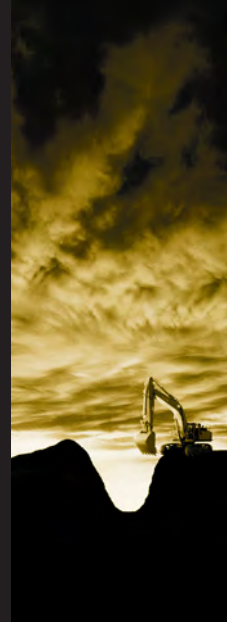
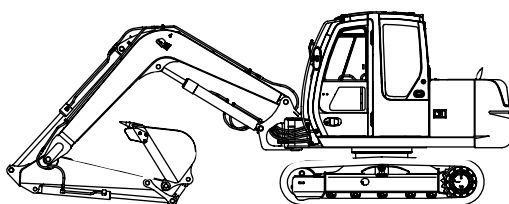


HITACHI ZAXIS80SB

engine rated power
39 kW / 52 HP

operating weight
ZAXIS80SB : 7 360 - 8 120 kg
ZAXIS80SBLC : 7 440 - 8 210 kg

bucket capacity
SAE, PCSA heaped : 0.13 - 0.33 m³
CECE heaped : 0.12 - 0.29 m³



HITACHI

Engine

Model	Isuzu CC-4JG1
Type	4-cycle water-cooled, direct injection
No. of cylinders	4
Rated power	
DIN 6271, net	40.5 kW (55 PS) at 2 100 min ⁻¹ (rpm)
SAE J1349, net	39 kW (52 HP) at 2 100 min ⁻¹ (rpm)
Maximum torque	192 N/m (19.6 kgf/m) at 1 800 min ⁻¹ (rpm)
Piston Displacement	3.059 l
Bore and stroke	95.4 mm x 107 mm
Batteries	2 x 12 V / 52 Ah
Governor	Mechanical speed control with stepping motor

Hydraulic system

- Swing-independent 3-pump hydraulic system
- OHS (Optimum Hydraulic System) assures fully independent and combined operations
- New-type automatic 2-speed motor increases traction force and travel speed

Main pumps	3 variable displacement axial piston pumps
Maximum oil flow	2 x 69.3 l/min 1 x 52.5 l/min
Pilot pump	1 gear pump
Maximum oil flow	22.5 l/min

HYDRAULIC MOTORS

Travel	2 variable displacement axial piston motors
Swing	1 axial piston motor

RELIEF VALVE SETTINGS

Implement circuit	26.0 MPa (265 kgf/cm ²)
Swing circuit	25.0 MPa (255 kgf/cm ²)
Travel circuit	31.4 MPa (320 kgf/cm ²)
Pilot circuit	3.9 MPa (40 kgf/cm ²)

HYDRAULIC CYLINDERS

High-strength piston rods and tubes. Cylinder cushion mechanisms provided in boom, arm, boom swing cylinders to absorb shock at stroke ends.

DIMENSIONS

	Qty.	Bore	Rod diameter
Boom	1	115 mm	65 mm
Arm	1	95 mm	60 mm
Bucket	1	85 mm	55 mm
Boom swing	1	110 mm	60 mm

HYDRAULIC FILTERS

Hydraulic circuits use high-quality hydraulic filters. A suction filter is incorporated in the suction line, and full-flow filters in the return line and swing/travel motor drain lines.

Controls

Pilot controls. Hitachi's original shockless valve and quick warm-up system built in the pilot circuit.

Implement levers	2
Travel levers with pedals	2

Upper structure

REVOLVING FRAME

Welded sturdy box construction, using heavy-gauge steel plates for ruggedness. D-section frame for resistance to deformation.

