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KUBOTA Corporation

Code No. K7581-7121-5

# OPERATOR'S MANUAL

## KUBOTA UTILITY VEHICLE *RTV900*



1AYAAAKAP005A

RTV  
900

READ AND SAVE THIS MANUAL



# ABBREVIATION LIST

Abbreviations	Definitions
2WD	Two Wheel Drive
4WD	Four Wheel Drive
API	American Petroleum Institute
ASABE	American Society of Agricultural and Biological Engineers, USA
ASTM	American Society for Testing and Materials, USA
DIN	Deutsches Institut für Normung, GERMANY
fpm	Feet Per Minute
HST	Hydrostatic Transmission
Km/h	Kilometers Per Hour
MPH	Miles Per Hour
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, USA
VHT	Variable Hydro Transmission

## California Proposition 65

### **WARNING**

The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

### **IMPORTANT**

The engine in this machine is equipped by the manufacture with a standard spark arrester. It is a violation of California Public Resource Code Section 4442 to use or operate this engine on or near any forest-covered, brush-covered land, or grass-covered land unless the exhaust system is equipped with a working spark arrester meeting state laws. Other states or federal areas may have similar laws.

## KUBOTA Corporation is ...

Since its inception in 1890, KUBOTA Corporation has grown to rank as one of the major firms in Japan.

To achieve this status, the company has through the years diversified the range of its products and services to a remarkable extent, until today, 19 plants and 16,000 employees produce over 1,000 different items, large and small.

All these products and all the services which accompany them, however, are unified by one central commitment. KUBOTA makes products which, taken on a national scale, are basic necessities. Products which are indispensable, products intended to help individuals and nations fulfill the potential inherent in their environment. For KUBOTA is the Basic Necessities Giant.

This potential includes water supply, food from the soil and from the sea, industrial development, architecture and construction, transportation.

Thousands of people depend on KUBOTA's know-how, technology, experience and customer service. You too can depend on KUBOTA.

# UNIVERSAL SYMBOLS

As a guide to the operation of your vehicle, 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		Lift Cylinder-Retract
	Diesel Fuel		Lift Cylinder-Extend
	Hourmeter/Elapsed Operating Hours		Lift Cylinder-Float
	Engine Coolant-Temperature		Hazard Warning Lights
	Brake Fluid & Parking Brake		Master Lighting Switch
	Engine Intake/Combustion Air-Filter		Audible Warning Device
	Battery Charging Condition		Fast
	Engine Oil-Pressure		Slow
	Turn Signal/Hazard		Lock
	Engine-Stop		Unlock
	Engine-Run		
	Starter Control		
	Diesel Preheat/Glow Plugs(Low Temperature Start Aid)		
	Engine Shut-Off Control		
	Differential Lock		
	Differential Lock Hold		

# FOREWORD

You are now the proud owner of a KUBOTA Vehicle. This vehicle is a product of KUBOTA 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 vehicle, please read this manual carefully. It will help you become familiar with the operation of the vehicle and contains many helpful hints about vehicle maintenance. This manual contains instructions for minor maintenance, but information about major repairs is outlined in the KUBOTA Work Shop Manual and should be performed only by a KUBOTA Dealer Technician. It is KUBOTA's policy to utilize as quickly as possible every advance in our research. The immediate use of new techniques in the manufacture 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 with 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, may 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

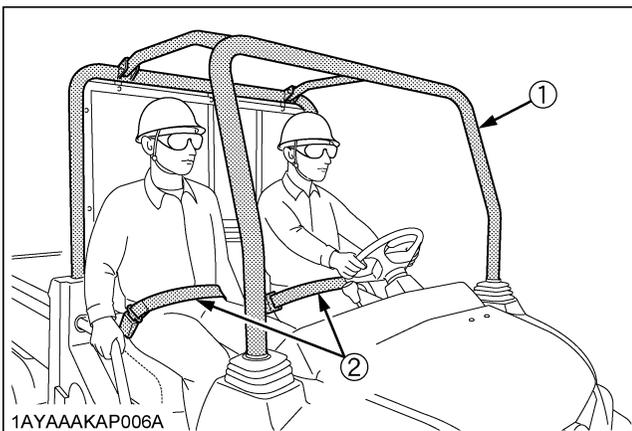
Careful operation is your best insurance against an accident.

Read and understand this Operator's Manual carefully before operating the vehicle.

All operators, no matter how much experience they may have, should read this and other related manuals before operating the vehicle or any implement attached to it. It is the owner's obligation to instruct all operators in safe operation.

## 1. BEFORE OPERATING THE VEHICLE

1. Know your equipment and its limitations. Read this entire manual before attempting to start and operate the vehicle.
2. Pay special attention to the Danger, Warning and Caution labels on the vehicle.
3. Do not remove Roll-Over Protective Structures (ROPS) for any application and fasten seat belts at all times. This combination will reduce the risk of serious injury or death, should the vehicle be upset.  
If the ROPS is loosened or removed for any reason, make sure that all parts are reinstalled correctly before operating the vehicle.  
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

4. Always use the seat belts. Check the seat belts regularly and replace if frayed or damaged.

5. Do not operate the vehicle or any implement attached to it while under the influence of alcohol, medication, controlled substances or while fatigued.
6. Carefully check the vicinity before operating the vehicle or any implement attached to it. Check for overhead clearance which may interfere with the CAB or ROPS. Do not allow any bystanders around or near the vehicle during operation.
7. Never allow anyone without a valid driver's license to operate this vehicle.
8. Before allowing other people to use your vehicle, explain how to operate and have them read this manual before operation.
9. Never wear loose, torn, or bulky clothing around the vehicle. It may catch on moving parts or controls, leading to the risk of an accident. Use additional safety items, e.g. helmet, safety boots or shoes, eye and hearing protection, gloves, etc., as appropriate or required.
10. This vehicle is for off road use only.  
KUBOTA does not recommend operating on public roads.
11. In addition to the driver, only one passenger should ride in the vehicle.  
Minimum age for passenger is 5 years old.
12. Keep all shields in place and stay away from all moving parts.
13. Check brakes, speed control pedal, and other mechanical parts for improper adjustment and wear.  
Replace worn or damaged parts promptly. Check the tightness of all nuts and bolts regularly. (For further details, see "MAINTENANCE" section.)
14. Keep your vehicle clean. Dirt, grease, and trash build up may contribute to fires and lead to personal injury.
15. Use only implements meeting the specifications listed under "VEHICLE LIMITATIONS" in this manual or implements approved by KUBOTA.
16. The maximum cargo capacity of this vehicle is 500kg.  
Reduce cargo capacity to match operating conditions. Do not carry anything which raises the center-of-gravity and sticks outside the cargo bed.
17. Do not modify the vehicle. Unauthorized modification may affect the function of the vehicle, which may result in personal injury.

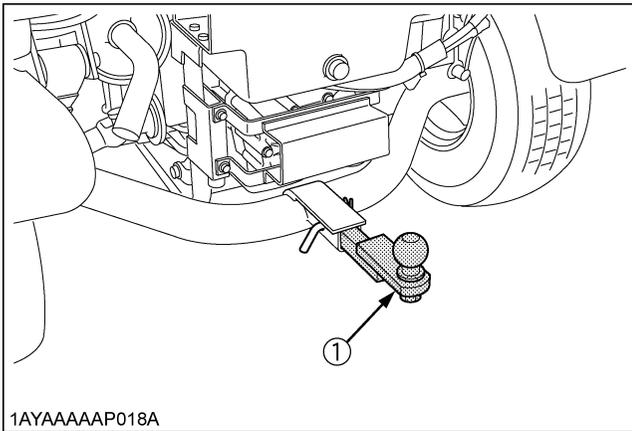
## 2. OPERATING THE VEHICLE

### ◆ 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 all levers are in their neutral positions, that the parking brake is engaged, and that the hydraulic outlet (if equipped) is OFF. And make sure the engine hand throttle (if equipped) is in its idle engine speed position.
3. Do not start engine by shorting across starter terminals or bypassing the safety start switch. The vehicle may start in gear and move if normal starting circuitry is bypassed.
4. Be sure that the operator (and passenger) seat belts are fastened.
5. Do not operate or idle engine in a non-ventilated area. Carbon monoxide gas is colorless, odorless, and deadly.

### ◆ Operating

1. Do not wear headphones while operating.
2. Pull only from the trailer hitch (if equipped). Never hitch to axle housing or any other point except trailer hitch; such arrangements will increase the risk of serious personal injury or death due to a vehicle upset.



1AYAAAAAP018A

(1) Trailer hitch (if equipped)

3. Keep all shields and guards in place. Replace any that are missing or damaged.
4. Avoid sudden starts. To avoid rollovers, slow down when turning, on uneven ground, and before stopping. While increasing engine speed with the engine hand throttle (if equipped), operate the speed control pedal with great care to avoid sudden starts.
5. The vehicle cannot turn with the differential locked and attempting to do so could be dangerous.
6. Do not operate near ditches, holes, embankments, or other ground surface features which may collapse under the vehicle's weight. The risk of vehicle upset is even higher when the ground is loose or wet.

7. Watch where you are going at all times. Watch for and avoid obstacles. Be alert at row ends, near trees, and other obstructions.
8. When working in groups, always let the others know what you are going to do before you do it.
9. Never try to get on or off a moving vehicle.

### ◆ Safety for children

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

1. Never assume that children will remain where you last saw them.
2. Keep children out of the work area and under the watchful eye of another responsible adult.
3. Be alert and shut your vehicle down if children enter the work area.
4. Never carry children in the cargo bed. There is no safe place for them to ride. No person under the age of 5 may ride as a passenger in this vehicle. A passenger under 5 years of age requires special restraints which are not available with this vehicle.
5. Never allow children to operate the vehicle even under adult supervision.
6. Never allow children to play on the vehicle or on the implement.
7. Use extra caution when backing up. Look behind and down to make sure area is clear before moving.
8. Whenever possible, park your vehicle on a firm, flat and level surface. If this is not possible, park it across the slope. Set the parking brake(s), lower the implements to the ground, remove the key from the ignition and lock the cab door (if equipped) and chock the wheels.

### ◆ Operating on slopes

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

1. Travel straight up or down hill.
2. Reduce load when operating on hilly or over rough terrain.
3. Keep front wheels straight at crest of hill or going over bumps.
4. Do not stop or start suddenly when going uphill or downhill. Be especially cautious when changing direction on slopes.
5. If vehicle stops or loses power going up a hill, lock parking brake to hold vehicle on slope. Maintain direction of travel and release brake slowly. Back straight downhill while maintaining control. Do not turn vehicle sideways. Vehicle is more stable in a straight forward or rearward position.
6. When riding on soft terrain, turn front wheels slightly uphill to keep vehicle on a straight line across the hill.
7. If the vehicle begins to tip, turn front wheels downhill to gain control before proceeding.

- (1) To avoid upsets, always back up steep slopes. If you cannot back up the slope or if you feel uneasy on it, do not operate on it. Stay off slopes too steep for safe operation.
- (2) Driving forward out of a ditch, mired condition or up a steep slope increases the risk of a vehicle to be upset backward. Always back out of these situations. Extra caution is required with four-wheel drive mode because the increased traction can give the operator false confidence in the vehicle's ability to climb slopes.
- (3) Keep all movement on slopes slow and gradual. Do not make sudden changes in speed or direction.

#### ◆ Operation in inclement conditions

1. Only operate during daylight or with good artificial light.
2. Operate vehicle in an open, unobstructed area.
3. Use helmet and/or protective gear for certain operating conditions.
4. Reduce speed according to trail, terrain and visibility conditions.
5. Never drive exceeding the limit of visibility. Slow down near crest of hill until getting a clear view of the other side.
6. Stay alert for holes, rocks and other hidden hazards in the terrain.
7. Never cross any body of water where depth may be unknown to the operator (Deep water is considered anything in excess the bottom edge of the axle cap). Choose a course within the waterway where both banks have a gradual incline. Cross at a point known to be safe.

#### ◆ Driving the vehicle at high speeds

1. Check the front wheel engagement. The braking characteristics are different between two and four wheel drive. Be aware of the difference and use carefully.
2. Always slow the vehicle down before turning. Turning at high speed may tip the vehicle over.
3. Turn the headlights on.
4. Drive at speeds that allow you to maintain control at all times.
5. Do not apply the differential lock while traveling at high speeds. The vehicle may run out of control.
6. Avoid sudden motions of the steering wheel as they can lead to a dangerous loss of stability. The risk is especially great when the vehicle is traveling at high speeds.

#### ◆ Other miscellaneous

1. Clean platform if dirty and remove any debris from around foot controls.
2. Always keep both hands on the steering wheel.
3. Always keep arms and legs inside the operating compartment.
4. Never operate the vehicle while standing.

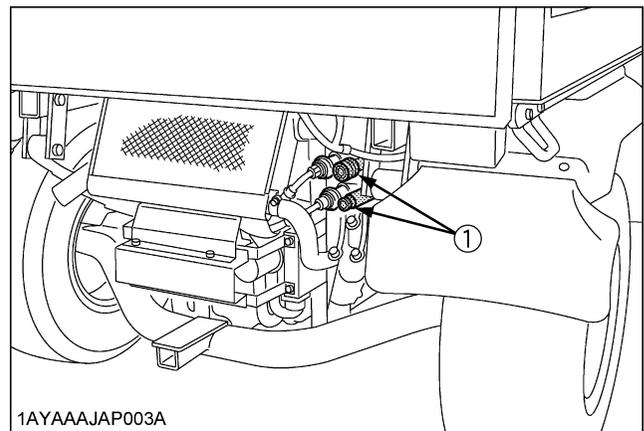
5. Do not tow a cart with any riders on it.
6. Never attempt wheelies, jumps or other stunts.

### 3. HAULING LOADS IN THE CARGO BED

1. No riders in cargo bed or anywhere else.
2. Do not overload vehicle. Securely anchor all loads.
3. Be sure load is evenly distributed.
4. Reduce cargo capacity when operating on rough or hilly terrain.
5. Balance loads evenly and secure them. Braking could shift the load and affect vehicle stability.
6. Never operate vehicle with the cargo bed raised.
7. Operate cargo bed dump with vehicle stationary and parking brake locked. Do not dump while moving.
8. Operate hydraulic dump (if equipped) on level ground only.
9. Operate dump from operator's seat only.
10. Do not place hands or body under the cargo bed when lowering bed.

### 4. OPERATING HYDRAULIC OUTLET DRIVEN EQUIPMENT (IF EQUIPPED)

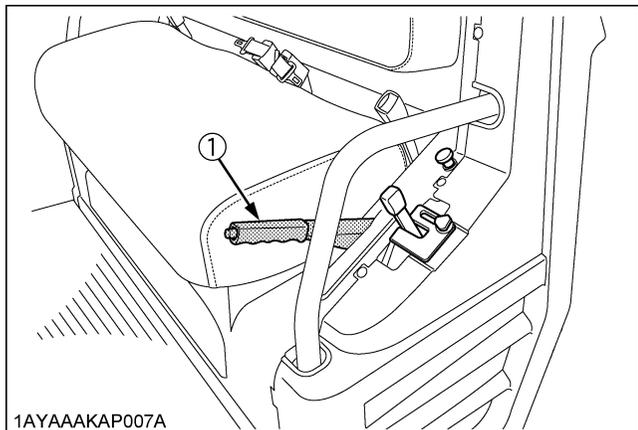
1. Before installing or using hydraulic outlet driven equipment, read the manufacturer's manual and review the safety labels attached to the equipment.
2. Wait until all moving components have completely stopped before getting off the vehicle, connecting, disconnecting, adjusting, cleaning, or servicing any hydraulically driven equipment.
3. When operating stationary hydraulically driven equipment, always apply the vehicle parking brake and place chocks behind and in front of the rear wheels. Stay clear of all rotating parts. Never step over rotating parts.



(1) Hydraulic outlet (if equipped)

## 5. PARKING THE VEHICLE

1. Disengage the HYDRAULIC OUTLET (if equipped), lower all implements to the ground, place all control levers in their neutral positions, set the parking brake, stop the engine, and remove the key.
2. Make sure that the vehicle has come to a complete stop before dismounting.
3. Avoid parking on steep slopes, if possible park on flat ground, if not, park across a slope, always with attachment on the ground.



(1) Parking brake lever

## 6. TRANSPORTING

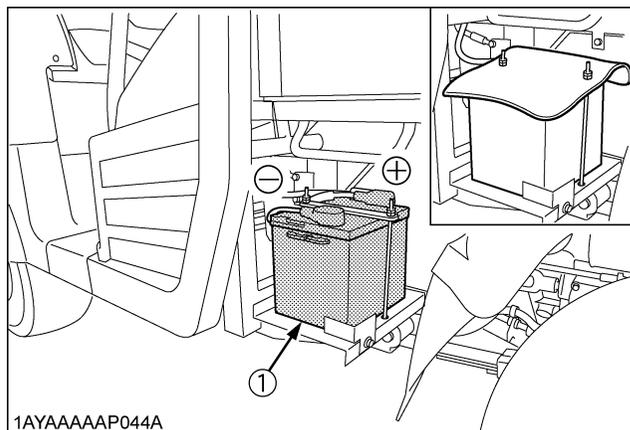
1. Disengage power to attachment(s) when transporting or not in use.
2. Do not tow this vehicle. Use a suitable truck or trailer when transporting on public roads.
3. Use extra care when loading or unloading the vehicle into a trailer or truck.

## 7. SERVICING THE VEHICLE

Before servicing the vehicle, park it on a firm, flat and level surface, set the parking brake, lower all implements to the ground, place the range gear shift lever in neutral, stop the engine and remove the key.

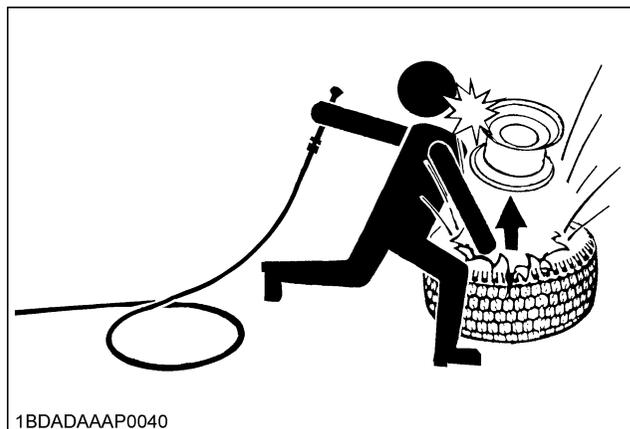
1. Allow the vehicle time to cool off before working on or near the engine, muffler, radiator, etc.
2. Always stop the engine before refueling. Avoid spills and overfilling.
3. Do not smoke when working around battery or when refueling. Keep all sparks and flames away from battery and fuel tank. The battery presents an explosive hazard, because it gives off hydrogen and oxygen especially when recharging.
4. Before "jump starting" a dead battery, read and follow all of the instructions. (See "JUMP STARTING" in "OPERATING THE ENGINE" section.)

5. Keep first aid kit and fire extinguisher handy at all times.
6. Disconnect the battery's ground cable before working on or near electric components.
7. To avoid the possibility of battery explosion, do not use or charge the refillable type battery if the fluid level is below the LOWER (lower limit level) mark. Check the fluid level regularly and add distilled water as required so that the fluid level is between the UPPER and LOWER marks.
8. To avoid sparks from an accidental short circuit, always disconnect the battery's ground cable (-) first and reconnect it last.



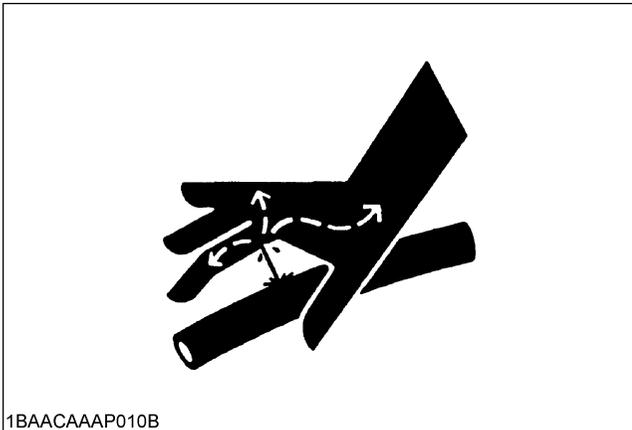
(1) Battery

9. Do not remove 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. This vehicle has a coolant recovery tank, add coolant or water to the tank, not the radiator. (See "Checking Coolant Level" in "DAILY CHECK" in "PERIODIC SERVICE" section.)
10. Do not attempt to mount a tire on a rim. This should be done by a qualified person with the proper equipment.
11. Always maintain the correct tire pressure. Do not inflate tires above the recommended pressure shown in the operator's manual.

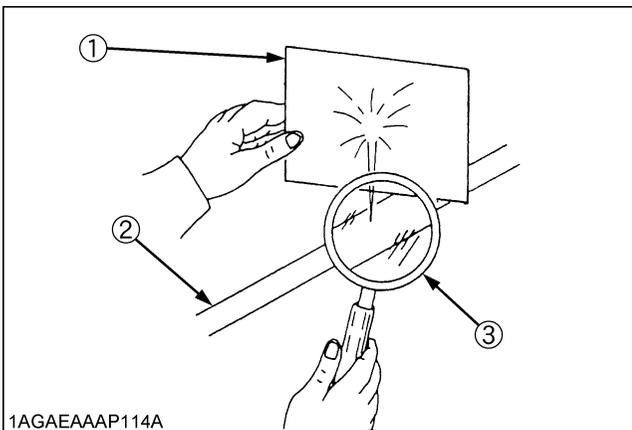


12. Securely support the vehicle when changing wheels.

13. Make sure that wheel bolts have been tightened to the specified torque.
14. Do not work under any hydraulically supported devices. They can settle, suddenly leak down, or be accidentally lowered. If it is necessary to work under the vehicle or any vehicle elements for servicing or adjustment, securely support them with stands or suitable blocking beforehand.
15. Escaping hydraulic fluid under pressure has sufficient force to penetrate skin causing serious personal injury. Before disconnecting hydraulic lines, be sure to release all residual pressure. Before applying pressure to the hydraulic system, make sure that all connections are tight and that all lines, pipes, and hoses are free of damage.  
"High pressure fluid - Injection into body" hazard warning.



16. Fluid escaping from pinholes may be invisible. Do not use hands to search for suspected leaks; use a piece of cardboard or wood. Use of safety goggles or other eye protection is also highly recommended. If injured by escaping fluid, see a medical doctor at once. This fluid will produce gangrene or severe allergic reaction.



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

8. DANGER, WARNING AND CAUTION LABELS

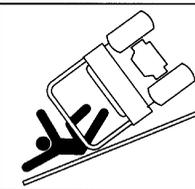
(1) Part No. K7581-6524-1

	<b>⚠ DANGER</b> TO AVOID POSSIBLE INJURY OR DEATH FROM A MACHINE RUNAWAY: 1. Do not start engine by shorting across starter terminals or bypassing the safety start switch. The vehicle may start in gear and move if normal starting circuitry is bypassed. 2. Start engine only from operator's seat with range shift lever in neutral position and hydraulic outlet off (if equipped).	<b>⚠ WARNING</b> TO AVOID PERSONAL INJURY: 1. Do not carry passengers in cargo bed. 2. Do not travel with the cargo bed in the raised position.	<b>IMPORTANT</b> 1. Max cargo load should not exceed "CBC" or "CL". CBC (Cargo Bed Capacity) 500Kg(1100 lb). CL (Cargo Load) May vary on models. Refer to operator's manual for details. Ex. G (Knobby) model = 775kg(1708 lb) - (operator + passenger + opt. + acc. + cabin) weight 2. TO AVOID TAIL GATE DAMAGE: Remove the rear tow hitch when tail gate Stopper Wire is removed and cargo bed is raised.
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1AYAACAP0020

(2) Part No. K7561-6541-2

**⚠ WARNING**



**TO AVOID PERSONAL INJURY OR DEATH:**

- Do not remove Roll-Over Protective Structures (ROPS) for any application.
- Do not modify or repair a ROPS because welding, grinding, drilling or cutting any portion may weaken the structure.

1AYAAAAAP109A

(3) Part No. K7561-6530-2

**⚠ CAUTION**

**TO AVOID PERSONAL INJURY:**

Do not operate the vehicle with the front hood open. Impaired visibility of the operator may cause loss of vehicle control. Latch the hood securely before operating the vehicle.

1AYAAAAAP106A

(4) Part No. K7611-6533-2

**⚠ WARNING**

**TO AVOID PERSONAL INJURY DUE TO LOSS OF STEERING CONTROL:** Do not depress the differential lock pedal at high speed.

**⚠ WARNING**

**TO AVOID PERSONAL INJURY:** Always fasten your seat belt.



1AYAACAP0550

(7) Part No. K7561-6550-1





1AYAAAAAP112A

(5) Part No. K1221-6118-1

**MAINTENANCE FREE • SANS ENTRETIEN • LIBRE DE MANTENIMIENTO**

**⚠ DANGER/POISON ¡PELIGRO/VENENO!**

<p><b>SHIELD EYES. EXPLOSIVE GASES CAN CAUSE BLINDNESS OR INJURY.</b></p> <p><b>PROTÉGEZ LES YEUX. LES GAZ EXPLOSIFS PEUVENT BLESSER OU RENDRE AVEUGLE.</b></p> <p><b>PROTEJA LOS OJOS. LOS GASES EXPLOSIVOS PUEDEN CAUSAR DAÑOS O CEGUERA.</b></p>	<p><b>NO SPARKS • FLAMES • SMOKING</b></p> <p><b>ÉVITER LES ÉTINCELLES • LES FLAMMES • DE FUMER</b></p> <p><b>NO CHISPAS • FLAMAS • CIGARROS</b></p>	<p><b>SULFURIC ACID CAN CAUSE BLINDNESS OR SEVERE BURNS.</b></p> <p><b>L'ACIDE SULFURIQUE PEUT CAUSER LA CECITE OU DES OU BRULURES GRAVES.</b></p> <p><b>ACIDO SULFURICO PUEDE CAUSAR CEGUERA O QUEMADURAS FUERTES.</b></p>
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**FLUSH EYES IMMEDIATELY WITH WATER. GET MEDICAL HELP FAST.**

**RINCEZ LES YEUX A L'EAU IMMEDIATEMENT. CONSULTEZ UN MEDECIN RAPIDEMENT.**

**ENJUAGUE LOS OJOS INMEDIATAMENTE CON AGUA. ACUDA RAPIDO CON EL MEDICO.**

**KEEP OUT OF THE REACH OF CHILDREN. DO NOT TIP. DO NOT OPEN BATTERY! TENIR HORS DE LA PORTEE DES ENFANTS. NE PAS RENVERSER. NE PAS OUVRIR LA BATTERIE! ALEJASE DEL ALCANCE DE LOS NIÑOS. NO VOLTEAR. ¡NO ABRIR LA BATERIA!**

**CALIFORNIA PROPOSITION 65 WARNING: 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.**

Dist. by/por/par: EPM Products, Baltimore, MD 21226

MADE IN U.S.A. FABRIQUE AUX E.U.A. HECHO EN E.U.A.

**Pb**

1BDADAIAP0280

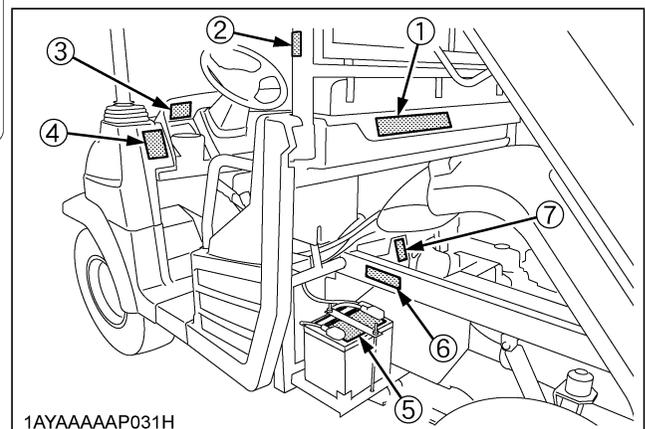
(6) Part No. K7561-6544-1

**⚠ WARNING**

**TO AVOID PERSONAL INJURY:** Always use the safety support or propping rod when working near a raised cargo bed or attachment.



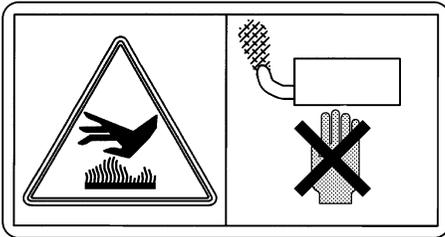
1AYAAAAAP110A



1AYAAAAAP031H

1AYAACAP0030

(1) Part No. K7561-6551-1



1AYAAAAAP113A

(2) Part No. K7711-6554-1

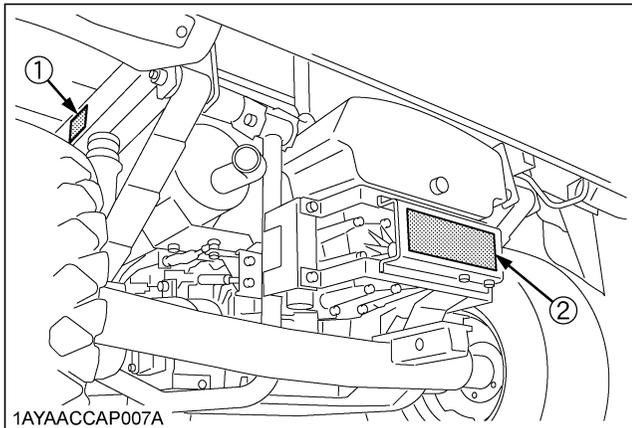
<p><b>CAUTION</b></p> <p><b>TO AVOID PERSONAL INJURY:</b></p> <ol style="list-style-type: none"> <li>1. Before touching any part of an exhaust system, be absolutely sure that it has had sufficient time to cool.</li> <li>2. Always wear safety goggles and a facemask.</li> <li>3. The particulate matter contained in the muffler contains chemicals that are harmful to people, animal and marine life.</li> <li>4. If you are unable to do this work, have it done by your KUBOTA Dealer.</li> </ol>	<p><b>Maintenance</b></p> <p>The screen type spark arrester should be removed, cleaned, and inspected after every 100 hours of use.</p> <ol style="list-style-type: none"> <li>1. The spark arrester is located inside of the exhaust pipe, and is fastened with two bolts.</li> <li>2. Unfasten the bolts and remove the spark arrester.</li> <li>3. Shake loosened particles out of the screen assembly and lightly clean the screen with a wire brush. Soak in solvent and again clean with a wire brush if necessary.</li> <li>4. If any breaks in the screen or weldments are discovered, the assembly must be replaced.</li> <li>5. Reinstall the spark arrester in the muffler body and refasten the bolts.</li> </ol>
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1AYAAAWAP056A

(3) Part No. K7581-6554-1

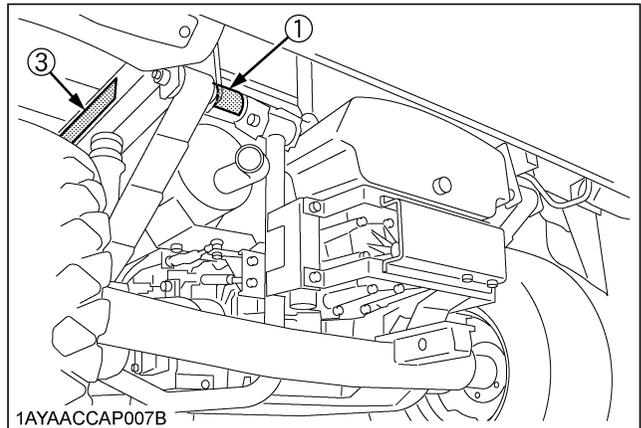
<p><b>CAUTION</b></p> <p><b>TO AVOID PERSONAL INJURY:</b></p> <ol style="list-style-type: none"> <li>1. Before touching any part of an exhaust system, be absolutely sure that it has had sufficient time to cool.</li> <li>2. Always wear safety goggles and a facemask.</li> <li>3. The particulate matter contained in the muffler contains chemicals that are harmful to people, animal and marine life.</li> <li>4. If you are unable to do this work, have it done by your KUBOTA Dealer.</li> </ol>	<p><b>Maintenance</b></p> <p>The screen type spark arrester should be removed, cleaned, and inspected after every 100 hours of use.</p> <ol style="list-style-type: none"> <li>1. The spark arrester is located inside of the exhaust pipe, and is fastened with two bolts.</li> <li>2. Unfasten the bolts and remove the spark arrester.</li> <li>3. Shake loosened particles out of the screen assembly and lightly clean the screen with a wire brush. Soak in solvent and again clean with a wire brush if necessary.</li> <li>4. If any breaks in the screen or weldments are discovered, the assembly must be replaced.</li> <li>5. Reinstall the spark arrester in the muffler body and refasten the bolts.</li> </ol>
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1AYAACGAP0170



1AYAACCAP007A

OR



1AYAACCAP007B

1AYAACCAP0040

(1) Part No. K7581-6522-1

IMPORTANT	⚠ CAUTION	
<p><b>TO AVOID DAMAGE TO TRANSMISSION:</b></p> <ul style="list-style-type: none"> <li>Shift the range gear shift lever (H-M-L-R) or 4WD lever only when the vehicle is completely stopped.</li> <li>When range gear shift lever is hard to engage, do not force the lever.</li> <li>Set the parking brake, slightly depress the speed control pedal and release it to neutral position, then shift the lever.</li> <li>When the lever is hard to disengage, do not force the lever. Depress the brake pedal fully, then shift the lever.</li> <li>If the 4WD lever is difficult to shift to 2WD, stop the vehicle, turn steering wheel in both directions and then move the lever.</li> </ul>	<p><b>TO AVOID PERSONAL INJURY:</b></p> <ol style="list-style-type: none"> <li>Read and understand the operator's manual before operation.</li> <li>Never allow anyone without a valid driver's license to operate this vehicle.</li> <li>Before allowing other people to use the vehicle, have them read the operator's manual.</li> <li>This vehicle is for off road use only. Never operate on a public road.</li> <li>Wear safety gear, including helmet and eye protection, as appropriate.</li> <li>Check the tightness of all nuts and bolts regularly.</li> </ol>	<ol style="list-style-type: none"> <li>In addition to the driver, only one passenger can be carried. Minimum age for passenger is five years old.</li> <li>Before starting the engine, make sure that everyone is at a safe distance from the vehicle and the hydraulic outlet is off (if equipped).</li> <li>Do not operate the vehicle under the influence of drugs or alcohol.</li> <li>Keep all shields in place and stay away from all moving parts.</li> <li>Slow down for turns, or rough terrain.</li> <li>Before getting off from the vehicle, apply the parking brake, stop the engine and remove the key.</li> </ol>

1AYAAACAP0010

(2) Part No. K7561-6565-3

**⚠ WARNING**

**TO AVOID PERSONAL INJURY:**

Always fasten your seat belt.

