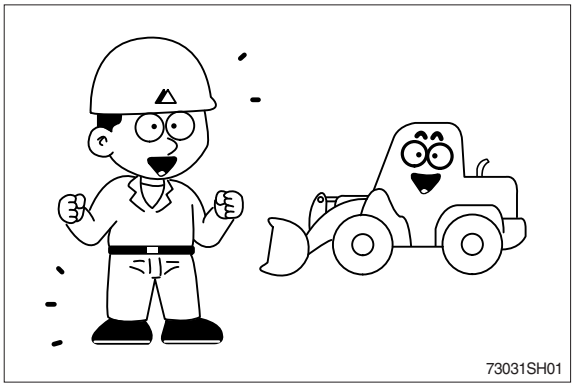
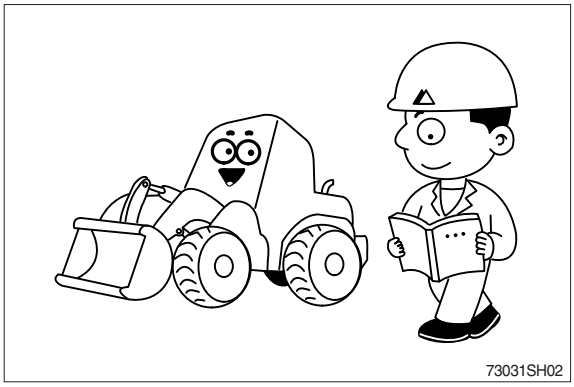
1. BEFORE OPERATING THE MACHINE

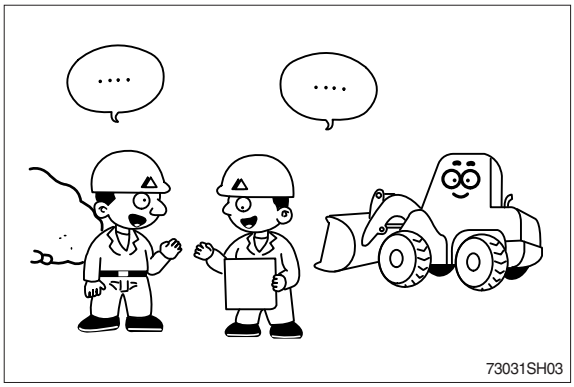
Think-safety first.
In special situation, wear protective clothing including a safety helmet, safety shoes, gloves, safety glasses and ear protection as required by the job condition.
Almost every accident are caused by disregarding the simple and fundamental safety hints.


73031SH01

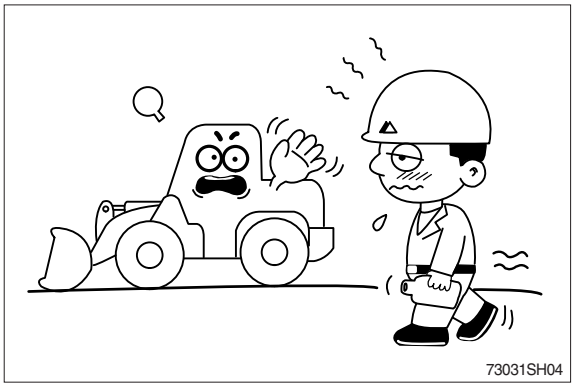
Be sure to understand thoroughly the operator's manual before operating the machine.


73031SH02

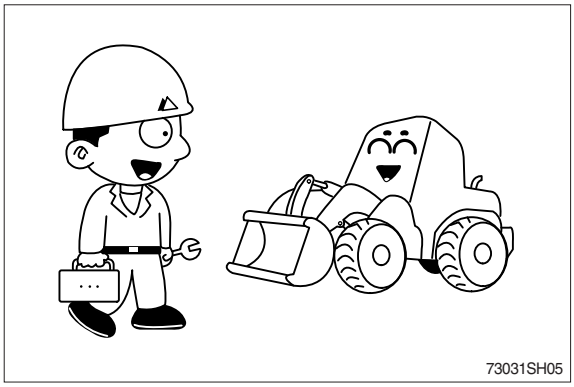
Fully understand the details and process of the construction before starting the work.
If you find anything dangerous on the job, consult with the job supervisor for preventive measures before operating the machine.


73031SH03

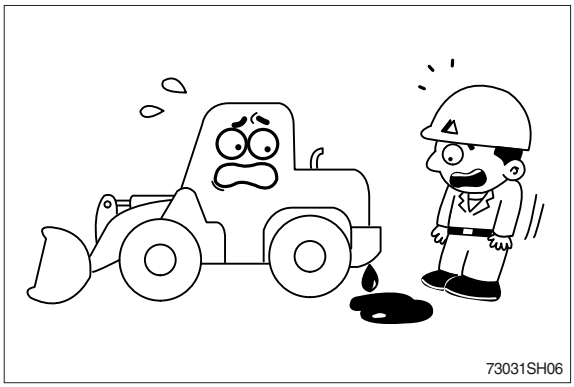
Do not operate when tired, or after drinking.
Alcoholic beverages, or any type of drugs.


73031SH04

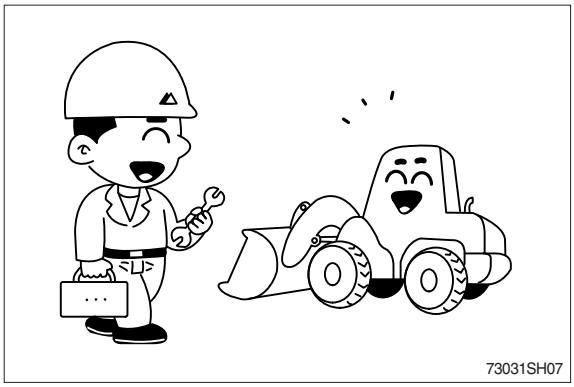
Check daily according to the operator's manual. Repair the damaged parts and tighten the loosened bolts.



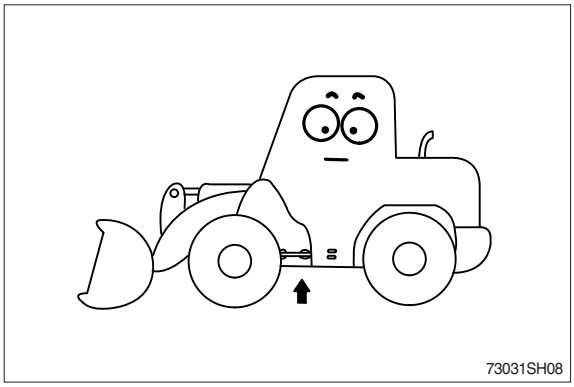
Check for leakage of engine oil, hydraulic oil, fuel and coolant.



Do not operate the machine if it requires repairs. Operate after complete repair.



Make sure safety lock pin is removed before operating the machine.



PRECAUTIONS FOR ATTACHMENTS

When installing and using an optional attachment, read the instruction manual for the attachment and the information related to attachments in this manual.
Do not use attachments that are not authorize by or your distributor. Use of unauthorized attachments could create a safety problem and adversely affect the proper operation and useful life of the machine.
Any injuries, accidents, product failures resulting from the use of unauthorized attachments will not be the responsibility of Hyundai.

SAFETY RULES

Only trained and authorized personnel can operate and maintain the machine.

Follow all safety rules, precautions and instructions when operating or performing maintenance on the machine.

When working with another operator or a person on worksite traffic duty, be sure all personnel understand all hand signals that are to be used.

SAFETY FEATURES

Be sure all guards and covers are in their proper position. Have guards and covers repaired if damaged.

Use safety features such as the safety lock lever and seat belts properly.

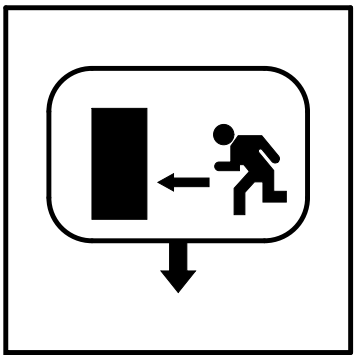
Never remove any safety features. Always keep them in good operating condition.

Improper use of safety features could result in serious bodily injury or death.

SECONDARY CAB EXIT

The door on the right side of the cab, also serves as a secondary exit.

Only in case of emergency, use installed the hammer for breaking the windshield of cab, and then exit carefully.



7707FW12

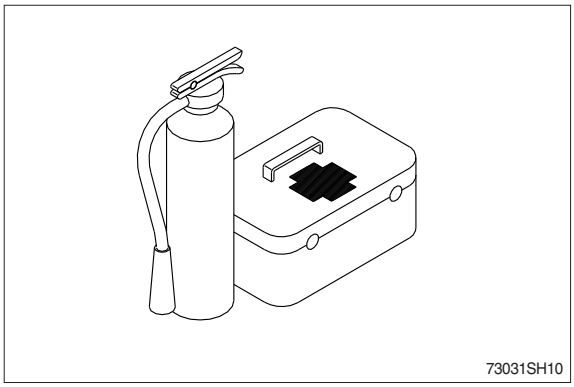
FIRE EXTINGUISHER AND FIRST AID KIT

Be sure fire extinguishers have been provided and know how to use them.

