



Operation and Safety Manual

Mobile Elevating Work Platform Model: XGS43

Original data: Please always preserve this manual with the machine.



Part No.165902781

XCMG FIRE-FIGHTING SAFETY EQUIPMENT CO., LTD.

Operation and Safety Manual of XGS43

Vehicle Identification Code (VIN)/Manufacture No.	
Date of Manufacture	(Y/M)

This manual is an integral part of the product and shall be always maintained available for reference.

Please get familiar with the manual before using the product.

The design and manufacture of the product is complied with standard GB 25849-2010.

Copyright

Any part or parts of this publication without written permission of XCMG shall not be duplicated or used in any form by any means, including copying, video recording, audio recording or data storage and retrieval system.



Preface

This manual is a really important tool! This manual shall be always preserved on the machine.

This manual is intended to provide the necessary safety precautions and operation procedures for the owner, user, operator, leaser, and lessee, in order to ensure the safe and correct operations of equipment within its application scope.

Due to continuous improvements of the products of XCMG Fire-Fighting Safety Equipment Co., Ltd., the technical specification is subject to changes at any time without further notice. For related updates, please contact XCMG Fire-Fighting Safety Equipment Co., Ltd.



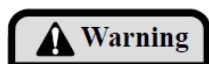
Safety Warning Signs and Safety Signal Descriptions



This is a safety warning sign. This sign is intended to alert you of any possible personal injury danger. Follow all safety information of this sign to avoid possible personal injury accident.



It indicates a presently existing danger. The failure to abide by will result in serious personal casualty accident. This label is red in background.



It indicates a potential danger. The failure to abide by will probably result in serious personal casualty accident. This label is orange in background.



It indicates a potential danger. The failure to abide by will probably result in minor or moderate personal casualty accident. It's also used to alert unsafe operations. This label is yellow in background.



It indicates the information or company policy directly or indirectly related to the personal safety or property protection.



 Warning

This product must conform to all safety related announcements. Please contact XCMG Fire-Fighting Safety Equipment Co., Ltd. or local XCMG authorized dealer to understand the safety related announcement information released for this product.

 Attention

XCMG Fire-Fighting Safety Equipment Co., Ltd. will release the safety related announcements to the registered owners of this product. Please

contact XCMG Fire-Fighting Safety Equipment Co., Ltd. to ensure that the present owner registration information can accurately reflect the latest information of the owner.

 Attention

In event of any serious accident involving the personal casualty or damages of personal properties or XCMG product, ensure to immediately notify XCMG Fire-Fighting Safety Equipment Co., Ltd.



Revision

First Issue

DECEMBER 04, 2019



Contents

Preface	I
Safety Warning Signs and Safety Signal Descriptions	II
Revision	IV
Contents	V
Chapter I Safety Precautions	1
1-1 Overview.....	2
1-2 Preparations before Operations.....	2
1-3 Operation Precautions	5
1-3 Towing, Lifting, and Transport	11
1-4 Maintenances	12
Chapter II Responsibilities of User and Preparations and Checking of Machine	17
2-1 Training of Operation Personnel	18
2-2 Preparations, Checking, and Maintenances.....	18
Chapter III Machine Controllers and Indicator Lamps.....	27
3-1 Overview	28
3-2 Operating Devices of Turntable.....	28
3-3 Operating Devices of Work Platform	29
Chapter IV Operations of Machine.....	34
4-1 Description	35
4-2 Operation Characteristics and Limitations	35
4-3 Engine Operations	38
4-4 Traveling (Driving).....	40
4-5 Steering.....	41
4-6 Platform	41
4-7 Boom	42
4-8 Stop of Engine and Machine	43
4-9 Balance Shaft Locking Test (If applicable)	43
4-10 Steering/traction selection device (If applicable)	43
4-11 Traction (If applicable).....	43
4-12 Auxiliary Power Supply	44
4-13 Product Nameplate	46
Chapter V Emergency Procedures	50



5-1	Overview	51
5-2	Accident Notification	51
Chapter VI	General Specification and Operator's Maintenances	52
6-1	Introduction	53
6.2	Working Conditions.....	53
6-2-1	Environmental air temperature	53
6-2-2	Humidity.....	53
6-2-3	Altitude	53
6-2-4	Carrying capacity of working site	53
6.2-5	Vibration Information	55
6.2-6	Noise	55
6-3	Operation Specification	55
6-4	Lubrication	59
6-5	Oil and Grease Instructions	62
6-6	Tires and Wheels	65
Chapter 7	Transport, Hoisting, and Storage.....	71
7-1	Transport and Hoisting	72
7-2	Storage	75
Chapter VIII	Checking and Repair Record	77
8-1	Checking and Repair Record.....	78



This page is intentionally left blank.



Chapter I Safety Precautions



1-1 Overview



This chapter describes the precautions that must be followed to guarantee the safe and correct operations and maintenances of this machine. For the correct operations of this machine, ensure to establish the daily maintenance schedule as per the contents of this manual. In addition, ensure to use the information contained in this manual and the Service and Maintenance Manual and establish and implement the maintenance schedule by competent personnel, in order to guarantee the safe operations of machine.

The owner/user/operator/leaser/lessee of this machine should read this manual, pass the training, and complete all operations of this machine under the supervision of competent experienced operation personnel before the independent operations of this machine.

This chapter contains the responsibilities of owner, user, operator, leaser, and lessee in terms of safety, training, checking, maintenance, and operation. Should you have any question in terms of safety, training, checking, maintenance, application, and operation, please contact XCMG.

The failure to abide by the safety precautions listed in this manual will probably result in machine damages, property losses, and personal casualty accidents.

1-2 Preparations before Operations

Training and Knowledge of Operator

Before operating the machine, read and understand the Operation and Safety Manual completely.

- For relevant clarification, question, or issue related to any part of this manual, please contact **XCMG Fire-Fighting Safety Equipment Co., Ltd.**



- Only the operators who passed the sufficient training by competent authorized personnel are authorized to operate the

machine.

- Only the competent authorized personnel who understand the safe and correct operations and maintenances of this machine are authorized to operate this machine.
- Ensure to read, understand, and abide by all “Danger”, “Warning”, “Caution”, and operation descriptions on the machine and in this manual.
- Ensure that this machine is used for XCMG approved application scope.
- All operation personnel must get familiar with the emergency control parts and emergency operation methods specified by this manual.
- Read, understand, and abide by all applicable laws and regulations of owner, local authority, and government related to the application of the machine.

Checking of Working Site

- Before and during the operations of machine, the user must take precautions for prevention of dangers in the working zone.
- When this work platform is on a truck, trailer, rail trolley, floating pontoon, scaffold, or other equipment, it's prohibited to

operate or lift this work platform, unless approved in written by XCMG in advance.

- Before operations, check for presence of power grids, bridge crane, and other potential overhead obstacles above the working zone.
- Check the ground in the working zone for presence of void, bump, steep slope, obstacle, fragments, concealed cavity, and other potential dangers.
- Check working zone for presence of any dangerous location. It's prohibited to operate this machine in any dangerous environment, unless approved by XCMG.
- Check the ground condition for sufficient capacity to support the maximum tire load indicated on the tire load label near every wheel. Do not drive this machine on any non-supported surface.



Checking of Machine

- Ensure to fulfill the inspection and functional checking as per the procedures specified in Chapter 2 of this manual before operating this machine.
- It's prohibited to operate this machine before fulfilling the maintenances as per the checking and maintenance requirements specified in Service and Maintenance Manual.
- Ensure the normal functioning of all safety devices. The modification of these devices will violate the safety regulations.



The aerial work platform can be modified or refitted only upon the written consent of the manufacturer. The owner shall preserve the written consent and hand over to the new owner at the transfer of this product. In event of the liquidation of the manufacturer or re-manufacturer, the owner can refit this product under the guideline of the professional engineers of the mobile aerial work platform.

- It's prohibited to operate any equipment with any missing safety or operation label or sticker.
- Check original machine parts for presence

of modification. Ensure that all modifications are approved by XCMG.

- Avoid the accumulation of impurities on the floor of work platform. Never leave any dirt, oil stain, lubricating grease, or slip substance on working shoes or work platform floor.



1-3 Operation Precautions

Overview

- The operator shall keep concentrated during the operations of machine. Before operating any device that will probably cause operator's distraction and impair the operation safety of machine, such as mobile phone and wireless intercom, completely stop the machine.
- Never use this machine for any application other than the transport of personnel and their tools and equipment.
- Before starting operations, the user must understand the functions of this machine and the working characteristics of all functions.
- It's prohibited to operate the malfunctioned machine. In event of any malfunction, ensure to turn off the machine to stop the machine and notify the related departments.
- Never disassemble, refit, or disable any safety device.
- Never shift any control switch or joystick directly to the opposite direction forcibly through the neutral position. Before switching the switch to next function, shift it back to the neutral position and hold it. Operate the controller by a slow and uniform force.
- The operation personnel are prohibited to adjust or operate the machine from the ground when there is any person on the work platform, unless in event of an emergency.
- It's prohibited to directly place any object on the work platform railings, unless approved by XCMG.
- If there are two or more workers on the work platform, the operator must be responsible for the operations of all equipment.
- Ensure the correct placement of electric tools at all times and never hang their wires in the working zone of work platform.
- During the traveling of this machine, always place the elevating boom above the rear axle along the forward direction. Please be noted that, if the boom set is above the front shaft, the steering and driving functions are in reverse direction.
- It's prohibited to help the escape of entrapped or malfunctioned machine by pulling and pushing method without using the

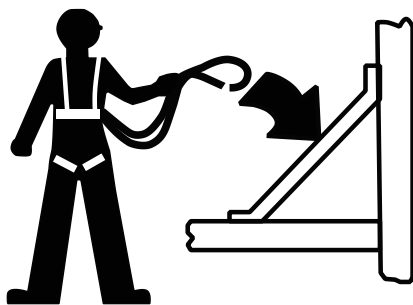


chassis pull-down fixing lug.

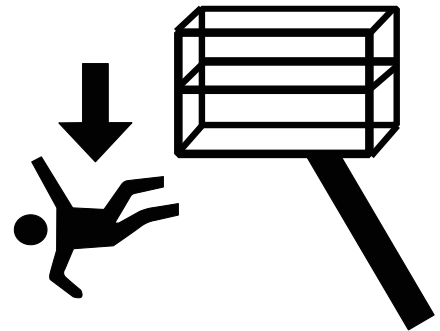
- Before leaving the machine, completely lower the work platform and cut off all power supplies.
- Remove all finger ring, watch, and jewelries before operating the machine. Do not wear loose clothing. Do not let loose long hair, otherwise the hair will probably be entangled into the machine.
- It's prohibited to operate this machine by any person who drinks, takes medicine, has epilepsy or dizziness disease, or can't control own body.

Fall-Over and Falling Danger

- During the operations, the workers on the work platform must wear the whole-body safety belt and fix the safety belt to an approved rope anchor point by a hook. One rope anchor point can be only connected with one hook.



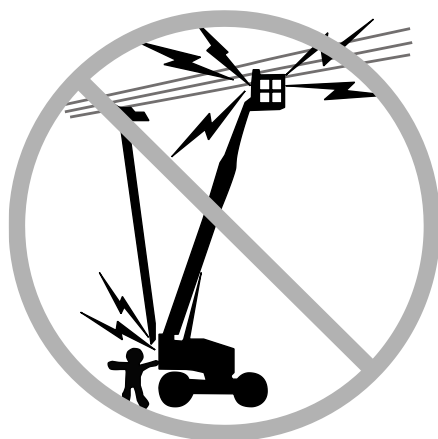
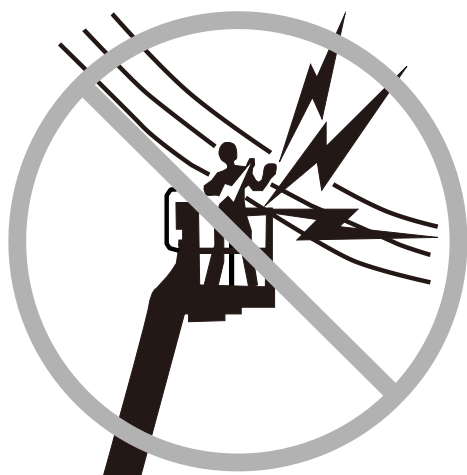
- Access the work platform only via the gate area. Ensure to take special cautions while accessing the work platform. Ensure that the work platform assembly is already lowered completely. Face towards the machine while accessing the work platform. Use two hands and single foot or two feet and one hand to keep three-point contact with the machine while accessing the machine.



- Before operating the machine, ensure that all doors are already closed and fixed at correct positions.
- Always keep both feet on the floor of work platform steadily at all times. Never use any ladder, box, bench, wooden plate, or similar object on the work platform to expand the extension scope.
- Never leave any oil stain, dirt, or slip substance on working shoes or work platform floor.

Danger of Electric Shock

- This machine is not insulated and can't provide the insulation protection in event of touch with or approach to electric current.



- Ensure to maintain the spacing from power grids, electric equipment, and all live (Naked or insulated electric) components as per the "Minimum Approach Distance (MAD)" listed in Table 1-1.
- Ensure to take the mobility of this machine and the swing factors of the electric wires into consideration.

Table 1-1 Minimum Approach Distance (M.A.D.)

Voltage range (Between phases)	Minimum approach distance, m (ft.)
0~50kV	3 (10)
>50kV~200kV	5 (15)
>200kV~350kV	6 (20)
>350kV~500kV	8 (25)
>500kV~750kV	11 (35)
>750kV~1,000kV	14 (45)
Notice: This rule must be followed, unless more stringent regulation is specified by the owner or the local authority or government.	

