

EXCAVATOR



SY50U

STANDARD FEATURES

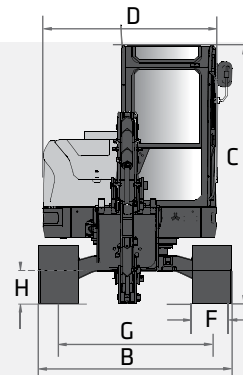
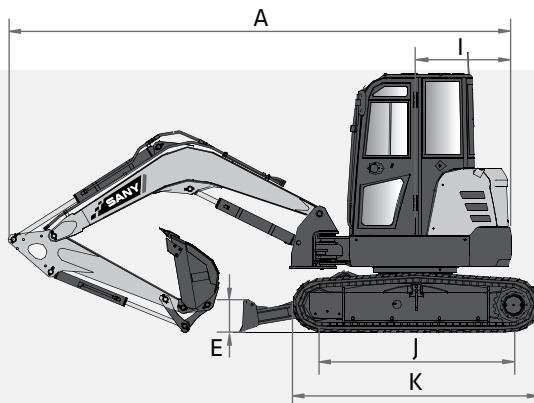
- ➔ Swing boom functionality
- ➔ True zero tail swing
- ➔ 1-way and 2-way primary auxiliary and 2-way secondary auxiliary
- ➔ Quick coupler plumber to end of stick
- ➔ Powerful Yanmar Engine

37.1 hp
Net Power

11' 3"
Dig Depth

11,684 lbs
Operating Weight

7,846 lbf
Bucket Breakout



TECHNICAL SPECIFICATIONS

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Operating Weight	11,684 lbs	5 300 kg
Ground Pressure	4.6 psi	31.6 kPa
Engine	Yanmar 4TNV88C	
Displacement	134.3 in ³	2.19 L
Gross Power	39.0 HP	29.1 kW
Net Power	37.1 HP	27.7 kW
Hydraulics	Load Sensing with Pilot Control	
Main Hydraulic Pump	Axial Piston - Variable Displacement	
Operating Flow (maximum)	29.1 gal/min	110.0 L/min
Operating Pressure (maximum)	3,553 psi	24.5 MPa
Primary Auxiliary Flow (maximum)*	18.5 gal/min	70 L/min
Primary Auxiliary Pressure (maximum)	3,626 psi	25 MPa
Secondary Auxiliary Flow (maximum)*	11.9 gal/min	45 L/min
Secondary Auxiliary Pressure (maximum)	3,626 psi	25 MPa
Travel Motor	Axial Piston with Park Brake	
Travel Pressure (maximum)	3,553 psi	24.5 MPa
Travel Speeds (maximum)	1.7 / 2.5 mph	2.7 / 4.0 km/hr
Travel Effort (maximum)	9,150 lbf	40.7 kN
Grade Capability (maximum)	30°	
Swing Motor	Axial Piston with Swing Brake	
Swing Pressure (maximum)	2,770 psi	19.1 MPa
Swing Speed (maximum)	10 RPM	
Undercarriage (standard)	Belted Rubber Track	
Track Shoe Width (standard)	16"	400 mm
Track Rollers (per side)	4	
Carrier Rollers (per side)	1	

DIMENSIONS

DIMENSIONS

Boom Length	8' 10"	2 700 mm
Stick Length	4' 11"	1 500 mm
A Transport Length	17' 8"	5 390 mm
B Transport Width	6' 5"	1 960 mm
C Transport Height	8' 8"	2 630 mm
D Upper Structure Width	5' 9"	1 760 mm
E Blade Height	13"	330 mm
F Track Width (standard shoe)	16"	400 mm
G Track Gauge	5' 1"	1 560 mm
H Ground Clearance (minimum)	13"	325 mm
I Tail Swing Radius	3' 3"	980 mm
J Track Length on Ground	6' 6"	1 990 mm
K Track Length	8' 3"	2 510 mm

SERVICE REFILL CAPACITIES

Fuel Tank Capacity	20.6 gal	78.0 L
Hydraulic Tank Capacity	13.7 gal	52.0 L
Engine Oil Capacity	2.0 gal	7.4 L
Cooling System Capacity	1.1 gal	4.2 L

*Based on theoretical calculation at max flow with no load. Subject to alterations. In the interest of continual equipment development