Provide a first aid kit at the storage point.

Know what to do in the event of a fire.

Be sure you know the phone numbers of persons you should contact in case of an emergency.



73031SH10

UNAUTHORIZED MODIFICATION

Any modification made without authorization from Hyundai can create hazards.

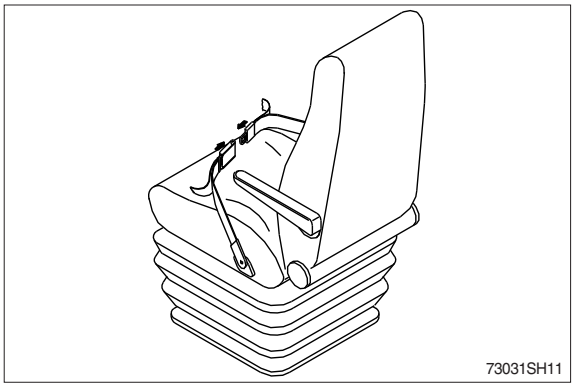
Before making a modification, consult your Hyundai distributor. Hyundai will not be responsible for any injury or damage caused by any unauthorized modification.

SEAT BELT

Check the condition of the seat belt and mounting hardware before operating the machine. If the seat belt mounting hardware is worn or damage, replace the seat belt mounting hardware. Make sure that the mounting bolts are tight.

Replace the seat belt at least once every three years regardless of appearance.

Always use seat belts when operating your machine.



73031SH11

FIRE PREVENTION AND EXPLOSION PREVENTION

Regeneration

The exhaust gas temperatures during regeneration will be elevated. Follow proper fire prevention instructions and use the disable regeneration function when appropriate.

General

All fuels, most lubricants, and some coolant mixtures are flammable.

To minimize the risk of fire or explosion, the following actions are recommended.

Always perform a Walk-Around Inspection, which may help you identify a fire hazard.
Do not operate a machine when a fire hazard exists. Contact your dealer for service.

3001SH01

Understand the use of the primary exit and alternative exit on the machine.

Do not operate a machine with a fluid leak. Repair leaks and clean up fluids before resuming machine operation. Fluids that are leaking or spilled onto hot surfaces or onto electrical components can cause a fire. A fire may cause personal injury or death.

Do not weld on or drill holes in the engine cover. Flammable material such as leaves, twigs, papers, trash may accumulate in engine compartment.

Remove flammable material such as leaves, twigs, papers, trash and so on. These items may accumulate in the engine compartment or around other hot areas and hot parts on the machine.

Keep the access doors to major machine compartments closed and access doors in working condition in order to permit the use of fire suppression equipment, in case a fire should occur.

Clean all accumulations of flammable materials such as fuel, oil, and debris from the machine.

Do not operate the machine near any flame.

Keep shields in place. Exhaust shields (if equipped) protect hot exhaust components from oil spray or fuel spray in a break in a line, in a hose, or in a seal. Exhaust shields must be installed correctly.

Do not weld or flame cut on tanks or lines that contain flammable fluids or flammable material. Empty and purge the lines and tanks. Then clean the lines and tanks with a nonflammable solvent prior to welding or flame cutting. Ensure that the components are properly grounded in order to avoid unwanted arcs.

Dust that is generated from repairing nonmetallic hoods or fenders may be flammable and/or explosive. Repair such components in a ventilated area away from open flames or sparks. Use suitable Personal Protection Equipment (PPE).

Inspect all lines and hoses for wear or deterioration. Replace damaged lines and hoses. The lines and the hoses should have adequate support and secure clamps. Tighten all connections to the recommended torque. Damage to the protective cover or insulation may provide fuel for fires.

Store fuels and lubricants in properly marked containers away from unauthorized personnel. Store oily rags and flammable materials in protective containers. Do not smoke in areas that are used for storing flammable materials.

3001SH02

Use caution when you are fueling a machine.
Do not smoke while you are fueling a machine. Do not fuel a machine near open flames or sparks. Always stop the engine before fueling. Fill the fuel tank outdoors. Properly clean areas of spillage.

Never store flammable fluids in the operator compartment of the machine.

3001SH03

Battery and battery cables

The following actions are recommended to minimize the risk of fire or an explosion related to the battery.

3001SH04

Do not operate a machine if battery cables or related parts show signs of wear or damage. Contact your dealer for service.

Follow safe procedures for engine starting with jump-start cables. Improper jumper cable connections can cause an explosion that may result in injury.

Do not charge a frozen battery. This action may cause an explosion.

Gases from a battery can explode. Keep any open flames or sparks away from the top of a battery. Do not smoke in battery charging areas.

Never check the battery charge by placing a metal object across the terminal posts. Use a voltmeter in order to check the battery charge.

Daily inspect battery cables that are in areas that are visible. Inspect cables, clips, straps, and other restraint for damage. Replace any damaged parts. Check for signs of the following, which can occur over time due to use and environmental factors :

- Fraying
- Abrasion
- Cracking
- Discoloration
- Cuts on the insulation of the cable
- Fouling
- Corroded terminals, damaged terminals, and loose terminals

Replace damaged battery cable (s) and replace any related parts. Eliminate any fouling, which may have caused insulation failure or related component damage or wear. Ensure that all components are reinstalled correctly.

An exposed wire on the battery cable may cause a short ground if the exposed area comes into contact with a grounded surface. A battery cable short produces heat from the battery current, which may be a fire hazard.

An exposed wire on the ground cable between the battery and the disconnect switch may cause the disconnect switch to be bypassed if the exposed area comes into contact with a grounded surface. This action may result in an unsafe condition for servicing the machine. Repair components or replace components before servicing the machine.

⚠ Fire on a machine can result in personal injury or death. Exposed battery cables that come into contact with a grounded connection can result in fires. Replace cables and related parts that show signs of wear or damage. Contact your Hyundai dealer.

Wiring

Check electrical wires daily. If any of the following conditions exist, replace parts before you operate the machine.

- Fraying
- Signs of abrasion or wear
- Cracking
- Discoloration
- Cuts on insulation
- Other damage

Make sure that all clamps, guards, clips, and straps are reinstalled correctly. This action will help to prevent vibration, rubbing against other parts, and excessive heat during machine operation.

Attaching electrical wiring to hoses and tubes that contain flammable fluids or combustible fluids should be avoided.

Consult your Hyundai dealer for repair or for replacement parts.

Keep wiring and electrical connections free of debris.

Lines, Tubes, and Hoses

Do not bend high-pressure lines. Do not strike high-pressure lines. Do not install any lines that are bent or damaged. Use the appropriate backup wrenches in order to tighten all connections to the recommended torque.

Check lines, tubes, and hoses carefully. Wear Personal Protection Equipment (PPE) in order to check for leaks. Always use a board or cardboard when you check for a leak. Leaking fluid that is under pressure can penetrate body tissue. Fluid penetration can cause serious injury and possible death. A pin hole leak can cause severe injury. If fluid is injected into your skin, you must get treatment immediately. Seek treatment from a doctor that is familiar with this type of injury.

Replace the affected parts if any of the following conditions are present :

- End fittings are damaged or leaking.
- Outer coverings are chafed or cut.
- Wires are exposed.
- Outer coverings are swelling or ballooning.
- Flexible parts of the hoses are kinked.
- Outer covers have exposed embedded armoring.
- End fittings are displaced.

Make sure that all clamps, guards, and heat shields are installed correctly. During machine operation, this action will help to prevent vibration, rubbing against other parts, excessive heat, and failure of lines, tubes, and hoses.

Do not operate a machine when a fire hazard exists. Repair any lines that are corroded, loose, or damaged. Leaks may provide fuel for fires. Consult your Hyundai dealer for repair or for replacement parts.

Ether

Ether (if equipped) is commonly used in cold weather applications. Ether is flammable and poisonous.

Do not spray ether manually into an engine if the machine is equipped with a thermal starting aid for cold weather starting.

Use ether in ventilated areas. Do not smoke while you are replacing an ether cylinder or while you are using an ether spray.

Do not store ether cylinders in living areas or in the operator compartment of a machine. Do not store ether cylinders in direct sunlight or in temperatures above 49˚C(120.2 ˚F). Keep ether cylinders away from unauthorized personnel.

Fire Extinguisher

As an additional safety measure, keep a fire extinguisher on the machine.

Be familiar with the operation of the fire extinguisher. Inspect the fire extinguisher and service the fire extinguisher regularly. Follow the recommendations on the instruction plate.

Consider installation of an aftermarket Fire Suppression System, if the application and working conditions warrant the installation.