1AYAAAAAP117A

(5) Part No. K7561-6544-1

**⚠ WARNING**

**TO AVOID PERSONAL INJURY:**

Always use the safety support or propping rod when working near a raised cargo bed or attachment.

1AYAAAAAP110A

(6) Part No. K7561-6551-1

1AYAAAAAP113A

(7) Part No. K7611-6557-1

**⚠ WARNING**

Operation of this equipment may create sparks that can start fires around dry vegetation. A spark arrester may be required. The operator should contact local fire agencies for laws or regulations relating to fire prevention requirements.

1AYAAACAP1000

(3) Part No. K7581-6548-1

ULTRA LOW SULFUR  
DIESEL FUEL ONLY

1AYAAACAP008A

(4) Part No. K7561-6560-1

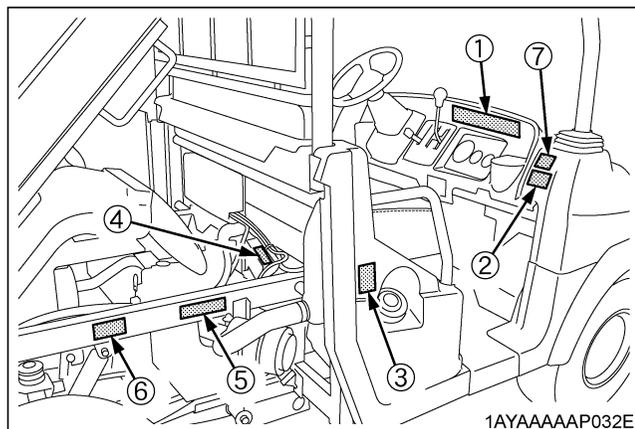
1AYAAAAAP115A

(8) Part No. K7721-6584-1

**⚠ CAUTION**

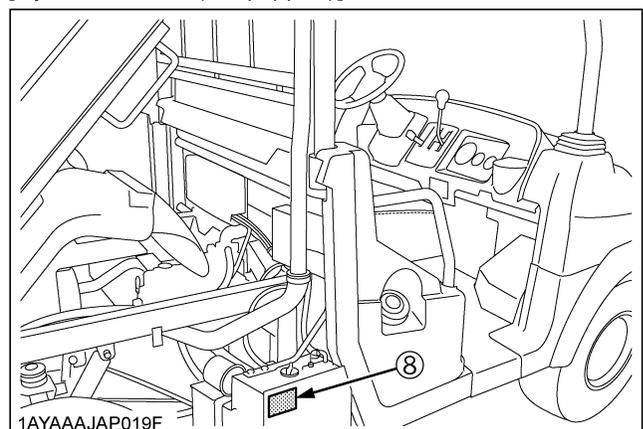
**NO STEP**

1AYAAAJAP027E



1AYAAAAAP032E

[Hydraulic outlet (if equipped)]



1AYAAAJAP019F

1AYAAACAP009A

(1) Part No. K7561-6546-2

**⚠ WARNING**

**TO AVOID PERSONAL INJURY:**

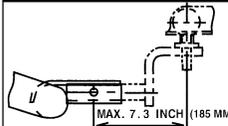
1. Use brake fluid (DOT-3) only. Other oil types will ruin synthetic resin or rubber installed in brake system components, and cause brake failure.
2. If brake fluid is spilled on power steering hose, wash off with water immediately. Brake fluid quickly ruins synthetic resin or rubber hoses.

1AYAAAAAP111A

(2) Part No. K7561-6543-2

**⚠ WARNING**

**TO AVOID PERSONAL INJURY:**  
Attach pulled or towed loads to the drawbar only.

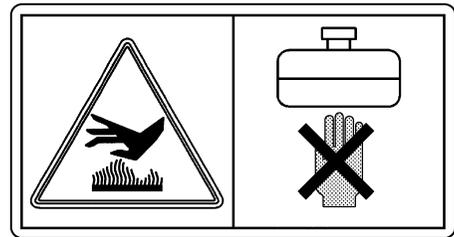


**IMPORTANT**

1. Carefully read the loading information and trailer hitch sections in the Operator's Manual.
2. Towing Capacity
  - Max. Towing Load 590kg (1300lbs)
  - Max. Tongue weight 50kg (110lbs)

1AYAADAP001E

(3) Part No. K7581-6563-1



1AYAAAAAP114A

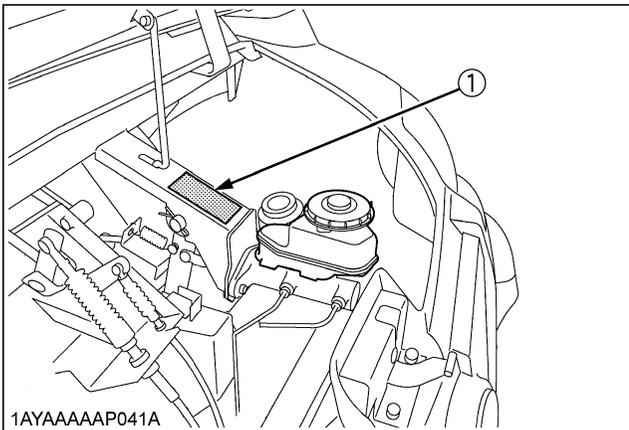
(4) Part No. K7561-6564-1 [if equipped]

**⚠ CAUTION**

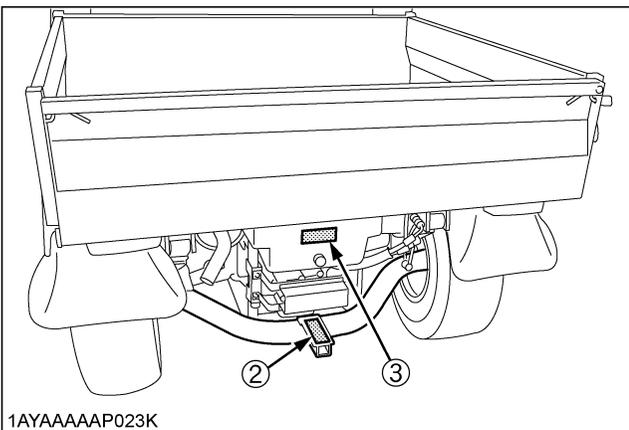
**TO AVOID INJURY FROM CRUSHING:**

1. Do not utilize the lever lock for machine maintenance or repair.
2. The lever lock is to prevent accidental actuation.

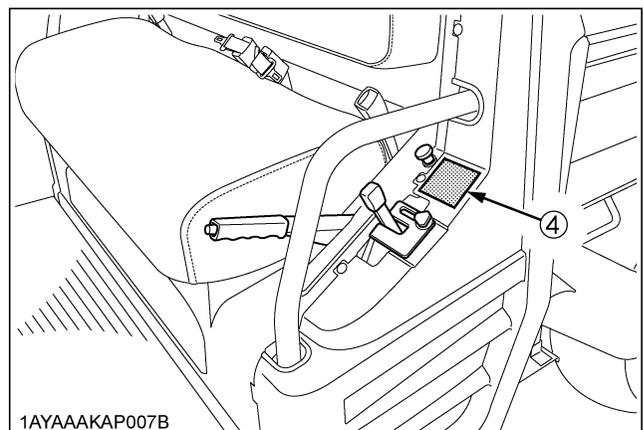
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1AYAAAAAP041A



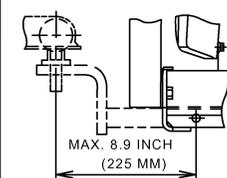
1AYAAAAAP023K



1AYAAAKAP007B

1AYAACAP0060

(1) Part No. K7561-6542-2

<p><b>⚠ WARNING</b></p> <p><b>TO AVOID PERSONAL INJURY:</b> Attach pulled or towed loads to the drawbar only.</p>	 <p>MAX. 8.9 INCH (225 MM)</p>	<p><b>IMPORTANT</b></p> <ol style="list-style-type: none"> <li>1. Carefully read the loading information and trailer hitch sections in the Operator's Manual.</li> <li>2. Towing Capacity                     <ul style="list-style-type: none"> <li>• Max. Towing Load : 295kg (650lbs)</li> <li>• Max. Tongue Weight : 50kg (110lbs)</li> </ul> </li> </ol>
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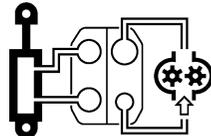
1AYAAAAAP135E

(2) Part No. K7581-6551-1

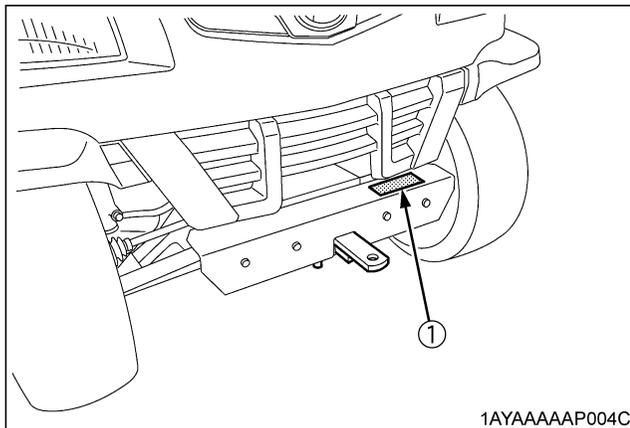


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(3) Part No. K7581-6553-1

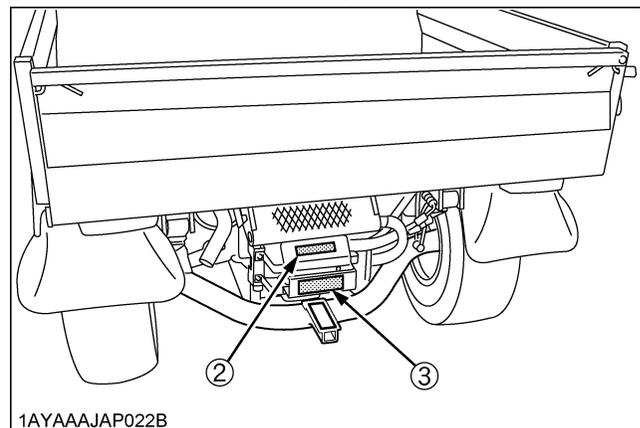
<p><b>⚠ CAUTION</b></p> <p><b>TO AVOID PERSONAL INJURY:</b> Always wear protective gloves when handling hydraulic tools, hoses and couplers.</p>	<p>CONTROL VALVE PORTS</p> 
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1AYAAAJAP025E



1AYAAAAAP004C

[Hydraulic outlet (if equipped)]



1AYAAAJAP022B

1AYAACCAP0080

## 9. CARE OF DANGER, WARNING AND CAUTION LABELS

1. Keep danger, warning and caution labels clean and free from obstructing material.
2. Clean danger, warning and caution labels with soap and water, dry with a soft cloth.
3. Replace damaged or missing danger, warning and caution labels with new labels from your local KUBOTA Dealer.
4. If a component with danger, warning and caution 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 danger, warning and caution labels by applying on a clean dry surface and pressing any bubbles to outside edge.

# SERVICING OF VEHICLE

Your dealer is interested in your new vehicle and has the desire to help you get the most value from it. After reading this manual thoroughly, you will find that you can do some of the regular maintenance by yourself.

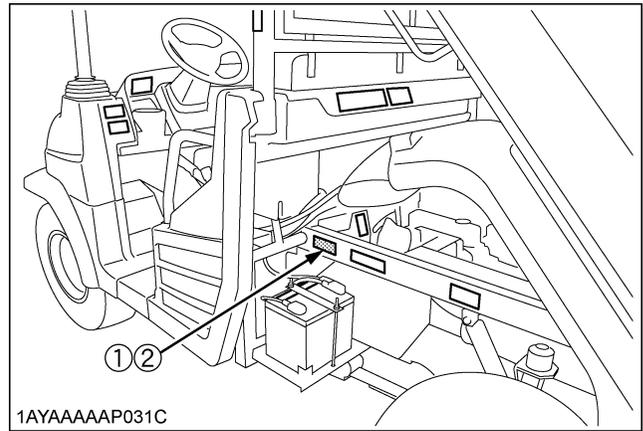
However, when in need of parts or major service, be sure to see your KUBOTA Dealer.

For service, contact the KUBOTA Dealership from which you purchased your vehicle or your local KUBOTA Dealer.

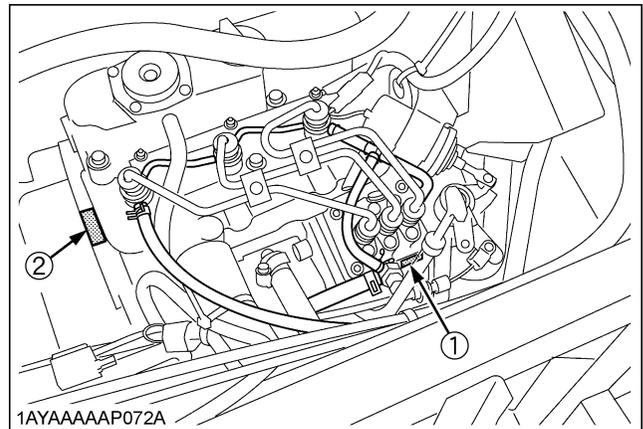
When in need of parts, be prepared to give your dealer both the vehicle and engine serial numbers.

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

	Type	Serial No.
Vehicle		
Engine		
Product Identification Number		
Date of Purchase		
Name of Dealer (To be filled in by purchaser)		



(1) Vehicle identification plate  
(2) Product identification number



(1) Engine serial number  
(2) Transmission assy serial number

# SPECIFICATIONS

## SPECIFICATION TABLE

Model			General Purpose	Worksite /Orange	Worksite /Camo	Worksite /Utility	Turf Utility	
Engine	Make		KUBOTA D902-E3-UV					
	Type		3 cylinders, 4-cycle, diesel, OHV					
	Displacement	L (cu. in.)	0.898 (54.802)					
	Horsepower	kW (HP)	16.1 (21.6)					
	Rated revolution	rpm	3200					
	Low idling revolution	rpm	1300 to 1400					
Fuel Capacity		L (U.S.gals)	28 (7.4)					
Transmission			Continuously variable hydro transmission (VHT)					
Wheels, Drive system			4, Rear 2WD or 4WD					
Differential lock			Standard; foot operated with mechanical holder					
Gear selection			Hi-Med-Lo range forward, neutral, reverse					
Brakes	Front / Rear		Wet disk brake					
	Parking brake		Rear wheel, hand lever					
Steering			Hydrostatic power					
Suspension	Front		Independent, macpherson strut-type					
	Rear		Semi-independent, DeDion axle w/leaf springs and shock absorber					
Dimensions	Length	mm (in.)	2990 (117.7)	3030 (119.3)				
	Width	mm (in.)	1550 (61.0)					
	Height, overall	mm (in.)	2010 (79.1)					
	Front tread centers	mm (in.)	1150 (45.3) HDWS, ATV 1180 (46.5) Turf					
	Rear tread centers	mm (in.)	1180 (46.5) HDWS, ATV 1210 (47.6) Turf					
	Wheelbase	mm (in.)	1965 (77.4)					
	Ground clearance	front axle	mm (in.)	210 (8.3)				
		rear axle		190 (7.5)				
Turning diameter	m (ft)	7.8 (25.6)						
Max. rolling weight (Towing Capacity)		kg (lbs.)	590 (1300)					
Payload capacity		kg (lbs.)	775 (1708)	750 (1653)	755 (1664)	720 (1587)	715 (1576)	
Weight		kg (lbs.)	845 (1863)	870 (1918)	865 (1907)	900 (1984)	905 (1995)	

Model		General Purpose	Worksite /Orange	Worksite /Camo	Worksite /Utility	Turf Utility
Cargo bed	Width	mm (in.)	1320 (52)			
	Length	mm (in.)	1180 (46.7)			
	Depth	mm (in.)	290 (11.4)			
	Volume	m <sup>3</sup> (cu.ft.)	0.455 (16)			
	Bed height (unloaded)	mm (in.)	800 (31.5)			
	Cargo bed load	kg (lbs.)	500 (1102)			
Sound level, operator ear		db (A)	87		89	
Tires	Front	25x10-12 ATV, 6PLY 25x10-12 HDWS, 6PLY 25x12-12 Turf, 4PLY	25x10-12 ATV, 6PLY 25x10-12 HDWS, 6PLY		25x10-12 HDWS, 6PLY	25x12-12 Turf, 4PLY
	Rear	25x11-12 ATV, 6PLY 25x10-12 HDWS, 6PLY 25x12-12 Turf, 4PLY	25x11-12 ATV, 6PLY 25x10-12 HDWS, 6PLY		25x10-12 HDWS, 6PLY	25x12-12 Turf, 4PLY
Front deluxe guard		-	Std.	Std.	Std.	Std.
Body color		Orange	Orange	Camo	Orange	Orange
Bed lift		-	Std.	Std.	Std.	Std.
Speedometer		-	-	Std.	Std.	Std.
Aux. control valve		-	-	-	Std.	Std.

**NOTE :**

- The company reserves the right to change the specifications without notice.
- The values in "Ground clearance" and "Weight" are those of the machine equipped with the tires in the table above.

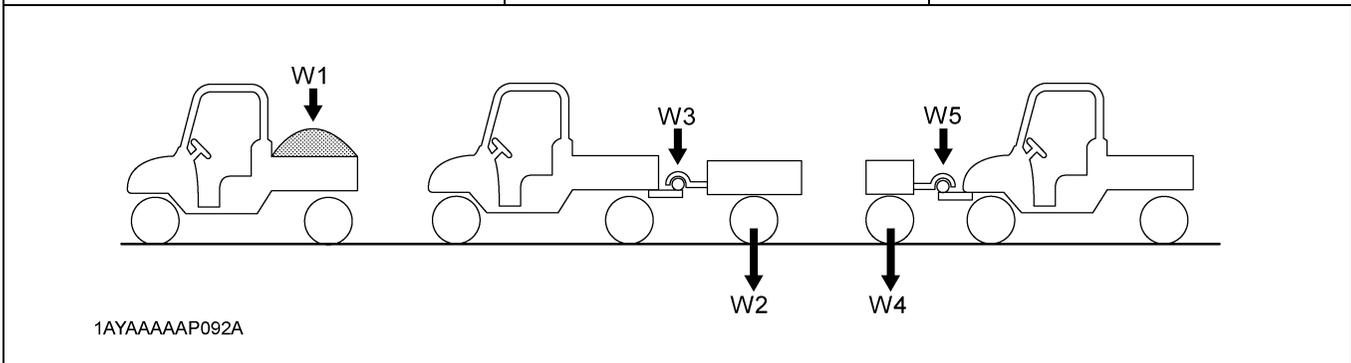
## TRAVELING SPEEDS

Range gear shift lever	km/h (mph)
Low	16 (10)
Medium	29 (18)
High	40 (25)
Reverse	20 (12)

# VEHICLE LIMITATIONS

The KUBOTA Vehicle 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 Vehicle may result in malfunctions or failures of the vehicle, damage to other property and injury to the operator or others. [Any malfunctions or failures of the vehicle resulting from use with improper implements are not covered by the warranty]

Max. Cargo loading weight (W1)	Rear trailer hitch	Front trailer hitch
<p>Max. Cargo load should not exceed "500 kg (1100 lbs.)" or "PCL".</p> <p>[General Purpose model] PCL = 775 kg (1708 lbs.) - (operator + passenger + opt. + acc. + cabin) weight</p> <p>[Worksite/Orange model] PCL = 750 kg (1653 lbs.) - (operator + passenger + opt. + acc. + cabin) weight</p> <p>[Worksite/Camo model] PCL = 755 kg (1664 lbs.) - (operator + passenger + opt. + acc. + cabin) weight</p> <p>[Worksite/Utility model] PCL = 720 kg (1587 lbs.) - (operator + passenger + opt. + acc. + cabin) weight</p> <p>[Turf Utility model] PCL = 715 kg (1576 lbs.) - (operator + passenger + opt. + acc. + cabin) weight</p> <p>PCL: Permissible Cargo Load opt.: option acc.: accessory</p>	<p>Max. rolling weight (W2) 590 kg (1300 lbs.)</p>	<p>Max. rolling weight (W4) 295 kg (650 lbs.)</p>
	<p>Max. tongue weight (W3) 50 kg (110 lbs.)</p>	<p>Max. tongue weight (W5) 50 kg (110 lbs.)</p>

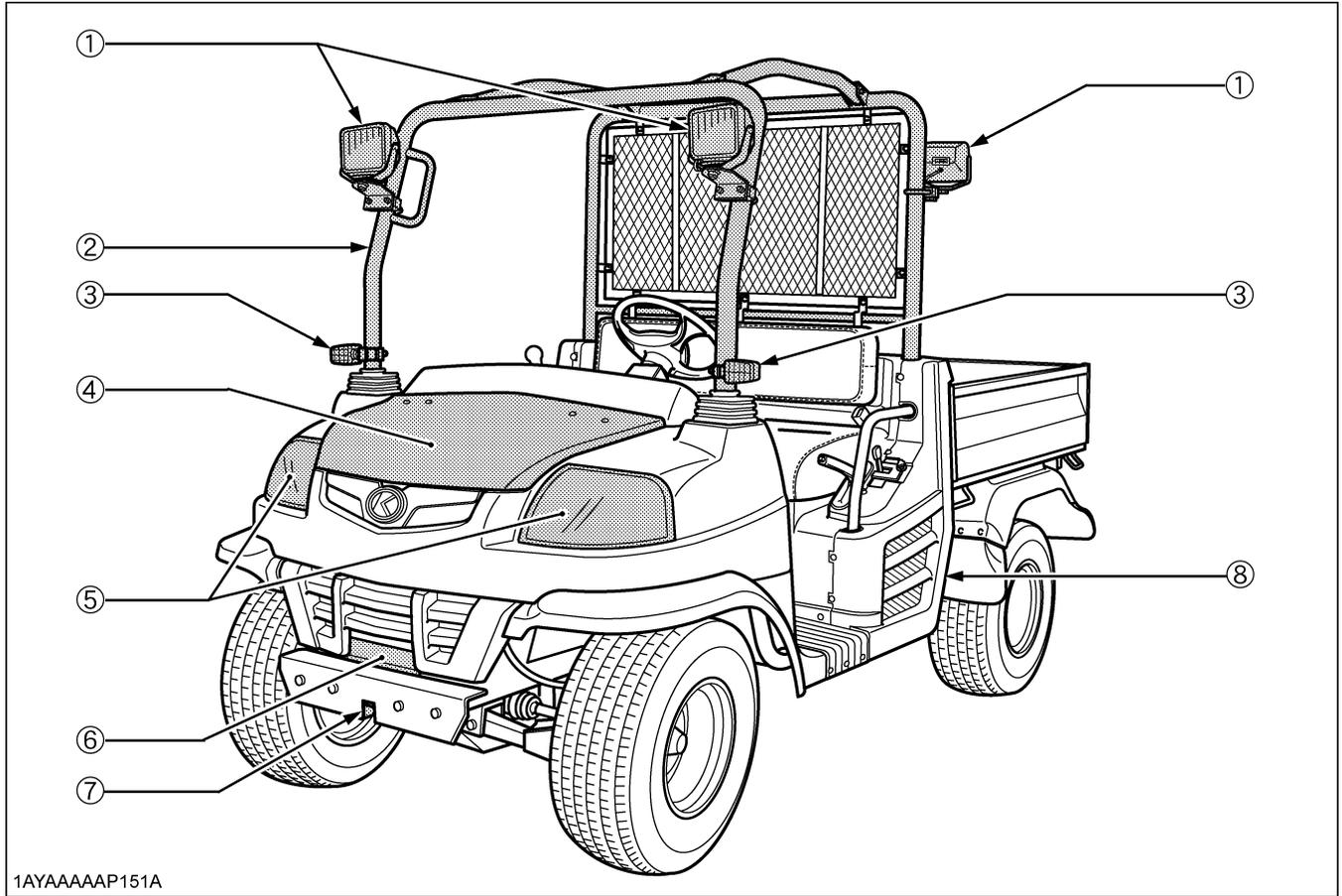


Rolling weight: Trailer weight + Cargo Load

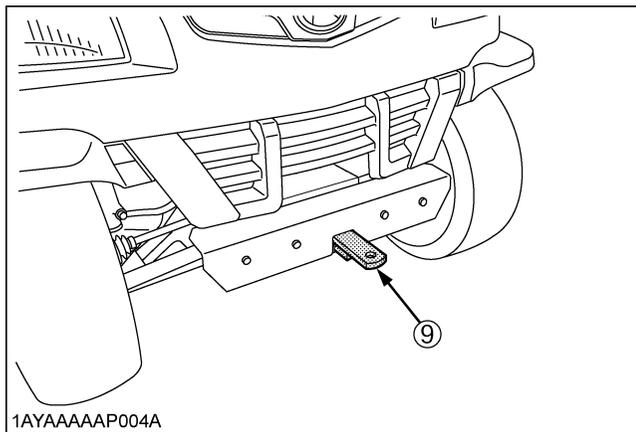
- Above mentioned specifications are based on level ground condition.

# INSTRUMENT PANEL AND CONTROLS

## LOCATION OF PARTS



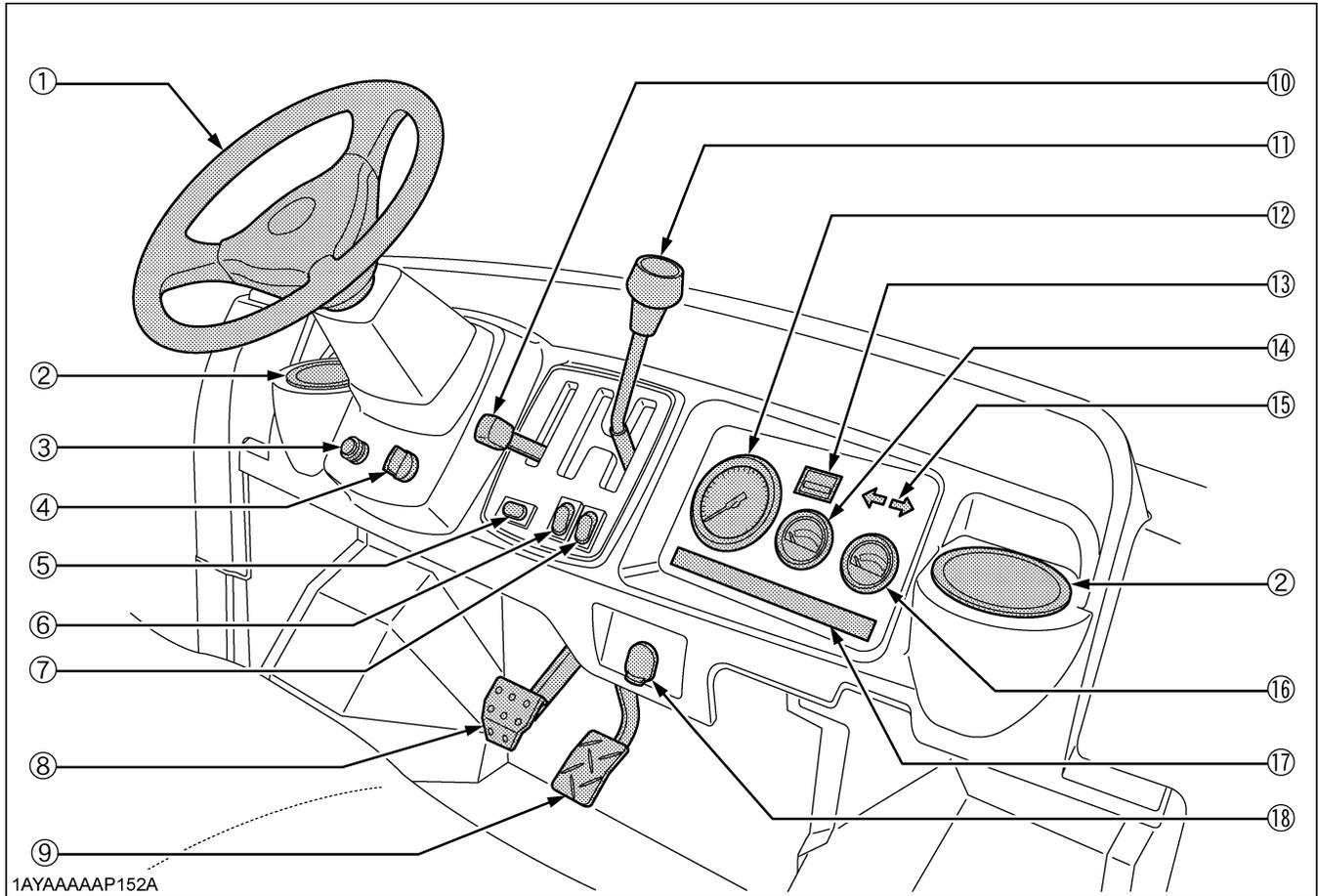
1AYAAAAAP151A



1AYAAAAAP004A

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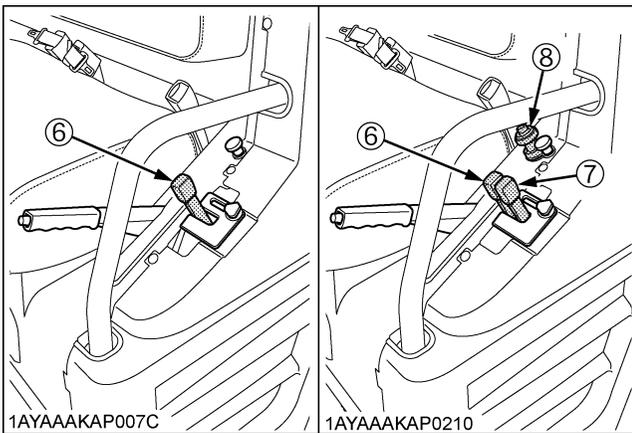
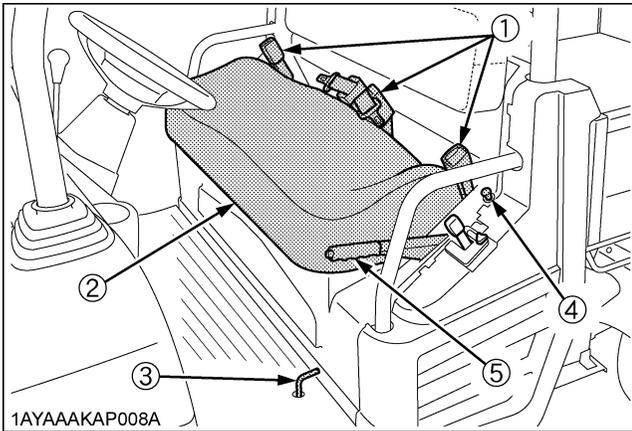
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ILLUSTRATED CONTENTS

ILLUSTRATED CONTENTS

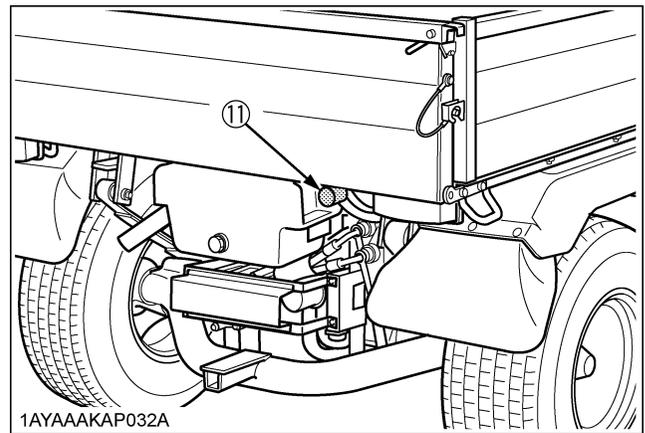
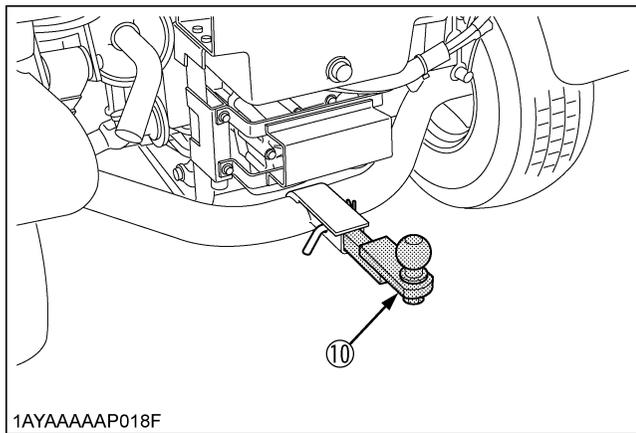
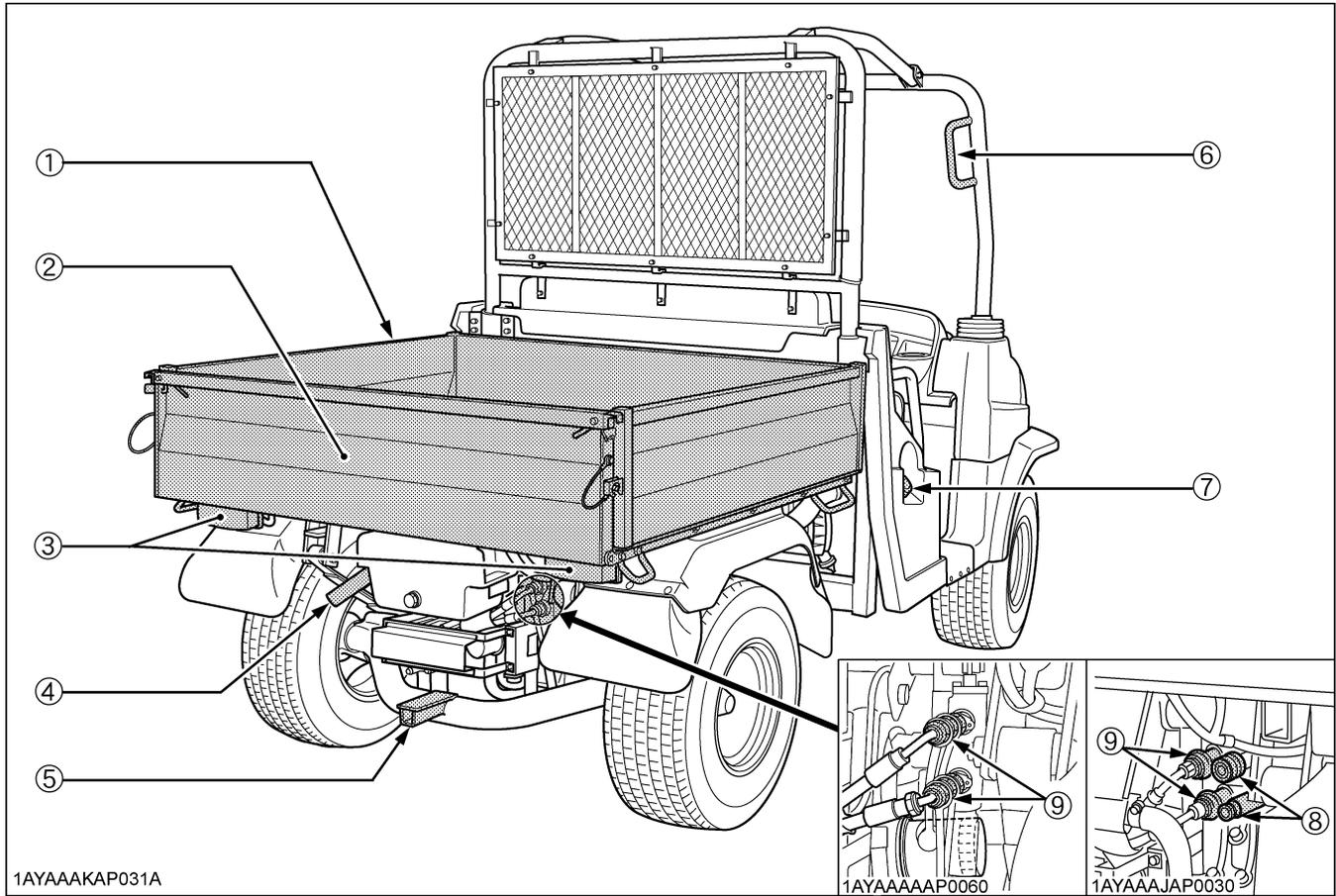
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# PRE-OPERATION CHECK

## DAILY CHECK

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



### CAUTION

To avoid personal injury:

- **Be sure to check and service the vehicle on a level surface with the engine shut off and the parking brake "ON" and implement lowered to the ground if equipped.**

### Check item

- Walk around inspection
- Check engine oil level
- Check transmission fluid level
- Check brake fluid level
- Check hydraulic auxiliary tank oil level (if equipped)
- Clean hydraulic oil cooler net (if equipped)
- Check coolant level
- Clean grill, radiator screen  
(When used in a dusty place)
- Check brake pedal
- Check parking brake
- Check indicators, gauges and meters
- Check lights
- Check seat belt and ROPS
- Check front and rear joint boots
- Check drive shaft boots
- Check tire inflation pressure
- Check backup beeper (if equipped)
- Refuel  
(See "DAILY CHECK" in "PERIODIC SERVICE" section.)
- Care of danger, warning and caution labels  
(See "DANGER, WARNING AND CAUTION LABELS" in "SAFE OPERATION" section.)

