

160X4
HYDRAULIC EXCAVATOR
OPERATOR'S MANUAL



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160X4 HYDRAULIC EXCAVATOR OPERATOR'S MANUAL



LINK-BELT TECHNICAL MANUALS

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

The Dealer can expedite orders for Operator's Manuals, Parts Manuals, Service Manuals, and Maintenance records.

Always give the model number, excavator serial number, and manufacturer's number of your excavator so your Dealer can provide the correct manuals for your excavator.

NOTE: LBX COMPANY LLC 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 THIS SYMBOL IS USED, CAREFULLY READ THE MESSAGE THAT FOLLOWS AND BE ALERT TO THE POSSIBILITY OF DEATH OR SERIOUS INJURY.

Safety Decals on this excavator 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.



WARNING

IMPROPER OPERATION OF THIS EXCAVATOR CAN CAUSE DEATH OR SERIOUS INJURY.

BEFORE USING THIS EXCAVATOR, MAKE CERTAIN THAT EVERY OPERATOR:

Is instructed in safe and proper use of the excavator.

Reads and understands the Manual(s) pertaining to the excavator.

Reads and understands ALL Safety Decals on the excavator.

Clears the area of other persons.

Learns and practices safe use of excavator controls in a safe, clear area before operating this excavator on a job site.

It is the operator's responsibility to observe pertinent laws, regulations and follow the LBX Company, LLC instructions on excavator operation and maintenance.

LBX Company reserves the right to make changes in the specification and design of the excavator without prior notice and without incurring any obligation to modify units previously sold. The description of the models shown in this manual has been made in accordance with the technical specifications known as of the date of design of this document. All data given in this manual is subject to production variations. Dimensions and weights are provided with approximate values and the excavator fitting shown in the illustrations may not correspond with standard models.

For precise information on specific excavator models and versions, please contact your LBX Company Dealer.

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CALIFORNIA

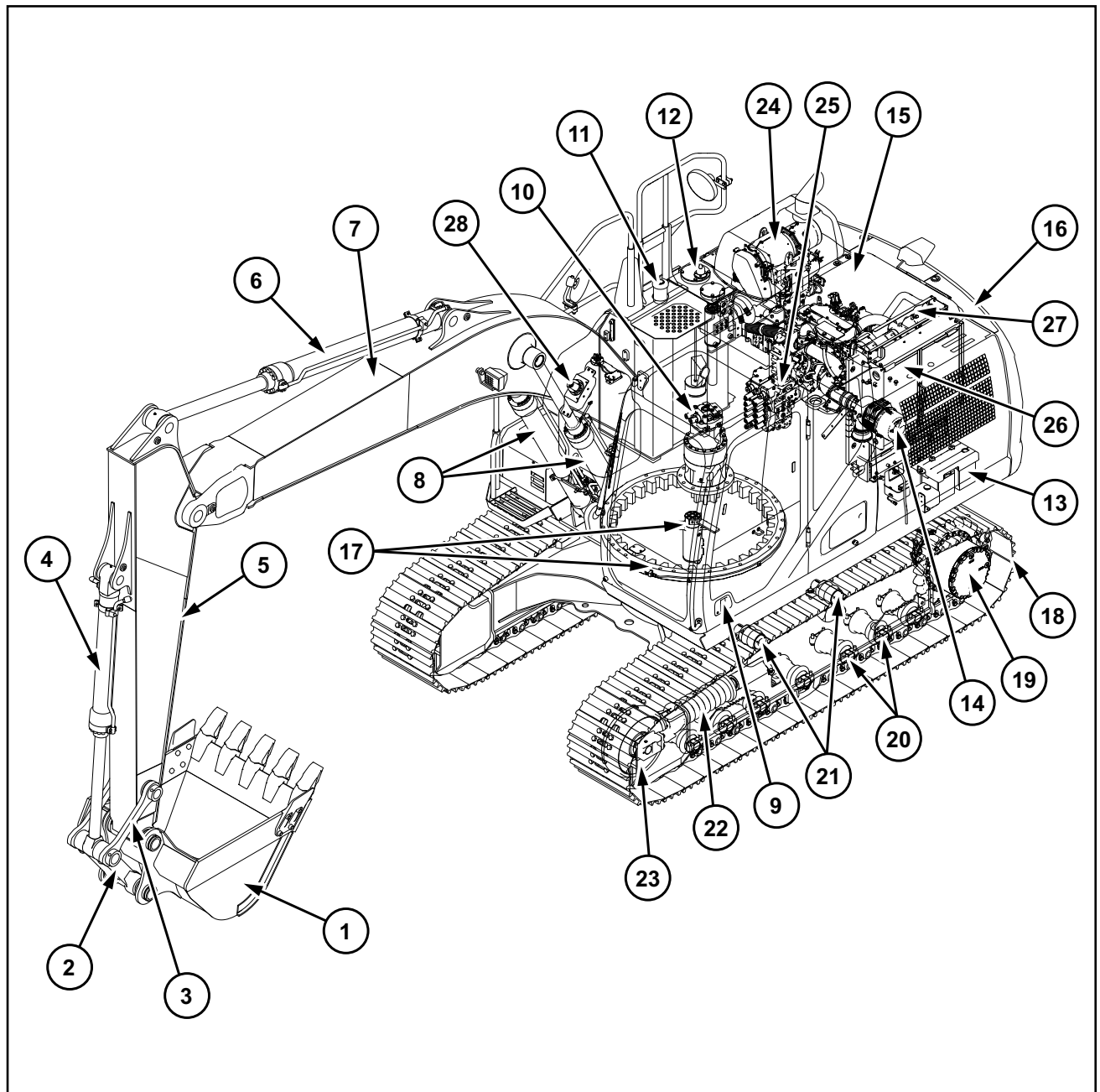
PROPOSITION 65 WARNING

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.

CHAPTER 2 - EXCAVATOR COMPONENTS

EXCAVATOR COMPONENTS



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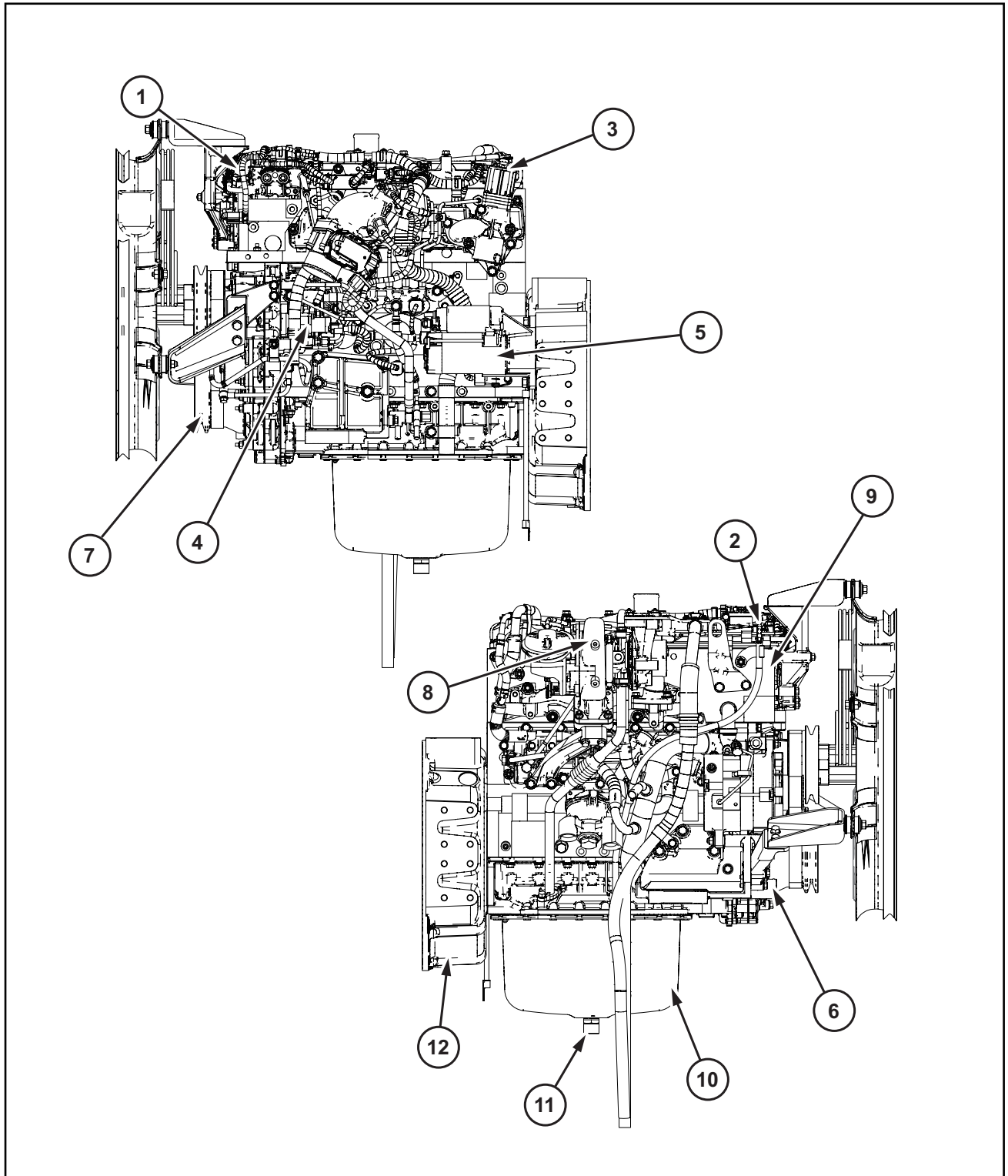
Figure 1

