Operation Manual

EN ISO 3691-1:2015+A1:2020
& TP TC 010/2011

F25

Counterbalanced Forklift

PART NO. OM- 2537051012

Original Instructions

Introduction

LGMG appreciates your choice of our counterbalanced forklift for your application.

This manual introduces forklift specifications, mechanisms and operation as a safety guide and for correct forklift operation and maintenance.

We recommended you to read this manual in its entirety before starting, operating and maintaining the forklift for the first time, and understand operating and safety instructions.

LGMG has endeavored to deliver the highest degree of accuracy possible. However, continuous improvement in the structure and performance of our products is a LGMG policy. Therefore, product design, operation and maintenance instructions are subject to change without notice. For the latest information regarding the forklift or any questions concerning this manual, please contact LGMG. Readers are encouraged to notify LGMG of errors and send in suggestions for improvement. All communications will be carefully considered for future printings of this and all other manuals.

As it is impossible to foresee all possible hazards, safety instructions in this manual and on the forklift cannot cover all safety precautions. When procedures and operations not recommended in this manual are to be performed, be sure to safeguard yourself and others and avoid damage to the forklift. If unsure about the safety of some operations, contact LGMG or dealers.

Operation and maintenance precautions in this manual are only applicable to the forklift which is used for its intended purpose. If the forklift is used for other purposes than those listed in this manual, LGMG will not accept any safety responsibilities arising from such operations. They shall be taken by users and operators.

Never perform any operation forbidden in this manual.

Keep this manual in a specified position within easy reach. This manual should be considered a permanent part of your forklift. In case of transfer of the forklift ownership or use right, this manual should be transferred as well. Should this manual become lost, damaged, or illegible, please contact us for replacement in time.

This manual is the property of LGMG and shall not be copied or reproduced without the prior written permission of LGMG.

2026-6 Version 1 Printed

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Safety

The operator should understand and obey current national and local safety regulations. In the absence of these regulations, follow safety instructions in this manual.

Most accidents that involve forklift operation and maintenance are caused by failure to observe safety rules or precautions. Read, understand and obey all requirements, precautions and warnings in this manual and on the forklift before operation and maintenance to avoid accidents.

Safety precautions are detailed in Section 1-Safety.

As it is impossible to foresee all possible hazards, safety instructions in this manual and on the forklift cannot cover all safety precautions. When procedures and operations not recommended in this manual are to be performed, be sure to safeguard yourself and others and avoid damage to the forklift. If unsure about the safety of some operations, contact LGMG or dealers.

Operation and maintenance precautions in this manual are only applicable to the forklift which is used for its intended purpose. If the forklift is used for other purposes than those listed in this manual, LGMG will not accept any safety responsibilities. These safety responsibilities arising from such operations shall be taken by users and operators.

Continuous improvement in our products is a LGMG policy. Therefore, the manufacturer reserves the right to change product design and specifications without notice. Contact us for the latest product parameters. All parameters in this manual are as of the publication date of the manual.

Never perform any operation forbidden in this manual.

Signal words are used to identify the following safety information in this manual:

⚠ Danger-Indicates a hazardous situation which, if not avoided, will result in serious injury or death. It also indicates a hazardous situation which, if not avoided, will result in significant damage to the forklift.

⚠ Warning-Indicates a hazardous situation which, if not avoided, may result in serious injury or death. It also indicates a hazardous situation which, if not avoided, may result in significant damage to the forklift.

⚠ Caution-Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury. It also indicates a hazardous situation which, if not avoided, could result in damage to the forklift or reduce service life.

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Section 1 Safety

⚠ Danger

Failure to comply with the instructions and safety rules in this manual could result in serious injury or death. It is strictly forbidden for the personnel who are under the influence of alcohol, drug(s) or inhibitor(s) to approach or operate the forklift.

⚠ Warning: Do not operate unless:

You wear PPEs (such as safety helmet, belt and shoes, goggles and protective gloves) and are in good health.

You learn and practice the principles of safe forklift operation contained in this operation manual.

Avoid hazardous situations. Know and understand the safety rules before going on to the next section.

Always perform a pre-operation inspection.

Always perform function tests prior to use.

Inspect the workplace.

Only use the forklift as it was intended.

You read, understand and obey the manufacturer's instructions and safety rules-safety and operator's manuals and forklift decals.

You are properly trained to safely operate the forklift.

Most parts of the product are made of recyclable steel. The waste produced during use, maintenance, cleaning and disassembly must be subject to pollution-free recycling and disposal in accordance with local regulations. Such waste recycling and disposal must be completed by professionals in designated areas. Improperly disposing of hydraulic oil, battery and electronic equipment waste may cause harm to environmental and human health.

The frame number unique to the forklift shall not be altered or destroyed intentionally. In case of damage, promptly contact relevant department or LGMG.

1.1 Unauthorized installation

Any modification may cause hazards. Before modification, consult LGMG. LGMG will not be liable for any damage arising from unauthorized modification.

⚠ **Note: Only in the event that the forklift manufacturer is no longer in business or there is no successor in the interest to the business, may be user arrange for a modification or alternation to the forklift, provided, however, that the user**

a) arranges for the modification or

alteration to be designed, tested and implemented by an engineer(s) expert in industrial trucks and their safety,

b) maintains a permanent record of the design, test(s) and implementation of the modification or alteration,

c) approves and makes appropriate changes to the capacity plate(s), decals, tags and instruction handbook, and

d) affixes a permanent and readily visible label to the truck stating the manner in which the truck has been modified or altered, together with the date of the modification or alteration and the name and address of the organization that accomplished those tasks.

1.2 Safety rules

Note:

- It is strictly forbidden to use the product in potentially explosive environments.
- Ambient operating conditions:
  Average ambient temperature under continuous operating conditions: 25℃;
- Maximum ambient temperature, short term (up to 1 h): 40℃.
- Lowest ambient temperature for forklift intended for use in normal indoor conditions: 5℃.
- Altitude: No more than 2000m.
- Ambient humidity: no more than 80%.
- When working in confined spaces with poor air flow, be aware of exhaust emission and accumulation, which may affect human health.
- In case where special optional attachments are needed in special environments such as high and low temperature, contact relevant personnel of LGMG.



Only trained and certified personnel shall be permitted to operate the forklift!



Wear appropriate clothing for work before driving!



Stay alert: Injury and first aid.



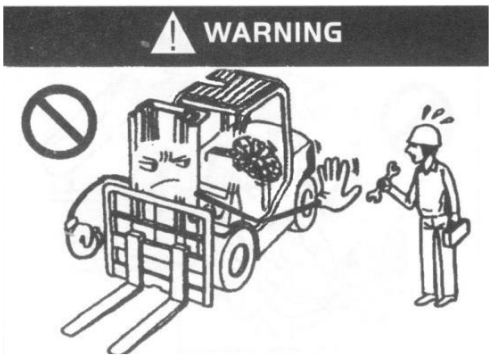
It is prohibited to drive the forklift on public roads!



Do not add or remove forklift parts without permission!



Read the user manual carefully before driving!



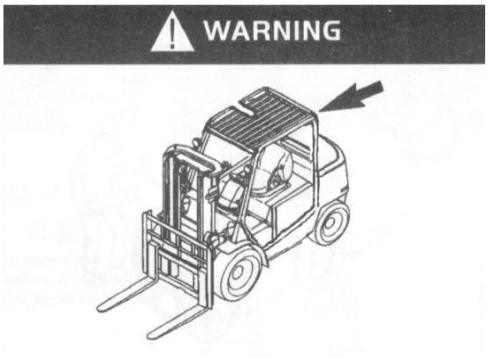
Shut down the engine before maintenance!



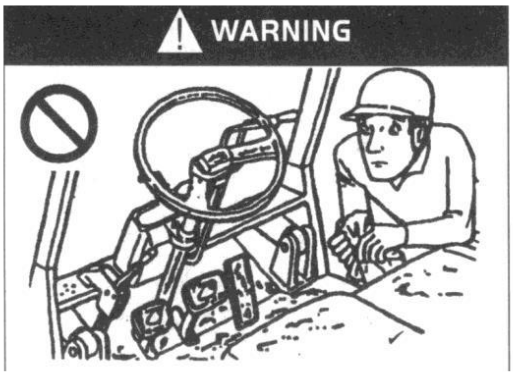
Know traffic rules!



Inspect the forklift before use!



Do not move the overhead guard!



Keep the cab clean!



Do not drive an unsafe forklift!



The driver should be physically fit!



Confirm that your forklift is safe!



Work in permitted areas!



Do not drive a damaged forklift!



Firmly grasp the handhold to get on the forklift!



Start the forklift correctly!



Properly adjust the seat before driving!

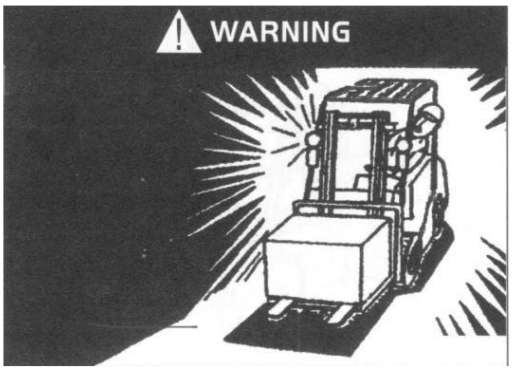


Confirm that your forklift is in safe operating condition!





Fasten the seat belt properly!

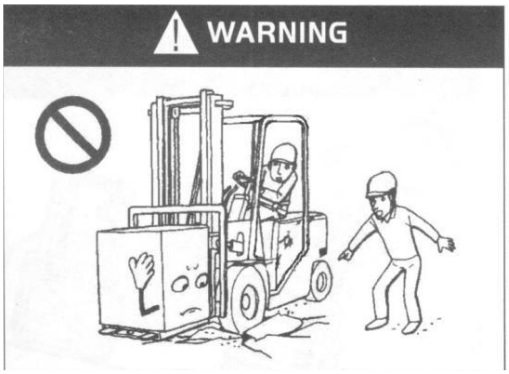


Stay alert for the height of the forklift work area!



Turn on lights in dark areas!

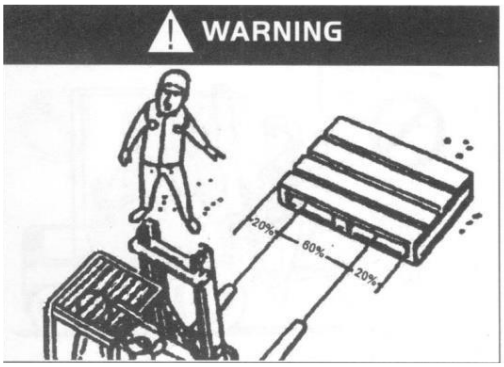
Do not place arms and any other body parts outside the overhead guard during work!





Do not drive on loose or unpaved ground. Operate the forklift only on a firm, level surface!

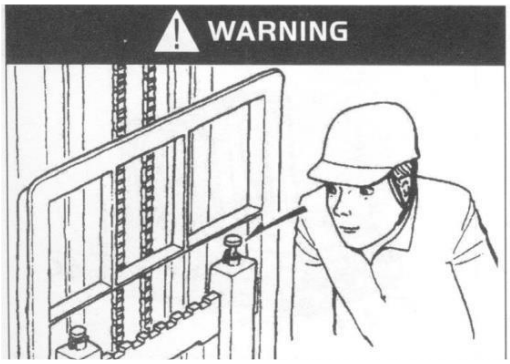
Keep your body under the overhead guard!



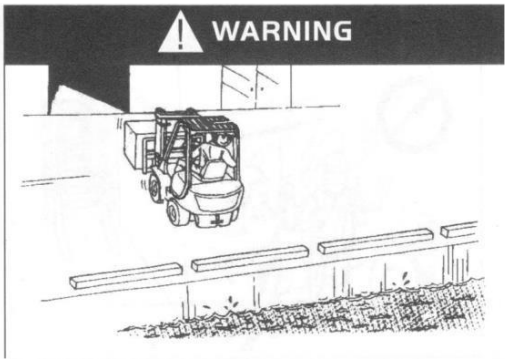


Avoid eccentric loading!

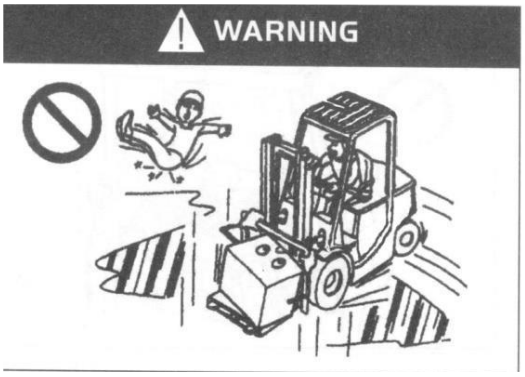
Use extreme caution to prevent the fork extending for loading from hitting an object ahead!



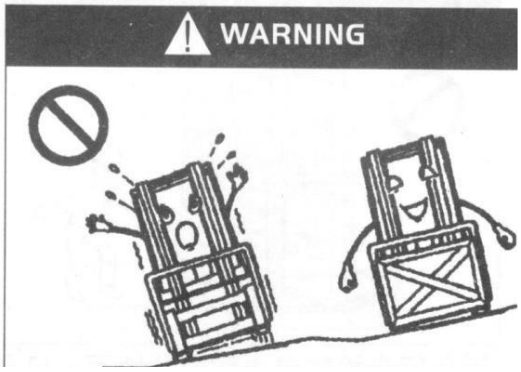
Check the position of the fork lock pin!



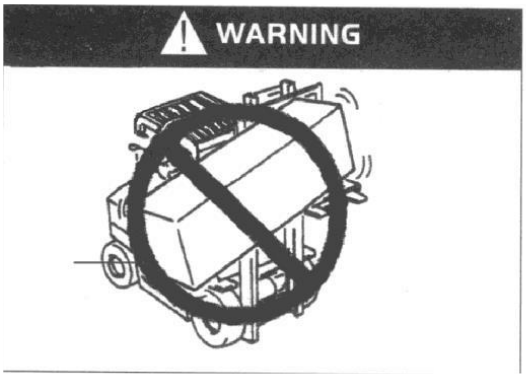
Ensure safety in the work area!



Avoid driving on a slippery surface whenever possible!



Maintain lateral stability while driving an unloaded forklift.



Take special care when carrying a long or wide load!



Never carry people with the forklift!

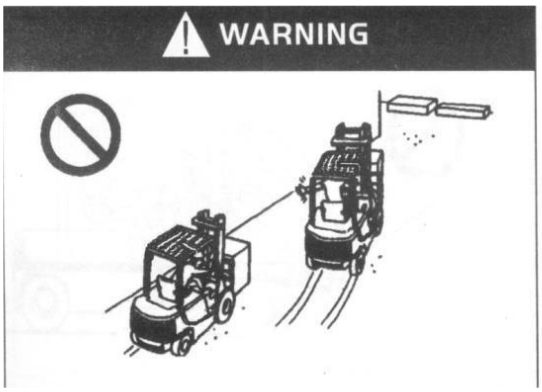


While cornering amid poor visibility, sound the horn



Use proper pallets or skids when handling small

and slow down!



No horseplay!

items!



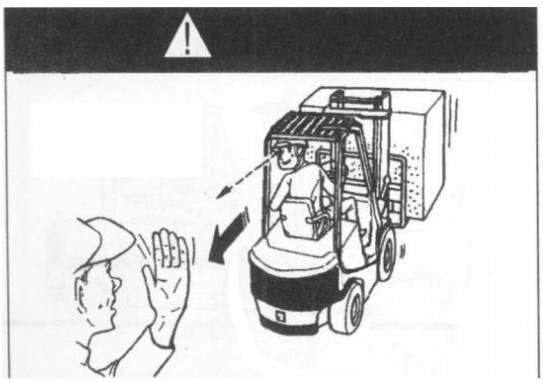
No one is allowed to stand on the load!



Do not look around while driving!



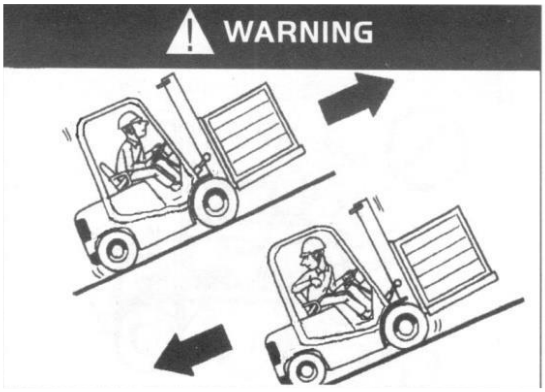
No stunt driving!



When the load blocks the forward view, the driver should travel in reverse or act as guided by a spotter!



Obey traffic rules and all warnings and signs!



Drive the loaded forklift forward when going uphill and in reverse when going downhill!



Pay attention to the steep slope and load lift height while driving uphill!



Drive the unloaded forklift in reverse when going uphill and forward when going downhill!



Apply the brake before starting the forklift on a slope!



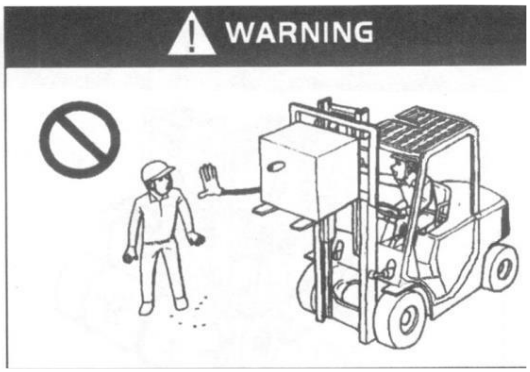
Do not make turns on a slope!



Sound the horn in warning in case of people or objects on the path of travel!



Avoid hitting a person or object while cornering!



Keep personnel away from the forklift in operation!



Sharp turns can cause tip-over due to unstable center of gravity!



