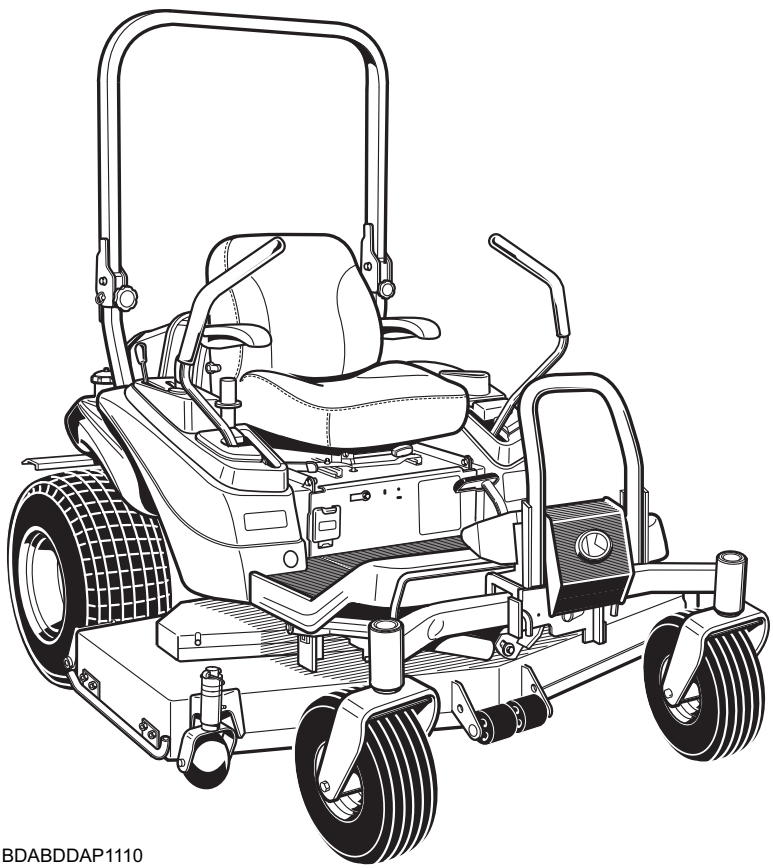
ENGLISH

OPERATOR'S MANUAL

KUBOTA
ZERO TURN MOWER

MODEL ZD326-EU-2



K3173-7131-2

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READ AND SAVE THIS MANUAL
- Original instructions -

Kubota

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ABBREVIATION LIST

Abbreviations	Definitions
API	American Petroleum Institute
ASTM	American Society for Testing and Materials, USA
fpm	Feet Per Minute
HST	Hydrostatic Transmission
m/s	Meters Per Second
PTO	Power Take Off
RH/LH	Right-hand and left-hand sides are determined by facing in the direction of forward travel
ROPS	Roll-Over Protective Structures
rpm	Revolutions Per Minute
r/s	Revolutions Per Second
SAE	Society of Automotive Engineers

Intended use

This machine is designed solely for use in customary grass cutting operation. Use in any other way is considered as contrary to the intended use. Compliance with and strict adherence to the conditions of operation, service, and repair as specified by the manufacturer, also constitute essential elements of the intended use.
This machine should be operated, serviced, and repaired only by persons who are familiar with its particular characteristics and who are acquainted with the relevant safety procedures.
Accident prevention regulations, all other generally recognized regulations on safety and occupational medicine, and all road traffic regulations must be observed at all times.
Any arbitrary modifications carried out to this machine may relieve the manufacturer of liability for any resulting damage or injury.

manufacturer or distributor of the machine	Kubota Corporation
the model designation of the machine	ZD326-EU-2
the name or type of publication	Operator's Manual
the part number or publication number by which the manual may be ordered	K3173-7131-2
the date of issue	Jan. 29, 2014
the publication date	Jul. 29, 2016
the language in which the manual is written	English

UNIVERSAL SYMBOLS

As a guide to the operation of your tractor, various universal symbols have been utilized on the instruments and controls. The symbols are shown below with an indication of their meaning.


Safety Alert Symbol


Diesel Fuel


Fuel-Level


Parking Brake


Engine-Stop


Preheat


Engine-Run


Starter Control


Power Take-Off Clutch Control-Off Position
(Disengaged)


Power Take-Off Clutch Control-On Position
(Engaged)


Cutting Height


Mower-Lowered position


Mower-Raised position


Fast


Slow


Engine Speed Control


Battery


Oil Pressure


Coolant Temperature

NOTE:

- This machine is meant for cutting lawn only, not for cutting extensive maintained grass, not for cutting hedges or brushwood, not for removing snow and not for pulling any implement or trailer.

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FOREWORD

You are now the proud owner of a KUBOTA ZERO TURN MOWER. This machine is a product of KUBOTA's quality engineering and manufacturing. It is made of excellent materials and under a rigid quality control system. It will give you long, satisfactory service. To obtain the best use of your machine, please read this manual carefully. It will help you become familiar with the operation of the machine and contains many helpful hints about machine maintenance. It is KUBOTA's policy to utilize, as quickly as possible, every advance in our research. The immediate use of new techniques in the manufacturing of products may cause some small parts of this manual to become outdated. KUBOTA distributors and dealers will have the most up-to-date information. Please do not hesitate to consult them.

SAFETY FIRST

This symbol, the industry's "Safety Alert Symbol", is used throughout this manual and on labels on the machine itself to warn of the possibility of personal injury. Read these instructions carefully. It is essential that you read the instructions and safety regulations before you attempt to assemble or use this unit.

DANGER :	Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
WARNING :	Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
CAUTION :	Indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury.
IMPORTANT :	Indicates that equipment or property damage could result if instructions are not followed.
NOTE :	Gives helpful information.

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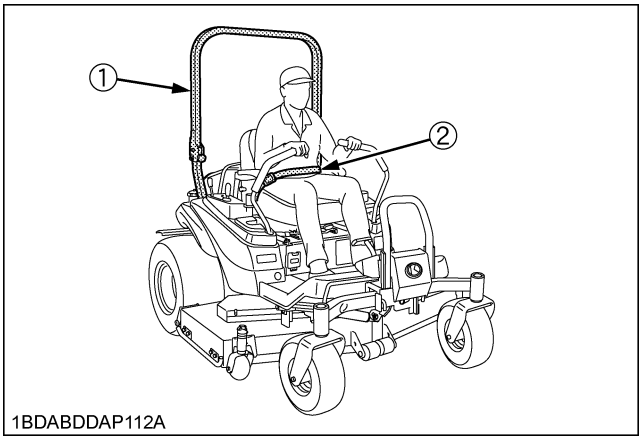
⚠ SAFE OPERATION

Careful operation is your best insurance against an accident. Read and understand this manual carefully before operating the machine. All operators, no matter how much experience they may have had, should read this and other related manuals before operating the machine or any implement attached to it. It is the owner's obligation to instruct all operators in safe operation.
This mowing machine is capable of amputating hands and feet and throwing objects. Failure to observe the following safety instructions could result in serious injury or death.

1. BEFORE OPERATING

1. The ZERO TURN MOWING MACHINE has different steering characteristics than other machines with a steering wheel and does not have a service brake pedal (but, has a parking brake lock pedal that can be used to stop the machine in an emergency. Normal slowing down and stopping is done with the motion control levers.). Read and understand the operators manual before operating the machine. Practice operating machine at low engine speed without mower engaged in an unobstructed area.
2. Know your equipment and its limitations. Read all instructions in this manual before attempting to start and operate the machine.
3. Pay special attention to the pictorial safety labels on the machine itself.
4. KUBOTA recommends the use of a Roll Over Protective Structures (ROPS) and seat belt in almost all applications. This combination will reduce the risk of serious injury or death, should the machine be upset.
   The machine is equipped with a Foldable ROPS, which may be temporarily folded down only when absolutely necessary for areas with height constraints. (There is no operator protection provided by the ROPS in the folded position. For operator safety the ROPS should be placed in the upright and locked position and the seat belt fastened for all other operations.)
   If the ROPS is loosened or removed for any reason, make sure that all parts are reinstalled correctly before operating the machine.
   Never modify or repair a ROPS because welding, bending, drilling, grinding, or cutting may weaken the structure.
   A damaged ROPS structure must be replaced, not repaired or revised.
   If any structural member of the ROPS is damaged, replace the entire structure at your local KUBOTA Dealer.



(1) ROPS
(2) Seat belt

5. Always use the seat belt when the ROPS is upright. Do not use the seat belt if the ROPS is down or if there is no ROPS. Check the seat belt regularly and replace if frayed or damaged.
6. Do not operate the machine or any attachments while under the influence of alcohol, medication, controlled substances or when fatigued.
7. Do not wear loose, torn, or bulky clothing around machine. The clothing may catch on moving parts or controls, leading to the risk of accident. Wear and use any additional safety items such as hard hat, safety boots or shoes, eye and hearing protection, gloves, etc. As appropriate or required.
8. Do not wear radio or music headphones while operating the machine.
   Safe operation requires your full attention.
9. Carefully check the vicinity before operating machine or any implement attached to it. Clear the work area of objects (wires, rocks, etc.) that might be picked up and thrown.
10. Check brakes and other mechanical parts for correct adjustment and wear. Replace worn or damaged parts promptly. Check the tightness of all nuts and bolts regularly. (For further details, see "PERIODIC SERVICE" and "ADJUSTMENT" section.)
11. Keep all shields and guards in place. Replace any that are damaged or missing.
12. Before allowing other people to use your machine, explain how to operate and have them read this manual before operation.
13. Do not allow any bystanders around or near machine during operation.
14. Do not allow passengers, children or non-qualified operators on the machine at any time. The operator must remain in the machine seat throughout operation.

15. In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, and prudence of personnel involved in the operation, transport, maintenance of facilities.
16. Keep the machine and attachments in good operating condition and keep safety devices in place and in proper working condition.
17. Do not modify the machine. Unauthorized modification may affect the function of the machine, which may result in personal injury.
18. Use only implements recommended by KUBOTA. Use proper ballast to front or rear of machine to reduce the risk of upsets. Follow the "Safe Operation" procedures, specified in the manuals with equipment.
19. Keep your machine clean. Accumulations of dirt, grease, and trash can contribute to fires and lead to personal injury.
20. The exhaust gas from the muffler is very hot. To prevent fire, do not expose dry grass, mowed grass, oil and any other combustible materials to exhaust gas. Use a spark arrester where required. Also keep the engine and muffler clean all the time.

2. OPERATING

◆ **Starting**

1. Always sit in the operator's seat when starting engine or operating levers or controls.
2. Before starting the engine make sure that the motion control levers are in neutral lock, the parking brake is applied, and Power Take Off (PTO) is disengaged (OFF).
3. Do not start engine by shorting across starter terminals. The machine may start in gear and move if normal starting circuitry is bypassed.
4. Do not operate or idle engine in a non-ventilated area. Carbon monoxide gas is colorless, odorless, and deadly.

◆ **Working**

1. Do not turn sharply when driving at high speed.
2. To avoid tip over, slow down when turning on uneven terrain or before stopping.
3. Do not operate near ditches, holes, embankments, or other terrain, which may collapse under the machine weight. The risk of machine tip over increases when the ground is loose or wet.
4. Park the machine on a firm and level surface.
5. Watch where you are going at all times. Watch for and avoid obstacles. Be alert at curbs, shrubs, near trees, and other obstructions and hidden hazards. Obstacles can damage machine (fuel hoses, wire harness etc.).
6. Know what is behind you before backing up. Look to the rear before and when backing. Do not mow while in reverse unless absolutely necessary and make sure the area immediately behind you is clear of obstructions or holes and small children.
7. When working in groups, always let others know what you are doing ahead of time.
8. Do not drive machine on streets or highways. Watch for traffic when you cross roads or operate near roads.
9. Be aware of the mower discharge direction and do not point it at anyone.
10. When using any attachments, never direct discharge material toward bystanders. Do not allow anyone near the attachments while in operation.
    Do not mow when bystanders are present in the mowing area.
11. To reduce fire hazards, keep the engine exhaust area free of grass or leaves.
12. Be sure rotating blades and engine are stopped and the key is removed before placing hands or feet near blades and cleaning blockages or unclogging chute.
13. Always inspect the mower for damage after striking a foreign object. Repair or replace any damaged parts before restarting.
14. Operate during daylight or in bright artificial light.
15. Do not operate the machine when there is a possibility of lightning. Even if the machine is equipped with a cabin, the operator is not protected from lightning.

◆ **Children**

Tragic accidents can occur if the operator is not alert to the presence of children. Children are attracted to the machine and mowing activity.

Never assume that children will remain where you last saw them.

1. Keep children out of the mowing area and under the watchful care of another responsible adult.
2. Be alert and turn machine off if children enter the area.
3. Before and when backing, look behind and down for small children.
4. Never carry children. They may fall off and be seriously injured or interfere with safe machine operation.
5. Never allow children to operate the machine, even under adult supervision. Local regulation can restrict the age of the operator.
6. Use extra care when approaching blind corners, shrubs, trees, or other obstructions that might hide children from sight.
7. Do not mow in reverse unless it is absolutely necessary.

◆ **Operators, age 60 years and above**

Data indicates that operators, age 60 years and above, are involved in a large percentage of machine-related injuries. These operators should evaluate their ability to operate the machine safely enough to protect themselves and others from serious injury.

◆ **Operation on slopes**

Slopes are major factor related to loss-of-control and tip-over accidents, which can result in severe injury or death. All slopes require extra caution.

If you cannot back up the slope or if you feel uneasy on it, do not mow it.

If the engine stops when operating on a slope apply the parking brake immediately to prevent machine run away.

DO

1. To avoid tip over, operate across the slopes not up and down. Stay off hills and slopes too steep for safe operation.
2. Remove obstacles such as rocks, tree limbs, etc.
3. Stay alert for holes in the terrain and other hidden hazards. Keep away from drop-offs. Uneven terrain could overturn the machine. Tall grass can hide obstacles.
4. Follow the manufacturer's recommendations for wheel weight or counterweights to improve stability.
5. Keep all movement on the slopes slow and gradual. Do not make sudden changes in speed or direction.
6. Avoid starting or stopping on a slope. If tires lose traction, disengage PTO and proceed slowly straight down the slope.
7. Reduce speed and exercise extreme caution on slopes and in sharp turns to prevent tip-over or loss of control.
8. Use special caution when changing direction on slopes. Slow down, and use extra caution when changing direction on a slope.

DO NOT

1. Do not turn on slopes unless necessary. If necessary, turn uphill slowly and gradually.
2. Do not mow near drop-offs, ditches, or embankments. The mower could suddenly turn over if a wheel is over the edge of cliff or ditch, or if an edge caves in.
3. Do not mow on wet grass. Reduced traction could cause sliding and loss of control.
4. Do not try to stabilize the machine by putting your foot on the ground.
5. Do not start or stop suddenly when going uphill or downhill. Avoid sudden start and stops on slopes.
6. Never "freewheel". Do not let the machine travel downhill with motion control levers at neutral lock position or in neutral.
7. Do not operate machine without the mower deck installed.

◆ **Stopping**

1. Park the machine on level ground.
2. Make sure that the machine and all attachments have come to a complete stop before dismounting.
3. Before dismounting, apply parking brake, place the motion control levers in their neutral lock positions, disengage the PTO, lower all attachments to the ground, turn off the engine, and remove the key.
4. Do not park the machine on dry grass or leaves.

3. USING THE PTO

1. Before installing or using PTO-driven equipment, read the manufacturer's manual and review the safety labels attached to the equipment.
2. Wait until all moving components have completely stopped before connecting, disconnecting, adjusting, cleaning, or servicing any PTO-driven equipment.
3. Use the PTO with KUBOTA approved attachments.

The speed of PTO

ZD326-EU-2: 2530 min^{-1} (rpm) at engine revolution 3200 min^{-1} (rpm)

4. USING THE LIFT LINK

1. Use lift link only with authorized attachments designed for lift link usage.

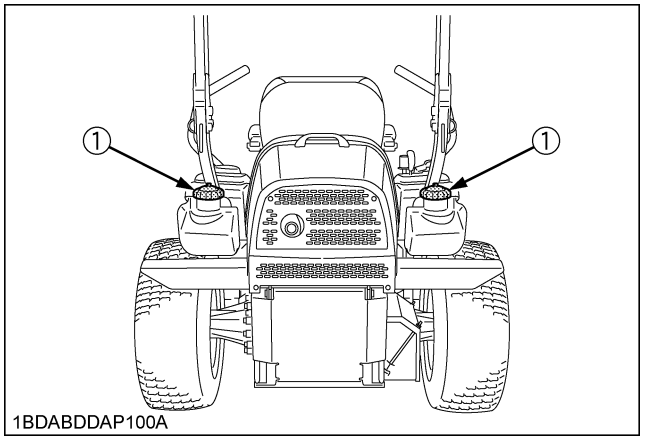
5. TRANSPORTING

1. Disengage power to attachment(s) when transporting or not in use.
2. Do not tow this machine. Use a suitable truck or trailer when transporting on public roads.
3. Use extra care when loading or unloading the machine into a trailer or truck.
4. This machine is not allowed to be used on public roads.

6. SERVICING AND STORAGE

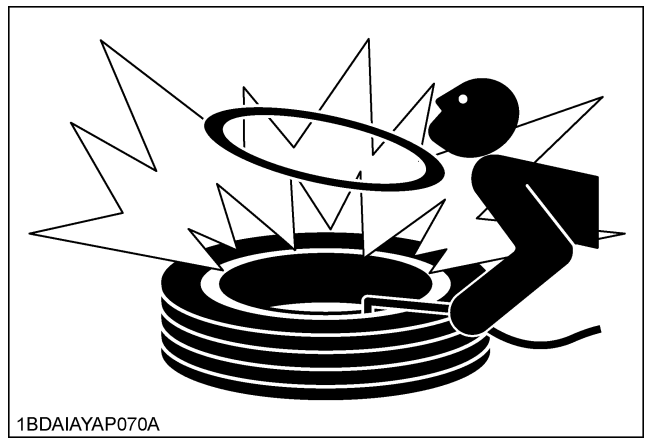
◆ **Servicing**

1. Before servicing, park the machine on a firm, level surface and apply the parking brake. Remove the key to prevent accidental start-up.
2. Allow the machine time to cool before touching the engine, muffler, radiator, etc.
3. Always stop the engine before refueling. Avoid spills and overfilling. Wipe up spilled fuel immediately.

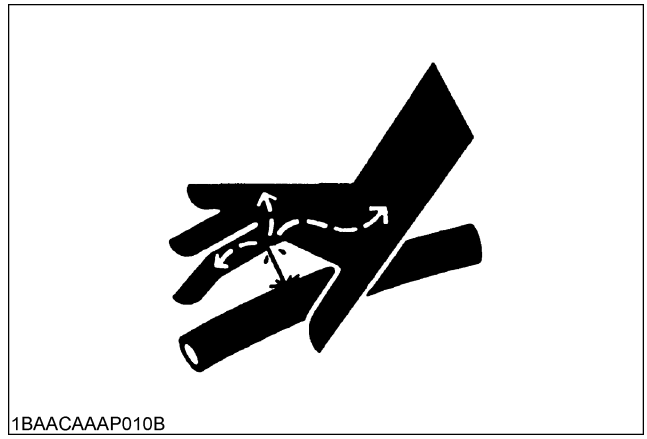


(1) Fuel tank cap

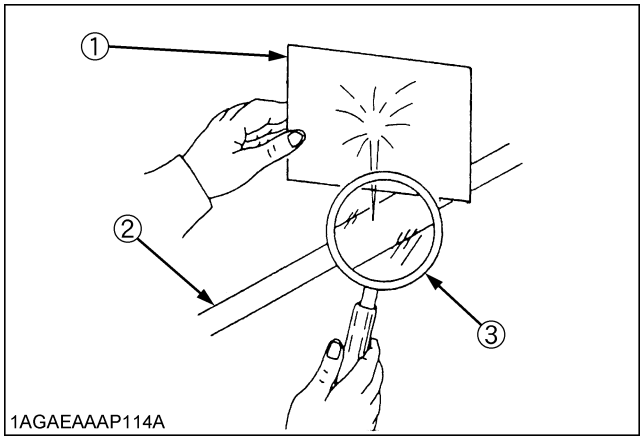
4. Use extra care in handling diesel fuels. They are flammable.
   (1) Use only an approved container.
   (2) Do not remove fuel cap or refuel with the engine running. Allow engine to cool before refueling. Do not smoke while refueling or when standing near fuel.
   (3) Do not refuel the machine indoors and always clean up spilled fuel or oil.
   (4) Do not store the machine or fuel container inside where there is an open flame, such as in a water heater.
5. Do not smoke when working around battery or when refueling. Keep all sparks and flames away from battery and fuel tank.
   A battery, especially when charging, will give off hydrogen and oxygen gases, which can explode and cause serious personal injury.
6. Before "jump starting" a dead battery, read and follow all the instructions.
7. Disconnect the battery's ground cable before working on or near electric components.
8. Do not use or charge the refillable type battery if the fluid level is below the LOWER (lower limit level) mark. Otherwise, the battery component parts may prematurely deteriorate, which may shorten the battery's service life or cause an explosion. Check the fluid level regularly and add distilled water as required so that the fluid level is between the UPPER and LOWER levels.
9. Keep first aid kit and fire extinguisher handy at all times.
10. Do not remove the radiator cap while coolant is hot. When cool, slowly rotate cap to the first stop and allow sufficient time for excess pressure to escape before removing the cap completely. If the machine has a coolant recovery tank, add coolant there instead of the radiator.
11. Do not attempt to mount a tire on a rim unless qualified to do so and all proper safety precautions are followed.
12. Always maintain the correct tire inflation pressure. Do not inflate tires above the recommended pressure shown in the Operator's Manual.



13. Provide adequate support when changing wheels.
14. Make sure that wheel nuts and bolts have been tightened to the specified torque.
15. Escaping hydraulic fluid under pressure has sufficient force to penetrate the skin causing serious personal injury. Before disconnecting lines, be sure to relieve all pressure. Before applying pressure to the system, make sure all connections are tight and that lines, pipes, and hoses are not damaged.



16. Fluid escaping from pinholes may be invisible. Use a piece of cardboard or wood to search for suspected leaks: do not use hands. Use safety goggles or other eye protection.
    If injured by escaping fluid, see a medical doctor at once. Serious infection or reaction will result if proper medical treatment is not administered immediately. This fluid can produce gangrene or severe allergic reaction.

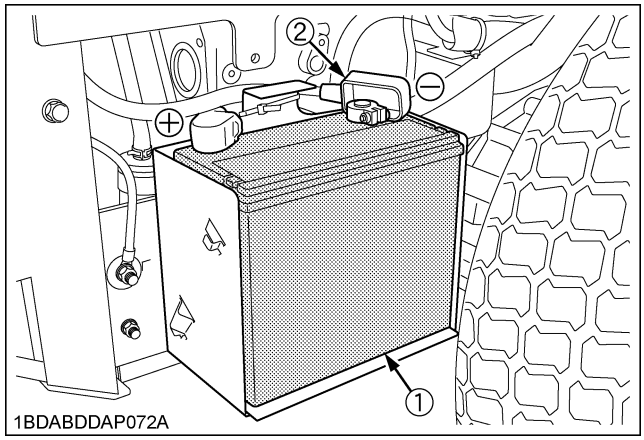


(1) Cardboard
(2) Hydraulic line
(3) Magnifying glass

17. Do not make adjustments or repairs with the engine running.
18. Keep machine free of grass, leaves, or other debris build-up.
19. Do not change the engine governor setting or overspeed the engine.
20. Do not run a machine inside a closed area.
21. Mower blades are sharp and can cut your hands. Wrap the blade(s) or wear gloves, and use extra caution when servicing them.
22. Keep nuts and bolts, especially blade attachment bolts, tight and keep equipment in good condition.
23. Never tamper with safety devices. Check their operation for proper function regularly.
24. Do not use beverage containers for waste fluids or other products. Someone, particularly children, may drink them by mistake.
25. Securely support machine or any machine elements with stands or suitable blocking before working underneath. For your safety do not rely or hydraulically supported devices, they may leak down, suddenly drop or be accidently lowered.
26. Waste products such as used oil, fuel, coolant, brake fluid, and batteries, can harm the environment, people, pets and wildlife. Please dispose properly.
    See your local Recycling Center or KUBOTA Dealer to learn how to recycle or get rid of waste products.

◆ **Storage**

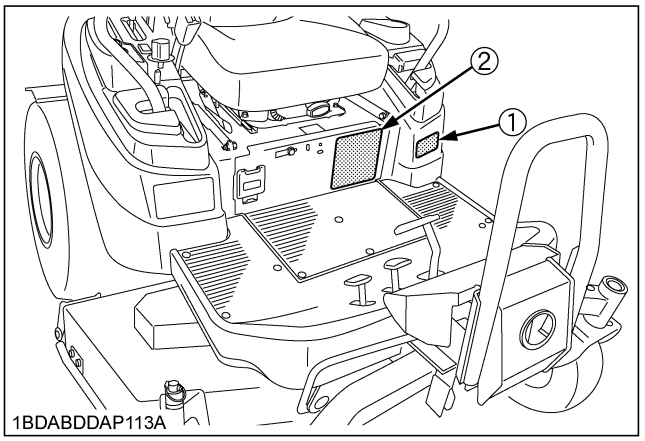
1. Keep the machine and supply of fuel in locked storage and remove the ignition key to prevent children or others from playing or tampering with them.
2. To avoid sparks from an accidental short circuit, always disconnect the battery's ground cable (-) first and reconnect it last.



(1) Battery
(2) Ground cable
(+): Positive terminal
(-): Negative terminal

3. To avoid the danger of exhaust fume poisoning, do not operate the engine in a closed building without adequate ventilation.
4. To reduce fire hazards, clean the machine thoroughly before storage. Dry grass and leaves around the engine and muffler may ignite.

7. PICTORIAL SAFETY LABELS



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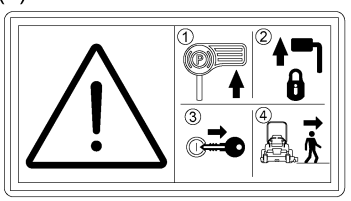
(1) Part No. K3173-6585-2



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- Park the machine on level ground.
- If necessary to park on an incline,
  (1) Stop the machine,
  (2) Apply the parking brake, then
  (3) Stop the engine.

- If you stop the engine on an incline without applying the parking brake, the machine could move and run away.

(2) Part No. K3173-6581-2

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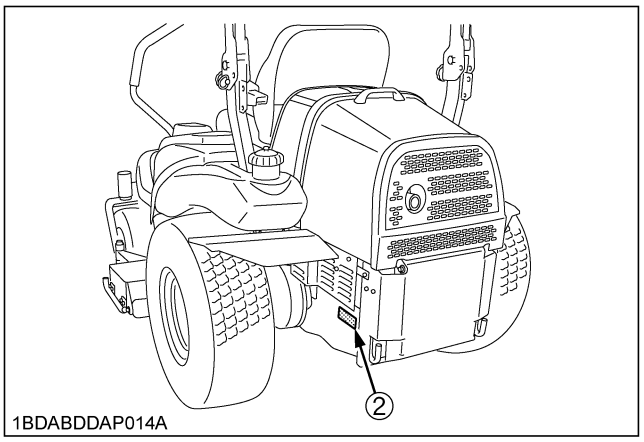
TO AVOID INJURY OR DEATH:

- Read and understand operator's manual.
- Stop the engine and remove key before servicing.

- DO NOT operate where machine could slip or tip.
- Mow across slopes, not up and down.
  Use slow speed on slopes.
- DO NOT operate on slopes of more than 14°.

- DO NOT allow any bystanders or children around or near machine at any time when the engine is running.



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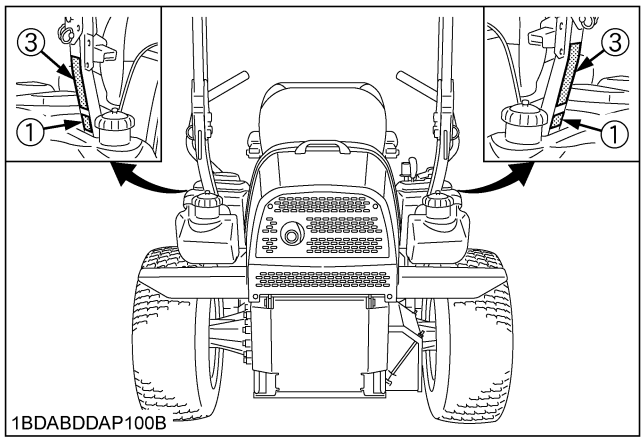

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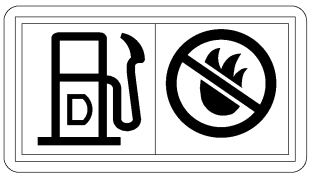
(1) Part No. K3173-6587-1

- Diesel fuel only
- No fire



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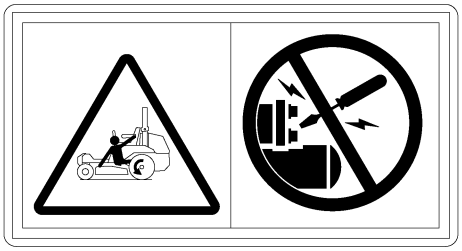
(2) Part No. K3173-6583-2

- Machine may start in gear and move
- Start engine only from operator's seat with motion control levers in neutral lock position and PTO OFF. Never start engine while standing on the ground.
- Do not start engine by shorting across starter terminals or bypassing the safety start switch.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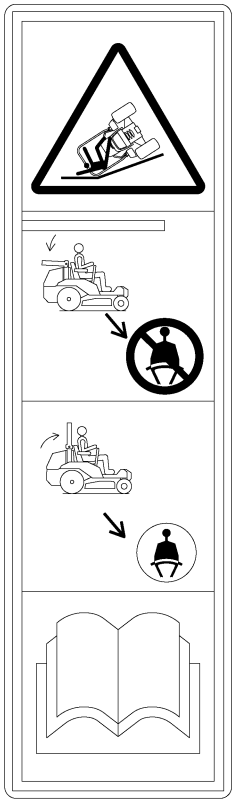
(3) Part No. K3173-6590-2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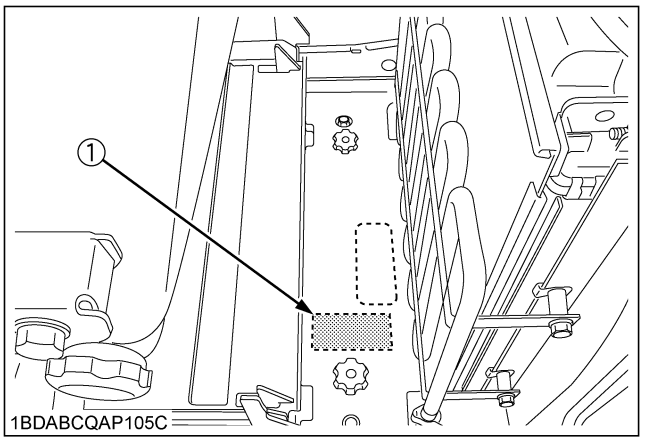
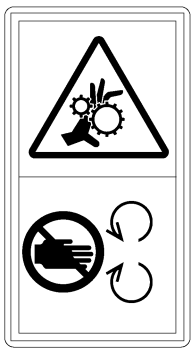
- Machine rollover - Crush
- Do not use the seat belt if the ROPS is folded. Fold the ROPS down only when absolutely necessary and fold it up and lock it again as soon as vertical clearance allows.
- Always use the seat belt when the ROPS is in the upright position. Keep the ROPS in the upright and locked position.
- Never modify or repair the ROPS because welding, bending, drilling, grinding, or cutting any portion may weaken the structure.



(1) Part No. K3173-6591-2

- Do not get your hands close to fan.



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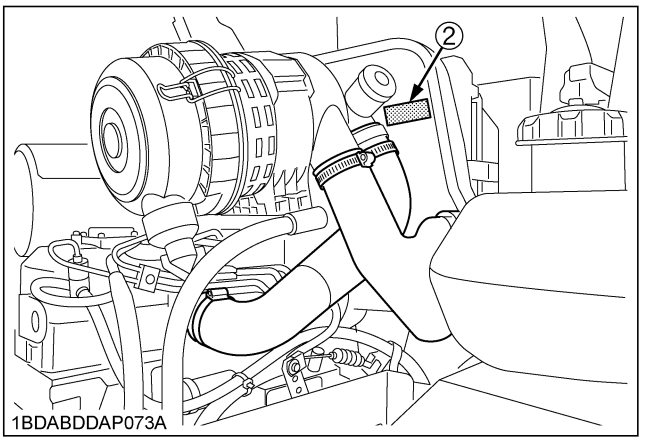
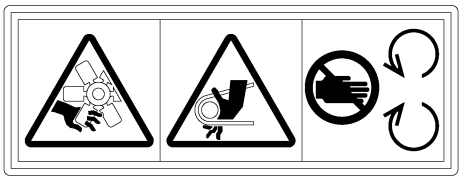


(2) Part No. K3173-6586-2

- Do not get your hands close to engine fan and fan belt.



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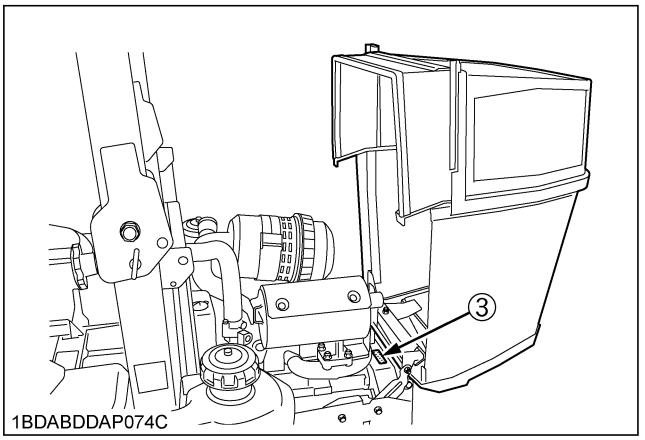
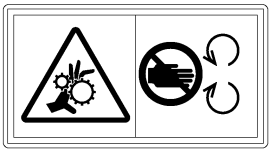


(3) Part No. K3173-6594-2

- Do not get your hands close to flywheel.



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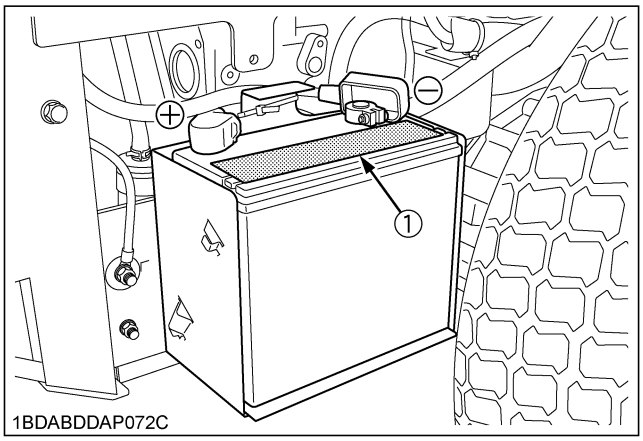
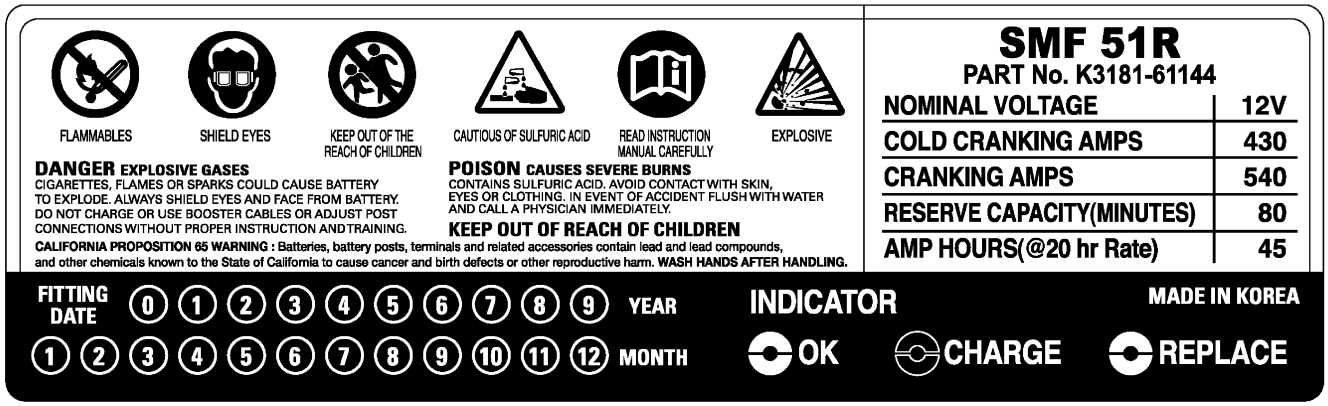


1BDABDDAP072C

(1) Part No. K3181-6116-1



1BDAHAGAP127A

TO AVOID INJURY FROM BATTERY GASES AND ACIDES

- Keep away cigarettes, flames or sparks.
- Always shield eyes and face from battery.
- Keep out of reach of children.
- Poison causes severe burns.
- Contains sulfuric acid.
- Read and understand operator's manual.
- Danger explosive gases.

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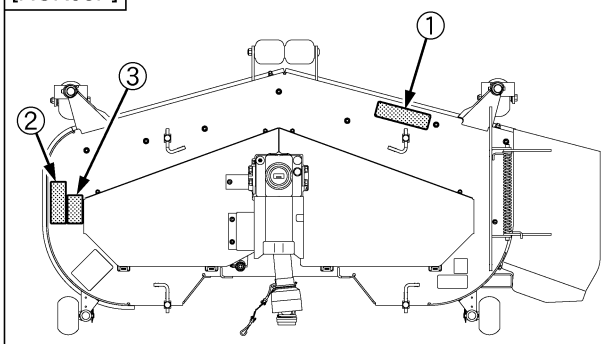
1BDABDDAP152A

[RCK60P]



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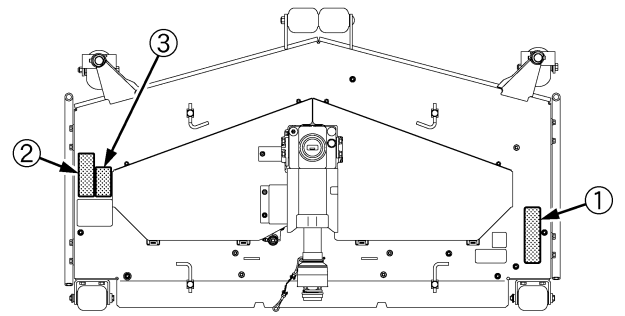
[RCK60R]

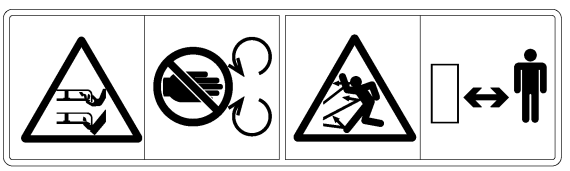


1BDABDDAP086A

(1) Part No. K5644-4178-1

- Severing of hands or feet - blade
- Do not put hands or feet into mower when engine is running.

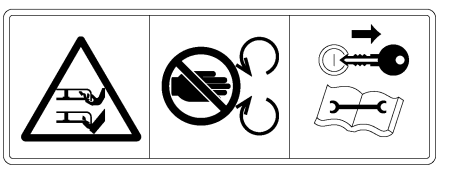
- Thrown or flying objects - Full body exposure
- Stay clear of discharge opening at all times.
- Do not operate mower without discharge deflector.



1BDABDDAP109A

(2) Part No. K5644-4179-1

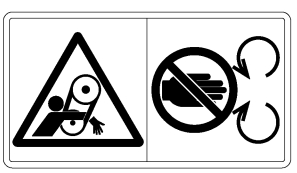
- Severing of hands or feet - blade
- Shut off engine and remove key before performing maintenance or repair work
- Do not put hands or feet into mower when engine is running.



1BDABDDAP110A

(3) Part No. K5622-4180-1

- Hand and arm entanglement - Belt drive
- Do not get your hands close to driving belt.



