

# Safety

# GENERAL PRECAUTIONS

## GENERAL SAFETY RULES

- Only trained and authorised personnel can use the machine and perform maintenance operations.
- Follow all the safety rules, precautions and instructions when using the machine or performing maintenance operations.
- When working with the other operators or when the work site is often occupied by other operators, make sure that everyone knows and understands all the signals described above and , in any case, that everyone works in such a way as to be able to see the machine and to be visible to the operator.

## SAFETY DEVICE AND GUARDS

- Make sure that all the guard and covers are in the correct position. Have guards and covers changed or repaired if damaged. Neither use the machine without guards, nor remove the guards when the engine is running.
- Always use the proper safety devices to look the machine when parking and fasten the safety belt.
- For the safety devices, see “10. SAFETY LOCKS”.
- For the safety belt, see “14.6 SAFETY BELT”.
- Do not removed the safety devices and always keep them in good operating conditions.
- Any improper use of the safety devices may result in serious injuries or even death.

## CLOTHING AND PERSONAL PROTECTION ITEMS

- Do not wear large or loose clothes, rings and watches and do not approach the machine with loose long hair, since they can get entangled in the in the moving parts of the machine and cause serious injuries or damage. Avoid also wearing clothes dirty with oil or fuel, since they are flammable.
- Wear a hard hat, goggles, safety shoes, mask, gloves and headphones when operating the machine or performing maintenance operations.
- Always wear safety goggles, a hard hat and heavy gloves if your job involves scattering metal chips or minute materials; these precautions are particularly useful when driving the equipment connection pins with a hammer and when blowing compressed air into the air filter and the radiator to clean them. During these operations, make also sure that no one is standing or working near machine without the necessary protections.
- When working for 8 hours with a noise level exceeding 90 dBA, it is necessary to use headphones or ear plugs and be particularly careful, especially at the end of the work shift.



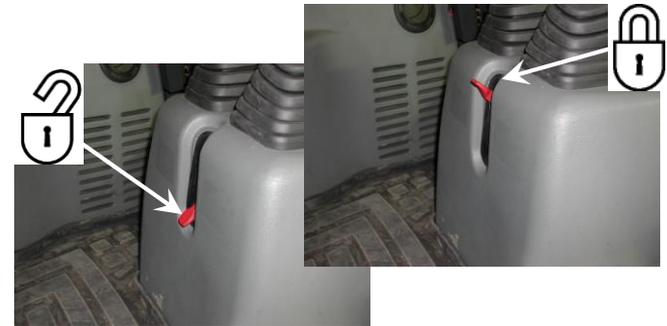
## UNAUTHORIZED MODIFICATIONS

- Any modification made without the authorisation of KUE can involve hazards.
- Before making a modification, consult your KUE dealer. KUE declines any responsibility for injuries or damage caused by unauthorised modifications.

### LEAVING THE OPERATOR'S SEAT

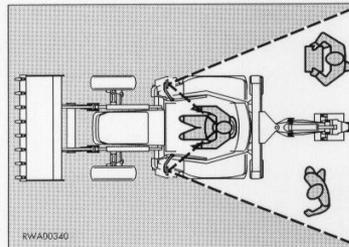
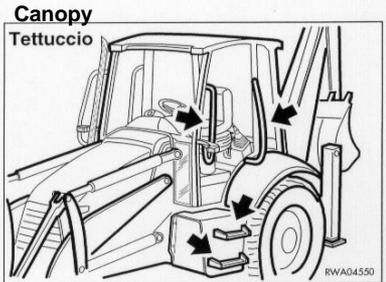
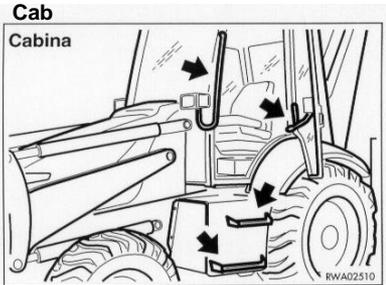
- When leaving the operator's seat, even if temporarily, make sure that the machine is in a safe position. (See "2.4.11 PARKING THE MACHINE").
- Before leaving the operator's seat, carry out the following operations in the sequence indicated below:
  - 1- Rest the equipment onto the ground.
  - 2- Push the button of block PPC group. (Light on)
  - 3- Apply the parking brake.
  - 4- Shift the reversing gear lever to the natural position.
  - 5- Stop the engine.

If you have to go so far away that you will not be able to see the machine, extract the ignition key.



## GETTING ON AND OFF THE MACHINE

- Do not jump on or off the machine, either when it is rest and when it is moving.
- When getting on or off the machine, always use the handles and the safety ladders; get on and off the machine very carefully.
- Never hold or rest on the steering wheel or the gearshift lever.
- Either when getting off the machine, always maintain three points of contact (holding or resting points), in order to avoid losing your balance and falling down.
- Tighten the handle and ladder connection screws if the are loose and clean the handles and steps if they are dirty with oil or grease. Carefully clean the cab floor if it is dirty with oil, grease, mud or rubble.



