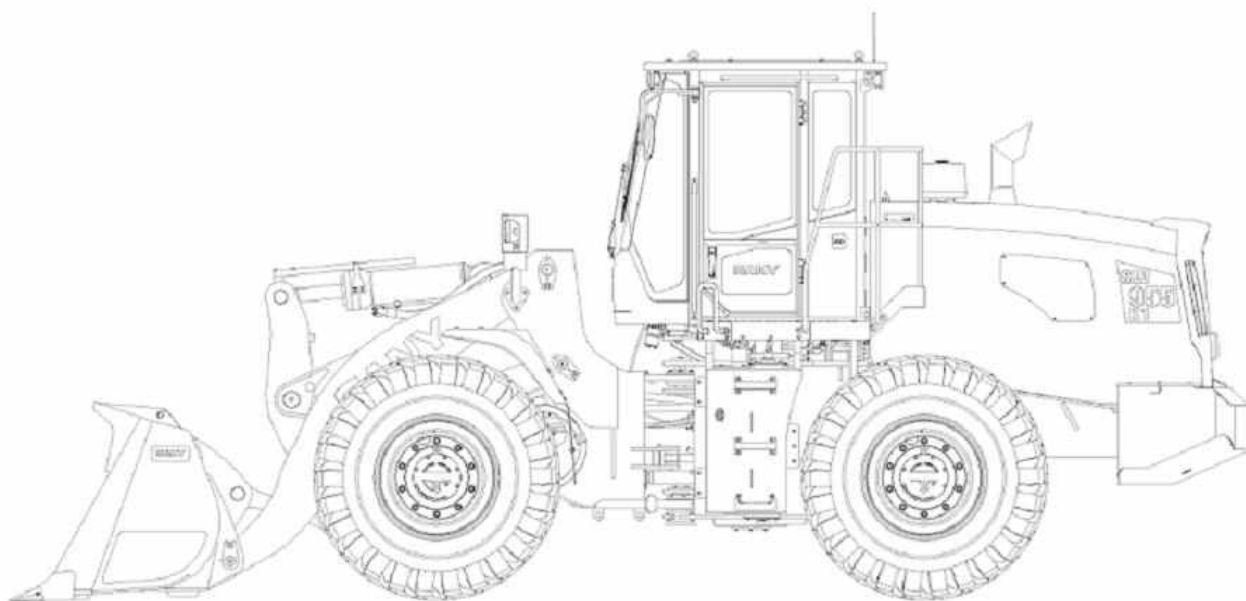


QUALITY CHANGES THE WORLD



# Wheel Loader

**SW955K1**



**Operation and Maintenance Manual**



# SANY

SW955K1 Wheeled Loader

## Operation and Maintenance Manual



### Warning

Please read and follow the important notes and instructions in this Manual and on the machine nameplate. Otherwise, it might lead to serious injuries, death or property losses. Please keep this Manual along with the machine for convenient reference.



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## Division of Responsibilities

### Important Statements

The wheel loader is a kind of multi-purpose earthwork construction machinery, mainly for earthwork loading, but also for bulldozing, lifting, traction and other operations. It is used widely in highway/railway/road construction, bridge construction, urban construction, airport port and water conservancy construction. The loader has the functions of bulldozer and crane, which can replace these mechanical operations. Other purposes beyond the specified operations are not within the scope of operation. SANY will not be responsible for the consequences caused by the operations not in accordance with the specified purposes.

SANY will not assume any responsibilities to the adverse consequences due to the following circumstances:

- The consequences caused by failure to use the Loader properly according to the information in this manual.
- Consequences of unauthorized refitting or modification of the Loader.
- Equipment damages or accidents due to failure to use authentic SANY parts or the use of parts and tools which have not been tested or authorized by SANY.
- SANY will not assume any responsibilities to the machine troubles or damages due to force majeure such as natural hazard (earthquake or typhoon etc.) and war etc.