# OPERATING THE ENGINE



## CAUTION

To avoid personal injury

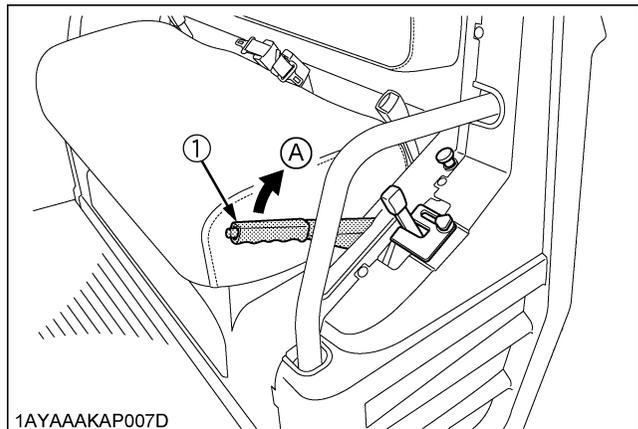
- Read "Safe Operation" in front of this manual.
- Read the danger, warning and caution labels located on the vehicle.
- To avoid the danger of exhaust fume poisoning, do not operate the engine in a closed building without proper ventilation.
- Never start engine while standing on ground. Start engine only from operator's seat.
- Make it a rule to set range gear shift lever to the "NEUTRAL" position and to place the Hydraulic Outlet lever (if equipped) in "OFF" position and to place the hydraulic lift cylinder lever (if equipped) to the "NEUTRAL" position before starting the engine.
- Make sure the engine hand throttle (if equipped) is in its idle engine speed position.

## 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.

## STARTING THE ENGINE

1. Make sure the parking brake is set.



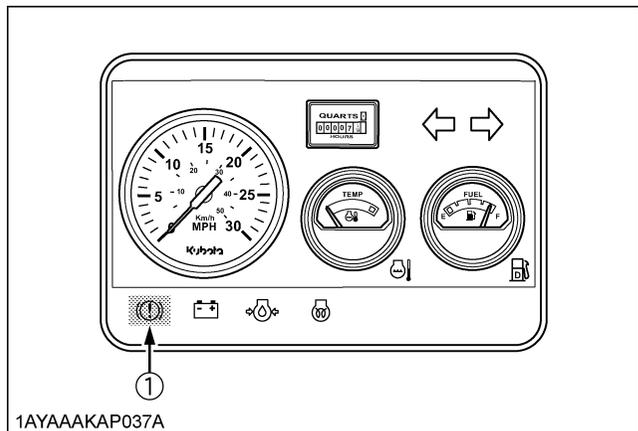
1AYAAKAP007D

(1) Parking brake lever

(A) Pull to "PARK"

## NOTE :

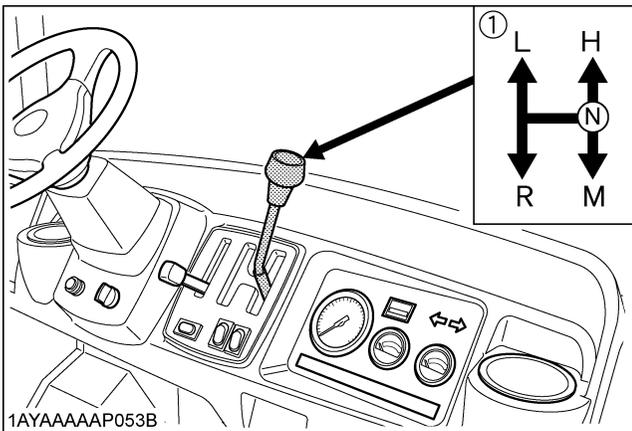
- The parking brake indicator comes on while parking brake is applied and goes off when it is released.



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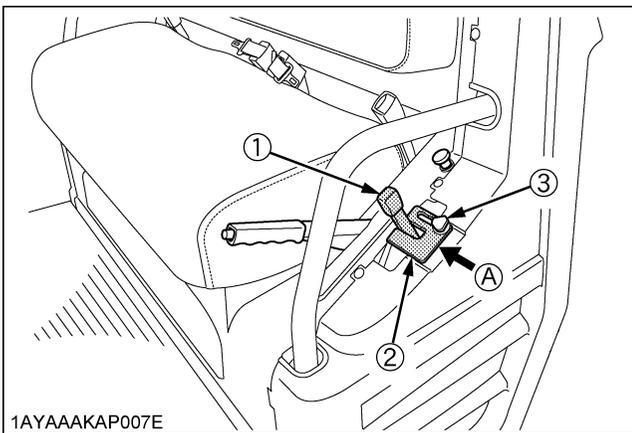
(1) Parking brake indicator

2. Set the range gear shift lever to the "NEUTRAL" position.



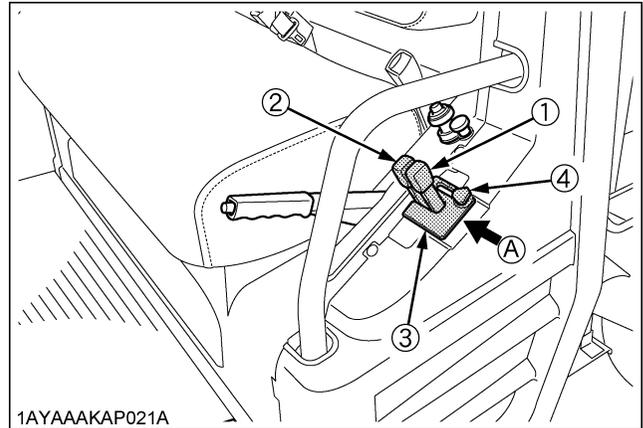
1AYAAAAAP053B  
 (1) Range gear shift lever  
 (L) LOW Range  
 (H) HIGH Range  
 (R) "REVERSE"  
 (M) MEDIUM Range  
 (N) "NEUTRAL" POSITION

3. Lock the hydraulic lift cylinder lever to the "NEUTRAL" position with a restricting plate by tightening knob bolt (if equipped).



1AYAAAKAP007E  
 (1) Hydraulic lift cylinder lever (if equipped)  
 (2) Restricting plate (if equipped)  
 (3) Knob bolt (if equipped)  
 (A) "LOCK"

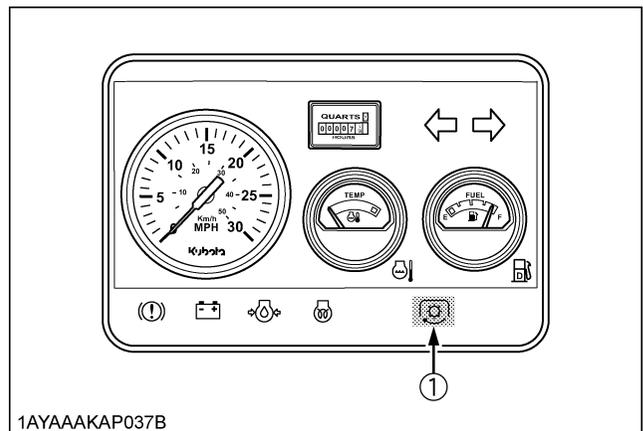
4. Lock the hydraulic outlet lever and the hydraulic outlet lever to the "NEUTRAL" position with restricting plate (if equipped).



1AYAAAKAP021A  
 (1) Hydraulic outlet lever (if equipped)  
 (2) Hydraulic lift cylinder lever (if equipped)  
 (3) Restricting plate (if equipped)  
 (4) Knob bolt (if equipped)  
 (A) "LOCK"

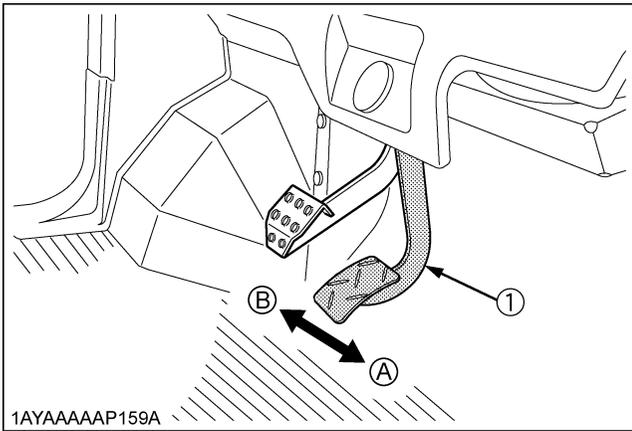
**NOTE :**

- The hydraulic outlet warning lamp comes on while hydraulic outlet lever is engaged "ON" and goes off when disengaged "OFF".



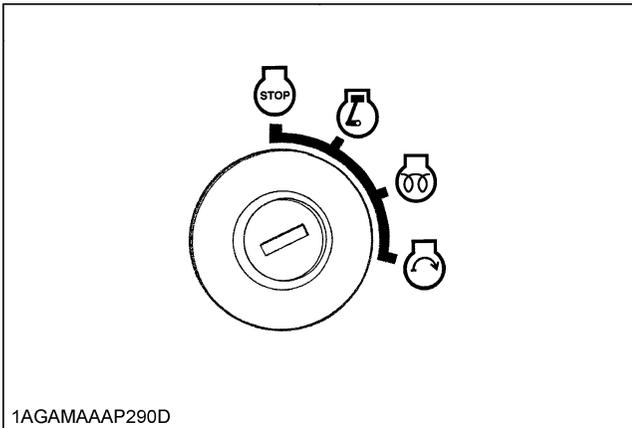
1AYAAAKAP037B  
 (1) Hydraulic outlet warning lamp

**5. Push the speed control pedal down about 1/2 way.**



(1) Speed control pedal  
 (A) "INCREASE"  
 (B) "DECREASE"

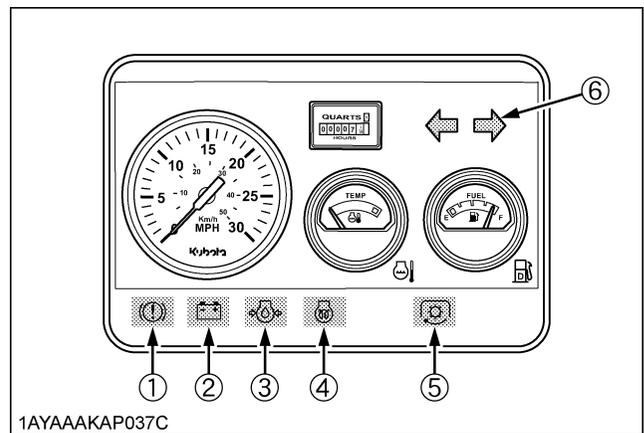
**6. Insert the key into the key switch and turn it "ON".**



(STOP) "OFF" (Engine-Stop)      (GLOW) "GLOW" (Preheat)  
 (ON) "ON" (Engine-Run)      (START) "START" (Engine-Start)

**◆ Check Easy Checker(TM) Lamps:**

1. When the key is turned "ON", lamps(2)(3) should come on. If trouble should occur at any location while the engine is running, the warning lamp corresponding to that location comes on.
2. The parking brake warning lamp(1) comes on while parking brake is applied and goes off when it is released.  
 If the parking brake is released but the lamp stays on, it means that the brake fluid may be low or the brake system may be damaged. (See "Checking Brake Fluid Level" in "DAILY CHECK" in "PERIODIC SERVICE" section.)
3. The hydraulic outlet warning lamp(5) comes on while hydraulic outlet lever is engaged "ON" and goes off when disengaged "OFF" (if equipped).



(1) Parking brake / Brake fluid  
 (2) Electrical charge  
 (3) Engine oil pressure  
 (4) Glow plug  
 (5) Hydraulic outlet (if equipped)  
 (6) Hazard / Turn signal (if equipped)

**IMPORTANT :**

- Daily checks with the Easy Checker(TM) only, are not sufficient. Never fail to conduct daily checks carefully by referring to "DAILY CHECK" in "PERIODIC SERVICE" section.

## 7. Turn the key to "PREHEAT" position and hold it for the preheating.

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

Temperature	Preheating Time
Over 0 °C (32 °F)	2 to 3 sec.
0 to -5 °C (32 to 23 °F)	5 sec.
-5 to -15 °C (23 to 5 °F)	10 sec.
Limit of continuous use	30 sec.

### NOTE :

- Glow plug indicator(4) comes on while key switch is in the "GLOW" position or "START" position.

## 8. Turn the key to "START" position and release when the engine starts.

### IMPORTANT :

- Because of safety devices, the engine will not start except when the range gear shift lever is placed in the "NEUTRAL" position and (if equipped) the hydraulic outlet lever is placed in the "OFF" position.

### ■ Cold Weather Starting

When the ambient temperature is below 0 °C (32 °F) 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 6 and 7. To protect the battery and the starter, make sure that the starter is not continuously turned for more than 30 seconds.

### ■ Block Heater

#### [if equipped]

A block heater is available as an option from your dealer. It will assist you in starting your vehicle when the ambient temperature is below -20 °C (-4 °F).

## 9. Check to see that all the lamps on the Easy Checker(TM) are "OFF".

If any lamp stays on, immediately stop the engine and determine the cause.

## STOPPING THE ENGINE

1. After slowing the engine to idle, turn the key to "OFF".
2. Remove the key.
3. Return the engine hand throttle (if equipped) to its idle engine speed position.

## WARMING UP



### CAUTION

To avoid personal injury:

- Be sure to set the parking brake during warm-up.
- Be sure to set the range shift lever to the "NEUTRAL" position and lock both the hydraulic lift cylinder and the hydraulic outlet levers to the "NEUTRAL" position with restricting plate (if equipped) 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, trouble such as seizure, breakage or premature wear may develop.

### ■ Warm-Up Transmission Oil in the Low Temperature Range

Hydraulic oil serves as transmission fluid. 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 trouble in the hydraulic system.

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
Above 0 °C (32 °F)	Approx. 5 minutes
-10 to 0 °C (14 to 32 °F)	5 to 10 minutes
-20 to -10 °C (-4 to 14 °F)	10 to 15 minutes
Below -20 °C (-4 °F)	More than 15 minutes

### IMPORTANT :

- Do not operate the vehicle under full load condition until it is sufficiently warmed up.

## JUMP STARTING



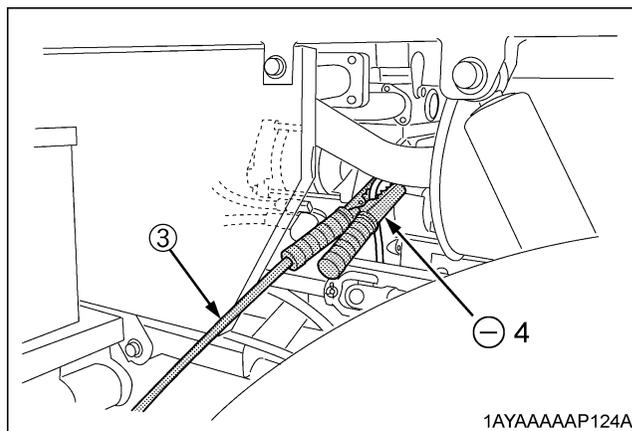
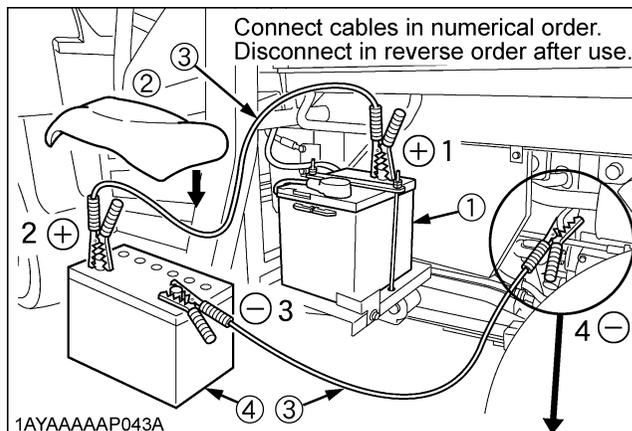
### CAUTION

To avoid personal injury:

- Battery gases can explode. Keep cigarettes, sparks, and flames away from battery.
- If vehicle battery is frozen, do not jump start engine.
- Do not connect other end of negative jumper cable to negative terminal of vehicle battery.
- The parts such as the muffler may be hot. Be careful not to get burned in connecting jumper cables.

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

1. Bring helper vehicle with a battery of the same voltage as disabled vehicle within easy cable reach. "THE VEHICLES MUST NOT TOUCH".
2. Engage the parking brake of both vehicles and put the shift lever in neutral. Shut the engine off.
3. Put on safety goggles and rubber gloves.
4. Ensure the vent caps are securely in place. (if equipped)
5. Cover vent holes with damp rags. Do not allow the rag to touch the battery terminals.
6. 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.
7. Clamp the other cable to the negative (black, (-) or neg.) terminal of the helper battery.
8. Clamp the other end to the engine block or frame of the disabled vehicle as far from the dead battery as possible.
9. Start the helper vehicle and let its engine run for a few moments. Start the disabled vehicle.
10. Disconnect the jumper cables in the exact reverse order of attachment. (Steps 8, 7 and 6).
11. Remove and discard the damp rags.



- (1) Dead battery  
 (2) Lay a damp rag over the vent caps  
 (3) Jumper cables  
 (4) Helper battery

### IMPORTANT :

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

# OPERATING THE VEHICLE

## OPERATING NEW VEHICLE

How a new vehicle is handled and maintained determines the life of the vehicle.

A new vehicle 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 vehicle 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 vehicle is handled during the "breaking-in" period greatly affects the life of your vehicle. Therefore, to obtain the maximum performance and the longest life of the vehicle, it is very important to properly break-in your vehicle. In handling a new vehicle, the following precautions should be observed.

### ■ Do not Operate the Vehicle at Full Speed for the First 50 Hours

- Do not start quickly nor apply the brakes suddenly.
  - In winter, operate the vehicle after fully warming up the engine.
  - Do not run the engine at speeds faster than necessary.
  - On rough roads, slow down to suitable speeds.
- Do not operate the vehicle at fast speed. The above precautions are not limited only to new vehicles, but to all vehicles. But it should be especially observed in the case of new vehicles.

### ■ Changing Lubricating Oil for New Vehicles

The lubricating oil is especially important in the case of a new vehicle. The various parts are not "broken-in" and are not accustomed to each other. Small pieces of metal grit may develop during the operation of the vehicle; 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 "MAINTENANCE" section.

## STARTING

### 1. Fasten the seat belt.

#### ■ Seat Belt



### WARNING

To avoid personal injury:

- Seat belts reduce injury. Always wear your seat belts. The lap-style seat belts may not provide adequate protection for small children. Special care is recommended when carrying a child passenger.

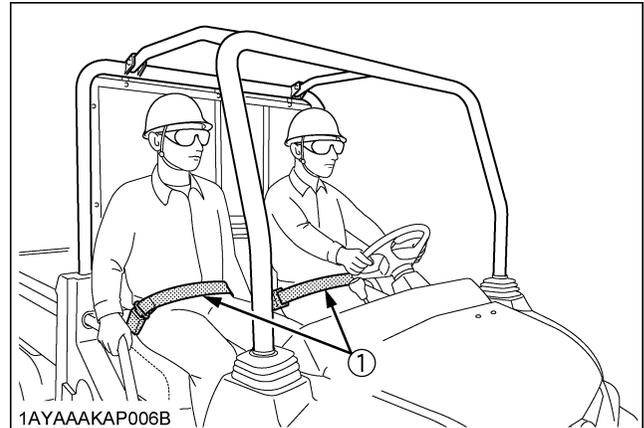


### CAUTION

To avoid personal injury:

- Always use the seat belts when operating and riding in the vehicle.

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



(1) Seat belt

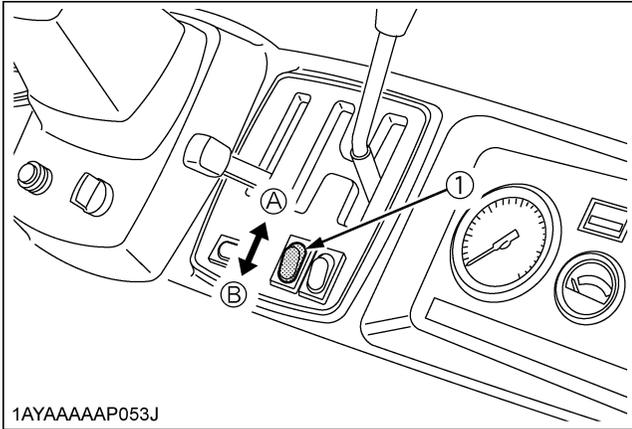
## 2. Selecting light switch position.

### ■ Head Light Switch

The head light switch is operative when the key switch is in the "ON" position.

Turn on the key switch and press the top half of the head light switch, the head lights light up.

Press the bottom half of the head light switch to turn off the head light.



(1) Head light switch

(A) Head lights "ON"

(B) Head lights "OFF"

#### NOTE :

- Pressing the head light switch to the "ON" position causes the following lamps to light simultaneously.
  - (1) Tail lights (lamps at the rear portions of the vehicle)
  - (2) Lamp built in the coolant temperature gauge
  - (3) Lamp built in the fuel gauge
  - (4) Lamp built in the speedometer (if equipped)

### ■ Hazard Light Switch

#### [if equipped]

Press the top half of the hazard light switch, the hazard light flash along with the indicator on the instrument panel. Press the bottom half of the hazard light switch to turn off the hazard light.

#### NOTE :

- The hazard light switch is operative when the key switch is in either the "ON" or "OFF" position. Be careful that leaving the switch "ON" causes the battery to run out.

### ■ Turn Signal Light Switch

#### [if equipped]

To indicate a right turn, push right side.

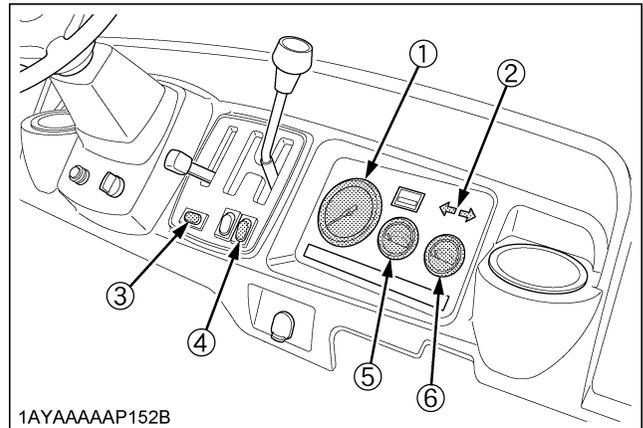
To indicate a left turn, push left side.

When the left or right signal is activated, the indicated turning light will flash and the other will stay on.

The indicator lamp at the instrument panel also flashes like the above.

#### NOTE :

- The turn signal light switch is only operative when the key switch is in the "ON" position.
- If the hazard light switch is pressed to the "ON" position while the turn signal is activated, the indicated turning light will flash and the other will stay on.
- Be sure to return switch to center position after turning.



(1) Speedometer (if equipped)

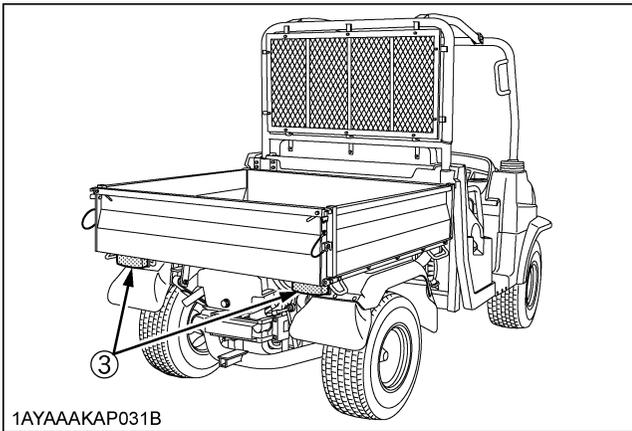
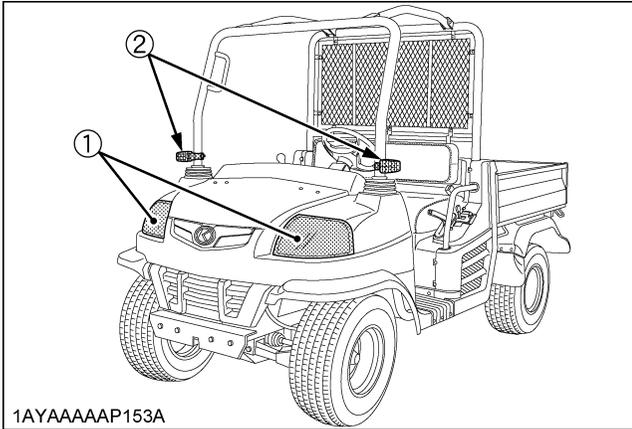
(2) Hazard / Turn signal indicator (if equipped)

(5) Coolant temperature gauge

(3) Turn signal light switch (if equipped)

(6) Fuel gauge (if equipped)

(4) Hazard light switch (if equipped)

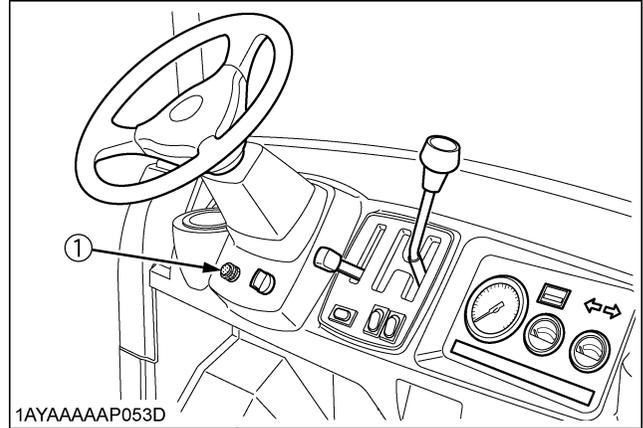


- (1) Head light
- (2) Hazard / Turn signal light (if equipped)
- (3) Tail lamp (Combination lamp if equipped)

**■Horn Button**

The horn switch is operative when the key switch is in either the "ON" or "OFF" position.

The horn will sound when the horn button is pressed.



(1) Horn button

**■Work Light (Front)**

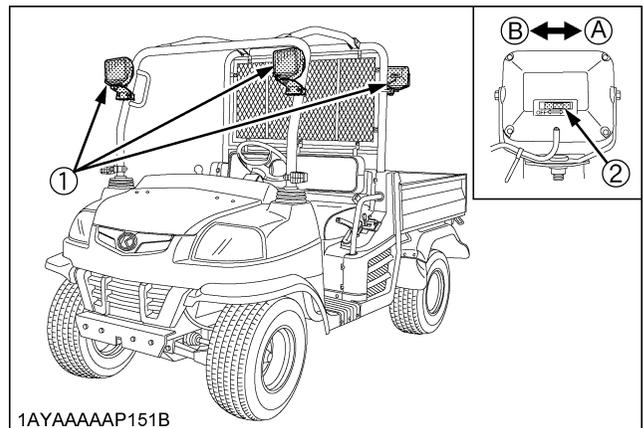
[if equipped]

**■Work Light (Rear)**

[if equipped]

When the key switch is turned to the "ON" position and the slide switch at the rear of each work light is slid to the "ON" position, the work light comes on. When the slide switch is slid to the "OFF" position, the light goes off.

After the slide switch for each work light is shifted to the "OFF" position, turn the key switch to the "OFF" position.



- (1) Work light (if equipped)
- (2) Work light switch (if equipped)
- (A) "ON"
- (B) "OFF"

### 3. Checking the brake pedal.

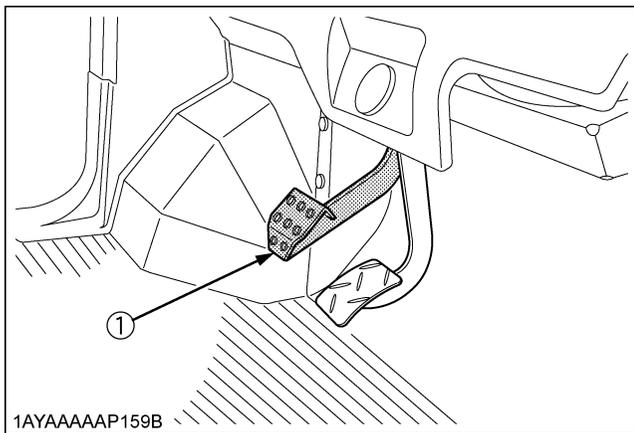
#### ■ Brake Pedal

#### CAUTION

To avoid personal injury:

- If the operator suddenly brakes, an accident may occur due to loss of control or the shifting forward of heavy loads.
- When driving on icy, wet or loose surface, make sure the vehicle is correctly ballasted to avoid skidding and loss of steering control. Operate at reduced speed.

The brake pedal is the left pedal on the foot board. Depress the pedal to slow or stop the vehicle.



(1) Brake pedal

### 4. Selecting the travel speed.

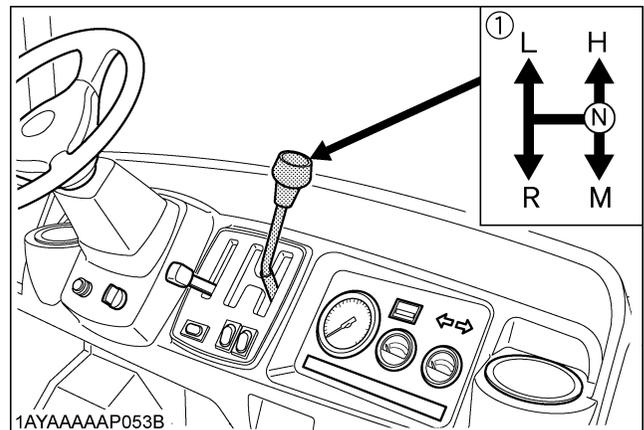
#### ■ Range Gear Shift Lever

#### CAUTION

To avoid personal injury:

- Avoid changing range gear shift lever when ascending or descending a slope.
- Before ascending or descending a slope, shift to the "L" range to control the vehicle speed.
- If you shift gears while ascending or descending a slope, be prepared to use the brake to maintain control.
- Operate in reverse at slow speeds to maintain control.

