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Material & specification are subject to change without prior notice in accordance with our continuous technical innovations. Featured machines in photos may include additional equipment.

SY20U MINI EXCAVATOR



**MICRO MINI EXCAVATOR
 LOADED WITH EXTRA
 FEATURES**



SO SMALL • SO AGILE • SO VERSATILE



- Operating weight- 1980Kg
- Engine Power- 19.8hp (14.6kW)@2400rpm
- Bucket Capacity- 0.05m³/Trench bucket

BEST-IN CLASS FEATURES WITH IMPROVED PERFORMANCE & VERSATILITY

The Mini excavators developed by SANY adopts major breakthroughs ranging from power system to control system for high efficiency and energy savings. This, in addition to insistence on 'Quality in-Everything -We_Do!' has delivered the world-class excavators best suited for the multitude of your work requirements with superior advantage of uninterrupted operations, unmatched productivity at better fuel economy, helping you make more profits

THE MOST COMPACT COMBINATION OF PERFORMANCE & ADAPTABILITY

HIGH ADAPTABILITY

- Zero tail swing
- Variable track gauge (Extendable & retractable)
- Boom swing & offset feature
- Strong metallic side panels
- Steel track chain as standard
- Extendable dozer blade

HIGH PERFORMANCE

- High fuel efficient compact engine
- Advanced load sensing hydraulic system
- Best in class swing speed
- Large capacity wider bucket
- Best in class digging forces
- Excellent implement speed

HIGHER RELIABILITY

- Robust front attachment with casted pivot ends
- Durable undercarriage
- Performance proven major aggregates
- World class testing methods for high reliability
- Special profile high strength dozer blade
- Strong & metallic side panels
- Integrated design track chain assembly



HIGHER SAFETY STANDARDS

- ROPS & TOPS certified canopy
- Battery disconnect switch
- Metallic guard for dozer cylinder rod
- Hydraulic accumulator as STD
- Mechanical swing lock provision
- Metallic hydraulic & fuel tank

TOP CLASS OPERATOR WORK ENVIRONMENT

- Fully adjustable & wider suspension seat
- Smooth & effortless joysticks
- High intensity LED lamp
- Pilot operated dozer lever integrated with travel speed control
- Excellent all round visibility
- Adjustable hand rest & foot rest

BEST IN CLASS SERVICEABILITY

- Wider side panels with ground level access for filters
- Breaker piping kit as standard
- 2 stage fuel filtration system with flow cut-off valve
- Easy removable wire mesh guard for ROC cleaning
- Air filter with clogging indicator
- Centralize greasing points

Whenever job sites get tight, the SANY SY20U mini excavator is just right. With 980mm retracted width, zero tail swing & boom offset features, It even fits through narrow passage & confined job sites, making it the ideal solution for various customer applications like building basement cleaning, cable/pipe line trenching through ruler areas, plantation jobs,etc. Shipping weight at just 19Ton and it is very easy to transport in small vechicles. Loading & Unloading of machine is quite easy and impresses on site with its excellent maneuverability in confined spaces

NOWHERE IS OUT OF REACH

ZERO TAIL SWING

BOOM SWING & OFFSET

SHIPPING WEIGHT

LOWER WIDTH



HIGH ADAPTABILITY

MORE ADAPTABLE MICRO MINI EXCAVATOR

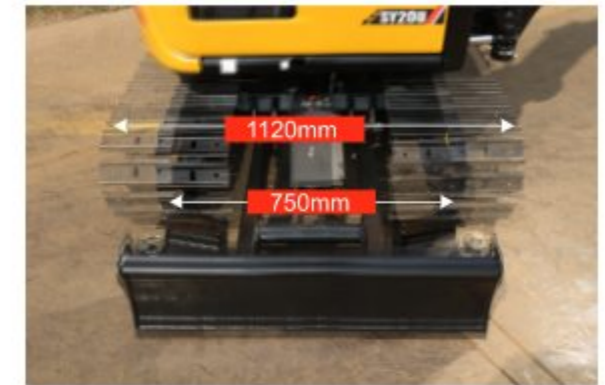


ZERO TAIL SWING

The newly designed SY20U works efficiently in confined spaces with its zero tail swing feature. ZTS allows the excavator body to rotate at the base while remaining within the width of its track. It increases overall operator comfort with the flexibility to maneuver and operate the machine in tight/confined sites such as close to walls, foundation pits, and other obstacles that may lie in the machine path.