SANY can not foresee all the possible hazards on operating site; therefore, the operating personnel of the Loader and the customer shall pay high attention to the safety issues.

Different regions and local government organs for the Loader may have stricter operation provisions. If the contents herein are in conflict with such safe operation provisions, the stricter provisions shall prevail.

### Responsibilities of SANY (as Manufacturer)

- Responsible for the quality of the Loader and the accuracy of accompanying documents.
- Fulfill the after-sales service commitment, and conclude all maintenance and repair work performed by the after-sales service personnel into documents.
- Provide training for equipment operators and maintenance personnel as needed.

### Responsibilities of Customer or Other Authorized Personnel

- The relevant personnel are allowed to operate and maintain the Loader only after they are fully trained and understand the contents of spare parts drawing volume and operation & maintenance manual.
- Confirm that the personnel operating and maintaining the Loader are competent to this work and know corresponding responsibilities.
- Regularly inspect the safety awareness of relevant personnel when working.
- Stop the work of the Loader immediately if any trouble influencing the safety occurs.
- SANY's service personnel shall have the right to perform relevant safety inspections for the Loader when necessary.
- In addition to the inspections specified by SANY, it is also necessary to perform corresponding inspection for the Loader according to relevant national and local regulations.
- Ensure the Loader to be maintained and repaired timely.
- Plan the use of the Loader carefully and consciously.

---

## **Responsibilities of All Operating Personnel**

- They shall report to the supervisor timely if any abnormal phenomenon which might cause abnormal operation or potential hazard of the Loader occurs, and shall correct the abnormal situation if possible.
- All the personnel working around the Loader shall follow all the warning signals and pay attention to the safety of themselves and other persons.
- All operating personnel shall understand the contents and procedures of operation items.
- Observe carefully whether there is any hazardous situation, and report any hazards to the operator and the signalman such as high-voltage power line, irrelevant personnel and poor ground condition etc.

## **Responsibilities of Management**

Ensure that the operating personnel have been trained, fully understand the contents of operation and maintenance manual provided by SANY, are in good health and have operation permission; otherwise, they shall not operate the Loader.

- Ensure that the operating personnel have good judgment, cooperative consciousness and psychological quality; otherwise, they shall not operate or maintain the Loader.
- Ensure that the signalman has good visual and auditory judgment, acknowledges the standard commanding signals, sends clear and accurate signals, has enough experience to identify the hazardous factors and is able to inform the operator to avoid timely.
- Ensure that the assistants can determine properly the model and working condition of road Loader, and select appropriate Loader.
- Assign corresponding safety responsibility to the operating personnel of each item and report the unsafe factors to the supervisor timely



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### **Warning**

Please read and fully understand the precautions in this Manual and described in the safety nameplate on the machine. When operating or repairing the machine, please follow those precautions strictly; otherwise, the wrong operation might lead to machine damages or personal injuries.

## 1. Preface

### 1.1 Preface

#### Overview

This Operation and Maintenance Manual is a guide for using the machine properly, and mainly provides the technical and safety information for operation. Make sure to read every part of this Manual.

Only the operating personnel who hold the license from competent local authority (according to the local law), is qualified and experienced are allowed to operate this machine. Operate the machine always in accordance with relevant laws and regulations of the state, province, autonomous region and municipality. The operation safety information and description herein should be taken only as recommendations and warnings.

SANY Heavy Machinery Co., Ltd. is unable to foresee all kinds of potential hazardous situation in the operation and maintenance; thus, the safety information in this Manual and on the machine will not include all the possible safety measures. You are responsible to take all necessary measures to ensure the safety when using the methods or actions which are not recommended or allowed particularly in this manual.

Any unauthorized modification or misuse of the machine may affect the performance of the Loader or cause greater safety risks, such as setting the fuel quantity beyond the specified value or overloading the machine. Please drive and operate this machine carefully. Mis-operation and misuse may also cause damage. Sany Heavy Machinery will not be responsible for the loss caused by the above failures.