- All components of this machine and the operation personnel and their tools and equipment on the machine must maintain at least 3m (10ft.) spacing from any power cable or electric device in maximum voltage of 50,000V. Increase the spacing by 1ft. for every increment of $\leq 30,000V$.
- If the rated insulating separators conforming to the voltage of power cables are installed, the minimum approach distance can be reduced. These separators can't be used as a part of the machine or be fixed on the machine. The minimum approach distance will be reduced to the design application scope of the insulating separators. This decision must be made by competent personnel as per the laws and regulations of the owner, local authority, or government on the operations



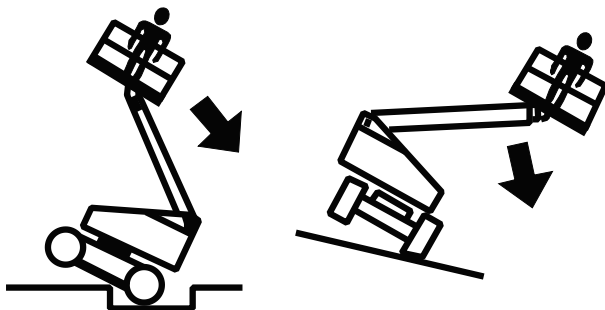
near live equipment.



It's prohibited to operate machine or transport personnel within the restricted zone (MAD). Assume that all electric components and wires are under live status, unless that non-live status is absolutely confirmed.

Rollover Danger

- The operator must get familiar with the road condition before driving. It's prohibited to exceed the permissible lateral or longitudinal gradient during driving.



- Do not lift the work platform or drive the machine with work platform lifted on or near a slope or uneven or soft road. Ensure that the machine is on an even, solid, and level surface before lifting the work platform or driving with work platform lifted.
- Before driving onto any ground, bridge,

truck, or other surface, check and verify the carrying capacity of such surface.

- Do not exceed the maximum working load specified for the work platform. Maintain all loads within the specified range of work platform, unless approved by XCMG to go beyond this range.
- The machine chassis must maintain at least 0.6m (2ft.) spacing from cave, protrusion, pit, obstacle, impurity, concealed cave, and other potential dangerous object on the building/road.
- Do not use the elevating boom to push or pull any object.
- It's prohibited to attempt the use of this machine as a crane. Do not anchor this machine to any building nearby. Do not connect any wire, cable, or other similar object to the work platform.
- Do not operate this machine with the wind speed in excess of 12.5m/s (28MPH). Refer to Table 1-2 Beaufort Scale (For reference only).
- Do not increase the area or load of work platform. Increasing the windward area will



deteriorate the stability.

- It's prohibited to enlarge the size of work platform by extending platform face or adding accessory without permission.
- If the elevating boom subassembly or work platform is in such position that will lift one or more tires off the ground, ensure to evacuate all personnel before attempting to stabilize the machine. Stabilize the machine by using a crane, forklift, or other applicable equipment.



Do not operate this machine with the wind speed in excess of 12.5m/s (28 MPH).

**Table 1-2 Beaufort Scale (For reference only)**

Beaufort scale	Wind speed		Description	Ground situation
	(m/s)	Mile/hour		
0	0-0.2	0	Calm	Calm. The smoke rises straightly upward.
1	0.3-1.5	1-3	Light air	The smoke can indicate the wind direction.
2	1.6-3.3	4-7	Light breeze	A wind can be felt on naked skin. The leaves rustle.
3	3.4-5.4	8-12	Gentle breeze	The leaves and small branches move.
4	5.5-7.9	13-18	Moderate breeze	The dusts and papers raise. The small branches start to move.
5	8.0-10.7	19-24	Breeze	Small trees swing.
6	10.8-13.8	25-31	Fresh gale	The large branches move. The flags swing in nearly horizontal status. It's difficult to hold an umbrella.
7	13.9-17.1	32-38	Moderate gale	The large trees swing. It's difficult to walk against the wind.
8	17.2-20.7	39-46	Gale	The large branches break. The vehicles on the roads are blown off the track.
9	20.8-24.4	47-54	Strong gale	The buildings are slightly damaged.

Rolling and Impact Dangers

- All operation personnel and ground personnel must wear qualified safety helmets.
- During the lifting or lowering of work platform and during driving of this machine, ensure to check the clearances above and surrounding working zone and beneath the work platform.



- During the operations, keep all body parts within the railings of work platform.
- Use the elevating boom (instead of the driving function) to approach the work platform to the obstacles.
- If the driving visibility is obstructed, assign a watch-keeper.



- During the driving and slewing of machine, all non-operation personnel must keep away from this machine by at least 1.8m (6 ft.).
- Under all driving conditions, the operator must limit the driving speed based on the ground situation, traffic condition, visibility, gradient, personnel location, and other possible collision and personal injury situation.
- Understand the braking distances at all driving speeds. While driving in a high speed gear, shift to a low speed gear before stopping the machine. Drive the machine only in a low speed gear on a slope.
- Do not drive in a high speed gear during driving in a limited or enclosed zone or during reversing.
- Ensure to always take cautions to prevent the obstacles from impacting or disturbing any control part or operator on the work platform.
- Ensure that other operation personnel in the heights and on building operation equipment know the presence of the aerial work platform. Cut off the power supply of the overhead crane.
- Alert the operation personnel of not operating, standing, or walking beneath the lifted elevating boom or work platform. If necessary, set up road barriers on the ground.

1-3 Towing, Lifting, and Transport

- No person is allowed on the work platform during the towing, lifting, and transport.
- It's prohibited to tow this machine, unless in event of emergency, malfunction, power failure, and loading/unloading. Refer to the section "Emergency Procedure" of this manual to understand the emergency towing procedure.
- Before towing, lifting, or transport, ensure that the elevating boom is at stowed position and the turntable is already locked. Ensure that there is no tool on the work platform.
- Only lift the machine by the designated locations of the machine. Use a device of sufficient lifting capacity to lift this machine.
- Refer to "Operations" of this manual to understand the lifting information.



1-4 Maintenances

This section describes the general safety precautions that must be followed during the maintenances of this machine. Other precautions that shall be followed during the maintenances of machine are inserted at corresponding locations of this manual and the Service and Maintenance Manual. It's really important for the maintenance personnel to strictly follow these precautions, in order to prevent possible personal casualties and machine and property losses. Ensure to establish and fulfill the maintenance procedures by competent personnel, in order to guarantee the operation safety of machine.

Maintenance Danger

- Before performing any adjustment or repair operation, cut off the power supply of all control parts and ensure that all movable parts are fixed securely without outward movement.
- Unless the work platform is completely lowered to the lowest position, it's prohibited to operate beneath lifted work platform. Alternatively, whereas the condition permits, use corresponding safety support, block, or other top support to support the work plat-

form.

- It's prohibited to repair or tighten any hydraulic hose or seal under the live status of the machine or pressurized status of hydraulic system.
- Before loosening or relieving any hydraulic part, relieve the hydraulic pressure of hydraulic pipelines.
- It's prohibited to check leaking points by hands. Use a hard paper board or paper sheet to check for leaking points. Wear gloves to protect two hands against the harms by spraying hydraulic oil.



- Ensure to use the replacement parts or sub-assemblies of same or equivalent functions with original ones.
- Do not move any heavy component without the assist of mechanical device. Do not place any heavy object to unstable position. Ensure to provide enough supports during the lifting of machine parts.
- Do not use this machine as electric welding



ground.

- During the welding or metal cutting operations, ensure to prevent the welding or metal cutting splash from directly falling onto the chassis.
- Do not refuel the machine while the engine is running.
- Only use approved non-inflammable clean solution.
- Do not replace with any battery of different weight or specification or with solid tires, in order to prevent impairing the stability of the machine. Do not modify the machine by any means that will impair the stability.
- For the weights of critical components that will probably impair the stability, please refer to Service and Maintenance Manual.



Modify or refit the aerial work platform only upon the written consent of the manufacturer.

Battery Danger

- Disconnect the battery before the maintenances of electric parts or welding operations of machine.
- The smoke, open fire, and spark are prohibited around the battery during the charging or maintenances.
- Do not connect two wiring poles of battery by any tool or other metal object.
- Wear gloves, goggles, and face protection device during the maintenances of battery. Keep your skin and clothing away from the contact with battery electrolyte.



The battery electrolyte is a highly corrosive substance. Keep your skin and clothing away from contact at all times. In event of accidental touch, immediately flush the contaminated area by a great amount of water and seek for medical treatment.



- Charge the battery only in a well-ventilated place.
- Avoid adding excessive fluid into the battery.

Add distilled water into the battery only after the battery is fully charged.



Memorandum



Memorandum



Chapter II Responsibilities of User and Preparations and Checking of Machine



2-1 Training of Operation Personnel

As the mobile aerial work platform is a personnel transport device, this machine must be operated and maintained by trained personnel.

It's prohibited to operate this machine by any person who drinks, takes medicine, has epilepsy or dizziness disease, or can't control own body.



Training of Operators

The training of operators must include:

1. Operations and restrictions of control systems, emergency controllers, and safety system on work platform and ground.
2. Labels, instructions, and warnings of controllers on machine.
3. Regulations of owner and government.
4. Approved falling protection device.
5. Sufficient machine operation knowledge and capability for identification of malfunctions or potential malfunctions.

6. Safest operation method of machine when there is any overhead obstacle, other moving equipment, obstacle, indentation, cavity, and ground fall.
7. Method to avoid non-protected dangerous conductor.
8. Special operation requirements or machine applications.

Supervision of Training

The training must be performed under the supervision of qualified personnel in an open site without obstacles, till the trainees possess the safe control and operation capability of the machine.

Responsibilities of Operators

The operators must be informed that they have the responsibilities and rights to turn off the machine in event of any malfunction or other unsafe situation of the machine or working site.

2-2 Preparations, Checking, and Maintenances

The table below lists the periodical checking and maintenance items required by XCMG. Understand other local regulatory requirements on the aerial work platform. Ensure to increase the



checking and maintenance frequency as required when the machine is working under severe or poor environment or is excessively used or the working frequency of the machine is increased.



The personnel who successfully passed the training of specific XCMG product model by XCMG service training school will be approved by XCMG as qualified plant service technicians.



Table 2-1 Checking and maintenance schedule

Category	Frequency	Main responsible person	Service qualification	Reference
Prestart checking	Before daily operations or at the change of operator	User or operator	User or operator	Operation and Safety Manual
Pre-delivery checking (Refer to Note)	Before delivery of sales or leasing.	Owner, dealer, or user	Qualified XCMG mechanist	Service and Maintenance Manual and applicable XCMG checklist
Daily checking	Once every 3 months or 150 hours (whichever comes first); Non-use of >3 months; Used machine.	Owner, dealer, or user	Qualified XCMG mechanist	Service and Maintenance Manual and applicable XCMG checklist
Yearly checking of machine	Yearly checking (No more than 13 months from last checking)	Owner, dealer, or user	Qualified plant service technician	Service and Maintenance Manual and applicable XCMG checklist
Preventative maintenance	As per periods specified by Service and Maintenance Manual	Owner, dealer, or user	Qualified XCMG mechanist	Service and Maintenance Manual
Notice: The checklist is available from XCMG. Use the Service and Maintenance Manual to fulfill the checking.				



Prestart Checking

The prestart checking must include the following items:

1. **Cleanliness** - Check all surfaces for presence of leakage (Engine oil, fuel, and battery electrolyte) and foreign material. Report any leakages detected to the relevant maintenance personnel.
2. **Structure** - Check machine structure for indentation, damage, weld or base metal cracking, and other defects.
3. **Markings and labels** - Check all markings and labels for cleanliness and legibility. Ensure there is no missing marking or label. Ensure that all illegible markings and labels are already cleaned or replaced.
4. **Operation and Safety Manual** - Ensure that one Operation and Safety Manual, one AEM Safety Manual (For ANSI only), and one ANSI Responsibility Manual (For ANSI only) are preserved in a rainproof storage box.
5. **Walk-around checking** - Refer to Figure 2-3.
6. **Battery** - Charge as per specification.
7. **Fuel** (For internal combustion engine powered machine) - Fill fuel as appropriate.
8. **Engine oil supply** - Ensure that the engine oil level is at “Full” marking of oil dipstick and the filler cap is already tightened.
9. **Hydraulic oil** - Check the hydraulic oil level. Ensure that the hydraulic oil is already filled as per the specification.
10. **Accessory/attachment** - Refer to the Operation and Safety Manual of every accessory or attachment installed on the machine to understand the related checking, operation, and maintenance instructions.
11. **Functional checking** - At completion of “walk-around checking”, perform all system functional checking in the air and on the ground without any obstacle. Refer to Chapter 4 for more detailed descriptions.



If the machine can't work normally, immediately turn off the machine and report the detected problems to the relevant maintenance personnel. Never operate the machine before the declaration that the machine can be used for safe working.

Function checking



Fulfill the functional checking as per the following procedure:

1. Fulfill the following checking from the ground control panel under no-load condition of work platform:
 - a. Check all protection devices of switches or locks are in original position.
 - b. Operate all functions and check all limit and OFF switches.
 - c. Check auxiliary power supply (or manual lowering).
 - d. Ensure that all functions of machine are disabled before turning on the “emergency stop button”.
2. Fulfill the following checking from work platform console:
 - a. Ensure that the console is securely fixed at appropriate position.
 - b. Check all protection devices of switches or locks are in original position.
 - c. Operate all functions and check all limit and OFF switches.
 - d. Ensure that all functions of machine are disabled before pushing down the “emer-

gency stop button”.

3. When the work platform is under transport (stowed) position:
 - a. Drive the machine on a slope in gradient of no more than the rated gradient, stop the machine, and test the brake to ensure the normal braking function.
 - b. Check the inclination sensor for presence of warning, in order to guarantee the normal working.

Function inspection of limit switch



To prevent collision or injuries to personnel, in case the platform is still operating after releasing the control switch or joystick, keep feet away from the foot pedal or use the emergency switch to stop the equipment.

Notice: Check from the ground control console first, then check from the platform control console afterwards.

1. Operation from ground control console

Notice: Please refer to Maintenance Manual - Adjustment of Limit Switch for detailed operation instructions.