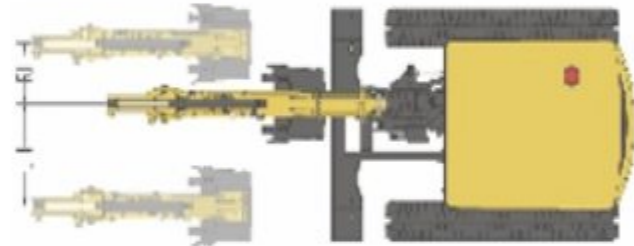
VARIABLE TRACK GAUGE

SY20U comes with variable track with effortless joystick. Operator can easily reduce track gauge while passing through narrow space. As standard feature with 750mm minimum width under retracted position & 1120mm under extended position. Operator can easily adjust the track width as per the site conditions (low width for narrow passage, extended width for better machine stability in loose strata.)



BOOM SWING & OFFSET FEATURE

SY20U featured with boom swing & offset feature which enables the operator to work very close to the wall without repositioning the machine.



STRONG & METALLIC SIDE PANELS

Specially designed robust metallic side panels enable the machine to work safely in site conditions without affecting important aggregates with a low risk of machine damage from external impact.



EXTENDABLE DOZER BLADE WIDTH

SY20U is equipped with an adjustable dozer blade which enables the operator to move the machine through the narrow passage. As well as increased surface area for dozing application. Blade width can be easily adjustable with the help of a single pivot pin.



EASE OF TRANSPORTABILITY

Ultra compact design of SY20U makes the transportation of machine more easy & secure. With easily accessible large tie down points the machine can safely transported on small trailers.

- Shipping Weight - 1910Kg
- Transport Length - 3615mm
- Transport Height - 2495mm
- Transport Width - 980mm



INTEGRATED STEEL TRACK

Weld integrated steel track is the standard offering with Sany SY20U, which gives excellent traction and maneuverability in the slop as well as tough underfoot conditions.



BEST IN CLASS PERFORMANCE

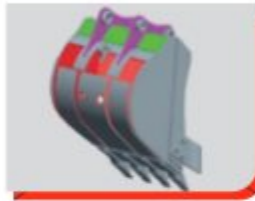
POWERFUL & FUEL EFFICIENT ENGINE

The SY20U is equipped with advanced technology 19.8hp powerful & fuel efficient engine which delivers excellent performance in various applications. Its low noise design helps to work in densely populated areas with minimum disturbance.



LARGE CAPACITY WIDER BUCKET

SY20U comes with wider profile large capacity bucket for enhanced fill factor and best in class output.



EXCELLENT DIGGING FORCES

Best in class digging forces makes the machine more powerful in its segment & ensures high fill factor & productivity in hard strata.

MAX BUCKET DIGGING FORCE-15.2kN
MAX. ARM DIGGING FORCE-9.2kN

PRECISE OPERATIONAL CONTROL & UNBEATABLE FUEL EFFICIENCY

ADVANCED LOAD SENSING HYDRAULIC SYSTEM

Perfect synchronization between the engine & hydraulic main pump results in improved work efficiency & reduced fuel consumption. Full hydraulic control is adopted for boom deflection & AUX pipeline, which makes the operation more accurate & efficient.



PERFORMANCE PROVEN MAJOR AGGREGATES

Performance proven branded hydraulic aggregates are adopted in SY20U which ensures high reliability in longer hours of operation. Pressure & flow loss reduction technology adopted aggregates offers Best in Class performance.



HIGH RELIABILITY

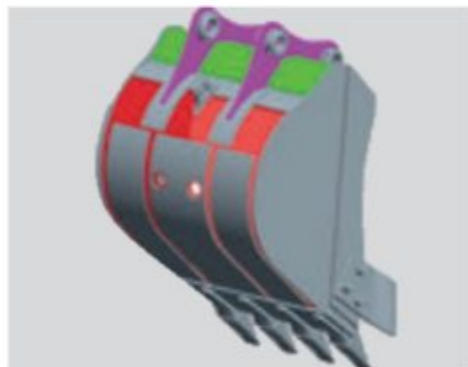
A ENHANCED STRUCTURE LIFE

SANY is advanced research & development with the most advanced testing methods are adopted to ensure trouble free operations during a longer period.