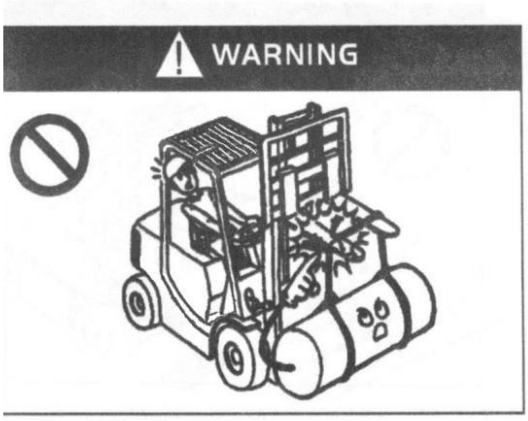
Keep pedestrians clear of the forklift work area!



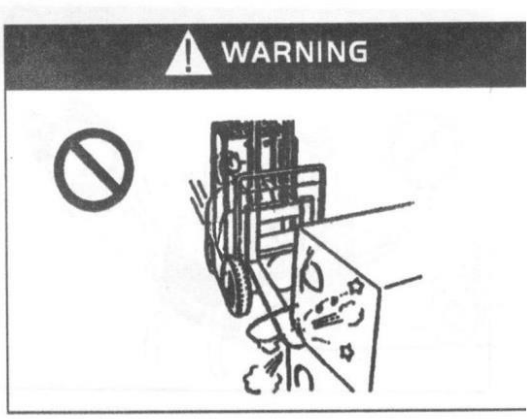
Be aware of the change of the forklift's rated capacity!



Watch for surroundings while driving the forklift!



Use the forks correctly!



Handle loads slowly!



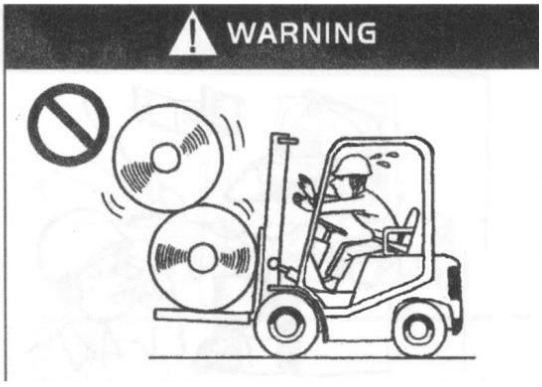
Do not move the forklift if someone is in front of it!



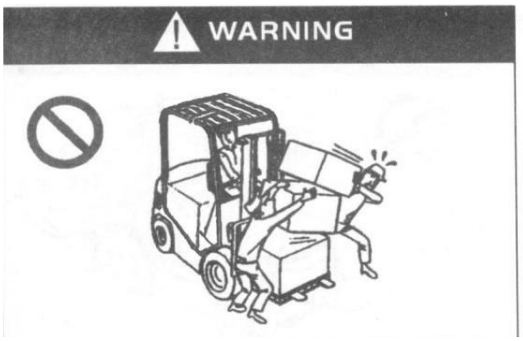
No person is allowed to pass or stand under the elevated forks!



Keep the load not higher than the backrest whenever possible!



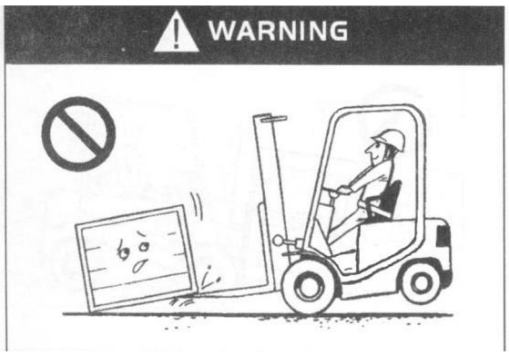
Bind the load that is difficult to fix before loading!



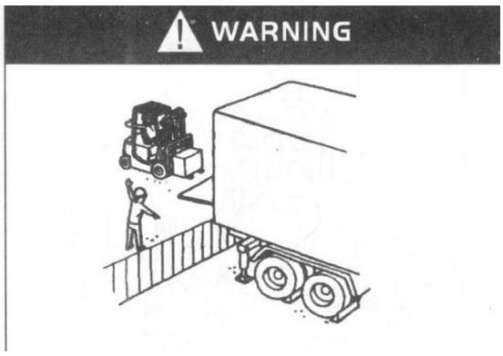
Do not handle unloaded items from the forklift!



Do not carry a damaged crate on a shoulder!



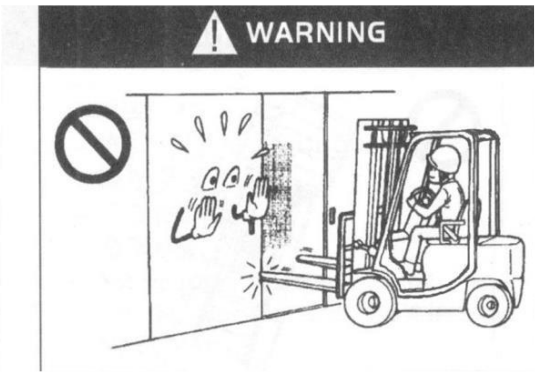
Do not abuse the forks!



Carefully carry the load into the truck!



Do not carry people without permission!



Do not abuse the forklift!



Do not place any body part outside the forklift while driving!



Drive smoothly and avoid abrupt acceleration/ deceleration!



Use special safety equipment to lift people working at heights!



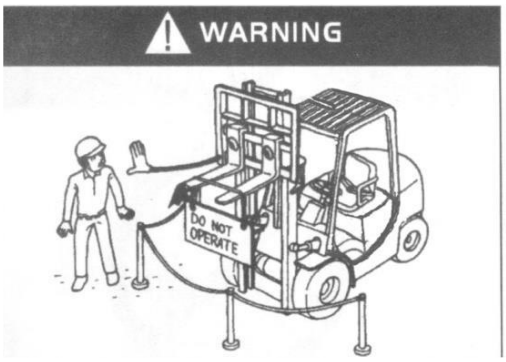
Do not overload!



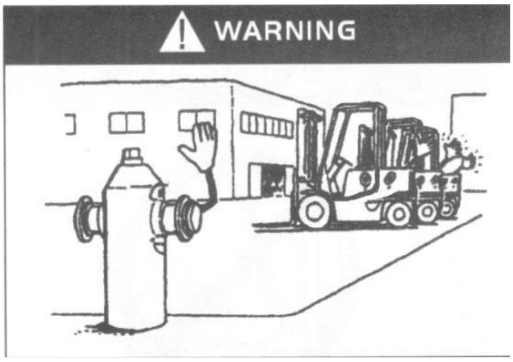
Avoid lifting in strong winds!



Do not work in explosive environments!



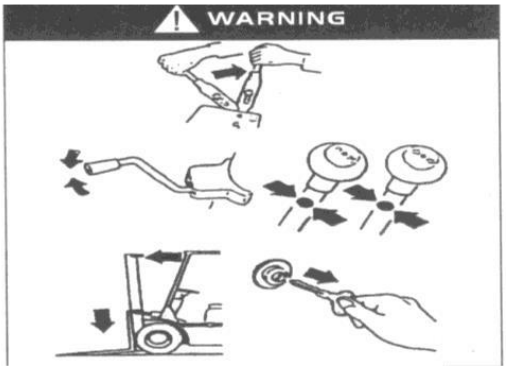
Tag the damaged forklift and park it in a designated area!



Park the forklift in a designated area when not in use!



Do not park the forklift on a slope!



When the forklift is not in use, place the brake

and direction switch Handle in neutral, lower the forks to ground, tilt the mast forward and remove the key.

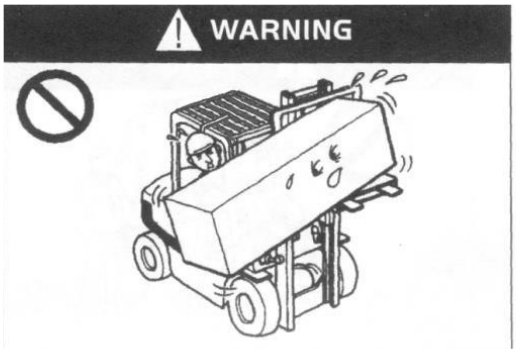
1.3 How to prevent tip-over and protect yourself



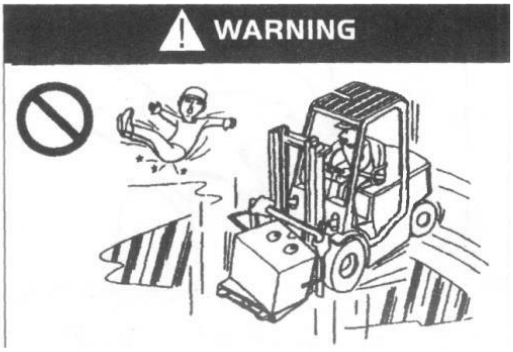
Do not tilt forward to lift the load to avoid tip-over!



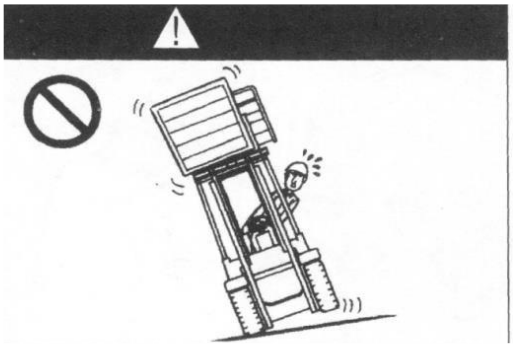
Do not tilt to lift the load!



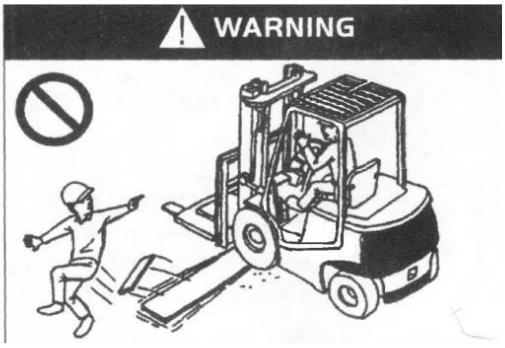
Avoid eccentric loading !



Avoid driving on a slippery surface whenever possible!



Do not load or unload when the forklift is not level!



Do not drive over trenches, mounds, railways and other obstructions that may cause tip-over!



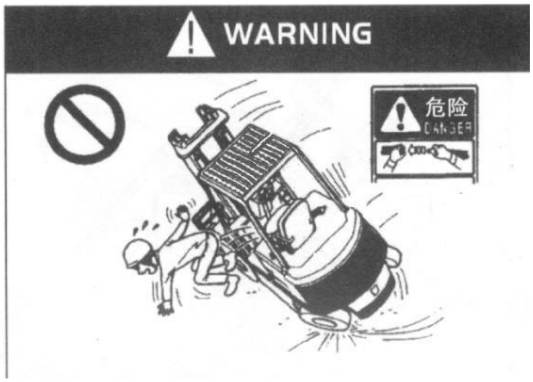
Keep the forks 150-200mm off the ground while driving.



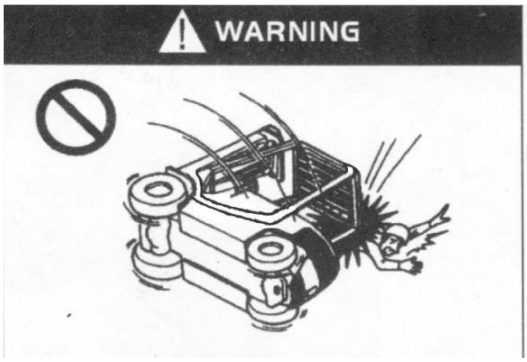
Avoid sharp turning whether unladen or laden！



When the unladen forks are elevated, make a gentle turn to avoid tip-over!



Fasten the seat belt properly!



Do not jump off the forklift that is tipping over!



Wear a helmet while driving!

⚠•It is safer to stay in the forklift with the seat belt fastened than jump off it. If the forklift begins to tip over:

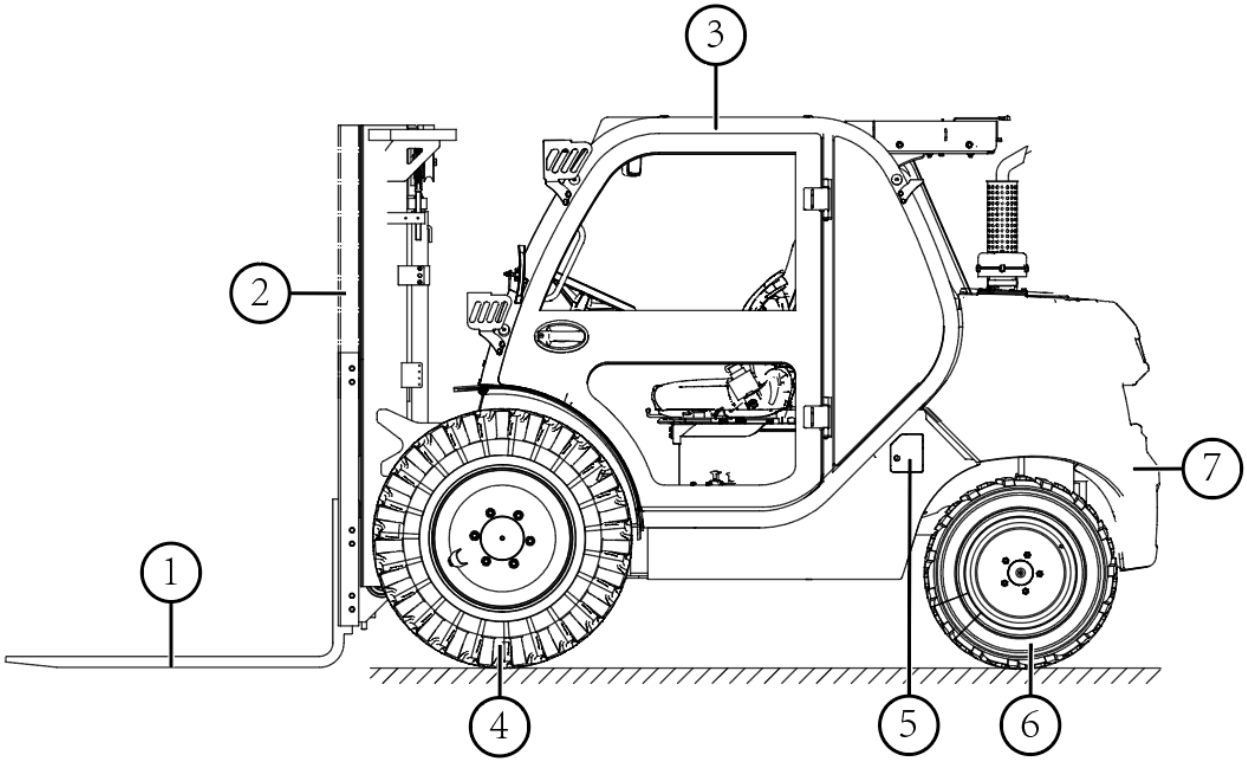
1. Brace your feet and grip the steering wheel.

2. Do not jump.

3. Lean away from the tip-over direction.

4. Lean forward.

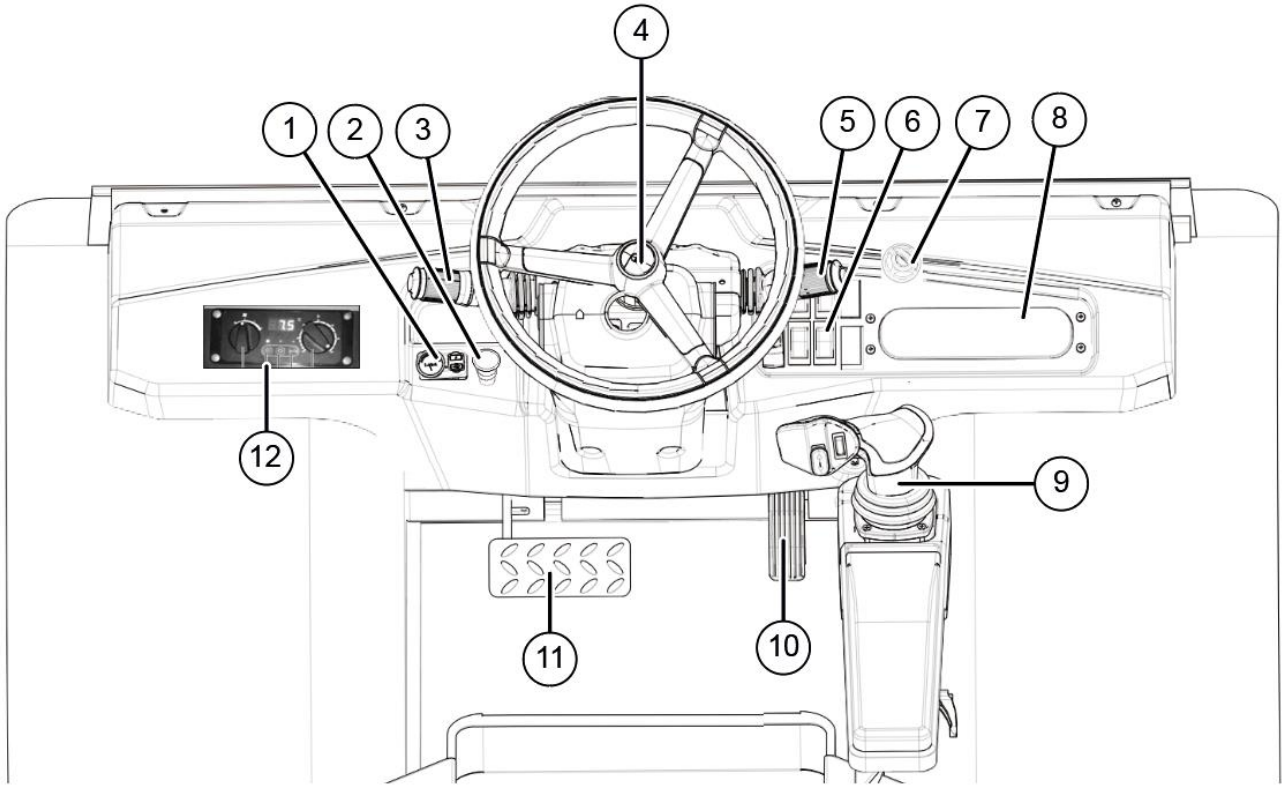
Section 2 Major Components



No.	Part name	No.	Part name
1	Fork	5	Filler
2	Mast	6	Rear wheel
3	Cab	7	Counterweight
4	Front wheel		