Fire Safety

※ **Locate secondary exits and how to use the secondary exits before you operate the machine.**
※ **Locate fire extinguishers and how to use a fire extinguisher before you operate the machine.**

If you find that you are involved in a machine fire, your safety and that of others on site is the top priority. The following actions should only be performed if the actions do not present a danger or risk to you and any nearby people. At all times you should assess the risk of personal injury and move away to a safe distance as soon as you feel unsafe.
Move the machine away from nearby combustible material such as fuel/oil stations, structures, trash, mulch and timber.

Lower any implements and turn off the engine as soon as possible. If you leave the engine running, the engine will continue to feed a fire. The fire will be fed from away damaged hoses that are attached to the engine or pumps.

If possible, turn the battery disconnect switch to the OFF position. Disconnecting the battery will remove the ignition source in the event of an electrical short. Disconnecting the battery will eliminate a second ignition source if electrical wiring is damaged by the fire, resulting in a short circuit.

Notify emergency personnel of the fire and your location.

If your machine is equipped with a fire suppression system, follow the manufacturers procedure for activating the system.

※ **Fire suppression systems need to be regularly inspected by qualified personnel. You must be trained to operate the fire suppression system.**

Use the on-board fire extinguisher and use the following procedure :
1. Pull the pin.
2. Aim the extinguisher or nozzle at the base of the fire.
3. Squeeze the handle and release the extinguishing agent.
4. Sweep the extinguisher from side to side across the base of the fire until the fire is out.

Remember, if you are unable to do anything else, shut off the machine before exiting. By shutting off the machine, fuels will not continue to be pumped into the fire.
If the fire grows out of control, be aware of the following risks :
- Tires on wheeled machines pose a risk of explosion as tires burn. Hot shrapnel and debris can be thrown great distances in an explosion.
- Tanks, accumulators, hoses, and fittings can rupture in a fire, spraying fuels and shrapnel over a large area.

Remember that nearby all of the fluids on the machine are flammable, including coolant and oils. Additionally, plastics, rubbers, fabrics, and resins in fiberglass panels are also flammable.

Fire extinguisher Location

Make sure that a fire extinguisher is available. Be familiar with the operation of the fire extinguisher. Inspect the fire extinguisher and service the fire extinguisher. Obey the recommendations on the instruction plate.

Mount the fire extinguisher in the accepted location per local regulations.

If your machine is equipped with a ROPS structure, strap the mounting plate to the ROPS in order to mount the fire extinguisher. If the weight of the fire extinguisher exceeds 4.5 kg (10 lb), mount the fire extinguisher near the bottom of the ROPS. Do not mount the fire extinguisher at the upper one-third area on the ROPS.

Do not weld the ROPS structure in order to install the fire extinguisher. Also, do not drill holes in the ROPS structure in order to mount the fire extinguisher on the ROPS.

Consult your Hyundai dealer for the proper procedure for mounting the fire extinguisher.

THE EUROPEAN UNION PHYSICAL AGENTS (VIBRATION) DIRECTIVE 2002/44/EC

Vibration Data for Earth-moving Machines

Information Concerning Hand/Arm Vibration Level

When the machine is operated according to the intended use, the hand/arm vibration of this machine is below 2.5 m/s^2.

Information Concerning Whole Body Vibration Level

The highest root mean square value of weighted acceleration to which the whole body is subjected, is less than 0.5 m/s^2.

This section provides vibration data and a method for estimating the vibration level for earth moving machines.

Vibration levels are influenced by many different parameters. Many items are listed below.

- Operator training, behavior, mode and stress
- Job site organization, preparation, environment, weather and material
- Machine type, quality of the seat, quality of the suspension system, attachments and condition of the equipment

It is not possible to get precise vibration levels for this machine. The expected vibration levels can be estimated with the information in below Table in order to calculate the daily vibration exposure. A simple evaluation of the machine application can be used.

Estimate the vibration levels for the three vibration directions. For typical operating conditions, use the average vibration levels as the estimated level. With an experienced operator and smooth terrain, subtract the Scenario Factors from the average vibration level. For aggressive operations and severe terrain, add the Scenario Factors to the average vibration level in order to obtain the estimated vibration level.

※ **All vibration levels are in meter per second squared.**

ISO Reference Table A – Equivalent vibration levels of whole body vibration emission for earthmoving equipment.

Machine family	Machine kind	Typical operating condition	Vibration Levels			Scenario Factors		
			X axis	Y axis	Z axis	X axis	Y axis	Z axis
Excavator	Compact crawler excavator	Excavating	0.33	0.21	0.19	0.19	0.12	0.10
		Hydraulic breaker app.	0.49	0.28	0.36	0.20	0.13	0.17
		Transfer movement	0.45	0.39	0.62	0.17	0.18	0.28
	Crawler excavator	Excavating	0.44	0.27	0.30	0.24	0.16	0.17
		Hydraulic breaker app.	0.53	0.31	0.55	0.30	0.18	0.28
		Mining application	0.65	0.42	0.61	0.21	0.15	0.32
		Transfer movement	0.48	0.32	0.79	0.19	0.20	0.23
	Wheeled excavator	Excavating	0.52	0.35	0.29	0.26	0.22	0.13
		Transfer movement	0.41	0.53	0.61	0.12	0.20	0.19

ISO Reference Table A – Equivalent vibration levels of whole body vibration emission for earthmoving equipment.

Machine family	Machine kind	Typical operating condition	Vibration Levels			Scenario Factors		
			X axis	Y axis	Z axis	X axis	Y axis	Z axis
Loader	skid steer loader (tracks)	V-shaped motion	1.21	1.00	0.82	0.30	0.84	0.32
	Wheel backhoe loader	Excavating	0.28	0.26	0.20	0.09	0.16	0.06
	Wheel loader	Load and carry motion	0.84	0.81	0.52	0.23	0.20	0.14
		Mining application	1.27	0.97	0.81	0.47	0.31	0.47
		Transfer movement	0.76	0.91	0.49	0.33	0.35	0.17
		V-shape motion	0.99	0.84	0.54	0.29	0.32	0.14

※ **Refer to "ISO/TR 25398 Mechanical Vibration-Guideline for the assessment of exposure to whole body vibration of ride on operated earthmoving machines" for more information about vibration. This publication uses data that is measured by international institutes, organizations and manufacturers. This document provides information about the whole body exposure of operators of earthmoving equipment.**

Guidelines for Reducing Vibration Levels on Earthmoving Equipment

Properly adjust machines. Properly maintain machines. Operate machines smoothly. Maintain the conditions of the terrain. The following guidelines can help reduce the whole body vibration level :

1. Use the right type and size of machine, equipment, and attachments.
2. Maintain machines according to the manufacturer's recommendations.
   a. Tire pressures
   b. Brake and steering systems
   c. Controls, hydraulic system and linkages
3. Keep the terrain in good condition.
   a. Remove any large rocks or obstacles.
   b. Fill any ditches and holes.
   c. Provide machines and schedule time in order to maintain the conditions of the terrain.
4. Use a seat that meets "ISO 7096". Keep the seat maintained and adjusted.
   a. Adjust the seat and suspension for the weight and the size of the operator.
   b. Inspect and maintain the seat suspension and adjustment mechanisms.
5. Perform the following operations smoothly.
   a. Steer
   b. Brake
   c. Accelerate
   d. Shift the gears.
6. Move the attachments smoothly.
7. Adjust the machine speed and the route in order to minimize the vibration level.
   a. Drive around obstacles and rough terrain.
   b. Slow down when it is necessary to go over rough terrain.
8. Minimize vibrations for a long work cycle or a long travel distance.
   a. Use machines that are equipped with suspension systems.
   b. Use the ride control system on machines.
   c. If no ride control system is available, reduce speed in order to prevent bounce.
   d. Haul the machines between workplaces.
9. Less operator comfort may be caused by other risk factors. The following guidelines can be effective in order to provide better operator comfort:
   a. Adjust the seat and adjust the controls in order to achieve good posture.
   b. Adjust the mirrors in order to minimize twisted posture.
   c. Provide breaks in order to reduce long periods of sitting.
   d. Avoid jumping from the cab
   e. Minimize repeated handling of loads and lifting of loads.
   f. Minimize any shocks and impacts during sports and leisure activities.

Sources

The vibration information and calculation procedure is based on "ISO/TR 25398 Mechanical Vibration-Guideline for whole body vibration exposure of operators of earthmoving equipment. The method is based on measured vibration emission under real working conditions for all machines.

You should check the original directive. This document summarizes part of the content of the applicable law. This document is not meant to substitute the original sources. Other parts of these documents are based on information from the United Kingdom Health and Safety Executive.

MODIFICATIONS

Modifications to the machine, including use of unauthorized accessories and spare parts, may affect the machine's condition and its ability to function as it was designed. No changes of any kind may be performed without first obtaining written approval from Hyundai. Hyundai reserves the right to refuse all warranty claims that have resulted due to or can be attributed to unauthorized modifications.

