



820TE

BATTERY TYPE	LFP
RATED STORAGE ENERGY	70.5 kWh
OPERATING WEIGHT	7,100 kg
STANDARD BUCKET SIZE	1.2 m ³
STANDARD BREAKOUT FORCE	61 kN
STANDARD DUMP CLEARANCE	2,620 mm



B A T T E R Y E L E C T R I C V E H I C L E

TOUGH WORLD. TOUGH EQUIPMENT.



CHANGE FOR THE BETTER

LET'S TALK CHANGE

If you are reading this, then in all probability you are considering making the change to electric machines.

But how do you go about it? Who offers the best machines, support and advice? Who offers the best total cost of ownership? What kind of return on investment can you expect?

As a leader in electric machine and infrastructure technology, we believe we can guide you through every step of your change to electric.

WHY ELECTRIC?

Fully electric? Hybrid? Alternative fuel transmissions?

Making the change from diesel presents a number of options and LiuGong have fully evaluated all of the above and more before deciding on electric as the best option.

DECARBONIZATION

Reaching our target with electric technology

CO₂

BETTER EFFICIENCY

Work efficiency increases by

20%

compared with the diesel alternative

BETTER ECONOMY

1 electric unit can save

36 L of fuel per day*

That equates to over

11,250 L of fuel per year**, saving up to

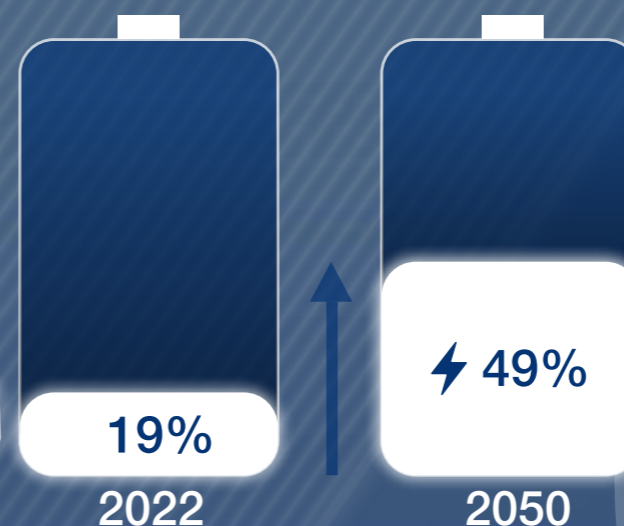
30 t of carbon emissions.

*based on 8 hours at 4.5 L/hour.
**based on 2,500 hours/year

WHY CHANGE NOW?

Our global priorities for energy are changing rapidly, with the adoption of electric power accelerating beyond all other sources. For our customers, changing to electric is a strategic change for the better.

At LiuGong, we can relate to this. We want to be a better global citizen and help make life better for everyone. This thinking has shaped our investment and transformation into a leader in electric capability.



Our energy priorities are changing fast.

Now is the time to change for the better. Together we can help reduce CO₂ emissions by over

50 MILLION TON



A WORLD LEADING BEV RANGE

WITH MORE THAN 90 PRODUCTS ALREADY LAUNCHED,
WE OFFER **A WORLD LEADING BEV RANGE.**

As a leader in BEVs, we have launched over 90 electric products, offering a solution for nearly every application and segment, including mining machinery, industrial and port equipment, agricultural machinery, and more.

WE HAVE AN ELECTRIC SOLUTION FOR EVERY APPLICATION

Covering 11 product lines, including loaders, excavators, mining trucks, aerial work platforms, industrial vehicles, and agricultural machinery, our BEVs fully encompass the three major technological routes including pure electric, extended-range, and battery swap.

THE WORLD TRUSTS OUR GREEN MACHINES

With over 13,000 machines already sold globally in regions such as Asia-Pacific, Europe, North America and Latin America, our BEV machines are building a reputation for simplicity, reliability and performance.



