SPECIFICATIONS

ENGINE

Model ..... Yanmar 4TNV94L
Type ..... 4-cycle water-cooled, direct injection
No. of cylinders 4
Rated power
ISO 9249, net ..... 34.1 kW (45.7 HP) at 2 000 min^{-1} (rpm)
EEC 80/1269, net ..... 34.1 kW (45.7 HP) at 2 000 min^{-1} (rpm)
SAE J1349, net ..... 34.1 kW (45.7 HP) at 2 000 min^{-1} (rpm)
Maximum torque ..... 204.1 Nm (20.8 kgfm) at 1 000 min^{-1} (rpm)
Piston displacement ..... 3.053 L
Bore and stroke ..... 94 mm x 110 mm
Batteries ..... 2 × 12 V / 52 Ah

HYDRAULIC SYSTEM

Hydraulic Pumps

Main pumps ..... 3 variable displacement axial piston pumps
pumps
Maximum oil flow ..... 2 x 72 L/min
1 x 56 L/min
Pilot pump ..... 1 gear pump
Maximum oil flow ..... 20.0 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 ..... 26.5 MPa (270 kgf/cm^2)
Travel circuit ..... 31.4 MPa (320 kgf/cm^2)
Pilot circuit ..... 3.9 MPa (40 kgf/cm^2)

Hydraulic Cylinders

	Quantity	Bore	Rod diameter	Stroke
Boom	1	115 mm	65 mm	885 mm
Arm	1	95 mm	60 mm	900 mm
Bucket	1	85 mm	55 mm	730 mm
Blade	1	120 mm	70 mm	145 mm
Off-set	1	105 mm	60 mm	386 mm

UPPERSTRUCTURE

Revolving Frame

D-section frame for resistance to deformation.

Swing Device

Axial piston motor with planetary reduction gear is bathed in oil. Swing circle is single-row. Swing parking brake is spring-set/hydraulic-released disc type.

Swing speed ..... 10.5 min^{-1} (rpm)
Swing torque ..... 16 kNm

Operator's Cab

Independent spacious cab, 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. Reclining seat.
* International Organization for Standarization

UNDERCARRIAGE

Tracks

Tractor-type undercarriage. Welded track frame using selected materials. Side frame welded to track frame.

Numbers of Rollers and shoes on Each Side

Upper roller 1
Lower rollers 5
Track shoes 40

Travel Device

Each track driven by 2-speed axial piston motor.
Parking brake is spring-set/hydraulic-released disc type.
Automatic transmission system: High-Low.

Travel speeds ..... High : 0 to 5.0 km/h
Low : 0 to 3.1 km/h

Maximum traction force 71 kN

Gradeability ..... 70% (35 degree) continuous

SOUND LEVEL

Sound level in cab according to ISO 6396 ..... LpA 72 dB(A)
External sound level according to ISO 6395 and
EU Directive 2000/14/EC ..... LwA 97 dB(A)

SERVICE REFILL CAPACITIES

Fuel tank ..... 135.0 L
Engine coolant ..... 7.0 L
Engine oil ..... 12.3 L
Travel device (each side) ..... 1.2 L
Hydraulic system ..... 100.0 L
Hydraulic oil tank ..... 56.0 L

WEIGHTS AND GROUND PRESSURE

Operating Weight and Ground Pressure

MONOBLOCK BOOM

Shoe type	Shoe width	Arm length	kg	kPa(kgf/cm^2)
Grouser shoe	450 mm	1.62 m	8 140	35 (0.36)
		2.12 m	8 170	35 (0.36)
	600 mm	1.62 m	8 340	27 (0.28)
		2.12 m	8 370	27 (0.28)
Rubber shoe	450 mm	1.62 m	8 440	36 (0.37)
		2.12 m	8 470	36 (0.37)
Pad crawler shoe	450 mm	1.62 m	8 140	35 (0.36)
		2.12 m	8 170	35 (0.36)