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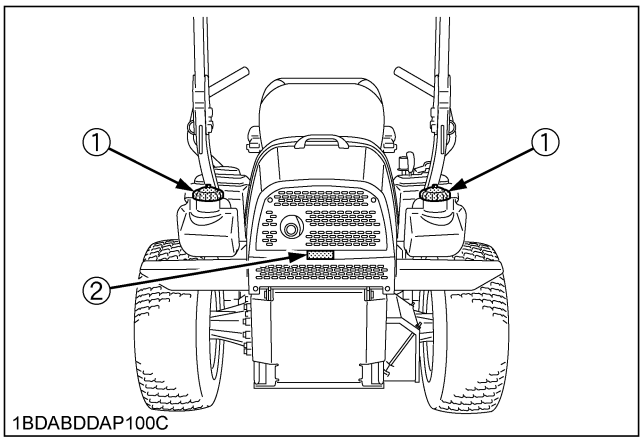

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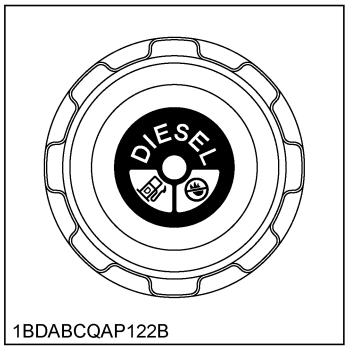
(1) Part No. K3181-2491-3



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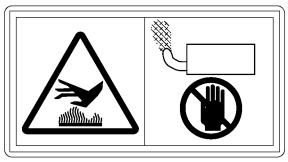
1BDABDDAP153A

(2) Part No. K3173-6533-1

- Hot surface - Burn to finger or hand
- Do not touch muffler.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8. CARE OF PICTORIAL SAFETY LABELS

1. Keep pictorial safety labels clean and free from obstructing material.
2. Clean pictorial safety labels with soap and water, dry with a soft cloth.
3. Replace damaged or missing pictorial safety labels with new labels from your local KUBOTA Dealer.
4. If a component with pictorial safety label(s) affixed is replaced with new part, make sure new label(s) is (are) attached in the same location(s) as the replaced component.
5. Mount new pictorial safety labels by applying on a clean dry surface and pressing any bubbles to outside edge.

SERVICING OF MACHINE

After reading this manual thoroughly, you will find that you can do some of the regular maintenance yourself. Your dealer is interested in helping you get the best performance from your new machine and wants to help you get the most value from it. When in need of parts or major service, be sure to see your KUBOTA Dealer. When in need of parts, be prepared to give your dealer the machine, engine and mower serial numbers.

Locate the serial numbers now and record them in the space provided.

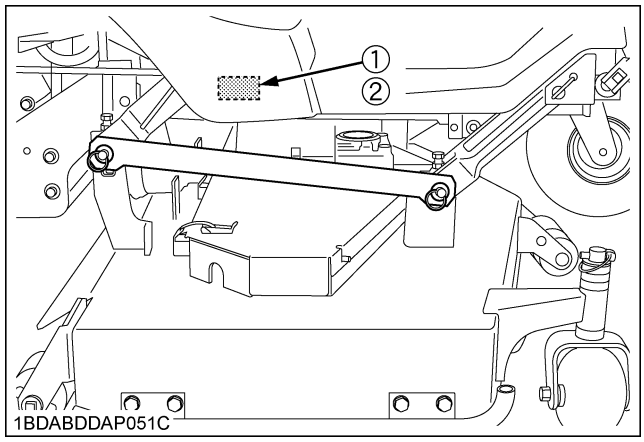
	Type	Serial No.
Machine		
Engine		
Mower		
Date of Purchase		
Name of Dealer		
(To be filled in by purchaser)		

◆ **Warranty**

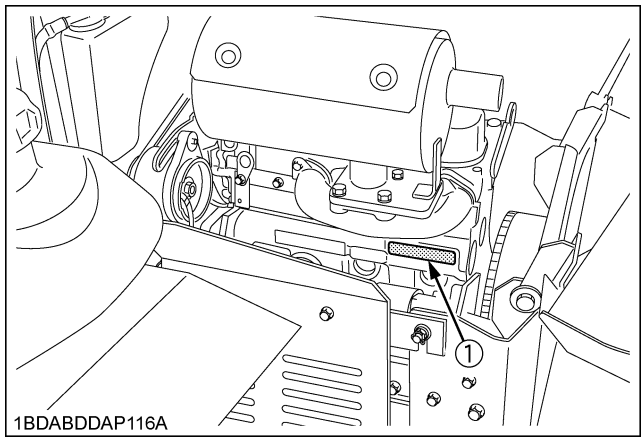
This machine is warranted under the Kubota Limited Express warranty a copy of which may be obtained from your selling dealer. No warranty shall, however, apply if the machine has not been handled according to the instruction given in the Operator's Manual even it is within the warranty period.

◆ **Scrapping the machine and its procedure**

To put the machine out of service, correctly follow the local rules and regulations of the country or territory where you scrap it. If you have questions, consult your local KUBOTA Dealer.

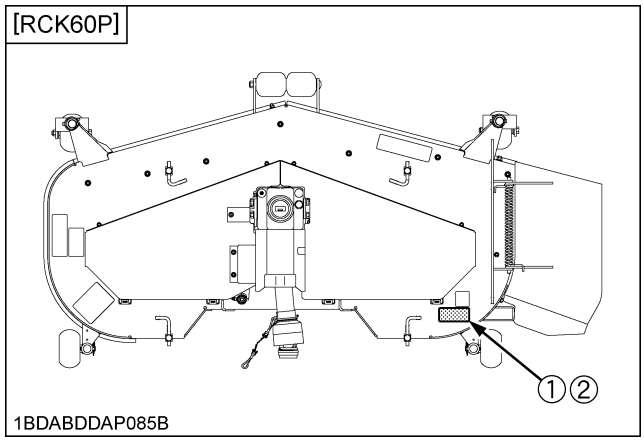


(1) Machine identification plate
(2) Machine serial No.



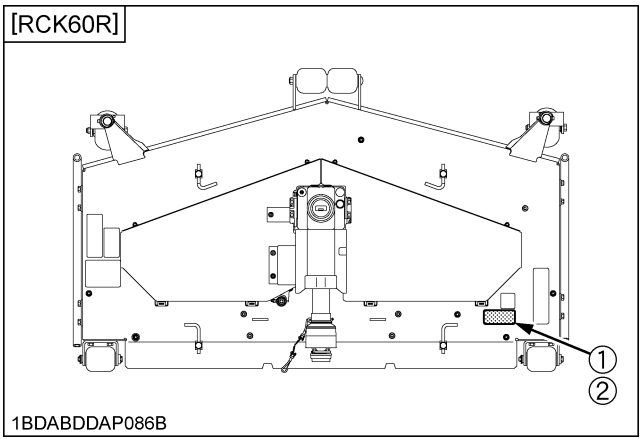
(1) Engine serial No.

[RCK60P]

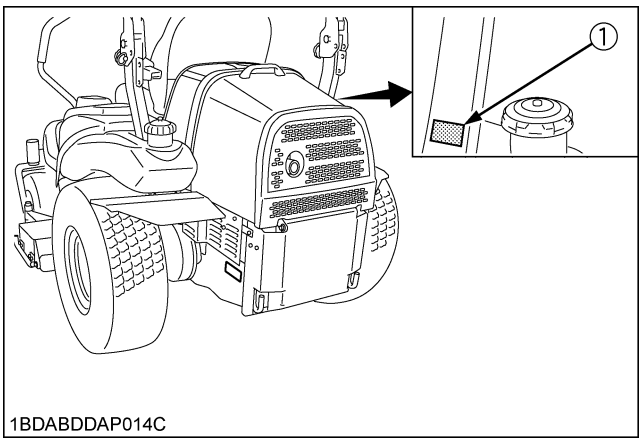


(1) Mower identification plate
(2) Mower serial No.

[RCK60R]



(1) Mower identification plate
(2) Mower serial No.



(1) ROPS serial No.

SPECIFICATIONS

Model				ZD326-60-EU-2	ZD326-60R-EU-2
Engine	Model			D1005	
	Max. engine power (Gross)		kW	19 (*1)	
	Type			Liquid-cooled	
	Number of cylinders			3	
	Bore and stroke		mm	76 x 73.6	
	Total displacement		cm^3	1001	
	Max revolution		min^{-1} (rpm)	3320 to 3420	
	Low idling revolution		min^{-1} (rpm)	1250 to 1350	
	Fuel			Diesel fuel No.1 [below -10 ℃] Diesel fuel No.2 [above -10 ℃]	
	Starter			Electric starter with battery, glow plug, 12V, 1.1kW	
	Lubrication			Forced lubrication by gear pump	
	Cooling			Liquid with pressurized radiator	
	Battery			51R (12V, RC:70min, CCA:475A)	
Capacities	Fuel tank		L	49	
	Engine crankcase (with filter)		L	3.9	
	Engine coolant		L	3.5	
	Recovery tank		L	0.25	
	Transmission case including Rear axle gear case		L	12.1 (*2)	
Dimensions	Overall length		mm	2220	
	Overall width w/o mower deck		mm	1460	
	Overall height	With ROPS upright	mm	1915	
		With ROPS folded	mm	1555	
	Wheelbase		mm	1405	
	Min. ground clearance		mm	130 W/RCK60P, W/RCK60R	
	Tread	Front	mm	975	
		Rear	mm	1150	
Weight (W/O FUEL, W/MOWER DECK)			kg	790 with RCK60P-326Z-EU-2, RCK60R-326Z-EU-2	

Model				ZD326-60-EU-2	ZD326-60R-EU-2
Traveling system	Tires	Front		15 x 6.0 - 6 (4PR) Rib	
		Rear		26 x 12.0 - 12 (4PR) Turf	
	Traveling speeds	Forward	km/h	0 to 15.0	
		Reverse	km/h	0 to 8.3	
	Steering			2 - Hand levers	
	Transmission			2 - HST w / Gear	
	Parking brake			Wet multi disk / Foot applied, released	
	Min. turning radius		mm	0	
PTO	Revolution			1 speed (2530 min^{-1} (rpm) at engine revolution 3200 min^{-1} (rpm))	
	Drive system			Shaft drive, KUBOTA 10 tooth involute spline	
	Clutch type			Wet multi disks	
	PTO brake			Wet single disk	

(Specifications and design subject to change without notice)

NOTE:

*1: Manufacturer's estimate, SAE J1995

*2: Oil amount when the oil level is at the upper level.

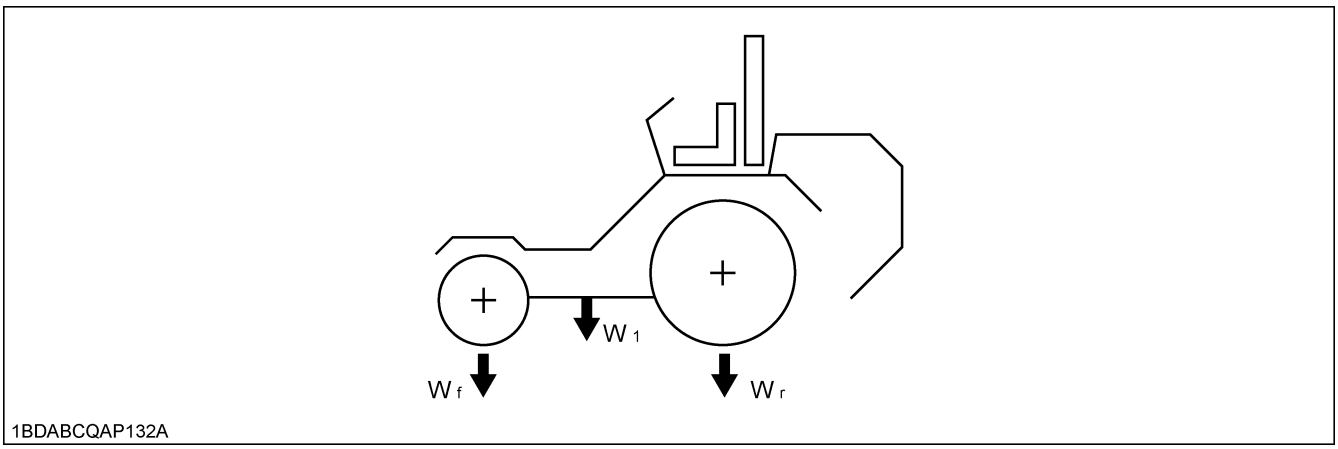
Model				RCK60P-326Z-EU-2	RCK60R-326Z-EU-2
PRO Commercial Deck (Fabricated deck)	Suitable machine			ZD326-EU-2	
	Mounting method			Quick joint, Parallel linkage	
	Adjustment of cutting height			Dial gauge	
	Cutting width		cm	152.4	
	Cutting height		mm	25 to 127	
	Weight (Approx.)		kg	146	
	Blade spindle speed		r/s (min^{-1} (rpm))	47.7 (2863) *1	
	Blade tip velocity		m/s	78.3 *1	
	Blade length		mm	523	
	Number of blades			3	
	Dimensions	Total length	mm	980	
		Total width	mm	1854	1604
		Total height	mm	383	380

*1: Engine Max revolution

IMPLEMENT LIMITATIONS

The KUBOTA Machine has been thoroughly tested for proper performance with implements sold or approved by KUBOTA. Use with implements which are not sold or approved by KUBOTA and which exceed the maximum specifications listed below, or which are otherwise unfit for use with the KUBOTA Machine may result in malfunctions or failures of the machine, damage to other property and injury to the operator or others. [Any malfunctions or failures of the machine resulting from use with improper implements are not covered by the warranty.]

	Maximum loading weight		Implement weight W_1	Maximum total weight
	Front axle Wf	Rear axle Wr		
ZD326-EU-2	200 kg	920 kg	200 kg	1120 kg



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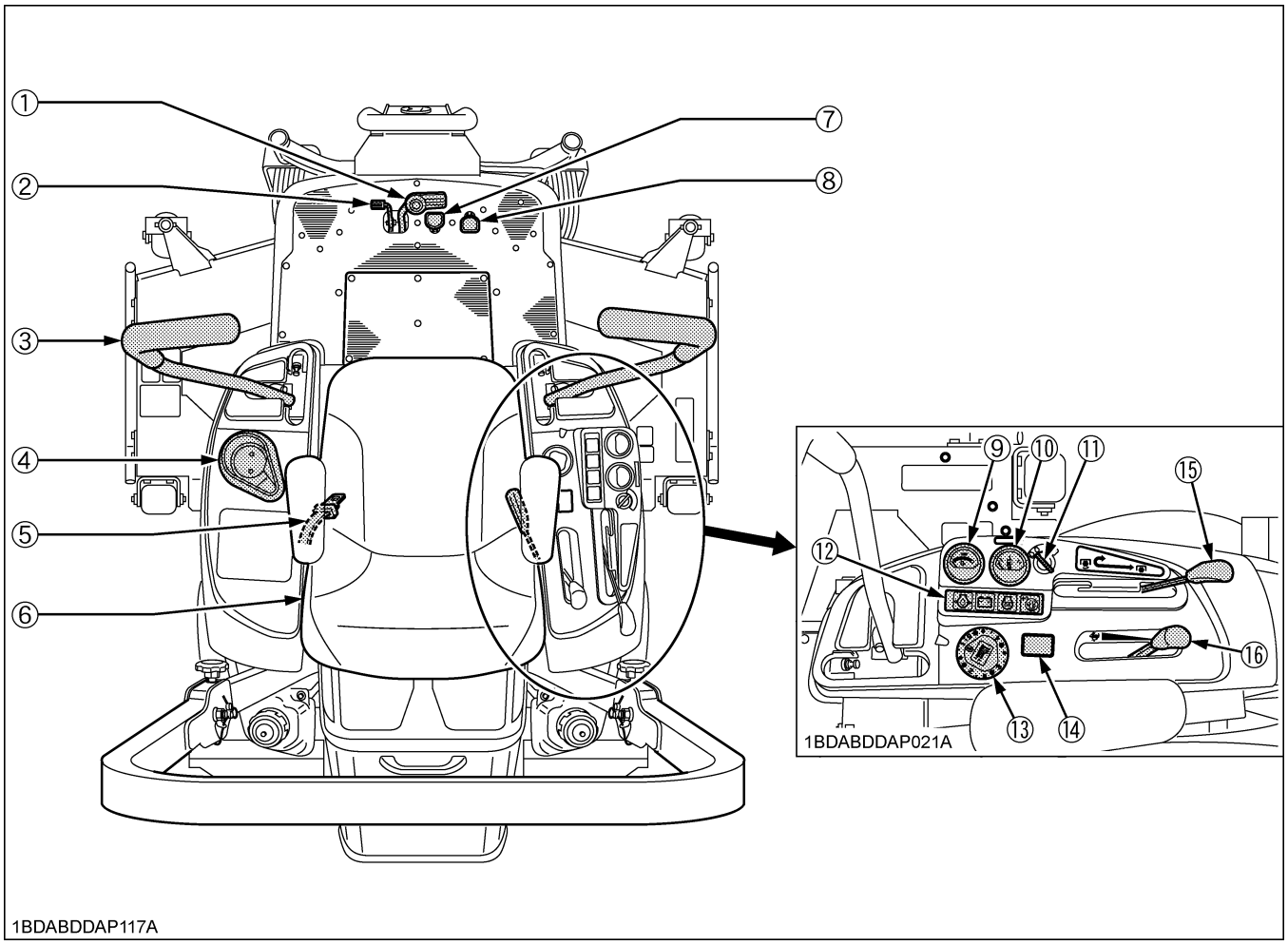
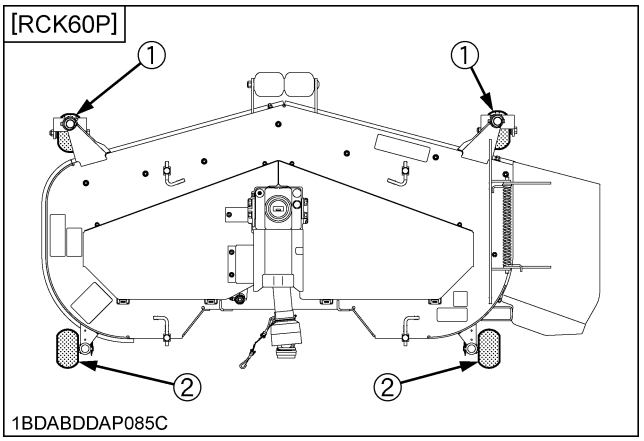
INSTRUMENT PANEL AND CONTROLS



ILLUSTRATED CONTENTS

ILLUSTRATED CONTENTS

[RCK60P]



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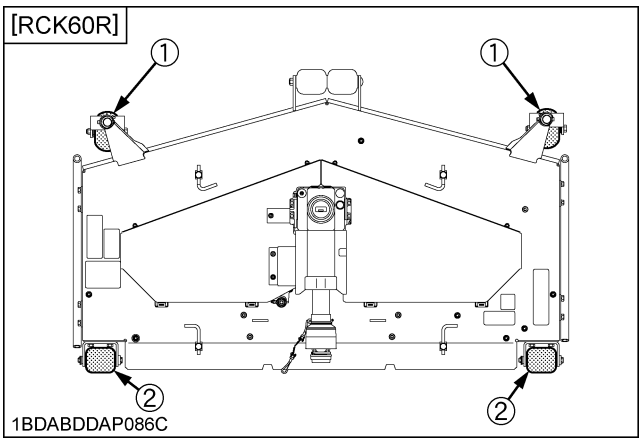
[RCK60R]



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ILLUSTRATED CONTENTS

MOWER MOUNTING

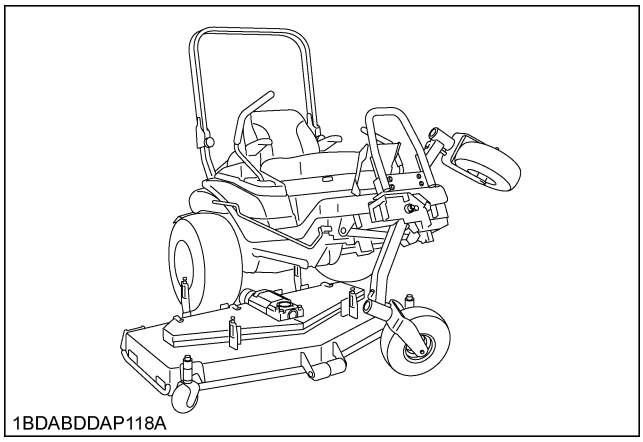
MOUNTING THE MOWER DECK

WARNING

To avoid serious injury or death:

- **Park the machine on a firm and level surface.**
- **Apply the parking brake.**
- **Stop the engine and remove the key.**

1. Before mounting the mower deck, raise the lift links to the full up position. (See "STARTING" in "OPERATING THE MACHINE" section.)
2. Adjust the cutting height control dial to 1 in. position.
3. Tilt up the machine with the maintenance lift system. (See "HOW TO TILT UP THE MACHINE" in "PERIODIC SERVICE" section.)
4. Place the mower deck at the right side of the machine.

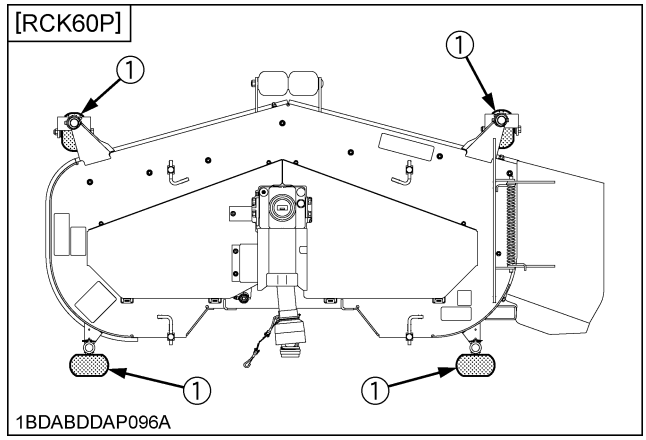


5. Slide the mower deck under the machine, and make sure that the mower gear case is placed properly in the center of the machine, lower the axle from the tilt-up position to the normal position.

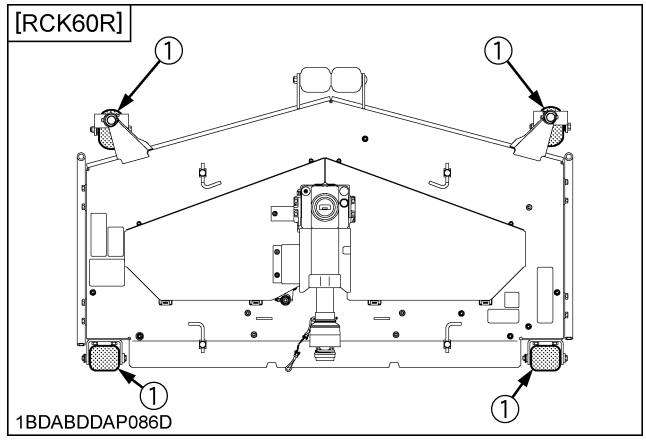
NOTE :

- For easy installation set the anti scalp roller as shown below.
  RCK60P: 2 places

[RCK60P]

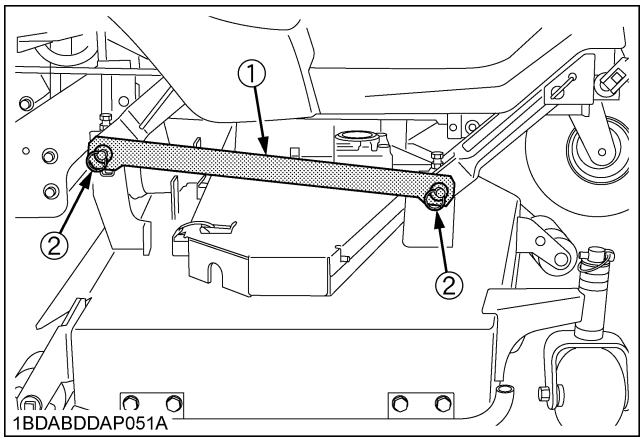


[RCK60R]



(1) Anti scalp roller

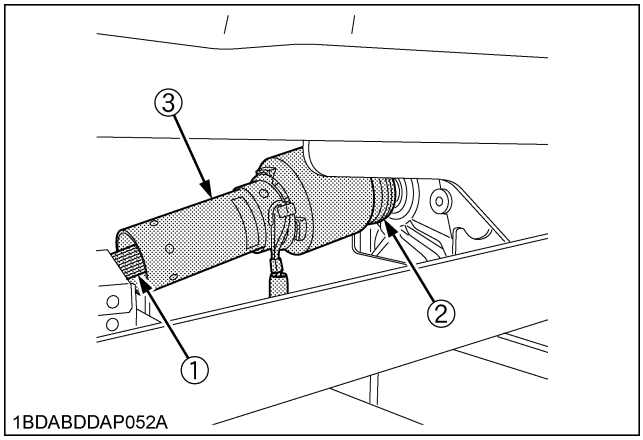
6. Place 50 mm wood blocks under each side of the mower deck.
7. Depress the hydraulic lift control pedal (DOWN) and pull down the lift links.
8. Attach the lift links to the mower deck with attaching hardware.

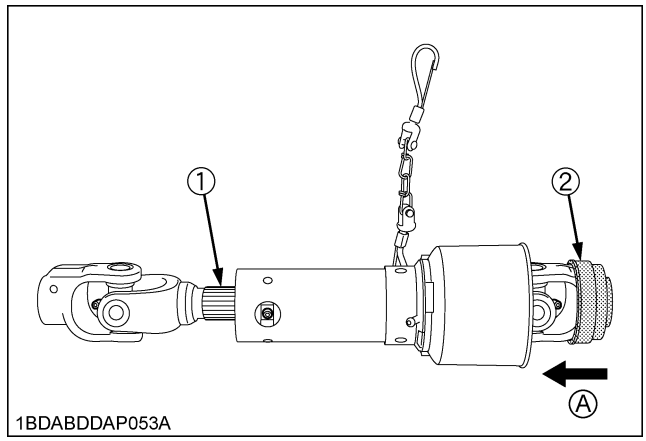


(1) Lift link
(2) Clevis pin, Plain washer, Snap ring

9. Install universal joint.
   Pull back the coupler of the universal joint.
   Push the universal joint onto the PTO shaft until the coupler locks.
   Extend the universal joint cover to the coupler of the universal joint.

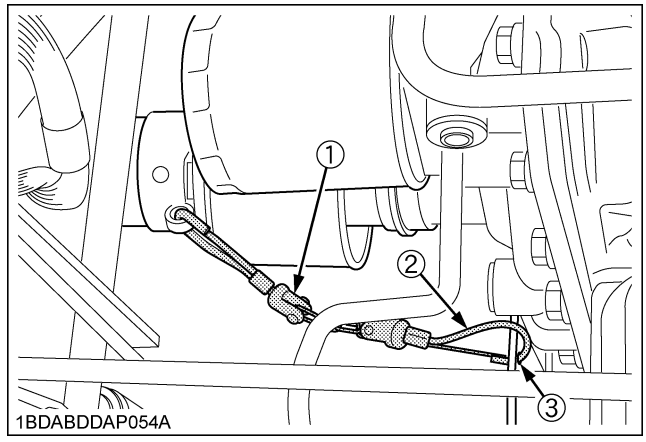
IMPORTANT :
- Tug the universal joint backward and forward to make sure it is locked securely.





(1) Universal joint
(2) Coupler
(3) Universal joint cover
(A) "PULL"

10. Raise the operator's seat to the "LOCK" position.
11. Set the hook of the chain to the hole of the stay.



(1) Chain
(2) Hook
(3) Hole of the stay

12. After mounting the mower, check the mower level. If necessary, adjust the mower level and anti-scalp rollers.

ADJUSTING THE MOWER

See "OPERATING THE MOWER" and "ADJUSTMENT" section.

DISMOUNTING THE MOWER DECK

For dismounting the mower deck, reverse the above procedures.

OPERATING THE ENGINE

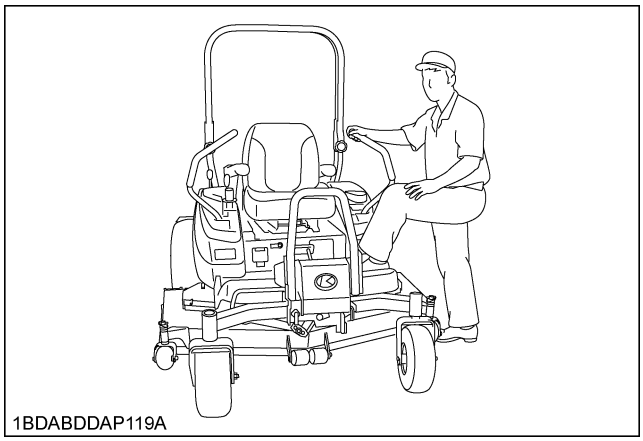
WARNING

To avoid serious injury or death:

- **Read "SAFE OPERATION" in the front of this manual.**
- **Understand the pictorial safety labels located on the machine.**
- **To avoid danger of exhaust fume poisoning, do not operate the engine in a closed building without proper ventilation.**
- **Never start the engine while standing on the ground. Start the engine only from operator's seat.**

MOUNT AND DISMOUNT MACHINE SAFELY

DO NOT step on either side of the mower deck when mounting and dismounting the machine. When mounting the machine from either side, step over the mower deck.



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STARTING THE ENGINE

1. Make sure that the hood is closed.

IMPORTANT :

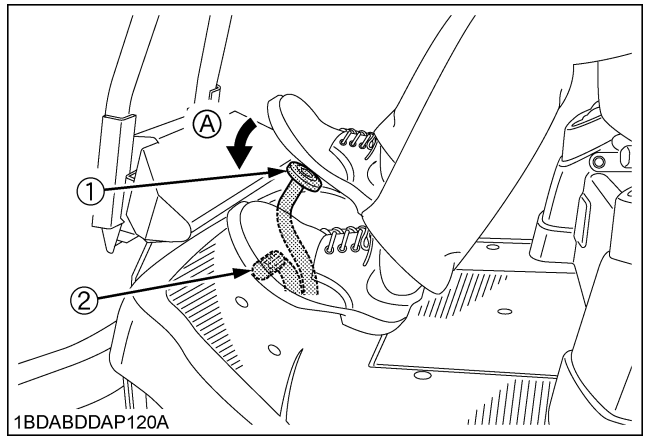
- If the hood is opened, the engine does not start.
- If the hood has been opened while the engine is running, the engine stalls.

2. Sit on the operator's seat.

3. Apply the parking brake.

To apply the parking brake:

Depress the parking brake pedal firmly with your right foot and the parking brake lock pedal simultaneously with your left foot. Then release the parking brake pedal while holding the parking brake lock pedal down.



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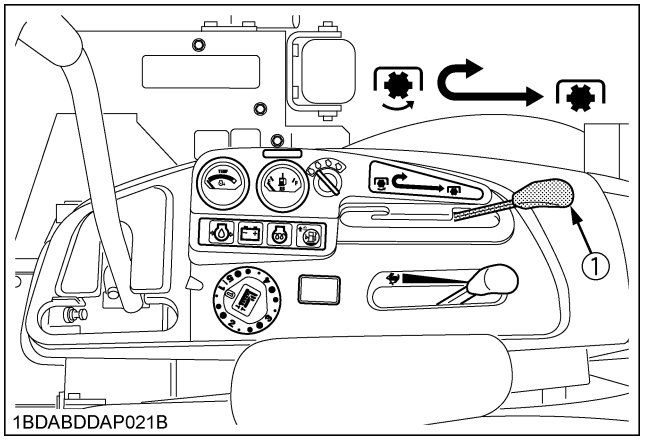
(1) Parking brake pedal *(A) "DEPRESS"*
(2) Parking brake lock pedal

To release the parking brake:

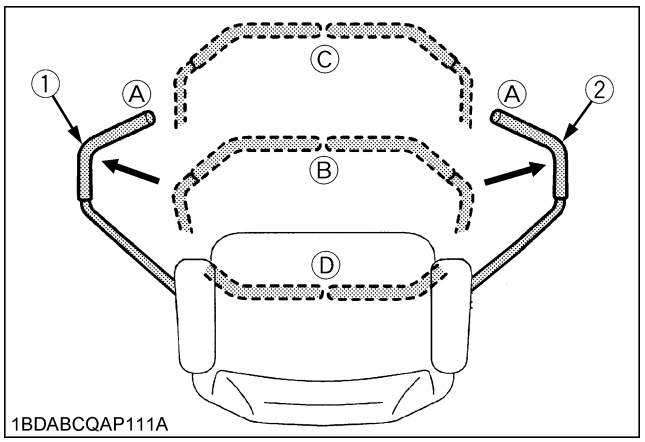
Depress the brake pedal and release slowly with your right foot without pressing the parking brake lock pedal.

4. Make sure that the PTO lever is in the "DISENGAGED" (OFF) position.



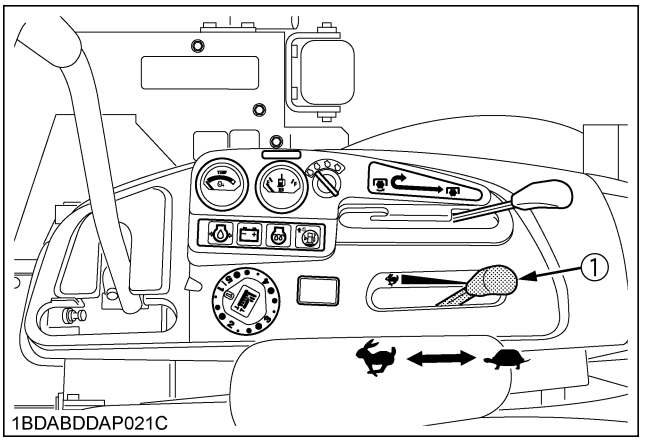
(1) PTO lever
"ENGAGED" (ON)
"DISENGAGED" (OFF)

5. Place the motion control levers in the "NEUTRAL LOCK" position.



(1) Motion control lever (LH)
(2) Motion control lever (RH)
(A) "NEUTRAL LOCK" Position
(B) "NEUTRAL" Position
(C) "FORWARD"
(D) "REVERSE"

6. Set the throttle lever 1/2 way forward.



(1) Throttle lever
"FAST"
"SLOW"

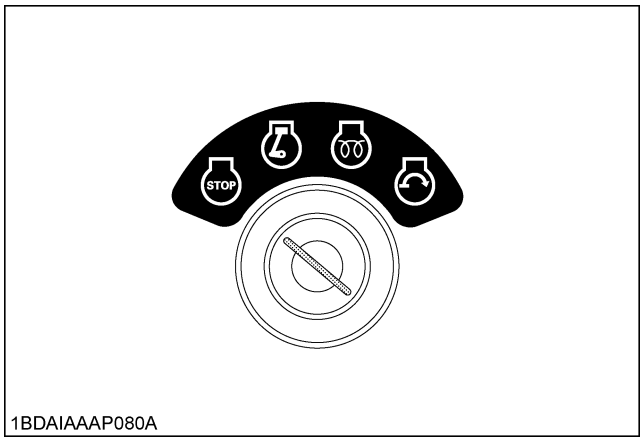
7. Insert the key into the key switch and turn clockwise 1 notch.
Make sure the Easy Checker (TM) lights are ON.

IMPORTANT :
- Do not depress the hydraulic lift control pedal.
  When the engine is off, depressing the hydraulic lift control pedal (UP or DOWN) will lower the implement.

■Key Switch

OFF.....	The position where the key can be inserted into or removed from the key switch. [When the key is turned this position, the engine shuts off.]
ON.....	The engine keeps running.
PREHEAT...	The super glow plug is heated.
START.....	Apply the parking brake and turn the key switch to this position to start the engine.

IMPORTANT :
- Because of the safety devices, the engine may not be started except when the PTO clutch is "DISENGAGED" (OFF), the parking brake lock pedal is applied, motion control levers are in "NEUTRAL LOCK" position and the operator is sitting in the seat.

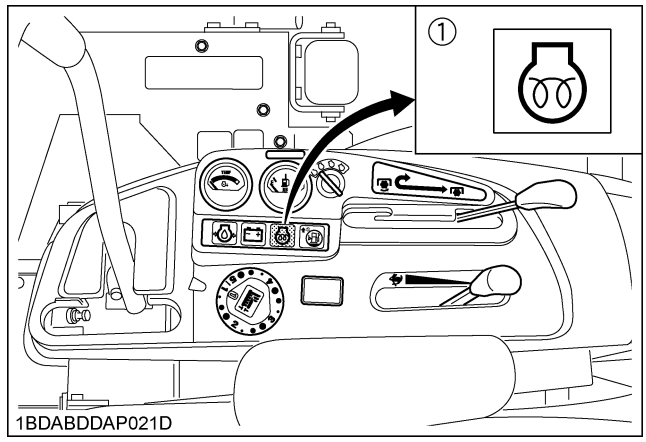


: "OFF" *: "PREHEAT"*
: "ON" *: "START"*

8. Turn the key switch clockwise, and hold it for about 5 seconds. (at the "PREHEAT" position)

For the appropriate preheating time, refer to the table below:

Temperature	Preheating Time
Over 0℃	5 sec.
Below 0℃	10 sec.



(1) Glow plug indicator

NOTE :
- Glow plug indicator (1) comes on while the engine is being preheated.

9. Turn the key switch to the "START" position and release the key to the "ON" position when the engine starts.

IMPORTANT :
- Do not use starting fluid or ether.
- To protect the battery and the starter, make sure that the starter is not continuously turned for more than 10 seconds.
- Do not turn the key switch while the engine is running.
- When the temperature is below 0℃, run the engine at medium speed to warm up the lubricant of the engine and transmission for at least 10 minutes. If the machine is operated before the lubricant is warm enough, the machine life will be shortened.
- Do not operate the machine under full load until it is sufficiently warmed up.
- When the ambient temperature is less than -15℃, remove the battery from the machine and store it somewhere warm until next operation.

10. Make sure that the Easy Checker (TM) lights have gone off. If the light is still on, immediately stop the engine and check the remedy following the instruction. (See "CHECK DURING OPERATING" in "OPERATING THE ENGINE" section.)

11. Warm the engine by running at medium speed.

CHECK DURING OPERATING

While operating, make the following checks to see that all the parts are functioning normally.

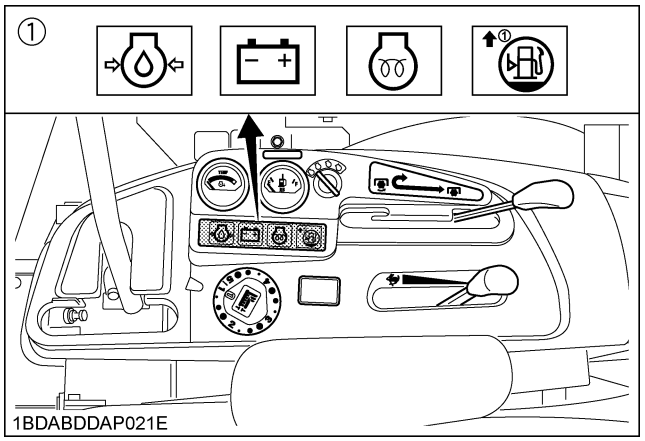
■Immediately Stop the Engine if:

- The engine suddenly slows down or accelerates.
- Unusual noises are suddenly heard.
- Exhaust fumes suddenly become discolored.

■Easy Checker (TM)

If the warning lamps in the Easy Checker (TM) come on during operation, stop the engine immediately, and find the cause as shown below.

Never operate the machine while Easy Checker (TM) lamp is "ON".



(1) Easy checker (TM)

Engine oil pressure

If the oil pressure in the engine goes below the prescribed level, the warning lamp in the Easy Checker (TM) will come on.

If this should happen during operation, stop the engine immediately and check level of engine oil.

Electrical charge

If the alternator is not charging the battery, the warning lamp in the Easy Checker (TM) will come on.

If this should happen during operation, check the electrical charging system or consult your local KUBOTA Dealer.

