighter
- Ashtray
- Storage box
- Glove compartment
- Fire extinguisher bracket
- Floor mat
- Pilot control shut-off lever
- Engine stop knob

- Auto control air conditioner
- Transparency roof with roll curtain
- Suspension seat

### MONITOR SYSTEM

- Meters: Hourmeter and trip-meter, engine coolant temperature gauge and fuel gauge
- Warning lamps: Alternator charge, engine oil pressure, engine overheat, air filter restriction and minimum fuel level
- Pilot lamps: Engine preheat, engine oil level, engine coolant level, hydraulic oil level, work light, auto-idle, auto-acceleration, digging mode and attachment mode
- Alarm buzzers: Engine oil pressure and engine overheat

### LIGHTS

- 2 working lights

### UPPER STRUCTURE

- Undercover
- 1 800 kg counterweight
- Fuel level float
- Hydraulic oil level gauge
- Tool box

- Rearview mirror (right & left side)
- Swing parking brake

### UNDERCARRIAGE

- Travel parking brake
- Travel motor covers
- Track guards and hydraulic track adjuster
- Bolt-on sprocket
- Upper rollers and lower rollers
- Reinforced track links with pin seals

### FRONT ATTACHMENTS

- HN bushing
- WC thermal spraying
- Reinforced resin thrust plate
- Flanged pin
- Monolithically cast bucket link A
- Centralized lubrication system
- Dirt seal on all bucket pins

### MISCELLANEOUS

- Standard tool kit
- Lockable machine covers
- Lockable fuel filling cap
- Skid-resistant tapes, plates and handrails.
- Travel direction mark on track frame
- Onboard ICX

## Optional Equipment

Optional equipment may vary by country, so please consult your Hitachi dealer for details.

### CABIN

- Front glass lower guard
- Front glass upper guard
- Overhead guard
- OPG top and front guard Level II (ISO) compliant cabin
- Vandal cover
- Suspension seat with heater
- Airsuspension seat with heater
- Rain guard
- Sun visor
- Additional fuse box
- Immobilizer key
- 12 V power source

### LIGHTS

- Additional cabin roof front lights
- Additional cabin roof rear lights
- Rotating lamp
- Additional boom light with cover

### UNDERCARRIAGE

- Track guard
- Track undercover
- Blade cutting edge replaceable type (width: 2 490 mm and 2 690 mm)

### ATTACHMENT

- Hammer and crusher piping
- Parts for hammer
- Parts for hammer and crusher
- Parts for 2 speed selector
- Assist piping
- Additional pump (30 l/min)
- Clamshell piping
- Quick coupler piping
- Reinforced arm

### OTHERS

- Hose rupture valves
- Overload warning device
- Electric fuel refilling pump
- Auto-lubrication pump
- Pre-cleaner
- Fuel double filters
- High-performance full-flow filter (with restriction indicator)
- Bio oil



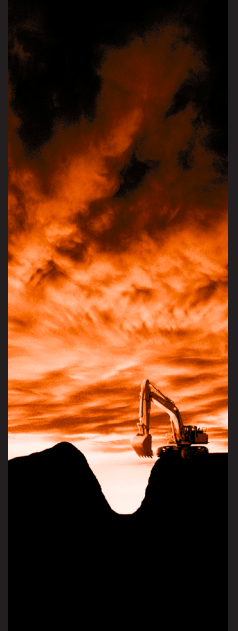




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**Breaking  
new  
ground**

**HITACHI**