

PART NO. EM1M7-2-2

HITACHI

Operator's Manual

ZAXIS

27U-2

30U-2

35U-2

40U-2

50U-2

Hydraulic Excavator

ZX27U-2 · 30U-2 · 35U-2 · 40U-2 · 50U-2

HYDRAULIC EXCAVATOR OPERATOR'S MANUAL

EM1M7-2-2

 **Hitachi Construction Machinery Co., Ltd.**

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Serial No.

ZX27U-2 010192 and up

ZX30U-2 012146 and up

ZX35U-2 010744 and up

ZX40U-2 011234 and up

ZX50U-2 011049 and up

INTRODUCTION

Read this manual carefully to learn how to operate and service your machine correctly. Failure to do so could result in personal injury or equipment damage.

This standard specification machine can be operated under the following conditions without being modified.

Atmospheric Temperature: -20°C to 40°C (-4°F to 104°F)

Altitude: 0 m to 1500 m (0 ft to 4900 ft)

In case the machine is used under conditions other than described above, consult your authorized dealer.

This manual should be considered a permanent part of your machine and should remain with the machine when you sell it.

This machine is of metric design. Measurements in this manual are metric. Use only metric hardware and tools as specified.

- SI Units (International System of Units) are used in this manual.

For reference MKS system units and English units are also indicated in parentheses after the SI units.

Example : 24.5 MPa (250 kgf/cm², 3560 psi)

Right-hand and left-hand sides are determined by facing in the direction of forward travel.

Write product identification numbers in the Machine Numbers section. Accurately record all the numbers to help in tracing the machine should it be stolen. Your dealer also needs these numbers when you order parts. If this manual is kept on the machine, also file the identification numbers in a secure place off the machine.

Warranty is provided as a part of Hitachi's support program for customers who operate and maintain their equipment as described in this manual. The warranty is explained on the warranty certificate which you should have received from your dealer.

This warranty provides you the assurance that Hitachi will back its products where defects appear within the warranty period. In some circumstances, Hitachi also provides field improvements, often without charge to the customer, even if the product is out of warranty.

Should the equipment be abused, or modified to change its performance beyond the original factory specifications, the warranty will become void and field improvements may be denied.

Setting fuel delivery above specifications or otherwise overpowering machines will result in such action.

Only qualified, experienced operators officially licensed (according to local law) should be allowed to operate the machine. Moreover, only officially licensed personnel should be allowed to inspect and service the machine.

Prior to operating this machine in a country other than a country of its intended use, it may be necessary to make modifications to it so that it complies with the local standards (including safety standards) and requirements of that particular country. Please do not operate this machine outside of the country of its intended use until such compliance has been confirmed. Please contact Hitachi Construction Machinery Co., Ltd. or any of our authorized distributor or dealer if you have any questions concerning compliance.

All information, illustrations and specifications in this manual are based on the latest product information available at the time of publication. The right is reserved to make changes at any time without notice.