SWING MECHANISM

Axial piston motor with planetary reduction gear is bathed in oil. Swing circle is single-row, shear-type ball bearing with induction hardened internal gear. Internal gear and pinion gear are immersed in lubricant. Swing parking brake is spring-set/hydraulic-released disc type.
Swing speed 11.3 min⁻¹ (rpm)

OPERATOR'S CABIN

Independent spacious cabin, 1 005 mm wide by 1 675 mm high, conforming to ISO Standards. Reinforced glass windows on 4 sides for visibility. Front windows (upper and lower) can be opened. Adjustable, reclining seat with armrests movable with or without control levers.

Undercarriage

TRACKS

Tractor-type undercarriage. Welded track frame using selected materials. Side frame welded to track frame. Lubricated track rollers, idlers, and sprockets with floating seals. Track shoes with triple grouzers made of induction-hardened rolled alloy. Flat and triangular shoes are also available. Heat-treated connecting pins with dirt seals. Hydraulic (grease) track adjusters with shock-absorbing recoil springs.

NUMBERS OF ROLLERS AND SHOES ON EACH SIDE

Upper rollers	1
Lower rollers	5
Track shoes	38: ZAXIS80SB 40: ZAXIS80SBL

TRACTION DEVICE

Each track driven by 2-speed axial piston motor through planetary reduction gear for counterrotation of the tracks. Sprockets are replaceable. Parking brake is spring-set/hydraulic-released disc type. Travel shockless relief valve built in travel motor absorbs shocks when stopping travel.

Automatic transmission system: High-Low.

Travel speeds	High: 0 to 5.0 km/h Low: 0 to 3.3 km/h
---------------	---

Maximum traction force	60.4 kN (6 160 kgf)
Gradeability	35° (70%) continuous

Weights and ground pressure

ZAXIS80SB / ZAXIS80SBLC (WITHOUT BLADE):

Equipped with 3.28 m monoblock boom, 1.62 m arm and 0.28 m³ (SAE, PCSA heaped) bucket.

Shoe type	Shoe width	Operating weight	Ground pressure
Triple grouser	450 mm	7 400 kg	34 kPa (0.35 kgf/cm ²)
Triple grouser	450 mm	7 490 kg	32 kPa (0.33 kgf/cm ²)
Triple grouser	600 mm	7 570 kg	26 kPa (0.27 kgf/cm ²)
Triple grouser	600 mm	7 660 kg	25 kPa (0.25 kgf/cm ²)
Pad	450 mm	7 390 kg	34 kPa (0.35 kgf/cm ²)
Pad	450 mm	7 480 kg	32 kPa (0.33 kgf/cm ²)
Rubber	450 mm	7 360 kg	34 kPa (0.35 kgf/cm ²)
Rubber	450 mm	7 440 kg	32 kPa (0.33 kgf/cm ²)
Flat	450 mm	7 570 kg	35 kPa (0.36 kgf/cm ²)
Flat	450 mm	7 660 kg	33 kPa (0.34 kgf/cm ²)

Figures in are data on the ZAXIS80SBLC.

Weights of the basic machines [including 1 200 kg counterweight and triple grouser shoes, excluding front-end attachment, fuel, hydraulic oil, engine oil and coolant etc.] are:

Without blade:

ZAXIS80SB 6 060 kg with 450 mm shoes
 ZAXIS80SBLC 6 140 kg with 450 mm shoes

ZAXIS80SB / ZAXIS80SBLC (WITH BLADE):

Equipped with 3.28 m monoblock boom, 1.62 m arm and 0.28 m³ (SAE, PCSA heaped) bucket.

Shoe type	Shoe width	Operating weight	Ground pressure
Triple grouser	450 mm	7 950 kg	36 kPa (0.37 kgf/cm ²)
Triple grouser	450 mm	8 030 kg	35 kPa (0.36 kgf/cm ²)
Triple grouser	600 mm	8 110 kg	28 kPa (0.29 kgf/cm ²)
Triple grouser	600 mm	8 210 kg	26 kPa (0.27 kgf/cm ²)
Pad	450 mm	7 940 kg	36 kPa (0.37 kgf/cm ²)
Pad	450 mm	8 020 kg	34 kPa (0.35 kgf/cm ²)
Rubber	450 mm	7 900 kg	36 kPa (0.37 kgf/cm ²)
Rubber	450 mm	7 980 kg	34 kPa (0.35 kgf/cm ²)
Flat	450 mm	8 120 kg	37 kPa (0.38 kgf/cm ²)
Flat	450 mm	8 210 kg	35 kPa (0.36 kgf/cm ²)

Figures in are data on the ZAXIS80SBLC.

