

SY210C-9 SPARC



NEW
SPARC
SERIES

EXCAVATOR
TO ACCELERATE USER
PROFITABILITY



Photos may include optional items also

**DYNAMIC OPTIMIZATION
MATCHING CONTROL
SYSTEM**

Operating weight-20900kg

Engine Power- 140HP(104kW)@2000rpm

Bucket Capacity- 1.0m³ GP/0.90m³ HD/1.5m³ Sand/1.6m³ coal



1 Energy Optimized New Software



2 Extended Hydraulic Oil Change Interval



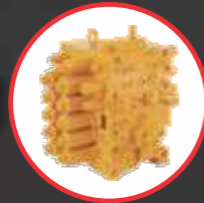
3 Heavy Duty Track Chain (12mm Thickness)



4 Heavy Duty Reinforced Structure



5 Performance Proven Major Aggregates



6 Inverted Bucket Cylinder (OPT.)



7 Auto Centralize Lubrication System (OPT.)



8 Fuel Refill pump with auto cut-off (OPT.)



9 Battery Disconnect Switch



10 LED lamp with guard



11 Wider Suspension Seat



12 7" Intelligent & informative Display



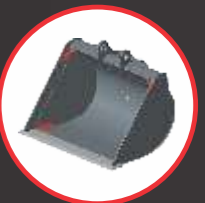
13 USB Enabled music system



14 Cabin Sun Visor



15 SAND & COAL Bucket (OPT.)



16 Rear Working lamp (OPT.)



INNOVATIVE DESIGN TO PERFORM IN TOUGHEST APPLICATIONS

EXCELLENT PERFORMANCE

- Powerful & fuel efficiency proven performance engine
- More energy optimized DOMCS system **New**
- Super high digging forces
- Hydraulic flow Priority System
- 4 optimized general working modes
- Engine auto idle function
- Wider profile coal & sand bucket (Option) **New**
- Hydraulic flow regeneration system

PROVEN RELIABILITY

- Robust front attachment with casting & forged pivot ends
- High efficient cooling system
- Heavy duty upper & Lower structure **New**
- Forged swing ring body
- Heavy duty track chain :12mm(Std.) **New**
- Performance proven major aggregates **New**

BEST IN CLASS SERVICEABILITY

- Long drain hydraulic service interval (up to 4000hours) **New**
- SANY'S self diagnosis system
- Battery disconnect switch as standard **New**
- Auto centralized lubrication system (Option) **New**
- Ground level access for filters
- Drain valve system for all lubes
- Fuel refill pump (Option) **New**
- Multi-stage fuel filtration system

ENHANCED SAFETY

- FOPS complied cabin with front & top guards
- Working lamp guard for boom **New**
- Rear view camera with display (Option) **New**
- AFSS system (Option) **New**
- Inverted bucket cylinder (Option) **New**
- Beacon lamp with buzzer (Option) **New**
- Seat belt reminder (Option) **New**
- Hydraulic accumulator as STD

TOP CLASS OPERATOR WORK ENVIRONMENT

- 7" Informative & Intelligent digital display **New**
- Fully adjustable & wider suspension seat **New**
- LED working lamps **New**
- Sun visor **New**
- Inbuilt music system with USB port **New**
- Auto climate control air conditioning system
- Smooth & effortless joysticks
- Rear working lamp (Option) **New**

(SANY EVI) ADVANCED REMOTE MONITORING SYSTEM

- Easy machine location tracking
- Machine real time status & critical health alerts
- Better machine fleet management
- Breaker, travel & swing utilization tracking **New**
- Past machine movement history tracking
- Instantaneous fuel level monitoring.
- Easy tracking & navigation to nearest Sany support network



NEW SPARC SERIES WITH ULTIMATE SPARK OF PERFORMANCE

UNMATCHED FUEL EFFICIENCY & PRODUCTIVITY

SANY SY210C-9 SPARC is specially designed for the Customers who are looking for a fuel efficient and productive machine with better operating comfort. The new SY210C-9 SPARC offer 5-7% higher fuel efficiency as compared to its previous model & equipped with value added feature which contributes in overall comfort and safety.

POWERFUL & FUEL EFFICIENT ENGINE

Performance proven engine seamlessly integrated with SANY new energy optimized DOMCS provide superior performance with excellent fuel efficiency. It is powered with 140HP and impressive torque resulting to precisely deliver the power you need.



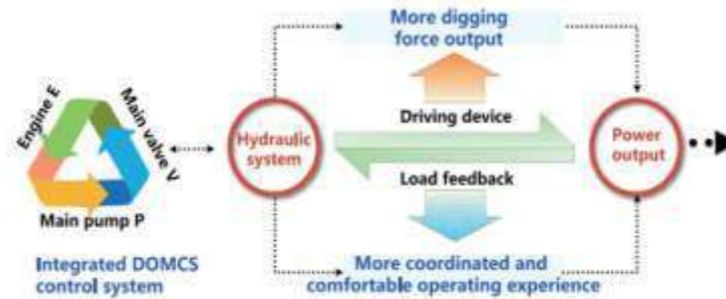
ADVANCED DESIGN HYDRAULIC MAIN CONTROL VALVE

New technologies adopted advanced MCV provides precise & smooth hydraulic implement control by reducing the hydraulic flow & pressure loss.



ADVANCED HYDRAULIC SYSTEM NEW

When the machine deals with an operating requirement of moving heavy material quickly and efficiently, It needs the best hydraulic power that SY210C-9 SPARC offers. The oil flow rate is directly proportional to the joystick operations and output pressure signal. It puts flow exactly where you need it, to facilitate smoother operation with great efficiency for higher productivity & fuel economy.