INDEX

MACHINE NUMBERS

SAFETY

SAFETY SIGNS

COMPONENTS NAME

OPERATOR'S STATION

BREAK-IN

OPERATING THE ENGINE

DRIVING THE MACHINE

OPERATING THE MACHINE

TRANSPORTING

MAINTENANCE

CONSUMABLE PARTS LIST

MAINTENANCE UNDER SPECIAL ENVIRONMENTAL CONDITIONS

STORAGE

TROUBLESHOOTING

SPECIFICATIONS

REFERENCE

INDEX

CONTENTS

MACHINE NUMBERS

SAFETY

Recognize Safety Information	S-1
Understand Signal Words.....	S-1
Follow Safety Instructions.....	S-2
Prepare for Emergencies.....	S-2
Wear Protective Clothing.....	S-3
Protect Against Noise.....	S-3
Inspect Machine.....	S-3
Tidy Up Inside Operator's Space.....	S-4
Use Handholds and Steps.....	S-4
Adjust the Operator's Seat.....	S-5
Ensure Safety Before Rising From or Leaving Operator's Seat.....	S-5
Fasten Your Seat Belt.....	S-5
Move and Operate Machine Safely	S-6
Operate Only from Operator's Seat.....	S-7
Jump Starting.....	S-7
Keep Riders Off Machine.....	S-7
Precautions for Operations.....	S-8
Investigate Job Site Beforehand.....	S-9
Protect Against Falling Stones and Debris.....	S-10
Provide Signals for Jobs Involving Multiple Numbers of Machines	S-10
Confirm Direction of Machine to be Driven.....	S-10
Drive Machine Safely.....	S-11
Avoid Injury from Rollaway Accidents	S-13
Avoid Injury from Back-Over and Swing Accidents	S-14
Keep Person Clear from Working Area	S-15
Never Position Bucket Over Anyone	S-15
Avoid Undercutting	S-15
Avoid Tipping	S-16
Never Undercut a High Bank.....	S-16
Dig with Caution.....	S-17
Operate with Caution	S-17
Avoid Power Lines	S-17
Precautions for Lightening.....	S-18
Do Not Use for Craning Operations.....	S-18
Protect Against Flying Debris	S-18
Park Machine Safely.....	S-19
Handle Fluids Safely – Avoid Fires.....	S-19
Safety Transporting	S-20
Practice Safe Maintenance.....	S-21
Warn Others of Service Work.....	S-22
Support Machine Properly	S-23
Stay Clear of Moving Parts	S-23
Prevent Parts from Flying	S-23
Store Attachments Safely	S-24
Prevent Burns	S-24
Replace Rubber Hoses Periodically	S-25
Avoid High-Pressure Fluids	S-25
Prevent Fires	S-26
Evacuating in Case of Fire.....	S-28
Beware of Exhaust Fumes.....	S-28

Beware of Asbestos Dust.....	S-28
Precautions for Welding and Grinding	S-29
Avoid Heating Near Pressurized Fluid Lines	S-29
Avoid Applying Heat to Lines Containing Flammable Fluids	S-29
Remove Paint before Welding or Heating.....	S-30
Prevent Battery Explosions	S-30
Precautions for Handling Refrigerant.....	S-31
Handle Chemical Products Safely	S-31
Dispose of Waste Properly.....	S-32

SAFETY SIGNS	S-33
---------------------------	-------------

COMPONENTS NAME	1-1
------------------------------	------------

OPERATOR'S STATION

Pedals, Levers and Monitor Panel	1-2
Key Switch.....	1-4
Switch Panel.....	1-4
Monitor Panel	1-5
Coolant Temperature Gauge	1-5
Fuel Gauge	1-5
System Failure Indicator	1-6
Engine Oil Pressure Indicator	1-6
Overheat Indicator.....	1-6
Fuel Level Indicator.....	1-6
Alternator Indicator.....	1-7
Preheat Indicator.....	1-7
Fast Travel Mode Indicator	1-7
Liquid Crystal display (LCD), Display Selection Switch, and Set Switch.....	1-8
How to Operate Trip Meter.....	1-9
Auto-Idle Switch (Except ZX27U-2).....	1-11
Air Conditioner Operation.....	1-12
Tips for Air Conditioner Usage	1-14
Radio (Cab Equipped Machines)	1-15
AM/FM Radio Operation	1-16
Cab Door Release lever (Cab-equipped machines).....	1-18
Opening/Closing Cab Front Window (Cab-equipped machines)	1-19
Adjusting Operator's Seat	1-20
Tool and Operator's manual Boxes	1-20
Emergency Exit (Cab-equipped machines)	1-21
Seat Belt (Optional).....	1-22
Cab Light (Cab-equipped machines)	1-22

BREAK-IN

Breaking in New Machine	2-1
-------------------------------	-----

OPERATING THE ENGINE

Before Starting Engine	3-1
Starting Engine.....	3-2
Starting in Ordinary Temperature	3-2
Starting in Cold Weather	3-3
Check Machine After Starting Engine	3-4

CONTENTS

Using Booster Batteries	3-5
Stopping the Engine	3-6

DRIVING THE MACHINE

Travel Levers and Pedals	4-1
Travel Mode Switch	4-3
Traveling on Soft Ground	4-4
Raise One Track Using Boom and Arm	4-4
Towing Machine	4-5
Driving In Water or on Soft Ground	4-6
Precautions for Traveling on Slopes	4-7
Parking and Stopping on Slopes	4-8
Parking on Slopes	4-8