1. The range gear shift lever can only be shifted when vehicle is completely stopped and the speed control pedal is in the "NEUTRAL" position.
2. To avoid transmission and shift linkage damage, completely stop the vehicle using the brake pedal before shifting gears.
3. Select proper gear and engine speed depending on the type of job.
4. Before dismounting vehicle, shift the range gear shift lever to the "NEUTRAL" position and set parking brake.



- |                            |                        |
|----------------------------|------------------------|
| (1) Range gear shift lever | (L) LOW Range          |
| (H) HIGH Range             | (R) "REVERSE"          |
| (M) MEDIUM Range           | (N) "NEUTRAL" POSITION |

#### NOTE :

- When range gear shift lever is hard to engage, do not force the lever. Set the parking brake, slightly depress the speed control pedal and release it to neutral position, then shift the lever.  
When the lever is hard to disengage, do not force the lever.  
Depress the brake pedal fully, then shift the lever.
- An accident may occur with erratic shifting operation.
- Improper range gear shift lever position will cause the vehicle to momentarily coast on slopes.

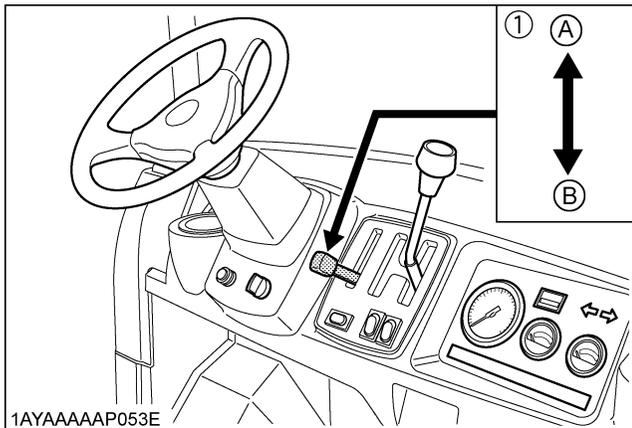
## 4WD Lever



### CAUTION

To avoid personal injury:

- Do not engage the front wheel drive when traveling at road speed.
- When driving on icy, wet or loose surfaces, make sure the vehicle is correctly ballasted to avoid skidding and loss of steering control. Operate at reduced speed and engage front wheel drive.
- An accident may occur if the vehicle is suddenly braked, such as by heavy towed loads shifting forward causing loss of control.
- The braking characteristics are different between two and four wheel drive. Be aware of the difference and use carefully.



(1) 4WD lever

(A) "4WD"

(B) "2WD"

### IMPORTANT :

- Use the lever to engage the front wheels with the vehicle stopped. Shift the lever to "4WD" to engage the front wheel drive.
- Tires will wear quickly if front wheel drive is engaged on paved roads.
- If the 4WD lever is difficult to shift to "2WD", stop the vehicle, turn the steering wheel in both directions and then move the lever.

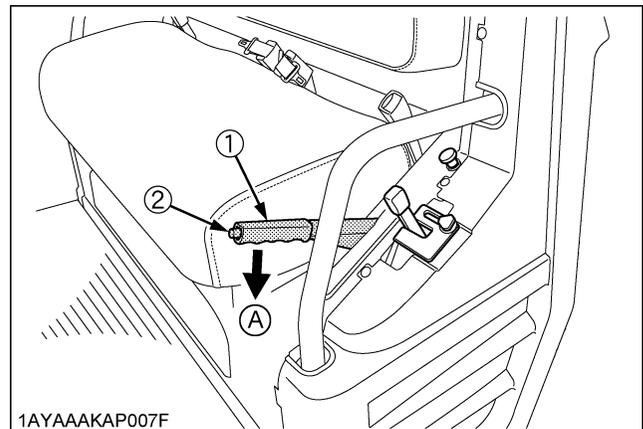
### ◆ Front wheel drive is effective for the following jobs:

1. When greater pulling force is needed, such as working in a wet field, when pulling a trailer, or when working with a front-end blade.
2. When working in sandy soil.

## 5. Unlock the parking brake and start slowly.

### ■ Parking Brake Lever

To release the parking brake, depress the brake pedal, push release button and push down parking brake lever. Make sure that indicator in the Easy Checker(TM) goes off.



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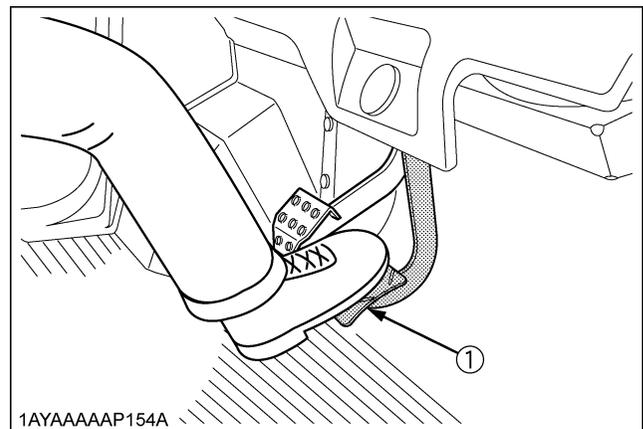
(1) Parking brake lever

(A) "RELEASE"

(2) Release button

### ■ Speed Control Pedal

Use the speed control pedal when traveling. Push down on it for higher speed.



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(1) Speed control pedal

## STOPPING

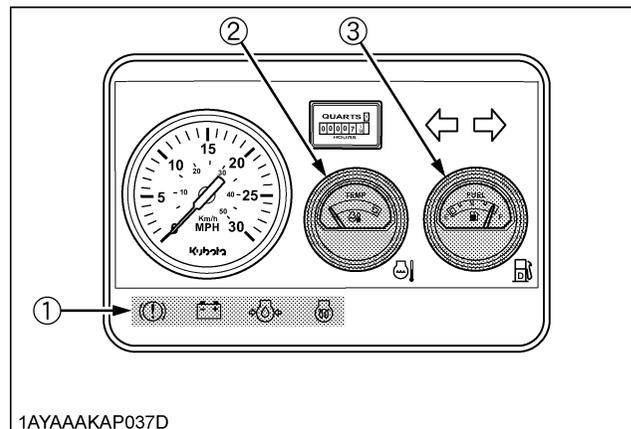
### ■ Stopping

1. Release the speed control pedal.
2. Step on the brake pedal.
3. After the vehicle has stopped, put the range gear shift lever in neutral, and set the parking brake.

## CHECK DURING DRIVING

### ■ Immediately Stop the Engine if:

- The engine suddenly slows down or accelerates,
  - Unusual noises are suddenly heard,
  - Exhaust fumes suddenly become very dark,
- While driving, check the following items to see that all the parts are functioning normally.



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- (1) Easy Checker(TM)  
 (2) Coolant temperature gauge  
 (3) Fuel gauge

### ■ Easy Checker(TM)

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

Never operate the vehicle with an Easy Checker(TM) lamp on.

#### ⊖ 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, and it does not go off when the engine is accelerated, check level of engine oil.

(See "Checking Engine Oil Level" in "DAILY CHECK" in "PERIODIC SERVICE" section.)

#### ⊕ Electrical charge

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

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

- (⊕) Alarm against low brake fluid level or parking brake operation.

The warning lamp in the Easy Checker(TM) comes on if the parking brake is applied.

If the lamp is on during operation, release the parking brake lever immediately.

If the brake fluid goes below the prescribed level, the warning lamp in the Easy Checker(TM) will come on. If this should happen during operation, check to see that there is no oil leak in the brake system, and then add oil.

(See "Checking Brake Fluid Level" in "DAILY CHECK" in "PERIODIC SERVICE" section.)

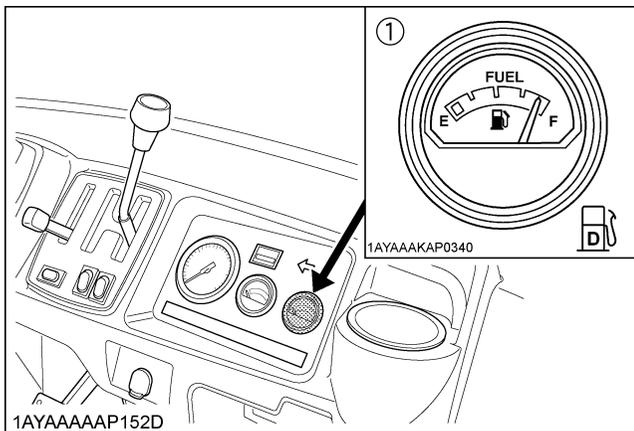
### Fuel Gauge

Park the vehicle on a flat place.

When the key switch is "ON", the fuel gauge indicates the fuel level.

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.)



(1) Fuel gauge

### Coolant Temperature Gauge

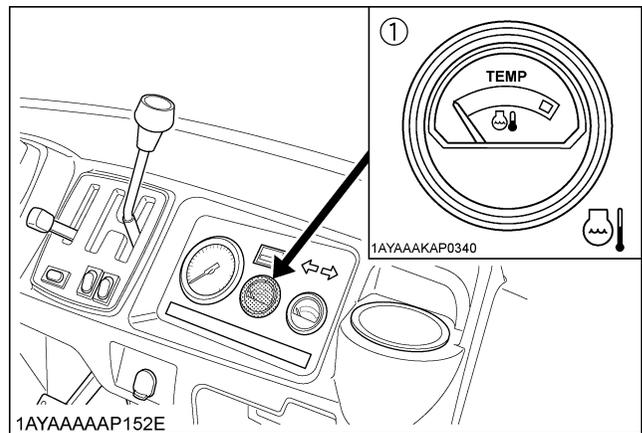


#### CAUTION

To avoid personal injury:

- Do not remove radiator cap until coolant temperature is well below its boiling point. Then loosen cap slightly to the stop to relieve any pressure before removing cap completely.

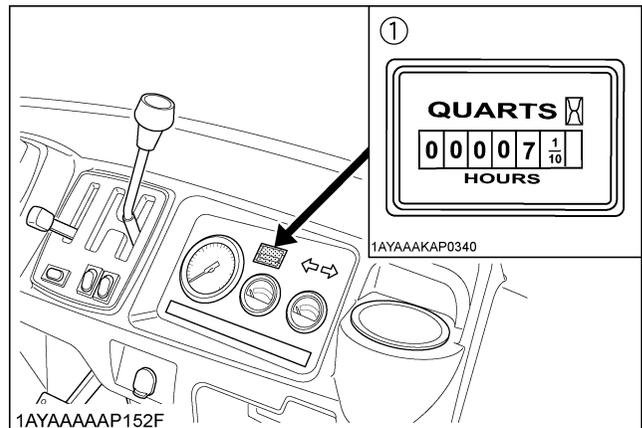
1. With the key switch "ON" the temperature gauge indicates the temperature of the coolant. White Zone for "cold" and Red zone for "hot".
2. If the indicator reaches the Red zone, engine coolant is overheated. Check the vehicle by referring to "TROUBLESHOOTING" section.



(1) Coolant temperature gauge

### Hourmeter

The hourmeter indicates in five digits the hours the vehicle has been used; the last digit indicates 1/10 of an hour.

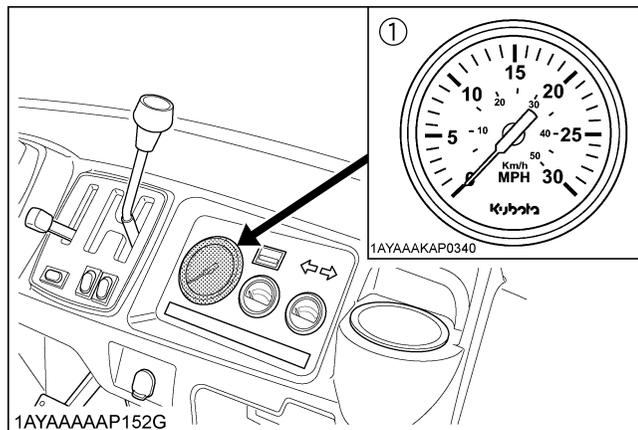


(1) Hourmeter

## ■ Speedometer

[if equipped]

The speedometer indicates the traveling speed.



(1) Speedometer

## PARKING

### ■ Parking Brake Lever



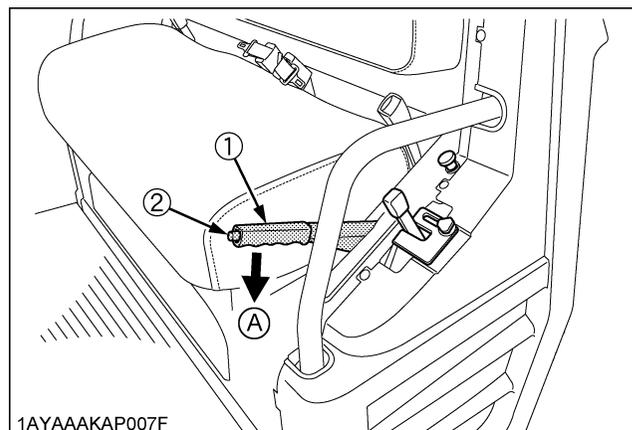
### CAUTION

To avoid personal injury:

**BEFORE DISMOUNTING VEHICLE**

- **ALWAYS SET PARKING BRAKE AND LOWER ALL IMPLEMENTS TO THE GROUND.**  
Leaving transmission in gear with the engine stopped will not prevent from rolling.
- **STOP THE ENGINE AND REMOVE THE KEY.**

1. Stop the vehicle on a level surface.
2. To set the parking brake, depress the brake pedal and pull the lever to park.
3. To release the parking brake, push release button and push down the parking brake lever. When the parking brake is released, the parking brake warning lamp in the Easy Checker(TM) goes off.



(1) Parking brake lever

(A) "RELEASE"

(2) Release button

### IMPORTANT :

- If the vehicle is operated with the parking brake applied, the parking brake will be damaged.

## ACCESSORY

### ■ 12V Electric Outlet

The 12 volt receptacle is located on the front-panel. An auxiliary light or other devices may be connected to this connector.

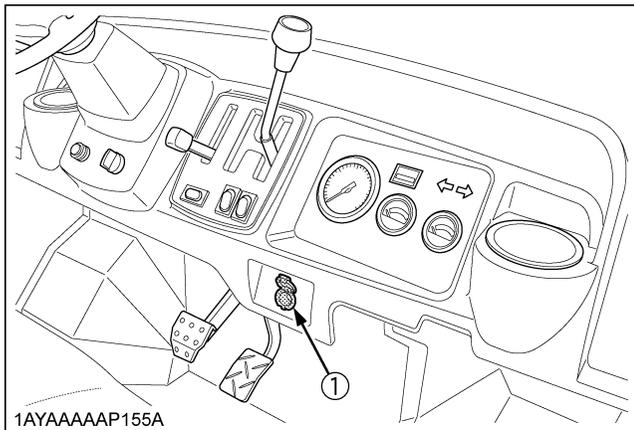
- ◆ This outlet is activated when the key switch is in either the "ON" or "OFF" position.

When the plug is not used, pull it out. Be careful that leaving the plug inserted causes the battery to run out.

- ◆ Do not connect a light or other device that draws more than 120 watts to this connector, or the battery may discharge very rapidly or the outlet may fail.

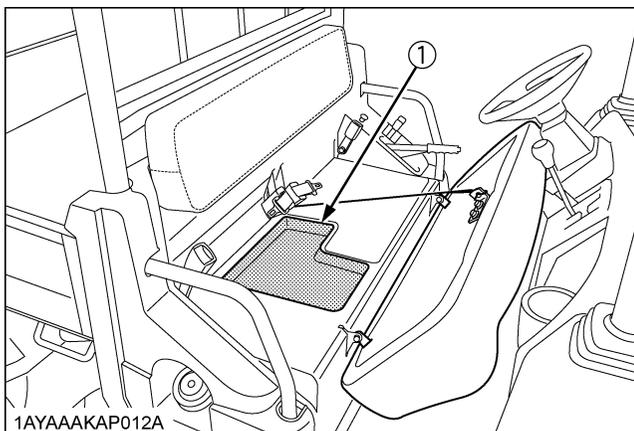
#### IMPORTANT :

- Do not use as a cigarette lighter.
- Do not use when wet.



(1) 12V electric outlet

### ■ Utility Box



(1) Utility Box

## OPERATING TECHNIQUES

### ■ Differential Lock



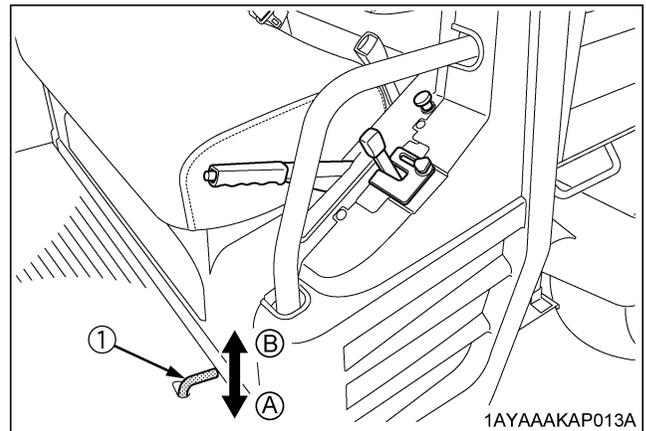
#### WARNING

To avoid personal injury due to loss of steering control:

- Do not operate the vehicle at high speed with differential lock engaged.
- Do not attempt to turn with the differential lock engaged.
- Be sure to release the differential lock before making a turn in field conditions.

If one of the rear wheels should slip, step on the differential lock pedal. Both wheels will then turn together, reducing slippage.

Differential lock is maintained while the pedal is depressed or may be held by using differential lock holder.



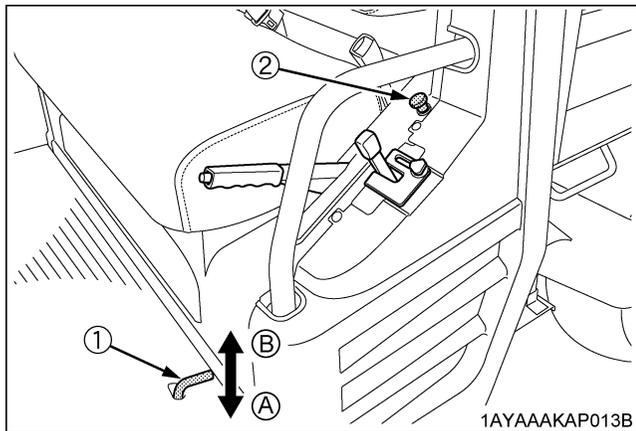
(1) Differential lock pedal

(A) Press to "ENGAGE"

(B) Release to "DISENGAGE"

◆ **Handling the retaining device for differential lock**

1. Pull the differential lock holder while the differential lock pedal is depressed.
2. The differential lock is then maintained even if your foot leaves the pedal.
3. The lock is released when the pedal is depressed again.



(1) Differential lock pedal      (A) Press to "ENGAGE"  
 (2) Differential lock holder      (B) Depress to release again  
 "DISENGAGE"

**IMPORTANT :**

- When using the differential lock, always slow the engine down.
- To prevent damage to power train, do not engage differential lock when one wheel is spinning and the other is completely stopped.
- If the differential lock cannot be released, stop the vehicle, turn the steering wheel alternately.

■ **Directions for Use of Power Steering**

1. Power steering is activated only while the engine is running. While the engine is stopped, the vehicle functions in the same manner as vehicle without power steering.
2. When the steering wheel is turned all the way to the stop, the relief valve is activated. Do not hold the steering wheel in this position for a long period of time.
3. Avoid turning the steering wheel while the vehicle is stopped, or tires may wear out sooner.
4. The power steering mechanism makes the steering easier. Be careful when driving at high speeds.

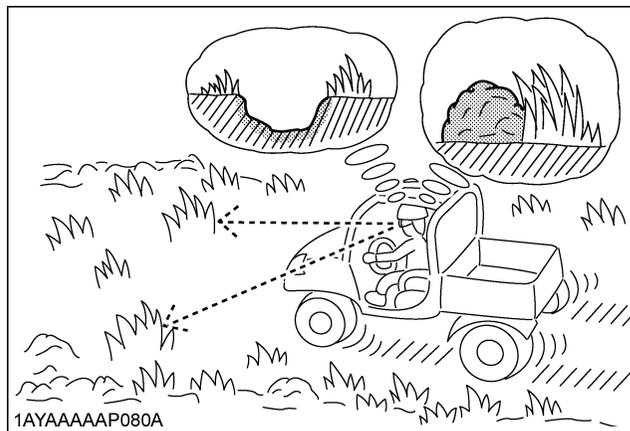
■ **Unfamiliar Terrain**



**CAUTION**

To avoid personal injury:

- Be sure to check for hidden obstacles or hazards before driving in a new area.
- Keep your speed down until you know the area well.
- Use existing trails and stay away from hazardous areas such as steep, rocky slopes or swamps.
- Be cautious when visibility is limited, as you may not be able to see obstacles in your path.



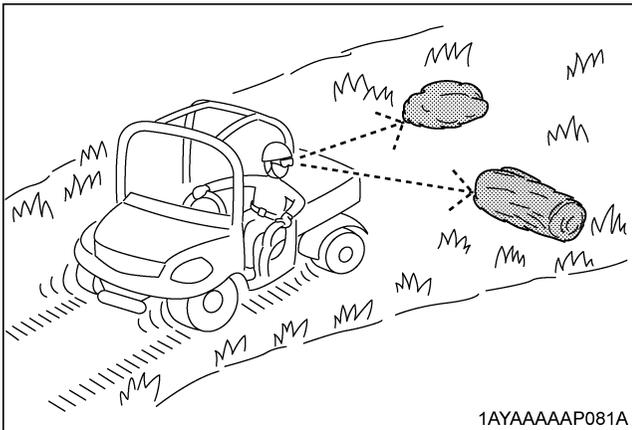
## ■ Driving in Reverse



### CAUTION

To avoid personal injury:

- Turn around, look down and behind you before backing up to be sure there are no obstacles or people in your way.
- Depress speed control pedal gradually and back up cautiously.
- To stop while driving in reverse take your foot off the speed control pedal and gradually apply the brake.
- Do not suddenly engage the brake.



## ■ Driving in "4WD"

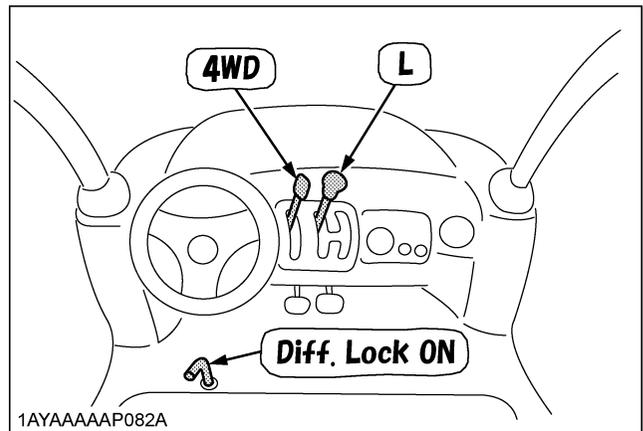


### CAUTION

To avoid personal injury:

- Do not drive in "4WD" on paved surfaces.

The maximum traction, shift the range gear shift lever into low range and use "4WD" on steep slopes or when stuck in the mud, with differential locked if necessary.



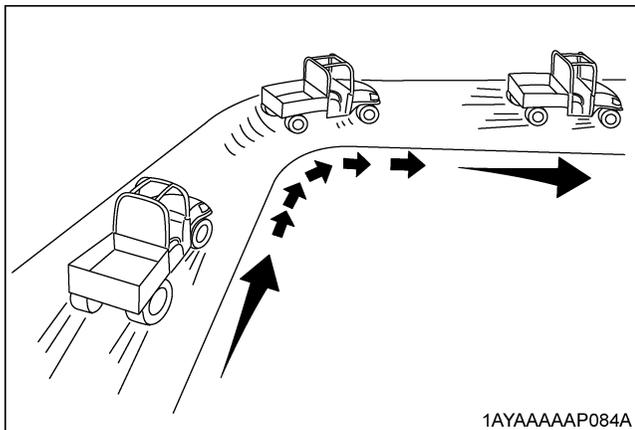
■Turning the Vehicle



**WARNING**

To avoid personal injury:

- Reduce vehicle speed before entering the turn and maintain an even speed through the turn.
- Do not make sharp turns in order to avoid loss of control or tipping.



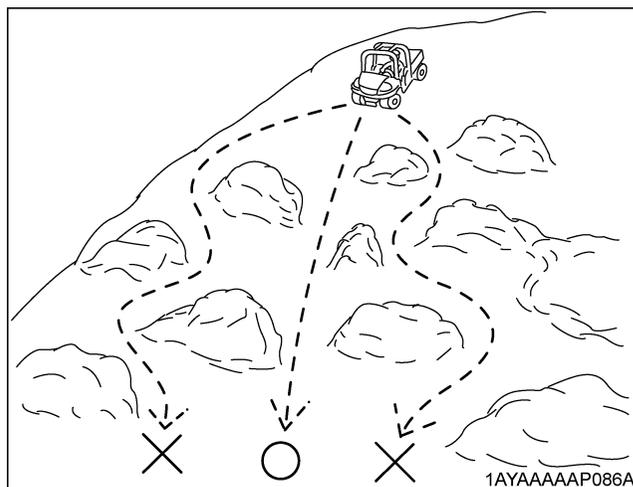
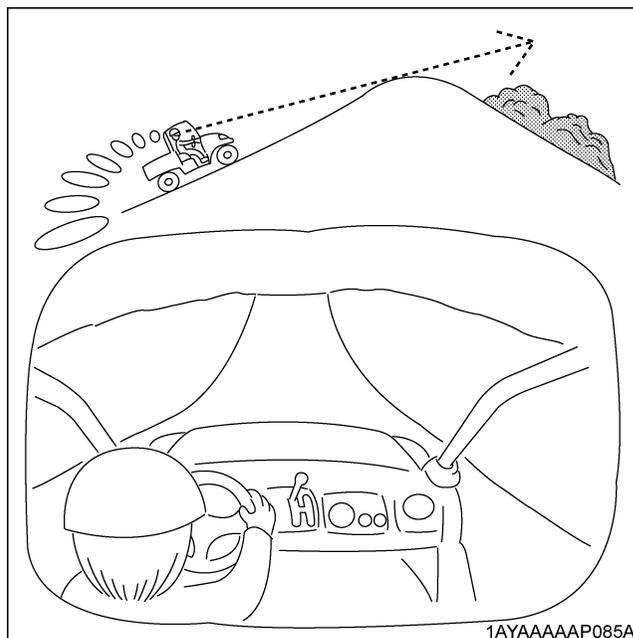
■Hills



**WARNING**

To avoid personal injury:

- Do not turn sideways on a hill, or the vehicle may roll over.
- Always go straight up hill or down hill.
- Slow down until you can get a clean view of the other side at the crest of a hill.
- If the engine stalls on a steep slope, roll slowly straight down, using the brake.
- Stop and look for obstacles before descending a hill.



## ■ Traversing Hillsides



### WARNING

To avoid personal injury:

- Reduce vehicles speed to prevent tipping or loss of control.
- Do not traverse hillsides that are slippery or covered with rocks or obstacles which may cause you to tip over.

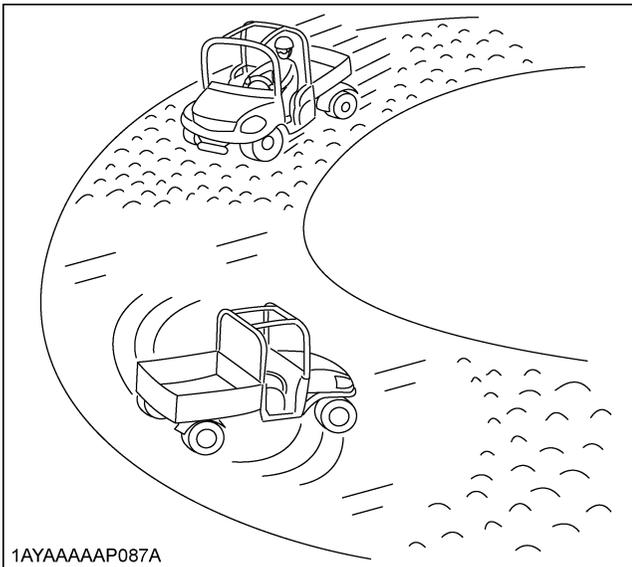
## ■ Sliding and Skidding



### WARNING

To avoid personal injury:

- Drive slowly and carefully when you are unsure or unprepared for the surface.
- Do not apply heavy braking force or accelerate when skidding to prevent loss of control.
- Use 4WD and maintain low speeds on areas covered with clay, mud, ice or snow to prevent uncontrolled skidding.



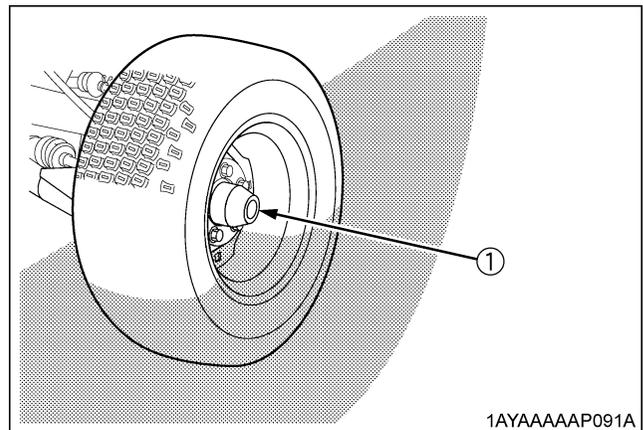
## ■ Driving through Water



### WARNING

To avoid personal injury:

- Do not drive through water whenever it is possible.
- Drive slowly across shallow water and choose a location to enter and exit the water where the banks are not too steep or slippery.
- Check before entering for rocks, holes or other obstacles that may cause overturn, stuck or submerged.
- Never operate the vehicle in the fast flowing water or in water deeper than the bottom edge of the axle caps.

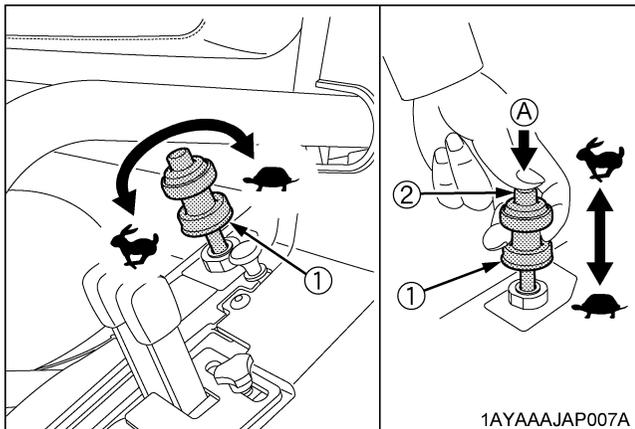


(1) Axle cap

## OPERATING HAND THROTTLE

[if equipped]

- Pull the hand throttle while pushing the button, and the engine speed increases.
- Push the hand throttle while pushing the button, and the engine speed decreases.
- Fine-tune engine speed by turning the hand throttle.



(1) Hand throttle (if equipped)  
(2) Button

(A) "PUSH"  
 "HIGH"  
 "LOW"

## STATIONARY HYDRAULIC OUTLET

[if equipped]

To park the Vehicle and use the hydraulic outlet system (for breaker or pump, for example), start the hydraulic outlet system in the following steps.

1. Apply the parking brake and place chocks at the tires.
2. Make sure the shift levers are at "NEUTRAL", and start the engine.
3. Operate the hydraulic outlet lever.  
(See "HYDRAULIC OUTLET" in "HYDRAULIC OUTLET" section.)
4. Set the engine speed to provide recommended fluid rate. (Refer to the implement operator's manual.)

# CARGO BED

## CARGO BED

### ■ General Caution

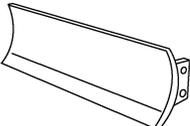
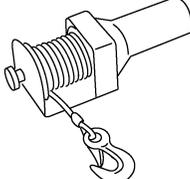


### WARNING

To avoid personal injury:

- Never carry passengers in the cargo bed. They can be tossed about or even thrown off causing serious injury or death.
- Never raise the cargo bed when it is loaded. (if hydraulic dump is not equipped)
- Driving with the cargo bed tilted may be hazardous.  
Always lower the bed and lock the hydraulic lift cylinder lever (if hydraulic dump is equipped) or latch the bed (if hydraulic dump is not equipped) before driving.
- Be careful not to put any part of your body, such as hands or arms, between the bed and vehicle.
- Drive slowly when it is loaded.

### ■ Max. Cargo Load

	Operator	Passenger	Implement	Cargo Bed Capacity
ROPS type 	 95 kg (209 lbs)	---	W: weight  Blade	500 kg (1100 lbs) - W
	 95 kg (209 lbs)	 95 kg (209 lbs)		500 kg (1100 lbs) - W
CAB type  120 kg (265 lbs) 1AYAAAAAP139C	 95 kg (209 lbs)	---	 Winch	500 kg (1100 lbs) - W
	 95 kg (209 lbs)	 95 kg (209 lbs)		440 kg (970 lbs) - W
				[Hydraulic utility valve equipped model] 405 kg (893 lbs) - W

### IMPORTANT :

- Maximum Cargo Load (MCL) capacity is 500 kg (1100 lbs).
- Never carry loads exceeding the Permissible Cargo Load (PCL).

### NOTE :

- Max. Cargo load should not exceed "500 kg (1100 lbs.)" or "PCL".  
PCL = PC - (operator + passenger + opt. + acc. + cabin) weight  
(PCL: Permissible Cargo Load / PC: Payload Capacity / opt.: option / acc.: accessory)

### [Payload capacity]

Model	General purpose	Worksite/Orange	Worksite/Camo	Worksite/Utility	Turf Utility
Payload capacity kg (lbs.)	775 (1708)	750 (1653)	755 (1664)	720 (1587)	715 (1576)

## ■ Cargo Bed Tailgate



### CAUTION

To avoid personal injury:

- Do not apply a load to the tailgate while the tailgate is open, or the wire loop may break.
- Do not place fingers or hands between the tailgate and the arm (latch) when closing, or fingers or hands may be pinched.