B WEAR RESISTANT BUCKET

All side reinforced high strength bucket gives longer service life in tough applications.



C ROBUST DOZER BLADE

Robust & wider dozer blade design along with cylinder protection guard ensures high reliability & improved service life.



BUILT TO PERFORM LONGER



D HIGH STRENGTH METALIC PANELS

Robust & durable side panels are specially made from high strength metal plates which protect the major components from external impact. Also, it can be easily repairable if any damages while working in the toughest job sites.



E CASTED BOOM PIVOT ENDS

Heavily reinforced swing post & cast boom pivot ends ensure additional strength & durability in the toughest applications.



G HIGH STRENGTH METALIC TANKS

Metallic fuel & hydraulic tank ensures higher life & easy reparability if any damage happens at the site.



F INTEGRATED STEEL TRACK CHAIN

Integrated steel track chain & heavy duty undercarriage design enables the machine to perform efficiently in tough underfoot conditions.



HIGH OPERATOR COMFORT

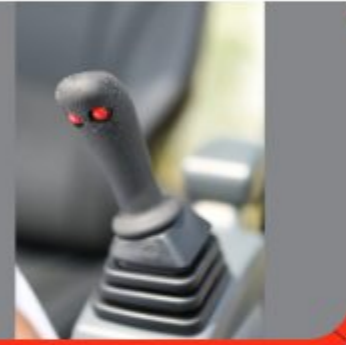
WIDER SUSPENSION SEAT

A Wider & suspension operator seat provides excellent comfort for an operator for longer hours of operation. Waterproof & dust proof vinyl seat ensures more service life irrespective of working conditions.



SMOOTH & EFFORTLESS JOYSTICKS

Smooth & effortless joysticks are smartly designed for precise & quick horizontal & vertical strokes of joysticks while working in various applications.



HIGH INTENSITY LED LAMP

High intensity LED lamp provides high illumination for night time tasks.



BETTER DIGGING END VISIBILITY

Excellent all round visibility especially the maximum digging height position with the help of 2 pillar canopy



EXTREMELY COMFORTABLE FOR PRECISE AND SMOOTH OPERATION

USER FRIENDLY DIGITAL DISPLAY

User friendly & simple digital display mounted on the right console which showcases critical operations parameters at a glance.



12V POWER SUPPLY



WIDER FOOT REST



ENGINE THROTTLE LEVER



TRAVEL SPEED CONTROL INTEGRATED DOZER LEVER

ADJUSTABLE HAND REST

EASY ACCESSIBLE CONTROL SWITCHES

LARGE FUEL FILLER NECK WITH SPILLING COLLECTING PROVISION



EXCELLENT SAFETY

ROPS & TOPS CANOPY

Robust structure with ROPS & TOPS tested canopy provides extra level of safety to the operator while working in toughest applications.



BATTERY DISCONNECT SWITCH

Battery disconnect switch helps to isolate machine electrical system during major maintenance work & avoid unwanted accidents.



RETRACTABLE SEAT BELT

Retractable type seat belt ensures more operator safety.



PROTECTED FRONT HOSES

Top mounted boom cylinder & front attachment hoses routed within arm which leads to greater machine safety & improves operator visibility.



INNOVATIVE SWING LOCK FEATURE

Mechanically engaged swing locking system ensure higher safety while machine shifting.



WORKING LAMP GUARD

Metal guard for working lamp ensures higher protection to the LED lamp from external impact.



OPERATOR'S
SAFETY
IS SANY'S
FIRST PRIORITY



EASE OF MAINTENANCE ENSURES HIGH MACHINE UPTIME



Filters

Fuel filling cap

Radiator

Electrical components

EASY ATTACHMENT ADAPTABILITY

Attachment piping kit provided with SY20U as standard for easy adaptability of various attachments as per the customer applications.



WIDE OPENING SIDE PANELS

Wide opening steel panels make possible to easy access major components for quick maintenance.



CENTRALIZE GREASING POINTS

Centralize greasing points which are easily accessible for daily maintenance.



2 STAGE FUEL FILTRATION SYSTEM

Fuel & oil filters conveniently placed for easy accessibility. Multistage fuel filtration system helps to reduce fuel contamination.



WIREMESH TYPE ROC GUARD

Detachable type Wire mesh guard for ROC leads to easy cleaning & maintenance.

