

# HOWO Boom Crane Truck

**12Tons Boom Crane & 7.5m Dropside Cargo Box**

## User's Manual



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## Preface

Thank you for purchasing CS TRUCKS products. For better using your SINOTRUK HOWO NX series 6x4 model telescopic boom crane truck, get the best operating performance, we strongly suggest that before the operation process you could read this manual instructions carefully, and to manipulate the program handily.

The manual detailed describes the performance of boom crane, structure, usage, precautions and maintenance of such knowledge. While showing details of the truck, both pictures and description will together help you get better understanding of how to use truck. Before the operation, the skilled operator should carefully read the contents of the manual.

After master the truck performance characteristics, methods of operation and precautions, then could start to operate this crane truck. In order to ensure the staff turnover after the operation, and properly use of the truck. This manual book must be properly kept, shall not be lost and damage.

----CS TRUCKS

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## Chapter 1. General Description

*CS TRUCKS HOWO 6x4 Boom Crane Truck based on type II HOWO NX 6\*4 Left Hand Drive chassis, equipped with Chinese brand 12Tons telescopic boom crane, the crane model is SQS300, and the crane truck mainly used for light duty thing loading and transportation, and the working aerial can be city street, factory, desert areas and other areas of need.*

*The vehicle designed to fully rely on the advantages of the customized HOWO brand chassis, fully consider the product's convenience and reliability, also the chassis HOWO technology features. The crane is Chinese brand SQS300 model, with maximum loading capacity can be up to 12Tons. As for cargo body, which is newly designed and called vertical corrugated board, we use one-shot steel plate to be riveted on strength auxiliary frame, and can make goods safety during transportation.*

*The HOWO 6x4 Boom Truck equipped with 5tons telescopic boom crane, front and rear hydraulic support legs, and steel cargo body. Customized HOWO 6x4 chassis with cab for the single-row Comfortable seat, nice driving feeling. Therefore, the vehicle is an ideal Mounted Crane Truck mainly for Civic Utility.*



**(Preview for your HOWO 12Tons Loader Crane Truck)**

## Chapter 2, Main Technical Data

### Basic parameter:

Items		HOWO 6x4 Boom Truck
S I Z E	Outer Dimension (L×W×H) (mm)	10000*2500*3950
	Wheelbase (mm)	5825+1350
Kerb Weight (kg)		14500
G E A R	Gearbox brand	HW19710
	Model	10-shift gearbox
	Type	Manual
Cab capacity (includes driver)		2
E N G I N	Brand	WEICHAI
	Model	WP12.400E50
	Type	Six cylinder inline, four stroke, water-cool, turbocharged Inter-cooling, diesel
	Rating Power (kW/HP)	294 / 400

