



2254 LOADER REPAIR MANUAL

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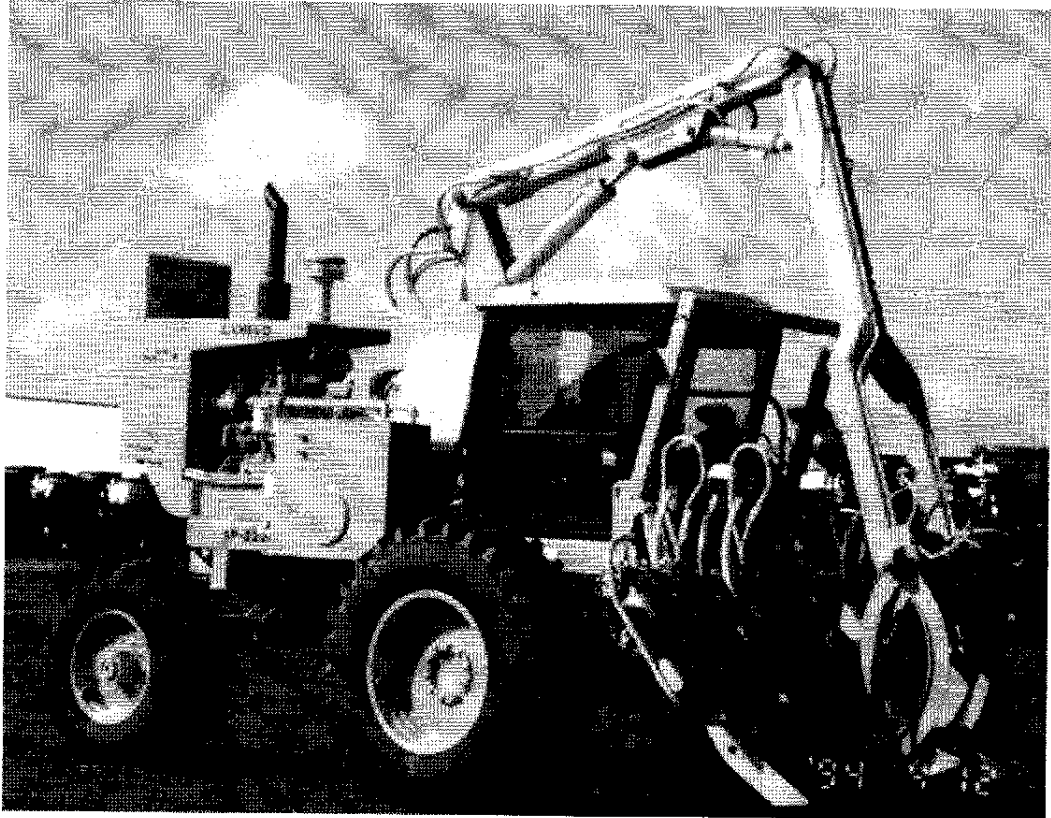
SP2254 LOADER REPAIR MANUAL



CAMECO®

SP2254 CANE LOADER

REPAIR MANUAL



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

Measurements in this manual are given in both customary U.S. units and metric equivalents. Use only correct replacement parts and fasteners. Inch and metric fasteners may require a specific inch or metric wrench or socket.

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

**Thanks very much for your reading,
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manual**

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SECTION 1

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SAFETY RECOMMENDATIONS



Safety and You

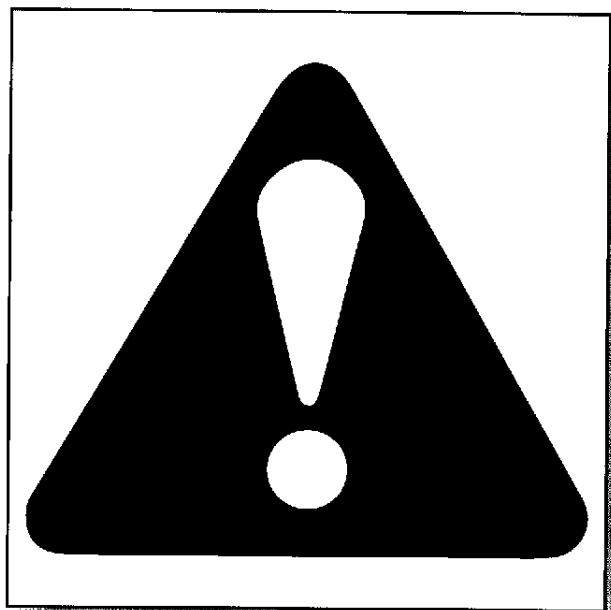
We at CAMECO are very concerned for your safety when you are operating or servicing your loader. With this in mind, the following section should be read and studied by you. Hopefully you will take every precaution seriously and use good “old-fashioned” common sense before attempting to use or service your loader.