MAX ARM DIGGING FORCE 129kN
MAX BUCKET DIGGING FORCE 138kN



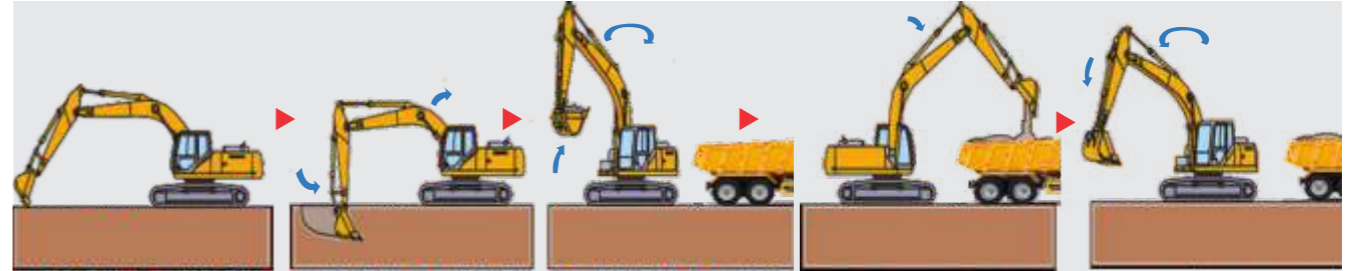
THE NEXT LEVEL OF PERFORMANCE ASSURED

↑ 7% MORE FUEL EFFICIENCY

SANY'S unique work modes with efficiency Improved Control system specially developed for Engine & Hydraulic pump mutual power control which ensure enhanced fuel efficiency & output as per the Customer applications.

S Mode: : High Fuel Efficiency

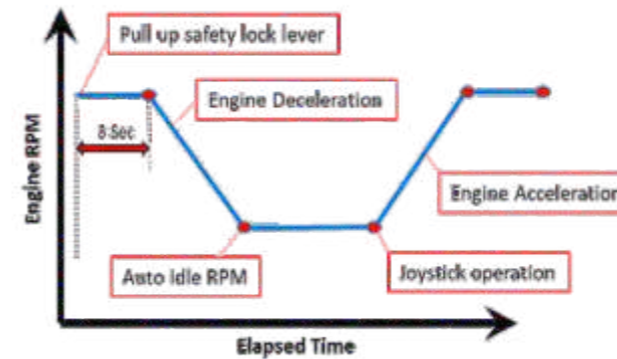
H Mode: : High Productivity



Sr No	Power Modes	Applications	Advantages
1	H mode High Power	Stone work & heavy loads	Maximum output with optimum fuel efficiency
2	S mode Standard (ECO)	General duty & digging	Low fuel consumption with optimum productivity
3	L mode Lifting	Light digging work & lifting	Precise & smooth operational control
4	B mode Breaker	Breaker application	Optimum attachment speed & enhanced fuel savings

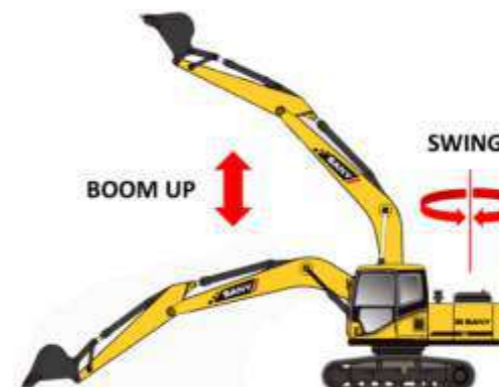
ENGINE AUTO IDLE SYSTEM

Engine Auto idling function further helps to reduce overall fuel consumption by eliminating unnecessary fuel burning due to unintended machine idling during operation .



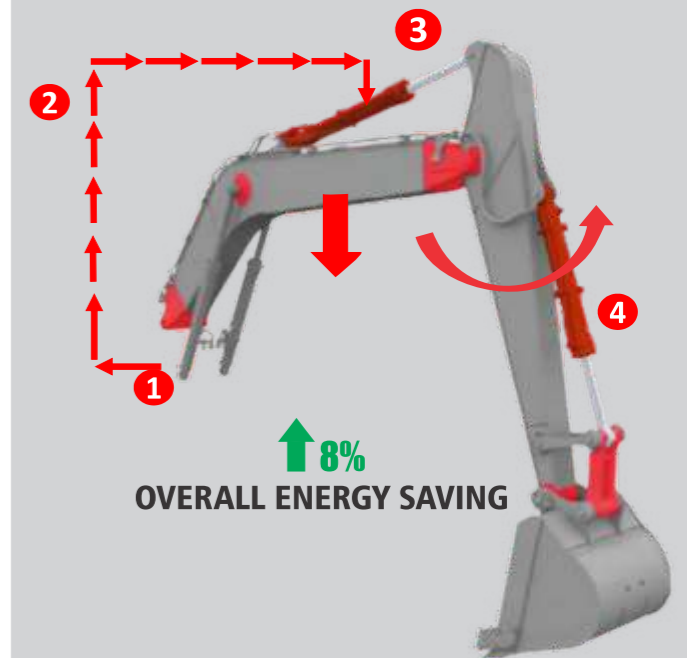
HYDRAULIC FLOW SUMMATION & PRIORITY SYSTEM

For optimum performance efficiency, dual pump merge flow for boom, arm & bucket circuit. This also gives high adaptability of various attachment & increased implement speed. Boom over swing & Boom over arm flow priority system ensure high productivity in deep bulk digging & loading applications.



POTENTIAL ENERGY HYBRID POWER TECHNOLOGY

During boom lowering operation, this system uses falling potential energy of movable boom & recovered to the arm rod. This system greatly reduce the power requirement from main circuit & saves more Energy & Fuel.



- 1 Boom's own weight apply force on boom cylinder
- 2 Hydraulic oil push from boom cylinder to arm cylinder
- 3 Energy recovery done to contract arm cylinder
- 4 Arm gets open for operation

SPACIOUS CABIN WITH NEW FEATURES ALLOW THE OPERATORS TO FOCUS MORE ON THEIR WORK.



