

# CX800

# TIER III

# CRAWLER EXCAVATOR

## OPERATOR'S MANUAL

Part Number: 87538934

### CASE TECHNICAL MANUALS

Manuals are available from your Dealer for the operation, service, and repair of your machine. For prompt convenient service, contact your Dealer for assistance in obtaining the manuals for your machine.

Your Dealer can expedite your order for Operator's Manuals, Parts Catalogs, Service Manuals, and Maintenance records.

Always give the Machine Name, Model, and P.I.N. (Product Identification Number) or S.N. (Serial Number) of your machine so your Dealer can provide the correct manuals for your machine.

**NOTE:** *Case Corporation reserves the right to make improvements in design or changes in specifications at any time without incurring any obligation to install them on units previously sold.*






*THIS SAFETY ALERT SYMBOL INDICATES IMPORTANT SAFETY MESSAGES IN THIS MANUAL. WHEN YOU SEE THIS SYMBOL, CAREFULLY READ THE MESSAGE THAT FOLLOWS AND BE ALERT TO THE POSSIBILITY OF DEATH OR SERIOUS INJURY*

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Safety Decals on this machine use the words **Danger, Warning, or Caution**, which are defined as follows:

- **DANGER:** Indicates an immediate hazardous situation that, if not avoided, will result in death or serious injury. The color associated with Danger is RED.
- **WARNING:** Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury. The color associated with Warning is ORANGE.
- **CAUTION:** Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices. The color associated with Caution is YELLOW.

If Safety Decals on this machine are ISO two panel Pictorial, decals are defined as follows:

- The first panel indicates the nature of the hazard.
- The second panel indicates the appropriate avoidance of the hazard.
- Background color is YELLOW
- Prohibition symbols such as   and  if used, are RED.



# WARNING

IMPROPER OPERATION OF THIS MACHINE CAN CAUSE DEATH OR SERIOUS INJURY.  
BEFORE USING THIS MACHINE, MAKE CERTAIN THAT EVERY OPERATOR:

- Is instructed in safe and proper use of the machine.
- Reads and understands the Manual(s) pertaining to the machine.
- Reads and understands ALL Safety Decals on the machine.
- Clears the area of other persons.
- Learns and practices safe use of machine controls in a safe, clear area before operating this machine on a job site.

It is your responsibility to observe pertinent laws and regulations and follow Case Corporation instructions on machine operation and maintenance.

WARNING\_01\_NA

## CALIFORNIA

### PROPOSITION 65 WARNING

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.

Battery post, terminals and related accessories contain lead and lead compounds.  
Wash hands after handling.



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# Chapter 1

## GENERAL INFORMATION

### TO THE OWNER



BD06E025

Figure 1

Your machine has been designed and built to the highest standards of quality. It conforms to all current safety regulations. However, the risk of accidents can never be completely excluded. That is why it is essential to observe elementary safety rules and precautions.

Read this manual carefully, paying particular attention to the instructions concerning safety, operation and maintenance so as to avoid the risk of injury while operating or servicing the machine.

Use this manual as a guide. Your machine will remain a reliable working tool provided it is kept in good working condition and serviced properly.

The standard attachments and equipment available for use with this machine are intended for general earth moving purposes, material handling, etc. If the machine is to be used for handling loads, (tubing, concrete pipe sections, shoring material, etc.), make sure the machine is suitably equipped for this type of work.

Do not use this machine for any application or purpose other than those described in this manual. If the machine is to be used for work involving the use of special attachments, accessories or equipment, consult your CASE Dealer in order to make sure that any adaptations or modifications made are in keeping with the machine's technical specifications and with prevailing safety requirements. Strictly adhere to all legal requirements.

Any modification or adaptation which is not approved by the manufacturer may invalidate the machine's initial conformity with safety requirements and warranty.

The machine must undergo regular inspections, the frequency of which varies according to the type of use. Consult your CASE Dealer.

Before permitting a new operator on this machine, make sure:

- That the operator has received the necessary training on how to operate the machine correctly and safely.
- That the operator has read and understands the instructions given in this manual.

Always keep this manual in the operator's compartment (in the seat back, behind the operator's seat). Make sure it is always complete and in good condition. If you wish to obtain additional manuals, or manuals in another language, consult your CASE Dealer.

