Operation Manual

AS10896.1

H730

Telehandler

PART No.OM-2537050399

Original Instructions

Original Instructions

Thank you for choosing to use this Mobile Elevating Work Platform from LGMG，All models are designed and manufactured according to AS10896.1.

This manual is a guide for safe and proper operation and maintenance of the machine, which introduces technical parameters and mechanism and operation herein.

We sincerely hope that you will read through this manual before attempting to operate the machine for the first time and before repairing and maintaining the machine, and that you will master the operation and maintenance described therein.

The information contained in this manual is correct at the time of publication. However, LGMG has endeavored to deliver the highest degree of accuracy possible. And continuous improvement of our product is a LGMG policy. Therefore, product specifications are subject to change without notice.

Due to the impossibility of foreseeing all possible hazards, therefore, it is not possible to include all safety precautions in this manual and the machine's safety precautions in this manual and the machine's safety instructions. If some operations that are not recommended in this manual, you must ensure that you and others are safe and will not damage the machine. If the security of certain operations cannot be determined, please call LGMG industries or dealer service center.

The precautions for operation and maintenance contained in this manual are only applicable when the machine is used for the specified use. If the machine is used within the scope not listed in this manual, our company will not assume any safety responsibility, which is borne by the user and operator in such operations.

Any prohibited operations in this manual shall not be performed.

This manual should always be placed in the designated location for read. This manual is part of the machine, when the ownership or use right of the machine is transferred, please hand over this manual together. If the manual is lost, damaged or illegible, please replace it promptly.

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Safety Notices

The operator shall understand and abide by the current national and local safety regulations. If such regulations are not available, the safety instructions in this manual shall prevail.

Most accidents are caused by failure to obey operation and maintenance specifications of the machine. To avoid unnecessary accident, please read and follow all warnings and precautions in this manual and on the machine before operation or maintenance.

The safety measures are detailed in the "safety" content in chapter I.

Considering the fact that not all possible hazards are foreseeable, it is impossible for safety notices in this manual and on the machine to cover all safety precautions. If it is necessary to take steps and operations not recommended herein, always protect the safety of yourself and others, and keep the machine from any damage. If the safety of some operations remains uncertain, please consult us or dealers.

The operation and maintenance precautions referred to herein apply only to the intended use of this machine. If the machine is to be used for other purposes than those listed herein, it is the user or operator instead of us that shall take the safety liabilities therefrom.

In no case shall any operations expressively prohibited herein be performed.

For the purpose of this manual, the following signal words are applied to identify safety instructions:

⚠ DANGER - Indicating any existing dangers that, if not avoided, will cause serious injury or even death, and also serious machine damage.

⚠ WARNING - Indicating any potential dangers that, if not avoided, may cause death or serious injury, and also serious machine damage.

⚠ CAUTION - Indicating situations that, if not avoided, may cause minor or moderate injury, and also machine damage or shortened machine service life.

Contents

Chapter 1 Safety

DANGER:Failure to comply with the instructions and safety rules in this manual will result in the occurrence of death or serious injury.

WARNING: Do not operate unless

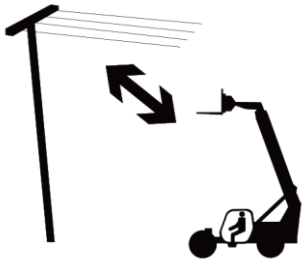
- **You have understood and practiced the rules of safe operation of the machine in this operation manual.**
- **Avoid dangerous situations. Know and understand the safety rules before proceeding to the next step.**
- **Always perform the inspection before operation.**
- **Always perform pre-use functional testing.**
- **Check the workplace**
- **Use the machine only according to its design intent.**
- **The manufacturer's instructions and safety rules--safety operation manual and machine labels shall be read, understood and observed.**
- **You shall read, understand and comply with the user safety rules and workplace regulations.**
- **You must read, understand and comply with all applicable government laws and regulations.**
- **You have received proper training on the safe operation of the machine.**

1.1 Unauthorized installation

Any refit may cause danger. Please consult with Lingong Heavy Machinery Co., Ltd. (LGMG for short) before refitting the machine. LGMG shall not be liable for any damage caused by unauthorized refit.

1.2 Classification of hazardous situations

Electric shock hazard:



- **The machine is not insulated and does not provide protection from electric shock when in contact with or near the wires. Keep adequate safety distances from the power lines and electrical equipment in accordance with applicable government laws and regulations and the instructions in the following table.**

Voltage	Required clearance
0 ~ 50 kV	3m
50 kV ~ 200 kV	5 m
200 kV ~ 350 kV	6 m
350 kV ~ 500 kV	8 m
500 kV ~ 750 kV	11 m
750 kV ~ 1000 kV	14 m

- **The influence of strong winds or gusts on the movement of the Fork, the swing and relaxation of the wires shall be considered.**
- **Keep away from the machine if it comes into contact with live wires. Before cutting off the power supply, it is forbidden for any person to contact or operate the machine.**
- **Do not operate the machine when there is lightning or storm.**
- **Do not use the machine as a ground wire during welding.**

Danger of scalding at high temperature:

- **When the operation was just completed, the temperature of hydraulic oil, oil and water in the engine, oil and water in the radiator is still very high and there is still pressure. At this time, open the tank cap, radiator cap, draining oil or water, or replacing the filter may cause serious burns. The above operations shall be carried out until the temperature drops and the prescribed procedures shall be followed.**
- **Do not touch the relay when the engine is hot to avoid scalding.**
- **Do not remove the engine oil temperature sensor, water temperature sensor and air conditioning water pipe to avoid scalding.**

Danger of misuse:

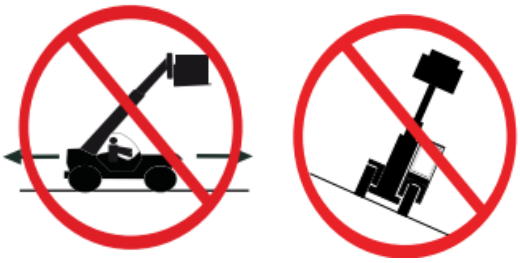
- **If the telescopic handler is not equipped with platform accessories, do not lift personnel.**
- **It is forbidden to use faulty or poorly maintained machines. Stop using defective/damaged machines.**
- **It is forbidden to lean the machine against the structure to stabilize the structure.**
- **Do not climb onto the machine cover.**
- **It is forbidden to replace parts that are vital to the stability of the machine with parts of different weights or specifications.**
- **It is forbidden to replace factory-installed tires with tires of different specifications or layers.**

- Machine parts that affect safety and stability in any way shall not be changed or disabled.
- Do not disable the safety device.
- Do not operate the machine controls suddenly.
- During cleaning, it is forbidden to directly align the water gun with the engine exhaust port, electrical parts, and batteries, etc.

Danger of falling:

- Access to the cab using suitable handrails and provided steps; Keep 3 contact points (hands and feet) on the steps and handrails for access to the cab.
- Never grasp the joystick or steering wheel when installing or removing the machine.
- It is forbidden to use fork truck to lift personnel.
- It is forbidden to drill holes in the fork, and do not heat or weld the fork.

Danger of tip-over:



- Increase the load strictly according to the load curve graph.
- Ensure that the center of gravity of goods are close to the inside of the fork and do not drag the goods.
- Ensure that the road surface can support the machine weight, including the rated load.
- Avoid sudden start-stop, steering and driving, and prevent load from overturning.
- Do not use the machine at wind speeds above level 6.

Windscale	Description	Wind speed(m/s)	Wind speed(km/h)	Effects on land
0	Calm	< 0.3	0-1	Smoke rises vertically.
1	Light air	0.3-1.5	1-5	Direction of wind shown by smoke.
2	Light breeze	1.6-3.3	6-11	Wind felt on face; leaves rustle; wind vane moves.
3	Gentle breeze	3.4-5.4	12-19	Leaves and small twigs in constant motion; wind extends light flag.
4	Moderate breeze	5.5-7.9	20-28	Wind raises dust and paper; small branches move.
5	Fresh breeze	8-10.7	29-38	Small trees with leaves begin to sway; crested wavelets form on inland waters.
6	Strong breeze	10.8-13.8	39-49	Large branches move; wires and ventilation ducts whistle; umbrellas difficult to control.
7	Near gale	13.9-17.1	50-61	Whole trees sway; walking against wind is difficult.
8	Gale	17.2-20.7	62-74	Twigs break off trees; progress on foot is seriously impeded.
9	Strong gale	20.8-24.4	75-88	Buildings slightly damaged; roof and chimney tiles blow off.

- Do not drive and raise boom on slope exceeds the rated slope of the machine.
- Do not replace components of different weights or specifications that are critical to stability.
- It is forbidden to use outrigger or leveling cylinder to turn the machine over. The leveling cylinder and outrigger are only used to adjust the machine to level.
- Do not exceed the rated load of the machine.
- Do not drive at high speed under boom lift conditions.
- In high-speed driving mode, only front-wheel steering can be used.
- Transport the goods as low as possible and bind the load to limit its movement.
- Always keep the tire pressure within the normal range.
- Do not raise the boom when the chassis is not horizontal (0 °).

⚠ Danger while driving:

- Before moving the machine, make sure the road is clear and sound the horn.
- Check the working condition of the rearview mirror.
- The steering mode can only be changed when the machine is stationary or stopped.
- It is forbidden to go downhill at high speed.
- It is forbidden to drive fast in narrow or messy areas. The vehicle speed shall be controlled during turning or sharp turning.
- Excessively steep slope or unstable surfaces shall be avoided.
- Under no circumstances should you drive on an excessively steep slope.
- Never put the machine at N gear when going downhill.
- It is forbidden to drive on slope that exceeds the rated slope of the machine.

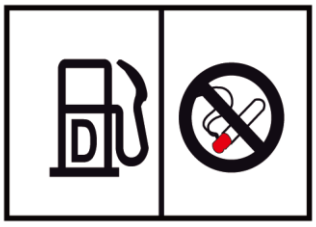
⚠ Danger of explosion/fire:

- The battery contains acidic substance. Wear protective clothing and glasses when using battery.
- Avoid spillage or contact with the

acidic substance in the battery. Neutralize spilled battery acidic substance with soda and water.

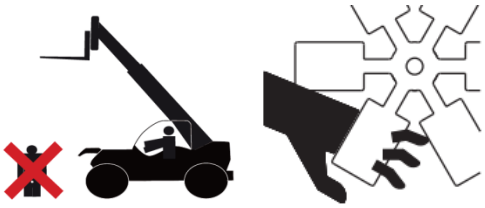
- Do not operate the machine in an explosive or flammable environment.
- Do not touch high temperature parts.
- Do not touch battery terminals with metal objects.
- Do not repair the machine near sparks, open flames, lighted cigarettes.
- Do not expose batteries or electrical component to water, (high-pressure spray gun or rain).

Chemical hazard:



- Do not allow engine to operate in a closed, narrow place, which can lead to the accumulation of toxic gases.
- Do not add fuel while the engine is running, and do not allow the fuel system to work near open flames, sparks, or high temperature. The engine fuel is flammable and may cause fire and explosion.
- Do not attempt to repair or tighten any hydraulic hose or joints while the engine is running or the hydraulic system is under pressure.
- Do not check by hand for leaks, pressurized hydraulic oil may penetrate the skin. Replace with cardboard or paper. When checking the hydraulic system, wear gloves and goggles to prevent liquid splashing.

Danger of crushing and collision:



- **When lifting and lowering the boom or before driving, check whether there are obstacles in the working area and whether there are any obstacles next to and under the boom.**
- **It is forbidden for personnel to work, stand or walk under the raised boom.**
- **When driving, non-operators must stay away from the machine.**
- **When driving, adjust the position of the boom to provide the best possible visibility and avoid any blind spots.**
- **When driving, the seat belt must be fastened.**
- **When driving, consider the parking distance of the machine, the influence of visibility reduction and blind spots.**
- **Keep away from the rotating parts on the machine and the parts that may be clamped.**
- **When operating the machine, please stay away from the tires, chassis, and other steering components.**
- **When rotating the turntable, pay attention to clarify the position of the boom and the tail of the turret.**
- **Make sure that the turret is fixed with a turret rotation lock before transportation.**
- **Make sure to unlock the turret during operation.**

Danger of uncontrolled movement:

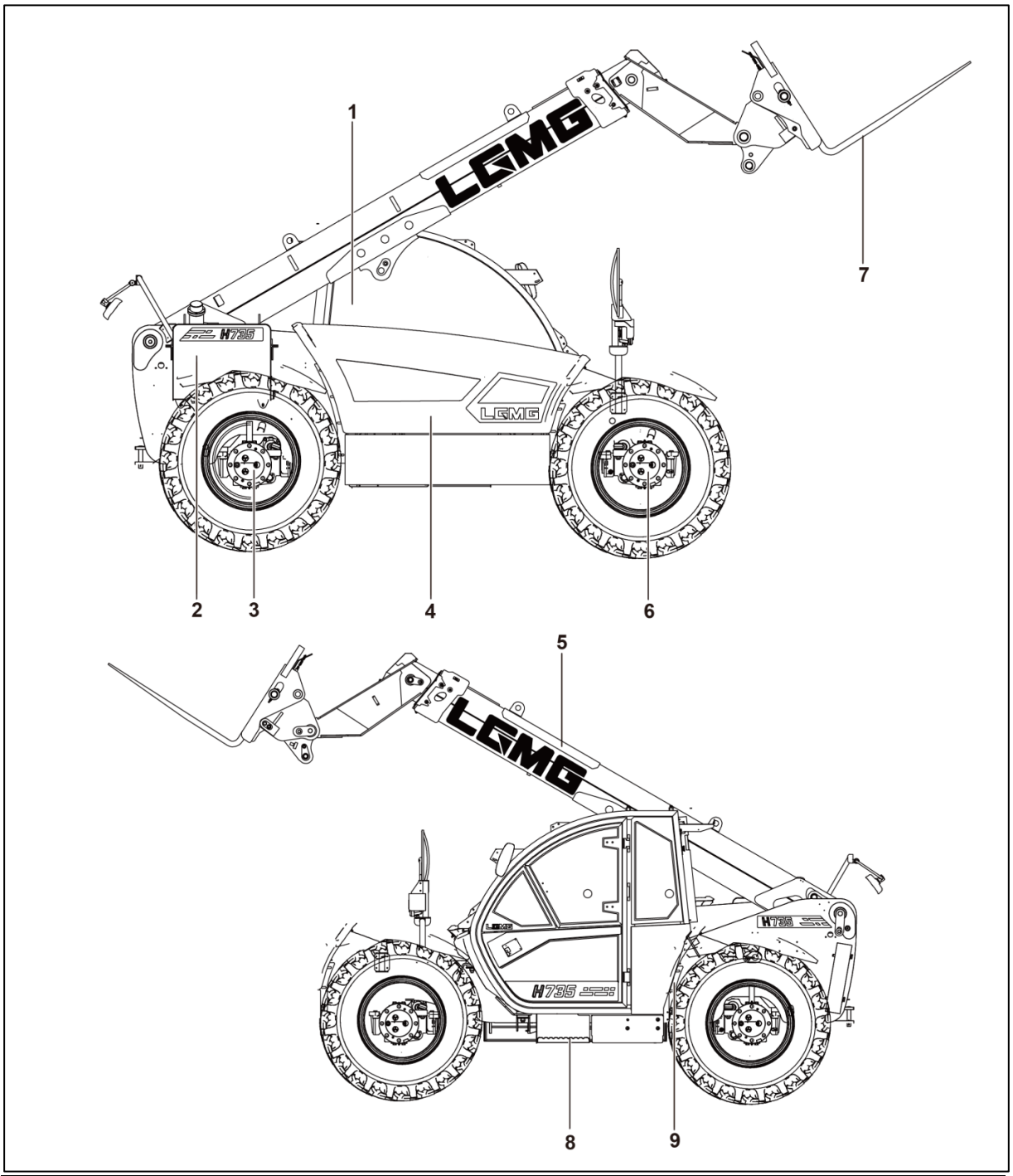
- **Never use damaged or faulty machines.**

Always comply with the following rules:

- **Keep a sufficient distance from the high-voltage line.**
- **Keep sufficient distance from generator, radar and electromagnetic field.**

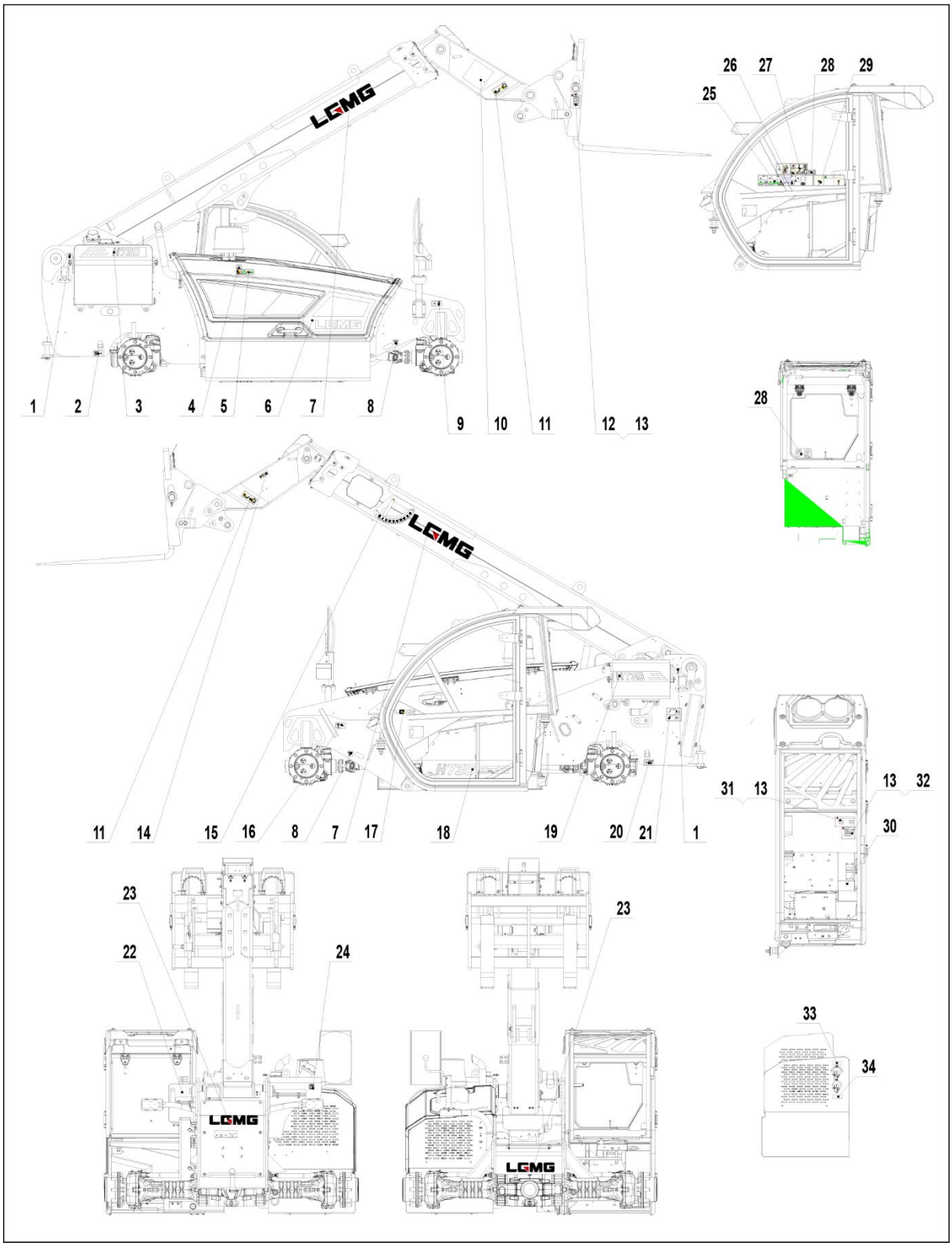
Chapter 2 Product Introduction

2.1 Legend of the whole machine



No.	Name	No.	Name
1	Cab	6	Front axle
2	Fuel tank	7	Accessory - fork
3	Rear axle	8	Ladder
4	Engine and accessories	9	Hydraulic oil tank
5	Boom		

