

SHACMAN

NEW ENERGY PRODUCT MANUAL



BUILDING SKY OF THE FUTURE WITH SHACMAN BLU

CONTENTS

• Introduction	01/02
• Advantage	03/10
• Utility	11/18

NEW ENERGY PRODUCT

INTRODUCTION

Headquartered in Xi'an, China and founded in 1968, SHACMAN is the main R&D and production base for trucks in China. We are an active advocate and strong promoter of the green, low-carbon and environmentally friendly transformation and development of China's automobile industry. As a world-renowned commercial vehicle manufacturer, we have been deeply engaged in the field of new energy heavy trucks for more than a decade, and its core technologies cover three different branches: electric, hybrid and fuel cell. From 2011 to 2013, we have successively invested 270 million US dollars to build five new energy subsidiaries, with a total annual production capacity of more than 100,000 vehicles.

At present, we have a national enterprise technology center, a leading heavy truck new energy R&D and application laboratory, as well as a post-doctoral scientific research workstation and the academician expert workstation, which allows us to achieve a leading position in overall R&D strength. We have undertaken 7 national R&D projects and has created more than 150 patent technologies in the field of clean energy and new energy. L4 autonomous driving has been demonstrated and operated in various scenarios, such as ports. In 2023, SHACMAN has realized breakthroughs in new energy vehicle control, automatic driving and other core technologies, and independently mastered 27 core technologies such as main trailer automatic parking.

Our unwavering commitment to achieving a better future with excellent product quality, so we spare no effort to invest in the field of new energy, only to satisfy the needs of customers for future new energy trucks with the ultimate quality. We always believe that the azure sky will become SHACMAN BLU in the future.





INTELLIGENCE

AI-CARE solution for whole vehicle

SMART POWER CYCLE



Smart Battery Management
Available battery capacity: 5%-100%



Smart Voltage Monitoring
Million-level driving data analysis



Smart Energy Recovery
6% increased energy recovery

SMART FAULT DIAGNOSIS

Real-time smart alarm

- Power Limit Warning
- Malfunction indicator light group warning

Smart emergency remedy

- Power outage within safe driving speed

CUSTOMIZED SMART FEATURES

Up to L4 autonomous driving

- Regional speed limiter
- Automatic parking

Anti-skid hill start tech

- Smooth start, effortless operation



ENERGY-SAVING

Effortlessly on the road

ACCURATE BEATING, BIG ENERGY HEART

Powerful 430 kW motor
Smart gear matching
More efficient motor, more time on the road*

*85% efficiency zone accounts for $\geq 87.25\%$, which increased by 12.6% compared to competitors.
*90% efficiency zone accounts for $\geq 74.63\%$, which increased by 13.8% compared to competitors.

BREATHING UNDULATION, POWER RECOVERY

Step on the brake and regain energy
Real-time power monitoring, reducing energy waste to a minimum

LIKE WARM-BLOODED ANIMALS MAINTAIN THE HIGHEST EFFICIENCY TEMPERATURE

Maintain dynamic power allocation, maintain efficient battery temperature
Smart constant temperature air conditioner, 15%-30% reduction in electricity consumption

SECURE

Given careful consideration to every security detail

Knowing all the high-voltage state

SMART HIGH VOLTAGE MONITORING SYSTEM

- Real-time monitoring of the insulation resistance value
- Real-time alarm for abnormal voltage
- Safety designs in place to reduce the risk of incorrect operation

ENERGY STORAGE SAFETY, METICULOUS

150wh/kg high-density battery, lighter and safer

High-quality LFP system, remains safe even after multiple cycles

High protection level, fearless of harsh environments

- Operating temperature: -35°C—65°C
- Battery protection level: Ip68
- EMC(Electromagnetic compatibility) protection: CLASS 3

