

# 820T WHEEL LOADER

**T-SERIES**

Engine	YANMAR 4TNV98CT
Max. Gross Power	53.7 kW
Operating Weight	6,800 - 7,180 kg
Bucket Capacities	0.8 - 2.0 m <sup>3</sup>





# CUSTOMER DRIVEN DESIGN...

For over 65 years, LiuGong has built machines that thrive in the toughest environments. The 820T, part of our advanced T-Series, is engineered for maximum power, precision, and durability.

Designed to excel in demanding applications, this machine combines cutting-edge technology with proven reliability to keep you working efficiently in even the harshest conditions.

Since launching our first wheel loader in 1966, we've remained committed to innovation, ensuring every LiuGong machine is built to perform, wherever the job takes you.



## YOUR PERFORMANCE DASHBOARD

Research tells us that 6 key performance areas really matter to you. We'd like to use this performance dashboard to present the real, tough facts about our 820T.



**POWER &  
EFFICIENCY**



**TOUGHNESS &  
DURABILITY**



**SAFETY &  
VISIBILITY**



**UPTIME &  
MAINTENANCE**



**INTELLIGENCE  
& CONTROL**



**COMFORT &  
ERGONOMICS**

## THIS IS LIUGONG



**65+**  
YEARS  
EST 1958



**30+**  
PRODUCT LINES



**12**  
GLOBAL R&D CENTERS



**30+**  
GLOBAL  
OFFICES



**16,000+**  
EMPLOYEES



**20+**  
GLOBAL MANUFACTURING  
FACILITIES

## A RANGE YOU CAN TRUST.

From municipal sanitation engineering, landscaping, agriculture, ranching and general construction applications, you can trust the 820T to deliver. With the power, performance and adaptability you need to take on the toughest challenges, our T-Series machines won't let you down.





# LET'S TAKE A CLOSER LOOK...



## POWER THAT DRIVES PRODUCTIVITY

Hydrostatic transmission and intelligent fuel management system deliver uncompromised power with enhanced efficiency.

- ▶ YANMAR EU Stage V engine delivers robust power and superior fuel efficiency.
- ▶ Hydrostatic drivetrain delivers higher transmission efficiency and saves more energy.
- ▶ Programmable auto-idle shutdown feature helps cut fuel consumption during idle operation.
- ▶ Advanced hydraulic system delivers optimum hydraulic performance, minimizing energy loss while boosting fuel efficiency and productivity.
- ▶ Travel speed up to 40 km/h makes it faster to transfer from different jobsites.
- ▶ Adaptable to any application with a wide range of attachments that are quick and easy to swap.



## TOUGHER BY DESIGN

Engineered to excel in the harshest conditions, 820T's dependable components maximize reliability and extend machine life.

- ▶ LiuGong wet axle delivers strong load-bearing capacity and high reliability even in the most demanding operating conditions.
- ▶ Highly durable chassis frame is built tough and rigorously tested to withstand the most extreme environments.
- ▶ Reinforced boom structure ensures enhanced durability.
- ▶ High-strength bucket offers a longer service life.



## ENHANCED PROTECTION, SUPERIOR VISIBILITY

LiuGong prioritises operator safety and visibility to improve awareness and reduce risks on-site.

- ▶ 120° front visibility provides excellent field of view to the front of the machine.
- ▶ Optional all-round lighting delivers exceptional visibility for night operations and low-light conditions.
- ▶ Adjustable external rearview mirrors ensure optimal side and rear visibility in any job site conditions.
- ▶ Full LED work lights are standard-fitted for enhanced night-time visibility.
- ▶ The optional 360° panoramic view system provides operators with a real-time, all-around view of surroundings, eliminating blind spots.
- ▶ Ergonomically-designed orange steps and handrails safeguard the operator during access, exit and maintenance.



## BUILT TO LAST, EASY TO MAINTAIN

To maximize your productive hours, we've made the New 820T even easier to maintain and surrounded it with service back-up and support to make every productive second count.

- ▶ One-piece forward-tilt engine hood provides quick and easy access to both the engine compartment and routine service points for easy maintenance.
- ▶ Centralized greasing system extends bearing life and reduces maintenance time and costs by delivering precise amounts of grease to each bearing at regular intervals.
- ▶ Fluid drains provide environmentally friendly drainage capability and are grouped together for convenient serviceability.
- ▶ Battery master switch is optimally positioned below the cab access ladder for easy operation when entering or exiting the cab.
- ▶ Emergency jump-start port makes maintenance easier.



