

ULTRA PERFORMANCE

NEW

ZAXIS220LC
ULTRA



ULTRA PERFORMANCE

Unmatched Performance

NEW

ZAXIS ULTRA

In an industry that's always evolving, with growing business demands, customers need a machine they can rely on. An asset to your operation. Committed to its legacy, the all-new ZAXIS 220LC ULTRA is a reliable machine, which is packed with innovative technologies for unparalleled productivity and efficiency. Bringing you quality as standard and so much more. Unlock the full potential of your machine.



Higher Production with Less Fuel

*HIOS III hydraulic system and engine control system, thereby reducing CO2 emissions.

*Human and Intelligent Operating System

Lower Fuel Consumption in ECO Mode

The ECO mode is a new economical mode that gives high productivity with less fuel and can cut fuel consumption by 10% compared to the PWR mode.

Rapid Arm Roll-in

Arm roll-in speed increases by combined flow from arm and boom cylinders through regenerative valves for productive excavation.



Fast Arm Speed During Boom Lowering

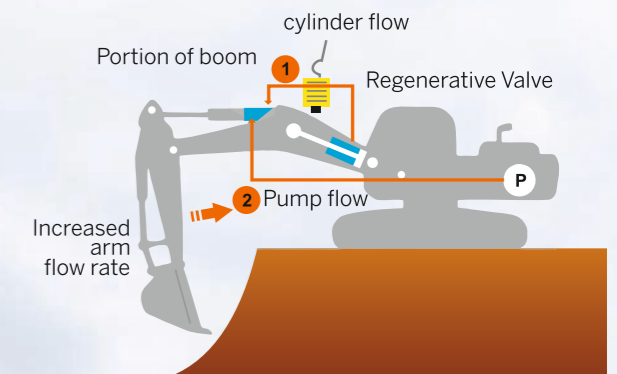
In ZAXIS 220LC ULTRA, for boom lowering, pressurized oil from the boom cylinder bottom side is delivered to its rod side, assisted by boom weight. At the same time, pressurized oil from the pump is delivered to the arm cylinder for faster arm movement.

Powerful Lifting of Material

The Auto Power Lift mode, which automatically surges lifting forces by 6% when needed, allows for powerful lifting.

Enhanced Power Boost

The enhanced power boost when applied, allows the operator to increase the digging force by 5%. This can be actuated pressing the button on the control lever.

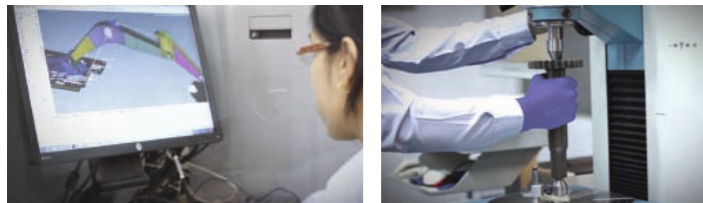


Limitless Reliability and Durability

Top-Notch Technology

State-of-the-art R&D and Quality Control

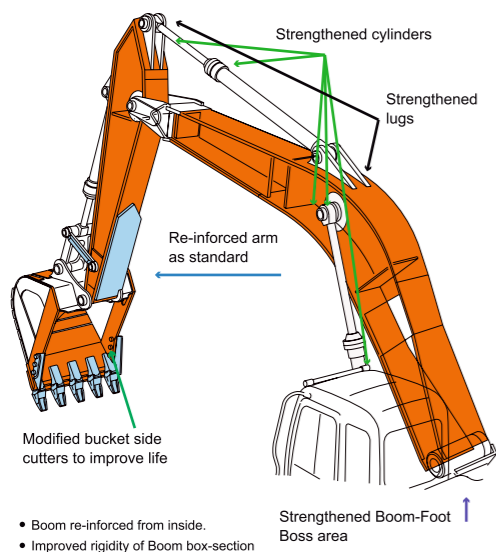
Tata Hitachi is known for its technological prowess and product performance. The R&D Division has a track record of excellent design, stress analysis expertise using CAE system, and an abundant production data base. A large scale durability test field allows for a series of stringent testing of new machines.