6 7" FLAT INTELLIGENT MONITOR

A wider and more user-friendly color display with full access to machine operating parameters setting and machine maintenance

INDICATORS		SWITCH PANEL
Error codes/Schedule maintenance		Work mode selection
Fuel level/coolant temperature gauge		Engine auto idle function
Working mode & Throttle position		Travel speed selection
Machine hour meter		Machine specifications details

MOST COMFORTABLE WORK STATION

24v cigar lighter	Transparent roof cover
Mobile holder	Cup holder
Cabin lamp	Operator fan
Cooling chamber	

REAR WORKING LAMP (OPTIONAL) New

New series model equipped with rear lamp on cabin for ease of operation during late night hours



1 FULLY ADJUSTABLE WIDER SUSPENSION SEAT New

SANY New SPARC series excavator equipped with wider multi angle adjustable suspension seat which allows the operator to select most comfortable seating position as per the actual site conditions



2 ERGONOMICALLY DESIGNED LEVERS

Control levers are specially designed for effortless horizontal & vertical stroke of joystick during operation



3 AUTO CLIMATE CONTROL AIR CONDITIONING

High capacity fully automatic multi duct system leads to high operator comfort even working in tough working conditions



4 MUSIC SYSTEM WITH USB PORT New

USB enabled music system with dual speakers for more operator comfort during longer hours of operation.



5 SUN VISOR New

Front glass sun visor comes as standard features to reduce operator fatigue



HIGH INTENSITY LED LAMPS New

High intensity LED lamps on cabin & boom for better night time visibility.



NEW SPARC SERIES WITH ULTIMATE SPARK OF ADAPTABILITY

HIGH CLASS SAFETY FEATURES FOR ENHANCED ADAPTABILITY

ROBUST CABIN DESIGN

FOPS complied cabin with rigid front & top guard as standard offering for enhanced operator safety while working the toughest applications.



HYDRAULIC ACCUMULATOR

Hydraulic accumulator as standard feature which helps to park the machine safely without starting the engine during emergency. It also helps to smooth hydraulic operations & enhanced hydraulic system service life

HEAT SHIELD & ENGINE FAN GUARD

Heat shields are provided at the required positions to prevent direct contact with high temperature parts. Fan guard is standard offering to avoid any injury during routine check-up around the Engine.



ANTISKID STRIPS ON UPPER STRUCTURE

Highly durable & easily replaceable anti skid strips to ensure safe movement on upper structure during maintenance.

WIDE EMERGENCY EXIT WINDOW

Wide window for emergency exit with safety hammer ensures operator safety.



LED LAMP WITH GUARD New

Machine equipped with high intensity LED lamp on boom with steel plate guards to avoid damages while working at the toughest job sites.

ADVANCED SAFETY FEATURES FOR BETTER ADAPTABILITY New (Optional)



AFS system



Rear view camera



Beacon lamp



Travel/swing buzzer



Seat belt with reminder



THE SPECIALIST WHEN IT COMES WITH VERSATILITY

PERFECT MODEL FOR WIDE RANGE OF APPLICATIONS

SANY SPARC series excavator is equipped with best combination of configurations to efficiently carry out any task on rough conditions. Advance hydraulic system with enhanced reach & digging depth ensures maximum productivity & control

SY210C-9 SPARC HARD FACTS

MAX. Bucket Digging Force 138kN (ISO)

MAX. Arm Digging Force 129kN (ISO)

MAX. Traction Force 209kN (ISO)

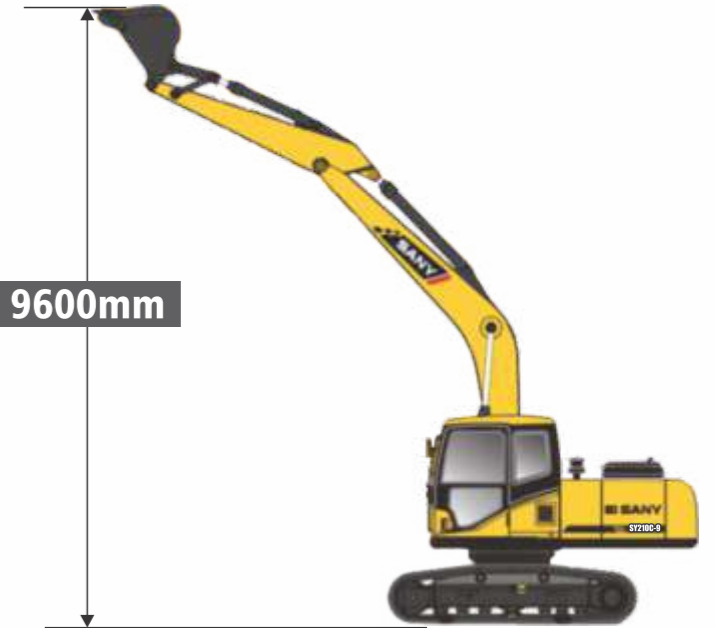
Better Adaptability in slurry or loose underfoot conditions

800mm
Track shoe Option

Better Working range

2900mm
Arm option

9600mm



WIDE BUCKET RANGE

Bucket Type	Image	Material type
GP bucket 1.0Cum		Loose sand, Wet earth, Clay etc.
HD bucket 0.9Cum		Limestone, gravel, well blasted rock, iron ore, etc.
Sand Bucket 1.5Cum		Loose dry sand & clay, shale, etc.
Coal bucket 1.6Cum		Loose and dry coal

MULTI ATTACHMENT OPTIONS FOR HIGHER ADAPTABILITY IN VARIOUS APPLICATIONS



Hydraulic breaker



Quick couple



Clamshell bucket



Electromagnet



Pile breaker

NEW SPARC SERIES WITH ULTIMATE SPARK OF RELIABILITY

RUGGED DURABILITY THAT ENSURES LONG TERM MACHINE VALUE

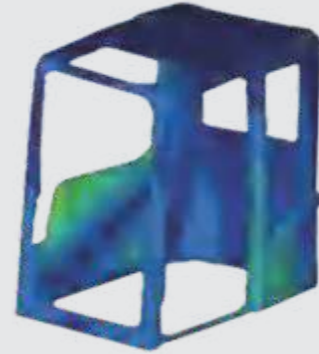
ROBUST FRONT ATTACHMENT

Robust front attachment made with forged & casted pivot ends, high tensile strength steel plates & advance robotic welding process provide best in class durability.