- | | | | | | |
|----|----------------------------|----|------------------------|----|------------------------|
| 1 | BUCKET | 11 | FUEL TANK | 21 | UPPER ROLLERS |
| 2 | CONNECTING ROD | 12 | HYDRAULIC RESERVOIR | 22 | RECOIL SPRING |
| 3 | ARM LINK | 13 | BATTERIES | 23 | IDLER WHEELS |
| 4 | BUCKET CYLINDER | 14 | AIR FILTER | 24 | SCR |
| 5 | ARM | 15 | ENGINE COMPARTMENT | 25 | CONTROL VALVE |
| 6 | ARM CYLINDER | 16 | COUNTERWEIGHT | 26 | OIL COOLER/FUEL COOLER |
| 7 | BOOM | 17 | SWING COMPONENTS | 27 | RADIATOR |
| 8 | BOOM CYLINDERS | 18 | TRACKS | 28 | DEF TANK |
| 9 | CAB/OPERATOR'S COMPARTMENT | 19 | TRAVEL REDUCTION GEARS | | |
| 10 | SWING GEARCASE | 20 | LOWER ROLLERS | | |

MAIN COMPONENTS

This X4 excavator is a fully hydraulic excavator. It consists of an undercarriage fitted with tracks and a turntable bearing which supports the upperstructure frame. The upperstructure frame supports the attachment, at the front end of the excavator, plus the engine, hydraulics and cab. When the operator works the controls, the engine-driven pump delivers hydraulic fluid to the control valve. The control valve distribute the hydraulic fluid to the various cylinders and motors concerned. A cooling system maintains the hydraulic fluid at normal operating temperature.

ENGINE COMPONENTS

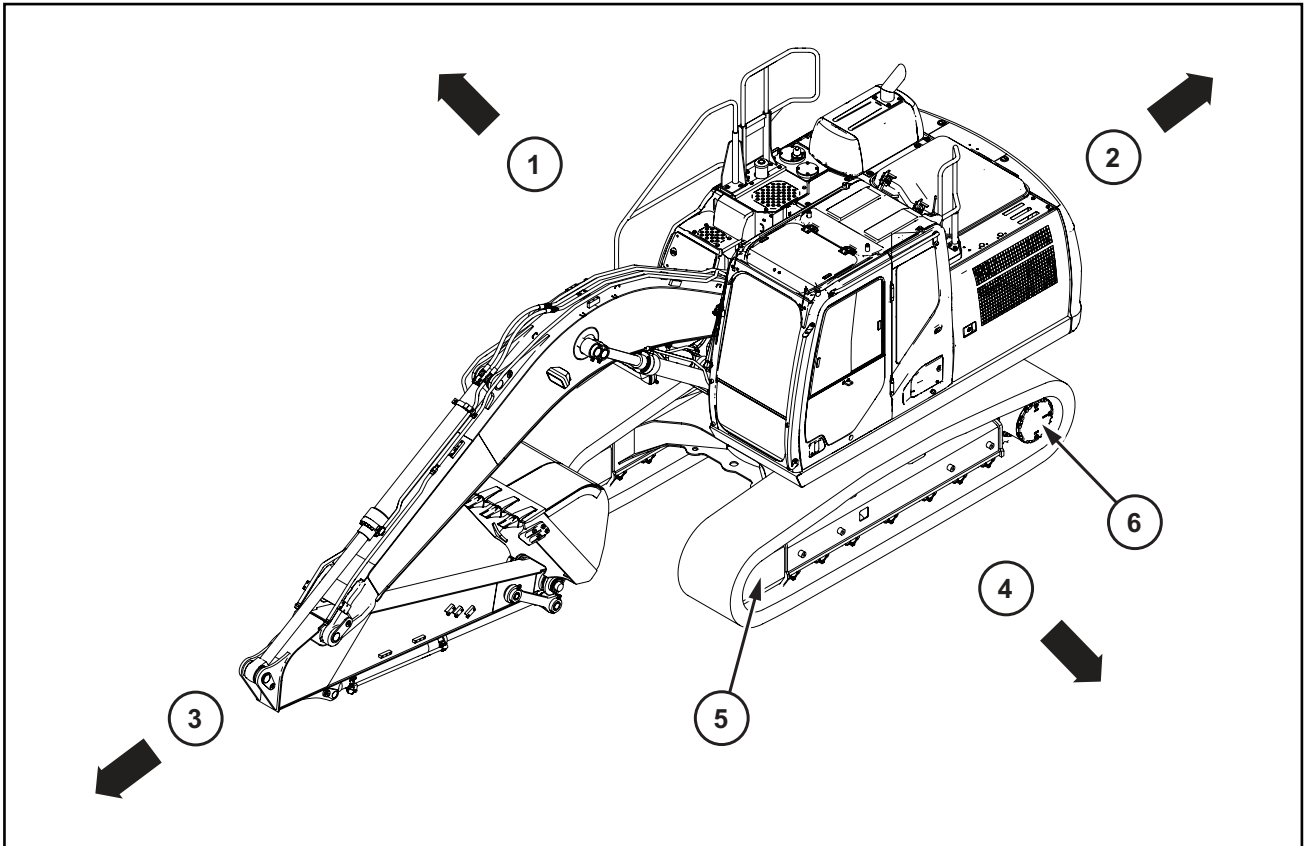


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Figure 2

- | | | | | | |
|---|------------------|---|---------------|----|----------------|
| 1 | WATER OUTLET | 5 | STARTER MOTOR | 9 | ALTERNATOR |
| 2 | OIL DIPSTICK | 6 | WATER INLET | 10 | OIL PAN |
| 3 | EGR VALVE | 7 | CRANK PULLEY | 11 | OIL DRAIN COCK |
| 4 | FUEL SUPPLY PUMP | 8 | TURBOCHARGER | 12 | FLYWHEEL HOUSE |

RIGHT, LEFT, FRONT AND REAR OF THE EXCAVATOR



37616833

Figure 3

The terms Right-hand (1), Left-hand (4), Front (3), and Rear (2) are used in this manual to indicate the sides as they are seen from the operator's seat when the cab is over the idler wheels (5).

The illustration above shows the excavator in normal TRAVEL position. In normal TRAVEL position, the cab is over the idler wheels. The travel reduction gears (6) are at the rear of the upperstructure.

