



Operation Manual

H1840

Telescopic handler

 WARNING
--

Before operation and maintenance, the drivers and maintenance personnel are required to read this manual thoroughly. Otherwise, fatal accident may occur.

This manual shall be kept properly for future reference by the personnel concerned.

LINGONG HEAVY MACHINERY CO., LTD.

Telescopic handler Operation Manual

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Foreword

Thanks for purchasing the telescopic handler produced by Lingong Heavy Machinery Co., Ltd. This machine is designed according to EN 1459-1:2017+A1:2020. This manual introduces the mechanism, driving and operation, technical parameters and maintenance adjustment data of the telescopic handler for safety guidelines and correct use and maintenance of the machine.

How to get the best out of your machine is a goal we pursue together with you, and it depends to a large extent on how familiar you are with the machine and how carefully and thoroughly it is maintained. We sincerely hope that you will read through this manual before starting and operating 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 illustrations and descriptions in this manual are correct at the time of publication, but due to the continuous improvement of the structure and performance of our products, the design as well as operation and maintenance instructions of the product may be subject to change without notice. For the latest information of the machine or any question about this manual, please consult us.

This manual applies to telescopic handlers. Users should strictly follow the maintenance interval in the maintenance schedule to maintain the machine.

This manual should always be kept at the specified location so that it can be read at any time. This manual is an integral part of the machine and should be handed over when ownership or use of the machine is transferred. If the manual is lost, damaged or illegible, please replace it promptly!

This manual is the property of Lingong Heavy Machinery Co., Ltd., and may not be duplicated or reprinted without our written permission.

WARNING

- **Only the personnel who have been professionally trained and qualified are allowed to operate and maintain the machine.**
- **Incorrect operation, maintenance and repair are dangerous and may lead to personal injury or death.**
- **Before operation or maintenance, please read this manual thoroughly. Otherwise, do not operate, maintain or repair this machine.**
- **Please load the machine in strict accordance with the rating; otherwise all**

the consequences arising from overloading or unauthorized modification will be borne by the user.

- **The operation instructions and precautions in this manual apply only to the intended use of the machine. If the machine is used for an operation that is out of the specification herein but not prohibited, always make sure that this operation will not cause personal injury to yourself or others.**
- **Please operate the machine in strict accordance with the safety requirements in the manual. The user is responsible for all consequences caused by non-compliance with the safety requirements of the machine.**

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 expressly 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.

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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.

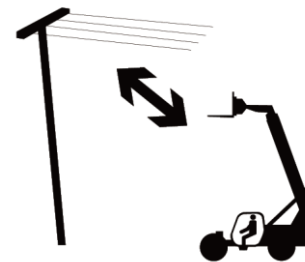
You have received proper training on the safe operation of the machine.

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

0~300V	Do not touch
300V ~ 50KV	3m
50KV ~ 200KV	5 m
200KV ~ 350KV	6 m
350KV ~ 500KV	8 m
500KV ~ 750KV	11 m
750KV ~ 1000KV	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, opening 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.
- 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.

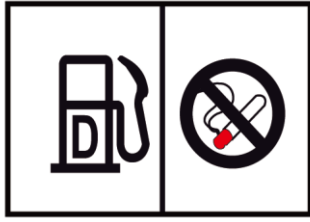
- It is forbidden to drive on slope that exceeds the rated slope of the machine.

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.

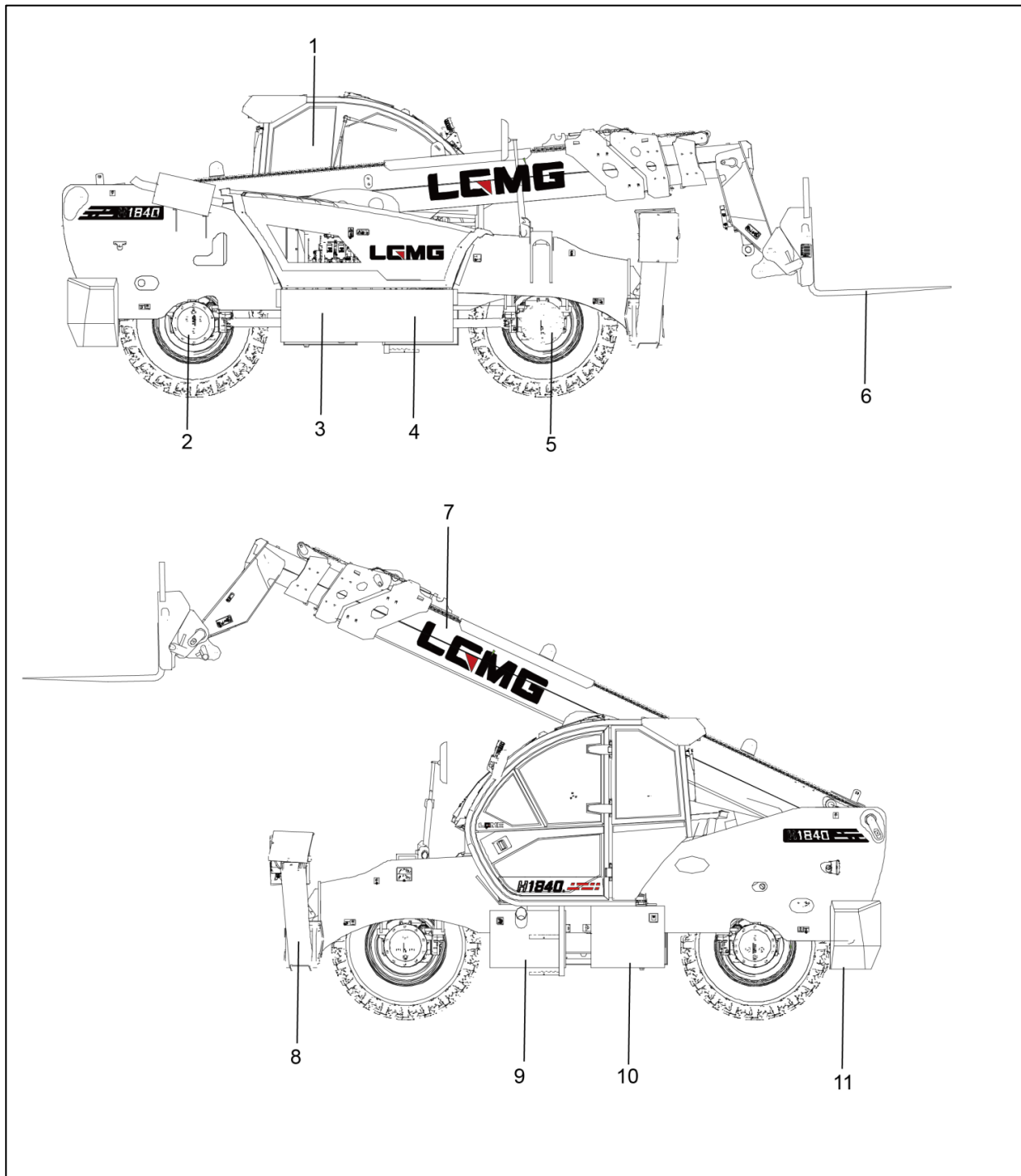
Always comply with the following rules:

- 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

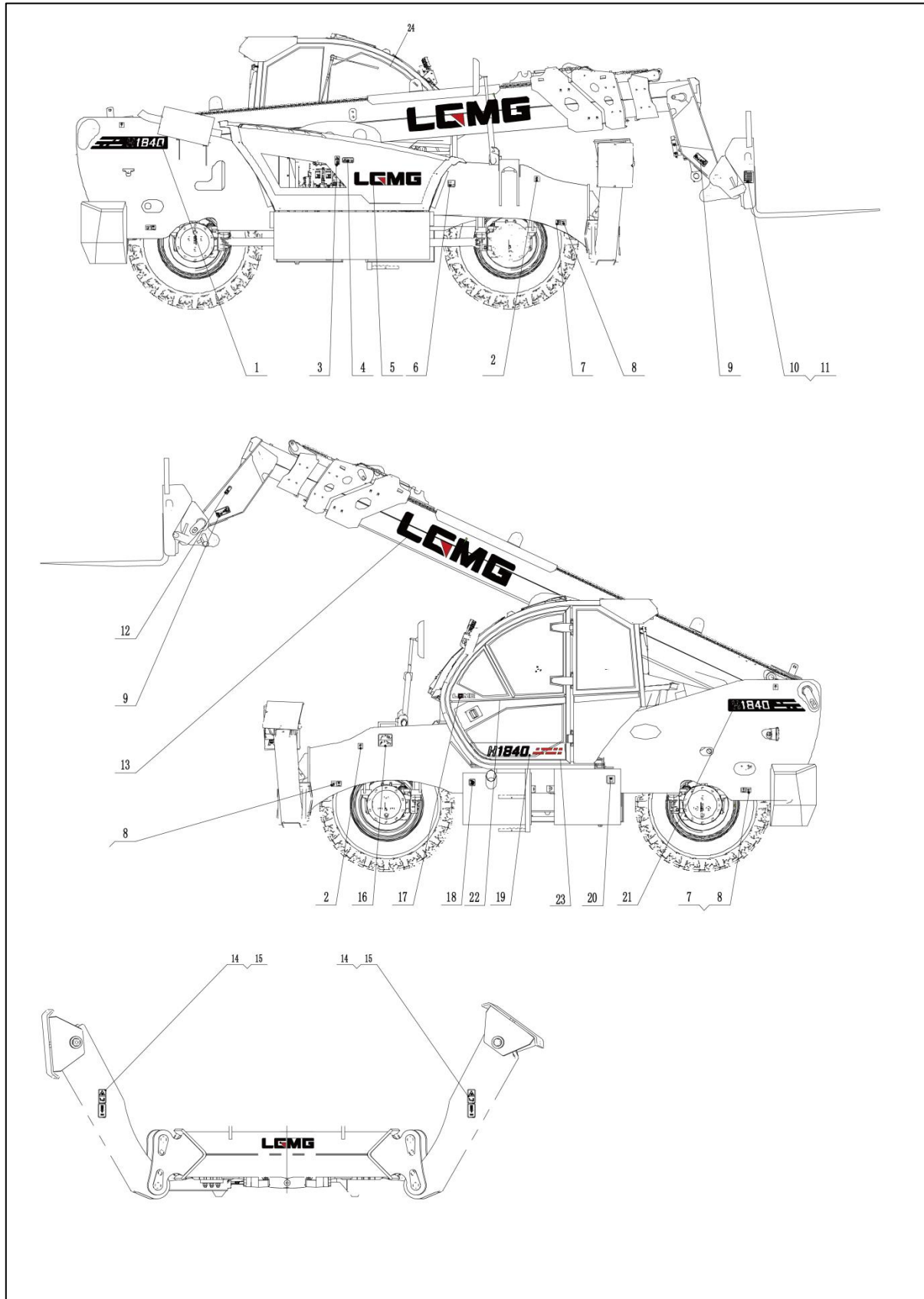
Legend of whole machine H1840


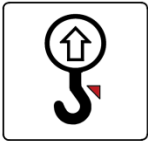



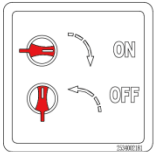




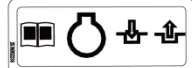


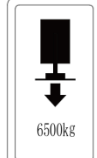

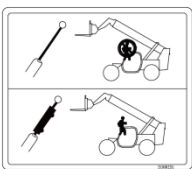


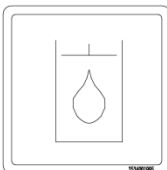






No.	Name	No.	Name
1	Cab	7	Boom
2	Rear axle	8	Outrigger mechanism
3	Engine and accessories	9	Fuel tank
4	Transmission	10	Hydraulic oil tank
5	Front axle	11	Counterweight
6	Accessory - fork		

2.2 Machine identification

H1840 Decal



1-2534002226	2-2534000027	3-2534001442	4-2534000011	5-2534002228	6-2534002181
					
7-2534002232	8-2831990027	9-2534002235	10/11-2534003488	12-2534002234	13-2534002229
					
14-2534000174	15-2831992233	16-2534002248	17-2534002251	18-2534000177	19-2534002249
					
20-2534001995	21-2534002227	22-2534003481	23-2534003489	24-2534003477	
					

No.	Name	No.	Name
1	Decal-Right model -H1840	13	Decal -Group English LOGO-230
2	Decal -Lifting	14	Decal -Keep away from outrigger warning
3	Decal -High-temperature liquid warning	15	Decal -Outrigger load
4	Decal -Internal service warning	16	Decal -Metal logo on the door
5	Decal -Group English LOGO-120	17	Decal -Service warning
6	Decal Power OFF ID	18	Decal -Fuel tank
7	Decal -Wheel load	19	Decal -Cab model
8	Decal -Lug sign	20	Decal -Hydraulic oil
9	Decal -Anti-extrusion instructions	21	Decal -Left Model Identifier-H1840
10	Decal -Accessory nameplate	22	Decal -Machine nameplate
11	Rivet	23	Decal-Hand brake
12	Decal -Quick change instruction	24	Decal-Range of motion

2.3 Machine purpose

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

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

H1840 Machine parameters

1. Overall performance parameters

Item	Parameter	Item	Parameter
Rated load (kg)	4000	Boom lifting time (s)	11~17.5
Total weight (kg)	12350	Boom lowering time (s)	16~23.5
Maximum working height (m)	17.6	Boom extension time (s)	15~22.5
Maximum horizontal reach (m)	13.1	Boom retraction time (s)	11~18
First gear speed (km/h)	5	Extension time of leveling cylinder (s)	6~14
Second gear speed (km/h)	12	Retraction time of leveling cylinder (s)	9~16
Third gear speed (km/h)	20	Extension time of outrigger cylinder (s)	15~23
Fourth gear speed (km/h)	30	Retraction time of outrigger cylinder (s)	11~18
First reverse gear speed (km/h)	5	Minimum turning radius (m)	4.2
Second reverse gear speed (km/h)	12	Theoretical max. gradeability (no-load, stowed)	65%
Third reverse gear speed (km/h)	20	Leftward/rightward inclination angle of frame	±9°
Max. braking distance (no-load, stowed) (20 km/h) (m)	5.5	Drive type	4WD, 4WS

2. Main dimensions

Item	Parameter	Item	Parameter
Overall length (mm)	6280	Wheelbase (mm)	3070
Overall width (mm)	2442	Track width (mm)	1960
Overall height (mm)	2677	Min. ground clearance (mm)	410

3. Engine system

Project	Parameter	Project	Parameter
Model	904J-E36TA	Rated speed (r/min)	2400
Displacement (ml)	3620	Maximum torque (Nm)	430/1500rpm
Rated power (kW)	74.4	Emission standard	EU stage V

4. Drive chain

Item			Parameter/Description
Transmission	Type		A/MT
	Gear		4 forward gears and 3 reverse gears
	Gear ratio	Forward gear	4.945/2.289/1.159/0.821
		Reverse gear	4.945/2.289/1.159
Front axle	Overall gear ratio		20.14
	Brake type		Multi-disc wet brake
Rear axle	Overall gear ratio		20.14
	Brake type		Multi-disc wet brake
Wheel assembly	Tire Model		440/80 R24
	Inflation pressure (MPa)		0.5

5. Hydraulic system

Item	Parameter/Description
Type	Load sensitive system
Pump displacement (ml/r)	63
Maximum working pressure (MPa)	26
Steering system pressure (MPa)	19
Brake system pressure (MPa)	3.4

6. Electronic control system

Battery(Total)	Model	6-QW-180D
	Output voltage (V)	12
	20-hour Ah	180
	Unit weight (kg)	46

7. Refilling capacity

Item	Condition	Grade	Capacity	Remarks
Hydraulic oil	Minimum temperature > -25 °C	L-HV46 low temperature hydraulic oil	180L	Recommended Chevron
	-40 °C < minimum temperature ≤ -25 °C	L-HS32 ultra-low temperature hydraulic oil		
	Minimum air temperature ≤ -40 °C	No. 10 Aviation hydraulic fluid		
Engine oil	Working environment temperature -20°C ~ 40°C	15W-40	9.5L	API CJ-4
	Working environment temperature: -25°C ~ 30°C	10W-30		
	Working environment temperature: -30°C ~ 30°C	5W-30		

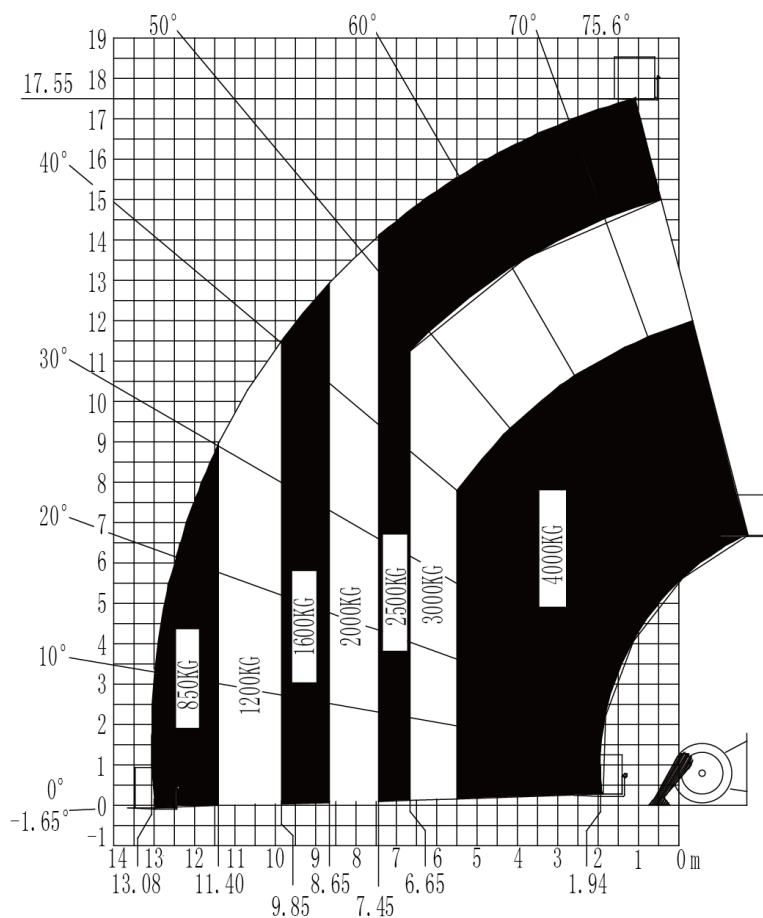
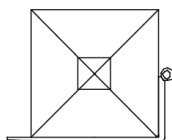
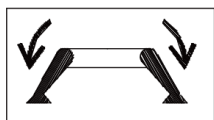
	Working environment temperature: -35°C ~ 20°C	0W-20		
Diesel fuel	Ambient temperature $\geq 4^{\circ}\text{C}$	#0 diesel fuel	150L	EN590
	Ambient temperature $\geq -5^{\circ}\text{C}$	#-10 diesel fuel		
	Ambient temperature $\geq -14^{\circ}\text{C}$	#-20 diesel fuel		
	Ambient temperature $\geq -29^{\circ}\text{C}$	#-35 diesel fuel		
Gear oil	$30^{\circ}\text{C} < \text{The lowest temperature}$	85W/140	42.95L	API GL-4
	$-10^{\circ}\text{C} < \text{The lowest temperature} < 30^{\circ}\text{C}$	85W/90		
	$-30^{\circ}\text{C} < \text{The lowest temperature} < -10^{\circ}\text{C}$	80W/90		
	The lowest temperature $< -30^{\circ}\text{C}$	75W		
Antifreeze	The lowest temperature $\geq -25^{\circ}\text{C}$	The ethylene glycol content is 50%	12.5L	Meet ASTM D6210 standard
DEF	-	-	-	ISO 22241-1