Your CASE Dealer is at your disposal for any further information. He will also provide any after-sales service you may require and genuine CASE spare parts, your guarantee of quality and match.

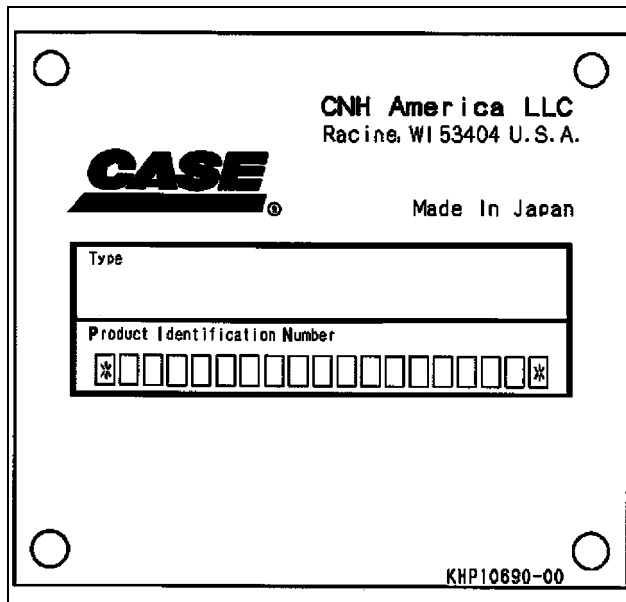
### IDENTIFICATION NUMBERS

Write your machine model number, Product Identification Number (P.I.N.) and serial numbers on the lines provided below. If needed, give these numbers to your dealer when you need parts or information for your machine.

Make a record of the numbers. Keep the record and your Manufacturer's Statement of Origin in a safe place. If the machine is stolen, report the numbers to your local law enforcement agency.

**NOTE:** *The identification plate on your machine may differ slightly in appearance, but plate location is the same.*

Machine	
➤	_____
	Machine Model and Type
➤	_____
	Product Identification Number: P.I.N.
➤	_____
	Year of Build
Component Serial Numbers	
➤	_____
	Engine serial number
➤	_____
	Transmission and serial number
➤	_____
	Attachment serial number
➤	_____



