

Solar 400LC-V

Operation and Maintenance Manual

2022-7168E

Serial Number 0001 and Up

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Daewoo reserves the right to improve our products in a continuing process to provide the best possible product to the market place. These improvements can be implemented at any time with no obligation to change materials on previously sold products. It is recommended that consumers periodically contact their distributors for recent documentation on purchased equipment.

This documentation may include attachments and optional equipment that is not available in your machine's package. Please call your distributor for additional items that you may require.

Illustrations used throughout this manual are used only as a representation of the actual piece of equipment, and may vary from the actual item.

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TO THE OPERATOR OF A DAEWOO EXCAVATOR



Unsafe use of the excavator could lead to serious injury or death. Operating procedures, maintenance and equipment practices or traveling or shipping methods that do not follow the safety guidelines on the following pages could cause serious, potentially fatal injuries or extensive damage to the machine or nearby property.

Please respect the importance of taking responsibility for your own safety, and that of other people who may be affected by your actions.

The safety information on the following pages is organized into the following sections:

1. "General Safety Essentials" on page 1-3
2. "Location of Safety Labels" on page 1-4
3. "Summary of Safety Precautions for Lifting in Digging Mode" on page 1-10
4. "Work-site Precautions" on page 1-11
5. "Operation" on page 1-13
6. "Equipment" on page 1-18
7. "Maintenance" on page 1-22
8. "Shipping and Transportation" on page 1-25
9. "Excavator Rated Lift Capacity Tables" on page 1-26



Be Prepared - Get To Know All Operating and Safety Instructions.

This is the Safety Alert Symbol. Wherever it appears in this manual or on safety signs on the machine you should be alert to the potential for personal injury or accidents. Always observe safety precautions and follow recommended procedures.

LEARN THE SIGNAL WORDS USED WITH THE SAFETY ALERT SYMBOL

The words "**CAUTION**", "**WARNING**", and "**DANGER**" used throughout this manual and on decals on the machine indicate degree of risk of hazards or unsafe practices. All three degrees of risk indicate that safety is involved. Observe precautions indicated whenever you see the Safety Alert "Triangle," no matter which signal word appears next to the "Exclamation Point" symbol.



CAUTION!

Indicates potential of a hazardous situation that, if not avoided, could result in minor or moderate injury. It may also be used to alert against a generally unsafe practice.



WARNING!

Indicates potential of a hazardous situation that, if not avoided, could result in serious injury or death. It may also be used to alert against a highly unsafe practice.



DANGER!

Indicates imminent hazard of a situation that, if not avoided, is very likely to cause death or extremely serious injury. It may also be used to alert against equipment that may explode or detonate if handled or treated carelessly.

GENERAL SAFETY ESSENTIALS

ACCESSORY APPLICATIONS

The excavator has been primarily designed for moving earth with a bucket. For use as a grapple or for other object handling, contact Daewoo for proper installation and application. Lifting-work applications (unless restricted or prohibited by local regulations) are permitted in approved lift configuration, to rated capacity only, with no side-loading. DO NOT use the machine for activities for which it was not intended. DO NOT use the bucket for lifting work, unless lift slings are used in the approved configuration.

Use of an accessory hydraulic hammer (breaker), work in rough terrain, demolition applications or other hazardous operation may require installation of additional protective structures to safeguard the operator.

LIFTING CAPACITY RATING CONFIGURATION

Lifting capacity ratings that are printed at the end of this safety section are based on the machine being level, on a firm supporting surface, with hooks and slings attached in approved configuration. Loads must be balanced and supported evenly. Use taglines to keep the load steady if wind conditions and large surface area are a problem. Work crew hand signals, individual tasks and safe procedures should all be universally understood before the lift is made.

IMPORTANT

Before using the excavator to make lifts check municipal and regional regulations or statutes that could apply. Governing ordinances may require that all heavy lifting be done with single purpose equipment specifically designed for making lifts, or other local restrictions may apply. Making heavy lifts with a general purpose excavator that can be used for digging, loading, grading or other work may be expressly forbidden by a regional injunction or other legal prohibition. Always follow all of the other instructions, guidelines and restrictions for Safe Lifting in the Operation and Maintenance and Shop Manuals.