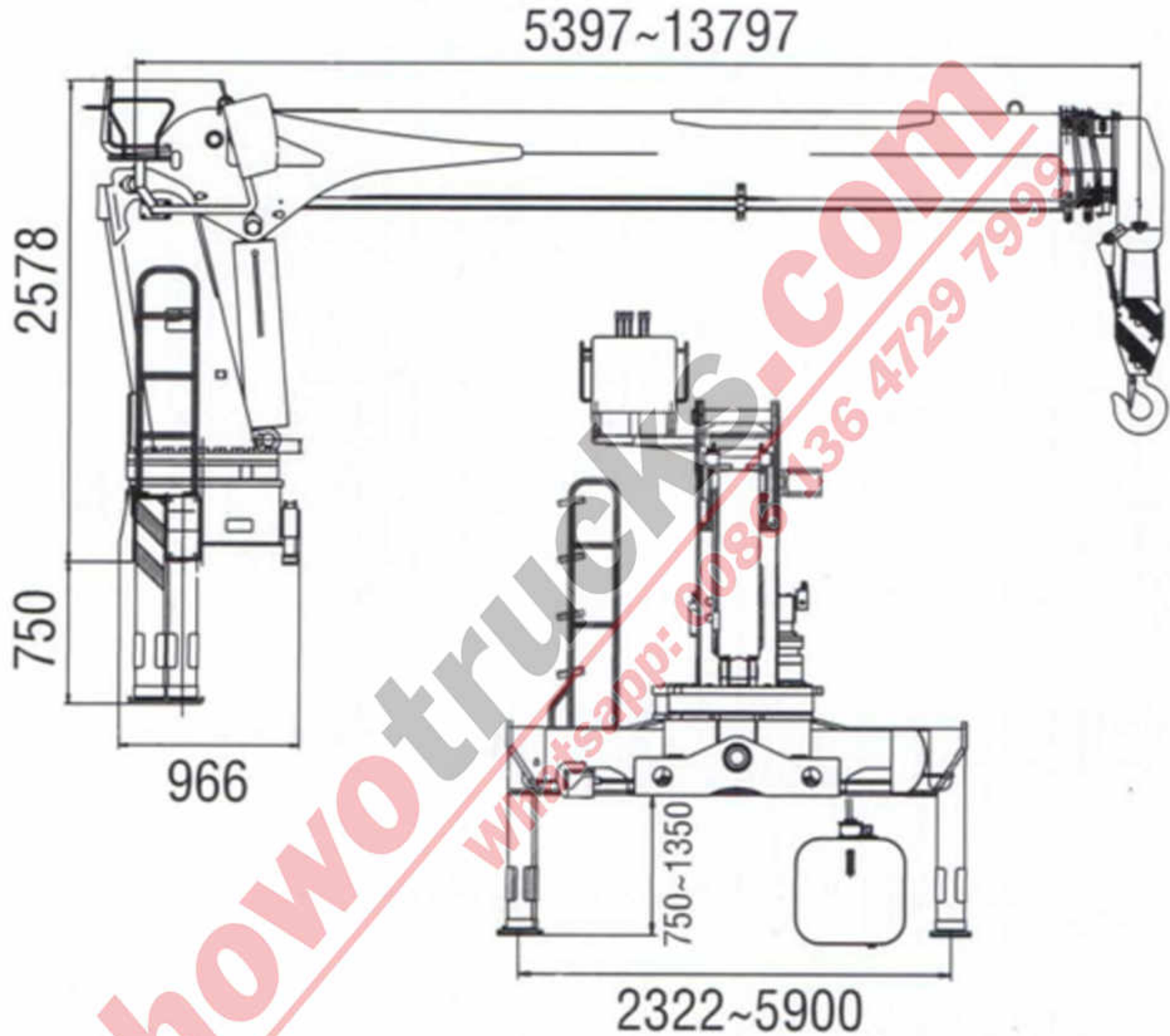
Note: 1. We keep the right to revise the parameters on the list above.