WORLD CLASS STANDARD TESTING METHODS

Advanced R&D design methods such as FEA, digital prototype are adopted with high efficient testing methods such as fatigue test & durability test offer best in class machine durability.



BEST-IN CLASS RELIABILITY FOR LOW OPERATING COST IN LONG RUN

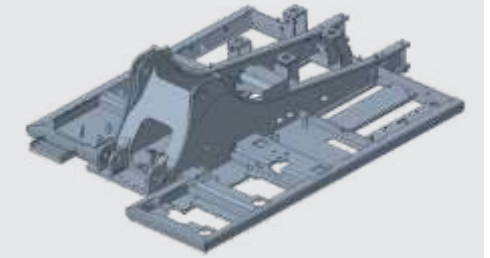
PROVEN HYDRAULIC AGGREGATES New

Performance proven major aggregates like pump, control valve specially designed for reliable performance over period of time.



ROBUST UPPER STRUCTURE New

Heavy duty upper frame is designed to improve bending strength of platform. D shape large section stronger beam can withstand external shocks.



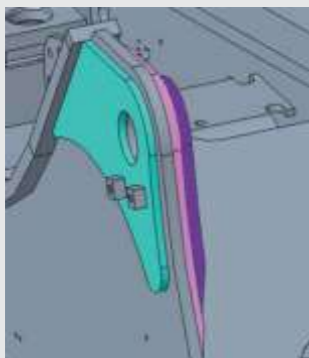
HEAVY DUTY WORKING TOOL

All side reinforced wider HD bucket with HD tooth points for enhanced life while working in the toughest job site.



TRIPLE LAYER REINFORCED BOOM MOUNT AREA

Upper structure equipped with triple layer reinforced boom mounting area for high load bearing capacity.



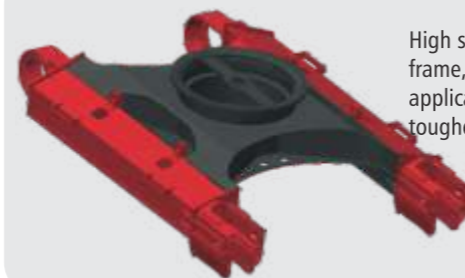
RELIABLE ELECTRICAL / ELECTRONIC SYSTEM

IP67/IP69 connectors have been used to ensure extended electrical system service life while working in dusty/moisture atmospheric conditions.



DURABLE UNDERCARRIAGE WITH FORGED RING BODY New

High strength undercarriage with fully welded X type frame, reinforced track frame, proven major aggregates ensures long life while working in tough applications. High Strength forged ring body adopted for high reliability in toughest applications.



12mm HEAVY DUTY TRACK CHAIN

12 mm thick HD track shoe as std. feature for enhanced track chain life while working in Quarry or similar underfoot conditions



NEW SPARC SERIES WITH ULTIMATE SPARK OF SERVICEABILITY

EASE OF MAINTENANCE & HIGH MACHINE UPTIME

Long service intervals increase the availability of your equipment for productive works. SANY has developed the SPARC series excavator by keeping high profitability for the users in mind.

LONG LIFE ENGINE & HYDRAULIC SERVICE INTERVAL

More efficient cooling system which extend service intervals, minimize operating cost and reduce machine down time.

CHANGE INTERVALS	
Hydraulic Oil	4000 Hours*
Hydraulic Filter	1000 Hours*
Engine Oil	500 Hours
Engine Filters	500 Hours

(* Bucket Application)



HIGH CAPACITY AIR FILTERS WITH CYCLONIC PRE-CLEANER

Large capacity air cleaner with pre cleaner improves input air quality to engine air intake system. Which helps to prevent early air filter clogging & resulting power loss.



EASY ACCESS TO THE MAINTENANCE COMPONENTS

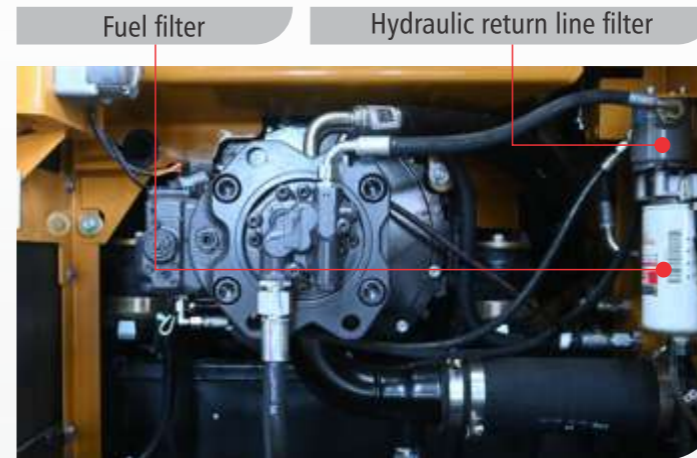
SANY machines are designed in such a way that all doors & panels are easy to open from top, bottom & sides of the excavator. A large engine cover provides plenty of room to reach the top side of engine. Solid steel side panels provide access to regular checkups which makes for quick, easy & lower cost of operation.