BS06D307

Figure 3

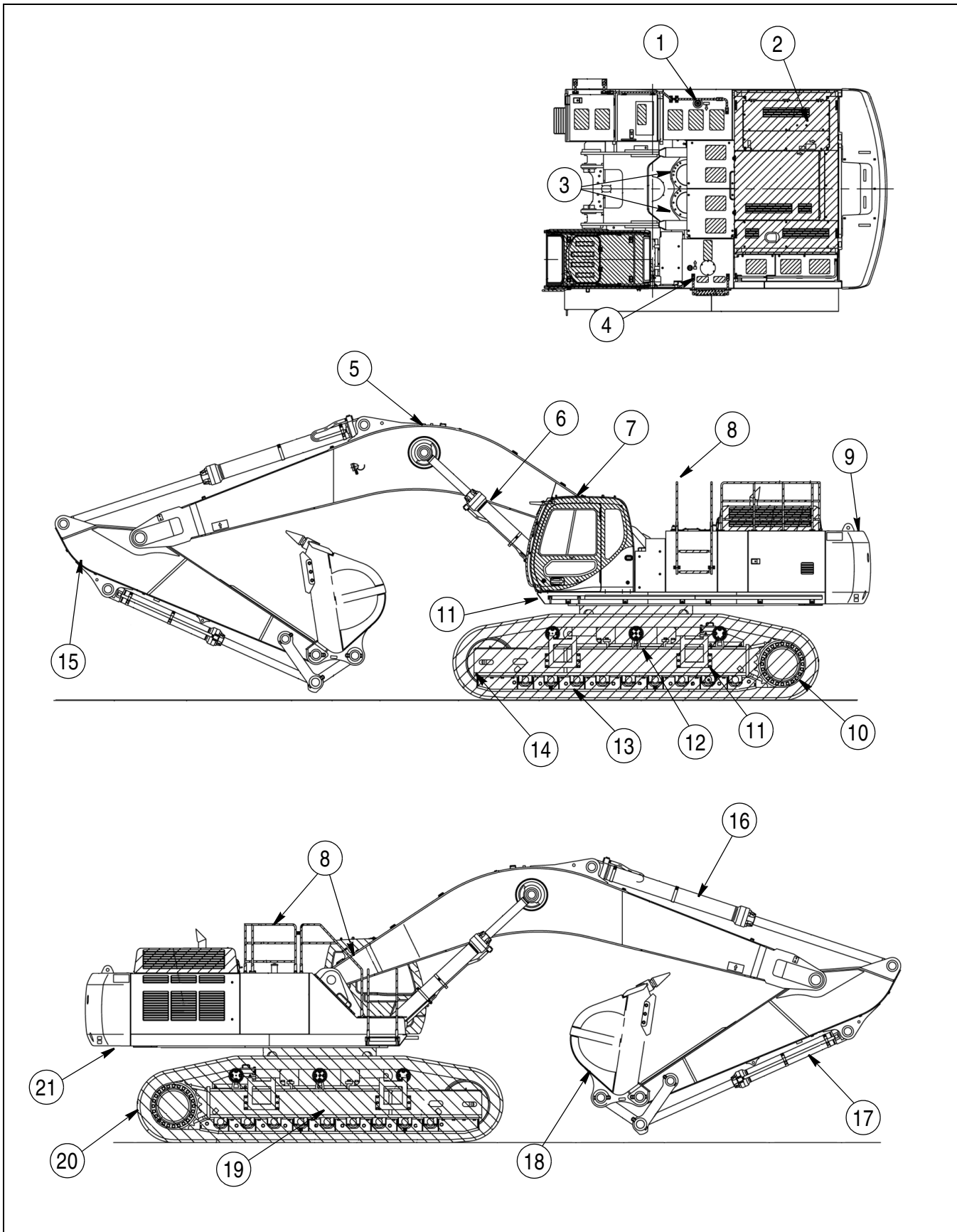


CP98N006

Figure 2

#### PRODUCT IDENTIFICATION NUMBER (P.I.N.) LOCATION

MACHINE COMPONENTS



CS01B541

Figure 4



The **CX800** is an all hydraulic machine. It consists of an undercarriage fitted with tracks and a turntable bearing which supports the upper structure frame. The upper structure frame supports the attachment, the engine, the hydraulics and cab. When the operator works the controls, the engine-driven variable flow pump delivers hydraulic fluid under pressure to the control valves. The control valves distribute the hydraulic fluid to the various cylinders and hydraulic motors employed. A cooling system and oil cooler keep the fluid temperature at normal working temperature.