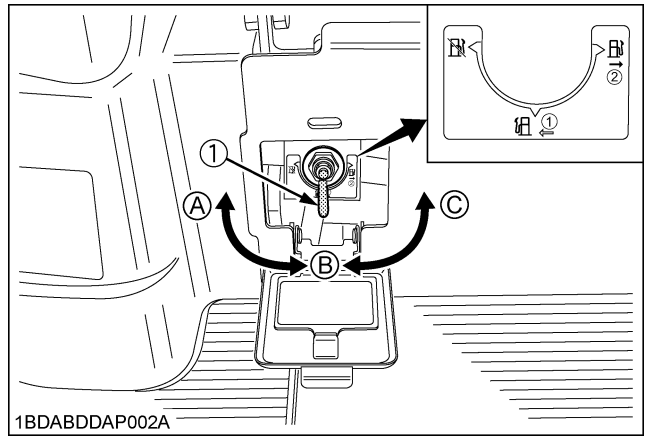
Fuel level [RH tank (primary tank) only]

If the fuel in the RH tank (primary tank) goes below the prescribed level, the warning lamp in the Easy Checker (TM) will come on. (less than 9.0 L in the RH tank)

If this should happen during operation, switch to the LH tank (secondary tank).

■Fuel Valve, Fuel Gauge and Warning Lamp

1. There are 3 switch positions in the fuel valve. (See "Fuel valve position" below.)

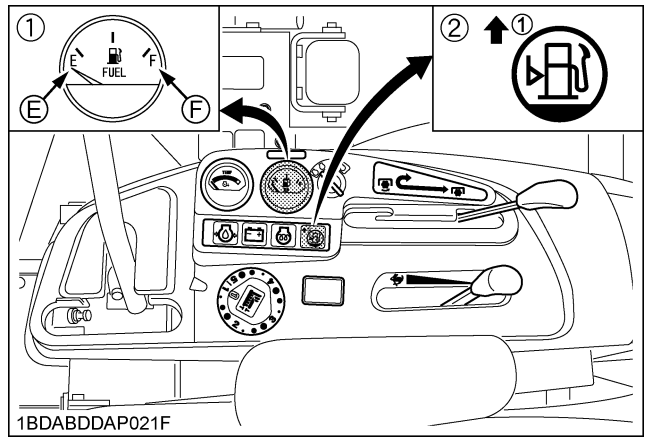


(1) Fuel valve

(A) "OFF"
(B) RH (Primary tank)
(C) LH (Secondary tank)

Fuel valve position

Rightward	OFF
Downward	RH (Primary tank)
Leftward	LH (Secondary tank)



(1) Fuel gauge for LH tank (Secondary tank)
(2) Fuel level warning lamp for RH tank (Primary tank)
(E) "EMPTY"
(F) "FULL"

2. The fuel gauge shows the amount of fuel left in the LH tank (secondary tank).
3. Use the fuel in the RH tank (primary tank) first.
4. When the warning lamp in the Easy Checker (TM) comes on, switch to the LH tank (secondary tank).

5. After switching to the LH tank, if the fuel gauge indicates "E", the fuel in the LH tank (secondary tank) is empty (less than 3.4 L in the LH tank). Refuel as soon as possible. (See "Checking Amount of Fuel and Refueling" in "DAILY CHECK" in "PERIODIC SERVICE" section.)

IMPORTANT :
- Fill the fuel tank only to bottom of the filler neck.
- Use the fuel from the RH tank (primary tank) first. Before the RH tank (primary tank) becomes empty (less than 9.0 L in the RH tank), switch to the LH tank (secondary tank).
- Be careful not to empty the fuel tank. Otherwise air may enter the fuel system. Should this happen, the system should be bled. (See "Bleeding Fuel System" in "SERVICE AS REQUIRED" in "PERIODIC SERVICE" section.)

■Coolant Temperature Gauge

WARNING

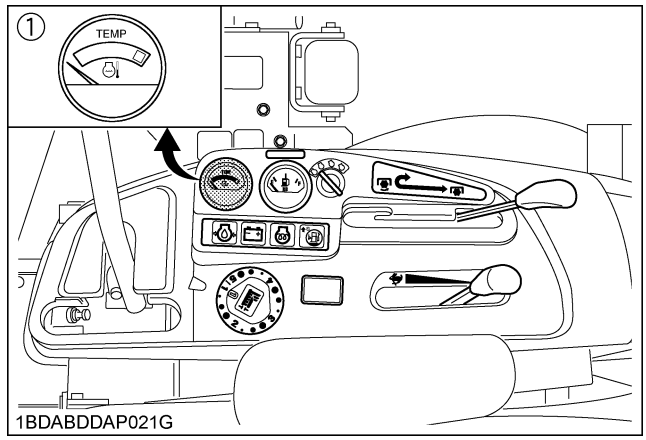
To avoid serious injury or death:
- **Do not remove radiator cap until coolant temperature is well below its boiling point. Then loosen cap slightly to the stop to relieve any excess pressure before removing cap completely.**

If the indicator reaches red zone, or horn sounds.

1. Place the PTO lever in the "DISENGAGE" (OFF) position.
2. Move the machine to the level surface, and apply the parking brake.
3. Place the throttle lever in the engine idle position, and let the engine run for a few minutes.
4. Check the Cooling System, after it has sufficient time to cool down.

Check the following items:
1. Shortage or leakage of the coolant.
2. Foreign matter on the radiator net or dust and dirt between the radiator fins.
3. Looseness of fan belt.
4. Blockage in the radiator tube.

(See "PERIODIC SERVICE" section.)



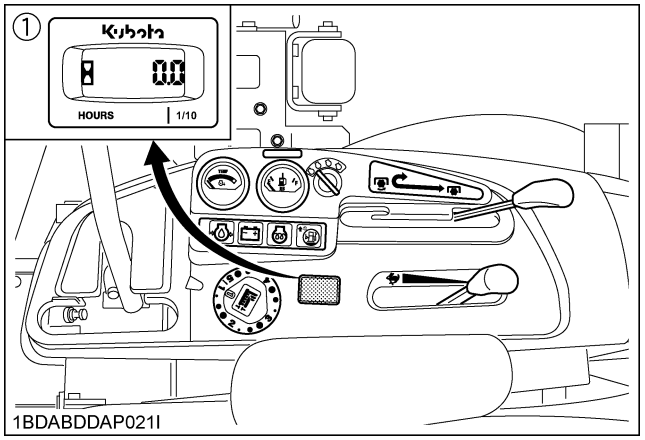
(1) Coolant temperature gauge

■Hour Meter

This meter gives readings for the hours the machine has been operated for.

NOTE :

- As the hour meter works electrically, it starts to work when the key switch is turned to "ON", regardless of the engine running or not.



(1) Hour meter

COLD WEATHER STARTING

When the ambient temperature is below -5℃ and the engine is very cold. (If the engine fails to start after 10 seconds, turn off the key for 30 seconds. Then repeat steps 9, 10 and 11. To protect the battery and the starter, make sure that the starter is not continuously turned for more than 30 seconds.)

BLOCK HEATER (OPTION)

A block heater is available as an option from your local dealer. It will assist you in starting your machine when the ambient temperature is below freezing.

WARMING UP

WARNING

To avoid serious injury or death:

- **Be sure to apply the parking brake during warm-up.**

For 5 minutes after engine start-up, allow the engine to warm up without applying any load. This is to allow oil to reach every engine part. If load should be applied to the engine without this warm-up period, the troubles such as seizure, breakage or premature wear may develop.

■Warm-up and Transmission Oil in the Low Temperature Range

Hydraulic oil serves as transmission oil. In cold weather, the oil may be cold with increased viscosity. This can cause delayed oil circulation or abnormally low hydraulic pressure for some time after engine start-up. This in turn can result in a trouble in the hydraulic system or a damage to the hydraulic clutch.
To prevent the above, observe the following instructions:
Warm up the engine at about 50% of rated rpm according to the table below:

Ambient temperature	Warm-up time requirement
Higher than 0℃	Approx. 5 minutes
-10 to 0℃	5 to 10 minutes
-20 to -10℃	10 to 15 minutes
Below -20℃	More than 15 minutes

IMPORTANT :

- Do not operate unless the engine is well warmed up. If operation is attempted while the engine is still cold, the hydraulic mechanism will not function properly and its service life will be shortened.
- If noises are heard after the hydraulic control lever has been activated and the implement is lifting, the hydraulic mechanism is not adjusted properly. Unless corrected, the unit will be damaged. Contact your local KUBOTA Dealer for adjustment.

JUMP STARTING

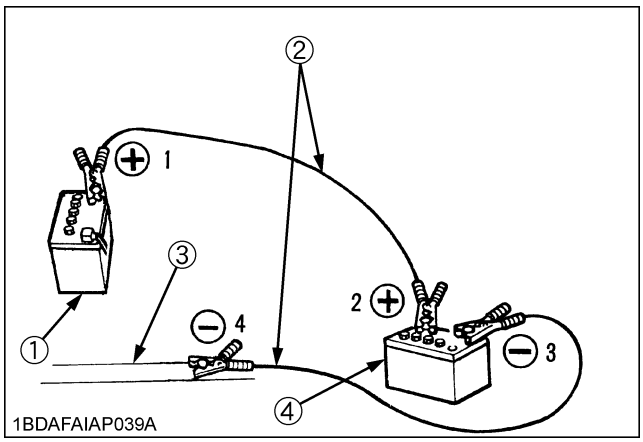
WARNING

To avoid serious injury or death:

- **Keep cigarettes, sparks, and flames away from battery.**
- **If the machine battery is frozen, do not jump start the engine.**
- **Do not connect the other end of negative jumper cable to the negative terminal of the machine battery.**

When jump starting the engine, follow the instructions below to start the engine safely.

1. Bring a helper vehicle with a battery of the same voltage as the disabled machine within easy cable reach. "THE VEHICLES MUST NOT TOUCH".
2. Apply the parking brakes of both vehicles and put the shift levers in neutral. Shut the engine off.
3. Put on safety goggles and rubber gloves.
4. Ensure vent caps are securely in place (if equipped).
5. Attach the red clamp to the positive (red, (+) or pos.) terminal of the dead battery and clamp the other end of the same cable to the positive (red, (+) or pos.) terminal of the helper battery.
6. Clamp the other cable to the negative (black, (-) or neg.) terminal of the helper battery.
7. Clamp the other end to the engine block or the frame of the disabled machine as far from the dead battery as possible.
8. Start the helper vehicle and let its engine run for a few moments. Start the disabled machine.
9. Disconnect the jumper cables in the exact reverse order of attachment. (Steps 7, 6 and 5)



(1) Dead battery
(2) Jumper cables
(3) Engine block or frame
(4) Helper battery

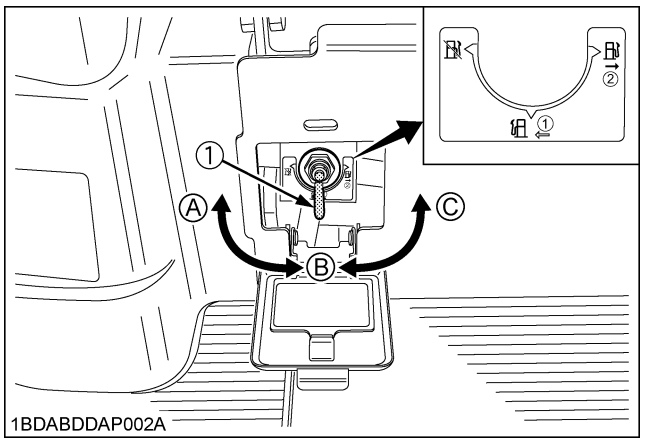
Connect cables in numerical order. Disconnect in reverse order after use.

IMPORTANT :

- This machine has a 12 volt negative (-) ground starting system.
- Use only same voltage for jump starting.
- Use of a higher voltage source on a machine could result in severe damage to the machine electrical system.
  Use only matching voltage source when "jump-starting" a low or dead battery condition.

STOPPING THE ENGINE

1. **After idling the engine, turn the key switch to "OFF" position.**
2. **Remove the key.**
3. **Do not leave the key switch "ON" (key in the "ON" position) as the battery will discharge when the engine is not running.**
4. **Apply the parking brake.**
5. **Turn the fuel valve to the "OFF" position.**



(1) Fuel valve

(A) "OFF"
(B) RH (Primary tank)
(C) LH (Secondary tank)

Fuel valve position

Rightward	OFF
Downward	RH (Primary tank)
Leftward	LH (Secondary tank)

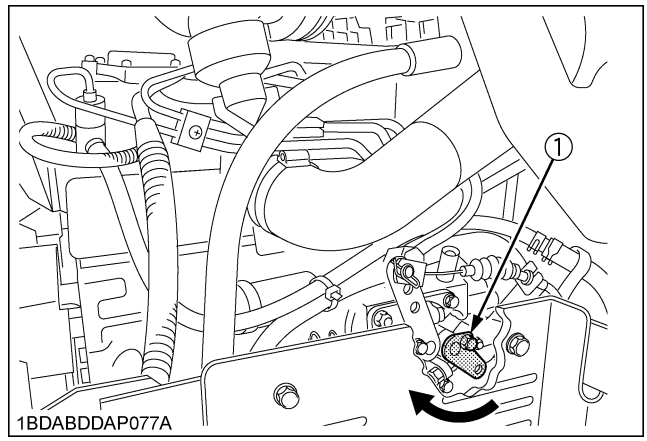
■Engine Stop Lever (Inside the Hood)

The engine stops when the key switch is turned "OFF". If the engine does not stop, make sure the motion control levers are in the "NEUTRAL LOCK" position, the PTO lever is "OFF", the mower lowered to the ground and apply the parking brake, then carefully get off the machine. Then open the hood and pull engine stop lever (Red mark) and hold it until the engine stops. Then contact your local KUBOTA Dealer immediately.

WARNING

To avoid serious injury or death:

- **Do not operate the machine until the engine stop system is repaired.**



(1) Engine stop lever

OPERATING THE MACHINE

OPERATING NEW MACHINE

How a new machine is operated and maintained determines the life of the machine.

A new machine just off the factory production line has been, of course, tested, but the various parts are not accustomed to each other, so care should be taken to operate the machine for the first 50 hours at a slower speed and avoid excessive work or operation until the various parts become "broken-in." The manner in which the machine is handled during the "breaking-in" period greatly affects the life of your machine. Therefore, to obtain the maximum performance and the longest life of the machine, it is very important to properly break-in your machine. In handling a new machine, the following precautions should be observed.

■Changing Lubricating Oil for New Machines

The lubricating oil is especially important in the case of a new machine. The various parts are not "broken-in" and are not accustomed to each other; small metal grit may develop during the operation of the machine; and this may wear out or damage the parts. Therefore, care should be taken to change the lubricating oil a little earlier than would ordinarily be required.

For further details of change interval hours.

(See "SERVICE INTERVALS" in "MAINTENANCE" section.)

■Engine Break-in

After the first 50 hours of operation, change the engine oil and filter. (See "EVERY 200 HOURS" in "PERIODIC SERVICE" section.)

■Machine Break-in

After the first 400 hours of operation, change the transmission fluid. (See "EVERY 400 HOURS" in "PERIODIC SERVICE" section.)

After the first 50 hours of operation, change the transmission oil filter. (See "EVERY 200 HOURS" in "PERIODIC SERVICE" section.)

DANGER

To avoid serious injury or death:

- **Do not operate the mower without the deflector shield in the down position.**

WARNING

To avoid serious injury or death:

- **The machine relies upon the engine driven transmission for speed, direction and steering control. If the engine is not running, the machine cannot be driven or controlled.**
  If the engine stops when operating on a slope, apply the parking brake immediately to prevent machine runaway.
- **Do not allow any person other than the driver to ride on the machine.**
- **Do not drive the machine close to the edges of ditches or banks which may collapse under the weight of the machine, especially when the ground is loose or wet.**
- **When turning the machine, be sure to reduce the travel speed and operate motion control levers carefully.**
- **To avoid tip over, operate across slopes, not up and down. Avoid sudden starts and stops on slopes. Slow down, and use extra caution when changing direction on a slope.**
  Park the machine on a firm and level surface.
- **Watch where you are going at all times. Watch for and avoid obstacles. Be alert at curbs, near trees, and other obstructions and hidden hazards.**
- **Do not drive machine on streets or highways. Watch for traffic when you cross roads or operate near roads.**
- **Look to the rear before and when backing. Make sure the area immediately behind you is clear of obstructions or holes and small children.**

WARNING

To avoid serious injury or death:

- **Clear the work area of objects which might be picked up and thrown by blades.**
- **Do not direct the opening of the chute at bystanders or animals. Ejected objects may cause injury. Plan your mowing carefully before starting operation.**
- **Keep bystanders especially children and animals away from the mowing area.**
- **Be sure to disengage the PTO and sit on the operator's seat before starting the engine.**

OPERATING FOLDABLE ROPS

WARNING

To avoid serious injury or death:

- **Always use the seat belt when the ROPS is installed.**
- **Do not use the seat belt if a foldable ROPS is down or there is no ROPS.**

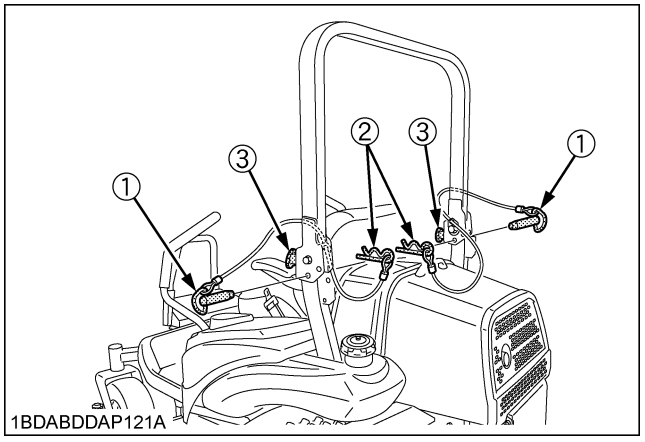
WARNING

To avoid serious injury or death:

- **When raising or folding the ROPS, apply parking brake, stop the engine and remove the key.**
  Always perform function from a stable position to the rear of the machine.
- **Fold the ROPS down only when absolutely necessary and fold it up and lock it again as soon as possible.**
- **Before proceeding to fold the ROPS, check for any possible interference with installed implements and attachments.**
  If interference occurs, contact your KUBOTA Dealer.

■To Fold the ROPS

1. Unscrew the knob bolts 1 to 2 turns.
2. Remove both lock pins.



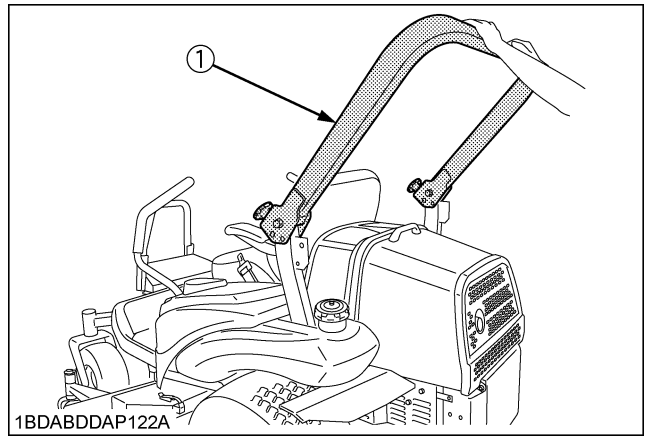
(1) Lock pin
(2) Hair pin
(3) Knob bolt

3. Fold the ROPS.

CAUTION

To avoid personal injury:

- **Hold the ROPS tightly with both hands and fold the ROPS slowly and carefully.**



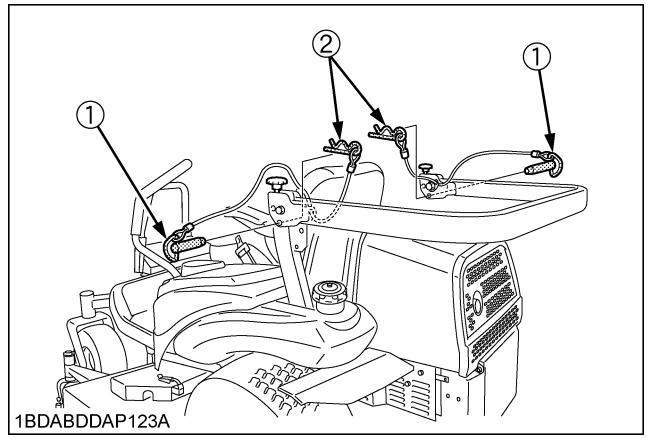
(1) ROPS

4. Align lock pin holes and insert both lock pins and secure them with the hair pins.

CAUTION

To avoid personal injury:

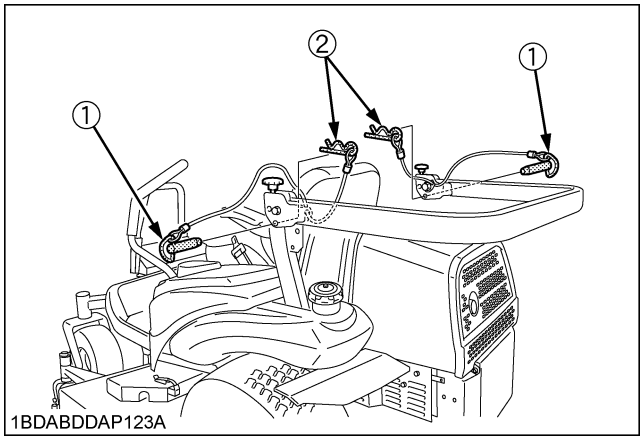
- **Make sure that both lock pins are properly installed and secured with the hair pins.**



(1) Lock pin
(2) Hair pin

■To Raise the ROPS to Upright Position

1. Remove both hair pins and lock pins.



(1) Lock pin
(2) Hair pin

2. Raise ROPS to the upright position.

CAUTION

To avoid personal injury:

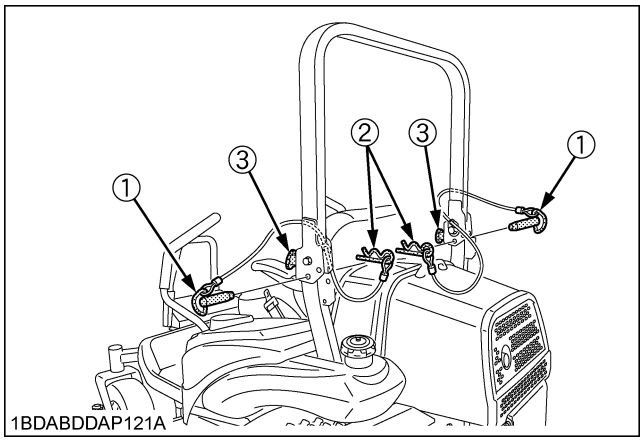
- **Raise the ROPS slowly and carefully.**

3. Align lock pin holes, insert both lock pins and secure them with the hair pins.
4. Tighten the knob bolts slightly.

CAUTION

To avoid personal injury:

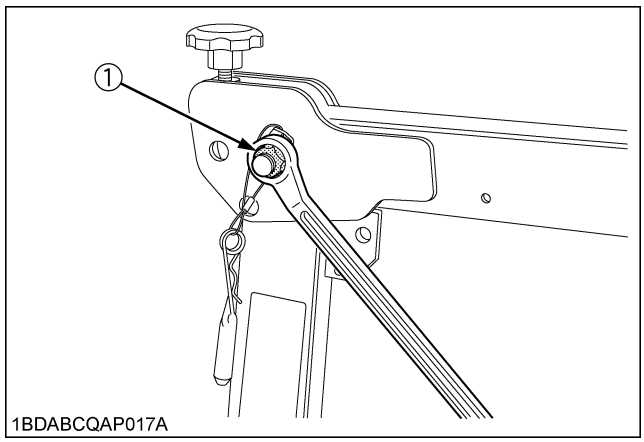
- **Make sure that both lock pins are properly installed as soon as the ROPS is in the upright position and secured with the hair pins.**



(1) Lock pin
(2) Hair pin
(3) Knob bolt

■Adjustment of Foldable ROPS

- Adjust free fall of the ROPS upper frame regularly.
- If you feel less friction when folding the ROPS, tighten the nut (1) until you feel the right friction in the movement and then replace the cotter pin.



(1) Nut

STARTING

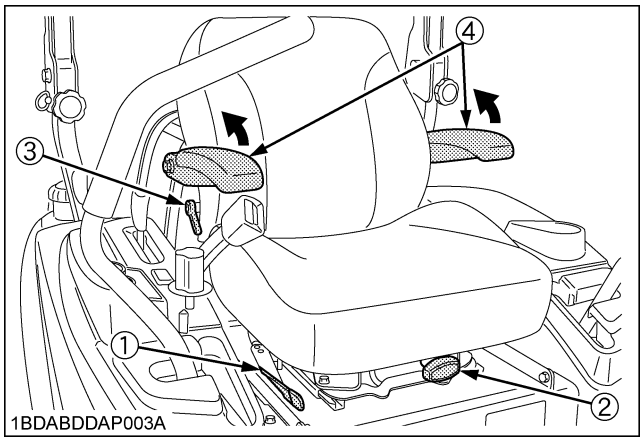
1. Adjust the operator's position.

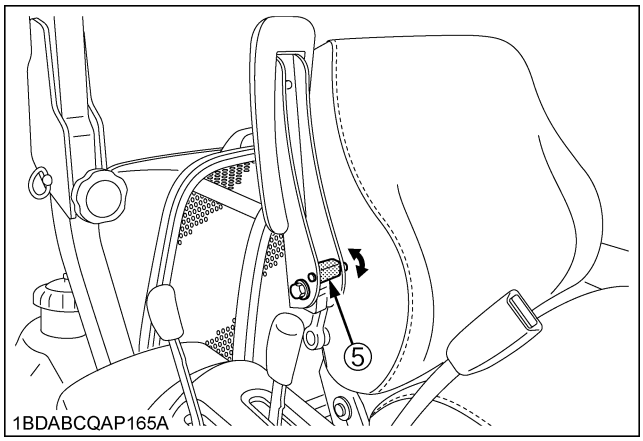
■Operator's Seat

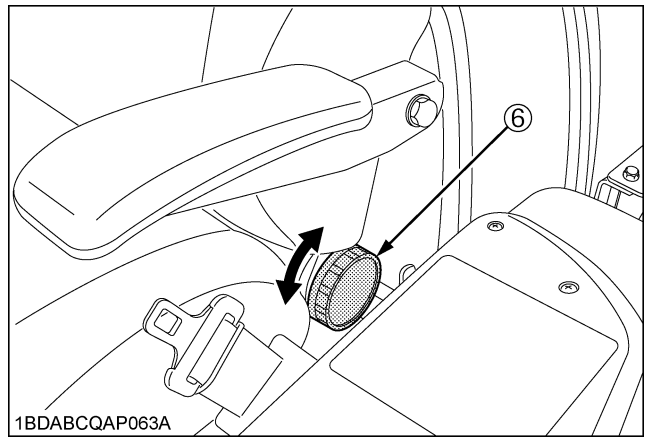
WARNING

To avoid serious injury or death:

- **Make adjustments to the seat only while the machine is stopped.**
- **Make sure that the seat is completely secured after each adjustment.**
- **Do not allow any person other than the driver to ride on the machine.**







(1) Travel adjust lever
(2) Suspension adjust knob
(3) Lumbar support adjust lever
(4) Arm rest
(5) Arm rest angle adjuster
(6) Backrest tilt adjust knob

◆ Travel adjustment

Unlock the travel adjust lever and slide the seat backward or forward, as required. The seat will lock in position when the lever is released.

WARNING

To avoid serious injury or death:

- **Use extra caution when unlocking the travel adjust lever because the seat might slide forward by itself.**

◆ Suspension adjustment

Pull the suspension adjust knob and turn it to achieve the optimum suspension setting. After setting, push back the knob.

◆ Lumbar support adjustment

Turn the lumbar support adjust lever to the desired position.

◆ Arm rest

Arm rest may be set at upright position if desired.

◆ Arm rest angle adjustment

Turn the arm rest angle adjuster to the desired angle.

◆ Backrest tilt adjustment

Turn the backrest tilt adjust knob to the desired angle.

IMPORTANT :

- After adjusting the operator's seat, be sure to check to see that the seat is properly locked.

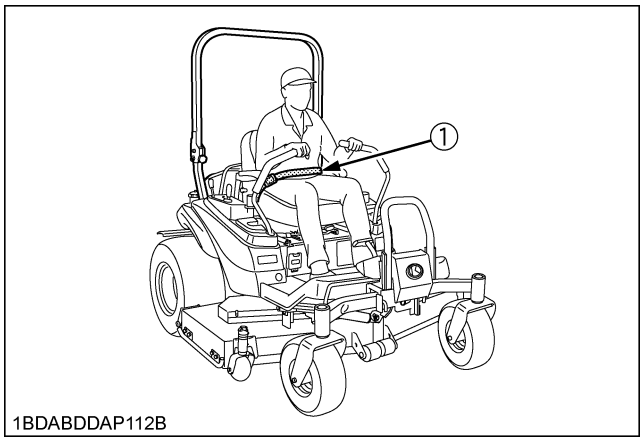
■Seat Belt

WARNING

To avoid serious injury or death:

- **Always use the seat belt when the ROPS is installed.**
- **Do not use the seat belt if a foldable ROPS is down or there is no ROPS.**

Adjust the seat belt for proper fit and connect to the buckle. The seat belt is an auto-locking retractable type.

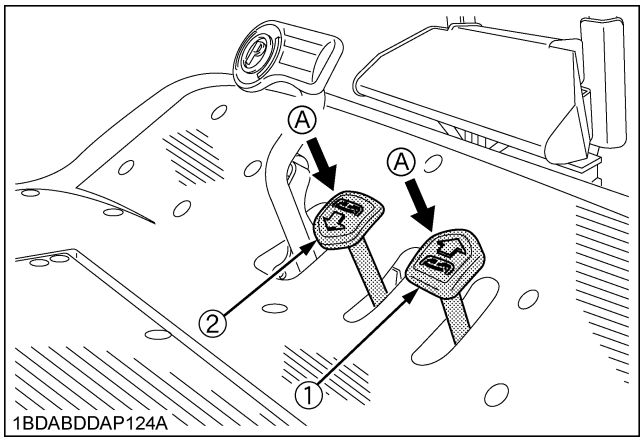


(1) Seat belt

2. Raise the implement.

■Hydraulic Lift Control Pedal

The hydraulic lift control pedal is used to raise and lower the implement used with the machine (ex. Mower).
To lower the implement, depress the hydraulic lift control pedal (DOWN).
To raise it, depress the hydraulic lift control pedal (UP).



(1) Hydraulic lift control pedal (UP)
(2) Hydraulic lift control pedal (DOWN)
(A) "DEPRESS"
"UP"
"DOWN"

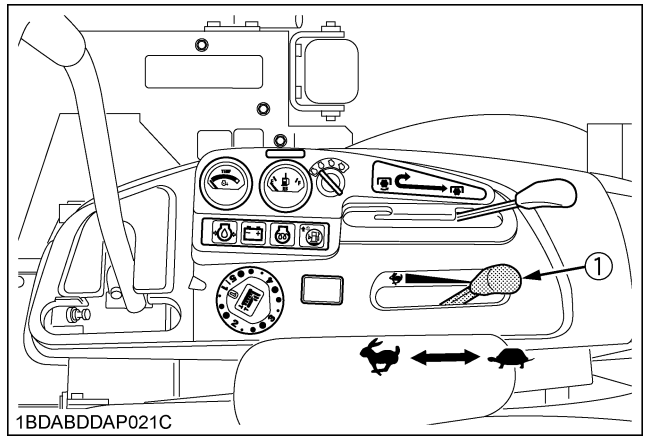
IMPORTANT :

- Do not operate until the engine is warmed up. If operation is attempted when the engine is still cold, the hydraulic system may be damaged.
- Do not operate at slow Engine rpm. Move the throttle lever above 1/2.
- If noises are heard when implement is lifting after the hydraulic lift control pedal has been activated, the hydraulic mechanism is not adjusted properly. Contact your local KUBOTA Dealer for adjustment.
- Do not depress the hydraulic lift control pedal.
  When the engine is off, depressing the hydraulic lift control pedal (UP or DOWN) will lower the implement.

3. Accelerate the engine.

■Throttle Lever

Moving the throttle lever backward decreases the engine speed and moving it forward increases the engine speed.



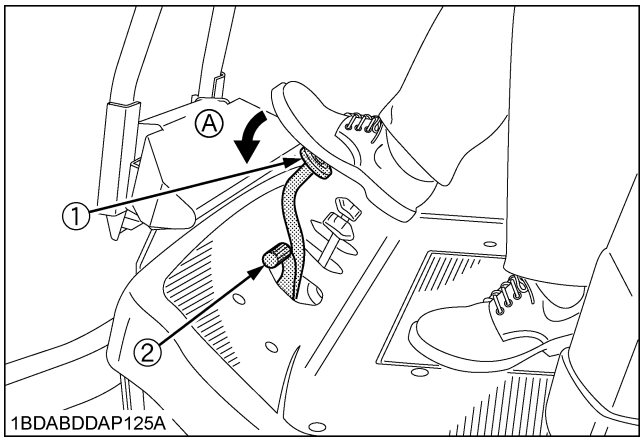
(1) Throttle lever
"INCREASE"
"DECREASE"

4. Unlock the parking brake.

■Parking Brake Pedal

To release the parking brake:

Depress the brake pedal and release slowly with your right foot, without pressing the parking brake lock pedal.



(1) Parking brake pedal
(2) Parking brake lock pedal
(A) "DEPRESS"

5. Operate the machine.

■Motion Control Lever

WARNING

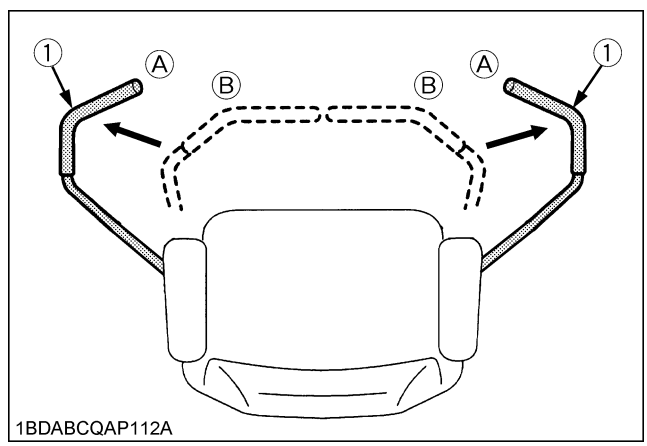
To avoid serious injury or death:

- **Understand how to use the motion control levers and practice in an unrestricted area at a little more than an idle speed without the mower engaged until becoming proficient in the operation of the machine.**
- **Do not move motion control levers from forward to reverse or reverse to forward position rapidly.**
  Sudden direction changes could cause loss of control or damage to the machine or property.
- **Do not make sharp turns at high speeds.**
  Fast and sharp turns could cause loss of control.
- **Motion control levers must be in "NEUTRAL LOCK" position to safely enter and exit the operator's seat or to carry out maintenance and safety checks.**

Stop position

◆ **Neutral lock position**

- Forward and reverse movement of the motion control levers are prevented when levers are in "NEUTRAL LOCK" position. (Engine can only be started with levers in this position.)



(1) Motion control levers
(A) "NEUTRAL LOCK" position
(B) "NEUTRAL" position

Operating position

Machine speed and steering is controlled by the motion control levers, when the engine is running and the parking brake is released.

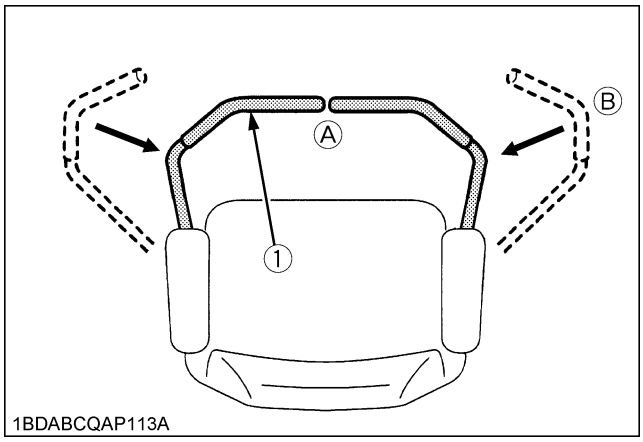
WARNING

To avoid serious injury or death:

- **No control is provided by the motion control levers when the engine is off.**

◆ **Neutral position**

- Grasp the motion control levers and move them inward from the "NEUTRAL LOCK" position so that the machine is in "NEUTRAL". (Engine cannot be restarted.)



(1) Motion control levers
(A) "NEUTRAL" position
(B) "NEUTRAL LOCK" position

◆ **Forward and Reverse Motion:**

1. Move throttle lever to the "FAST" position.
2. Release the parking brake.
3. Move both motion control levers from the "NEUTRAL LOCK" position inward to the "NEUTRAL" position.
4. Push the control levers slowly forward to begin forward motion.
   To move reverse:
   Pull both control levers slowly rearward at the same time to begin reverse motion.
   To stop:
   Move by hand and hold both motion control levers to the "NEUTRAL" position until the machine comes to a stop.

WARNING

To avoid serious injury or death:

- **The motion control lever adjustment is important to ensure the machine operates properly.**

NOTE :

- The motion control linkages are adjustable.
  If adjustment is required, see "ADJUSTMENT" section. We recommend you to contact your local KUBOTA Dealer.

◆ **Re-start on the slopes**

WARNING

To avoid serious injury or death:

- **Do not stop or change directions on the slopes. These operations could cause loss of the machine traction or control.**
  Starting procedure on the slopes is different from the usual start mode on a flat surface, understand how to re-start on the slopes and use extra caution.

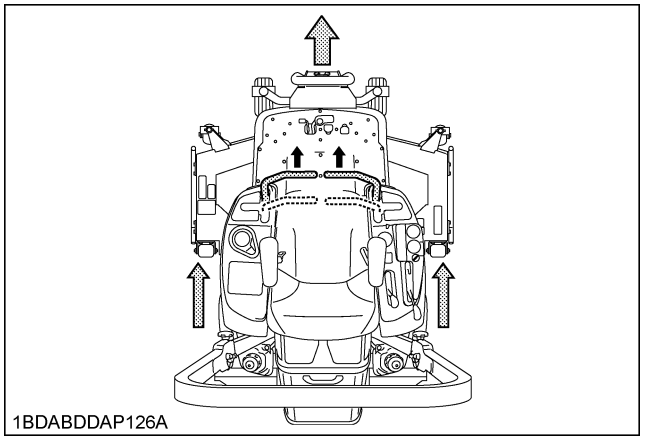
If a situation occurs where it is necessary to stop and re-start on a slope, refer to the following operational steps.

How to re-start on the slopes:

1. Firmly apply parking brake (enough to prevent movement).
2. Start the engine.
3. Set the throttle lever to the middle position.
4. Place the control levers inward to the "NEUTRAL" position gradually.
5. Release the parking brake within about 3 seconds.
   If you take more time, the engine will suddenly stop because of a safety device. (This is to prevent the machine from being operated with the parking brake applied.)
   When the engine stops, start over by firmly reapplying the parking brake, and repeat steps 2 through 5 and then 6.
6. Move the machine slowly and carefully.