The machine involved in this manual is operated for various operations under normal conditions. Please do not operate it in any inflammable and explosive environment or area containing asbestos dust.

Please select the suitable Loader for plateau operation when it is used in an area with an altitude of more than 2,000 m.

This machine has been tested for electromagnetic capacitance according to EN 13309-2000. Therefore, all unapproved electronic accessories, such as communication equipment, shall be tested before the installation and operation to confirm that there is no electromagnetic interference to the machine before the operation.

All the data, graphic charts and specifications herein are the latest product information available when it is published. SANY Heavy Machinery Co., Ltd. reserves the right to change it from time to time without advance notice. Please contact with SANY Heavy Machinery Co., Ltd. or its authorized agents for the latest information about the machine or the problems concerning data in this manual.

Application scope of standard excavator: altitude up to 2,000m and atmospheric temperature at -30°C to +50°C.

#### □Attention

Before starting operation and maintenance, the operating personnel and maintenance personnel must:

- Read and understand this Manual.
- Read the safety notices in this Manual and the safety nameplate on the machine, and fully understand them.
- Not use or operate the machine for the purposes prohibited herein in any cases.
- If the fuel oil volume, particle or latitude exceeds the maximum value specified for this model

## Preface

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and application, it might lead to injuries, and such circumstance will not be covered by the quality warranty.

- Always keep this Manual in the cab for the convenience of reference.
  - If this manual is lost or become illegible, please contact SANY Heavy Machinery authorized dealer immediately for new one or replacement.
  - This Manual shall be regarded as a permanent integral part of this machine. This Manual shall be handed over to the new user together with the machine if the machine is to be sold.
  - The machine provided by SANY Heavy Machinery Co., Ltd. to the purchasing country complies with all the applicable specifications and standards. If the machine is purchased from another country or from the person of another country, some safety devices and technical requirements may not be available for your country. Please contact with the authorized agent of SANY Heavy Machinery Co., Ltd. before use if you have any doubt about whether the machine meets the local use standards and specifications.
- 

## 1.2 Safety Information

For helping you use this machine safely, this Manual provides the safety precautions and nameplates fixed on the machine and gives instructions for the purpose of describing the potential hazardous situation and giving methods for avoiding such hazardous situation.

The user and after-sales personnel must be familiar with all kinds of warning signs and warning symbols on the machine before operating and maintaining the machine, strictly follow the safety criterion and suggestions herein and take positive safety preventive measures and countermeasures for the purpose of minimizing the risks of personal injuries, the machine damages due to improper repair or the risks arisen from unsafe factors.

### 1. Safety Warning

The safety warning is composed of safety warning symbols and mark words. It is used to remind you the potential hazardous situation which might lead to personal injuries or damages. The safety warning may be classified with the mark words according to the severity corresponding to the hazardous situation. 3 kinds of mark words are used in this Manual: Danger, Warning and Attention, which means:

**□ Danger** It would lead to major injuries and even death if such hazard was not avoided.

**□ Warning** It could lead to major injuries and even death if such potential hazard was not avoided.

**□ Attention** It could lead to medium or minor injuries if such potential hazard was not avoided. "Attention" also could be used to remind the occasions of unsafe operations which might lead to personal injuries, machine and environmental damages.

### Examples of Safety Warning

#### **□ Attention**

- Be sure to engage the mechanical lock on the locked position when standing up from the driver's seat.
  - It would lead to major injuries or death if it was touched accidentally when the control lever is not locked.
-

## 2. Safety Nameplate

The safety nameplate is fixed on the machine to remind the operator or maintenance personnel on site the potential hazards when operating or maintaining the machine. "Safety nameplate in text" and "safety nameplate in graph" are used on this machine to indicate the safety measures.

