

# ISUZU 20meters insulated boom bucket truck

Specification:

## Main technical parameters of driving status

category	project	unit	data
Chassis parameters	Chassis		ISUZU ELF
	Wheelbase	mm	3815
	Engine Model		ISUZU 4KB1-TCG51
	Engine power	kw	96KW/130HP
	Tire		7.00R16
	Gearbox		Isuzu MSB 6speeds
	Total length	mm	7300
Size parameters	Overall width	mm	2100
	Total height	mm	3200
	Rated voltage GB/T9465	kV	45
	Rated load of working platform	kg	220
	Maximum operating height	m	20
	Maximum operating range	m	11.5
	Working platform rotation	°	± 90
	Platform lifting height	m	0.3

	Maximum lifting weight		kg	240
	Outrigger span	Horizontal	mm	4500
		Vertical	mm	5000
	Platform lifting time		s	$80 \leq t \leq 120$
	Boom rotation speed		s/r	$100 \leq t \leq 120$
	Outrigger retraction time		s	$\leq 50$

## Main technical parameters of operation status

Part Name	Brief Description
Cab	Single row of seats, 3 people, the cab is equipped with air conditioning
Hoardings and walkways	Anti-skid walkway, diamond knurled carbon steel fence, large tool boxes
Power take-off system	Power take-off directly connected to gearbox
Work Platform	100×70×100cm two-person fiberglass platform, 50kV pressure-resistant lining; 3-D single handle to achieve full-directional movement of the working platform (upper arm up / down, upper arm extension / retraction, turntable rotation), including safety trigger function, hydraulic working platform $\pm 100^\circ$ rotation, vertical dumping function; rated load 200kg; emergency stop
Boom type	One folding arm + two telescopic arms
Rotating device	Continuous 360° infinite rotation
Outriggers	Front and rear H-shaped, individually adjustable, with automatic body leveling function
operate	Two sets of hydraulic operating systems for the working platform and the turntable
Control System	Full hydraulic proportional control system, realizing stepless speed regulation, open-loop hydraulic control system

Leveling system	Master-slave hydraulic leveling device
other	Engine ignition and flameout device at the working platform, hydraulic tool interface of the working platform, lining of the working platform, protective cover of the FRP working platform, hydraulic boom amplitude adjustment and rotation, platform lifting device

## Basic functions and safety configuration

name	Brief Description
Outrigger soft leg detection	Real-time detection of outrigger support status, once a loose outrigger is detected  Alarm limit action
Automatic interlocking device for boarding and exiting	Used for interlocking when getting on and off the vehicle to prevent tipping hazards caused by misoperation
Automatic vehicle leveling	After the horizontal outriggers are fully extended, switch to the automatic leveling mode and operate the vertical outrigger extension button to achieve automatic leveling of the vehicle body.
Cylinder non-retracting device	Prevent the hydraulic cylinder from retracting and the working arm from falling when a hydraulic pipeline fails  Safety protection device
	When the system suddenly loses pressure, the outrigger

<b>Outrigger anti-retraction device</b>	cylinders are locked to prevent the vehicle from Vehicle rollover accident
<b>Emergency electric hydraulic pump</b>	Provides emergency power
<b>Emergency stop device</b>	For emergency stop operation
<b>Vehicle level tester</b>	Can detect the vehicle's tilt in both the lateral and longitudinal directions
<b>Engine ignition shut down</b>	The engine can be ignited and shut down at the turntable and platform
<b>Hydraulic interface</b>	Provides quick access for use of hydraulic power tools on the platform
<b>Driving and power take-off interlock</b>	Avoid equipment damage or safety accidents caused by misoperation
<b>seat belt</b>	Prevent operators from falling from heights

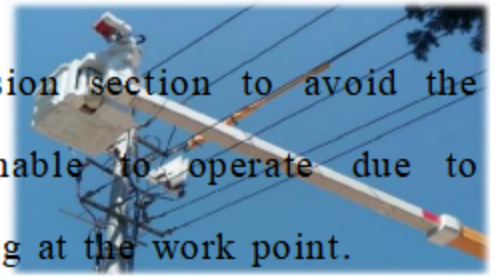


## Main features

The main features are as follows:

### 1. Insulation performance

◆ It has a 0.6m effective insulation pre-extension section to avoid the embarrassment caused by the operator being unable to operate due to insufficient insulation section extension when arriving at the work point.