FORWARD:

- Push both motion control levers forward equally at the same time. For travel forward in a straight line.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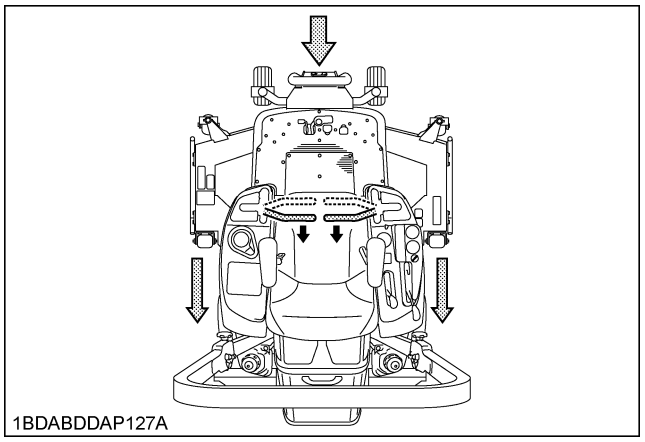
REVERSE:

- Pull both motion control levers past center rearward equally at the same time. For rearward travel in a straight line.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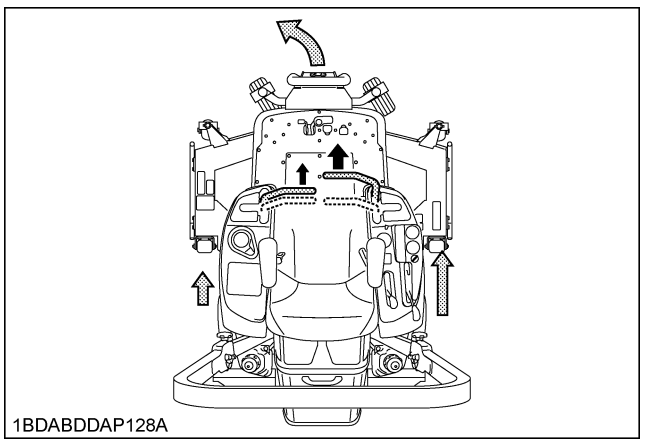
GENERAL LEFT TURN:

- Push right motion control lever further forward than the left motion control lever. For forward travel to the left.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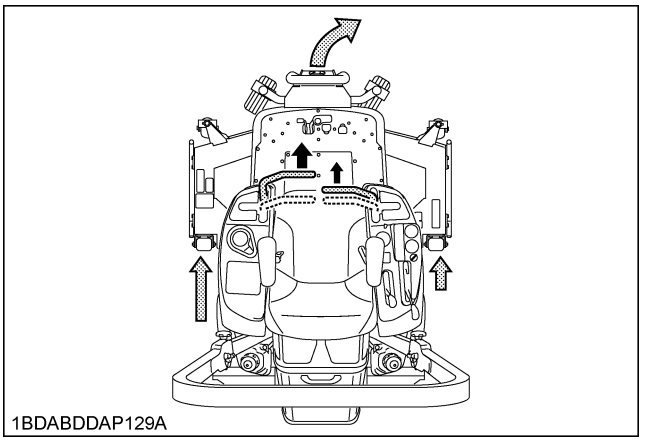
GENERAL RIGHT TURN:

- Push left motion control lever further forward than the right motion control lever. For forward travel to the right.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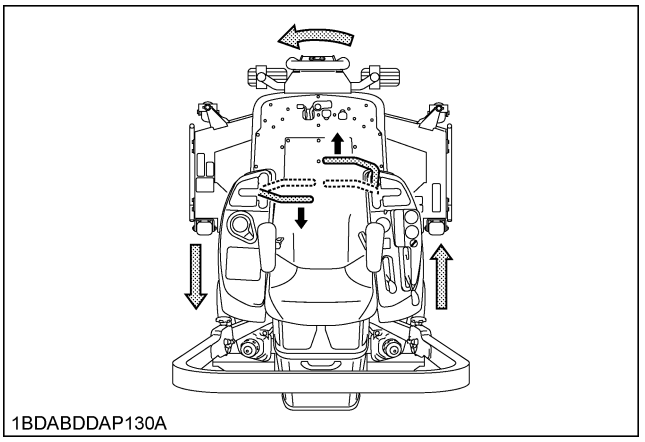
SHARP (ZERO) LEFT TURN:

- Push right motion control lever forward and pull left motion control lever rearward at the same time.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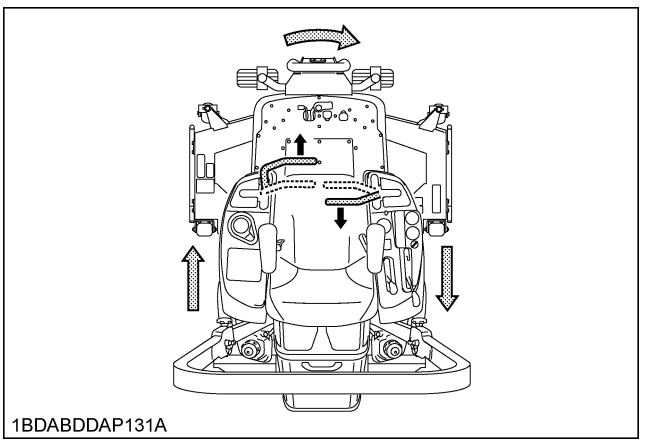
SHARP (ZERO) RIGHT TURN:

- Push left motion control lever forward and pull right motion control lever rearward at the same time.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FIXING FRONT AXLE

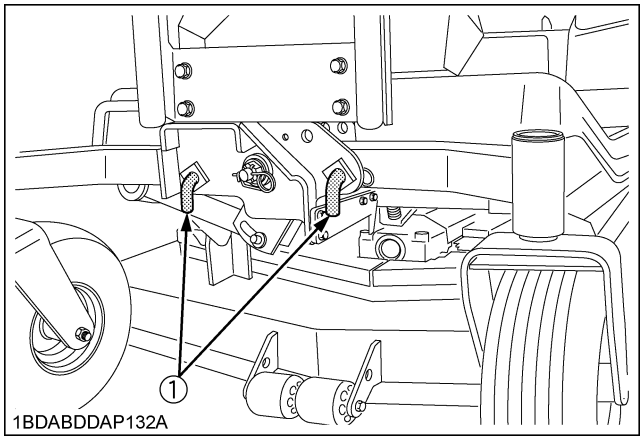
WARNING

To avoid serious injury or death:

- **Park the machine on a firm and level surface.**
- **Stop the engine, remove the key and engage the parking brake.**

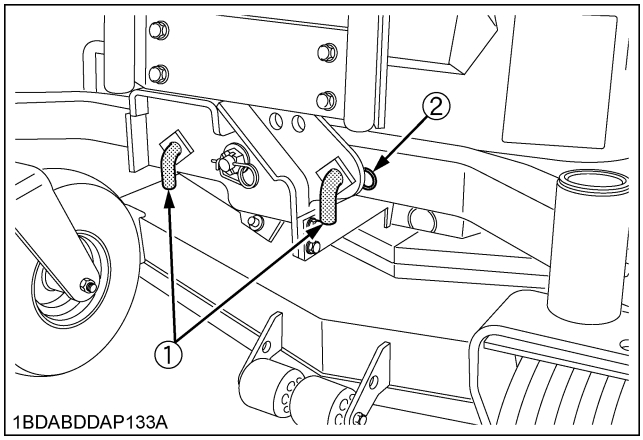
A rigid front axle is recommended for a more even cut under mowing the rough terrain.

1. Open the front cover.
2. Remove 2 L-pins from their original position.
3. Insert L-pins into the holes on the front axle as shown below.



(1) L-pin

4. Install the hairpins between the axle mount frame and the front axle.



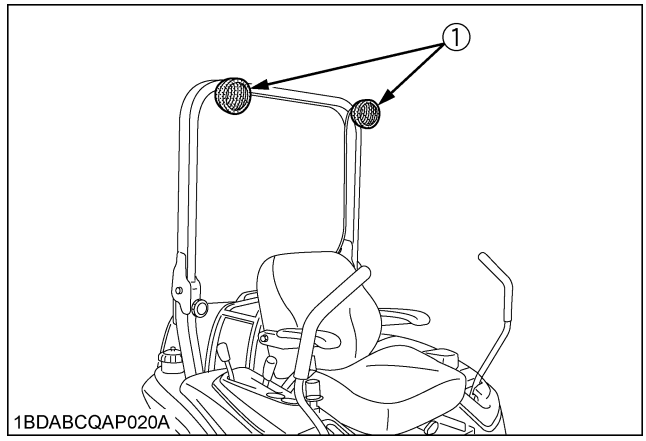
(1) L-pin *(2) Hairpin*

OSCILLATING FRONT AXLE

For oscillating the front axle, reverse the above procedures.

The oscillating front axle provides a smoother ride than the rigid front axle and oscillates with the terrain.

WORK LIGHT (OPTIONAL KIT)



(1) Work light

STOPPING

WARNING

To avoid serious injury or death:

- **Park the machine on level ground.**
  If necessary to park on an incline,
  (1) Stop the machine,
  (2) Apply the parking brake, then
  (3) Stop the engine.
- **If you stop the engine on an incline without applying the parking brake, the machine could move and run away.**

IMPORTANT :

- The parking brake pedal is for parking and emergency use only. If the parking brake is applied when the motion control levers are not in "NEUTRAL LOCK" position, the engine will stop within approximately 3 seconds. This feature is to prevent brake and transmission damage during operation.

1. Move both motion control levers to the "NEUTRAL" position to stop the machine.
2. Apply parking brake.
3. Move both motion control levers to "NEUTRAL LOCK" position.
4. Throttle lever in slow position and shift PTO lever to the "DISENGAGE" (OFF) position.
5. Lower all implements to the ground.
6. Turn off the engine and remove the key.

PARKING

TO LOCK:

Depress the parking brake pedal firmly with your right foot, and the parking brake lock pedal simultaneously with your left foot. Then release the parking brake pedal while handling the parking brake lock pedal down.

TO UNLOCK:

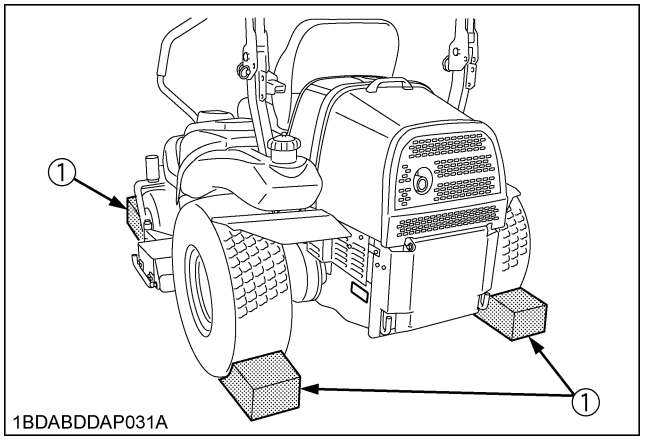
Depress the parking brake pedal and release slowly with your right foot, without pressing the parking brake lock pedal.

WARNING

To avoid serious injury or death:
Before leaving the operator's position,

- **Apply parking brake.**
- **Lower all implements to the ground.**
- **Shut off the engine.**
- **Remove the key.**
- **Place the motion control levers in the "NEUTRAL LOCK" position.**

If necessary to park on an incline, be sure to chock the wheels on the downhill side to prevent accidental rolling of the machine.



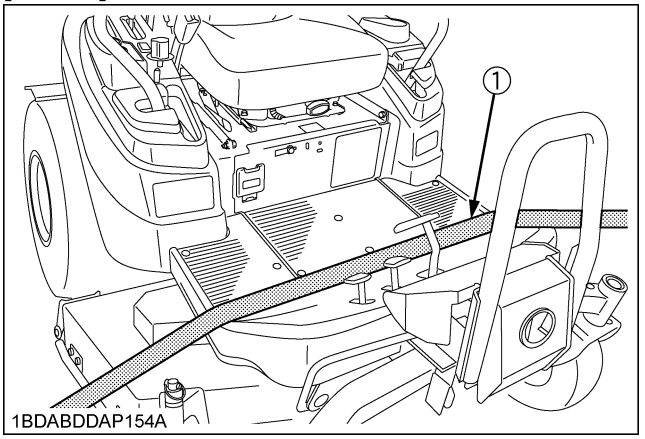
(1) Chocks

TRANSPORTING

IMPORTANT :

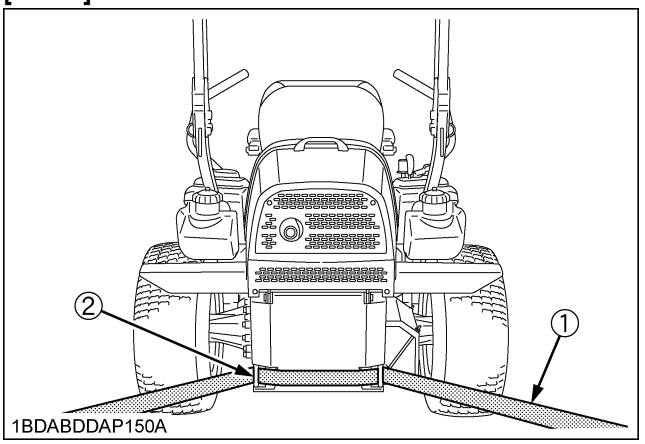
1. Transport the machine on a suitable trailer.
   - To prevent the hood from opening by wind while in transit, it is necessary to either load the machine backward or use a suitable tie down for the hood.
   - Apply the parking brake and lift down the mower deck to the lowest position.
   - Remove the key.
   - Secure the portions of the machine, which are shown in the figure below, by using heavy duty straps.
   - For a long distance transit, set the mower deck to the 5 inch position.

[FRONT]



(1) Heavy-duty strap

[REAR]



(1) Heavy-duty strap
(2) Rear frame

2. Do not attempt to tow this machine, or damage to the transmission may result.
3. Follow all federal and local regulations for securement.

OPERATING THE MOWER

MAKING THE MOST OF YOUR MOWER

1. When using your mower for the first time, choose a smooth level area and cut in straight and slightly overlapping strips.
2. The size and type of the area to be mowed will determine the proper mowing pattern. Take into account obstructions, such as trees, fences and buildings. To keep grass clippings off fences, sidewalks, etc., it is advisable to go over the outside of the area to be mowed several times in a clockwise direction. To mow the area remaining, work in a counterclockwise direction so that the clippings are dispersed onto the previously cut area.
3. Always keep the left side of the mower toward trees, posts or other obstacles on the first trip around the obstacle.
4. Most lawns should be mowed to keep the grass approximately 50 to 80 mm high. Best results are obtained by cutting often and not too short. To keep a green lawn, never mow more than 1/3 of the height of the grass or a maximum of 25 mm in 1 mowing.
   For extremely tall grass, set the cutting height at maximum cutting height for the first mowing, then reset to the desired height and mow again. Allow the grass to grow to 80 mm, then cut off only the top inch.
5. For best appearance, grass should be cut in the afternoon or evening when it is free of moisture.

WARNING

To avoid serious injury or death:

- **Clear the work area of objects which might be picked up and thrown by blades.**
- **Keep bystanders and animals away from the mowing area.**
- **Be sure to disengage the PTO and sit on the operator's seat before starting the engine.**

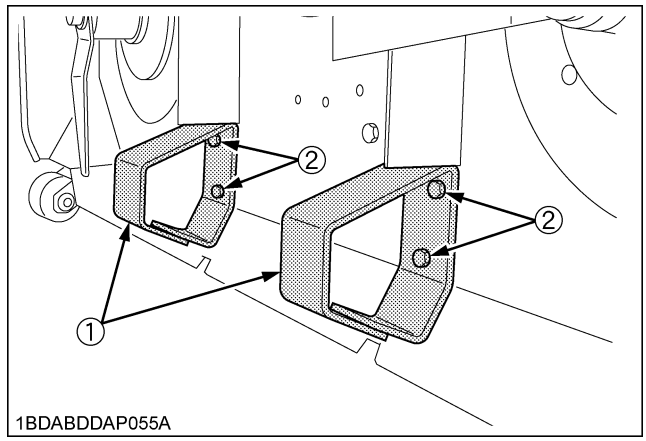
■Usage of the Skids

[Only RCK60R]

1. Make sure to attach the skids to the mower when mowing on an undulated terrain.
2. The skids may be removed when mowing on a flat terrain. Then grass can be cut for a better look.

IMPORTANT :

- When working on a rough terrain, make sure to install the skids. Working without skids could cause a deformed mower deck.



(1) Skid
(2) Bolt

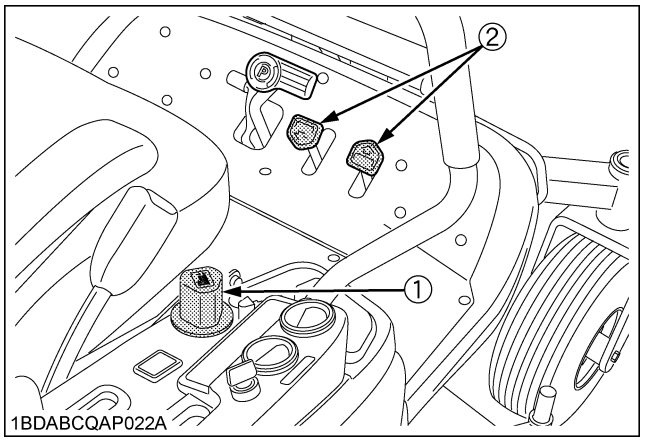
ADJUSTING CUTTING HEIGHT

DANGER

To avoid serious injury or death:

- **Do not engage the mower in the transport position.**

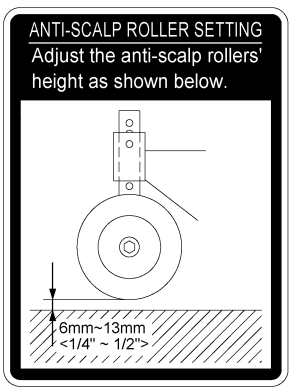
1. Before adjusting cutting height, check that all tire pressures are correct. If necessary adjust to the correct tire pressure.
2. To set the cutting height, depress the hydraulic lift control pedal (UP) to raise mower deck to the top position. Adjust the cutting height control dial to desired height.
   Lower the mower deck by depressing the hydraulic lift control pedal (DOWN).
   Then the mower deck will be set to the cutting height.
3. Use the higher settings for mowing in a rough area or when mowing tall grass. Lower settings should be used only for smooth lawns where short grass is desired.

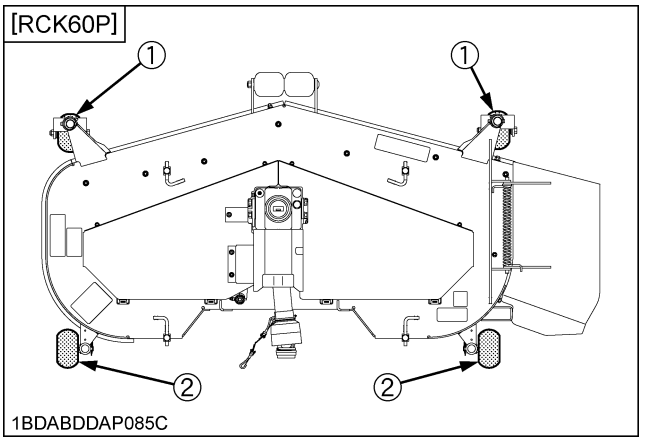


(1) Cutting height control dial
(2) Hydraulic lift control pedal

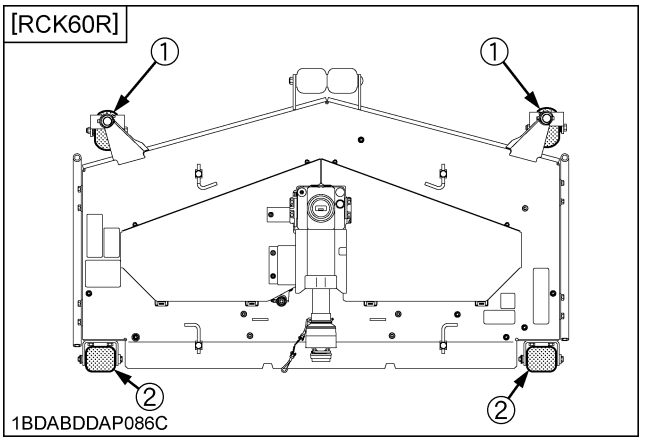
4. Lower the mower deck by depressing the hydraulic lift control pedal (DOWN). This lowers the mower deck from the "TRANSPORT" position to the "OPERATING" position.
5. Adjust the anti-scalp rollers' height as recommended below for normal operating condition. To minimize gouging and roller damage or wear, the anti-scalp rollers will maintain the ground clearance of 19 mm.

IMPORTANT :
- Never allow roller to contact the ground continuously as premature roller wear may develop if set incorrectly.
- Anti-scalp rollers must maintain a minimum clearance of 6 mm to the ground.





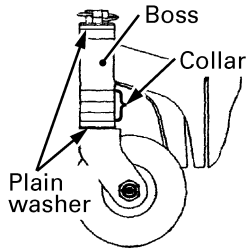
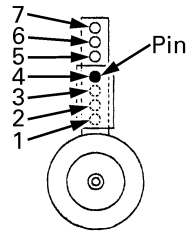
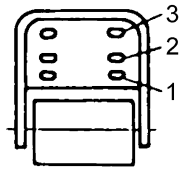
(1) Anti-scalp roller (Front, swivel type)
(2) Anti-scalp roller (Rear)



(1) Anti-scalp roller (Front, swivel type)
(2) Anti-scalp roller (Rear)

Reference

- Set position for recommended ground clearance 19 mm.
  (Figure shows setting position of cutting height 3")

Cutting height	The number of collars under the boss	Position of pins	Position of bolts	Ground clearance
	 1BDABARAP130A	 1BDABARAP131A	 1BDABDDAP0350	
1.00"	0	1	1	6 mm
1.25"	0	2	1	13 mm
1.50"	0	1	2	19 mm
1.75"	1	3	2	13 mm
2.00"	1	2	2	19 mm
2.25"	2	4	2	13 mm
2.50"	2	3	2	19 mm
2.75"	3	5	2	13 mm
3.00"	3	4	2	19 mm
3.25"	4	6	2	13 mm
3.50"	4	5 *2	3	19 mm
3.75"	4	7 *3	3	13 mm
4.00"	4	6 *3	3	19 mm
4.25"	4	7 *3	3	13 mm
4.50"	4	7 *3	3	19 mm
4.75"	4	7 *3	3	25 mm
5.00"	4	7 *3	3	31 mm

*1. Marked dimension shows ground clearance of bolt shift type.
*2. For cutting heights above 3.5". The anti-scalp rollers will still be effective against scalping.
*3. Use it if necessary.

- Only at cutting height 1" is ground clearance 6 mm.

OPERATING MOWER

DANGER

To avoid serious injury or death:

- **Do not operate the mower without the discharge deflector being in place properly.**

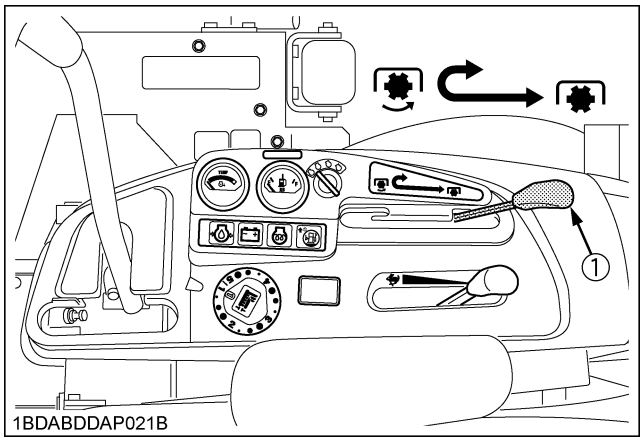
WARNING

To avoid serious injury or death:

- **Clear the work area of objects which might be picked up and thrown.**
- **Do not direct the opening of the deflector at bystanders especially children or animals. Ejected objects may cause injury. Plan your mowing carefully before starting operations.**
- **Keep bystanders and animals away from the mowing area.**
- **Be sure to disengage the PTO clutch of the mower before attempting to start the engine.**

■PTO Lever

To engage the PTO, move the PTO lever to the "ENGAGED" (ON) position.



(1) PTO lever *"ENGAGED" (ON)* *"DISENGAGED" (OFF)*

1. If you get off the seat while the PTO is running, the engine will stop automatically. (Operator presence control)
2. Before starting the engine, pull the PTO lever to the "DISENGAGED" (OFF) position. If it is at the "ENGAGED" (ON) position, the engine will not start.

NOTE :

- These safety features are built-in.

■Starting

WARNING

To avoid serious injury or death:

- **Engine components can get extremely hot from operation. To prevent severe burns, do not touch these areas while the engine is running, or immediately after it is turned off.**
- **Never operate the engine without heat shields or guards.**

1. Sit on the operator's seat.
2. Start the engine.
3. Engage the PTO lever.
4. Disengage the parking brake.
5. Speed up the engine by moving the throttle lever forward.
6. Push or pull the motion control levers to move forward or backward.

IMPORTANT :

- Never attempt to move the machine with the parking brake "ON".

NOTE :

- Keep the engine running at full throttle for best results. Control travel speed with the motion control levers.
- During heavy duty use, operate the machine at a slower ground speed or go over the area twice.
- Keep the mower deck in the raised position when the mower is disengaged.
- The mower will not cut cleanly if the ground speed is too high or if the blade speed drops due to an overload.
- To prevent the engine from overheating, keep the radiator and radiator screen clean.

TIRES AND WHEELS

TIRES

WARNING

To avoid serious injury or death:

- **Do not attempt to mount a tire. This should be done by a qualified person with the proper equipment.**
- **Always maintain the correct tire pressure. Do not inflate tires above the recommended pressure shown in the Operator's Manual.**
- **Inflation pressure in front tires rises quickly when using compressed air.**

WARNING

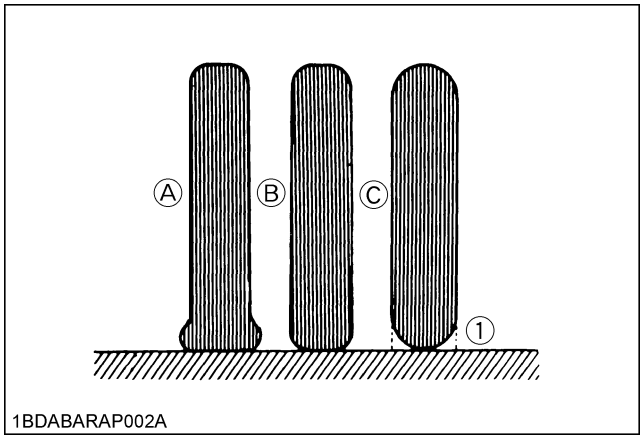
To avoid serious injury or death:

- **Never operate machine with a loose rim, wheel, or axle.**
- **Whenever bolts are loosened, retighten to specified torque.**
- **Check all bolts frequently and keep them tightened.**

■Inflation Pressure

Though the inflation pressure is factory-set to the prescribed level, it naturally drops slowly in the course of time. Thus, check it everyday and inflate as necessary.

	Tire sizes	Recommended Inflation Pressure
Front	15 x 6.0 - 6, 4PR Rib	160 kPa (1.6 kgf/cm^2)
Rear	26 x 12.0 - 12, 4PR Turf	120 kPa (1.2 kgf/cm^2)



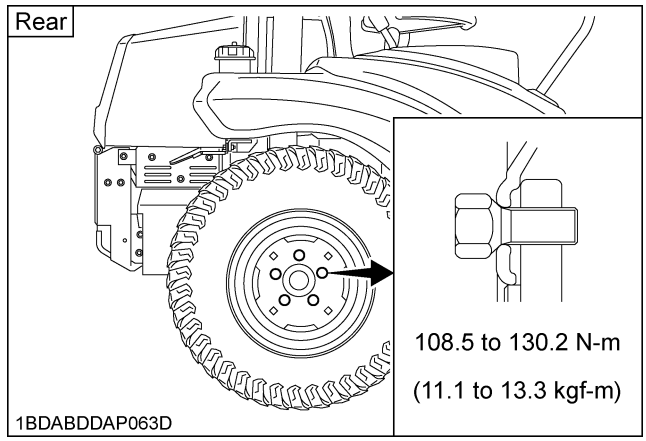
(1) Ground

(A) "INSUFFICIENT"
(B) "NORMAL"
(C) "EXCESSIVE"

WHEELS

IMPORTANT :

- When re-fitting a wheel, tighten the wheel bolt to the following torques then recheck after traveling 200 m (200 yards) changing directions several times.



Wheels with beveled or tapered holes:
Use the tapered wheel bolt.

■Remove and Install Front Caster Wheels

◆ Removing

1. Park the machine on a firm and level surface.
2. Stop the engine and apply parking brake.
3. Lift the front of machine with a safe lifting device.
4. Remove the lock nut with nylon sleeve and wheel bolt.
5. Remove the wheel from assembly yoke.

◆ Installing

1. Install the replacement wheel.
2. Install the wheel bolt and lock nut with nylon sleeve.
3. Install the nut.

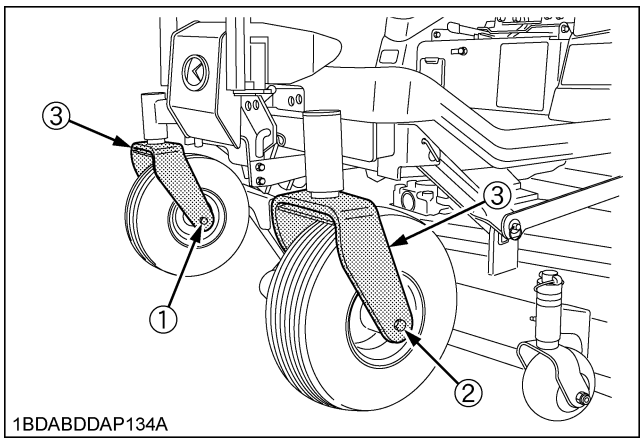
IMPORTANT :

- Insert the wheel bolt from the outside of the yoke.
- Tighten the nut gradually until wheel bearing play is eliminated and wheel turns freely by hand.

Reference

Tightening torque	20 to 25 N-m (2 to 2.5 kgf-m)

4. Lower machine.



(1) Lock nut
(2) Wheel bolt
(3) Yoke

MAINTENANCE

SERVICE INTERVALS

The following servicing tasks should be carried out on the machine at the stated running-time intervals.

No.	Items		Indication hour meter (Hr)													Ref. Page	
			50	100	150	200	250	300	350	400	450	500	550	600	After since		
1	Engine start system	Check	○	○	○	○	○	○	○	○	○	○	○	○	every 50Hr	50	
2	OPC system	Check	○	○	○	○	○	○	○	○	○	○	○	○	every 50Hr	51	
3	Mower gear box oil	Check	○	○	○	○	○	○	○	○	○	○	○	○	every 50Hr	52	
		Change			○			○			○			○	every 150Hr	60	
4	Greasing (except mower)	-	○	○	○	○	○	○	○	○	○	○	○	○	every 50Hr	52	
5	Throttle cable	Oil	○	○	○	○	○	○	○	○	○	○	○	○	every 50Hr	54	
6	Air cleaner primary element	Clean		○		○		○		○		○		○	every 100Hr	55	*2
		Replace													every 1000Hr or 1 year	65	*3
	Secondary element	Replace													every 1000Hr or 1 year	65	*3
7	Fuel filter element	Check		○		○		○		○		○		○	every 100Hr	56	
		Replace								○					every 400Hr	65	*6
8	Fan belt	Adjust		○		○		○		○		○		○	every 100Hr	57	
9	Parking brake	Adjust		○		○		○		○		○		○	every 100Hr	57	*9
10	Battery condition	Check		○		○		○		○		○		○	every 100Hr	59	*7
11	Engine oil	Change	◎			○				○				○	every 200Hr	61	*1
12	Engine oil filter	Replace	◎			○				○				○	every 200Hr	61	*1
13	Transmission oil filter [HST]	Replace	◎			○				○				○	every 200Hr	62	*1
14	Motion control lever pivot	Adjust				○				○				○	every 200Hr	63	
15	Front axle pivot	Adjust		◎		○				○				○	every 200Hr	63	*8
16	Transmission fluid and Rear axle gear case (RH & LH) fluid	Change								◎					every 400Hr	64	

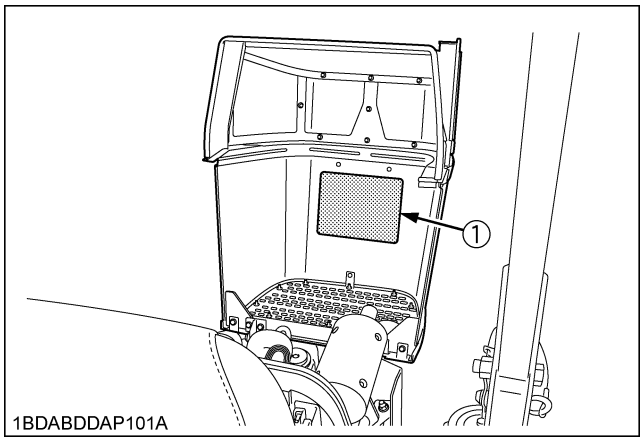
No.	Items		Indication hour meter (Hr)													Ref. Page	
			50	100	150	200	250	300	350	400	450	500	550	600	After since		
17	Hydraulic oil filter	Replace								○					every 400Hr	64	
18	Engine valve clearance	Adjust													every 800Hr	65	*6
19	Fuel injection nozzle injection pressure	Check													every 1500Hr	66	*6
20	Radiator	Clean													every 2000Hr or 2 years	66	*5
21	Coolant	Change													every 2000Hr or 2 years	66	*5
22	Injection pump	Check													every 3000Hr	68	*6
23	Fuel line	Check													every 1 year	68	*4 *9
		Replace													every 4 years	69	*6
24	Radiator hose and clamp	Check													every 1 year	68	*4 *9
		Replace													every 4 years	69	*9
25	Hydraulic hose	Check													every 1 year	68	*4 *9
		Replace													every 4 years	69	*6
26	Intake air line	Check													every 1 year	69	*4 *9
		Replace													every 4 years	69	*9
27	Engine breather hose	Check													every 1 year	69	*4 *6
		Replace													every 4 years	69	*6
28	Mower gear box oil seal	Check													every 1 year	69	*4 *6
		Replace													every 4 years	69	*6
29	Fuel system	Bleed													Service as required	73	
30	Fuse	Replace														70	
31	Blade	Replace														71	
32	Mower belt	Replace														72	

IMPORTANT :

- The jobs indicated by ◎ must be done initially.

*1 The initial 50 hours should not be a replacement (change) cycle.
*2 Air cleaner must be cleaned more often in dusty conditions than in normal conditions.
*3 Every 1000 hours or every 1 year whichever comes faster.
*4 Replace if any deterioration (crack, hardening, scar, or deformation) or damage occurred.
*5 Every 2000 hours or every 2 years whichever comes faster.
*6 Consult your local KUBOTA Dealer for this service.
*7 When the battery is used for less than 100 hours per year, check the battery condition by reading the indicator annually.
*8 The initial 100 hours should not be an adjustment cycle.
*9 If you feel you are unable to make the following service correctly and safely, contact your local KUBOTA Dealer.

PERIODIC SERVICE CHART LABEL



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(1) Part No. K3191-6552-5 (ENGLISH)

PERIODIC SERVICE CHART

INTERVAL		RECOMMENDED SERVICE ※
DAILY	CHECK	1.Tire pressure, wear, or damage. 2.Oil and water leakage from machine and mower. 3.Engine and transmission oil, radiator and recovery tank coolant and fuel level. 4.Damage to machine body, tightness of all bolts, nuts and pins, etc. 5.Mower blades and belt for wear or damage. 6.Parking brake, speed control levers, all safety switches and easy checker functions. 7.Color of the exhaust fumes, abnormal noise and vibrations.
	CLEAN	・Radiator screen and core, panel screen, air cleaner primary element and mower deck.
	GREASE	・Mower U-joint (3 places) / Spindle shaft (3 places) / Belt tension pulley (1 place) / Belt tension pivot (1 place)
FIRST 50 Hr. [BREAK-IN](MUST BE DONE.)	REPLACE	・Engine & HST Transmission oil filters (2 places)
	CHANGE	・Engine oil
FIRST 100 Hr. (MUST BE DONE.)	ADJUST	・Front axle pivot
FIRST 400 Hr. (MUST BE DONE.)	REPLACE	・Hydraulic oil filter
	CHANGE	・Transmission & Rear axle gear case (RH & LH) fluid

※ : See Operator's Manual in details.
☆ : Should be serviced by KUBOTA Dealer.
★ : Required more often in dusty conditions.
■ : Replace if necessary.
● : Replace for maximum of every 4 years.
▲ : Whichever comes first.

INTERVAL		RECOMMENDED SERVICE ※
E 50 Hr.	CHECK	・Mower gear box oil / Engine start system / OPC system
	OIL	・Throttle cable (2 places)
	GREASE	・Front axle and wheel (5 places) / Universal joint (3 places) / Seat adjuster (2 places) / Motion control lever pivot bushing and contact position (2 places each) / Parking brake lock pedal / Front lift arm (2 places) / Tilt lever
V 100 Hr.	CHECK	・Fuel filter element / Battery condition
	CLEAN	・Air cleaner primary element ★
	ADJUST	・Fan belt / Parking brake ☆
150 Hr.	CHANGE	・Mower gear box oil
E 200 Hr.	REPLACE	・Engine oil filter / HST transmission oil filter
	CHANGE	・Engine oil
	ADJUST	・Front axle pivot / Motion control lever pivot
400 Hr.	REPLACE	・Fuel filter element ☆ / Hydraulic oil filter
	CHANGE	・Transmission & Rear axle gear case (RH & LH) fluid
R 800 Hr.☆	ADJUST	・Engine valve clearance
1500 Hr.☆	CHECK	・Fuel Injection Nozzle Injection Pressure
3000 Hr.☆	CHECK	・Injection Pump
Y 1 year	CHECK ☆ ■ ●	・Radiator hose and clamp / Hydarulic hose / Fuel line / Mower gear box oil seal / Intake Air Line / Engine breather hose
1 year / 1000Hr.▲	REPLACE	・Air cleaner both elements
2 year / 2000Hr.▲	CLEAN	・Radiator
	CHANGE	・Coolant

Approximate fluid capacities. unit:L(qts.)

	ZD321	ZD323	ZD326	ZD331
Engine	3.5 (3.70)		3.9 (4.1)	5.7 (6.0)
Radiator	2.7 (2.85)		3.5 (3.70)	
Transmission	12.1 (12.8)			
Reserve tank	0.25 (0.26)			
Mower gear box	0.4 (0.42)			

Tire pressure and tightening torque recommendation.

Front	15x6.0-6	160 KPa (23 psi)	Ensure smooth rotation of wheel. <Do not overtighten.>
	15x6.0- 6 (NO FLAT)	NO NEED	
Rear	26x10.5-12	120 KPa (17 psi)	108.5-130.2 Nm (80.0-96.0 ft・lbs)
	26x12.0-12		

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LUBRICANTS, FUEL AND COOLANT

Place	Capacities		Lubricants	
	ZD326-60-EU-2	**ZD326-60R-EU-2**		
Fuel	49 L		• No.2-D diesel fuel • No.1-D diesel fuel if temperature is below -10 ℃	
Coolant	3.5 L		Fresh clean water with anti-freeze	
Recovery tank	0.25 L			
Engine crankcase	3.9 L*		• Engine oil: API service Classification CF or better Above 25 ℃ ...SAE30, SAE10W-30 or 15W-40 0 to 25 ℃ .....SAE20, SAE10W-30 or 15W-40 Below 0 ℃ .....SAE10W, SAE10W-30 or 15W-40	
Transmission case with filter & hose Rear axle gear case (RH &LH)	12.1 L		• KUBOTA UDT or SUPER UDT fluid*1	
Mower gear box	0.4 L		SAE90 gear oil (API service classification: more than GL-3)	
Greasing	No. of greasing points		Capacity	Type of grease
Motion control lever pivot bushing, and contact position	6		Until grease overflows	• Multipurpose EP2 Grease (NLGI Grade No. 2)
King Pin	2			
Center Pin	1			
Front wheel	2			
Front lift arm	2			
Universal joint	3			
Seat adjuster	2			
Parking brake lock pedal	1			
Tilt lever	1			
Cable (throttle)	2		Moderate amount	• Oil
[MOWER]			Until grease overflows	• Multipurpose EP2 Grease (NLGI Grade No. 2)
Universal joint	3			
3 spindle shafts	3			
Belt tension pulley	1			
Belt tension pivot	1			
Front anti scalp roller	2			
Front anti scalp roller pivot boss	2			

Note * Oil amount when the oil level is at the upper level of the oil level gauge.

IMPORTANT :
- To prevent serious damage to hydraulic systems, use only KUBOTA genuine fluid or its equivalent.

NOTE :

◆ **Engine Oil:**

- Oil used in the engine should have an American Petroleum Institute (API) service classification and Proper SAE Engine Oil according to the ambient temperatures as shown above:
- With the emission control now in effect, the CF-4 and CG-4 lubricating oils have been developed for use of a low-sulfur fuel on on-road vehicle engines. When an off-road vehicle engine runs on a high-sulfur fuel, it is advisable to employ the "CF or better" lubricating oil with a high Total Base Number (TBN of 10 minimum).