Item	Parameter	Item	Parameter
Hydraulic oil	180L (shrinkage state)	Front axle gear oil	10.6 L
Diesel fuel	150 L	Rear axle gear oil	10.6 L
Engine oil	8.5 L	Transmission gear oil	21.75 L
Antifreeze	12.5L	Diesel exhaust fluid	-

8. Range of motion

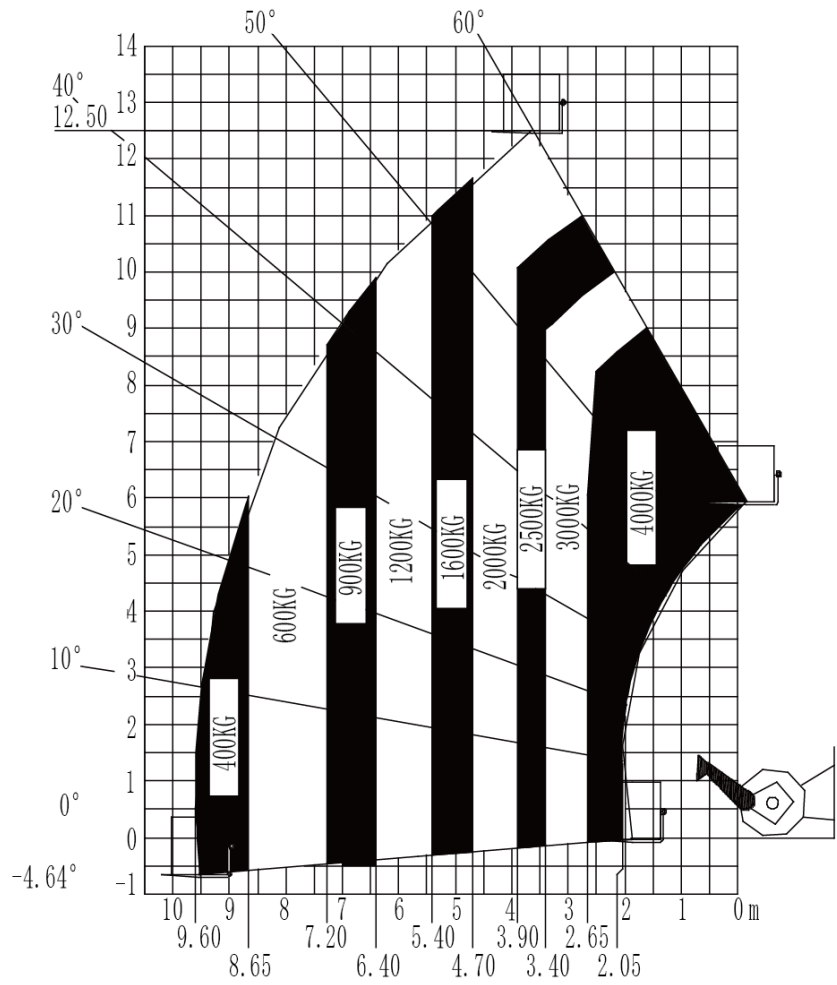
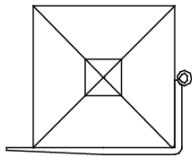
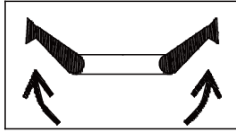
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Chapter 3 Use of Vehicles

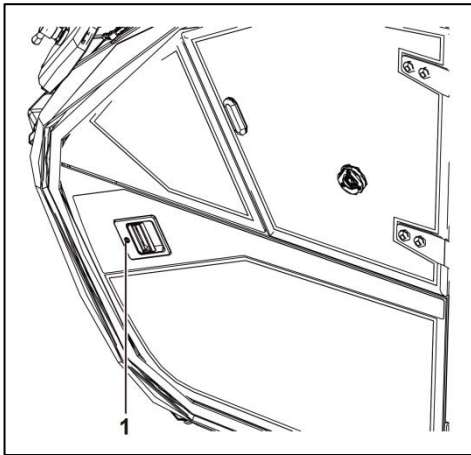


Fig. 3.1.1 Door Lock



Figure 3.1.2 Door switch

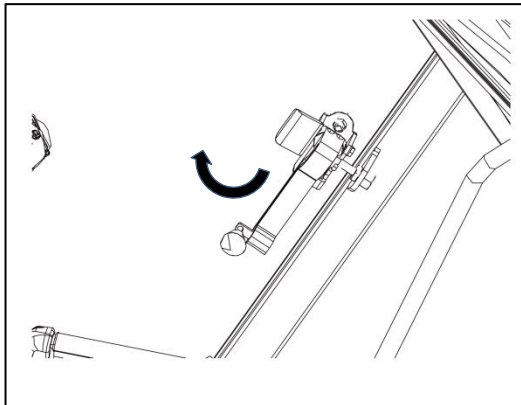


Fig. 3.1.3 Cab side window handle or joystick

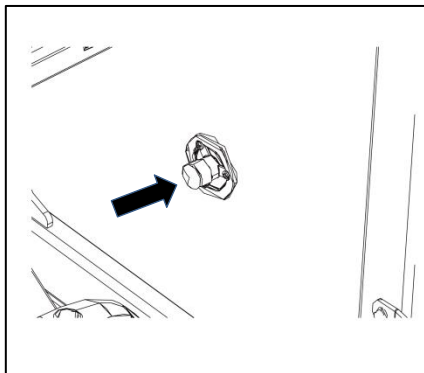


Fig. 3.1.4 Side window sucker

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

Open the side window: first lift the handle backward, turn on the locking switch, and then lift the handle horizontally to open the side window outward.

If it is necessary to fully open the side window: the opening side window can be rotated by 180 ° so that the side window glass is adsorbed on the rear side window suction cup.

Project	Parameter
Seat width	566mm
Seat height	1039mm
Fore-and-aft adjustment travel	76mm
Backrest angle adjustment	Forward tilt 20°
	Backtilt 15°
Driver weight adjustment range	45~145kg
Floating travel	±40mm

Table 3.2.1

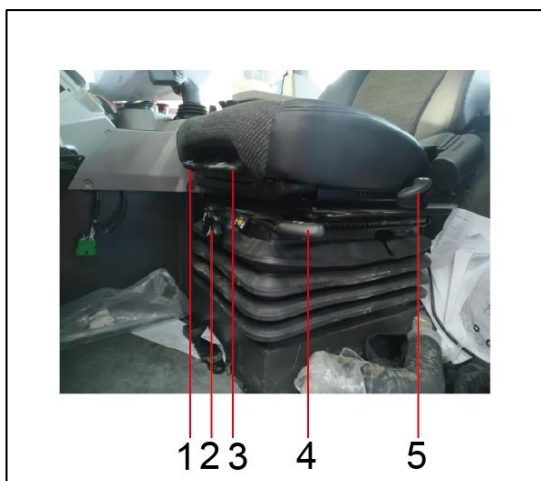


Figure 3.2.1 Seat

Project	Parameter
Seat width	529mm
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	±45mm

Table 3.2.2



CAUTION: This operation shall be carried out while the vehicle is stationary. Recover from fully open position: gently press the suction cup to disengage the side window glass.



CAUTION: When leaving the vehicle, make sure that the doors and windows of the vehicle are closed and locked. Valuables should be carried with you and not placed in the cab.

3.2 Cab interior device

3.2.1 Seat

1. See Table 3.2.1 on the left for the main parameters of the seat
2. Seat adjustment operation method:
 - 1) Seat cushion inclination adjustment: move the adjusting handle 1 upward, apply a downward force to the front end of the seat cushion, lower the front end of the seat cushion to the required position, and release the handle.
 - 2) Damping effect adjustment: according to the driver's weight and road conditions, rotate handle or joystick 2 to adjust to a suitable position.
 - 3) Adjustment of front and rear slip of seat cushion: lift up the slide rail joystick 3, adjust the seat cushion to the required position, and release the slide rail joystick.
 - 4) 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.
 - 5) Backrest angle adjustment: move the adjusting handle 5 upward, adjust to the

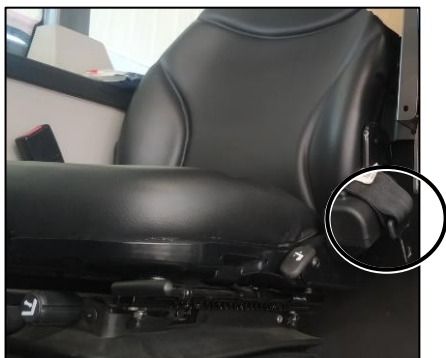


Figure 3.2.2 Seat belt

3.2.2 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.



Figure 3.2.3 Key switch

3.2.3 Key switch

Model	H1840	Remarks
Rotation position	Purpose	
P	Initial position	
O	Engine off, instrument lamp on	
I	Driving position	
II	/	
III	Starting engine	Automatic reset to drive gear

3.2.4 Emergency stop button

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



Figure 3.2.4 Emergency stop button

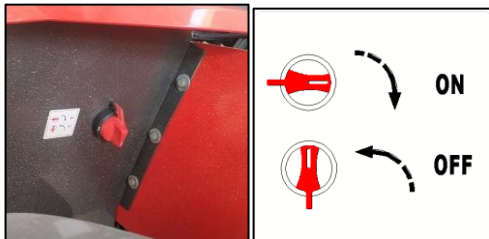


Figure 3.2.5 DC power switch

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.