◆ The fiberglass telescopic arm is the main insulation of the whole vehicle, with an effective insulation length of 2.0m; there is a 0.4m effective insulation gap in the middle of the folding arm, which is the lower insulation, also known as the chassis insulation system, to protect the safety of operators around the vehicle body, with good safety;

◆ The insulating arm part adopts the glass fiber wet winding process, which has high strength and stronger insulation performance



## 2. Operating system

◆ The 3D multi-function handle can be used to control the upper arm rise/lower, upper arm extension/retraction, turntable rotation and other actions, and easily realize the full-directional movement of the working platform.

◆ The full hydraulic multi-way manual proportional valve is simple to operate, easy to control, and has good speed regulation performance. It can realize stepless speed regulation of each action during the work process, smooth action, no impact, and no shaking.

◆ The operation of the dismounting leg is arranged at the rear of the vehicle, which is convenient for the operator to observe the working status, avoid danger

due to visual blind spots, and improve safety and comfort.

◆ The working platform is placed on the platform plane, and it is safe and convenient to enter and exit the working platform.

◆ The pipeline is hidden inside, which is more suitable for complex line phase operation.

### 3. Upper part

◆ The hydraulic system adopts imported valve group with stable performance

◆ The hybrid working arm with folding + telescopic is adopted, which has strong ability to cross obstacles and can quickly reach the working point, which is convenient and fast.

### 4. Working platform

◆ Can rotate  $\pm 100^\circ$

◆ The bucket is lifted by 0.6 m, which increases the scope of operation and improves work efficiency

◆ The platform has two-stage steps to facilitate the staff to enter and exit the operation

◆ Equipped with a rain cover to effectively protect the insulation of the working platform

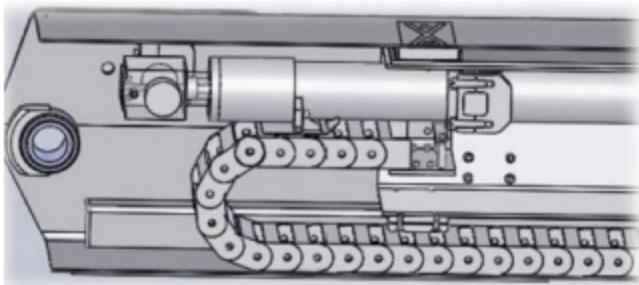
### 5. Insulated telescopic arm floating roller support

◆ Roller roller guide support

◆ The friction between the arms is small, the insulation arm is less damaged, which is conducive to protecting the fiberglass surface and the service life of the working arm

#### 6. Telescopic arm oil pipe drag chain protection

◆ The telescopic arm oil pipe is dragged with a high-strength closed engineering plastic drag chain protection. The oil pipe has a large bending radius and only bears internal oil pressure. The stress state is good, safe and reliable, and has a long service life.



#### 7. Complete safety devices

- ◆ Cylinder anti-retraction device
- ◆ Outrigger anti-retraction device
- ◆ Emergency electric hydraulic pump
- ◆ Interlocking of getting on and off the vehicle and interlocking of the arm
- ◆ Emergency stop device
- ◆ Horizontal state test device
- ◆ Outrigger support force detection device, etc.

#### 8. Practical auxiliary devices

- ◆ Hydraulic tool interface

The platform is equipped with a hydraulic tool interface to facilitate the

operator to use hydraulic tools.

#### ◆ Large-capacity tool box

The tool box has a large capacity, a large length, good sealing, and is convenient for placing insulating tools such as insulating rods.

The tool box and the fence above the walkway form a closed area, which is convenient for placing more items.

◆ Step-type vehicle ladder The step-type vehicle ladder is arranged on the right side of the vehicle and has a large width, making it safer for workers to get on and off the vehicle.