- Refer to the following table for the suitable API classification engine oil according to the engine type (with internal EGR, external EGR or non-EGR) and the fuel (low-sulfur or high-sulfur fuel).

Fuel used	Engine oil classification (API classification)	
	Oil class of engines except external EGR	Oil class of engines with external EGR
High Sulfur Fuel [≧ 0.05% (500 ppm)]	**CF** (If the "CF-4, CG-4, CH-4 or CI-4" lubricating oil is used with a high-sulfur fuel, change the lubricating oil at shorter intervals. (approximately half))	---
Low Sulfur Fuel [<0.05% (500 ppm)] or Ultra Low Sulfur Fuel [<0.0015% (15 ppm)]	**CF, CF-4, CG-4, CH-4** or **CI-4**	**CF** or **CI-4** (Class CF-4, CG-4 and CH-4 engine oils cannot be used on EGR type engines)

EGR: Exhaust Gas Re-circulation

- The CJ-4 engine oil is intended for DPF (Diesel Particulate Filter) type engines, and cannot be used on this machine.

	except external EGR	with external EGR
Models	ZD326-60-EU-2, ZD326-60R-EU-2	---

◆ **Fuel:**

- Cetane number of 45 is minimum. Cetane number greater than 50 is preferred, especially for temperatures below -20℃ or elevations above 1500 m.
- If diesel fuel with sulfur content greater than 0.5% (5000 ppm) sulfur content is used, reduce the service interval for engine oil and filter by 50%.
- NEVER use diesel fuel with sulfur content greater than 0.05% (500 ppm) for EXTERNAL EGR type engine.
- DO NOT use diesel fuel with sulfur content greater than 1.0% (10000 ppm).
- Diesel fuels specified to EN 590 or ASTM D975 are recommended.
- No.2-D is a distillate fuel of lower volatility for engines in industrial and heavy mobile service. (SAE J313 JUN87)

◆ **Transmission Oil:**

The oil used to lubricate the transmission is also used as hydraulic fluid. To insure proper operation of the hydraulic system and to complete lubrication of the transmission, it is important that a multi-grade transmission fluid is used in this system. We recommend the use of **KUBOTA UDT or SUPER UDT fluid** for optimum protection and performance. (Consult your local KUBOTA Dealer for further detail.)
Do not mix different brands together.

- Indicated capacities of water and oil are manufacturer's estimate.

ENGLISH

PERIODIC SERVICE

HOW TO OPEN THE HOOD, FRONT COVER & STEP

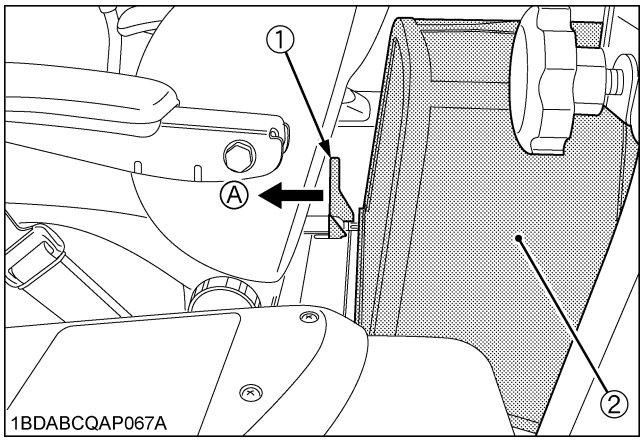
WARNING

To avoid serious injury or death from contact with moving parts:

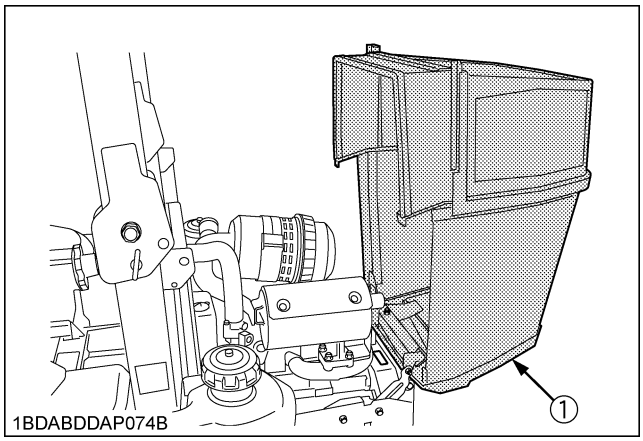
- **Never open the hood while the engine is running.**
- **Never open the step while the engine is running.**
- **Do not touch muffler or exhaust pipes while they are hot; Severe burns could result.**

■Hood

To open the hood, pull the latch lever frontward.



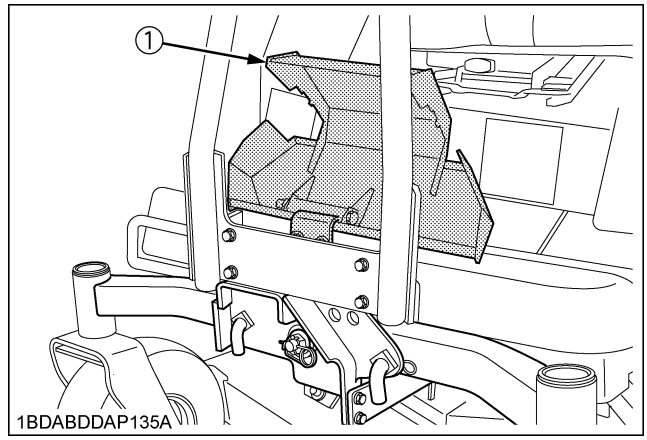
(1) Latch lever *(A) "RELEASE"*
(2) Hood



(1) Hood

■Front Cover

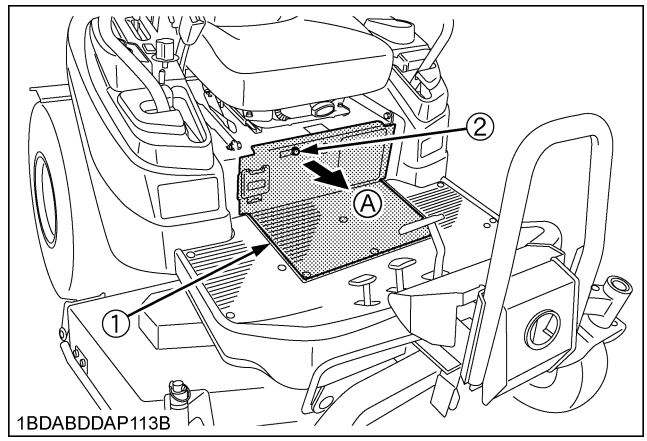
To open the front cover, pull the bottom edge of the front cover.



(1) Front cover

■Step

1. Remove the bolt.
2. To open the step, pull the step frontward.



(1) Step *(A) "PULL"*
(2) Bolt

HOW TO RAISE THE OPERATOR'S SEAT

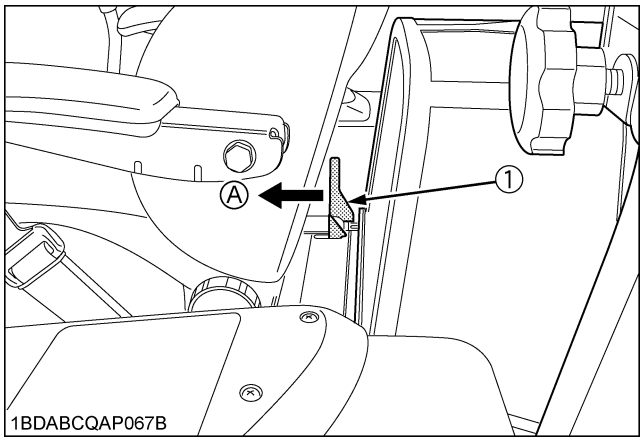
◆ **Raise**

WARNING

To avoid serious injury or death:

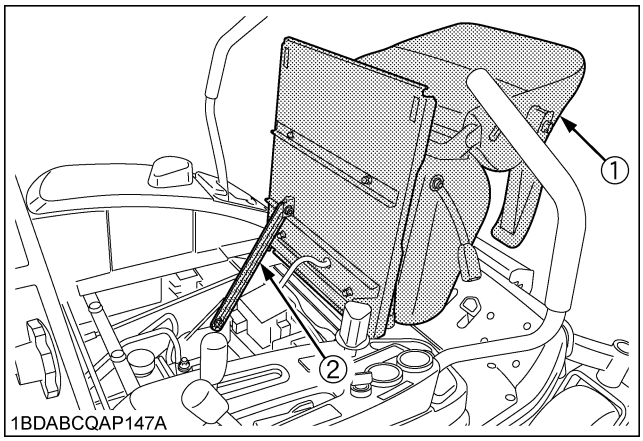
- **Fully raise the operator's seat. (To the locked position) Do not keep the seat halfway.**

1. Seat must be all the way back before raising.
2. Pull the latch lever on the seat panel frontward.



(1) Latch lever *(A) "PULL"*

3. Raise the operator's seat to the "LOCK" position.



(1) Operator's seat
(2) Seat support rod

◆ **Lower**

WARNING

To avoid serious injury or death:

- **Do not drop the seat to close it.**
- **Watch your hands. Do not place your hands under the seat, when closing.**

1. Pull up the seat support rod and release the "LOCK".
2. Lower the seat slowly to lock.
3. Slide the seat to proper position.

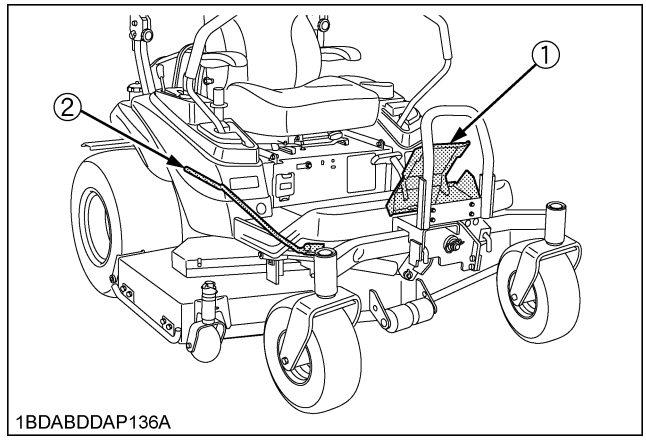
HOW TO TILT UP THE MACHINE

WARNING

To avoid serious injury or death:

- **Park the machine on a firm and level surface.**
- **Set the mower deck height to 5 inch.**
- **Stop the engine, remove the key and engage the parking brake.**
- **Be sure to chock the wheels.**
- **Lock the raised axle with an L-pin and Hairpin cotter before working under the machine.**

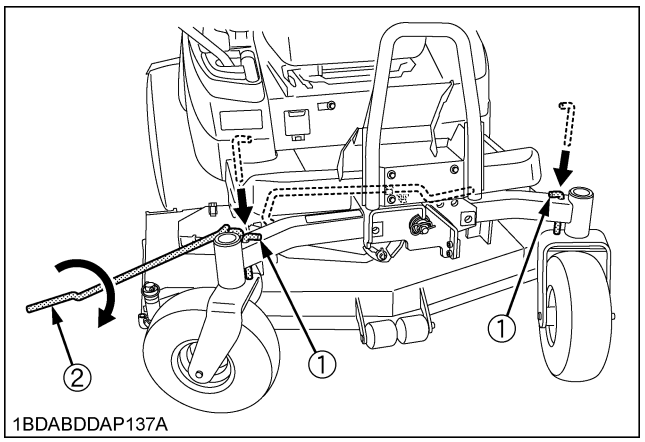
1. Lower the forward right anti-scalp roller to the lowest position.
2. Fully open the front cover.
3. Unfold the tilt lever.



(1) Front cover
(2) Tilt lever

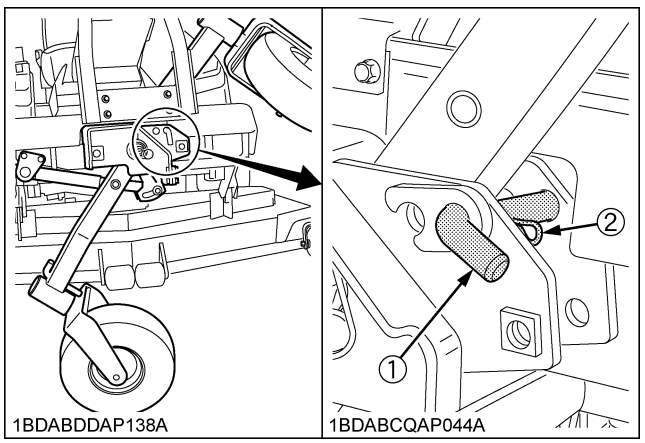
4. Keep the front cover opened.
5. Remove 2 L-pins.

6. Insert L-pins to both sides of the front axle to position the front wheels. As shown below.



(1) L-pin
(2) Tilt lever

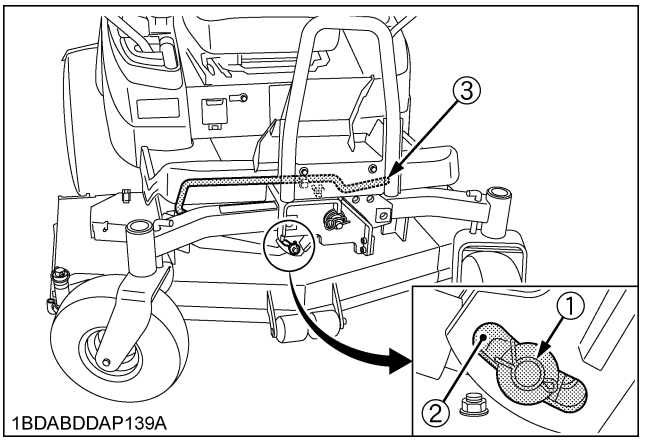
7. Turn the tilt lever clockwise to raise the axle to the stop.
8. Remove the L-pin of the raised wheel and insert it to the outside hole of the frame.
9. Insert the hairpin cotter.



(1) L-pin
(2) Hairpin cotter

◆ **Return to the normal position.**
Reverse to the above procedure.

IMPORTANT :
- To ensure equal oscillation of the axle and prevent loss of parts.
  Be sure the clevis pin returns to the center position of the front axle arm slot.
  And be sure to install removed parts.



(1) Clevis pin
(2) Slot
(3) Tilt lever

HOW TO OPEN THE LEVER GUIDE

WARNING

To avoid serious injury or death:

- **Park the machine on a firm and level surface.**
- **Stop the engine, remove the key and apply the parking brake.**

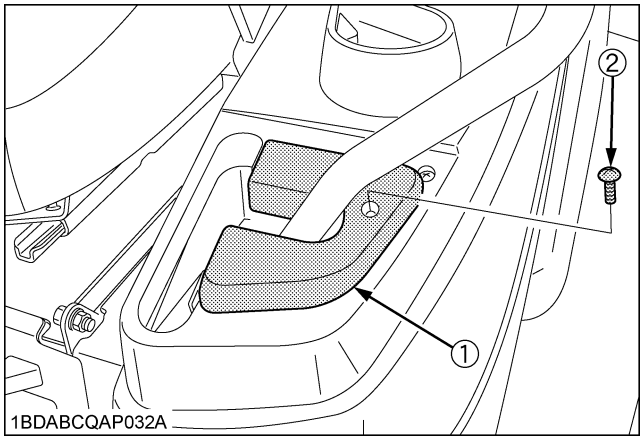
1. Remove the screw of the lever guide.
2. Pull up the lever guide.

How to install the lever guide.

1. Install the lever guide.
2. Tighten the screw.

IMPORTANT :

- If the lever guide is out of alignment with the motion lever, move the lever guide to align it with the motion lever.



(1) Lever guide
(2) Screw

LIFT-UP POINT

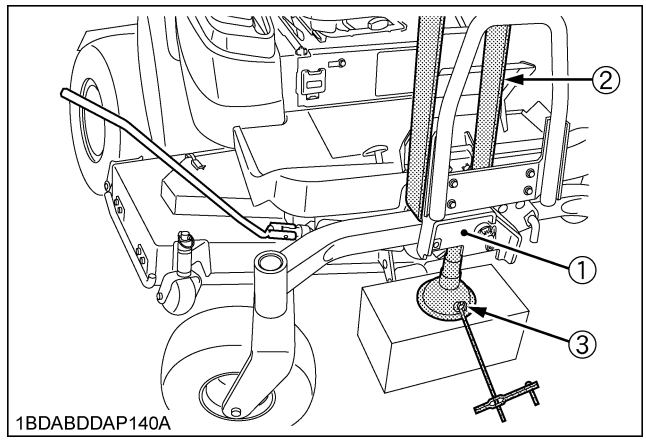
WARNING

To avoid serious injury, death or machine damage:

- **Do not work under the machine unless it is secured by safe stands or suitable blocking.**

■Front side:

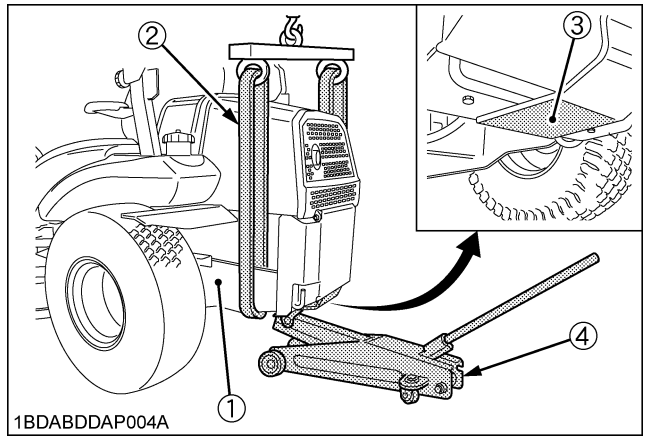
Hoist the front axle support with nylon sling. Or jack up the front axle support.
Never lift up the mower deck.



(1) Front axle support
(2) Nylon sling
(3) Jack

■Rear side:

Hoist the rear frame with nylon slings. Or jack up the bottom plate.
Never lift up the engine oil pan or battery support.



(1) Rear frame
(2) Nylon sling
(3) Bottom plate
(4) Jack

DAILY CHECK

To prevent trouble from occurring, it is important to know the condition of the machine. Check it before starting.

WARNING

To avoid serious injury or death:

- **Be sure to check and service the machine on a level surface with the engine shut off, the key removed and the parking brake securely set or chock the rear wheels.**

	No.	Check item	Ref. Page
Walking around the machine	1	Tire pressure, wear and damage	33 47
	2	Oil and water leak	-
	3	Engine oil level	45
	4	Transmission fluid level	47
	5	Coolant level in the radiator and the recovery tank	48
	6	Damage of machine body, tightness of all bolts and nuts	-
	7	Radiator screen	46
	8	Bonnet screen	46
	9	Brake play	57
	10	Oiling	54
	11	Fuel level	45
	12	Air cleaner primary element	55
Mower	1	Oil leak	52
	2	Make sure blade cap screws are tight	71
	3	Blades wear or damage	71
	4	Check all hardware.	-
	5	Make sure all pins are in place	-
	6	Mower deck cleaning	-
	7	Greasing ● Universal joint ● 3 spindle shafts ● Belt tension pulley ● Belt tension pivot ● Front anti-scalp roller ● Front anti-scalp roller bracket boss	48
While sitting in the operator's seat	1	Motion control lever	-
	2	Parking brake	-
Turning the key switch "ON"	1	Performance of the Easy Checker (TM) light	14
Starting the engine	1	Color of the exhaust fumes	-
	2	Safety systems. If either of these do not operate properly, contact your local KUBOTA Dealer immediately.	50 51
	3	Check for abnormal noise and vibration.	-
Others	1	Check the areas where previous trouble was experienced.	-
	2	Check if the cut grass has accumulated on the surface of the transmission case. If it has accumulated, clean it out.	47

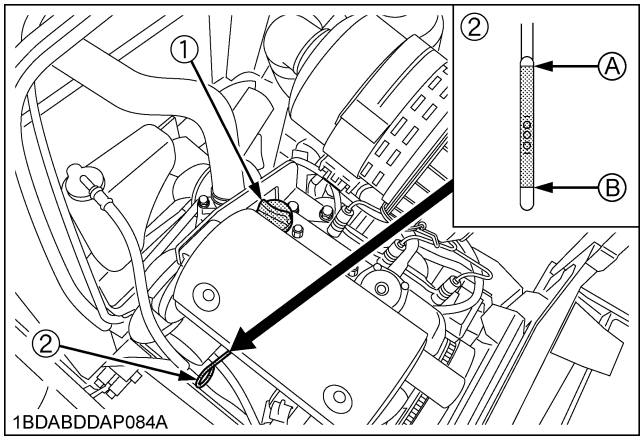
■Checking Engine Oil Level

WARNING

To avoid serious injury or death:

- **Always stop the engine and remove the key before checking oil.**

1. Check engine oil before starting and 5 minutes or more after the engine has stopped.
2. Wipe dipstick area clean.
3. To check the oil level, remove the dipstick, wipe it clean, replace it, and draw it out again. Check to see that the oil level is between the 2 notches.
4. Add new oil to the prescribed level at the oil port if necessary.



(1) Engine oil port
(2) Oil level dipstick
(A) "UPPER LEVEL"
(B) "LOWER LEVEL"

5. When using a different brand or viscosity oil from the previous one, remove all of the old oil and oil filter. Never mix 2 different types of oil.
6. Use the proper Engine Oil SAE according to the ambient temperatures. (See "LUBRICANTS, FUEL AND COOLANT" in "MAINTENANCE" section.)

■Checking Amount of Fuel and Refueling

WARNING

To avoid serious injury or death:

- **Handle fuel carefully. If the engine is running, do not fill the fuel tank. If engine is hot, let engine cool several minutes before adding fuel. Do not smoke while filling the fuel tank or servicing the fuel system. Fill fuel tank only to bottom of filler neck.**

Check the fuel level. Take care that the fuel tank does not become empty.

Fuel tank capacity	49 L

IMPORTANT :

- Use Diesel Fuel Only

1. Use No.2 diesel fuel.
2. Use No.1 diesel fuel if the temperature is below -10 ℃.
3. Always use a strainer when refueling to prevent fuel injection pump contamination.

IMPORTANT :

- Do not permit dirt or trash or water to get into the fuel system.
- Be careful not to let the fuel tank become empty, otherwise air will enter the fuel system, necessitating bleeding before next engine start.
- Be careful not to spill fuel during refueling. If a spill should occur, wipe it off at once, or it may cause a fire.
- To prevent condensation (water accumulation) in the fuel tank, fill the tank before parking overnight.

■Checking and Cleaning Radiator Screen and Bonnet Screen to Prevent Overheating

WARNING

To avoid serious injury or death:

- **Engine components can get extremely hot from operation. To prevent severe burns, do not touch these areas while the engine is running, or immediately after it is turned off.**
- **Never operate the engine without heat shields or guards.**

WARNING

To avoid serious injury or death:

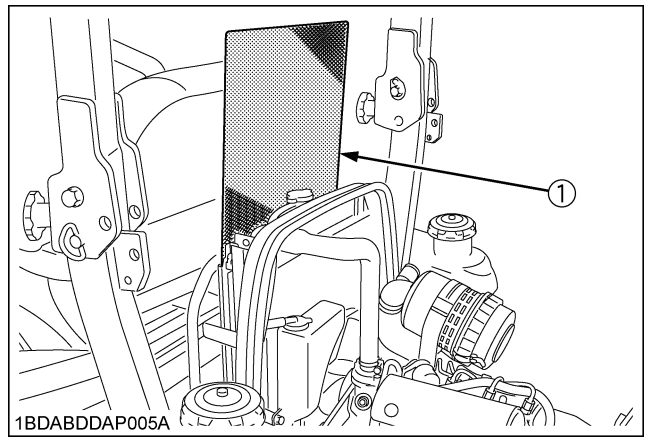
- **Be sure to stop the engine and remove the key before cleaning.**

IMPORTANT :

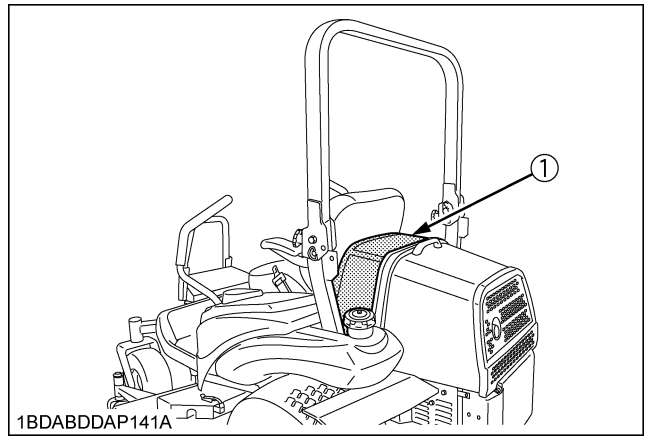
- The air intake area must be clear of debris to prevent the engine from overheating.

Daily or after every 5 hours of operation, check to be sure the radiator screen and the bonnet screen are clean.
Dirt or chaff on the radiator screen, bonnet screen or radiator decrease cooling performance.

1. Remove the radiator screen and the bonnet screen, and remove all foreign material.
2. Remove the dust from between the fins and the tube.
3. Tighten the fan drive belt as necessary. For this, refer to "EVERY 100 HOURS" in "PERIODIC SERVICE" section.
4. If the scale forms in the tube, clean with the scale inhibitor or its equivalent.
5. Each time the bonnet screen is covered with grass during operation, rub it off the screen with the hand.
   Check the radiator screen from time to time if grass accumulates.
6. If the dust or chaff has accumulated inside of the bonnet, remove the radiator screen and clean inside completely.
   After cleaning, replace the radiator screens properly.
7. Check the radiator for dust or chaff build up.
   If the dust or chaff has accumulated in the radiator, clear with air pressure (not to exceed 207 kPa) or a hose.



(1) Radiator screen



(1) Bonnet screen

■Checking Tire Pressure

WARNING

To avoid serious injury or death:

- **Do not attempt to mount a tire on a rim. This should be done by a qualified person with the proper equipment.**
- **Always maintain the correct tire pressure. Inflation pressure in front tires rises quickly when using compressed air. Do not inflate tires above the recommended pressure shown in the Operator's Manual.**

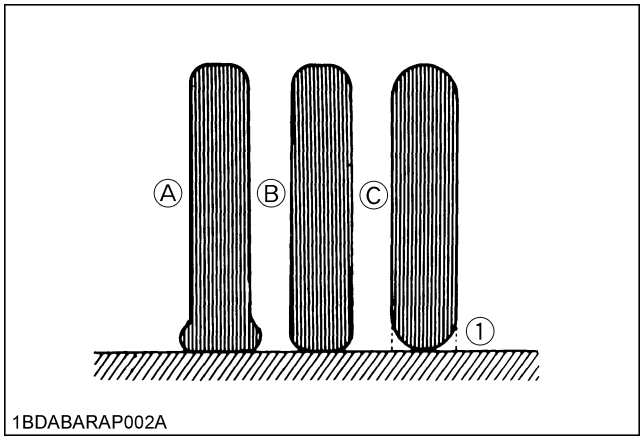
IMPORTANT :

- Do not use tires larger than specified.

■Inflation Pressure

Though the inflation pressure is factory-set to the prescribed level, it naturally drops slowly in the course of time. Thus, check it and inflate as necessary.

	Tire sizes	Recommended Inflation Pressure
Front	15 x 6.0 - 6, 4PR Rib	160 kPa (1.6 kgf/cm²)
Rear	26 x 12.0 - 12, 4PR Turf	120 kPa (1.2 kgf/cm²)



(1) Ground
(A) "INSUFFICIENT"
(B) "NORMAL"
(C) "EXCESSIVE"

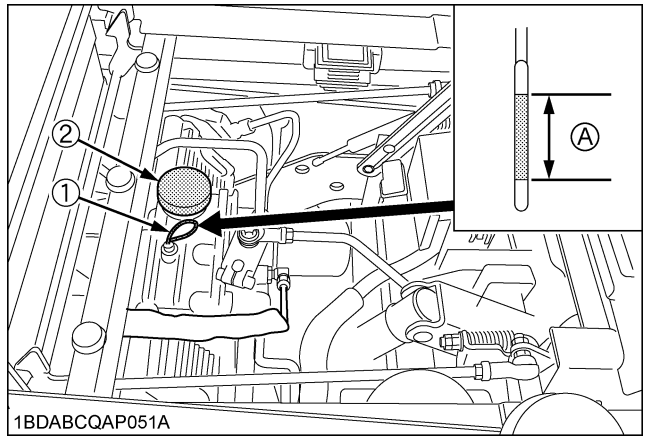
■Checking Transmission Fluid Level

WARNING

To avoid serious injury or death:

- **Allow the transmission case to cool down sufficiently when cleaning its surface.**

1. Park the machine on a flat surface, lower the implement to the ground and shut off the engine and remove the key.
   Allow the machine to idle for 1-3 minutes, and then check fluid.
2. Raise and lock the operator's seat.
3. To check the oil level, draw out the dipstick, wipe it clean, replace it, and draw it out again. Check to see that the oil level lies between the 2 notches.
   If the level is too low, add the new oil to the prescribed level at the oil inlet.
   (See "LUBRICANTS, FUEL AND COOLANT" in "MAINTENANCE" section.)
4. Check if the cut grass has accumulated on the surface of the transmission case.
   If it has accumulated, clean it out.



(1) Oil level dipstick
(2) Oil plug and breather cup
(A) Oil level is acceptable within this range.

IMPORTANT :

- If oil level is low, do not run engine.

■Checking Coolant Level

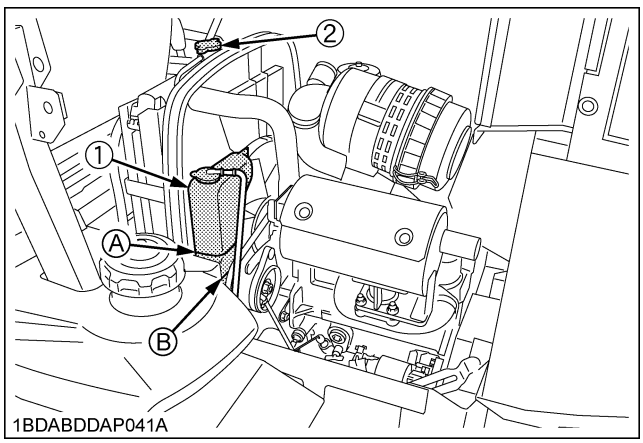
WARNING

To avoid serious injury or death:

- **Do not remove the radiator cap when the engine is hot. Then loosen cap slightly to the stop to relieve any excess pressure before removing cap completely.**

Check the coolant level daily both the radiator and the recovery tank before starting engine.

1. Remove the radiator cap and check to see that the coolant level is just below the fill port.
2. Check to see that the coolant level is between the "FULL" and "LOW" marks of recovery tank.
3. When the coolant level drops due to evaporation, add water only up to just below the fill port of the radiator and the full level of the recovery tank.
   In case of leakage, add anti-freeze and water in the specified mixing ratio up to the full level.
   (See "Flushing Cooling System and Changing Coolant" in "EVERY 2000 HOURS or EVERY 2 YEARS" in "PERIODIC SERVICE" section.)



(1) Recovery tank *(A) "FULL"*
(2) Radiator cap *(B) "LOW"*

IMPORTANT :

- If the radiator cap has to be removed, follow the caution above and securely retighten the cap.
- Use clean, distilled water and anti-freeze to fill the radiator and the recovery tank.
- If water should leak, consult your local KUBOTA Dealer.

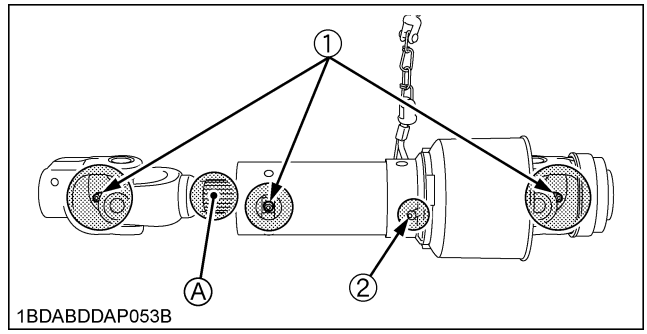
■Lubricating All Grease Fittings

WARNING

To avoid serious injury or death:

- **Be sure to stop the engine and remove the key before greasing.**
- **Be sure to reinstall the removed cover after greasing.**

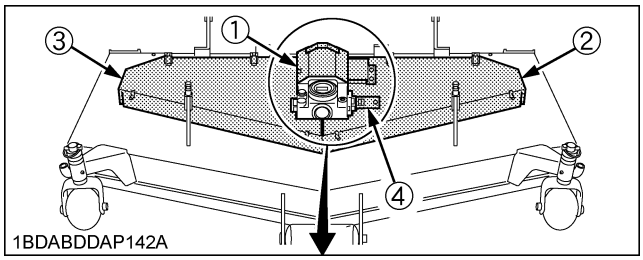
Grease the following location.

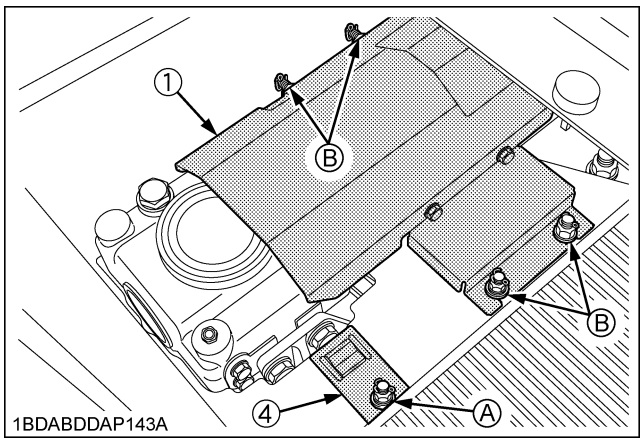


(1) Mower universal joint *(A) Apply grease to the spline with the brush.*
(2) Grease nipple

NOTE :

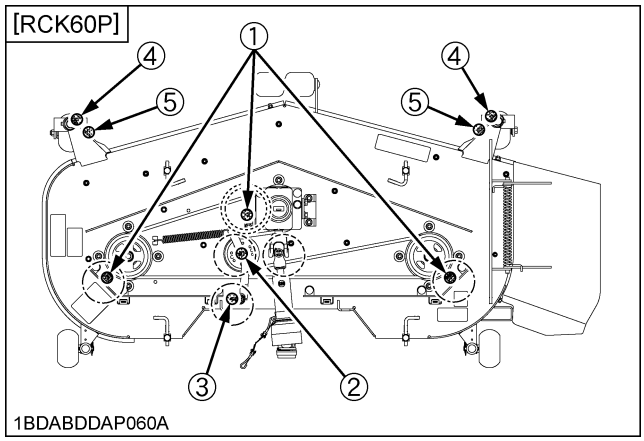
- For areas marked with ◌, loosen the nut (A) to remove grease up plate, and then apply grease.
- For areas marked with ◌, loosen the nuts (B) to remove the center cover, and then apply grease.
- For areas marked with ◌, apply grease without removing the cover.



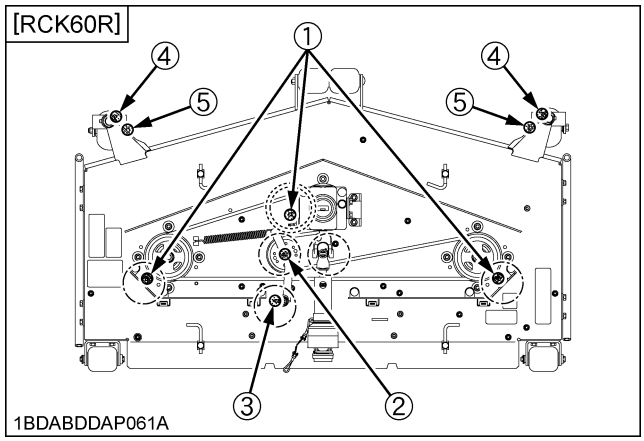


(1) Center cover
(2) Left shield
(3) Right shield
(4) Grease up plate
(A) Nut
(B) Nut

[RCK60P]



[RCK60R]



(1) Spindle shaft
(2) Belt tension pulley
(3) Belt tension pivot
(4) Front side anti-scalp roller bracket
(5) Front side anti-scalp roller

EVERY 50 HOURS

■Checking Engine Start System

The Engine Start System in your machine are designed to protect you while operating. Please check these Engine Start System periodically. It is recommended to check the Engine Start System before daily operation.

WARNING

To avoid serious injury or death:

- **Do not allow anyone near the machine while testing.**
- **If the machine does not pass one of the following tests, do not operate the machine. See your local KUBOTA Dealer.**
- **Sit on operator's seat for all tests except for Test 1.**

IMPORTANT :

- Check the following tests before operating the machine.

Test 1 (OPERATOR NOT ON THE SEAT)

1. Securely set the parking brake.
2. Shift the PTO lever to "DISENGAGE" (OFF) position.
3. Set the motion control levers to the "NEUTRAL LOCK" position.
4. Turn the key switch to "START" position.
5. The engine must not crank.

Test 2 (OPERATOR ON THE SEAT)

1. Do not set the parking brake. (release it from test 1)
2. Shift the PTO lever to "DISENGAGE" (OFF) position.
3. Set the motion control levers to the "NEUTRAL LOCK" position.
4. Turn the key switch to "START" position.
5. The engine must not crank.

Test 3 (OPERATOR ON THE SEAT)

1. Securely set the parking brake.
2. Shift the PTO lever to "DISENGAGE" (OFF) position.
3. Grasp the motion control levers and move then inward from "NEUTRAL LOCK" position to "NEUTRAL" position and then release the levers.
4. Turn the key switch to "START" position.
5. The engine must not crank.

Test 4 (OPERATOR ON THE SEAT)

1. Securely set the parking brake.
2. Shift the PTO lever to "ENGAGE" (ON) position.
3. Set the motion control levers to the "NEUTRAL LOCK" position.
4. Turn the key switch to "START" position.
5. The engine must not crank.

Test 5 (OPERATOR ON THE SEAT)

1. Open the hood.
2. Sit on the operator's seat.
3. Depress the brake pedal fully.
4. Turn the key to the "START" position.
5. The engine should not crank.

Test 6 (OPERATOR ON THE SEAT)

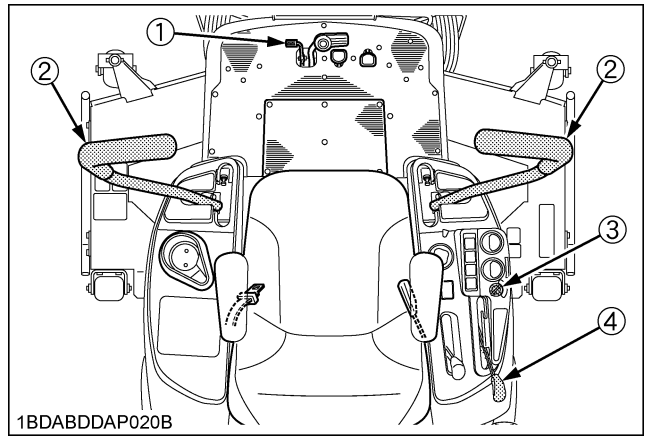
1. Start the engine.
2. Keep the parking brake securely set.
3. Shift the PTO lever to "DISENGAGE" (OFF) position.
4. Grasp the motion control levers and move then inward from "NEUTRAL LOCK" position to "NEUTRAL" position and then release the levers.
5. The engine must shut off after a short time delay.

IMPORTANT :

- For this test only, the engine will shut off in a few seconds.

NOTE :

- If the engine cranks Test 1 through 5, consult your local KUBOTA Dealer to have the unit checked before operation.



(1) Parking brake lock pedal
(2) Motion control lever
(3) Key switch
(4) PTO lever

■Checking OPC System

The OPC (Operator Presence Control) system in your machine are designed to protect you while operating. Please check these OPC system periodically. It is recommended to check the OPC system before daily operation.