2.2 Decals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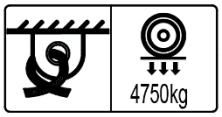
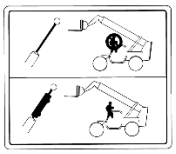
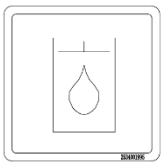
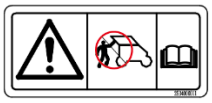
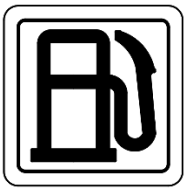
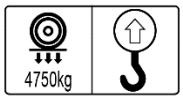
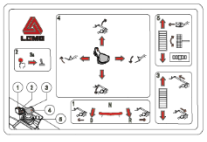
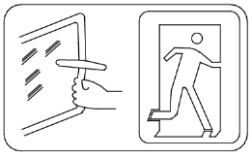
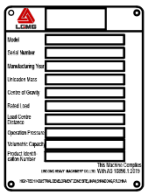
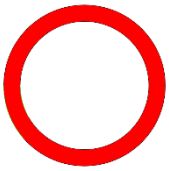
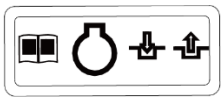
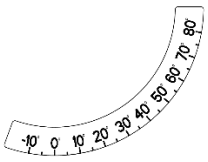
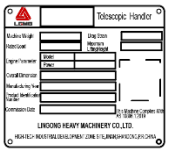
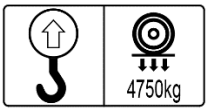
Name	Decals	Name	Decals
1 Decal-Lifting decal		19 Decal-Model	
2 Decal-Anchoring & wheel load		20 Decal-Anchoring & wheel load	
3 Decal-Model		21 Decal-Maintenance attention decal	
4 DECAL		22 Decal-Hyd oil decal	
5 Decal-In-box maintenance attention		23 Decal-LOGO	
6 Decal-Model on hood		24 Decal	
7 Decal-LOGO		25 Decal-Warnings	
8 Decal-lifting eye		26 Decal-Range of motion	
9 Decal-Lifting & wheel load		27 Decal-Combination handle operation decal	
10 Decal-SWL 3T		28 Decal-Safe escape	
11 Decal-Anti-squeeze safety		29 Power line electric shock mark	

12 Apparatus nameplate		30 Decal	
14 Decal-Change the instructions quickly decal		31 Cab nameplate	
15 Boom angle ruler		32 Complete machine nameplate	
16 Decal-Lifting & wheel load		33 Decal-Battery isolation decal	
17 Decal-Metal word on door		34 Start motor isolation	
18 Decal-Model			

2.3 Machine purpose

This machine is a telescopic boom fork loading truck equipped with telescopic boom for lifting, moving and placing materials.

Do not lift personnel, unless the telescopic handler is equipped with platform accessories.

WARNING:

- All other uses or modifications must be approved by Lingong Heavy Machinery Co., Ltd.
- Driving on soft, unstable or messy ground is not allowed.
- It is strictly prohibited to use it in places with strong magnetic fields that exceed the maximum allowable wind speed, explosive environment, storm.

2.4 Machine parameters

1. Overall performance parameters

Item		Parameter	Item	Parameter
Rated load (kg)		3000	Boom lifting time (s)	5~15
Total weight (kg)		6900	Boom lowering time (s)	5~15
Maximum working height (m)		6.9	Boom extension time (s)	5~15
Maximum horizontal reach (m)		4	Boom retraction time (s)	5~15
Forward	First gear speed (km/h)	8	Extension time of leveling cylinder (s)	5~15
	Second gear speed (km/h)	24.9	Retraction time of leveling cylinder (s)	5~15
Reverse	First gear speed (km/h)	8	Max. braking distance (no-load, stowed) (24.9 km/h) (m)	≤11
	Second gear speed (km/h)	24.9	Minimum turning radius (m)	3.3
Drive type		4WD, 4WS	Theoretical max. gradeability (no-load, stowed)	45%

2. Main dimensions

Item	Parameter	Item	Parameter
Overall length (mm)	5011	Wheelbase (mm)	2760
Overall width (mm)	2300	Track width (mm)	1890
Overall height (mm)	1990	Min. ground clearance (mm)	310

3. Engine system

Item	Parameter	Item	Parameter
Model	V3307CDI-T-EU4e	Rated speed (r/min)	2200
Displacement (ml)	3331	Maximum torque (Nm)	261.1/1500rpm
Rated power (kW)	54.6	Emission standard	EU Stage III

4. Drive train

Item			Parameter
Transmission	Type		MT
	Gear		2 forward gears and 2 reverse gears
	Gear ratio	Forward gear	4.286/1.359
		Reverse gear	4.286/1.359
Front axle	Overall gear ratio		21.81
	Brake type		Multi-disc wet brake
Rear axle	Overall gear ratio		21.81
	Brake type		Multi-disc wet brake
Wheel assembly	Tire Model		385/65D22.5
	Inflation pressure (MPa)		0.5

5. Hydraulic system

Item	Parameter
Type	Load sensitive system
Traveling pump displacement (ml/r)	46
Working pump displacement (ml/r)	45
Drive motor displacement (ml/r)	60
Maximum working pressure (MPa)	26.5
Steering system pressure (MPa)	19
Brake system pressure (MPa)	7.2

6. Electronic control system

Battery	Output voltage (V)	12
	20-hour Ah	180
Control system	Voltage (V)	12

7. Refilling capacity

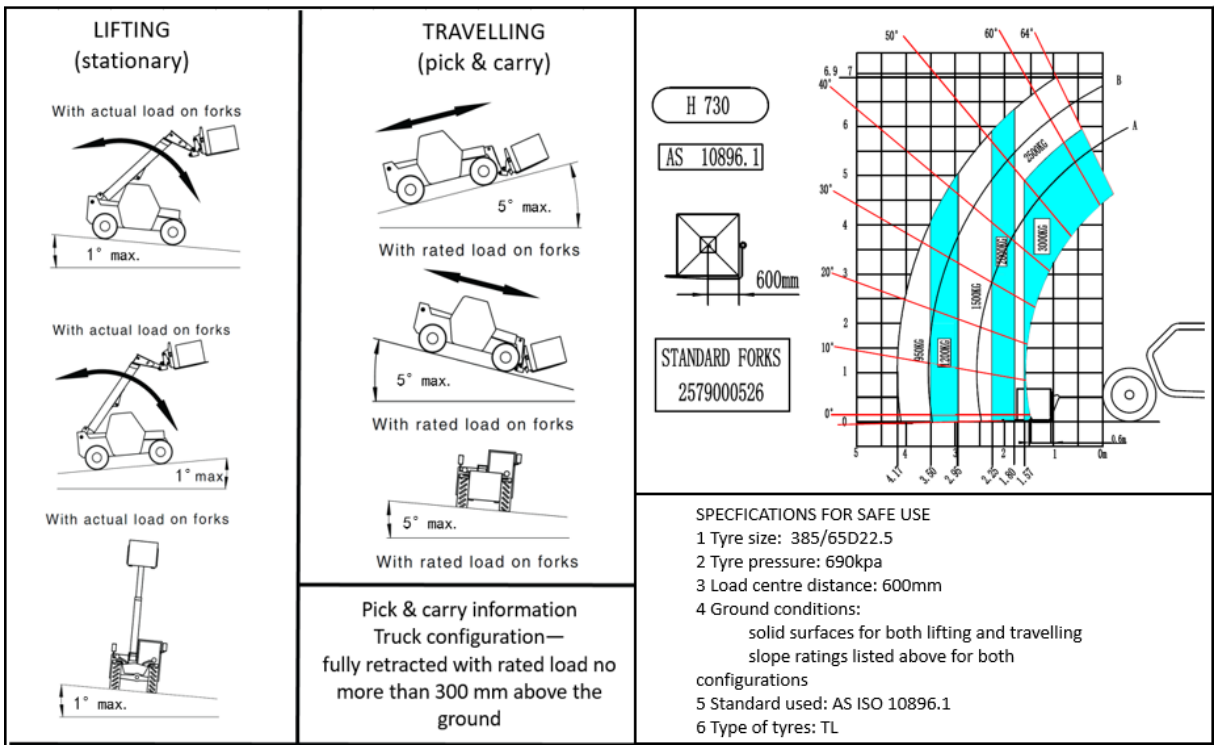
Item	Condition	Grade	Capacity	Remarks
Hydraulic oil	Minimum temp.>-25 ℃	L-HV46 low temp. hydraulic oil	75L	Recommended Chevron
	-40 ℃ <minimum temp. ≤-25 ℃	L-HS32 ultra-low temp. hydraulic oil		
	Minimum air temp. ≤-40 ℃	No. 10 Aviation hydraulic fluid		
Engine oil	Working environment temp. -20℃ ~ 40℃	15W-40	9.5L	API CH-4
	Working environment temp.: -25℃ ~ 30℃	10W-30		
	Working environment temp.: -30℃ ~ 30℃	5W-30		
	Working environment temp.: -35℃ ~ 20℃	0W-20		
Diesel fuel	Ambient temp. ≥4°C	#0 diesel fuel	100L	EN590 ULSD
	Ambient temp. ≥ -5ºC	#-10 diesel fuel		
	Ambient temp. ≥ -14°C	#-20 diesel fuel		
	Ambient temp. ≥ -29°C	#-35 diesel fuel		
Antifreeze	The lowest temp. ≥ -25°C	The ethylene glycol content is 50%	10L	Meet ASTM D6210 standard

Item	Parameter	Item	Parameter
Hydraulic oil	75 L	Front axle gear oil	9.6 L
Diesel fuel	100 L	Rear axle gear oil	9.6 L
Engine oil	9.5 L	Transmission gear oil	4 L
Antifreeze	10 L		

8 Vibration data

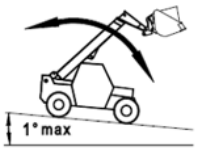
Measuring position	Test basis	Driver	Mean value of vibration acceleration/(m/s²)
Whole body vibration in the seat	EN 13059	75kg	1.56

9. Range of motion

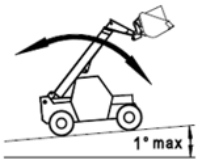


LIFTING
(stationary)

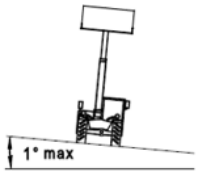
With actual load on bucket



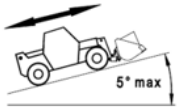
With actual load on bucket



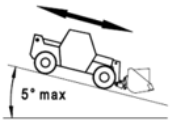
With actual load on bucket



TRAVELLING
(pick & carry)



With rated load on bucket



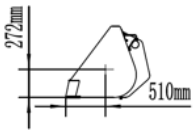
With rated load on bucket

With rated load on bucket

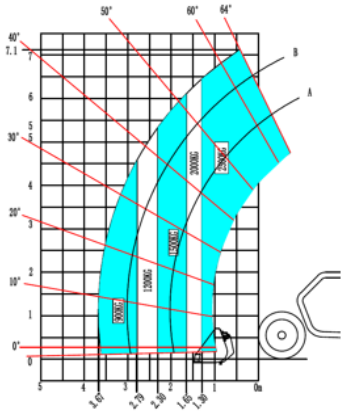
Pick & carry information
Truck configuration—
fully retracted with rated load no more than 300 mm above the ground

H 730

AS 10896.1



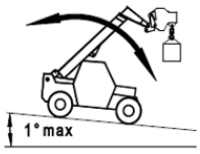
1.0 CU BUCKET
2579000612



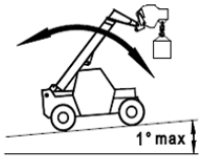
SPECFICATIONS FOR SAFE USE
1 Tyre size: 385/65D22.5
2 Tyre pressure: 690kpa
3 Load centre distance: 600mm
4 Ground conditions:
solid surfaces for both lifting and travelling
slope ratings listed above for both configurations
5 Standard used: AS ISO 10896.1
6 Type of tyres: TL

LIFTING
(stationary)

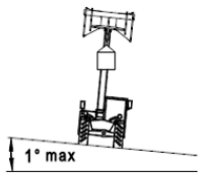
With actual load on hook



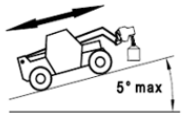
With actual load on hook



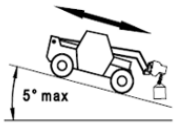
With actual load on hook



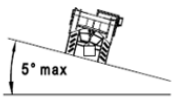
TRAVELLING
(pick & carry)



With rated load on hook



With rated load on hook



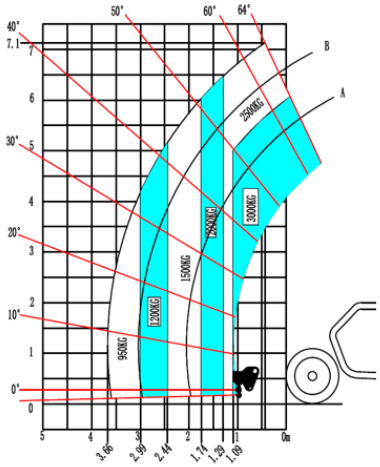
With rated load on hook

Pick & carry information
Truck configuration—
fully retracted with rated load no more than 300 mm above the ground

H 730

AS 10896.1

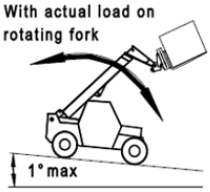
HOOK
2579000266



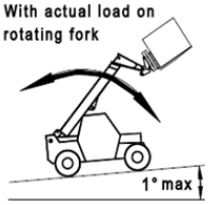
SPECFICATIONS FOR SAFE USE
1 Tyre size: 385/65D22.5
2 Tyre pressure: 690kpa
3 Load centre distance: 600mm
4 Ground conditions:
solid surfaces for both lifting and travelling
slope ratings listed above for both configurations
5 Standard used: AS ISO 10896.1
6 Type of tyres: TL

LIFTING
(stationary)

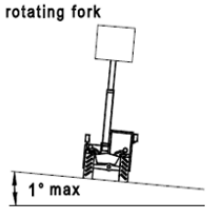
With actual load on rotating fork



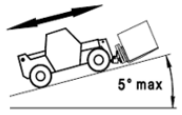
With actual load on rotating fork



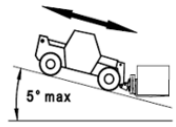
WIth actual load on rotating fork



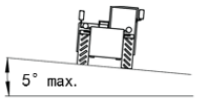
TRAVELLING
(pick & carry)



With rated load on rotating fork



With rated load on rotating fork

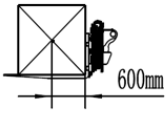


With rated load on rotating fork

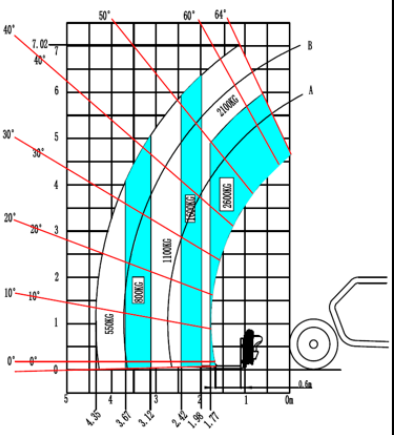
Pick & carry information
Truck configuration—
fully retracted with rated load no more than 300 mm above the ground

H 7 3 0

AS 10896.1



ROTATING FORKS
2579000601



SPECFICATIONS FOR SAFE USE
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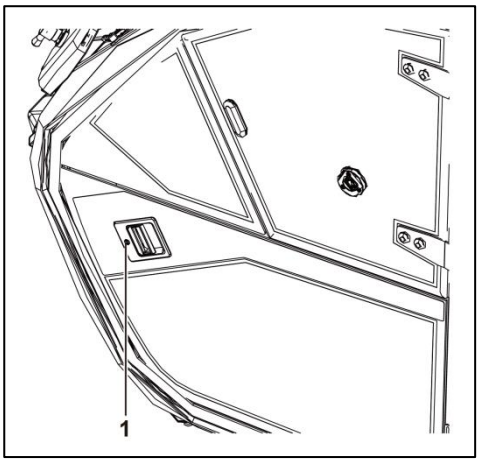
2 Tyre pressure: 690kpa
3 Load centre distance: 600mm
4 Ground conditions:
solid surfaces for both lifting and travelling
slope ratings listed above for both configurations
5 Standard used: AS ISO 10896.1
6 Type of tyres: TL

Chapter 3 Use of Vehicles

3.1 Operation of doors

WARNING: Never drive before the door is closed!