Never modify the operator's cabin by welding, grinding, drilling holes or adding attachments unless instructed by Hyundai in writing. Changes to the cabin can cause loss of operator protection from roll-over and falling objects, and result in death or serious injury.

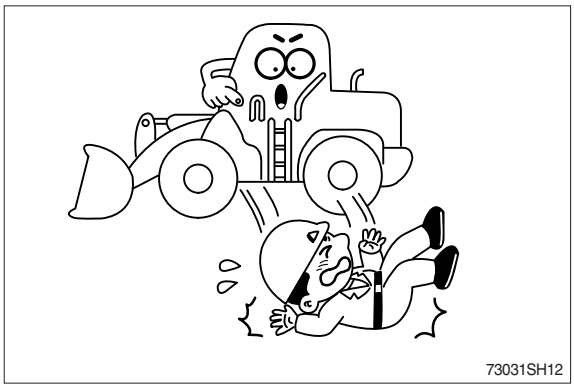
The person who performs unauthorized modifications assumes all responsibility for consequences that arise due to the modification or can be attributed to the modification, including damage to the machine.

Modifications may be considered to be officially approved, if at least one of the following conditions has been met :

1. The attachment, the accessory, or the spare part has been made or distributed by Hyundai and has been installed according to approved methods described in a publication available from Hyundai; or
2. The modification has been approved in writing by the Engineering Department at each product company within Hyundai.

2. DURING OPERATING THE MACHINE

Use the handle and footstep when getting on or off the machine.
Do not jump on or off the machine.

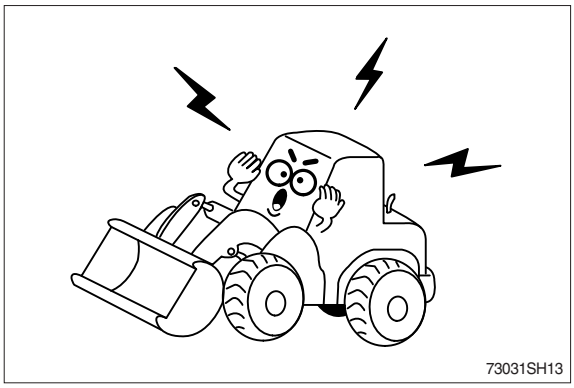


Sound the horn to warn nearby personnel before operating the machine.

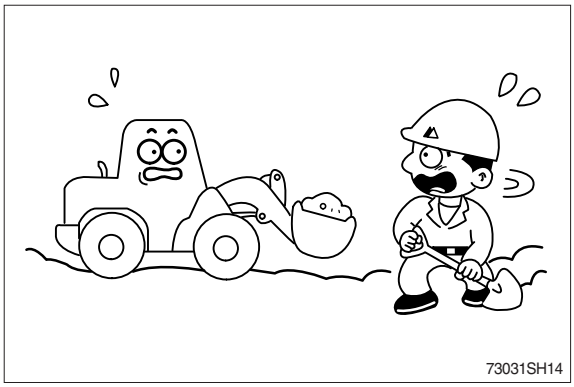
KEEP RIDERS OFF MACHINE

Riders on a machine are subject to injury such as being struck objects and being thrown off the machine.

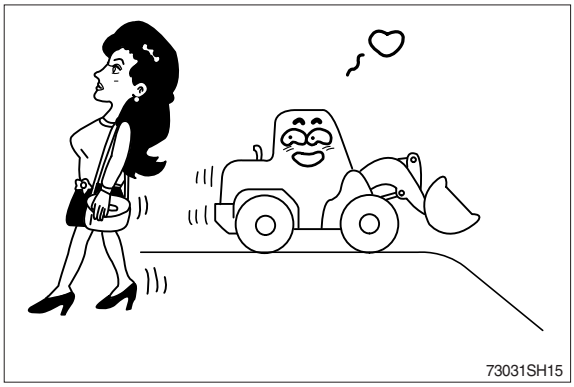
Only allow the operator on the machine. Keep riders off.



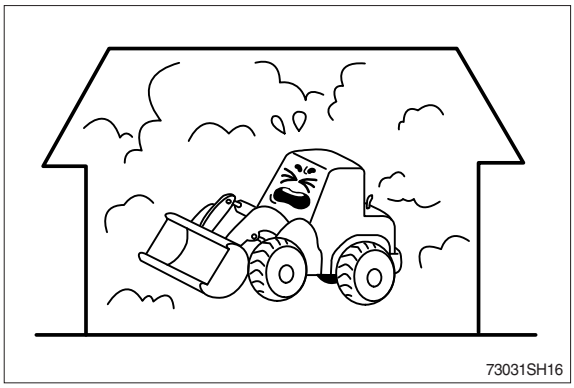
Operate carefully to make sure all personnel or obstacles are clear within the working range of the machine.
Place safety guards if necessary.



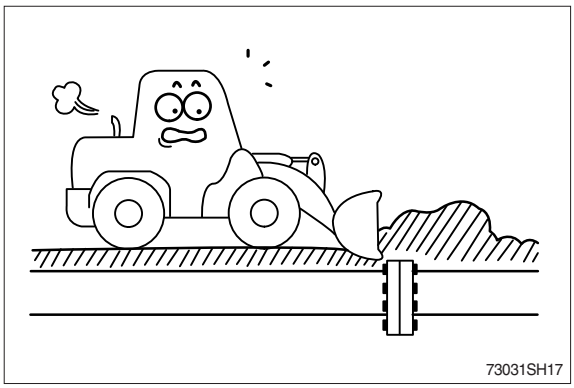
When using the work equipment, pay attention to jobsite.



Provide proper ventilation when operating engine in a closed area to avoid the danger of exhaust gases.

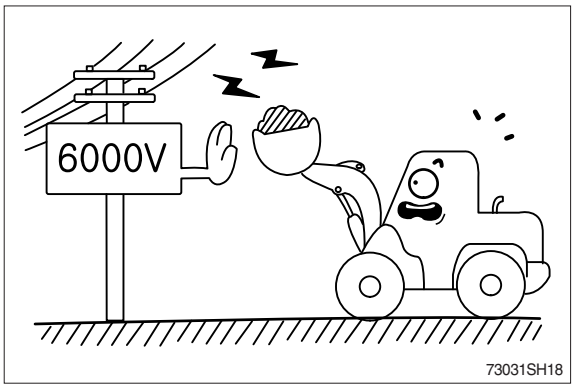


Check the locations of underground gas pipes or water line and secure the safety before operation.

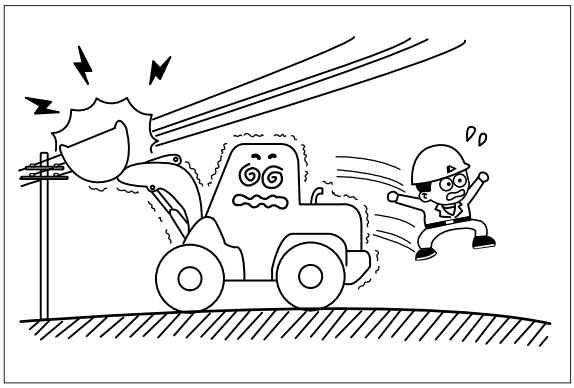


The operating near the electrical lines is very dangerous. Operate within safe working range permitted as below.

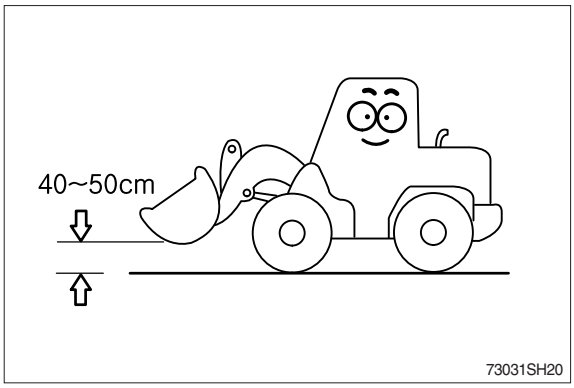
Supply voltage	Min safe separation
6.6 kV	3 m (10 ft)
33.0 kV	4 m (13 ft)
66.0 kV	5 m (16 ft)
154.0 kV	8 m (26 ft)
275.0 kV	10 m (33 ft)



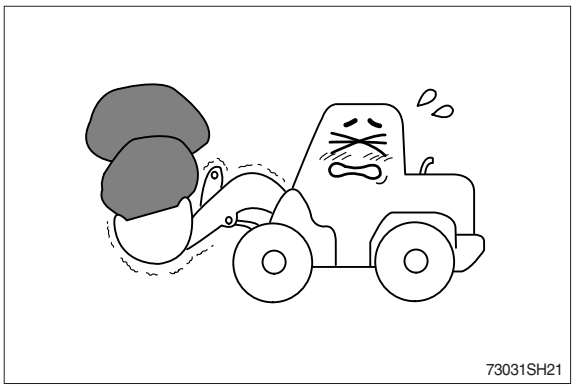
If the machine touches the electric power lines, keep sitting on the operator's seat and make sure the personnel on the ground not to touch the machine until turning off the electric current. Jump off the machine, do not contact the machine when you need to get off.