Section 3 Controls

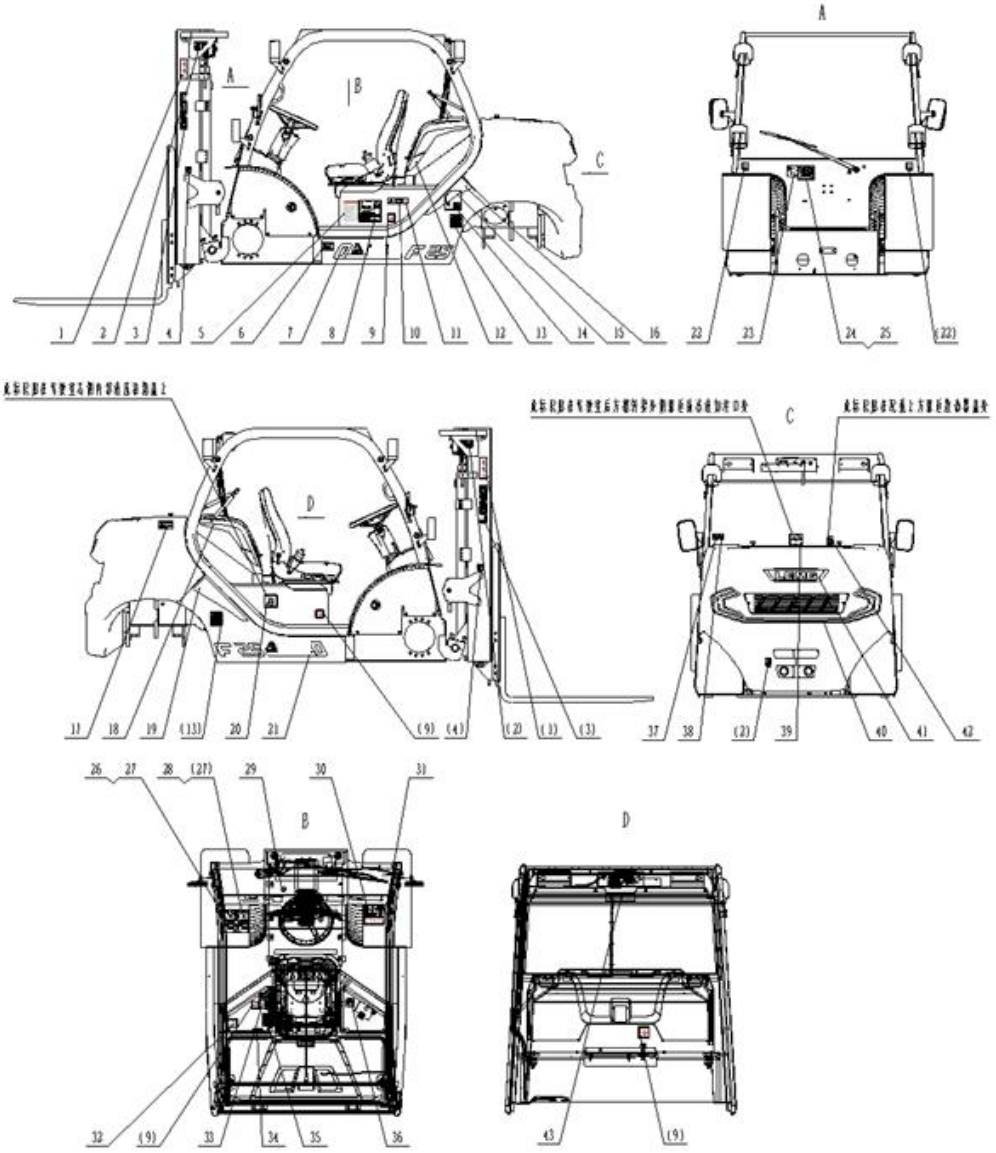
Cab components

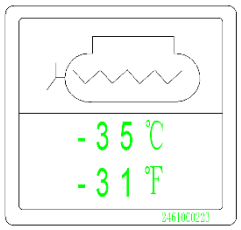
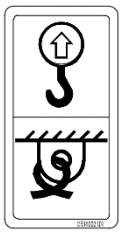
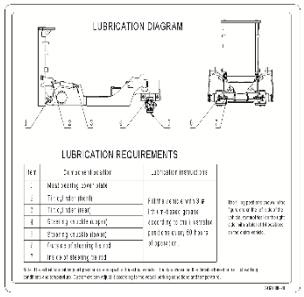
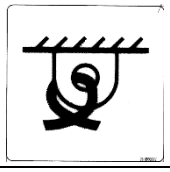
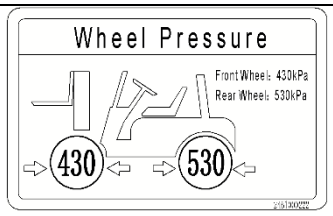
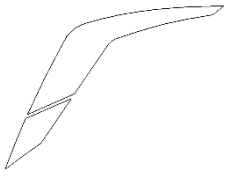


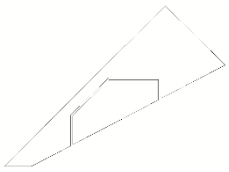
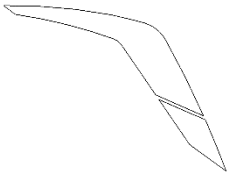
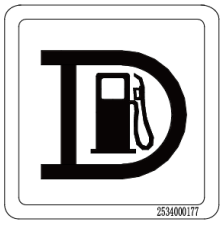
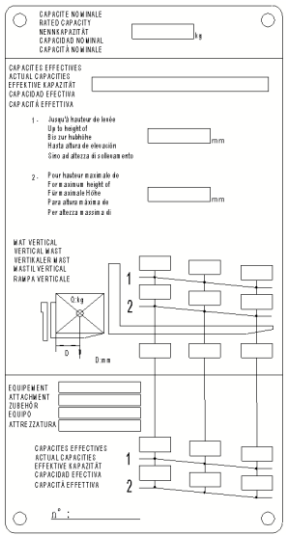
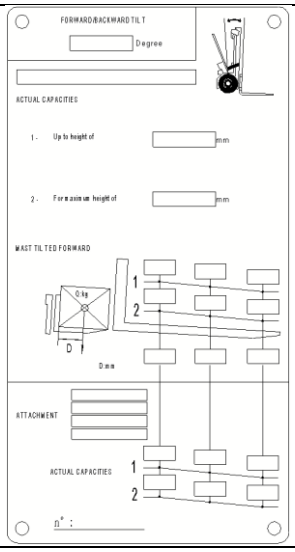
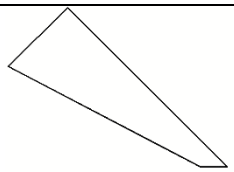
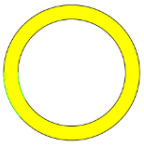
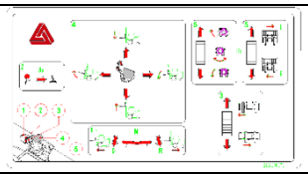
1	USB cigarette lighter	7	Ignition switch
2	E-stop button	8	Instrument cluster
3	Direction switch handle	9	Control handle
4	Steering wheel	10	Accelerator pedal
5	Combination switch	11	Parking/service brake
6	Rocker switch	12	Air Conditioner control panel (if equipped)

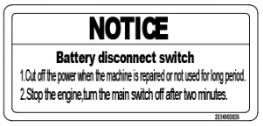
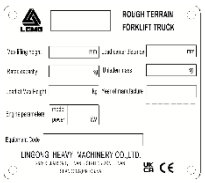
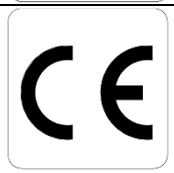
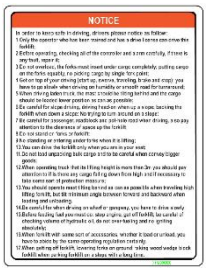
Section 4 Warning Decals

F25 (CE）

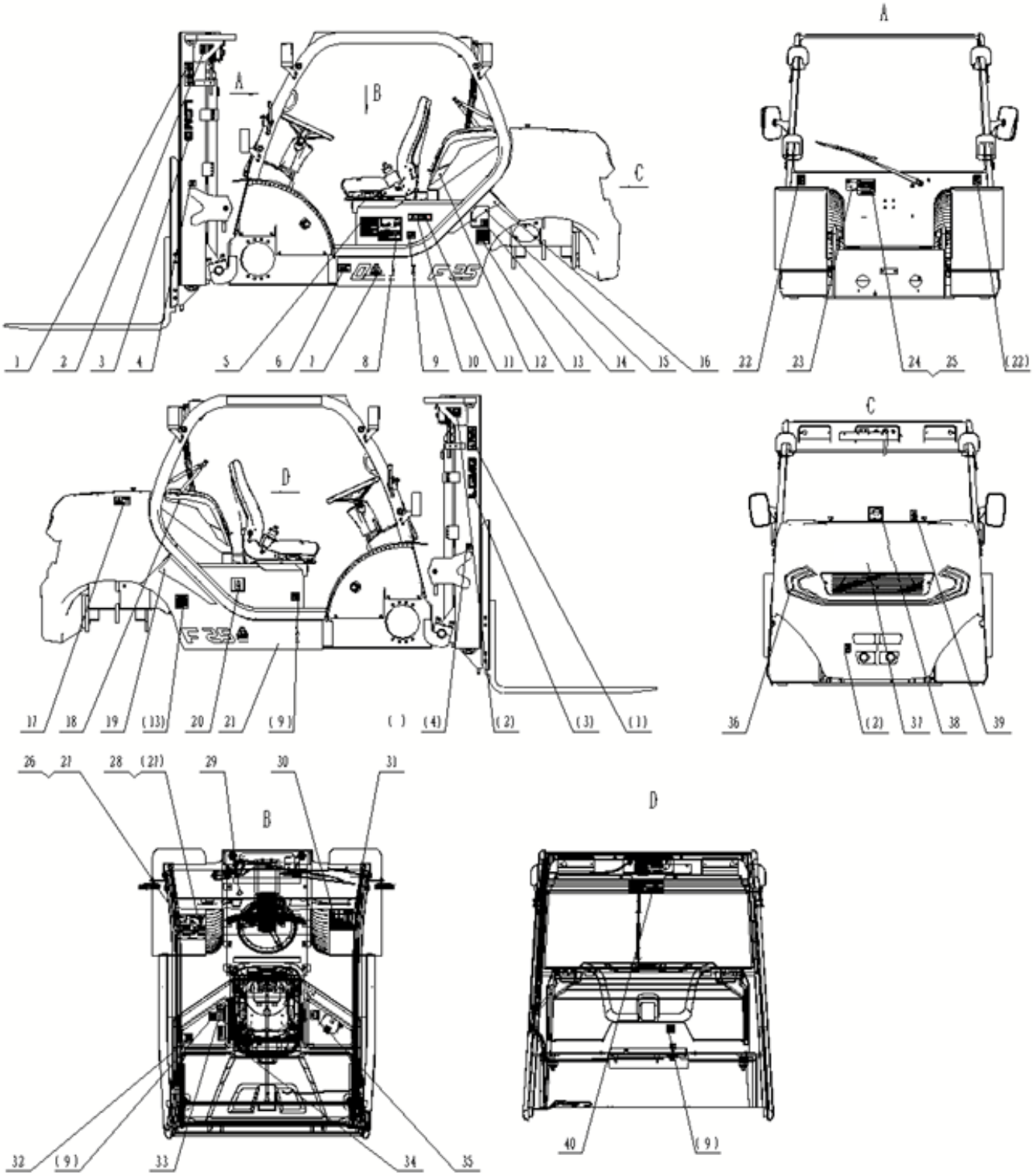

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22 23 24 25 (22)
17 18 19 (13) 20 21 (9) (4) (2) (1) (3)
37 38 (2) 39 40 41 42
26 27 28 (27) 29 30 31
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43 (9)

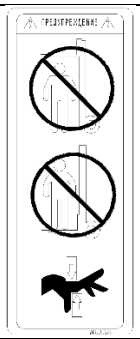
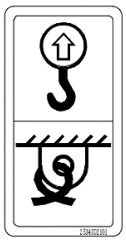
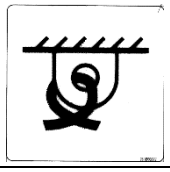
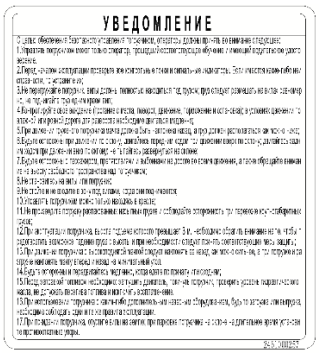
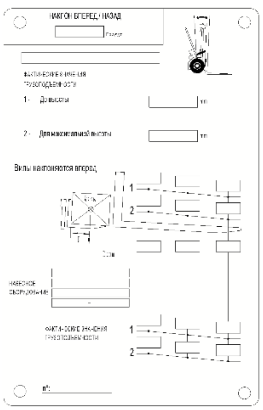
Name	Sign and logo	Name	Sign and logo
Decal-Crush hazard		Decal-Antifreeze fill	
Decal-Lifting		Decal-Hot fluid warning	
Decal-LGMG logo-415*80-English	LGMG	Decal-Machine lubrication diagram	
Decal-Lifting lug		Decal-Read the manual	
Decal-Cab door decal (LH)		Decal-No lifting	
Decal-Tire pressure		Decal-Risk of pinching hand	
Decal-Model (LH)		Decal-Cab decal (LH)	

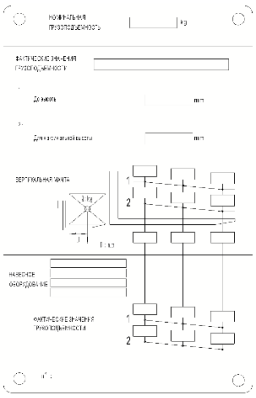
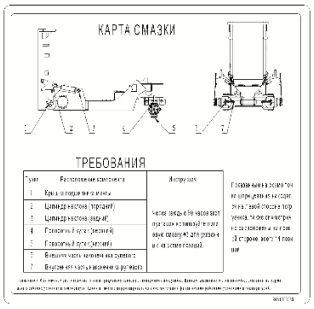
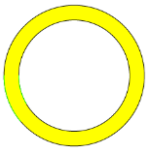
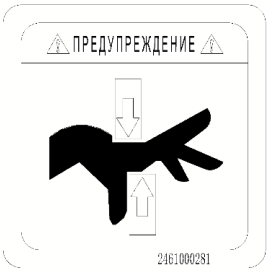
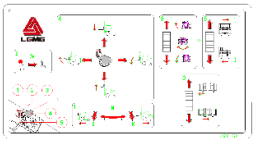
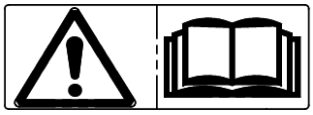
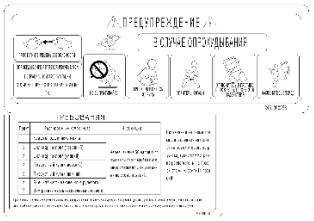
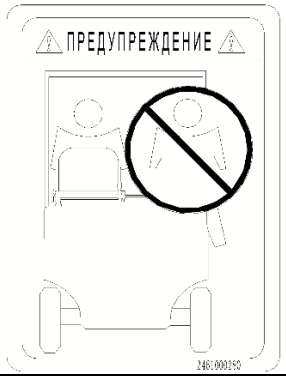
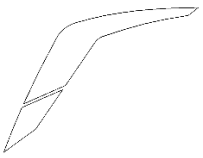
Decal-Machine body decal (LH)		Decal-Cab decal (RH)	
Decal-Fuel tank		Decal-Load chart I	
Decal-Hot surface warning		Decal-Load chart II	
Decal-Machine body decal (RH)		Decal-Fasten seat belt	
Decal-Hydraulic oil		Decal-Emergency stop switch warning	
Decal-Model (RH)		Decal-Joystick operation	

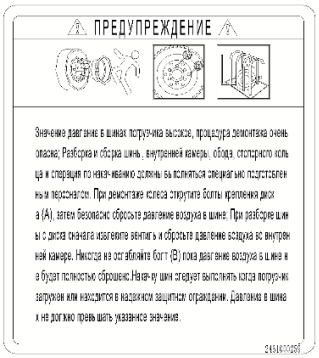
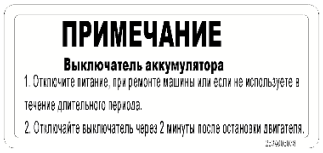
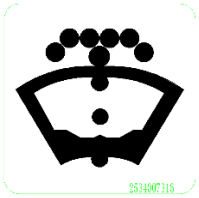
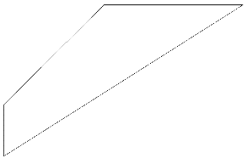
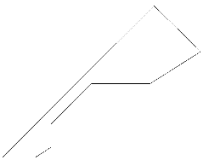
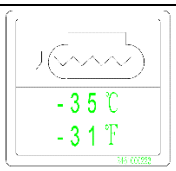
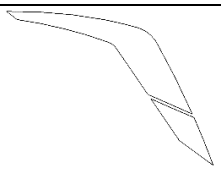
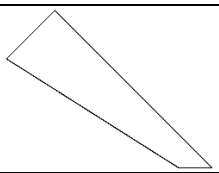
Decal-Cab door decal (RH)		Decal-In case of tipover	
Decal-Do not climb		Decal-No riders	
Decal-Noise 104dB		Decal-Battery disconnect switch notice	
Machine nameplate		Decal-Washer fluid filling	
Decal-UKCA		Decal-Safety notice	
Decal-CE		Decal-Precautions notice	
Decal-Counterweight decal		Decal-Differential lock	