### Water Tanker basic parameter list

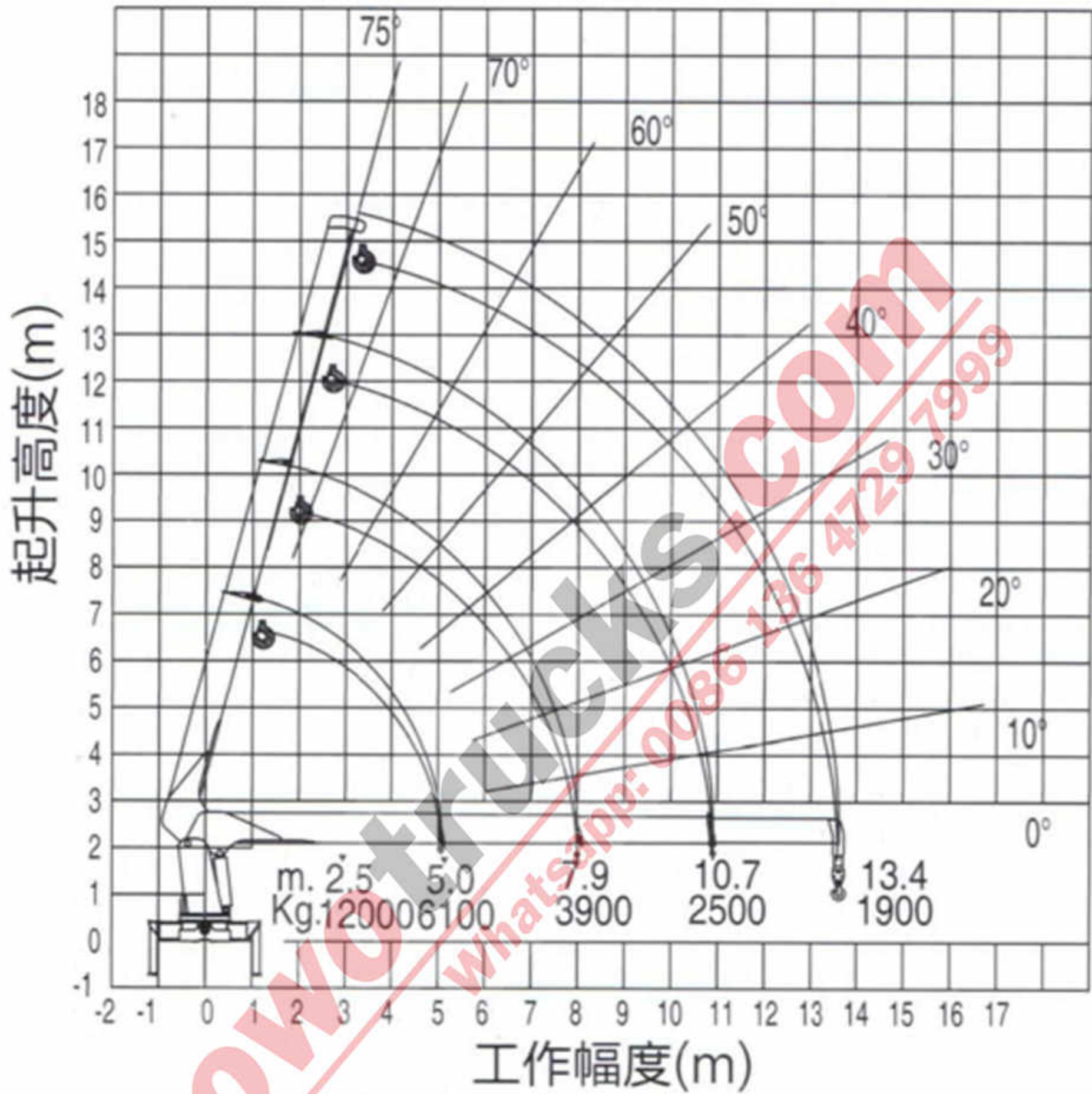
Items		Parameter
Crane	Max. Lifting Capacity	12000 kg
	Boom Type	Telescopic boom crane SQS300
	Crane Weight	4102 kg
	Installation Space	1300 mm
	Max. Lifting Moment	30 mt
	Hydraulic Boom Extensions	4
	Lifting Height	15.5 m
	Working Radius	13.8 m
Cargo Body	Material	Carbon Steel
	Building Mode	Vertical corrugated board, full dropside
	Painting	White

### Chapter 3, Truck Mounted Crane Structure Components

#### i , Boom Truck Structure Introduction



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Above drawing show the working chart for SQS300 boom crane, which has working radius 13.8m.

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PTO switch button

PTO switch button working model:  
 PULL OUT: PTO start working and can operate the crane  
 PUSH IN: PTO stop working and cannot operate the crane



**Please Note: When PTO button is PULL OUT position, the Crane starts working;  
 When PTO button is PUSH IN position, the Crane stop working**