3.1.1 Use door switch from outside the vehicle



Open the door: the door is in a non-locked state, and the door can be opened by pulling the handle outwards; If the door is locked, insert the key, turn it 180 degrees clockwise, and then pull the handle outward to open the door.

Close the door: just close the door.

Lock the door: after closing the door, insert the key, rotate it by 180 degrees counterclockwise and withdraw the key. After locked, the door cannot be opened by pulling the outer handle.

3.1.2 Use the door switch from the inside of the car

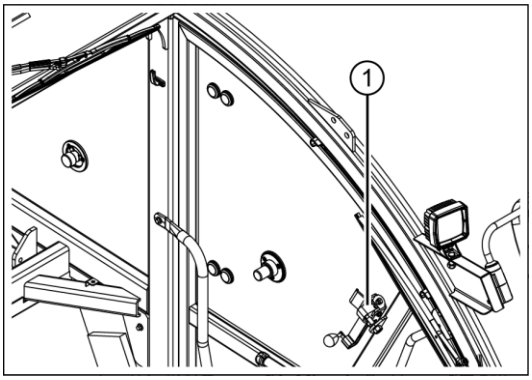
Open the door: Pull the door handle backward and then push the door outward to open the door.

Close the door: close the door directly.

3.1.3 Door side window

Side Door Window Mode I
Side Door Window Open

1) Activate the parking brake to keep the vehicle stationary.

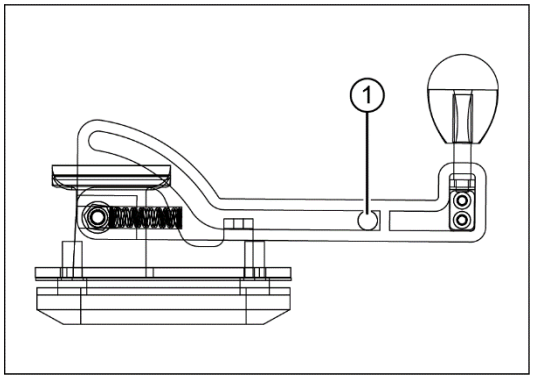


1 Glass handle

2) Pull back the glass handle to detach it from the handle groove.

Risk of Component Damage
Be careful when pulling back the glass handle to detach it from the groove.

Excessive force may damage the glass handle.



1 Locating Hole

3) Rotate the glass handle downward by 90 degrees, then push the glass handle outward to secure it into the locating hole.

Closing the Side Door Window

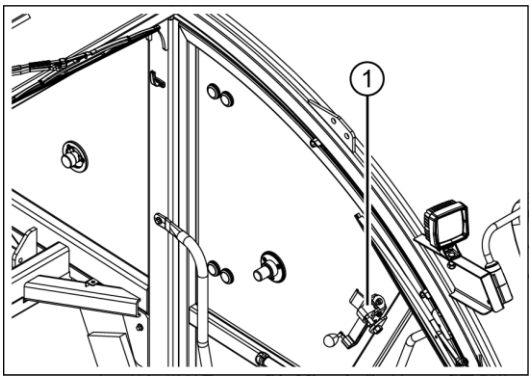
1) To close the side door window, simply operate it oppositely.

⚠ Risk of Component Damage

Be careful when pulling back the glass handle to detach it from the locating hole and groove.Excessive force may damage the glass handle.

Side Door Window Mode II
Side Door Window Open

1) Activate the parking brake to keep the vehicle stationary.



1 Glass handle

2) Pull back the glass handle to detach it from the handle groove.

3) Rotate the glass handle downward by 90 degrees, then push the side door window outward.

4) Pull the glass handle backward to detach it from the stopper groove.

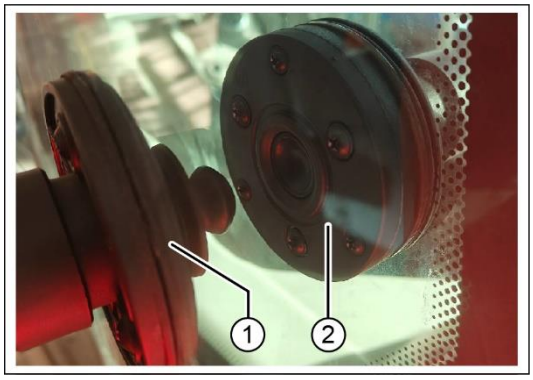
⚠ Risk of Component Damage

Be careful when pulling back the glass handle, gently detach it from the groove and stopper groove. Excessive force may damage the glass handle.

5) Rotate the glass handle upwards by 90 degrees, then insert the handle into the groove.

⚠ Risk of component damage

When the side door window is open, the glass handle must be reinserted into the groove; otherwise, the glass may be damaged.



1 Positioning lock Ⅰ

2 Positioning lock Ⅱ

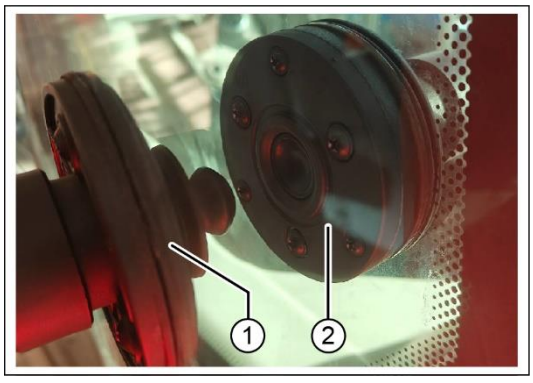
6) Push the side door window outward to engage positioning lock I into positioning lock II.

⚠ Risk of component damage

1 Before using the positioning lock to secure the front, observe whether Positioning Lock I and Positioning Lock II are concentric. If Positioning Lock I and Positioning Lock II are not concentric, adjustment is required. Please refer to the "Maintenance Manual" for specific adjustment methods.

2 When using the positioning lock to secure the side door window, gently push the side door window.

Side Door Window Closed



1 Positioning Lock Ⅰ

2 Positioning Lock Ⅱ

1) To unlock the side door windows, press the "PUSH" button corresponding to Positioning Lock I or Positioning Lock II.

Note: When the driver is inside the cab, Positioning Lock II can be pressed from within the cab; when the driver is outside the cab, Positioning Lock I can be pressed from the outside of the cab.

2) Pull the side door window inward.

3) Pull the glass handle backward to detach it from the fixed groove.

4) Insert the glass handle into the stopper groove and continue pulling the side door window inwards.

Note: Please do not insert the glass handle into the locating hole.

5) After rotating the glass handle upward by 90 degrees, simply reinsert the handle into the groove.

⚠ Risk of component damage

Be careful when pulling back the glass handle to detach it from the groove. Excessive force may damage the glass handle.

3.2 Cab Electrical Layout

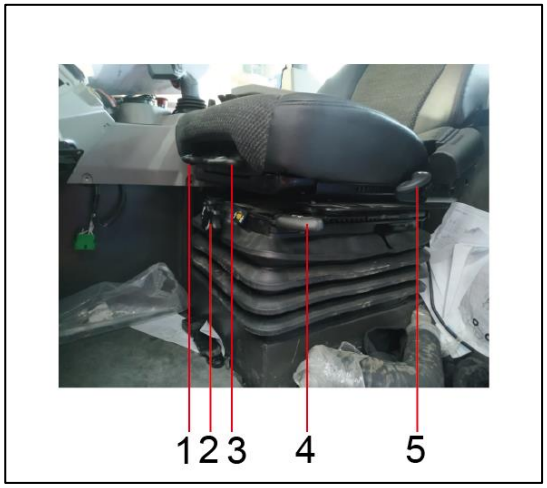
Item	Name	Item	Name
1	Mode selector switch	5	Rocker switch
2	Air conditioning panel	6	Hydraulic joystick
3	Override switch	7	Emergency stop button
4	Gear selector switch	8	Combination switch knob

3.3 Cab interior device

3.3.1 Seat

The main parameters of the seat

Project	Parameter
Seat width	460mm
Seat height	830mm
Fore-and-aft adjustment travel	80mm
Backrest angle adjustment	Forward tilt 27.5°
	Back tilt 12.5°
Driver weight adjustment range	45~130kg
Floating travel	±30～±65mm



1) Seat adjustment operation method:

a) Seat cushion inclination adjustment: move the adjusting handle 3 upward, apply a downward force or upward force to the front end of the seat cushion, lower or raise the front end of the seat cushion to the required position, and release the handle.

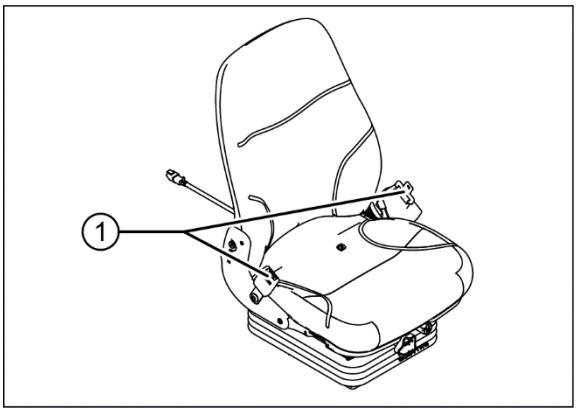
b) Damping effect adjustment: according to the driver's weight and road conditions, rotate handle or joystick 2 to adjust to a suitable position.

c) Adjustment of front and rear slip of seat cushion: lift up the slide rail joystick 1, adjust the seat cushion to the required position, and release the slide rail joystick.

d) Fore-and-aft adjustment of the seat: lift up the slide rail joystick 4, adjust the seat to the required position, and release the slide rail joystick.

e) Backrest angle adjustment: move the adjusting handle 5 upward, adjust to the required position, and loosen the handle.

3.3.2 Seat belt



1. Seat belt

1) Sit on the seat correctly.

2) Check whether the seat belt is twisted or not.

3) Place the seat belt at the hip horizontal

position.

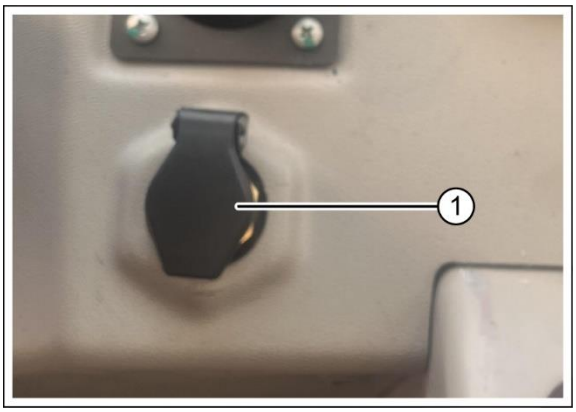
4) Tie the seat belt and check whether it is locked or not.

5) Adjust the Seat belt to fit your body shape. Do not squeeze your hips or relax too much.

6) Release the Seat belt: press the red button lock catch, and then pull out the Seat belt.

⚠ DANGER: In any case, if the seat belt is defective (fixing, locking, cutting, tearing, etc.), telescopic handler shall not be used. The seat belt should be repaired or replaced immediately.

3.3.3 Key switch



Model	H730	Remarks
Location	Purpose	
P	Initial position	
O	/	
I	Engine off, instrument lamp on, driving position	
II	/	
III	Starting engine	Automatic reset to drive gear

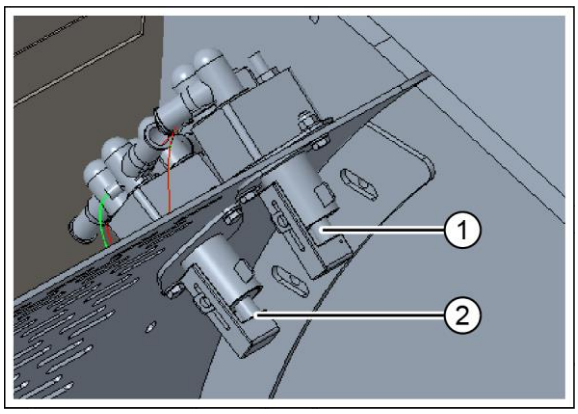
3.3.4 Emergency stop button

Once a dangerous situation occurs, press the button and the engine will stop immediately.

Reset the emergency stop button before restarting the vehicle, otherwise it cannot be started.

⚠ WARNING: Before press the button, be sure to be prepared for the sudden stop of all hydraulic actions.

3.3.5 DC Power Switch



1 Yellow DC power switch
2 Red DC power switch

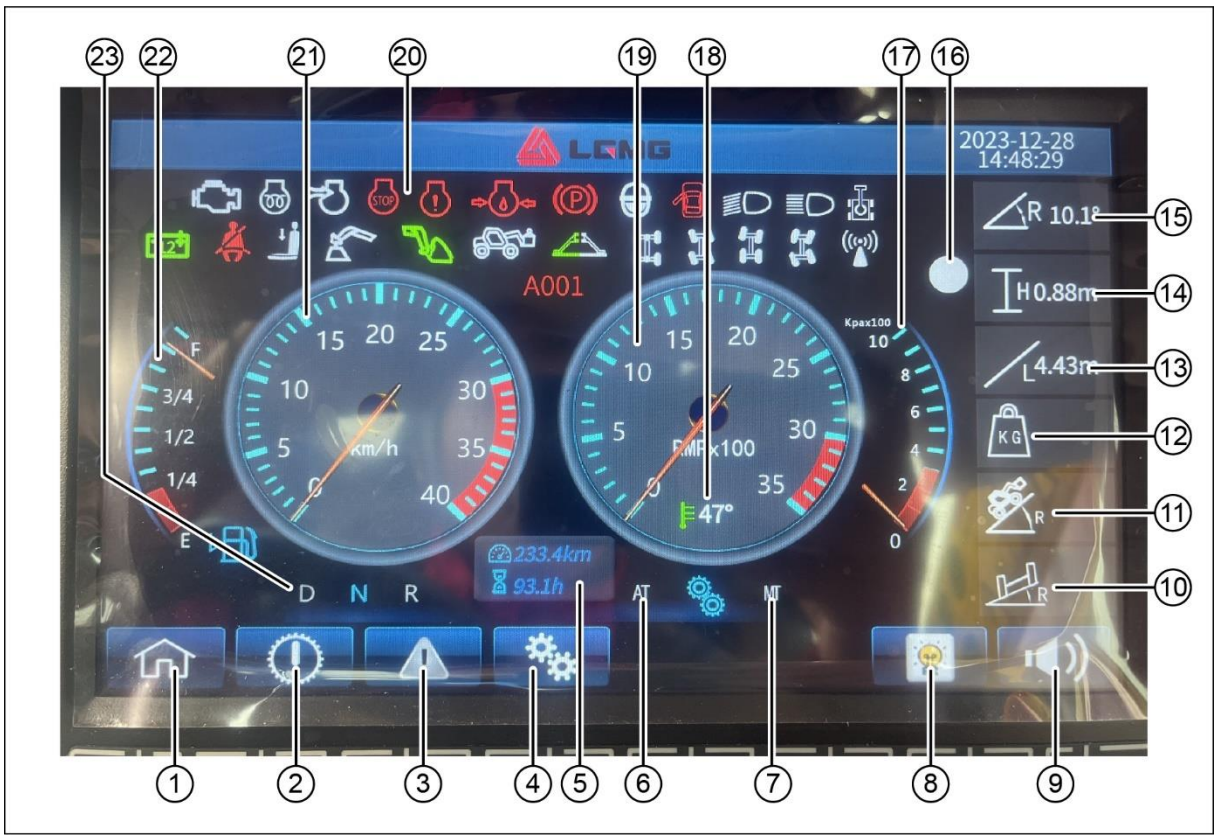
The power switch is located on the front side of the hood.

After the yellow DC power switch is turned off, the engine cannot start. The red DC power switch is the main power switch and after it is turned off, the machine cannot be powered on.

DANGER: The power switch shall be disconnected during circuit inspection or welding.

CAUTION: When the machine is deactivated for a long time, please turn off the power master switch to avoid accidents. Don't turn off the power master switch until the engine stops working and the key switch is placed in P position.

3.3.6 Instrument panel



NO.	Name	NO.	Name
1	Return to Main Interface	13	Boom extension length
2	Vehicle information query	14	Boom height
3	Fault alarm/Historical fault query	15	Boom derricking angle
4	Complete machine settings	16	Enable button Indicator
5	Usage time and total mileage	17	Brake system pressure
6	Automatic gear display	18	Cooling system temperature
7	Manual gear display	19	Engine speed
8	Screen brightness adjustment	20	Alarm symbol
9	Voice/mute	21	Driving speed
10	Left and right inclination angle of vehicle	22	Fuel level
11	Front and rear inclination angle of vehicle	23	Gear display
12	Accessory weight	24	

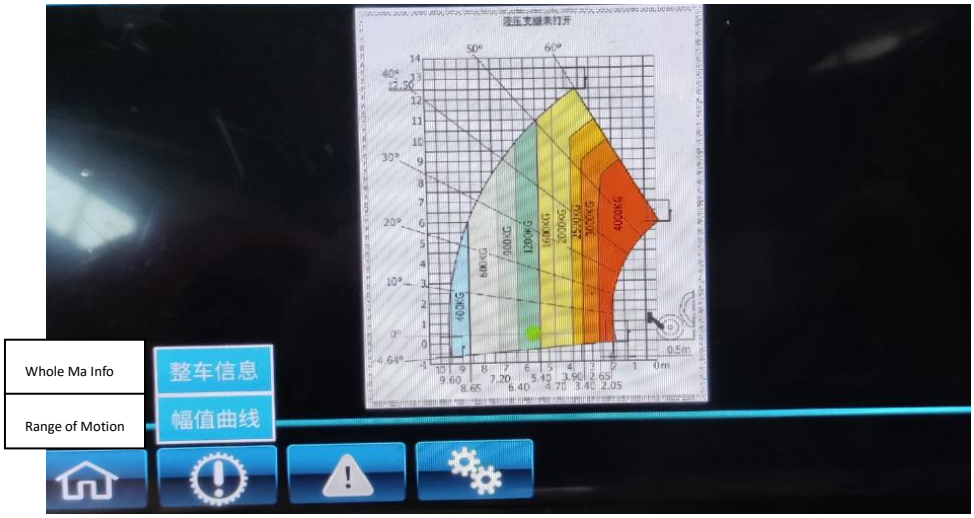
1. Back to main interface button

Press the back to main interface button to return to the main interface:

2. Machine information query button

Press the machine information query button to display complete machine information/amplitude curve

Amplitude curve:



When using the machine, please operate within the range allowed by the amplitude curve.