2. Lift the boom, extend and retract the extension section. Check if the movement of jib is delayed representing the tightness of the steel wires.
3. Rotate the turntable at least 45 degrees from left to right and check if the movement is smooth.



4. Drive the equipment horizontally, climb on a proper slope of at least 5 degrees, check the chassis inclination indicator on the platform control console. Check the inclination indicator when the equipment is on the slope. If the light is not on, drive the equipment back to horizontal surface and switch off. Please contact qualified technicians prior to further operations.

Notice: Step 6 and 7 are applicable for equipment with dual heavy load capacity for XGS43 ANSI market (230kg and 340kg, which is 505lb and 750lb for ANSI market).

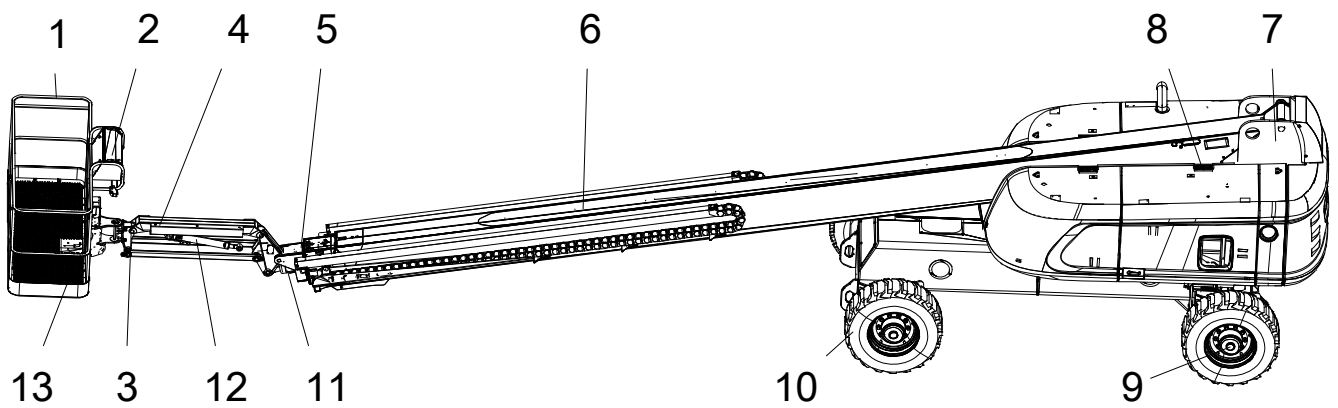
5. Please follow the below instructions to check the load capacity limit switch:

- a. Fully retract the boom to horizontal position (Place an angle indicator between the boom hinge pin on the basic boom section and the accessory pin of lifting hydraulic cylinder).
- b. Place the load selection switch to 340kg (750lb for ANSI market). The indicator lamp turns on. Extend the boom to the maximum reach.
- c. Mark the positions of wearing pads at the last boom section and the middle boom section. Place the load switch to 230kg (505lb for ANSI market). The 230kg (505lb for ANSI market) indicator lamp turns on.
- d. Fully extend the boom.

- e. Measure the distance from the marked point on the last boom section to the wearing pad and measure the distance from the marked point on the middle boom section to the wearing pad.
- f. Sum up two measurements. The result shall be approximately equal to 392-408cm (154-161ft).

Boom angle sensor

- a. Fully retract and lift the boom to horizontal position. (At 1st indicator)
- b. Lift the boom to 340kg (750lb for ANSI market). The indicator lamp turns on.
- c. Lift the boom to maximum angle and then fully extend the boom.
- d. Lower the boom till the warning is triggered. In such case, the comparison angle must be 54 °-56 °.



1. Platform 2. Work platform control cabinet 3. Rotary device 4. Jib 5. Last boom section 6. Basic boom section 7. Column 8. Elevating tower arm 9. Front drive/rotary wheel 10. Rear drive wheel 11. Work platform leveling cylinder 12. Jib elevating cylinder 13. Foot pedal

Figure 2-1 Names of Basic Components

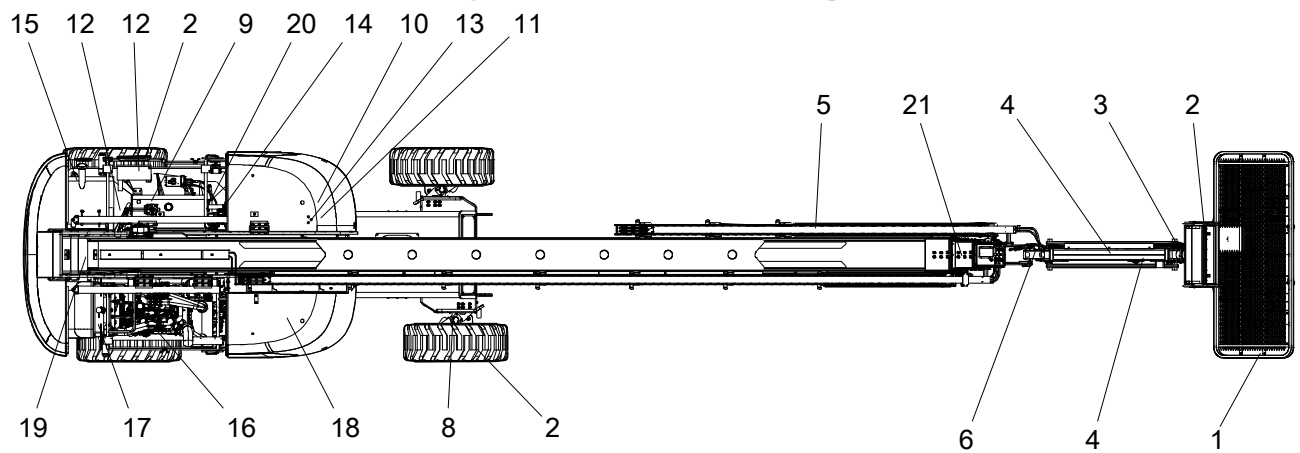


Figure 2-2 Routine patrol inspection drawing



General

As shown in the figure, start the patrol inspection from item 1. Follow the sequences of following reference list to continue further checking for every item.



The power of the equipment must be switched off to prevent possible casualties.

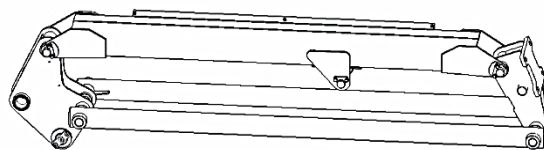
Inspection notice: In addition to other principles mentioned above, ensure that all the parts and components are tight without missing, and firmly fixed with no visible damages, leakage and excessive abrasion.

1. The work platform assembly and door - The foot pedal is in normal operation, not changed, closed or blocked. The latch and hinge are also in normal operation.

2. The work platform control cabinet and ground control cabinet - The switch and joystick are back to neutral position with clear, visible and firmly fixed labels, signs and control markings.

3. Rotary device - Refer to Inspection Instructions.

4. Jib (if applicable) - Refer to Inspection Instructions.



5. Power track - Refer to Inspection Instructions.

6. All hydraulic cylinders - Refer to Inspection Instructions.

7. Drive motor, brake and hub - Refer to Inspection Instructions.

8. Wheel/tire assembly - Firmly installed without missing nuts of the hub. Check if there are abrasion, cut, breakage on tread or other irregularities. Check if there are abrasion and corrosion on wheels.

9. Tire rod and steering linkage rod - Refer to Inspection Instructions.

10. Turntable lock - Ready for operation.

11. Auxiliary power pump - Refer to Inspection Instructions.

12. Turntable drive motor and brake - Refer to Inspection Instructions.

13. Main control valve - Refer to Inspection Instructions.

14. Rotary bearing - Properly lubricated. There is no flexible or missing bolt between the bearing



and mechanical structure.

15. Fuel tank - Refer to Inspection Instructions.

16. Engine hood assembly - Refer to Inspection Instructions.

17. Storage battery - If it is adjustable, the surface of electrolyte shall maintained at proper level. The cables shall be fixed. There is no any

damage or corrosion.

18. Hydraulic pump - Refer to Inspection Instructions.

19. Turntable - Refer to Inspection Instructions.

20. Frame - Refer to Inspection Instructions.

21. Boom - Refer to Inspection Instructions.



Chapter III Machine Controllers and Indicator Lamps

3-1 Overview



It's impossible for the manufacturer to directly control the applications and operations of the machine. The user and the operator are responsible for abiding by correct safety specifications.

This chapter provides the necessary information required to understand the control functions.

3-2 Operating Devices of Turntable

Notice: All devices are configured with control panels with markings indicating relevant control functions. For equipment complying with ANSI standard, please refer to the markings on the front cover of control cabinet or the cover of controller near ground, to understand the relevant meanings and functions.

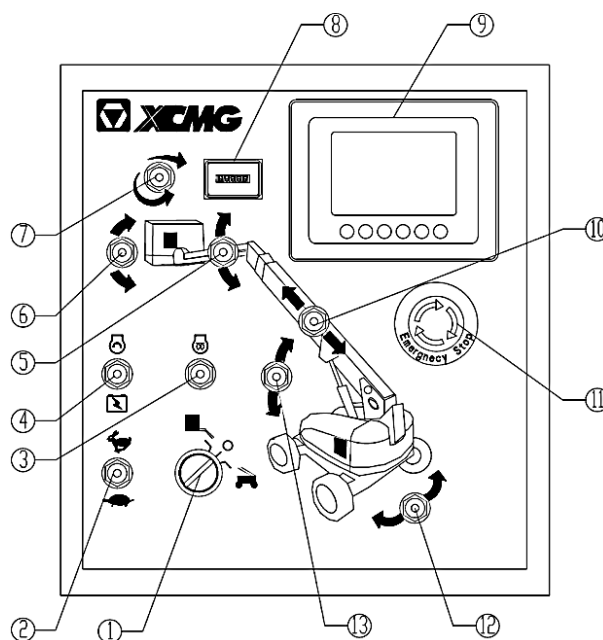


Figure 3-1 Schematic Diagram of Turntable

Control Panel

1. OFF/ground/platform selection key switch

Turn the key switch to position OFF to turn off the machine. Turn the key switch to position GROUND to start the ground controller. Turn the key switch to position PLATFORM to start the platform controller.

2. Engine speed selection/function switch

Turn the switch to position RABITT, the engine will be running at high speed. Turn the switch to position TORTOISE, the engine will be running at medium speed. The switch is also used as the function switch, which can be turned to either side to start relevant functions of ground control panel for operation.

3. Electric heater plug switch

Turn the switch to either side and maintain for 3 to 5 seconds.

4. Engine start/auxiliary power switch

Turn upward the switch and maintain until the engine is started. In case the main power source (engine) is faulty, please turn downward the auxiliary power switch and maintain to start the auxiliary power supply as well as the required

relevant functions at the same time.

5. Jib elevating/declining switch

Turn upward the switch to lift the jib. Turn downward the switch to lower the jib.

6. Platform leveling switch

Turn upward the switch to lift the horizontal surface of the platform. Turn downward the switch to lower the horizontal surface of the platform.

7. Platform rotary switch

Turn upward the switch, the platform will be rotating clockwise. Turn downward the switch, the platform will be rotating counterclockwise.

8. Timer

The timer will indicate total time in hours of the operation.

9. Display

The display screen will show technical information including operating parameters, engine status, fault code and inquiry, etc.

10. Boom extension/retraction switch

Turn upward the switch to extend the boom. Turn downward the switch to retract the boom.

11. Red emergency stop button

Press the button to position OFF to stop all functions and turn off the engine. Rotate and release the button to position ON to start the operation of machine.

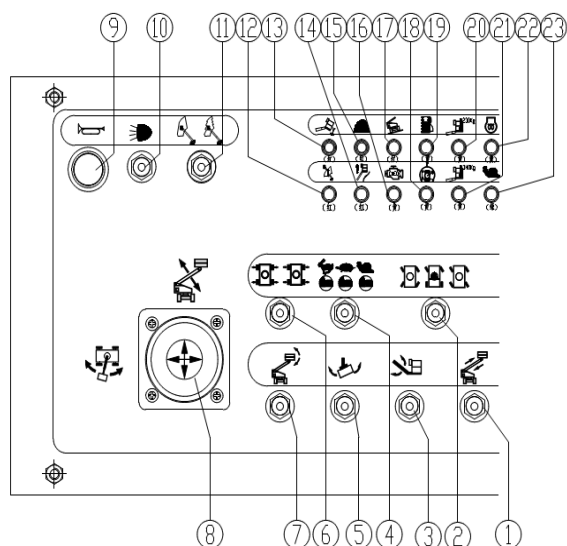
12. Turntable switch

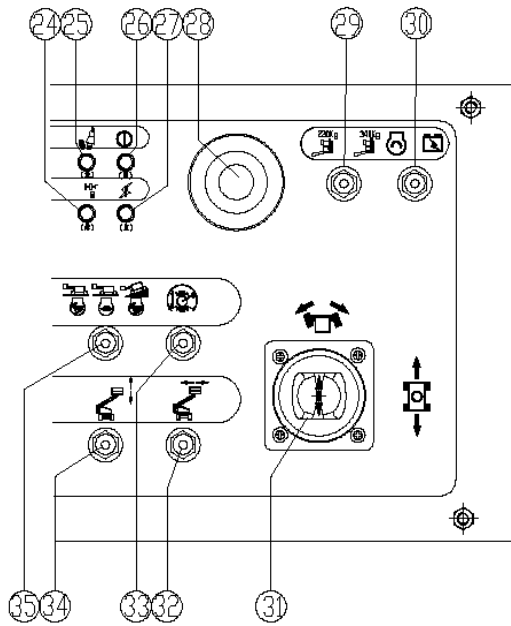
Turn right the switch to start the rotation counterclockwise. Turn left the switch to start the rotation clockwise.

13. Boom lifting/lowering switch

Turn upward the switch to lift the boom. Turn downward the switch to lower the boom.

3-3 Operating Devices of Work Platform





1. Boom telescoping switch

Push leftward to retract boom and push rightward to extend boom. Place the switch to neutral position to stop the motion.