WHEEL LOADERS



EXCAVATORS



MINING TRUCKS



MOTOR GRADERS



ROLLERS



SKID STEER LOADERS



REACH STACKERS



FORKLIFTS



AERIAL WORK PLATFORMS

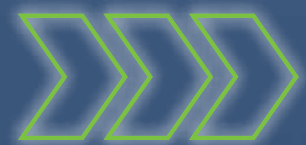


HYBRID TRACTORS



TELESCOPIC HANDLERS

LET'S MEET THE GREEN 820TE



Please confirm the availability of product lines and models with your local dealer.



NEW 820TE

AN INTELLIGENT SOLUTION FOR A TOUGH WORLD

Experience the future of electric loading with the new generation LiuGong T Series, China's first 2-ton electric wheel loader.

Continuing LiuGong's legacy of excellence in electric machinery, this groundbreaking loader offers wide adaptability and high efficiency.



INTELLIGENT APPLICATIONS

- Enhance versatility with an electronic control quick coupler for various attachments.
 - Self-adjustable overall traction force and third-link flow rate optimize performance for different working conditions.
 - Cruise control function simplifies operation, enhancing productivity on the job site.
- Step into the future of construction machinery with the 820TE Electric Wheel Loader, where innovation meets efficiency for unparalleled performance.



ZERO EMISSIONS & LOW NOISE

- Pure electric motor design ensures zero emissions, eliminating pollution concerns.
- Engineered for tranquility, cabin noise is reduced by at least 10 dB compared to traditional fuel-powered loaders.



SAFE & RELIABLE

- High-temperature resistant battery system with three-tier leak protection measures for enhanced safety.
- Enjoy peace of mind with a five-year, ten-thousand-hour battery warranty.
- Benefit from the stability, reliability, and high maintenance-free performance of the LiuGong wet brake axle.



HIGHLY EFFICIENT & COST-EFFECTIVE

- Extended maintenance intervals and fast charging ensure uninterrupted operations.
- Energy recovery and intelligent thermal management optimize efficiency.
- With a 15% increase in transmission efficiency with the exclusive automatic gearbox, eliminating the need for a torque converter.



CONVENIENT & COMFORTABLE

- Designed with ergonomic principles, offering a spacious cabin for operator comfort.
- Adjust components such as the steering wheel, seat, and armrest for personalized operation.
- Enjoy improved visibility with a full-glass design and maneuver easily with a compact height of ≤ 2.52 m.



CHANGE FOR INTELLIGENT PERFORMANCE



ENERGY RECOVERY

Experience unprecedented efficiency with our independently developed energy recovery system. By enabling reverse charging during gear shifting or braking, it delivers a remarkable 15% overall energy savings while extending battery life.



SMART ANTI-THEFT

Safeguard your investment with our smart anti-theft features. Key-operated door locks and negative terminal switches provide physical security, while the graphical display instrument password confirmation function prevents unauthorized access, ensuring machine integrity and preventing safety accidents.



AUTOMATIC CONTROL

LiuGong's electric control box linked to an electric proportional transmission with a direct connection to the drive motor delivers the optimum torque with minimum energy. This smart solution improves transmission efficiency by more than 15% compared with conventional machines.



INTELLIGENT ADJUSTMENT

Adapt effortlessly to varying working conditions with our intelligent adjustment capabilities. The 820TE autonomously fine-tunes traction force, vehicle speed, and third-link hydraulic flow rate, enhancing operational experience and maximizing work efficiency for tasks like snow removal and sweeping.



MAKING THE MOST OF EVERY CHARGE

For BEVs, fuel consumption may no longer be an issue, but energy efficiency is still a top priority for LiuGong. Our machines are required to work in the toughest, most remote locations, so it's essential that they use their battery power intelligently. Our smart approach differentiates our BEVs and makes the most of every charge.