UNEXPECTED SITUATIONS, CALMLY STOP

1.2MPa top-level brake air pressure

- Fast response: 5%-25% faster*
- Short distance: 13.5% shorter*

*Compared to 1MPa brake air pressure

Special relay valve for engineering vehicles

- Short distance: 0.8m shorter*
- High intensity: 40% improvement*

*Compared to the vehicle without special relay valves installed

Oil-filter type air treatment unit

- Filtering the oil before drying, for a cleaner air path
- Integrated functional design achieves higher reliability

NEW ENERGY PRODUCT

RELIABILITY

Reliability genes inherited in the new energy era

RELIABLE TRANSMISSION WITH A GREAT REPUTATION

 **Shift Structure Life**
≥ 1,000,000 times

 **Shorten Shift Time**
> 30%

 **Power Interruption**
< 800ms

INDUSTRY-LEADING RELIABLE CHASSIS

Precision connection, high load-bearing double-stage axles

- Waterproof oil seal, 10 times higher reliability improvement
- Integrated stamping of high-strength alloy steel

High adaptability suspension, comfortable and reliable

- Be more stable, main and auxiliary double balance axles

RELIABLE HIGH-VOLTAGE PROTECTION SYSTEM

Neatly cable arranged

- Dedicated buckle
- Integrated charging box

Detail protection

- Rubber protective cover
- Waterproof sheath





X5000^e Tractor



X5000e Tractor								
Drive					6×4			
GCW(t)			40-49		49-70		90-120	
Electricity replenishment			Swapping	Charging	Swapping	Charging	Swapping	Charging
Main configuration	Cab	Type	Lengthened high roof	Lengthened flat roof	Lengthened high roof	Lengthened flat roof	Lengthened high roof	Lengthened half-height roof/ Lengthened high roof
		Suspension	Air suspension	Air suspension	Air suspension	Air suspension	Air suspension	Air suspension
		Seat	Air main seat	Air main seat	Air main seat	Air main seat	Air main seat	Air main seat
		Air conditioner	Electric automatic constant temperature AC	Electric automatic constant temperature AC	Electric automatic constant temperature AC	Electric automatic constant temperature AC	Electric automatic constant temperature AC	Electric automatic constant temperature AC
	Motor	Model	TZ400XS033	TZ400XS033	TZ400XS033	TZ400XS033	TZ380XS030	TZ380XS030
		Rated power (kW)	270	270	270	270	290	290
	Transmission	Model	S04AD	S04AD	S04AD	S04AD	S06AD	S06AD
	Axle	Type	Drum drive axle	Drum drive axle	Drum drive axle	Drum drive axle	Drum drive axle	Drum drive axle
		Ratio	5.286	5.286	5.286	5.286	8.88	8.88
	Chassis	Dimension (mm)	850×270(single-layer 8)	850×270(single-layer 8)	850×300(single-layer 8)	850×300(single-layer 8)	850×300(8+7)	850×300(8+7)
		Wheel base (mm)	3775+1350	3775+1350	3775+1350	3775+1350	3775+1400	3775+1400
		Suspension	Front and rear few leaf springs	Front and rear few leaf springs	Front and rear few leaf springs	Front and rear few leaf springs	Front and rear multi-leaf springs	Front and rear multi-leaf springs
		Battery	281.91kW.h/350.07kW.h	422.87kW.h	281.91kW.h/350.07kW.h	422.87kW.h	281.91kW.h/350.07kW.h	422.87kW.h
		Tire	12R22.5	12R22.5	12R22.5	12R22.5	12.00R20	12.00R20
Applicable condition			Intra-park transpor tation, highway short-haul transportation	Intra-park transportation, highway short-haul transportation	Intra-park transportation, highway short-haul transportation	Highway short-haul transportation	Intra-park transportation, highway short-haul transportation	Intra-park transportation, highway short-haul transportation
Basic equipment					Electric window lifter, multi-function steering wheel, center lock (with remote control), drum front axle, 50 saddle, highway vehicle bumper, LED headlight, SHACMAN Telematics			Electric window lifter, multi-function steering wheel, center lock (with remote control), drum front axle, 50 saddle, highway vehicle bumper, SHACMAN Telematics
Options			Electric heated mirrors, electric flip, QH50 power take-off, 90 saddle, PTC heater, aluminum alloy rims, block pattern drive wheel tires		Electric heated mirrors, electric flip, QH50 power take-off, 90 saddle, PTC heater, block pattern drive wheel tires			