F25 (EAC)

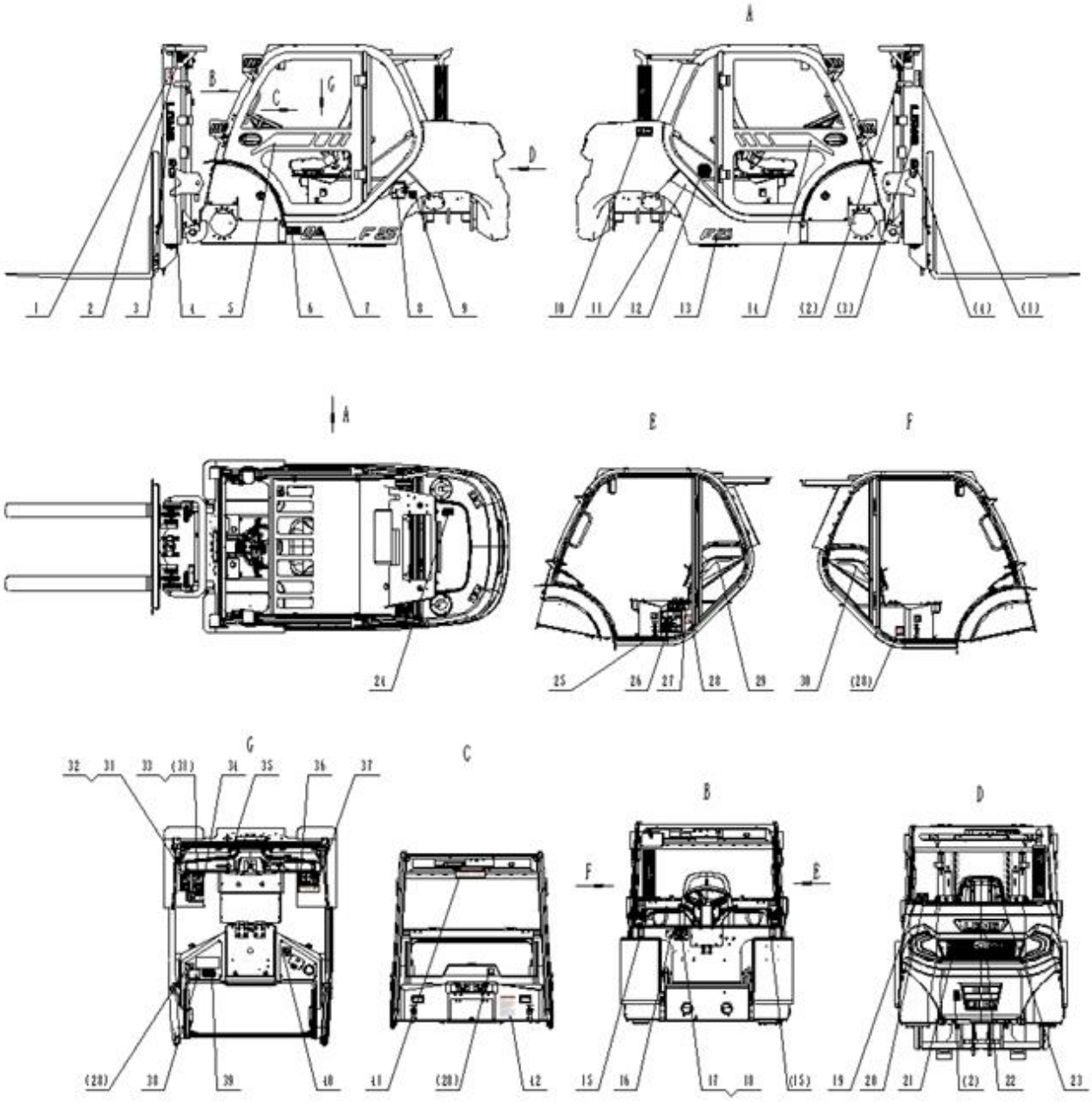

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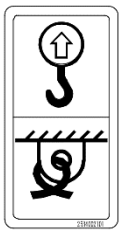
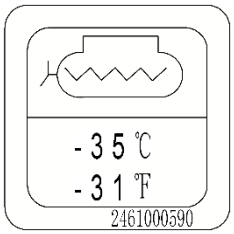
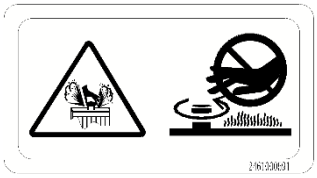
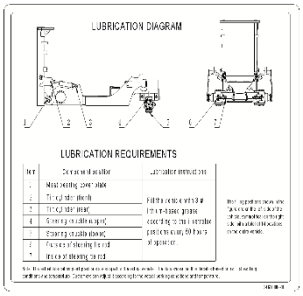
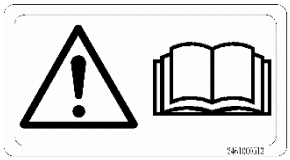
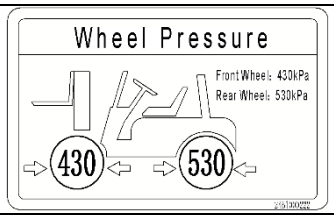
Name	Sign and logo	Name	Sign and logo
1. Decal-Crush hazard (Russian)		20. Decal-Hydraulic oil	
2. Decal-Lifting		21. Decal-Model (RH)	
3. Decal-LGMG logo-415*80-English		22. Decal-Do not climb (Russian)	
4. Decal-Lifting eye		23. Decal-Noise L_{WA}/104dB (Russian)	
5. Decal-Precautions (Russian)		24. Machine nameplate	
6. Decal-Wheel pressure (Russian)		26. Decal-Load chart II (Russian)	

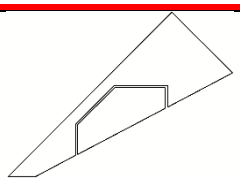
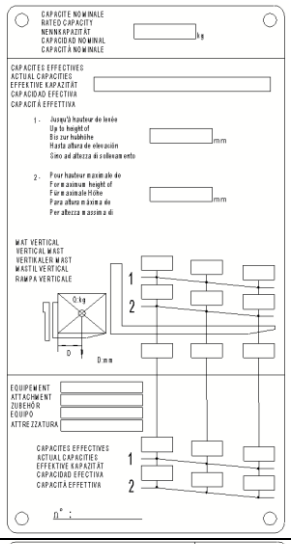
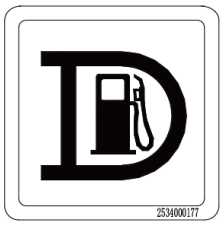
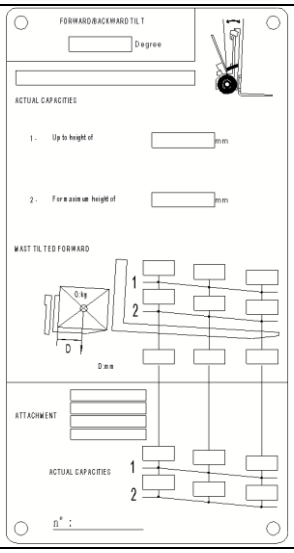
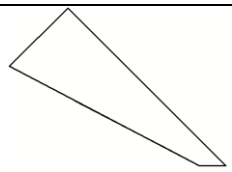
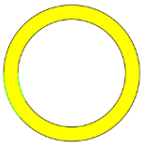
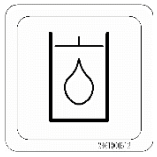
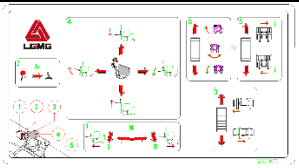
7. Decal-Model (LH)		28. Decal-Load chart I (Russian)	
8. Decal-Lubrication chart (Russian)		29. Decal-Emergency stop switch warning	
9. Decal-Risk of pinching hand (Russian)		30. Decal-Joystick operation	
10. Decal-Read the manual		31. Decal-In case of tipover (Russian)	
11. Decal-No lifting		32. Decal-No riders (Russian)	
12. Decal-Cab decal (LH)		33. Decal-Always use seat belt (Russian)	

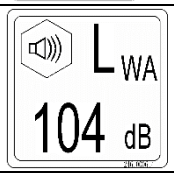
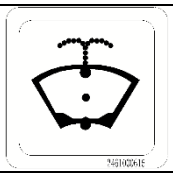
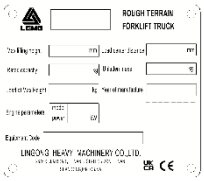
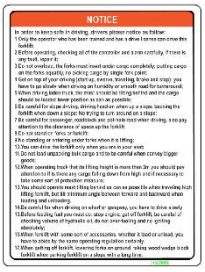
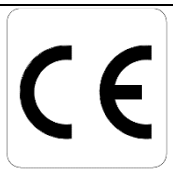
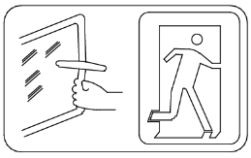
13. Decal-Tire instructions (Russian)		34. Decal-Pwr switch instructions (Russian)	
14. Decal-Fuel tank		35. Decal-Windshield washer fluid fill	
15. Decal-Machine body LH decal II		36. Decal-Counterweight decal	
16. Decal-Machine body LH decal I		37. Decal-LGMG logo on counterweight	
17. Decal-Hot surface warning (Russian)		38. Decal-Antifreeze fill	
18. Decal-Cab decal (RH)		39. Decal-Hot fluid warning	
19. Decal-Machine body RH decal		40. Decal-Safety notice (Russian)	
Decal-Differential lock			

F25 （Euro V emission standards, enclosed cab）

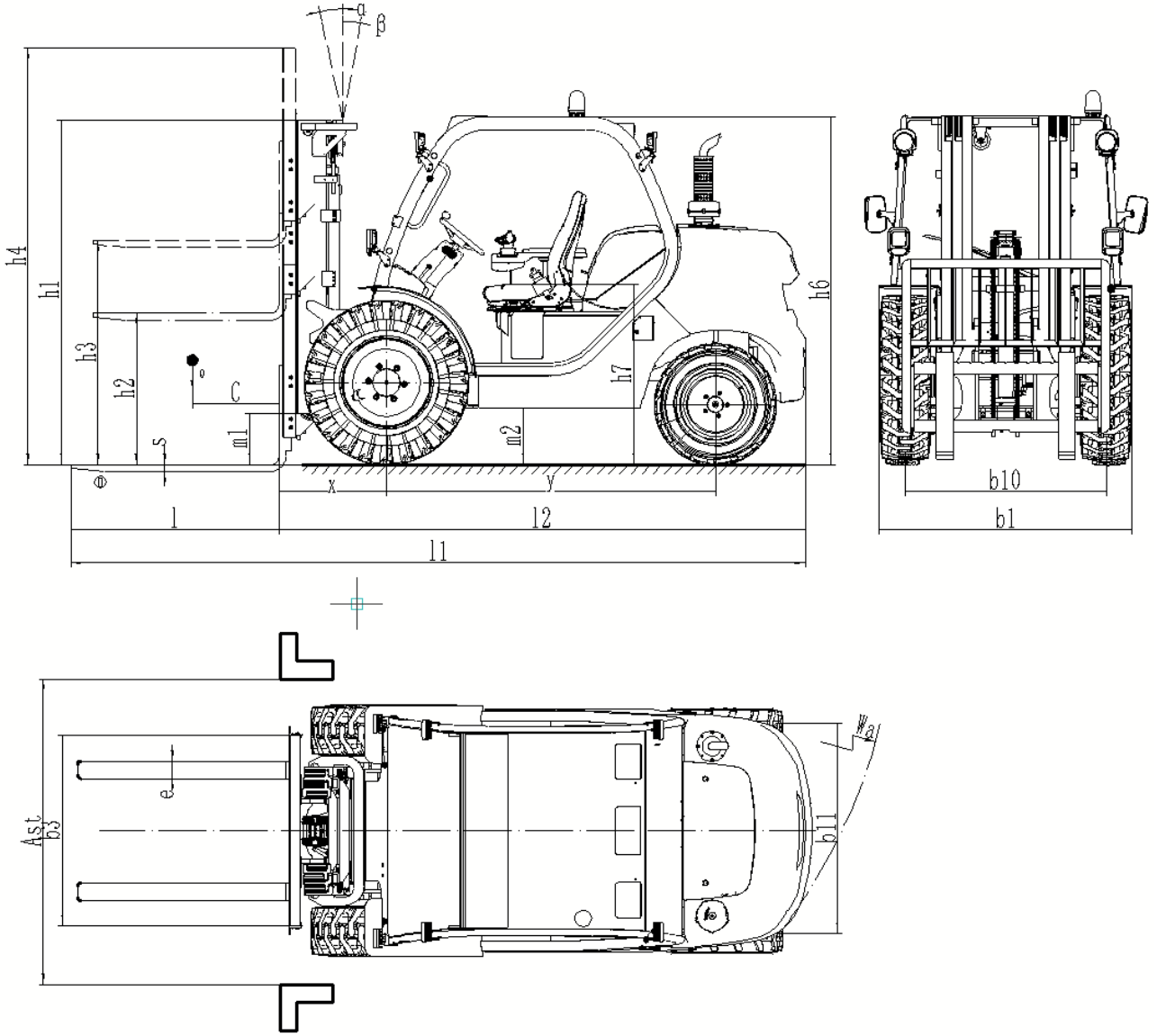


Name	Sign and logo	Name	Sign and logo
Decal-Crush hazard		Decal-Counterweight decal	
Decal-Lifting		Decal-Antifreeze fill	
Decal-LGMG logo-415*80-English	LGMG	Decal-Hot fluid warning	
Decal-Lifting lug		Decal-Machine lubrication diagram	
Decal-Cab door decal (LH)		Decal-Read the manual	
Decal-Tire pressure		Decal-No lifting	
Decal-Model (LH)		Decal-Risk of pinching hand	

Decal-Machine body decal (LH)		Decal-Load chart I	
Decal-Fuel tank		Decal-Load chart II	
Decal-Hot surface warning		Decal-Fasten seat belt	
Decal-Machine body decal (RH)		Decal-Emergency stop switch warning	
Decal-Hydraulic oil		Decal-Joystick operation	
Decal-Model (RH)		Decal-In case of tipover	

Decal-Cab door decal (RH)		Decal-No riders	
Decal-Do not climb		Decal-Battery disconnect switch notice	
Decal-Noise 104dB		Decal-Washer fluid filling	
Machine nameplate		Decal-Safety notice	
Decal-UKCA		Decal-Precautions notice	
Decal-CE		Decal-Differential lock	
Decal-Safe escape			

Section 5 Specifications


α
β
h4
h1
h3
h2
C
m1
s
x
y
h7
m2
h6
b10
b1
l
l2
l1
e
Ast
b3
Wa
b11

		Item	Unit	Design specifications		
				CE	EAC (stage Ⅲ)	CE(Enclosed Cab)
General	1.1	Manufacturer		LGMG	LGMG	LGMG
	1.2	Model		F25	F25	F25
	1.3	Power		Diesel	Diesel	Diesel
	1.4	Operation		Sit	Sit	Sit
	1.5	Rated load capacity	Q (kg)	2500	2500	2500
	1.6	Load center distance	C (mm)	500	500	500
	1.7	Front axle center to fork face	x (mm)	621	621	621
	1.8	Wheelbase	y (mm)	1900	1900	1900
Weight	2.1	Service weight	kg	4700	4700	4940
	2.2	Axle loading with full load, front/rear	kg	5817/1050	5817/1050	6137/1108
	2.3	Axle loading without load, front/rear	kg	1859/2491	1859/2491	1859/2491
Tires & wheels	3.1	Tire		Inflation	Inflation	Inflation
	3.2	Tire size, front		12.5/80-18/12	12.5/80-18/12	12.5/80-18/12
	3.3	Tire size, rear		28x9-15	28x9-15	28x9-15
	3.4	Number of wheels, front/rear		2/2	2/2	2/2
	3.4.2	Number of drive wheels		4	4	4
	3.5	Track width, front	b10 (mm)	1160	1160	1160
	3.6	Track width, rear	b11 (mm)	1190	1190	1190
Dimensions	4.1	Mast tilt, forward/backward	α/β (°)	10/12	10/12	10/12
	4.2	Height, mast lowered	h1 (mm)	1975①	1975①	1975①
	4.3	Free lift	h2 (mm)	1200①	1200①	1200①
	4.4	Lift height	h3 (mm)	6000	6000	6000
	4.5	Height, mast fully extended	h4 (mm)	7035	7035	7035
	4.6	Overall height	h6 (mm)	1975②	1975②	1975②
	4.7	Seat height from ground	h7 (mm)	975	975	975
	4.8	Overall length	l1 (mm)	4260	4260	4260
	4.9	Length to face of forks	l2 (mm)	3040	3020	3040
	4.10	Overall width	b1 (mm)	1495	1495	1495
	4.11	Fork size (thickness x width x length)	s/e/l (mm)	40x122x1220	40x100x1220	40x122x1220
	4.12	Fork carriage, ISO 2328, class A/B		2A	2A	2A
	4.13	Fork carriage width	b3 (mm)	1100	1100	1040
	4.14	Ground clearance, below mast	m1 (mm)	300	300	300

	4.15	Ground clearance, center of wheelbase	m2 (mm)	300	300	300
	4.16	Right angle turning aisle size	Ast (mm)	5333	5333	5333
	4.17	Turning radius	Wa (mm)	3512	3512	3512
Performance	5.1	Travel speed, with full load/without load	km/h	12/24	12/24	12/24
	5.2	Lift speed, with full load/without load	m/s	0.47/0.50	0.47/0.50	0.47/0.50
	5.3	Lower speed, with full load/without load	m/s	0.50/0.46	0.50/0.46	0.50/0.46
	5.4	Drawbar pull, with full load	daN	2930	2930	2930
	5.5	Gradeability, with full load	%	/	40	/
	5.6	Service brake		Full hydraulic	Full hydraulic	Full hydraulic
Drive	6.1	Engine model		V2403	V2403-M-E3B-LGL2T	V2403
	6.2	Engine power (ISO1585)	kW	36	36	36
	6.3	Rated speed	rpm	2600	2600	2600
	6.4	Maximum torque	Nm/rmp	159.8/1600	158.6/1600	159.8/1600
	6.5	Number of cylinders/displacement	/ml	4/2434	4/2434	4/2434
	6.6	Emission standard		EU Stage V	EU Stage 3A	EU Stage V
Other	7.1	Drive control mode		Hydrostatic	Hydrostatic	Hydrostatic
	7.2	Attachment working pressure	bar	180	180	180
	7.3	Attachment hydraulic flow	l/min	38	38	38
	7.4	Hydraulic tank capacity	l	56	56	56

Notes: ① Applicable to 3-stage free-lift masts with lift height below 3.4m.