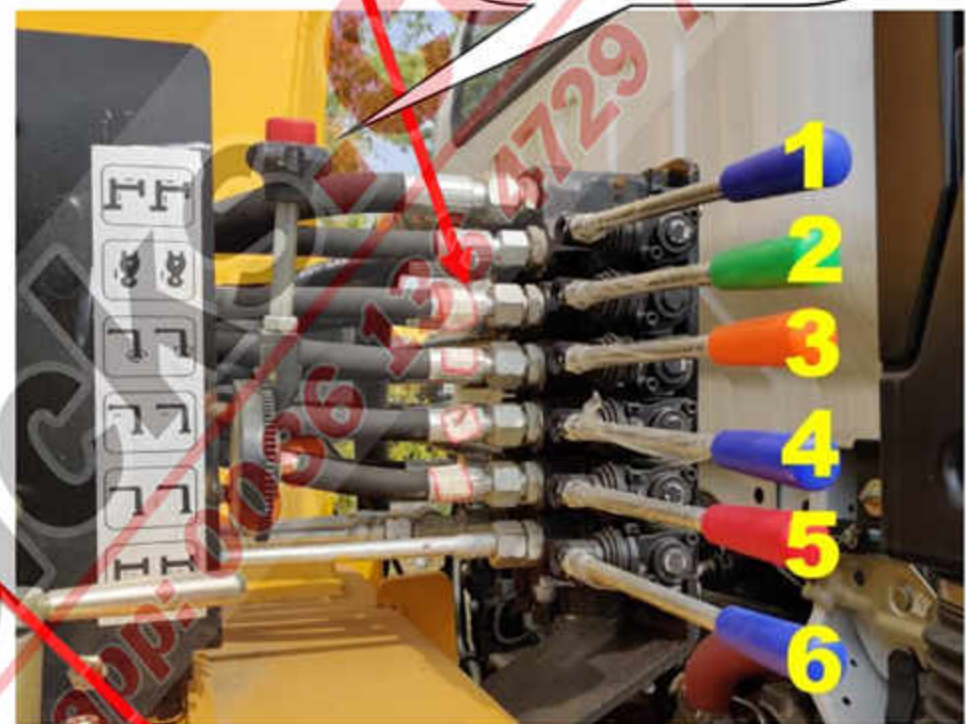
### Control Valves for

1. Boom crane
2. Hook
3. Front hydraulic legs
4. Rear hydraulic legs

Hand Throttle



(Hydraulic legs control valves)



(Boom Crane control valves with Joystick 1~6)



(Control Front Hydraulic Legs)



(Control Rear Hydraulic Legs)

## Chapter 4, Truck Mounted Crane Working Principles

*The operator should fully understand Whole Structure and Working Principle for HOWO 6x4 Boom Truck before any operation. Only trained person can operate this vehicle properly and to prevent unnecessary accidents and equipment damage.*

### **i ,How are the crane trucks working?**

*The HOWO 6x4 Boom Truck makes use of the special power take off (PTO) to get power from the engine, and then transfer the power to the Gear Pump and via hydraulic pipelines to make hydraulic cylinder moving, then can make the crane working. Turn on / off valves and operate the joysticks through the regulated program, the boom crane can working as wanted and then come to all function. Also customized remote control box can realize all functions.*

### **ii ,What is the main component for truck?**

*The truck mounted crane is refitted based on the customized HOWO 6x4 LHD chassis. The refit part includes telescopic boom crane assembly, actuator device, pipeline system and operation system.*

- *Telescopic boom crane assembly: Chinese brand SQS300 model 12Tons crane, which is used for goods loading and transportation.*
- *Actuator device: includes power take off, gear pump, etc., which can pass the power from the chassis to the pump.*
- *Pipeline system helps come to all special functions.*
- *Operation system: Hydraulic joysticks control the front and rear hydraulic legs, boom crane and hook working*

### iii, How to operate Boom Crane Truck? (Very Important)

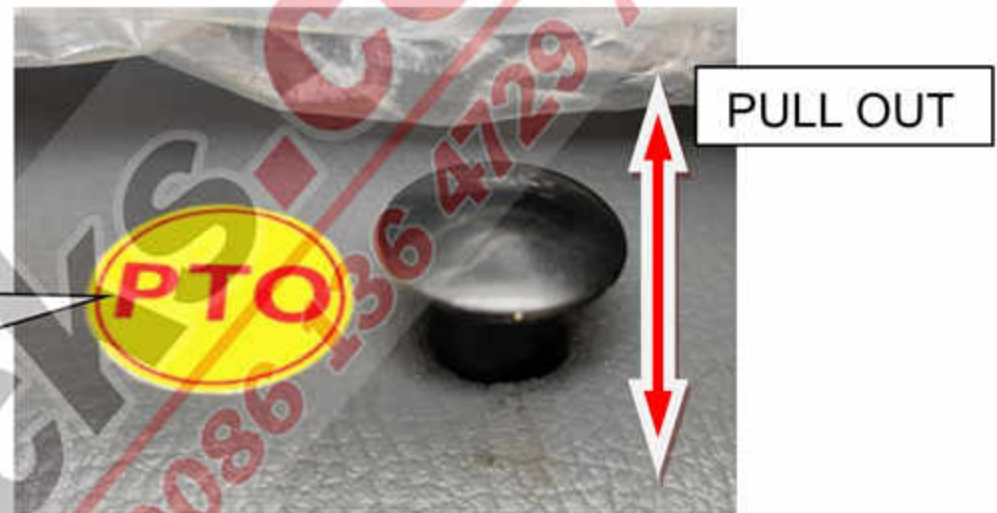
Bellow 1~8 teaches you how to operate the crane truck step by step, please strictly follow them!

**NOTE: THE BOOM CRANE WORKING CAN ONLY HAVE ONE ACTION AT ONE TIME**

(If idle for a long time, please keep the truck engine run for a few minutes. Also, should ensure fuel tank and water tank are enough.)