QUICK, EASY & ECONOMIC MAINTENANCE

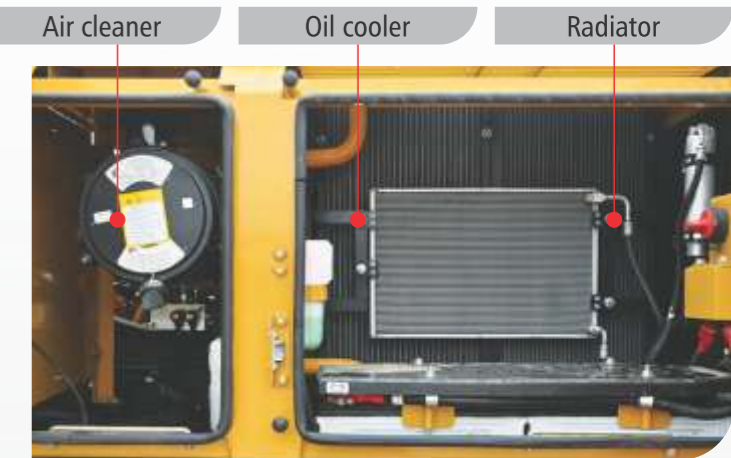
CENTRALIZE LOCATION FOR FILTERS

All filters are located in a centralized locations where it can be easily accessible from ground level for quick & comfortable machine maintenance.



IMPROVED COOLING EFFICIENCY

Side by side mounted large capacity ROC unit improves overall machine cooling efficiency. In addition wire mesh guard makes servicing & maintenance more easy



QUICK & EASY MAINTENANCE

Serviceability & durability are important points which contributes in machine performance. All side open able wider panels & Ground level access to the filters makes daily maintenance extremely easy.

Easy air cleaner replacement



Easy engine oil check

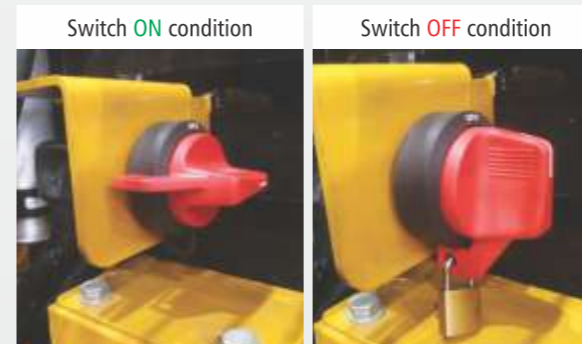


Easy filters replacement



BATTERY DISCONNECT SWITCH New

Battery Disconnect switch comes as standard feature to enhance machine safety. Also, It helps to minimize battery discharge during long non operation hours



FUEL REFILL PUMP (OPT.) New

Fuel refill pump with auto cut-off function enables the user for easy fuel refilling with minimum fuel wastage while filling.



Centralize boom greasing point



Auto centralize lubrication system (opt.)



Drain valve for lubes

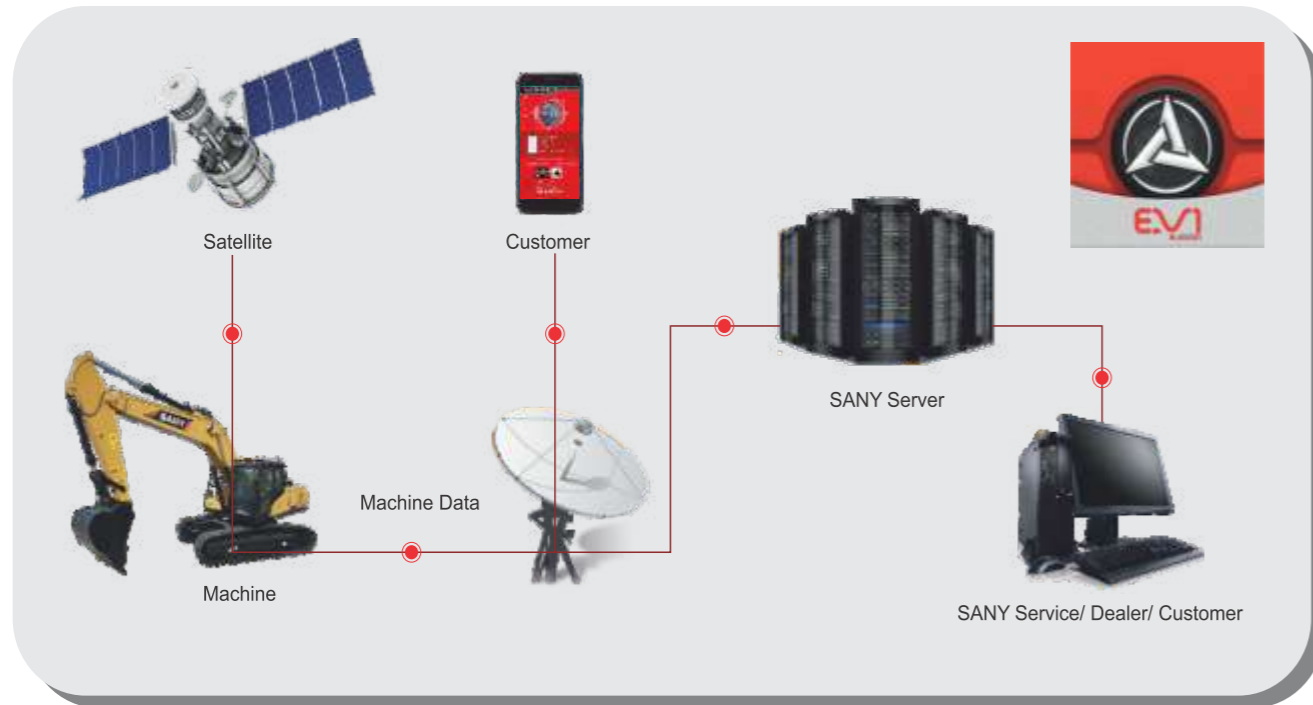


SANY E-VISION



EVI REMOTE MONITORING

EVI in SANY series excavators is a sophisticated system that helps you to remotely monitor wide range of excavator functions and access operating information.