### a. Examples of safety nameplate in text



Figure 1-1

### b. Example of safety nameplate in graph



Figure 1-2

### 1.3 Brief introduction

#### 1.3.1 Brief introduction

SANY Wheeled Loader is designed mainly for the following work:

- Loading
- Bulldozing operation
- Lifting operation
- Traction operation

Refer to relevant part of operation and maintenance manual for details.

The number in the figure is corresponding to the number in the [ ] of the text (for example: 1 → [1]). In this Manual, the measurement is subject to international system of unit (SI).

#### 1.3.2 Direction of the Machine

In this manual, Front, Back, Left and Right refer to the front, back, left and right of the operator during the normal operation.

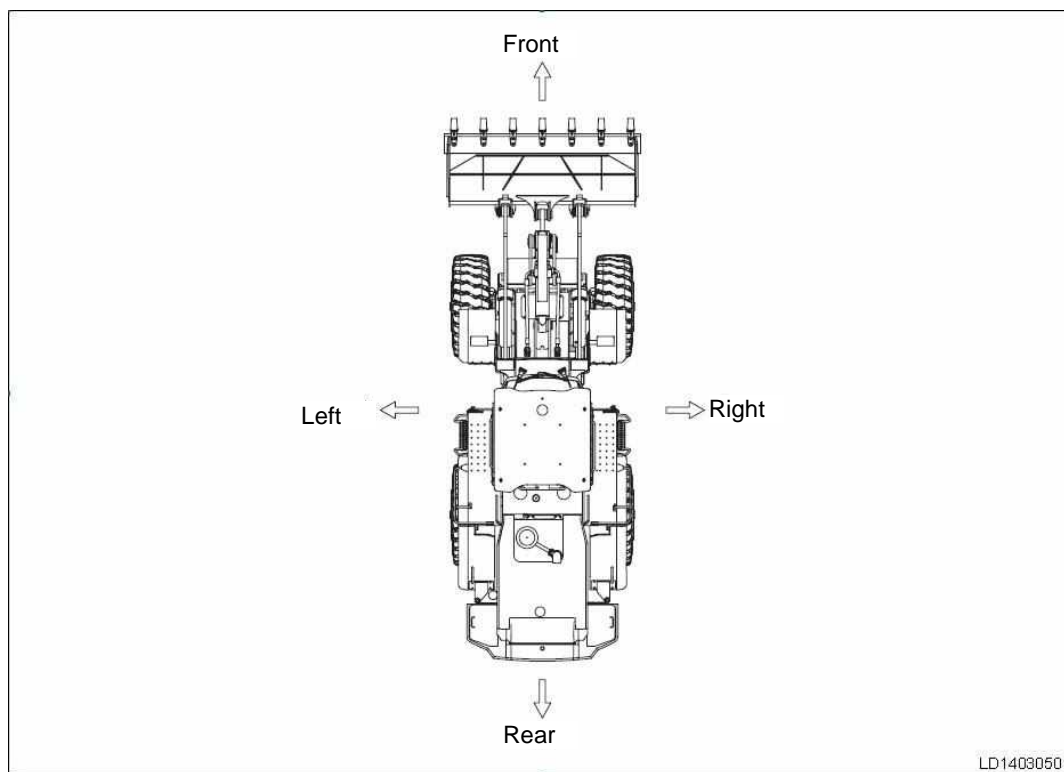


Figure 1-3

#### 1.3.3 Running-in of New Machine

The machine of SANY Heavy Machinery Co., Ltd. has been adjusted and tested before delivery. However, the influence will be influenced seriously and the service life of machine will be shortened if the machine is operated under full load before the running-in period.

It is necessary to perform the running-in for the machine in the first 100 hours (according to the indication of service hours on the displayer).

Be sure to fully understand the contents herein and pay attention to the following points in the running-in process:

- The engine runs at the idle speed for 3 ~ 5 minutes after starting.
- Avoid operating at high speed under heavy load.
- Avoid starting engine suddenly, or accelerating suddenly, unnecessary stop or changing directly after starting the engine.