WARNING

To avoid serious injury or death:

- **Do not allow anyone near the machine while testing.**
- **If the machine does not pass one of the following tests, do not operate the machine. See your local KUBOTA Dealer.**
- **Sit on operator's seat for all tests.**

IMPORTANT :

- Check the following tests before operating the machine.

Test 1 (OPERATOR ON THE SEAT)

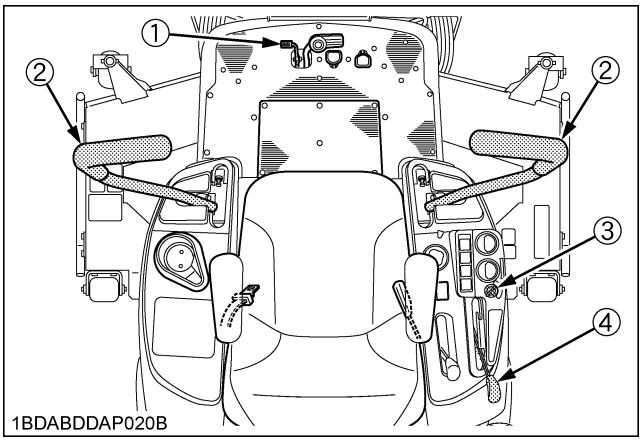
1. Start the engine.
2. Do not set the parking brake.
3. Shift the PTO lever to "DISENGAGE" (OFF) position.
4. Grasp the motion control levers and move them inward from "NEUTRAL LOCK" position to "NEUTRAL" position and then release the levers.
5. Stand up. (Do not get off the machine.)
6. The engine must shut off.

Test 2 (OPERATOR ON THE SEAT)

1. Start the engine.
2. Do not set the parking brake.
3. Shift the PTO lever to "ENGAGE" (ON) position.
4. Stand up. (Do not get off the machine.)
5. The engine must shut off.

NOTE :

- If the engine cranks Test 1 or 2, consult your local KUBOTA Dealer to have the unit checked before operation.



(1) Parking brake lock pedal
(2) Motion control lever
(3) Key switch
(4) PTO lever

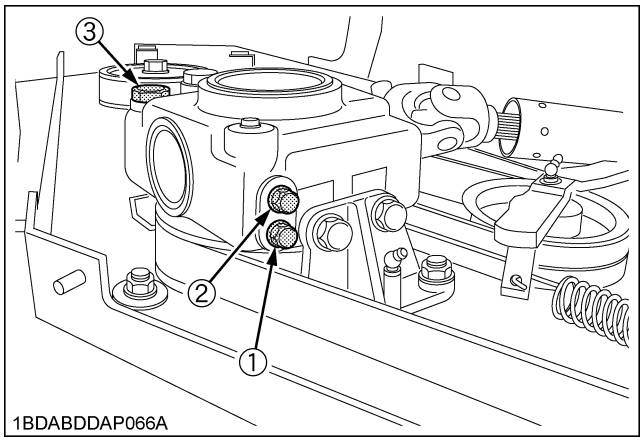
■Checking Gear Box Oil Level

WARNING

To avoid serious injury or death:

- **Always stop the engine and remove the key before checking oil.**

1. Park the machine on a flat surface and lower the mower to the ground.
   To check the oil level, loosen check plug bolt and check to see that the oil level is just below the check plug port.
   If the level is too low, add new oil to the prescribed level at the oil inlet.
   (See "LUBRICANTS, FUEL AND COOLANT" in "MAINTENANCE" section.)



(1) Drain plug (Bolt)
(2) Check plug (Bolt)
(3) Oil filler plug

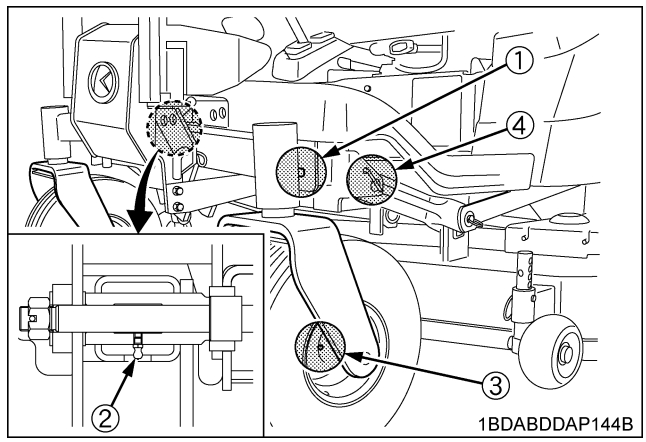
■Greasing

WARNING

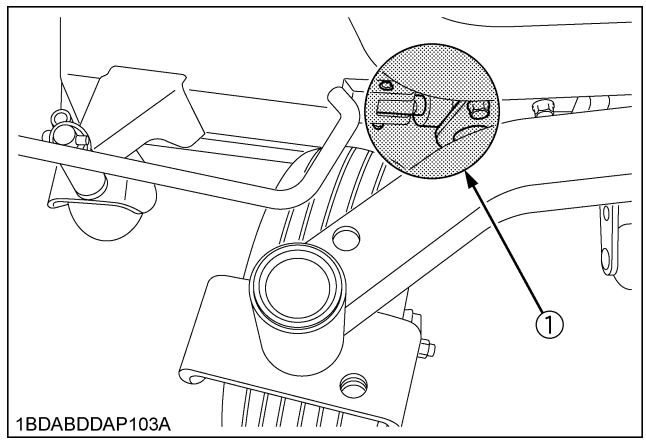
To avoid serious injury or death:

- **Be sure to stop the engine and remove the key before greasing.**

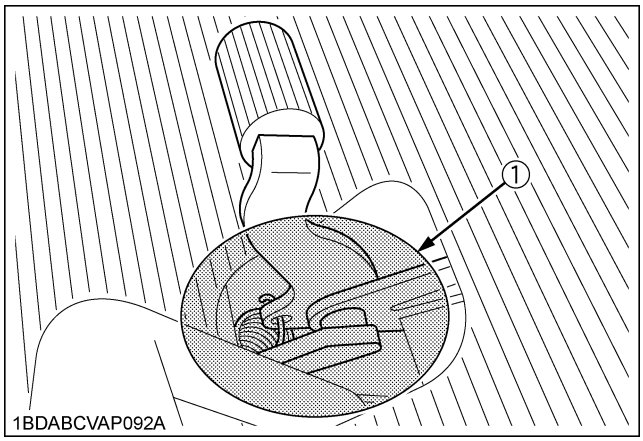
Grease the following location.



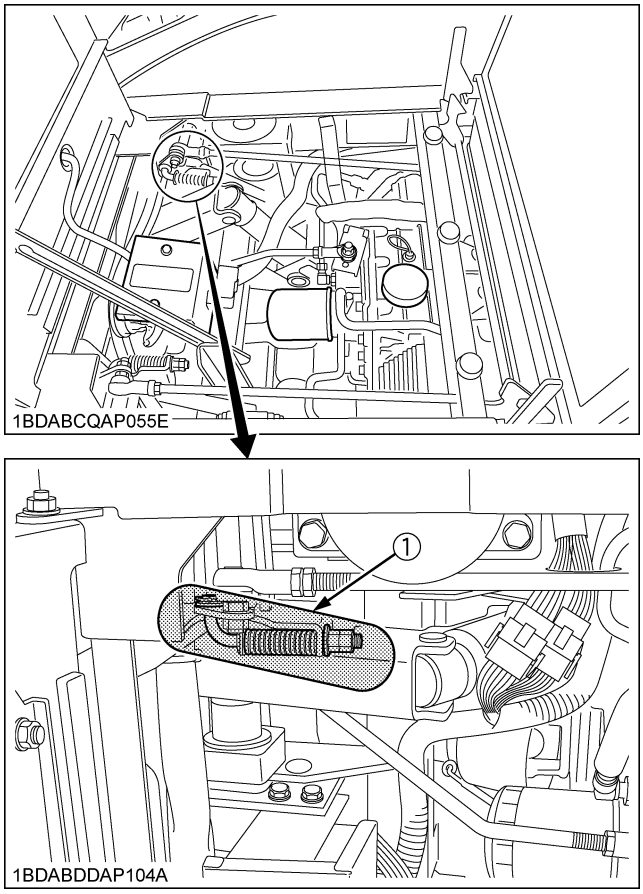
(1) King pin (LH, RH)
(2) Center pin
(3) Front wheel (LH, RH)
(4) Front lift arm (LH, RH)



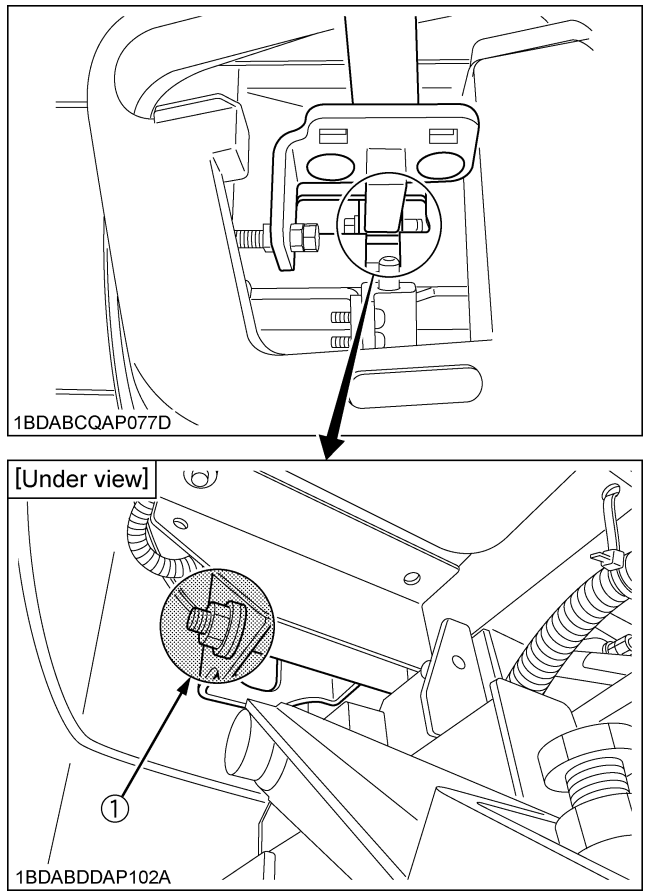
(1) Tilt lever



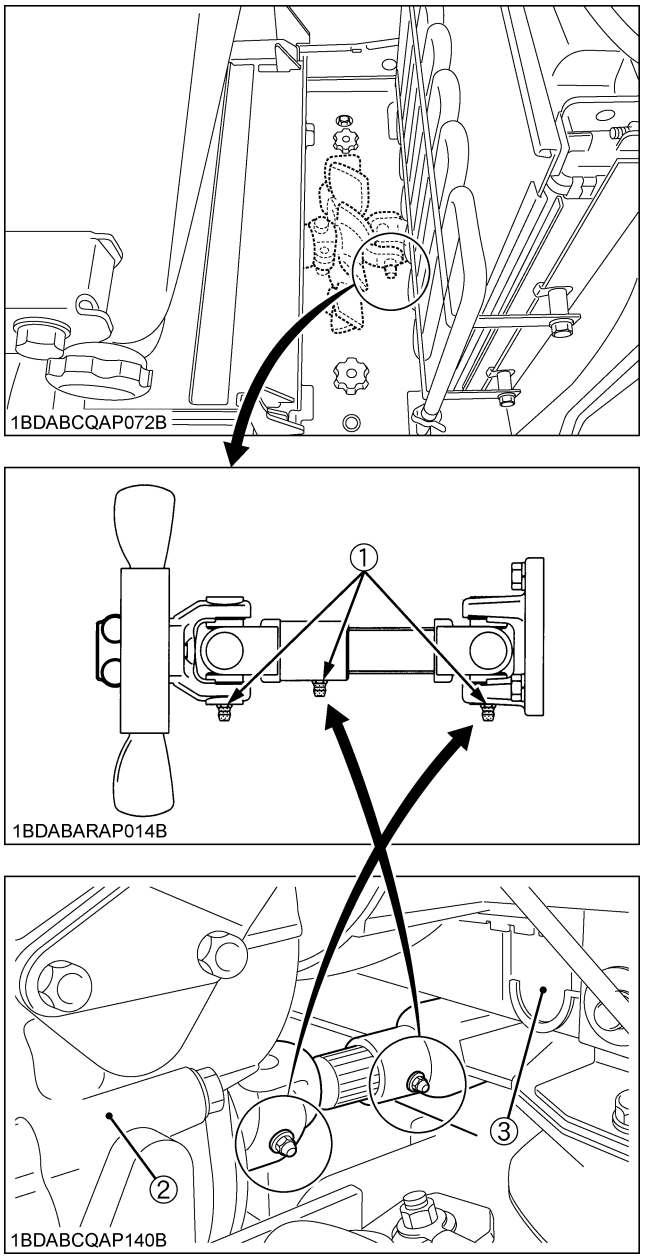
(1) Parking brake lock pedal



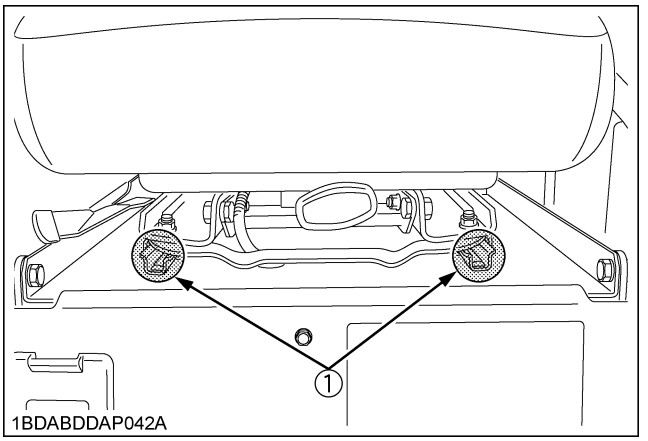
(1) Motion control lever pivot bushing (LH, RH)



(1) Motion control lever contact position (LH, RH)

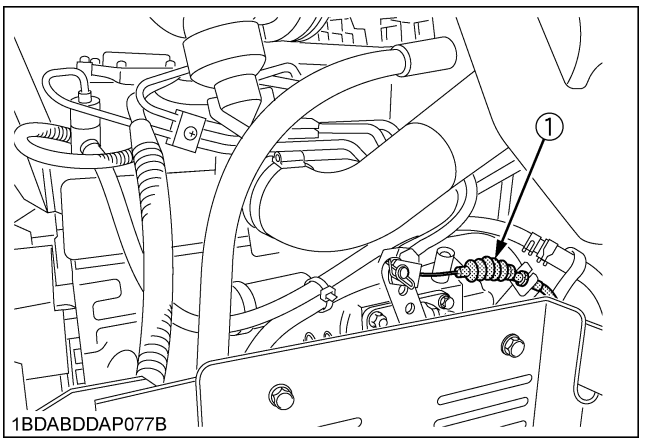


(1) Machine universal joint
(2) Engine
(3) Radiator



(1) Seat adjuster

■Oiling



(1) Throttle cable (Oil)

EVERY 100 HOURS

■Cleaning Air Cleaner Primary Element

WARNING

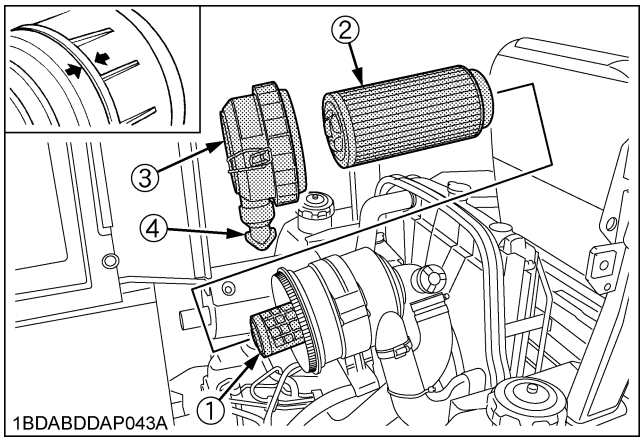
To avoid serious injury or death:

- **Be sure to stop engine and remove the key before cleaning air cleaner element.**

1. Remove the air cleaner cover and primary element.
2. Clean the primary element:
   - When dry dust adheres to the element, blow compressed air from the inside, turning the element. Pressure of compressed air must be under 205 kPa (2.1 kgf/cm^2).
3. Replace air cleaner primary element:
   Once yearly or every 1000 hours whichever comes first.

NOTE :

- Check to see if the evacuator valve is blocked with dust.



(1) Secondary element
(2) Primary element
(3) Cover
(4) Evacuator valve

NOTE :

- The air cleaner uses a dry element, never apply oil.
- Do not run the engine with filter element removed.
- Operating in dusty conditions requires more frequent maintenance.
- Align the arrow marks when reinstalling the air cleaner cover.
- Do not touch the secondary element except in cases where replacing is required.
  (See "Replacing Air Cleaner Primary Element and Secondary Element" in "EVERY 1000 HOURS or EVERY 1 YEAR" in "PERIODIC SERVICE" section.)

◆ **Evacuator Valve**

Open the evacuator valve once a week under ordinary conditions - or daily when used in a dusty place - to get rid of large particles of dust and dirt.

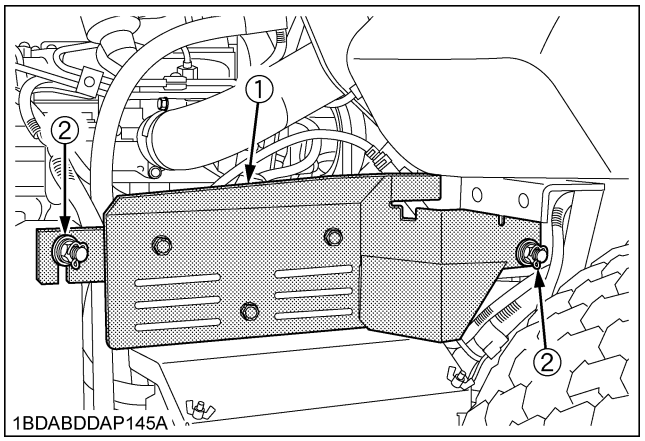
■Checking Fuel Filter

WARNING

To avoid serious injury or death:

- **Be sure to stop the engine and remove the key when attempting to make the following checks and changes.**
- **Never fail to check the fuel lines periodically. The fuel lines are subject to wear and aging. Fuel may leak out onto the running engine, causing a fire.**
- **Be sure to reinstall the removed cover after the check.**

1. Loosen the nuts and remove the cover.

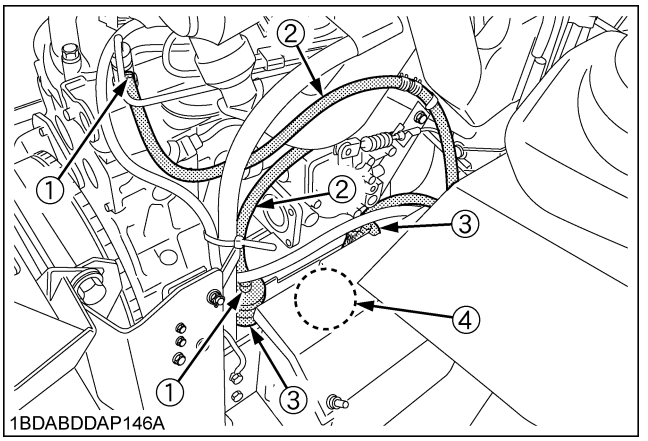


(1) Cover
(2) Nut

2. The fuel line is made of rubber and ages regardless of service period.
3. If the fuel line and clamps are found damaged or deteriorated, replace them.
4. Check fuel filter, if it is clogged by debris or contaminated with water, replace it.

IMPORTANT :

- When the fuel line is disconnected for maintenance or repair, close both ends of the fuel line with a piece of clean cloth or paper to prevent dust and dirt from entering. In addition, particular care must be taken not to admit dust and dirt into the fuel pump. Entrance of even a small amount dust or dirt cause premature wear and malfunction of the fuel pump and injector components.



(1) Pipe clamps
(2) Fuel line
(3) Fuel filter
(4) Fuel pump

■Adjusting Fan Drive Belt Tension

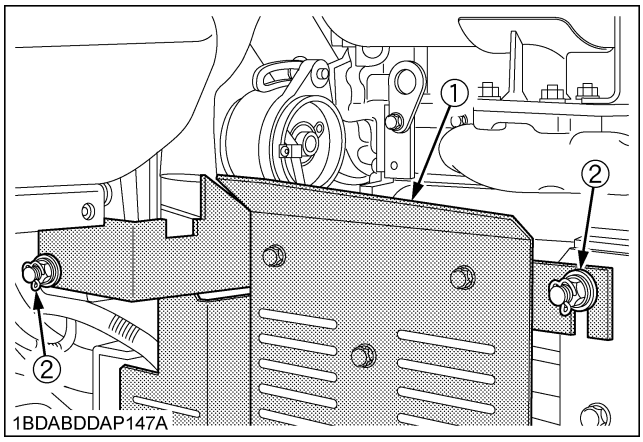
WARNING

To avoid serious injury or death:

- **Be sure to stop the engine and remove the key before checking belt tension.**
- **Be sure to reinstall the removed cover after checking belt tension.**

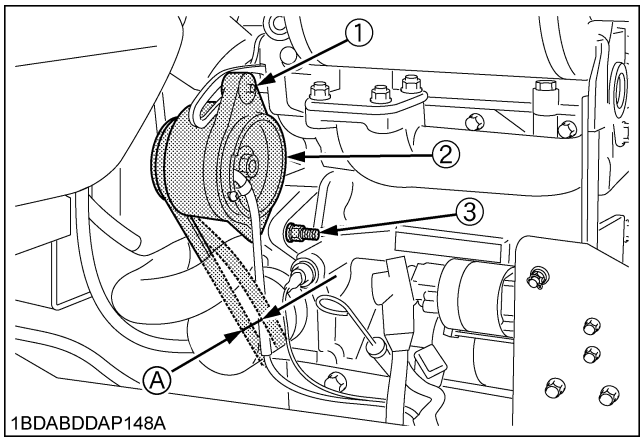
If the fan drive belt becomes loose, the engine may overheat. To adjust, loosen bolts and move the alternator outward to tighten the belt. After adjustment, securely tighten the bolts.

1. Loosen the nuts and remove the cover.



(1) Cover
(2) Nut

2. Moderate belt tension:
   The belt should deflect approx. 10 mm when the center of the belt is depressed with finger pressure of 98 N (10 kgf).



(1) Tension bolt *(A) 10 mm*
(2) Alternator
(3) Adjusting bolt

■Adjusting Parking Brake

If you feel you are unable to make the following service correctly and safely, contact your local KUBOTA Dealer.

WARNING

To avoid serious injury or death:

- **Park the machine on a firm and level surface.**
- **Stop the engine and chock the wheels before checking or adjusting.**

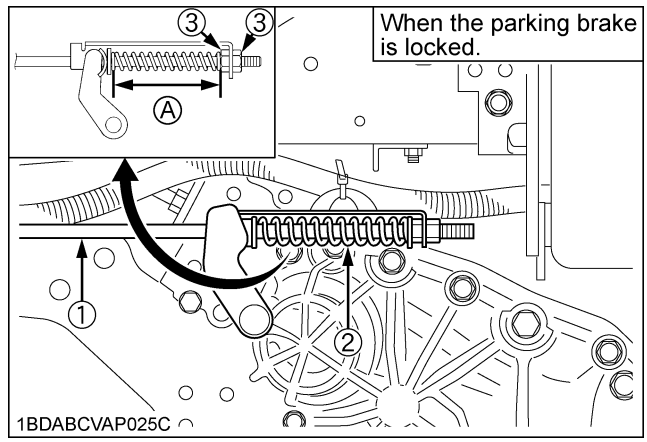
IMPORTANT :

- Wrong adjustment may cause machine damage.

(1) Check brake spring

1. Place the motion control levers to the "NEUTRAL LOCK" position.
2. Be sure to chock the rear wheels.
3. Apply the parking brake to the lock position.
4. Check the length of the brake springs on both sides.

(A): Proper brake spring length with the brake applied to the lock position	115 to 117 mm

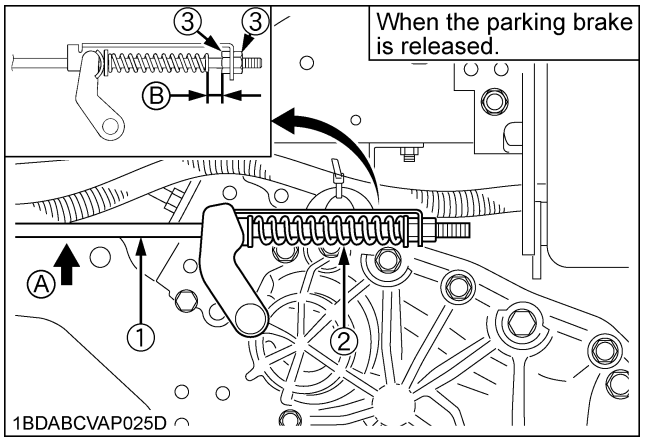


(1) Brake rod *(A) "Parking brake spring length"*
(2) Brake spring
(3) Lock nut

5. If the length of the brake spring is not correct, adjust it. (See "Adjustment of brake spring length" below.)

6. Release the parking brake completely.
7. Hold the brake rod lightly.
8. Check the brake spring play.

(B): Proper brake spring play	The spring must have play. Reference: 0.5 to 1.0 mm



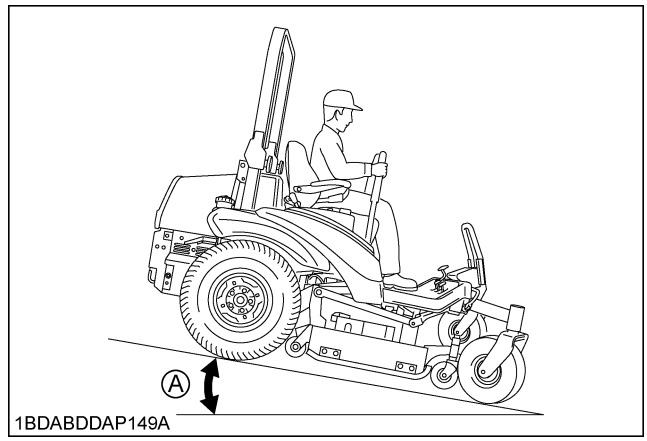
(1) Brake rod
(2) Brake spring
(3) Lock nut
(A) "Hold the brake rod"
(B) "Parking brake spring play"

9. If the brake spring play is not correct, adjust it. (See "Adjustment of brake spring play" below.)

◆ **Adjustment of brake spring length**
1. Place the motion control lever to the "NEUTRAL LOCK" position.
2. Apply the parking brake to the lock position.
3. Loosen the lock nuts.
4. Adjust the spring length to the recommendation.
5. Lock the nuts.
6. Check the brake spring play to the recommendation. If there is no play, adjust the brake spring play again. (See "Adjustment of brake spring play" below.)
7. Adjust the other side spring to the same dimension.

◆ **Adjustment of brake spring play**
1. Place the motion control lever to the "NEUTRAL LOCK" position.
2. Be sure to chock the rear wheels.
3. Release the parking brake completely.
4. Loosen the lock nuts.
5. Hold the brake rod by hand.
6. Tighten the nut to the correct space between the end of the spring and the nut.
7. Lock the nuts.
8. Adjust the other side spring to the same dimension.

(2) Check on the slope
1. Place the machine on a 17° ramp.
2. Apply the parking brake.
3. Place the motion control levers in "NEUTRAL LOCK" position and shut off the engine.
4. Check that the machine does not move.



(A) 17° ramp

NOTE :
- For parking brake test purposes, only use 17° ramp.

■Checking Battery Condition

DANGER

To avoid the possibility of battery explosion:
For the refillable type battery, follow the instructions below.

- **Do not use or charge the refillable type battery if the fluid level is below the LOWER (lower limit level) mark. Otherwise, the battery component parts may prematurely deteriorate, which may shorten the battery's service life or cause an explosion. Check the fluid level regularly and add distilled water as required so that the fluid level is between the UPPER and LOWER levels.**

DANGER

To avoid serious injury or death:

- **When the battery is being activated, hydrogen and oxygen gases in the battery are extremely explosive. Keep open sparks and flames away from the battery at all times, especially when charging the battery.**

WARNING

To avoid serious injury or death:

- **Batteries, battery posts, terminals and related accessories contain lead and lead compounds, and other chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. WASH HANDS AFTER HANDLING.**
- **Never remove the battery cap while the engine is running.**
- **Keep electrolyte away from eyes, hands and clothes. If you are spattered with it, wash it away completely with water immediately and get medical attention.**
- **Keep open sparks and flames away from the battery at all times. Hydrogen gas mixed with oxygen becomes very explosive.**
- **Wear eye protection and rubber gloves when working around battery.**

The factory-installed battery is of non-refillable type.
If the battery is weak, charge the battery or replace it with new one.

IMPORTANT :

- Mishandling the battery shortens the service life and adds to maintenance costs.
  The original battery is maintenance free, but needs some servicing.
  If the battery is weak, the engine will be difficult to start and the lights will be dim. It is important to check the battery periodically.
- When exchanging an old battery for a new one, use battery of equal specification in table below.

Battery Type	Volts (V)	Reserve Capacity (min)	Cold Cranking Amps	Normal Charging Rate(A)
51R	12	80	430	4.5

(For non-accessible maintenance-free type batteries.)
Maintenance-free, non-accessible batteries are designed to eliminate the need to add water. Yet the volume of electrolyte above plates may eventually become depleted due to abnormal conditions such as high heat or improper regulator setting. Use a voltmeter to check the state of charge. (See reference chart below to determine if charging is necessary.)

Battery voltage	Reference state of charge
12.6	100% (Full charge)
12.4	75%
12.2	50%
12.0	25%
11.8	0%

◆ Battery Charging

DANGER

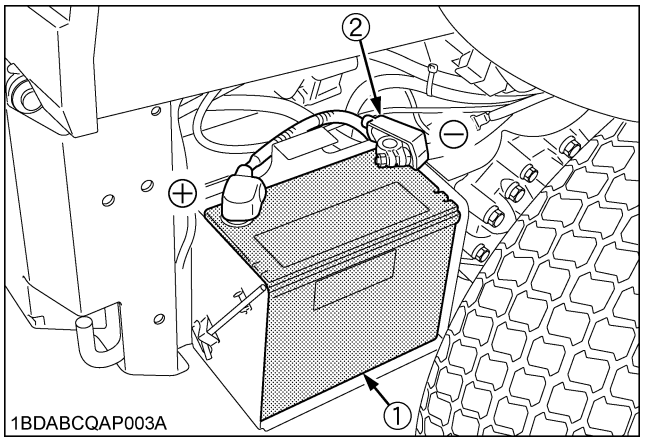
To avoid serious injury or death:

- **When the battery is being activated, hydrogen and oxygen gases in the battery are extremely explosive. Keep open sparks and flames away from the battery at all times, especially when charging the battery.**

WARNING

To avoid serious injury or death:

- **When disconnecting the cable from the battery, start with the negative terminal first. When connecting the cable to the battery, start with the positive terminal first.**
- **Never check battery charge by placing a metal object across the posts.**
  Use a voltmeter or hydrometer.



(1) Battery
(2) Ground cable
(+): Positive terminal
(-): Negative terminal

1. To slow charge the battery, connect the battery positive terminal to the charger positive terminal and the negative to the negative, then charge for at least 1 hour at 4.5 amperes.
2. A boost charge is only for emergencies. It will partially charge the battery at a high rate and in a short time.
   When using a boost-charged battery, it is necessary to recharge the battery as early as possible.
   Failure to do this will shorten the battery's service life.
3. When the specific gravity of electrolyte is between 1.27 and 1.29 the charging is completed.

◆ **Battery for storage**

1. When storing the machine for a long period, remove the battery from machine, adjust the electrolyte to the proper level and store in a dry place out of direct sunlight.
2. The battery self-discharges while it is stored.
   Recharge it once every 3 months in hot seasons and once every 6 months in cold seasons.
3. Nut size for the battery terminals: (+)M6 (-)5/16-18UNC

EVERY 150 HOURS

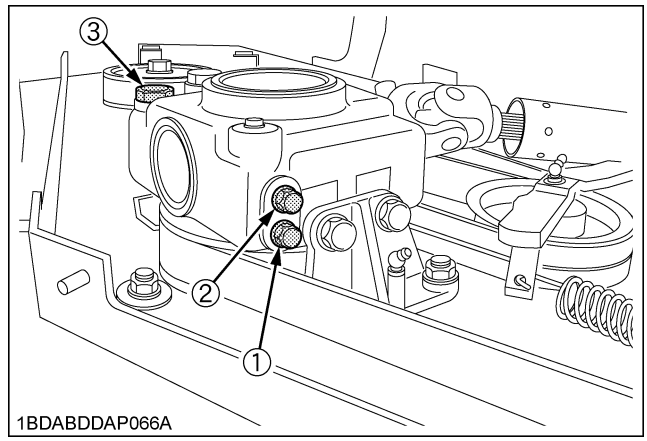
■Changing Gear Box Oil

WARNING

To avoid serious injury or death:

- **Be sure to stop the engine and remove the key before changing the oil.**

1. To drain the used oil, remove the drain plug and filler plug at the gear box and drain the oil completely into the oil pan.
2. After draining reinstall the drain plug.
3. Remove the oil level check plug.
4. Fill with the new oil up to the check plug port.
   (See "LUBRICANTS, FUEL AND COOLANT" in "MAINTENANCE" section.)
5. After filling reinstall the check and filler plugs.



(1) Drain plug (Bolt)
(2) Check plug (Bolt)
(3) Oil filler plug

EVERY 200 HOURS

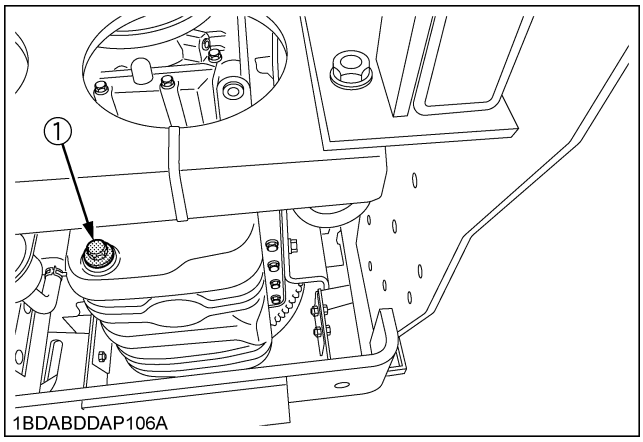
■Changing Engine Oil

WARNING

To avoid serious injury or death:

- **Be sure to stop the engine and remove the key before changing the oil.**
- **Allow engine to cool down sufficiently; oil can be hot and may cause burns.**

1. To change the used oil, remove the drain plug at the bottom of the engine and drain the oil completely. The used oil can be drained out more easily if the engine is warm.
2. Fill with the new oil up to the upper notch on the dipstick.



(1) Drain plug

3. To check the oil level. Remove the dipstick, wipe it clean, insert it and draw it out again. Check to see that the oil level is between the 2 marks.

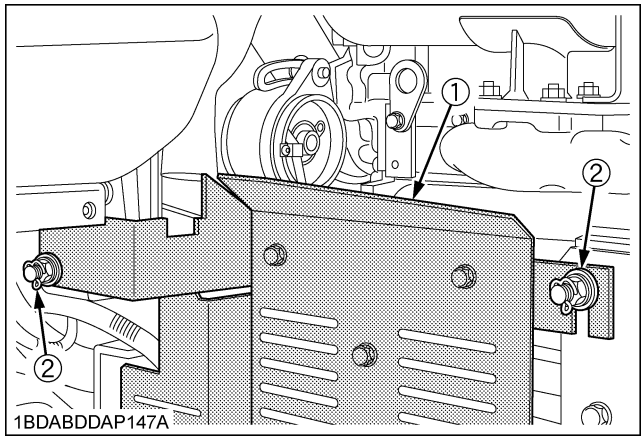
■Replacing Engine Oil Filter

WARNING

To avoid serious injury or death:

- **Be sure to stop the engine and remove the key before changing the oil and the oil filter.**
- **Allow engine to cool down sufficiently; oil can be hot and may cause burns.**
- **Be sure to reinstall the removed cover after changing the oil and the oil filter.**

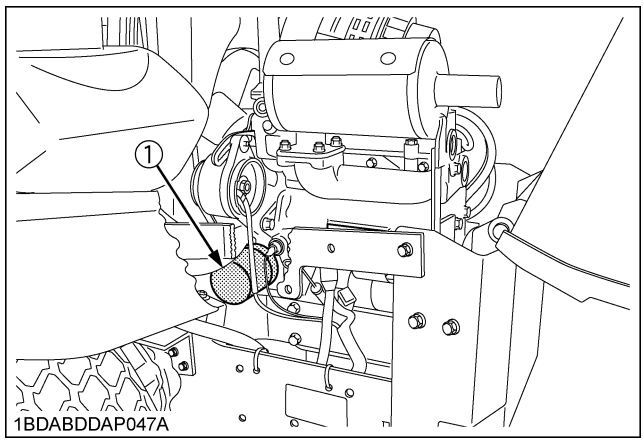
1. The oil filter must be changed every 200 service hours.
2. Loosen the nuts and remove the cover.
3. Remove the oil filter.



(1) Cover
(2) Nut

IMPORTANT :

- To prevent serious damage to the engine, replacement element of the recommended type must be used. Use only a genuine KUBOTA filter or its equivalent.



(1) Engine oil filter

4. Apply a slight coat of oil onto the rubber gasket of new filter.
5. Tighten the filter quickly until it contacts the mounting surface. Tighten filter by hand an additional 1/2 turn only.
6. After the new filter has been replaced, the engine oil level normally lowers a little. Add engine oil to proper level. Check for oil leaks around filter gasket.

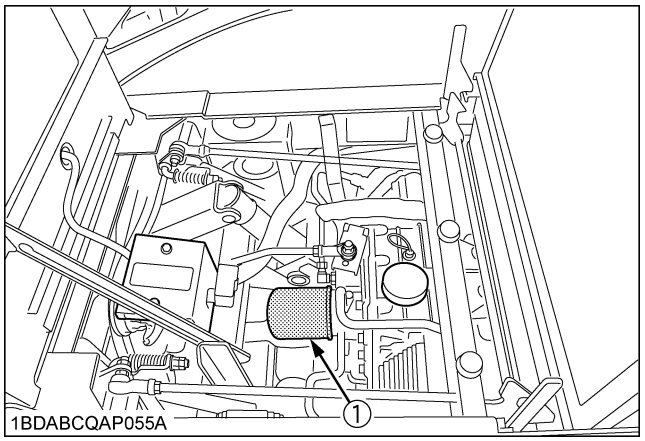
■Replacing Transmission Oil Filter [HST]

WARNING

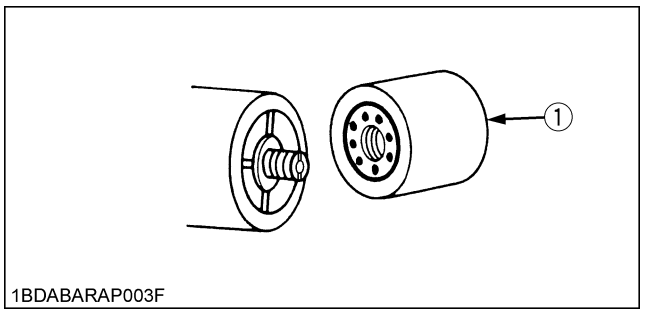
To avoid serious injury or death:

- **Be sure to stop the engine and remove the key before changing the oil filter.**
- **Allow transmission case to cool down sufficiently; oil can be hot and may cause burns.**

1. The oil filter must be changed every 200 service hours.



(1) Transmission oil filter [HST]



(1) Transmission oil filter [HST]

2. Place an oil pan underneath the oil filter. (Do not drain oil.)
3. Remove the oil filter by using the filter wrench.
4. Apply a slight coat of oil onto the filter gasket.
5. Tighten the filter quickly until it contacts the mounting surface. Tighten filter by hand an additional 1/2 turn only.
6. After the new filter has been replaced, the transmission fluid level normally lowers a little. Add fluid to proper level. Check for oil leaks around filter gasket.