Rock-Solid, Durable Front Attachment

The robust boom and arm are designed and analysed using advanced software. They are manufactured to precision using high grade steels with state-of-the-art welding robot and machining centres. Thus, durability is built into the front attachment. Arm cylinder and boom cylinders (rod extend ends) cushion shocks at stroke ends to cut noise and extend service life. Joint pins at the front attachment are tightly fit to reduce jolt and sound. The arm-bucket joint is protected by WC thermal spraying on its contact surfaces to reduce wear and jolt.

New type steel bushings, retain grease inside for longer greasing intervals. A reinforced resin thrust plate, provided at front attachment joints, helps reduce wearing noise.



Strengthened Undercarriage

The X-beam frame is made monolithically with fewer welds for higher rigidity and durability. Idler brackets and travel motor brackets are both reinforced for added durability.

Track adjusters absorb impacts to crawlers. Front idlers and adjuster cylinders are integrated to increase durability.



Proven Upperstructure

Reinforced with a proven D-section skirt, the upper structure frame offers increased rigidity and protection against obstacle impact.

Reliable and Durable Isuzu Engine

This tried and tested reliable Japanese engine has a track record showing impressive durability at countless tough job sites around the world. This engine with a rugged design, a direct fuel injection system and a robust mechanical governor goes green and complies with global emission norms.

The turbo charged, inter-cooled engine yields a whopping 66kW output for higher production in shorter job schedule.



Human & Intelligent Operation System (HIOS-III)

Discover excellence with ZAXIS 220LC ULTRA's HIOS-III hydraulic system, developed by industry leading hydraulic technologies and a wealth of experience.

Unleash superior digging forces, swift front movements, faster cycle times and precise controls resulting in higher production with low fuel consumption.

Generational Intelligence with New Age Micro-processor based controls

Experience advanced micro-processor based technology that enhances productivity, simplifies maintenance, and ensures exceptional performance.

Versatility

The ZAXIS 220LC ULTRA comes in tailor made options and is easily customizable with various attachments such as Auger, Quick Coupler, Orange Peel Grab and many more.

Option of factory fitted rock breaker piping kit is also available. Wide range of bucket options are also available to suit a variety of applications.



ULTRA PERFORMANCE

Unmatched Performance

- New Buckets with Higher Capacity **NEW**
- Enhanced Power Boost
- Higher Swing Torque **NEW**
- Auto Power Lift Mode
- Increased Working Ranges **NEW**
- High Production with Low Fuel Consumption
- Faster Cycle Time



Limitless Reliability and Durability

- Reliable Japanese Engine
- Strengthened Bucket and Boom Cylinders **NEW**
- Strengthened Boom **NEW**
- Strengthened Undercarriage
- Reliable Pump and Motors
- Proven Upper Structure
- Reinforced Front Attachments



Top-Notch Technology and Versatility

- HIOS III Hydraulic System
- New-age Micro-Processor Based Controls
- ConSite Telematics Suite
- Global e-Service
- Factory Fitted Rock Breaker Piping Kit
- Easily Customizable with Attachments, such as, Rock Breaker, Auger, Orange Peel Grab, Quick Coupler, etc.



Redefined Comfort and Safety

- 7" LCD Monitor **NEW**
- Auto Climate Control Air Conditioner
- Ergonomically Placed Controls
- Suspension Seat
- AM/FM, Powerful Speakers, AUX and USB Connectivity for Charging and Music.
- Powerful LED lights **NEW**

Safety:

- OPG Cabin
- FOPS (Falling Object Protective Structure) Level 2 **NEW**



Assured Support

- Extended Warranty
- Wide-spread Dealer Network
- Field Diagnostic Vehicle
- Mobile Workshop





Safe and Robust Cab

- The robust cab, meeting the OPG (Top Guard Level 1) criteria, protects the operator from falling objects.
- Optional enhanced safety and DGMS compliance facility is available:
 - Auto Fire Detection and Suppression System (AFDSS) is available as optional feature and can be factory fitted
 - Auto Centralized Lubrication System (ACLS) provides lubrication to all the pins
- Swing alarm system can be provided to meet safety requirement
 - Travel alarm to alert nearby equipment/people during travel operation of the machine.