## INTELLIGENT PERFORMANCE, DESIGNED TO WORK SMARTER

Smart control systems ensure precision, efficiency, and adaptability across different applications.

- ▶ Graphical display integrated multiple functions and parameter settings facilitates the machine to handle a wide range of applications.
- ▶ Full LCD instrument panel with an intuitive interface provides clear visibility of all main parameters.
- ▶ Automatic boom height kick-out and bucket leveling functions can be easily activated with a single touch in the cab.
- ▶ Electric quick coupler enables operators to change attachments in seconds from the cab, enhancing safety and productivity.
- ▶ One-touch engine start/stop allows for effortless operation with a single touch.
- ▶ The optional LiuGong payload system delivers real-time load measurement, optimizing operational efficiency for optimal haulage cost control.



## BUILT AROUND YOU

LiuGong machines are designed with the operator at the heart, ensuring all-day comfort and convenience.

- ▶ Pressurized, ROPS/FOPS certified cab is spacious, quiet, and engineered for all-day comfort with ergonomic, intuitive controls.
- ▶ Advanced climate control system with 12 all-around vents and intelligent temperature control ensures an optimal operating temperature in all conditions.
- ▶ Standard tiltable steering column and ergonomic armrest accommodate various operating habits to reduce fatigue.
- ▶ Heated air suspension seat with high back, electric waist adjustment reduces operator fatigue.





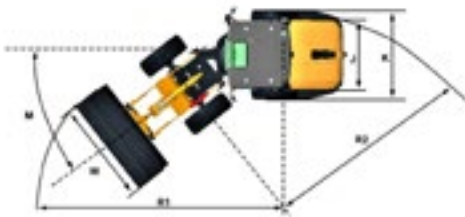
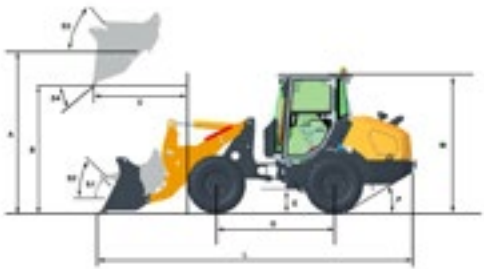
820T SPECIFICATIONS

Operating Weight	6,800 - 7,180 kg
Operating weight includes the machine weight with standard work device, no additional equipment or accessories, full fuel, DEF tank and all fluids at required level and an operator 75 kg.	
Bucket Capacity	0.8 - 2.0 m³
ENGINE	
Emission Regulation	EU Stage V
Make	YANMAR
Model	4TNV98CT
Engine Output - Max.Gross (SAE J1995 / ISO 14396)	53.7 kW @ 2,000 rpm
Engine Output - Max.Net (SAE J1349 / ISO 9249)	48.9 kW @ 2,000 rpm
Peak Torque	283 - 308 N·m @ 1,365 rpm
Displacement	3.3 L
Number of Cylinders	4
Aspiration	Turbocharged & Charge air cooling
TRANSMISSION	
Transmission Type	Hydrostatic transmission gearbox,countershaft powershift
Max. Travel Speed Forward / Reverse (405/70R20 tires)	40 / 16 km/h
Number of Speed, fwd	2
Number of Speed, rev	1
HYDRAULIC SYSTEM	
Main Pump Type	Piston
Main Relief Pressure	23.5 MPa
Raise	5.4 s
Dump Time	1.1 s
Float Down Time	3.5 s
Hydraulic Cycle Time	10 s
Controls	Joystick
AXLES	
Model	LiuGong (Wet type)-AWL200
Differential Front Type	100% Differential lock
Differential Rear Type	100% Differential lock
Axle Oscillation	±8°