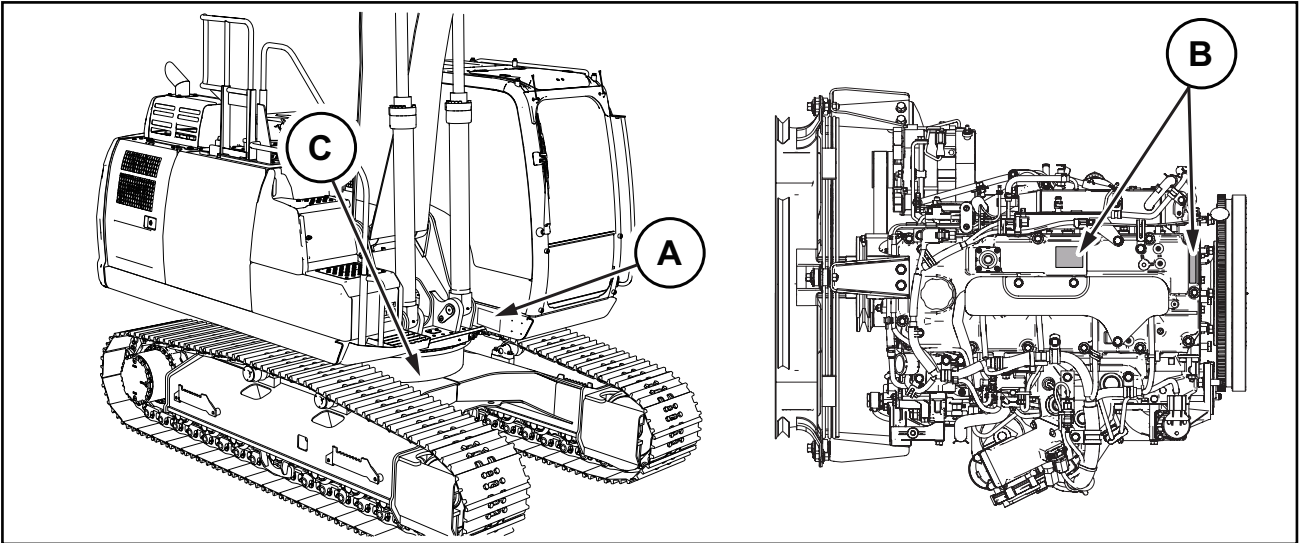
IDENTIFICATION NUMBERS

TYPE, SERIAL NUMBER AND YEAR OF MANUFACTURE

When ordering parts, obtaining information or assistance, always supply your Link-Belt dealer with the type and serial number of your excavator or accessories.

Write the following in the spaces below: The model number, serial number, and manufacturer's number of your excavator, and the make/model and serial numbers of the engine.

Excavator Identification Locations



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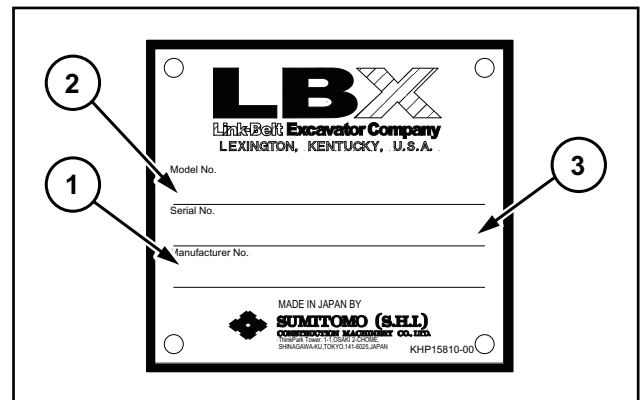
Figure 4

IMPORTANT: If the excavator serial number plate is missing or unreadable the manufacturer's number is stamped on the frame (C) on the excavator.

EXCAVATOR SERIAL NUMBER AND ENGINE SERIAL NUMBER

Excavator (A)

1. Manufacturer Number:
2. Model Number:
3. Serial Number:



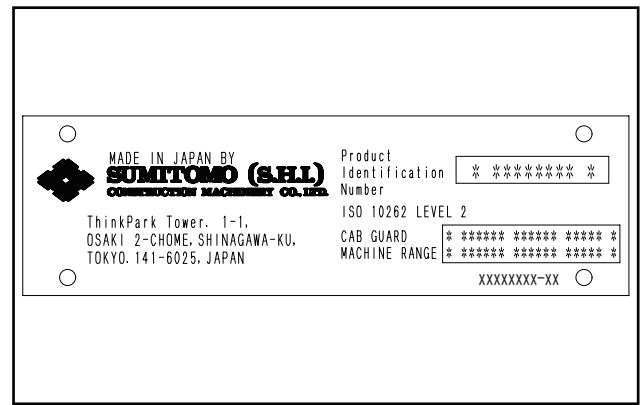
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Figure 5

Cab protection (FOPS) (Optional)

FOPS complies with ISO 10262 level 2 standard.

Product identification number:



E5304DEC

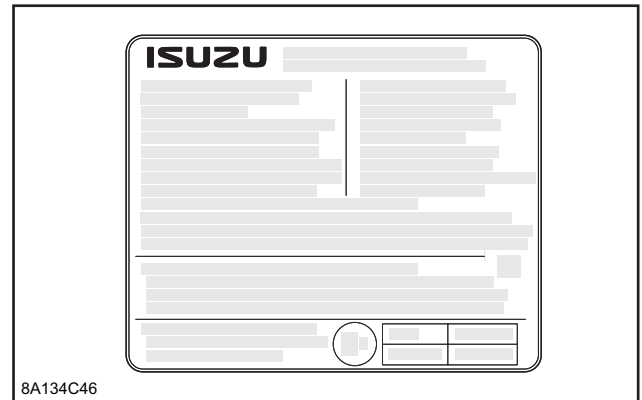
Figure 9

Emission Label

This is affixed on the cylinder head cover.

The emission decal describes important details for using the engine. Make sure to read before using the engine.

Also, the emission decal describes details regarding the engine only.



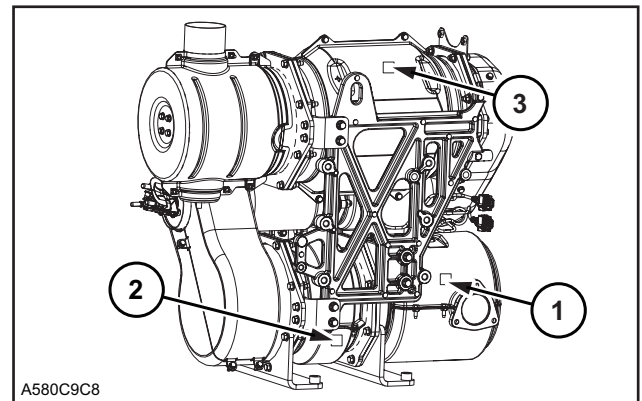
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Figure 10

DEF SCR Serial Number

The number is stamped on top of the DEF SCR.

1. DOC serial (front)
2. DOC serial (center)
3. SCR serial



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A580C9C8

Figure 11

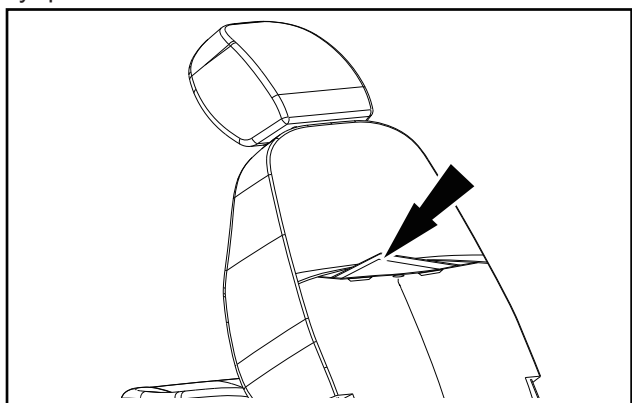
CHAPTER 3 - SAFETY, DECALS, AND HAND SIGNALS

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.

Most accidents involving excavator 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 signs on the excavator before you operate or service the excavator. Contact your dealer if you have any questions.



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Figure 1

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 excavator before you start to operate.