Cabin Features

- Plush comfortable reclining seat with armrest and adjustable headrest
- Air Lumbar Support
- Air conditioning
- Smooth control levers
- Engine emergency shut-off switch
- Horn function even in machine off condition
- Engine stop switch
- Engine stop cable
- Multipurpose 7" LCD monitor
- Rear tray
- Bottle holder
- Front guard for cabin glass
- Overhead window
- AM/FM, powerful speakers, AUX and USB connectivity for charging and music.
- Powerful LED lights

Comfort-Designed Operator Seat

Experience spacious and ergonomically designed cabin for comfort and productivity, featuring ample space and strategically placed controls for a seamless experience.



Multi-function monitor

Ergonomic control lever

Bottle holder



Emergency engine stop switch



Lever locking and wide door for easy ingress

EXTENDED WARRANTY

COMPLETE PEACE OF MIND

Genuine Tata Hitachi Parts meet stringent quality standards. These parts are guaranteed to perform and are backed by Tata Hitachi's warranty.

Developed in synergy with our machines, Tata Hitachi ensures wide spread dealer network which also offers Field Diagnostic Vehicle and Mobile Workshop for quicker after-sales service.

Tata Hitachi also offers extended warranty so that our customers get high levels of performance, reliability and peace of mind.

Extended service intervals for reduced maintenance cost:

- Engine oil change: 500 hours
- Engine oil filter change: 500 hours
- Fuel filter change: 500 hours
- Hydraulic oil filter change: 1000 hours
- Hydraulic oil change: 5000 hours



Guaranteed availability - Increased uptime and maximum production.



Fix before failure to ensure maximum reliability of machines.



Higher resale value of equipment after the end of the contract.



Trained and experienced manpower at site on 365*24 hours basis.



Onsite availability of float aggregates.



Exclusive onsite warehouse for complete contract period.

SERVICE SOLUTIONS

Get tailored maintenance solutions to suit your needs.

Types of Contracts	Machine Availability	Manpower Support	Tools & Facilities	Guaranteed Parts Cost	Parts Storage	Lubricant Storage
Annual Service Contract (ASC)		✓	✓			
Full Maintenance Contract (FMC) & CAP Contract	✓	✓	✓	✓	✓	✓
Site Support Agreement (SSA)		✓		Optional (varies from case-to-case basis)		

For further details contact your nearest Tata Hitachi or dealership office.



CAUTION ALARM

Pre-emptive information of your machine's health

MONTHLY REPORT VIA E-MAIL

Know everything about your machine & how to increase productivity while reducing costs

SITE EFFICIENCY PARAMETERS

Advises you on ways to fine tune everyday operations

EMERGENCY ALARM

Real time notification to you and the dealer to avoid machine breakdowns

PERFORMANCE ANALYSIS

Benchmarking your machine against similar class machines in the region



Specifications

ENGINE

ModelIsuzu CC-6BG1T
 Type4-cycle water-cooled, direct injection
 AspirationTurbocharged, intercooled
 No. of cylinders6
Rated power
 ISO 9249 / SAE J1349, net168 HP (170 PS) at 2 100 min⁻¹ (rpm)
 Maximum torque637 Nm (65 kgfm) at 1 800 min⁻¹ (rpm)
 Piston displacement6.494 L
 Bore and stroke105 mm x 125 mm
 Batteries2 x 12 V / 88 Ah

HYDRAULIC SYSTEM

Hydraulic Pumps

Main pumps2 variable displacement axial piston pumps
 Maximum oil flow2 x 212 L/min
 Pilot pump1 gear pump
 Maximum oil flow33.6 L/min

Relief Valve Settings

Implement circuit350 kgf/cm² (34.3 Mpa)
 Swing circuit310 kgf/cm² (30.4 Mpa)
 Travel circuit350 kgf/cm² (34.3 Mpa)
 Pilot circuit40 kgf/cm² (3.9 Mpa)
 Power boost388 kgf/cm² (38.0 MPa)