LOCATION & TRACKING

Machine's current location can be captured for easy tracking. Route to working site of the machine can be determined as well.



REAL-TIME MONITORING

The real-time monitoring system displays various operating parameters like engine rpm, fuel consumption, swing and travel utilization, coolant temperature & battery voltage etc.



MACHINE OPERATING MANAGEMENT

Daily machine operation hours, non-working hours, engine idling time can be monitored and remaining fuel in the diesel tank can be determined.



EAST ACCESS TO SANY SUPPORT NETWORK

Customer can easily locate nearest SANY support network & access the touch point any time with the help of EVI system.

TECHNICAL SPECIFICATIONS

SPECIFICATIONS

ENGINE	
Model	Cummins 6BT5.9-C140
Type	6 Cylinder, Inline, Water Cooled
Rated Engine Power	140HP(104kW) @ 2000 rpm
Max. Torque	571 N.m @ 1300rpm
Battery	2 X 12 V
Displacement	5.88L

CONTROL SYSTEM	
Control System	DOMCS Intelligent Controller
Working Modes	H S L B
Remote Monitoring System	GPRS, GPS, GIS

HYDRAULIC SYSTEM	
Main Pumps	2 Variable Displacement Axial Piston Pumps
Max. Flow	2 X 220 lpm
Pilot Pump	1 Gear Pump
Travel Motor	2 Axial Piston Motor with Parking Brake
Swing Motor	1 Axial Piston Motor with Swing Holding Brake

RELIEF VALVE SETTINGS	
Implement Circuit	34.3 Mpa
Swing Circuit	25.5 Mpa
Travel Circuit	34.3 Mpa
Pilot Circuit	3.9 Mpa

UNDERCARRIAGE & WORKING DEVICE	
Track Shoes (Each Side)	45
Upper Roller (Each Side)	2
Lower Roller (Each Side)	7
Track Guard (Each Side)	1
Std. Track	600 mm (12mm HD Track shoe)
Std. Boom	5700 mm
Std. Arm	2400 mm
Std. Bucket	1.0 m ³

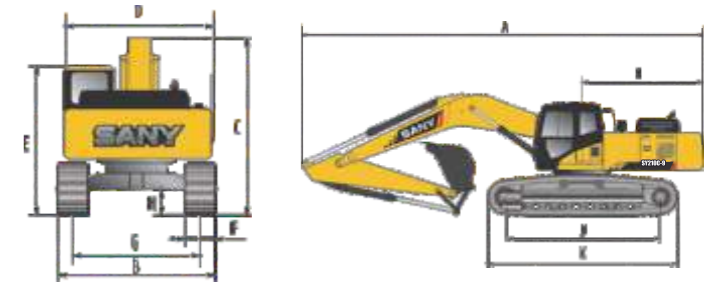
PERFORMANCE	
Max. Travel Speed(High/Low)	5.4/3.3 km/h
Swing Speed	11 rpm
Grade ability	70% / 35°
Ground Pressure	47.3 kPa
Max. Tracking Force	209 kN
Bucket Digging Force	138 kN
Arm Digging Force	129 kN

SERVICE REFILL CAPACITIES		
Hydraulic Tank	230 L (Tank)	180 (Refill)
Fuel Tank	340 L	
Engine Oil	22.75 L	
Radiator	25.2 L	
Swing Device	4 L	
Travel Device	2x5.5 L	

CAB	
AC	Opt.
Cabin Guard	Opt.

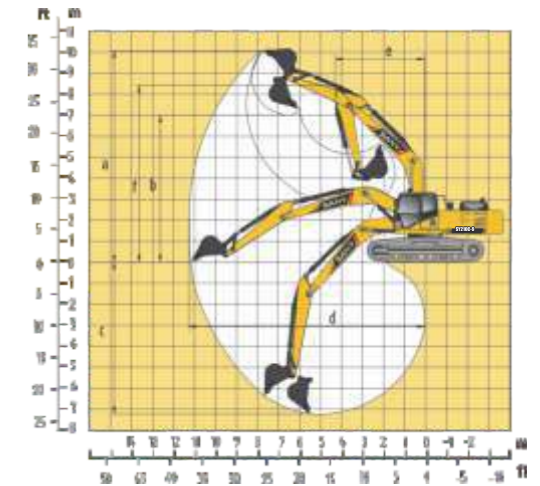
SY210C-9 SPARC

DIMENSION (Unit: mm)



DIMENSION (Unit: mm)	Arm 2400	Arm 2900
A. Overall Length	9395	9430
B. Overall Width	2800	2800
C. Overall Height	2955	2955
D. Upper Width	2840	2840
E. Overall Height of Cab	2930	2930
F. Std. Track Shoe Width	600	600
G. Track Gauge	2200	2200
H. Min. Ground Clearance	465	465
I. Rear-end Swing Radius	2720	2720
J. Distance between Tumbles	3260	3260
K. Under Carriage Length	4065	4065

WORKING RANGE (Unit: mm)



