## **Operator's Manual**

# ZAXIS

210LC-5N

Type H15

250LC-5N

Type H18

290LC-5N

Type H18

350LC-5N

Type H18 Type H22 210LC-6N

Type H15

250LC-6N

Type H18

300LC-6N

Type H18

350LC-6N

Type H18 Type H22

### **Super Long Front**

#### Serial No.

ZX210LC-5N 330001 and up, ZX210LC-6N 340001 and up ZX250LC-5N 430001 and up, ZX250LC-6N 440001 and up ZX290LC-5N 830001 and up, ZX300LC-6N 840001 and up ZX350LC-5N 930001 and up, ZX350LC-6N 940001 and up

## NDEX MACHINE NUMBER

#### **CONTENTS**

| MACHINE NUMBER 1                                      | Maintenance Guide Table                                                    |      |
|-------------------------------------------------------|----------------------------------------------------------------------------|------|
| SAFETY S-1                                            | Preparations for Inspection and Maintenance                                |      |
|                                                       | Maintenance Guide                                                          |      |
| Recognize Safety InformationS-1                       | Taria or Oils                                                              |      |
| Understand Signal WordsS-1                            | 7. GILE (511 VG                                                            |      |
| Follow Safety InstructionsS-2                         | 110116 301161 1113                                                         |      |
| Inspect MachineS-3                                    | D. T. T. D. W. O. E. C. S. T. E. W. I. | 6-10 |
| Drive Machine SafelyS-4                               | inspection and maintenance of                                              |      |
| Transport SafelyS-6                                   |                                                                            | 6-10 |
| Avoid Rapid Machine OperationS-7                      |                                                                            | 6-12 |
| Avoid Work Other than SpecifiedS-7                    | C. MISCELLANEOUS                                                           | 6-13 |
| SAFETY SIGNS S-8                                      | Tightening and Retightening Torque of                                      |      |
|                                                       | Nuts and Bolts                                                             | 6-13 |
| COMPONENTS NAME 1-1                                   | SPECIFICATIONS                                                             | 7_1  |
| Components Name1-1                                    |                                                                            |      |
| OPERATOR'S STATION 1-2                                | Specifications                                                             | /-1  |
| Layout1-2                                             | Working hanges ZAZ roce six super cong from                                | 7 2  |
| Basic Screen (ZX-5N)1-3                               | ,                                                                          |      |
| Basic Screen (ZX-5N)1-4                               |                                                                            |      |
|                                                       | C:f::-                                                                     |      |
| OPERATING THE ENGINE 2-1                              | Specifications                                                             | /-5  |
| Inspect Machine Daily Before Starting2-1              | Working Ranges ZX250LC-5N Super Long Front                                 | 7.0  |
|                                                       | Attachment (Type HT8)                                                      |      |
| OPERATING THE MACHINE3-1                              | , i i i                                                                    |      |
| Control Lever (ISO Pattern)3-1                        |                                                                            |      |
| Investigate Job Site Beforehand3-2                    |                                                                            | /-9  |
| Precautions for Operations3-3                         |                                                                            |      |
| Operating Backhoe (Super Long Front Attachment)3-4    |                                                                            |      |
| Avoid operation by traveling force3-5                 |                                                                            |      |
| Do not strike the ground with bucket teeth3-5         |                                                                            |      |
| Avoid Hammer Work3-6                                  | •                                                                          | 7-13 |
| Avoid Digging of Stiff Ground3-6                      |                                                                            |      |
| Avoid Abusive Operation3-7                            |                                                                            | 7-14 |
| Avoid Side Load the Bucket3-7                         |                                                                            |      |
| Avoid one side operation3-8                           |                                                                            |      |
| Avoid using bucket other than specified3-8            | Shoe Types and Applications                                                | 7-16 |
| Do Not Operate Machine on a Rough Ground3-8           |                                                                            |      |
| Power Mode3-9                                         | Specifications                                                             | 7-18 |
| DISASSEMBLING • ASSEMBLING 4-1                        | Working Ranges ZX210LC-6N Super Long Front                                 |      |
|                                                       | Attachment (Type H15)                                                      |      |
| Precautions for Disassembling/Assembling4-1           |                                                                            | 7-20 |
| Preparation for Work4-4                               |                                                                            | 7-21 |
| Precautions for Slinging Work4-5                      |                                                                            | 7-22 |
| Super Long Front Attachment Installation Procedure4-6 |                                                                            |      |
| Super Long Front Attachment Removal Procedure4-17     | Attachment (Type H18)                                                      | 7-23 |
| TRANSPORTATION5-1                                     | Shoe Types and Applications                                                | 7-24 |
| Transporting by Road5-1                               | Bucket Types and Applications                                              | 7-25 |
| Loading/Unloading5-1                                  |                                                                            |      |
| Loading/Unloading on a Trailer5-2                     |                                                                            |      |
| Dimensions and Weight for Transportation (ZX-5N)5-8   |                                                                            | 7-27 |
| Dimensions and Weight for Transportation (ZX-6N)5-10  |                                                                            |      |
| Lifting Machine5-12                                   |                                                                            |      |
| Do Not Hoist Whole Machine5-13                        |                                                                            |      |
|                                                       | Working Ranges ZX350LC-6N Super Long Front                                 |      |
| MAINTENANCE 6-1                                       | Attachment (Type H18)                                                      | 7-31 |
| Correct Maintenance and Inspection Procedures6-1      | Working Ranges ZX350LC-6N Super Long Front                                 |      |
| Check the Hour Meter Regularly6-3                     | Attachment (Type H22)                                                      | 7-32 |
|                                                       | • /1                                                                       |      |