OPTIMIZED BATTERY PERFORMANCE

Keep operations running smoothly with intelligent temperature control. Our system efficiently cools and protects the battery, maintaining an optimal temperature range of 20°C to 35°C. With independent fan control and automatic forward and reverse rotation, our battery design ensures unmatched performance and reliability.





CHANGE FOR A SAFER SOLUTION

CHANGE FOR A
SAFER
SOLUTION



SAFETY WITHOUT COMPROMISE

With active and passive safety protection our aim is to create the safest working environment yet. Designed around the operator, our cab provides the highest levels of safety, visibility and comfort. ROPS protection, advanced battery technology and excellent overall construction all combine to create zero tolerance for accidents in or around the machine. No one protects you or the environment more.



SAFE AND SECURE

Our approach to battery management is simple. We keep our batteries safe, secure and in top condition to give you performance you can rely on.



SAFETY FIRST

Our charging gun has been designed with simplicity and safety in mind and prevents the operator from potential electrical hazards such as shocks, short circuits and over-charging. It's a simple, safe solution that gets you back on the job, fast.



IP67 ASSURANCE

Every electrical component on the 820TE meets the IP67 standard for dust-proof and waterproof performance. As you would expect, the battery easily meet the IP67 standard and have been designed to withstand the harshest working environments of extreme heat and humidity.





CHANGE FOR COMFORT

DESIGN COMFORT WORK ENVIRONMENT



ENVIRONMENTALLY FRIENDLY

Changing to electric brings you the obvious benefits of zero emissions and zero diesel costs. But our new design for the 820TE goes even further.

'Silent' is a bold claim, but noise performance tests prove that internal and external noise and vibrations are negligible, compared with traditional machines. Zero noise is our aim, and the new 820TE comes within a whisper of achieving that.



NO VIBRATIONS

Engineered to withstand high-intensity vibrations, our machine's battery and overall structure ensure optimal protection for the battery system, even in the toughest conditions. Rest assured, safety is paramount during all machine operations.



CHANGE FOR 'PLUG & PLAY' SIMPLICITY



PLUG & PLAY SIMPLICITY

We help you change to electric by offering a simple plug-and-play solution, perfectly matched to deliver the optimum performance, economy and safety.



POWER & BATTERY PERFORMANCE

We've made the change to electric easy with an "all-in-one unit" powertrain, designed for optimum simplicity and performance, and an intelligent battery management system for a safe and easy charging solution.



ALL IN ONE POWERTRAIN

Our All-In-One Powertrain seamlessly integrates controller, drive motor, transmission, drive axle controller, and hydraulic motor and pump into a single system. That means maximum power with maximum efficiency.



SUPERIOR BATTERY PERFORMANCE

The 820TE is powered by a 70.5 kWh capacity lithium iron phosphate battery. Delivering:

- Choose the 80 kW direct current fast charge from 12% to 95% SOC in 1 hour, minimizing downtime.
- Alternatively, select the 7 kW alternating current slow charge for 95% capacity in 9.5 hours, adapting to your schedule.



up to
10 HOURS
working time in
light applications



up to
5 HOURS
working time in
heavy applications



1 HOUR
80 kW
charging pile



9.5 HOURS
7 kW charging
pile



Machine's runtime data is based on a comprehensive evaluation and is provided for reference only. The actual runtime performance may vary depending on specific operating conditions.



CHANGE WITH CONFIDENCE



GUARANTEED RELIABILITY

As you would expect, the 820TE has reliability built in. The machine has been proven to be reliable in harsh working conditions such as mixing plant, livestock farm, etc, meeting the needs of various working conditions. In addition, the IP67-rated wiring harness adds extra protection to the battery, motor and electronic control system .

But we go further to guarantee your peace of mind. The 820TE comes with a 5-year or 10,000-hour (for battery) warranty as standard.

This is not a sales gimmick. This guarantee underlines the confidence we have in our electric machines, born out of real-life controller) perience in tough, commercial job sites.