SERVICE REFILL CAPACITIES

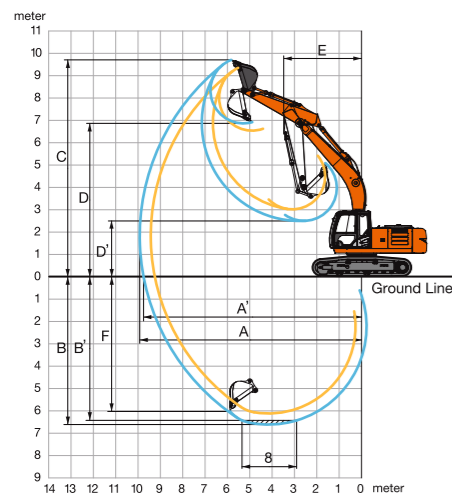
Fuel tank400.0 L
 Engine coolant23.0 L
 Engine oil25.0 L
 Swing device6.2 L
 Travel device (each side)6.8 L
 Hydraulic system240.0 L
 Hydraulic oil tank135.0 L

BACKHOE ATTACHMENTS

Capacity ISO heaped (m ³)	Width (mm)		Tooth Point (no's)	Weight (kg)	Max. Material Density (kg/m ³)	Arm Length (m)
	Without side cutters	With side cutters				
0.9 GP	1130	1240	5	745	1800	2.9
1.0 HD	1245	1269	4	962	2000	2.4
1.1 GP	1330	1440	6	929	1800	2.4
1.22 ELM	1460	1570	6	857	1100	2.4
Block Handling	1236	-	4	1240	G & M	2.4
1.7	1802	-	-	799	1150	2.4

G & M - Granite and Marbel

WORKING RANGES



		Unit: mm	
Boom length		5.68 m	
Arm length		2.4 m	2.9 m
A	Max. digging reach	9 435	9 930
A'	Max. digging reach (on ground)	9 260	9 760
B	Max. digging depth	6 160	6 630
B'	Max. digging depth for 2.5 m level	5 950	6 470
C	Max. cutting height	9 700	10 070
D	Max. dumping height	6 870	7 200
D'	Min. dumping height	3 180	2 630
E	Min. swing radius	3 180	3 190
F	Max. vertical wall digging depth	5 720	6 140

UNDER CARRIAGE

Tracks

Heat-treated connecting pins with dirt seals Hydraulic (grease) track adjusters with shock-absorbing recoil springs.

Numbers of Rollers, Shoes and Guard on Each Side

Upper roller2
 Lower roller8
 Track shoes45
 Track guard2

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 speedsHigh : 0 to 5.1 km/h
Low : 0 to 3.5 km/h
 Maximum traction force184 kN (18 800 kgf)
 Gradeability70% (35 degree) continuous

UPPER STRUCTURE

Swing speed12.2 min⁻¹(rpm)
 Swing torque65.1 kNm (6 638 kgfm)

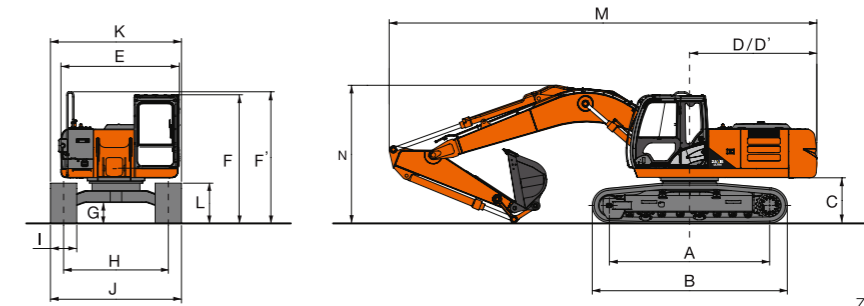
BUCKET AND ARM DIGGING FORCES

Arm length	2.4 m (STD)	2.91 m
Bucket digging force* ISO	158 kN (16 100 kgf)	158 kN (16 100 kgf)
Bucket digging force* SAE : PCSA	139 kN (14 200 kgf)	139 kN (14 200 kgf)
Arm crowd force* ISO	139 kN (14 200 kgf)	114 kN (11 600 kgf)
Arm crowd force* SAE : PCSA	133 kN (13 600 kgf)	110 kN (11 200 kgf)