2. Steering mode selector switch

Push leftward to select four-wheel steering mode, leave in neutral to select front-wheel steering mode, and push rightward to select crab steering mode.

3. Jib luffing switch

Push upward to luff up the jib and push downward to luff down the jib.

4. Motion speed selector switch

When this switch is at position “Rabbit”, depressing the foot switch will accelerate the en-

gine to high speed.

When this switch is at position “Turtle”, depressing the foot switch will always maintain the engine speed at medium speed, regardless of the operation of joystick or switch.

When this switch is at position “Snail”, depressing the foot switch will reduce the engine speed to idling speed and the boom and turntable speeds to minimum values. This mode is applicable for operations in narrow space.

5. Platform slewing switch

Push leftward to slew the platform leftward and push rightward to slew rightward.

6. Axle extending/retracting switch

Pull leftward to extend axle and pull rightward to retract axle.

7. Platform manual leveling switch

Pull forward to rotate upward the platform and push backward to rotate downward.

8. Turntable slewing and boom luffing joystick

Push this joystick leftward to rotate leftward the turntable and push rightward to rotate rightward. Push this joystick forward to luff up and



backward to luff down. Push this joystick to neutral position to stop all motions.

9. Horn Switch

Press this button to sound the horn of the machine.

10. Lighting switch

Operate this button to turn on the lamp.
(Optional)

11. Boom control system selector switch

Pull leftward to place the boom control system under automatic mode. Under automatic mode, the luffing and telescoping operations are controlled by control system and the automatic leveling function of work platform is activated during the extending and retraction of boom, slewing of turntable, and traveling of vehicle.

Pull rightward to place the boom control system under manual mode. Under manual mode, the luffing and telescoping operations are controlled by the operator and the automatic leveling function of the work platform is activated only during luffing operation.

12. Over-luffing warning lamp

This lamp turns on when the vehicle status

is beyond the maximum working amplitude.

13. Platform inclination warning lamp

The inclination warning lamp turns on and the alarm buzzer sounds constantly when the work platform is inclined for more than 10° in order to alert the operator that the machine body is inclined.

14. Loose/broken wire rope indicator

This indicator turns on when the wire rope is loose or broken.

15. Overload warning lamp

When the load in the work platform exceeds the preset value, this lamp turns on and the alarm buzzer sounds continuously to alert the operation personnel.

16. Engine checking indicator lamp

If the checking indicator lamp keeps on after the start of engine, it indicates that the engine oil pressure is too low or the water temperature is too high. Stop the operations, stop the engine, and check.

17. Body inclination warning lamp

The inclination warning lamp turns on and the alarm buzzer sounds constantly when the



machine body is inclined for more than 3°; in order to alert the operator that the machine body is inclined.

18. Traveling drive restraint warning lamp

When the boom is slewed to be beyond the front edge of rear tires, the traveling drive restraint warning lamp turns on. In such case, the drive function is turned off.

19. Fuel level warning lamp

This warning lamp turns on when the fuel level is low. ◦

20. 230Kg load indicator lamp

When the load mode switch is at position “230Kg”, this indicator lamp turns on.

21. 340Kg load indicator lamp

When the load mode switch is at position “340Kg”, this indicator lamp turns on.

22. Glow plug/Wait-to-start indicator lamp

It indicates that the glow plug is working when this lamp turns on. Turn on the ignition switch and wait for this indicator lamp to turn off before starting the engine.

23. Creeper speed indicator lamp

When the functional speed controller is adjusted to the creeper position, this indicator lamp is functioned to alert that all functions are set at lowest speed. If the control system sets the machine at creeper mode, this indicator lamp keeps on.

24. Axle indicator lamp

This indicator lamp flashes during the extending/retracting of axle and turns on constantly when the axle is extended/retracted in place. If any switch signal is missing under operation status, this indicator flashes.

25. Foot switch indicator lamp

This indicator turns on after the foot switch is depressed. If no operation is made within 15s, this indicator turns off.

26. Power indicator lamp

This indicator turns on when the work platform controller is powered on.

27. System malfunction indicator lamp

This indicator turns on when the vehicle control system is malfunctioned.

28. Emergency stop switch

In event of any emergency, press this button



to stop the current motion and stop the engine. After the malfunction is solved, manually rotate rightward this button to reset.

29. Load mode selector switch

Pull leftward to set maximum load at 230Kg and pull rightward to set maximum load at 340Kg.

30. Start/battery pump switch

Firstly, place the turntable/platform operation selector switch at “Turntable” or “Platform”. Pull upward this button to engine start position and hold for 3s to start the engine. Pull downward this switch and hold to start the battery pump to restore the vehicle to stowed status.

31. Traveling/steering joystick

When the boom rod is not in the traveling drive restricted area, push the traveling joystick to “Forward” to drive forward the vehicle and to “Backward” to reverse the vehicle. If the boom is slewed into the traveling drive restraint range, to further operate the traveling of machine, ensure to operate the traveling drive restraint release switch and operate the traveling/steering joystick within 10s for traveling operations. The steering is realized by the thumb-operated rocker

switch on the end of joystick.

32. Horizontal motion switch

Pull leftward to move horizontally the work platform towards retraction direction of boom.

Pull rightward to move horizontally the work platform towards extending direction of boom.

33. Traveling drive restraint release switch

When the traveling drive is restrained, to drive the machine, operate this switch and slowly move the traveling/steering joystick off the center position.

34. Vertical motion switch

Pull upward to move upward the work platform. Pull downward to move downward the work platform.

35. Traveling speed selector switch

Pull leftward to “Horizontal Rabbit” side to select horizontal ground high-speed mode. Place in neutral position (“Horizontal Turtle”) to select horizontal ground low-speed mode. Pull rightward to “Slope Rabbit” side to select slope high-speed mode.



Chapter IV Operations of Machine



4-1 Description

This machine is a self-propelled hydraulic aerial work platform, with a work platform installed at the end of rotary elevating boom.

The main operator console is located on the work platform. On the work platform, the operator can drive the machine in forward and reverse directions and steer the machine. The operator can control the lifting and lowering of boom or tower boom and the leftward/rightward slewing of boom. The slewing of standard boom means the leftward or rightward 355° non-continuous slewing continuously from stowed position of boom. The machine is installed with a ground console for control of work platform. The ground console can control the lifting/lowering and slewing of boom and, if the operator on the work platform can't lower the work platform in event of emergency, lower the work platform onto the ground.

4-2 Operation Characteristics and Limitations

Performances

The boom can be lifted to above horizontal plane with loaded or unloaded work platform under

following conditions:

1. The machine is parked on an even, solid, and horizontal surface.
2. The load is within rated capacity specified by the manufacturer.
3. All systems of machine work normally.
4. The tire pressure is normal.
5. The machine is installed with XCMG's original equipment.

Stability

The machine stability is based on two following positions, which are referred to as "forward stability" and "backward stability" respectively. Figure 4-1 Minimum Backward Stability Position shows the minimum "backward" stability position of the machine. Figure 4-2 Minimum Forward Stability Position shows the minimum "forward" stability position of the machine.



To prevent forward or backward rollover, do not overload the machine or place the machine on an inclined surface.

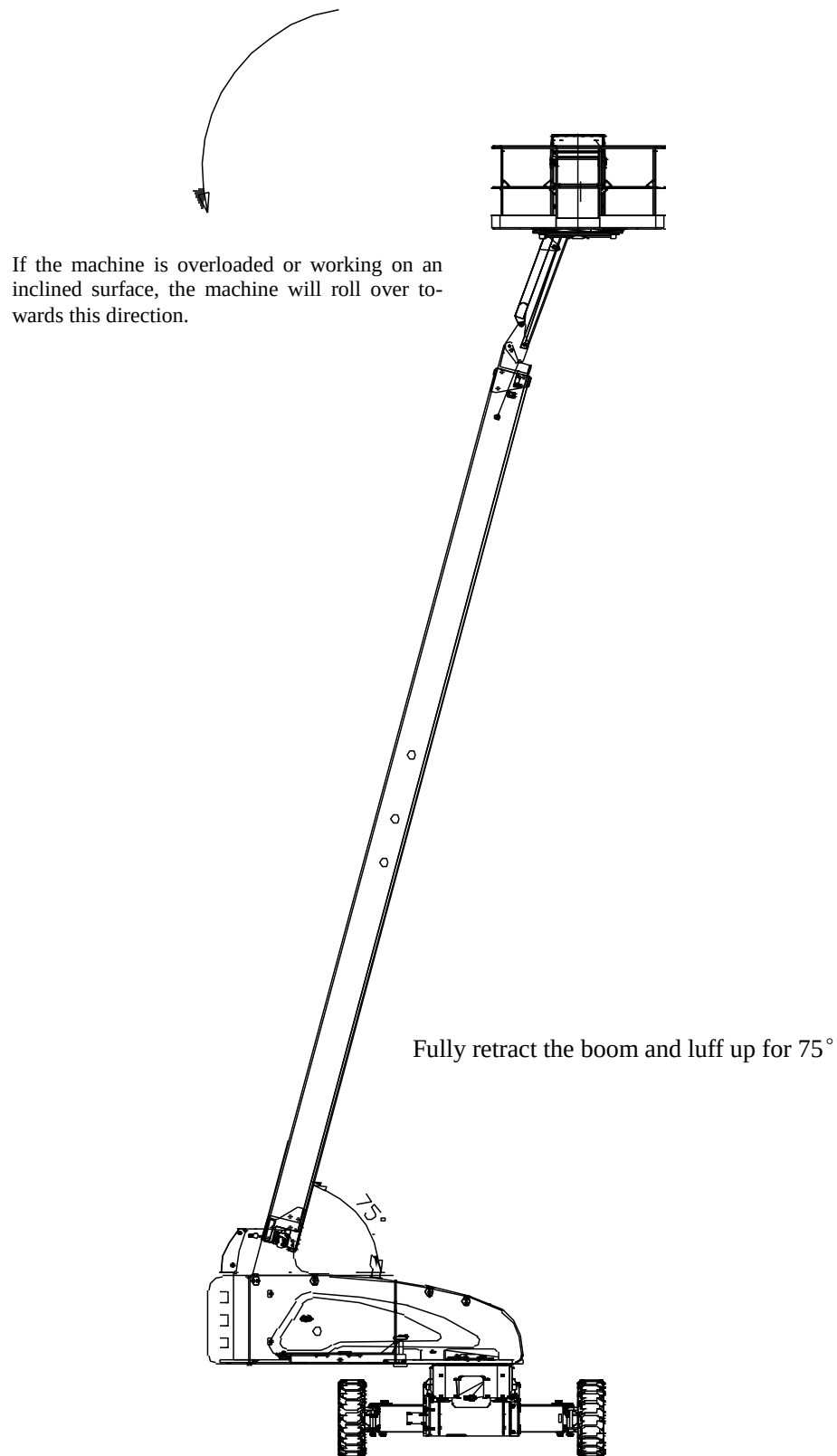


Figure 4-1 Minimum Backward Stability Position

Place boom to 0° and fully extend it.

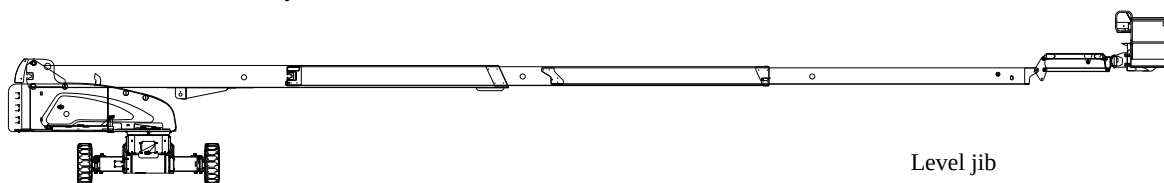


Figure 4-2 Minimum Forward Stability Position



4-3 Engine Operations

Notice: Ensure to always start initially from the ground console.

Start procedure



If the engine fails to start running immediately, do not start for a long time. If the restart of the engine still fails, cool down the starter motor for 2~3min. If the engine still fails to start after multiple attempts, refer to the Maintenance Manual of engine.

Notice: For diesel engine only: Turn on the ignition (key) switch and ensure to wait for glow plug indicator lamp to turn off before starting the engine.

1. Rotate the platform/ground selector switch to “Ground” position.
2. Pull out the power/emergency stop switch to “ON” position.
3. Push the engine starter switch, till the engine is started.



Before applying any load, run the engine at

low speed for several minutes for warm-up.

4. After the sufficient warm-up of engine, push inward the power/emergency stop switch and stop the engine.
5. Place the platform/ground selector switch to “Platform” position.
6. On the work platform, pull out the power/emergency stop switch.
7. Push the engine starter switch, till the engine is started.

Notice: Before running the starter, ensure to loosen (upward) the foot switch. Do not start the engine with the foot switch depressed.

Stop procedure



In event of accidental stop of engine due to malfunction, ensure to firstly solve the malfunction before restarting the engine.

1. Relieve all loads and run the engine at low speed for 3~5min, in order to further reduce the internal temperature of engine.
2. Push inward the power/emergency stop switch.



3. Place the platform/ground selector switch to “OFF” position. For detailed information, please refer to the engine manual of manufacturer.

Fuel Storage/OFF System

Notice: Please refer to Service and Maintenance Manual and verify your machine settings by competent XCMG mechanists.

The fuel OFF system monitors the fuel in the fuel tank and checks the timing of reduced fuel level. The XCMG control system automatically stops the engine prior to the emptying of fuel tank, unless the machine is already set as “engine restart”.

If the fuel level reaches empty level, the low fuel level indicator lamp will start to flash once a second, in which case approximately 60min engine running time is left. If the system is under this status and automatically stops the engine or the operator manually stops the engine prior to the end of 60min running time, the low fuel level indicator lamp will flash 10 times per second and the engine will react based on the machine settings. The settings are as below:

1. Single engine restart - When the engine is stopped, once the engine has approxi-

mately 2min running time, the operator can power off and then restart the engine. After the 2min running time is ended or the operator stops the engine prior to the end of 2min running time and restarts the engine, the accumulative running time of engine before will be canceled and the engine will stop until the 60min running time is ended.