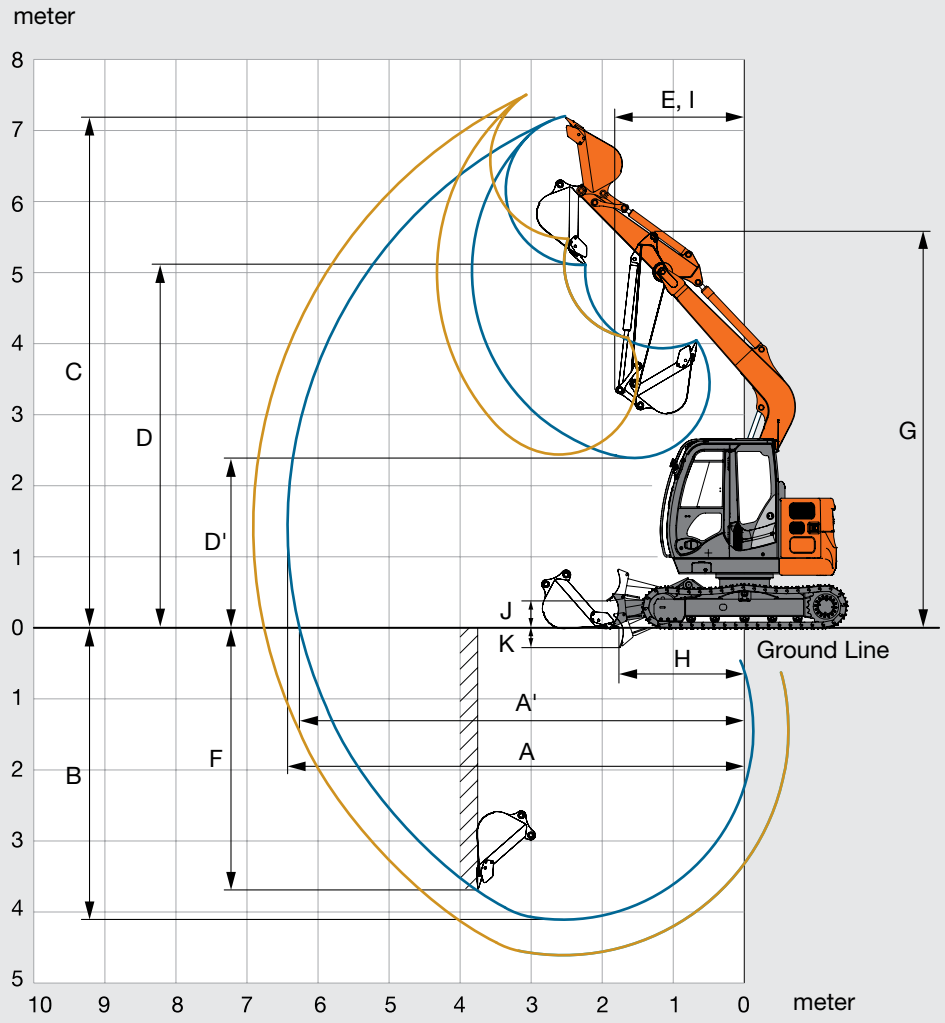
Including 0.28 m^3 (ISO heaped) bucket weight (211 kg).

OFF-SET FRONT

Shoe type	Shoe width	Arm length	kg	kPa(kgf/cm^2)
Grouser shoe	450 mm	1.62 m	8 630	37 (0.38)
	600 mm	1.62 m	8 830	29 (0.29)
Rubber shoe	450 mm	1.62 m	8 930	38 (0.39)
Pad crawler shoe	450 mm	1.62 m	8 630	37 (0.38)

Including 0.28 m^3 (ISO heaped) bucket weight (211 kg).