OPERATING THE MACHINE

Control Lever (ISO Excavator Pattern)	5-1
Control Lever (H-Pattern: HITACHI Excavator Pattern)	5-2
Control Lever (SAE-Backhoe Pattern) --- If Equipped (2 Way Multi Valve)	5-3
Boom-Swing Pedal	5-4
Auxiliary Pedal (Optional)	5-5
Blade Lever	5-6
Precautions for Blade Operation	5-7
Pilot Control Shut-Off Lever	5-8
Warming Up Operation	5-9
Warming Up in Cold Weather	5-9
Auto-Idle Control (Except ZX27U-2)	5-10
Operating Backhoe	5-11
Grading Operation	5-12
Avoid Driving Bucket Teeth Into Ground	5-12
Avoid Abusive Operation	5-12
Avoid Striking with Bucket	5-13
Avoid Excavation Using Upperstructure and/or Boom Swing Power	5-13
Use Correct Track Shoe	5-13
Avoid Other than Specified Machine Operations	5-14
Boom Cylinder May Hit Blade	5-15
Avoid Hitting Blade with Bucket	5-16
Avoid Colliding Blade Against Rocks	5-16
Avoid Colliding Boom Cylinder with Track	5-16
Precautions for Installing Wide Bucket or Special Type Bucket	5-16
Using Rubber Crawler	5-17
Hydraulic Breaker (Optional)	5-19
Crusher Operation (Optional)	5-22
Precautions for After Operating the Machine	5-23
Auxiliary Flow Rate Control (Optional) (Except ZX27U-2)	5-24
Emergency Boom Lowering Procedure	5-25

TRANSPORTING

Transporting by Road	6-1
Trailer Loading/Unloading	6-1
Loading	6-2

Securing the Machine to the Trailer for Transportation	6-3
Unloading	6-4
Lifting Machine with Crane	6-5

MAINTENANCE

Procedures	7-1
Prepare Machine for Inspection/Maintenance	7-2
Opening/Closing Engine Access Covers	7-3
Opening/Closing Tank Covers	7-4
Daily Inspection	7-5
Periodic Replacement of Parts	7-6
Maintenance Guide	7-7
The Brand Names of Recommended Oils and Lubricants	7-10
A. Greasing	7-11
Front Joint Pins	7-11
Bucket and Link Pins	7-14
Blade Pins	7-14
Precautions for Front Attachment and Blade Removal	7-14
Swing Bearing	7-15
Swing Internal Gear	7-16
Control Lever Universal Joint	7-16
Tilt Mechanism	7-17
B. Engine	7-18
Engine Oil	7-18
Change Engine Oil	7-18
Replace Engine Oil Filter	7-18
C. Transmission	7-20
Travel Reduction Gear	7-20
D. Hydraulic System	7-22
Inspection and Maintenance of Hydraulic Equipment	7-22
Check Hydraulic Oil Level	7-23
Drain Hydraulic Oil Tank Sump	7-24
Change Hydraulic Oil	7-25
Clean Suction Filter	7-28
Replace Full Flow Filter Element	7-29
Replace Pilot Filter Element	7-30
Check Hoses and Lines	7-32
E. Fuel System	7-37
Check Water Separator	7-38
Drain Fuel Tank Sump	7-38
Replace Fuel Filter	7-39
Check Fuel Hoses	7-40
F. Air Cleaner	7-41
Clean the Air Cleaner Element	7-41
Replace the Air Cleaner Element	7-41
G. Cooling System	7-42
Check Coolant Level	7-43
Check and Adjust Fan Belt Tension	7-44
Change Coolant	7-45
Clean Radiator Core	7-46
H. Electrical System	7-47
Batteries	7-47