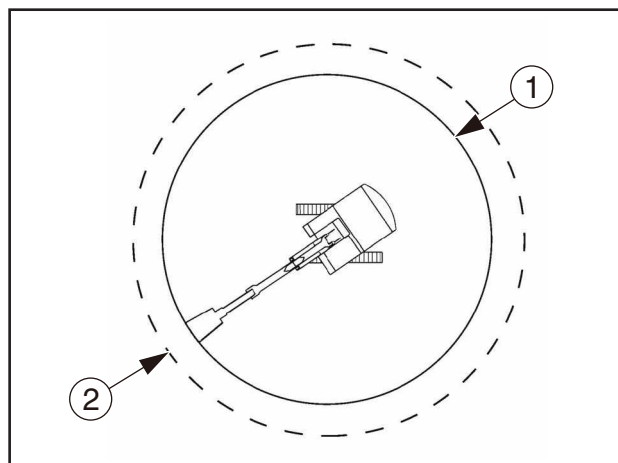
DO NOT remove this manual or the safety manual from the excavator. Contact your dealer for additional manuals. Also see the manual information on the inside of the rear cover of this manual.

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

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

IMPORTANT: The safety messages in this chapter point out situations which can happen during the normal operation and maintenance of your excavator. These safety messages also give possible ways of dealing with these conditions.

SAFETY AREA



E2AFF9F3

Figure 2

- 1 WORKING AREA
- 2 SAFETY AREA

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

UTILITY SAFETY

Safety precaution **MUST** be followed when working near buried and over head utility lines.

During operation it is likely that you will be working around or near buried or over head 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 excavator operation, it is your responsibility to be aware of all such utility lines buried and over head 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): 811.

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

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 any buried 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.

OPERATOR PRECAUTIONS

PERSONNEL

- 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 excavator. 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 original users intention. Faded and soiled vests are no longer as highly visible as original intended. See the manufacturer's recommendation.
- Do not rush. Walk, do not run.
- 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. Excavators should be operated only by qualified operators.
- Do not operate this excavator or perform maintenance work if you have not had appropriate training and have not read and fully understand the instructions and warnings in this manual.
- Wear the seat belt at all times when operating the excavator.
- Inspect the seat belt end mounting bolts on a daily basis to ensure their integrity.
- Make sure all protective guards are in place and secure.
- Remove all loose objects stored in the excavator. Remove all objects which do not belong in or on the excavator and its equipment.

MOUNTING AND DISMOUNTING PRECAUTIONS

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

STARTING AND STOPPING PRECAUTIONS

- Walk around the excavator and warn all personnel who may be servicing the excavator or are in the excavator path prior to starting. Do not start until all personnel are clearly away from the excavator. Sound the horn, before starting.
- Stones or other objects may be flying out when the machine is operating or travelling in the work site. Post "Entry prohibited" to prevent no one from entering the site. Also, take measures so that no one approaches the site.
- Walk around the excavator's tool, attachment, or furthestmost contact point to view operation danger area from the worksite personnel view and angle.
- Adjust, secure and latch the seat and fasten the seat belt before starting the excavator.
- Start and operate the excavator only from the operator's seat.
- Do not bypass the excavator's gate lock system. The gate lock system must be repaired if it malfunctions.
- Use jumper cables only in the recommended manner. Improper use can result in battery explosion or unexpected excavator motion. Ventilate the battery area before using jumper cables. Make sure that using jumper cables will not interfere or harm electronic processing or computer devices. See Connecting One or Two Booster Batteries Chapter 9 (Page 9-6).
- Do not operate the engine in an enclosed area without adequate ventilation.
- Park the excavator on level ground whenever possible and lower the attachment to the ground. The travel brakes will automatically apply. On grades, park the excavator with the tracks securely blocked.
- Before leaving the operator's cab, lower the equipment to the ground or put the gate lock in the locked position, and shut off the engine.
- Remove the starter key when leaving the excavator parked or unattended.

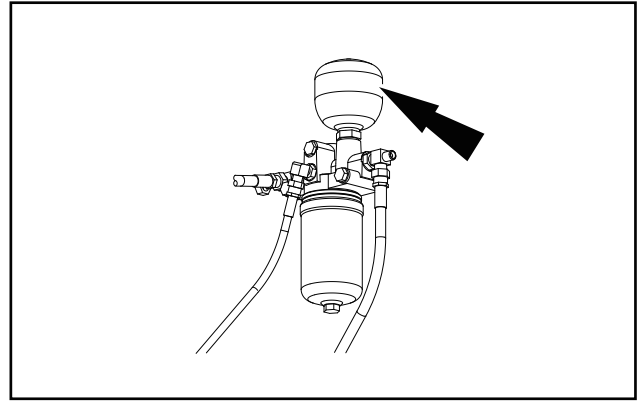
OPERATING PRECAUTIONS

- Check all excavator 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 ensure proper operation. If any malfunctions are found, remove the starter key. Place a DO NOT OPERATE tag on the excavator until the malfunction is corrected.
- Understand the excavator limitations and keep the excavator under control.
- Operate the excavator with care and at a 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.
- Know and understand the job site traffic flow patterns and obey signal persons, road signs and flagmen.
- Know and understand 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 excavator, tools and attachments, etc. at a safe distance.
- Watch for bystanders and never allow anyone to be under or to reach through the excavator and its equipment while operating.
- When roading an excavator, know and use the signaling devices required on the excavator. Provide an escort for roading where required.
- Use the recommended transport devices when transporting the excavator. See Transporting the Excavator section for more details.
- Use an approved drawbar and/or attachment point when using the excavator for towing. If a cable or chain is used, keep people away from the tow line.
- Before you operate at night, check that all work lights illuminate.
- Engine exhaust fumes can cause death. If you operate this excavator in an enclosed area, make sure there is ventilation to replace the exhaust fumes with fresh air.
- Ensure that all windows are clean and the windshield wipers work correctly.
- Check all controls in a clear area and make sure the excavator is operating correctly.
- Dust, fog, smoke, etc., can decrease your vision and cause an accident. Stop the excavator or decrease the speed until you can see.
- Contact with high voltage power lines, underground cables, etc., can cause serious injury or death from electric shock.
- Before you travel 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 excavator at least 16.5 ft (5.0 m) 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 excavator touches high voltage power:
 - [1] Warn other workers NOT TO TOUCH THE EXCAVATOR and to stay away from the excavator.
 - [2] If you can break contact, reverse the operation that caused contact with the high voltage power, and move the excavator away from the danger area. If you cannot break contact stay in the excavator until the utility company de-energizes the line and tells you the power is off.
- If you have extreme conditions, such as a fire, etc., and you are forced to leave the excavator, do not step off the excavator. Jump as far from the excavator as possible with your feet together and do not touch the ground with your hands.
- Do not operate the excavator 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 excavator. Injury or death can result if you do not follow these instructions.

MAINTENANCE PRECAUTIONS

- Do not attempt repairs unless trained. Refer to manuals and experienced repair personnel for help.
- Before you service the excavator, put a DO NOT OPERATE tag on the key switch.
- Wear protective glasses and other required safety equipment when servicing or repairing the excavator.
- Wear gloves to protect hands when handling cable.
- Disconnect the battery before working on the electrical system. Know the consequences of disconnecting any electronic or computer devices.
- Before performing maintenance for the electrical systems or electric welding, always turn the battery disconnect switch to "OFF" position or disconnect the negative (-) terminal of the battery, in order to cut off the electric circuit.
- Avoid lubrication or mechanical adjustments with the excavator in motion or the engine operating. If the engine must be in operation to make certain adjustments, put the gate lock in the locked position, place the excavator in a safe position, securely block the tracks and use extreme caution.
- Securely block the excavator or any component that may fall before working on the excavator or component. If possible, use a back up or secondary blocking device, also.
- To prevent unexpected movement, securely block working elements when repairing or changing working tool parts such as cutting edges.
- Never make repairs on pressurized components, fluid, gas or mechanical until the pressure has been relieved according to the manufacturer's instructions.
- Use extreme caution when removing radiator caps, drain plugs, grease fittings or pressure taps. Park the excavator and let it cool down before opening a pressurized tank.