Weights of the basic machines [including 1 200 kg counterweight and triple grouser shoes, excluding front-end attachment, fuel, hydraulic oil, engine oil and coolant etc.] are:

With blade

ZAXIS80SB 6 610 kg with 450 mm shoes
 ZAXIS80SBLC 6 690 kg with 450 mm shoes

Service refill capacities

Fuel tank	135.0 l
Engine coolant	9.5 l
Engine oil	12.0 l
Travel final device (each side)	2.5 l
Hydraulic system	100.0 l
Hydraulic tank (Reference oil level)	60.0 l

Backhoe attachments

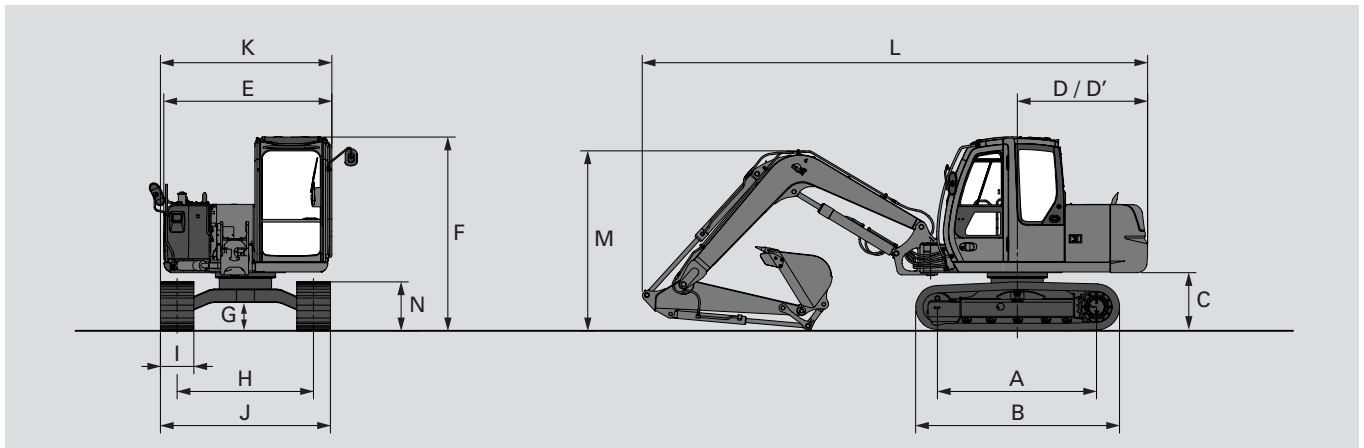
Boom and arms are of all-welded, box-section design. 3.28 m monoblock boom, 1.62 m and 2.12 m arms are available. Bucket is of all-welded steel structure. Side clearance adjust mechanism provided on the bucket joint bracket.

BUCKETS

Capacity SAE, PCSA heaped	Width Without side cutters	Weight
0.24 m ³	500 mm	231 kg
0.27 m ³	600 mm	251 kg
0.32 m ³	700 mm	286 kg
0.38 m ³	800 mm	306 kg