CONTENTS

Replacing Fuses.....	7-50
I. Miscellaneous.....	7-51
Check Bucket Teeth for Looseness and/or Wear.....	7-51
Replace Bucket	7-53
Adjust Track Sag (Rubber Crawler) and Check for Damage	7-54
Replace Rubber Crawler	7-56
Check Track Sag (Steel Crawler) (Optional).....	7-58
Check and Replace Seat Belt	7-61
Check Air conditioner (Machine with Cab)	7-62
Clean and Replace Air Conditioner Re-circulation Filter	7-63
Clean Re-circulation Filter	7-63
Replace Re-circulation Filter	7-63
Clean Cab Floor	7-65
Check Injection Nozzle	7-66
Check and Adjust Valve Clearance.....	7-66
Check Injection Timing	7-66
Measure Engine Compression Pressure	7-66
Check Starter and Alternator.....	7-67
Check Radiator Cap	7-67
Check Tightening Torque of Bolts and Nuts	7-68
Check Tilt Mechanism Fulcrum Bolts for Looseness	7-71
Preparation for Inspection and Maintenance.....	7-72
Tilting Floor Down.....	7-74
CONSUMABLE PARTS LIST.....	8-1
MAINTENANCE UNDER SPECIAL ENVIRONMENTAL CONDITIONS.....	9-1
STORAGE	
Storing the Machine.....	10-1
Removing the Machine From Storage.....	10-2
TROUBLESHOOTING	11-1
SPECIFICATIONS	
Specifications.....	12-1
Working Ranges	12-6
Shoe Types and Applications	12-11
Bucket Types and Applications	12-16
REFERENCE	
Additional Counterweight.....	13-1
INDEX.....	14-1

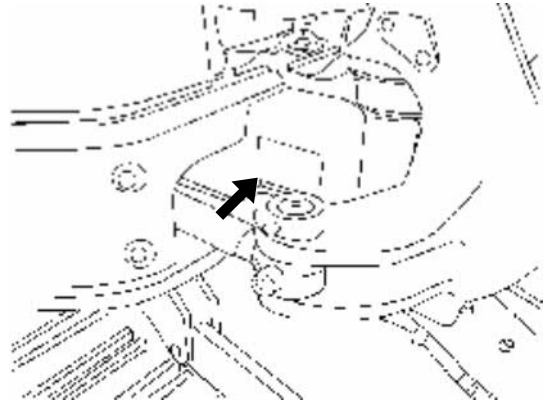
MACHINE NUMBERS

The manufacturing Nos. explained in this group is the individual number (serial No.) given to each machine and hydraulic components. These numbers are requested when inquiring any information on the machine and/or components. Fill these serial Nos. in the blank spaces in this group to immediately make them available upon request.

MACHINE

MODEL/TYPE: _____

PRODUCT IDENTIFICATION NUMBER: _____



M1M7-00-001

PRODUCT IDENTIFICATION NUMBER

PRODUCT IDENTIFICATION NUMBER: _____

NOTE:

HCM1M700X00010001 Marks to indicate the start and end of the PIN

PRODUCT IDENTIFICATION NUMBER (PIN)



M1M7-00-002

SAFETY


RECOGNIZE SAFETY INFORMATION

- These are the **SAFETY ALERT SYMBOLS**.
 - When you see these symbols on your machine or in this manual, be alert to the potential for personal injury.
 - Follow recommended precautions and safe operating practices.



SA-688

UNDERSTAND SIGNAL WORDS

- On machine safety signs, signal words designating the degree or level of hazard - **DANGER**, **WARNING**, or **CAUTION** - are used with the safety alert symbol.
 - **DANGER** indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
 - **WARNING** indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
 - **CAUTION** indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.
 - **DANGER** or **WARNING** safety signs are located near specific hazards. General precautions are listed on **CAUTION** safety signs.
 - Some safety signs don't use any of the designated signal words above after the safety alert symbol are occasionally used on this machine.
- To avoid confusing machine protection with personal safety messages, a signal word **IMPORTANT** indicates a situation which, if not avoided, could result in damage to the machine.
-  **NOTE** indicates an additional explanation for an element of information.