3.2.5 DC Power Switch

The power master switch is located on the front side of the hood. (Currently closed)

horizontal position means connected

Vertical position indicates disconnected

⚠ 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.

3.2.6 Instrument panel



Figure 3.2.6 Display Instrument

NO.	Name	NO.	Name
1	Engine system	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	

3.2.7 Rocker switch and symbol

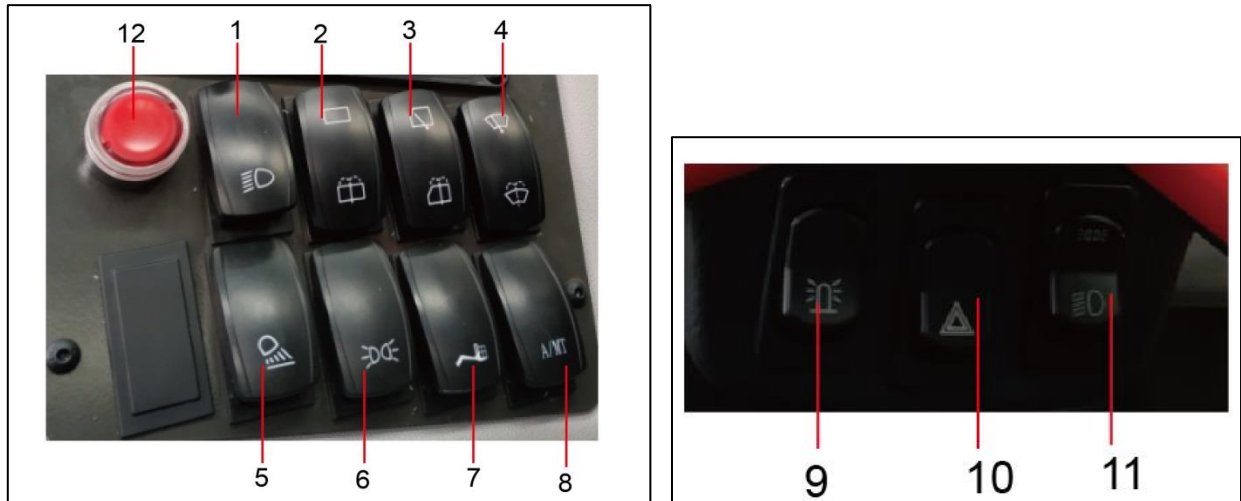








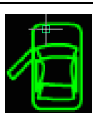









Figure 3.2.7 Rocker switch

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 drive
2	Rear window wiper spray switch	2	Rear window wiper function on	
		0	Function disabled	
		1	Rear window spray function on	Automatic reset
3	Side window wiper spray switch	2	Side window wiper function on	
		0	Function disabled	
		1	Side window spray function on	Automatic reset
4	Top window wiper spray switch	2	Top window wiper function on	
		0	Function disabled	
		1	Top window spray function enabled	Automatic reset
5	Rear working lamp switch	0	Rear working lamp function disabled	
		1	Rear working lamp function enabled	Rear working lamp drive.
6	Rocker switch of outline lamp	0	Function disabled	
		1	Function enabled	
7	Rocker switch of platform switching	0	Function disabled	
		1	Function enabled	
8	Manual/Auto rocker switch (if equipped)	1	Automatic gear engaged	
		2	Manual gear engaged	
9	Warning dome light switch	0	Function disabled	
		1	Function enabled	
10	Warning light switch	0	Function disabled	
		1	Function enabled	
11	Light switch	2	Outline light on	
		0	Function disabled	
		1	Low beam on	

NO.	Name	Status	Function	Remarks
12	DPF regeneration inhibit button		This indicator light goes on when the DPF regeneration is disabled by pressing the corresponding button. DPF regeneration will be reset after the machine is shut down, and to disable it, please press the button again.	

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. (Refer to maintenance manual for replacement instructions)
	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
	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
	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.
	Cage mode	The indicator will be on if the cage mode is enabled.















	Fork mode	When the fork mode is enabled, the indicator lights up
	Outrigger touchdown	Indication of outrigger touchdown
	Front and rear axle centering	Indication of front and rear axle centering
	4WS	Indication of 4WS mode enabled
	Crab	Crab mode enable indication
	2WS	2WS mode enable indication
	Battery power loss indication	It lights up when the battery voltage is lower than 9 V
	Wireless handle connection indicator light	This indicator light goes on when the wireless handle is connected
	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
	Low DEF level indicator light	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	
	DPF regeneration indicator light	This indicator light goes on when the DPF regeneration is working
	DPF regeneration disable indicator light	This indicator light goes on when the DPF regeneration is disabled
	DPF regeneration enable indicator light	This indicator light goes on when the DPF regeneration is enabled



Figure 3.2.8 Combination switch knob



Figure 3.2.9 Front windshield spray switch

3.2.8 Combination switch

3.2.8.1 Turn signal lamp

Pull the combination switch knob upward to turn on the right turn light; Pull the combination switch knob down to turn on the left turn light.

3.2.8.2 Headlamps

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

3.2.8.3 Wiper switch

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

0-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.

3.2.8.4 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.

3.2.9 Enable switch



CAUTION: It is necessary to press the enable switch (F) for 1 second before boom luffing, boom extension and retraction, fork leveling, left and right outrigger, and frame adjustment. 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.

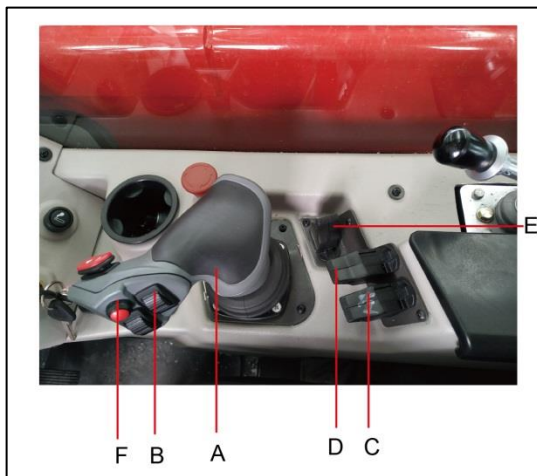


Figure 3.2.10 Hydraulic joystick

3.2.10 Hydraulic joystick

- A. Boom lifting and fork tilting controllers
- B. Boom extension and retraction control pulley
- C. Left outrigger controller (H1840)
- D. Right outrigger controller (H1840)
- E. Vehicle tilt correction controller
- F. Enable switch

Boom lifting (luffing)

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

- 1) Move the controller A backward and the boom will rise
- 2) Move the controller A forward and the boom will drop

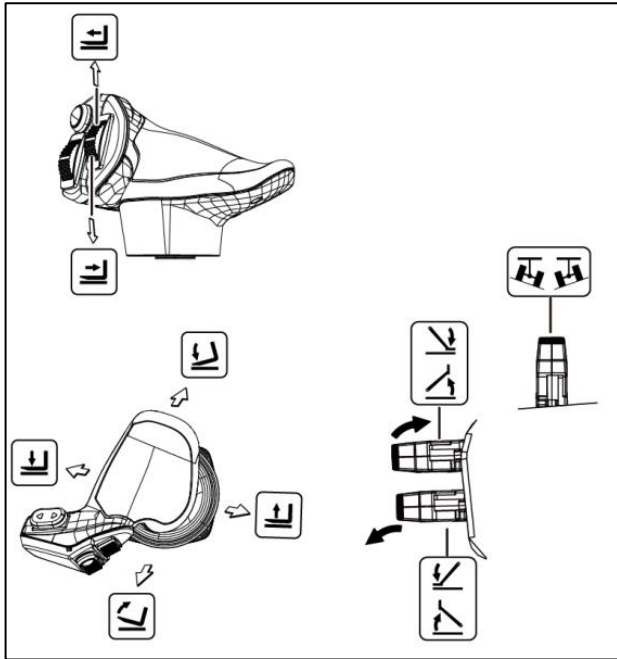


Fig. 3.2.11 Schematic diagram of manipulation

⚠ CAUTION: When the outrigger is not opened, the maximum derricking angle of the boom is 60 degrees.

Fork leveling

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

- 1) Move controller A to the left, then the fork tilts backwards
- 2) Move controller A to the right, then the fork tilts forward

Boom extension and retraction

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

- 1) Roll up pulley B, then the boom will extend
- 2) Roll down pulley B, then the boom retracts

Outrigger operation

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

- 1) Outrigger extending: move the controller CD down
- 2) Outrigger retraction: move the controller CD up

⚠ CAUTION: When the boom is extended, the outrigger can be extended, but cannot be retracted; When the boom is retracted, the outrigger can be retracted after the derricking angle is less than 60 degree.