SPECIFICATIONS

Dimensions



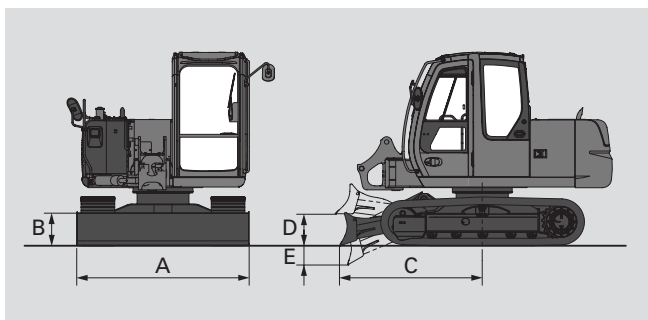
Unit: mm

	ZAXIS80SB	ZAXIS80SBLC	ZAXIS80SB with pad crawler	ZAXIS80SBLC with pad crawler
A Sprocket centre to idler centre	2 140	2 290	2 140	2 290
B Undercarriage length	2 765	2 920	2 815	2 970
*C Counterweight clearance	760	760	810	810
D Rear-end swing radius	1 750	1 750	1 750	1 750
D' Rear-end length	1 750	1 750	1 750	1 750
E Overall width of upper structure	2 260	2 260	2 260	2 260
F Overall height of cabin	2 600	2 600	2 630	2 630
*G Min. ground clearance	360	360	410	410
H Track gauge	1 750	1 870	1 750	1 870
I Track shoe width	G 450	G 450	P 450	P 450
J Undercarriage width	2 200	2 320	2 200	2 320
K Overall width	2 260	2 320	2 260	2 320
L Overall length				
With 1.62 m arm	6 780	6 780	6 780	6 780
With 2.12 m arm	6 910	6 910	6 910	6 910
M Overall height of boom				
With 1.62 m arm	2 430	2 430	2 430	2 430
With 2.12 m arm	2 870	2 870	2 870	2 870
N Track height	655	655	715	715

* Excluding track shoe lug.

G: Triple grouser shoe

P: Pad crawler



ZAXIS80SB / ZAXIS80SBLC WITH DOZER BLADE (OPTION)

Equipped with 3.28 m boom, 1.62 m arm, 450 mm triple grouser shoe and 0.28 m³ (SAE, PCSA heaped) for ZAXIS70 bucket.

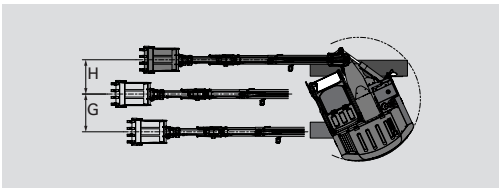
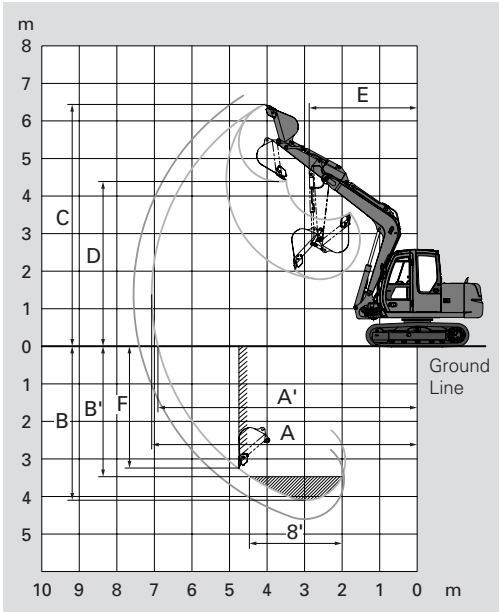
Operating weight STD: 7 600 kg
LC: 8 030

Ground pressure STD: 36 kPa (0.37 kgf/cm²)
LC: 35 kPa (0.36 kgf/cm²)

A Overall width of blade 2 320 mm
B Overall height of blade 435 mm
C Blade distance 1 920 mm
D Max. raising height above ground 400 mm
E Max. lowering depth from ground 280 mm