IMPORTANT :

- To prevent serious damage or premature failure to the hydraulic system, use only a KUBOTA genuine filter.

■Adjusting the Motion Control Lever Pivot

WARNING

To avoid serious injury or death:

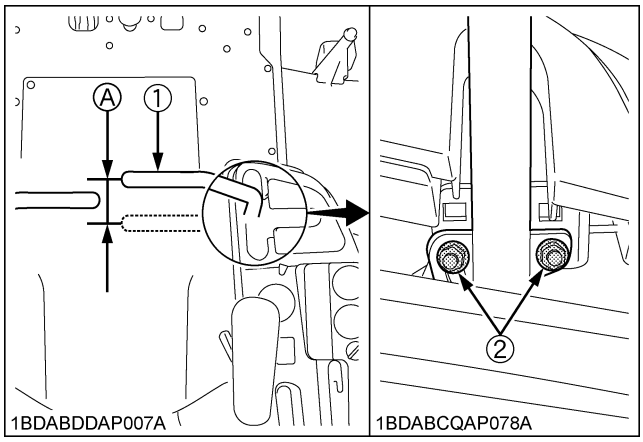
- **Be sure to stop the engine and set the parking brake to "ON" before checking.**

Proper lever free travel	2 to 15 mm on the lever

1. Set the motion control lever in "NEUTRAL" position.
2. Slightly move the lever back and forth and measure the free travel at the top of lever stroke.
3. If the proper free travel limits are exceeded, remove the fender and retighten the nut to specified torque.

NOTE :

- If the motion control lever pivot bolt is maladjusted, motion control may be difficult.



(1) Motion control lever *(A) "FREE TRAVEL"*
(2) Bolt, Nut

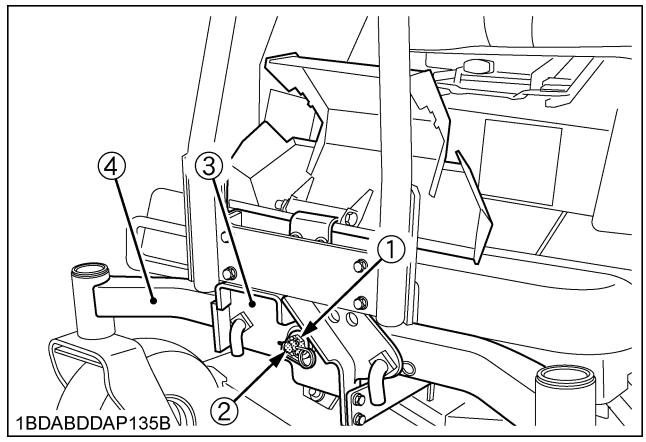
Tightening torque	18.6 to 20.6 N-m (1.9 to 2.1 kgf-m)

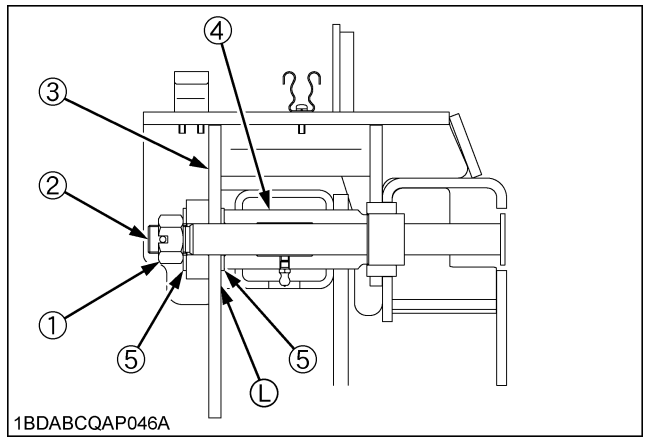
■Adjusting Front Axle Pivot

If the front axle pivot pin adjustment is not correct, vibration in the front wheel can occur.

◆ **Check and Adjustment of the Front Axle End Play**

1. Lift up and securely block the front of the machine.
2. Measure the clearance (L) between the front axle (4) and front axle support (3).
3. If the measurement exceeds the allowable limit, adjust the nut (1).





(1) Nut *(L) Front axle end play*
(2) Center pin
(3) Front axle support
(4) Front axle
(5) Plain washer

NOTE :

- When fastening the center pin (2), tighten the nut so that the front axle maybe oscillated smoothly by hand.

Front axle end play (L)	Factory spec.	0 to 0.2 mm
	Allowable limit	0.5 mm

EVERY 400 HOURS

■Changing Transmission Fluid and Rear Axle Gear Case Oil (RH and LH)

WARNING

To avoid serious injury or death:

- **Be sure to stop the engine and remove the key before changing or checking the oil.**
- **Allow transmission case to cool down sufficiently; oil can be hot and may cause burns.**

The fluid in the transmission case is also used for the hydrostatic drive system.

1. To drain the transmission oil, place oil pan underneath the transmission case and the rear axle gear case (RH&LH) and remove the drain plug at the bottom of the transmission case and the rear axle gear case (RH&LH).
2. After draining, reinstall the drain plugs.
3. Fill with UDT or SUPER UDT hydrostatic transmission fluid or its equivalent up to the upper line of the gauge.

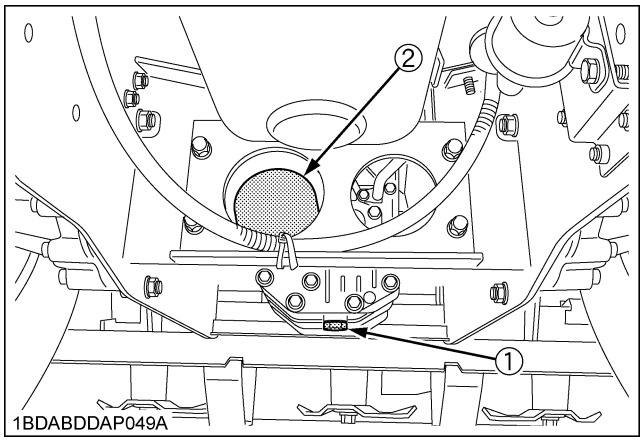
IMPORTANT :

- It takes time to have the oil poured from the transmission case reach the rear axle case (RH&LH). Pour the regulated amount of oil slowly.

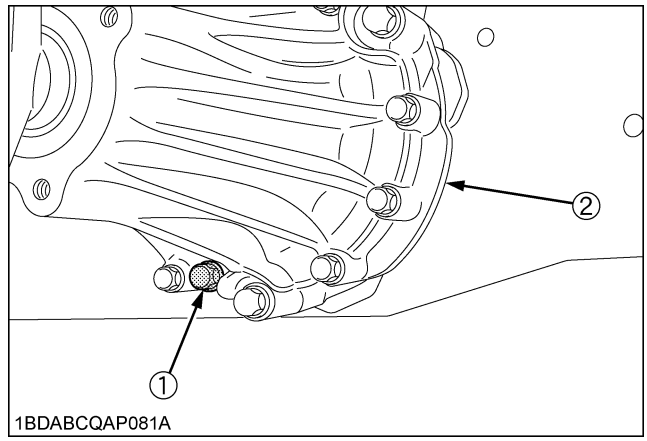
4. After running the engine for a few minutes, stop it and check the oil level again; add oil to the prescribed level.

IMPORTANT :

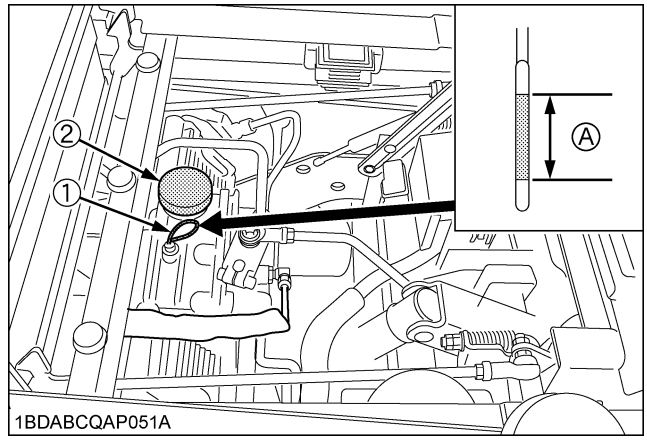
- Operate only at low rpms immediately after changing the transmission fluid and filter.
  Keep the engine at medium speed for a few minutes to insure proper lubrication of all parts so there is no damage to transmission.



(1) Drain plug
(2) Transmission oil filter



(1) Drain plug
(2) Rear axle gear case LH



(1) Oil level dipstick
(2) Oil plug and breather cup
(A) Oil level is acceptable within this range.

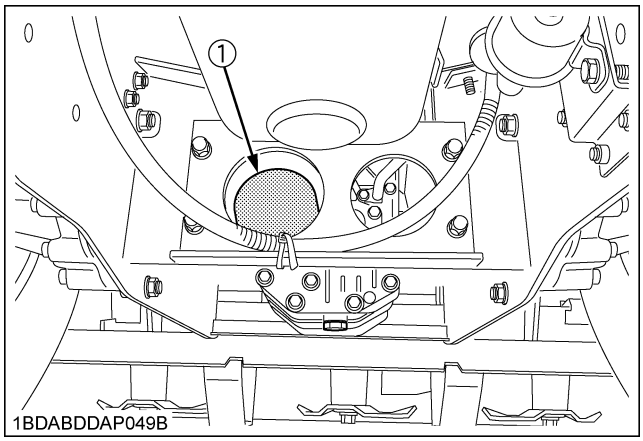
■Replacing Hydraulic Oil Filter

WARNING

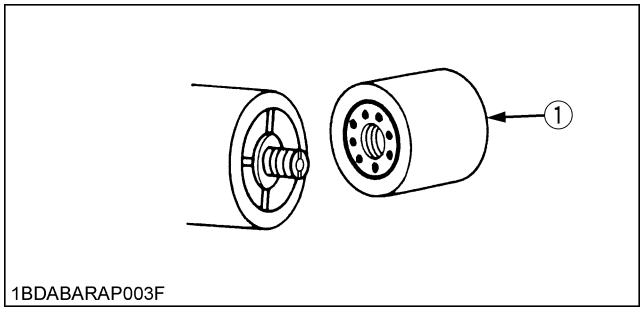
To avoid serious injury or death:

- **Be sure to stop the engine and remove the key before changing the oil filter.**
- **Allow transmission case to cool down sufficiently; oil can be hot and may cause burns.**

1. The oil filter must be changed every 400 service hours.



(1) Hydraulic oil filter



(1) Hydraulic oil filter

2. To drain the transmission oil, place oil pan underneath the transmission case and the rear axle gear case (RH&LH) and remove the drain plug at the bottom of the transmission case and the rear axle gear case (RH&LH).
3. After draining, reinstall the drain plugs.
4. Remove the oil filter by using the filter wrench.
5. Apply a slight coat of oil onto the filter gasket.
6. Tighten the filter quickly until it contacts the mounting surface. Tighten filter by hand an additional 1/2 turn only.
7. After the new filter has been replaced, the transmission fluid level normally lowers a little. Add fluid to proper level. Check for oil leaks around filter gasket.

IMPORTANT :
- To prevent serious damage or premature failure to the hydraulic system, use only a KUBOTA genuine filter.

■Replacing Fuel Filter
Consult your local KUBOTA Dealer for this service.

EVERY 800 HOURS

■Adjusting Engine Valve Clearance
Consult your local KUBOTA Dealer for this service.

EVERY 1000 HOURS or EVERY 1 YEAR
Replace every 1000 hours or every 1 year whichever comes faster.

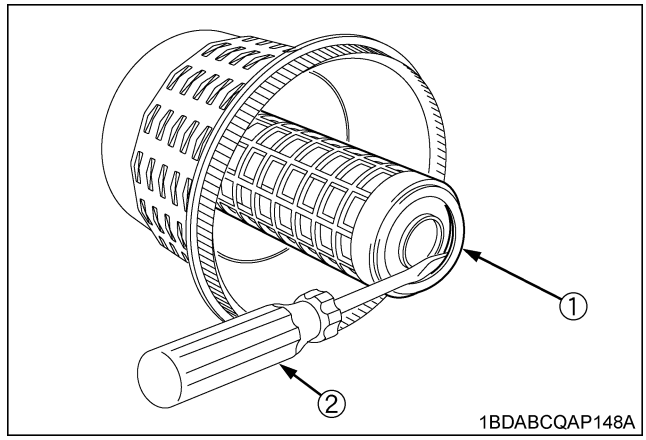
■Replacing Air Cleaner Primary Element and Secondary Element
(See "Cleaning Air Cleaner Primary Element" in "EVERY 100 HOURS" in "PERIODIC SERVICE" section.)

IMPORTANT :
- To prevent serious damage to the engine, use only a KUBOTA genuine filter.

[How to remove the secondary element]

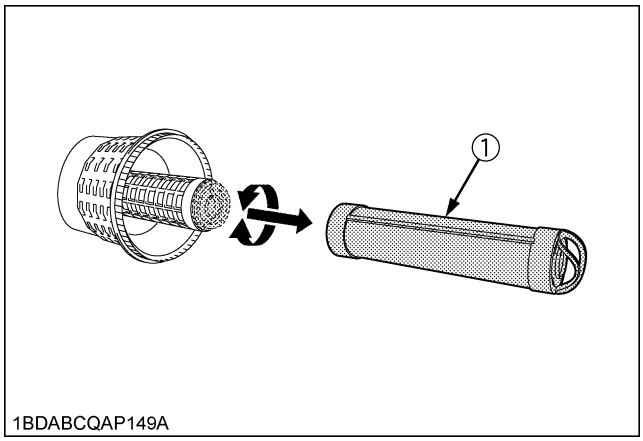
1. Pull out the 2 tabs of the secondary element using a suitable tool (e.g. Flat-blade screwdriver) as shown in the figure.

IMPORTANT :
- Pull out the tabs only when replacing the secondary element.



(1) Tab
(2) Flat-blade screwdriver

2. While turning slightly, pull out the secondary element.



(1) Secondary element

EVERY 1500 HOURS

■Checking Fuel Injection Nozzle (Injection Pressure)

Consult your local KUBOTA Dealer for this service.

EVERY 2000 HOURS or EVERY 2 YEARS

Be sure to do the following service once every 2000 hours or every 2 years whichever comes faster.

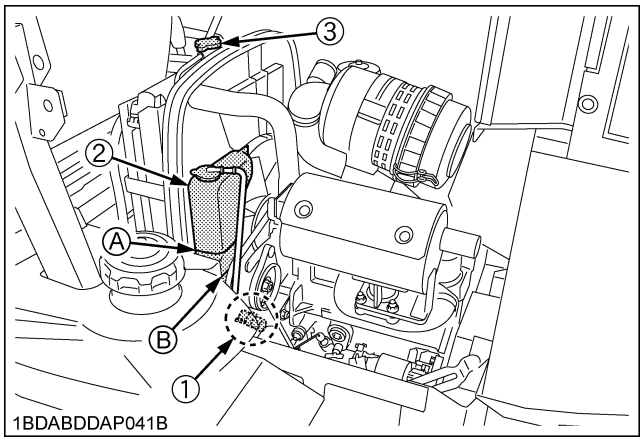
■Flushing Cooling System and Changing Coolant

WARNING

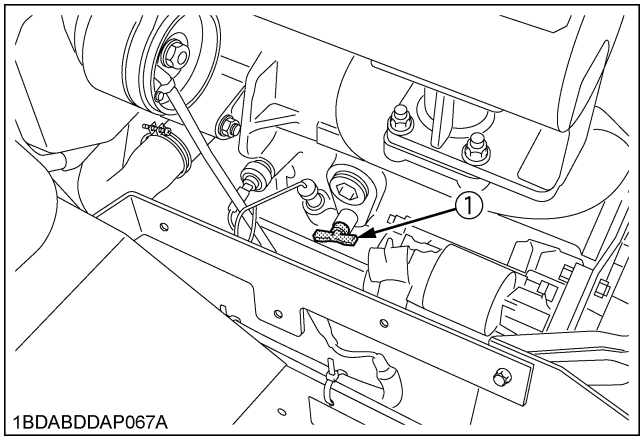
To avoid serious injury or death:

- **Do not remove the radiator cap when the engine is hot. Then loosen cap slightly to the stop to relieve any excess pressure before removing cap completely.**

1. Stop the engine and let cool down.
2. To drain the coolant, open the radiator drain valve and remove the radiator drain plug and remove radiator cap. The radiator cap must be removed to completely drain the coolant.
3. After all coolant is drained, close the drain valve and install the drain plug.
4. Fill with clean water and cooling system cleaner.
5. Follow directions of the cleaner instruction.
6. After flushing, fill with clean water and anti-freeze until the coolant level is just below the fill port on the radiator.
   Install the radiator cap securely.
7. Fill with coolant up to the "FULL" mark on the recovery tank.
8. Start and operate the engine for a few minutes.
9. Stop the engine and let cool.
10. Check coolant level of recovery tank, add coolant if necessary, and install the drain plug.



(1) Drain plug
(2) Recovery tank
(3) Radiator cap
(A) "FULL"
(B) "LOW"



(1) Drain valve

IMPORTANT :
- Do not start engine without coolant.
- Use clean, distilled water and anti-freeze to fill the radiator and recovery tank.
- When the anti-freeze is mixed with water, the anti-freeze mixing ratio must be less than 50%.
- Securely tighten radiator cap. If the cap is loose or improperly fitted, water may leak out and the engine could overheat.

■Anti-freeze

WARNING

To avoid serious injury or death:
- **When using anti-freeze, put on some protection such as rubber gloves. (Anti-freeze contains poison.)**
- **If it is swallowed, seek immediate medical help. Do NOT make a person throw up unless told to do so by poison control or a health care professional. Use standard first aid and CPR for signs of shock or cardiac arrest. Call your local Poison Control Center or your local emergency number for further assistance.**
- **When anti-freeze comes in contact with the skin or clothing, wash it off immediately.**
- **Do not mix different types of Anti-freeze. The mixture can produce chemical reaction causing harmful substances.**
- **Anti-freeze is extremely flammable and explosive under certain conditions. Keep fire and children away from anti-freeze.**
- **When draining fluids from the engine, place some container underneath the engine body.**
- **Do not pour waste onto the ground, down a drain, or into any water source.**
- **Also, observe the relevant environmental protection regulations when disposing of anti-freeze.**

Always use a 50/50 mix of long-life coolant and clean soft water in KUBOTA engines.
Consult your local KUBOTA dealer concerning coolant for extreme conditions.

1. Long-life coolant (hereafter LLC) comes in several types. Use ethylene glycol (EG) type for this engine.
2. Before employing LLC-mixed cooling water, fill the radiator with fresh water and empty it again.
   Repeat this procedure 2 or 3 times to clean up the inside.
3. Mixing the LLC
   Premix 50% LLC with 50% clean soft water. When mixing, stir it up well, and then fill into the radiator.
4. The procedure for the mixing of water and anti-freeze differs according to the make of the anti-freeze and the ambient temperature. Refer to SAE J1034 standard, more specifically also to SAE J814c.

IMPORTANT :
- When mixing the anti-freeze with water, the anti-freeze mixing ratio is 50%.

Vol % Anti-freeze	Freezing Point	Boiling Point*
	℃	℃
50	-37	108

* At 1.013 x 10^5 Pa (760 mmHg) pressure (atmospheric).

A higher boiling point is obtained by using a radiator pressure cap which permits the development of pressure within the cooling system.

5. Adding the LLC
   (1) Add only water if the coolant level reduces in the cooling system by evaporation.
   (2) If there is a mixture leak, add the LLC of the same manufacturer and type in the mixing ratio 50%.

   * Never add any long-life coolant of different manufacturer. (Different brands may have different additive components, and the engine may fail to perform as specified.)

6. When the LLC is mixed, do not employ any radiator cleaning agent. The LLC contains anti-corrosive agent. If mixed with the cleaning agent, sludge may build up, adversely affecting the engine parts.
7. Kubota's genuine long-life coolant has a service life of 2 years. Be sure to change the coolant every 2000 hours or every 2 years whichever comes faster.

NOTE :
- The above data represent industry standards that necessitate a minimum glycol content in the concentrated anti-freeze.

EVERY 3000 HOURS

■Checking Injection Pump

Consult your local KUBOTA Dealer for this service.

EVERY 1 YEAR

■Checking Fuel Lines

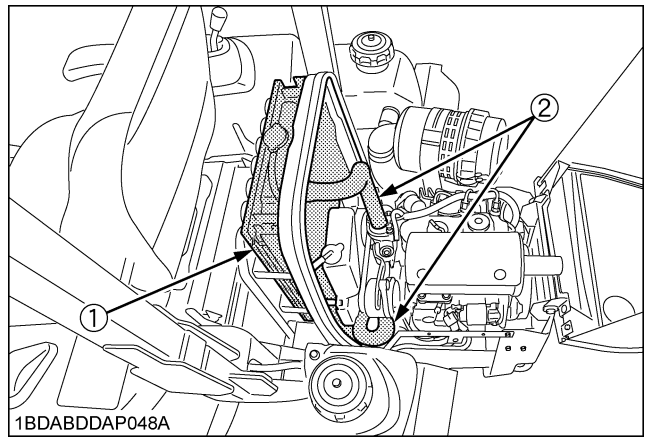
If you feel you are unable to make the following service correctly and safely, contact your local KUBOTA Dealer.

(See "Checking Fuel Filter" in "EVERY 100 HOURS" in "PERIODIC SERVICE" section.)

■Checking Radiator Hose and Clamp

If you feel you are unable to make the following service correctly and safely, contact your local KUBOTA Dealer.

1. If hose clamps are loose or water leaks, tighten clamps securely.
2. Replace hoses and tighten hose clamps securely, if radiator hoses are swollen, hardened or cracked.



(1) Radiator core
(2) Radiator hose

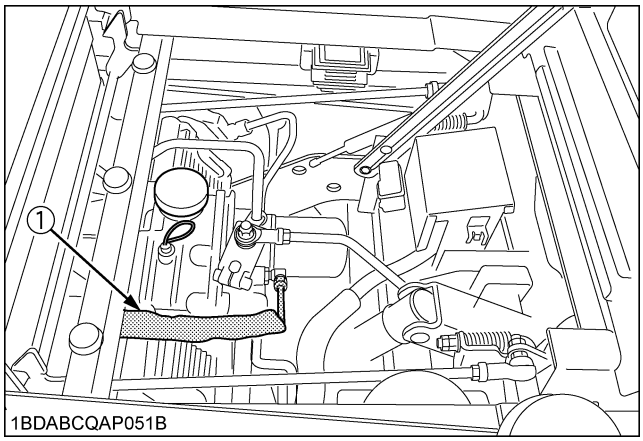
■Checking Hydraulic Hose

If you feel you are unable to make the following service correctly and safely, contact your local KUBOTA Dealer.

WARNING

To avoid serious injury or death:
- **Be sure to stop the engine and remove the key before checking and replacing the hydraulic hose.**
- **Allow the transmission case to cool down sufficiently; oil can be hot and may cause burns.**

1. Check to see that all lines and hose clamps are tight and not damaged.
2. If hoses and clamps are found worn or damaged, replace or repair them at once.

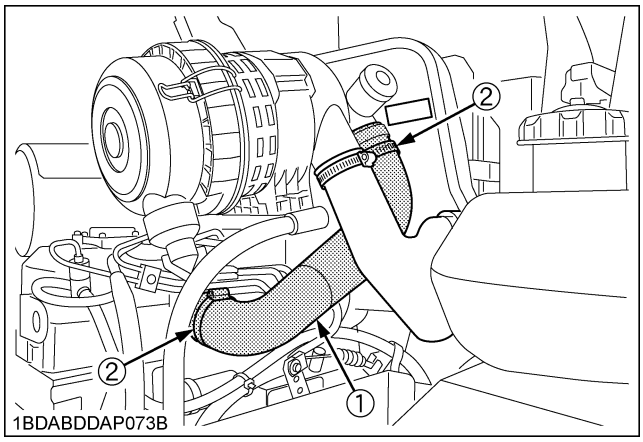


(1) Mower lift cylinder hose

■Checking Intake Air Line

If you feel you are unable to make the following service correctly and safely, contact your local KUBOTA Dealer.

1. Check to see that hoses and hose clamps are tight and not damaged.
2. If hoses and clamps are found worn or damaged, replace or repair them at once.



(1) Hose
(2) Clamp

■Checking Engine Breather Hose

Consult your local KUBOTA Dealer for this service.

■Checking Mower Gear Box Oil Seal

Consult your local KUBOTA Dealer for this service.

EVERY 4 YEARS

■Replacing Hydraulic Hose

Consult your local KUBOTA Dealer for this service.

■Replacing Fuel Lines

Consult your local KUBOTA Dealer for this service.

■Replacing Engine Breather Hose

Consult your local KUBOTA Dealer for this service.

■Replacing Radiator Hose

If you feel you are unable to make the following service correctly and safely, contact your local KUBOTA Dealer.

See "Checking Radiator Hose and Clamp" in "EVERY 1 YEAR" in "PERIODIC SERVICE" section.

■Replacing Mower Gear Box Oil-Seal

Consult your local KUBOTA Dealer for this service.

■Replacing Intake Air Line

If you feel you are unable to make the following service correctly and safely, contact your local KUBOTA Dealer.

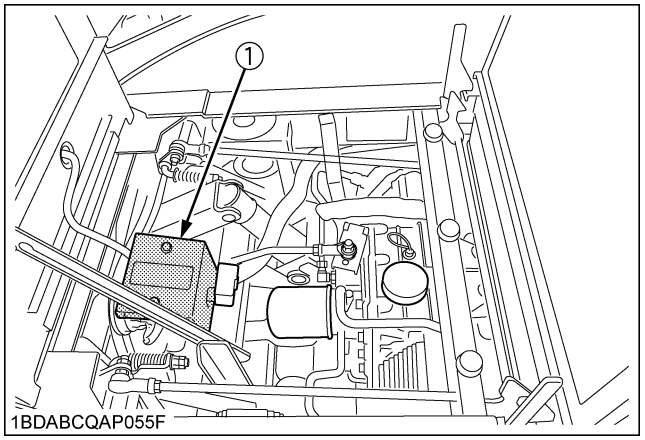
See "Checking Intake Air Line" in "EVERY 1 YEAR" in "PERIODIC SERVICE" section.

ENGLISH

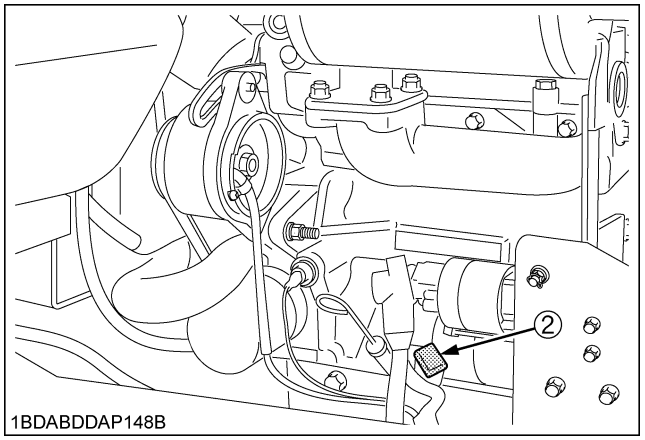
SERVICE AS REQUIRED

■Replacing Fuses

1. Raise the operator's seat.
2. Remove the blown fuse.
3. Place a new fuse of the same capacity in position.



(1) Fuse location



(2) Slow blow fuse

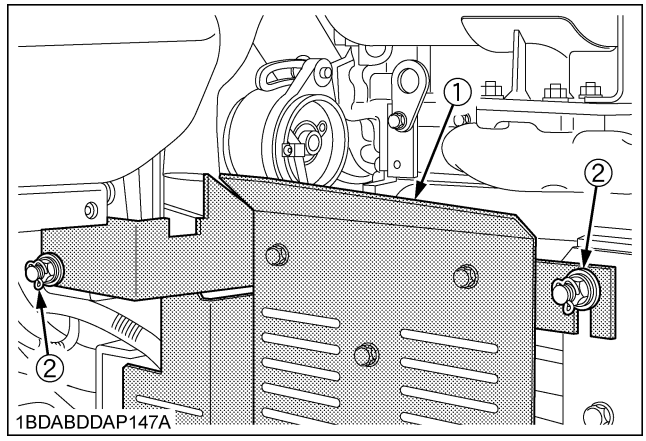
NOTE :

- When replacing the slow blow fuse, loosen the nuts and remove the cover.

WARNING

To avoid serious injury or death:

- **Be sure to reinstall the removed cover after replacing the slow blow fuse.**



(1) Cover
(2) Nut

IMPORTANT :

- If the new fuse happens to blow out within a short time, contact your dealer for inspection and repair. Never "jump" the fuse with wire or foil, or install a larger capacity fuse than is recommended.

◆ **Protected circuit**

FUSE NO.	CAPACITY (A)	Protected circuit
(1)	20 A	Engine stop
	15 A	Charge system
	15 A	Main system
	15 A	Aux. outlet
	10 A	Control system
	(20 A)	*(Work light)
(2)	Slow blow fuse 40 A	Check circuit against wrong battery connection

*Option: The fuse should be in only when the work light is attached.

■Checking and Replacing Blade

WARNING

To avoid serious injury or death:

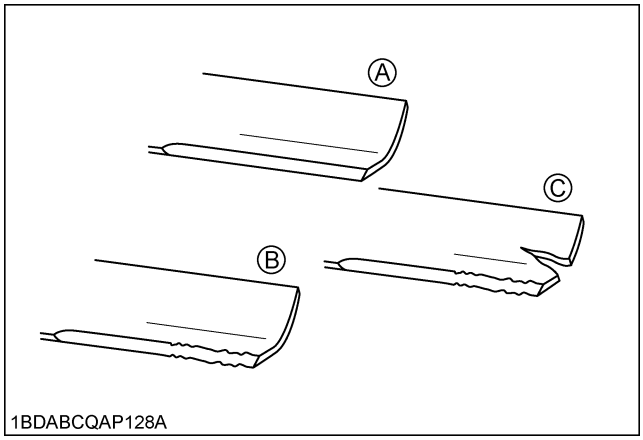
- **Be sure to stop the engine and remove the key.**
- **Blades may be sharp. When you handle blades, wear heavy gloves or wrap end of blade with a rag.**

NOTE :

- Before checking or replacing the blade, wipe grass and mud off the top and inside of the mower. Especially clean up the inside of the belt cover, because otherwise the belt life will be reduced.

◆ Checking

The blade cutting edges should be kept sharp at all times. Sharpen the cutting edges, if they resemble blade (B). Replace the blades if they appear similar to blade (C).



(A) New blade
(B) Worn blade
(C) Cracked blade

◆ Replacing

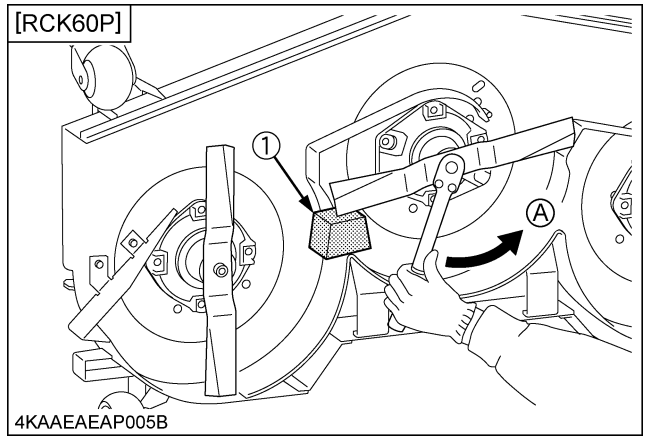
IMPORTANT :

- Use the proper metric size box or socket wrench to tighten or loosen the blade mounting bolt.
- Make sure that the KUBOTA genuine blades are used.

MODEL	BLADE
RCK60P-326Z-EU-2	K5651-3434-0
RCK60R-326Z-EU-2	

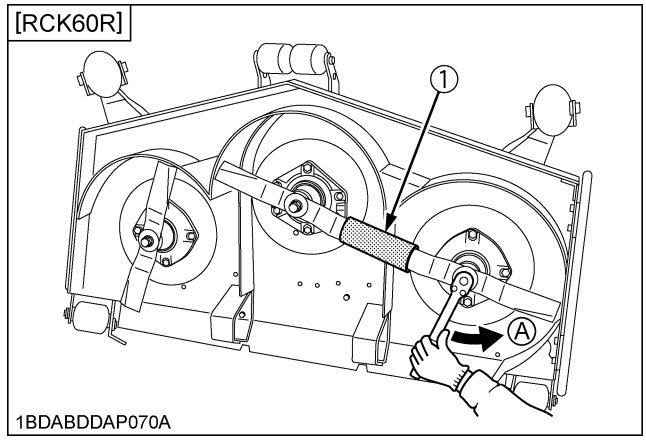
1. Tilt up the mower deck.
   (See "HOW TO TILT UP THE MACHINE" in "PERIODIC SERVICE" section.)
2. **[RCK60P]**
   Wedge a block of wood between the blade and mower housing or use a box wrench over the pulley nut to prevent the spindle from rotating while removing the blade bolts; loosen the blade bolt as illustrated.
   [RCK60R]
   Set the pipe between the blade and the next blade or use a box wrench over the pulley nut to prevent the spindle from rotating while removing the blade bolts; loosen the blade bolt as illustrated.

[RCK60P]



(1) Block *(A) "LOOSEN"*

[RCK60R]

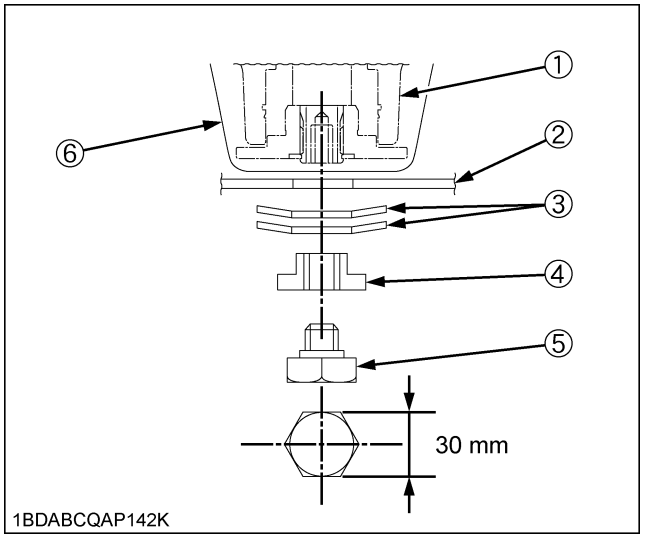


(1) Pipe *(A) "LOOSEN"*

3. To sharpen the blades yourself, clamp the blade securely in a vise.
   Use a large mill file and file along the original bevel until sharp.
4. To check the blade for balance, place a small rod through the center hole. If the blade is not balanced, file the heavy side of the blade until balance is achieved.
5. Pass the spline boss through the blade and 2 cup washers, and tighten the bolt.

NOTE :

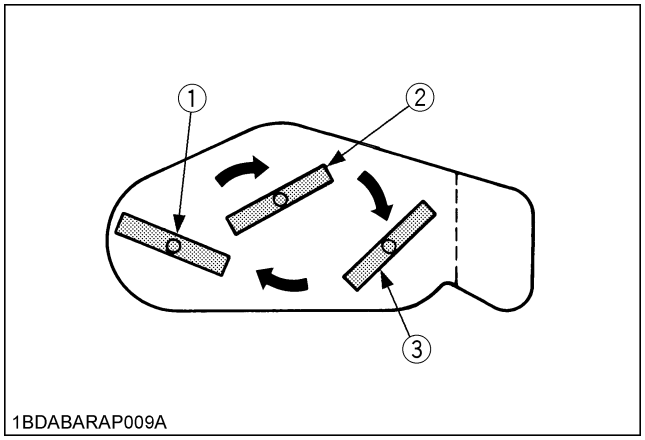
- Make sure that the cup washer is not flattened out or worn; this cause blade to slip excessively.
  Replace the 2 cup washers if either is damaged.



(1) Spindle holder
(2) Blade
(3) 2-Cup washers
(4) Lock washer
(5) Bolt
(6) Spindle guard

IMPORTANT :

- Tighten the 3 blade bolts to 98 to 117.6 N-m (10 to 12 kgf-m) of torque.
- The blade bolts have Right hand threads. Turn them counterclockwise to loosen.
- To prolong the service life of the blades, reposition them as shown in the figure below periodically.



(1) LH blade
(2) Center blade
(3) RH blade

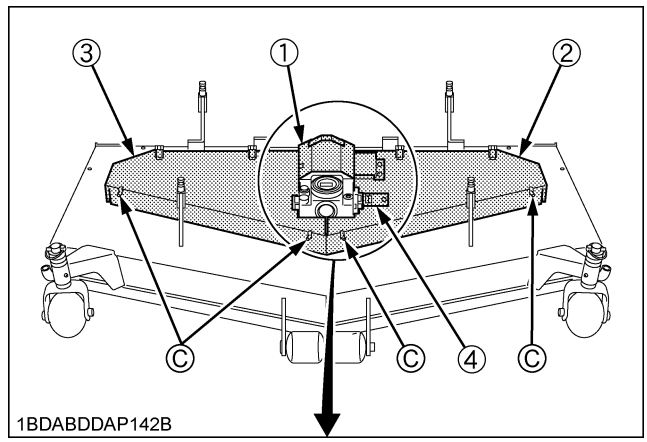
■Replacing Mower Belt

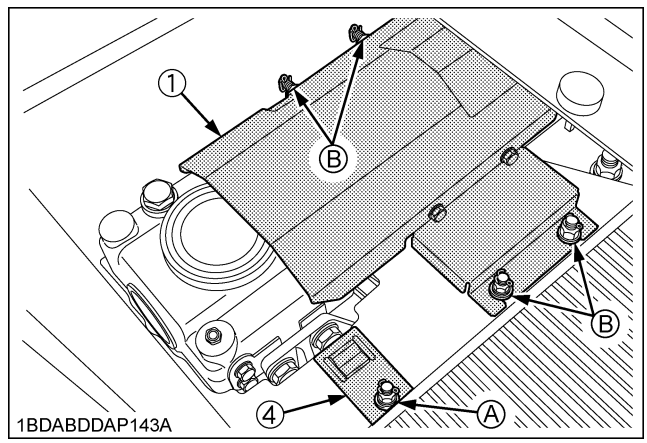
WARNING

To avoid serious injury or death:

- **Be sure to reinstall the removed cover after replacing the belt.**

1. Remove the mower deck from the machine according to the procedure "DISMOUNTING THE MOWER DECK".
2. Loosen the nuts (B) to remove the center cover from the mower deck.

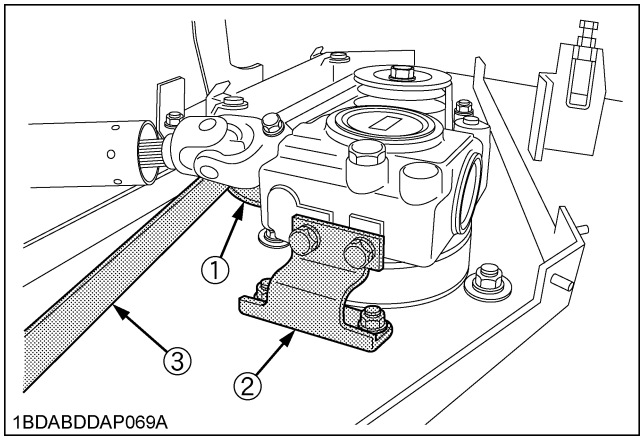




(1) Center cover
(2) Left shield
(3) Right shield
(4) Grease up plate
(A) Nut
(B) Nut
(C) Nut

3. Loosen the nuts (C) to remove the left and right hand shield from the mower deck.
4. Clean around the gear box.
5. Remove the belt from the tension pulley.
6. Remove the right hand bracket which mounts the gear box to the mower deck and slip the belt over the top of the gear box.
7. To install a new belt, reverse the above procedure.

NOTE :
- Tighten bracket bolts securely 77.6 to 90.2 N-m (8.0 to 9.2 kgf-m).