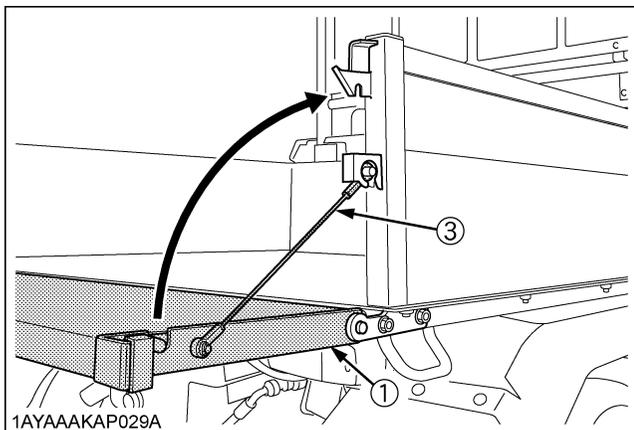
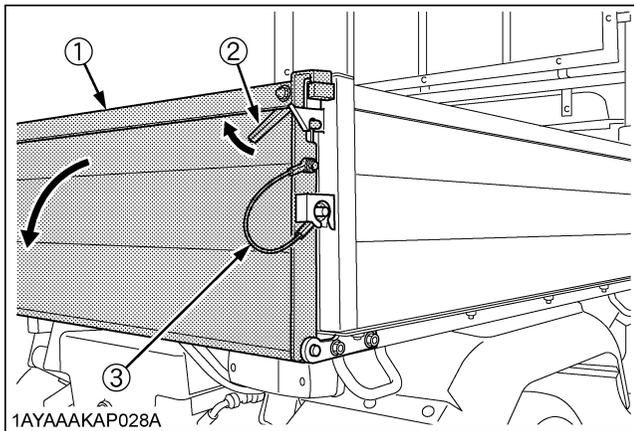
For loading and unloading, the tailgate of the cargo bed can be opened.

The tailgate is held level to the cargo bed floor with wire loops.

Do not move the vehicle with the tailgate fully lowered.

In a fully lowered position, the tailgate may obstruct the vehicle tail lamps and damage them by swinging motion.

1. Raise the arms (latch) at each end of the tailgate and open the tailgate.
2. Close the tailgate by lifting it and pushing it firmly closed. Push the arms (latch) down to make sure the latches stay securely closed.



(1) Tailgate      (2) Arm (latch)      (3) Wire loop

### IMPORTANT :

- TO AVOID TAILGATE DAMAGE:  
Remove the rear trailer hitch when wire loop is removed and cargo bed is raised.

## ■ Raising and Lowering the Cargo Bed [if hydraulic dump is equipped]



### CAUTION

To avoid personal injury;

- Make sure the vehicle is on a firm, level surface and the parking brake is applied before raising the cargo bed.
- If the vehicle is facing uphill with cargo bed raised, the weight of the cargo bed may cause the vehicle tip.
- When servicing under raised bed with lift cylinder, make sure safety support is properly mounted.

#### ◆ To raise the cargo bed

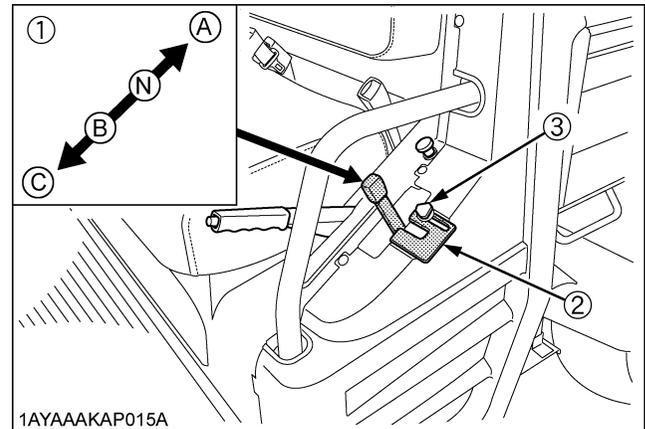
1. Start engine.
2. Release the restricting plate.
3. Pull up the hydraulic lift cylinder lever to raise the cargo bed.
4. Return the hydraulic lift cylinder lever to the "NEUTRAL" position immediately after raising the cargo bed.

#### ◆ To lower the cargo bed

1. Shift the hydraulic lift cylinder lever to the "DOWN" position and then lower the cargo bed.
2. After making sure that the bed has been lowered to the lowest position, return the lever to the "NEUTRAL" position and then lock the lever with the restricting plate.

#### ◆ Using the "FLOAT" position

1. If the cargo bed cannot be raised or lowered due to trouble with the engine or hydraulic system, shift the lever to the "FLOAT" position. The cargo bed can be raised or lowered manually.



(1) Hydraulic lift cylinder lever  
(if equipped)

(2) Restricting plate (if equipped)

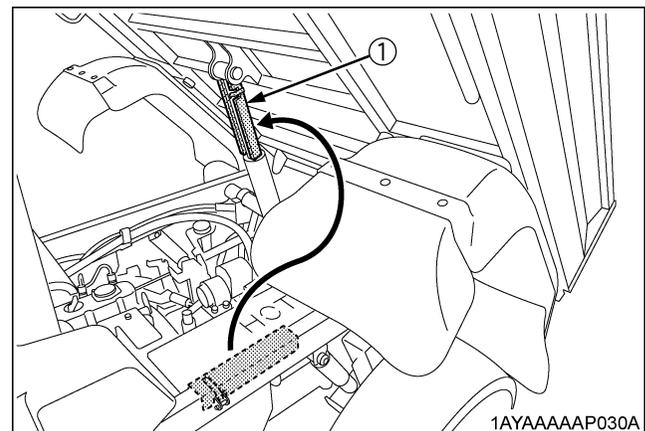
(3) Knob bolt (if equipped)

(A) "UP"

(N) "NEUTRAL"

(B) "DOWN"

(C) "FLOAT with Detent"



(1) Safety support

# HYDRAULIC OUTLET

## HYDRAULIC OUTLET

[if equipped]

### Hydraulic Outlet Lever

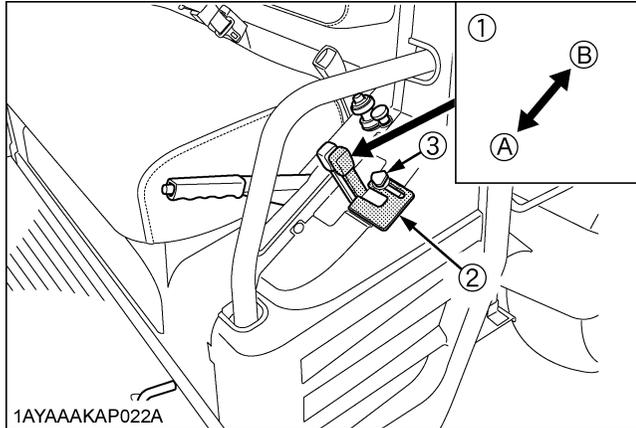
#### CAUTION

To avoid personal injury:

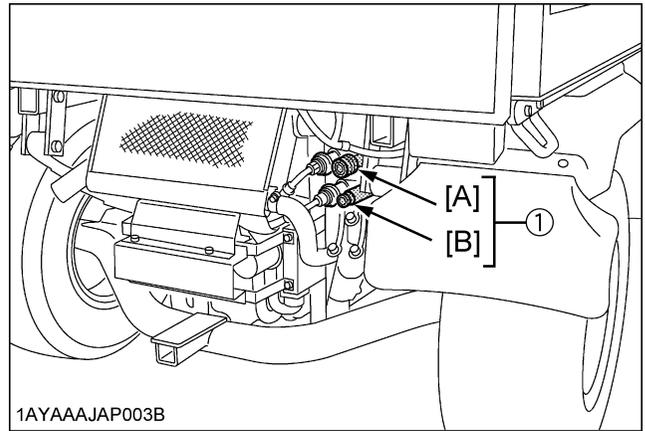
- Leaving the vehicle while the engine runs requires shifting the range gear shift lever to the "NEUTRAL" position, and locking the parking brake lever firmly.

#### Steps for operation

1. Check the outlet and return directions of the hydraulic coupler and then connect the hydraulic hose.
2. Make sure that the hydraulic lever at the side of the working vehicle is in the "NEUTRAL" position.
3. Shift the hydraulic outlet lever to the "ON" position (detented).
4. Operate the hand throttle, to adjust oil volume for implements.
5. Return the hydraulic outlet lever to the "OFF" position after use, and lock it with the restricting plate.



(1) Hydraulic outlet lever (if equipped) (A) "ON" (Detent position)  
 (2) Restricting plate (if equipped) (B) "OFF"  
 (3) Knob bolt (if equipped)



(1) Hydraulic outlet (if equipped)

Outlet →  
 Return ←

Lever		Push (ON)		Pull (OFF)	
Port	A	In	←	In	←
	B	Out	→	In	←

#### IMPORTANT :

- Do not hold the lever in the "PULL" or "PUSH" position once the remote cylinder has reached the end of its stroke, as this will cause oil to flow through the relief valve. Forcing oil through the relief valve for extended periods will overheat the oil.
- Continuing to use the lever may cause oil temperature to rise excessively. The use of oil at a high temperature causes the seals to become damaged and fail.
- Shift the hydraulic outlet lever to the "OFF" position and then stop the engine.
- Because of the safety devices, the engine will not start except when the hydraulic outlet lever is placed in the "OFF" position and range gear shift lever is placed in the "NEUTRAL" position.

## ■ Hydraulic Outlet Valve Coupler Connecting and Disconnecting

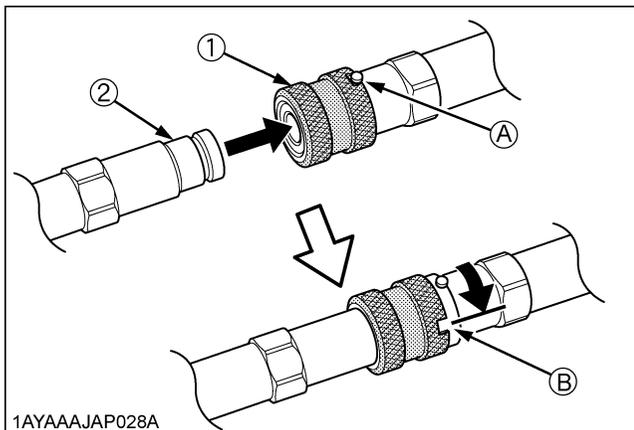
### ⚠ CAUTION

To avoid personal injury:

- Stop the engine and relieve pressure before connecting or disconnecting lines.
- Do not use your hand to check for leaks.
- Make sure couplers are locked securely after connecting them.
- Always wear protective gloves when handling hydraulic tools, hoses and couplers.

### ◆ Connecting

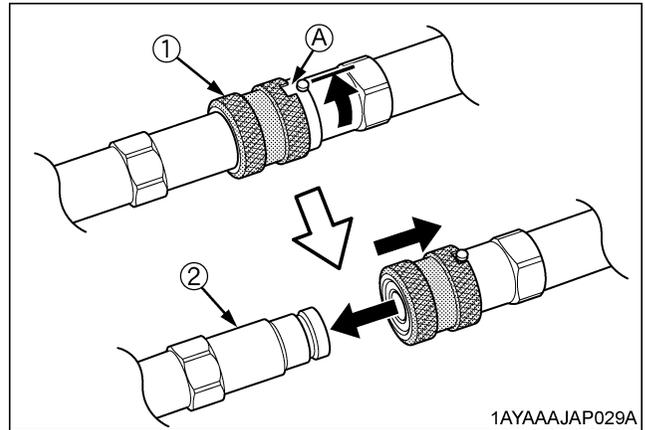
1. Remove dust plugs.
2. Clean both couplers.
3. Insert the implement coupler to the vehicle hydraulic coupler.
4. Pull the implement coupler slightly to make sure couplers are firmly connected.
5. Turn the ring of the female coupler to the "LOCK" position as shown in the following figure.



(1) Ring of female coupler (A) "UNLOCK" position  
 (2) Male coupler (B) "LOCK" position

### ◆ Disconnecting

1. Lower the implement first to the ground to relieve hydraulic pressure in the hoses.
2. Clean the couplers.
3. Relieve pressure by moving hydraulic control levers with engine shut off.
4. Turn the ring of the female coupler to the "UNLOCK" position as shown in the following figure.
5. Pull the hose straight from the hydraulic coupler while pulling the ring to release it.
6. Clean oil and dust from the coupler, then replace the dust plugs.



(1) Ring of female coupler (A) "UNLOCK" position  
 (2) Male coupler

### NOTE :

- Your local KUBOTA Dealer can supply parts to adapt couplers to hydraulic hoses.

# TIRES AND WHEELS

## TIRES

### **WARNING**

To avoid personal injury:

- 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. Do not inflate tires above the recommended pressure shown in the operator's manual.

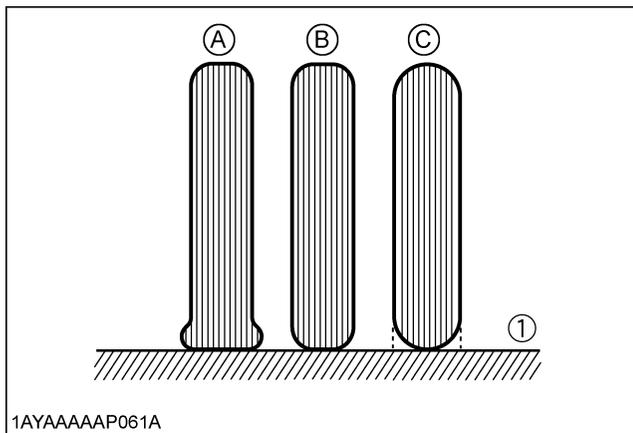
### **IMPORTANT :**

- Do not use tires other than those approved by KUBOTA.

### ■ Inflation Pressure

Though the tire 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	Inflation Pressure
25 x 10 - 12 HDWS, Front & Rear	140 kPa (1.4 kgf/cm <sup>2</sup> , 20 psi)
25 x 12 - 12 Turf, Front & Rear	
25 x 10 - 12 ATV, Front 25 x 11 - 12 ATV, Rear	



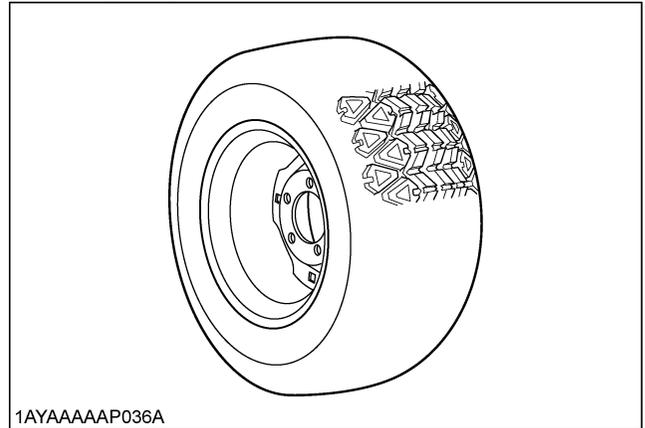
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(1) Ground

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

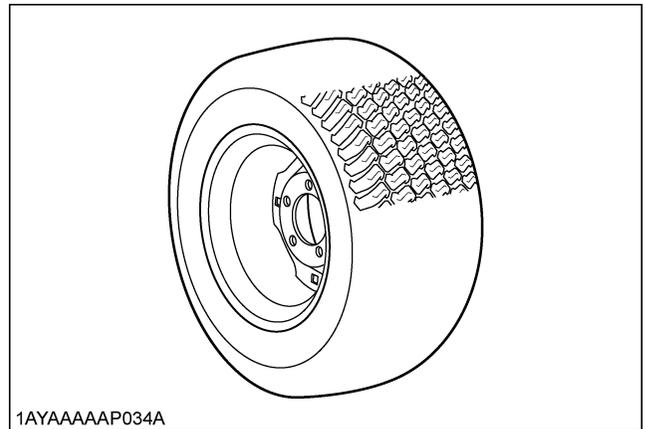
### ■ Tire Type and Use

#### ◆ Heavy duty work site tire



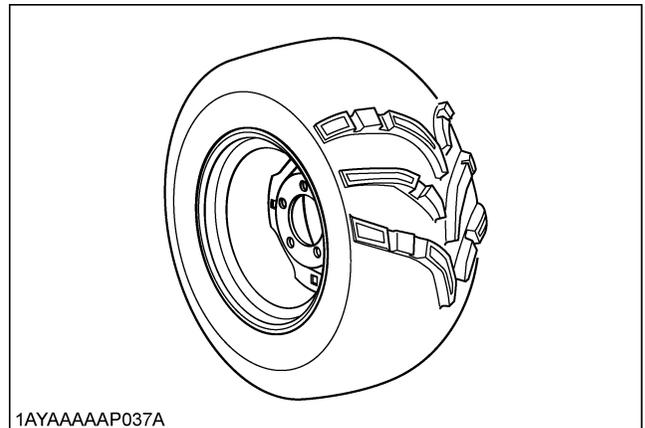
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#### ◆ Turf tire



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#### ◆ All terrain vehicle tire



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## WHEELS



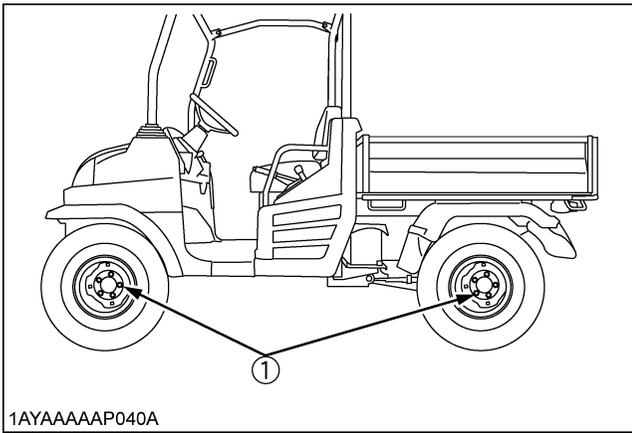
### CAUTION

To avoid personal injury:

- Support vehicle securely on stands before removing a wheel.
- Never operate vehicle with loose wheel bolts.

### IMPORTANT :

- When re-fitting a wheel, tighten the bolts to the following torques then recheck after driving the vehicle 200 m (200 yards) and thereafter according to service interval.



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- (1) Torque wheel bolts to 75 to 90 N-m  
(7.6 to 9.2 kgf-m) (55.3 to 66.4 ft-lbs.)

# TOWING AND TRANSPORTING

## TOWING AND TRANSPORTING

### ■ Rear Trailer Hitch

[if equipped]

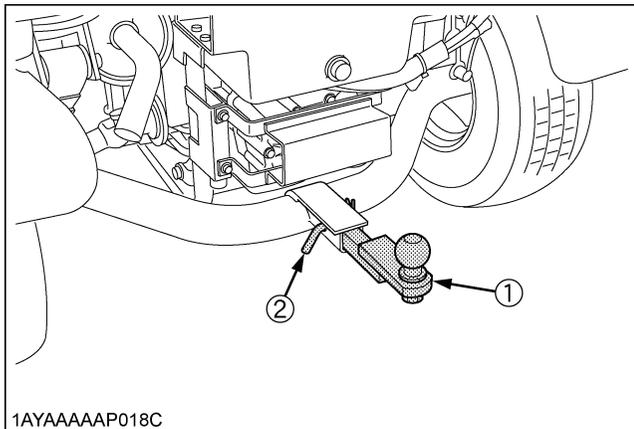


#### WARNING

To avoid personal injury:

- Always tow a load slowly enough to maintain control and avoid tipping.
- To provide adequate braking ability and traction, do not tow a load unless vehicle cargo bed is loaded or attachment is installed.
- Attach a trailer to the trailer hitch only.

The rear trailer hitch load is referred to "VEHICLE LIMITATIONS" section. When towing other equipment, use a safety chain.



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- (1) Rear trailer hitch (if equipped)  
(2) Hitch pin (if equipped)

### ■ Front Trailer Hitch

[if equipped]



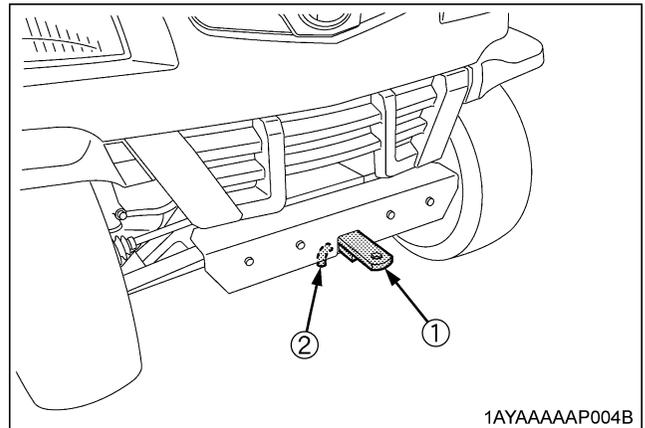
#### WARNING

To avoid personal injury:

- Do not tow this vehicle unless all the functions of the vehicle are properly working, since the malfunction of steering operation or braking may cause an accident.

Use the front trailer hitch for greater maneuverability in confined areas such as a barn.

The front trailer hitch load is referred to "VEHICLE LIMITATIONS" section.

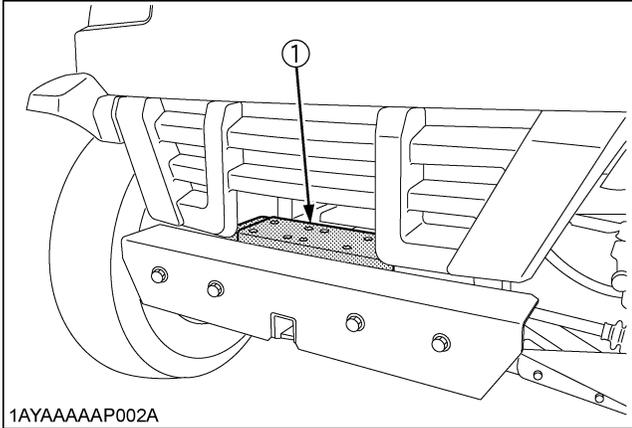


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- (1) Front trailer hitch (if equipped)  
(2) Hitch pin (if equipped)

### ■ Winch Mount Bracket

Mounting the optional winch always requires reading the instruction manual attached to the winch thoroughly before using it.

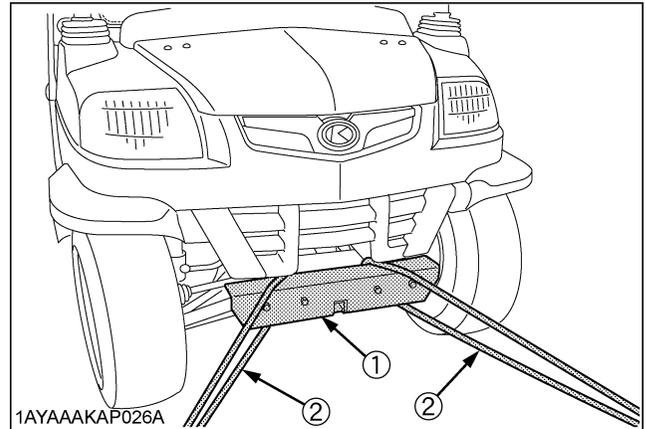


(1) Winch mount bracket

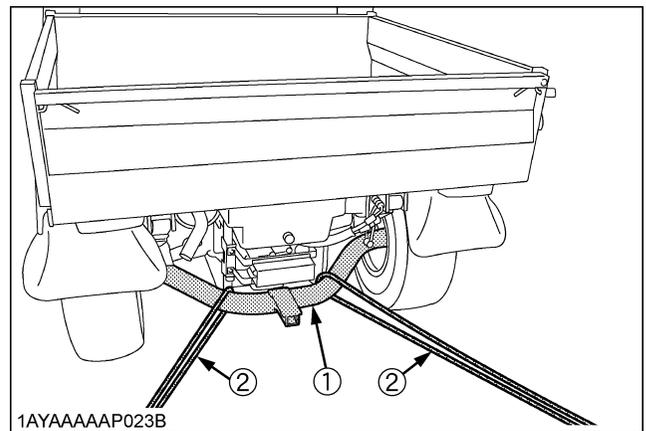
### ■ Transporting Vehicle

Pay attention to the points below when transporting the vehicle.

1. Use a suitable truck or trailer.
2. Apply the parking brake and place chocks against the front and rear tires.
3. Secure the portions of the vehicle, which are shown in the figure below, by using strong straps or chains.



(1) Front bumper  
(2) Heavy-duty strap



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



No.	Items	Indication of Hour Meter														After 700 hrs	Ref. Page			
		50	100	150	200	250	300	350	400	450	500	550	600	650	700					
12	Fuel line	Check		○		○		○		○		○		○		○	every 100 hrs	60		@
		Replace																every 2 years	81	
13	Air cleaner element	Clean		○		○		○		○		○		○		○	every 100 hrs	59	*1	@
		Replace																every 1 year	79	
14	Air cleaner element [Hydraulic utility valve equipped model]	Clean			○		○		○		○		○				every 150 hrs	64	*1	@
		Replace																every 1 year	79	
15	Engine oil filter	Replace	◎			○				○					○		every 200 hrs	65		
16	Transmission oil filter (HST) (Yellow color)	Replace	◎			○				○					○		every 200 hrs	67		
17	Transmission oil filter (Suction) (Orange color)	Replace	◎			○				○					○		every 200 hrs	68		
18	Brake pedal	Check	◎			○				○					○		every 200 hrs	71	*4	
19	Parking brake lever	Adjust	◎			○				○					○		every 200 hrs	65		
20	Brake light switch	Check	◎			○				○					○		every 200 hrs	72		
21	Front brake case	Check	◎			○				○					○		every 200 hrs	72		
22	Power steering oil	Change				○				○					○		every 200 hrs	74		
23	Hydraulic lift oil	Change				○				○					○		every 200 hrs	69		
24	Hydraulic auxiliary tank oil [Hydraulic utility valve equipped model]	Change				○				○					○		every 200 hrs	70		
25	Hydraulic auxiliary oil line [Hydraulic utility valve equipped model]	Check				○				○					○		every 200 hrs	75		
26	Hydraulic auxiliary tank oil filter [Hydraulic utility valve equipped model]	Replace								○							every 400 hrs	77		
27	Radiator hose and clamp	Check				○				○					○		every 200 hrs	72		
		Replace															every 2 years	81		
28	Power steering oil line	Check				○				○					○		every 200 hrs	73		
		Replace															every 2 years	81	*4	

40 MAINTENANCE

No.	Items		Indication of Hour Meter													After 700 hrs	Ref. Page			
			50	100	150	200	250	300	350	400	450	500	550	600	650					700
29	Intake air line	Check				○				○				○			every 200 hrs	75		@
		Replace															every 2 years	81	*3	
30	Engine breather hose	Replace														every 2 years	81	*4		
31	Brake hose & pipe	Check	◎			○				○				○		every 200 hrs	71			
		Replace															every 4 years	81	*4	
32	Tire wear	Check	◎					○						○		every 300 hrs	76			
33	Transmission fluid	Change								○						every 400 hrs	76			
34	Front axle case oil	Change								○						every 400 hrs	78			
35	Knuckle case oil	Change								○						every 400 hrs	76			
36	Engine valve clearance	Adjust														every 800 hrs	79	*4		
37	Fuel injection nozzle Injection pressure	Check														every 1500 hrs	79	*4	@	
38	Injection pump	Check														every 3000 hrs	79	*4	@	
39	Brake Master cylinder (inner parts)	Replace														every 2 years	81	*4		
40	Brake fluid	Change														every 2 years	79	*4		
41	Remote hydraulic hose	Replace														every 2 years	81	*4		
42	Rear brake cylinder seal	Replace														every 2 years	81	*4		
43	Front brake seal	Replace														every 2 years	81	*4		
44	Cooling system	Flash														every 2 years	79			
45	Coolant	Change														every 2 years	79			
46	Fuel system	Bleed														Service as required	81			
47	Fuse	Replace													81					
48	Light bulb	Replace													83					
49	Oil cooler net [Hydraulic utility valve equipped model]	Clean													83					

## LUBRICANTS, FUEL AND COOLANT

No.	Locations	Capacities	Lubricants
1	Fuel	28 L (7.4 U.S.gals.)	No. 2-D diesel fuel No. 1-D diesel fuel if temperature is below -10 °C (14 °F)
2	Coolant (with reserve tank)	4.0 L (4.2 U.S.qts.)	Fresh clean water with anti-freeze
3	Engine crankcase	[Filter exchanged] 3.1 L (3.3 U.S.qts.)	• Engine oil: API Service Classification CD, CE or CF
		[Filter non-exchanged] 2.7 L (2.9 U.S.qts.)	Above 25 °C (77 °F) SAE30, SAE10W-30 or 15W-40 0 to 25 °C (32 to 77 °F) SAE20, SAE10W-30 or 15W-40 Below 0 °C (32 °F) SAE10W, SAE10W-30
4	Transmission case	10 L (2.6 U.S.gals.)	• KUBOTA UDT or SUPER UDT fluid*
5	Front axle case	0.6 L (0.6 U.S.qts.)	• KUBOTA UDT or SUPER UDT fluid*
6	Knuckle case	Ref. 0.15 L (0.16 U.S.qts.)	• KUBOTA UDT or SUPER UDT fluid*
7	Brake fluid (reservoir and lines)	0.4 L (0.4 U.S.qts.)	<b>KUBOTA DOT3 GENUINE BRAKE FLUID</b>
8	Hydraulic lift oil [Hydraulic dumping equipped model]	8.0 L (8.5 U.S.qts.)	• KUBOTA UDT or SUPER UDT fluid*
	Hydraulic auxiliary tank oil [Hydraulic utility valve equipped model]	17.0 L (18.0 U.S.qts.)	
9	Power steering oil	5.9 L (6.2 U.S.qts.)	

Greasing	No. of greasing points	Capacity	Type of grease
Parking brake linkage	4	moderate amount	Multipurpose EP2 Grease (NLGI Grade No. 2)
Battery terminal	2		
Cargo lift cylinder pivot	2		
Cargo bed pivot	2		
VHT link	2	Until grease overflows	
Range gear shift lever pivot	1	moderate amount	
4WD lever pivot	2		
Rear drive shaft	2		
VHT pressure release	2		
Throttle cable	1		
Hand throttle cable [Hydraulic utility valve equipped model]	---		Antirust silicone grease

**NOTE :**

\*KUBOTA UDT or SUPER UDT fluid --- KUBOTA original transmission hydraulic fluid

**For North American market**

**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:
- 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.

Fuel used	Engine oil classification (API classification)	
	Oil class of engines except external EGR	Oil class of engines with external EGR
Ultra Low Sulfur Fuel [<0.0015% (15 ppm)]	<b>CF, CF-4, CG-4, CH-4 or CI-4</b>	<b>CF or CI-4</b> (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 vehicle.

	except external EGR	with external EGR
Model	RTV900	---

◆ **Fuel:**

- Cetane number of 45 minimum. Cetane number greater than 50 is preferred, especially for temperatures below -20 °C (-4 °F) or elevations above 1500 m (5000 ft).
- 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.

◆ **Brake fluid:**

Always use KUBOTA **DOT3 GENUINE BRAKE FLUID** from a sealed container. If it is not available, you should use only DOT3 fluid as a temporary replacement from a sealed container. However, the use of any non-KUBOTA brake fluid can cause corrosion and decrease the life of the system. Have the brake system flushed and refilled with KUBOTA **DOT3 GENUINE BRAKE FLUID** as soon as possible.

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

**For other than North American market**

**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)]	<b>CF</b> (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)]	<b>CF, CF-4, CG-4, CH-4 or CI-4</b>	<b>CF or CI-4</b> (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 vehicle.

	except external EGR	with external EGR
Model	RTV900	---

◆ **Fuel:**

- Cetane number of 45 minimum. Cetane number greater than 50 is preferred, especially for temperatures below -20°C 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.

◆ **Brake fluid:**

Always use KUBOTA **DOT3 GENUINE BRAKE FLUID** from a sealed container. If it is not available, you should use only DOT3 fluid as a temporary replacement from a sealed container.

However, the use of any non-KUBOTA brake fluid can cause corrosion and decrease the life of the system.

Have the brake system flushed and refilled with KUBOTA **DOT3 GENUINE BRAKE FLUID** as soon as possible.

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

# PERIODIC SERVICE



## CAUTION

To avoid personal injury:

- Do not work under any hydraulically supported devices. They can settle, suddenly leak down, or be accidentally lowered. If necessary to work under vehicle or any vehicle elements for servicing or adjustment, securely support them with stands or suitable blocking beforehand.

## HOW TO OPEN THE HOOD AND TILT THE SEAT



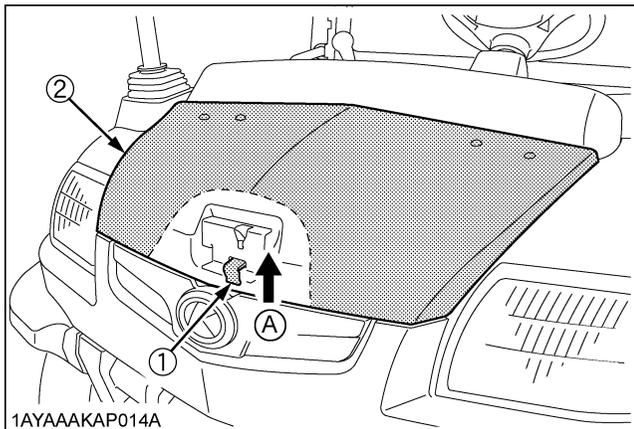
## CAUTION

To avoid personal injury from contact with moving parts;

- Never open the operator's seat while the engine is running.
- Support hood with other hand while unlocking support link.