WORKING RANGES



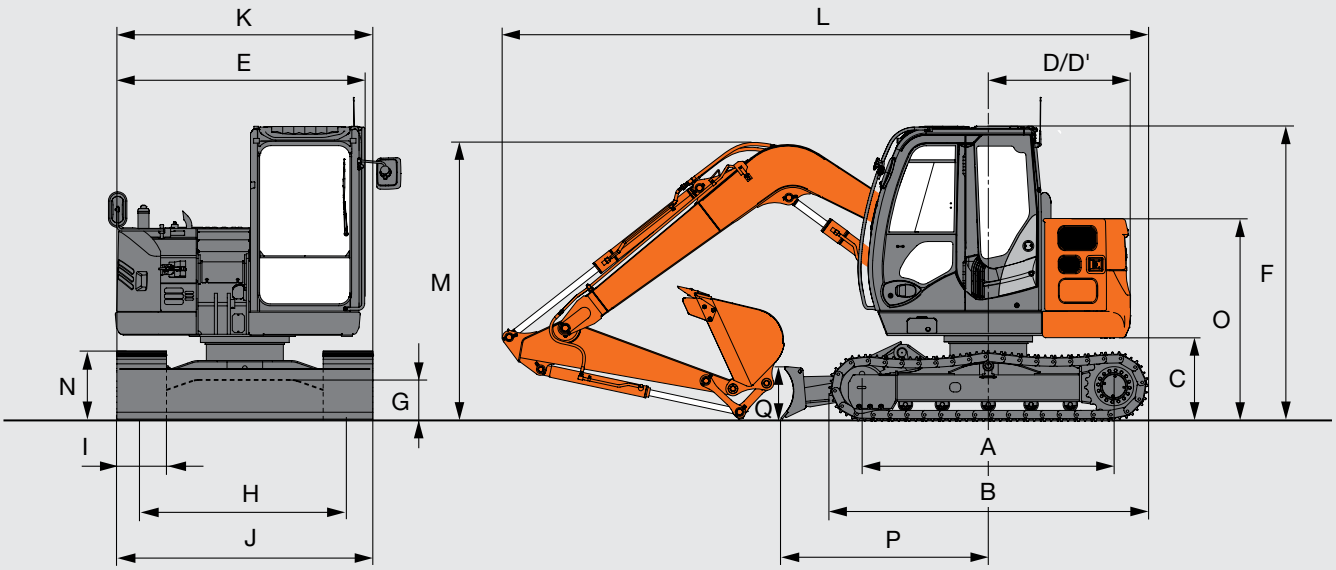
Unit: mm

Arm length		1.62 m	2.12 m
A	Max. digging reach	6 430	6 920
A'	Max. digging reach (on ground)	6 260	6 760
B	Max. digging depth	4 110	4 610
C	Max. cutting height	7 210	7 610
D	Max. dumping height	5 120	5 510
D'	Min. dumping height	2 390	2 410
E	Min. swing radius	1 810	2 170
F	Max. vertical wall	3 670	4 220
G	Front height at Min. swing radius	5 590	5 610
H	Min. level crowding distance	1 770	1 670
I	Working radius at Min. swing radius (Max. boom-swing angle)	–	–
J	Blade bottom highest position above ground	360	360
K	Blade bottom lowest position above ground	300	300

Excluding track shoe lug.