SPECIFICATIONS

Working ranges



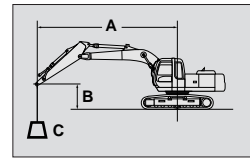
Unit: mm

	ZAXIS80 SB	ZAXIS80 SBLC	ZAXIS80 SB with pad crawler	ZAXIS80 SBLC with pad crawler
Arm length	1.62 m	2.12 m	1.62 m	2.12 m
A Max. digging reach	7 070	7 550	7 070	7 560
A' Max. digging reach (on ground)	6 910	7 400	6 900	7 390
B Max. digging depth	4 100	4 600	4 050	4 550
B' Max. digging depth (8' level)	3 710	4 270	3 660	4 220
C Max. cutting height	6 440	6 780	6 490	6 830
D Max. dumping height	4 390	4 720	4 440	4 770
E Min. swing radius	2 880	3 140	2 880	3 140
F Max. vertical wall	3 240	3 750	3 190	3 700
G Left side off-set distance	1 070	1 070	1 070	1 070
H Right side off-set distance	970	970	970	970
Bucket digging force ISO	55 kN (5 600 kgf)	55 kN (5 600 kgf)	55 kN (5 600 kgf)	55 kN (5 600 kgf)
Bucket digging force SAE: PCSA	47 kN (4 800 kgf)	47 kN (4 800 kgf)	47 kN (4 800 kgf)	47 kN (4 800 kgf)
Arm crowding force ISO	38 kN (3 900 kgf)	32 kN (3 300 kgf)	38 kN (3 900 kgf)	32 kN (3 300 kgf)
Arm crowding force SAE: PCSA	36 kN (3 700 kgf)	31 kN (3 20 kgf)	36 kN (3 700 kgf)	31 kN (3 200 kgf)

Excluding track shoe lug.

LIFTING CAPACITIES

Metric measure



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

ZAXIS80SB



Rating over-side or 360 degrees



Rating over-front

Unit: kg

Conditions	Load point height	Load radius										At max. reach		
		2 m		3 m		4 m		5 m		6 m		meter		
		Icon 1	Icon 2	Icon 1	Icon 2	Icon 1	Icon 2	Icon 1	Icon 2	Icon 1	Icon 2			
Arm 1.62 m Shoe 450 mm	4 m											*1 300	1 130	5.23
	3 m											1 180	960	5.73
	2 m					1 970	1 590					1 090	880	5.97
	1 m					1 870	1 500	1 370	1 110			1 060	850	6.00
	0 m			2 800	2 170	1 820	1 450	1 340	1 070			1 090	880	5.80
	-1 m	*3840	*3 840	2 800	2 180	1 810	1 440	1 330	1 060			1 210	970	5.36
	-2 m	*5980	4 480	2 840	2 220	1 830	1 460					1 520	1 220	4.58
	-3 m			*2 240	*2 240							*2 200	*2 200	3.03
Arm 2.12 m Shoe 450 mm	4 m							1 510	1 240			*1 140	960	5.80
	3 m					*1 820	1 720	1 480	1 210	1 100	890	1 030	830	6.24
	2 m					2 000	1 610	1 430	1 160	1 080	870	960	770	6.46
	1 m					1 880	1 500	1 370	1 100	1 050	840	940	750	6.48
	0 m			2 760	2 140	1 810	1 430	1 320	1 060	1 020	820	960	770	6.31
	-1 m	*3 010	*3 010	2 750	2 130	1 780	1 400	1 300	1 030			1 040	830	5.91
	-2 m	*4 600	4 330	2 770	2 150	1 780	1 410	1 300	1 040			1 230	980	5.24
	-3 m	*6 100	4 450	2 840	2 210	1 830	1 450					1 780	1 420	4.08

ZAXIS80SB, BLADE (DOWN)