⚠ Tip-over danger: The rated load shown on the amplitude curve is based on the fact that the machine is on a fixed level ground and the goods on the fork are evenly arranged; Tire pressure is normal and the vehicle is in good working condition.

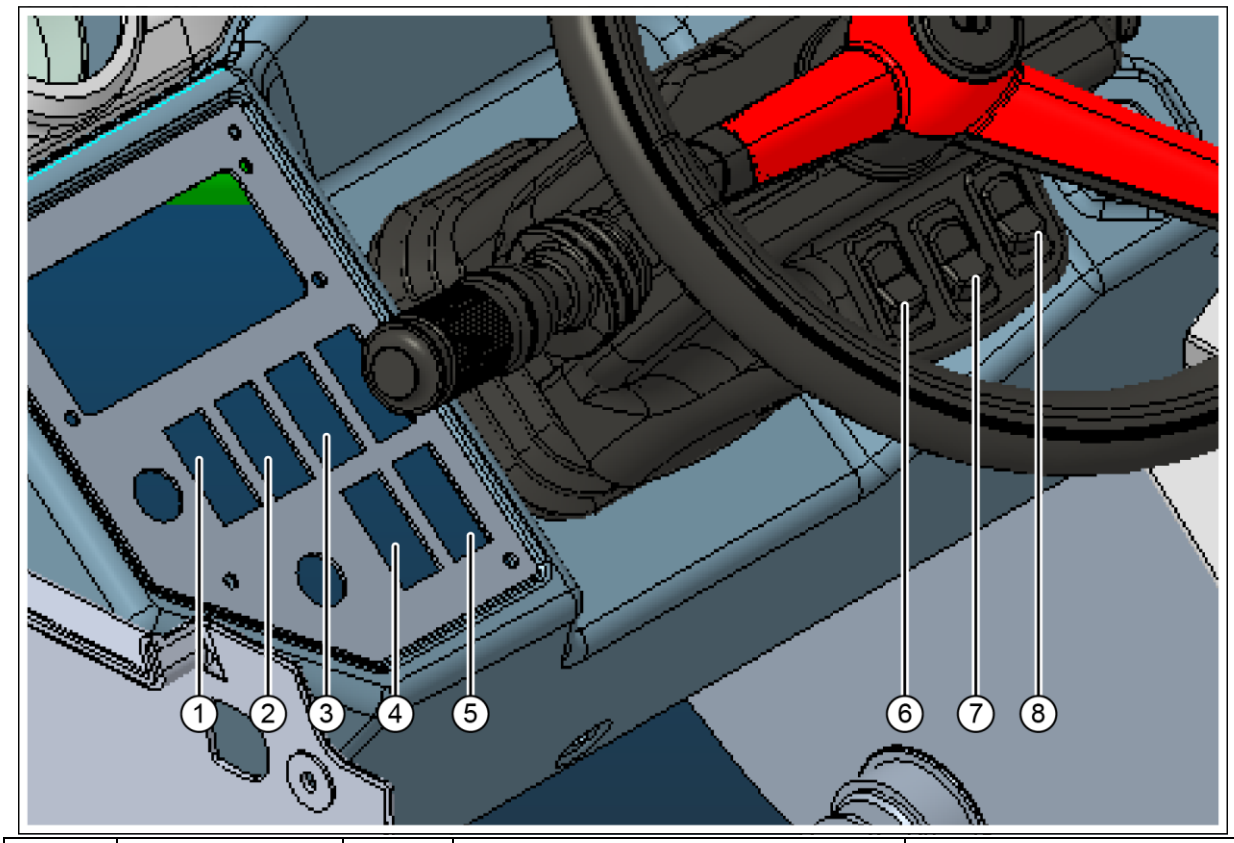
3. Fault alarm/historical fault query button

Press fault alarm/historical fault query button to display fault alarm/historical faults

4. Machine setting button

Press the machine setting button to set other options such as date modification, parameter setting, function query, and port query.

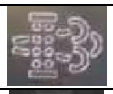
3.3.7 Rocker switch and symbol



No.	Name	Status	Function	Remarks
1	Front working lamp switch	0	Front working lamp function disabled	
		1	Front working lamp function enabled	Front working lamp on
2	Rear working lamp switch	0	Rear working lamp function disabled	
		1	Rear working lamp function enabled	Rear working lamp on
3	Rocker switch of outline lamp	0	Function disabled	
		1	Function enabled	
4	Rear window wiper spray switch	2	Rear window wiper function on	
		0	Function disabled	
		1	Rear window spray function on	Automatic reset
5	Side window wiper spray switch	2	Side window wiper function on	
		0	Function disabled	
		1	Side window spray function on	Automatic reset
6	Warning dome light switch	0	Function disabled	
		1	Function enabled	
10	Warning light switch	0	Function disabled	
		1	Function enabled	
11	Lamp switch	1	Outline light on	
		0	Function disabled	
		2	Lamp switch	

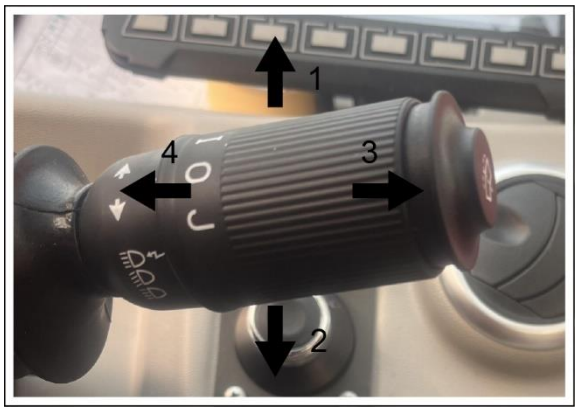
Symbol and description

Symbol diagram	Description	Description
	Left turn light	When left steering or hazard warning switch is activated, it is always on or flashing
	Engine fault lamp	Light up red when Engine Fault alarm
	Engine preheating	Engine light up yellow when preheating
	Air cleaner blockage alarm lamp	When the A/C filter element is blocked, the indicator lights up red and the main filter element needs to be cleaned or replaced.
	Engine stopped	Indicate when engine stops
	Engine fault indication	illuminate when the engine reports a fault
	Oil pressure alarm	Engine oil pressure failure
	Parking indication	Lights up when the parking brake is engaged
	Water-in-fuel indicator light	This indicator light goes on when the water content in the fuel filter is high, indicating that water draining is required
	Door open indication	The indicator lights up when the door is not fully closed
	Low beam	Low beam on indication
	High beam	High beam on indication
	Right turn light	When right steering or hazard warning switch is activated, it is always on or flashing
	Battery voltage display	It lights up when the battery voltage is lower than 9 V
	Seat belt indication	When the seat belt is not tied, the indicator lights up
	Passenger departure indication	Determine if there are occupants on the cab seat After the alarm is given, the vehicle cannot move. The enable button needs be pressed before it resumes.
	Hook mode	The indicator will be on if the hook mode is enabled.

	Fork mode	When the fork mode is enabled, the indicator lights up
	Cage mode	The indicator will be on if the cage mode is enabled.
	Outrigger touchdown	Indication of outrigger touchdown
	Front and rear axle centering	Indication of front and rear axle centering
	Crab	Crab mode enable indication
	2WS	2WS mode enable indication
	4WS	Indication of 4WS mode enabled
	Wireless handle connection indicator light	This indicator light goes on when the wireless handle is connected
	Low DEF level indicator light (If equipped)	This indicator light goes on when the DEF level is low, indicating that the DEF of specified quality needs to be added immediately
	Emission fault indicator light (If equipped)	
	DPF regeneration indicator light (If equipped)	This indicator light goes on when the DPF regeneration is working
	DPF regeneration disable indicator light (If equipped)	This indicator light goes on when the DPF regeneration is disabled
	DPF regeneration enable indicator light (If equipped)	This indicator light goes on when the DPF regeneration is enabled
	Turntable alignment indicator light (If equipped)	This indicator light goes on when the turntable is align

3.3.8 Combination switch

3.3.8.1 Turn signal lamp



Pull the combination switch upward (1) to turn on the left turn light; Pull the combination switch downward (2) to turn on the right turn light.

3.3.8.2 Headlamps

Press the rocker switch of the lamp switch, the middle on-position of the combination knob is the low beam, move the combination switch knob forward (3) in the middle position to turn on the high beam, move the combination switch knob backward (4) to turn on the instant beam, and release the joystick for the automatic reset of the low beam.

3.3.8.3 Wiper switch

Rotate the combination switch and select the required wiper swing gear：

- closed position
- J-Wiper intermittent gear
- I-Wiper slow gear
- II-Wiper fast gear

NOTE: Do not add ordinary water or other washing liquid into the washer fluid filler, and must add washer fluid for professional windshield washing.

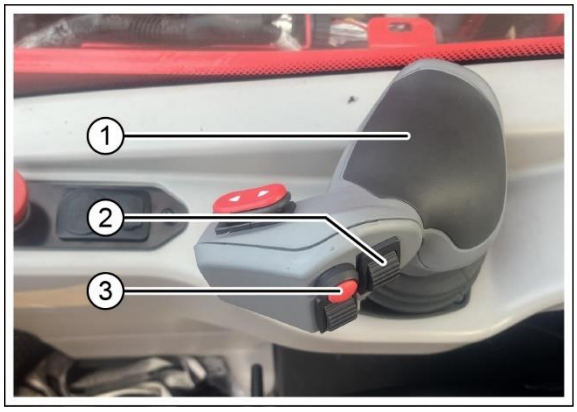
3.3.8.4 Front windshield spray switch

Press the front windshield spray switch located at the end of the combination switch knob, then the front windshield sprays water, and the wiper works for 1-2 turns.

3.3.9 Enable switch

It is necessary to press the enable switch (F) for 1 second before boom luffing, boom extension and retraction, fork leveling. There will be a warning tone, and the white indicator on the control panel will turn green. If there is no action within 20s, you need to press the enable key again.

3.3.10 Hydraulic joystick

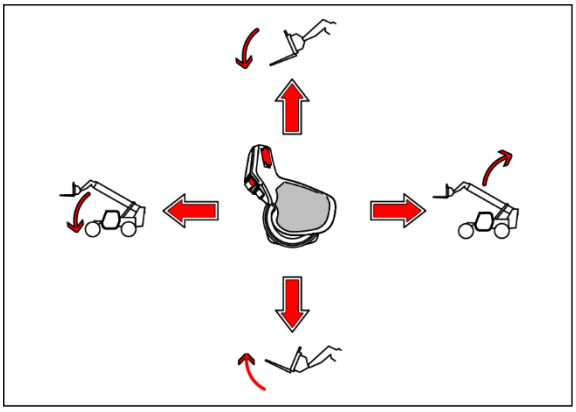


1 Boom lifting and fork tilting controllers

2 Boom extension and retraction control pulley

3 Enable switch

Boom lifting (luffing)

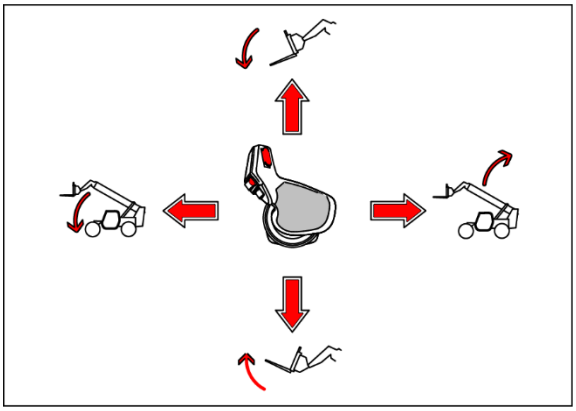


1） Press the Enable switch and the White indicator will turn green.

2） Move the controller backward and the boom will rise.

3） Move the controller forward and the boom will drop.

Fork leveling

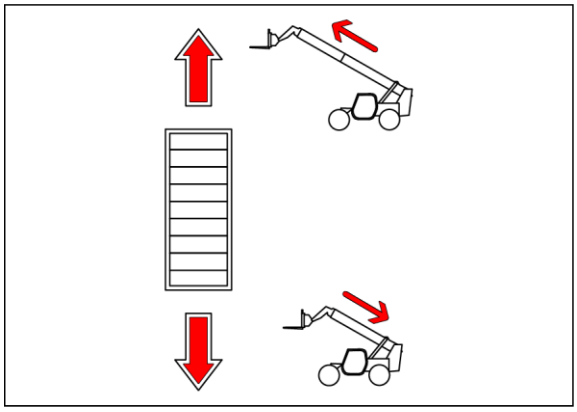


Press the Enable switch and the White indicator will turn green.

1） Move controller to the left, then the fork tilts backwards

2） Move controller to the right, then the fork tilts forward

Boom extension and retraction

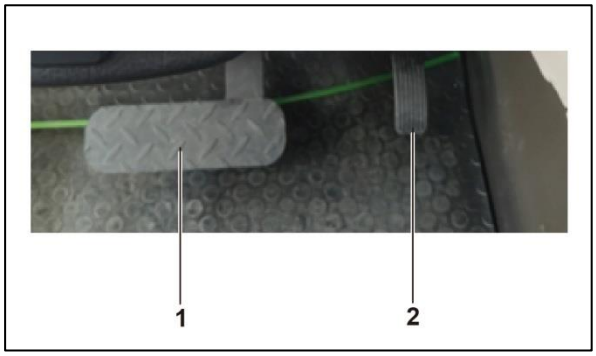


1） Press the Enable switch and the White indicator will turn green.

2） Roll up pulley, then the boom will extend

3） Roll down pulley, then the boom retracts

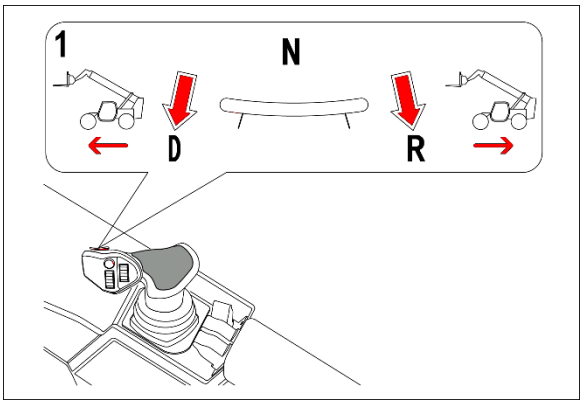
3.3.11 Accelerator pedal and Service brake pedal



1. Brake pedal
2. Accelerator pedal

The accelerator pedal is used to control machine speed. The brake pedal is used to reduce machine speed and brake.

3.3.12 D-gear/N gear/R gear



- D gear: press the front of the switch.
- N gear: middle position.
- R gear: press the rear of the switch, and the reversing lamp and reversing alarm sound to indicate that the vehicle is reversing.

CAUTION: When gear from D gear to R gear or from R gear to D gear, switch gears to N gear and pause briefly. During gear switching, the vehicle shall be kept stationary and the brake pedal to the bottom.

3.3.13 Variable speed gear switch

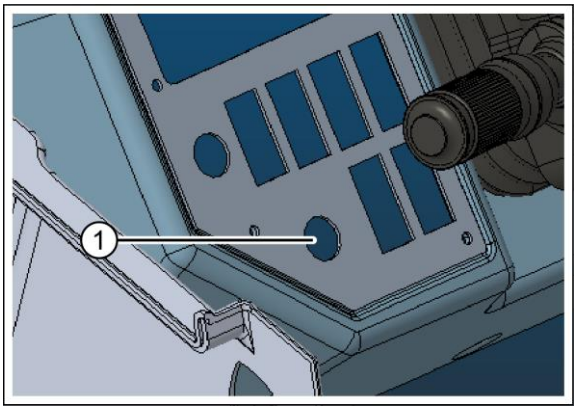
CAUTION: The gear shall be carefully selected according to the nature of the work performed. Improper selection will cause the transmission fluid temperature to rise rapidly, which may lead to serious damage to the transmission.

If the telescopic handler fitted with two gears

In general, we recommend that you use the following gears according to the nature of your work.

- When driving on the road for a long distance without load, select 2nd gear.
- When going uphill, select 1st gear.
- When shifting gears, place the right joystick on N gear, step on the brake pedal, and switch from the first gear to the second.

3.3.14 Electrical parking brake



To perform the parking brake

After bringing the vehicle to a complete stop, put the gear in Neutral and press the electronic hand brake switch, the parking brake will be applied and the display will show the vehicle has been braked.

Note: After shutting down the engine, electronic hand brake switch will apply the brake automatically.

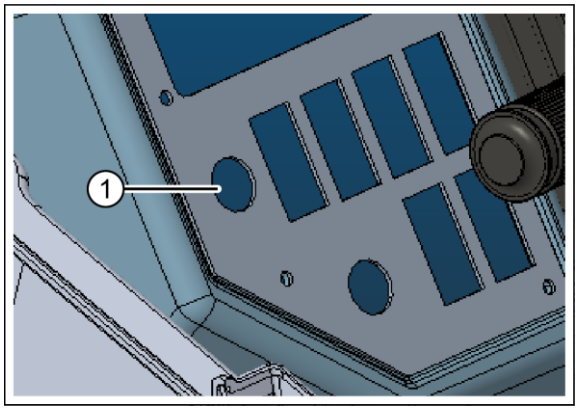
To release the parking brake

The driver needs to wear the safety belt. After starting the engine, press the electronic hand brake switch, the parking brake will be released.

Note: Before releasing the parking brake, apply the brake pedal to prevent the vehicle from moving.

WARNING: Do not start the vehicle until the parking brake signal lamp goes out!

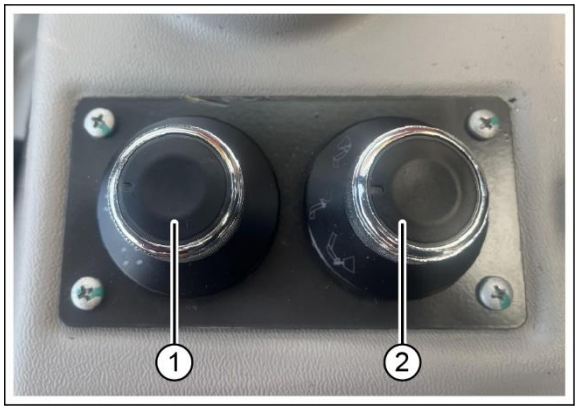
3.3.15 Override button



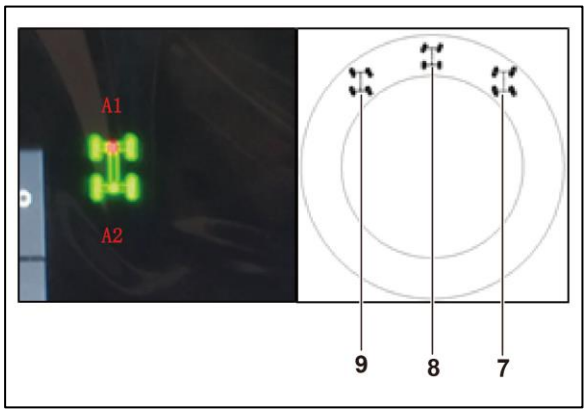
1 Override button

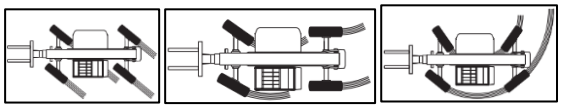
Use the override button with caution to avoid tip-over hazard.