- Release all pressure before working on systems which have an accumulator. Use a piece of cardboard, newspaper, or wood to check for pressurized leaks to prevent fluid penetrating the skin. Pressurize accumulators with the proper gas according to manufacturer's recommendations. Labels are put on the accumulator. The labels warn that the accumulator is filled with gas under high pressure and that anyone must not bring a flame or weld close to the accumulator. For any service work, contact your Link-Belt Dealer.



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Figure 3

- Never attempt to disassemble the recoil spring. Failure to comply could result in death or serious injury.
- When absolutely necessary to tow the excavator, contact your Link-Belt Dealer for proper procedures.
- Observe proper maintenance procedures.
- Whenever servicing or replacing hardened pins, etc, use a brass drift or other suitable material between the hammer and pin or use a brass hammer, or suitable material on the pin.
- Replace all missing, illegible or damaged safety decals. Keep all safety decals clean.

FUEL HANDLING PRECAUTIONS

- Do not smoke or permit open flames while fueling or near fueling operations.
- Never remove the fuel cap with the engine running or hot. Never allow fuel to spill on hot excavator components. Never allow fuel to spill on the environment.
- To avoid spilling fuel, maintain control of the fuel filler nozzle when filling the tank.
- Do not fill the fuel tank completely to the top. Allow room for expansion.
- Clean up spilled fuel immediately and dispose of contaminated material in an environmentally correct manner.
- Tighten the fuel tank cap securely. Should the fuel cap be lost, replace it only with the original manufacturer's approved cap. Use of a non-approved cap without proper venting may result in pressurization of the tank.
- Never use fuel for cleaning purposes.
- Use the correct fuel grade for the operating season.

BURN PREVENTION

WARNING

BATTERY ACID CAUSES SEVERE BURNS. Batteries contain sulfuric acid. Avoid contact with skin, eyes or clothing.

Antidote: EXTERNAL - Flush with water.

Antidote: INTERNAL - Drink large quantities of water or milk.

DO NOT induce vomiting. Seek medical attention immediately.

EYES - Flush with water for 15 minutes and seek medical attention immediately.

WARNING

BATTERIES PRODUCE EXPLOSIVE GASES. Keep sparks, flame, cigars and cigarettes away. Ventilate when charging or using in enclosed area. Always wear eye protection when working near batteries. Wash hands after handling. **KEEP OUT OF REACH OF CHILDREN.**

- When the battery electrolyte is frozen, the battery can explode if, you try to charge the battery, or you try to jump start and run the engine. To prevent the battery electrolyte from freezing, try to keep the battery at full charge. If you do not follow these instructions, you or others in the area can be injured.
- Hot coolant can spray out if the radiator cap is removed. To remove the radiator cap, let the cooling system cool, turn to the first notch, wait until the pressure is released, and then remove the radiator cap.

HAZARDOUS CHEMICAL PRECAUTIONS

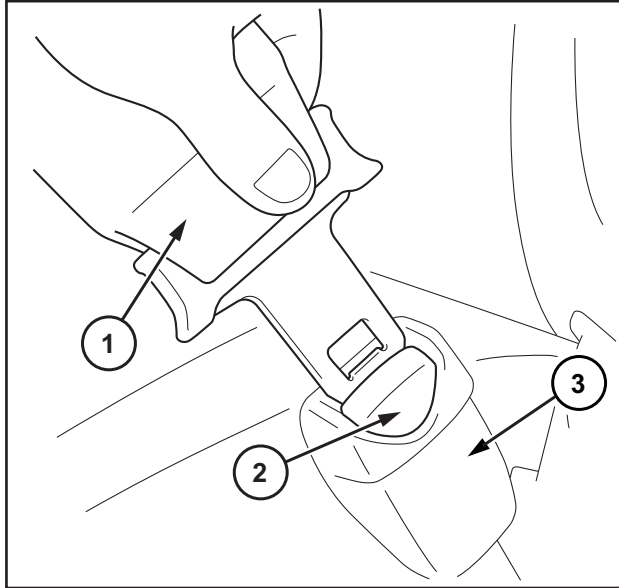
- If you are exposed to or come in contact with hazardous chemicals you can be seriously injured. The fluids, lubricants, paints, adhesives, coolants, etc., used with your excavator can be hazardous.
- Material Safety Data Sheets (MSDS) provide information about the chemical substances within a product, safe handling procedures, first aid measures and procedures to be taken when the product is accidentally spilled or released. MSDS are available from your Link-Belt Dealer.
- Before you service your excavator, check the MSDS for each fluid, lubricant, etc., used in this excavator. This information indicates what the risks are and how to service the excavator safely. Follow this information when servicing the excavator.
- Before you service this excavator and before you dispose of the old fluids and lubricants, always remember the environment. **DO NOT** put oil or fluids into the ground or into containers that can leak.
- Check with your local environmental or recycling center or your dealer for correct disposal information.

TRANSPORTING PRECAUTIONS

- Know the rules, laws, and safety equipment necessary for transporting this excavator on a road or highway.
- Travel the machine on a trailer, track or ramp at safe speed, and load or unload the machine, securing its stability.
- Make sure to stop the engine before tying down the machine.
- The door may open when the machine is being transported. Use the key to lock all the doors such as the operator's cab door, the left and right hand doors, and the engine hood, after loading the machine.
- When transporting the machine with its end attachment such as breaker mounted, if the outer dimensions are not satisfied with transport regulation, remove the end attachment before transporting the machine. Some end attachment may need to be split into pieces.
- Replace or repair a damaged part even if it is not a crucial component part.

FIRE EXTINGUISHER

- It is recommended you have a fire extinguisher on your excavator. The fire extinguisher is available from your dealer and can be installed on the excavator.

SEAT BELT PRECAUTIONS

E380B85C

Figure 4

- 1 RIGHT BELT STRAP
- 2 RELEASE LEVER
- 3 LATCH MECHANISM

1. To latch the seat belt, pull the right belt strap to the latch mechanism.
2. Insert the metal end into the latch mechanism on the left side of the seat.
3. To unlatch the seat belt, press the release lever on the right belt strap. The seat belt will come apart.

! WARNING

Before starting the engine ensure seat belts are securely fastened. The seat belt can help ensure your safety if it is used and properly maintained. Never wear a seat belt loosely or with slack in the belt system. Never wear the belt in a twisted condition or pinched between the seat structural members.

QUICK COUPLER PRECAUTIONS

- Always follow the safety procedures of the quick coupler manufacturer if you have one on your excavator. See Hydraulic Excavator Quick Coupler Operation for more details.

ENGINE PRECAUTIONS

- The fuel delivery system on the engine is under high pressure. DO NOT OPEN the high pressure fuel lines with the engine running.

SPECIFIC PRECAUTIONS TO THIS EXCAVATOR

- Keep the load or tool, such as bucket, breaker, hammer, ripper, or other device as low as possible while moving the excavator around the jobsite.
- Never smoke while refueling.