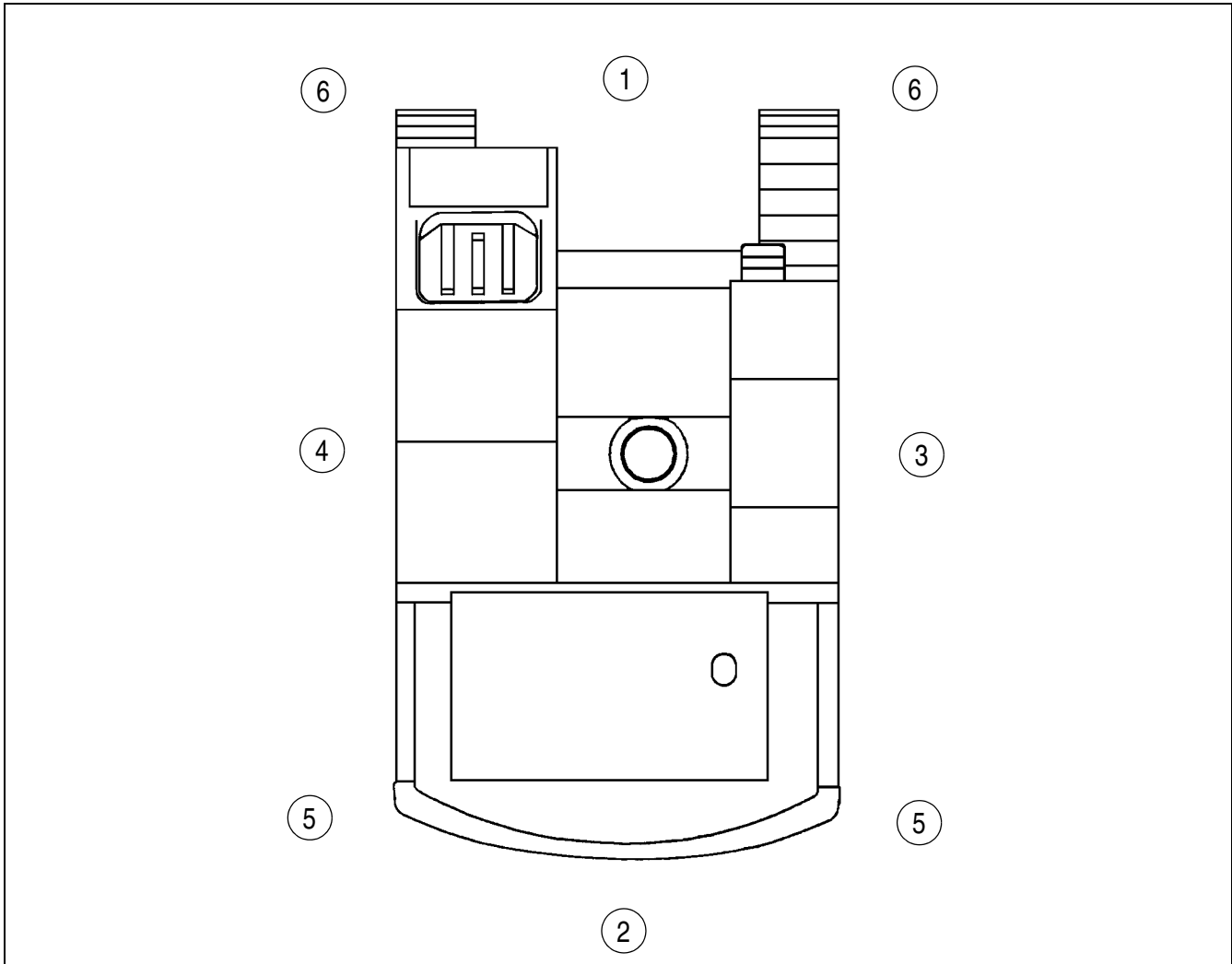
**Key to main components**

1. Fuel Tank
2. Engine compartment
3. Swing reduction units
4. Hydraulic reservoir
5. Boom
6. Boom cylinders
7. Cab
8. Hand holds
9. Counterweight
10. Travel reduction gears
11. Steps
12. Upper rollers
13. Lower rollers
14. Idler
15. Arm
16. Arm cylinder
17. Bucket cylinder
18. Bucket
19. Undercarriage
20. Track
21. Upper structure

**RIGHT, LEFT, FRONT, AND REAR OF THE MACHINE**

The terms “Right”, “Left”, “Front” and “Rear” are used in this manual to indicate the sides as they are seen from the operator’s seat when the cab is over the idlers.

The illustration below shows the machine in normal TRAVEL position. In normal TRAVEL position, the cab is over the idlers. The travel reduction gears are at the rear of the upper structure.



CS99A820

Figure 5

1. FRONT  
2. REAR

3. RIGHT-HAND SIDE  
4. LEFT-HAND SIDE

5. TRAVEL REDUCTION GEARS  
6. IDLERS

## Chapter 2

# SAFETY AND DECALS

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**NOTES**

## SAFETY RULES



**WARNING:** *This safety alert symbol indicates important safety messages in this manual. When you see this symbol, carefully read the message that follows and be alert to the possibility of death or serious injury.*

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Most accidents involving machine operation and maintenance can be avoided by following basic safety rules and precautions. Read and understand all the safety messages in this manual, the safety manual, and the safety decals on the machine before you operate or service the machine. See your dealer if you have any questions.

**READ THIS MANUAL COMPLETELY** and make sure you understand the controls. All equipment has a limit. Make sure you understand the speed, stopping, steering, stability and load characteristics of this machine before you start to operate.

Do not remove this manual or the safety manual from the machine. See your dealer for additional manuals.

The safety information given in this manual does not replace safety codes, insurance needs, or federal, state, and local laws. Make sure your machine has the correct equipment according to these rules or laws.



CD00E001

Figure 1

OPERATOR'S MANUAL LOCATION AND STORAGE

**IMPORTANT:** *Safety messages in this section point out situations which can be encountered during the normal operation and maintenance of your machine. These safety messages also give possible ways of dealing with these conditions.*

**NOTE:** *Additional safety messages are used in the text of the manual to show specific safety hazards.*

**UTILITY SAFETY**

Safety precautions **MUST** be followed when working near buried utility lines.