5 YEARS
10,000 HOURS WARRANTY



CHANGE FOR BETTER RETURN ON INVESTMENT

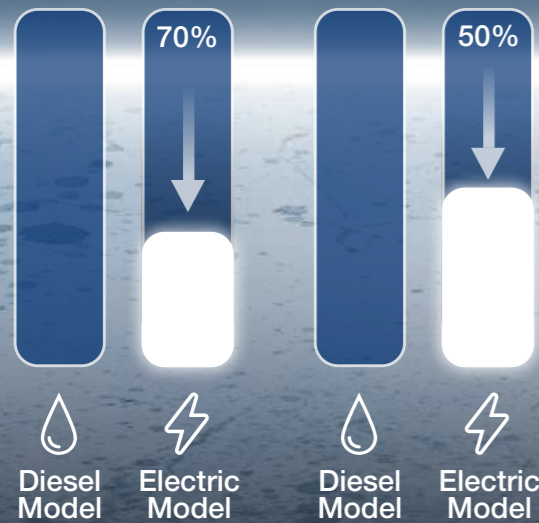


DIESEL VS ELECTRIC?

This is the big question. In a straight cost-per-ton comparison, changing to electric makes sense on the job site and on the balance sheet. Diesel wheel loaders use 1 litre of oil, while electric wheel loaders use only 3 kWh of electricity.

LOW TOTAL COST OF OWNERSHIP

- Permanent magnet synchronous motor
- Maintenance-free battery



up to **70%** reduction in operation costs over 5 years

up to **50%** reduction in maintenance costs over 5 years



SLASHES OPERATIONAL & MAINTENANCE COSTS

Not guesswork – but cold, hard fact, gleaned from over 200 customer job sites. Our detailed analysis proves that our electric machines reduce 5-year operational costs by up to 70% and maintenance costs by up to 50%.

Add to the five-year or 10,000-hour warranty of Liugong (for battery, motor, controller), the 820TE promises exceptional return on investment.



RECHARGES WHILE YOU WORK

It would be impossible for a conventional machine to create its own diesel, but Liugong's intelligent energy recovery system actually charges the battery as you work. This smart technology saves up to 20% of energy and keeps you working longer between charges.



NEW 820TE



**AN INTELLIGENT SOLUTION
FOR A TOUGH WORLD**



820TE

SPECIFICATIONS >>>

Operating weight	7,100 kg
Operating weight includes the machine weight with standard work device, no additional equipment or accessories, full fuel tank, all fluids at required level and an operator 75 kg .	
Bucket capacity range	0.8-2.0 m³

POWER BATTERY	
Description	
Battery Type: LFP, lithium iron phosphate batteries Drive motors & hydraulic motors: Made by WEITELI and INOVANCE Ambient Temperature: -30~40°C .	
Manufacturer	CATL
Model	LFP
Rated Storage Energy	70.5 kWh
Nominal Voltage	309 V
Battery box protection level	IP68
Cooling method	Intelligent temperature control, liquid cooling
DC Charging	CCS2, 60 kW
Charging time (80 kW charging pile)	≤ 55 min (SOC12% ~ 95%)
AC Charging	Type 2, 7 kW/11 kW (Optional)

TRANSMISSION	
Description	
LiuGong has independently developed a single-motor electric drive transmission system, featuring a fixed-axis gearbox with two forward gear and one reverse gear, integrating FNR. This system is compact in structure, has high load-bearing capacity, and eliminates the design of a hydraulic torque converter to enhance transmission efficiency, reduce noise, simplify the control system, and provide a more comfortable operating experience.	
Transmission type	Fixed axle gearbox
Maximum drive speed, fwd	40 km/h
Maximum drive speed, rev	19 km/h
Number of speed, fwd	2
Number of speed, rev	1