DECALS

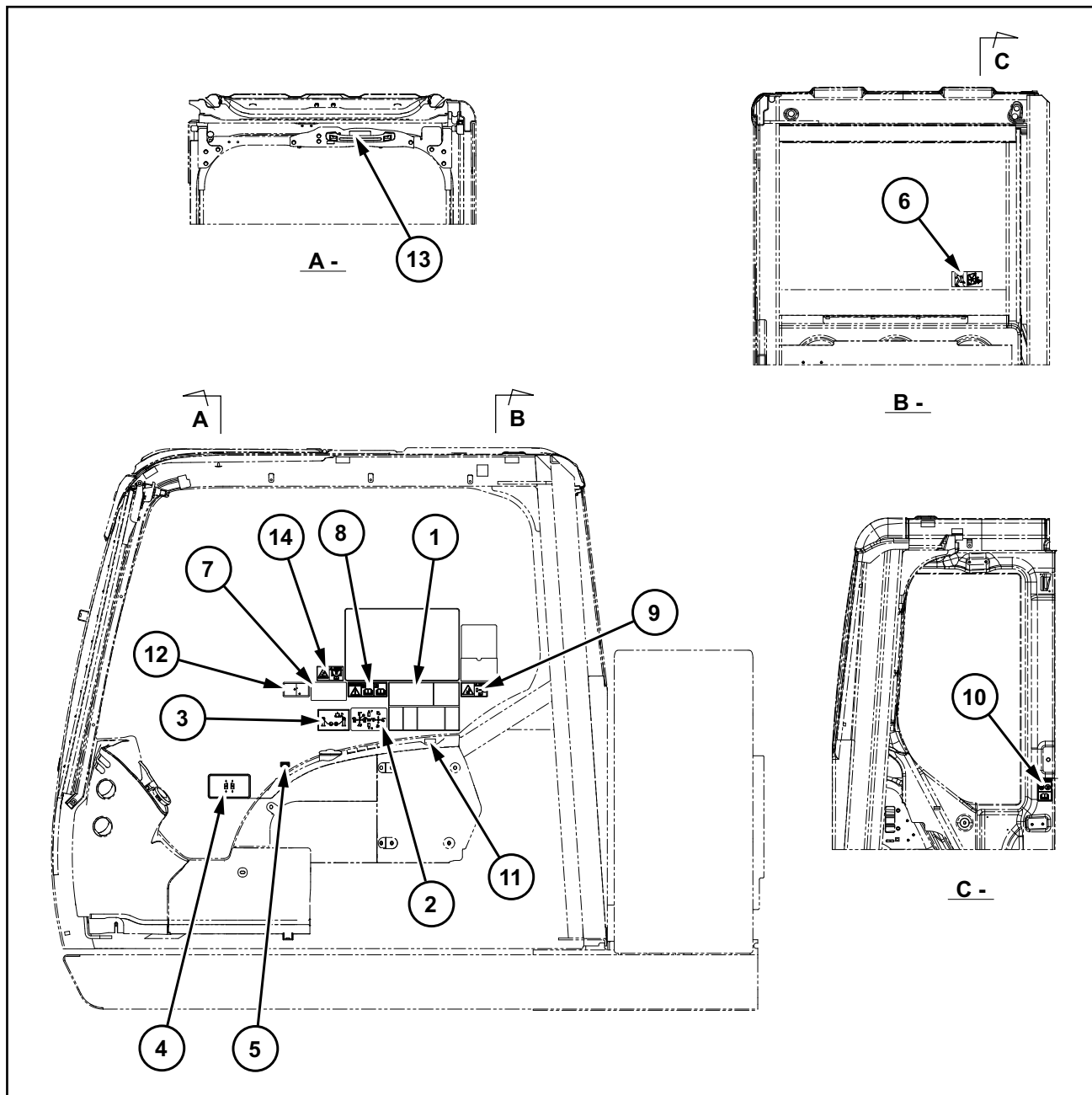
NOTE: This chapter only covers decals relating to safety and excavator operation and servicing. For information on all decals for the excavator, contact your authorized dealer.

NOTE: When you clean the decals, use only a cloth, water and soap. Do not use solvents, gasoline, etc.

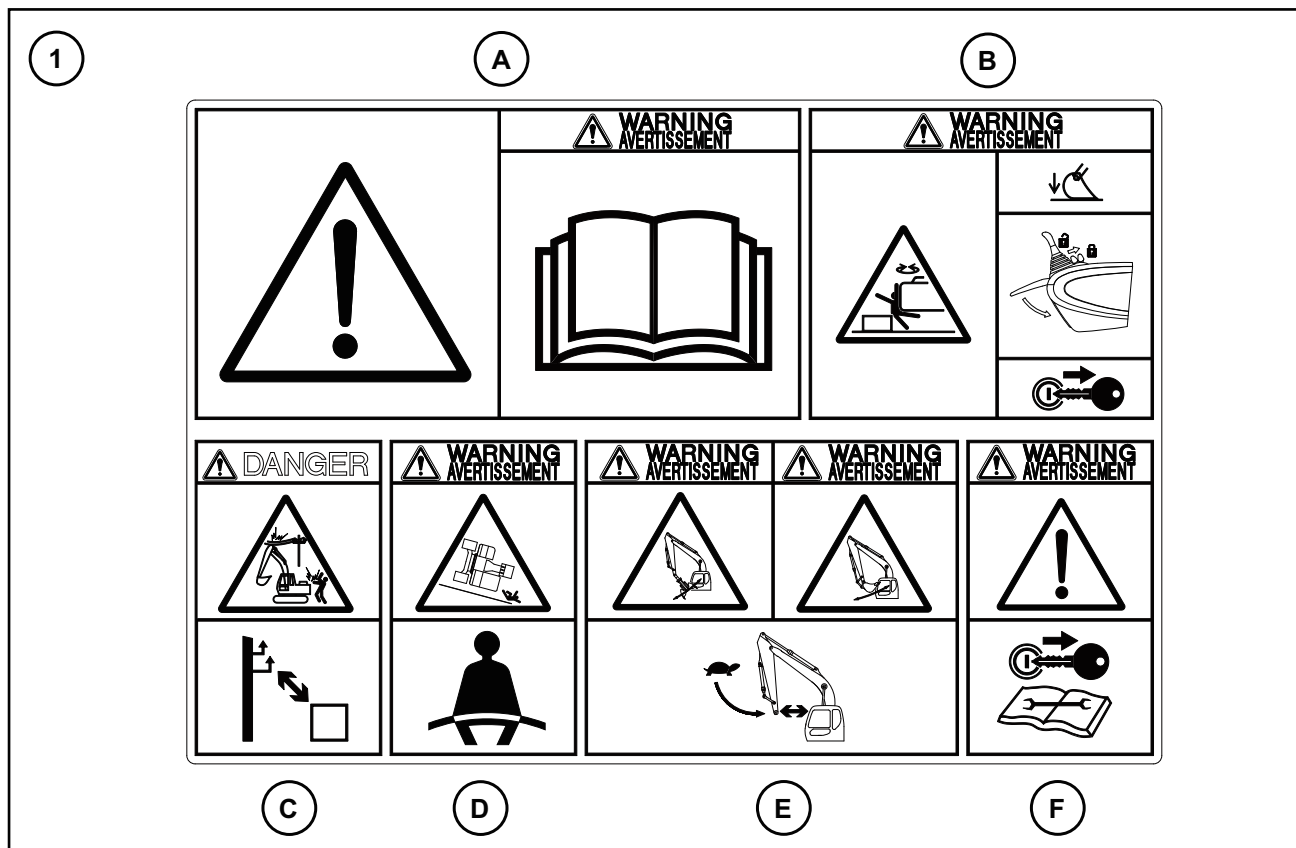
WARNING

Make sure that the decals are perfectly legible, clean them regularly and replace decals that are destroyed, lost, painted over or no longer legible, with new ones. When parts bearing decals are replaced, be sure to put new decals on each new part.

DECALS INSIDE THE CAB



1. KHP26991



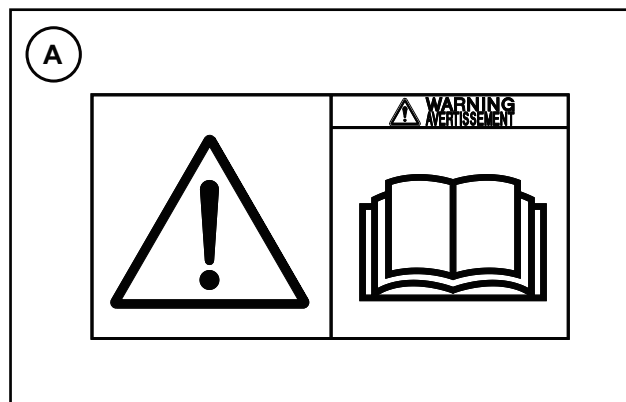
591702F7

Figure 6

(A)

This decal warns that you must read and understand this manual before using the machine.

Failure to do so could result in serious injury or death.