SPECIFICATIONS

DIMENSIONS

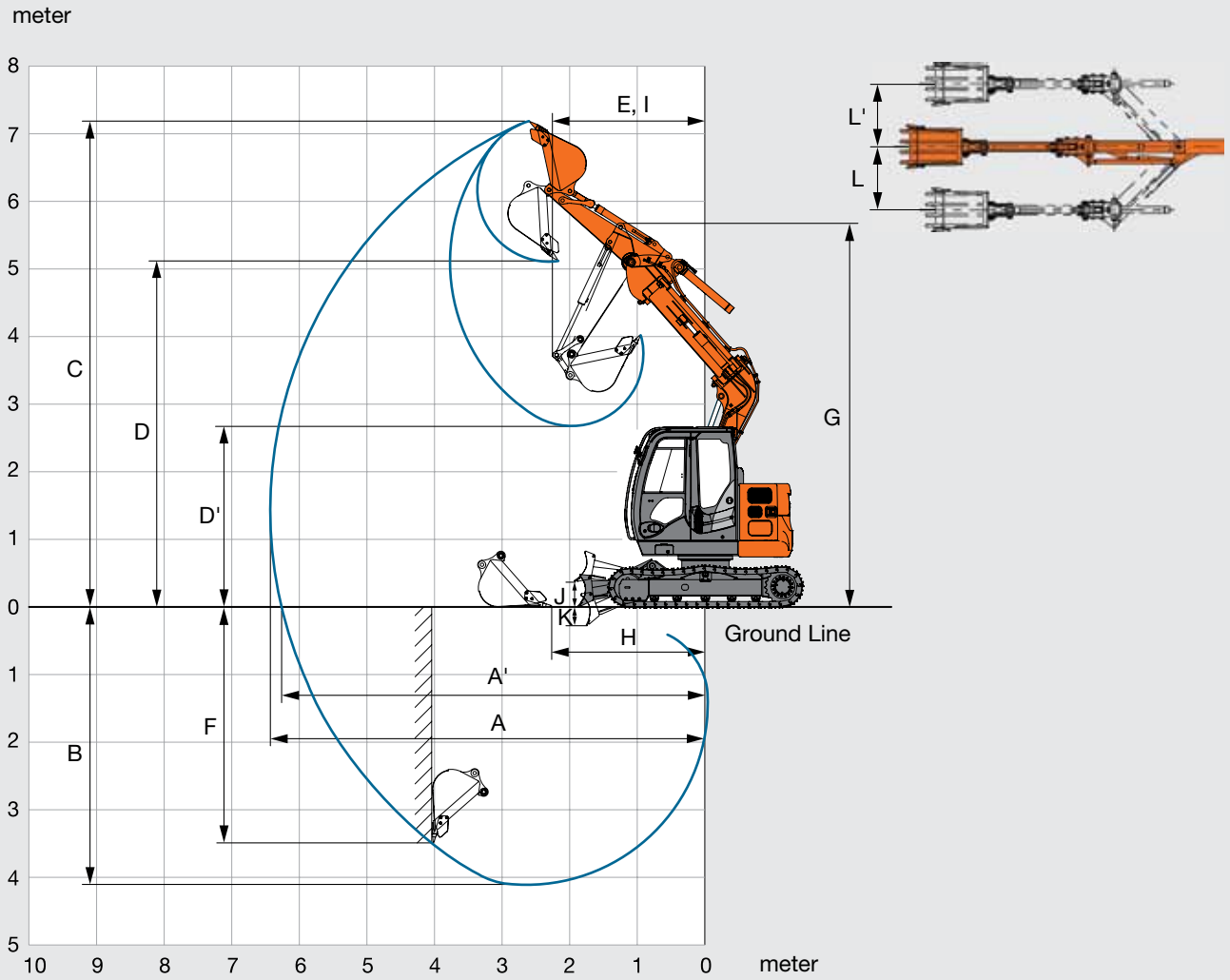


Unit: mm

	ZAXIS 85US
A Distance between tumblers	2 290
B Undercarriage length	2 920
* C Counterweight clearance	730
D Rear-end swing radius	1 290
D' Rear-end length	1 290
E Overall width of upperstructure	2 260
F Overall height of cab	2 690
* G Min. ground clearance	360
H Track gauge	1 870
I Track shoe width	450
J Undercarriage width	2 320
K Overall width	2 320
L Overall length	
With 1.62 m arm	5 870
With 2.12 m arm	6 370
* M Overall height of boom	
With 1.62 m arm	2 690
With 2.12 m arm	2 830
N Track height	650
O Engine cover-height	1 850
P Horizontal distance to blade	1 890
Q Blade height	480

* Excluding track shoe lug.