Tilt correction of vehicle

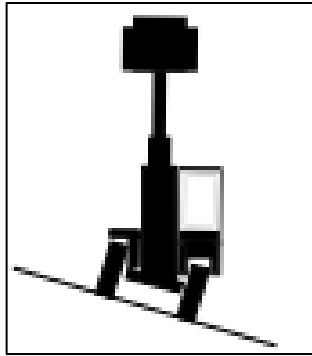


Figure 3.2.12 Tilt correction

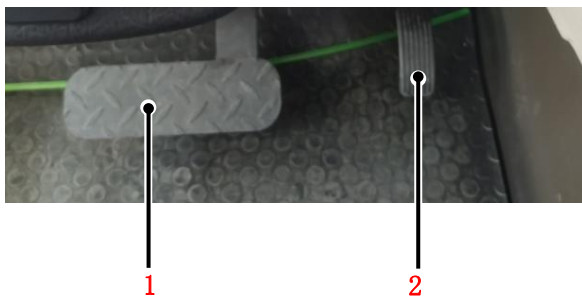


Figure 3.2.13

1. Brake pedal 2. Accelerator pedal

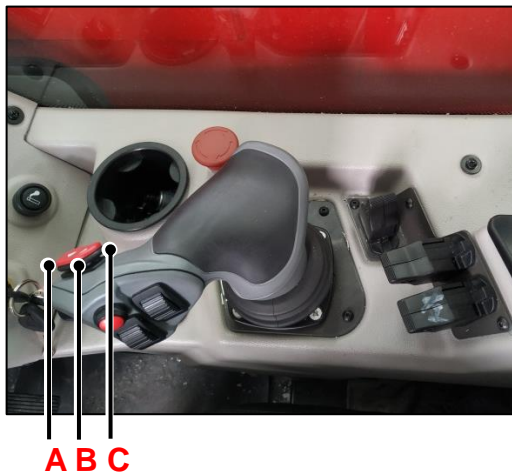


Figure 3.2.14 D Gear/N Gear/R Gear

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

- 1) Move the joystick E to the left to tilt the telescopic handler to the left.
- 2) Move the joystick E to the right to tilt the telescopic handler to the right.

! CAUTION: Tilt correction can only

be carried out when the derricking angle of the boom is less than 30 °.

3.2.11 Accelerator pedal

Accelerator pedal control Engine speed.

3.2.12 Brake pedal

The Service brake pedal acts on the front and rear wheels by boosting the hydraulic Brake system to slow and stop the Telescopic handler.

3.2.13 D gear/N gear/R gear

- 1) D gear: press the front of the switch (position A).
- 2) N gear: middle position (position B).
- 3) R gear: press the rear of the switch (position C), 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.

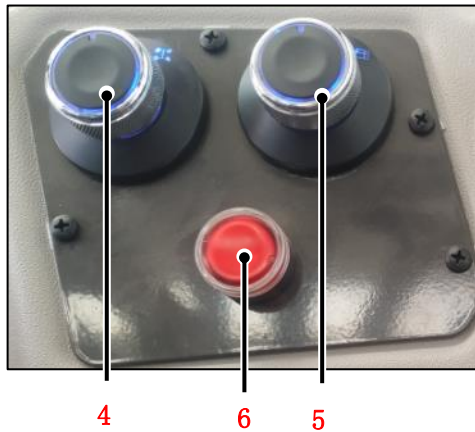
3.2.14 Variable speed gear switch

! CAUTION: The gear shall be



1. Steering wheel 2. Gear switch 3. Horn

Figure 3.2.15 gear switch



4. Steering mode selector switch
5. Driving mode selector switch
6. Override button

Figure 3.2.16 selector switch

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.

H1840 Telescopic handler fitted with four gears
In general, we recommend that you use the following gears according to the nature of your work.

- On the road: Start at 3rd gear, if the road conditions and status permit, then rise to 4th gear. In hilly areas, if conditions and road conditions permit, you can start in 2nd gear and then in 3rd gear.
- When the trailer is on the road: start in 2nd gear and shift to 3rd gear if road conditions and conditions permit.
- Carrying earth: 1st gear.
- Loading fertilizer, etc.: 2nd gear.



CAUTION: When increasing or

decreasing gears, reduce gears step by step and increase gears step by step.

3.2.15 Steering mode

1. Steering positioning indicator

As shown in Figure 3.2.17:

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

As shown in Figure 3.2.16:

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

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

3. Steering shift switch

As shown in Figure 3.2.17:

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

8: 2WS.

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



Figure 3.2.17 Steering Mode Switch

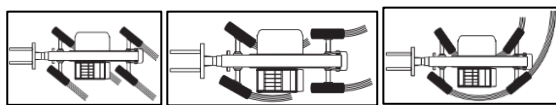


Fig.3.2.17-1 Steering Diagram

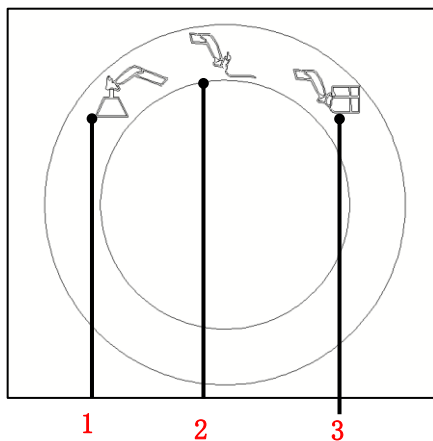


Figure 3.2.18 Driving Mode Selector Switch

3.2.16 Driving mode

As shown in Figure 3.2.18:

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.

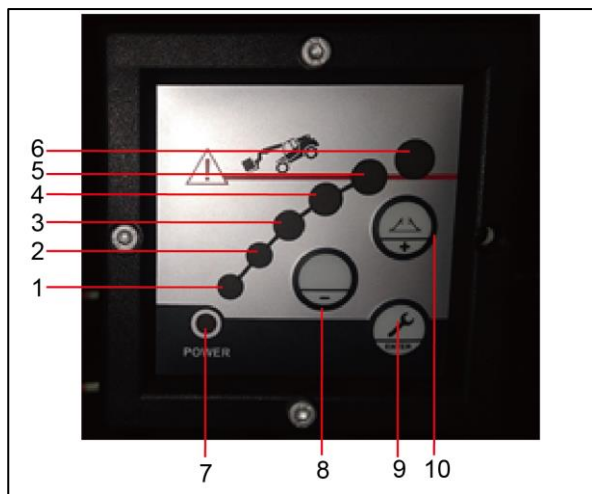


Figure 3.2.19 Longitudinal Stability Limit and Alarm

3.2.17 Longitudinal stability limit and alarm (if equipped)

The machine is equipped with a longitudinal torque monitoring device to measure the longitudinal stability of the vehicle. The reduction calibration of the monitoring device is carried out in the rear wheel alignment when the machine is stationary on the horizontal ground.

! WARNING: longitudinal stability limit and alarm are directly related to the stability of the machine. It is not allowed to modify or calibrate without permission. If you need to modify or calibrate, please contact our service personnel.

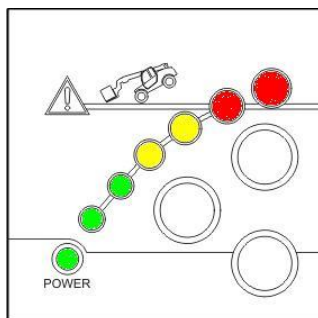


Figure 3.2.20



Figure 3.2.21

NO.	Description
1	Green indicator light is on, with no sound
2	Green indicator light is on, with no sound
3	The yellow indicator light is on, the alarm makes intermittent sound, and the vehicle is nearly overloaded
4	The yellow indicator light is on, the alarm makes intermittent sound, and the vehicle is nearly overloaded
5	The red indicator light is on, and the alarm makes a continuous sound Vehicle overloaded
6	The red indicator light is on, and the alarm makes a continuous



Figure 3.2.22

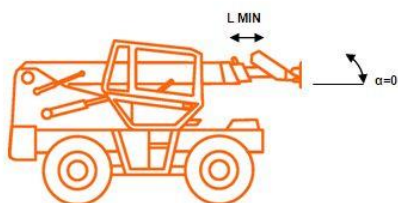


Figure 3.2.23

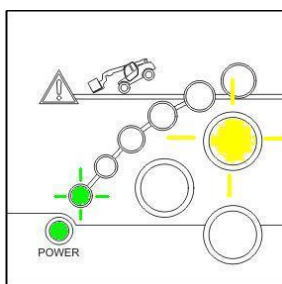


Figure 3.2.24

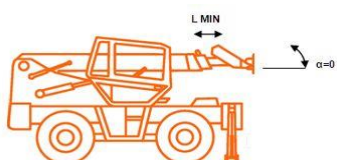


Figure 3.2.25

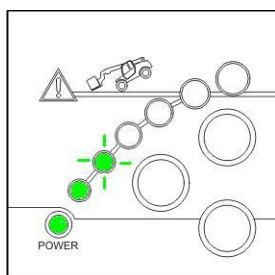
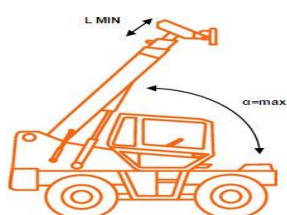



Figure 3.2.26



	sound Vehicle overloaded
7	Power indicator
8	Backspace key
9	Multiply key/Indicator of outrigger in proper position
10	OK button


Debugging instructions:

	OK button
---	-----------

1. Enter debugging mode

1) Before powering on and starting, press and hold the OK button, and turn on the key switch. At this time, all Indicators will be on. As shown in Figure 3.2.20.

2) At this time, enter the password quickly. Assume that the password is 321, that is, press

3 times  from top to bottom, press 2 times

, and then press 1 time .

After pressing, except that the power indicator is on, the second red indicator light counting from top to bottom starts to flash. As shown in figure 3.2.21

3) Press one time at this time, then the first red indicator on the top flashes, as shown in figure 3.2.22. Then press the OK button and restart the power supply to start debugging.

