

# ZX50U-5N

## SPECIFICATIONS

HITACHI

Reliable Solutions

LANDCROS

ENGINE	
Model	Yanmar 4TNV88C
Type	4-cycle water-cooled, common rail direct injection
Aspiration	Natural
Aftertreatment	DPF
No. of cylinders	4
Rated power	
ISO 14396: Gross	39.6 hp (29.1 kW) at 2,400 rpm
ISO 9249: Net	36.8 hp (27.1 kW) at 2,400 rpm
Maximum torque	100.2 lbf-ft (135.8 Nm) at 1,560 min-1
Piston displacement	134 cu. in. (2.189 L)
Bore and stroke	3.5" x 3.5" (88 mm x 90 mm)
Batteries	1 x 12 V/72 Ah

HYDRAULIC SYSTEM			
Hydraulic Pumps			
Main pumps	Closed center load sensing with variable-displacement pump		
Maximum oil flow	31.7 gpm (120 L/m)		
Auxiliary flow	23.1 gpm (87.5 L/min)		
Auxiliary Pressure	2,495 psi (17.2 Mpa)		
Hydraulic Motors			
Travel	2 variable displacement axial piston motors		
Swing	1 axial piston motor		
Relief Valve Settings			
Implement circuit	3,553.4 psi (24.5 MPa)		
Swing circuit	2,654.2 psi (18.3 MPa)		
Travel circuit	3,553.4 psi (24.5 MPa)		
Pilot circuit	594.7 psi (4.1 MPa)		
Hydraulic Cylinders			
Unit: in (mm)			
	Quantity	Bore	Rod diameter
Boom (Canopy)	1	3.7" (95)	2.2" (55)
Boom (Cab)	1	3.7" (95)	2.2" (55)
Arm	1	3.1" (80)	2.0" (50)
Bucket	1	3.0" (75)	1.8" (45)
Blade	1	4.1" (105)	2.0" (50)
Angle blade	1	2.6" (65)	1.6" (40)
Boom swing	1	3.5" (90)	2.0" (50)

UPPER STRUCTURE	
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	9.0 rpm
Swing torque	6,343.0 lbf-ft (8.6 kNm)
Max boom swing angle, left/right	80 degrees / 60 degrees

UNDERCARRIAGE	
Tracks	
Tractor-type undercarriage. Welded track frame using selected materials. Side frame welded to track frame	
Numbers of Rollers on Each Side	
Upper rollers	1
Lower rollers	4
Steel track (optional)	39
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 2.6 mph (0 to 4.2 km/h)
	Low: 0 to 1.6 mph (0 to 2.5 km/h)
Maximum traction force	8,610.2 lbf (38.3 kN)
Gradeability	58% (30 degree) continuous

ENVIRONMENT	
Engine Emissions	EPA Final Tier 4
Sound Level*	
Sound level in canopy according to ISO 6396: 2008	*LpA 77.4 (right) / 77.2 (left) dB(A)
Sound level in cab according to ISO 6396: 2008	*LpA 76.8 (right) / 70.8 (left) dB(A)
External sound level according to ISO 6395: 2008	*LwA 97.0 (canopy) dB(A)

SERVICE REFILL CAPACITIES	
Unit: gal (L)	
Fuel tank	18.5 (70.0)
Engine coolant	1.3 (5.0)
Engine oil	2.2 (8.6)
Travel device (each side)	0.2 (0.9)
Hydraulic system	17.4 (66.0)
Hydraulic oil tank	14.8 (56.0)

# SPECIFICATIONS

**ZX50U-5N**

## WEIGHTS AND GROUND PRESSURE

### Operating Weight and Ground Pressure

	Shoe width, in (mm)	Operating Weight lb (kg)	Ground Pressure psi (kPa)
*Rubber track, Canopy 5' 7" (1,690 mm) arm	16" (400 mm)	11,054 lb (5,014 kg)	4.2 psi (28.8 kPa)
*Rubber track, Cab 5' 7" (1,690 mm) arm	16" (400 mm)	11,341 lb (5,144 kg)	4.3 psi (29.5 kPa)
**Steel track, Canopy 5' 7" (1,690 mm) arm	16" (400 mm)	11,442 lb (5,190 kg)	4.2 psi (29.0 kPa)
**Steel track, Cab 5' 7" (1,690 mm) arm	16" (400 mm)	11,729 lb (5,320 kg)	4.4 psi (30.0 kPa)

\*With full fuel tank, 16" (400 mm) rubber track, extra counterweight, straight blade, 175 lb (79 kg) operator