Of course, CAMECO cannot anticipate every possible circumstance that might involve a potential hazard. The warnings that we provide are, therefore, not all-inclusive. If a procedure, tool, or work method not specifically recommended by CAMECO is used, you must satisfy yourself that it is safe for you and others and also that the machine will not be damaged or made unsafe by the procedures that you choose.

Operation Safety

The following is a list of safe operation procedures that you should practice at all times:

1. Be sure to read the operation manual and all safety precautions before starting the loader.
2. Dress for the job. Any loose clothing, jewelry (especially rings), belts, or scarves will present a definite safety hazard.
3. When either stopping or starting the machine, make sure the area is clear of personnel.
4. Before leaving the machine unattended, lower all implements to the lowest position.
5. **DO NOT** allow riders or any passenger on the machine when it is in operation.
6. Keep a fully charged fire extinguisher on or near the operator's station. It must be easily accessible when needed. Know how to operate it.
7. Keep a fully stocked first aid kit on the operator's station. Know basic first aid.
8. Keep the operation area free of all loose objects such as tools, lunch kits, soft drink cans, etc.
9. Never allow an open flame within 3.05 M (10 feet) of the loader.
10. Be sure that all shields, guards, and safety equipment are in their proper place and in good condition.
11. The above symbol identifies all important safety messages on your equipment. When you see this symbol, be alert to the possibility of personal injury. Carefully read any message following this symbol.
12. Use step and grab handles when mounting or dismounting the equipment. Clean all mud or debris from steps, walkways, and work areas. Always face the equipment when using its steps or ladder.
13. Maintain your CAMECO equipment as if your life depends on it—it does. Improper lubrication and maintenance can be dangerous and could result in injury or death.



SAFETY RECOMMENDATIONS



Service Safety

When a service person or mechanic is unfamiliar with all systems on this equipment, extra caution should be used when performing service work. A good working knowledge of the system and its components is important for removal or disassembly. The following is a list of basic precautions that should always be observed.

1. Make sure that you read and understand all warning plates and decals before lubricating or performing other maintenance.
2. Always wear protective glasses and footwear when working. In particular, wear safety glasses when pounding on any part of the machine or attachments with a hammer. Use protective clothing when welding. *Do not* wear any loose fitting or torn clothing. Remove all rings from fingers before working on equipment.
3. Before starting work on the machine, disconnect battery and hang a **DO NOT OPERATE** sign in the operator's station.
4. If at all possible, make all repairs with the machine parked on level ground. Block the machine so it cannot roll. **DO NOT** work on any machine that is supported only by lift jacks or a hoist.
5. Relieve all pressure in air, oil, or water systems before any lines, fittings, or related parts are disconnected or removed. Always make sure that all raised components and implements are correctly blocked. Be alert for possible pressure when disconnecting any device from a system that utilizes pressure.
6. Lower all implements to the ground before performing any work on the machine. If this cannot be done, make sure the implement is properly blocked to prevent it from dropping unexpectedly.
7. To avoid back injuries, use a hoist when lifting components that weigh over 23 kgs (50 lbs). When using a hoist, make sure all hooks are correctly positioned.
8. To avoid burns, be alert for hot parts located on the machine after it has stopped. Be particularly careful of hot fluids in lines, tubes, and components.
9. Be careful when removing cover plates. Gradually loosen the last two bolts or nuts located at the opposite ends of the cover or device. Carefully pry the cover loose to relieve any spring or other tension before removing it completely.
10. Be careful when removing filler caps, breathers, or plugs on the machine. Hold a rag over the cap or plug to prevent being sprayed or splashed by fluids under pressure.
11. Always use tools that are in good condition. Before performing any service, make sure you know how to use the proper tools.
12. Replace all fasteners with the same SAE or metric grade. Never substitute a softer part where a hardened part is used, conversely never substitute a harder part where a softer part is used.
13. Take precautions to prevent damage to wiring during removal. After re-installing the wiring, double check to make sure it is not damaged during removal or installation. Ensure that the wiring does not touch any hot, sharp, or moving parts after it is installed.
14. Ensure that all protective devices and guards are properly installed and are functioning correctly before starting any repairs. If a guard or shield must be removed to perform repair work, use extra caution while working.
15. Escaping fluid under pressure can have sufficient force to penetrate the skin. Therefore, before disconnecting any lines, be sure all pressure in the system is relieved. Before applying pressure, make sure all lines, fittings, and connections are tight and undamaged.
16. If you are injured by escaping fluid under pressure, see a doctor at once. A serious infection or reaction may result if proper medical attention is not received immediately.