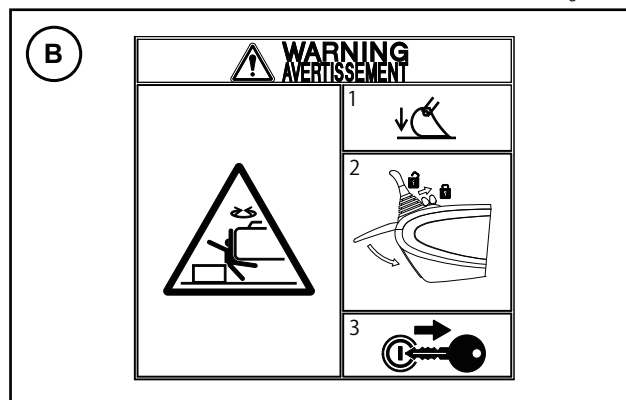
ECBBEB27

Figure 7

(B)

This decal instructs the operator to lower the attachment to the ground, lock the gate lock lever, and remove the key before exiting the machine to ensure no sudden movement of the excavator.

Failure to do so could result in serious injury or death.



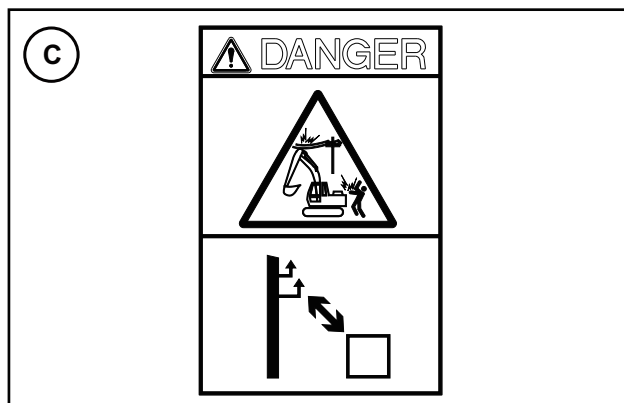
7DCAFF1C

Figure 8

(C)

This decal warns that work near overhead high-voltage electric lines must not be done without checking beforehand that all necessary measures have been taken to respect the minimum distances.

Failure to do so could result in serious injury or death.



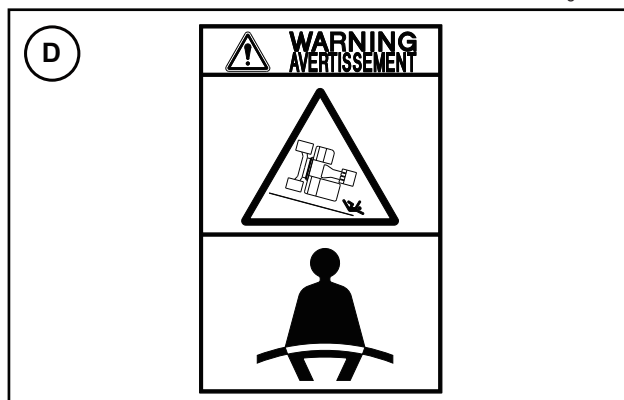
EB3410CF

Figure 9

(D)

This decal warns that the seat belt must always be fastened during operation of the machine.

Failure to do so could result in serious injury or death.



051BC4C0

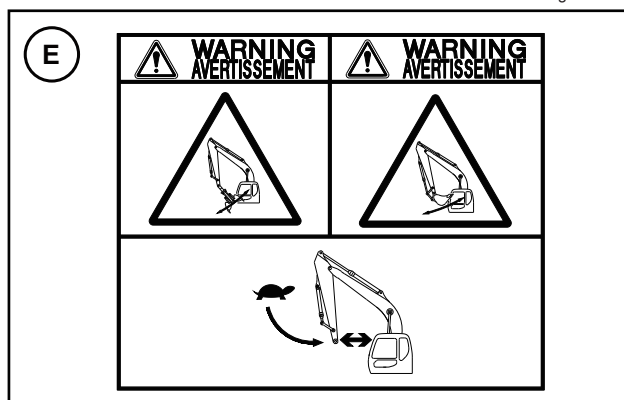
Figure 10

(E)

This decal warns that depending on the arm length, the bucket size, and the end attachment specifications, the attachment tip could interfere with the cab.

Avoid abrupt operation, and maintain an appropriate clearance so that it may not interfere with the cab.

Failure to do so could result in serious injury or death.



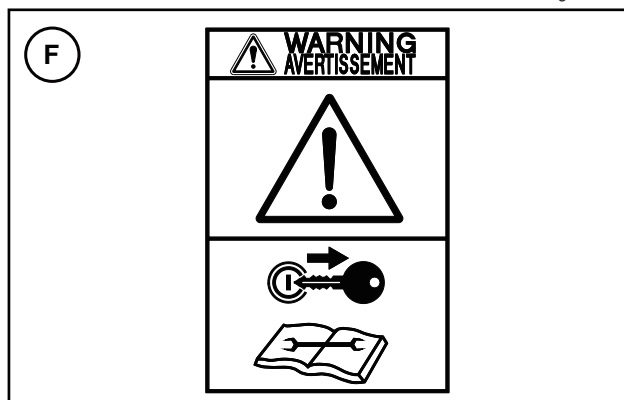
CABD4047

Figure 11

(F)

This decal warns that the engine must be stopped and the starter key switch removed during maintenance or inspection of the machine.

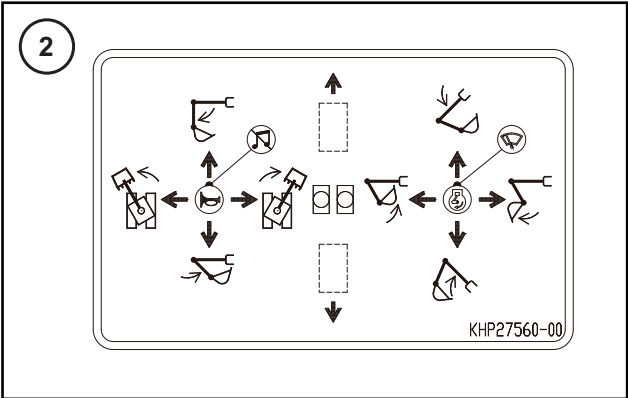
Failure to do so could result in serious injury or death.



E177E6D0

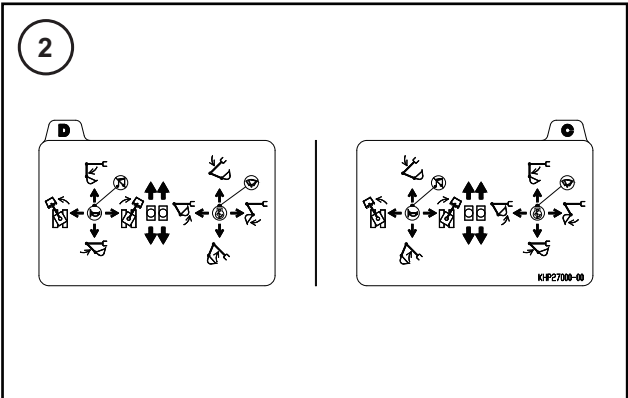
Figure 12

2. KHP27560, KHP27000
KHP27560
ISO function of the control standard



52867573 Figure 13

KHP27000
Operation pattern of the selector valve when switching

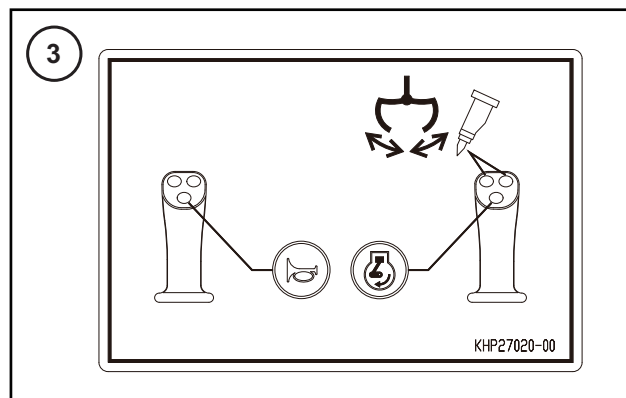


58031E61 Figure 14

3. KHP27020, KHP27030, KHP27270, KHP27250, KHP27260, KHP27240

KHP27020 (OPTION)