\*\*With full fuel tank, 16" (400 mm) steel track, extra counterweight, straight blade, 175 lb (79 kg) operator

### Components Weight

Counterweight	
Standard	1,543 (700)
Additional	441 (200)
Optional Angle Blade	902 (409)
Optional Angle Blade weight increase	485 (220)

## BUCKET AND ARM DIGGING FORCE

Unit: lb (kg)

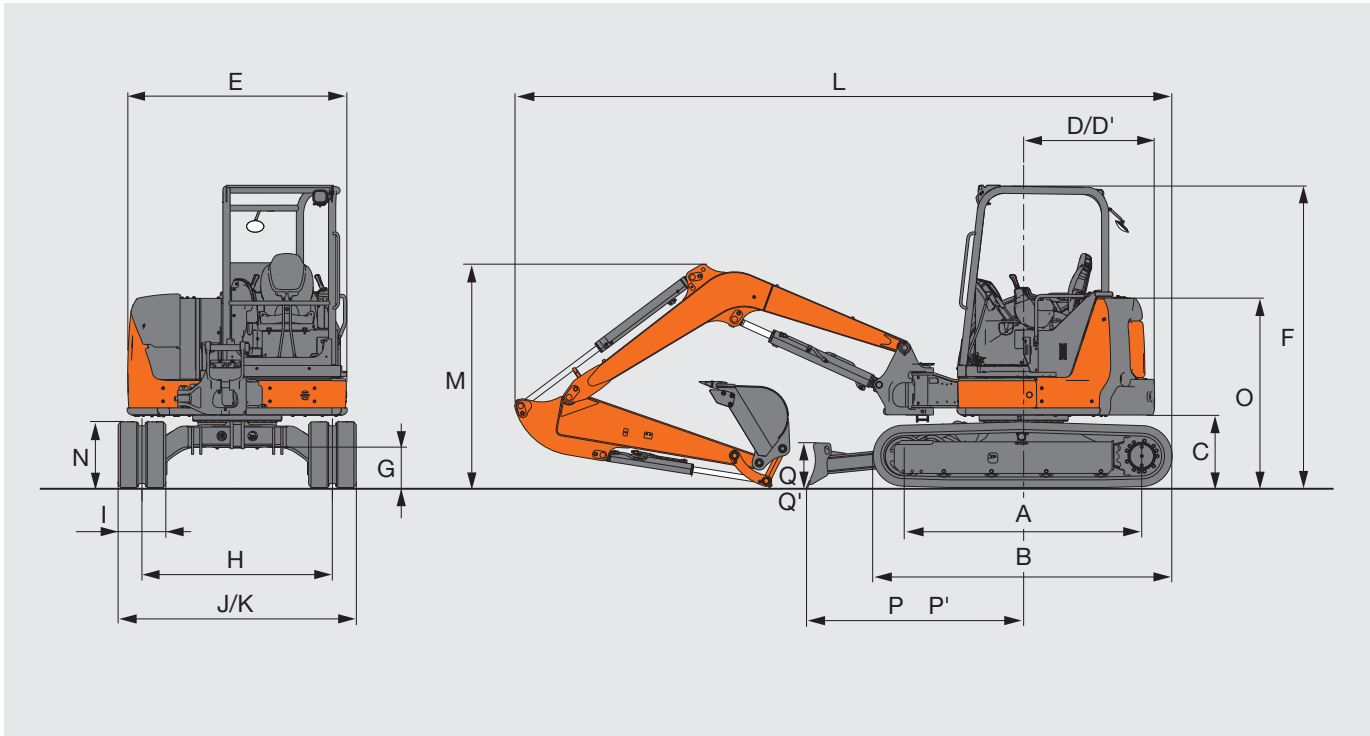
Unit: lbf (kN)

Arm length	5' 7" (1.690 m)
Arm crowd force* ISO 6015: 2006	4,718 (21.0)
Bucket digging force* ISO 6015: 2006	8,267 (36.8)