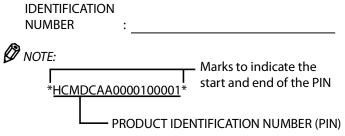
#### **CONTENTS**

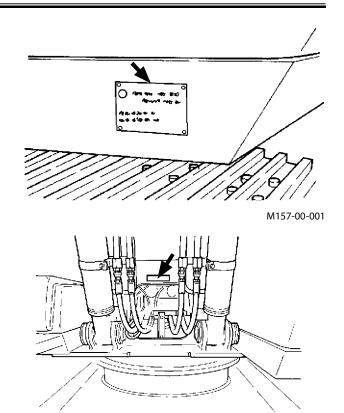
| INDEX                         | 8-1  |
|-------------------------------|------|
| Bucket Types and Applications | 7-34 |
| Shoe Types and Applications   | 7-33 |

#### **MACHINE NUMBER**

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 TYPE : \_\_\_\_\_\_\_ PRODUCT | IDENTIFICATION | NUMBER : \_\_\_\_\_\_ Product Identification Number | PRODUCT





M157-12-008

#### **MACHINE NUMBER**

| МЕМО |
|------|
|      |
|      |
|      |
|      |
|      |
|      |
|      |
|      |
|      |
|      |
|      |
|      |
|      |
|      |
|      |
|      |
|      |
|      |
|      |
|      |
|      |
|      |
|      |
|      |
|      |
|      |
|      |
|      |
|      |
|      |
|      |
|      |

#### **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

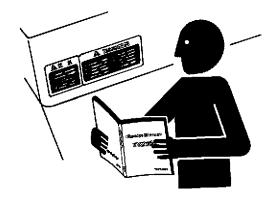
#### **Understand Signal Words**

- 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 do not 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



#### **Follow Safety Instructions**

- Carefully read and follow all safety signs on the machine and all safety messages in this manual.
- Safety signs should be installed, maintained and replaced when necessary.
  - 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)
- Learn how to operate the machine and its controls correctly and safely.
- Allow only trained, qualified, authorized personnel to operate the machine.
- Keep your machine in proper working condition.
  - Unauthorized modifications of the machine may impair its function and/or safety and affect machine life.
  - Do not modify any machine parts without authorization.
     Failure to do so may deteriorate the part safety, function, and/or service life. In addition, personal accident, machine trouble, and/or damage to material caused by unauthorized modifications will void Hitachi Warranty Policy.
  - Never attempt to modify or disassemble the inlet/exhaust parts and the muffler filter. Avoid giving shocks on the muffler filter by striking elements with other objects or dropping the elements. Failure to do so may affect the exhaust gas purifying device, possibly damaging it or lowering its performance.
  - Do not use attachments and/or optional parts or equipment not authorized by Hitachi. Failure to do so may deteriorate the safety, function, and/or service life of the machine. In addition, personal accident, machine trouble, and/or damage to material caused by using unauthorized attachments and/or optional parts or equipment will void Hitachi Warranty Policy.
- 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 hazardous situation you may encounter. If you have any questions, you should first consult your supervisor and/ or your authorized dealer before operating or performing maintenance work on the machine.