▲ CAUTION ▲

Liquid escaping from a very small hole can be almost invisible. Use wood or cardboard, instead of your hand, when searching for suspected leaks.



17. Avoid working on equipment with the engine running. If it is absolutely necessary to make checks with the engine running, always use two men: one to operate the controls and the other to work where the operator can see him. The transmission must be in neutral, the braking system set, and all pertinent safety locks set.

Safety in Your Service Area

To maintain proper safety procedure in the service area, the following should be observed:

1. Keep the service area clean and dry. Wet or oily floors are slippery and wet spots can be dangerous when working with electrical equipment.
2. Make sure the service area is adequately ventilated. Periodically check the shop exhaust system for leakage.
3. Be sure that all electrical outlets and tools are properly grounded.
4. Use adequate lighting for the job.
5. Be prepared if an accident or fire should occur. Know where the first aid kit and fire extinguishers are located. Know how to use both of them.

SAFETY RECOMMENDATIONS



Safety when Cleaning or Storing

The following practices should be observed whenever you clean or store your equipment:

▲ CAUTION ▲
Engine exhaust gas is dangerous.

1. Always stop the engine before cleaning the equipment.
2. Keep the operator's station clean. *Do Not* use it for a storage area.
3. Avoid a possible fire hazard. Keep the radiator and engine closure screens free of foreign material.
4. Keep all equipment free of dirt and oil. In bad weather beware of snow, ice, and mud on ladders, steps, and in the operator's station.
5. When preparing the engine for storage, remember that inhibitors are volatile and therefore, dangerous. Seal and tape openings after adding the inhibitor. Keep the inhibitor container tightly closed when not in use.

Safety Nevers

The following is a list of practices that you should *Never* use:

1. *Never* smoke while refueling or handling flammable materials.
2. *Never* refuel the engine while it is running. Use care during refueling when the engine is hot.
3. *Never* use open pans of gasoline or diesel fuel for cleaning parts. A good commercial, nonflammable solvent is preferred.
4. *Never* check the charging battery by placing metal objects across the posts. Provide adequate ventilation when charging batteries.
5. *Never* allow sparks or flames near the batteries. This includes smoking near the batteries.
6. *Never* check fuel, battery electrolyte, or coolant levels with an open flame nearby.
7. *Never* use an open flame to look for leaks anywhere on the equipment.
8. *Never* use an open flame as a light anywhere on or near the equipment.
9. *Never* adjust the fuel system while the machine is in motion.



Recognize Safety Information

This is the safety-alert symbol. When you see this symbol on your machine or in this manual, be alert to the potential for personal injury.

Follow recommended precautions and safe operating practices.



Understand Signal Words

A signal word—*DANGER*, *WARNING*, or *CAUTION*—is used with the safety-alert symbol. *DANGER* identifies the most serious hazards.

Safety signs with signal word *DANGER* or *WARNING* are typically near specific hazards.

General precautions are listed on *CAUTION* safety signs. *CAUTION* also calls attention to safety messages in this manual.



SAFETY RECOMMENDATIONS

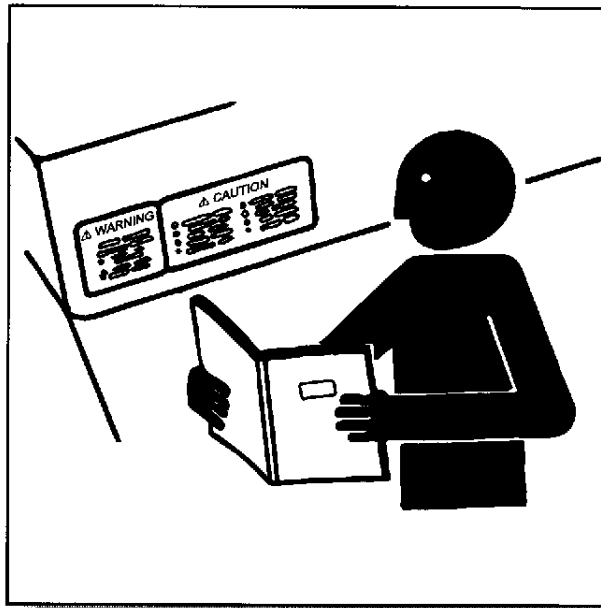


Follow Safety Instructions

Carefully read all safety messages in this manual and on your equipment safety signs. Keep safety signs in good condition. Replace missing or damaged safety signs.