# SPECIFICATIONS

ZX50U-5N

## DIMENSIONS



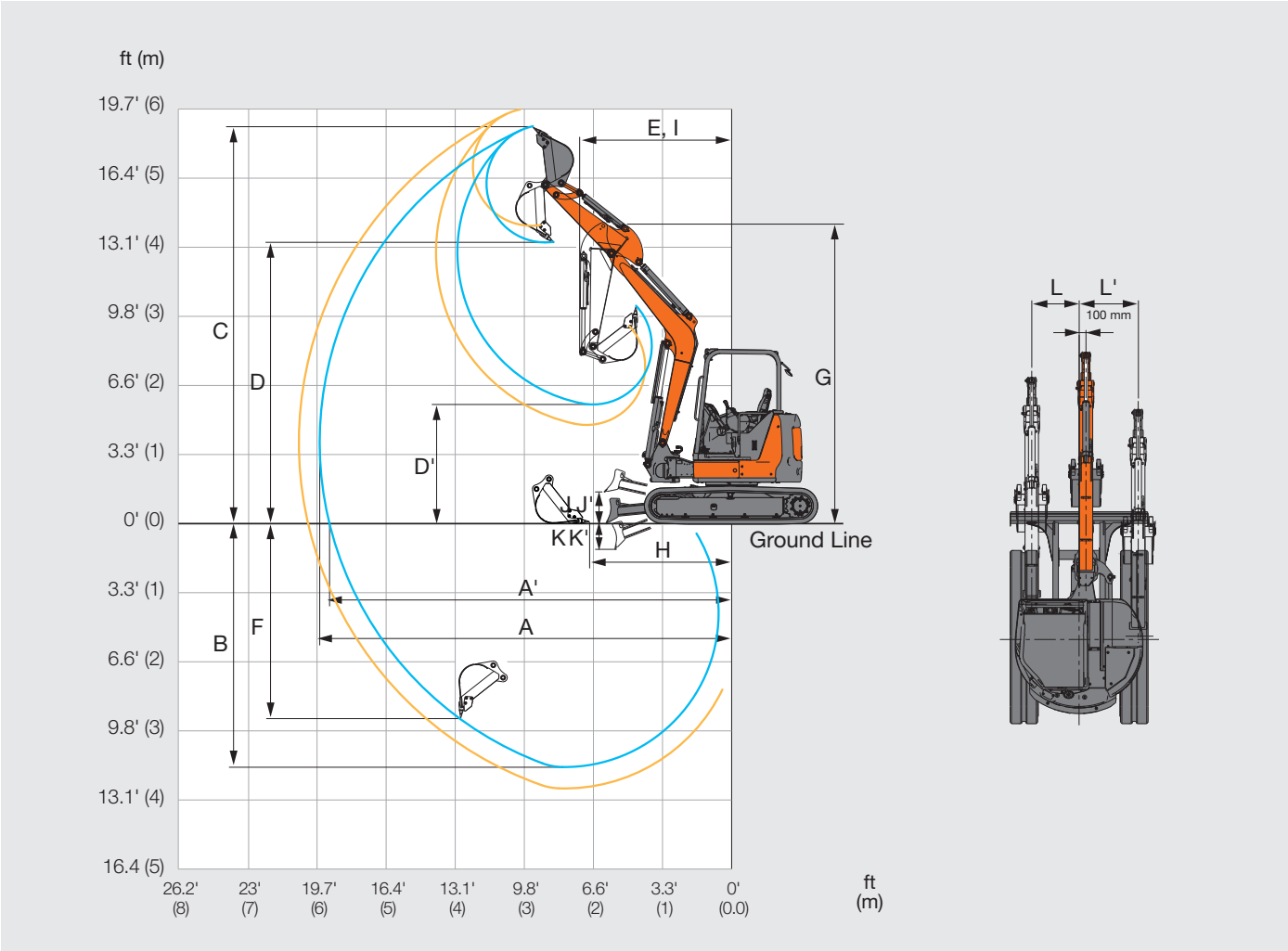
Unit: ft-in (mm)

		ZX50U-5N (Canopy)	ZX50U-5N (Cab)
	Arm length	5' 7" (1,690)	5' 7" (1,690)
A	Distance between tumblers	6' 7" (2,000)	6' 7" (2,000)
B	Undercarriage length	8' 2" (2,500)	8' 2" (2,500)
C	Counterweight clearance	2' 1" (640)	2' 1" (640)
D	Rear-end swing radius	3' 7" (1,100)	3' 7" (1,100)
D'	Rear-end length	3' 7" (1,100)	3' 7" (1,100)
E	Overall width of upperstructure	6' 1" (1,850)	6' 1" (1,850)
F	Overall height of canopy/cab	8' 4" (2,530)	8' 4" (2,530)
G	Min. ground clearance	1' 1" (340)	1' 1" (340)
H	Track gauge	5' 3" (1,600)	5' 3" (1,600)
I	Track shoe width	16" (400)	16" (400)
J	Undercarriage width	6' 7" (2,000)	6' 7" (2,000)
K	Overall width	6' 7" (2,000)	6' 7" (2,000)
L	Overall length blade in front	18' 1" (5,520)	18' 1" (5,520)
M	Overall height of boom	6' 2" (1,880)	6' 2" (1,880)
N	Track height	1' 10" (550)	1' 10" (550)
O	Engine cover height	5' 3" (1,590)	5' 3" (1,590)
P	Horizontal distance to blade	6' 0" (1,820)	6' 0" (1,820)
P'	Horizontal distance to angle blade	6' 7" (2,015)	6' 7" (2,015)
Q	Blade height	1' 3" (375)	1' 3" (375)
Q'	Angle blade height	1' 3" (374)	1' 3" (374)