## 1.4 Product Information

### 1.4.1 Product Information

Please inform the authorized agent of SANY the following information when requiring maintenance or ordering replacement parts.

#### Machine S/N Nameplate

The serial number plate is located on the left side of the front frame (see the figure below).

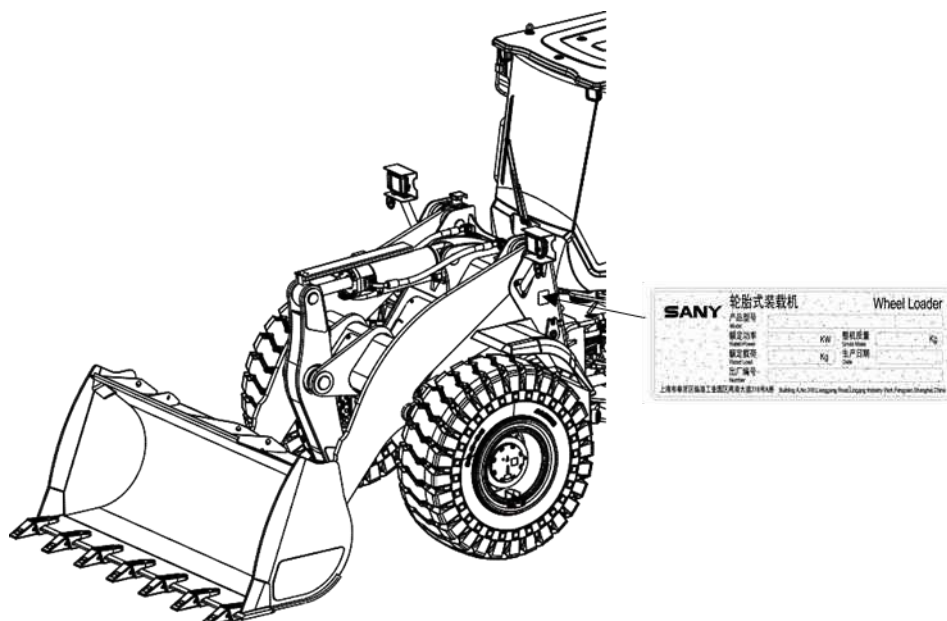


Figure 1-4

### 1.4.2 Engine S/N Nameplate

The engine nameplate is located on the air valve cover on the top of the engine.



Figure 1-5

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# SANY

## Safe

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 **Warning**

Please read and fully understand the precautions in this Manual and described in the safety nameplate on the machine. When operating or repairing the machine, please follow those precautions strictly; otherwise, the wrong operation might lead to machine damages or personal injuries.

## 2. Safe

### 2.1 Safety Nameplate

#### 2.1.1 Safety Nameplate

The following warning signs and safety nameplates are used on this machine.

- Be sure to understand the correct position and contents of the nameplates fully.
- In order to ensure that the label contents can be read normally, make sure that they are in the correct position and keep the label clean at all times. Do not use organic solvent or gasoline when cleaning the sign. Otherwise the paint on the sign will peel off.
- In addition to the warning sign and safety nameplate, there are also other nameplates which shall be treated in the same way.
- If the nameplates are damaged, lost or become illegible, it is necessary to replace them with new parts. Refer to this Manual or the real nameplates for details concerning part No. of nameplate.