② Applicable to overhead guards without an enclosed cab.

③ The given value refers to the maximum slope that the machine can climb. It is forbidden to park the machine on a slope steeper than 15%.

		Item	Unit	Design specifications		
				EAC (stage Ⅴ)		
General	1.1	Manufacturer		LGMG		
	1.2	Model		F25		
	1.3	Power		柴油		
	1.4	Operation		座驾		
	1.5	Rated load capacity	Q (kg)	2500		
	1.6	Load center distance	C (mm)	500		
	1.7	Front axle center to fork face	x (mm)	621		
	1.8	Wheelbase	y (mm)	1900		
Weight	2.1	Service weight	kg	4590		
	2.2	Axle loading with full load, front/rear	kg	6137/1108		
	2.3	Axle loading without load, front/rear	kg	1960/2628		
Tires & wheels	3.1	Tire		充气		
	3.2	Tire size, front		12.5/80-18/12		
	3.3	Tire size, rear		28x9-15		
	3.4	Number of wheels, front/rear		2/2		
	3.4.2	Number of drive wheels		4		
	3.5	Track width, front	b10 (mm)	1160		
	3.6	Track width, rear	b11 (mm)	1190		
Dimensions	4.1	Mast tilt, forward/backward	α/β (°)	10/12		
	4.2	Height, mast lowered	h1 (mm)	1975①		
	4.3	Free lift	h2 (mm)	1200①		
	4.4	Lift height	h3 (mm)	3400		
	4.5	Height, mast fully extended	h4 (mm)	4435		
	4.6	Overall height	h6 (mm)	1975②		
	4.7	Seat height from ground	h7 (mm)	975		
	4.8	Overall length	l1 (mm)	4260		
	4.9	Length to face of forks	l2 (mm)	3040		
	4.10	Overall width	b1 (mm)	1495		
	4.11	Fork size (thickness x width x length)	s/e/l (mm)	40x122x1220		
	4.12	Fork carriage, ISO 2328, class A/B		2A		
	4.13	Fork carriage width	b3 (mm)	1040		
	4.14	Ground clearance, below mast	m1 (mm)	300		

	4.15	Ground clearance, center of wheelbase	m2 (mm)	300		
	4.16	Right angle turning aisle size	Ast (mm)	5333		
	4.17	Turning radius	Wa (mm)	3512		
Performance	5.1	Travel speed, with full load/without load	km/h	12/24		
	5.2	Lift speed, with full load/without load	m/s	0.47/0.50		
	5.3	Lower speed, with full load/without load	m/s	0.50/0.46		
	5.4	Drawbar pull, with full load	daN	2930		
	5.5	Gradeability, with full load	%	40		
	5.6	Service brake		全液压制动 /Hydrostatic		
Drive	6.1	Engine model		V2403		
	6.2	Engine power (ISO1585)	kW	36		
	6.3	Rated speed	rpm	2600		
	6.4	Maximum torque	Nm/rmp	159.8/1600		
	6.5	Number of cylinders/displacement	/ml	4/2434		
	6.6	Emission standard		EU Stage Ⅴ		
Other	7.1	Drive control mode		Hydrostatic		
	7.2	Attachment working pressure	bar	180		
	7.3	Attachment hydraulic flow	l/min	38		
	7.4	Hydraulic tank capacity	l	56		

Notes: ① Applicable to 3-stage free-lift masts with lift height below 3.4m.

② Applicable to overhead guards without an enclosed cab.

③ The given value refers to the maximum slope that the machine can climb. It is forbidden to park the machine on a slope steeper than 15%.

Section 6 OPS Function (If Equipped)

6.1 Precautions on OPS

(OPS: Operator Presence Sensing)

The OPS prevents powered traveling and load handling operations when the operator is not seated in the proper operating position (operator's seat).

If the operator leaves the seat while the forklift is in operation, the buzzer will sound for approx. 1s and the OPS indicator light will come on to inform the operator that the system is going to be activated.

If the operator remains out of the seat for about 2s or more, the system will be activated and stop powered travelling and load handling operations. If the operator returns to the seat within 2s, operation can be continued normally.

This forklift is equipped with the OPS. Confirm the OPS is functioning properly before operating the forklift.

6.2 Description of OPS features

6.2.1 Travel OPS function

If the operator leaves the seat while the forklift is traveling, the OPS indicator light will come on and powered traveling will be stopped after 2s.

If the operator returns to the proper operating position within 2s, traveling can be continued.

OPS will not apply the brakes to stop coasting or prevent rolling back on inclines.

To deactivate the travel OPS, always return the direction switch handle to the neutral position and release the accelerator pedal, before returning to the seat.

⚠ Caution

Travel OPS is not a brake.

OPS stops powered traveling, but does not apply the brake. Apply the parking brake at all times when leaving the operator's seat.

6.2.2 Load handling OPS function

If the operator leaves the seat for about 2s or more during load handling operations, the OPS indicator light will come on and load handling operations will be stopped.

If the operator returns to the proper operating position within 2s, load handling operation can be continued.

To restart load handling operation, return all levers to the neutral position and return to the seat.

⚠ Caution

The work device might shift or fall under its own weight if its control lever or joystick is operated with OPS active.

6.2.3 OPS operation information function

If the operator leaves the seat, the buzzer will sound for approx. 1s and the OPS indicator light will come on to inform the operator that OPS

going to be activated.

The OPS indicator light remains on until the operator returns to the seat to confirm the activation of the OPS.

6.2.4 Return-to-neutral

Traveling

While the travel OPS is activated, if the operator returns to the seat without returning the direction switch handle or the accelerator pedal to the neutral position, the buzzer sounds indicating that the travel OPS cannot be deactivated.

To deactivate the travel OPS, always return the direction switch handle to the neutral position and release the accelerator pedal, before returning to the seat.

Load handling

While the load handling OPS is activated, if the operator returns to the seat without returning all levers to the neutral position, the buzzer sounds indicating that the load handling OPS cannot be deactivated.

To deactivate the load handling OPS, always return all levers to the neutral position, before returning to the seat.

6.2.5 Should a problem with OPS occur:

Should OPS experience a problem, OPS indicator light will blink and notify the operator.

In any of the following cases, a malfunction may have occurred to the OPS. Park the forklift in a safe location, apply the parking brake, remove the key and ask the dealer for an inspection.

The OPS indicator light does not illuminate when the operator is not seated in the proper operating position.

The OPS indicator light does not go off when the operator is in the proper operating position.

6.2.6 Seat belt interlock warning (option)

This feature detects when the seat belt is unfastened or the sequence to connect the seat belt and the buckle is incorrect, activates OPS and prevents powered traveling and load handling operations.

If the operator does not fasten the seat belt after sitting in a seat, the feature detects the incorrect sequence, the OPS indicator light illuminates to inform the operator that OPS is going to activate.

Also, OPS will be activated and the traveling and load handling operations will be restricted 2s after the seat belt is unfastened or 2s after the operator leaves the seat.

To deactivate the OPS, return to the seat and then fasten the seat belt.

Should a problem with seat interlock system occur:

Should the system experience a problem, the spanner indicator light will blink.

Also, in any of the following cases, a malfunction may have occurred to the system. Park the forklift in a safe location, apply the parking brake, remove the key and ask the dealer for an inspection:

- The OPS indicator light does not illuminate when the seat belt is unfastened.
- The OPS indicator light does not illuminate when the operator leaves the seat.
- The OPS indicator light does not go off after the operator gets on the seat and fastens the seat belt in the correct sequence.

Section 7 Pre-operation Inspection

7.1 Function check

7.1.1 Fundamentals

1) It is the responsibility of the operator to perform a pre-operation inspection and routine maintenance.

2) The pre-operation inspection is a visual inspection performed by the operator prior to each work shift. The inspection is designed to discover if anything is apparently wrong with the forklift before the operator uses it.

3) The pre-operation inspection also serves to determine if routine maintenance procedures are required. Only routine maintenance items specified in the forklift operation and maintenance manuals may be performed by the operator.

4) Refer to the list on the next page and check each of the items.

5) If damage or any unauthorized variation from factory delivered condition is discovered, the forklift must be tagged and removed from service.

6) Repairs to the forklift may only be made by a qualified service technician. After repairs are completed, perform a pre-operation inspection again.

7) Scheduled maintenance inspections shall be performed by qualified service technicians, according to the manufacturer's specifications and the requirements listed in the manual.

7.1.2 Operation inspection

	No.	Check point	Check item
Brake system	1	Brake pedal	Foot brake pedal stroke and braking force
	2	Parking brake	Parking brake stroke and operating force
Steering system	3	Steering wheel control	Loosening, rotation and forward/backward movement
	4	Hydraulic steering control	Operating conditions of all components
Hydraulic system and mast	5	Function	Function, crack and lubrication
	6	Oil line	Leak
	7	Hydraulic oil	Appropriate quantity
	8	Lift chain	Two chains (left and right) should maintain consistent tension.
Wheel	9	Tire	Air pressure and abnormal damage
	10	Rim bolt	Tightening securely
Battery	11	Charging	Check for battery capacity display,

			specific gravity and firm plug connection.
Lights, horns and switches	12	Front combination light, front and rear work lights, turn signal, horns and rear tail light	Turn on them to check whether they come on or sound.
Other	13	Overhead guard and load backrest	Bolt and nut tightening
	14	Nameplate and mark	Integrity
	15	Other components	Abnormal or not

7.1.3 Inspection procedure

1. Foot brake pedal

Check brake conditions and confirm that after the brake pedal is fully depressed, the distance it has travelled from the backing plate plane is more than 50mm and the empty forklift braking distance is approximately 2.5m.

2. Parking brake

Depress the parking brake pedal and check for:

proper stroke;

braking force;

component damage;

suitability of foot depressing force for the operator; and

whether the operator can make adjustment through the internal bolt.

3. Steering wheel rotation

Slightly rotate the steering wheel clockwise and counterclockwise and check for self-centering. The appropriate self-centering stroke should be 50-100mm. Both forward and backward strokes of steering wheel should be about 7°. If all of the above requirements are met, the steering wheel rotation is deemed normal.

4. Power steering

Rotate the steering wheel clockwise and counterclockwise and check for the power steering condition.

5. Hydraulic system and mast functions

Check whether lift and forward and backward tilt operations are smooth and normal.

6. Oil lines

Check lift and tilt cylinders and all lines for leaks.

7. Hydraulic oil

Lower the fork to the ground and use an oil level gauge to check hydraulic oil level. If it

is between H and L, it indicates a proper level.

Model	H	L
F25	56	50

8. Lift chains

Raise the forks to 200-300mm off the ground and ensure the left and right chains of consistent tension. If inconsistent, adjust through the chain joint. Upon adjustment, tighten two nuts properly.

9. Tires (pneumatic)

Remove the valve cap and use a gauge to measure tire pressure. After checking pressure and before installing the valve cap, ensure no air leak from the valve.

⚠ **Note: The tire pressure of the forklift is higher than that of a car. The tire pressure shall not exceed the specified value.**

	Model	Tire pressure
Front wheel	12.5/80-18	430kpa
Rear wheel	28×9-15	530kpa

10. Tires (solid)

Check tires and sidewalls for damage or crack, and rims for deformation or damage.

11. Check rim fixing nuts.

⚠ **Note: Rim fixing nut looseness is very dangerous. In the event of looseness, wheels may come off, causing the tip-over of the forklift. Check rim fixing nuts for looseness. Even if only one nut comes loose, it is very dangerous. Thus, pre-tighten them to the specified torques.**

	Model	Rim nut tightening torque
Front wheel	12.5/80-18	130-150N·m
Rear wheel	28×9-15	280-320N·m

12. Charging

Measure the specific gravity of the battery. The specific gravity reading between 1.275 and 1.285 at 30°C indicates that the battery is fully charged. Check the wiring terminal for looseness and the cable for damage.

13. Check front combination light, front and rear work lights, steering signal light, brake light and horn.

L	Left turn signal flashing
N	Neutral
R	Right turn signal flashing

Check whether these lights can come on normally and the horn can sound normally (upon pressed).

14. Check dashboard functions.
15. Check bolts or nuts for looseness.
16. Check decals on the forklift for completeness and legibility.
17. Check other components for abnormality.

⚠ **Note: Be sure to turn off the key switch and DC power switch before checking the electrical system, except for lights and operating conditions.**

7.2 Workplace inspection

7.2.1 Fundamentals

1) The workplace inspection helps the operator determine if the workplace is suitable for safe forklift operation. It should be performed by the operator prior to moving the forklift to the workplace.
2) It is the operator's responsibility to read and remember the workplace hazards, then watch for and avoid them while moving, setting up and operating the forklift.

7.2.2 Workplace inspection

Be aware of and avoid the following hazardous situations:

- drop-offs or holes
- bumps, floor obstructions or debris
- sloped surfaces
- unstable or slippery surfaces
- overhead obstructions and high voltage conductors
- inadequate surface support to withstand all load forces imposed by the forklift
- Instantaneous wind speed
- Beyond the temperature and humidity requirements
- the presence of unauthorized personnel
- other possible unsafe conditions

Section 8 Switches and Control Levers

8.1 Key switch

You may turn on or off the power supply to controls by the key switch.

OFF: In this position, the switch is off and the key can be inserted or removed.

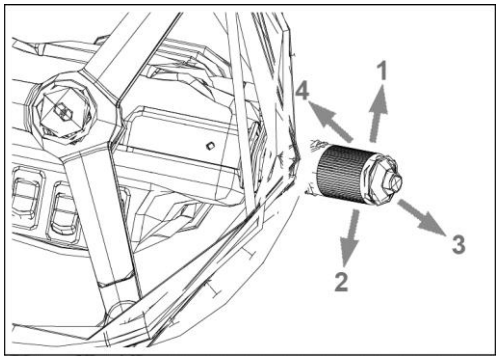
ON: Turn on the switch forward from OFF and the forklift will be started.

⚠ Warning: Do not depress the accelerator pedal while turning on the key switch.

Before leaving the forklift unattended, remove the key to secure from unauthorized operation.

To park or charge the forklift, remove the key to secure from unauthorized operation.

8.2 Combination switch



Combination switch knob

1 Turn signal lamp

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

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 downward (3) in the middle position to turn on the high beam, move the combination switch knob upward (4) to turn on the instant beam, and release the joystick for the automatic reset of the low beam.

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.

4 Front windshield spray switch

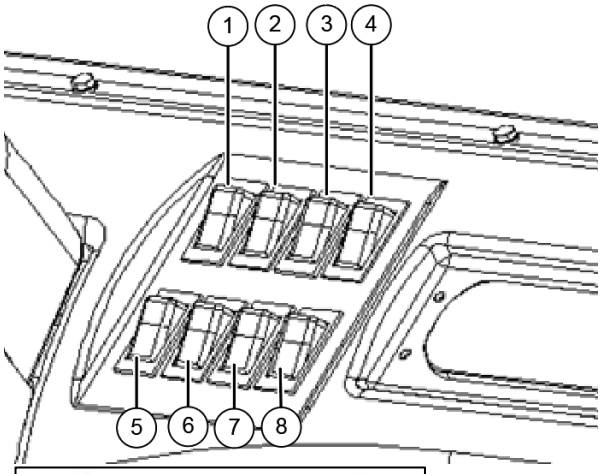


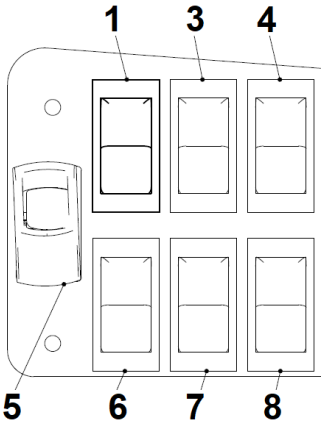


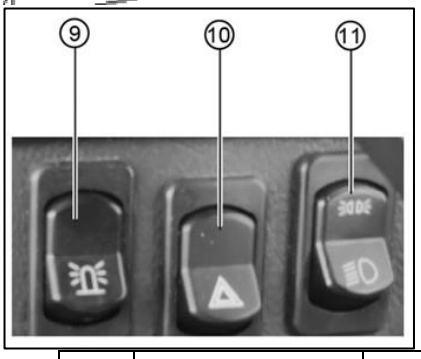
Front windshield spray switch

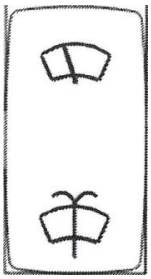
Press the front windshield spray switch located at the end of the combination switch knob, then the front windshield sprays water, and the wiper works for 1-2 turns.