# SPECIFICATIONS

ZX50U-5N

## WORKING RANGES



Unit: ft-in (mm)

		ZX50U-5N (Canopy)	ZX50U-5N (Cab)
Arm length		5' 7" (1,690)	5' 7" (1,690)
A	Max. digging reach	20' 6" (6,260)	20' 6" (6,260)
A'	Max. digging reach (on ground)	20' 1" (6,130)	20' 1" (6,130)
B	Max. digging depth	12' 7" (3,830)	12' 7" (3,830)
C	Max. cutting height	19' 8" (6,000)	19' 8" (6,000)
D	Max. dumping height	14' 2" (4,310)	14' 2" (4,310)
D'	Min. dumping height	4' 8" (1,430)	4' 8" (1,430)
E	Min. swing radius	7' 7" (2,300)	7' 7" (2,300)
F	Max. vertical wall digging depth	10' 4" (3,140)	10' 4" (3,140)
G	Front height at Min. swing radius	14' 4" (4,380)	14' 4" (4,380)
H	Min. level crowding distance	6' 2" (1,880)	6' 2" (1,880)
I	Working radius at Min. swing radius (Max. boom-swing angle)	5' 11" (1,810)	5' 11" (1,810)
J	Blade bottom highest position	1' 6" (460)	1' 6" (460)
K	Blade bottom lowest position	1' 2" (365)	1' 2" (365)
J'	Angle blade bottom highest position	1' 6" (450)	1' 6" (450)
K'	Angle blade bottom lowest position	1' 7" (477)	1' 7" (477)
L/L'	Offset distance, left / right	2' 3" (690) / 2' 9" (850)	2' 3" (690) / 2' 9" (850)

# LIFTING CAPACITIES

## ZX50U-5N



**Boldface type** indicates hydraulically limited capacity; lightface type indicates stability-limited capacities, in lb (kg). Machine equipped with 6' 7" (2,000 mm) blade and 16" (400 mm) track; lifting measurement from center of arm to bucket pin; situated on firm, level, uniform supporting surface. Total load includes weight of cables, hook, etc. Figures do not exceed 87 percent of hydraulic capacities or 75 percent of weight needed to tip machine. All lift capacities are based on ISO 10567 (with power boost).

Rating over-front, Rating over-side or 360 degrees Unit: lb (kg)

ZX50U-5N								
	Rubber Track and Standard Counterweight		Steel Track and Standard Counterweight		Rubber Track and Extra Counterweight		Steel Track and Extra Counterweight	
Ground level at 10' (3.05 m) radius	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side
5' 7" (1,690 mm) Long Arm and Cab	<b>5,456</b> <b>(2,475)</b>	2,486 (1,060)	<b>5,456</b> <b>(2,475)</b>	2,570 (1,166)	<b>5,456</b> <b>(2,475)</b>	2,755 (1,250)	<b>5,456</b> <b>(2,475)</b>	2,840 (1,288)
5' 7" (1,690 mm) Long Arm and Canopy	<b>5,456</b> <b>(2,475)</b>	2,396 (1,087)	<b>5,456</b> <b>(2,475)</b>	2,480 (1,125)	<b>5,456</b> <b>(2,475)</b>	2,666 (1,209)	<b>5,456</b> <b>(2,475)</b>	2,750 (1,247)
Ground level at 15' (4.57) radius	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side
5' 7" (1,690 mm) Long Arm and Cab	<b>3,060</b> <b>(1,388)</b>	1,416 (572)	<b>3,060</b> <b>(1,388)</b>	1,466 (665)	<b>3,060</b> <b>(1,388)</b>	1,575 (714)	<b>3,060</b> <b>(1,388)</b>	1,625 (737)
5' 7" (1,690 mm) Long Arm and Canopy	<b>3,060</b> <b>(1,388)</b>	1,363 (618)	<b>3,060</b> <b>(1,388)</b>	1,413 (641)	<b>3,060</b> <b>(1,388)</b>	1,522 (690)	<b>3,060</b> <b>(1,388)</b>	1,572 (713)