1. Thoroughly check the boom truck to make sure working environment is good. Start the truck engine; keep the air pressure over 5Mpa, then pull out the PTO switch button to make Gear Pump working.

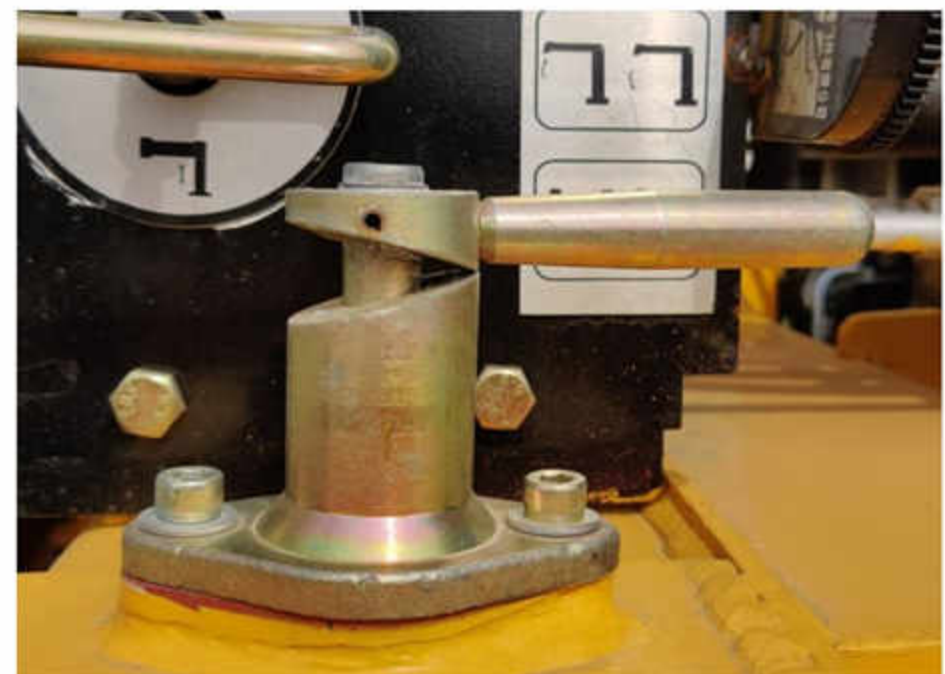
PTO switch button working model:  
PULL OUT: PTO start working and can operate the crane