3.3.16 Steering mode



1 Steering mode selector switch
2 Driving mode selector switch





1. Steering positioning indicator

These lights come on to indicate the location of the wheel relative to the body. Lamp A1 is used for the front wheel and lamp A2 is used for the rear wheel.

2. Positioning control of the wheel

Turn steering mode selector switch 3 to position 7 (4WS). Turn the antifreeze and align the rear wheels until light A2 comes on. Turn steering mode selector switch 3 to position 8 (2WS). Turn the antifreeze and align the front wheels until light A1 comes on.

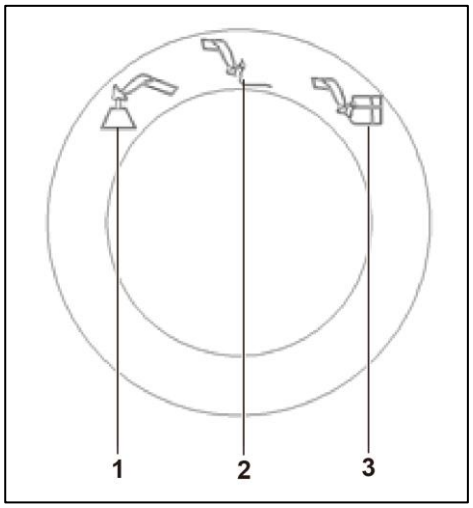
3. Steering shift switch

9: Front/rear drive wheel steering direction is the same (Crab).

8: 2WS.

7: Front/rear drive wheel steering direction is opposite (4WS).

3.3.17 Driving mode

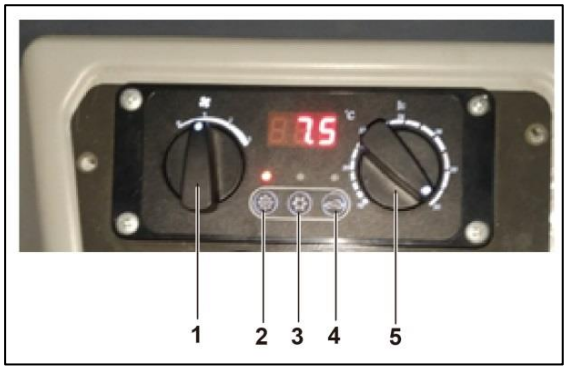


1. Hook mode: can be used with crane.

2. Handling mode: applicable to fork and adjustable accessory and bucket on fork.

3. Platform mode: reserved.

3.3.18 Air Conditioner



1. Air volume knob: rotating to the right will increase the air volume.

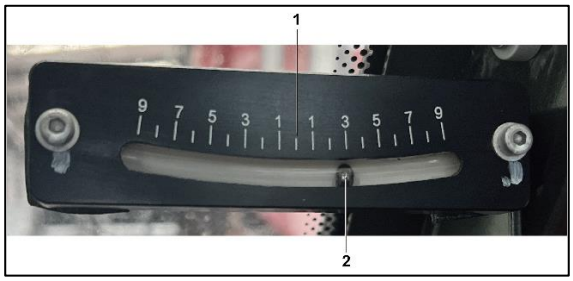
2. Heating switch: press the button and the indicator will light up, indicating that the heating mode is on

3. Cold air switch: press the button and the indicator will light up, indicating that the cold air mode is on

4. External circulation: press the button and the indicator lights up, indicating that the external circulation is on

5. Temperature adjustment knob: increase the temperature by rotating the knob to the right.

3.3.21 Inclinometer

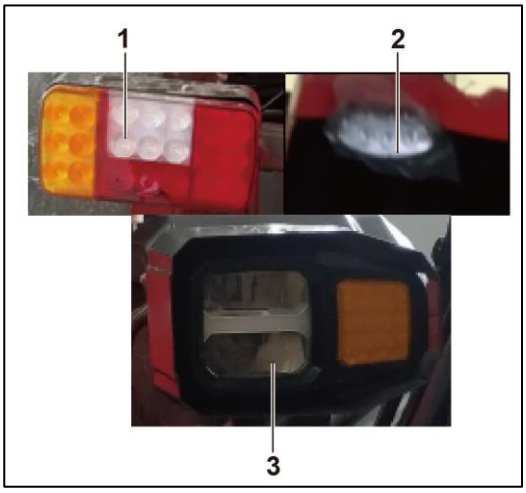


1. Angle indicator plate
2. Rolling steel balls

Located above the longitudinal stability limit and alarm device, the measurement angle is ± 9 °; the display value of the angle indicator panel is the horizontal inclination angle of the cab, and it can assist with forklift operation according to the angle measured by the angle indicator panel.

3.4 Cab exterior device

3.4.1 Working lamp



1 Rear combination lamp
2 Cab rear working lamp
3 Front combination lamp

1. Rear combination lamp (including indicator, brake lamp, tail lamp and fog lamp)

2. Cab rear working lamp

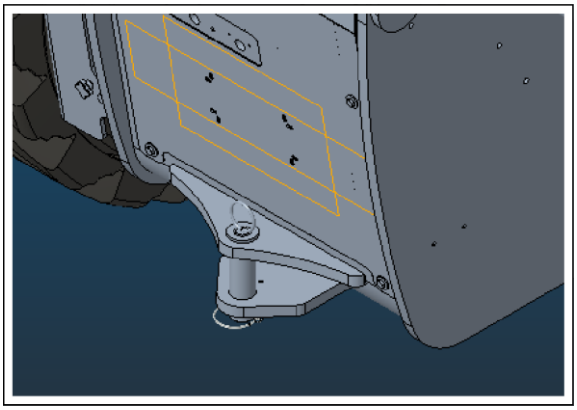
3. Front combination lamp (including indicator, low beam, high beam and side lights)

3.4.2 Rearview mirror

One on the left and one on the right

Before driving, adjust the rearview mirror to the appropriate angle

3.4.3 Towing pin and hook



The device is located at the rear of the telescopic handler and is used to connect the trailer and the fixed points when the vehicle is transported.

Check the condition of the trailer (tire condition and pressure, electrical connection, Hydraulic hose, Brake system, etc.) before using the trailer.

⚠ CAUTION: Do not tow trailers or accessories with unsatisfactory working conditions. The use of trailer in severe conditions may affect the steering and braking of the forklift, thus affecting safety.

3.4.4 Washer fluid filler

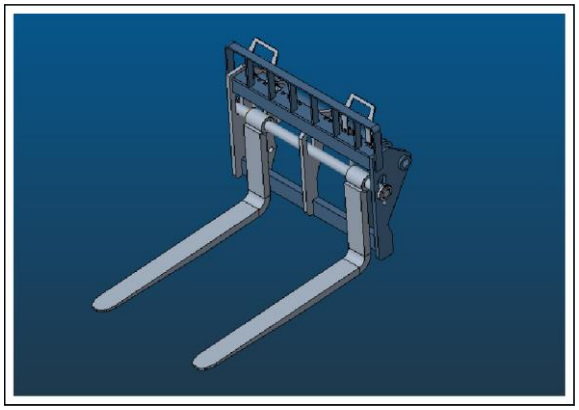
Open the washer fluid filler cap and fill the glass water, and the washer fluid level cannot be less than 1/4.

3.4.5 Hood assembly

Do not step on it!

Please open the cover when repairing or maintaining the engine system and transmission system.

3.4.6 Fork assembly



Adjust the fork spacing to an appropriate distance when using.

DANGER: No people shall be allowed on the fork!

Chapter 4 Operating Instructions

4.1 Precautions

1) Perform routine maintenance.
2) Ensure that the lights, indicator and windshield wipers are working properly.
3) Ensure that the rearview mirror is in good condition, clean and adjusted correctly.
4) Make sure the horn works properly.
5) When entering and leaving the driver's seat, always face the vehicle and keep 3 contact points (hands and feet) on the steps and armrests.
6) Do not use headphones to listen to radio or music during operation.
7) Do not operate the machine when oil is stuck on your hands or feet.
8) Under no circumstances can the seat be adjusted while the vehicle is moving.
9) It is forbidden to extend an arm or leg or any part of the body out of the cab.
10) Seat belt must be worn.
11) It shall be forbidden to carry people on the telescopic handler or in the cab.
12) No person shall be close to the working area of the telescopic handler or pass under the boom load.
13) Before lifting or removing the load, ensure that the ground under the wheels is stable and firm.
14) Never pile up goods on uneven ground, otherwise it may tip over.

4.2 Inspection before operation

4.2.1 Basic principles

1) Inspection and routine maintenance before performing the operation are side window's responsibilities.
2) The pre-operation inspection is a very intuitive inspection process, which is performed by the side window before each job change. The purpose of the inspection is to find out if there is an obvious problem with the machine before the side window is used.
3) Inspection before operation can also be used to determine whether routine maintenance procedures are required. Side window can only perform routine maintenance items specified in this manual.
4) Please refer to the list on the next page and check each item.
5) If damage or any unauthorized change from the factory state is found, mark the machine and stop using it.
6) Only qualified maintenance personnel can repair the machine. After the maintenance,

perform the inspection before operation again.

7) According to the manufacturer's regulations and the requirements listed in the manual, regular maintenance inspections shall be performed by qualified maintenance personnel.

4.2.2 Inspection before operation

1) Ensure that the manual is complete, easy to read, and kept in the file box on the platform. To replace any manual, please contact the service personnel of LGMG.
2) Ensure that all labels are clear, legible and properly located. Please see the "Label" section. To replace the labels, please contact the service personnel of LGMG.
3) Please refer to the "Maintenance" section to check if the hydraulic oil leaks; check if the oil level is appropriate, and add hydraulic oil as needed.
4) Check if the battery fluid leaks and the wiring is firm.
5) Please refer to the 'maintenance' section to check whether the engine oil leaks and whether the oil level is appropriate, and add oil as needed.
6) Check whether the engine fuel leaks and whether the fuel level is appropriate. When the fuel level is low, please add fuel in time.
7) Check the engine indicator, if the indicator is on, immediately make sure the engine is off, and mark the machine. Contact service personnel for troubleshooting.
8) Refer to the "maintenance" section, check whether the engine coolant leaks and whether the lithium-based grease is appropriate, and add coolant as required.
9) Inspect the following parts for damage, improper installation, loose or missing parts and unauthorized alteration:
   - Electrical plugs, wiring and cables
   - Joystick
   - Inclination sensor, long angle sensor, pressure sensor
   - Display screen, alarm indicator, flashing light, horn
   - Valve block, hose, hydraulic connector, cylinder, motor, reducer
   - Fuel tank and hydraulic oil tank
   - Boom slider lubrication, tire pressure
   - Front axle, rear axle
   - Engine and its accessories
   - Rearview mirror
   - Fork and other attachments

- Nuts, bolts and other fasteners

10) Inspect the entire machine to check:
    - the welds or structural parts for cracks
    - the machine for dent or damage
    - Serious rust, corrosion or oxidation
11) Ensure the integrity of all structural parts and other key components. All relevant fasteners and pins are in the correct position and tightened.
12) After completing the inspection, ensure that the hood is properly positioned and locked.

4.3 Workplace inspection

4.3.1 Basic principles

1) Workplace inspection can help side window judge whether the workplace can ensure the safe operation of the machine. The side window shall first perform this work before moving the machine to the workplace.
2) It is the duty of the side window to understand and remember hazardous matters in the workplace, which can be noted and avoided when moving, installing and operating the machine.

4.3.2 Workplace Inspection

Be careful and avoid the following dangerous situations:

- Steep slope or cave
- Protrusions, ground barriers or debris
- Inclined surface
- Unfirm or smooth surface
- Obstacles in the air and high voltage wires
- Surface support insufficient to withstand all the load forces exerted by the machine
- Instantaneous wind speed
- The temperature and humidity of the operating environment exceeding the temperature and humidity requirements.
- Unauthorized personnel appear
- Other possible unsafe situations

4.4 Startup

4.4.1 Safety precautions

1) Only when the side window is sitting in the cab, adjusting and fastening the seat belt can the fork loading be started or operated the telescopic handler.
2) Do not start telescopic handler by pushing or pulling. This operation may cause serious damage to the transmission. If necessary, the transmission must be in neutral when the traction fork is loaded in

an N gear.

3) If starting with an emergency battery, please use a battery with the same characteristics, first disconnect the power switch, and follow the battery polarity when connecting. Connect the positive terminal first and then the negative terminal.
4) Check the closing and locking of the hood.
5) Check if the D gear / N gear / reverse selector is in N gear

4.4.2 Start-up

1) Place the gear selector in the N gear.
2) Turn the key switch, start the electrical system and preheat (automatically preheat).
3) Check whether the symbol of the control panel is normal. If not, troubleshoot the problem before starting the machine.
4) Check whether the fuel level on the indicator is normal, and if it is not normal, add fuel. Set the key switch to P gear when adding fuel.
5) Turn the key switch to gear III, start the engine, and reset the key switch to the driving gear. Run the engine at idle speed for 3 to 5 minutes and run the engine at idle speed in cold weather for at least 5 minutes. The engagement time of the starter motor shall not exceed 15 seconds. If the engine does not start successfully, wait 2 minutes before starting again.
6) If the meter display is incorrect, stop the internal combustion engine and perform the necessary operations immediately.

4.5 Driving

4.5.1 Safety precautions

1) Do not perform operations beyond the telescopic handler or fork capacity.
2) Retract the boom, and lower the fork to the transport location.
3) Only load balanced and properly secured load to avoid the risk of load falling off.
4) When loading, the driving speed of the telescopic handler shall not exceed 8 Km/h.
5) When the vehicle is running, it is forbidden to operate the boom.
6) It is forbidden to change the steering mode when driving.
7) It is forbidden to change the forward/reverse mode when driving.
8) When braking, apply the brake and do not suddenly brake.
9) Never drive on ditch edges or steep slopes.
10) Drive slowly on wet, slippery or uneven

terrain.

11) Ensure that the service brake is working properly.

4.5.2 Driving

1) Retract and lower the boom.
2) Select the appropriate gear.
3) Select a suitable steering mode. Before changing the steering mode, set the wheel to the center.
4) Press the horn before driving to remind others that the vehicle is about to start.
5) Press the foot brake pedal.
6) Release the parking brake.
7) Select the forward/reverse mode, slowly release the foot brake pedal and the vehicle gains initial speed. Then accelerate slowly, and use the lights and rearview mirror reasonably according to the driving direction.

4.5.3 Braking

CAUTION:

- **When the vehicle is stopped, activate the electronic parking brake.**
- **Do not start the vehicle until the parking brake symbol goes out!**
- **In some cases, the braking force of the parking brake may not be sufficient to park a fully-loaded vehicle on an uphill/downhill road, so when parking on a hill, the wheel shall be chocked.**

To stop the vehicle smoothly, follow the following steps:

1) When the car is running, loosen the accelerator pedal first and reduce the speed.
2) Gently press the brake pedal to stop the vehicle when it is about to approach the parking place.
3) After the car is stopped steadily, put the gear selector in neutral position, and then activate the electronic parking brake to make it in braking state.

When braking, pay attention to the following matters:

1) When braking, if there is no emergency, avoid stepping on the brake pedal to the end quickly and violently and without loosening it. Excessive braking may cause personal injury or damage to the whole vehicle parts.
2) When driving, if the low hydraulic pressure alarm symbol of the brake system is on, stop the vehicle immediately to find out the cause and eliminate it.

4.6 Parking

1) Park the telescopic handler on level

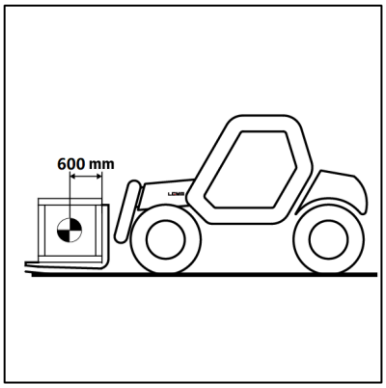
ground and activate the electronic parking brake.

2) Place the gear selector in the N gear.
3) Fully retract the boom and lower the fork to the ground.
4) Close the light switch.
5) After the machine works for a long time, the engine shall be idled for several minutes to reduce the temperature of the cooling system.
6) Turn off the engine, remove the key and lock the door.

4.7 Loading

4.7.1 Quality and center of gravity of load

1) Before carrying the cargo, you must know its quality and center of gravity.



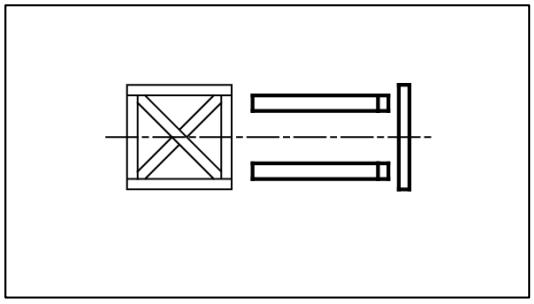
2) The load chart is applicable to load with a distance of fork 600mm from the longitudinal position of the center of gravity.

⚠ It is forbidden to move the weight beyond the load specified on the telescopic handler load sheet.

⚠ DANGER: for loads with moving center of gravity (such as liquid), the change of center of gravity shall be considered.

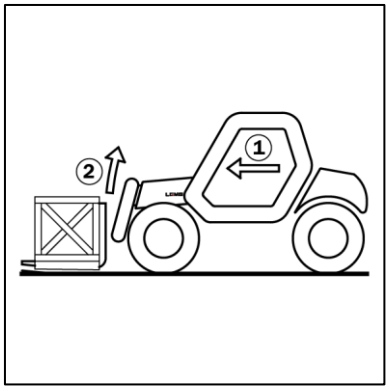
⚠ When picking up and placing goods on the ground or at high altitude, always pay attention to the lateral stability and longitudinal stability of the vehicle and the alarm device.