LOCATION OF SAFETY LABELS

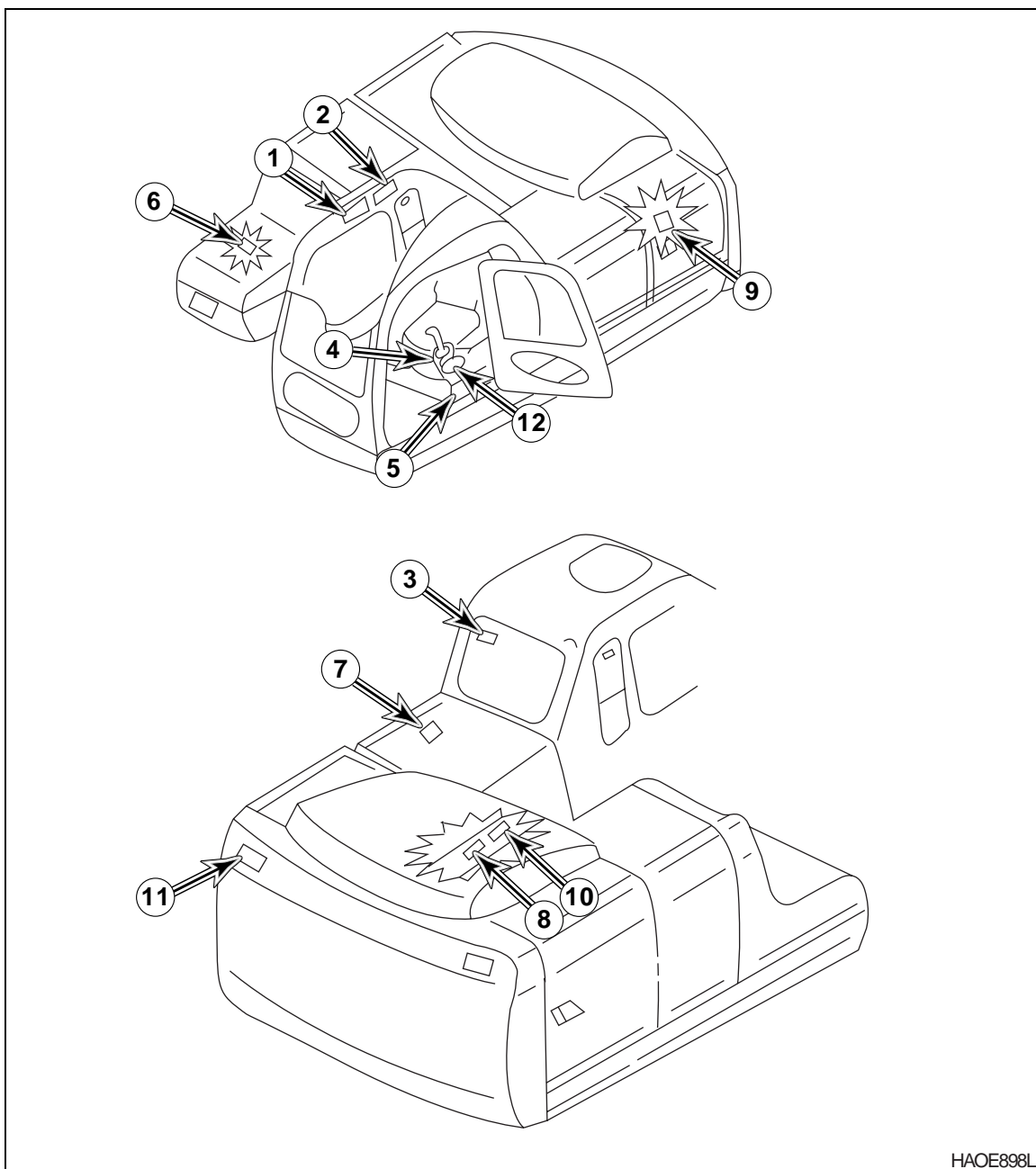


Figure 1

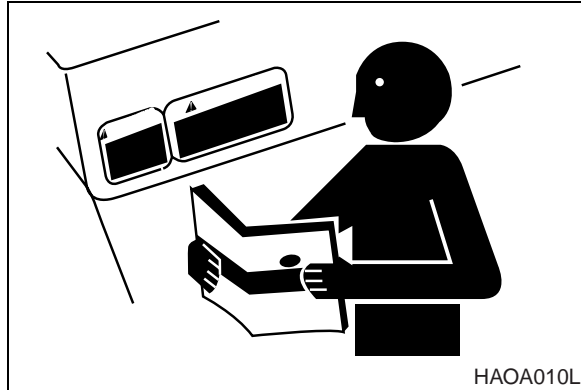
Always keep these labels clean. If they are lost or damaged, replace them with a new label. It is the responsibility of the equipment owner and crew to provide essential safety information in the immediate vicinity of hazards.

Safety labels may be available in languages other than English, or labels providing a warning for other hazards than those that follow may be available. Contact your Daewoo distributor to find out what labels are available.

1. WARNING FOR OPERATION, INSPECTION MAINTENANCE (2190 - 3312)

CAUTION!

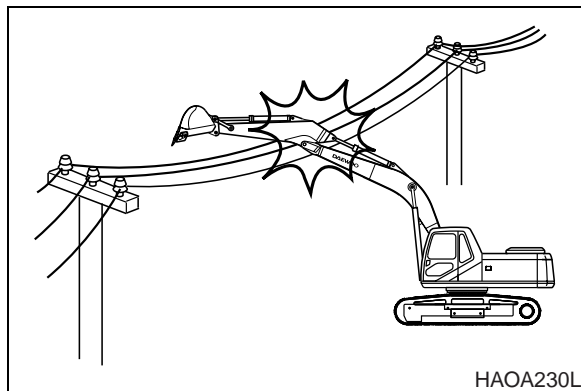
- Read manual and labels before operation and maintenance. Follow instructions and warnings in manual and on labels on the machine.
- Never get in under the machine while it is being jacked up with boom and arm.
- Turn Auto-Idle switch OFF, when loading or unloading the machine.
- Sound the horn to alert the people nearby before operating, and make sure all persons are clear of area.
- Always make sure when leaving operator's seat to:
 - Lower bucket or other working tools to the ground.
 - Pull SAFETY LOCK LEVER to LOCK position.
 - Turn key switch OFF. Remove key from switch.



2. WARNINGS FOR HIGH VOLTAGE (2190 - 2532)

DANGER!

Serious injury or death can occur if machine or attachments contact with electric lines. Never move any part of unit or load closer to electric lines than 3 m (10') plus twice the line insulator length.



3. WARNING WHEN OPENING FRONT WINDOW (2190 - 3388).



WARNING!

When raising window, lock it in place with lock pins on both sides.
Falling window can cause injury.

4. CAUTION FOR SAFETY LEVER LOCKING (2190 - 3383).



CAUTION!

When putting down the side control stand, use the safety lever surely.

5. WARNING WHEN ADJUSTING TRACK TENSION (2190 - 3386).



WARNING!

The track adjuster adjustment and handling:

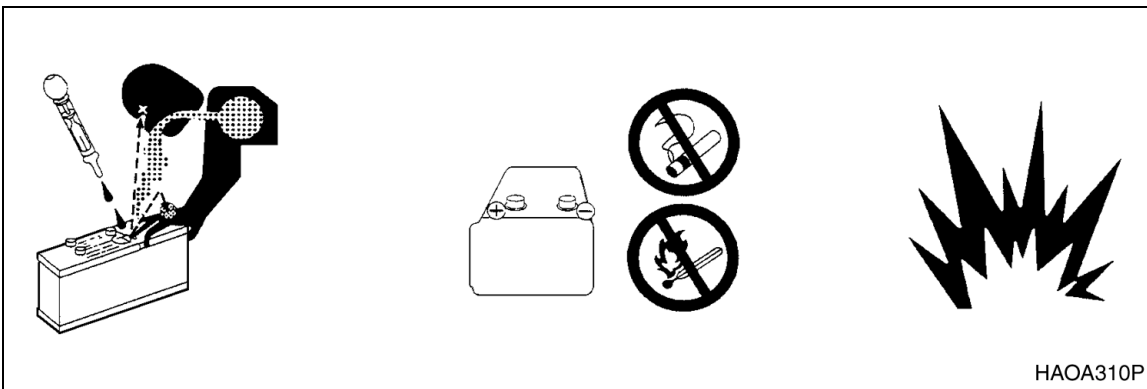
- The spring in the track adjuster is loaded with great force and the pressure in the cylinder is very high. For this reason there is a possibility of accident which may involve injury to personnel. It is very dangerous to make mistakes in handling such an adjustment or disassembly.
- Be sure to read the procedures described in the Operation and Maintenance Manual carefully before adjusting the track tension.

6. WARNING FOR BATTERIES MAINTENANCE (2190 - 2533).



WARNING!

- Battery fumes can explode. Keep sparks and flames away from batteries.
- Always avoid storing metals like tools or inflammable materials around or on the batteries. Explosion or fire can be caused by short circuiting batteries.
- Sulfuric acid in battery is poisonous. It is strong enough to burn skin, eat holes in clothing, and cause blindness if splashed in eyes.
- If you spill acid on yourself:
 1. Flush your skin with water.
 2. Apply baking soda or lime to help neutralize the acid.
 3. Flush your eyes with water for 10-15 minutes.Get medical attention immediately.



7. WARNING FOR HIGH TEMPERATURE HYDRAULIC OIL (2190 - 3318)



WARNING!

To prevent hot oil from spurting out:

- Turn engine off.
- After oil to cooled.
- Push button on the breather to relieve pressure before removing cover.

8. WARNING FOR HIGH TEMPERATURE COOLANT (2190 - 3395)



WARNING!

To prevent hot water from spurting out:

- Turn engine off.
- Allow water to cool.
- Slowly loosen cap to relieve pressure before removing.

9. WARNING FOR HANDLING ACCUMULATOR (2190 - 2528)



WARNING!

Explosion hazard

- Keep away from flame.
- Do not weld or drill.



ACCUMULATOR

The pilot control system is equipped with an accumulator. The accumulator will store a pressure charge that may enable the hydraulic controls to be activated for a brief period of time after the engine has been shut down. Activation of any of the controls may enable the selected function to operate under the force of gravity.

When shutting the machine down, lower the front attachment to the ground. After the engine has been shut down, move the joystick controls to release the pressure in the accumulator.



WARNING!

Any raised attachment will lower to the ground if the accumulator holds a charge.



WARNING!

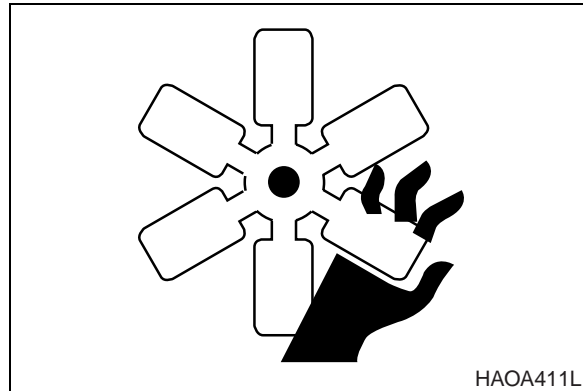
Refer to the Shop Manual for service procedures. Do not release any of the pilot lines until the pressure within the accumulator has been released.

10. WARNING FOR ENGINE FAN (2190 - 3315)

 **WARNING!**

Keep your hands away from the fan during operation.

Entanglement in the fan can cause serious injury.



11. KEEP OUT OF THE SWING AREA (2190 - 3379).

 **DANGER!**

KEEP OUT OF SWING AREA

12. WARNING TAG - USED WHEN INSPECTING HYDRAULIC SYSTEM (2190 - 2549).



Figure 2

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ebooklibonline@outlook.com