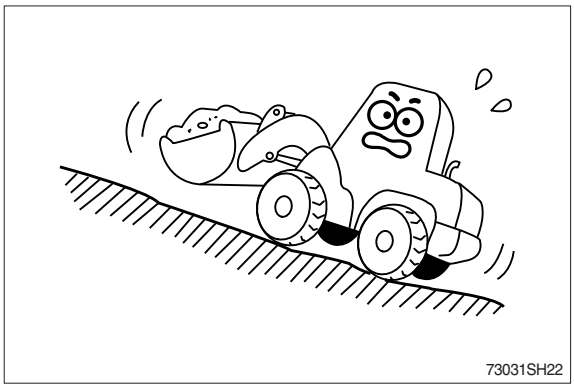
While traveling on public roads, lift the bucket 40~50 ㎝ above the ground. Do not drive with the bucket loaded.



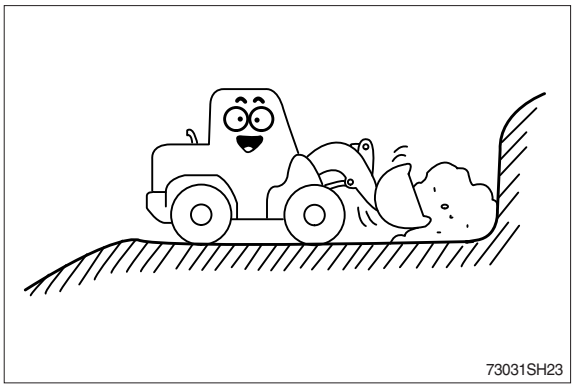
When the bucket is loaded, avoid sudden swinging or starting. Overloading is dangerous. Make sure the load does not exceed the permissible level.



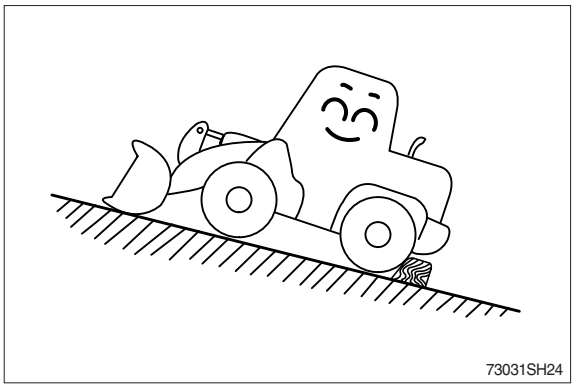
The operation on a slope is dangerous.
Avoid operating the machine on a slope of over 10 degree.



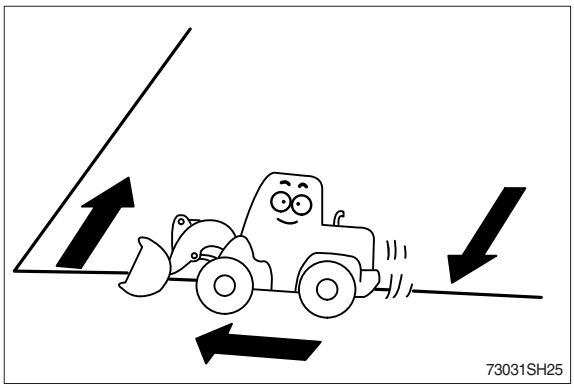
Operate the machine after making ground flat when operation is required on a slope.



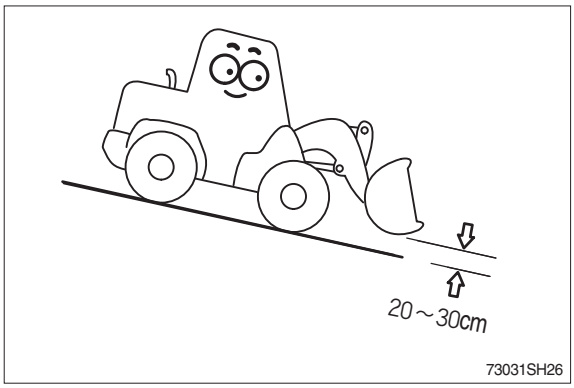
Avoid parking and stopping on a slope.
Lower the bucket to the ground and block the tire when parking.



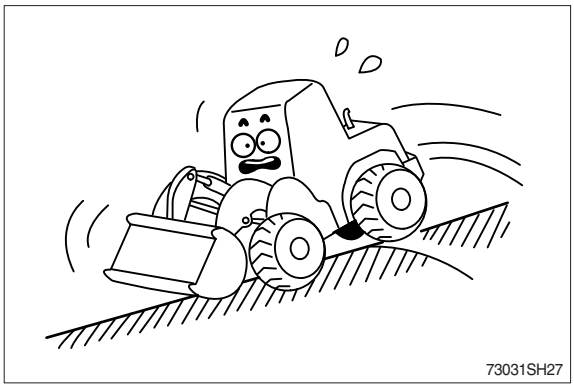
Avoid traveling in a cross direction on a slope as it can cause the danger of rolling over and sliding.



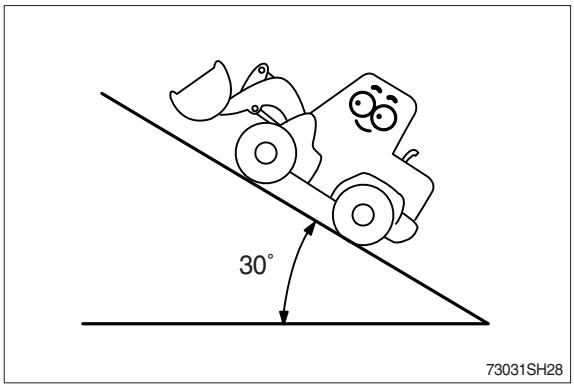
Traveling on the slope is dangerous.
Be sure to operate slowly when driving down a slope and maintain the bucket at a height of 20~30 ㎝ (1 ㎝) above the ground so that it can be used as brake in an emergency.



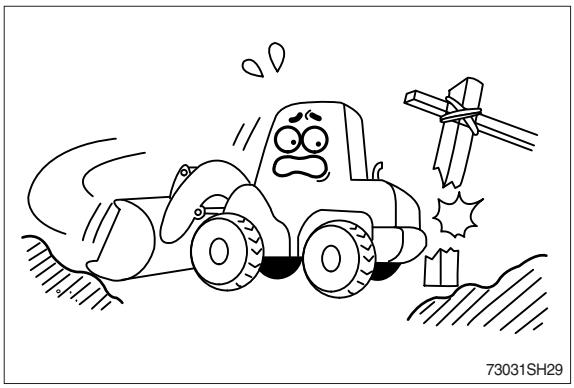
Steering of the machine while traveling on a slope is dangerous.
When an inevitable turning of direction is required, turn on the flat and solid ground.



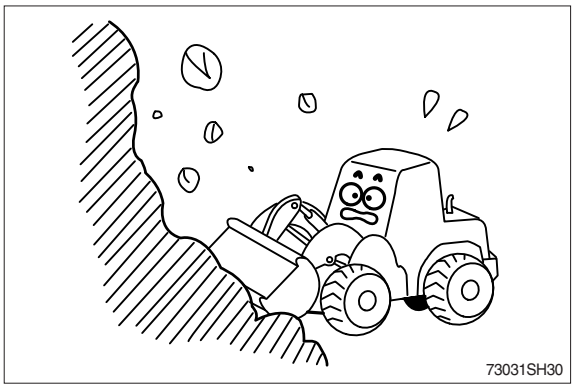
The engine angularity limits are 30˚.
Do not operate by more than the engine limits in any case.



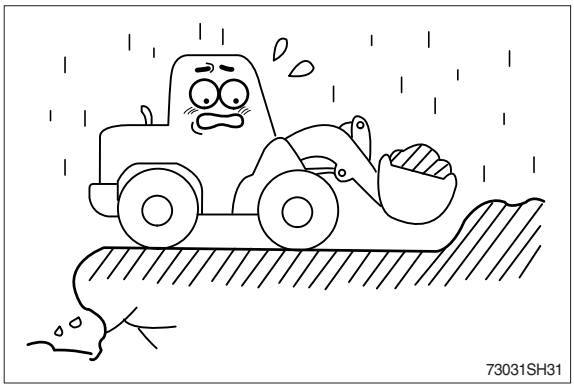
Watch out for obstacles. Be particularly careful to check the machine clearance during steering.