2. No-load calibration

1) In the first step, it is necessary to make the telescopic handler reach the state as shown in Fig. 3.2.23, that is, the boom is in the state of

Figure 3.2.27

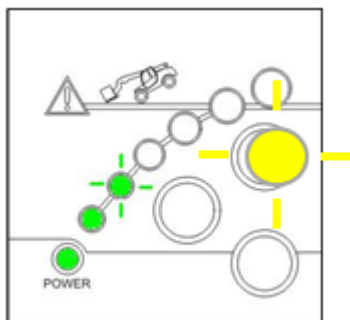


Figure 3.2.28

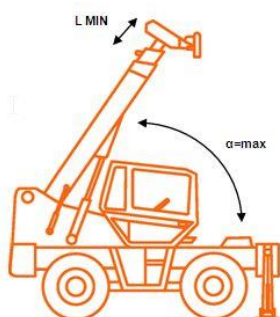


Figure 3.2.29

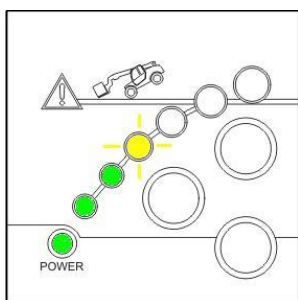


Figure 3.2.30

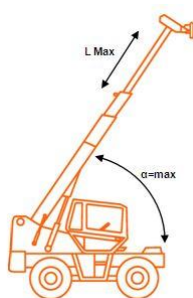


Figure 3.2.31

horizontal full retraction and not supporting the outrigger. Press once to OK button. The indicator changes to the state as shown in Figure 3.2.24, and the indicator of outrigger in proper position indicator is flashing.

2) In the second step, it is necessary to make the telescopic handler reach the state as shown in Figure 3.2.25, that is, the boom is fully retracted horizontally and supported by the outrigger. Press once to OK button. The Indicator changes to the state as shown in Figure 3.2.26.

3) In the third step, it is necessary to make the Telescopic handler reach the state as shown in Fig. 3.2.27, i.e., the boom is fully retracted at the maximum rising angle and the Outrigger is not supported. Press once to OK button. The indicator changes to the state as shown in Fig. 3.2.28. The indicator of outrigger in proper position is flashing.

4) In the fourth step, it needs to make the telescopic handler reach the state as shown in Fig. 3.2.29, that is, the boom is fully retracted at the maximum angle and the support outrigger is open. Press OK button once. The Indicator becomes as shown in Figure 3.2.30.

5) In the fifth step, it is necessary to make the telescopic handler as showed as it is in Fig. 3.2.31, that is, the boom is fully extended at the maximum angle with outrigger landing to

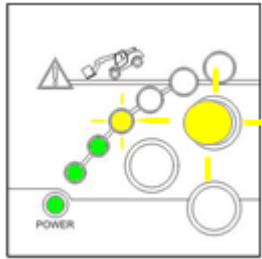


Figure 3.2.32

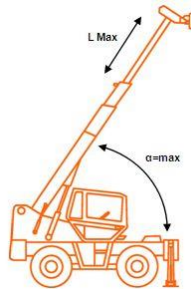


Figure 3.2.33

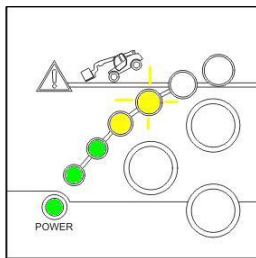


Figure 3.2.34

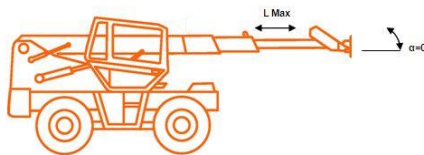


Figure 3.2.35

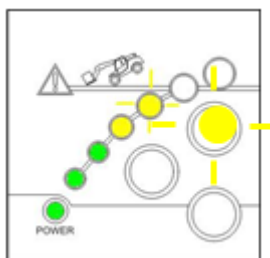


Figure 3.2.36

ground. Press OK button once. The indicator changes to the state as shown in figure 3.2.32. The indicator of outrigger in proper position is flashing.

6) Step 6: Make the telescopic handler reach the state as shown in fig. 3.2.33, that is, the boom is fully extended at the maximum angle with outrigger landing to ground. Press OK button once. The indicator changes to the state as shown in Figure 3.2.34.

7) Step 7: make the telescopic handler reach the state as shown in Fig. 3.2.35, that is, the boom is in the state of full horizontal extension and not supporting the outrigger. Press once to OK button. The indicator changes to the state as shown in Figure 3.2.36. The indicator of outrigger in proper position is flashing.

8) Step 8: Make the Telescopic handler reach the state as shown in Figure 3.2.37, that is, the Boom is fully extended at a horizontal angle and the support is Outrigger. Press once to OK button. The Indicator changes to the state as shown in Figure 3.2.38.

At this time, no-load calibration has been completed.

3. Loading correction

9) Step 9, it is necessary to make the telescopic handler reach the state as shown in Figure 3.2.39, that is, the boom is at a horizontal angle

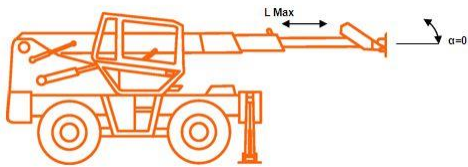


Figure 3.2.37

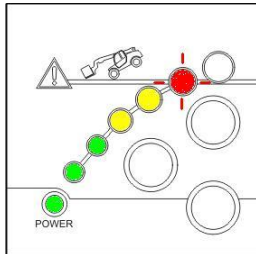


Figure 3.2.38

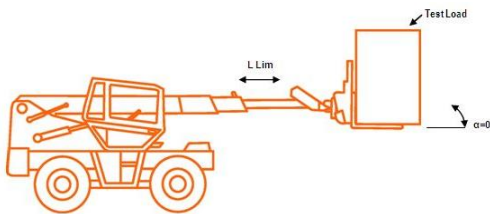


Figure 3.2.39

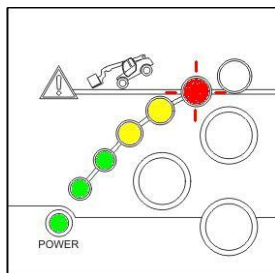


Figure 3.2.40

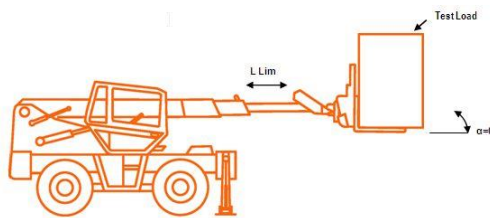


Figure 3.2.41

and the outrigger is not supported. The extension length is the limit length that the weight can extend. Press once to OK button. The indicator gets into the state as shown in Figure 3.2.40. The indicator of outrigger in proper position is flashing.

10) Step 10, it is necessary to make the telescopic handler reach the state as shown in Fig. 3.2.41, that is, the boom is at a horizontal angle and supporting outriggers are supported. The extension length is the limit length that can be extended according to the weight. Press OK button once. The indicator changes to the state as shown in Figure 3.2.42.

At this time, press the OK button once to save the parameters. Power on again, exit the debugging mode and enter the working mode.

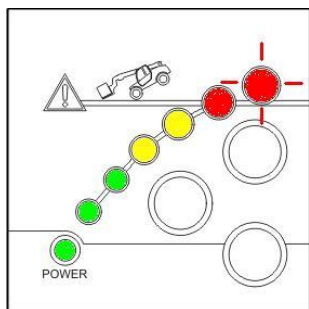


Figure 3.2.42

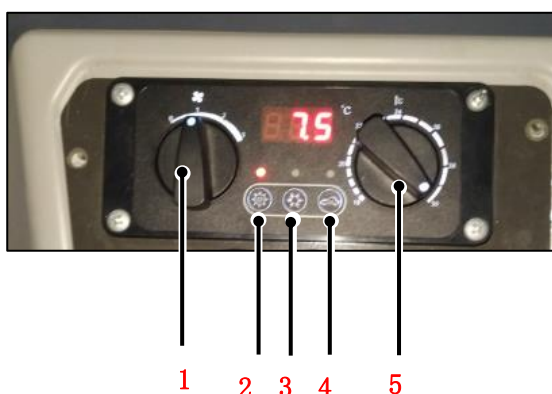


Figure 3.2.43 Air conditioning panel



Figure 3.2.44 Parking brake handle

3.2.18 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.

DTC	Description
ER1	Overvoltage (voltage > 32 V): check the generator supply circuit
ER2	Undervoltage (voltage < 18 V): check the generator supply circuit
ER3	System pressure fault: check the pressure switch circuit and system pressure
ER4	Defrost sensor open or short circuit
ER5	Return air temperature sensor open circuit or Short circuit

3.2.19 Parking brake handle

The Parking brake handle is on the right side of the seat. Pull up the parking handle to braking state, lower the handle and release the brake.

Instrument panel displays brake system pressure, and alarm when the system pressure is lower than 2.0MPa.



WARNING: Do not start the

vehicle until the parking brake signal lamp goes out!

3.2.20 Emergency Hammer

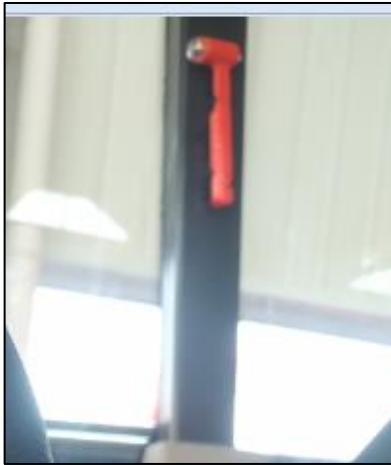
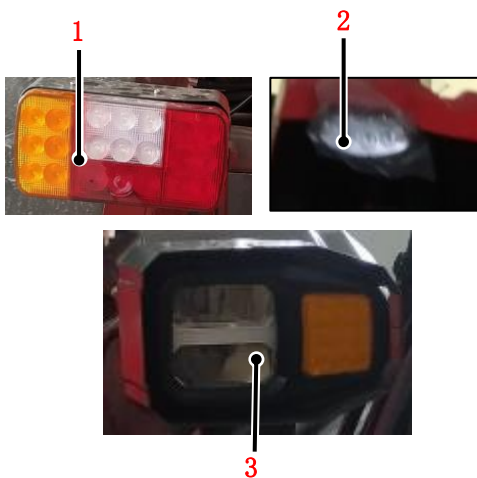


Figure 3.2.45 Emergency hammer



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

Figure 3.3.1 Working lamp



Figure 3.3.2 Rearview mirror



Figure 3.3.3 Towing pin and hook

It is located on the right side window of the cab and used in case of emergency.