* At Power Boost

Specifications

DIMENSIONS



ZAXIS 220LC Ultra (STD/HD) Unit: mm

A	Distance between tumbler	3 660	H	Track gauge	2 390
B	Undercarriage length	4 460	I	Track shoe width	600
*C	Counterweight clearance	1 040	J	Undercarriage width	2 990
D	Rear-end swing radius	2 910	K	Overall width	2 990
D'	Rear-end length	2 910	*L	Track height with triple grouser shoes	920
E	Overall width of upperstructure	2 700	M	Overall length	With 2.4m arm 9 750 With 2.9m arm 9 750
F	Overall height of cab	2 940	N	Overall height of boom	With 2.4m arm 3 030 With 2.9m arm 3 070
F'	Overall height of upperstructure	3 010			
*G	Min. ground clearance	450			

* Excluding track shoe lug

WEIGHTS AND GROUND PRESSURE

Shoe type	Shoe width	Arm length	ZAXIS 220LC Ultra (STD) ^{*1}		ZAXIS 220LC Ultra (HD) ^{*2}	
			kg	kPa (kgf/cm ²)	kg	kPa (kgf/cm ²)
Triple grouser	600 mm	2.4 m	21 200	48 (0.49)	21 300	48 (0.49)
		2.91 m	21 400	49 (0.50)	21 500	48 (0.49)
Triple grouser HD	600 mm	2.4 m	21 400	49 (0.50)	21 500	49 (0.50)
		2.91 m	21 600	49 (0.50)	21 700	49 (0.50)

*1: Including 1.1 m³ (ISO heaped) bucket weight (STD: 929 kg) and counterweight (4 600 kg). | *2: Including 1.0 m³ (ISO heaped) bucket weight (HD: 962 kg) and counterweight (4 600 kg).

LIFTING CAPACITIES

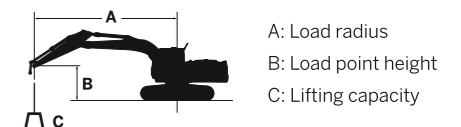
Notes: 1. Ratings are based on ISO 10567.

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.

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



ZAXIS 220LC Ultra (STD/HD)

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

Conditions	Load point height m	Load radius										At maximum reach					
		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		meter					
		Rating over-front	Rating over-side or 360 degrees	Rating over-front	Rating over-side or 360 degrees	Rating over-front	Rating over-side or 360 degrees	Rating over-front	Rating over-side or 360 degrees	Rating over-front	Rating over-side or 360 degrees	meter	meter	meter			
Boom 5.68 m	6.0																
Arm 2.4 m	4.5																
Counterweight 4 600 kg	3.0																
Shoe width: 600 mm	1.5																
	0 (Ground)																
	-1.5																
	-3.0																
	-4.5																

ZAXIS 220LC Ultra (Optional)

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

Conditions	Load point height m	Load radius										At maximum reach					
		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		meter					
		Rating over-front	Rating over-side or 360 degrees	Rating over-front	Rating over-side or 360 degrees	Rating over-front	Rating over-side or 360 degrees	Rating over-front	Rating over-side or 360 degrees	Rating over-front	Rating over-side or 360 degrees	meter	meter	meter			
Boom 5.68 m	6.0																
Arm 2.91 m	4.5																
Counterweight 4 600 kg	3.0																
Shoe width: 600 mm	1.5																
	0 (Ground)																
	-1.5																
	-3.0																
	-4.5																

