

Quality Changes the World



# Excavator

**SY215C9M3KS**



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**Safety, Operation & Maintenance Manual**



# SANY

## SY215 Excavator

(SY215C9M3KS)

### Safety, Operation & Maintenance Manual

#### **WARNING**

Read and understand all safety precautions and instructions in this manual before reading any other manuals provided with this machine and before operating or maintaining it. Failure to do this could result in death or serious injury.

This manual and its contents prepared by Sany group Technical Publications while deemed to be accurate, is based upon technical information provided, and for equipment designed, manufactured and tested by:

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It is the responsibility of the owner, user, properly trained operator and lessor to be knowledgeable of, and comply with, all industry standards, government regulations, workplace rules and other directives that may govern and/or apply to this equipment as well as its environment/conditions of use.

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INTRODUCTION

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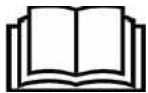
SYSTEM FUNCTION

OPERATION

MAINTENANCE

SPECIFICATIONS TROUBLESHOOTING

OPTIONAL EQUIPMENT

**⚠ WARNING**

To prevent death or serious injury:

- Avoid unsafe operation and maintenance.
- This machine must be operated and maintained by trained and experienced personnel. Sany is not responsible for qualifying these personnel.
- Do not operate or work on this machine without first reading and understanding this Safety, Operation & Maintenance manual supplied with the machine.
- Store the Safety, Operation & Maintenance manual in the operator cab.

If the Safety, Operation & Maintenance manual is missing or damaged, do not use the machine until a replacement has been obtained from your Sany dealer. Failure to have and to refer to an available copy of the manual can result in damage to the machine or improper operation.

**⚠ WARNING**

Read and understand all safety precautions and instructions in this manual before reading any other manuals provided with this machine and before operating or maintaining it. Failure to do this could result in death or serious injury.

## ABOUT THIS MANUAL

This manual provides safety, operation, maintenance and technical specification information. A copy must be kept in the cab (a) at all times. If you sell the machine, a copy of this manual must be provided to the new owner.

It is important to read this manual carefully before beginning any operation or maintenance. All personnel involved with this machine must read this manual periodically to remain knowledgeable about its operation and maintenance.



Fig. 1-1

a

Items addressed in this manual are designed to help you:

- Understand the different systems and performance of your machine.
- Reduce improper operation.
- Point out possible hazardous situations when operating and maintaining the machine.
- Increase machine efficiency during operation.
- Prolong the service life of your machine.
- Reduce maintenance costs.

Continuing improvements in the design of this machine can lead to changes in detail which may not be covered in this manual. Always consult your Sany dealer for the latest available information on your machine or if you have questions regarding information in this manual.

## CONTACT INFORMATION

Thank you for purchasing a Sany machine. If you need to contact us for any reason, you can reach us as follows:

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Sany Industry Town, Changsha Economic &  
Technical Development Zone

Hunan, China 410100

[www.sanygroup.com](http://www.sanygroup.com)

Phone: 0086-0731-84031711

Fax: 0086-0731-84031999-654



Fig. 1-2

## YOUR DOCUMENTATION PACKAGE

This documentation applies only to this machine and should not be used with any other machine. The documentation for this machine includes the following items:

### Safety, Operation & Maintenance Manual

A copy of this Safety, Operation & Maintenance manual must always remain in the operator cab (a) at all times. See “Organization of This Manual” on page 1-5 for complete details.

A copy of this manual should be made available to maintenance personnel when maintaining the machine.

### Parts Book

The Parts book consists of parts lists and matching drawings used for ordering spare parts as needed. The Parts book is best left in the workshop area or office. It should always be available to the maintenance and service personnel.

### Maintenance Log

The Maintenance Log lists regularly scheduled maintenance to be performed by the operator or maintenance personnel. All maintenance performed upon the machine must be recorded in the Maintenance Log.



Fig. 1-3



Fig. 1-4

## ORGANIZATION OF THIS MANUAL

### Table of Contents

List of the general topics that are contained in this manual along with the page number each starts on.

NOTE: There is also a table of contents at the start of each section in this manual.

### Introduction

Overview of what is covered in the rest of this manual, including serial number information and Sany contact information.

### Safety

General and product-specific safety information relating to this machine. It describes what the hazard alerts mean that are used throughout the manual. Decals used on the machine by location, type and meaning are also addressed in this section.

### System Functions

Overview of all controls and operating systems.

### Operation

Detailed operator qualifications, pre-start checks, operating procedures and end-of-day checks and storage information.

### Maintenance

Routine maintenance procedures, fluid specifications, and torque values.

### Troubleshooting

Overview of common malfunctions for the operating systems, instructions on towing and jump-starting.

### Specifications

Dimensions and weight of the machine, and systems/components performance information.

### Optional Equipment

Information on the function and operation of optional equipment.