(1) Tension pulley
(2) Bracket (RH)
(3) Belt

■Bleeding Fuel System

Air must be removed:
1. When the fuel filter or lines are removed.
2. When tank is completely empty.
3. After the machine has not been used for a long period of time.

◆ **Bleeding procedure is as follows:**
1. Fill the fuel tank with fuel.
2. Start the engine and run for about 30 seconds, and then stop the engine.

ENGLISH

ADJUSTMENT

MOTION CONTROL LEVER

WARNING

To avoid serious injury or death:

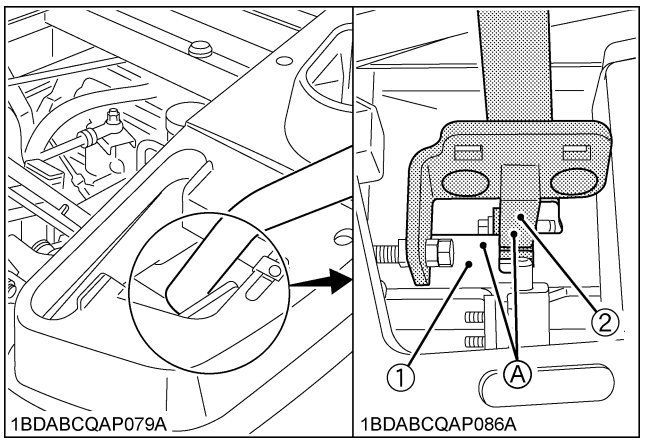
- **Park the machine on a firm and level surface.**
- **If it is necessary to run engine in an enclosed area, use a gas tight exhaust pipe extension to remove the fumes.**
- **Always try to work in a well-ventilated area.**
- **Lift up and secure with jack stands or block the rear of the machine, do not run the machine while adjusting.**
  Remove rear wheels.

IMPORTANT :

- Right and left motion control levers can be adjusted independently.

■HST NEUTRAL

1. Lift up and secure with jack stands or blocking the rear of the machine frame.
2. Remove both rear wheels.
3. Place the motion control lever in the "NEUTRAL LOCK" position.
4. Check that the lever is touching the front side of its guide plate.
   If the lever is not in the correct position, adjust the speed control spring. (See "MOTION CONTROL LEVER NEUTRAL POSITION" in "ADJUSTMENT" section.)



(1) Guide plate
(2) Motion control lever
(A) The lever is in contact with plate.

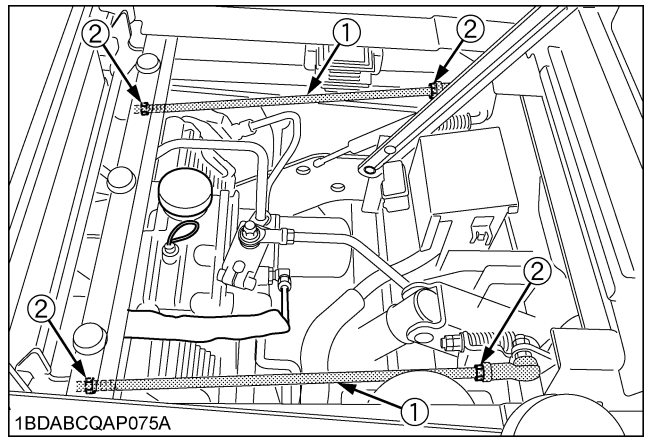
5. Pull the latch lever and raise the operator's seat.
6. Remove the connector from the seat safety switch, then **temporarily** install a jumper wire across the terminals in the connector of the wire harness.

WARNING

To avoid serious injury or death:

- **Do not operate the machine with a jumper wire.**
- **If you feel you are unable to make the following adjustments correctly and safety, please contact your local KUBOTA Dealer.**

7. Loosen the lock nut of the motion control rod.
   Adjust the motion control rod until axle rotation stops.

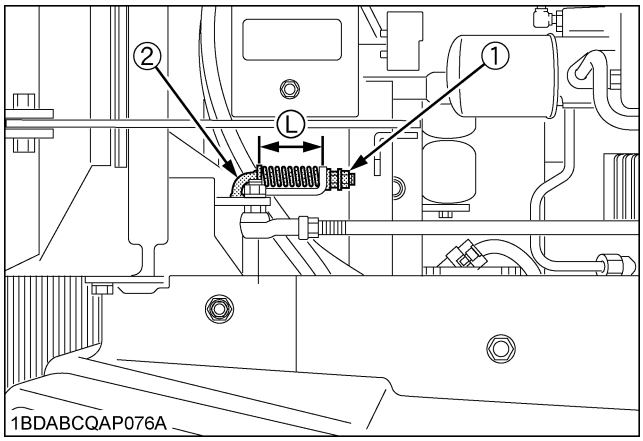


(1) Motion control rod
(2) Lock nut

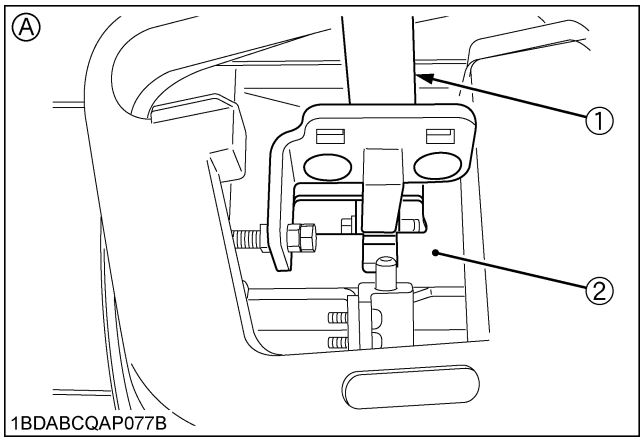
8. Lengthen the rod by 1/2 turn and then tighten the lock nut.
   Place the motion control lever to the reverse position, and move them to the forward slowly.
9. Place the lever in the "NEUTRAL LOCK" position, and check that the rear axle does not rotate.
   If the axle have not stopped rotating, adjust the "HST NEUTRAL" again.
10. After adjustment, be sure to stop the engine immediately.
11. Adjust the other side "HST NEUTRAL" equally.

■MOTION CONTROL LEVER NEUTRAL POSITION

1. Lift up and secure with jack stands or blocking the rear of the machine frame.
2. Remove both rear wheels.
3. Start the engine, and run at maximum speed.
4. Place the lever in the "NEUTRAL" position.
5. Pull the lever to the reverse maximum position and release the lever.
6. Measure the axle rotation.
7. Loosen the lock nut and adjust the speed control bolt length so that the axle rotation would stop.
8. Tighten the lock nut.
9. Check the axle rpm again.
   If it is not correct, adjust again.
10. Adjust the other side equally.
11. After adjustment, be sure to stop the engine immediately.



(1) Lock nut *(L) 50 mm*
(2) Speed control bolt



(1) Motion control lever *(A) "NEUTRAL" position (hands off)*
(2) Guide plate

■MAXIMUM SPEED (FORWARD)

Consult your local KUBOTA Dealer for this service.

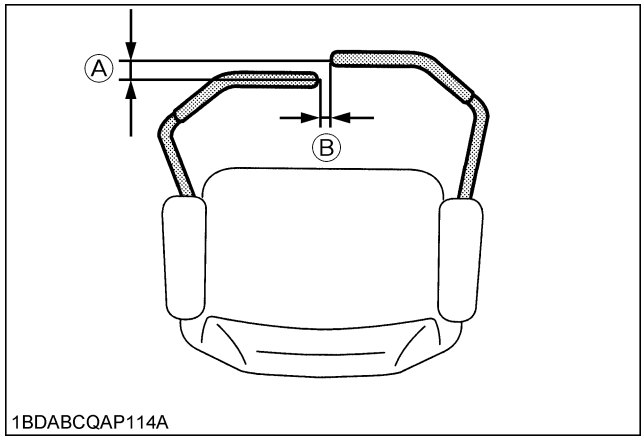
■MOTION CONTROL LEVER ALIGNMENT

◆ **Check the alignment**

Check the gap and space between the levers, at the maximum forward position.

Recommendation	Gap: 0 to 2 mm Space:10 to 20 mm

If positions of the control levers are unequal, an adjustment is necessary.



(A) "GAP"
(B) "SPACE"

WARNING

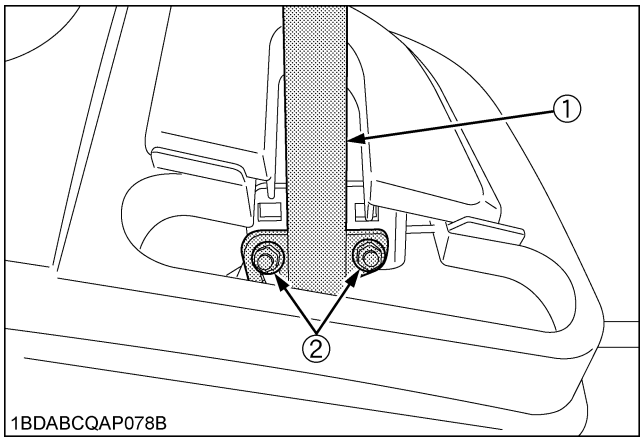
To avoid serious injury or death:

- **Park the machine on a firm and level surface.**
- **Stop the engine, remove the key and apply the parking brake.**

◆ **Aligning the control levers**

Lever position (High or Low)

1. Remove the nut and select the motion control lever position, high or low.
2. Tighten the nut.



(1) Motion control lever
(2) Nut

Lever alignment (Right and Left)

3. Loosen the nut.
4. Slide both levers forward or rearward to desired position within tab slots until levers are aligned.
5. Tighten the nut.

NOTE :

- If the ends of the levers strike against each other while in the "NEUTRAL" position, move the levers outward to the "NEUTRAL LOCK" position and carefully bend them outward.
  Move them back to the "NEUTRAL" position and check for the recommended space.

MOWER DECK LEVEL

■ANTI-SCALP ROLLERS

WARNING

To avoid serious injury or death:

- **Park the machine on a firm and level surface.**
- **Apply the parking brake.**
- **Stop the engine and remove the key.**
- **Wait for all moving parts to stop.**

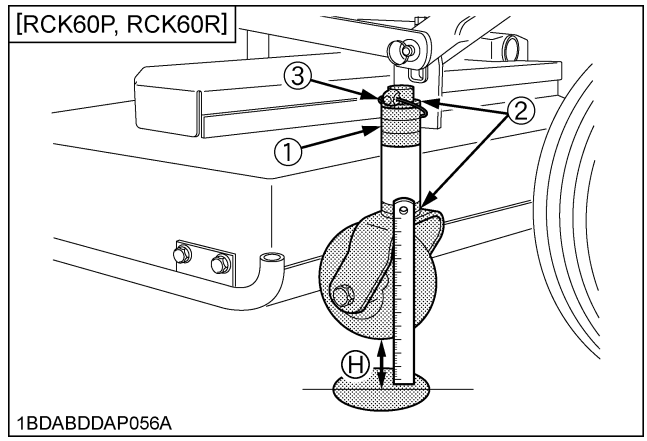
IMPORTANT :

- The flattest cut can be achieved by having the anti-scalp rollers adjusted off the ground.
  Check anti-scalp roller adjustments each time the mower deck cutting height is changed.
  It is recommended that all the anti-scalp rollers be kept off the ground to minimize scuffing.

1. Check the machine tire pressure.
   Inflate tires to the correct pressure. (See "TIRES AND WHEELS" section.)
2. Start the engine.
3. Raise up the mower deck to the transport position. (Also the top end of the lift.)
4. Turn the cutting height control dial to adjust height.
5. Lower the mower deck.

[Front side anti-scalp roller]

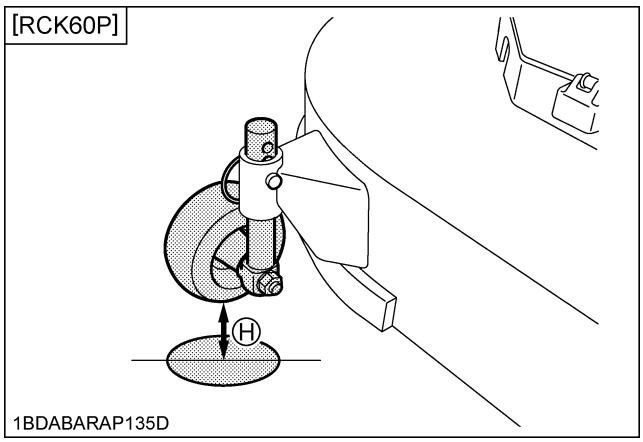
6. Adjust height of the front side anti-scalp roller by replacing the collar (collar is raised and lowered) to approximately 19 mm between rollers and ground.
   Adjust both side rollers to the same height.

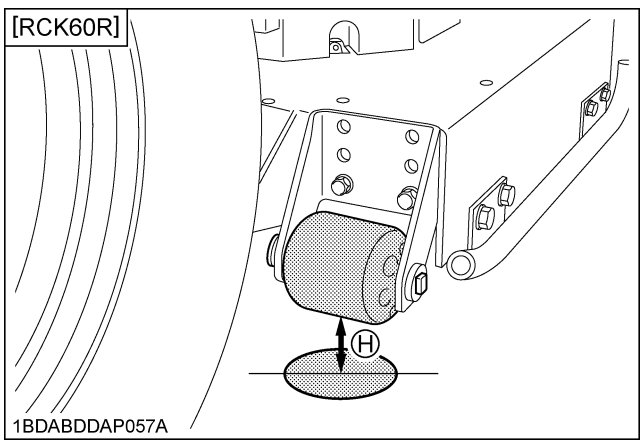


(1) Collar
(2) Washer
(3) Set pin
(H) 19 mm

[Rear side anti-scalp roller]

7. Adjust height of the rear side anti-scalp roller to one of 7 positions to approximately 19 mm between rollers and ground.
   Adjust both side rollers to the same height.





(H) 19 mm

■LEVEL MOWER DECK (Side-to-Side)

WARNING

To avoid serious injury or death:
- **Park the machine on a firm and level surface.**
- **Apply the parking brake.**
- **Disengage PTO (OFF).**
- **Stop the engine, remove the key and remove the mower universal joint while checking or adjusting the level of the mower deck.**

IMPORTANT :
- Check the machine tire pressure.
  Inflate tires to the correct pressure.
  (See "TIRES AND WHEELS" section.)

◆ **Checking level (Side-to-Side)**

NOTE :
- Mower deck anti-scalp rollers should not contact the ground.

1. Raise the mower deck to the transport position. (Also the top end).
2. Turn the cutting height set dial to the 3 in. cutting height position.
3. Lower the mower deck.
4. Position the right mower blade in the Side-to-Side position.
5. Measure from outside blade tip to the level surface with a short ruler or leveling gauge.

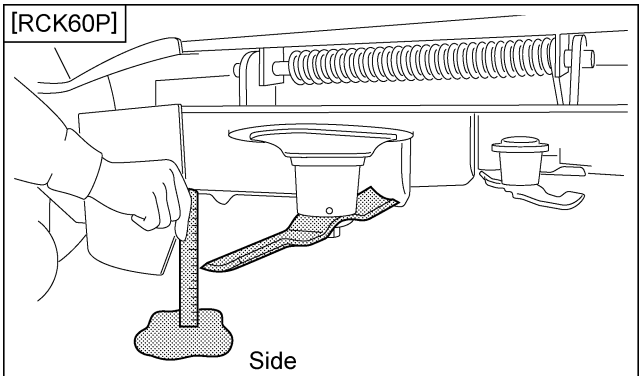
Reference

Height of the blade at the concrete surface	76 mm

NOTE :
- There is a difference of the blade height between on the concrete and ground.

6. Check that the left side blade is same height.
   The difference between both measurements should be less than 3 mm.
7. If the Side-to-Side adjustment is not within the given tolerance, adjustment is necessary.

[RCK60P]



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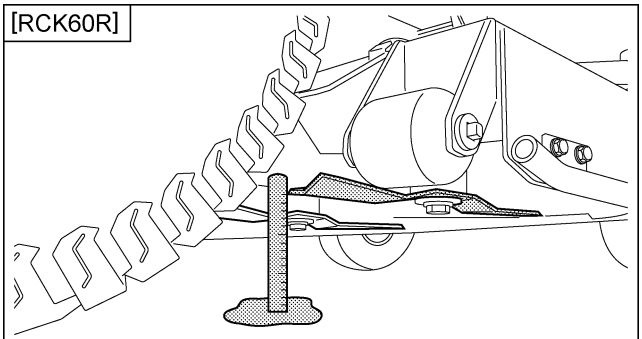
[RCK60R]



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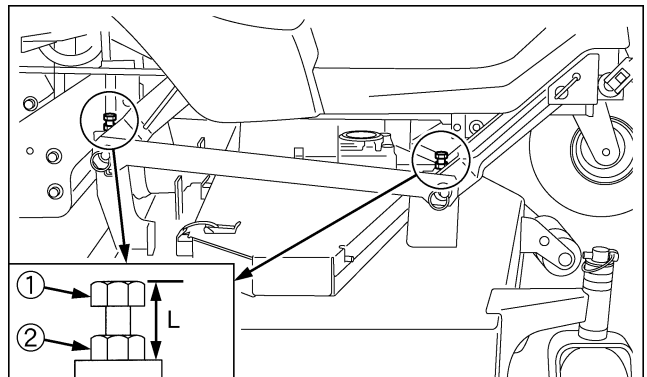
◆ **Adjusting level (Side-to-Side)**

1. Raise up the mower deck to the transport position. (Also the top end).
2. Turn the cutting height set dial to the 3 in. cutting height position.
3. Place 51 mm height wood blocks under each side of the mower deck.
   Anti-scalp rollers must not rest on the wood block.
4. Lower the mower deck.
5. Position mower blade in the Side-to-Side position.
6. Loosen the lock nuts of the right side of the machine.
7. Adjust the cutting height fine tuning bolts to set 76 mm height.
   Front and rear side bolts must be adjusted.
8. Lock the nuts.
9. Adjust the left side equally.
10. Check the side-to-side level and if it is not level, adjustment is necessary.



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(1) Cutting height fine tuning bolt
(2) Lock nut

■LEVEL MOWER DECK (Front-to-Rear)

WARNING

To avoid serious injury or death:

- **Park the machine on a firm and level surface.**
- **Engage the parking brake.**
- **Disengage PTO.**
- **Stop the engine, remove the key and remove the mower universal joint while checking or adjusting the level of the mower deck.**

IMPORTANT :

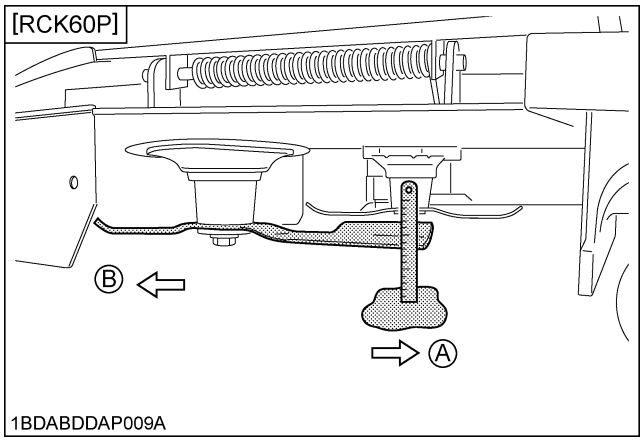
- Check the machine tire pressure.
  Inflate tires to the correct pressure.
  (See "TIRES AND WHEELS" section.)

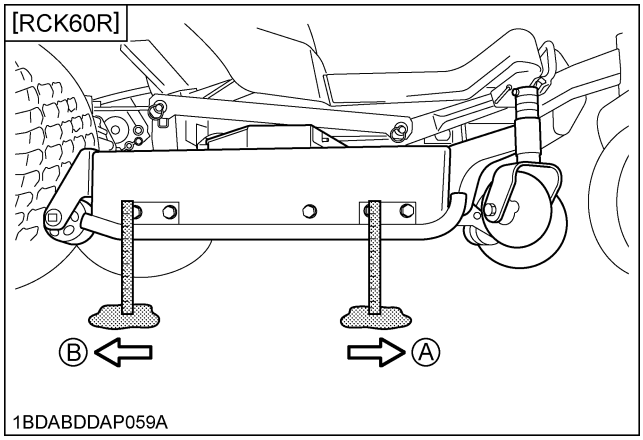
◆ **Checking level (Front-to-Rear)**

NOTE :

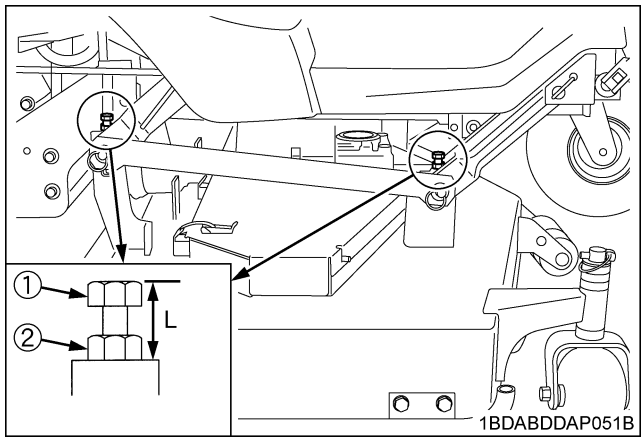
- Mower deck anti-scalp rollers should not contact the ground.

1. Raise the mower deck to the transport position. (Also the top end).
2. Turn the cutting height set dial to the 3 in. cutting height position.
3. Lower the mower deck.
4. Position the right mower blade in the Front-to-Rear position.
5. Measure from the right front blade tip to the level surface with a short ruler or leveling gauge.
6. Turn the blade 180° and measure from right rear blade tip to the level surface.
7. Check that the left side blade has the same dimension.
   The difference between both measurements should be less than 6 mm.
   Front side must be lower than rear side.
8. If the Front-to-Rear adjustment is not within the given tolerance, adjustment is necessary.





(A) Front
(B) Rear



(1) Cutting height fine tuning bolt
(2) Lock nut

◆ **Adjusting level (Front-to-Rear)**

1. Raise up the mower deck to the transport position. (Also the top end).
2. Turn the cutting height set dial to the 3 in. cutting height position.
3. Place 51 mm height wood blocks under each side of the mower deck.
   Anti-scalp rollers must not rest on the wood block.
4. Lower the mower deck.
5. Loosen the lock nuts of the front side of the machine.
6. Adjust the cutting height fine tuning bolts to set 76 mm height.
   Both front side bolts must be adjusted.
7. Lock the nuts.
8. Adjust the other side equally.

IMPORTANT :

- The difference between both measurements should be less than 6 mm.
  Front side must be lower than rear side.

9. Check the front-to-rear level and if it is not level, adjustment is necessary.

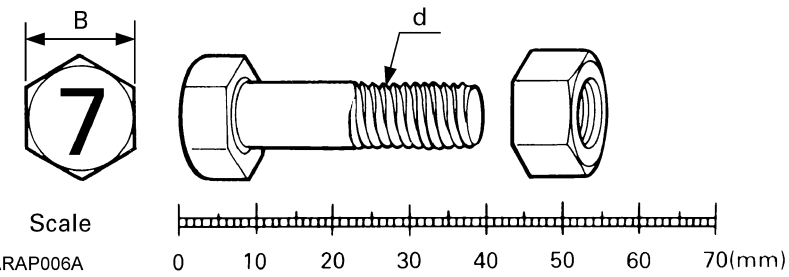
GENERAL TORQUE SPECIFICATION

American standard cap screws with UNC or UNF threads				Metric cap screws			
SAE grade No.		GR.5 	GR.8 	Property class		Class 8.8 	Class 10.9 
1/4	(N-m) (kgf-m)	10.7 - 12.9 1.11 - 1.33	16.1 - 19.3 1.66 - 1.99	M6	(N-m) (kgf-m)	9.81 - 11.3 1.0 - 1.15	
5/16	(N-m) (kgf-m)	23.1 - 27.8 2.35 - 2.84	32.5 - 39.3 3.31 - 4.01	M8	(N-m) (kgf-m)	23.6 - 27.4 2.4 - 2.8	29.4 - 34.3 3.0 - 3.5
3/8	(N-m) (kgf-m)	47.5 - 57.0 4.84 - 5.82	61.0 - 73.2 6.22 - 7.47	M10	(N-m) (kgf-m)	48.1 - 55.8 4.9 - 5.7	60.8 - 70.5 6.2 - 7.2
1/2	(N-m) (kgf-m)	108.5 - 130.2 11.07 - 13.29	149.2 - 179.0 15.22 - 18.27	M12	(N-m) (kgf-m)	77.5 - 90.1 7.9 - 9.2	103 - 117 10.5 - 12.0
9/16	(N-m) (kgf-m)	149.2 - 179.0 15.22 - 18.27	217.0 - 260.4 22.14 - 26.57	M14	(N-m) (kgf-m)	124 - 147 12.6 - 15.0	167 - 196 17.0 - 20.0
5/8	(N-m) (kgf-m)	203.4 - 244.1 20.75 - 24.91	298.3 - 358.0 30.44 - 36.53	M16	(N-m) (kgf-m)	196 - 225 20.0 - 23.0	260 - 303 26.5 - 31.0

TIGHTENING TORQUE CHART

Thread size d (mm)	Hexa-Bolt Head size B (mm)	No mark		7T	
		N-m	kgf-m	N-m	kgf-m
M8	12 or 13	**17.8 - 20.6** (19.2 ± 1.4)	**1.9 - 2.1** (2.0 ± 0.1)	**23.5 - 27.5** (25.5 ± 2.0)	**2.4 - 2.8** (2.6 ± 0.2)
M10	14 or 17	**39.3 - 45.1** (42.2 ± 2.9)	**4.0 - 4.6** (4.3 ± 0.3)	**48.1 - 55.9** (52.0 ± 3.9)	**4.9 - 5.7** (5.3 ± 0.4)
M12	17 or 19	**62.8 - 72.6** (67.7 ± 4.9)	**6.4 - 7.4** (6.9 ± 0.5)	**77.6 - 90.2** (83.9 ± 6.3)	**8.0 - 9.2** (8.6 ± 0.6)
M14	19 or 22	**107.9 - 125.5** (116.7 ± 8.8)	**11.0 - 12.8** (11.9 ± 0.9)	**123.6 - 147.0** (135.3 ± 11.7)	**12.6 - 15.0** (13.8 ± 1.2)

NOTE :
- Figure "7" on the top of the bolt indicates that the bolt is of special material.
- Before tightening, check the figure on the top of bolt.



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STORAGE

WARNING

To avoid serious injury or death:

- **Do not clean the machine with engine running.**
- **To avoid the danger of exhaust fume poisoning, do not operate the engine in a closed building without proper ventilation.**
- **When storing, remove the key to avoid unauthorized persons from operating the machine and getting injured.**

MACHINE STORAGE

If you intend to store your machine for an extended period of time, follow the procedures outlined below. These procedures will insure that the machine is ready to operate with minimum preparation when it is removed from storage,

1. Check for loose bolts and nuts, and tighten if necessary.
2. Apply grease to machine areas where bare metal will rust also to pivot areas.
3. Inflate the tires to a pressure a little higher than usual.
4. Change the engine oil and run the engine to circulate oil throughout the engine block and internal moving parts for about 5 minutes.
5. With all implements lowered to the ground, coat any exposed hydraulic cylinder piston rods with grease.
6. Remove the battery from the machine. When disconnecting the cables from the battery, start with the negative terminal first. When connecting the cables to the battery, start with the positive terminal first.
7. Keep the machine in a dry place where the machine is sheltered from rain. Cover the machine.
8. Store the machine indoors in a dry area that is protected from sunlight and excessive heat. If the machine must be stored outdoors, cover it with a waterproof tarpaulin.
9. Jack the machine up and place blocks under the front and rear axles so that all 4 tires are off the ground. Keep the tires out of direct sunlight and extreme heat.

IMPORTANT :

- When washing the machine, be sure to stop the engine. Allow sufficient time for the engine to cool before washing.
- Cover the machine after the muffler and the engine have cooled down.

REMOVING THE MACHINE FROM STORAGE

1. Check the tire air pressure and inflate the tires if they are low.
2. Jack the machine up and remove the support blocks.
3. Install the battery. Before installing the battery, make sure it is fully charged.
4. Check the fan belt tension.
5. Check all fluid levels (engine oil, transmission/ hydraulic oil, engine coolant and any attached implements).
6. Check all control levers and the brake for proper function free up or lubricate as necessary.
7. Start the engine. Observe all gauges. If all gauges are functioning properly and reading normal, move the machine outside.
8. Once outside, park the machine securely set the parking brake, place the control levers in the neutral lock position and let the engine idle for at least 5 minutes.
9. Shut the engine off and walk around machine and make a visual inspection looking for evidence of oil or water leaks.
10. With the engine fully warmed up, release the parking brake and test the brakes for proper adjustment as you move forward. Adjust the brakes as necessary.

TROUBLESHOOTING

ENGINE TROUBLESHOOTING

If something is wrong with the engine, refer to the table below for the cause and its corrective measure.

Trouble		Cause	Countermeasure
Engine is difficult to start or won't start		● No fuel flow.	● Check the fuel valve position. ● Check the fuel tank and the fuel filter. Replace filter if necessary.
		● Air or water is in the fuel system.	● Check to see if the fuel line coupler bolt and nut are tight. ● Bleed the fuel system. (See "SERVICE AS REQUIRED" in "PERIODIC SERVICE" section.)
		● In winter, oil viscosity increases, and engine revolution is slow.	● Use oils of different viscosities, depending on ambient temperatures.
		● Battery becomes weak and the engine does not turn over quick enough.	● Clean battery cables and terminals. ● Charge the battery. ● In cold weather, always remove the battery from the engine, charge and store it indoors. Install it on the machine only when the machine is going to be used.
Insufficient engine power.		● Insufficient or dirty fuel. ● The air cleaner is clogged.	● Check the fuel valve position. ● Check the fuel system. ● Clean the element.
Engine stops suddenly.		● Insufficient fuel.	● Check the fuel valve position. ● Refuel. ● Bleed the fuel system if necessary.
Exhaust fumes are colored.	**Black**	● Fuel quality is poor. ● Too much oil. ● Engine is overloaded.	● Change the fuel and fuel filter. ● Check the proper amount of oil. ● Reduce engine load.
	Blue white	● The inside of exhaust muffler is damp from fuel. ● Injection nozzle trouble. ● Fuel quality is poor.	● Heat the muffler by applying load to the engine. ● Check the injection nozzle. ● Change the fuel and fuel filter.
Engine overheats.		● Engine overloaded.	● Lower speed or reduce load.
		● Low coolant level.	● Fill cooling system to the correct level; check radiator and hoses for loose connections or leaks.
		● Loose or damaged fan belt.	● Adjust or replace fan belt.
		● Dirty radiator core or grille screens.	● Remove all trash.
		● Coolant flow route corroded.	● Flush cooling system.

If you have any questions, contact your local KUBOTA Dealer.

BATTERY TROUBLESHOOTING

Trouble	Cause	Remedy	Preventive measure
Starter does not function.	● Battery overused until lights are dim.	● Charge battery sufficiently.	● Charge the battery properly.
	● Battery has not been recharged.		
	● Poor terminal connection.	● Clean the terminal and tighten securely.	● Keep the terminal clean and tight. Apply grease and treat with anti-corrosives.
	● Battery life expired.	● Renew battery.	
From beginning starter does not function, and lights soon become dim.	● Insufficient charging.	● Charge battery sufficiently.	● Battery must be serviced properly before initial use.
When viewed from top, the top of plates look whitish.	● Battery was used with an insufficient amount of electrolyte.	● Add distilled water and charge the battery.	● Regularly check the electrolyte level.
	● Battery was used too much without recharging.	● Charge battery sufficiently.	● Charge the battery properly.
Recharging is impossible.	● Battery life expired.	● Replace battery.	
Terminals are severely corroded and heat up.	● Poor terminal connection.	● Clean the terminal and tighten securely.	● Keep the terminal clean and tight. Apply grease and treat with anti-corrosives.
Battery electrolyte level drops rapidly.	● There is a crack or pin holes in the electrolytic cells.	● Replace battery.	
	● Charging system trouble.	● Contact your local KUBOTA Dealer.	

If you have any questions, contact your local KUBOTA Dealer.

MACHINE TROUBLESHOOTING

Trouble	Cause	Remedy
Machine operation is not smooth.	● Hydrostatic transmission fluid is insufficient.	● Replenish oil.
	● Filter is clogged.	● Replace the filter.
Machine dose not move while engine is running.	● Parking brake is on.	● Release the parking brake.
	● Transmission fluid level is insufficient.	● Replenish oil.
Machine moves when motion control levers are in the "NEUTRAL LOCK" position. (Engine is operated.)	● Hydrostatic lever linkage is not correctly adjusted.	● Ask your dealer for hydrostatic lever linkage adjustment or pressure adjustment.
	● Control linkage pivots are sticking.	● Full up and lubricate linkage.

If you have any questions, contact your local KUBOTA Dealer.

MOWER TROUBLESHOOTING

Trouble	Cause	Remedy
Discharge chute plugged.	● Grass too wet.	● Wait for grass to dry.
	● Grass too long.	● Raise cutting height and cut grass twice.
	● Cutting too low.	● Raise cutting height.
	● Engine r.p.m. too low.	● Mow at full throttle.
	● Ground speed too fast.	● Slow down.
Streaking of grass uncut.	● Ground speed too fast.	● Slow down.
	● Engine r.p.m. too low.	● Mow at full throttle, check and reset engine r.p.m..
	● Grass too long.	● Cut grass twice.
	● Blades dull or damaged.	● Replace blades or have blades sharpened.
	● Debris in mower deck.	● Clean mower deck.
Uneven cut.	● Mower deck not level.	● Level mower deck.
	● Ground speed too fast.	● Slow down.
	● Blades dull.	● Have blades sharpened.
	● Blades worn.	● Replace blades.
	● Low tire inflation.	● Add air to correct pressure.
	● Anti-scalp rollers not adjusted correctly.	● Adjust anti-scalp rollers.
	● Wheels pressure not adjusted correctly.	● Set both tire pressures to the correct pressure. (See "TIRES" in "TIRES AND WHEELS" section.)
Blades scalping grass.	● Cutting height too low.	● Raise cutting height.
	● Turning speed too fast.	● Reduce speed on turns.
	● Ridges in terrain.	● Change mowing pattern.
	● Rough or uneven terrain.	● Adjust wheels pressure and anti scalp rollers.
	● Anti-scalp rollers not adjusted correctly.	● Adjust wheels pressure and anti scalp rollers.
	● Bent blade(s).	● Replace blade(s).
Belt slipping.	● Mower deck plugged.	● Unplug and clean mower deck.
	● Debris in pulleys.	● Clean pulleys.
	● Worn belt.	● Replace belt.
Excessive vibration.	● Debris on mower deck or in pulleys.	● Clean mower deck and pulleys.
	● Damaged drive belt.	● Replace drive belt.
	● Damaged pulleys.	● Replace pulleys.
	● Pulleys out of alignment.	● See your KUBOTA Dealer.
	● Blades out of balance.	● Have blades balanced.

Trouble	Cause	Remedy
Mower loads down machine.	● Engine r.p.m. too low.	● Mow at full throttle, check and reset engine r.p.m..
	● Ground speed too fast.	● Slow down.
	● Debris wrapped around mower spindles.	● Clean mower.
	● Front of deck lower than rear.	● Adjust deck. (See "MOWER DECK LEVEL" in "ADJUSTMENT" section.)

If you have any questions, contact your local KUBOTA Dealer.

APPENDIX

SOUND AND VIBRATION MEASUREMENTS

◆ **Sound Pressure Level Measured Per ISO5395**

Model	Engine max speed	Sound pressure at the operator's position	Uncertainty K
ZD326-EU-2 with RCK60P-326Z-EU-2	3420 min^{-1} (rpm)	90.0 dB (A)	2.0 dB (A)
ZD326-EU-2 with RCK60R-326Z-EU-2	3420 min^{-1} (rpm)	90.0 dB (A)	2.0 dB (A)

NOTE :

- The published measurements were obtained through actual field data according to the standard test procedure in EN ISO 5395-1:2013.
  The level when in use is dependent on the operating environment, driving style and condition of the machine.
  Wear the appropriate hearing protection following its manufacturer's instructions.

◆ **Hand/Arm Vibration Level Measured Per ISO5395**

Model	Engine max speed	Hand/Arm vibration	Uncertainty K
ZD326-EU-2 with RCK60P-326Z-EU-2	3420 min^{-1} (rpm)	0.94 m/s^2	0.13 m/s^2
ZD326-EU-2 with RCK60R-326Z-EU-2	3420 min^{-1} (rpm)	0.94 m/s^2	0.13 m/s^2

◆ **Whole Body Vibration Level Measured Per ISO5395**

Model	Engine max speed	Whole body vibration	Uncertainty K
ZD326-EU-2 with RCK60P-326Z-EU-2	3420 min^{-1} (rpm)	0.45 m/s^2	0.06 m/s^2
ZD326-EU-2 with RCK60R-326Z-EU-2	3420 min^{-1} (rpm)	0.45 m/s^2	0.06 m/s^2

NOTE :

- The published measurements were obtained according to the standard test procedure in EN ISO 5395-1:2013.
  The level when in use is dependent on the operating environment, driving style and condition of the machine.
  Take steps to reduce vibration. eg. correct tire pressure, reducing speed over rough ground.

ENGLISH

INDEX

EC-DECLARATION OF CONFORMITY
DECLARATION CE DE CONFORMITE
EG-KONFORMITÄTSERKLÄRUNG

CE

Manufacture :
Fabricant :
Hersteller :

KUBOTA Manufacturing of America Corporation

Address :
Adresse :
Adresse :

Industrial Park North, 2715 Ramsey Road, Gainesville, GA, 30501 U.S.A.

Authorized Representative and responsible person in the Community :
Représentant autorisé et personne responsable dans la Communauté :
Bevollmächtigter Repräsentant und zuständige Person in der Gemeinschaft :

Masashi OSUGA

Kubota Technical Center Europe
19 a 25 rue Jules Vercruysse
95101 Argenteuil
France

Model:
Modèle:
Modell:

ZD326-EU-2

Lawn mower:
Tondeuse à gazon:
Mähwerk:

RCK60P-326Z-EU-2, RCK60R-326Z-EU-2

Serial No.:
N° de série:
Serien-Nr.:

20001~99999

Lawn mower combination	Engine		Measured sound power level dB (A)	Uncertainty K dB (A)	Guaranteed sound power level dB (A)	Cutting width cm	Blade speed min^{-1} (rpm)
	Type	min^{-1} (rpm)					
ZD326-EU-2 + RCK60P-326Z-EU-2	D1005	3400	102.2	0.16	105.0	152.4	2810
ZD326-EU-2 + RCK60R-326Z-EU-2	D1005	3400	102.6	0.36	105.0	152.4	2810

Kubota Corporation keeps technical documentation.
64, Ishizu-Kitamachi, Sakai-City, Osaka, Japan 590-0823

Notified Body:
Organisme notifié:
Benannte Stelle:

Société Nationale de Certification et d'Homologation
11, route de Luxembourg
L-5230 Sandweiler

This machine complies with the essential health and safety requirements relating to design and construction of machinery, according to EC directive 2006/42/EC and conform to the directive 2000/14/EC amended by 2005/88/EC (ANNEX VI) and also complied with the electromagnetic compatibility according to EC directive 2014/30/EU.

Cette machine est conforme aux exigences essentielles de santé et de sécurité relatives au design et à la construction de machines selon la directive CE 2006/42/CE et la directive 2000/14/CE modifiée par 2005/88/CE (ANNEXE VI) et satisfait également la compatibilité électromagnétique de la directive CE 2014/30/UE.

Entwurf und Konstruktion dieser Maschine entsprechen den erforderlichen, grundlegenden Gesundheits- und Sicherheitsanforderungen der Richtlinien 2006/42/EG, sowie der Richtlinie 2000/14/EG, die entsprechend 2005/88/EG (ANHANG VI) geändert wurde; ebenso entspricht das Gerät den Vorschriften in Bezug auf elektromagnetische Kompatibilität, wie in der Richtlinie 2014/30/EU festgelegt.

April 20, 2016

Hironobu Kubota

President
Président
Geschäftsführer

KUBOTA Manufacturing of America Corporation
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