WORKING RANGES: OFF-SET FRONT



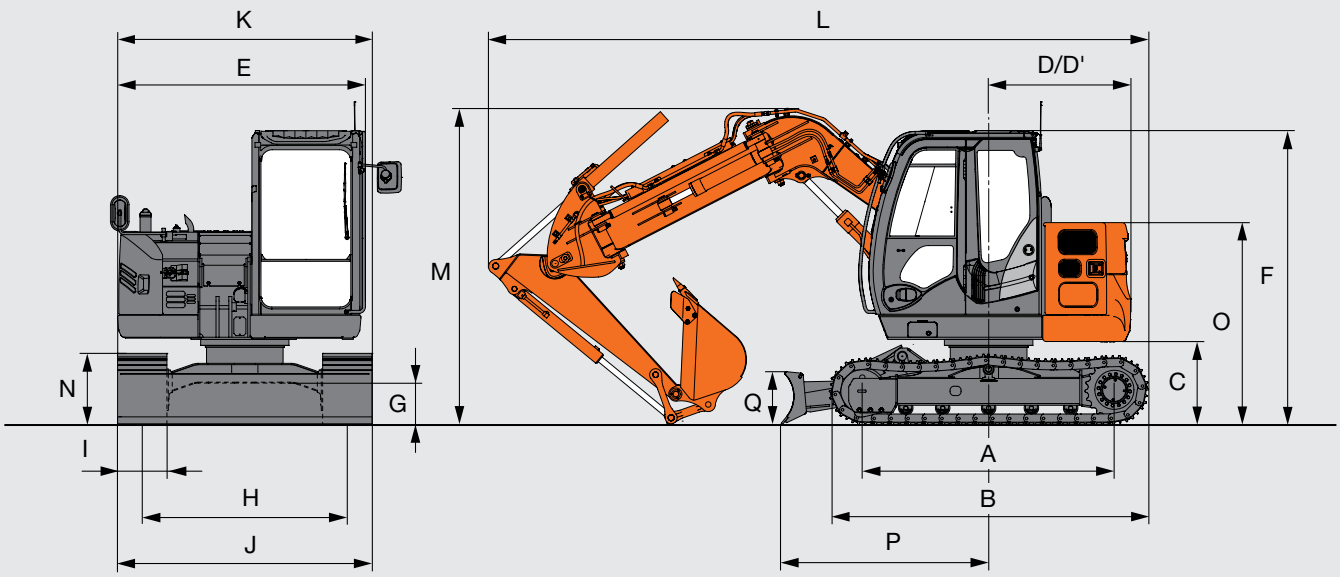
Unit: mm

Arm length		1.62 m
A	Max. digging reach	6 430
A'	Max. digging reach (on ground)	6 260
B	Max. digging depth	4 110
C	Max. cutting height	7 190
D	Max. dumping height	5 110
D'	Min. dumping height	2 670
E	Min. swing radius	2 260
F	Max. vertical wall	3 490
G	Front height at Min. swing radius	5 680
H	Min. level crowding distance	2 280
I	Working radius at Min. swing radius (Max. boom-swing angle)	–
J	Blade bottom highest position above ground	360
K	Blade bottom lowest position above ground	300
L/L'	Left side offset distance / Right side offset distance	1 150 / 1 150

Excluding track shoe lug.

SPECIFICATIONS

DIMENSIONS: OFF-SET FRONT



Unit: mm

	ZAXIS 85US
A Distance between tumblers	2 290
B Undercarriage length	2 920
* C Counterweight clearance	730
D Rear-end swing radius	1 290
D' Rear-end length	1 290
E Overall width of upperstructure	2 260
F Overall height of cab	2 690
* G Min. ground clearance	360
H Track gauge	1 870
I Track shoe width	450
J Undercarriage width	2 320
K Overall width	2 320
L Overall length	
With 1.62 m arm	6 440
* M Overall height of boom	
With 1.62 m arm	2 870
N Track height	650
O Engine cover-height	1 850
P Horizontal distance to blade	1 890
Q Blade height	480

* Excluding track shoe lug.