2. Engine restart - When the engine is stopped, if the engine has approximately 2min running time, the operator can power off and then restart the engine. After 2min running time is ended, the operator can power off and then restart the engine to obtain additional 2min running time. The operator can repeat this procedure, till no fuel is available.



To restart the machine without available fuel, please contact competent XCMG technicians.

Engine stop - When the engine is stopped, it's prohibited to restart engine till the fuel is filled into the fuel tank.



4-4 Traveling (Driving)

Refer to Figure 4-3 Front and Lateral Gradients.

Notice: Please refer to the Operation Specification to understand the permissible ranges of frontal and lateral gradients. The permissible ranges of the frontal and lateral gradients are based on the condition that the machine boom is

at stowed position and is completely lowered and retracted.

The driving is limited by following two factors:

1. Gradient, namely gradient percentage of slope on which the machine can drive.
2. Lateral gradient, namely the lateral gradient of road on which the machine can drive.

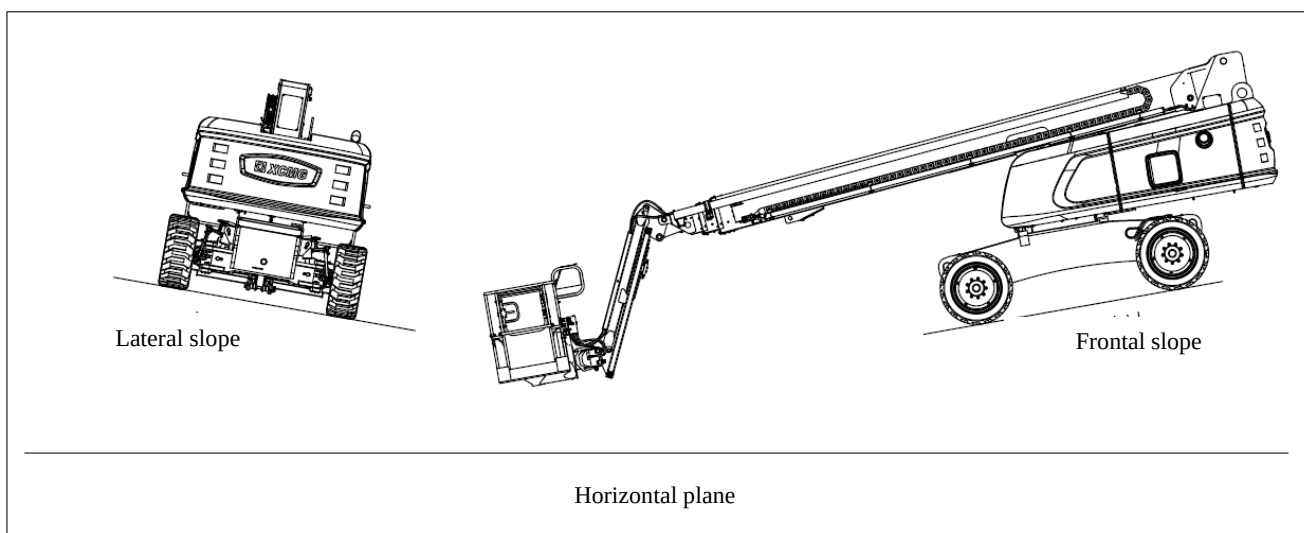
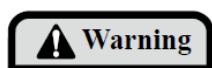


Figure 4-3 Frontal and Lateral Gradients



Do not drive the machine with the boom above horizontal position, unless on even, solid, and horizontal surface.

To avoid losing driving control or “rollover”, do not drive the machine on a road with gradient beyond the gradient specified on the serial number nameplate.

Ensure that the turntable lock is already engaged before continuing the driving.

Do not drive on a road with lateral gradient in excess of 5 °.

Take special cautions during the reversing or the driving with work platform lifted.

Before driving, ensure that the boom is placed above the rear drive shaft. Please be noted that, if the boom is above the front shaft, the steering and driving functions are in reverse direction.

Forward and Backward Driving

1. On the platform control box, pull out the emergency stop switch and then depress the foot switch.
2. As required, shift the driving joystick to

“Forward” or “Reverse” position.

This machine is installed with driving direction indicator lamp. The yellow indicator lamp on the platform control box indicates that the boom swing already exceeds the rear drive wheels and the machine probably drives/steers towards the direction reverse to the motion direction of joystick. If this indicator lamp turns on, operate the driving function as per following method:

1. Match the black (blue) and white (yellow) direction arrows on the platform control panel and chassis to determine the driving direction of machine.
2. Press and release the driving direction unlocking switch. Within 10s, slowly operate the driving joystick along the direction same with desired driving direction of machine. Ensure to operate the driving joystick within 10 flashing seconds of indicator lamp.

4-5 Steering

Place the thumb switch on the driving/steering joystick to right side to steer rightward and to left side to steer leftward.

4-6 Platform

Leveling of platform



Slightly level the work platform only by platform leveling override function. The improper use will probably result in movement or falling of load/personnel. The failure to abide by above-mentioned instructions will probably cause serious casualty accident.

To adjust the levelness vertically, place the platform/leveling control switch to “Upward” or “Downward” position and hold it till the work platform is level.

Slewing of platform

To slew the work platform laterally, use the platform slewing control switch to select the direction and then press and hold the switch till the desired position is reached.

4-7 Boom



Do not swing the boom or lift the boom to be beyond the horizontal position under the inclined status of machine.

Do not use the inclination alarm as the level indicator of chassis.

To prevent rollover, lower the work platform to

the ground level. Drive the machine to a horizontal surface before lifting the boom.

To prevent serious casualty accidents, if any joystick or toggle switch for controlling the motion of elevating platform fails to return to OFF or neutral position upon release, do not operate the machine.

If the work platform fails to stop upon the release of control switch or joystick, lift the foot from the foot switch or use emergency stop switch to stop the machine.

Swing of boom

To swing the boom, use the swing joystick to select “Right” or “Left” position.



Ensure to keep sufficient space to surrounding i.e. walls, objects and equipment, while the boom is rotating.

Lifting and lowering of boom

To lift or lower the boom, use the boom lifter switch to select “Up” or “Down” motion.

Telescoping of boom

To extend or retract the boom, use the boom telescoping switch to select “Extend” or “Retract” motion.



4-8 Stop of Engine and Machine

1. Drive the machine to a protected site.
2. Ensure that the boom is fully retracted and lowered to above the rear (drive shaft and all service panels and doors are already closed and fixed.
3. Relieve all loads and idle the engine for 3~5min to reduce the internal temperature of engine.
4. In the ground control box, rotate the key selector switch to (center) OFF position and rotate the power/emergency stop switch to (downward) OFF position. Withdraw the key.
5. Cover the platform console to guard the indication nameplate, warning signs, and operation controllers against the damage of severe environment.

4-9 Balance Shaft Locking Test (If applicable)



Ensure to perform the balance shaft locking system test once every quarter, after the replacement of any system component, or upon the suspicion of

abnormal system working.

4-10 Steering/traction selection device (If applicable)



Do not attempt to tract the equipment otherwise the complete set of traction equipment is configured by the manufacturer.

The oil flow in steering loop is adjusted by push-pull type selection valve located next to steering cylinder and connecting part to complete the actions of steering and traction. When the equipment is steering, the valve rotary knob of valve is pushed in. When the equipment is tract- ed, the valve rotary knob is pulled out to the floating position.

4-11 Traction (If applicable)



It is very dangerous if the vehicle/equipment is out of control. The equipment has no tracking brake, therefore the equipment must be controlled by the traction vehicle at any time. Do not conduct traction on highways. Any violations to above instructions may cause severe injuries and casualties.

Maximum traction speed is 13km/h (8 mile/h)

Maximum tractive grade is 25%.

Finish following procedures prior to traction of the machine:

Warning

1. Do not tract the equipment while the engine is operating or the drive hub is meshed.
2. Retract, lower and place the boom onto the rear drive wheel and keep it is in the same direction with driving while lock the turntable in the meantime.
3. Use accessory pin to connect the traction rod with the front of the frame, then use the traction rod to tract the vehicle.
4. Rotate the drive hub cover in reverse direction to separate the hub, as shown in Figure 4-4 Separation of drive hub.
5. Actuate the steering/traction selection valve for traction. Pull out the valve rotary knob to the floating position. (It will open the steering loop to the oil reservoir and the steering cylinder rod will move forward freely.) Then the equipment is in traction mode.

After the traction is done, follow the procedures below:

1. Actuate the steering/traction selection valve for steering. Push in the valve rotary knob to the actuating position.
2. Rotate the drive hub cover in reverse direction to separate the hub.
3. Remove the traction rod from steering hook and vehicle, then the equipment is in driving mode.

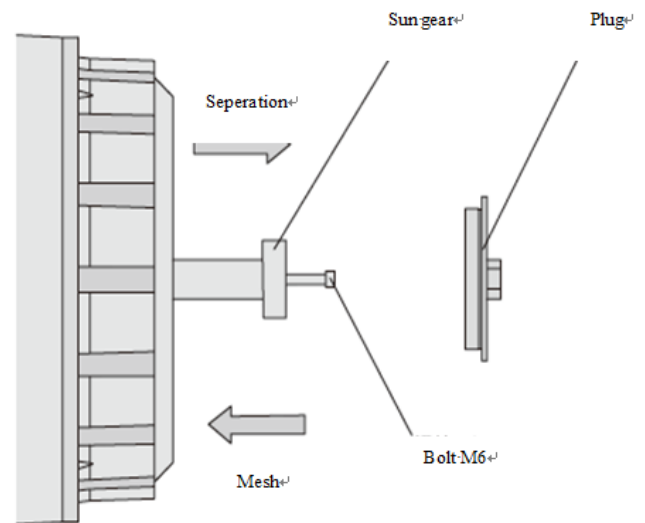


Figure 4-4 Separation of drive hub

4-12 Auxiliary Power Supply

Warning

Do not use multiple functions in the meantime while operating the auxiliary power supply, as it may cause overload to the 12V auxiliary pump motor.

One switch of the auxiliary power supply is located on the platform control cabinet, the other is located on the ground control cabinet. Operate either switch to start the electric auxiliary hydraulic pump. This auxiliary power supply can be used in case the main power source is faulty. The auxiliary pump will operate the lifting/lowering, telescoping and swing of the boom. Follow next instructions to activate the auxiliary power supply:



Activation by platform control console

1. Turn the platform/ground selection key switch on position PLATFORM.
2. Pull out the power/emergency stop switch to position ON.
3. Step on and press the foot pedal.
4. Turn ON the auxiliary power switch and maintain.
5. Operate and maintain relevant control switches or control joysticks of corresponding functions as required.
6. Release the auxiliary power switch, release relevant control switch, joystick, controller and foot pedal.
7. Turn OFF the power/emergency stop switch.

Activation from ground control console

1. Turn the platform/ground selection key switch on position.
2. Pull out the power/emergency stop switch to position ON.
3. Turn ON the auxiliary power switch and maintain.
4. Operate and maintain relevant control

switches or controllers of corresponding functions as required.

5. Release the auxiliary power switch and relevant control switch or controller.
6. Turn OFF the power/emergency stop switch.