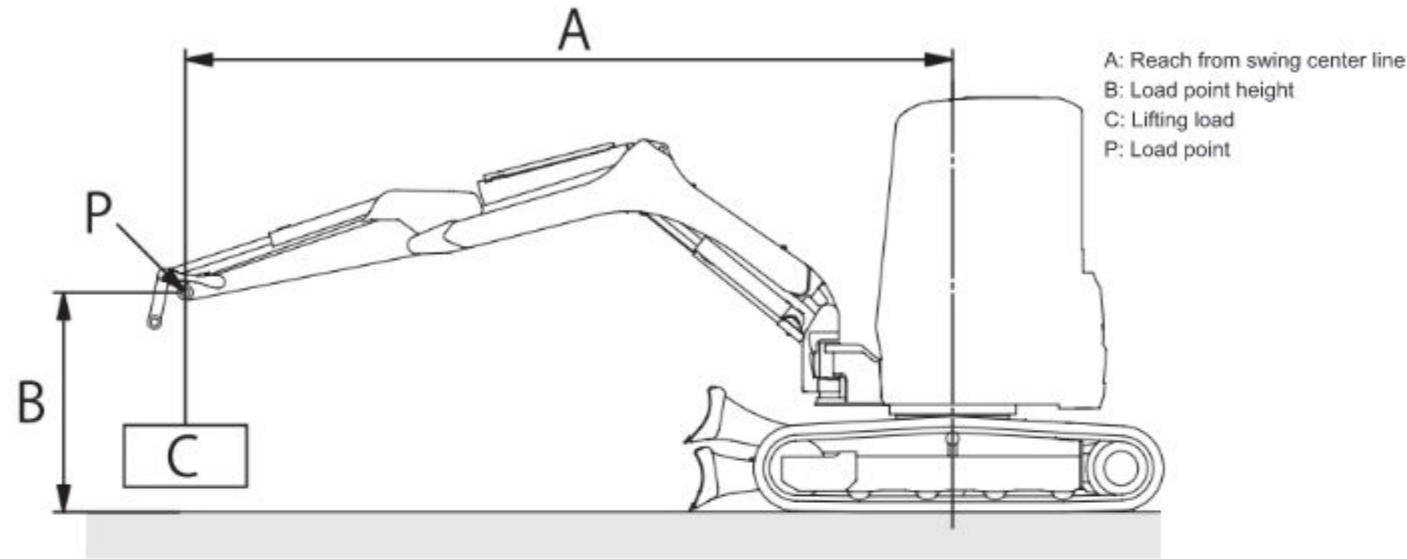


AIR FILTER CLOG INDICATOR

Air filter clog indicator for easy monitoring of air filter condition & necessary maintenance



LIFTING CAPACITIES



TECHNICAL SPECIFICATIONS

ENGINE

Mode	Yanmar 3TNV80F
Type	Four stroke, 3 Cylinder, water cooled
Rated Engine power	19.8hp(14.6kW) @2400rpm
Max Torque	67.4Nm@1800rpm
Displacement	1.22L
Battery	12V

CONTROL SYSTEM

Control system	Load sensing hydraulic system
Work modes	Stepless throttle speed control system

HYDRAULIC SYSTEM

Pump	
Main Pump	Variable Displacement Axial Piston Pump
Max. Flow	70 Lpm
Pilot Pump	NA
Relief Valve Setting	
Imp. Circuit	24.5 Mpa
Swing Circuit	16.3 Mpa
Travel Circuit	24.5 Mpa
Pilot Circuit	4.0 Mpa

SWING SYSTEM

Swing Motor	Axial Piston Motor
Parking Brake	Oil Disc Brake, Hyd. Operated Automatically
Swing Speed	10 rpm

TRAVEL SYSTEM

Travel Motors	2 x Axial piston, Two Speed Motors
Parking Brakes	Oil Disc Brake Per Motor
Max. Travel Speed (L/H)	3/4.2 Kmph
Max. Traction Force	15.6kN
Grade Ability	70°(35%)
Ground Pressure	30kpa

UNDERCARRIAGE & WORKING DEVICE

Track Shoes (Each Side)	37
Carrier Support (Each Side)	2
Lower Roller (Each Side)	3
Std. Track	230mm
Std. Boom	1810 mm
Std. Arm	1130 mm
Std. Bucket	0.05m ³