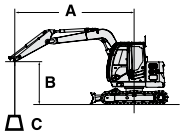
BUCKET AND ARM DIGGING FORCE

	Monoblock boom		Off-set front
Arm length	1.62 m	2.12 m	1.62 m
Bucket digging force ISO	55.0 kN (5 600 kgf)		55.0 kN (5 600 kgf)
Bucket digging force SAE : PCSA	47.0 kN (4 800 kgf)		47.0 kN (4 800 kgf)
Arm crowd force ISO	38.0 kN (3 900 kgf)	32.0 kN (3 300 kgf)	40.0 kN (4 100 kgf)
Arm crowd force SAE : PCSA	36.0 kN (3 700 kgf)	31.0 kN (3 200 kgf)	38.0 kN (3 900 kgf)

LIFTING CAPACITIES

Notes:
1. Ratings are based on ISO 10567.
2. Lifting capacity 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.

For lifting capacities, subtract bucket and quick hitch weight from lifting capacities without bucket.



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

ZAXIS 85US Monoblock boom, Blade above Ground

Rating over-front | Rating over-side or 360 degrees | Unit: kg

Conditions	Load point height m	Load radius 1.0 m		2.0 m		3.0 m		4.0 m		5.0 m		At max. reach		
														meter
Boom 3.72 m Arm 1.62 m Counterweight 1 310 kg Grouser shoe 450 mm	5					*1 580	*1 580					*1 630	*1 630	3.95
	4					*1 760	*1 760	*1 720	*1 720			*1 520	1 410	4.69
	3					*2 280	*2 280	*1 930	1 780	1 560	1 260	1 500	1 210	5.13
	2					*2 970	2 610	2 140	1 710	1 530	1 230	1 390	1 120	5.34
	1					3 220	2 480	2 070	1 640	1 500	1 200	1 360	1 090	5.35
	0 (Ground)					3 150	2 420	2 030	1 600	1 480	1 180	1 410	1 130	5.17
	-1	*2 900	*2 900	*4 230	*4 230	3 140	2 410	2 010	1 590			1 580	1 260	4.76
	-2			*4 560	*4 560	3 170	2 440	2 040	1 610			2 000	1 580	4.07

ZAXIS 85US Monoblock boom, Blade on Ground

Rating over-front | Rating over-side or 360 degrees | Unit: kg

Conditions	Load point height m	Load radius 1.0 m		2.0 m		3.0 m		4.0 m		5.0 m		At max. reach		
														meter
Boom 3.72 m Arm 1.62 m Counterweight 1 310 kg Grouser shoe 450 mm	5					*1 580	*1 580					*1 630	*1 630	3.95
	4					*1 760	*1 760	*1 720	*1 720			*1 520	1 410	4.69
	3					*2 280	*2 280	*1 930	1 780	*1 810	1 260	*1 500	1 210	5.13
	2					*2 970	2 610	*2 230	1 710	*1 920	1 230	*1 550	1 120	5.34
	1					*3 490	2 480	*2 510	1 640	*2 050	1 200	*1 660	1 090	5.35
	0 (Ground)					*3 680	2 420	*2 680	1 600	*2 120	1 180	*1 890	1 130	5.17
	-1	*2 900	*2 900	*4 230	*4 230	*3 600	2 410	*2 660	1 590			*2 150	1 260	4.76
	-2			*4 560	*4 560	*3 240	2 440	*2 320	1 610			*2 260	1 580	4.07