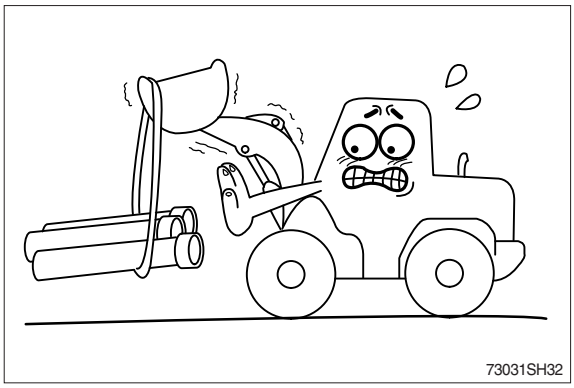
Always operate machine with proper ROPS/ FOPS installed.
Do not attempt to repair a rollover protective structure (ROPS) after an accident.
Repaired structures do not provide the original structure and protection.
Test and approved as a protective CAB according to ROPS and FOPS standard.
Meets : ISO 3471 / 3449 / 3164
SAE J1040 / J231 / J397



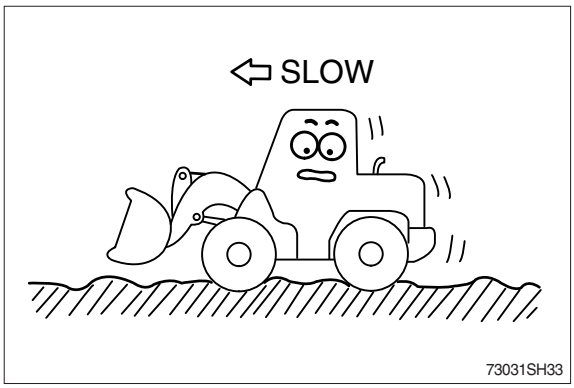
Avoid operating on a cliff, or soft ground as there is danger of rolling over.
Take necessary precautions when working after rain, or blasting because the ground may not be firm enough.



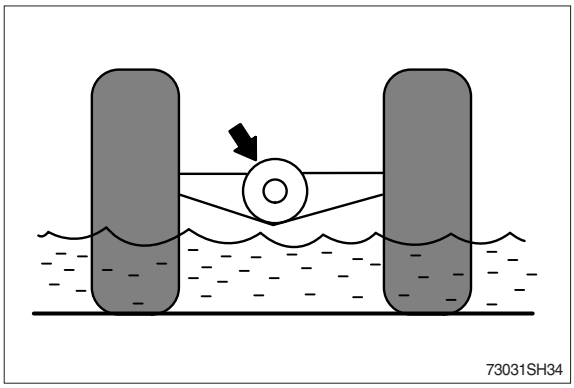
This machine is intended to be used only for excavation and loading. Do not use this for pulling up materials. Unlike a crane, this machine is not equipped with devices needed to pull up things.



Slow down when traveling through obstacles or uneven ground.

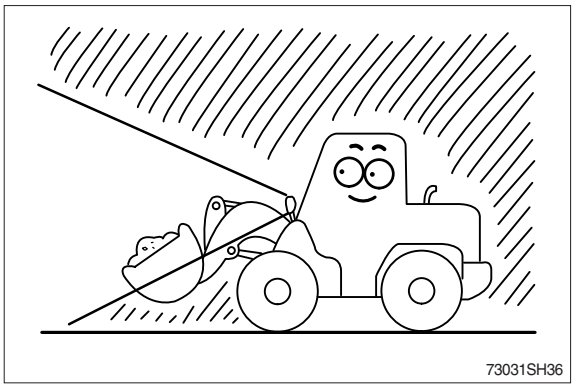


When operating in water or when crossing shallows, check the bed soil condition and depth and flow speed of water, then proceed taking care that water is not above axle housing.

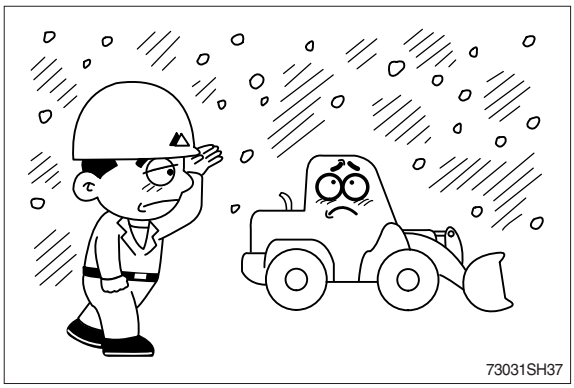


Never allow anyone near the center articulation pivot.
If the machine turned, they could be crushed.

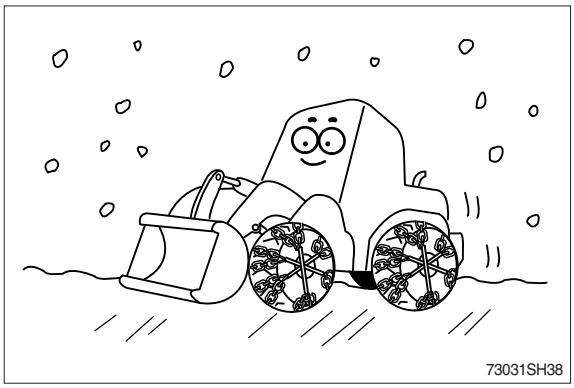
Use lights at night or in dark areas.



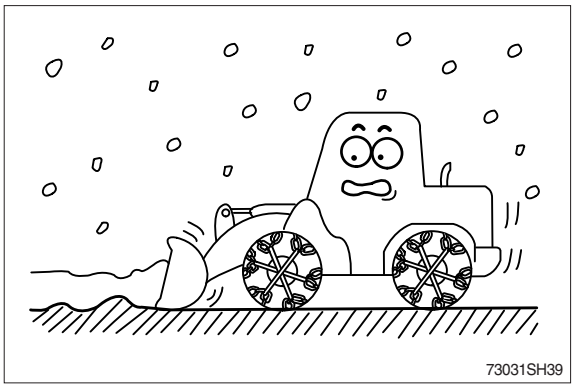
Be careful in the condition of bad clearance of sight caused by cloud, snow or rain.



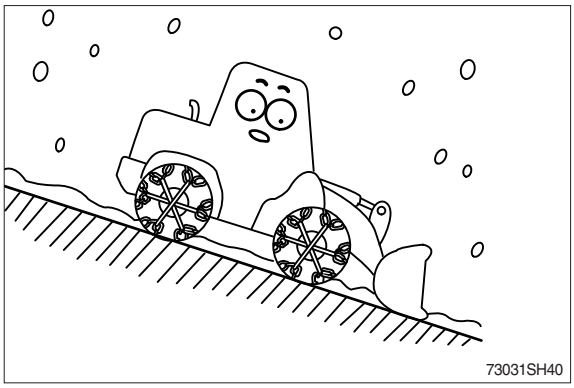
Put the chains on the tires when moving or working on the snowed and frozen road, and avoid doing sudden start, stop and swing.



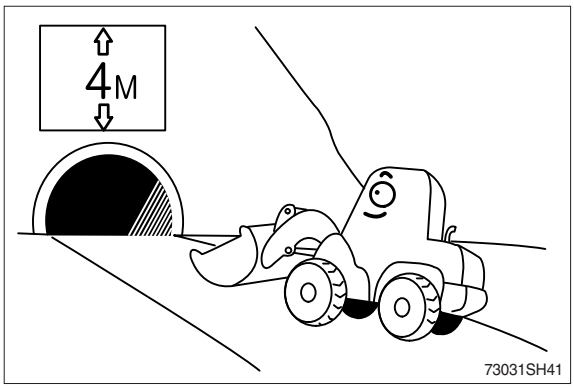
When machine is used for snow removal, be alert for hidden objects.



Be careful when traveling on icy surface.
Keep bucket low to ground.



Be careful when driving under a height limited place, for instance, a tunnel, an overpass, and an overhead cable.



MOUNTING AND DISMOUNTING

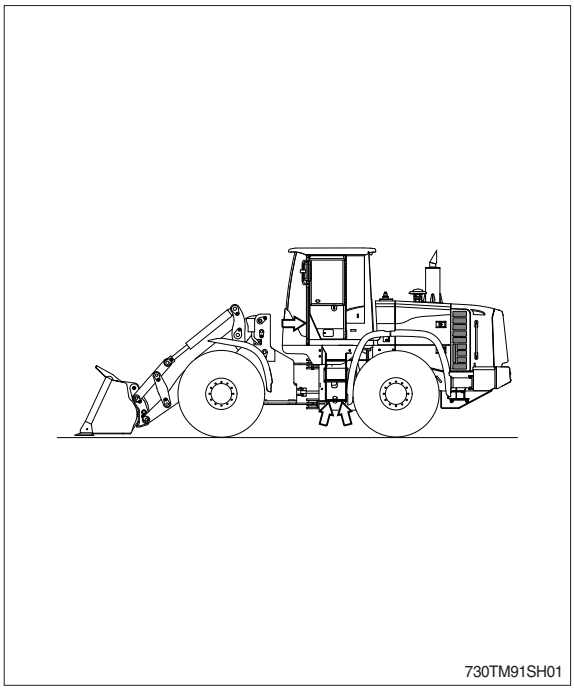
Never jump on or off the machine. Never get on or off a moving machine.