NEW ENERGY PRODUCT



X5000^e Dump Truck



X5000e Dump Truck

Drive			6×4		8×4		
GVW(t)			65	45-55	45-65	45-70	45-90
Main configuration	Cab	Type	Lengthened flat roof	Lengthened flat roof	Lengthened flat roof	Standard	Lengthened flat roof
		Suspension	Hydraulic suspension	Hydraulic suspension	Hydraulic suspension	Hydraulic suspension	Hydraulic suspension
		Seat	Air main seat	Air main seat	Air main seat	Air main seat	Air main seat
		Air conditioner	Single-cooling air conditioner	Electric automatic constant temperature AC	Electric automatic constant temperature AC	Electric automatic constant temperature AC	Electric automatic constant temperature AC
	Motor	Model	TZ380X5030	TZ380XS030	TZ380XS030	TZ380XS030	TZ380XS030
		Rated power(kW)	290	290	290	290	290
	Transmission	Model	S06ADQ	S06ADQ	S06ADQ	S06ADQ	S06ADQ
	Axle	Type	Drum drive axle	Drum drive axle	Drum drive axle	Drum drive axle	Drum drive axle
		Ratio	8.88	7.63	7.63/8.88	7.63	8.88
	Chassis	Dimension (mm)	850×300(8+7+8)	850×300(8+5)	850×300(8+7)/850×300(8+7+8)	850×300(8+7)	850×320(8+7+8)
		Wheel base (mm)	4975+1400	1950+4025+1400	1950+4025+1400/1950+5025+1400	1800+4775+1400	1950+5225+1400/1950+5025+1400
		Suspension	Front and rear multi-leaf springs	Front and rear multi-leaf springs	Front and rear multi-leaf springs	Front and rear multi-leaf springs	Front and rear multi-leaf springs
		Battery	284.39kw.h	422.87kW.h/423.93kW.h	281.91kW.h	281.91kW.h/350.07kW.h	281.91kW.h/350.07kW.h/422.87kW.h
		Tire	12.00R20	11.00R20	12.00R20	12.00R20	12.00R20
	Tipper container		5800x2300x1500	5600/5800×2300(2350)×900/1000/1200/1300/1350/1500	6500×2300/2350×900/1200/15008000×2350×1500	7600/7800×2350×1500	8000×2350×1500
Applicable condition		Mining area stripping, sand and gravel plant	Urban construction sites, construction waste landfills	Transportation of sand and gravel in mining areas	Highway, transportation of sand and gravel from selected mining areas	Highway, transportation of sand and gravel from selected mining areas	
Basic equipment				Electric window lifter, ABS, LED headlight, drum front axle, three-stage boarding pedal, water tank protection grid, power take-off, engineering vehicle bumper, daytime running lights, center lock (with remote control), SHACMAN Telematics			
Options		Electric flip		Electric flip, electric heated mirrors, PTC heater		Electric flip, electric heated mirrors, PTC heater, 12.00R20 (mining pattern), 12.00R20 (off-road pattern)	