HYDRAULIC SYSTEM	
Description	
"System supply: A piston pump supplies oil to the working and steering systems, with steering having priority. Valve: Load-sensitive flow sharing valve. Lifting function: The valve has four positions: lift, hold, lower, and float. Dumping function: Enables the boom to lift and dump simultaneously. Cylinders: Double-acting cylinders used for all functions."	
Main pump type	Piston
Controls	Electric proportional joystick control
Main relief pressure	23.5 MPa
Raise	4.7 s
Dump time	1.1 s
Float down time	4 s
Fastest total cycle time	9.8 s
3rd function valve maximum flow	90 L/min
4th function valve maximum flow	90 L/min

DRIVE MOTOR	
Description	
Efficient permanent magnet synchronous motor with high power density and compact structure. It's low maintenance, cost-effective, and has extended maintenance cycles.	
Motor output -Max (SAE J1995/ISO 14396)	50 kW
Ambient temperature	-40~85°C
Adaptive altitude	≤ 5,000 m

AXLES	
Front and rear axle reduction ratio	18.6
Oscillation	±8°

STEERING	
Description	
Steering system: Load-sensing hydraulic articulated steering. System supply: The steering system has priority feed from a load-sensing axial piston pump with variable displacement, Steering priority. Steering cylinder: single cylinder.	
Steering configuration	Articulated
Steering relief pressure	19 MPa
Maximum flow	90 L/min
Steering cylinder	1
Cylinder bore	80 mm
Rod diameter	40 mm
Stroke	335 mm

ELECTRICAL SYSTEM	
Voltage	DC 24 V
Batteries	2x12 V
Battery capacity at 20h rate	2x45 Ah
Cold cranking capacity at -18°C	375 A
Reserve capacity	140 min

SOUND & ENVIRONMENT	
Sound level in cab (travel mode) according to ISO 6396-2008/en ISO 3744-1995	80 dB
Sound level in cab (stationary work cycle mode) according to ISO 6396-2008/en ISO 3744-1995	< 80 dB(A)
External sound level (travel mode) according to ISO 6396-2008	98 dB
External sound level (stationary work cycle mode) according to ISO 6396-2008	< 98 dB(A)
Ventilation	350 m³/h
Heating capacity	4 kW
Refrigerating capacity	4.2 kW

BRAKES	
Description	
Dual-circuit full hydraulic brake system	
Service brake type	Full hydraulic
Parking brake type	Manual electrohydraulic control/Hydraulic release callper brake
Parking brake actuation	Caliper disc parking brake system

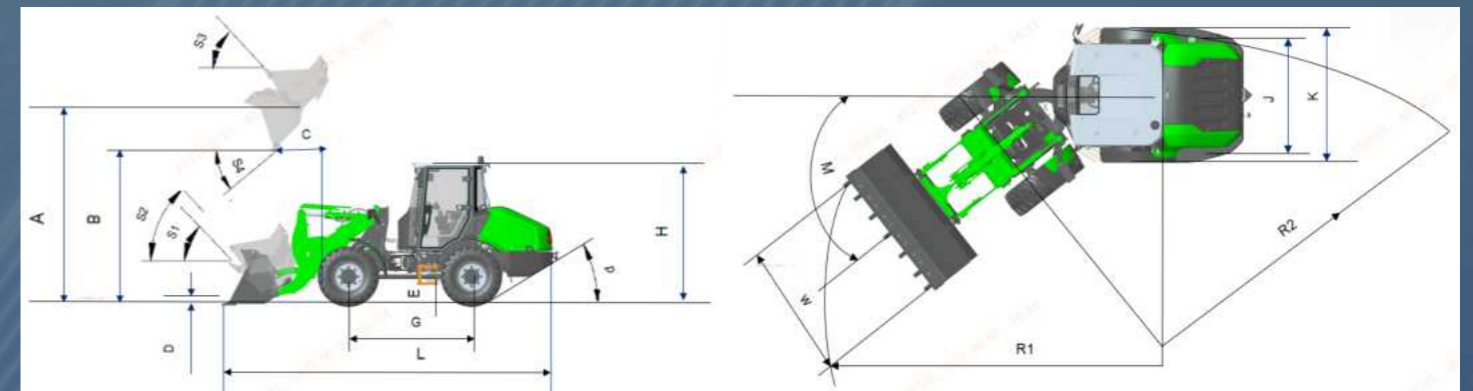
CAB	
Description	
Instrumentation: All important information is centrally located in the central instrument panel and operator's field of vision. Large curved front window glass and rear mirrors ensure great visibility. Adjustable steering column, high back seat, armrest box and A/C with all-around air outlets are provided as standard. Pressurized cab with lower interior noise. The cab is tested and approved according to ROPS (ISO 3471), FOPS (ISO 3449).	