SERVICE REFILL CAPACITIES

Hydraulic Tank	21 L
Fuel Tank	21 L
Engine Oil	2 L
Cooling System	3.8L

DIMENSION

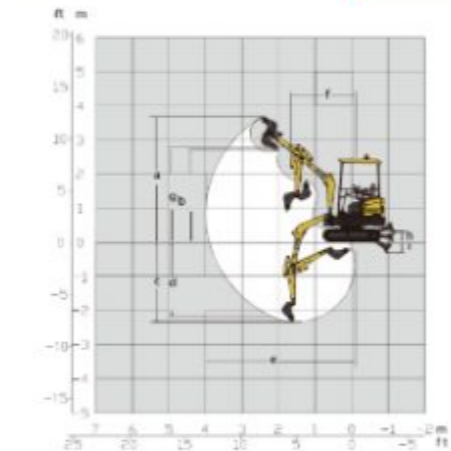


DIMENSION (Unit: mm)		Arm 1130
A. Overall Length		3515
B. Overall Width		980/1350
C. Overall Height		2495
D. Upper Width		980
E. Blade Height		270
F. Std. Track shoe width		230
G. Track Gauge		750/1120
H. Min Ground Clearance		160
I. Rear end swing Radius		675
J. Distance between Tumblers		1225
K. Undercarriage Length		1580
Bucket Swing RH/LH		400/625
Max. Boom swing angle (L)		73°
Max. Boom swing angle ©		46°

DIGGING FORCES

Max. Bucket digging Force	15.3kN
Max. Arm crowding Force	9.2kN

WORKING RANGES



WORKING RANGE (Unit: mm)		Arm 1130
a. Max. Digging Height		3410
b. Max dumping Height		2350
c. Max Digging Depth		2385
d. Max vertical wall digging depth		2100
e. Max digging reach		4010
f. Min swing radius		1655
g. Max. Height at min. swing radius		2745
h. Max Ground Clearance of blade up		310
i. Max. Depth of blade down		320

BUCKET

Capacity	Width (mm)	Arm 1130
0.05m ³	497	√
Trench bucket	301	√

LIFTING CAPACITIES OF LOWER DOZER BLADE

Load point height	Radius				Digging reach						
	1.5 m / 4.9 ft	2.0 m / 6.6 ft	2.5 m / 8.2 ft	3.0 m / 9.8 ft							
3.0 m	kg				*341	307					
9.8 ft	lb				*752	677					
2.0 m	kg			*292	263	*315	307				
6.6 ft	lb			*644	580	*694	553				
1.0 m	kg	*517	461	*415	333	*366	255	*317	212		
3.3 ft	lb	*1140	580	*915	733	*807	562	*699	467		
Ground line	kg	*662	651	*774	425	*541	313	*414	245	*338	213
	lb	*1459	*1435	*1706	937	*1193	690	*913	540	*745	470
-1.0 m	kg	*1012	660	*650	422	*468	309	*342	243	*338	264
-3.3 ft	lb	*2223	*1455	*1433	930	*1032	682	*754	536	*745	582

LIFTING CAPACITIES OF LOWER DOZER BLADE

Load point height	Radius				Digging reach						
	1.5 m / 4.9 ft	2.0 m / 6.6 ft	2.5 m / 8.2 ft	3.0 m / 9.8 ft							
3.0 m	kg				*305	307					
9.8 ft	lb				*672	677					
2.0 m	kg				260	263	248	251			
6.6 ft	lb				573	580	547	553			
1.0 m	kg		462	461	331	333	253	255	209	212	
3.3 ft	lb		1019	1016	730	733	558	562	461	467	
Ground line	kg	661	651	425	425	311	313	242	245	210	213
	lb	*1457	*1435	937	937	686	690	534	540	463	470
-1.0 m	kg	1012	660	423	422	307	309	240	243	262	264
-3.3 ft	lb	*1479	*1455	933	930	677	682	529	536	578	582

Remarks

- The lifting capacities are based on ISO 10560 and SAE1097 and do not exceed 75% of the machine or 87% of the hydraulic lifting capacities of the machine.
- The data with* are hydraulic lifting capacities of the machine.
- The excavator bucket weight is not included on this chart.

PRESSURE & CAPACITIES

Shoe Type	Shoe Width	Operating Weight	Ground Pressure
Double Grouser	230mm	1980Kg	30kPa

