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# **SAFE OPERATION**

The best insurance against accidents is to abide by the safety regulations.

# Read and understand this manual carefully before operating the excavator.

Every user, however experienced, should carefully read and understand this manual and those of the attachments and accessories before taking the excavator into operation. The owner is obliged to inform the operators of these instructions in detail.

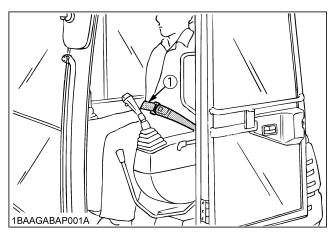
Keep this manual in the pocket under the seat.

## 1. BEFORE OPERATION

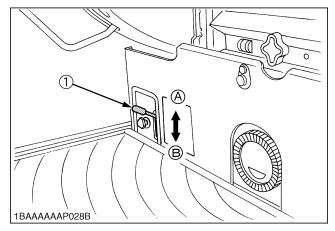
- 1. Make yourself acquainted with the excavator and be aware of its limits. Read the operating instructions carefully before starting the excavator.
- 2. Obey the danger, warning and caution labels on the machine.
- For your safety, ROPS/FOPS (Roll-Over Protective Structures, Falling Objects Protective Structures.) with a seat belt is installed by KUBOTA. Always use the seat belt when the machine is equipped with a ROPS/ FOPS.

Do not modify structural members of ROPS by welding, drilling, bending, grinding or cutting, as this may weaken the structure. If any component is damaged, replace it. Do not attempt repairs. If ROPS is loosened or removed for any reason, make sure all parts are reinstalled correctly. Tighten mounting bolts to proper torque.

4. The seat belt must be inspected regularly and replaced if damaged.

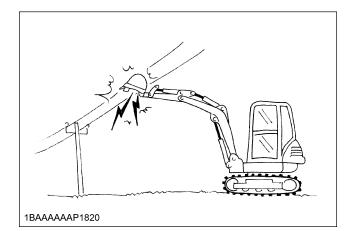


5. Study control lever pattern A and pattern B. Then choose the one which is most familiar. Familiarize yourself with the pattern selected by operation slowly at low engine speed.



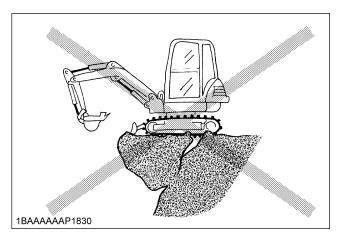
(1) Pattern selector lever (Two Pattern Selection System: TPSS)

- 6. Do not operate the excavator while under the influence of alcohol, medication, controlled substances or while fatigued.
- 7. Check the surroundings carefully before using the excavator or when attachments are being attached.
- Pay attention to the overhead clearance with electric wires.

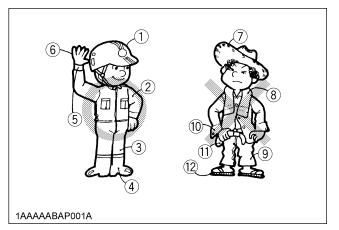


- Check for pipes and buried cables before digging.
- Check for hidden holes, hindrances, soft underground, and overhangs.

(1) Seat belt



- During excavator use, do not allow any persons within the working range.
- Do not allow other persons to use the machine before having informed him on the exact operation and work instructions, and be assured that the operator's manual has been read and completely understood.
- 9. Do not wear baggy, torn or oversized clothing when working with the excavator. Clothing can get caught in rotating parts or control elements which can cause accidents or injuries. Wear adequate safety clothing, e.g. safety helmet, safety shoes, eye protection, ear protection, working gloves, etc., as necessary and as prescribed by law or statutes.



- (1) Helmet
- (7) Straw hat (8) Towel
- (2) Clothing fit for work

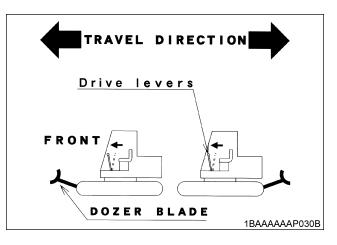
(6) Working gloves

- (3) Tight seams
- (9) Baggy trousers (10) Loose cuffs of the shirt
- (4) Good grip footwear
- (5) Well fitting cuffs
- (11) Baggy shirt
  - (12) Rubber sandals
- 10. Do not allow passengers to ride on any part of the excavator at anytime. The operator must remain in the excavator seat during operation.
- 11. Check mechanical parts for correct adjustments and wear. Replace worn or damaged parts immediately.
- 12. Keep your excavator clean. Heavy soiling, grease, dust and grass can cause fires, accidents or injuries.
- 13. Use only KUBOTA authorized attachments.