#### 2.1.2 Positions of Safety Nameplates

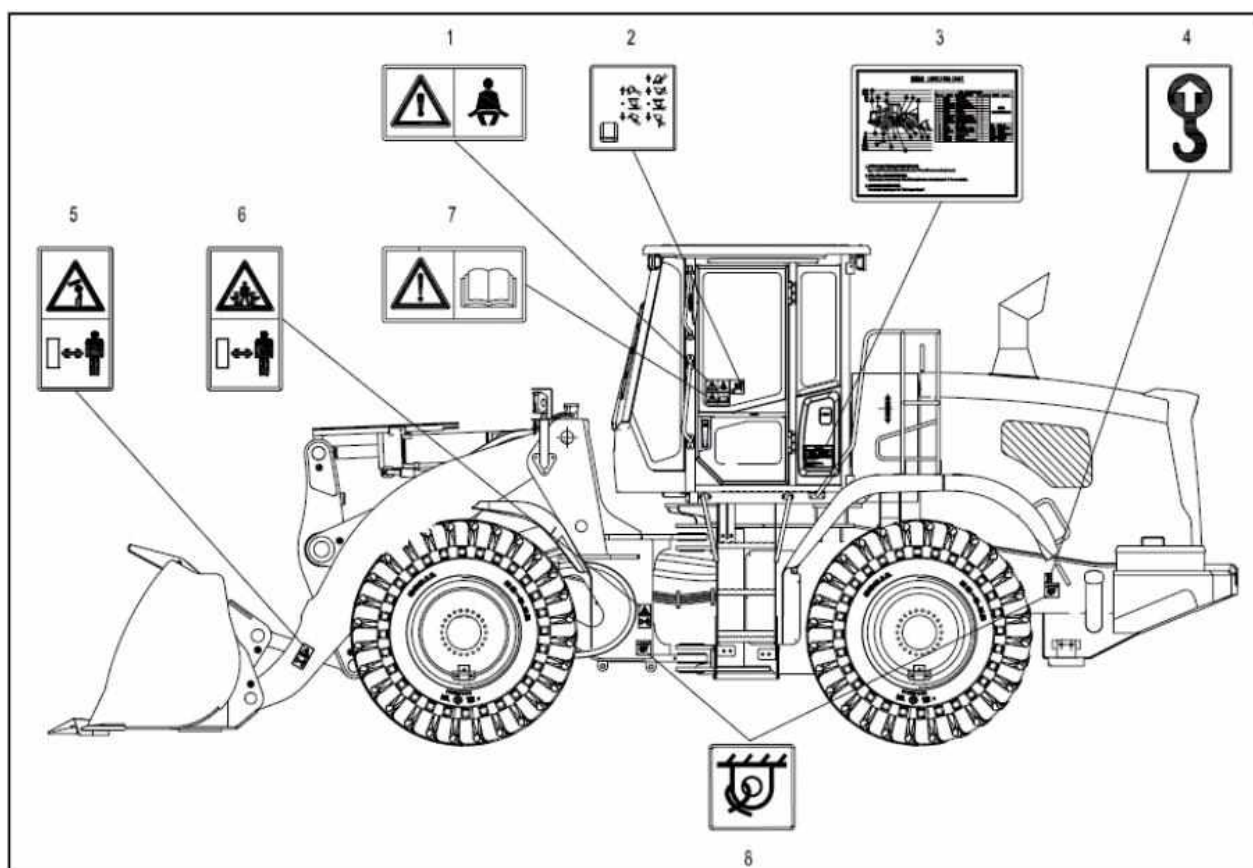


Figure 2-1

- |   |   |
|---|---|
| [1] Warning sign of safety belt           | [5] Be careful not to touch the sign          |
| [2] Indication sign for control           | [6] Warning label of "Hurt by Jamming"        |
| [3] Lubrication and maintenance chart     | [7] Warning sign for reading the instructions |
| [4] Indication sign of lifting hook point | [8] Shipping fixed-point sign                 |