2. Make sure hydraulic leg lock is OFF Position.

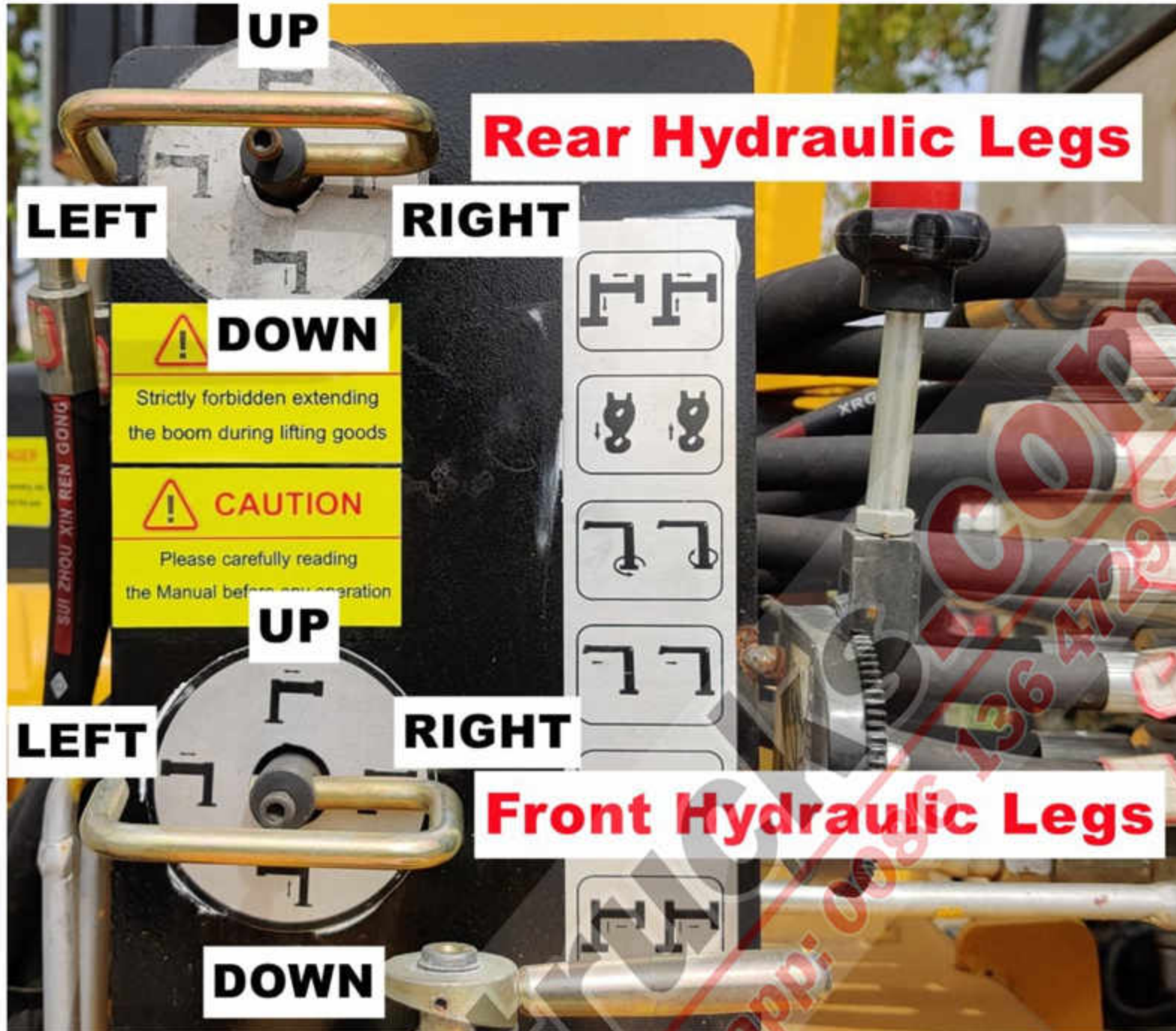


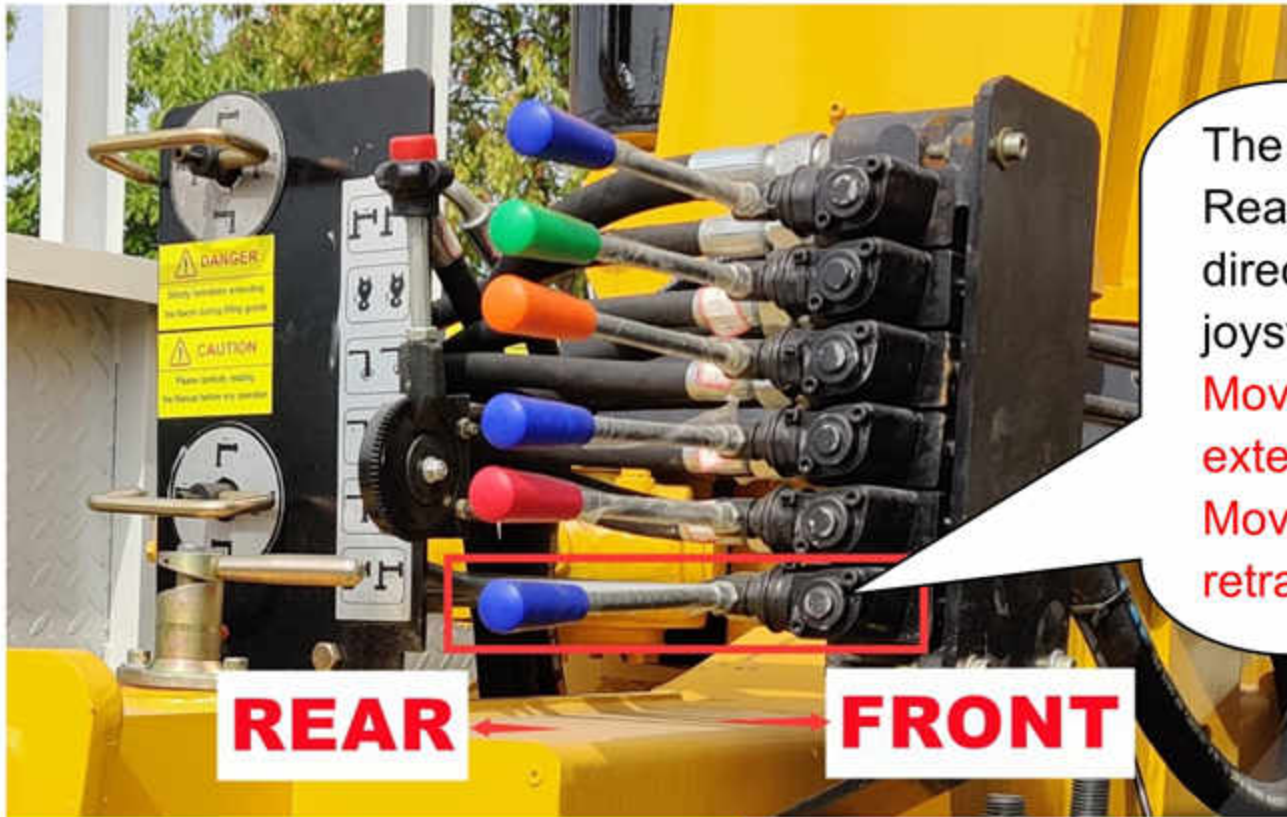
The Lock in ON Position



The Lock in OFF Position

3. After Step 1 and 2, then can operate hydraulic joysticks to front and rear make hydraulic legs working. **The Valve Handle Hook point to which position, means this working.**





The Front Hydraulic Legs Valves and Rear Hydraulic Legs Valves give direction order, and the last marked joystick 1&6 make order realized:  
**Move FRONT: All hydraulic cylinders extend out, legs extend for working**  
**Move REAR: All hydraulic cylinders retract back, legs retract back**

### Firstly, Operation Front Hydraulic Legs

- Adjust valve handle hook point to LEFT and UP position **separately**, turn Joystick 6 FRONT to horizontal extend out front legs.
- Adjust valve handle hook point to RIGHT and DOWN position **separately**, turn Joystick 6 FRONT to vertical extend out front legs.

### Secondly, Operation Rear Hydraulic Legs

- Adjust valve handle hook point to LEFT and UP position **separately**, turn Joystick 1 FRONT to horizontal extend out rear legs.
- Adjust valve handle hook point to RIGHT and DOWN position **separately**, turn Joystick 1 FRONT to vertical extend out rear legs.

4. After front and rear hydraulic legs all fully extend out to working position, you can easily operation Joystick 2~ 5 for boom crane working. Two side have the same functions.



Joystick 2: Move Front---The hook lifting up

Move Rear---The hook falling down

Joystick 3: Move Front---The boom crane clockwise rotation

Move Rear---The boom crane counterclockwise rotation

Joystick 4: Move Front---The boom retract back

Move Rear---The boom extend out

Joystick 5: Move Front---The main boom falling down

Move Rear---The main boom lifting up

5. After working, Carefully check if all system reposition, also push in to stop the PTO, and make it ready for next time working.