4.7.2 Cargo on the ground

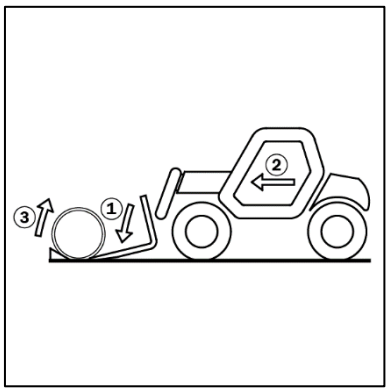


1) Retract and lower the boom so that the fork is in the horizontal position, and adjust the distance between the two forks according to the load.

⚠ Never use a single fork to lift the cargo.



2) Move the telescopic handler forward slowly and lift the boom slightly to the transport position. Tilt the fork backwards to ensure cargo stability.

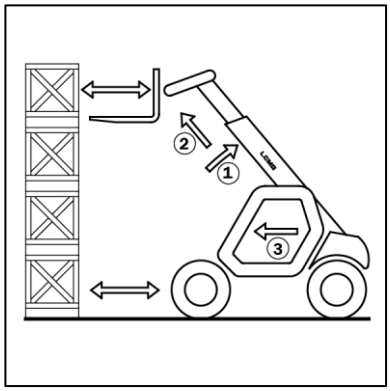


3) For the non-pallet load, tilt the fork forward before lifting the load, and then insert the fork under the load (prevent the load from moving if necessary).

4.7.3 Take the goods in the air

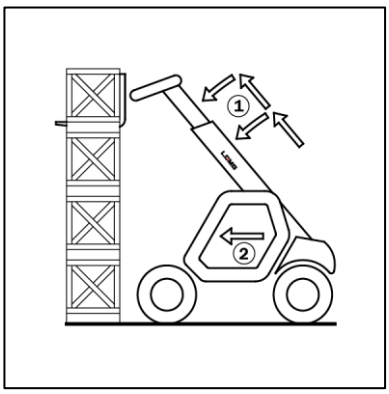
Before raising the boom, check whether the lateral position of the telescopic handler is horizontal.

Pickup

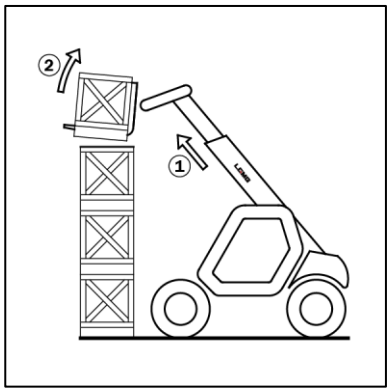


1) Lift and extend the boom until the fork is level with the load, if necessary, slowly move the telescopic handler forward.

2) A certain distance should always be kept between the load and the telescopic handler and the shorter boom should be extended as far as possible.

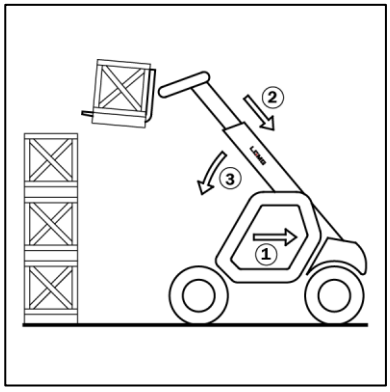


3) Insert the fork into the bottom of the load by alternately telescoping the boom or moving the telescopic handler forward (if necessary), then activate the electronic parking brake and put the D/R gear selector in N gear.



4) Raise the load slightly and tilt the fork backward to stabilize the load.

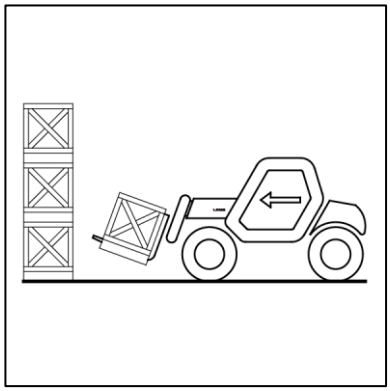
5) If the load is too heavy, the load shall be returned to its original position.



6) Move the vehicle backwards (if necessary), retract and lower the boom to bring the goods into the transport position.

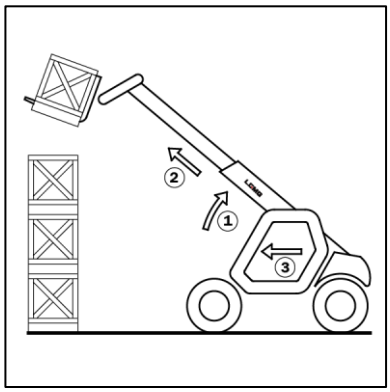
Release

⚠ Before raising the boom, check whether the lateral position of the telescopic handler is horizontal.

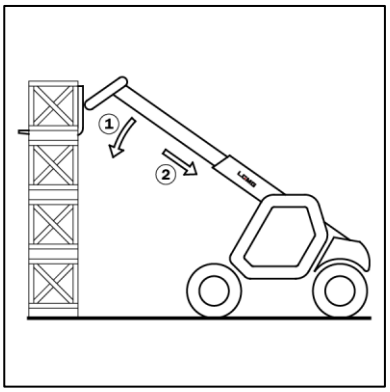


1) Drive the machine to the place for loading up goods.

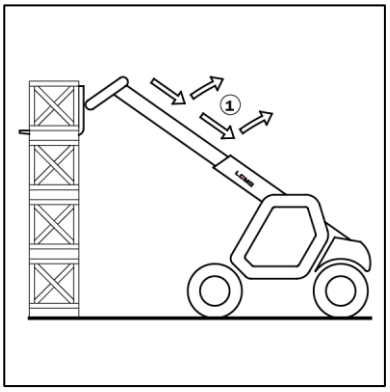
2) Activate the electronic parking brake and push the D/R gear selector to the N gear.



3) Lift and extend the boom until the fork is above the release position, and if necessary, move the vehicle forward.



4) Keep the Load in a horizontal position. Placing the goods by lowering and retracting the Boom,

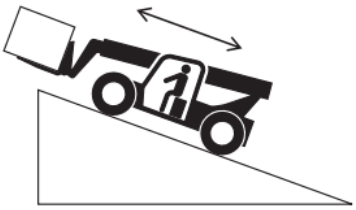


5) Retract the Fork to the transport position by retracting and lowering the boom. (Move the vehicle backwards if necessary)

4.8 Operate on slope

To maintain sufficient traction and braking performance, follow the instructions below when driving on the slope:

1) When going uphill: the fork shall go up the ramp in the upward direction regardless of no-load or load.



2) Downhill: if it is no-load, the fork goes downhill along the downward direction of the ramp; If there is a load, the fork goes downhill in the upward direction of the ramp.

⚠ CAUTION: When going downhill, downshift to a lower gear, use service brake if necessary to maintain low speed.

⚠ CAUTION: If the vehicle must be parked on the slope, the wheel needs to be chocked.

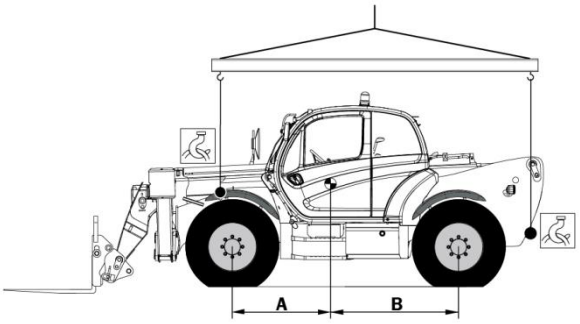
4.9 Machine transportation lifting instructions

Observe and obey

1) The driver shall be responsible for ensuring that the machine is properly secured and that the appropriate trailer is selected in accordance with local traffic regulations.
2) Only personnel qualified for lifting operation above the ground can lift the machine.
3) The trailer for transportation shall be parked on the level ground.
4) When loading the machine, the transport vehicle shall be fixed to prevent movement.
5) Ensure that the vehicle capacity, loading surface, chain and belt are sufficient to support the weight of the machine. See "nameplate" for the machine weight.

Lift the machine

1) Only qualified lifting and sling assembly persons can assemble the sling and lift the machine.
2) Ensure that the lifting capacity, belt or rope of the crane is sufficient to support the weight of the machine. See "nameplate" for the machine weight.
3) Fully lower and retract the arm lever, and remove all moving parts and items on the machine.
4) Only connect the sling to the specified lifting point on the machine.
5) Adjust the sling to avoid damage to the machine and keep the machine at horizontal level.



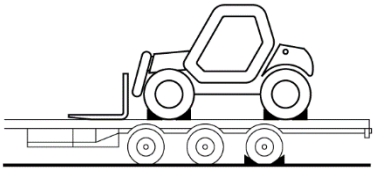
6) Lift the vehicle slowly by the hook connected to the fastening points provided.

Transport machine

CAUTION: Ensure that the platform has sufficient size and load capacity for transporting the telescopic handler. And check whether the pressure of the contact surface between the platform and the telescopic handler is within the allowable range.

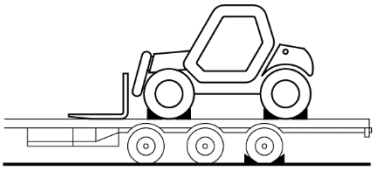
CAUTION: For telescopic handler equipped with turbocharged engine, block the exhaust port to avoid engine rotation.

Loading vehicle

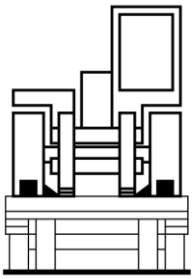


- The tires of the transport vehicle will be secured with wedge.
- Secure the loading ramp in order to obtain the smallest possible angle to lift the vehicle.
- Load vehicles parallel to the platform.
- Stop the telescopic handler.

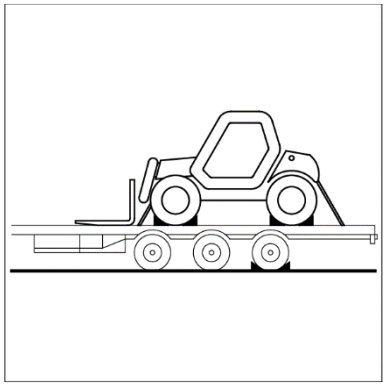
Fixed vehicle



- Secure the wedge to the platform at the front and rear of each tire.



- At the same time, fix the wedge to the platform on the inside of each tire.

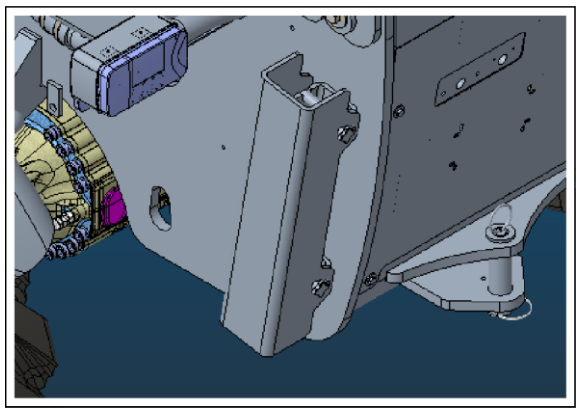


- Fix the telescopic handler on the platform with a strong enough rope. At the front, connect the rope to the telescopic handler fastening point (lifting point) and at the rear to the telescopic handler towing pin.
- Tighten the rope.

4.10 Use of safety support

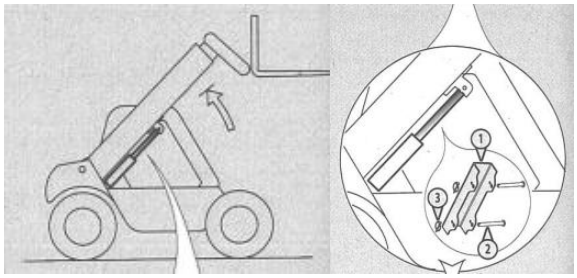
Safety support instructions

Boom safety support



The telescopic handler is equipped with safety support, which must be installed on the lift cylinder connecting rod when working in the area below the boom.

The installation of safety support



1) Fully raise the boom.
2) Fit the safety support on the lift cylinder connecting rod and secure it with axis pin.
3) Slowly lower the boom and stop before coming into contact with the safety support.

Remove the safety support

1) Fully raise the boom.
2) Remove the axis pin.
3) Put the safety support back in place.

4.11 The car is not in use for a long time

Description:

The following operations are to prevent the vehicle telescopic handler from being damaged when it is not in use for a long time.

Cleaning of telescopic handler

- Check and repair any parts where there may be leakage of fuel, oil, water or air.
- Clean the dust on the telescopic handler paint finish and make up the paint if necessary.
- Ensure that all cylinders are in the retracted position.
- Release the pressure in the hydraulic circuit.
- Close the telescopic handler.

Component protection

- Drain and replace the coolant.
- Let the engine run the engine at idle speed for a few minutes and then turn off.
- Replace engine oil and oil filter.
- Add a protection product to the engine oil.
- Run the engine for a short time to circulate the oil and coolant within the engine.
- Once the battery is fully charged, disconnect the battery and store it in a warm room.
- If necessary, place the crane telescopic handler on the axle frame to make the tire

not contact the ground, and then release the parking brake.

- Protect the non-retracted and retracted cylinders from corrosion.
- Wrap up the tires.
- Cover the vehicle with a tarpaulin.

When the telescopic handler is put back into use

- Reinstall and reconnect the battery.
- Remove the protective device from the cylinder.
- Perform routine maintenance.
- Depress the parking brake and remove the axle carrier axle bracket.
- Drain and replace the fuel, then replace the fuel filter.
- Use the starter to turn the internal combustion engine to increase the oil pressure.
- Fully lubricate the telescopic handler.
- Before starting the telescopic handler, ensure that the area is well ventilated.
- Run all hydraulic movements, preferably to the limit position.

4.12 Instructions for Use of Hook and Bucket

4.12.1 Description

1) The forklift truck will be automatically classified as a crane when the installed auxiliary devices (such as hook, etc.) are used to lift suspended loads.
2) Only auxiliary devices approved by the manufacturers and conforming to the "CE" certification can be used for forklift trucks. The manufacturers are not responsible for unauthorized auxiliary devices.
3) For the truck provided with auxiliary devices, before starting, authorized and qualified technicians should check whether the auxiliary devices are suitable for the truck, and check whether the technical documents required for using the auxiliary devices are correct.
4) The truck must comply with all applicable laws and regulations, even after it is provided with applicable auxiliary devices.

4.12.2 Before any operation, please ensure:

1) Dealers, users, operators, lessors, lessees and brokers must comply with the appropriate parts of the applicable EN280 standard.
2) You have understood and practiced the safety rules for machine operation in this operation manual.
3) Always perform pre-operation checks.

4) Check the workplace.
5) Use the machine only for its intended purpose.
6) Read, understand and comply with all applicable laws and regulations.
7) Read, understand and comply with the manufacturer's instructions and safety rules - safety operation manual and machine labels.
8) Read, understand and comply with the user safety rules and workplace regulations.
9) You have been trained to operate the machine safely.

4.12.3 Safety precautions

- **This machine is not insulated, and does not provide protection against electric shock when it is in contact with or near wires. Please follow the applicable laws and regulations and the instructions in the table below to maintain a sufficient safety distance from power cable and electrical equipment.**

Voltage	Clearance required
0~50 kV	3m
50 kV～200 kV	5m
200 kV～350 kV	6m
350 kV～500 kV	8m
500 kV～750 kV	11m
750 kV～1000 kV	14m

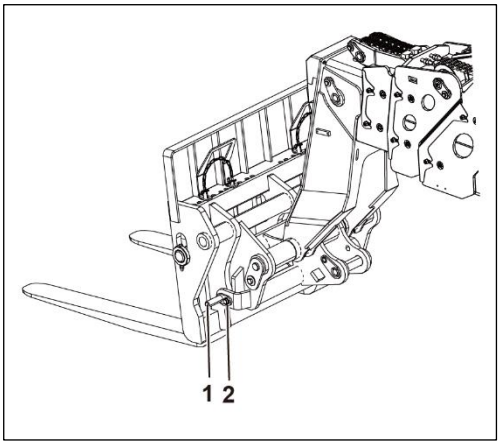
- **It is necessary to consider the effects of strong or gusty winds on boom movement, wire swing and slackness.**
- **If the machine comes into contact with a live wire, stay away from the machine immediately. Before the power is cut off, any person is forbidden to touch or operate the machine.**
- **Do not operate the machine during lightning or storms.**
- **Do not use the machine as a ground wire during welding.**
- **Lift the load in strict accordance with the instructions in the load curve, and do not attempt to lift the load more than the value allowed in the load curve.**
- **Make sure the road surface can support the weight of the machine, including its rated load.**
- **Avoid sudden start/stop, turning, and driving.**
- **Do not operate the machine at a wind speed above level 6.**
- **Do not operate the machine when the machine load exceeds its rated load.**
- **Do not drive the machine at high speed with the boom lifted.**

- Do not raise the boom when the chassis is not level.
- When lifting and lowering the boom or before driving, check the working area for obstacles, and check whether there are any obstacles beside and under the boom.
- Do not move the machine when there are people and obstacles within the moving range of the machine.
- No person is allowed to work, stand or walk under the raised boom.
- Keep the load lowered and the telescopic boom retracted as far as possible during transport.
- Limit traveling speed based on ground conditions, congestion level, slope, location of personnel and any other factors that may cause a collision.
- Do not attempt to operate the machine beyond the capabilities of the machine.
- Under no circumstances should the machine be parked in a place where the load is lifted.
- Movement can only be carried out with load balanced.
- Moving the load with a hook must be slow.
- Before operating the machine, it is essential to check that the ground conditions are good enough to support the tires or outriggers, as detailed in the “Workplace checks”.
- Before formal lifting, a trial lifting (lifting the heavy object 10cm above the ground) should be carried out, and the machine devices and the force on the ground should be checked during the trial lifting.
- Inclined hanging, pulling and rapid lifting and lowering are strictly prohibited.
- Avoid vibration and inclined lifting during vertical of lifting loads.
- Do not untie the lifting rigging until the lifted load is in place.
- Check the auxiliary devices used to lift the load every day, as detailed in "Pre-operation checks".
- Do not use the hook or bucket to transport personnel.
- During traveling, place the bucket at a height of about 50cm above the ground and turn up the bucket.
- It should be inserted at a low speed in case of sand accumulation, and the

engine speed should be gradually increased to drive the machine forward.