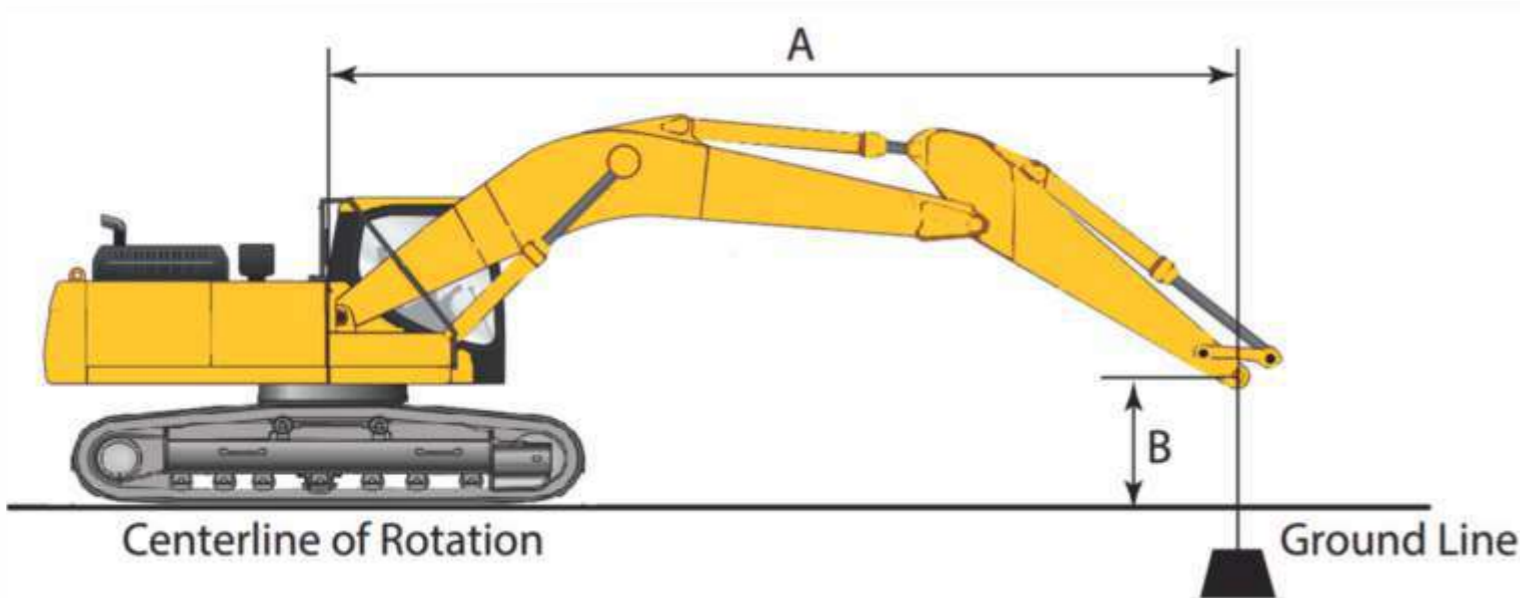
WORKING RANGE	Arm 2400	Arm 2900
a. Max. Cutting Height	9113	9600
b. Max. Dumping Height	6252	6730
c. Max. Digging Depth	6037	6600
d. Max. Digging Reach	9312	10280
e. Min. Swing Radius	3730	3730
f. Max. Height at Min. Swing Radius	7680	7680

BUCKET

Capacity	Width (mm)	Weight (kg)	Tooth Point	Arm Length	
				2.4	2.9
1.0 m ³ GP-Std.	1316	780	5	✓	✓
0.9 0m ³ HD-Opt.	1176	870	4	✓	✓
1.5m ³ SAND-Opt.	1600	758	-	✓	✓
1.6m ³ COAL-Opt.	1740	900	-	✓	✓

NEW SERIES WITH ULTIMATE SPARC

LIFTING CAPACITIES



Rated Lifting Capacity (Kg)														
		3.0m		4.5m		6.0m		7.5m		9.0m		Maximum		
		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		
Boom 5700mm	7.5m					4439.18	4439.18					3142.47	3142.47	6275
	6.0m					5210.52	4631.08					3143.33	3143.33	7360
	4.5m					5905.03	4466.82	4636.06	3133.94			3099.06	2783.4	8025
Arm 2400mm	3.0m			8686.56	6388.91	6380.68	4225.13	4523.84	3030.99			3182.79	2678.5	8370
	1.5m			9504.66	5894.36	6112.19	3985.7	4396.98	2914.62			3381.35	2450.68	8435
Counter weight 3.8Ton	0	6663.30	6663.30	9129.42	5577.93	5922.25	3816.32	4296.37	2822.34			3717.27	2494.18	8230
	-1.5m	10708.57	10353.89	9085.85	5541.19	5840.95	3743.83	4275.64	2803.31			4177.59	2703.05	7730
	-3.0m	16360.77	10539.83	9156.21	5600.52	5882.45	3780.84					4996.22	3295.60	6870
	-4.5m	14691.74	10913.01	9415.98	5819.58							6959.28	5447.58	5485

Remarks

1. Rated figure meets the criterion of GB/T 13331-2005/ISO 10576
2. Rated rollover loading is 75% of static rollover loading, rated limiting hydraulic weight is 87% of limiting hydraulic weight.
3. Loading radius is the distance from the loading point to the swing center.
4. The figure with 'stands for the rated figure of the limiting hydraulic weight.

PRESSURE CAPACITIES

Shoe Type	Shoe Width	Operating Weight	Ground Pressure
Triple Grouser	600mm	20900 kg	47.3 kPa

STANDARD EQUIPMENT'S

ENGINE

- Mode control (H,S,L and B)
- Start motor 24V/4.5KW
- Alternator 50A
- Turbo air pre-cleaner
- Dry double-filtering air cleaner
- Cylindrical engine oil filter
- Cylindrical fuel filter
- Engine oil cooler
- Radiator with protective screen
- Auxiliary water tank for radiator
- Fan cowl
- Separately installed engine
- Automatic declaration system
- Accelerating system

UNDERCARRIAGE

- Travel brake
- Travel motor guard
- H-track guiding mechanism
- Hydraulic track tensioner
- Bolted sprocket
- Carrier roller and track roller
- Reinforced track link with pin and seal
- 600mm track shoes (12mm)
- Bottom cover plate
- Reinforced side pedal

SWING PLATFORM

- Fuel level float
- Hydraulic oil level gauge
- Toolbox
- Rear view mirror®
- Swing brake