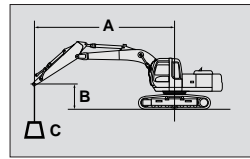
Unit: kg

Conditions	Load point height	Load radius										At max. reach		
		2 m		3 m		4 m		5 m		6 m		meter		
		Icon 1	Icon 2	Icon 1	Icon 2	Icon 1	Icon 2	Icon 1	Icon 2	Icon 1	Icon 2			
Arm 1.62 m Shoe 450 mm	4 m											*1 300	1 220	5.23
	3 m											*1 270	1 040	5.73
	2 m					*2 950	1 720					*1 310	960	5.97
	1 m					*3 550	1 630	*2 590	1 200			*1 430	930	6.00
	0 m			*3 580	2 360	*3 790	1 580	*2 740	1 170			*1 650	960	5.80
	-1 m	*3 840	*3 840	*5 450	2 370	*3 670	1 560	*2 650	1 160			*2 130	1 060	5.36
	-2 m	*5 980	4 840	*4 490	2 410	*3 080	1 580					*2 420	1 330	4.58
	-3 m			*2 240	*2 240							*2 200	*2 200	3.03
Arm 2.12 m Shoe 450 mm	4 m							*1 580	1 330			*1 140	1 040	5.80
	3 m					*1 820	1 820	*1 750	1 300	*1 740	970	*1 110	910	6.24
	2 m					*2 530	1 740	*2 070	1 250	*1 860	950	*1 140	840	6.46
	1 m					*3 240	1 630	*2 410	1 200	*2 010	920	*1 220	820	6.48
	0 m			*3 510	2 330	*3 670	1 560	*2 650	1 150	*2 110	900	*1 370	840	6.31
	-1 m	*3 010	*3 010	*4 920	2 320	*3 730	1 530	*2 700	1 130			*1 630	910	5.91
	-2 m	*4 600	*4 600	*5 120	2 340	*3 410	1 530	*2 410	1 140			*2 190	1 070	5.24
	-3 m	*6 630	4 820	*3 680	2 400	*2 360	1 580					*2 250	1 540	4.08

- Notes:
1. Ratings are based on ISO 10567.
 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 the center-line of the bucket pivot mounting pin on the arm.
 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

ZAXIS80SBLC



Rating over-side or 360 degrees



Rating overfront

Unit: kg

Conditions	Load point height	Load radius										At max. reach				
		2 m		3 m		4 m		5 m		6 m		meter				
Arm 1.62 m Shoe 450 mm	4 m													*1 300	1 230	5.23
	3 m													*1 270	1 050	5.73
	2 m					2 190	1 750							1 200	970	5.97
	1 m					2 090	1 650	1 530	1 220					1 180	940	6.00
	0 m			3 170	2 430	2 040	1 600	1 490	1 180					1 220	970	5.80
	-1 m	*3 840	*3 840	3 180	2 430	2 030	1 590	1 480	1 170					1 350	1 070	5.36
	-2 m	*5 980	5 110	3 220	2 470	2 050	1 610							1 700	1 340	4.58
	-3 m			*2 240	*2 240									*2 200	*2 200	3.03
Arm 2.12 m Shoe 450 mm	4 m							*1 580	1 350					*1 140	1 050	5.80
	3 m					*1 820	*1 820	1 630	1 320	1 220			980	*1 110	920	6.24
	2 m					2 220	1 770	1 580	1 270	1 190			960	1 060	850	6.46
	1 m					2 100	1 660	1 520	1 210	1 160			930	1 040	830	6.48
	0 m			3 140	2 400	2 030	1 590	1 470	1 170	1 140			900	1 070	850	6.31
	-1 m	*3 010	*3 010	3 120	2 380	1 990	1 560	1 450	1 140					1 160	920	5.91
	-2 m	*4 600	*4 600	3 140	2 400	2 000	1 560	1 460	1 150					1 370	1 090	5.24
	-3 m	*6 630	5 090	3 220	2 460	2 050	1 610							1 990	1 570	4.08

ZAXIS80SBLC, BLADE (DOWN)