When getting on or off the machine, face the machine and use the handhold and steps.

Never hold any control levers when getting on or off the machine.

Always maintain three-point contact with the handholds and steps to ensure that your support yourself.

If there is any oil, grease, or mud on the handholds, steps or nonslip tapes, wipe it off immediately. Inspect, and as necessary, repair or replace the damaged parts and tighten any loose bolts.



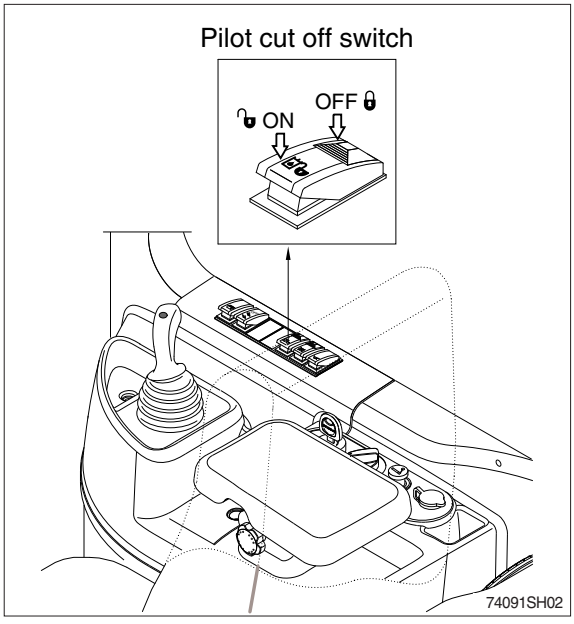
When carrying out inspection and maintenance with the mud guarder opened, pay attention to avoid the injury or damage by the mud guarder.

ALWAYS APPLY LOCK WHEN LEAVING OPERATOR'S SEAT

When standing up from the operator's seat, always place the pilot cut off switch to the **OFF** position. If you accidentally touch the RCV lever when they are not locked, the work equipment may suddenly move and cause serious injury or damage.

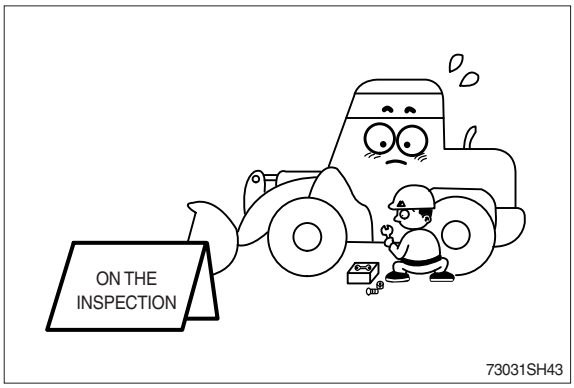
When leaving the machine, lower the work equipment to the ground, set the pilot cut off switch to the **OFF** position, then stop the engine and use the key to lock all the equipment. Always take the key with you.

※ **Refer to the page 3-26 for details.**

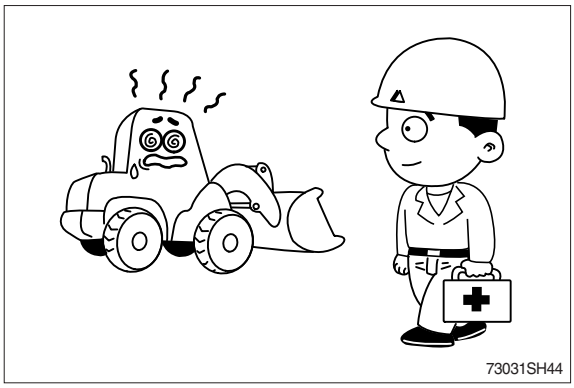


3. DURING MAINTENANCE

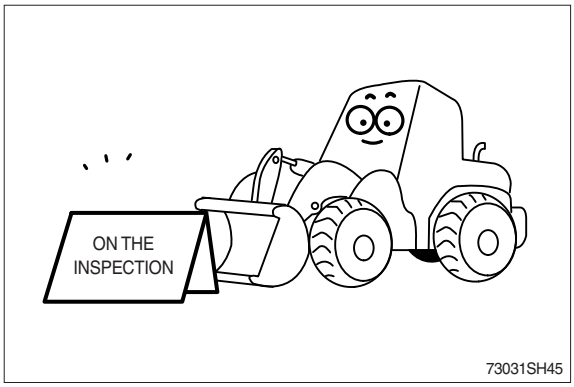
During maintenance do not allow any unauthorized person to stand near the machine. Also, be careful of people in the vicinity.



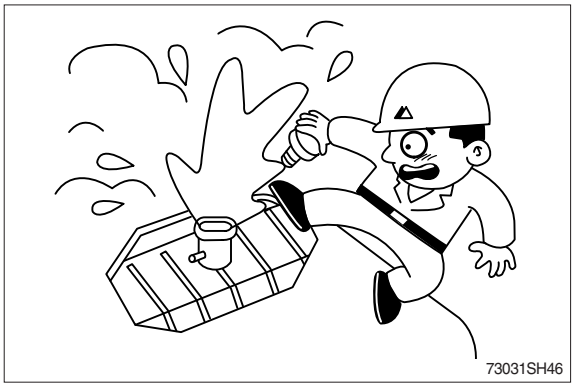
Stop the engine immediately when the trouble of the machine is found.
Inspect immediately the cause of trouble such as vibration, overheating and trouble in the cluster then repair.



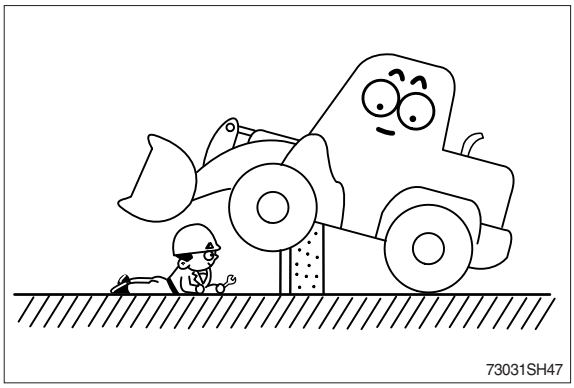
Park on a flat place for inspecting and repairing and properly TAG machine is not operational. (remove start key)
Extreme care shall be taken during maintenance work.
Parts may require additional safe guarding.



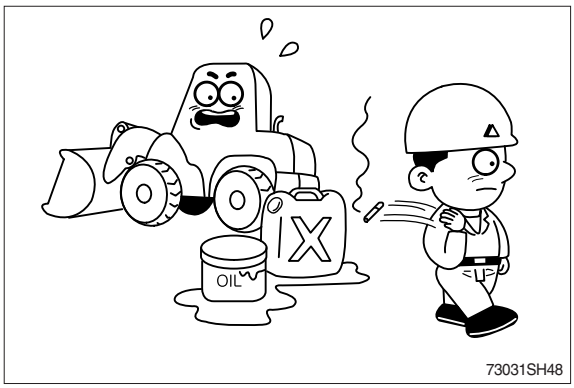
Do not remove the radiator cap from hot engine. Open the cap after the engine is cool, below 50˚C (112˚F) to prevent personal injury from heated coolant spray or steam.



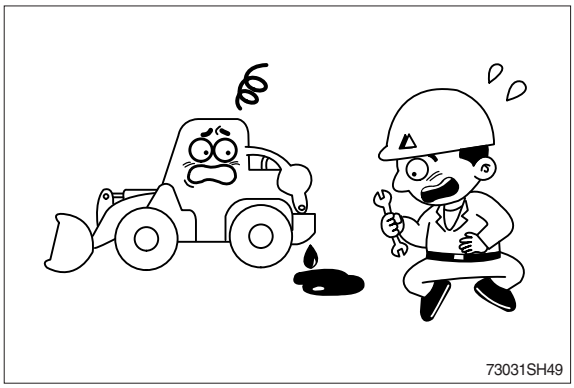
Do not work below the machine.
When working under of around the bucket or linkage, with the bucket raised, proper support must be provided for the bucket and / or the linkage.