During operation it is likely that you will be working around or near buried utility lines which may include, but are not limited to:

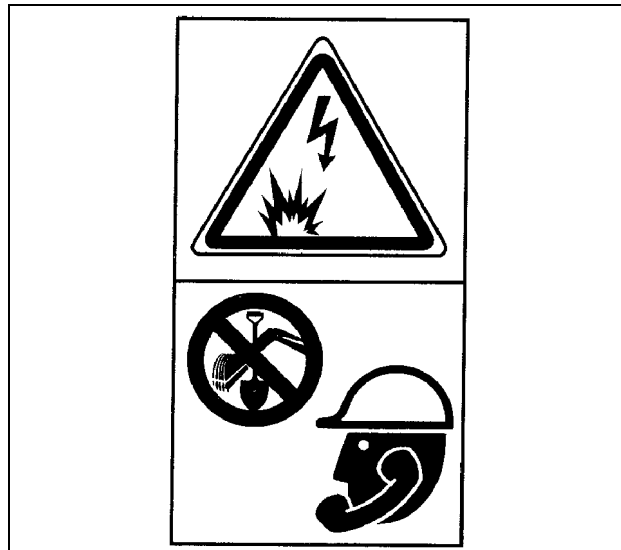
- Electrical Power Line
- Gas Line
- Water Line
- Communication Line - Telephone or Cable Television

**Before beginning any trenching, or other construction work it is your responsibility to be aware of all such utility lines buried in the area of your project and to avoid them.**

ALWAYS have all local utility companies mark the location of their lines.

In U.S.A. and Canada call one of many One Call System Director services. If you do not know the local number, call the national number (U.S.A. and Canada only): 1-888-258-0808.

Check with local authorities for laws, regulations and/or strict penalties requiring you to locate and avoid existing utilities.



RH99G001

Figure 2

**CALL ALL LOCAL UTILITY COMPANIES BEFORE YOU PERFORM ANY MACHINE OPERATION**




Know the utility color code (U.S.A. and Canada):

- Electric. . . . . Red
- Gas, Oil, or Petroleum . . . . . Yellow
- Communication, Telephone, Television . . . . . Orange
- Water. . . . . Blue
- Sewer . . . . . Green/Brown
- Proposed Excavation. . . . . White
- Surveying . . . . . Pink
- Reclaimed Water and Slurry . . . . . Purple

After locating the utility lines, carefully dig a hole by hand and/or automatic vacuum equipment to the utility line to verify the location and depth of the line.

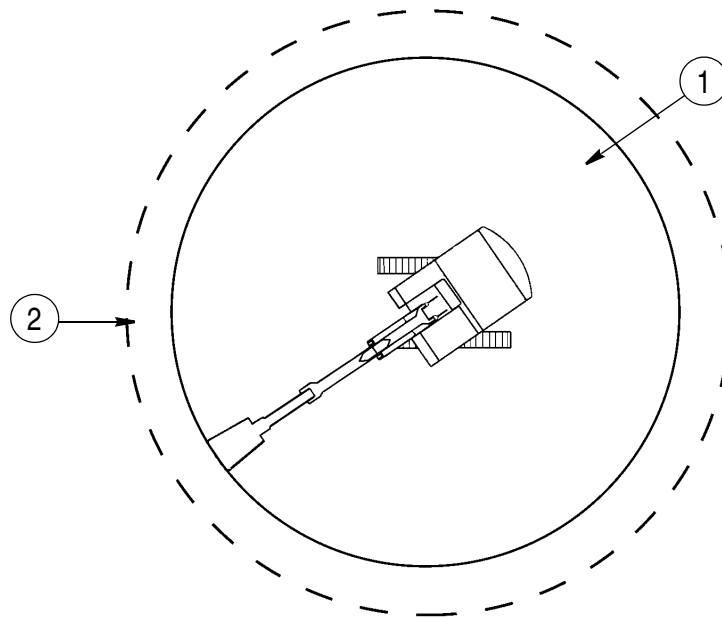
## PERSONAL SAFETY

ISO two panel pictorial symbol decals are defined as follows:

- The first panel indicates the nature of the hazard.
- The second panel indicates the appropriate avoidance of the hazard.
- Background color is YELLOW.
- Prohibition symbols such as   and  if used are RED.