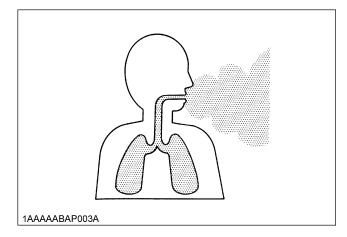
- 14. Before starting the excavator, be absolutely sure that the excavator has been filled with fuel, lubricated, greased and undergone all necessary maintenance.
- 15. Do not modify the excavator, otherwise it could lead to unforeseen safety problems.
- 16. Make sure attachments, particularly those utilizing quick attach systems, are securely mounted.

### 2. STARTING OF THE EXCAVATOR

- Get into and out of the machine safely. Always face the machine. Always use handrails and available steps and keep yourself well balanced. Do not hold any of the control levers and switches. Do not jump on or off the machine, whether stationary or in motion.
- 2. Start and control the excavator only from the operator's seat. The driver should not lean out of his seat when the engine is running.
- 3. Before starting the engine, make sure that lock levers are in position "Lock" and all control levers and pedals are in their neutral positions and the seat belt is fastened correctly.
- 4. Make sure that the dozer blade is in front of you. (The dozer must be raised.) If the levers are activated with the dozer blade at the rear, the tracks will move in the opposite direction of the drive levers.



5. Do not operate or idle engine in a non-ventilated area. Carbon monoxide gas is colorless, odorless, and deadly.



- 6. Keep all safety equipment and covers in place. Replace damaged or missing safety devices.
- 7. Precautions against tipping over. Keep away from steep slopes and embankments. Do not swing the bucket downhill. Lower the dozer during digging. Keep the bucket as low as possible while driving uphill. Turn slowly on slopes (at reduced speed). Do not place the excavator near the edges of trenches and banks, as the earth can give away due to the weight of the excavator.
- Watch out at all times for the area to which the excavator is being moved. Pay attention to any hindrances.

♦ Safety for children

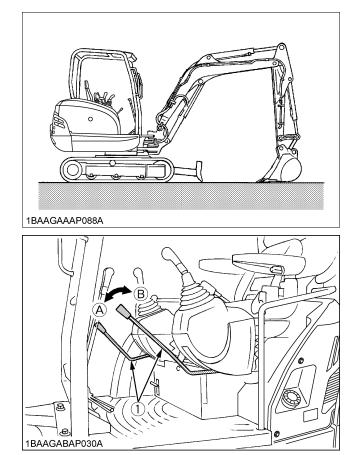
Tragedy can occur if the operator is not alert to the presence of children. Children generally are attracted to machines and the work they do.

- 1. Never assume that children will remain where you last saw them.
- 2. Keep children out of the work area and under the watchful eye of another responsible adult.
- 3. Be alert and shut your machine down if children enter the work area.
- 4. Never carry children on your machine. There is no safe place for them to ride. They may fall off and be run over or interfere with your control of the machine.
- 5. Never allow children to operate the machine even under adult supervision.
- 6. Never allow children to play on the machine or on the attachments.
- 7. Use extra caution when backing up. Look behind and down to make sure the area clear before moving.
- 8. When parking your machine, if at all possible, park on a firm, flat and level surface; if not, park across a slope. Lower the bucket and dozer to the ground, remove the key, place the control lock levers in the locked position from the ignition and lock the cab door (if equipped), before you leave.

#### 3. AFTER OPERATION

Before leaving the machine,

- Park the excavator on a firm, flat and level surface.
- Lower the attachments and the dozer blade to the ground.
- Stop the engine.
- Release pressure trapped in the hydraulic system.
- Lock all control levers.
- Remove the key.



(1) Lock lever for control lever (A) "Unlock" (B) "Lock"