Learn how to operate the machine and how to use controls properly. Do not let anyone operate it without proper instruction.

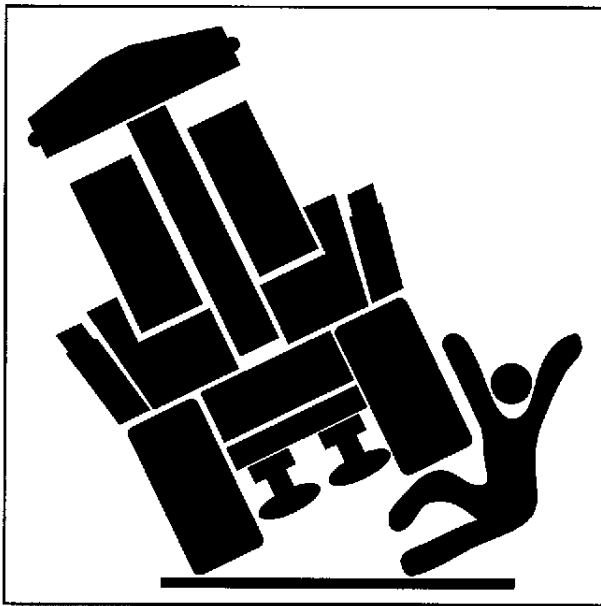
Keep your equipment in proper working condition. Unauthorized modifications to the machine may impair the function and/or safety and affect machine life.



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Protect Bystanders

Be sure everyone is clear of the equipment before starting the engine or moving the steering wheel.



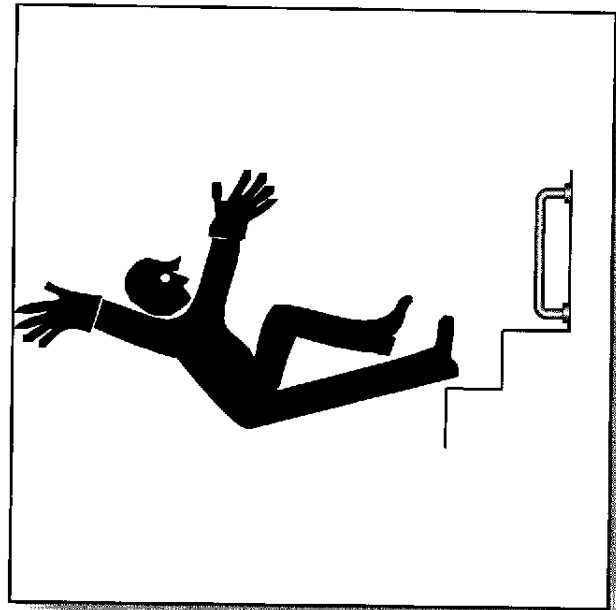
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SAFETY RECOMMENDATIONS



Use Handles and Steps

Clean off mud, grease, and any crop residue that may have accumulated on the steps and operator's platform of your equipment. Remember that chains and tools carried on the platform may interfere with pedal operation or cause a fall from the equipment. Remove them.



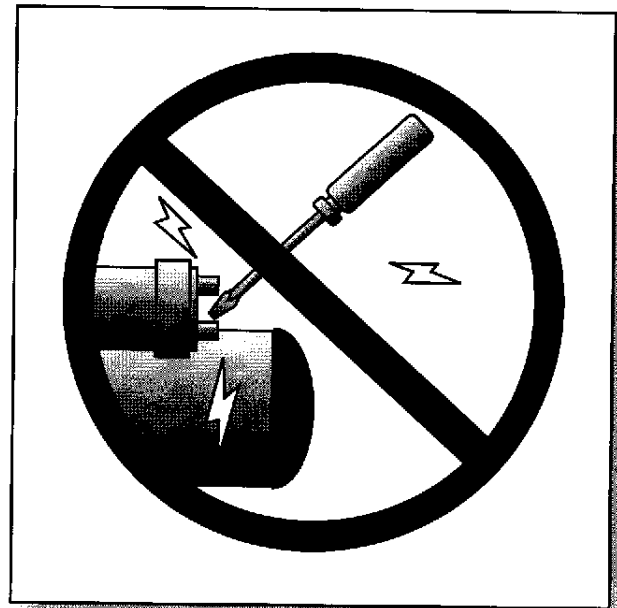
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Prevent Machine Runaway

Avoid possible injury or death from machine runaway.

DO NOT start engine by shorting across starter terminals. Machine will start in gear if normal circuitry is bypassed.

Start engine only from operator's seat, with transmission in neutral or park.



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