4-13 Product Nameplate

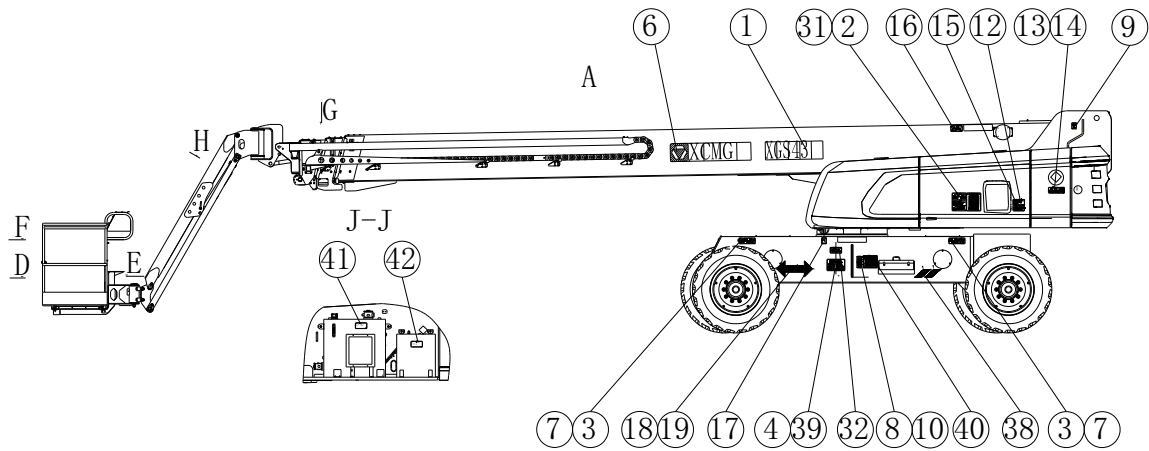


Figure 4-5 Installation of Labels - Page 1 of 4

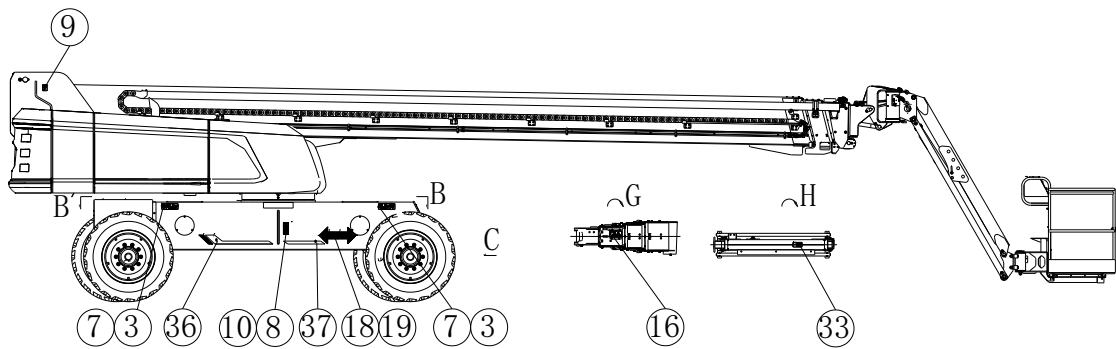


Figure 4-5 Installation of Labels - Page 2 of 4

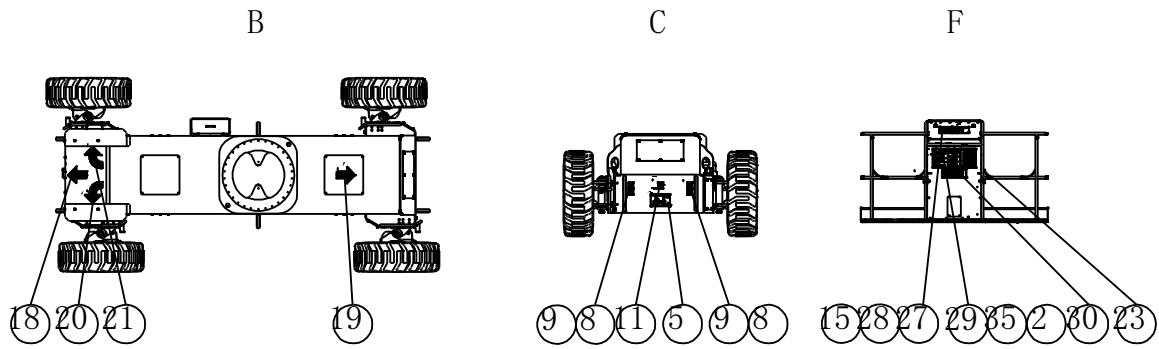


Figure 4-5 Installation of Labels - Page 3 of 4

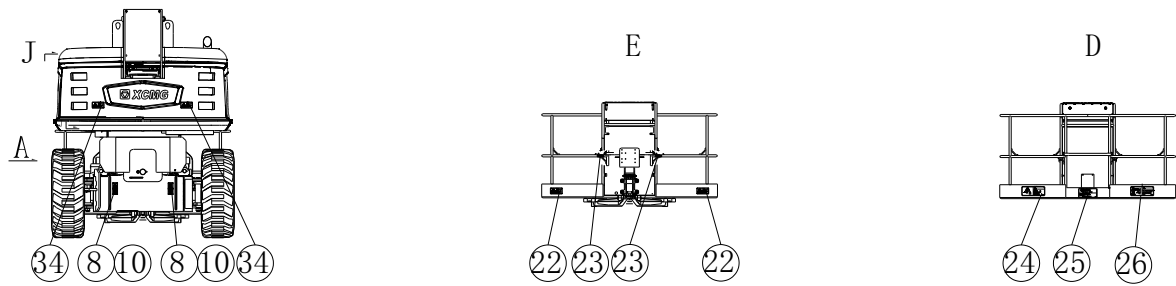


Figure 4-5 Installation of Labels - Page 4 of 4



Table 4-1 List of Labels

No.	Material number	Drawing number	Name	Quantity
1	165902790	XGS43.97-1	Product model label	1
2	165902787	XGS43.97-2	Working curve diagram	2
3	165901089	GTBZ42S.97-3	Wheel load label	4
4	130003624	T1180046	Machine nameplate (XG)	1
5	165901085	GTBZ42S.97-4	Lifting label	1
6	130001240	T1170061	Group English logo label (250mm)	1
7	130001179	T1120072	“Read manual” warning label	4
8	130001204	T1190082	Lifting position instruction label	6
9	130001202	T1190080	Lifting instruction label	4
10	130001599	T1190089	Non-lifting instruction label	4
11	130001191	T1120084	Handling precaution label	1
12	130001176	T1120069	Enclosure warning label	1
13	130001172	T1120065	Explosion warning label	1
14	130001222	T1190088	Fuel tank indication label	1
15	130001178	T1120071	Flushing warning label	2
16	130001177	T1120070	Rollover warning label	2
17	130001203	T1190081	Slewing locking pin indication label	1
18	130001226	T1190086	Vehicle driving arrow (Front axle)	3
19	130001225	T1190085	Vehicle driving arrow (Yellow)	3
20	130001223	T1190083	Vehicle driving arrow (Left turn)	1
21	130001224	T1190084	Vehicle driving arrow (Right turn)	1
22	130001175	T1120068	Collision warning label (Platform)	2
23	130001227	T1190087	Seat belt anchorage position indicator	6
24	130001190	T1120083	Rollover danger warning label	1
25	130002898	T1120104	Seat belt anchorage position indicator	1
26	130001189	T1120082	Seat belt hitch warning label	1
27	130001195	T1120088	Operation precaution label	1
28	130001192	T1120085	Welding precaution label	1
29	130001188	T1120081	Rollover warning label (Telescoping boom type)	1
30	130001196	T1120089	Driving precaution label	1
31	130001185	T1120078	Comprehensive warning label (Boom type)	1
32	130001193	T1120086	Traction precaution label	1
33	130001180	T1120073	Falling warning label	1
34	130001173	T1120066	Collision warning label (Counterweight)	2
35	130002487	T1120103	Frame trim bar (Front segment)	1
36	130001975	T1170067	Frame trim bar (Front segment)	1
37	130001980	T1170068	Frame trim bar (Extended segment)	1
38	130001979	T1170065	Boom trim bar (Short-length boom)	1
39	805500037	GB/T827-1986	Rivet 3×12	8



40	165902789	XGS43.97-3	Environmental protection information label	1
41	130003460	T1190127	Diesel tank indication label	1
42	130003461	T1190128	Hydraulic oil tank indication label	1
43	165902822	XGS43.97-3II	Environmental protection information label	1



Chapter V Emergency Procedures



5-1 Overview

This chapter describes the procedures to be followed in event of emergencies.

5-2 Accident Notification

In event of any accident related to the XCMG product, ensure to immediately notify XCMG. Even if no personal injury or property loss is detected during accident, ensure to contact the manufacturer via telephone and provide all necessary details.

XCMG service hotline:

+86-516-83461280 87888290

The failure to contact the manufacturer within 48 hours upon the occurrence of any accident related to the XCMG product will probably result in the void of warranty for this product.



In event of any accident, thoroughly check the machine, test all functions from ground console, and then test from platform console. Before all damages are repaired (if required) and all controllers are operated correctly, the lifting height shall not exceed 3m (10ft.).

Emergency Operations

Operator's out-of-control of machine

If the operator on the work platform is jammed or entrapped on the work platform so that the machine can't be operated or controlled:

1. Other personnel can only operate the machine by ground controllers as per the requirements.
2. Other competent operator on the work platform can use the work platform controllers. If the controllers can't work normally, do not continue to operate.
3. A crane, forklift, or other equipment can be used to transport the operation personnel on the work platform and stabilize the motions of machine.

Blockage of work platform or elevating boom in the air

In case the work platform or elevating boom is stuck or blocked in aerial architectures or equipment, the personnel on the platform shall be rescued first before releasing the machine.



Chapter VI General Specification and Operator's Maintenance



6-1 Introduction

This chapter provides the operator with additional information required for the correct operations and maintenances of machine.

The Maintenances part described in this chapter is only used to help machine operator fulfill the daily maintenances and can't substitute the more comprehensive "Preventative Maintenance and Checking Schedule" included in the Service and Maintenance Manual.

Other supplied publications:

Repair and Maintenance Manual

Parts Catalog

6.2 Working Conditions

6-2-1 Environmental air temperature

The electric devices are normally working within -20 ℃~40 ℃ ambient air temperature. For really hot environments (such as tropical climate, steel mill, and paper mill) and cold environments, the additional requirements shall be submitted before the ordering of product.

6-2-2 Humidity

The relative humidity shall not exceed 50%

when the maximum environmental temperature is 40 ℃ and is permitted to be higher under low temperature (such as 90% relative humidity at 20℃), otherwise the electric devices can't work normally.

6-2-3 Altitude

The altitude shall be less than 1000m for all working sites, otherwise the electric devices can't work normally.

6-2-4 Carrying capacity of working site

The mobile aerial work platform shall be placed on a solid and horizontal support surface (Refer to Table 6-1 for the ground carrying capacity) and the working site shall be free of sink during operations, otherwise it will lead to roll-over of aerial work platform.

Maximum carrying capacity of tire	13500 kg	29762 lb
Ground pressure	8 kg/cm ²	113.84psi



Table 6-1 Ground Carrying Capacity Reference Table

No.	Soil type	Ground carrying capacity kg/cm ²
1	Natural soil:	
	Sludge, peat, and wetland	0
2	Non-compacted soil:	
	Construction debris	0~10
3	Non-clayed soil:	
	Sand, gravel, rock, and mixture	20
4	Clayed soil:	
	a. Mixture of clayed silt and topsoil	12
	b. Powdered coal, composed of some clay and spavin	13
	c. Pottery clay, composed of plastic clay and filler:	
	Hard	9
	Half-solid	14
	Solid	20
	d. Mixed granule ground (mixture of clay, sand, gravel, and rock):	
	Hard	15
	Half-solid	22
	Solid	33
5	Uniform solid rock:	
	a. Fragile and easy decomposition	150
	b. Non-fragile	300
6	Artificially compacted road:	
	a. Asphalt road	5~15
	b. Concrete:	
	1) General concrete (grade BI concrete)	50~250
	2) High strength concrete (grade BII concrete)	350~550

6.2-5 Vibration Information

The vibration in the ambient environment will cause resonance and impact problems of the mobile aerial work platform. Ensure that all vibrations in the ambient environment will not impair the working of mobile aerial work platform and the safety of the personnel, otherwise it's disallowed to operate this machine under a vibrating environment.

The total vibration applied onto the hand-arm system shall not be higher than 2.5m/s^2 . The maximum root mean square of weighted acceleration applied onto whole body shall not be higher than 0.5m/s^2 .

6.2-6 Noise

The main noise source is the engine. The sound power level measured as per methods 0 and 1 in Part B of Annex III to 2000/14/EC is $L_{WA} \leq 108\text{dB(A)}$.

6-3 Operation Specification

Table 6-2 Operation Specification

Maximum working load		
Unlimited:	230 kg	507.1 lb
Limited:	450 kg	992.1 lb
Maximum driving gradeability	40%	
Maximum lateral gradient of driving	9%	

Turning radius (With shaft retracted/extended)	8.2/10.8 m	26.9/35.42 ft
	(Two-wheel steering)	(Two-wheel steering)
	5.8/6.8 m	19.0/22.3 ft
	(Four-wheel steering)	(Four-wheel steering)
Ground pressure	8 kg/cm ²	113.84 psi
Maximum traveling speed	5 km/h	3.11 Mph
Gross weight of machine	22000 kg	48501.2 lb

Dimension Specification

Table 6-3 Dimension Specification

	m	ft
Machine height (Stowed status)	3.05	10.00
Machine length (Stowed status)	14.9	48.87
Machine width (Including tire specification) (With shaft retracted/extended)	2.49/3.80	8.17/12.46
Wheelbase	3.80	12.46
Maximum working height	43.6	143.01
Horizontal extending range	25.0	82
Tail slewing (With shaft retracted/extended)	2.39/1.73	7.84/5.67

Capacity

Table 6-4 Capacities

Fuel tank	180 L	46.8 gal
Hydraulic oil tank	260 L	67.6 gal
Cooling system	11 L	11.63 quart
* The torque drive hub shall be filled with one half of lubricating oil.		



Hydraulic oil

Table 6-5 Hydraulic oil

Working temperature range of hydraulic system	SAE viscosity grade
-18℃ ~ +83℃ (+0°F ~ +180°F)	10W
-18℃ ~ +99℃ (+0°F ~ +210°F)	10W-20, 10W-30
+10℃ ~ +99℃ (+50°F ~ +210°F)	20W-20

Note: The hydraulic oil must contain anti-wear additive at least conforming to API GL-3 quality standard and incorporate the chemical stability enough to meet the running needs of mobile hydraulic system. XCMG recommends using AE46 anti-wear hydraulic oil, with SAE viscosity index at 124.

Notice: Use AE46 anti-wear hydraulic oil in common regions with $>-15^{\circ}\text{C}$ environmental temperature. It's unnecessary to replace oil in winter or summer.

Use HS22 hydraulic oil in low-temperature regions with $\leq -15^{\circ}\text{C}$ environmental temperature.

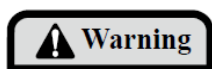
Besides the XCMG recommended product, it's recommended not mixing the oils of different trademarks or types, as they may contain different necessary additives or different equivalent viscosities. To use any hydraulic oil other than AE46 anti-wear hydraulic oil, please contact XCMG to acquire correct recommendation in-

formation.

Table 6-6 AE46 Anti-Wear Hydraulic Oil

Maximum pour point	-30 ℃ (-22 ℉)
Viscosity	
Brookfield viscosity, cP (at -18 ℃)	2700
At 40 ℃	46.12 cSt
At 100 ℃	6.85 cSt
Viscosity index	124

Critical stability weight



Do not replace any component vital to the stability (Such as battery, inflated tires, counterweight, engine, and work platform) with any component of different weight or specification and do not make any modification that will probably impair the stability.

Table 6-7 Critical stability weight

Name	Model	Kilogram	Pound
Tires and wheels (Solid tires)	385/65D22.5	276	608.5
Engine	Perkins 1104D-44T	372	820.1
	Yuchai YC	340	749.6
	4FA75-T300		
Counterweight	/	3862	8514.2
Platform	/	188.7	416.0



Serial Number Location

The serial number label is affixed to the left rear side of the frame. If the serial number label is damaged or missing, the serial number of machine is stamped on the left side of frame.