- The safety area is the space necessary for the machine to operate at the maximum range of the tool and a full 360° swing plus 6 feet (2 metres).



CS97M019

1. WORKING AREA
2. SAFETY AREA

Figure 3

## MACHINE OPERATION

- Check all controls in a clear area and make sure the machine is operating correctly.
- Do not permit other persons to ride on the machine. Other persons can fall or can cause an accident.
- Dust, fog, smoke, etc., can decrease your vision and cause an accident. Stop the machine or decrease the speed until you can see everything around you in the work area.
- Contact with high voltage lines, underground cables, etc., can cause serious injury or death from electrocution.
- Before you drive or operate in an area with high lines or cables, tell the power or utility company what you are going to do. You **MUST HAVE THE POWER DISCONNECTED OR KEEP A SAFE WORKING DISTANCE** from the lines or cables. You must know the safe working distance from the high voltage power equipment and must know any federal, state/provincial or local safety codes or regulations that apply to the job site.
- Electrical cables, gas pipes, water pipes, sewers, or other underground objects can cause injury or death. Learn the location of underground hazards before you operate your machine in a new area.
- When the machine is traveling forward or backward an alarm will sound.
- Inspect the seat belt mounting bolts on a daily basis to ensure their integrity.
- Operate the machine controls from the operator's seat only. Always fasten the seat belt and keep it securely fastened when operating the machine.
- If this machine rolls over, you can be injured or killed. You must make a judgment if weather, road, or earth conditions will permit safe operation on a hill, ramp, or rough ground.
- Stay away from hazardous areas such as ditches, overhangs, etc. Walk around the work area before you start and look for hazards.
- Be alert and always know the location of all workers in your area. Keep all other persons completely away from your machine. Injury or death can result if you do not follow these instructions.
- Operate the machine controls from the operator's seat only. Always fasten the seat belt.

## PERSONAL SAFETY

- Be prepared for emergencies. Always have a first aid kit and a working fire extinguisher with you and know how to use each.
- Avoid loose fitting clothing, loose or uncovered long hair, jewelry and loose personal articles.
- Know and use the protective equipment that is to be worn when operating this machine. Hard hats, protective glasses, protective shoes, gloves, reflector type vests, respirators and ear protection are examples of types of equipment that may be required.
- Certain protective equipment should be replaced and renewed upon age and wear. Old hard hats may not afford the proper protection required. Faded and soiled vests are no longer as highly visible as their original intent. See the manufacturer's recommendation.
- Know and use the hand signals required for particular jobs and know who has the responsibility for signaling.

## GENERAL

- It is the responsibility of the operator to read and understand the Operator's Manual and other information provided and use the correct operating procedure. Machines should be operated only by qualified operators.
- Do not operate this machine or perform maintenance work if you have not had appropriate training and read and fully understand the instructions and warnings in this manual.
- Do not permit riders on the machine.
- Make sure that all protective guards, canopies, doors, etc. are in place and secure.
- Remove all loose objects stored in the machine. Remove all objects which do not belong in or on the machine and its equipment.
- Do not use the machine as a manlift.



### PROPER ENTRY AND EXIT

- Use the recommended hand holds and steps with at least three points of support when getting on and off the machine. Keep steps and platform clean.
- Do not jump off the machine.
- Do not dismount while the machine is in motion.
- Foreign material or grease on the steps and hand holds can cause an accident. Keep the steps and hand holds clean.

### STARTING AND STOPPING PRECAUTIONS

- Walk around the machine and warn all personnel who may be servicing the machine or are in the machine path prior to starting. Do not start until all personnel are clearly away from the machine. Sound the horn before starting.
- Walk around the machine's tool, attachment, or furthest contact point to view operation danger area from the work site personnel view and angle. This is the safety area necessary for the machine to operate at the maximum range of the tool plus 6 feet (2 meters).
- Check that the parking device is applied, place the ground drive controls in neutral and check that the auxiliary controls or switches are in neutral or off positions.
- Adjust, secure and latch the seat and fasten the seat belt before starting the machine.
- Start and operate the machine only from the operator's station.
- Do not bypass the machine's interlock system. The interlock system must be repaired if it malfunctions.
- Use jumper cables only in the recommended manner. Improper use can result in battery explosion or unexpected machine motion. Ventilate the battery area before using jumper cables. Make sure that using jumper cables will not interfere with or harm electronic processing or computer devices.
- Do not operate the engine in an enclosed area without adequate ventilation.
- Park the machine on level ground whenever possible and apply the parking brake. On grades, park the machine with the track securely blocked.
- Before leaving the operator's station, lower the equipment to the ground, shut off the engine and place the function cancellation lever into the locked position.