H3000S^e
Cement Mixer Truck



H3000Se Cement Mixer				
Drive		8×4		
GVW(t)		35-45		
Electricity replenishment		Charging	Swaping	
Main configuration	Cab	Type	Standard	Standard
		Suspension	Hydraulic suspension	Hydraulic suspension
		Seat	Air main seat	Air main seat
		Air conditioner	Electric automatic constant temperature AC	Electric automatic constant temperature AC
	Motor	Model	TZ400XS033	TZ400XS033
		Rated power(kW)	270	270
	Transmission	Model	S04AD	S04AD
	Axle	Type	16T double-stage axle	16T double-stage axle
		Ratio	6.72	6.72
	Chassis	Dimension (mm)	850×300(8+5)	850×300(8+5)
		Wheel base (mm)	1800+3400+1400/1200	1800+3400+1400/1200
		Suspension	Front and rear few leaf springs	Front and rear few leaf springs
		Battery	350.07kW.h	281.91kW.h/350.07kW.h
		Tire	12R22.5	12R22.5
	Mixer(m³)		12	12
Applicable condition		Urban roads, construction site transportation	Urban roads, construction site transportation	
Basic equipment		Engineering vehicle bumper, electric window lifter, two-stage boarding pedal, drum front axle, center lock (with remote control), SHACMAN Telematics	Engineering vehicle bumper, electric window lifter, two-stage boarding pedal, drum front axle, center lock (with remote control), SHACMAN Telematics	
Options		Three-stage boarding pedal, electric heated mirrors	Three-stage boarding pedal, electric heated mirrors	



L5000^e Municipal Sanitation Truck

L5000e Municipal Sanitation Truck

Drive			4×2
GVW(t)			18-23
Main configuration	Cab	Type	Standard
		Suspension	Front fixed and rear hydraulic suspension
		Seat	Air main seat
		Air conditioner	Electric automatic constant temperature AC
	Motor	Model	TZ230XSHD005/TZ375XS038
		Rated power(kW)	105/175
	Transmission	Model	None/S04ADQ
	Axle	Type	10T 2-speed electric drive axle/10T single-stage axle
		Ratio	None/5.125
	Chassis	Dimension (mm)	850×270(7+4)
		Wheel base (mm)	5300/2200
		Suspension	Front and rear mutil-leaf springs
		Battery	210.56kW.h/281.91kW.h
		Tire	10.00R20
Applicable condition			Municipal sanitation
Basic equipment			Highway vehicle bumper, electric window lifter, two-stage boarding pedal, drum front axle, center lock (with remote control), SHACMAN Telematics
Options			PTC heater



H3000^e Municipal Sanitation Truck

H3000e Municipal Sanitation Truck

Drive			6×4
GVW(t)			18-23
Electricity replenishment			Charging
Main configuration	Cab	Type	Standard
		Suspension	Hydraulic suspension
		Seat	Air main seat
		Air conditioner	Electric automatic constant temperature AC
	Motor	Model	TZ400XS033
		Rated power(kW)	270
	Transmission	Model	S04ADQ
	Axle	Type	11.5T double-stage axle
		Ratio	5.286
	Chassis	Dimension (mm)	970-850×300(8+5)
		Wheel base (mm)	4575+1400/1200
		Suspension	Front and rear mutil-leaf springs
Battery		350.07kW.h	
Tire		11.00R20	
Applicable condition			Urban roads, construction site transportation
Basic equipment			Engineering vehicle bumper, electric window lifter, two-stage boarding pedal, drum front axle, center lock (with remote control), SHACMAN Telematics



SHACMAN *BLUE*

A BRIGHT and Sustainable Future.

SHACMAN steadfastly believes that the future world is sustainable, hence we spare no effort in investing in the research and development of new energy heavy-duty trucks, contributing a share of our strength to the bright future of human society.

A Recyclable and LIMITLESS Energy

Electricity, as the most practical and clean energy of the present era, is profoundly valued by SHACMAN for its cyclical nature and boundless developmental prospects. SHACMAN is destined to be an active participant in the new era of energy transformation.

A Cohesive and Responsible UNION

SHACMAN, in collaboration with its suppliers, distributors, and customers, is dedicated to establishing an efficient and sustainable environmentally friendly supply chain. The formation of the Green Transport Union in 2024 marks the initial stride towards this objective for SHACMAN.