DIMENSIONS	
E Ground clearance	350 mm
G Wheelbase	2,150 mm
H Cab height	2,520 mm
J Wheel tread	1,520 mm
K Width over tires	1,925 mm
L Length with bucket down	5,894 mm
M Turn angle, either side	38°
P Rear angle of departure	30°
R1 Turning radius, bucket carry	4,749 mm
R2 Turning radius, outside of tire	3,750 mm
W Width over bucket	2,225 mm



SERVICE CAPACITY	
Cooling system	25 L
Hydraulic system	54 L
Transmission and torque converter	4 L
Axles, front/rear	13 L

STANDARD LIFT LOADER ARM PERFORMANCE WITH STANDARD BUCKET AT 1.2 m³ (QC) WITH BOLT-ON CUTTING EDGE AND OPERATING WEIGHT AT 7,100 kg.	
Tipping load - straight (ISO 14397-1:2007)	4,350 kg
Tipping load - full turn (ISO 14397-1:2007)	3,650kg
Bucket breakout force	61 kN
A Maximum hinge pin height	3,408 mm
B Dump clearance at full height discharge	2,620 mm
C Dump reach at full height discharge	850 mm
D Maximum digging depth, bucket level	95 mm
S1 Bucket rollback at ground level	45°
S2 Bucket rollback at carry	49.5°
S3 Bucket rollback at maximum height	60°
S4 Maximum dump angle at full height	45°

TIRES	
Tire size	405/70R20





TIRES									
Choosing the right tyres for your machine will become a key competitive advantage to achieve outstanding performance. Through close engineering and development cooperation with renowned and carefully selected suppliers, LiuGong can offer full range of tyres specially tailored for wheel loader.									
Code	Application	Patterns	Size	PR / *	Tube Type	Width	Overall Diameter	Tread Depth	Load Capacity
GLR15	<ul style="list-style-type: none"> Where good traction is needed, e.g. at grading work In soft and muddy operation where sharp stones don't occur In all load/carry operations 		405/70R20	/	/	400 mm	1,070 mm	20 mm	3,875 kg
			405/70R20	/	/	400 mm	1,070 mm	21 mm	3,875 kg
Snow tire	<ul style="list-style-type: none"> Snow tires use deep treads and soft rubber compound formulations, which can provide better grip on snow, ice, and slippery roads, reduce the risk of skidding, improve the stability and handling of vehicles or equipment, and are suitable for winter operations or cold regions. 								

Note: The radial tire-load bearing capacity is indicated by the number of stars (*). More stars, greater radial tire-load bearing capacity. For the specific radial tire sizes listed in the table above, 2 stars (**) represents the maximum radial tire-load bearing capacity.