Equipment

ZAXIS 220LC ULTRA	STD	HD
ENGINE		
Air cleaner double filters	●	●
Auto idle system	●	●
Cartridge-type engine oil filter	●	●
Cartridge-type fuel pre-filter	●	●
Cartridge-type fuel main filter	●	●
Dry-type air filter with evacuator valve (with air filter restriction indicator)	●	●
ECO/PWR mode control	●	●
Fan guard	●	●
Water separator	●	●
Pre-cleaner	●	●
Dust-Proof indoor net	●	●
Radiator reserve tank	●	●
50 A alternator	●	●
HYDRAULIC SYSTEM		
Auto power lift	●	●
Control valve with main relief valve	●	●
Full-flow filter	●	●
High mesh full flow filter with restriction indicator	○	○
Pilot filter	●	●
Power boost	●	●
Suction filter	●	●
Extra port for control valve	●	●
Work mode selector	●	●
CAB		
All-weather sound suppressed steel cab	●	●
AM-FM radio with 2 speakers	●	●
Ashtray	●	●
Auto control air conditioner	●	●
Drink holder	●	●
Drink holder with hot & cool	●	●
Electric horn	●	●
Engine shut-off lever	●	●
Evacuation hammer	●	●
Floor mat	●	●
Footrest	●	●
Front window washer	●	●
Front windows on upper, lower and left side can be opened	●	●
Lower cab front guard	●	●
Upper cab front guard	●	●
Hot & cool box	●	●
Intermittent windshield wipers	●	●
Room light	●	●
FOPS Level 1 compliant cabin	●	●
FOPS Level 2 compliant cabin with top guard (IS/ISO 3449/ ISO 10262)	○	○
Pilot control shut-off lever	●	●
Seat belt with warning system	●	●
Radio antenna	●	●
AUX port	●	●
Seat:Mechanical suspension seat with air lumbar support	●	●
Seat adjustment : backrest, armrest, height and angle, slide forward / back	●	●
Short wrist control levers	●	●
4 fluid-filled elastic mounts	●	●
LIGHTS		
Additional cab roof front lights	●	●
2 LED lights on boom	●	●
Working light on tool box	●	●
Light on the counter weight	○	○

ZAXIS 220LC ULTRA	STD	HD
MONITOR SYSTEM		
Meters : Hour meter, breaker hour meter, engine coolant temperature gauge and fuel gauge	●	●
Warning indicators : Alternator charge, low engine oil pressure, engine overheat, air filter restriction, low fuel level	●	●
Indicators : Engine preheat, work modes, auto idle work light and fuel consumption	●	●
Alarm buzzers : Low engine oil pressure and engine overheat	●	●
On board display of Radio & Air conditioner	●	●
UPPER STRUCTURE		
Electric fuel refilling pump with auto stop function	●	●
Fuel Level Float	●	●
Hydraulic oil level gauge	●	●
Rear view mirror (right & left side)	●	●
Swing parking brake	●	●
Tool box	●	●
Undercover	●	●
Utility space (behind cabin)	●	●
UNDERCARRIAGE		
Bolt-on sprocket	●	●
Reinforced track links with pin seals	●	●
Reinforced idler bracket	●	●
Travel motor covers	●	●
Travel parking brake	●	●
Track guard (each side) and hydraulic track adjuster	●	●
Upper and lower rollers	●	●
2 track guards	●	●
4 tie down hooks	●	●
600 mm triple grouser shoes	●	●
600 mm HD triple grouser shoes	-	●
800 mm triple grouser shoes	○	○
FRONT ATTACHMENTS		
Centralized lubrication system	○	○
Dirt seal on all bucket pins	●	●
Flanged pin	●	●
Reinforced link B	●	●
WC (tungsten-carbide) thermal spraying	●	●
Seat screws for breaker attachment	●	●
ATTACHMENTS		
Breaker and crusher piping	○	○
High mesh full flow filter with restriction indicator	○	○
Parts for breaker and crusher	○	○
Line filter	○	○
MISCELLANEOUS		
Auto Lubrication	○	○
Lockable fuel refilling cap	●	●
Lockable machine covers	●	●
Onboard information controller	●	●
Skid-resistant tapes, plates and handrails	●	●
Standard tool kit	●	●
Travel direction mark on track frame	●	●
Global e-Service	●	●
Battery cut-off Switch	●	●
Travel alarm	○	○
Swing alarm	○	○
AFSS phase-I	○	○
Rear view camera	○	○

Standard and optional equipment may vary by country, so please consult your Tata Hitachi dealer for details.

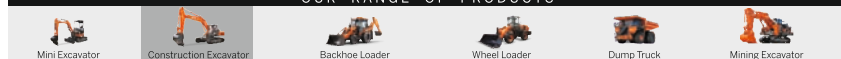
● : Standard equipment ○ : Optional equipment

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OUR RANGE OF PRODUCTS



Authorised Dealer

These specifications are subject to change without prior notice. The machine depicted may vary from the actual machine. Please contact our nearest office for latest specifications. Accessories shown here are not part of the standard equipment. Performance of the machine may vary with site and operating conditions encountered.