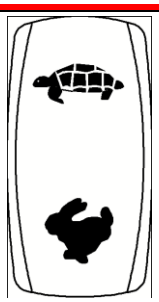
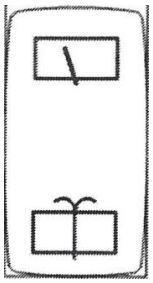
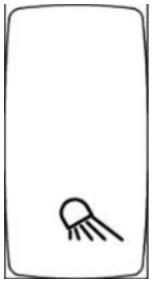
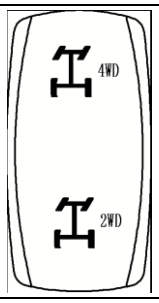
8.3 Rocker switch







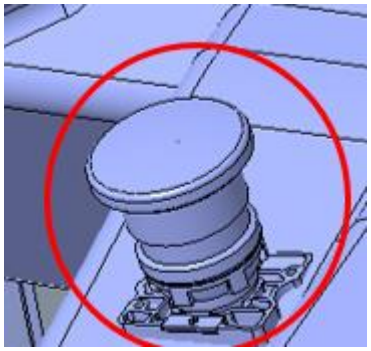
No.	Illustration	Part name	Position	Description
1		Rocker switch for aftertreatment regeneration (if equipped)	1	Active regeneration (resettable and continuously press the switch until the function is activated)
			0	Initial position
			2	Inhibit regeneration (with lockup)
2		Front wiper and spray nozzle on (if equipped)	1	Front windshield wiper function on
			0	Function off
			2	Front windshield spray function on (resettable)
3		Rocker switch for front work light	0	Front work light function off
			1	Front work light function on

4		Rocker switch for slow and fast speeds (if equipped)	0	Slow speed mode
			1	Fast speed mode
5		Parking switch	0	Function off
			1	Function on
6		Rear wiper and spray nozzle on	1	Rear windshield wiper function on
			0	Function off
			2	Rear windshield spray function on (resettable)
7		Rear work light rocker switch	0	Rear work light function off
			1	Rear work light function on
8		Rocker switch for 2-wheel/4-wheel drive	0	2-wheel drive mode
			1	4-wheel drive mode
9		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	High or low beam enabled

Warning: Do not drive the forklift until the parking brake signal light goes off!

8.4 Emergency stop button



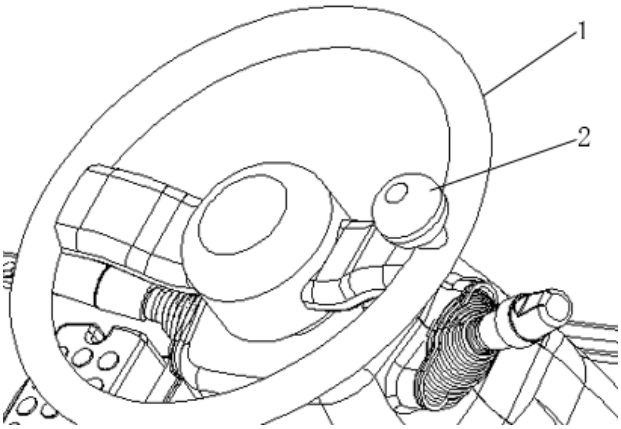
In case of an emergency, press the button and the motor will stop immediately.

To restart the forklift, reset the emergency stop button. Otherwise, it will be impossible.

⚠ Warning: Before pressing the button, be prepared that all hydraulic motions will stop suddenly.

8.5 Steering wheel

Steering wheel 1 and steering wheel knob 2



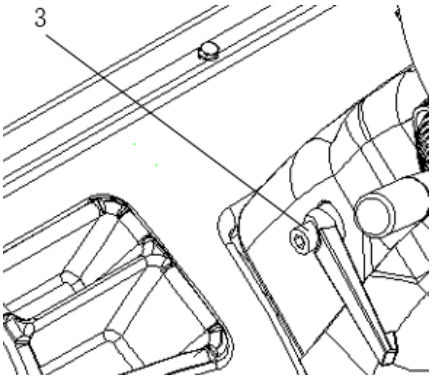
Steering wheel and steering wheel handle

Turn the steering wheel to the right and the forklift will steer to the right. Turn the steering wheel to the left and the forklift will steer to the left. The forklift has the steering wheels at the rear, allowing its rear end to swing while steering.

To steer the forklift, grasp the steering wheel knob with the left hand and place the right hand on the control handle or steering wheel.

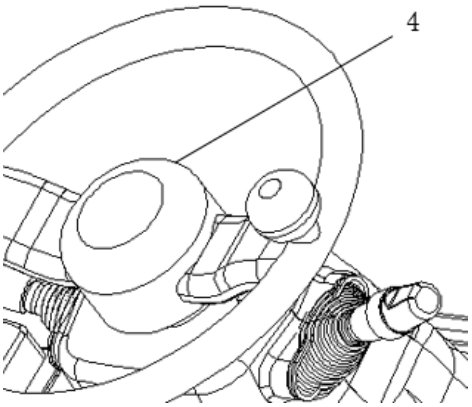
Full hydraulic steering system and steering wheel tilt come standard with the forklift.

- **This feature allows the driver to change the angle of the steering wheel.**
- **Tilt the steering wheel and then lock it with an adjustable locking handle 3.**



Locking handle

8.6 Horn button



Horn switch

Press the round plastic cover in the center of the steering wheel to beep. The horn can sound even when the key switch is turned off.

The handle may also be equipped with a horn button, subject to the actual situation.

At the left handle



Right handle:

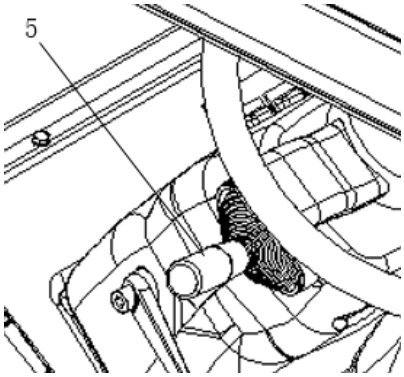


8.7 Direction switch

The direction switch controls the direction of travel and transmits signals to gauges for display. Push its handle neutral position means the neutral gear. Move the handle to the reverse position. The rear tail light will come on and the reverse buzzer will sound.

Control over the direction of travel

Type1：



Direction switch handle

Drive forward (F): Move the handle forward and depress the accelerator pedal.

Drive in reverse (R): Move the handle backward and depress the accelerator pedal.

To park the forklift, place the direction switch handle in the neutral position (N).

Type2:

When there is a directional switch on the top of the control handle.



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.

8.8 Parking brake pedal

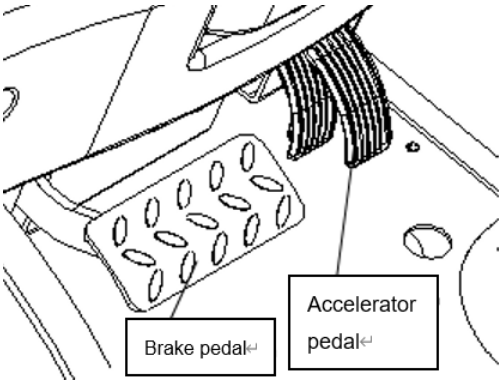
When parking the forklift, fully depress the foot brake pedal to prevent it from moving.

To start the forklift, turn off the parking brake switch to disengage the parking brake.

8.9 Accelerator pedal

⚠ Warning: **Do not slam on the accelerator pedal to avoid sudden start or acceleration of the forklift.**

When the brake pedal is depressed, be sure to remove your foot from the accelerator pedal.



Brake and accelerator pedals

8.10 Control handle

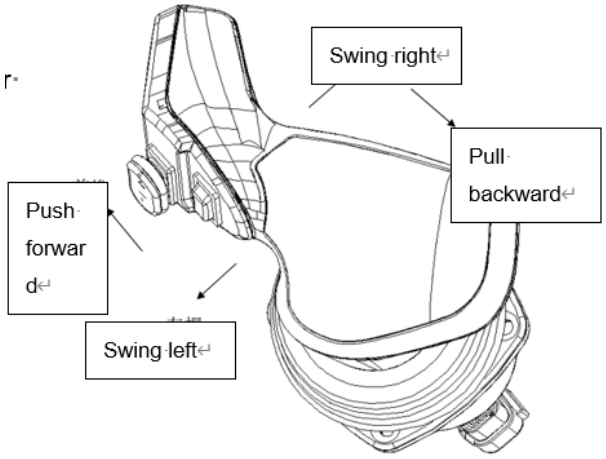
Push the handle forward and the mast will tilt forward. Pull the handle backward and the mast will tilt backward.

Swing the handle to the left and the fork carriage or mast will lower. Swing the handle to the right and the fork carriage or mast will raise. Raise and lower speeds can be controlled by the handle swing angle. The bigger the angle is, the faster the speed will be.

⚠ Warning:

- **When simultaneously turning on the key switch and pushing or pulling the handle, do not tilt.**
- **When simultaneously turning on the key switch and swinging the handle to the left or right, do not make any motion.**

Do not lower the fork suddenly or stop the forklift when lowering the forks.



Control handle

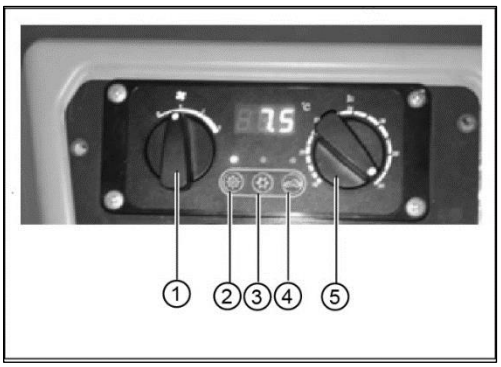


Differential lock switch (red)

⚠ Note: The differential lock switch is designed for the 4-wheel drive mode only. Press it for forced flow division to enhance traction.

8.11 Air Conditioner

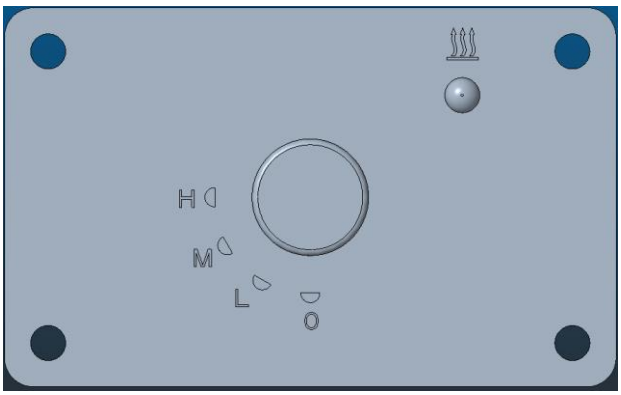
Type1：



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

Type2：



The is a wind speed , which can control the wind speed of the hot air blown in.

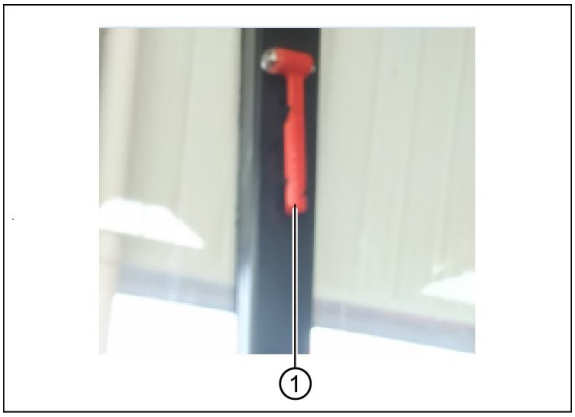
0: Off

L: Low wind speed

M: Medium wind speed

H: High Wind Speed

8.12 Emergency Hammer



In an emergency, use the escape hammer to tap the four corners of the front window, side window or rear window glass to break the glass and escape.

Section 9 Body Components

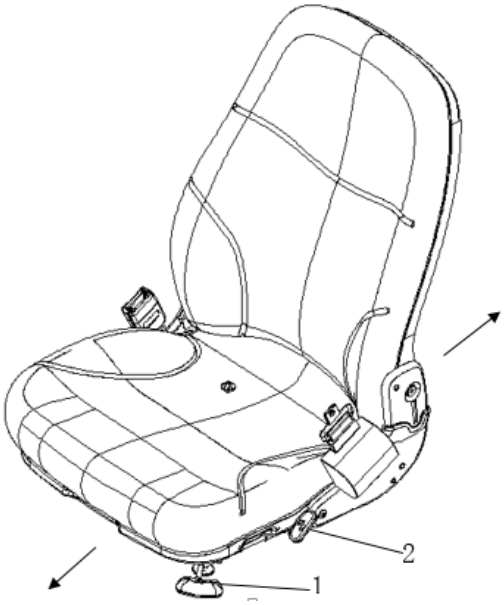
9.1 Operator's seat

Type1：

Adjust the handles 1 and 2 to position the seat to the operator size.

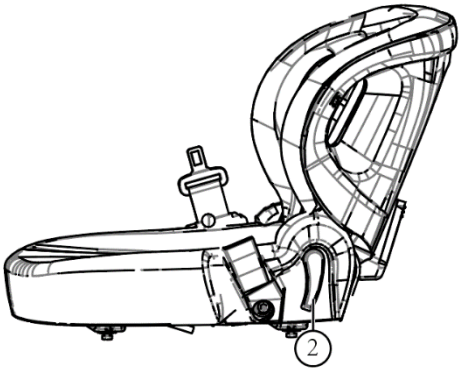
Pull the handle 1 up to release anchorage. Upon adjustment, slightly move the seat fore and aft to confirm it is locked in position. Fore-and-aft adjustable range: 120mm.

Pull the handle 2 up to release anchorage. Adjust the seat back angle forward/backward and then confirm it is locked in position.



Seat

Type2：



Pull the handle 2 to unlock the seat. It is used to adjust the fore/aft angle of the seat backrest.



The handle is on the right side of the seat and for unlocking the seat anchorage. Upon unlocking, the entire seat can be tilted forward. The handle is at the outside of the seat and for unlocking the armrest anchorage. Upon unlocking, the armrest can be moved fore and aft.

⚠ Note: Regularly check the seat belt. Under the following circumstances, promptly replace it:



1) cut or frayed straps;

2) worn or damaged hardware, including anchor points;

3) buckle or retractor malfunction; and

4) loose stitching.

9.2 Overhead guard

Warning: The overhead guard is an important part for protecting the operator from falling objects. Installation looseness and use after removal or alternation are very dangerous and will cause major accidents.

9.3 Load backrest

Warning: The load backrest is an important safety part for preventing the loads on the fork from falling onto the operator. Installation looseness and use after removal or alternation are very dangerous.

9.4 Kingpin

The kingpin is only for the following applications:

Get the forklift unstuck (e.g., tires stuck in side ditch); and

Load or unload the forklift for transportation on the truck.

Warning: Bowing and being towed are strictly prohibited.

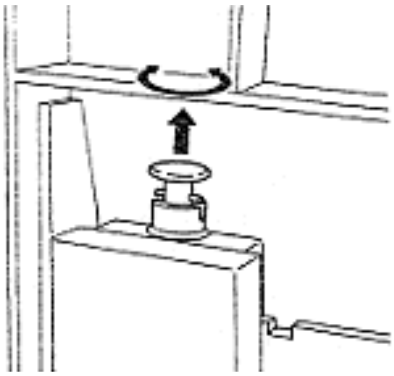
9.5 Fork lock pin

The fork lock pin locks the fork in its proper position. To adjust the fork spacing, pull the fork lock pin up and rotate 1/4 turn to the desired position. The fork spacing depends on the load.

Warning:

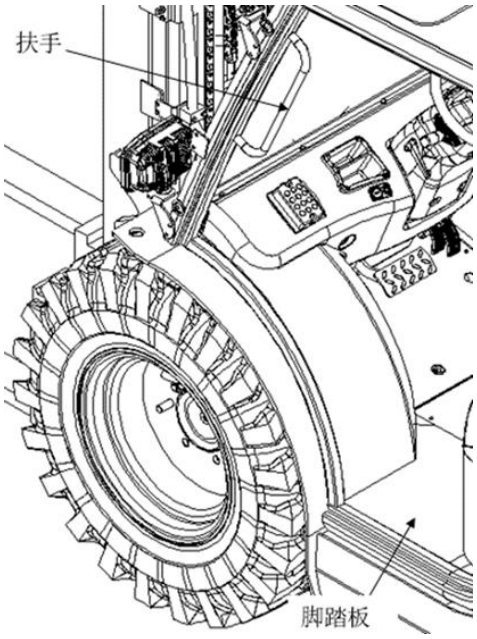
- **According to the principle that the center of gravity of the good shall be consistent with the center of the forklift, the fork spacing adjustment should be at equal distance on the left and right. Upon adjustment, properly secure the fork with the lock pin to prevent movement.**
- **Adjust the fork spacing by leaning on the load backrest and push the fork with foot while maintaining a firm footing on ground. Never adjust spacing by hand.**

Danger: No person is allowed to ride on the fork!



Fork lock pin

9.6 Foot step and handhold



Locations of handhold and foot step

The foot step is on the left side of the body. The handhold is on the left front column of the

Handhold

uard. Use the step and handhold to get on and off the forklift safely.