- **When the propulsion resistance of the bucket increases, the tire may slip or the engine speed may decrease, etc. In this case, shoveling should be stopped and cannot be forced.**
- **Before installing new auxiliary devices, please check whether the safety system needs to be recalibrated. Uncalibrated or substandard calibration may cause serious personal injury or death.**
- **If the machine is tilted downward, the size of the auxiliary device and the retracted or lowered boom may interfere with and damage the front tires. To eliminate this risk, the boom should be extended long enough to accommodate the auxiliary device.**
- **When the machine is provided with the bucket and hook, the machine mode needs to be adjusted to the fork mode.**
- **For information on the parameters of the auxiliary device, please refer to the nameplate located on the auxiliary device.**

4.12.4 Removing the fork



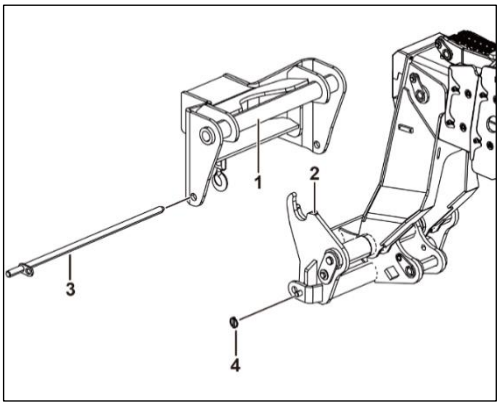
1. Auxiliary device stop pin
2. Pin

1) Park the forklift truck on a solid level ground, set the selector lever to N position, and pull up the parking brake lever.
2) Extend the boom about 50cm.
3) Adjust the fork to a horizontal position, and then lower the fork until it just touches the ground.
4) Remove the pin (2).
5) Move the fork slightly so that the pin (1) can be removed freely.
6) After removing the pin (1), tilt the auxiliary device holder forward, and then lower the boom until the side plate of the auxiliary device holder is completely separated from the steel pipe beam of the auxiliary device.
7) Retract the boom.

Note: The hook and bucket should be

removed in the same way as fork.

4.12.5 Installing the hook



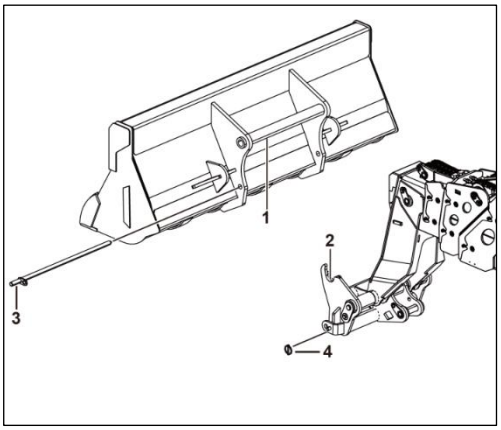
1. Steel pipe beam
2. Side plate of auxiliary device holder
3. Auxiliary device stop pin
4. Pin

1) Park the forklift truck directly behind the hook, set the selector lever to N position, and pull up the parking brake lever.
2) Tilt the auxiliary device holder forward, and then extend the boom so that the steel pipe beam (1) is directly above the side plate (2) of the auxiliary device holder.
3) Slightly raise the boom so that the steel pipe beam (1) is in full contact with the side plate (2) of the auxiliary device holder.
4) Raise the boom so that the hook is about 10cm from the ground.
5) Tilt the auxiliary device holder backward so that its mounting holes are aligned with the mounting holes of the auxiliary device.
6) Insert the auxiliary device stop pin (3) into the mounting hole.
7) Install the pin (4), and fix the stop pin of the auxiliary device.

ATTENTION

For your safety, please check that the pins are fully secured before working.

4.12.6 Installing the bucket



1. Steel pipe beam
2. Side plate of auxiliary device holder
3. Auxiliary device stop pin
4. Pin

1) Park the forklift truck directly behind the hook, set the selector lever to N position, and pull up the parking brake lever.
2) Tilt the auxiliary device holder forward, and then extend the boom so that the steel pipe beam (1) is directly above the side plate (2) of the auxiliary device holder.
3) Slightly raise the boom so that the steel

pipe beam (1) is in full contact with the side plate (2) of the auxiliary device holder.

4) Raise the boom so that the bucket is about 10cm from the ground.

5) Tilt the auxiliary device holder backward so that its mounting holes are aligned with the mounting holes of the auxiliary device.

6) Insert the auxiliary device stop pin (3) into the mounting hole.

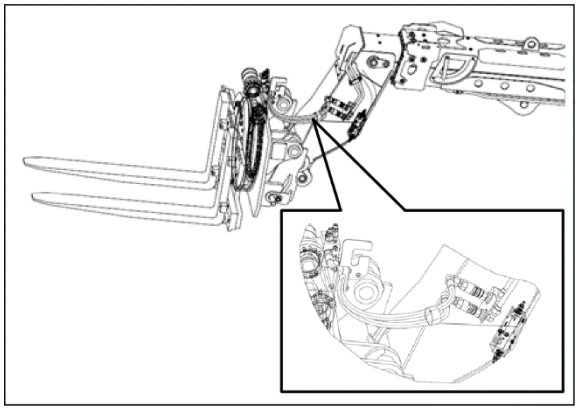
7) Install the pin (4), and fix the stop pin of the auxiliary device.

Note: The fork should be installed in the same way as the bucket.

ATTENTION： For your safety, please check that the pins are fully secured before working.

4.12.7 Install Rotating Fork Assy

1) Park the forklift truck directly behind the hook, set the selector lever to N position, and pull up the parking brake lever.
2) Ensure that the accessory is in a position that allows it to be easily mounted to the accessory rack.

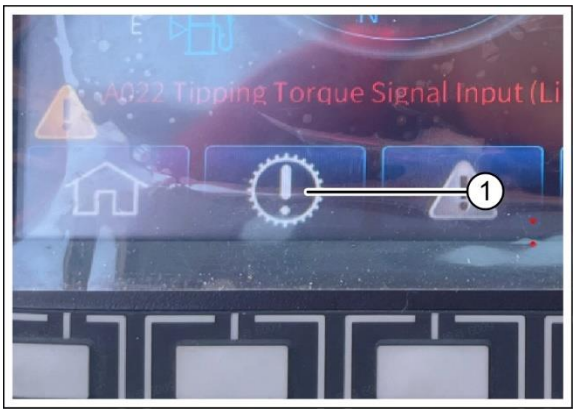


3) Lower the boom so that the accessory frame is parallel to the accessory, flip the accessory frame down, extend the boom slightly to the underside of the accessory mounting tube, lift the boom slightly until the accessory is off the ground, pick the accessory frame up, insert the pin and bolt, and connect the rotating fork assy hydraulic connector to the head connector of the boom according to the marking.

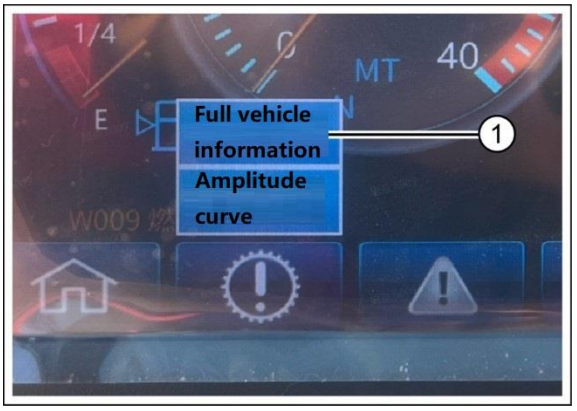
ATTENTION： For your safety, please check that the pins are fully secured before working

4.12.8 Working mode

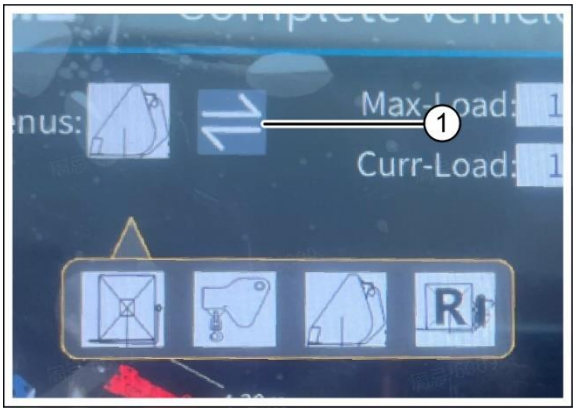
After the attachment is assembled, select the corresponding working mode.



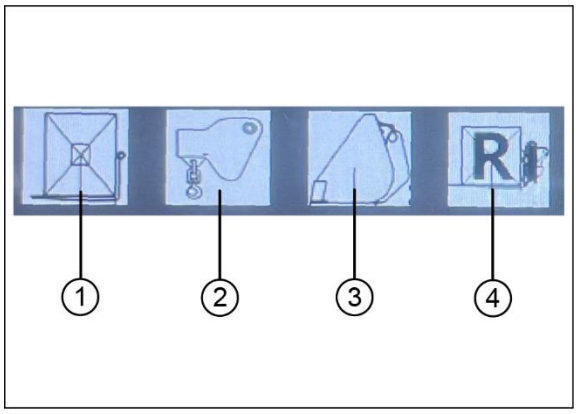
1) After the machine is powered on, select "Vehicle information query"



2) Select "Vehicle information" in the pop-up dialog box.



3) Enter the "Complete Vehicle Status" interface and select the attachment toggle button.



1 Fork
2 Hook
3 Bucket
4 Rotating fork

4) Select the working mode of the corresponding attachment according to the installed attachment, and wait for the response after selection.

4.13 Fault code

Warning code

S/N	Name (alarm code is displayed as W+DTC)	Description
1	T_Warning_001_GearNotInNeutral	Do not start the engine in N gear
2	T_Warning_002_ByPassOn	Force switch on
3	T_Warning_003_MbMinAnglLmt	Boom minimum angle limit
4	T_Warning_004_MbMaxAnglLmt	Maximum boom angle limit (outrigger landing)
5	T_Warning_005_MbMinLenLmt	Minimum boom length limit
6	T_Warning_006_MbMaxLenLmt	Maximum boom length limit
7	T_Warning_007_FuelLevelAdcGtMax	Oil level sensor short circuit
8	T_Warning_008_FuelLevelAdcLtMin	Oil level sensor open circuit
9	T_Warning_009_FuelPercLtLow	Low fuel level
10	T_Warning_010_JackStopUpByTeleOut	Do not raise left and right outriggers after the boom is extended
11	T_Warning_011_TransInSleepMode	Transmission enters eye rest mode
12	T_Warning_012_MbMaxAnglLmt_NJackDw	Maximum boom angle limit (outrigger raised)
13	T_Warning_013_TipOverOn	The torque anti-tipping signal input is prohibited to move in the dangerous direction.
14	T_Warning_014_StopTravelByJackDw	It is forbidden to move after the outrigger is on the ground.
15	T_Warning_015_StopJackUpByMbAngleLT60	When the Boom angle is greater than 60 degrees, it is forbidden to retract the outrigger.
16	T_Warning_016_StopForwardBySeatNotPress	Do not engage the D gear when the seat is not pressed down
17	T_Warning_017_StopBackwardBySeatNotPress	Do not engage the R gear when the seat is not pressed down
18	T_Warning_018_StopTruckBodyMoveByMbAnglLt30	Body action is prohibited after the boom angle is greater than 30 degrees
19	T_Warning_019_StopAmpUpChassis_X_TiltOver	The luffing upward action is prohibited when the inclination of the chassis along the X axis exceeds the setting.
20	T_Warning_020_StopAmpUpChassis_Y_TiltOver	The luffing upward action is prohibited when the inclination of the chassis along the Y axis exceeds the setting.
21	T_Warning_021_StopTeleOutChassis_X_TiltOver	Forwarding arm action is prohibited when the Inclination of the chassis along the X axis exceeds the setting

22	T_Warning_022_StopTeleOutChassis_Y_TiltOver	Forwarding arm action is prohibited when the Inclination of the chassis along the Y axis exceeds the setting
23	T_Warning_023_StopForkDwChassis_X_TiltOver	The Fork drop action is prohibited when the Inclination of the chassis along the X axis exceeds the setting.
24	T_Warning_024_StopForkDwChassis_Y_TiltOver	The Fork drop action is prohibited when the Inclination of the chassis along the Y axis exceeds the setting.
25	T_Warning_025_StopStabHInManOutOffSeat	Stop retracting the horizontal outrigger after leaving the seat
26	T_Warning_026_StopStabHInStab_onGround	Stop retracting the horizontal outrigger after the landing of vertical outrigger
27	T_Warning_027_StopStabInBoomTeleOut	Stop retracting the outrigger and after the boom is extended
28	T_Warning_028_StopStabHInBmAngGt55	Stop retracting the outrigger after the boom angle is greater than 55 degrees
29	T_Warning_029_StopStabHInTurNotInCenter	Stop retracting the outrigger when the turret is not directly in front.
30	T_Warning_030_StopBmAmpUpManModeStabNotOnGnd	When the outrigger is not on the ground in the man mode, luffing upward action is prohibited
31	T_Warning_031_StopTeleOutManModeStabNotOnGnd	When the outrigger is not on the ground in the man mode, boom extension action is prohibited
32	T_Warning_032_StopForkUpDwManModeStabNotOnGnd	When the outrigger is not on the ground in the man mode, the fork action is prohibited
33	T_Warning_051_MdpMBAmpUp_Cutoff	Load moment limiter cuts off the upward luffing action
34	T_Warning_052_MdpMBAmpDw_Cutoff	Load moment limiter cuts off downward luffing action
35	T_Warning_053_MdpMBTeleOut_Cutoff	Load moment limiter cuts off the extending action of the boom
36	T_Warning_054_MdpMBTeleIn_Cutoff	Load moment limiter cuts off the retraction action of the boom
37	T_Warning_055_MdpTurretCW_Cutoff	Load moment limiter cuts off the clockwise action of the turret
38	T_Warning_056_MdpTurretCCW_Cutoff	Load moment limiter cut-off turret counterclockwise action
39	T_Warning_057_MdpForkUp_Cutoff	Upper action of limiter cut-off fork
40	T_Warning_058_MdpForkDw_Cutoff	Limiter cut-off fork downward action
41	T_Warning_061_sbStopTurretSlewing	If the turret rotation switch is not turned on, turret rotation is prohibited
42	C_WARNING_100_ECU_TimeOutStopEngineStart	The communication failure of engine CAN prohibits engine start
43	C_WARNING_101_ECU_NotNeutralGearStopEngineStart	It is prohibited to start the engine when the gear is not on the N gear.
44	C_WARNING_102_ECU_AntiRecrankingStopEngineStart	Engine start is prohibited during the second start time.
45	C_WARNING_103_ECU_EmergencyPumpOnStopEngine Start	No engine start after emergency pump is started

Alarm code

S/N	Name (DTC displayed as "A+DTC")	Description
1	T_ALARM_001_SysBrakePressureLow	Low system pressure
2	T_ALARM_002_JoyStickTimeOut	Handle or joystick CAN bus communication timeout
3	T_ALARM_003_TransmissionTimeOut	Transmission CAN bus communication timeout
4	T_ALARM_004_EngineTimeOut	Engine CAN bus communication timeout
5	T_ALARM_005_MBLengthRdn	Boom length redundancy fault
6	T_ALARM_006_BoomLengthCh1OpenCircuit	Boom length sensor channel 1 Open circuit
7	T_ALARM_007_BoomLengthCh1ShortCircuit	Boom length sensor channel 1 Short circuit
8	T_ALARM_008_BoomLengthCh2OpenCircuit	Boom length sensor channel 2 Open circuit
9	T_ALARM_009_BoomLengthCh2ShortCircuit	Boom length sensor channel 2 short circuit
10	T_ALARM_010_BoomLengthCh1ActMax	The actual length of boom length sensor channel 1 is greater than the maximum set value
11	T_ALARM_011_BoomLengthCh1ActMin	The actual length of boom length sensor channel 1 is less than its minimum set value
12	T_ALARM_012_BoomLengthCh2ActMax	The actual length of boom length sensor channel 2 is greater than its maximum set value

13	T_ALARM_013_BoomLengthCh2ActMin	The actual length of boom length sensor channel 2 is less than its minimum set value
14	T_ALARM_014_BoomAngleCh1ShortCircuit	Boom angle sensor channel 1 short circuit fault
15	T_ALARM_015_BoomAngleCh1OpenCircuit	Boom angle sensor channel 1 open circuit fault
16	T_ALARM_016_BoomAngleCh1ActMax	The actual angle of boom angle sensor channel 1 is greater than the maximum set value
17	T_ALARM_017_BoomAngleCh1ActMin	The actual angle of boom angle sensor channel 1 is less than the minimum set value
18	T_ALARM_018_ChassisTilt_X_AdcShortCircuit	Chassis inclination sensor X channel 1 short circuit
19	T_ALARM_019_ChassisTilt_X_AdcOpenCircuit	Chassis inclination sensor X channel 1 open circuit
20	T_ALARM_020_ChassisTilt_X_ActMax	The actual angle of chassis inclination sensor X channel 1 is greater than maximum set value
21	T_ALARM_021_ChassisTilt_X_ActMin	The actual angle of chassis inclination sensor X channel 1 is less than the minimum set value
22	T_ALARM_022_TipOverOn	Load moment limiter cuts off the signal
23	T_ALARM_023_ChassisTilt_Y_AdcShortCircuit	Channel 1 of chassis inclination sensor Y is short circuited
24	T_ALARM_024_ChassisTilt_Y_AdcOpenCircuit	Channel 1 of chassis inclination sensor Y is open circuited
25	T_ALARM_025_ChassisTilt_Y_ActMax	The actual angle of channel 1 of chassis inclination sensor Y is greater than the maximum set value