Right hand : Switch type /AUX

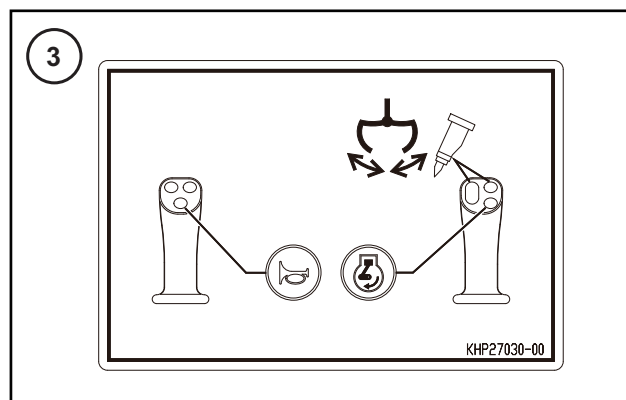


009BE787

Figure 15

KHP27030 (OPTION)

Right hand : Proportional type /AUX

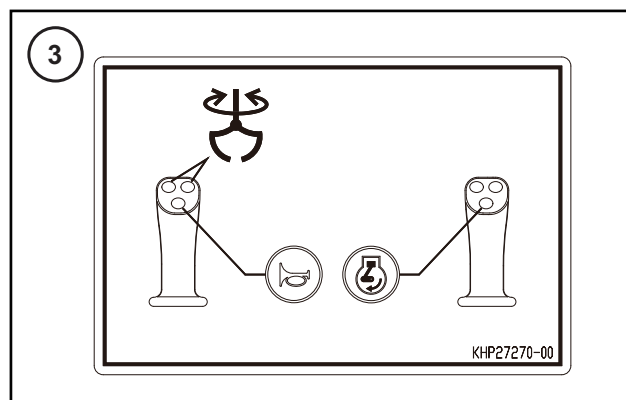


3DF46B2D

Figure 16

KHP27270 (OPTION)

Left hand : Switch type Second AUX

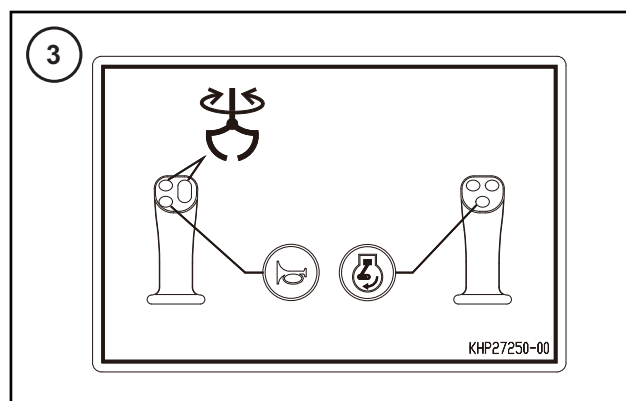


8A86B73C

Figure 17

KHP27250 (OPTION)

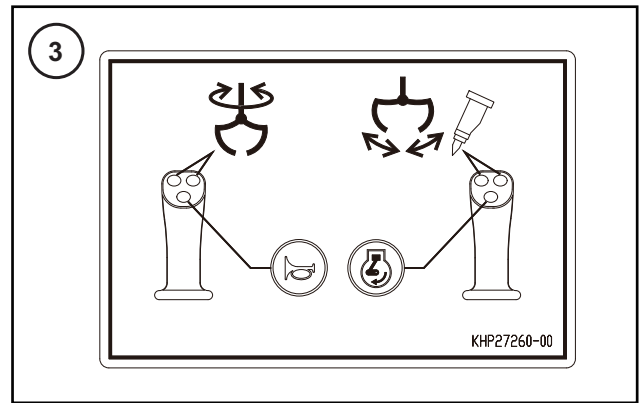
Left hand : Proportional type Second AUX



9EB1B395

Figure 18

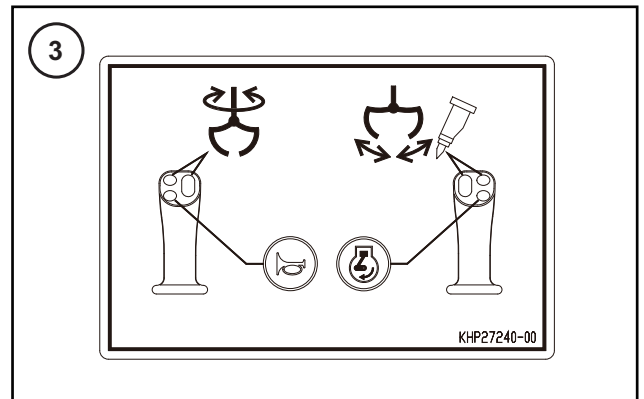
KHP27260 (OPTION)
 Right hand : Switch type /AUX
 Left hand : Switch type Second AUX



A2BCE7ED

Figure 19

KHP27240 (OPTION)
 Right hand : Proportional type /AUX
 Left hand : Proportional type Second AUX



BF184910

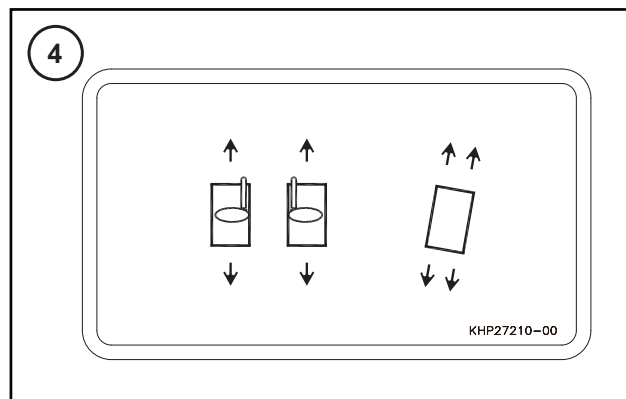
Figure 20

- * (Lever) / (Function)
- * AUX can be double-acting, single-acting or both (Multi-purpose)
- * Second -AUX can be grapple rotation or tilt bucket, etc...

These decals show which configuration the control levers are.

4. KHP27210, KHP27130

KHP27210 - ISO Standard travel controls with single pedal travel

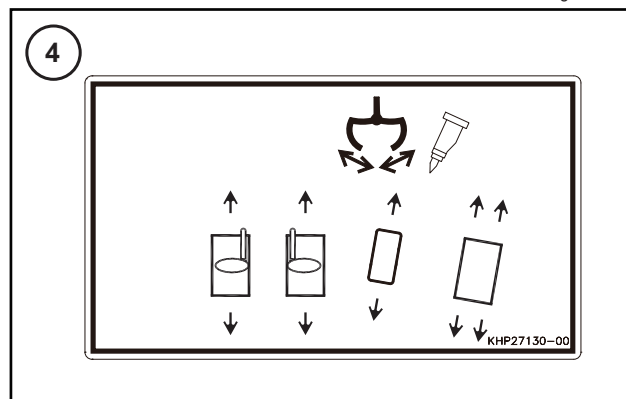


1C4C34E6

Figure 21

KHP27130 (OPTION) -Standard travel controls with single pedal travel and right hand auxiliary hydraulics.

These decals show the functions of the travel pedals and levers.

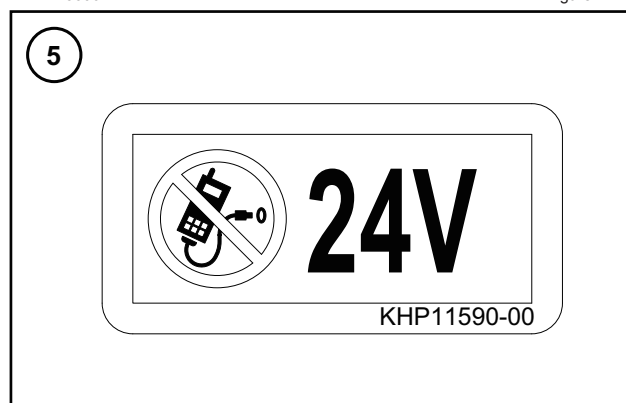


DBA30061

Figure 22

5. KHP11590

This decal informs the operator that the cigar lighter in the front is a 24 volt rating. Do not plug in any thing that is rated for 12 volts, like a phone charger.



41B54C75

Figure 23

6. KHP1247

This decal shows the location and way how to use the emergency exit (rear window).



1479FC7A

Figure 24

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