STEERING	
Steering Hydraulic System Type	Large displacement steering
Steering Relief Pressure	19 Mpa
Maximum Articulation	±38°
Smallest Turn (over tires)	3,750 mm
BRAKES	
Service Brake Type	Wet discs brake
Service Brake Actuation	Full hydraulic
Parking Brake Type	Caliper discs brake
Parking Brake Actuation	Electro-hydraulic release
ELECTRICAL SYSTEM	
Voltage	12 V
Batteries	12 V
Battery Capacity	120 Ah
Cold Cranking Capacity, approx	850 CCA
Reserve Capacity	230 min
Alternator Rating	960 W / 80 Ah
Starter Motor Output	3 kW
SOUND & ENVIRONMENT	
Sound level in cab according to ISO 6396-2008/EN ISO 3744-1995 - Travel mode	70 dB(A)
Sound level in cab according to ISO 6396-2008/EN ISO 3744-1996 - Stationary work cycle mode	70 dB(A)
External sound level according to ISO 6395-2008- Travel mode	101 dB(A)
External sound level according to ISO 6395-2008- Stationary work cycle mode	100 dB(A)
Ventilation	850 m³/min
Heating capacity	8 kW
Air conditioning	4.8 kW
SERVICE REFILL CAPACITIES	
Fuel Tank	75 L
Engine Oil	4.5 L
Cooling System	4.5 L
Hydraulic System	65 L
Transmission	4 L
Axles, Front/Rear	8.6 L / 8.6 L

STANDARD LIFT LOADER ARM PERFORMANCE WITH STANDARD BUCKET AT 1.2 m³ (QC) WITH BOLT-ON CUTTING EDGE AND OPERATING WEIGHT AT 6,800 kg.	
Tipping Load - Straight according to ISO 14397-1:2007	4,480 kg
Tipping Load – Full Turn according to ISO 14397-1:2007	3,680 kg
Bucket Breakout Force	66 kN
A Maximum Hinge Pin Height	3,408 mm
B Dump Clearance at Full Height Discharge	2,615 mm
C Dump Reach at Full Height Discharge	875 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°

STANDARD LIFT LOADER ARM 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	1,930 mm
L Length with Bucket Down	5,833 mm
M Turn Angle, Either Side	38°
P Rear Angle of Departure	30°
R₁ Turning Radius, Bucket Carry	4,731 mm
R₂ Turning Radius, Outside of Tire	3,750 mm
W Width over Bucket	2,225 mm



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"><li>• The large-angle block pattern delivers excellent traction and handling;</li><li>• The horizontal wide-groove block pattern ensures excellent self-cleaning performance and superior mobility on soft, sandy terrain;</li><li>• Featuring a reinforced carcass and anti-scratch sidewall, the tires provide enhanced puncture and scratch resistance, making them suitable for all road conditions.</li></ul>		405/70R20	/	/	400 mm	1,070 mm	20 mm	3,875 kg

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.

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.					
820T	HST 202 Transmission, GLR15 Tires	0.8 m³ Bucket (BOCE)	1.2 m³ Bucket (BOCE)	1.5 m³ Bucket (BOCE)	
Bucket	Bucket Capacity	m³	0.8	1.2	1.5
	Bucket Type	/	GP	GP	GP
	Bucket Mounting	/	QC	QC	QC
	GET Type	/	BOCE	BOCE	BOCE
	Bucket Weight	kg	705	500	550
Standard Arm	Operating Weight	kg	7,025	6,800	6,880
	Max. Breakout Force	kN	70	66	56
	Tipping Load - Straight	kg	4,133	4,480	4,400
	Tipping Load - Full Turn	kg	3,700	3,680	3,600
	Max.Bucket Hinge Pin Height	mm	3,408	3,408	3,408
	Dump Clearance	mm	2,642	2,615	2,750
	Dump Reach	mm	826	875	992
	Overall Length	mm	5,915	5,833	6,023
	Overall Width	mm	1,980	2,225	2,225
	Overall Height	mm	2,520	2,520	2,520
Long Arm	Turning Radius, Outside of Bucket	mm	4,694	4,731	4,819
	Operating Weight	kg	7,180	7,080	7,080
	Max. Breakout Force	kN	63	59	50
	Tipping Load - Straight	kg	3,473	3,770	3,680
	Tipping Load - Full Turn	kg	2,800	2,973	2,890
	Max.Bucket Hinge Pin Height	mm	3,573	3,573	3,573
	Dump Clearance	mm	2,807	2,830	2,695
	Dump Reach	mm	926	1,016	1,133
	Overall Length	mm	6,175	6,095	6,285
	Overall Width	mm	1,980	2,225	2,225
	Overall Height	mm	2,520	2,520	2,520
	Turning Radius, Outside of Bucket	mm	4,815	4,848	4,936