## SERIAL NUMBER LOCATION

The serial number (a) will be needed by your Sany dealer when ordering replacement parts or providing assistance for your machine. Record this information in this manual for future use.



Fig. 1-5 a

## Record of Serial Number and Dealer Information

This location is for you to record information relating to your machine. It is required that you keep this manual with your machine at all times for reference.	
Machine Serial No.	
Engine Serial No.	
Right Final Drive Motor Serial No.	
Left Final Drive Motor Serial No.	
Swinging Gearbox Motor No.	
Hydraulic Pump No.	
Dealer Name:	
Address:	
Phone Numbers:	



## CORRECTION REQUEST FORM

If you find a problem with this manual, make a copy of this page, complete the form below and send it to us, attention Technical Publications. You can also email us at [techpubs@sanygroup.com](mailto:techpubs@sanygroup.com).

NOTE: See “Contact Information” on page 1-3.

Date of This Request
Your Name
Company Name
Your Department
Street Address
City, State & ZIP
Phone
E-mail
Machine Model & Serial No.
Description of Problem (wrong information, unclear or erroneous procedure, etc.)
Corrective Action by You (if any)

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# SANY

## Safety

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**⚠WARNING**

Read and understand all safety precautions and instructions in this manual before reading any other manuals provided with this machine and before operating or maintaining it. Failure to do this could result in death or serious injury.

## SAFETY - GENERAL

### WARNING

**Make sure the precautions described in this manual and the safety decals on the machine are fully understood before operating or maintaining this machine. Read and follow all safety precautions. Failure to do this could result in death or serious injury.**

This section of the manual provides detailed information on basic safety precautions and preventative measures to be followed during operation and maintenance of this machine.

Safe operation is very important. Prior to operation and maintenance, carefully read and understand all content in this section of this manual. Only after completely understanding the content in this manual, can the machine be safely and expertly operated. Following are some of the benefits of doing this:

- Avoid personal injury or machine damage caused by improper operation.
- Increase the reliability of the machine.
- Prolong the service life of the machine.
- Reduce repair cost and downtimes.

The safety information in this manual provides basic guidelines for safe operation for all authorized personnel. Sany is unable to foresee all risks on work sites, so workers, operators and owners must consider if there are other safety concerns that must be addressed for specific job situations.

Local governments or authorities may have stricter standards. If some stipulations in this manual disagree with the local laws or regulations, the stricter ones prevail.

This manual must be kept on the machine for reference and periodically reviewed by all personnel involved with operation or maintenance of this machine.

Some actions involved in the operation or maintenance of this machine could cause a serious accident if they are not performed in the manner described in this manual.

All procedures and precautions outlined in this manual apply only to intended use of this machine. If you use your machine for any unintended use that is not specifically prohibited, you must be sure that it is safe for you and others to do so. In no event should you or others engage in prohibited uses or actions as described in this manual.

This machine complies with all applicable regulations and standards of the country to which the machine has been shipped. If this machine was purchased in another country or purchased from someone in another country, it may lack certain safety features and specifications that are necessary for use in your country. If there is any question about whether your machine complies with the applicable standards and regulations of your country, contact your Sany dealer before operating this machine.

## Hazard Alerts in This Manual

Most accidents are usually caused by the failure to follow fundamental safety rules for the operation and maintenance of the machine. To avoid accidents, it is important that all personnel involved with the operation or maintenance of this machine must read this manual before operating or performing maintenance on this machine.

Improper operation or maintenance of this machine could result in death or serious injury.

Carelessness or neglect by operators, job supervisors, maintenance staff, and job site workers can result in their death or injury and costly damage to the machine and property.

To alert operators, job supervisors, maintenance staff, and job site workers to hazardous operating practices and maintenance procedures, hazard alerts are used throughout this manual. Each hazard alert contains a hazard alert symbol and a signal word to identify the hazard's degree of consequence if the message is ignored.

The following (ANSI/ISO) signal words are used to inform that there is a potentially hazardous situation that may lead to damage, personal injury or even death. In this manual and on the machine decals, different signal words or illustrations are used to express the potential level of hazard.

### **DANGER**

**DANGER** indicates a hazardous situation which, if not avoided, will result in death or serious injury.

### **WARNING**

**WARNING** indicates a hazardous situation which, if not avoided, could result in death or serious injury.

### **CAUTION**

**CAUTION** indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

### **NOTICE**

**NOTICE** indicates a situation which can cause damage to the machine, personal property and/ or the environment, or cause the machine to operate improperly.



This symbol is used within a graphic to alert the user not to do something.

Sany cannot foresee every circumstance that might involve a potential hazard in operation or maintenance. Therefore, some hazard alerts in this manual and on the machine may not include all possible safety precautions.

If any procedure or action not specified, recommended or allowed in this manual is used, be sure that such procedures and actions can be safely performed without damaging the machine or causing injury. When unsure about the safety of some procedures, contact your Sany dealer.

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