# EQUIPMENT

## ZX50U-5N

●: Standard equipment ○: Optional equipment


ENGINE	ZX50U-5N
Yanmar 4TNV88C 134 cu. in. (2,189 L)	●
ISO 9249: 36.8 hp (27.1 kW) at 2,400 rpm	●
ISO 14396: 39.6 hp (29.1 kW) at 2,400 rpm	●
55 amp alternator, 12 volt	●
Antifreeze	●
Certified to EPA Tier 4 Final	●
Direct injection	●
Electric fuel shutoff	●
Fan guard	●
Fuel filter & water separator	●
Full flow oil filter	●
Isolation mounted	●
Low maintenance battery	●
Single dry-type air filter	●
Under hood muffler	●
DPF	●

HYDRAULIC SYSTEM	ZX50U-5N
<b>NEW</b> 2nd auxiliary hydraulic coupler piping	○
<b>NEW</b> Auxiliary flow rate changer (5-stage)	●
<b>NEW</b> Auxiliary function control and right hand pilot lever	●
Auxiliary hydraulic diverter for breaker or thumb on arm to arm	●
Auxiliary valve section	●
Axial plunger swing motor	●
Boom swing foot control	●
Closed-center, load sensing with one variable displacement pump	●
Excavator to backhoe control pattern change	●
Full flow oil filter	●
Hydraulic pilot controls for boom, arm, bucket, swing, blade and propel	●
<b>NEW</b> Pilot accumulator	○
<b>NEW</b> Quick coupler piping	○
Wet disk swing brake	●

UNDERCARRIAGE	ZX50U-5N
16" (400 mm) rubber track	●
16" (400 mm) steel track	○
16" (400 mm) rubber pad track	○
Angle blade	○
Axial plunger propel motor	●
Backfill blade 6' 7" (2.0 m)	●
<b>NEW</b> Blade float (not available for Angle blade)	○
Planetary final drive	●
Propel motor shield	●
Two speed travel with automatic shifting	●

UPPER STRUCTURE	ZX50U-5N
360 degree upper structure rotation	●
<b>NEW</b> Battery disconnect switch	●
Counterweight; 1,190 lb (540 kg)	●
Additional Counterweight; 441 lb (200 kg)	●
Independent boom swing (80 degree left and 60 degree right rotation)	●
ROPS/OPG/FOPS canopy	●
ROPS/OPG/FOPS cab with air conditioning and heater	○
Vandal locks for service doors	●
<b>NEW</b> LED work light	
One mounted on boom	●
One mounted on canopy (cab)	●
Zero swing configuration	●

FRONT ATTACHMENTS	ZX50U-5N
Boom 9' 4" (2.85 m)	●
Arm 5' 7" (1.69 m)	●
Mechanical quick coupler	●
<b>NEW</b> Seatscrew for quick coupler piping	●

QUICK LINKS	ZX50U-5N
Website's Product Page	

OPERATOR'S STATION	ZX50U-5N
12 Volt outlet	●
<b>NEW</b> 3 in. retractable seat belt	●
Air conditioner for cab	○
<b>NEW</b> Blade lever with High & Low travel switch	●
<b>NEW</b> CAB front window power assist dampener (CAB only)	○
Cupholder	●
Electronic throttle control with auto idle and auto shut-down	●
Foldable propel pedals and levers	●
Horn	●
Instrumentation lights	●
Monitor system with:	
Alternator voltage warning indicator"	●
Auto idle indicator	●
Auto shut-down indicator	●
Clock	●
Diagnostic capability	●
Engine coolant temperature gauge and indicator	●
Engine oil pressure indicator	●
Engine coolant temperature gauge, overheat indicator and alarm	●
Engine oil pressure indicator	●
Engine preheat indicator	●
Fuel gauge with low fuel indicator	●
Hour meter	●
Muffler filter indicator	●
Power/Economy mode	●
System monitoring capability	●
Travel mode indicator	●
Work lights indicator	●
Motion alarm with cancel switch	●
Operator manual storage in back of seat	●
Seat with fore/aft adjustment	●
<b>NEW</b> Telematics	●
Two travel modes with automatic shifting and speed selection switch	●
<b>NEW</b> USB power outlet (CAB only)	○
Work lights switch	●