ZAXIS 85US Monoblock boom, Blade above Ground

Rating over-front | Rating over-side or 360 degrees | Unit: kg

Conditions	Load point height m	Load radius 1.0 m		2.0 m		3.0 m		4.0 m		5.0 m		At max. reach		
														meter
Boom 3.72 m Arm 2.12 m Counterweight 1 310 kg Grouser shoe 450 mm	5							*1 400	*1 400			*1 360	*1 360	4.60
	4							*1 450	*1 450	*1 520	1 290	*1 270	1 190	5.25
	3			*2 320	*2 320	*1 880	*1 880	*1 680	*1 680	1 570	1 270	*1 260	1 040	5.64
	2					*2 580	*2 580	*2 010	1 730	1 530	1 230	1 210	970	5.83
	1					*3 220	2 510	2 080	1 650	1 490	1 190	1 190	950	5.84
	0 (Ground)					3 150	2 420	2 020	1 590	1 460	1 160	1 220	980	5.67
	-1	*2 290	*2 290	*3 560	*3 560	3 110	2 380	1 990	1 560	1 450	1 150	1 340	1 060	5.31
	-2	*3 710	*3 710	*5 040	4 890	3 120	2 390	1 990	1 570			1 590	1 260	4.70
	-3			*4 100	*4 100	*2 840	2 450					*2 120	1 790	3.73

ZAXIS 85US Monoblock boom, Blade on Ground

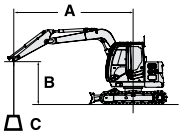
Rating over-front | Rating over-side or 360 degrees | Unit: kg

Conditions	Load point height m	Load radius 1.0 m		2.0 m		3.0 m		4.0 m		5.0 m		At max. reach		
														meter
Boom 3.72 m Arm 2.12 m Counterweight 1 310 kg Grouser shoe 450 mm	5							*1 400	*1 400			*1 360	*1 360	4.60
	4							*1 450	*1 450	*1 520	1 290	*1 270	1 190	5.25
	3			*2 320	*2 320	*1 880	*1 880	*1 680	*1 680	*1 600	1 270	*1 260	1 040	5.64
	2					*2 580	*2 580	*2 010	1 730	*1 760	1 230	*1 290	970	5.83
	1					*3 220	2 510	*2 350	1 650	*1 930	1 190	*1 370	950	5.84
	0 (Ground)					*3 570	2 420	*2 580	1 590	*2 060	1 160	*1 510	980	5.67
	-1	*2 290	*2 290	*3 560	*3 560	*3 640	2 380	*2 660	1 560	*2 080	1 150	*1 770	1 060	5.31
	-2	*3 710	*3 710	*5 040	4 890	*3 440	2 390	*2 530	1 570			*2 020	1 260	4.70
	-3			*4 100	*4 100	*2 840	2 450					*2 120	1 790	3.73

LIFTING CAPACITIES

Notes:
1. Ratings are based on ISO 10567.
2. Lifting capacity 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.

For lifting capacities, subtract bucket and quick hitch weight from lifting capacities without bucket.



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

ZAXIS 85US Off-set front, Blade above Ground

Rating over-front | Rating over-side or 360 degrees | Unit: kg

Conditions	Load point height m	Load radius										At max. reach		
		1.0 m		2.0 m		3.0 m		4.0 m		5.0 m				
														meter
Off-set Boom Arm 1.62 m Counterweight 1 310 kg Grouser shoe 450 mm	5													
	4					*1 750	*1 750	*1 620	*1 620			*1 610	1 510	4.40
	3			*3 280	*3 280	*2 180	*2 180	*1 800	1 700			1 540	1 210	4.86
	2					*2 750	2 410	2 010	1 570	1 410	1 100	1 370	1 070	5.08
	1					2 910	2 170	1 880	1 450	1 350	1 040	1 310	1 010	5.10
	0 (Ground)					2 790	2 070	1 800	1 370			1 350	1 030	4.90
	-1			*4 470	4 240	2 780	2 050	1 780	1 340			1 520	1 160	4.47
	-2			*3 880	*3 880	*2 810	2 100							