26	T_ALARM_026_ChassisTilt_Y_ActMin	The actual angle of chassis inclination sensor Y channel 1 is less than minimum set value
27	T_ALARM_027_TruckEStop1_On	Chassis emergency stop press
28	T_ALARM_028_MBLengthRdnErr	Boom length redundancy fault
29	T_ALARM_029_LFJackPressRndErr	Front left outrigger pressure redundancy fault
30	T_ALARM_030_RFJackPressRndErr	Front right outrigger pressure redundancy fault
31	T_ALARM_031_LoadCellRndErr	Load cell redundancy fault
32	T_ALARM_032_LRJackPressRndErr	Rear left Outrigger pressure Redundancy fault
33	T_ALARM_033_RRJackPressRndErr	Right rear Outrigger pressure Redundancy fault
34	T_ALARM_034_BmAmpJoyFullUpLimit	Boom luffing up Handle more than the Set value
35	T_ALARM_035_BmAmpJoyFullDwLimit	Boom luffing down Handle more than Set value
36	T_ALARM_036_BmTeleJoyFullUpLimit	Boom telescopic extension Handle exceeds Set value
37	T_ALARM_037_BmTeleJoyFullDwLimit	Boom retraction handle or joystick exceeds set value
38	T_ALARM_038_ForkUpDwJoyFullUpLimit	Fork lifting and lowering: Up joystick exceeds Set value
39	T_ALARM_039_ForkUpDwJoyFullDwLimit	Fork lifting and lowering: Down joystick exceeds Set value
40	T_ALARM_040_TurretRotJoyFullUpLimit	Turret rotation clockwise handle or joystick exceeds set value
41	T_ALARM_041_TurretRotJoyFullDwLimit	The anticlockwise joystick of the turret rotation exceeds the set value
42	T_ALARM_042_CageRotJoyFullUpLimit	The clockwise joystick of the platform rotation exceeds the set value

43	T_ALARM_043_CageRotJoyFullDwLimit	The anticlockwise joystick of the platform rotation exceeds the set value
44	T_ALARM_044_BrakeSysPresAdcOpenCircuit	Open circuit of system pressure sensor channel 1
45	T_ALARM_045_BrakeSysPresAdcShortCircuit	System pressure sensor channel 1 short circuit
46	T_ALARM_046_BoomAngleCh2OpenCircuit	Boom angle sensor channel 1 open circuit fault
47	T_ALARM_047_BoomAngleCh2ShortCircuit	Boom angle sensor channel 2 short circuit
48	T_ALARM_048_BrakeSysPresAdcOpenCircuit	System pressure sensor channel 2 open circuit
49	T_ALARM_049_BrakeSysPresAdcShortCircuit	System pressure sensor channel 2 short circuit
50	T_ALARM_052_TurretMc2mVPWRA_LowVoltage	The supply voltage of turret controller output power supply A is low
51	T_ALARM_053_TurretMc2mVPWRB_LowVoltage	The supply voltage of turret controller output power supply B is low
52	T_ALARM_054_TurretMc2mVPWRC_LowVoltage	The supply voltage of turret controller output power supply C is low
53	T_ALARM_055_TurretMc2mVPWRD_LowVoltage	The supply voltage of turret controller output power supply D is low
54	T_ALARM_056_TurretMc2mVPWRE_LowVoltage	Supply voltage of the turret controller output power supply E is low
55	T_ALARM_057_TurretMc2mVOut5_LowVoltage	Supply voltage of 5V output power of the turret controller is low
56	T_ALARM_058_TurretMc2mVOut15_LowVoltage	Supply voltage of 15V output power of the turret controller is low
57	T_ALARM_059_BmAmpJoyFullUpLimit_RC	Boom amplitude with remote controller: joystick up exceeds set value
58	T_ALARM_060_BmAmpJoyFullDwLimit_RC	Boom amplitude with remote controller: the downward joystick exceeds the set value
59	T_ALARM_061_BmTeleJoyFullUpLimit_RC	Boom extension and retraction with remote controller: the up joystick exceeds the

		set value
60	T_ALARM_062_BmTeleJoyFullDwLimit_RC	Boom extension and retraction with remote controller: the down joystick exceeds the set value
61	T_ALARM_063_ForkUpDwJoyFullUpLimit_RC	Fork lifting and lowering with remote controller: the up joystick exceeds the set value
62	T_ALARM_064_ForkUpDwJoyFullDwLimit_RC	Remote controller fork lifting and lowering: down joystick exceeds set value
63	T_ALARM_065_TurretRotJoyFullUpLimit_RC	Turret rotation with remote controller: clockwise rotation joystick exceeds set value
64	T_ALARM_066_TurretRotJoyFullDwLimit_RC	Turret rotation with remote controller: counterclockwise rotation joystick exceeds set value
65	T_ALARM_067_CageRotJoyFullUpLimit_RC	Remote controller platform rotation: clockwise rotation joystick exceeds set value
66	T_ALARM_068_CageRotJoyFullDwLimit_RC	Remote controller platform rotation: counterclockwise rotation joystick exceeds set value
67	T_ALARM_069_MbAngleRdnErr	Angle sensor redundancy fault
68	T_ALARM_070_LoadCellCh1OpenCircuit	Load cell channel 1 open circuit
69	T_ALARM_071_LoadCellCh1ShortCircuit	Load cell channel 1 short circuit
70	T_ALARM_072_LoadCellCh2OpenCircuit	Load cell channel 2 open circuit
71	T_ALARM_073_LoadCellCh2ShortCircuit	Load cell channel 2 short circuit
72	T_ALARM_074_LmiOM_CoffirmOffTimeOut	Load moment limiter cancel timeout under the working condition

73	T_ALARM_075_LmiOM_CoffirmOnTimeOut	Load moment limiter determine timeout under the working condition
74	C_ALARM_100_ECU_TIMEOUT	Engine EUC communication timeout alarm
75	C_ALARM_101_ENCODER_TIMEOUT	Turret rotation encoder communication timeout alarm
76	C_ALARM_102_TILT_SENSOR_TIMEOUT	Chassis level sensor communication timeout alarm
77	C_ALARM_103_DANFOSS_PUMP_TIMEOUT	DANFOSS travel pump controller TCU communication timeout alarm
78	C_ALARM_104_ACQ_TIMEOUT	ACQ length angle sensor communication timeout alarm
79	C_ALARM_105_JOYSTICK_LEFT_TIMEOUT	Left action handle communication timeout alarm
80	C_ALARM_106_JOYSTICK_RIGHT_TIMEOUT	Right action handle communication timeout alarm
81	C_ALARM_107_MDP_LMI_TIMEOUT	MIDAC PLUS LMI force limit controller communication timeout alarm
82	C_ALARM_108_AUTEC_REMOTE_TIMEOUT	AUTEC remote control communication timeout alarm
83	C_ALARM_109_NOT_USED	NOT USED
84	C_ALARM_110_STAB_V_SENSOR_FAULT_FL	FL left front longitudinal ground outrigger sensor check fault
85	C_ALARM_111_STAB_V_SENSOR_FAULT_FR	FR right front longitudinal ground outrigger sensor check fault
86	C_ALARM_112_STAB_V_SENSOR_FAULT_RL	RL left rear longitudinal ground outrigger sensor check fault
87	C_ALARM_113_STAB_V_SENSOR_FAULT_RR	RR right rear longitudinal ground outrigger sensor check fault
88	C_ALARM_114_STAB_H_SENSOR_FAULT_FL	FL left front lateral outrigger sensor check fault
89	C_ALARM_115_STAB_H_SENSOR_FAULT_FR	FR right front lateral outrigger sensor check fault
90	C_ALARM_116_STAB_H_SENSOR_FAULT_RL	RL left rear lateral outrigger sensor check fault

91	C_ALARM_117_STAB_H_SENSOR_FAULT_RR	RR right rear lateral outrigger sensor check fault
92	C_ALARM_118_EMERGENCY_BUTTON_PWROFF	Emergency stop switch without power supply
93	C_ALARM_119_NOT_USED	NOT USED
94	C_ALARM_120_TCU_GEAR_SELEC_FAULT	Travel gear selector switch fault
95	C_ALARM_121_GEAR_M1_FB_FAULT	Transfer box 1st gear Check fault
96	C_ALARM_122_GEAR_M2_FB_FAULT	Transfer box 2nd gear Check fault
97	C_ALARM_123_TCU_Err_13_WatchDog	Travel pump watchdog fault_13
98	C_ALARM_124_TCU_Err_11_DSP_Volt	Travel pump DSP reference voltage fault_11
99	C_ALARM_125_TCU_Err_12_AnalogInjCh	Travel pump analog input fault_12
100	C_ALARM_126_TCU_Err_14_15_BatteryVolt	Travel pump battery voltage fault 14-15
101	C_ALARM_127_TCU_Err_16_SensorVolt	Travel pump sensor voltage fault_16
102	C_ALARM_128_TCU_Err_35_FNRswitch	Travel pump FNR switch fault_35
103	C_ALARM_129_TCU_Err_39_InchingSensor	Travel pump inching sensor fault_39
104	C_ALARM_130_TCU_Err_43_DrivingSensor	Travel pump drive sensor fault_43
105	C_ALARM_131_TCU_Err_31_SpeedRPM_Err	Travel pump speed sensor fault_31
106	C_ALARM_132_TCU_Err_47_ModeSwitchB	Travel pump mode switch B fault_47
107	C_ALARM_133_TCU_Err_58_MotorRPMsensor	Travel pump motor speed sensor fault_58

108	C_ALARM_134_TCU_Err_22_PumpValveFWD	Travel pump valve forward drive fault_22
109	C_ALARM_135_TCU_Err_23_PumpValveREV	Travel pump valve backward drive fault_23
110	C_ALARM_136_TCU_Err_28_HydMotorCtrlValve	Travel pump hydraulic motor control valve fault_28
111	C_ALARM_137_TCU_Err_25_DOutputsA1A2	Travel pump output A1A2 fault_25
112	C_ALARM_138_TCU_Err_26_DOutputsB1B2	Travel pump output B1B2 fault_26
113	C_ALARM_139_TCU_Err_75_EngineRPMpoti	Travel pump engine speed POTI_75
114	C_ALARM_140_TCU_Err_72_CANmsgTimeout	Travel pump CAN bus communication timeout_72
115	C_ALARM_141_TCU_Err_77_TemperatureSensor	Travel pump temperature sensor fault_77
116	M_ALARM_201_E2promAlarm	Mdp Load moment limiter E2PROM error
117	M_ALARM_202_Can1_InitErr	Mdp Load moment limiter CAN1 Initialization error
118	M_ALARM_203_Can0_InitErr	Mdp Load moment limiter Initialization error
119	M_ALARM_204_Mds_InitErr	Mdp Load moment limiter Initialization error
120	M_ALARM_205_E2P_InitErr	Mdp load moment limiter E2PROM initialization error
121	M_ALARM_206_DataExc_InitErr	Mdp load moment limiter data exchange initialization error
122	M_ALARM_207_Task1_InitErr	Mdp load moment limiter Task 1 initialization error
123	M_ALARM_208_Task2_InitErr	Mdp load moment limiter Task 2 initialization error
124	M_ALARM_209_Task3_InitErr	Mdp load moment limiter Task 3 initialization error
125	M_ALARM_210_Task4_InitErr	Mdp Load moment limiter Task 4 Initialization error

126	M_ALARM_211_FlashInt_InitError	Mdp force limiter flash initialization error
127	M_ALARM_212_AL_ERam_Nerror	Mdp Load moment limiter ERAM error
128	M_ALARM_213_DExc_Error	Mdp Load moment limiter DExc error
129	M_ALARM_214_CFlash_Nerror	Mdp Load moment limiter CFLASH error
130	M_ALARM_215_TWdo_VIn_A	Mdp Load moment limiter TWdo_VIn_A error
131	M_ALARM_216_TIn_Error	Mdp Load moment limiter TIn_Error error
132	M_ALARM_217_Outputs_Error	Mdp Load moment limiter output error
133	M_ALARM_218_TWdo_Reset	Mdp Load moment limiter TWdo_Reset error
134	M_ALARM_240_C1_InitRamAlarm	Mdp Load moment limiter CPU1 initialization RAM error
135	M_ALARM_241_C1_IntFlashCRCError	Mdp Load moment limiter CPU1 internal FLASH CRC error
136	M_ALARM_242_C1_IOSysTaskStatus	Mdp Load moment limiter CPU1 IO task error
137	M_ALARM_243_C1_E2promAlarm	Mdp Load moment limiter CPU1 E2PROM error
138	M_ALARM_244_C1_CAN_Init_ErrorCode	Mdp Load moment limiter CPU1 CAN Initialization error
139	M_ALARM_245_C1_DataExc_InitError	Mdp Load moment limiter CPU1 Data exchange initialization error
140	M_ALARM_246_C1_DExc_FrmError	Mdp load moment limiter CPU1 DExc error
141	M_ALARM_247_C1_DExc_NCrcError	Mdp load moment limiter CPU1 DExc_NCRC error
142	M_ALARM_248_C1_DaM_Idle_RunError	Mdp load moment limiter CPU1 DaM_Idle running error
143	M_ALARM_249_C1_DaM_Task3_RunError	Mdp load moment limiter CPU1 DaM_Task3 running error

144	M_ALARM_250_C1_SqM_Error	Mdp load moment limiter CPU1 SqM error
145	M_ALARM_251_BypassActive	Mdp load moment limiter bypass open
146	M_ALARM_301_PL_A_Fault_Tmin	Open circuit in channel A of pressure sensor in rodless chamber of load moment limiter derricking cylinder
147	M_ALARM_302_PL_A_Fault_Tmax	Load moment limiter derricking cylinder with rodless cavity pressure sensor channel A is short circuited
148	M_ALARM_303_PH_A_Fault_Tmin	Load moment limiter derricking cylinder with rod cavity pressure sensor channel A is open circuited
149	M_ALARM_304_PH_A_Fault_Tmax	Load moment limiter derricking cylinder with rod cavity pressure sensor channel A is short circuited
150	M_ALARM_305_PL_B_Fault_Tmin	Open circuit in channel B of pressure sensor in rodless cavity of load moment limiter derricking cylinder
151	M_ALARM_306_PL_B_Fault_Tmax	Short circuit in channel B of pressure sensor in rodless cavity of load moment limiter derricking cylinder
152	M_ALARM_307_PH_B_Fault_Tmin	Open circuit in channel B of pressure sensor in rod cavity of load moment limiter derricking cylinder
153	M_ALARM_308_PH_B_Fault_Tmax	Load moment limiter derricking cylinder rod cavity pressure sensor channel B short circuit
154	M_ALARM_309_CCYl_PL_A_Fault_Tmin	Load moment limiter fork cylinder rodless cavity pressure sensor channel A open

		circuit
155	M_ALARM_310_CCYl_PL_A_Fault_Tmax	Load moment limiter fork cylinder rodless cavity pressure sensor channel A short circuit
156	M_ALARM_311_CCYl_PH_A_Fault_Tmin	Load moment limiter fork cylinder rod cavity pressure sensor channel A open circuit
157	M_ALARM_312_CCYl_PH_A_Fault_Tmax	Load moment limiter fork cylinder rod cavity pressure sensor channel A Short circuit
158	M_ALARM_313_CCYl_PL_B_Fault_Tmin	Load moment limiter fork cylinder rodless cavity pressure sensor channel B open circuit
159	M_ALARM_314_CCYl_PL_B_Fault_Tmax	Load moment limiter fork cylinder rodless cavity pressure sensor channel B short circuit
160	M_ALARM_315_CCYl_PH_B_Fault_Tmin	Open circuit of Load moment limiter fork cylinder rod cavity pressure sensor channel B
161	M_ALARM_316_CCYl_PH_B_Fault_Tmax	Load moment limiter fork cylinder rod cavity pressure sensor channel B short circuit
162	M_ALARM_317_PL_D_Fault_MaxDiff	Redundancy fault of load moment limiter derricking cylinder rodless cavity pressure sensor
163	M_ALARM_318_PH_D_Fault_MaxDiff	Redundancy fault of load moment limiter derricking cylinder rod cavity pressure sensor
164	M_ALARM_319_PL_D_Fault_MaxDiff	Redundancy fault of load moment limiter fork cylinder rodless cavity pressure sensor
165	M_ALARM_320_PH_D_Fault_MaxDiff	There is redundancy fault of rod cavity pressure for load moment limiter fork

		cylinder.
166	M_ALARM_321_A1A_Fault_Rmin	The actual angle of load moment limiter angle sensor channel A is less than the set value
167	M_ALARM_322_A1A_Fault_Rmax	The actual angle of load moment limiter angle sensor channel A is greater than the set value
168	M_ALARM_323_A1B_Fault_Rmin	The actual angle of load moment limiter angle sensor channel B is less than set value
169	M_ALARM_324_A1B_Fault_Rmax	The actual angle of load moment limiter angle sensor channel B is greater than set value
170	M_ALARM_325_A1D_Fault_MaxDiff	Load moment limiter angle sensor redundancy error
171	M_ALARM_326_S1A_Fault_Tmin	Analog value of load moment length sensor channel A is smaller than set value
172	M_ALARM_327_S1A_Fault_Tmax	Analog value of load moment length sensor channel A is bigger than set value
173	M_ALARM_328_S1A_Fault_Rmin	The actual length of load moment limiter length sensor channel A is shorter than set value.
174	M_ALARM_329_S1A_Fault_Rmax	The actual length of load moment limiter length sensor channel A is greater than set value
175	M_ALARM_330_S1B_Fault_Tmin	Analog value of load moment limiter length sensor channel B is less than set value
176	M_ALARM_331_S1B_Fault_Tmax	Analog value of load moment limiter length sensor channel B is greater than set value

177	M_ALARM_332_S1B_Fault_Rmin	The actual length of load moment limiter length sensor channel B is less than the set value
178	M_ALARM_333_S1B_Fault_Rmax	The actual length of load moment limiter length sensor channel B is greater than the set value.
179	M_ALARM_334_S1D_Fault_MaxDiff	Load moment limiter length sensor redundancy error
180	M_ALARM_335_TOut_U2AMU_C1_A	Load moment limiter level sensor channel A is communication timeout
181	M_ALARM_336_TOut_U2AMU_C1_B	Load moment limiter level sensor channel B is communication timeout
182	M_ALARM_337_C1_A_Fault	Load moment limiter angle sensor channel A is faulty
183	M_ALARM_338_C1_B_Fault	Load moment limiter angle sensor channel B is faulty
184	M_ALARM_339_ACXD_Fault_MaxDiff	Load moment limiter level sensor X-axis redundancy fault
185	M_ALARM_340_ACYD_Fault_MaxDiff	Load moment limiter level sensor Y-axis redundancy fault
186	M_ALARM_345_TOut_EncSlew_A	Load moment limiter turret encoder communication timeout
187	M_ALARM_346_Rdn_CongruenzaSlew	Load moment limiter turret encoder redundancy fault
188	M_ALARM_352_Fault_ByPass	Load moment limiter bypass switch on