- Remove the starter key when leaving the machine parked or unattended.

### OPERATING PRECAUTIONS

- Check steering and other machine control devices in accordance with the manufacturer's instructions prior to starting operation. Observe all gauges or warning instruments for proper operation. Operate all controls to insure proper operation. If any malfunctions are found, remove the starter key or disconnect switch key. Place a Do Not Operate tag on the machine until the malfunction is corrected.
- If a failure that causes loss of control such as steering, service brakes or engine occurs, stop the machine motion as quickly as possible, remove the starter key or disconnect switch key. Place a Do Not Operate tag on the machine, and keep it securely parked until the malfunction is corrected or the machine can be safely moved.
- Understand the machine limitations and keep the machine under control.
- Operate and drive the machine with care and at speed compatible with conditions. Use extra caution when operating over rough ground, on slopes, and when turning.
- Note and avoid all hazards and obstructions such as ditches, underground lines, trees, cliffs, overhead electrical wires or areas where there is danger of a slide.
- Carry loads in recommended positions for maximum stability.
- Never lift loads in excess of capacity.
- Use the recommended machine ballast and counterweighting.
- Know and understand the job site traffic flow patterns, and obey signalmen, road signs and flagmen.
- Know and understand that job site conditions may change on an hourly basis. Hills of dirt, debris or obstructions may grow and change from the time you began the day. It is your responsibility to monitor the changes, and keep the machine, tools and attachments, etc. a safe distance.
- Watch for bystanders, and never allow anyone to be under or to reach through the machine and its equipment while operating.
- Select a gear that will prevent excessive speed when going downhill. Do not coast downhill.

- Use proper transport devices when roading the machine. Proper marking (reflectors, slow moving vehicle emblem, etc.) lights, flashers, signals and beacons may be required. Follow local, state and federal regulations.
- Use the approved attachment point when using the machine for towing. If a cable or chain is used, keep people away from the tow line.
- Before you operate at night, check that all lamps illuminate.
- Make sure that all windows are clean and that the windshield wipers work correctly.
- Engine exhaust fumes can cause death. If you operate this machine in an enclosed area, make sure there is ventilation to replace the exhaust fumes with fresh air.
- Check all controls in a clear area and make sure the machine is operating correctly.
- Dust, fog, smoke, etc., can decrease your vision and cause an accident. Stop the machine or decrease the speed until you can see.
- Contact with high voltage power lines, underground cables, etc., can cause serious injury or death from electrocution.
- Before you drive or operate in an area with high voltage lines, cables, or a power station, tell the power or utility company what you are going to do. You **MUST HAVE THE POWER DISCONNECTED OR KEEP A SAFE WORKING DISTANCE** from the lines, cables, or power station. Keep all parts of the machine a safe distance away from the power source. You must also know any federal, state/provincial, or local safety codes or regulations that apply to the job site.

If a part of the machine touches high voltage power:

1. Warn other workers **NOT TO TOUCH THE MACHINE** and to stay away from the machine.
  2. If you can break contact, reverse the operation that caused contact with the high voltage power, and move the machine away from the danger area. If you cannot break contact stay in the machine until the utility company de-energizes the line and tells you that the power is off.
  3. If you have extreme conditions, such as a fire, etc., and you are forced to leave the machine, do not step off the machine. Jump as far from the machine as possible with your feet together and do not touch the ground with your hands.
- Do not operate the machine if you do not feel well. This can be dangerous for you and for the people around you.

- You must make a judgment if weather, road, or earth conditions will permit safe operation on a hill, ramp, or rough ground.
- Stay away from hazardous areas such as ditches, overhangs, etc. Walk around the work area before you start and look for hazards.
- Be alert and always know the location of all workers in your area. Keep all other persons completely away from your machine. Injury or death can result if you do not follow these instructions.
- Develop fluid and smooth operating techniques and maintain the surface condition where the machine travels in order to control vibration transfer to the operator.