ZAXIS 85US Off-set front, Blade on Ground

Rating over-front | Rating over-side or 360 degrees | Unit: kg

Conditions	Load point height m	Load radius										At max. reach		
		1.0 m		2.0 m		3.0 m		4.0 m		5.0 m				
														meter
Off-set Boom Arm 1.62 m Counterweight 1 310 kg Grouser shoe 450 mm	5													
	4					*1 750	*1 750	*1 620	*1 620			*1 610	1 510	4.40
	3			*3 280	*3 280	*2 180	*2 180	*1 800	1 700			*1 650	1 210	4.86
	2					*2 750	2 410	*2 050	1 570	*1 740	1 100	*1 720	1 070	5.08
	1					*3 160	2 170	*2 270	1 450	*1 840	1 040	*1 810	1 010	5.10
	0 (Ground)					*3 270	2 070	*2 390	1 370			*1 930	1 030	4.90
	-1			*4 470	4 240	*3 170	2 050	*2 350	1 340			*2 070	1 160	4.47
	-2			*3 880	*3 880	*2 810	2 100							

EQUIPMENT

● ..... Standard equipment ○ ..... Optional equipment

ENGINE

Air cleaner double filters	●
Auto idle system	●
Cartridge-type engine oil filter	●
Cartridge-type fuel filter	●
Dry-type air filter with evacuator valve (with air filter restriction indicator)	●
Electric fuel refilling pump	●
Fan guard	●
Fuel main filter	●
PWR/ECO mode control	●
Radiator reserve tank	●
Radiator, oil cooler with dust-proof indoor net	●
Water-separator for engine fuel	●
60 A alternator	●

HYDRAULIC SYSTEM

Boom anti-drift valve	●
Extra port for control valve	●
Full-flow filter	●
Hose rupture valve	○
Hydraulic pilot type control levers	●
Pilot control shut-off lever with neutral engine start system	●
Pilot filter	●
Suction filter	●
Swing drain filter	●
Swing parking brake	●
Travel parking brake	●
Two-speed travel system	●
Valve for extra piping	●

CAB

Air suspension seat with heater	●
AM/FM radio	●
Anti-slip plate	●
Armrests	●
Ashtray	●
Auto control air conditioner	●
Auxiliary function lever (AFL)	○
Defroster	●
Drink holder	●
Electric horn	●
Floor mat	●
Glove compartment	●
Rain guard	○
Reclining seat	●
Retractable seat belt	●
ROPS/OPG cab	●
Storage box	●
Sun visor	○
Transparent roof	●
Window washer	●
Wiper	●
4 fluid-filled elastic mounts	●
12 V power source	○

LIGHTS

Additional boom lights with cover	○
Additional cab roof front lights	○
Additional cab roof rear lights	○
Rotating lamp	○
2 working lights	●

UPPER STRUCTURE

Auxiliary overload relief valve	●
Electrical fuel feed pump with auto stop	●
Fuel level float	●
Pilot accumulator	○
Rear view camera	○
Rear view mirror (right, left side & cab rear)	●
Stack muffler	●
Tool box	●
Undercover	●
1 310 kg counterweight	●
1 820 kg counterweight	○

UNDERCARRIAGE

Blade	●
Reinforced track links with pin seals	●
Travel motor covers	●
4 tie down hooks	●
450 mm grouser shoe	●
450 mm pad crawler shoe	○
450 mm rubber shoe	○
600 mm grouser shoe	○

FRONT ATTACHMENTS

Assist piping	○
Dirt seal on all bucket pins	●
Flanged pin	●
HN bushing	●
Reinforced resin thrust plate	●
WC (tungsten-carbide) thermal spraying	●
1.62 m arm	○
2.12 m arm	●

MISCELLANEOUS

Global e-Service	●
Theft deterrent system*	●

Standard and optional equipment may vary by country, so please consult your Hitachi dealer for details.
* Hitachi Construction Machinery cannot be held liable for theft, any system will just minimize the risk of theft.