Unit: kg

Conditions	Load point height	Load radius										At max. reach				
		2 m		3 m		4 m		5 m		6 m		meter				
Arm 1.62 m Shoe 450 mm	4 m													*1 300	*1 300	5.23
	3 m													*1 270	1 140	5.73
	2 m					*2 950	1 720							*1 310	1 050	5.97
	1 m					*3 550	1 630	*2 590	1 200					*1 430	1 020	6.00
	0 m			*3 580	2 360	*3 790	1 580	*2 740	1 170					*1 650	1 050	5.80
	-1 m	*3 840	*3 840	*5 450	2 370	*3 670	1 560	*2 650	1 160					*2 130	1 170	5.36
	-2 m	*5 980	4 840	*4 490	2 410	*3 080	1 580							*2 420	1 460	4.58
	-3 m			*2 240	*2 240									*2 200	*2 200	3.03
Arm 2.12 m Shoe 450 mm	4 m							*1 580	1 450					*1 140	1 130	5.80
	3 m					*1 820	*1 820	*1 750	1 420	*1 740			1 060	*1 110	990	6.24
	2 m					*2 530	1 910	*2 070	1 370	*1 860			1 040	*1 140	920	6.46
	1 m					*3 240	1 800	*2 410	1 310	*2 010			1 010	*1 220	900	6.48
	0 m			*3 510	2 600	*3 670	1 720	*2 650	1 270	*2 110			990	*1 370	920	6.31
	-1 m	*3 010	*3 010	*4 920	2 580	*3 730	1 690	*2 700	1 250					*1 630	1 000	5.91
	-2 m	*4 600	*4 600	*5 120	2 600	*3 410	1 690	*2 410	1 250					*2 190	1 180	5.24
	-3 m	*6 630	5 490	*3 680	2 670	*2 360	1 740							*2 250	1 700	4.08

- Notes:
1. Ratings are based on ISO 10567.
 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 the center-line of the bucket pivot mounting pin on the arm.
 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

- P mode control
- E mode control
- 30 A alternator
- Dry-type air filter with evacuator valve (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

HYDRAULIC SYSTEM

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

CABIN

- CRES (Corner Reinforced Structure) cabin
- OPG top guard fitted Level I (ISO) compliant cabin
- All-weather sound-suppressed steel cabin
- Reinforced, tinted glass windows
- 4 fluid-filled elastic mounts
- Front windows upper-, lower- and left side can be opened
- Intermittent windshield wipers
- Front window washer
- Footrest
- Electric double horn
- AM - FM radio with digital clock
- Auto-idle
- 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, work light, auto-idle
- Alarm buzzers: Engine oil pressure and engine overheat

LIGHTS

- 2 working lights

UPPER STRUCTURE

- Undercover
- 1 200 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
- Hydraulic track adjuster
- Bolt-on sprocket
- Upper rollers and lower rollers
- Reinforced track links with pin seals

FRONT ATTACHMENTS

- HN bushing
- WC thermal spraying
- Bucket clearance adjust mechanism
- 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
- 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
- Anti-vandal cover
- Suspension seat with heater
- Air suspension 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 undercover
- Blade cutting edge fix type (width: 2 320 mm and 2 450 mm)
- cutting edge replaceable type (width: 2 320 mm)

ATTACHMENT

- Hammer and crusher piping
- Parts for hammer
- Parts for hammer and crusher
- Parts for 2 speed selector
- Assist piping
- Additional pump (53 l/min)
- Reinforced link B
- Reinforced arm
- Quick coupler piping

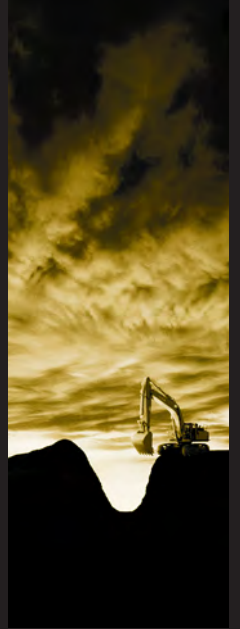
OTHERS

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

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