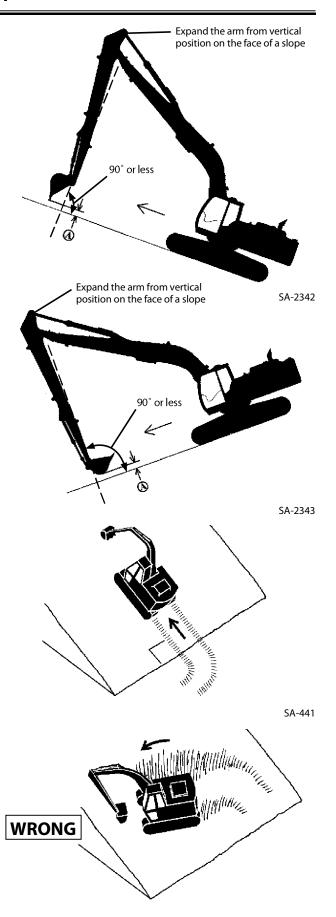
#### **Inspect Machine**

- Inspect your machine carefully each day or shift by walking around it before you start it to avoid personal injury.
  - In the walk-around inspection be sure to cover all points described in the "Inspect Machine Daily Before Starting" section in the operator's manual.



#### **Drive Machine Safely**

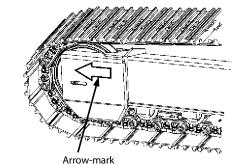
- Before driving the machine, always confirm that the travel levers/pedals direction corresponds to the direction you wish to drive.
- Be sure to detour around any obstructions.
- Avoid traveling over obstructions. Soil, fragments of rocks, and/or metal pieces may scatter around the machine. Do not allow personnel to stay around the machine while traveling.
- Driving on a slope may cause the machine to slip or overturn, possibly resulting in serious injury or death.
- Never attempt to ascend or descend 35 degrees or steeper slopes.
- Be sure to fasten the seat belt.
- When driving up or down a slope, keep the bucket facing the direction of travel, approximately 0.2 to 0.3 m (A) above the ground. Expand the arm from vertical position on the face of a slope.
- If the machine starts to skid or becomes unstable, immediately lower the bucket to the ground and stop.
- Forbid swinging on a slope. Or it may cause the machine to skid or turnover. If the direction must be changed, move the machine to level ground, then, change the direction to ensure safe operation.
  - If the engine stalls on a slope, return each lever to neutral first. Then, start the engine.
  - If the temperature of hydraulic oil is cool, the grade ability of the machine may be reduced. Before ascending steep slopes, thoroughly warm up the machine.



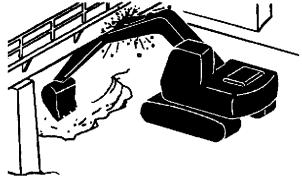
- Avoid swinging the upperstructure on slopes. Never attempt to swing the upperstructure downhill. The machine may tip over. If swinging uphill is unavoidable, carefully operate the upperstructure and boom at slow speed.
- If the engine stalls on a slope, immediately lower the bucket to the ground. Return the control levers to neutral. Then, restart the engine.
- Be sure to thoroughly warm up the machine before ascending steep slopes. If hydraulic oil has not warmed up sufficiently, sufficient performance may not be obtained.
- Use a signal person when moving, swinging or operating the machine in congested areas. Coordinate hand signals before starting the machine.
- Before moving machine, determine which way to move travel pedals/levers for the direction you want to go.
   When the travel motors are in the rear, pushing down on the front of the travel pedals or pushing the levers forward moves the machine forward, towards the idlers.
   An arrow-mark seal is stuck on the inside surface of the side frame to indicate the machine front direction.
- Select a travel route that is as flat as possible. Steer the machine as straight as possible, making small gradual changes in direction.
- Before traveling on them, check the strengths of bridges and road shoulders, and reinforce if necessary.
- Use wood plates in order not to damage the road surface.
   Be careful of steering when operating on asphalt roads in summer.
- When crossing train tracks, use wood plates in order not to damage them.
- Do not make contact with electric wires or bridges.
- When crossing a river, measure the depth of the river using the bucket, and cross slowly. Do not cross the river when the depth of the river is deeper than the upper edge of the upper roller.
- When traveling on rough terrain, reduce engine speed.
   Select slow travel speed. Slower speed will reduce possible damage to the machine.
- Avoid operations that may damage the track and undercarriage components.
- During freezing weather, always clean snow and ice from track shoes before loading and unloading machine, to prevent the machine from slipping.



M104-05-008



M178-03-001



Thank you so much for reading. Please click the "Buy Now!" button below to download the complete manual.



After you pay.

You can download the most perfect and complete manual in the world immediately.

Our support email: ebooklibonline@outlook.com