## CHECKING THE REAR-VIEW MIRRORS

- Make sure that the rear-view mirrors are clean and correctly positioned; they must allow the operator to see the rear of the machine with no need to move the chest with respect to the normal work position.
- If the rear-view mirrors should move or break during work, stop the machine immediately and fasten or change them.
- Working without checking the back of the machine is dangerous, since the machine may hit persons who are incautiously standing in the work area, fixed obstacles or manoeuvring vehicles.

## PREVENTING FIRES DUE TO FUEL AND OIL

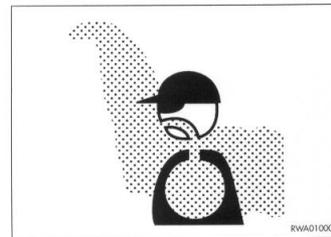
Fuel, oil and some type of antifreeze can be easily ignited if they get in contact with a flame. Fuel is particularly flammable and therefore extremely hazardous.

- Keep any naked flame away from flammable fluids.
- Stop the engine and do not smoke when refuelling.
- Top up with fuel and oil only after stopping the engine and in well ventilated areas.
- Top up with fuel and oil in a well delimited area and do not allow unauthorised person to approach.

- When refuelling, hold the fuel gun firmly and keep it constantly in contact with the filter until you have finished, in order to avoid sparks due to static electricity.
- After topping up, tighten the fuel and oil safety caps securely
- Do not fill the tank completely, in order to leave room for the fuel to expand.
- In case some fuel is spilled, wipe it up immediately.

## PREVENTING BURNS

- If the engine coolant, the engine oil and the hydraulic oil are hot, use heavy cloths and wear gloves, heavy clothing and safety goggles before carrying out any check or touching the hot parts.
- Before checking the coolant level, stop the engine and let the fluid cool down. If a check is necessary due to the overheating of the engine, slowly loose the radiator plug to release any residual pressure before removing it. The hot fluid that spurts out may cause serious burns.
- Before checking the engine oil and hydraulic circuit oil level, stop the engine and let the oil cool down. The hot oil that can be sprayed out of the tank may cause serious burns.



## PREVENTING DAMAGE DUE TO ASBESTOS POWDER

- Asbestos powder can be hazardous to your health if it is inhaled.
- If you handle materials containing asbestos fibers, keep to the instructions given below:
  - 1- Do not use compressor air, but only aspirators to clean the machine and make sure that the room in which you are working is properly ventilated.
  - 2- Use low-pressure water to keep down the dust when cleaning.
  - 3- If there is danger that there may be asbestos powder in the air, operate the machine with the wind to your back when ever possible.
  - 4- Even if the cab provides suitable protection, use an approved and homologated respirator.
  - 5- The powder gathered during the cleaning operations must be dampened and put in a sealed and marked container, so that it can be safely disposed of according to the regulations in force.

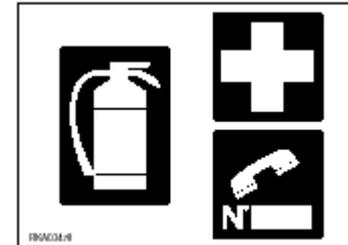
## PREVENTING DAMAGE CAUSED BY THE WORK EQUIPMENT

- Do not stand within or approach the operating radius of the work equipment, even when the operator is on board the machine and the engine is running.
- Do not stand or work under the arms or the articulations when the arms are lifted, if you are not sure that the safety locks have been duly engaged.
- Do not carry out any operation requiring the lifting of the arms, if you are not sure that the locks are correctly positioned and coupled to the arms.



## FIRE EXTINGUISHERS AND FIRST AID KIT

- Make sure that fire extinguishers have been provided and check their position.
- Periodically make sure that the fire extinguishers are loaded and that you know how to use them.
- Find out where the first aid kit has been located.
- Periodically make sure that the first aid kit contains the necessary disinfectants, bandages, medicins, etc.
- It is necessary to know what to do in case of fire.
- Make sure that you have the phone numbers of the persons or structures you may need to contact in case of an emergency at hand (either at the work site and where maintenance operations are performed).



## PRECAUTIONS CONCERNING THE CAB STRUCTURE

- If the cab is inadvertently hit or the machine overturns during work, the cab may be damaged with consequent reduction of its stiffness and of the safety that must be guaranteed to the operator (Rops/Fops/homologation). Contact Komatsu Utility or an Authorized Komatsu Utility Dealer to have the cab structure and resistance checked in case of impact or damage.

## PRECAUTIONS CONCERNING THE EQUIPMENT

- When installing and using optional equipment, carefully read the relevant instruction manual and keep to the indications given therein.
- Do not use optional or special equipment without the authorization of Komatsu Utility or the Komatsu Utility Dealer.  
The installation and use of unauthorized equipment may create safety problems and adversely affect the efficiency and life of the machine.
- Komatsu Utility cannot be held liable for any injury, accident, product failure resulting from the installation and use of unauthorized equipment.