### ■ Hood

To open the hood, pull up the latch lever to release the latch and open the hood.



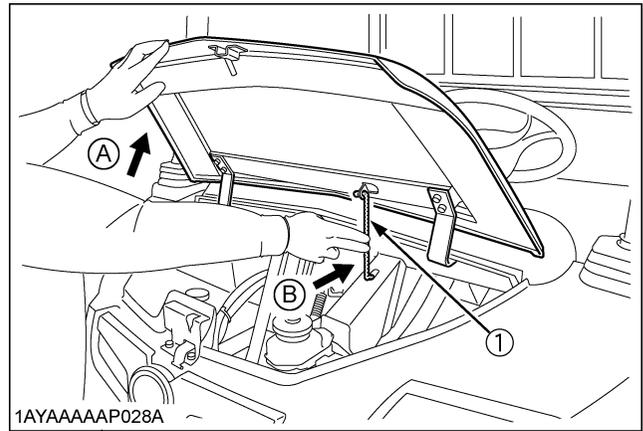
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- (1) Latch lever  
(2) Hood

(A) "RELEASE"

### NOTE :

- To close the hood, hold the hood and release the support link and press-fit the hood into position with both hands.



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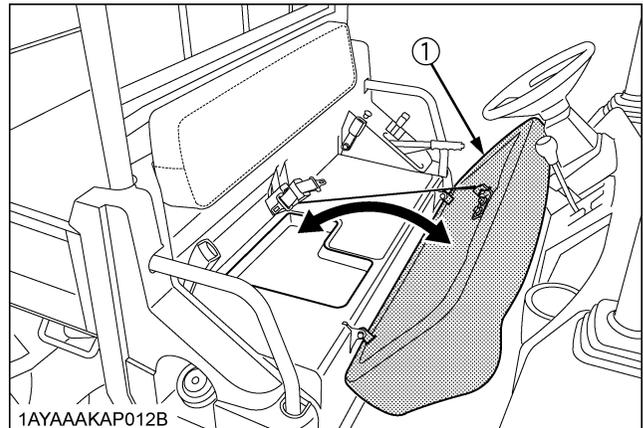
(1) Support link

(A) "HOLD"

(B) "PUSH"

### ■ Operator's Seat

To open the seat, raise the seat to the forward position.



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(1) Operator's seat

## HOW TO RAISE THE CARGO BED



### CAUTION

To avoid personal injury:

- When servicing under raised bed, make sure safety support is properly mounted.
- Do not touch muffler or exhaust pipes while they are hot; Severe burns could result.

### ■ Raising and Lowering the Cargo Bed [if equipped with hydraulic dump]

#### ◆ To raise the cargo bed

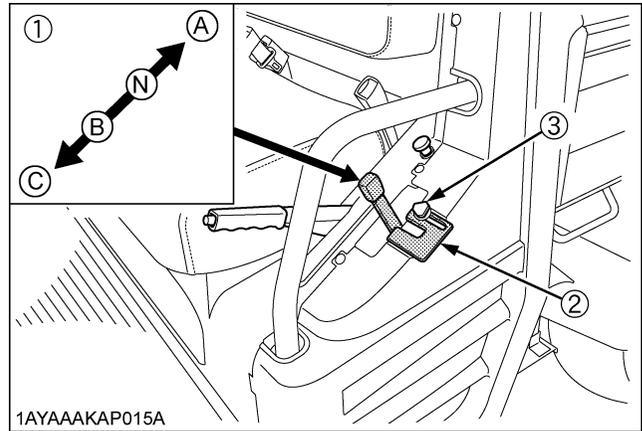
1. Apply the parking brake and start the engine.
2. Release the restricting plate.
3. Pull up the hydraulic lift cylinder lever to raise the cargo bed.
4. When the cargo bed has been raised, return the lever to the "NEUTRAL" position.
5. Stop the engine.
6. Mount the safety support.

#### ◆ To lower the cargo bed

1. Start the engine and then lift the bed slightly by operating the lever.
2. Remove the safety support and store it in the given location.
3. Lower the lever to the "DOWN" position to lower the bed.
4. After making sure that the bed has lowered to the lowest position, return the lever to the "NEUTRAL" position and lock it by the restricting plate.

#### NOTE :

- To raise or lower the cargo bed when the engine does not start or the hydraulics are not operating, shift the lever to the "FLOAT" position and raise or lower the bed manually.



(1) Hydraulic lift cylinder lever  
(if equipped)

(2) Restricting plate (if equipped)

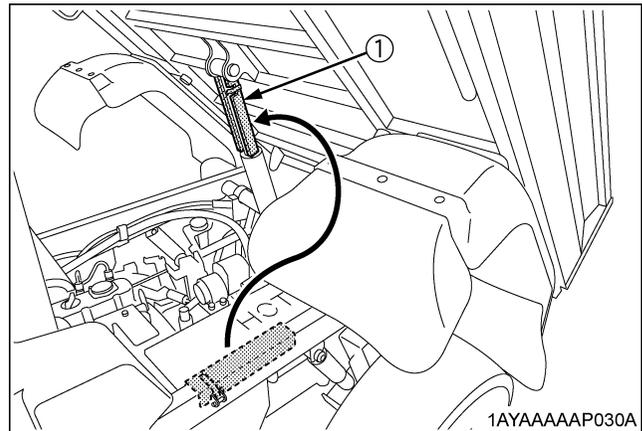
(3) Knob bolt (if equipped)

(A) "UP"

(N) "NEUTRAL"

(B) "DOWN"

(C) "FLOAT with Detent"



(1) Safety support

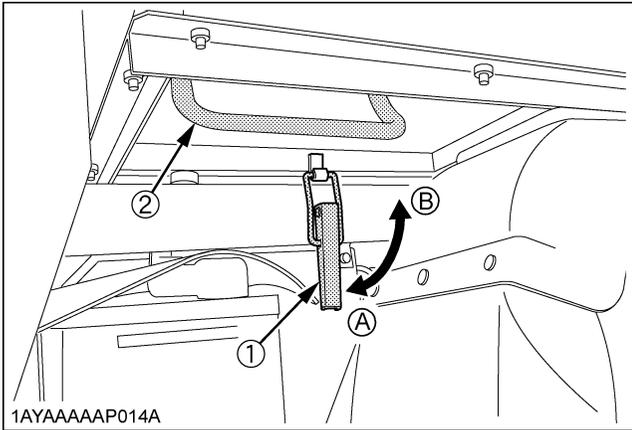
**■ Raising and Lowering the Cargo Bed  
[without hydraulic dump]**

**⚠ WARNING**

To avoid personal injury:

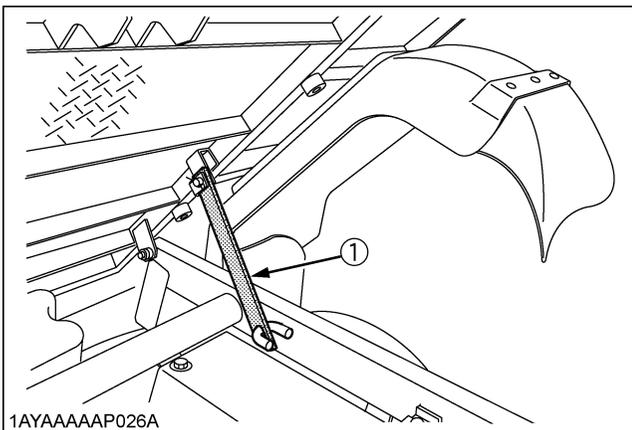
- Always lower and latch the bed before driving.
- Be careful not to catch any part of your body, such as hands or arms, between the bed and cab frame or vehicle frame when lifting and lowering the bed. To prevent injury, use only the handgrips provided.

The cargo bed may be tilted by releasing the latches on each side, and then lifting the bed with the handgrips. Support the bed in the raised position with the propping rod.



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- (1) Latch  
(2) Handgrip  
(A) "LOCK"  
(B) "RELEASE"



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- (1) Propping rod

**JACK-UP POINT**

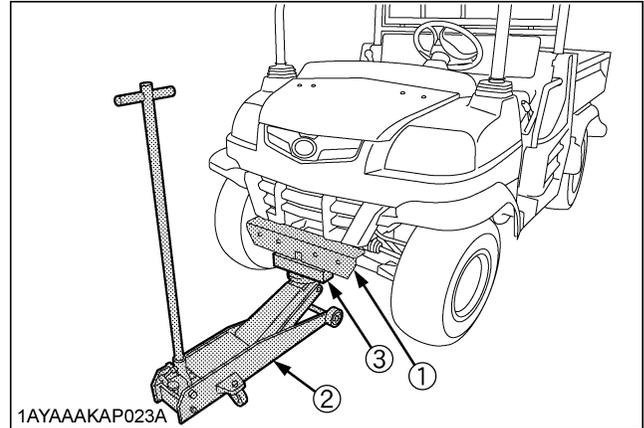
**⚠ WARNING**

To avoid personal injury, death or vehicle damage:

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

**■ Front End**

Jack up at the front bumper only.



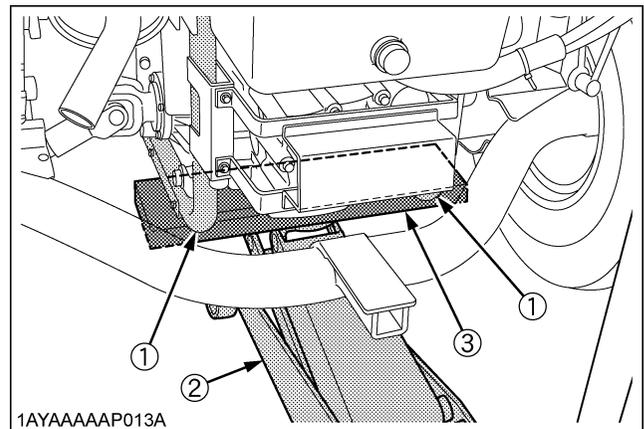
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- (1) Front bumper  
(2) Jack  
(3) Wooden block

**■ Rear End**

Jack up the rear side after placing a wooden block under the right and left pipe frames for securing the engine and then supporting it.

Do not jack it up supporting the steel plate portion under the engine directly.



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- (1) Pipe frame  
(2) Jack  
(3) Wooden block

## DAILY CHECK

For your own safety and maximum service life of the vehicle, make a thorough daily inspection before operating the vehicle to start the engine.



### CAUTION

To avoid personal injury:

- Be sure to check and service the vehicle on a flat surface with the engine shut off and the parking brake "ON".

### ■ Walk Around Inspection

Look around and under the vehicle for such items as loose bolts, trash build-up, oil or coolant leaks, broken or worn parts.

### ■ Checking and Refueling

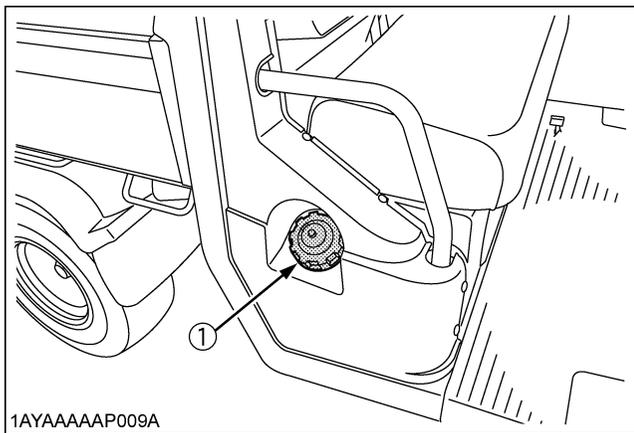


### CAUTION

To avoid personal injury:

- Do not smoke while refueling.
- Be sure to stop the engine before refueling.

1. Turn the key switch to "ON", check the amount of fuel by fuel gauge.
2. Fill fuel tank when fuel gauge shows 1/4 or less fuel in tank.
3. Use grade No.2-Diesel fuel at temperatures above -10 °C (14 °F).  
Use grade No.1-Diesel fuel at temperatures below -10 °C (14 °F).



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(1) Fuel tank cap

### IMPORTANT :

- Do not permit dirt or trash 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 during refueling. If should spill, wipe it off at once, or it may cause a fire.
- To prevent water condensation from accumulating in the fuel tank, fill the tank before parking overnight.

Fuel tank capacity	28L (7.4 U.S.gals.)
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## ■ Checking Engine Oil Level

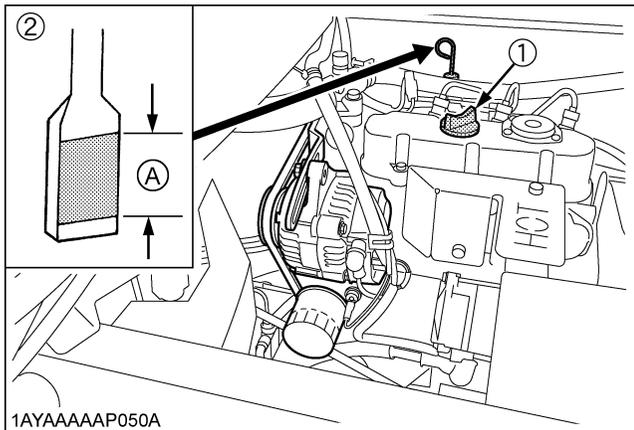


### CAUTION

To avoid personal injury:

- Be sure to stop the engine before checking the oil level.

1. Park the vehicle on a flat surface and raise the cargo bed.
2. Check engine oil before starting the engine or 5 minutes or more after the engine has stopped.
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 two notches. 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.)



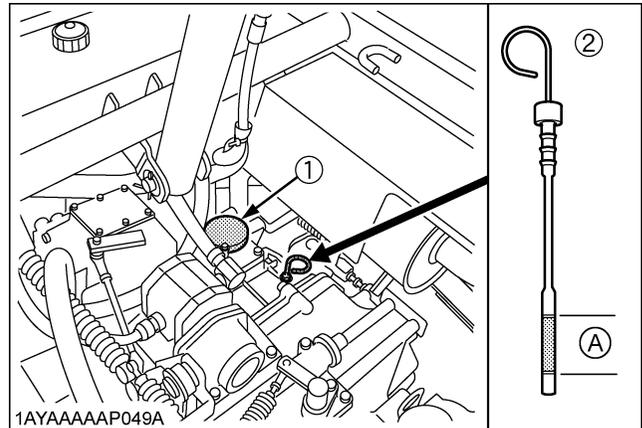
- (1) Oil inlet      (A) Oil level is acceptable within this range.  
(2) Dipstick

### IMPORTANT :

- When using an oil of different maker or viscosity from the previous one, remove all of the old oil. Never mix two different types of oil.
- If oil level is low, do not run engine.

## ■ Checking Transmission Fluid Level

1. Park the vehicle on a flat surface, raise the cargo bed and shut off engine.
2. 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 two notches. 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.)



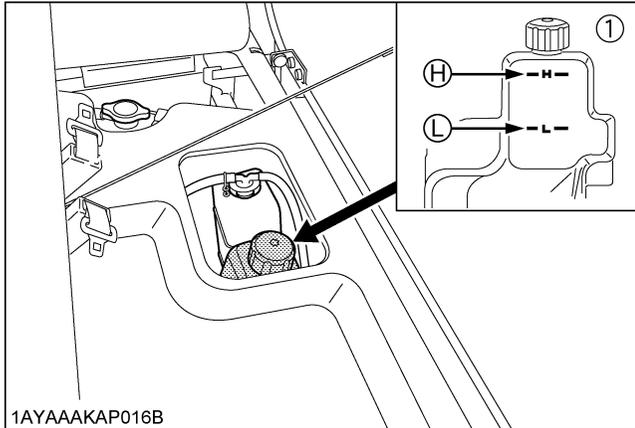
- (1) Oil inlet      (A) Oil level is acceptable within this range.  
(2) Dipstick

### IMPORTANT :

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

### ■ Checking Power Steering Oil Tank Level

1. Park the vehicle on a flat surface.
2. Check to see that the oil level is between the "H" and "L" marks on the oil tank.  
If the level is too low, add new oil to the "H" mark.  
(See "LUBRICANTS, FUEL AND COOLANT" in "MAINTENANCE" section.)



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(1) Power steering oil tank (H) "HIGH"  
(L) "LOW"

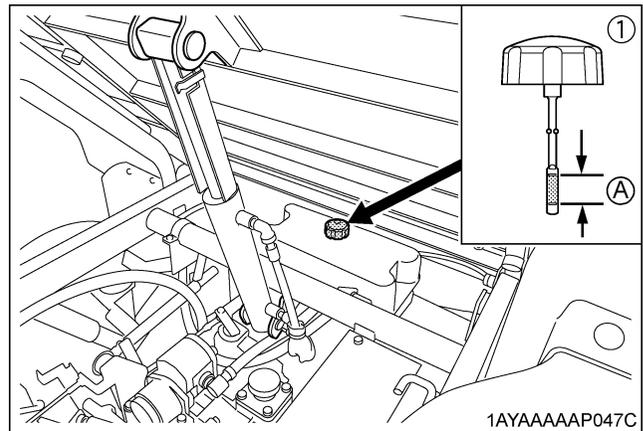
**IMPORTANT :**

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

### ■ Checking Hydraulic Lift Oil Tank Level

**[Hydraulic dumping system model]**

1. Park the vehicle on a flat surface.
2. Raise the cargo bed and mount the safety support.  
(See "HOW TO RAISE THE CARGO BED" in "PERIODIC SERVICE" section.)
3. To check the oil level, remove the dipstick, wipe it clean, screw it into filling hole and remove dipstick again.  
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.)



1AYAAAAAP047C

(1) Filling plug with dipstick (A) Oil level is acceptable within this range

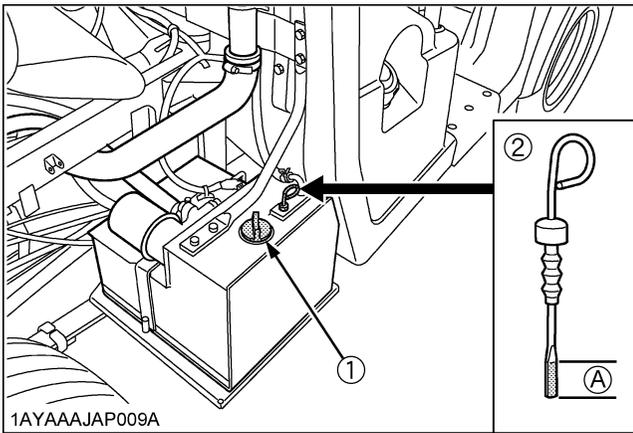
**IMPORTANT :**

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

### ■Checking Hydraulic Auxiliary Tank Oil Level

[Hydraulic utility valve equipped model]

1. Park the vehicle on a firm, flat and level surface.
2. Raise the cargo bed and mount the safety support.  
(See "HOW TO RAISE THE CARGO BED" in "PERIODIC SERVICE" section.)
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 range.  
If the level is too low, add new oil to the prescribed level at the filling plug.  
(See "LUBRICANTS, FUEL AND COOLANT" in "MAINTENANCE" section.)



(1) Filling plug      (A) Oil level is acceptable within this range  
(2) Dipstick

### ■Cleaning Oil Cooler Net [Hydraulic utility valve equipped model]

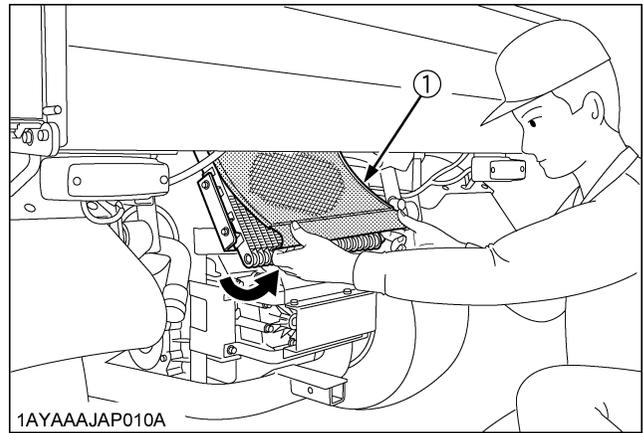


#### CAUTION

To avoid personal injury:

- Allow oil cooler or oil line parts to cool down sufficiently, they can be hot and can cause injury.

1. Park the vehicle on a flat surface, lower the cargo bed, shut off the engine and turn the key to the "OFF" position.  
If the key switch is "ON", the oil cooler fan may start to rotate suddenly.
2. Take off the oil cooler net from the lower side and remove all trash.



(1) Oil cooler net

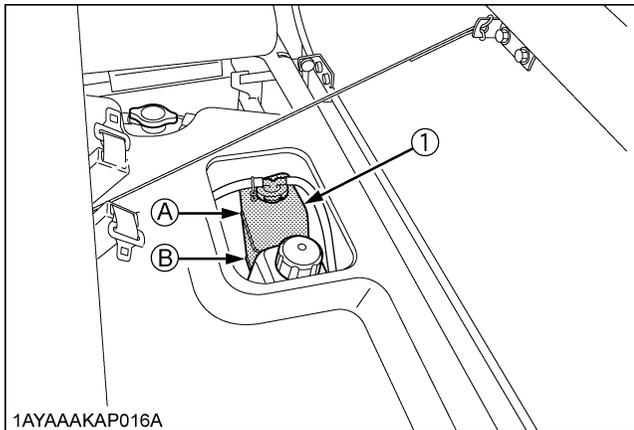
### ■Checking Coolant Level

#### CAUTION

To avoid personal injury:

- Do not remove 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.

1. Park the vehicle on a flat surface and raise the seat.
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 the full level.  
In case of leakage, add anti-freeze and water in the specified mixing ratio up to the full level.  
(See "Flush Cooling System and Changing Coolant" in "EVERY 2 YEARS" in "PERIODIC SERVICE" section.)



(1) Recovery tank  
(A) "FULL"  
(B) "LOW"

#### IMPORTANT :

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

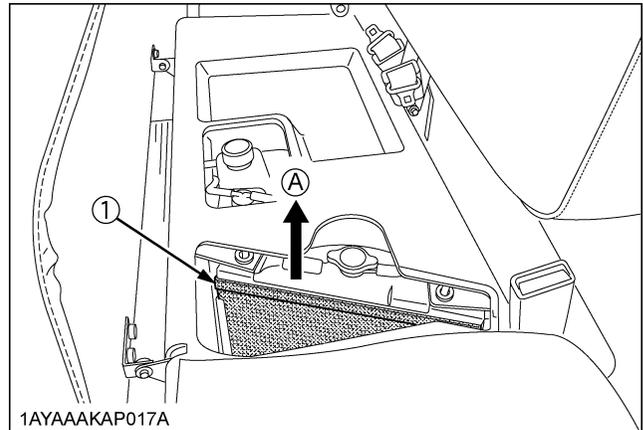
### ■Cleaning Radiator Screen

#### CAUTION

To avoid personal injury:

- Be sure to stop the engine before removing the screen.

1. Park the vehicle on a flat surface and raise the seat.
2. Detach the screen and remove all foreign materials.



(1) Radiator screen  
(2) Cover  
(A) "DETACH"

#### IMPORTANT :

- Radiator screen must be clean from debris to prevent engine from overheating.

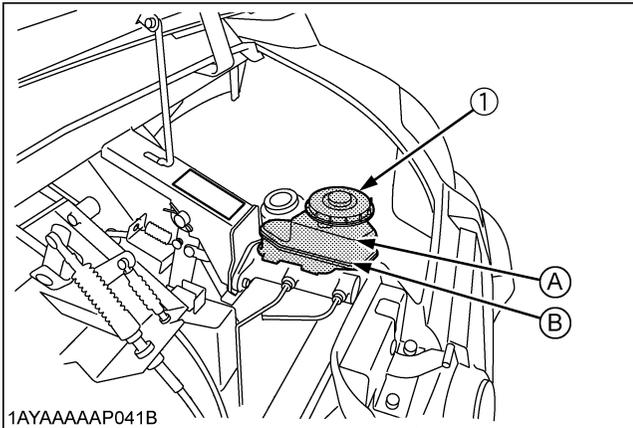
■ Checking Brake Fluid Level

**CAUTION**

To avoid personal injury:

- Never operate the vehicle, if the brake fluid is below the "MIN" mark.
- Use only KUBOTA DOT3 GENUINE BRAKE FLUID from a sealed container. Using other type of oil ruins synthetic resin or rubber installed in brake system components, and may cause brake failure.
- Avoid contamination of the brake fluid. Thoroughly clean area around the filler cap before removing. Do not open the brake fluid reservoir cap unless absolutely necessary.
- Use extreme care when filling the reservoir. If brake fluid is spilled on power steering hose, wash off with water immediately. Brake fluid quickly ruins synthetic resin or rubber hoses.

1. Park the vehicle on a level ground and open the hood.
2. Check to see that the brake fluid level is between the "MAX" and "MIN" marks.
3. If it is below the "MIN" mark, add brake fluid to the "MAX" mark.



(1) Oil tank cap

(A) "MAX"  
(B) "MIN"

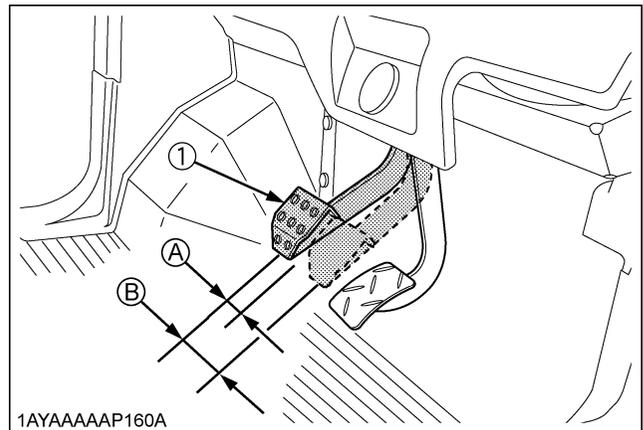
■ Checking Brake Pedal

**CAUTION**

To avoid personal injury:

- Stop the engine and chock the wheels before checking brake pedal.

1. Inspect the brake pedals for free travel, and smooth operation.
2. Adjust if incorrect measurement is found: (See "Checking Brake Pedal" in "EVERY 200 HOURS" in "PERIODIC SERVICE" section.)



(1) Brake pedal

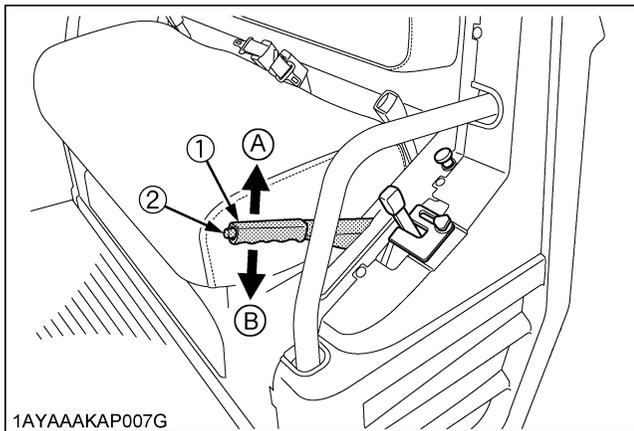
(A) "FREE TRAVEL"  
(B) "PEDAL STROKE"

### ■Checking Parking Brake

Pull the parking brake lever to apply the brakes. With the key switch at "ON" position, the parking brake indicator on the instrument panel lights up. To release the brakes, push in the button at the tip of the parking brake lever and tilt down the lever.

**NOTE :**

- Make sure the parking brake warning lamp (ⓘ) on the Easy Checker(TM) goes off when parking brake lever is down.



1AYAAKAP007G

- (1) Parking brake lever
- (2) Release button
- (A) "PULL"
- (B) "RELEASE"

### ■Checking Gauges, Meter and Easy Checker(TM)

1. Inspect the instrument panel for broken gauge(s), meter(s) and Easy Checker(TM) lamps.
2. Replace if broken.

### ■Checking Head Light, Turn Signal Light etc.

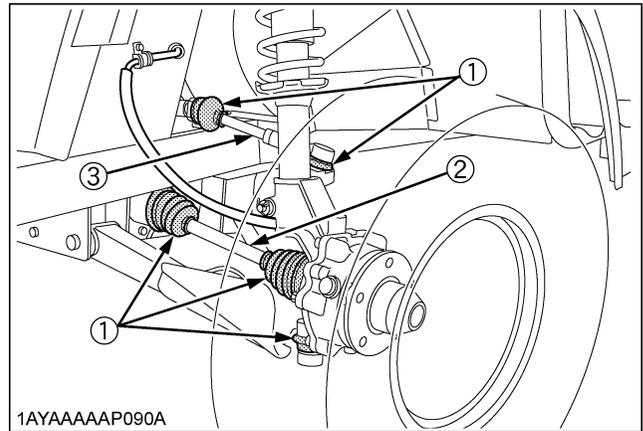
1. Inspect the lights for broken bulbs and lenses.
2. Replace if broken.

### ■Checking Seat Belt and ROPS

1. Always check condition of seat belt and ROPS attaching hardware before operating vehicle.
2. Replace if damaged.

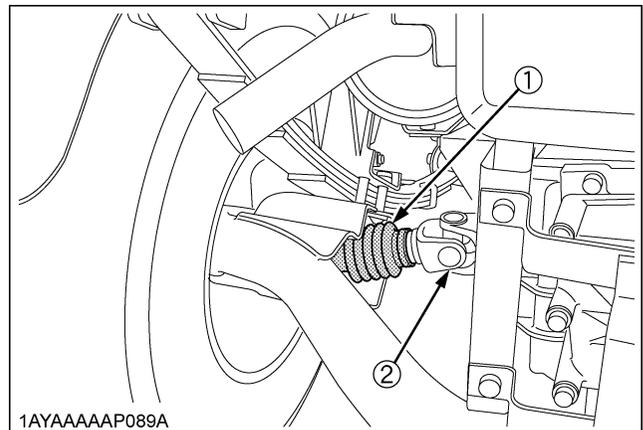
### ■Checking Joint Boot

1. Check to see if the joint boots are not damaged.
2. If the boots are cuts, cracked or shows signs of deterioration, consult your local KUBOTA Dealer.



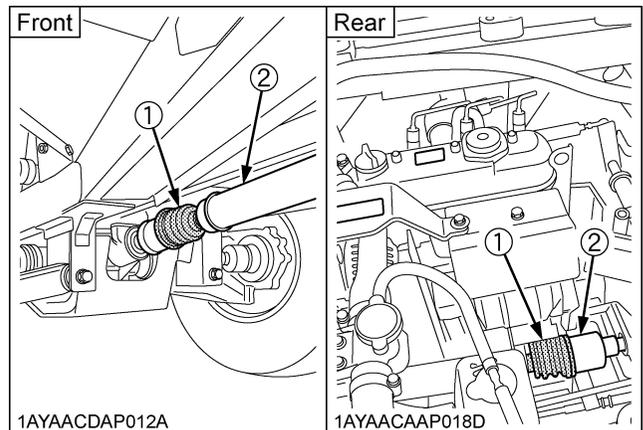
1AYAAAAAP090A

- (1) Joint boot
- (2) Front drive shaft
- (3) Tie rod



1AYAAAAAP089A

- (1) Joint boot
- (2) Rear drive shaft



1AYAACDAP012A

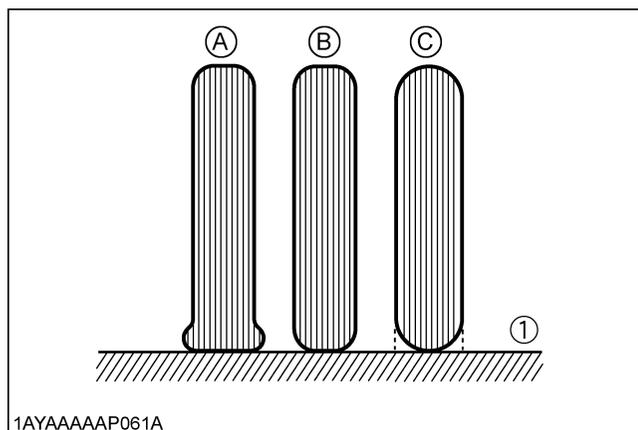
1AYACAAP018D

- (1) Joint boot
- (2) Drive shaft

### ■ Checking Tire Inflation Pressure

Though the tire 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	Inflation Pressure
25 x 10 - 12 HDWS, Front & Rear	140 kPa (1.4 kgf/cm <sup>2</sup> , 20 psi)
25 x 12 - 12 Turf, Front & Rear	
25 x 10 - 12 ATV, Front 25 x 11 - 12 ATV, Rear	



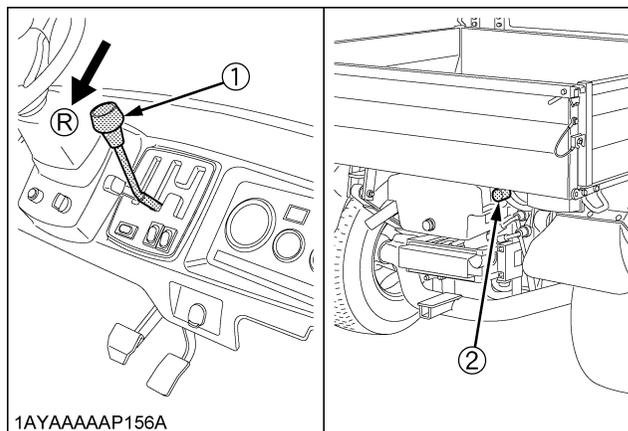
(1) Ground

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

### ■ Checking Backup Beeper

[if equipped]

1. Sit on the operator's seat.
2. Set the parking brake and stop the engine.
3. Shift the range gear shift lever to the "NEUTRAL" position.
4. Turn the key to "ON" position.
5. Shift the range gear shift lever to the "REVERSE" position.
6. If the backup beeper does not beep, consult your local KUBOTA Dealer.