3.3 Cab exterior device

3.3.1 Working 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)

3.3.2 Rearview mirror

One on the left and one on the right

Before driving, adjust the rearview mirror to the appropriate angle

3.3.3 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.

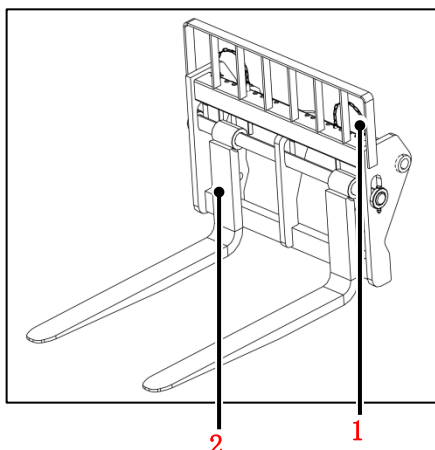
3.3.4 Washer fluid filler



Figure 3.3.4 Washer fluid filler



Figure 3.3.5 Hood assembly



1. Limit bar 2. Fork

Figure 3.3.6 Fork assembly

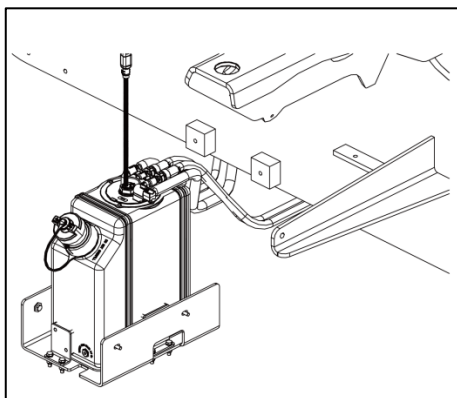


Figure 3.3.7 DEF tank

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

3.3.5 Hood assembly

! Do not step on it!

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

3.3.6 Fork assembly

Adjust the fork spacing to an appropriate distance when using.

! DANGER: No people shall be allowed on the fork!

3.3.7 DEF tank

Please ensure that the DEF is not contaminated and at an appropriate level.

! WARNING: When the DEF level is low, an alarm will be given, and in worse cases, the engine will be power limited or even be forced to stop.

Chapter 4 Operating Instructions

4.1 Precautions

- Perform routine maintenance.
- Ensure that the lights, indicator and windshield wipers are working properly.
- Ensure that the rearview mirror is in good condition, clean and adjusted correctly.
- Make sure the horn works properly.
- 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.
- Do not use headphones to listen to radio or music during operation.
- Do not operate the machine when oil is stuck on your hands or feet.
- Under no circumstances can the seat be adjusted while the vehicle is moving.
- It is forbidden to extend an arm or leg or any part of the body out of the cab.
- Seat belt must be worn.
- It shall be forbidden to carry people on the telescopic handler or in the cab.
- No person shall be close to the working area of the telescopic handler or pass under the boom load.
- Before lifting or removing the load, ensure that the ground under the wheels and the outrigger is stable and firm.

- Never pile up goods on uneven ground, otherwise it may tip over.

4.2 Inspection before operation

4.2.1 Basic principles

- Inspection and routine maintenance before performing the operation are side window's responsibilities.
- 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.
- 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.
- Please refer to the list on the next page and check each item.
- If damage or any unauthorized change from the factory state is found, mark the machine and stop using it.
- Only qualified maintenance personnel can repair the machine. After the maintenance, perform the inspection before operation again.

- 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

- 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.
- 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.
- 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.
- Check if the battery fluid leaks and the wiring is firm.
- 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.
- Check whether the engine fuel leaks and whether the fuel level is appropriate. When the fuel level is low, please add fuel in time.
- 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.

- Refer to the "maintenance" section, check whether the engine coolant leaks and whether the lithium-based grease is appropriate, and add coolant as required.

Inspect the following parts for damage, improper installation, loose or missing parts and unauthorized alteration:

- Electrical plugs, wiring and cables
- Joystick, rocker switch
- 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, slewing bearing
- Front axle, rear axle
- Outrigger
- Engine and its accessories
- Rearview mirror
- Fork and other attachments
- Nuts, bolts and other fasteners

Inspect the entire machine to check:

- the welds or structural parts for cracks
- the machine for dent or damage
- Serious rust, corrosion or oxidation

Ensure the integrity of all structural parts and other key components. All relevant fasteners and pins are in the correct position and tightened.

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.
- 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 12 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 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 300mm level from the ground. (Transport location)
- 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. For more information about the wheel centering, see 3.2.15 steering mode.
- 4) Press the horn before driving to remind others that the vehicle is about to start.
- 5) Release the parking brake.
- 6) Select the forward/reverse mode, accelerate slowly, and use the lights and rearview mirror reasonably according to the driving direction.

4.5.3 Braking



- **When the vehicle is stopped, the hand brake valve joystick must be pulled down!**
- **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 pull down the parking brake handle 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.

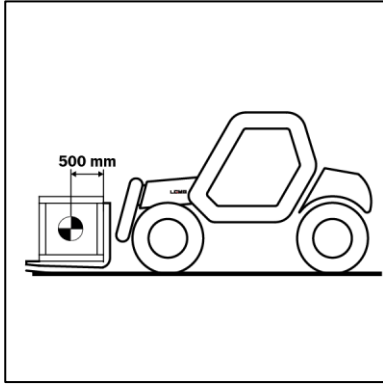
4.6 Parking

- 1) Park the telescopic handler on level ground and pull up the 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.



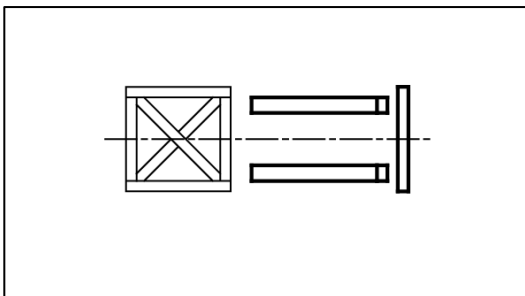
- 2) The load chart is applicable to load with a distance of fork 500mm from the longitudinal position of the center of gravity.

! 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.

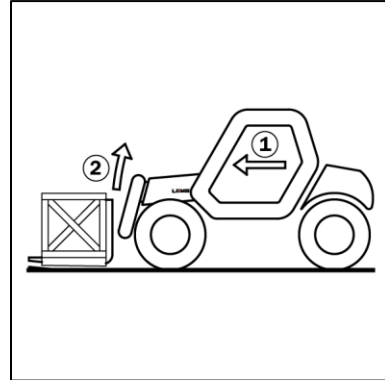
4.7.2 Cargo on the ground



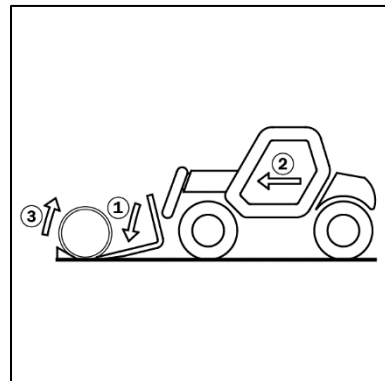
- 1) Retract and lower the boom so that the fork is in the horizontal position, and adjust the distance between the two forks according to

the load.

! Never use a single fork to lift the cargo.



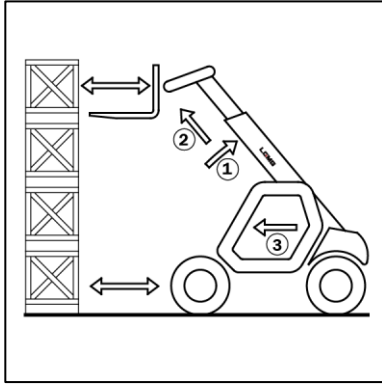
- 2) Move the telescopic handler forward slowly and lift the boom slightly to the transport position. Tilt the fork backwards to ensure cargo stability.



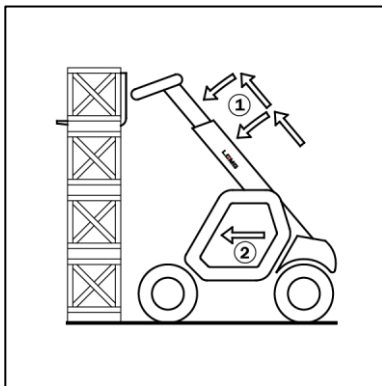
- 3) For the non-pallet load, tilt the fork forward before lifting the load, and then insert the fork under the load (prevent the load from moving if necessary).