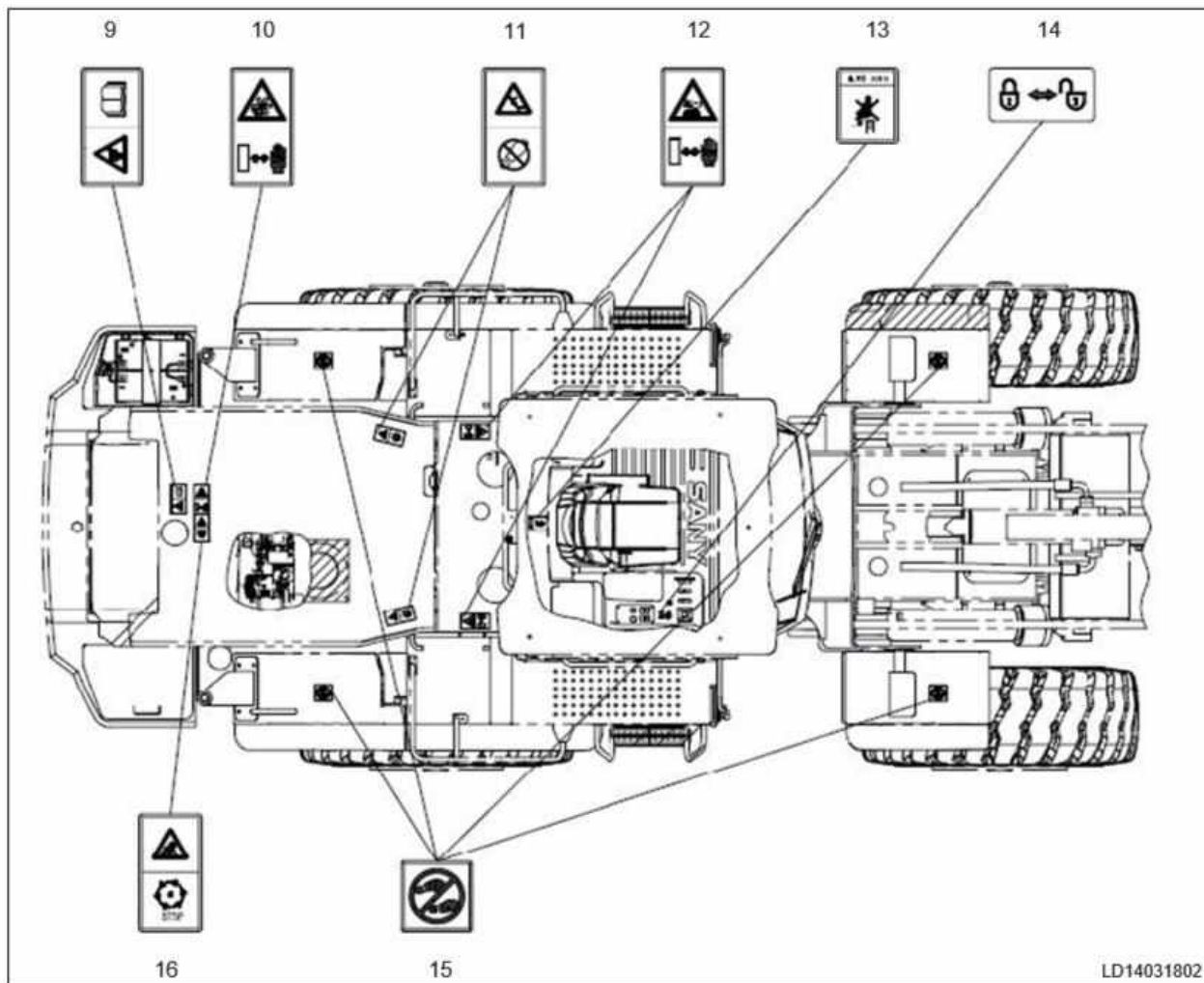


Figure 2-2

- |   |                                   |
|---|-----------------------------------|
| [9] Warning sign for splashing prevention | [13] Warning sign for no sitting  |
| [10] Warning sign for beating by fan      | [14] Unlocking sign               |
| [11] Warning signs to prevent falling     | [15] No trampling sign            |
| [12] Warning nameplate for hot parts      | [16] Safety warning sign for belt |

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