(1) Range gear shift lever

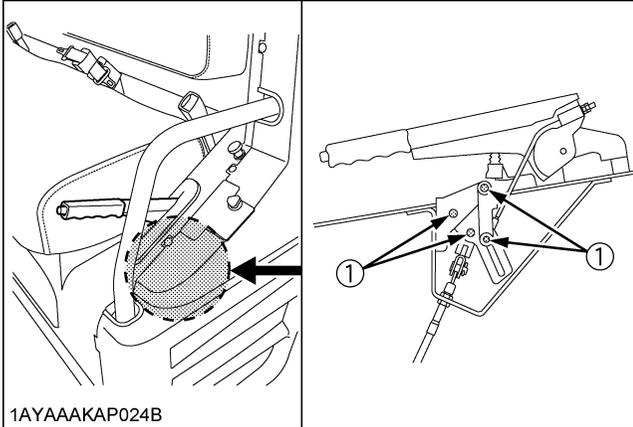
(2) Backup beeper (if equipped)

(R) "REVERSE"

## EVERY 50 HOURS

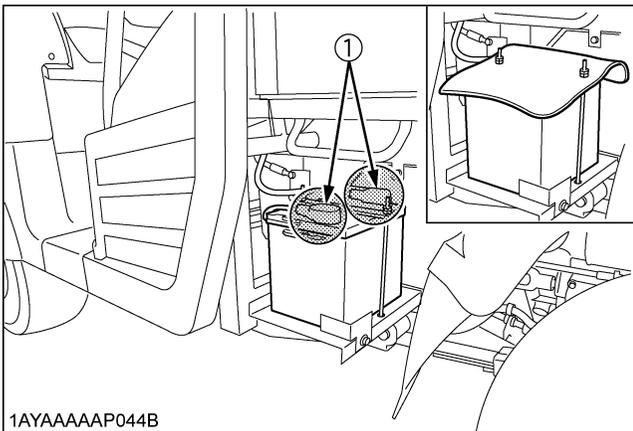
### ■ Greasing

Apply a small amount of multi-purpose grease to the following points every 50 hours: If you operated the vehicle in extremely wet and muddy conditions, lubricate grease fittings more often.



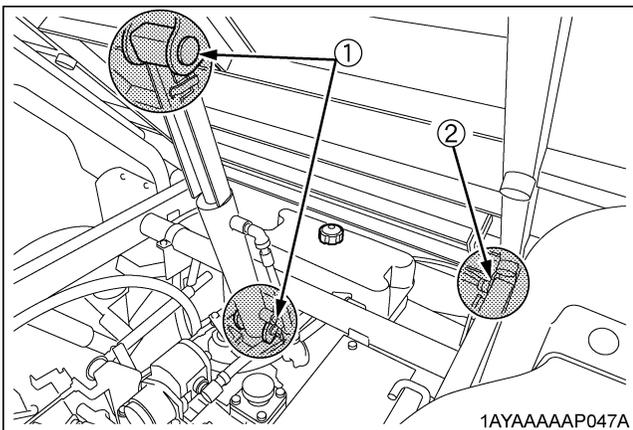
1AYAAKAP024B

(1) Parking brake pivot (spray type grease)



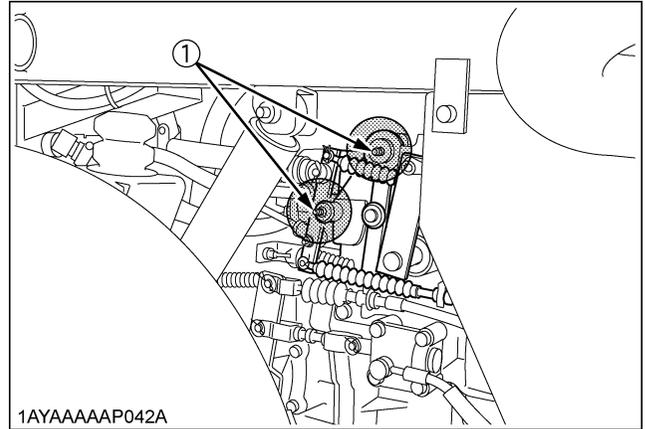
1AYAAAAP044B

(1) Battery terminals



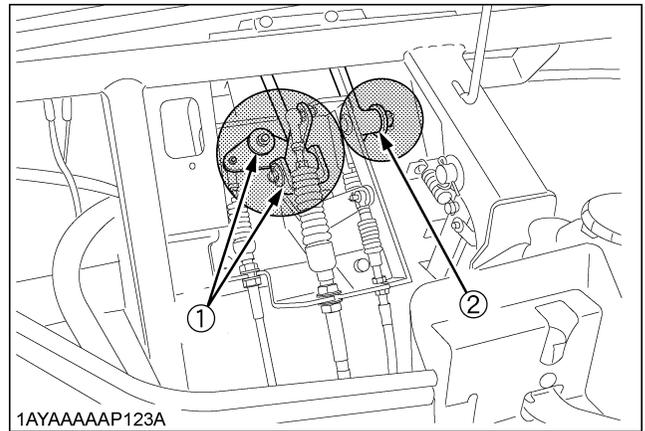
1AYAAAAP047A

(1) Cargo lift cylinder pivot (if equipped)(spray type grease)  
(2) Cargo bed pivot (spray type grease)



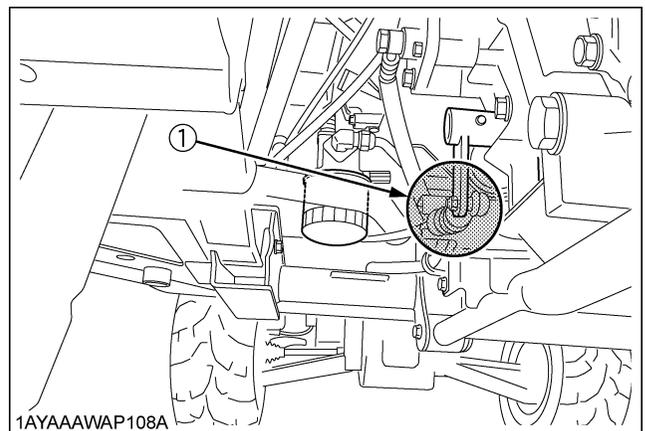
1AYAAAAP042A

(1) VHT link (Grease fitting)



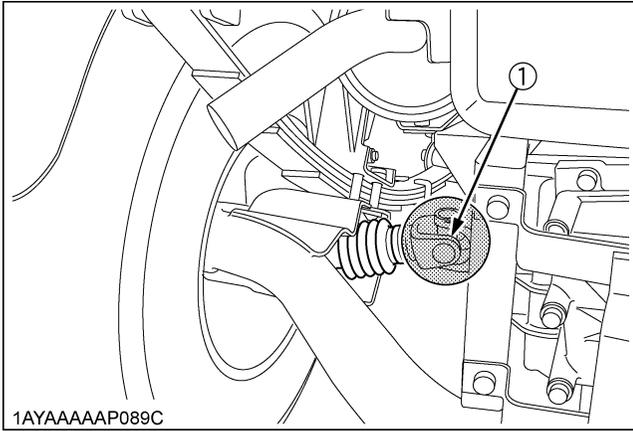
1AYAAAAP123A

(1) Range gear shift lever pivot (spray type grease)  
(2) 4WD lever pivot (spray type grease)

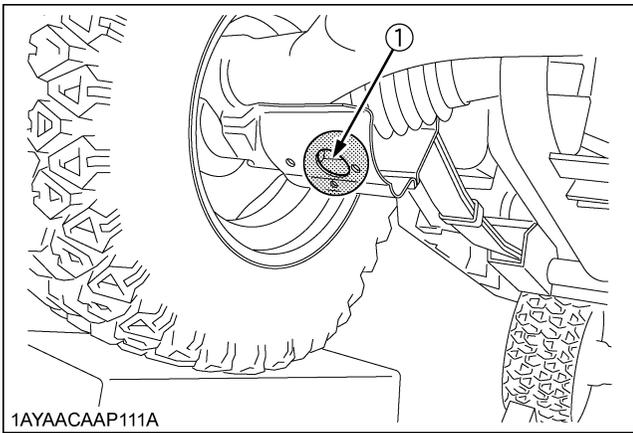


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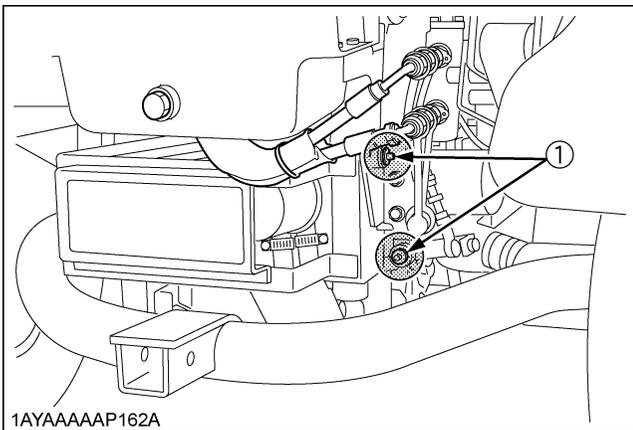
(1) 4WD lever pivot (spray type grease)



(1) Rear drive shaft (Grease fitting)

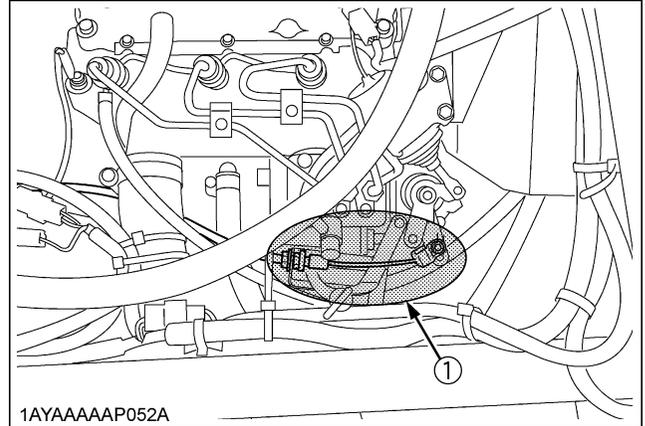


(1) Rear drive shaft (Grease fitting)

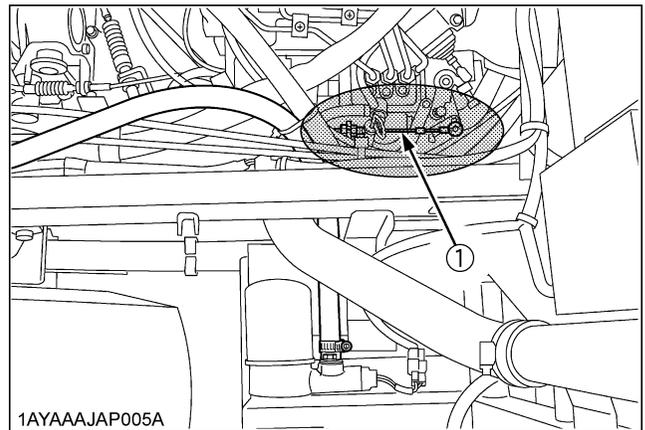


(1) VHT pressure release (Grease fitting)

## ■ Oiling



(1) Throttle cable



(1) Hand throttle cable (if equipped)

## ■ Checking Engine Start System



### CAUTION

To avoid personal injury:

- Do not allow anyone near the vehicle while testing.
- If the vehicle does not pass the test do not operate the vehicle.

#### ◆ Preparation before testing.

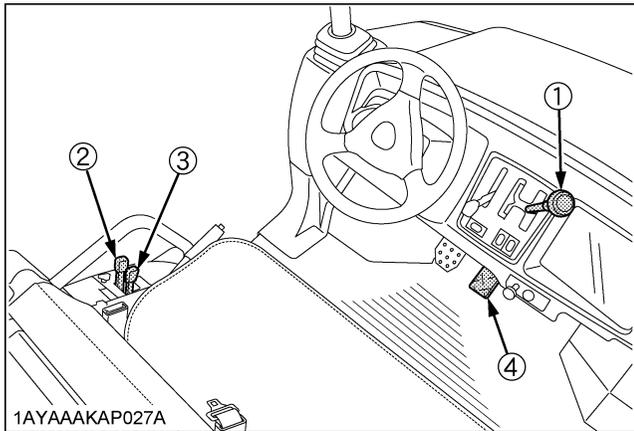
1. Place all control levers in the "NEUTRAL" position.
2. Set the parking brake and stop the engine.

◆ **Test: Range gear shift lever safety switch**

1. Sit on the operator's seat.
2. Shift the range gear shift lever to H, M, L or reverse position.
3. Return the Speed control pedal to the "NEUTRAL" position.
4. Shift the hydraulic lift cylinder lever to the "NEUTRAL" position (if equipped).
5. Turn the key to "START" position.
6. The engine must not crank.
7. If it cranks, consult your local KUBOTA Dealer for this service.

◆ **Test: Hydraulic outlet lever safety switch (if equipped)**

1. Sit on the operator's seat.
2. Shift the hydraulic outlet lever to "ON" position.
3. Return the Speed control pedal to the "NEUTRAL" position.
4. Shift the range gear shift lever to the "NEUTRAL" position.
5. Shift the hydraulic lift cylinder lever to the "NEUTRAL" position (if equipped).
6. Turn the key to "START" position.
7. The engine must not crank.
8. If it cranks, consult your local KUBOTA Dealer for service.



- (1) Range gear shift lever
- (2) Hydraulic outlet lever (if equipped)
- (3) Hydraulic lift cylinder lever (if equipped)
- (4) Speed control pedal

## EVERY 100 HOURS

### ■ Checking VHT Neutral Spring

1. Park the vehicle on a flat place.
2. Set the parking brake.
3. Shift the range gear shift lever to the neutral position.
4. Lock the hydraulic lift cylinder lever to "NEUTRAL" position with restricting plate (if equipped).
5. Start the engine.
6. Make sure that the rotation speed of the engine returns to the idling rotation immediately when taking the foot off the pedal, after depressing the speed control pedal several times. If the above does not occur immediately, consult your local KUBOTA dealer for this service.

### ■ Checking VHT Pressure Release

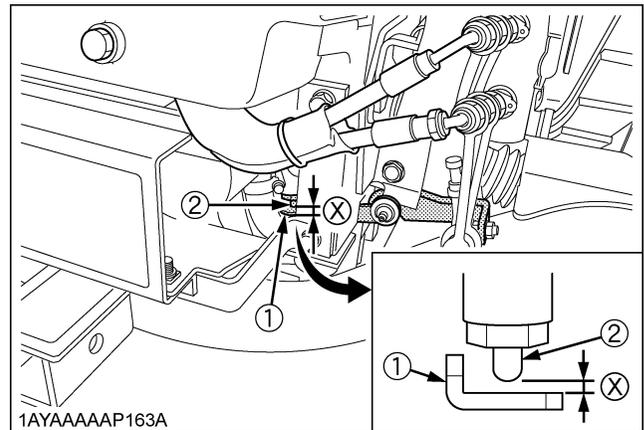


#### CAUTION

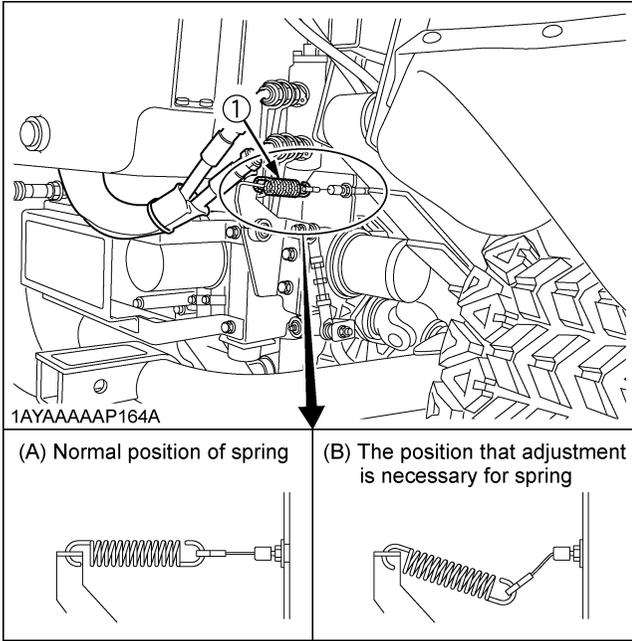
To avoid personal injury:

- Do not touch muffler or exhaust pipes while they are hot; severe burns could result.

1. Park the vehicle on a level ground and set the parking brake.
2. Start the engine and shut off it soon.
3. Check the points as shown in the figures below.
4. If the result corresponds to either of the following (a) or (b), consult your local KUBOTA Dealer.
  - (a) The clearance (x) is more than 1 mm.
  - (b) Spring needs adjusting.



- (1) VHT pressure release arm
- (2) VHT pressure release valve



(1) Spring

## ■ Checking Wheel Bolt Torque

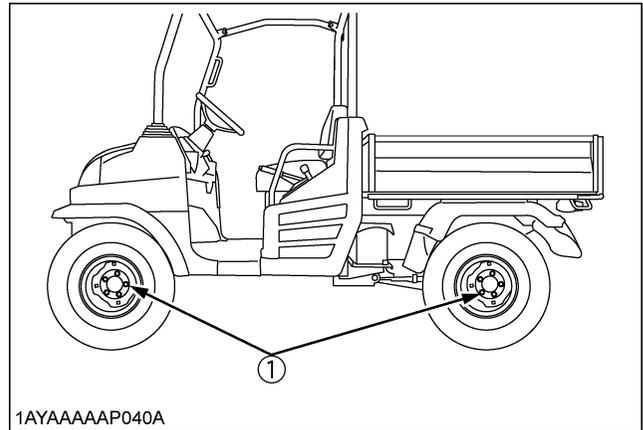


### CAUTION

To avoid personal injury:

- Never operate vehicle with a loose wheel bolts.
- Any time bolts are loosened, retighten to the specified torque.
- Check all bolts frequently and keep them tight.

Check wheel bolts regularly especially when new. If they are loose, tighten them as follows.



- (1) Torque wheel bolts to 75 to 90 N-m  
(7.6 to 9.2 kgf-m) (55.3 to 66.4 ft-lbs.)

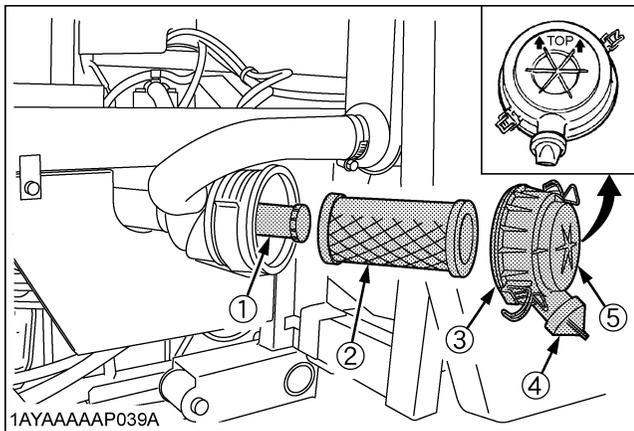
### ■ Cleaning Air Cleaner Primary Element

1. Remove the air cleaner cover and primary element.
2. Clean the primary element:
  - (1) 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<sup>2</sup>, 30 psi).
  - (2) When carbon or oil adheres to the element, soak the element in detergent for 15 minutes then wash it several times in water, rinse with clean water and dry it naturally. After element is fully dried, inspect inside of the element with a light and check if it is damaged or not.
3. Replace the primary element:
 

Once yearly or after every sixth cleaning, whichever comes first.

**NOTE :**

- Check to see if the evacuator valve is blocked with dust.
- Check the rubber seal. Replace if damaged.



- (1) Secondary (safety) element
- (2) Primary element
- (3) Rubber seal
- (4) Evacuator valve
- (5) Cover

**IMPORTANT :**

- The air cleaner uses a dry element, never apply oil.
- Do not run the engine with filter element removed.
- Be sure to refit the cover with the arrow (on the rear of cover) upright. If the cover is improperly fitted, evacuator valve will not function and dust will adhere to the element.
- Do not touch the secondary element except in cases where replacing is required.  
(See "Replacing Air Cleaner Secondary Element" in "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.

### ■ Adjusting Alternator Belt Tension



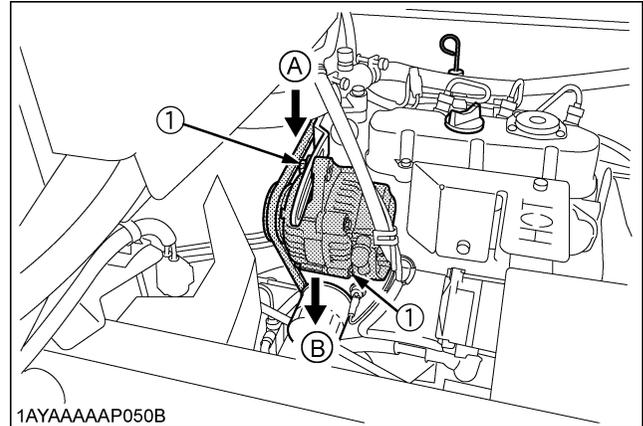
**CAUTION**

To avoid personal injury:

- Be sure to stop the engine before checking belt tension.

Proper alternator belt tension	A deflection of between 7 to 9 mm (0.28 to 0.34 in.) when the belt is pressed in the middle of the span.
--------------------------------	--

1. Park the vehicle on a flat surface and raise the cargo bed.
2. Stop the engine and remove the key.
3. Apply moderate thumb pressure to belt between pulleys.
4. If tension is incorrect, loosen the alternator mounting bolts and, using a lever placed between the alternator and the engine block, pull the alternator out until the deflection of the belt falls within acceptable limits.
5. Replace alternator belt if it is damaged.



(1) Bolt

(A) Check the belt tension  
(B) To tighten

## ■ Checking Fuel Line and Fuel Filter



### CAUTION

To avoid personal injury:

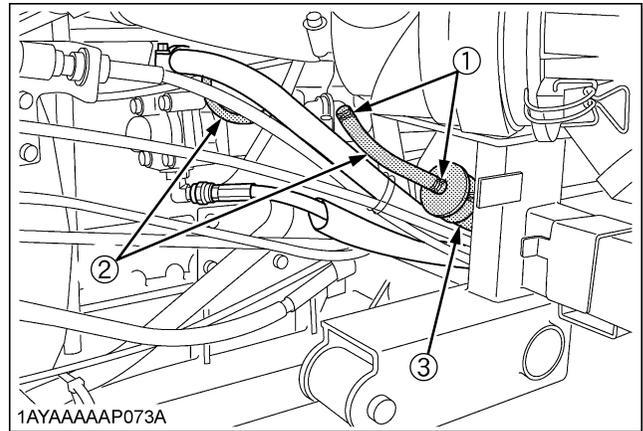
- Be sure to stop the engine and remove the key when attempting to make the following checks and changes.
- Never fail to check the fuel lines periodically. The fuel lines are subject to wear and aging. Fuel may leak out onto the running engine, causing a fire.

The fuel line connections should be checked annually or every 100 service hours, whichever comes first.

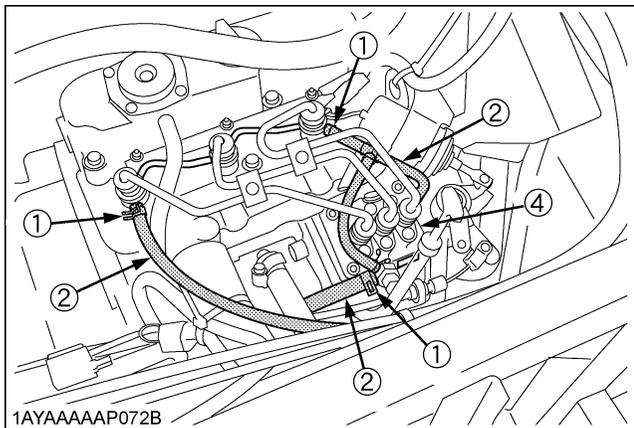
1. Park the vehicle on a flat surface and raise the cargo bed.
2. The fuel line is made of rubber and ages regardless of service period.
3. If the fuel line and clamps are found to be damaged or deteriorated, replace them.
4. Check fuel filter, if it is clogged by debris or contaminated with water, replace 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 of 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



### ■ 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.

#### CAUTION

To avoid personal injury:

- Never remove the vent caps while the engine is running.
- Keep electrolyte away from eyes, hands and clothes. If you are splattered with it, wash it away completely with water immediately and get medical attention.
- Wear eye protection and rubber gloves when working around the battery.

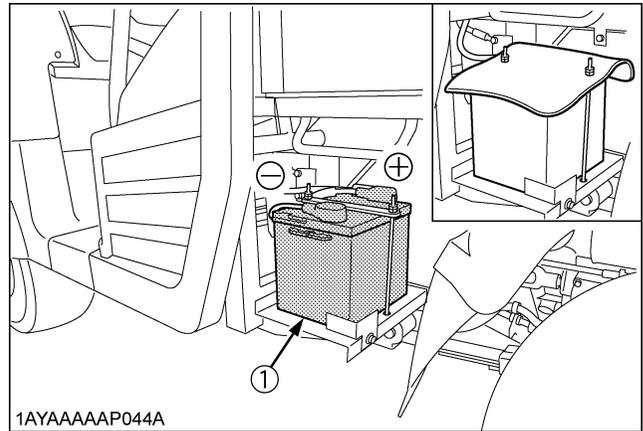
The factory-installed battery is non-refillable type. If the battery is weak, charge the battery or replace it with new one.

#### ◆ Battery Charging

#### CAUTION

To avoid personal injury:

- 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.
- When charging the battery, ensure the vent caps are securely in place. (if equipped)
- 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

1. To slow charge the battery, connect the battery positive terminal to the charger positive terminal and the negative to the negative, then recharge in the standard fashion.
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 exchanging an old battery for a new one, use battery of equal specification shown in table 1.

Battery TYPE	Volts (V)
526RA	12

Reserve Capacity (min)	Cold Cranking Amps	Normal Charging Rate (A)
80	535	6.5

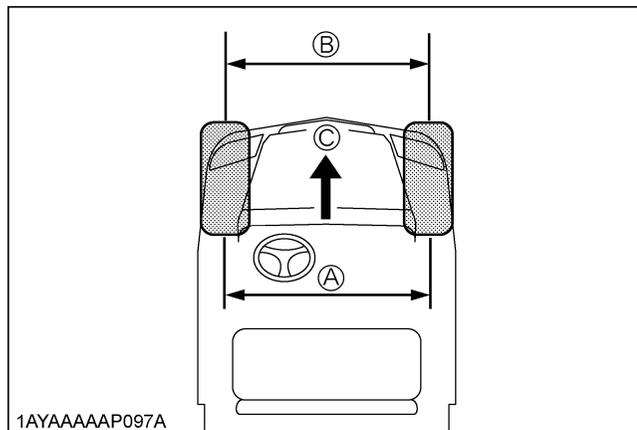
#### ◆ Direction for Storage

1. When storing the vehicle for a long period, remove the battery from vehicle, adjust the electrolyte to the proper level (refillable type only) and store in a dry place out of direct sunlight.
2. The battery self-discharges while it is stored. Recharge it once every three months in hot seasons and once every six months in cold seasons.

## ■ Adjusting Toe-in

Proper toe-in	0 to 20 mm (0 to 0.79 in.)
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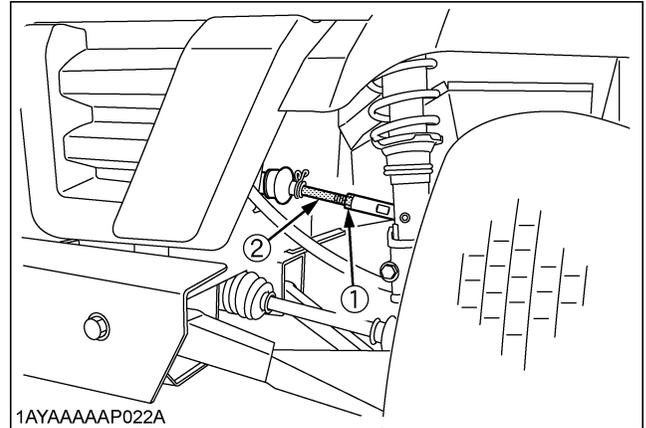
1. Park vehicle on a flat place.
2. Turn steering wheel so front wheels are in the straight ahead position.
3. Lock the park brake and stop the engine.
4. Measure distance between tire beads at front of tire, at hub height.
5. Measure distance between tire beads at rear of tire, at hub height.
6. Front distance should be shorter than rear distance. If not, adjust tie rod length.



- (A) Wheel - to - wheel distance at rear  
 (B) Wheel - to - wheel distance at front  
 (C) "FRONT"

## ◆ Adjusting procedures

1. Loosen the lock nut and turn the tie rod to adjust the rod length until the proper toe-in measurement is obtained.
2. Retighten the lock nut.



- (1) Lock nuts  
 (2) Tie-rod

### IMPORTANT :

- Keep the length of the left and right tie-rod equal.

■ **Cleaning Muffler**

**CAUTION**

To avoid personal injury:

- Before touching any part of an exhaust system, be absolutely sure that it has sufficient time to cool !
- Always wear safety goggles and a (face) mask.
- The particulate matter contained in the muffler contains chemicals that are harmful to people, animals and marine life.
- If you are unable to do this work, have it done by your KUBOTA Dealer.

◆ **Cleaning spark arrester of muffler**

This screen type spark arrester was examined, tested, and qualified in accordance with the USDA Forest Service Standard 5100-1c, "Spark Arresters for Internal Combustion Engines" for the RTV900.

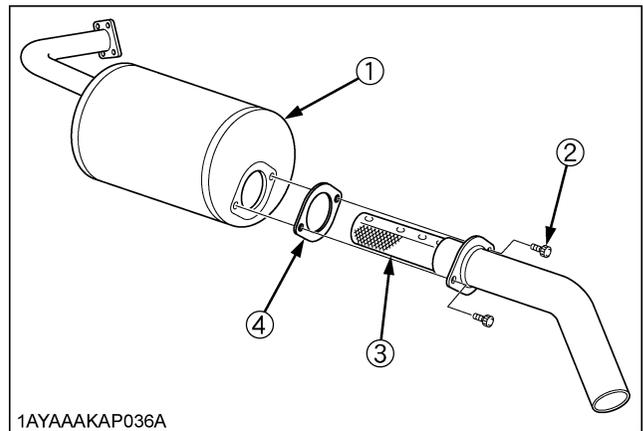
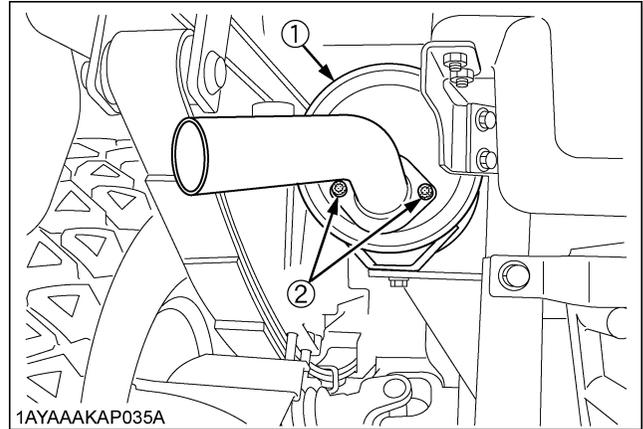
**Maintenance & cleanout procedure:**

The screen type spark arrester should be removed, cleaned, and inspected after every 100 hours of use.

1. The spark arrester is located inside of the exhaust pipe, and is fastened with two bolts.
2. Unfasten the bolts and remove the spark arrester.
3. Shake loosened particles out of the screen assembly and lightly clean the screen with wire brush. Soak in solvent and again clean with wire brush if necessary.
4. If any breaks in the screen or weldments are discovered, the assembly must be replaced.
5. Return the spark arrester to the muffler body and refasten the bolts.

**IMPORTANT :**

- Visually check the muffler for cracks or holes in the body, weldment or pipes at regular intervals.
- USDA approval requires clearance between spark arrester sleeve and exhaust pipe to be no larger than 0.023" (0.584 mm).
- Replace the entire muffler if it is damaged.
- Do not operate the vehicle with a damaged muffler.



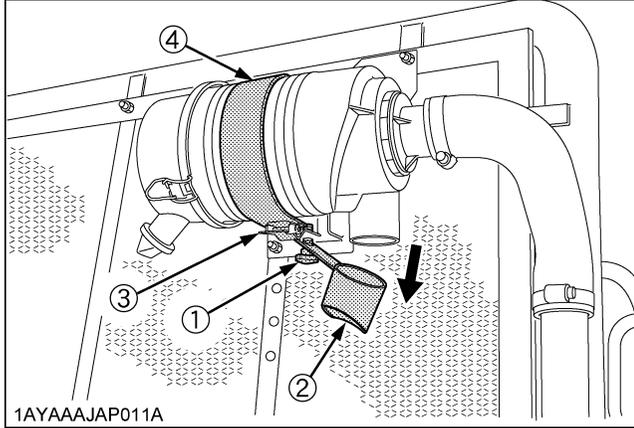
- (1) Muffler
- (2) Bolt
- (3) Spark arrester
- (4) Gasket

## EVERY 150 HOURS

### ■ Cleaning Air Cleaner Primary Element

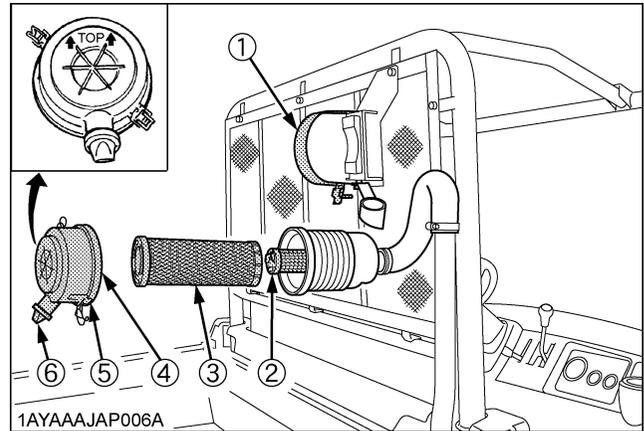
[Hydraulic utility valve equipped model]

1. Loosen the knob bolt and remove the intake air guard from the air cleaner.



- (1) Knob bolt
- (2) Intake air guard
- (3) Lock lever
- (4) Air cleaner fixing band

2. Unlock the air cleaner fixing band and remove the air cleaner.
3. Remove the air cleaner cover and primary element.
4. Clean the primary element:
  - (1) 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<sup>2</sup>, 30 psi).
  - (2) When carbon or oil adheres to the element, soak the element in detergent for 15 minutes then wash it several times in water, rinse with clean water and dry it naturally. After element is fully dried, inspect inside of the element with a light and check if it is damaged or not.
5. Replace the primary element:  
Once yearly or after every sixth cleaning, whichever comes first.