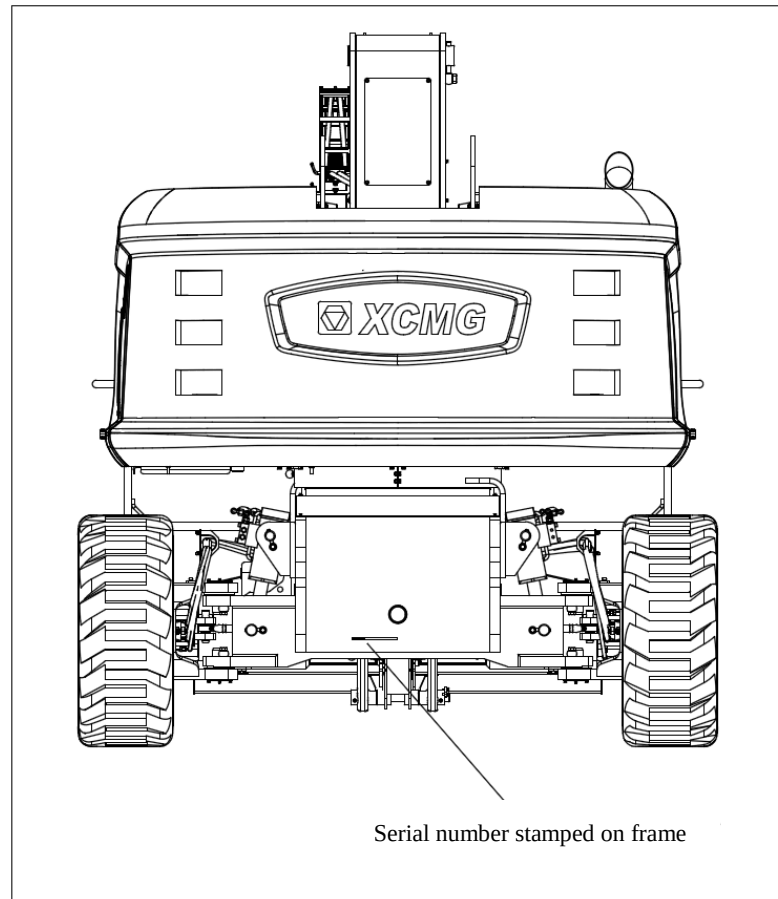


Figure 6-1 Serial Number Location



6-4 Lubrication

To guarantee the life of the mobile aerial work platform, it's necessary to periodically lubricate all portions with relative movements.

Caution

Mixing of lubricating grease with different trademarks will change their characteristics and damage the equipment. When the lubricating grease is supplied, the oil added must be of the same marks of those used for the aerial work platform now.

Dust in the lubricating grease will result in the abrasion of the sliding surface earlier than expected and shorten the operating life of the aerial work platform. The grease cup and other surfaces must be swept before the lubricating grease is added.

Nonobservance of lubrication interval or absence of lubrication will give rise to the equipment damage and increase the maintenance cost and downtime.

Danger

To guarantee the life of the mobile aerial work platform, it's necessary to periodically lubricate all portions with relative movements. The lubricating points of this machine are shown in Figure 6-2 and Figure 6-3. Please refer to Table 6-8 for the lubrication periods and methods.

In case that the lubricating grease enters into the eyes, immediately rinse thoroughly with water and see a doctor at once. In case that the skin is contacted with the lubricating grease, rinse thoroughly with water.

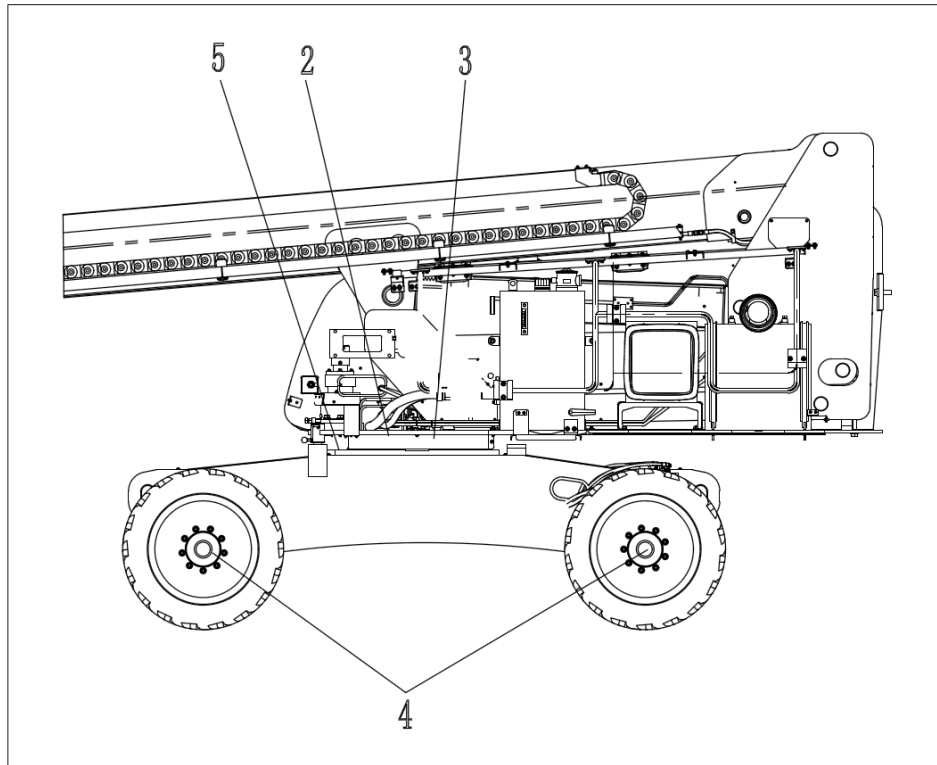


Figure 6-2 Diagram of Lower Lubrication Positions

Table 6-8 Lubrication Periods and Methods

S/N	Filling positions	Cycle	Makes of Lubrication oil and grease	Filling method
2	Slewing bearing raceway	Per 100h operation	Mobilux EP2 NLGI 2	Oil gun filling
3	Slewing bearing's gear	3 months	Mobilux EP2 NLGI 2	Packing
4	Running mechanism	6 months or per 500h operation	L-CKD220 gear oil (GB5903)	
5	Swing mechanism	6 months or per 500h operation	L-CKD220 gear oil (GB5903)	

The sliding surfaces that are not listed in the above table shall be applied with the lubricating grease at regular intervals.

When the hydraulic cylinder (derricking cylinder and support oil cylinder, etc.) is retracted completely, the piston rod part exposed in the air and connecting rod and slipper applied with the lubricating grease before leaving factory are also in need of proper lubricating maintenance.

The lubrication periods are established on the basis of the assumption that the mobile aerial work plat-

form is used under normal working conditions. If the mobile aerial work platform is used under severe condition (Such as dusty environment) or abnormal condition, shorten the maintenance interval accordingly.



6-5 Oil and Grease Instructions

See Table 6-8 for the oil brand of each parts and its filling amount and maintenance period. See Table 6-9 for the models comparison of the similar oil in domestic and overseas.



Please use following recommended oils and greases based on the environmental temperature. The use of the disqualified oils and greases or the oils and greases with inappropriate viscosity will damage the mechanisms.

Table 6-9 Use of Oils and Greases

S/N	Filling position		Type	Applicable temperature and trademark	Theoretical filling capacity /L	Replacement period/h	Remarks
1	Fuel tank		Fuel	Summer: 0# Winter: -10#	180	—	
2	Engine		Lubricating oil	Refer to Table 6-4 Comparison Table of Lubricating Oils/Greases and Working Temperatures.	6~8	3 months or 250 hours	The use of API CH4/CI4 compliant oil is recommended.
3	Cooling system		Antifreeze	Above -36°C	15~20	One year or 1000 hours operation	
4	Slewing mechanism		Gear oil	L-CKD220	0.9	See replacement cycle of gear oil for details	
5	Axle	Front axle		L-CKD220	0.68		
		Rear axle			0.68		
6	Hydraulic system		Hydraulic oil	1. Fill AE46 anti-wear hydraulic oil for the area with the environment temperature above -15°C 2. Fill HS22 hydraulic oil for the area with the environment temperature is at and below -15°C 3. Fill the hydraulic oil according to the specification for the users with special requirements	400L	Generally, 2 years of normal operation or 2000 hours working	

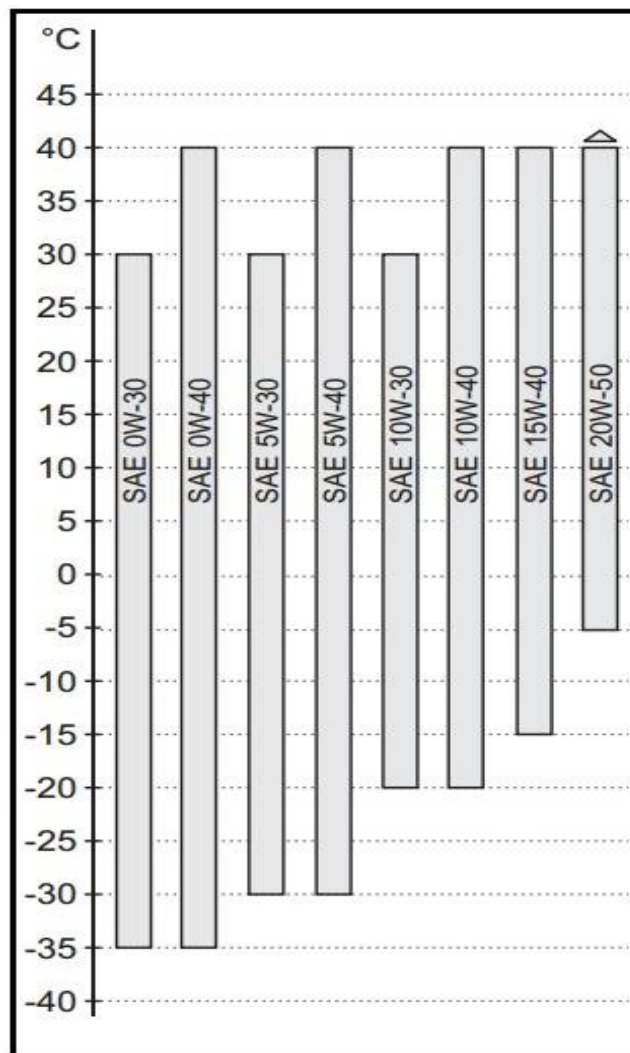


Table 6-10 Models Comparison of the Similar Oil in Domestic and Overseas

Classification	Engine oil	Slewing reducer Travelling reducer	Hydraulic oil
Name	Diesel engine oil	Industrial gear oil	Anti-wear hydraulic oil
Petrochina	CH-4	L-CKD220 L-CKD320	AE46, HS22
MOBIL	Delvac super	Mobilger630 Mobilger632	Mobil DTE 11M, 13M, 15M
SHELL	Rimula D	Omala220 Omala320	Tellus 22, 32, 46
CALTEX	EDLA500	Meropa220 Meropa320	Rando oil HD32, 46
CASTROL	Vecton 15W/40 RX Super	Alpha Max220 Alpha Max320	Hyspin AWS 15, 32, 46 Hyspin AWH 15, 32, 46
TOTAL	Rubia XT	Carter EP220 Carter EP320	AZOLLAZS 32, 46
BP	Venellus c3 Extra	Energol GR-XF220 Energol GR-XF320	Bartran HV22 Energol HLP-HM 32, 46



Table 6-11 Comparison Table of Lubricating Oils/Greases and Working Temperatures.

**Attention**

Please use the lubricating oil, antifreezes and hydraulic oil recommended by XCMG FIRE-FIGHTING SAFETY EQUIPMENT. No mixing use of oils with different brands is allowed.

The hydraulic oil shall not be used beyond 24 months. It can not be used for more than 24 months even if being filtered.

Keep the level of oil and supplement when it is below the specified value.

Fill oil after the temperature of the equipment falls to the indoor temperature; otherwise, it may give rise to splash and burn accident.



6-6 Tires and Wheels

Inflation of Tires

To guarantee safe and correct operating characteristics, the air pressure of the air-inflated tires must equal to the air pressure specified on XCMG product or wheel rim side face.

Damage of Tires

For air-inflated tires, XCMG recommends immediately taking measures and ceasing the use of damaged XCMG product upon detection of exposed cord thread due to cut, cracking, or tear on outer side or tread of tires. Ensure to immediately replace tire or tire assembly.

For polyurethane foam-filled solid tires, XCMG recommends immediately taking measures and ceasing the use of this XCMG product and immediately arranging the replacement of tire or tire assembly upon detection of any of following conditions.

- One smooth and uniform cut in total length of >7.5cm (3 in.) that runs through cord layer.
- Any tear or cracking (zigzag edge) in length of >2.5cm (1 in.) in any direction on cord

layer.

- Any puncture in diameter of >1 in.
- Any damage of bead cord.

If the damage of any tire is still within the above-mentioned permissible range, ensure to daily check the tire and ensure that the damage will not expand to be beyond permissible range.

Replacement of Tires

XCMG recommends replacing with the tires of same specification, ply number, and brand with original ones installed on the machine. Please refer to the XCMG Parts Catalog to obtain the number of tire parts approved for specific machine model. If the replacement tires approved by XCMG are not used, it's recommended that the replacement tires must meet the following characteristics:

- The ply number/rated load and specification of tire are same with or superior to those of original tire.
- The tread contact width of tire is same with or superior to that of original tire.
- The diameter, width, and offset of wheel are same with those of original wheel.



- Applications approved by tire manufacturer
(Including inflation pressure and maximum tire load)

It's prohibited to replace foam-filled tires with air-inflated tires, unless specially approved by XCMG. While selecting and installing replacement tires, ensure that the inflation pressure of all tires meets the XCMG's recommendation. Due to different specifications of tires from different manufacturers, the tires of same trademark must be used on one same axle.