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s = standard / o = optional

SY50U	ENGINE
s	Yanmar 4TNV88C
s	Tier 4F / EU Stage V Ready
s	Auto-idle
s	Dual-element dry air filter
s	Engine air precleaner
s	Coolant expansion tank
s	Electronic engine control
s	Fan guard
s	Engine coolant to -37 deg. C (-34 deg. F)
s	Fuel filter with water separator
s	Full-flow oil filter
s	High flow cooling fan
s	500-hour engine-oil-change interval
s	No scheduled DPF maintenance for 6000 hours
s	Fuel filter and water separator
HYDRAULIC SYSTEM	
s	Spring-applied, hydraulically released automatic swing brake
s	Load sensing hydraulic system
s	Control pattern change valve
s	Primary auxiliary hydraulics circuit with 1 and 2-way combination piping
s	Secondary auxiliary hydraulic circuit
s	Auxiliary hydraulic-flow adjustments through monitor
s	Adjustable auxiliary pressure relief
s	Quick coupler ready
UNDERCARRIAGE	
s	Planetary drive with axial piston motors
s	Propel motor shields
s	Spring-applied, hydraulically released automatic propel brake
s	Track guides, front idler and 2 per side
s	2-speed travel selection through display and on dozer lever
s	4 lower track rollers each side
s	1 Upper carrier roller each side
s	Dozer blade with cylinder guarding
s	Tie downs on track frame and dozer blade
s	450mm (18") wide rubber track
s	Undercarriage frame opening guard
UPPERSTRUCTURE	
s	Left hand mirror
s	Lockable cab, hood, and service doors
s	Debris screen in side panel
s	Remote-mounted engine oil and fuel filters
s	Daily fluid level inspection visible from ground
s	Rear reflectors





STANDARD AND OPTIONAL EQUIPMENT

s = standard / o = optional

SY50U	ATTACHMENTS
s	Dirt seals on all bucket pins
s	Convenient grease points
s	Thumb bracket
s	Oil-impregnated bushings
s	Reinforced thrust plates
s	Quick coupler plumbing to end of the stick
OPERATOR'S STATION	
s	Hydraulic pilot controls for boom, stick, swing, and travel operations
s	Proportional auxiliary switches on joystick
s	Travel levers with foot pedals
s	AM/FM radio with bluetooth and USB connection port
s	Cell phone tray
s	Cloth seat with fore/aft adjustment
s	2" retractable seat belt
s	Emergency stop switch
s	Window breaker
s	ECO mode switch
s	8 tool selection modes
s	Fully adjustable auxiliary flow circuits and pressure from display
s	Multifunction color LCD monitor with: Diagnostic capability / Multiple-language
s	System monitoring features: Auto-idle indicator, 2-speed indicator, work-mode indicator, preheat icon, time and date, battery charge icon, throttle position, engine oil pressure alarm, DPF regeneration inhibit indicator, fuel level gauge, maintenance needed icon, failure code, standard/eco work mode icon, engine coolant temperature, coolant temp alarm, severe failure alarm, work tool mode icon, operating hours
s	High performance heating, ventilation, and air conditioning system
s	Operation and maintenance manual storage
s	Heavy duty rubber floor mat
s	Front windshield wiper with high and low speed
s	Horn, electric
s	Hour meter, electric
s	Hydraulic shutoff lever, all controls
s	Interior light
s	Cup holder
s	Travel alarm with cancel switch
s	Transparent overhead hatch
ELECTRICAL	
s	12V electrical system
s	Maintenance free battery
s	Ground level battery disconnect
s	Easy access fuse panel
s	Terminal battery covers
s	80-amp alternator
s	12V power outlet
LIGHTS	
s	Work lights: 2 mounted on top of cab, 1 mounted on boom, magnetic beacon

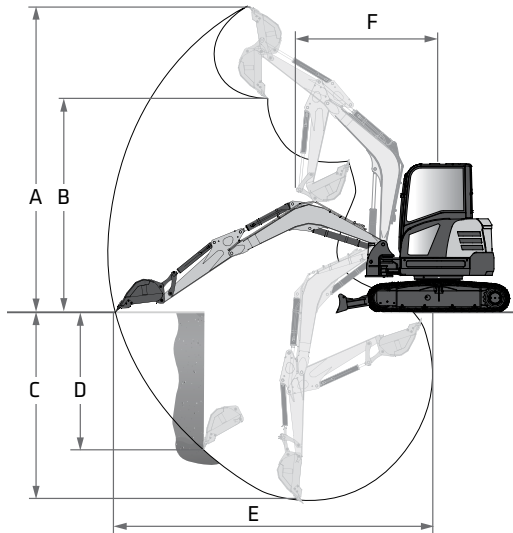
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*Warranty applies to 2023 Excavator and Wheel Loader models only.