HYDRAULIC SYSTEM

- Working mode selection switch
- Control valve with main relief valve
- Spare oil port for control valve
- Oil suction filter
- Oil return filter
- Pilot filter

FRONT WORK EQUIPMENT

- Flange pin
- Bucket clearance adjustment
- Welded lever
- Central lubrication system
- Dust ring-seal of bucket pin
- Fully-welded box boom
- Fully-welded box arm
- Guard
- Standard bucket

OTHERS

- Standard battery
- Lockup engine hood
- Lockup fuel filter cap
- Anti-skid film, handhold and passage
- Travel direction mark
- Hand grease gun
- Cabin front and top guard

OPERATOR STATION

- Noise proof steel-structure cab
- Toughened light-color window
- Silicone rubber damping support for cabin.
- Operable roof hatch, upper front
- Upper front & left window
- Rear window, alternate exit
- Silent window wiper with washer
- Adjustable inclined seat with adjustable armrest
- USB enabled music system with loudspeaker
- Foot rest and floor mat
- Rear View mirror
- Seat belt
- Cup holder and cab light
- Ashtray
- Storage box, literature bag
- Hydraulic lockout control
- Safety Hammer
- Fully automatic air-conditioner
- Battery disconnect switch
- Sun visor
- Operator fan

OPTIONAL

- Hydraulic quick coupler
- 0.90m³ HD Bucket
- Breaker piping kit
- 1.5m³ sand bucket
- 1.6m³ coal bucket
- Rock breaker
- Pile breaker
- Pile driver
- ACLS
- Rare view camera
- Beacon lamp
- Fuel refill pump
- Fire extinguisher

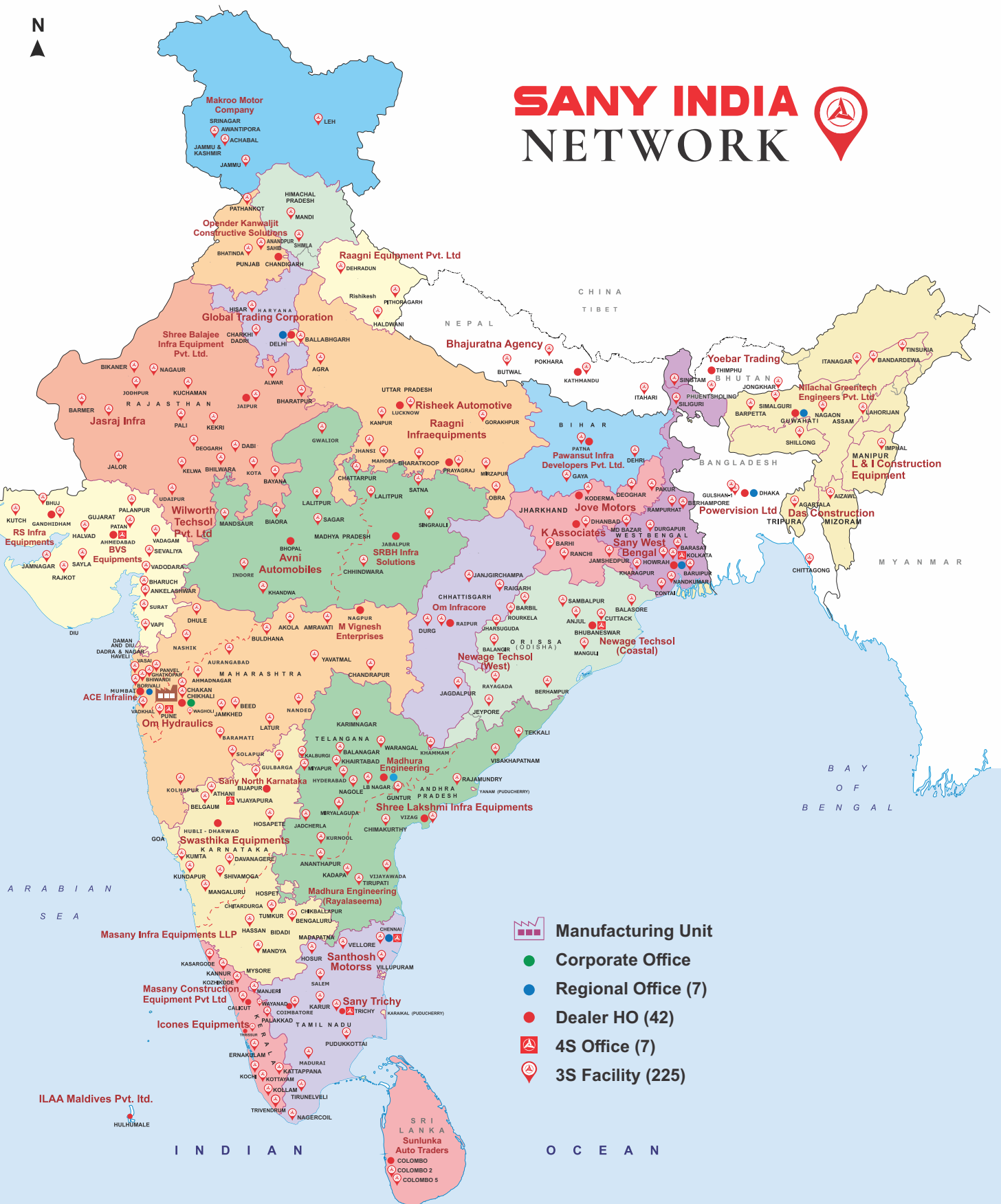
OPTIONAL ATTACHEMENT

Breaker Model	Units	SYB250
Suitable Excavator weight class	Tons	18-26
Total Weight	Kg	1825
Total Length	mm	2828
Operating Pressure	Bar	160-180
Impact Rate (Blow Rate)	BPM	350-600
Impact Energy	Joules	4200
Chisel Diameter	mm	140
Hydraulic oil flow range	Imp	120-180





SANY INDIA NETWORK



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