Replacement of Wheels

The tread pattern width, tire pressure, and load capacity of the tire and rim assemblies installed on every product model are specially designed to meet the stability requirements. All changes without manufacturer's written approval, including the rim width, central position, and increased or reduced diameter, will probably constitute unsafe factors and impair the stability.

Installation of Wheels

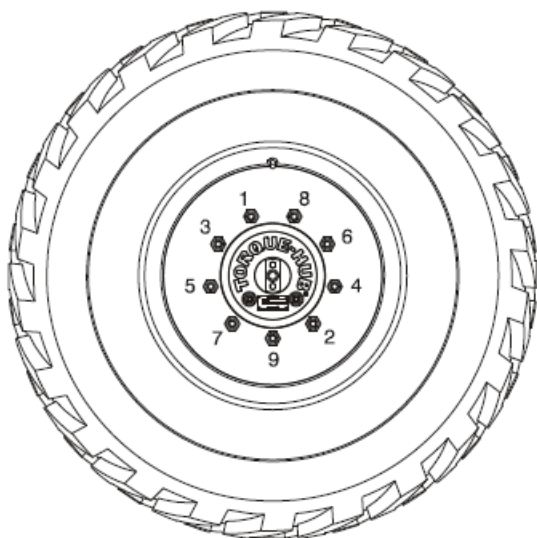
It's really important to apply and maintain the correct tightening torque for the wheels.



To prevent looseness of wheels, breakage of bolts, and possible separation danger between wheels and shaft, ensure to tighten the wheel nuts to correct torque and maintain the required torque. Ensure that the nuts used match with the conical angle of the wheel.

Tighten the nuts to correct torque to prevent the looseness of wheel. Tighten the fasteners by a torque wrench. If no torque wrench is available, tighten by special wheel bolt wrench and then immediately tighten the nuts to correct torque by a service shop or dealer. The excessive tightening will result in breakage of bolts or permanent damage of mounting bolt holes on wheels. The correct wheel installation sequence is as below:

1. Tighten all nuts by hand to prevent damaging the threads. Do not apply lubricant to the threads or nuts.
2. Tighten the nuts as per following sequence.



3. Ensure to tighten nuts by multiple steps.
Tighten the nuts by recommended sequence as per Wheel Tightening Torque Table.

Table 6-12 Wheel Tightening Torque Table

Tightening sequence		
1 st step	2 nd step	3 rd and 4 th steps
75 Nm (55lb-ft)	180 Nm (130lb-ft)	330 Nm (240lb-ft)

4. After the first 50 working hours and after the disassembling of any wheel, ensure to tighten the wheel nuts to specified torque. Check the torque once every 3 months or 150 working hours.



Ensure to perform the balance shaft locking system test once every quarter, after the replacement of any system component, or upon the suspicion of abnormal system working.

Notice: Before starting the locking hydraulic system test, ensure that the elevating boom is completely retracted, lowered, and placed between two drive wheels.

1. Place a 10cm (4 ft) high wedge block in front of the left front wheel.
2. The elevating boom is at stowed position, with the extending length at $\leq 300\text{mm}$ and the luffing angle at $\leq 7^\circ$.
3. Shift the driving joystick to forward position and carefully drive the machine onto the wedge, till the left front wheel is on the top of the block.
4. Carefully operate the boom luffing joystick to $> 7^\circ$ to place the elevating boom on the right side of machine.
5. When the elevating boom is at $> 7^\circ$ luffing angle, shift the driving joystick to reverse gear and drive the machine off the block and wedge.
6. Ask an assistant to check whether the left front wheel is locked at the ground OFF position.
7. Carefully operate the boom luffing joystick to place the elevating boom at $\leq 300\text{mm}$ ex-



tending length and $\leq 7^\circ$ luffing angle. After the elevating boom reaches the stowed position, the locking hydraulic system should release to lower the wheels onto the ground. It's probably necessary to drive the machine to release the hydraulic cylinder.

8. Place a 10cm (4 ft) high wedge block in front of the right front wheel.
9. Shift the driving joystick to forward position and carefully drive the machine onto the wedge, till the right front wheel is on the top of the block.
10. When the elevating boom is on the left side of machine, shift the driving joystick to reverse gear and drive the machine from the block and wedge.
11. Ask an assistant to check whether the right front wheel is locked at the ground OFF position.
12. Carefully start the swing joystick and place the elevating boom to stowed position (between two drive wheels). After the elevating boom reaches the central stowed position, the locking hydraulic system should release to lower the wheel onto the ground. It's probably necessary to drive the machine to release the hydraulic cylinder.
13. If the locking hydraulic system works abnormally, solve this malfunction by qualified maintenance personnel before the next operations.



Memorandum



Memorandum



Chapter 7 Transport, Hoisting, and Storage



7-1 Transport and Hoisting

The mobile aerial work platform is one off-road vehicle and is prohibited to drive on public roads. Therefore, the mobile aerial work platform shall be transported by road, railway, or water for transfer of working site.



When the machine is transported by railway, fully empty the engine and fuel tank of mobile aerial work platform and disconnect the positive and negative cables from the battery.

Only the qualified professional personnel are allowed to load the machine onto or unload it from the transport vehicle.

7-1-1 Preparations before Loading and Transport

1. Before loading and transport, please read the manual or product label to understand the parameters of mobile aerial work platform, including weight and overall dimensions, and select appropriate transport vehicle and hoisting sling.

2. The transport vehicle must park on a level ground.

3. While loading the mobile aerial work

platform, the transport vehicle must be fixed against rolling.

4. Do not drive the mobile aerial work platform on a slope beyond the upslope, downslope, or side slope driving capacity.

5. If it's necessary to tow the mobile aerial work platform by a winch, disengage the drive wheel brakes before towing. After towing, re-engage the brake in reverse sequence, as shown in Figure 7-1. The disengagement operations of the drive wheel brakes are as below:

a. Block the wheels by wedges to prevent rolling of machine.

b. Disassemble the plug by a wrench and insert M6 bolt into the threaded hole of sun wheel. This sun wheel is located in the low-torque planetary gear train. Remove the sun wheel and tighten the plug.



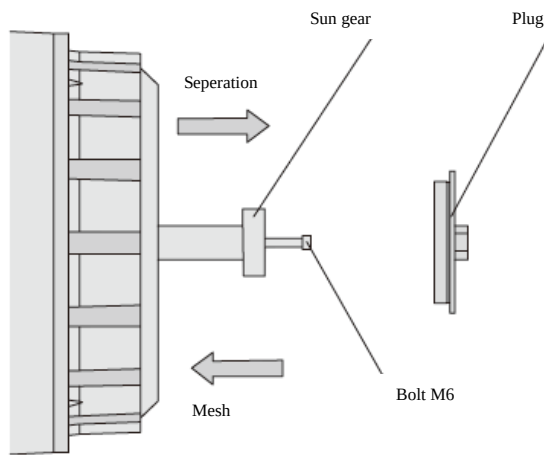


Figure 7-1 Diagram for Disengagement of Drive Wheel

7-1-2 Precautions for Loading and Transport

1. Park the mobile aerial work platform in a safe and appropriate place.
2. Fully lower and retract the boom of mobile aerial work platform and move the jib to be parallel with the ground.
3. Before the transport, rotate the switch key of mobile aerial work platform to OFF, withdraw the key, check the machine for any loose or non-fixed part, and disassemble or securely fix any loose part.
4. Close and lock all equipment and tool cabinet doors of mobile aerial work platform.
5. Wrap properly all external lamps of work platform by foams (or other protective materials)

to prevent collision damages.

6. Fold, lower, and properly fix the folding railings (If any) on the work platform.

7. Whenever the mobile aerial work platform is transported for transfer of working site, ensure to lock the turntable by turntable slewing lock.

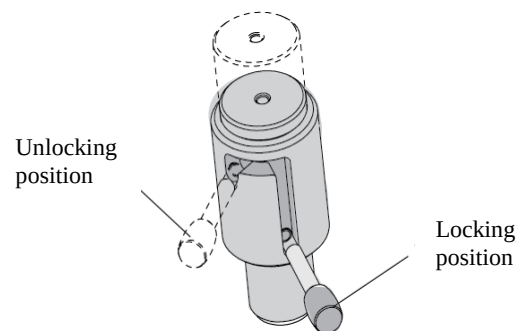


Figure 7-2 Diagram of Turntable Slewing Lock



Ensure that the turntable is unlocked during operations.

8. Before transport, securely fix the chassis to the transport vehicle and take corresponding safety protection measures. Ensure to use at least 5 chains and ropes of sufficient carrying capacity. Properly adjust the slings to prevent destruction of chain lock, as shown in Figure 5-2. As shown in the figure below.

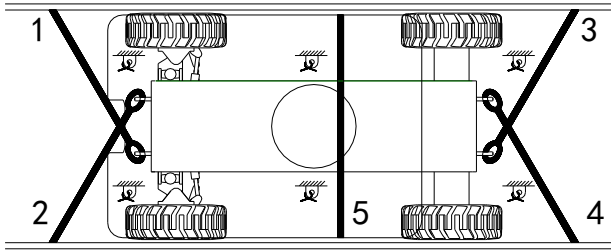


Figure 7-3 Diagram for Fixing of Chassis during Transport

9. Before transport, securely fix the work platform to the transport vehicle and take corresponding safety protection measures.

a. Place blockage object beneath the slewing part of the work platform to prevent rotation. However, prevent the blockage objects from contacting with the platform cylinder.

b. Pass nylon ropes through the planes near the lower support points of the work platform and fix them onto the machine to protect the work platform. However, do not apply excessive downward force, in order to prevent damaging the boom.

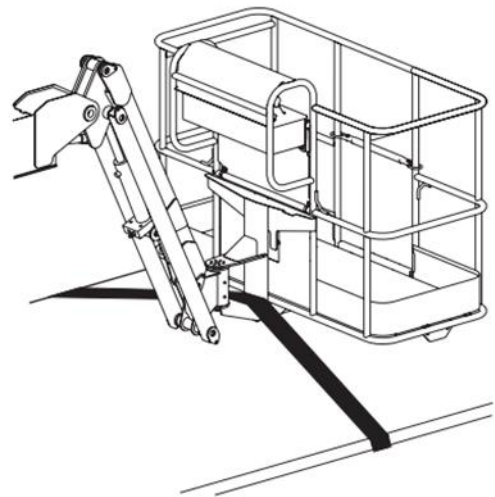


Figure 7-4 Diagram for Fixing of Work Platform during Transport

Please fix the chassis and work platform by the chains or ropes of sufficient carrying capacity.

7-1-3 Hoisting

If it's necessary to load and unload by hoisting method, please read the related product labels (Such as machine weight) on mobile aerial work platform in advance and select appropriate hoisting equipment and sling. Ensure that the hoisting capacity of the selected hoisting equipment and the chains or belts for hoisting and fixing are sufficient to carry the weight of mobile aerial work platform.



Only the qualified sling hoisting per-

sonnel are allowed for the installation and hoisting transport of machine.

The detailed hoisting instructions are as below:

1. Fully lower and retract the boom. Move the jib to be parallel with the ground.
2. Disassemble all loose parts from the machine and close and lock all equipment and tool cabinet doors of mobile aerial work platform.
3. Fix the turntable by turntable slewing lock.
4. Determine the gravity center of machine as per the information in Figure 6-5.
5. Connect the hoisting slings only to the designated hoisting points of the mobile aerial work platform. There are two hoisting points each on the chassis and on the turntable.
6. Adjust the hoisting slings to prevent damage of machine and keep level the machine.

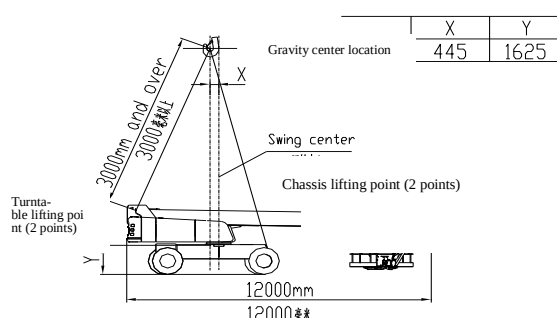


Figure 7-5 Diagram of Machine Gravity Center

7. Hoist the mobile aerial work platform steadily to the transport vehicle and fix the

wheels by blocks to prevent rolling.

7-2 Storage

The mobile aerial work platform shall be stored in a well-ventilated place shielded from rainfall, moisture, sun exposure, and corrosive gas.

To guarantee the normal reuse of mobile aerial work platform after storage, the following measures shall be taken:

1. Retract and lower the boom to the stowed status.
2. Close and lock all equipment and tool cabinet doors of mobile aerial work platform.
3. Rotate the key switch to position OFF and withdraw the key to avoid the unauthorized use.
4. Fix the wheels by blocks.
5. Wipe away the dusts and oil dirt from the machine body and keep clean the machine body.
6. Apply lubricating oil to the parts vulnerable to corrosion for comprehensive lubrication.
7. For long-term storage, fully drain the fuel and water and disconnect the battery positive and negative poles.



8. If the storage period exceeds 3 months, idle run the machine for at least one hour and fulfill cleaning and maintenance once every 3 months.

9. If the storage period is more than one and half years, besides the cleaning and maintenance, fulfill one comprehensive checking and maintenance for the whole machine and as required replace aged seals and filter elements before use.



Chapter VIII Checking and Repair Record

8-1 Checking and Repair Record

[illegible]



Checking and Repair Record

[illegible]



徐工消防安全装备有限公司
XCMG FIRE-FIGHTING SAFETY EQUIPMENT CO., LTD.

Add: No.165, Tongshan Road, Xuzhou, Jiangsu Province, China

Tel:+86-516-83461280 87888290

Fax:+86-516-87888163

Post Code:221004

Service Tel:+86-516-83461280 87888290

Service Fax:+86-516-87888163

Quality Inquiry Tel:+86-516-87888268

Spare Parts Tel:+86-516-87888120

All rights reserved..... Version 1, DECEMBER, 2019