Tires	Operating Weight, kg	Tipping Load- Full Turn, kg	
		Standard Arm	Long Arm
GLR15	-	-	-
Snow tire	+31	+15	+15

ATTACHMENTS				
LiuGong attachments with pin-on or quick-coupler ensure high quality as the machine. Integrated design of the whole system makes a perfect match to achieve the superior productivity. For more information on other available attachments, please contact your LiuGong dealer for details.				
820TE	2-Speed Transmission, L2 Tires	1.2 m ³ bucket (QC,BOT)	4 in 1 bucket	
Bucket	Bucket Capacity	m ³	1.2	0.8
	Bucket Type	/	GP	4 in 1 bucket
	Bucket Mounting	/	QC	QC
	GET Type	/	BOT	BOT, BOS
	Bucket Weight	kg	459	752
Standard Arm	Operating Weight	kg	7,070	7,362
	Breakout Force	kN	63	62
	Tipping Load - Straight	kg	4,527	4,047
	Tipping Load - Full Turn	kg	3,608	3,163
	Max. Bucket Hinge Pin Height	mm	3,408	3,408
	Dump Clearance	mm	2,665	2,642
	Dump Reach	mm	866	826
	Overall Length	mm	5,893	5,915
	Overall Width	mm	2,225	2,074
	Overall Height	mm	2,520	2,520
Turning Radius, Outside of Bucket	mm	4,749	4,693	
Long Arm	Operating Weight	kg	7,245	7,537
	Breakout Force	kN	70	69
	Tipping Load - Straight	kg	3,809	3,384
	Tipping Load - Full Turn	kg	3,009	2,608
	Max. Bucket Hinge Pin Height	mm	3,573	3,573
	Dump Clearance	mm	2,830	2,807
	Dump Reach	mm	1,002	962
	Overall Length	mm	6,157	6,174
	Overall Width	mm	2,225	2,074
	Overall Height	mm	2,520	2,520
Turning Radius, Outside of Bucket	mm	4,867	4,815	

STANDARD EQUIPMENT

POWER SYSTEM

- CATL battery, INOVANCE drive motor and WEITELI hydraulic motor
- Intelligent temperature-controlled liquid cooling
- Electronic controlled fan with automatically speed adjustment, and auto reversing functions

TRANSMISSION

- LiuGong EPT200 automatic electric control transmission

AXLE

- LiuGong wet axles
- Front & rear limited slip differentials
- With differential lock

HYDRAULIC SYSTEM

- Variable working hydraulic system
- 3-spool main valve
- Integrated pilot single joystick with FNR
- Ride control

STEERING SYSTEM

- Load sensitive steering hydraulic system
- Variable steering hydraulic system

TIRE & RIM

- Radial Tire, 405/70R20
- Tire nozzle protection

CHASSIS FRAME

- Hinge swing
- Rubber shock absorber steering limit

OPERATOR STATION

- Pressurized cab, with FOPS&ROPS
- Two-way adjustable steering column
- Air-suspension seat, high back, armrest, headrest, multi-direction adjustable
- Full LCD front instrument panel
- Indicators: high & low beams, locking status, parking brake, direction, lubrication system, battery charging, operation ready, etc.
- AC system
- Instrument: voltage, motor speed, fault code, SOH/SOC, battery temperature, hour meter, etc.
- Back-up alarm
- Electric horn
- Fire extinguisher
- Cab rear windshield defroster
- Rotating beacon
- Button start or stop

OTHERS

- Fenders
- Liugong telematics
- Light protective guard
- Boom supporting brackets
- CCS2 Charging interface

OPTIONAL EQUIPMENT

HYDRAULIC SYSTEM

- 4 SPL valve

OPERATOR STATION

- Cab dust removal device
- Rearview camera

LINKAGE & ATTACHMENTS

- Quick coupler
- Four in one bucket.

PROTECTIVE DEVICE

- Chassis guard
- Protection guard of cab

SAFETY WARNING

- Load holding valve

OTHERS

- Low temperature package
- CCS1 charging interface
- Safety hammer
- Mechanical seat
- 11 kW bi-directional on board charger





A TEAM YOU CAN TRUST

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LG-PB-820TE MAX-70.5kWh-EU-A4-32P-032026-ENG



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