4.7.3 Take the goods in the air

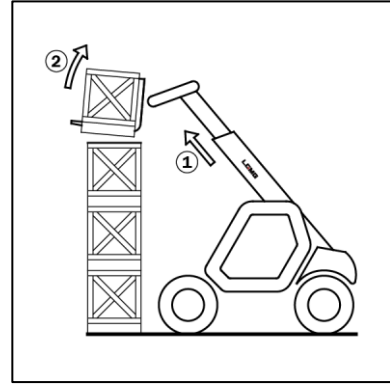
! Before raising the boom, check whether the lateral position of the telescopic handler is horizontal. Pickup



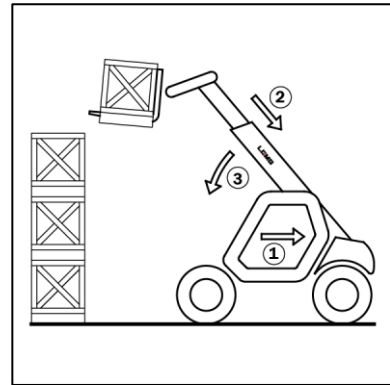
- 1) Lift and extend the boom until the fork is level with the Load, if necessary, slowly move the telescopic handler forward.
- 2) A certain distance should always be kept between the load and the telescopic handler and the shorter boom should be extended as far as possible.



- 3) Insert the fork into the bottom of the load by alternately telescoping the boom or moving the telescopic handler forward (if necessary), then pull up the 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.

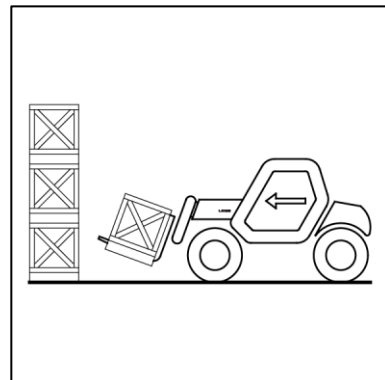


- 6) Move the vehicle backwards (if necessary), retract and lower the boom to bring the goods into the transport position.

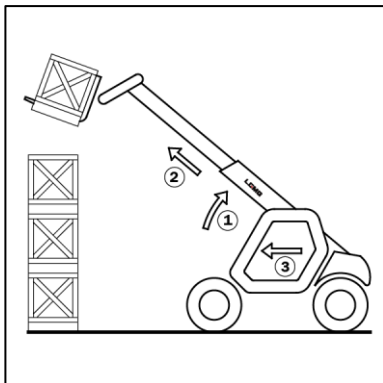
Release



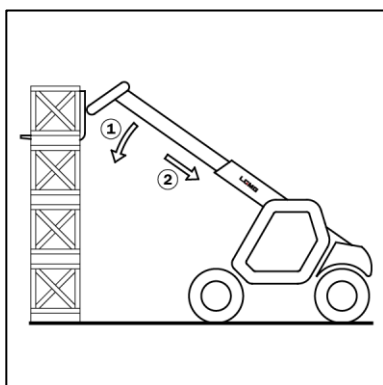
Before raising the boom, check whether the lateral position of the telescopic handler is horizontal.



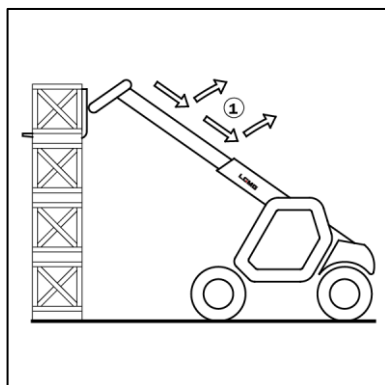
- 1) Drive the machine to the place for loading up goods.
- 2) Pull up the parking brake and push the D/R gear selector to the N gear.



- 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,

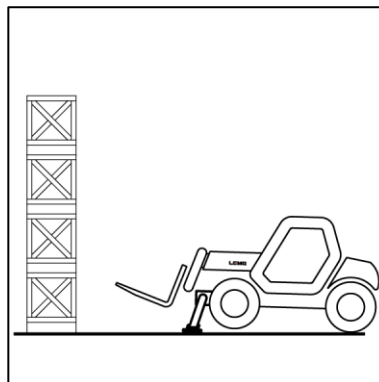


- 5) Retract the Fork to the transport position by

retracting and lowering the Boom. (Move the vehicle backwards if necessary)

4.7.4 Outrigger use

Raise the Outrigger when the Fork is in the shipping position



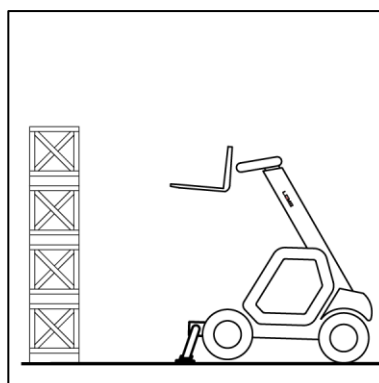
- 1) The vehicle shall be provided at a sufficient distance from the position where the goods are taken and placed.
- 2) Pull up the Parking brake and place the D/R gear in the N gear.
- 3) Raise the outrigger, keep the front wheels away from the ground, and level the body.
- 4) Pick up or release freight.



WARNING: Always maintain a

horizontal stable row when raising the outrigger and lifting the boom.

Raise the outrigger in the raised state of the boom

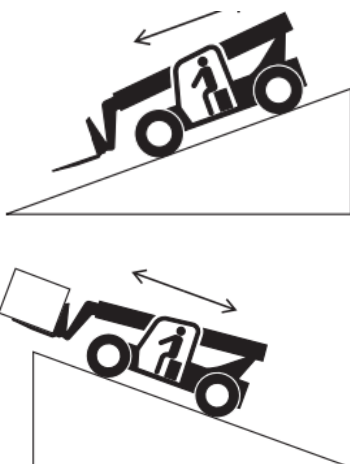


- 1) Keep the boom up and retract the boom completely.
- 2) Pull up the Parking brake and place the D/R gear in the N gear.
- 3) Raise the outrigger slowly and the lateral position must remain stable.
- 4) Pick up or release freight.

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

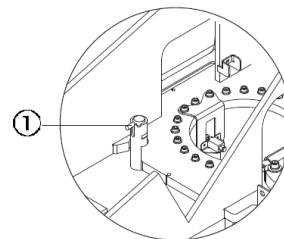
speed.

! 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.



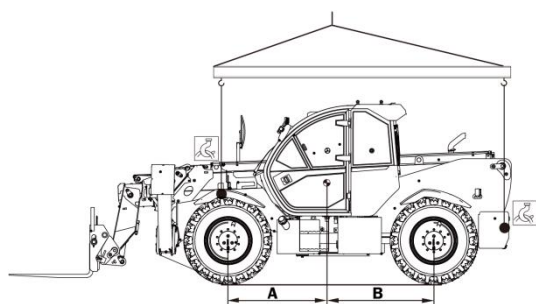
Turret rotation lock pin

- 6) Ensure that the turret has been fixed with turret rotation lock before transportation, as shown in the figure. Make sure to unlock the

turret during operation.

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) Fasten the turret with the turret rotation lock.
- 5) Only connect the sling to the specified lifting point on the machine.
- 6) Adjust the sling to avoid damage to the machine and keep the machine at horizontal level.



Taking H1840 as an example for the whole vehicle, and the center of gravity position of telescopic handler is shown in the following table:

Model	A	B
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H1840

1625mm

1445mm

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

Transport machine

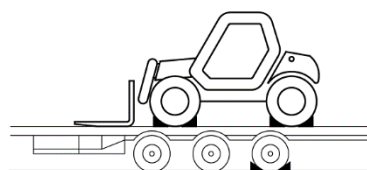


CAUTION: Ensure that the platform has sufficient size and load capacity for transporting the telescopic handler. And check whether the pressure of the contact surface between the platform and the telescopic handler is within the allowable range.



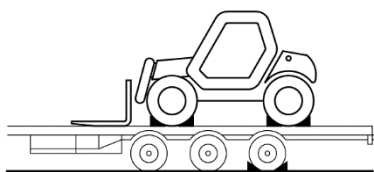
CAUTION: For telescopic handler equipped with turbocharged engine, block the exhaust port to avoid engine rotation.

Loading vehicle

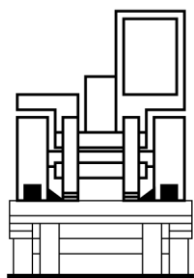


- The tires of the transport vehicle will be secured with wedge.
- Secure the loading ramp in order to obtain the smallest possible angle to lift the vehicle.
- Load vehicles parallel to the platform.
- Stop the telescopic handler.

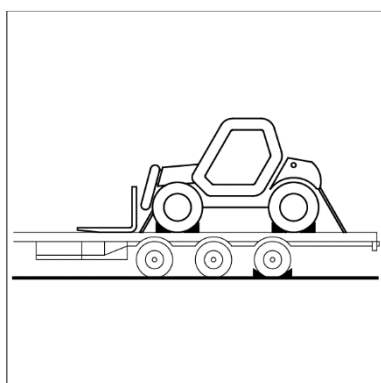
Fixed vehicle



- 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

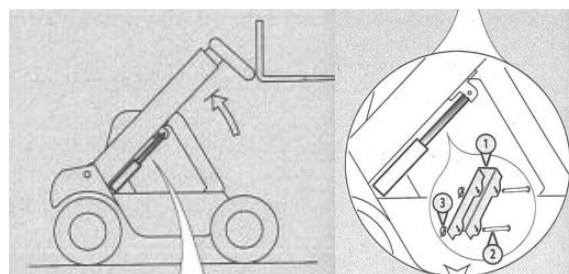
Safety support instructions

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 After-treatment system

DPF regeneration instructions

- 1) Move telescopic handler to an area free of flammables and people that could be

exposed to hot exhaust.

- 2) Shift transmission to neutral, retract and lower boom and engage park brake.
- 3) Do not press accelerator pedal or other controls during exhaust system cleaning.
- 4) DPF regeneration is complete after the indicator turn off.