STANDARD & OPTIONAL EQUIPMENT

ENGINE	HYDRAULIC SYSTEM
YANMAR 4TNV98CT EU Stage V engine, output - Max. net power of 48.9 kW, charge air cooling, 4 cylinders, 4 stroke	Two piston pumps with variable displacement. Hydraulic load-sensing according to demand
Exhaust emission control	Single joystick control
DC air filter, fuel filter	Third valve and multipurpose lines
Suction fan	4-spool hydraulics for dual auxiliary function <input type="checkbox"/>
Grid heater	Easy simultaneous operating of lift & tilt
Programmable auto engine idle stop	Boom height kick-out
Pre-fuel filter/water separator with electric fuel pump	Bucket positioner
EFI (Electric Fuel Injection)	Plug at the port of bucket and boom cylinder for pressure check
ECM faults inspecting system	Emergency boom lower via pilot accumulator
Engine block heater	Ride control
Oil tank radiator <input type="checkbox"/>	Load holding valve <input type="checkbox"/>
TRANSMISSION	STEERING SYSTEM
LiuGong HST 202 countershaft power shift transmission	Load sensing system with flow amplification and steering priority
CCO (Clutch Cut-Off)	Emergency steering system
Transmission oil level sight gauge	CHASSIS FRAME
Secondary oil filter, sight glass	Spacious central articulation arrangement with conic bearing
Remote pressure taps for diagnostics	Articulation locking bar
Auto shifting mode by speed <input type="checkbox"/>	Tow hitch
Neutral safety switch	Rubber cushion articulation stops
Electronic controlled parking brake	LINKAGE & ATTACHMENTS
AXLE	Z-bar linkage
LiuGong wet axle with 100% differential lock (Front & rear)	TP linkage <input type="checkbox"/>
Limited slip differentials <input type="checkbox"/>	Bolt-on cutting edge
Wet discs service brake system	Bolt-on teeth <input type="checkbox"/>
TYRE & RIM	Bolt-on teeth and spacer <input type="checkbox"/>
405/70R20 tires	High lift loader arms <input type="checkbox"/>
Full fender	Electric quick coupler
See tires options <input type="checkbox"/>	Parallel-lift linkage
Tire protective chain <input type="checkbox"/>	Grapple with aligned or crossed teeth <input type="checkbox"/>
	Pallet forks <input type="checkbox"/>
	Snow blade <input type="checkbox"/>
	Sweeper <input type="checkbox"/>

STANDARD & OPTIONAL EQUIPMENT

ELECTRIC SYSTEM	CAB
Two front LED headlights with high & low beams and turn signal	FOPS (ISO 3449) and ROPS (ISO 3471) certified cab
Four front, two rear LED headlights on top of cab	Heated air suspension seat with 3 inch 2-point seatbelt
Turn signals with flasher	Electric heated rear-view mirrors
Seat belt indicator	One interior & dual exterior rear-view mirrors
Batteries, free of maintenance	Tiltable steering column
12 V power outlet	Large front glass
Electric horn	Rubber cab mounts
License-plate bracket and light	Cab fresh air filter
Rotating beacon / Multicolor flash light	One-touch engine start/stop
Backup alarm with white noise	Air conditioner
Front and rear windshield wiper	Lunch-box/cooler holder
Bluetooth radio/player with USB port	Cup holder
Reversing warning light, orange/blue	Cab rear windshield defroster
GAUGE GROUP	Front and rear sun visors
Engine coolant temperature	Front windshield guarding <input type="checkbox"/>
Transmission oil temperature	All-round lighting <input type="checkbox"/>
Fuel level	360° panoramic view system <input type="checkbox"/>
Hour meter	Graphic display
Voltage	Safety hammer
Brake oil pressure	OTHERS
INDICATOR GROUP	Parking wedge
Air inlet heater	Rear bumper <input type="checkbox"/>
Battery charging	Rear light protective guard
Intake air filter alert	Chassis guard
Parking brake applied	LiuGong payload system <input type="checkbox"/>
Machine emergent stop	LiuGong iLink (LiuGong Telematics System)
Power cut-off	Fire extinguisher
Engine servicing	Remote battery jump posts
Turning lights	Auto loading <input type="checkbox"/>
Engine starter running	Coupler ready <input type="checkbox"/>
Beam of front light	Hood protective guard <input type="checkbox"/>
	Tire pressure monitoring <input type="checkbox"/>

Note:     for standard equipment

☐ for optional equipment

Specifications and designs are subject to change without notice. Machines shown may include optional equipment. LiuGong standard and optional equipment may vary from region to region. Please consult your LiuGong dealer for information specific to your area.



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