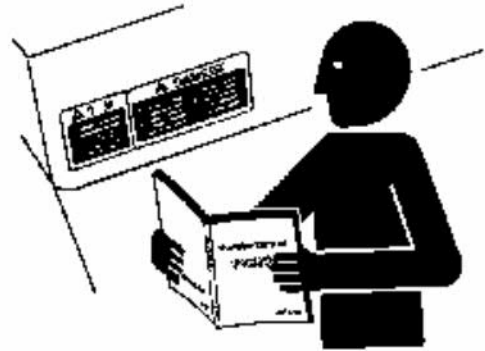


SA-1223

SAFETY

FOLLOW SAFETY INSTRUCTIONS

- Carefully read and follow all safety signs on the machine as well as all safety messages in this manual.
- Safety signs must be installed, maintained and replaced if damaged.
 - If a safety sign or this manual is damaged or missing, order a replacement from your authorized dealer in the same way you order other replacement parts (be sure to state machine model and serial number when ordering).
- Allow only properly trained, qualified, authorized personnel to operate the machine.
- Learn how to correctly operate and service the machine.
- Keep your machine in proper working condition.
- Always operate the machine within the specification.
 - Unauthorized modifications of the machine may impair the functions and/or safety and affect machine life and the warranty will become void.
- The safety messages in this SAFETY chapter are intended to illustrate basic safety procedures of machines. However it is impossible for these safety messages to cover every possible hazardous situation you may encounter. If you have any questions concerning safety, you should first consult your supervisor and/or your authorized dealer before operating or performing maintenance work on the machine.



SA-003

PREPARE FOR EMERGENCIES

- Be prepared if a fire starts or if an accident occurs.
 - Keep a first aid kit and fire extinguisher on hand.
 - Thoroughly read and understand the label attached on the fire extinguisher and use it properly.
 - To ensure that a fire-extinguisher can be always used when necessary, check and service the fire-extinguisher at the recommended intervals as specified in the fire-extinguisher manual.
 - Establish emergency procedure guidelines to cope with any fire or accidents which may occur.
 - Keep emergency numbers for doctors, ambulance service, hospitals, and fire department posted near your telephone.



SA-437

SAFETY

WEAR PROTECTIVE CLOTHING

- Wear close fitting clothing and safety equipment appropriate to the job.

You may need:

- A hard hat
- Safety belt
- Safety shoes
- Safety glasses, goggles, or face shield
- Heavy gloves
- Hearing protection
- Reflective clothing
- Wet weather gear
- Respirator or filter mask.

Be sure to wear the correct equipment and clothing for the job. Do not take any chances.

- Avoid wearing loose clothing, jewelry, or other items that can catch on control levers or other parts of the machine.
- Operating equipment safely requires the full attention of the operator.
- Do not wear radio or music headphones while operating the machine.



SA-438

PROTECT AGAINST NOISE

- Prolonged exposure to loud noise can cause impairment or loss of hearing.
- Wear a suitable hearing protective device such as earmuffs or earplugs to protect against objectionable or uncomfortably loud noises.



SA-434

INSPECT MACHINE

- If any abnormality is found, be sure to repair it immediately before operating the machine.
- In the walk-around inspection, be sure to cover all points described in the “PRE-START INSPECTION” chapter in the operator’s manual.



SA-435

SAFETY

TIDY UP INSIDE OPERATOR'S SPACE

- Always keep inside the cab clean by observing instructions below, to prevent any personal accidents from occurring.
- Remove mud and/or oily material from the shoe soles before entering the operator's space. If pedals are operated without removing mud or oily matter, the foot may slip off the pedal, possibly creating a hazardous situation.
- Do not leave parts and/or tools around the operator's seat.
- Do not keep a transparent water bottle in the cab. The transparent water bottle may concentrate the sun light like a lens, possibly causing a fire.
- Do not wear radio or music headphones and do not use a cell phone while traveling or operating the machine.
- Never allow hazardous materials such as combustible and/or explosive material in the operator's space.
- Do not leave cigarette lighters in the cab. If the temperature in the cab increases, the lighter may explode.

USE HANDHOLDS AND STEPS

- Falling is one of the major causes of personal injury.
 - When you get on and off the machine, always face the machine.
 - Maintain a three-point contact with the steps and handrails.
 - Do not use any controls as handholds.
 - Never jump on or off the machine. Never mount or dismount a moving machine.
 - In case adhered slippery material such as oil, grease, or mud is present on steps, handrails, or platforms, thoroughly remove such material.



SA-439

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