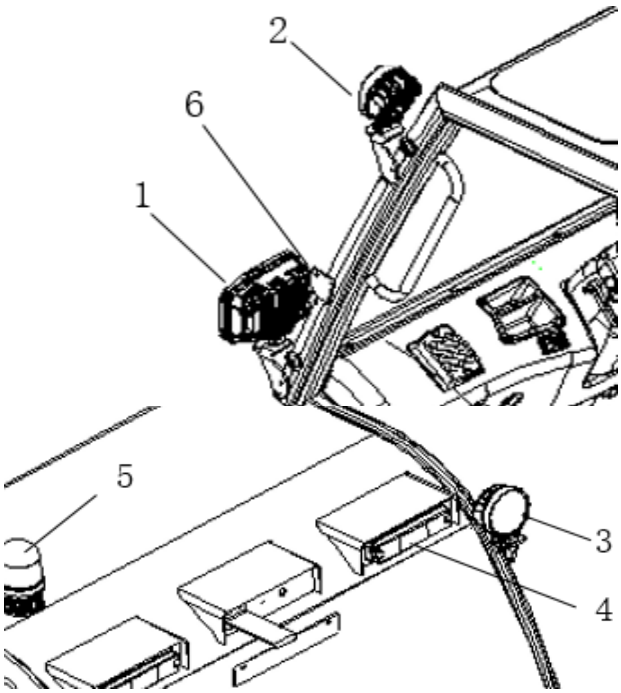
9.7 Lights

The forklift is fitted with front combination light 1 (turn signal lights and lighting lamp) and front work light 2 at the front, rear work light 3 and tail light 4 at the rear, and alarm signal light 5 on the roof.

The tail light consists of rear turn signal lights (yellow), travel/brake light (red) and reverse light (white).

Warning: Check whether lights are in good condition. If bulbs are burned out, the screens are damaged or dirty, replace or repair them immediately.

1. Front combination light 2. Front work light 3. Rear work light 4. Rear tail light 5. Alarm light 6. Mirror 7. Battery disconnect switch



Cab lights

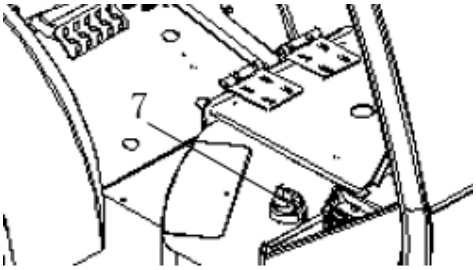
9.8 Rearview mirror

Rearview mirror 6 is attached to the left front and right front columns of the overhead guard.

The mirror glass should be kept clean.

Adjust the rearview mirrors to ensure good visibility of the rear.

9.9 DC power switch 7





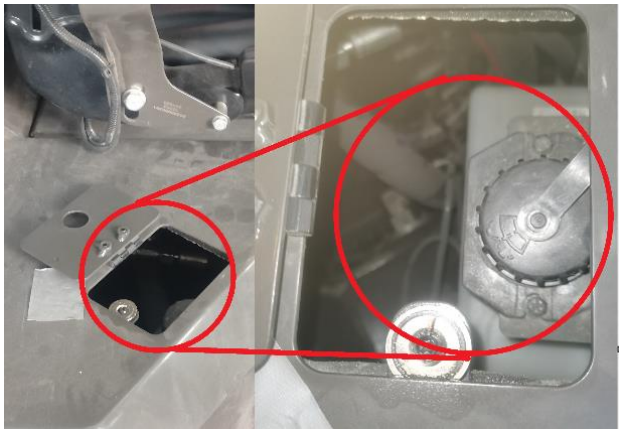
The DC power switch is used for connecting the battery to or disconnecting it from the forklift's electrical components, generally for connecting purpose.

⚠ Danger: Turn off the power switch before inspecting electrical lines or performing welding.

⚠ Note: To place the forklift out of service for a long time, be sure to turn off the battery disconnect switch to avoid accidents. Do not turn off the battery disconnect switch until the engine stops running and the key switch is put in its initial position.

9.10 Windshield washer fluid filler

Open the filler cap to add washer fluid, which should not be lower than 1/4.



Washer fluid filler

9.11 Hood assembly



Radiator hood subassembly

⚠ Do not step on it!

Open this hood to repair or maintain the cooling system.



Engine hood 1



Engine hood 2

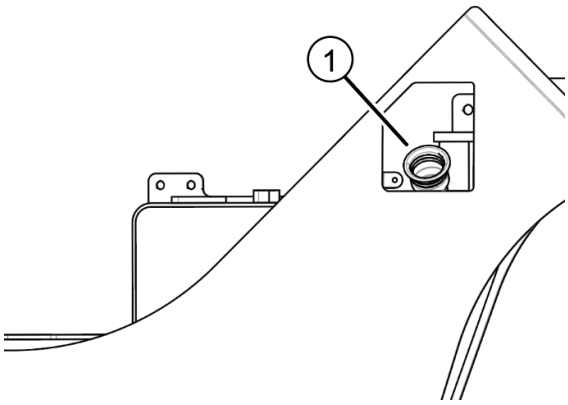


The locks are located at the left and right sides of the engine hood 2. To open the hood, it is necessary to disengage the locks.

⚠ Do not step on it!

Open this hood before starting to repair or maintain the engine system. Before opening the hood, be sure to adjust the seat to an appropriate position to prevent interference with the hood when opened. After the hood is closed, be sure to engage the locks.

9.12 Fuel tank



Fuel tank

1. Fuel tank filler

It is on the left side of the forklift.

Top up the fuel tank whenever possible to minimize diesel condensation in cold weather.

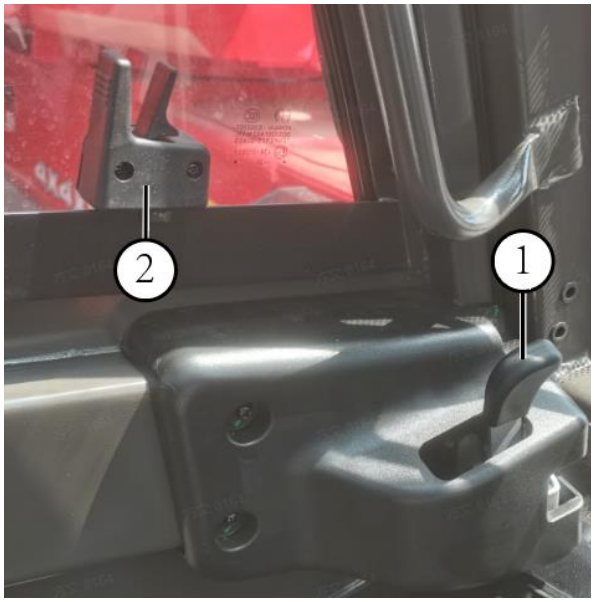
⚠ Warning: Do not refuel when the engine is running. Keep the fuel system away from open flames, sparks, or hot areas. Engine fuel is flammable and may cause fire and explosion.

1. Check the fuel level on the dashboard.
2. Add fuel through the filler when necessary.
3. Visually check fuel tank and lines for leaks.

9.13 Cab door (if equipped)



Cab door lock



1. Cab door switch 2. Window switch

9.13.1 Switch on/off the door from outside

Open the door: If the door is in an unlocked position, pull out the handle to open it. If the door is in a locked position, insert and turn the key clockwise by 180 degrees and then pull out the handle to open it.

Close the door: Shut it off directly.

Lock the door: After the door is closed, insert and turn the key counterclockwise by 180 degrees and then remove it. After the door is locked, the door cannot be opened by pulling the exterior handle.

9.13.2 Switch on/off the door from inside

Open the door: Pull the door switch handle backward (i.e., push out the door) to open it.

Close the door: Shut it off directly.

9.13.3 Side window

Pinch the window switch inward from the left and right sides to unlock it, and then move the window to open it.

There are multiple limit slots in the bottom frame of the window. When the window lock moves to the limit slots, it will automatically become stuck. If you need to move the window, you need to pinch the window switch again to unlock it.

⚠ Note:

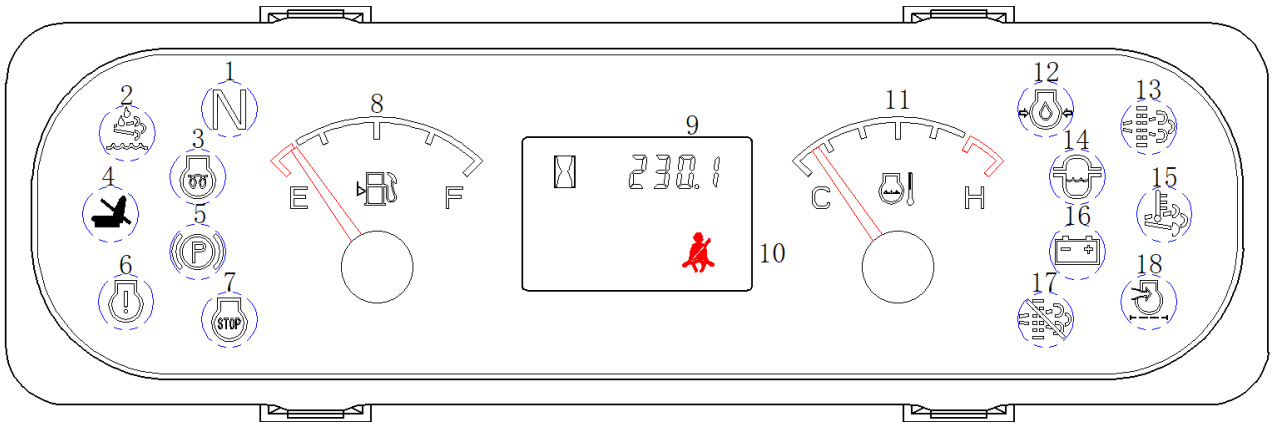
1. Perform the above procedure with the machine stationary.
2. Before leaving the machine, be sure to confirm that the doors and windows are closed and the doors are locked. Do not

leave your valuables in the cab.

Section 10 Display

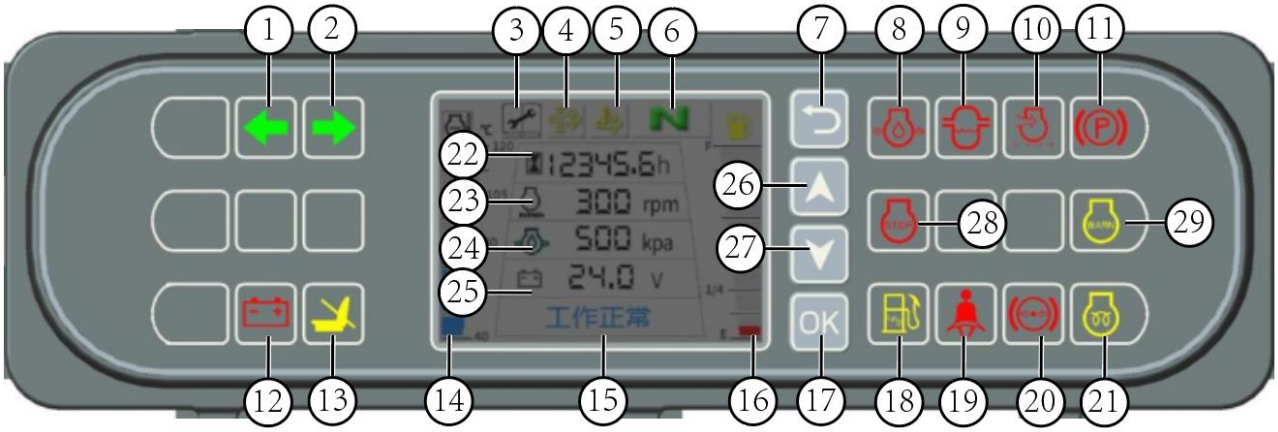
10.1 Display gauges

Type1：



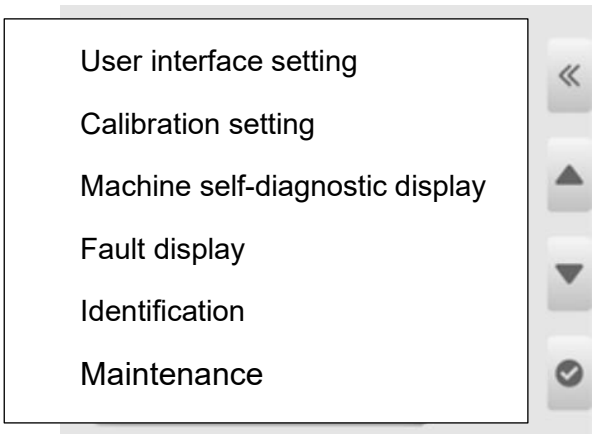
No.	Part name	No.	Part name
1	Neutral gear indicator light	13	DPF regeneration request indicator light
2	Low DEF level indicator light	14	Water in fuel indicator
3	Engine preheat	15	DPF regeneration indicator light
4	Seat switch	16	Low battery indicator
5	Parking indicator	17	DPF regeneration inhibit reminder
6	Engine fault indicator	18	Air filter blockage alarm light
7	Engine stall		
8	Fuel level indicator		
9	Work hour display		
10	Seat belt indicator		
11	Coolant temperature indicator		
12	Engine oil pressure alarm		

Type2：

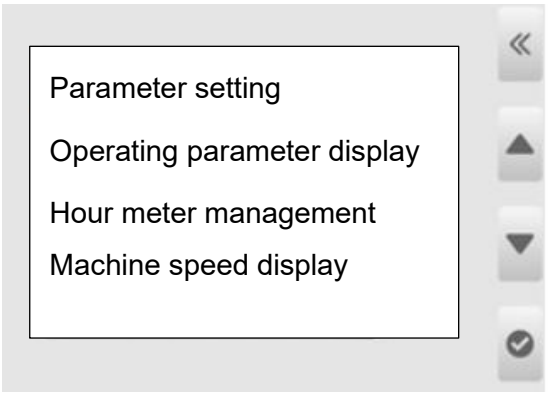


No.	Description	No.	Description
1	Left turn signal indicator light	16	Fuel level indicator
2	Right turn signal indicator light	17	Confirm key
3	Engine maintenance alarm light	18	LPG level low alarm indicator light
4	DPF regeneration request indicator light	19	Seat belt indicator
5	DPF regeneration indicator light	20	Brake pressure low indicator light
6	Neutral gear indicator light	21	Engine warm-up indicator
7	Back key	22	Work hour display
8	Engine oil pressure alarm	23	Engine speed
9	Water in fuel indicator	24	Engine oil pressure
10	Air filter blockage alarm light	25	Battery voltage
11	Parking indicator	26	Up arrow key
12	Low battery indicator	27	Down arrow key
13	Seat switch	28	Engine stop alarm indicator light
14	Coolant temperature indicator	29	Engine fault alarm indicator light
15	Message zone		

Click the Back key go into the main screen:



Select through the up and down arrow keys, and click the Confirm key to enter the corresponding sub-screen:



User interface setting

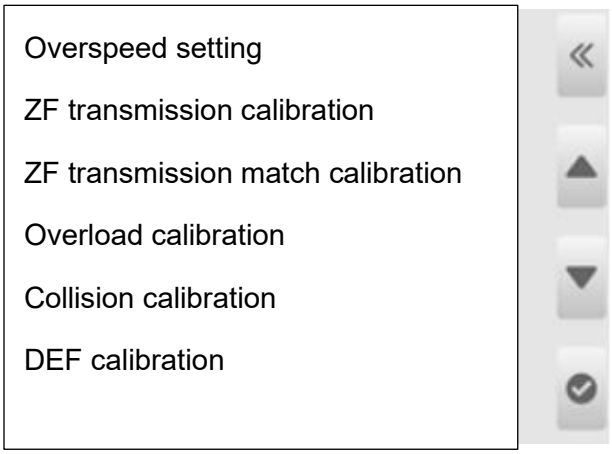
At the parameter setting screen, you can select and set the LCD brightness, RTC and language through four keys.

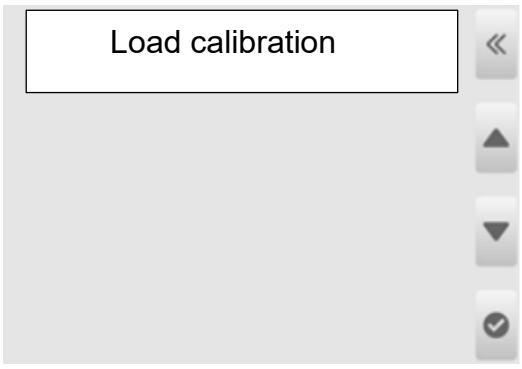
The operating parameter screen displays current remaining fuel, coolant temperature, speed, battery voltage, engine speed, engine oil pressure, urea level and other parameters.

Hour meter management allows you to enter the hour meter value change screen after entering the correct password twice using the key. Change the hour meter.

Note: The hour meter change function is only applicable to the case of no more than 10.0h or only one change made. Otherwise, such function will be disabled permanently.

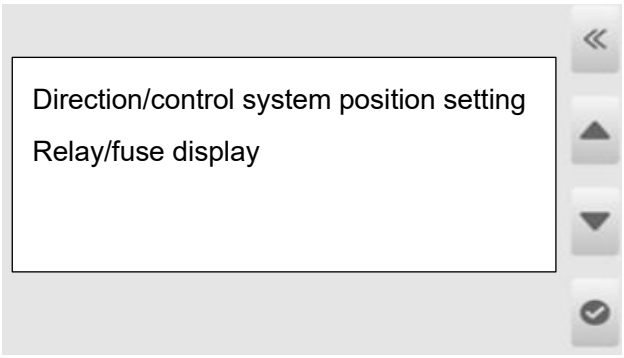
The machine speed display screen can be turned on or off by key setting. It is off by default and the main screen displays the oil pressure value. If it is on, it displays the machine speed.