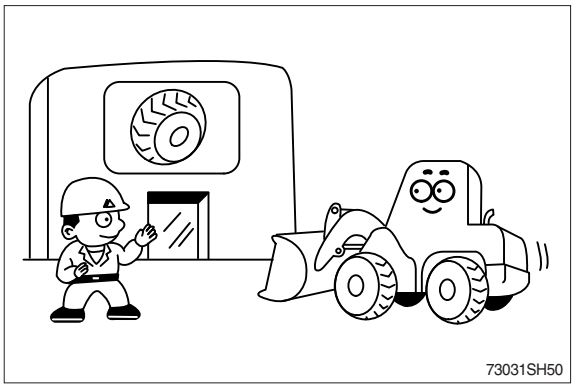
There is the danger of fire in fuel and oil.
Store in cool dry area, away from any open flames.
Do not refuel the machine while smoking or when near open flame or sparks.
Always stop engine before refueling machine.



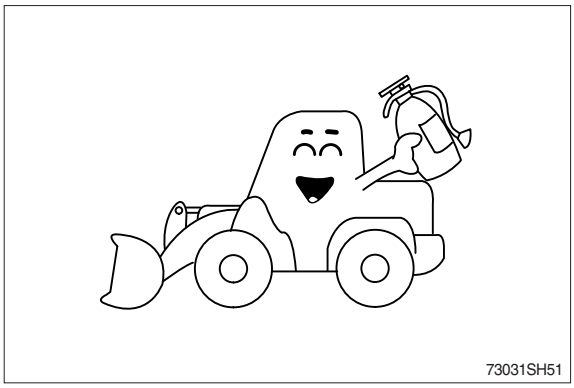
Spilled grease and oil are dangerous to safety.
Keep your machine always clean and dry.



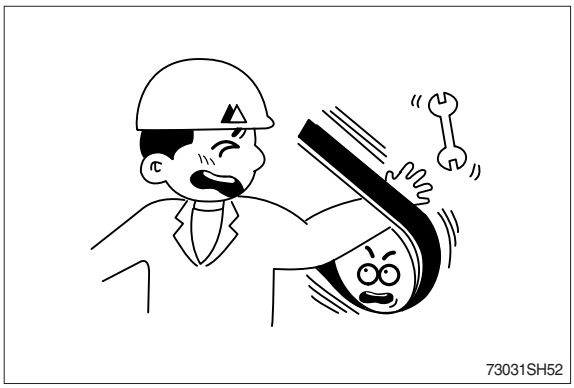
Disassembly, reassembly and repair of tire requires special skills and equipment.
Contact a tire repair shop.



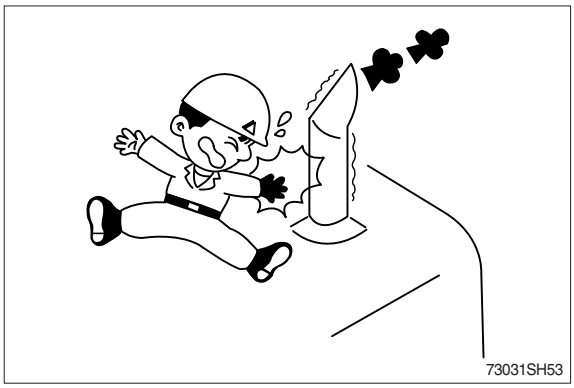
Be prepared if a fire starts.
Keep a fire extinguisher handy and emergency numbers for a fire department near your telephone.



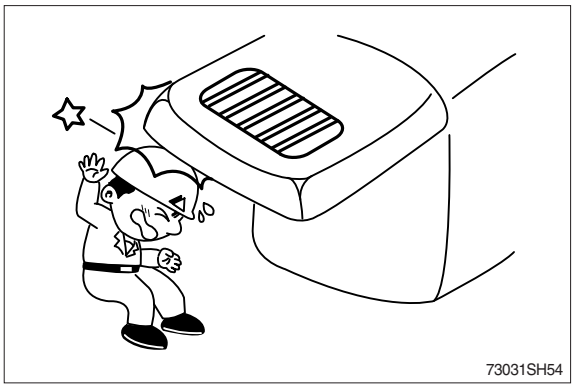
When servicing and checking engine compartment at the side door opened, be careful head against door.
Do not open the side door while engine is running.



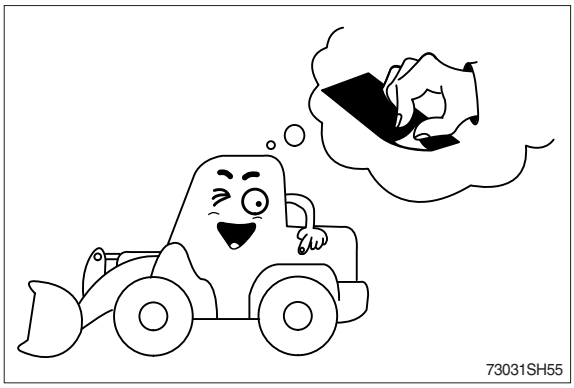
Do not touch exhaust pipe, or it may cause severe burn.



Be sure to support stay, when the side door needs to be opened.
Be careful the external or natural force like strong wind.



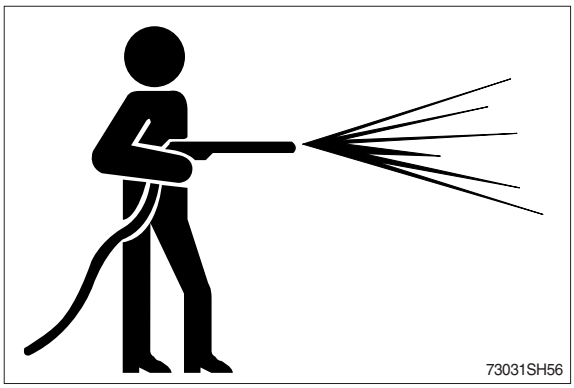
The anti-slip protection should be replaced if they have become worn or have been printed over.



KEEP THE MACHINE CLEAN

Spilled oil or grease, or scattered tools or broken pieces are dangerous because they may cause you to slip or trip.
Always keep your machine clean and tidy.

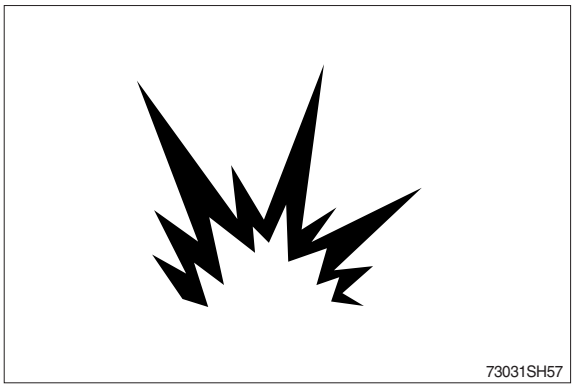
If water gets into the electrical system, there is danger that the machine may not move or may move unexpectedly.
Do not use water or steam to clean the sensors, connectors, or the inside of the operator's compartment.



HANDLING TIRES

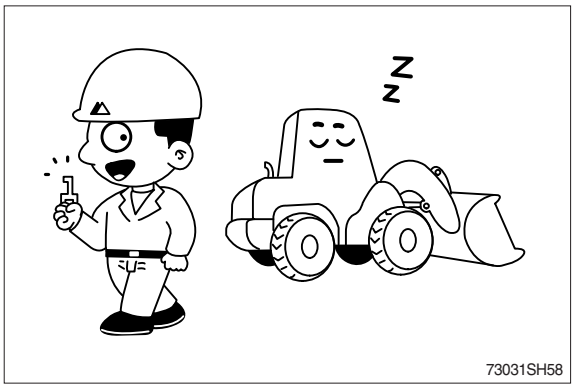
If tires are not used under the specified condition, they may overheat and burst or be cut and burst by sharp stones on rough road surfaces. This may lead to serious injury or damage.
To maintain safety, always keep to the suitable conditions : See page 6-29, 30.

⚠ Disassembly, reassembly, replacement and repair of tire requires special skills and equipment. Contact a tire repair shop.

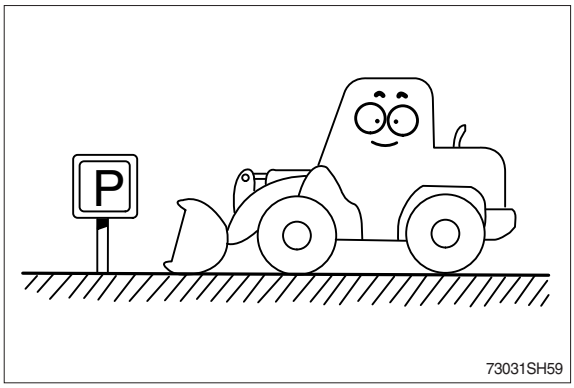


4. PARKING

When leaving the machine lower the bucket to the ground completely and put the safety lever at parking position then remove the key.
Lock the cab door.



Park the machine in the flat and safe place.



Hope you can work easily and safely observing safety rules.
For safe operation, observe all safety rules.