PTO switch button working model:  
 PUSH IN: PTO stop working and cannot operate the crane



PUSH IN

## Chapter 5, Others for Attention

After carefully reading the above information, you must be well known how to use the HOWO Truck Mounted Crane; below show some parts you need to pay attention while using the truck.

### i ,Precautions for Use

- Please abide strictly by the following manual:
  1. **Truck Mounted Crane Owner's Manual**
- Carefully examination the crane truck:
  1. Examine all parts, especially steering device, braking device, Suspension, tires and other joints, etc.
  2. Examine Exhaust Braking System, maintenance if necessary.
  3. Examine the tire pressure.
  4. Examine all lights on the truck, including Head Light, Fog Light, Turning Light, Tail Light.
- It is strictly forbidden to operate the Power Take Off (PTO) under the condition of the clutch not separation (Not step the clutch pedal). When release the clutch, you should slowly. The operation of the PTO must only on the condition of neutral for clutch.
- It is better not to do Half-Load transportation, especially for long-distance transport.
- When operating all the Valves and Joysticks, it is not good to overexert, for overexert will influence the Joysticks service life.

### ii ,Maintenance

- The maintenance of the chassis including clutch and transmission gearbox should be properly.
- It should be checked all coupling and lubrication at fixed period to exclude the tight parts, and

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*make sure all parts in good lubrication condition.*

- *Both the Gear Pump, PTO, Transmission Gearbox should be carefully washed, checked and maintenance every year.*
- *The filter should be washed frequently. Exchange it if necessary.*

### iii, Others

- *Boom Crane seals and bracket well prepared with the truck*
- *English Version Truck Manual and Parts Manual*

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