PRODUCT SPECIFICATIONS EXCAVATOR III SY50U

WORKING RANGE



WORKING RANGE

Boom Length	8' 10"	2 700 mm
Stick Length	4' 11"	1 500 mm
A Maximum Digging Height	17' 11"	5 450 mm
B Maximum Dumping Height	12' 6"	3 805 mm
C Maximum Digging Depth	11' 3"	3 420 mm
D Maximum Vertical Wall Digging Depth	8' 1"	2 460 mm
E Maximum Reach at Ground Level	19' 3"	5 880 mm
F Minimum Swing Radius	8' 3"	2 520 mm

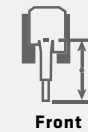
DIGGING PERFORMANCE

Boom Length	8' 10"	2 700 mm
Stick Length	4' 11"	1 500 mm
Bucket Breakout Force (ISO)	7,846 lbf	34.9 kN
Stick Digging Force (ISO)	5,081 lbf	22.6 kN

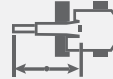
LIFTING PERFORMANCE

Standard 8' 10" (2 700 mm) Boom
 Standard 4' 11" (1 500 mm) Stick
 Standard 16" (400 mm) Track Shoes
 No Bucket

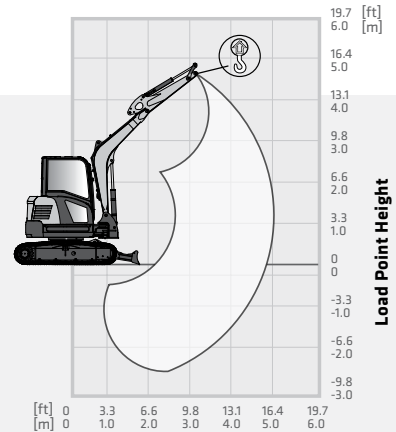
Ratings are based on ISO 10567:2007. Lift capacity does not exceed 75% of tipping load with the machine on firm, level ground or 87% of hydraulic lifting capacity.



Front



Side



Load Radius

BLADE DOWN	LOAD RADIUS	6.6 ft 2.0 m		9.8 ft 3.0 m		13.1 ft 4.0 m		16.4 ft 5.0 m		MAX REACH	
	LOAD POINT HEIGHT										
	13.1 ft 4.0 m									2,387 lb* 1 085 kg*	1,859 lb 845 kg
	9.8 ft 3.0 m					2,310 lb* 1 050 kg*	1,793 lb 815 kg			2,310 lb* 1 050 kg*	1,441 lb 655 kg
	6.6 ft 2.0 m			3,399 lb* 1 545 kg*	2,618 lb 1 190 kg	2,618 lb* 1 190 kg*	1,738 lb 790 kg			2,321 lb* 1 055 kg*	1,276 lb 580 kg
	3.3 ft 1.0 m			4,444 lb* 2 020 kg*	2,442 lb 1 110 kg	3,003 lb* 1 365 kg*	1,672 lb 760 kg	2,376 lb* 1 080 kg*	1,232 lb 560 kg	2,365 lb* 1 075 kg*	1,221 lb 555 kg
	0 ft 0 m			4,763 lb* 2 165 kg*	2,365 lb 1 075 kg	3,179 lb* 1 445 kg*	1,617 lb 735 kg			2,420 lb* 1 100 kg*	1,265 lb 575 kg
	-3.3 ft -1.0 m	6,017 lb* 2 735 kg*	4,400 lb 2 000 kg	4,345 lb* 1 975 kg*	2,365 lb 1 075 kg	2,915 lb* 1 325 kg*	1,617 lb 735 kg			2,442 lb* 1 100 kg*	1,441 lb 655 kg
	-6.6 ft -2.0 m	4,697 lb* 2 135 kg*	4,510 lb 2 050 kg	3,014 lb* 1 370 kg*	2,420 lb 1 100 kg					2,288 lb* 1 040 kg*	1,991 lb 905 kg
BLADE UP	13.1 ft 4.0 m									2,255 lb 1 025 kg	1,859 lb 845 kg
	9.8 ft 3.0 m					2,167 lb 985 kg	1,793 lb 815 kg			1,738 lb 790 kg	1,441 lb 655 kg
	6.6 ft 2.0 m			3,267 lb 1 485 kg	2,618 lb 1 190 kg	2,112 lb 960 kg	1,738 lb 790 kg			1,540 lb 700 kg	1,276 lb 580 kg
	3.3 ft 1.0 m			3,080 lb 1 400 kg	2,442 lb 1 110 kg	2,035 lb 925 kg	1,672 lb 760 kg	1,496 lb 680 kg	1,232 lb 560 kg	1,485 lb 675 kg	1,221 lb 555 kg
	0 ft 0 m			2,992 lb 1 360 kg	2,365 lb 1 075 kg	1,991 lb 905 kg	1,617 lb 735 kg			1,540 lb 700 kg	1,265 lb 575 kg
	-3.3 ft -1.0 m	6,017 lb* 2 735 kg*	4,400 lb 2 000 kg	2,981 lb 1 355 kg	2,365 lb 1 075 kg	1,980 lb 900 kg	1,617 lb 735 kg			1,760 lb 800 kg	1,441 lb 655 kg
-6.6 ft -2.0 m	4,697 lb* 2 135 kg*	4,510 lb 2 050 kg	3,014 lb* 1 370 kg*	2,420 lb 1 100 kg					2,288 lb* 1 040 kg*	1,991 lb 905 kg	

* Indicates load limited by hydraulic lifting capacity.

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