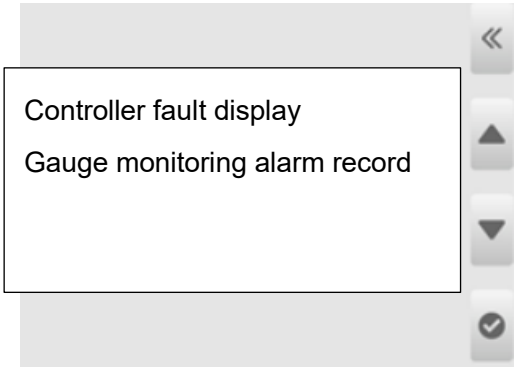


Calibration setting 1

Calibration setting 2



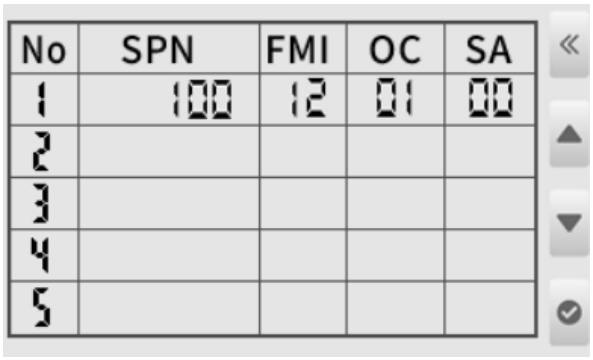
Machine self-diagnostic display screen



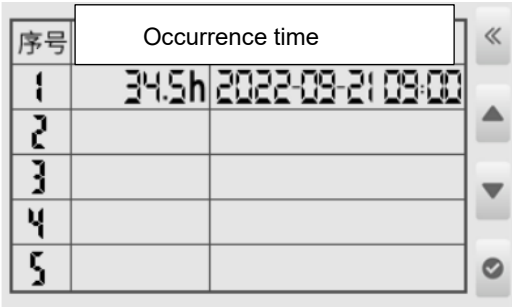
Fault display

Once a CAN bus fault code information is received, the display screen of the gauge in a normal working status will immediately switch to the 『Controller Fault』display screen to display the fault code sent by the controller, regardless of current screen. In normal conditions, the main screen shows a message of "Normal operation". In case of a fault, the text message of "Engine fault, please view the controller fault code page" will appear.

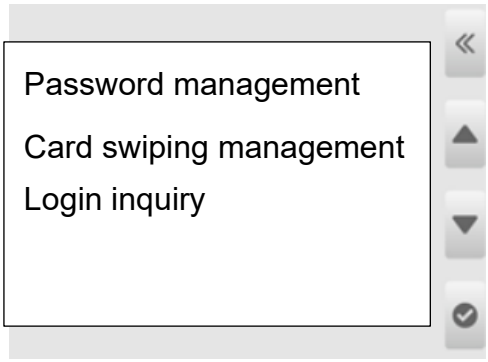
The user may also select『Fault Display』on the『Main Menu』to enter the『Controller Fault Display』screen and check for any fault code and view specific fault code information.



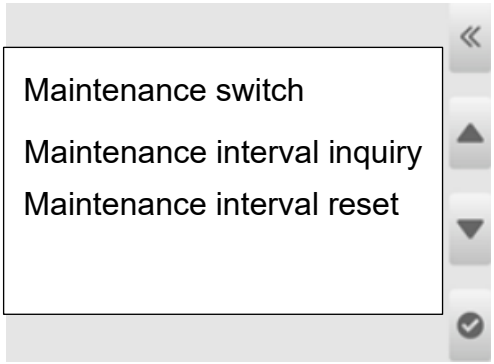
Controller fault display



Instrument monitoring alarm record



Identification



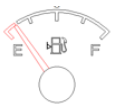
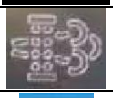
Maintenance



Maintenance interval inquiry

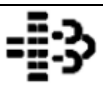
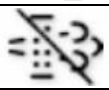
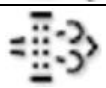
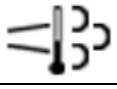
The maintenance switch function can be enabled or disabled through four keys. If it is off, there will be no need for the user to check for relevant maintenance information. The gauge is factory set on by default. When relevant maintenance item interval expires, a maintenance prompt will appear and the maintenance prompt and alarm symbol and text reminder will pop up on the main interface.

10.2 Symbols and description

Symbol	Item	Description
	Neutral gear indicator light	It shows the forklift gear.
	Low DEF level indicator light (if equipped)	It will come on in case of low DEF level, indicating the need to add DEF of specified quality immediately.
	Engine preheat	It turns yellow in case of engine preheating.
	OPS indicator light (if equipped)	It determines whether the seat is occupied.
	Parking indicator	It turns on when the parking brake is engaged.
	Engine fault indicator	It comes on when an engine fault is reported.
	Engine stall	It indicates engine stall.
	Fuel level indicator	It shows the amount of fuel remaining in the tank.
	Work hour display	It shows hours of operation.
	Seat belt indicator	When the seat belt is not properly buckled, it comes on. At this time, the forklift cannot be started.
	Coolant temperature indicator	It shows current coolant temperature.
	Engine oil pressure alarm	Engine oil pressure fault
	DPF regeneration request indicator light (if equipped)	When it is needed to activate DPF regeneration, it will come on or blink.
	Water in fuel indicator	In case of high water content in the fuel filter, it will come on. Drain water.
	DPF regeneration indicator light (if equipped)	When DPF regeneration is working, it will come on.
	Low battery indicator	It will come on in case of low battery voltage.
	DPF regeneration inhibit indicator light (if equipped)	It will come on when DPF regeneration is inhibited.
	Air filter blockage alarm light	It will turn red in case of air filter clogging. The main element needs to be cleaned or replaced. (For replacement instructions, refer to the Maintenance Manual)

Type 2:

Symbol	Description	Color
	Hour meter	\
	Left turn signal indicator light	Green
	Charge indicator	Red
	Preheat/wait to start indicator	Yellow
	Engine oil pressure low alarm	Red
	Neutral gear indicator	Green
	Fuel-water separator alarm symbol	Red
	Air filter	Red
	Right turn signal indicator light	Green
	Seat belt switch alarm	Red
	Brake pressure low alarm	Red
	Hand brake indicator	Red
	Coolant temperature	Red
	Fuel level	Yellow

	Seat switch alarm	Yellow
	High-temperature exhaust alarm	Yellow
	DPF cleaning alarm	Yellow
	AD Blue urea level low alarm indicator	Yellow
	Engine stop alarm	Red
	Engine fault alarm	Yellow
	Urea level	\
	Engine speed	\
	Back key	\
	Confirm key prompt/main screen silence/sound resume key	\
	Up arrow key/value+function indication	\
	Down arrow key/value-function indication	\
	Torque converter oil temperature	Red
	LPG level low alarm	Red
	Engine maintenance prompt	Yellow
	Inhibit regeneration alarm	Yellow
	Regeneration status fault alarm	Green
	Exhaust fault alarm indicator	Yellow

Section 11 Forklift Lifting and Transportation

11.1 Raising the forklift

Danger

You can be killed or seriously injured if the forklift falls on you.

- **After jacking, use blocking or proper stands to hold the forklift.**
- **Never get under the forklift supported by any hydraulic jack.**

Warning

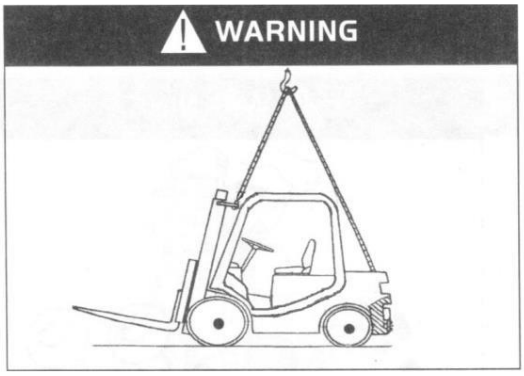
You must use a jack that has a rated capacity of 7,000lbs (3.5tons) or more. Make sure the counterweight mounting bolts are fully tightened before lifting the forklift, and follow these instructions to avoid injury:

- **The forklift must be unloaded and parked on a smooth level floor.**
- **Make sure the parking brake is properly adjusted and fully applied and opposite end wheels securely chocked.**
- **To raise the front, lift the forks about 3 feet (914.4mm) with the mast vertical and place a jack under the front frame. Make sure that the jack is properly positioned.**
- **To raise the rear, use a floor jack of the right capacity.**

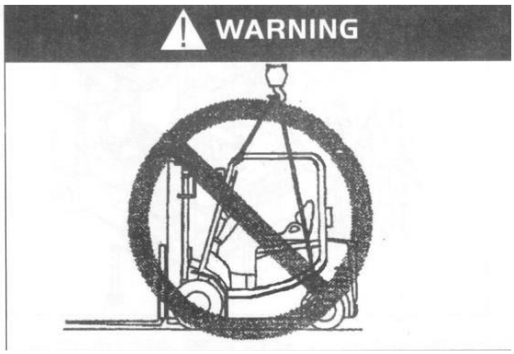
11.2 Lifting the forklift



Do not lift the forklift by attaching straps to the roof!



Lift the forklift properly!



Do not lift the forklift by attaching straps to the frame!

- **When lifting the forklift, be sure to avoid wrapping the wire around the overhead guard.**

- **The wire rope and lifting device should be of sufficient capacities to safely support the exceptionally heavy forklift.**
- **Never use the cab frame (overhead guard) to hoist the forklift.**
- **Never get under the forklift while raising it.**

11.3 Transporting the forklift

⚠ **Note:** Use the ramp of ample length, width and strength.

Effectively depress the forklift's parking brake to stop wheels, Activate the parking brake.

The ramp should be properly secured in the box center, which should be free of oil and grease.

The left and right heights of the ramp should be the same to ensure stable during loading/unloading.

Direction change or lateral movement on the ramp is prohibited.

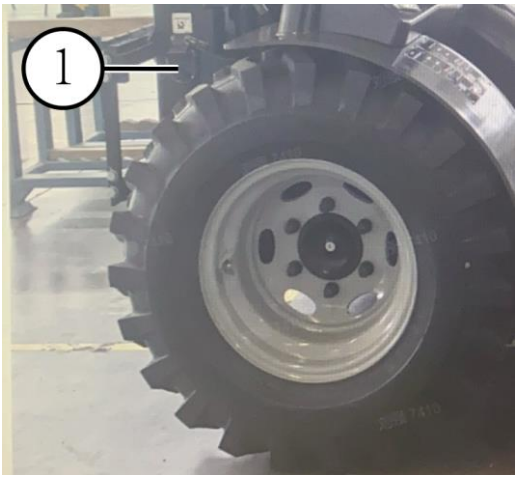
Slowly drive in reverse to ensure left and right forklift tires are loaded onto the ramp simultaneously.

Fix the chocks to the platform at the front and at the back of each tyre.

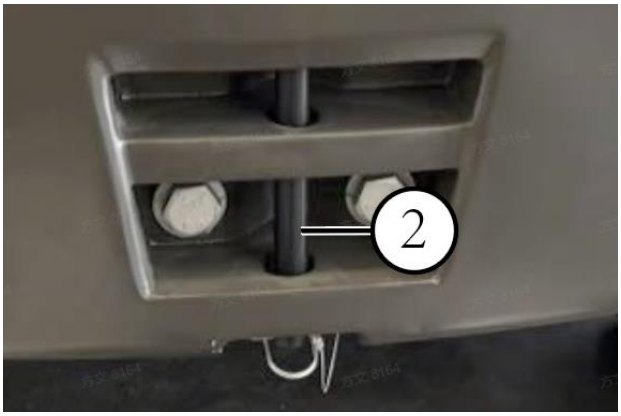
Also fix the chocks to the platform on the inside of each tyre.

Secure the lift truck to the platform with sufficiently strong ropes:

- At the front, to the anchoring points 1



- At the rear, to the slinging and anchoring pin 2.



- Tighten the ropes.

⚠ **Note:** To prevent the forklift from moving in the transport truck, chock wheels and properly secure it with straps.

Be aware of overall length, width and height and abide by relevant regulations when loading, unloading and transporting it on a public road.

Section 12 Storage

12.1 Cleaning the forklift

⚠ Notes:

- Park the forklift at a designated location.
- Pull up the parking brake handle.
- Turn off the key switch and remove the key.
- Turn off DC power switch.

12.1.1 Cleaning the forklift surface

⚠ Notes:

- Do not clean the forklift with flammable liquid. Take safety measures to prevent short circuit.
- Clean the forklift with water and soluble detergent.
- Carefully clean oil/fuel filler and lubrication fitting surroundings.
- Note: If the forklift is cleaned frequently, lubricate it in time.

12.1.2 Cleaning chains

⚠ **Note:**

- Do not clean chains with corrosive liquids such as chemical detergents and acid liquids.
- Place a container under the mast to collect waste produced from cleaning, thus avoiding ground contamination.
- Clean the chains with petrochemicals such as gasoline.
- Do not add any additives when using a steam nozzle for cleaning.
- Upon cleaning, remove water streaks on the chain pins and surfaces.

12.1.3 Cleaning electrical system

⚠ **Note:**

- Do not clean pump controls and connectors with water to avoid damage to the electrical system.
- Clean the electrical system using a non-metallic brush or a low-power blow dryer according to the manufacturer's instructions. Do not move the protective cover.

12.1.4 After cleaning

- Completely remove water streaks on the forklift with compressed air, etc.
- Follow the procedure to start the forklift.

⚠ **Note:**

- If moisture seeps into electrical components, remove moisture to prevent short circuit.
- Moisture can reduce brake performance and momentarily brake the forklift. Dry the brakes.

12.2 Before storage

Clean the forklift thoroughly and perform inspection according to the following procedure.

a) Remove oil and grease from the forklift with cloth and water when necessary.

b) When cleaning the forklift, check the entire forklift for dents or damage, tire puncture and nails or stones in the tread pattern.

c) Check for oil seepage/leakage.

d) Add lubricating grease as needed.

e) Check rim nuts and cylinder piston rod joint surfaces for looseness and the piston rod surface for damage.

f) Check whether mast rollers move smoothly.

g) Raise the lift cylinder to the top and ensure it is full of oil.

⚠ Note: Report the required forklift repair, failure or unsafe factors to the management personnel once found. Take the forklift out of service until it has been restored to safe operating condition.

12.3 Daily storage

- Park the forklift in a designated location and chock wheels.
- Move the direction switch handle to the neutral gear and pull up on the parking brake handle.
- Remove the key and keep it in a safe place.

12.4 Long-time storage

Perform the following maintenance and inspection on the basis of maintenance for "daily storage":

a) Park the forklift on a high and hard surface against rain.

b) Remove the battery from the forklift. If the indoor place at which the forklift is to be parked is humid and hot, place the battery in a dry and cool place and charge it once a month.

c) Apply anti-rust oil to exposed parts such as cylinder rod and shaft that may get rusted.

d) Cover the parts susceptible to moisture.

e) Start the forklift at least once a week. Install the battery, remove oil and grease from the piston rod and shaft, start the engine, fully warm up it, drive it forward/in reverse at low speed and operate hydraulic controls several times.

f) Avoid parking the forklift on soft ground like asphalt in summer.

⚠ Notes:

The following actions are aimed to prevent damage to the forklift that will be out

of service for an extended period of time.

The forklift should not be left out of service for more than 12 consecutive months.

If it is out of service for more than 12 months, perform the long-term out-of-service maintenance procedure again.

Cleaning

- Check for and repair any fuel, oil, water or air leaks.
- Remove dust from painted surfaces of the forklift and apply touch-up paint as necessary.
- Ensure the cylinders are fully retracted.
- Relieve the pressure in the hydraulic circuit.
- Switch off the forklift.

Engine protection

- Completely drain old coolant and add new coolant.
- Idle the engine several minutes and then shut it off.
- Replace engine oil and oil filter.
- Add protective products to the engine oil.
- Run the engine for a short time to circulate engine oil and coolant in it.
- After the battery is fully charged, disconnect the battery and store it in a warm room.
- Seal the vent with waterproof tape.
- Remove and store the belt in a safe place.

Forklift protection

- When necessary, place the forklift on a bench with tires off the ground, and then release the hand brake.
- Protect the cylinder for which it is impossible to retract against corrosion.
- Wrap tires.
- Cover the forklift with a tarp.

Engine starting battery maintenance requirements (extended storage)

1) Turn the key switch to the off position.
2) Turn off the battery disconnect switch.
3) Fully charge the battery before storage.
4) Perform periodic inspection and maintenance.

- **Periodic inspection intervals:**

Battery capacity	Charging interval
80Ah	30 days
120Ah	45 days
120Ah*2	45 days
180Ah	45 days

- **Charging requirements:**

Prior to extended storage, always fully charge the engine starting battery or run the engine for more than 30min continuously at the required charging interval.

- **Method of checking SoC:**

With the engine in operation, use a clamp meter to test the battery positive terminal (or negative terminal) and measure current. If the battery current is below 0.5A for more than 10s, SoC is considered 100%. If not, run the engine to charge the battery until the above full SoC

requirement is met.

12.5 Forklift operation after long-term storage

- Remove the moisture-proof covering.
- Remove anti-rust oil from exposed parts.
- Remove foreign objects and water from the hydraulic tank.
- After the charged battery is reinstalled to the forklift, connect the battery plug.
- Perform inspection carefully before startup.
- Remove the waterproof tape.
- Reinstall and reconnect the battery.
- Remove protections from the cylinder.
- Conduct daily maintenance.
- Pull up on the hand brake and remove the axle bracket from the bench.
- Completely drain old fuel and add new fuel. Replace fuel filters.
- Install the belt.
- Use the starter to turn the internal combustion engine in order to increase the oil pressure.
- Fully lubricate the forklift.
- Before starting the forklift, be sure the area is well ventilated.
- Trial all hydraulic motions, preferably to the extreme points.

12.6 Scrapping

Metal

- Metals are 100% recyclable.

Plastic

- Most plastic parts are made of "thermoplastic" plastics, which can be easily recycled or ground by melting and pelletizing.

Rubber

- Tires and seals can be ground for cement production or to obtain reusable granules.

Glass

- Glass can be removed and collected for disposal by that glass factory.

Worn or damaged parts

- Do not discard them improperly.
- Dispose of worn or damaged parts in an environmentally friendly manner.

Oils

- Improper dumping is prohibited.
- Dispose of oils in an environmentally friendly manner.

Battery

- Do not discard the battery improperly as metals in it can harm the environment.
- Dispose of the battery in an environmentally friendly manner.