- (1) Air cleaner fixing band
- (2) Secondary (safety) element
- (3) Primary element
- (4) Rubber seal
- (5) Cover
- (6) Evacuator valve

#### NOTE :

- Check to see if the evacuator valve is blocked with dust.
- Check the rubber seal. Replace if damaged.

#### IMPORTANT :

- The air cleaner uses a dry element, never apply oil.
- Do not run the engine with filter element removed.
- Be sure to refit the cover with the arrow (on the rear of cover) upright. If the cover is improperly fitted, evacuator valve will not function and dust will adhere to the element.
- Do not touch the secondary element except in cases where replacing is required.  
(See "Replacing Air Cleaner Secondary Element" in "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.

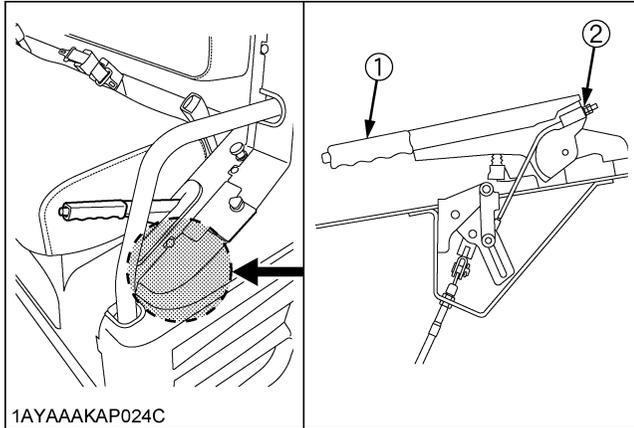
## EVERY 200 HOURS

### ■ Adjusting Parking Brake

Proper parking brake lever free play range	1 notch
--	---------

#### ◆ Adjusting procedure

1. Release the parking brake.
2. Loosen the lock nut, and adjust the cable wire length.
3. Tighten the lock nut, and check the free play.



1AYAAAKAP024C

(1) Parking brake lever

(2) Lock nut

### ■ Replacing Engine Oil Filter

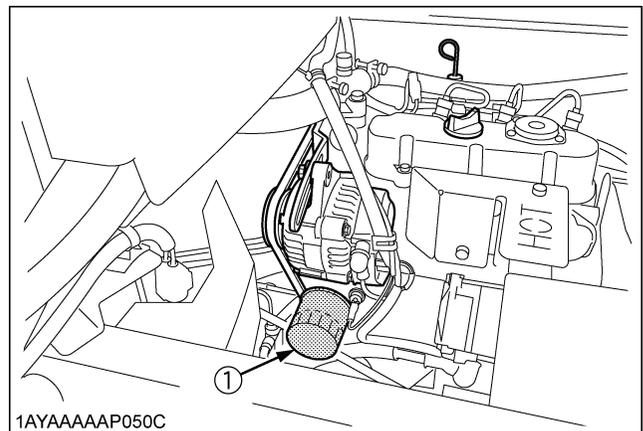


#### CAUTION

To avoid personal injury:

- Be sure to stop the engine before changing the oil filter.
- Allow engine to cool down sufficiently, oil can be hot and can burn.

1. Park the vehicle on a flat surface, raise the cargo bed, and mount the safety support.
2. Remove the oil filter.
3. Put a film of clean engine oil on the rubber seal of the new filter.
4. Tighten the filter quickly until it contacts the mounting surface.  
Tighten filter by hand an additional 1/2 turn only.
5. After the new filter has been replaced, the engine oil normally decreases a little. Make sure that the engine oil does not leak through the seal and be sure to check the oil level on the dipstick. Then, replenish the engine oil up to the prescribed level.



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(1) Engine oil filter

#### IMPORTANT :

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

### ■ Changing Engine Oil

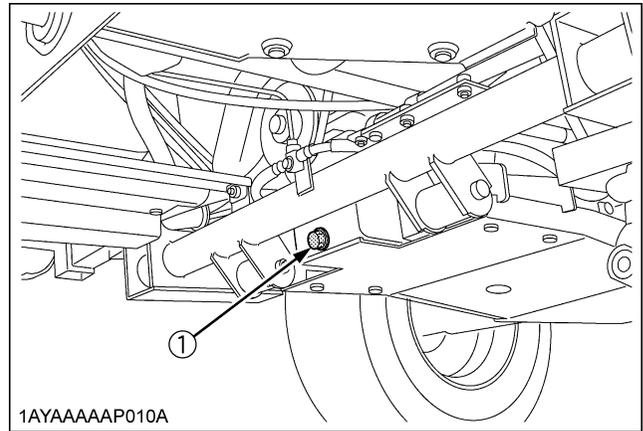
#### CAUTION

To avoid personal injury:

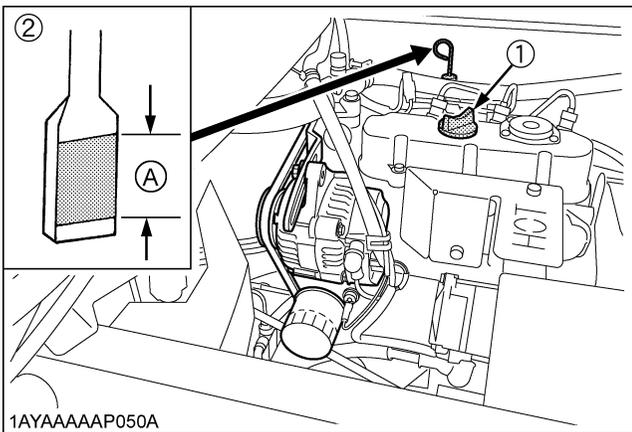
- Be sure to stop the engine before changing the oil.
- Allow engine to cool down sufficiently, oil can be hot and can burn.

1. Park the vehicle on a flat surface and raise the cargo bed.
2. To drain the used oil, remove the drain plug at the bottom of the engine and completely drain the oil into an oil pan.  
All the used oil can be drained out easily when the engine is still warm.
3. After draining, reinstall the drain plug.
4. Fill with the new oil up to the upper notch on the dipstick.  
(See "LUBRICANTS, FUEL AND COOLANT" in "MAINTENANCE" section.)

Oil capacity	[Filter exchanged] 3.1 L (3.3 U.S.qts.) [Filter non-exchanged] 2.7 L (2.9 U.S.qts.)
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(1) Drain plug



(1) Oil inlet (A) Oil level is acceptable within this range  
(2) Dipstick

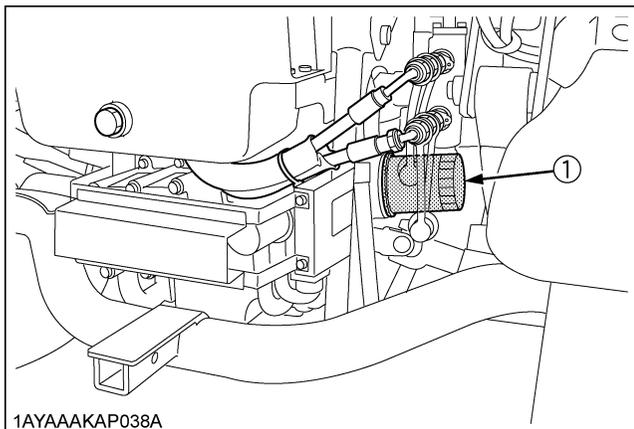
## ■ Replacing Transmission Oil Filter [HST]

### CAUTION

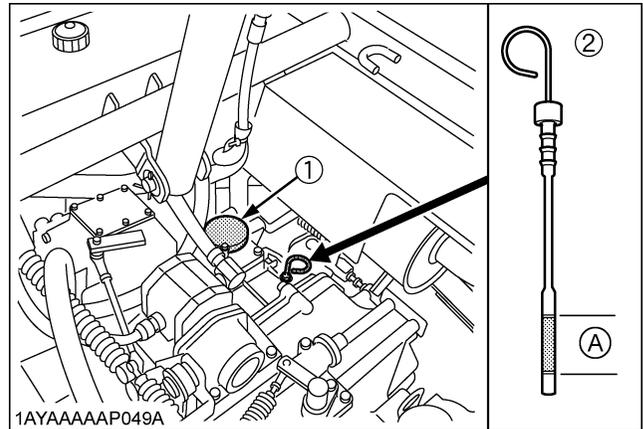
To avoid personal injury:

- Be sure to stop the engine before changing the oil filter.
- Allow engine to cool down sufficiently, oil can be hot and can burn.

1. Park the vehicle on a flat surface, raise the cargo bed and mount the safety support.
2. Remove the oil filters.
3. Put a film of clean transmission oil on the rubber seal of the new filter.
4. Quickly tighten the filter until it contacts the mounting surface, then, with a filter wrench, tighten it an additional 1 turn only.
5. After the new filter has been replaced, fill the transmission oil up to the upper notch on the dipstick.
6. After running the engine for a few minutes, stop the engine and check the oil level again, add oil to the prescribed level.
7. Make sure that the transmission fluid doesn't leak past the seal on the filters.



(1) Transmission oil filter (HST) (Yellow color)



(1) Oil inlet (A) Oil level is acceptable within this range  
(2) Dipstick

### IMPORTANT :

- To prevent serious damage to the transmission, use only a KUBOTA genuine filter.

## ■ Replacing Transmission Oil Filter [SUCTION]

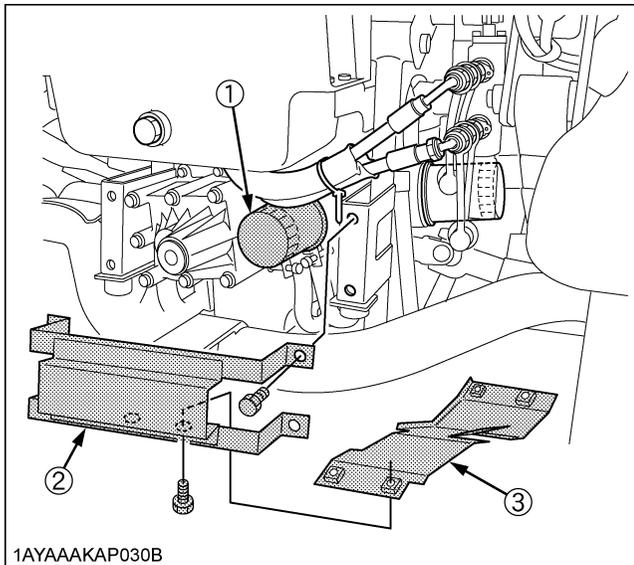


### CAUTION

To avoid personal injury:

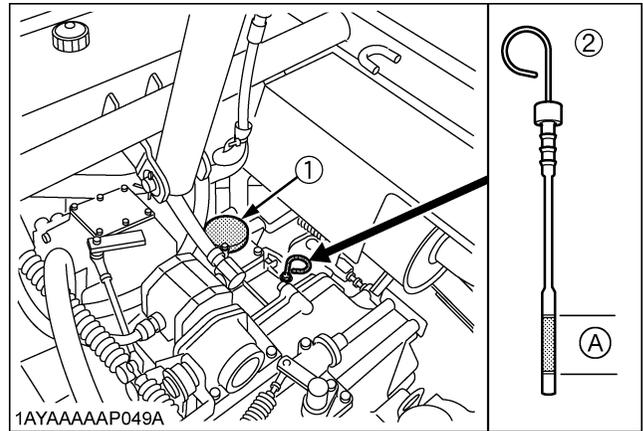
- Be sure to stop the engine before changing the oil filter.
- Allow engine to cool down sufficiently, oil can be hot and can burn.

1. Park the vehicle on a flat surface, raise the cargo bed and mount the safety support.
2. Remove the rear guard and the hose guard.
3. Remove the oil filter.
4. Put a film of clean transmission oil on the rubber seal of the new filter.
5. Quickly tighten the filter until it contacts the mounting surface, then, with a filter wrench, tighten it an additional 1 turn only.
6. After the new filter has been replaced, fill the transmission oil up to the upper notch on the dipstick.
7. After running the engine for a few minutes, stop the engine and check the oil level again, add oil to the prescribed level.
8. Make sure that the transmission fluid doesn't leak past the seal on the filters.
9. Install the rear guard and the hose guard.



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- (1) Transmission oil filter (Suction) (Orange color)
- (2) Rear guard
- (3) Hose guard



(1) Oil inlet

(A) Oil level is acceptable within this range

(2) Dipstick

### IMPORTANT :

- To prevent serious damage to the transmission, use only a KUBOTA genuine filter.

**Changing Hydraulic Lift Oil**  
 [Hydraulic dumping system model]



**CAUTION**

To avoid personal injury:

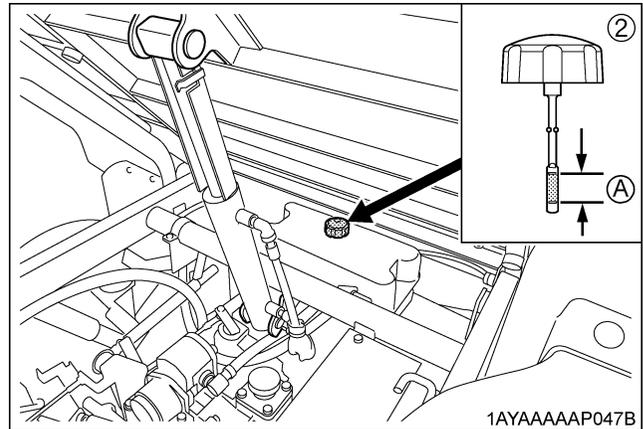
- Be sure to stop the engine before changing the oil.
- Allow engine to cool down sufficiently, oil can be hot and can burn.

1. Park the vehicle on a firm, flat and level surface.
2. Raise the cargo bed and mount the safety support.
3. To drain the used oil, remove the drain plug and filling plug and drain the oil completely into the oil pan.
4. After draining, reinstall the drain plug.
5. Fill with new KUBOTA SUPER UDT fluid up to the upper notch on the dipstick.  
 (See "LUBRICANTS, FUEL AND COOLANT" in "MAINTENANCE" section.)

How to check:

Wipe dipstick clean with a rag and screw it into filling hole. Remove dipstick again to see if the oil level is between the upper and lower notch.

6. After filling, reinstall the filling plug.

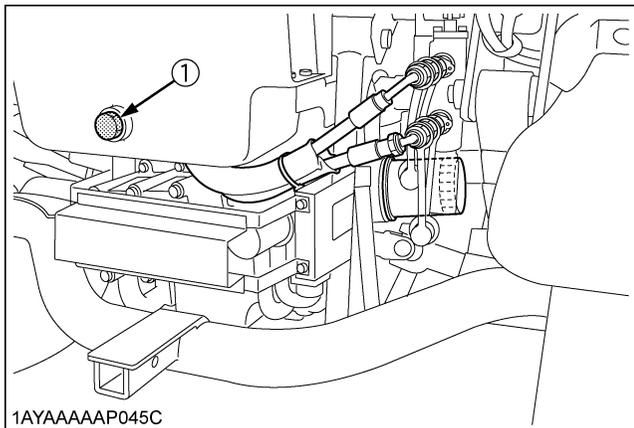


(1) Drain plug

(2) Filling plug with dipstick

(A) Oil level is acceptable within this range

Oil Capacity	8 L (8.5 U.S.qts.)
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**Changing Hydraulic Auxiliary Tank Oil**  
 [Hydraulic utility valve equipped model]



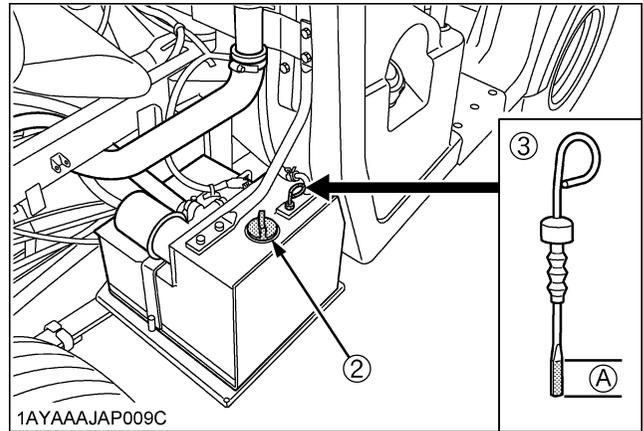
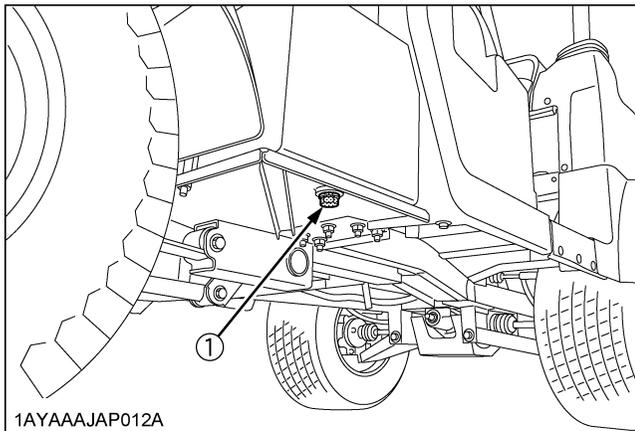
**CAUTION**

To avoid personal injury:

- Be sure to stop the engine before changing the oil.
- Allow engine to cool down sufficiently, oil can be hot and can burn.

1. Park the vehicle on a firm, flat and level surface.
2. Raise the cargo bed and mount the safety support.
3. To drain the used oil, remove the drain plug and filling plug and drain the oil completely into the oil pan.
4. After draining, reinstall the drain plug.
5. Fill with the new KUBOTA SUPER UDT fluid up to upper notch on the dipstick.  
 (See "LUBRICANTS, FUEL AND COOLANT" in "MAINTENANCE" section.)
6. After filling, reinstall the filling plug.

Oil Capacity	17 L (18 U.S.qts.)
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- (1) Drain plug
- (2) Filling plug
- (3) Dipstick

(A) Oil level is acceptable within this range

### ■Checking Brake Pedal



#### CAUTION

To avoid personal injury:

- Stop the engine and chock the wheels before checking brake pedal.
- If movement is outside of the specifications, contact your local KUBOTA Dealer for adjusting the brake.

#### ◆ Checking the brake pedal free travel

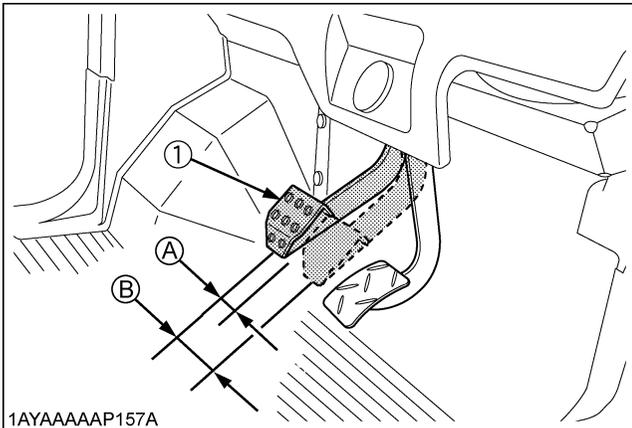
Proper brake pedal free travel	7 to 14 mm (0.3 to 0.6 in.) on the pedal
--------------------------------	--

1. Release the parking brake.
2. Slightly depress the brake pedal and measure free travel at the top of the pedal stroke.
3. If brake pedal free travel is outside of the specifications, contact your local KUBOTA Dealer for adjusting the brake.

#### ◆ Checking the brake pedal stroke

Pedal stroke	Less than 120 mm (4.7 in.) on the pedal
--------------	---

1. Release the parking brake.
2. Step on the pedal and measure the pedal stroke.
3. If brake pedal stroke is outside of the specifications, contact your local KUBOTA Dealer for adjusting the brake.



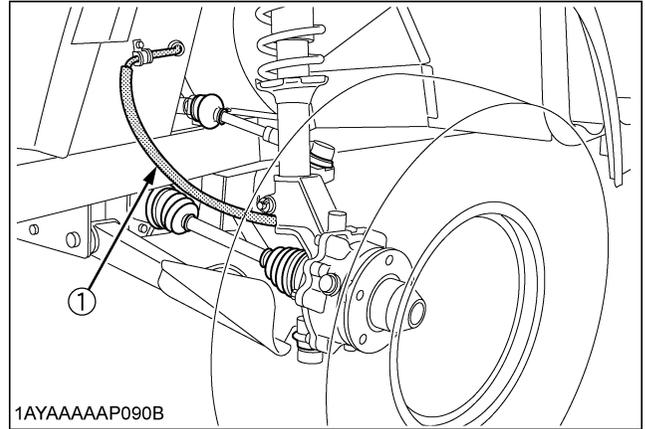
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(1) Brake pedal

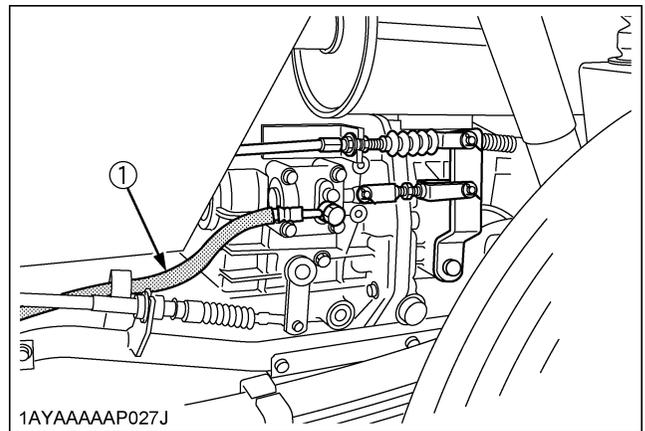
(A) "FREE TRAVEL"  
(B) "PEDAL STROKE"

### ■Checking Brake Hose and Pipe

1. Check to see that brake hose and pipe are not swollen, hardened or cracked.
2. Check the brake hose and pipe joints for oil leaks.
3. If there is any abnormality, consult your local KUBOTA Dealer for this service.

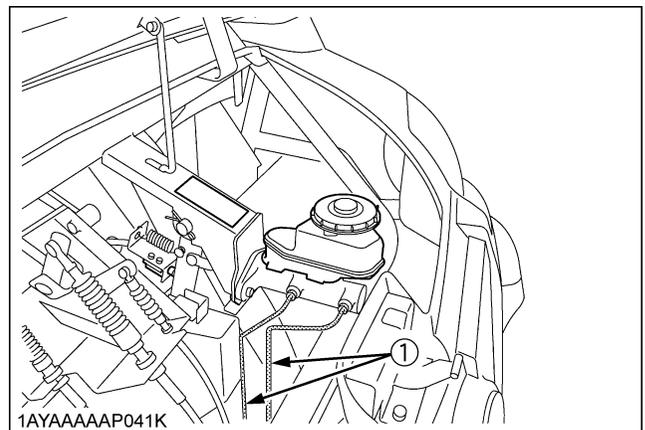


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(1) Brake hose

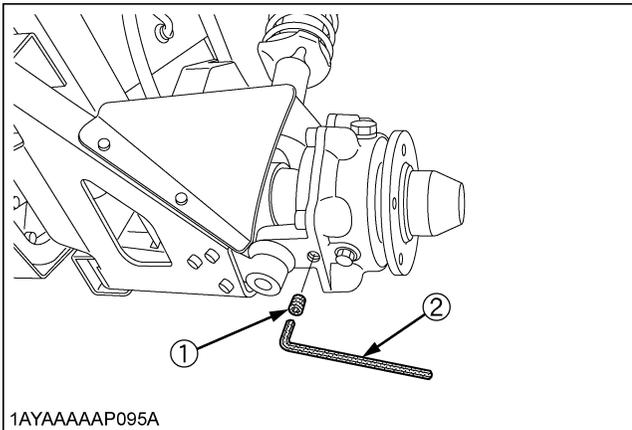
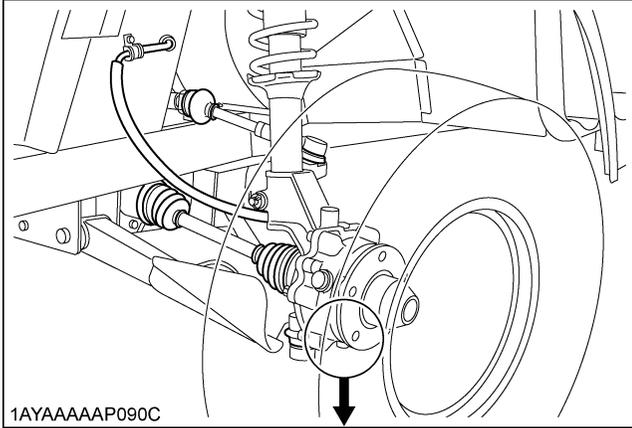


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(1) Brake pipe

### ■Checking Front Brake Case

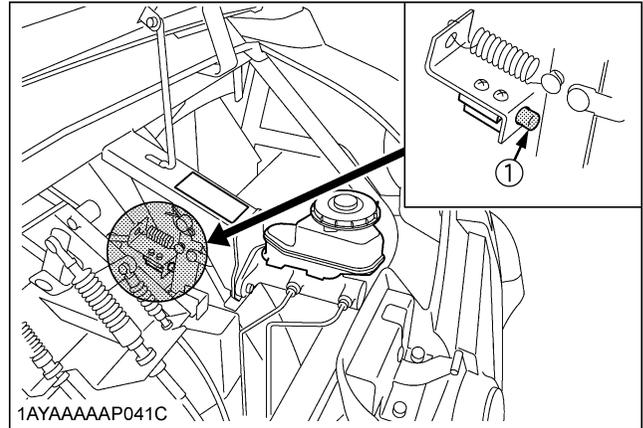
1. Remove the drain plug.
2. Check the brake case for brake fluid leak.
3. If there is brake fluid leak, consult your local KUBOTA Dealer for this service.



- (1) Drain plug  
(2) Allen key

### ■Checking Brake Light Switch

1. Park the vehicle on a flat surface and raise the cargo bed.
2. Turn the key switch to the "ON" position.
3. Step on the brake pedal to check if the brake light comes on.
4. If it does not, check the bulb or brake light switch.

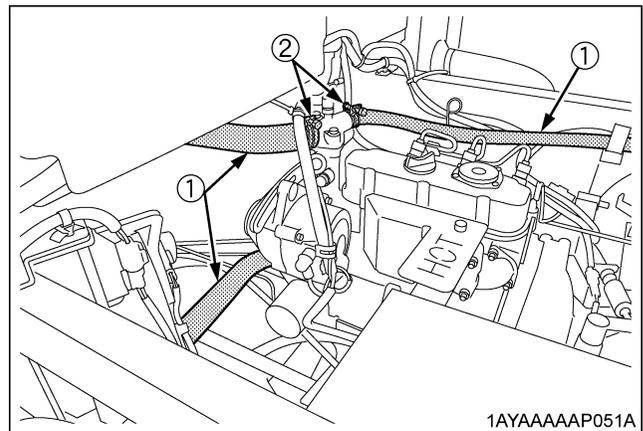


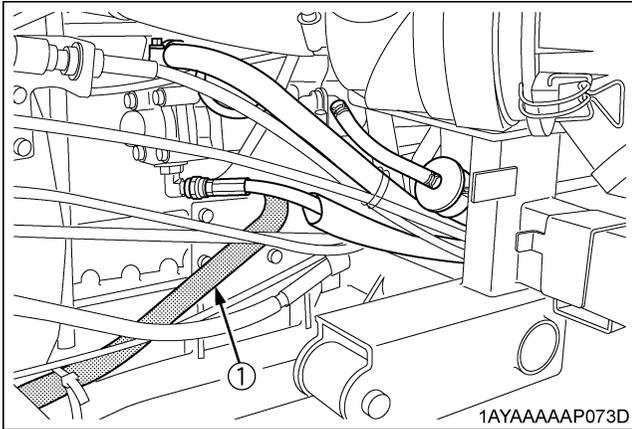
- (1) Brake light switch

### ■Checking Radiator Hose and Clamp

Park the vehicle on a flat surface and raise the cargo bed. Check to see if radiator hoses are properly fixed every 200 hours of operation or six months, whichever comes first.

1. If hose clamps are loose or water leaks, tighten bands securely.
  2. Replace hoses and tighten hose clamps securely, if radiator hoses are swollen, hardened or cracked.
- Replace hoses and hose clamps every 2 years or earlier if checked and found that hoses are swollen, hardened or cracked.





(1) Radiator hoses  
(2) Clamp bands

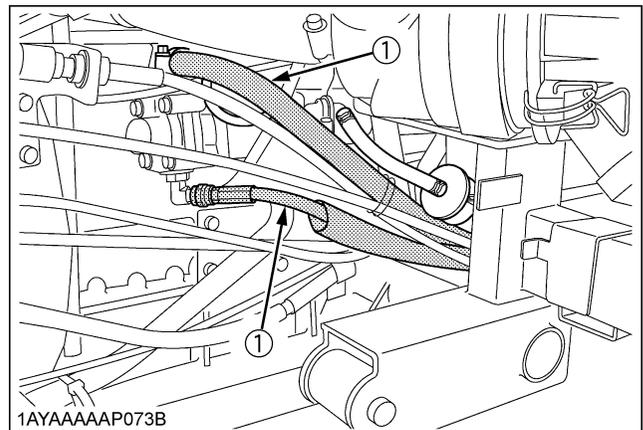
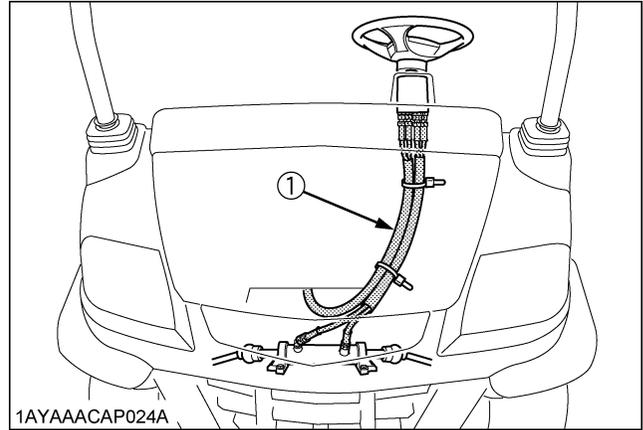
**◆ Precaution at Overheating**

Take the following actions in the event the coolant temperature is close to or more than the boiling point, which is called "Overheating".

1. Stop the vehicle operation in a safe place and keep the engine unloaded idling.
2. Don't stop the engine suddenly, but stop it after about 5 minutes of unloaded idling.
3. Keep yourself well away from the vehicle for at least 10 minutes or while the steam is blowing out.
4. Check to see if there is no danger such as burning, get rid of the causes of overheating according to the "TROUBLESHOOTING" section of this manual, and then start the engine again.

**■ Checking Power Steering Line**

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) Power steering pressure hoses

## ■ Changing Power Steering Oil

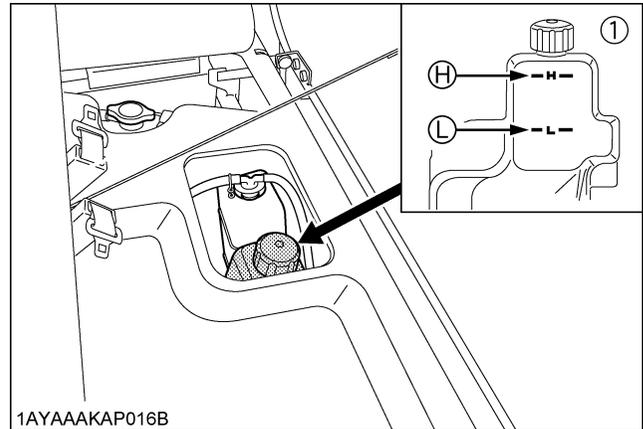


### CAUTION

To avoid personal injury:

- Be sure to stop the engine before changing the oil.
- Allow engine to cool down sufficiently, oil can be hot and can burn.

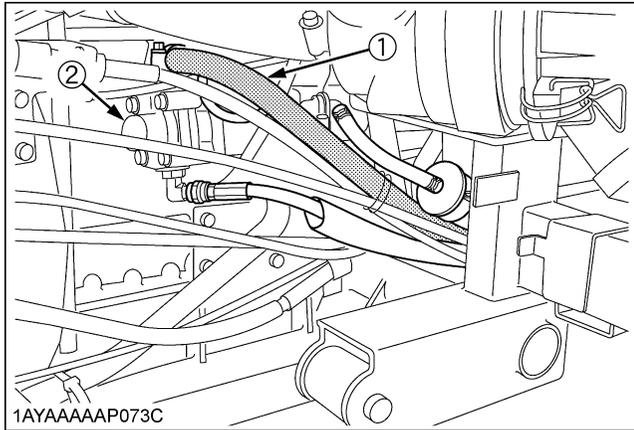
1. Park the vehicle on a flat surface and raise the cargo bed.
2. To drain the used oil, remove the suction hose on the gear pump.
3. Drain the oil completely into the oil pan.
4. After draining, reinstall suction hose.
5. Fill with the new oil up to the "H" mark of the oil tank. (See "LUBRICANTS, FUEL AND COOLANT" in "MAINTENANCE" section.)
6. Start the engine and then turn the steering wheel toward the right and left several times (this motion causes air in the hose to discharge).
7. Check to see if the oil level is between the "H" and "L" marks on the oil tank.



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(1) Power steering oil tank (H) "HIGH"  
(L) "LOW"

Oil capacity	5.9 L (6.2 U.S.qts.)
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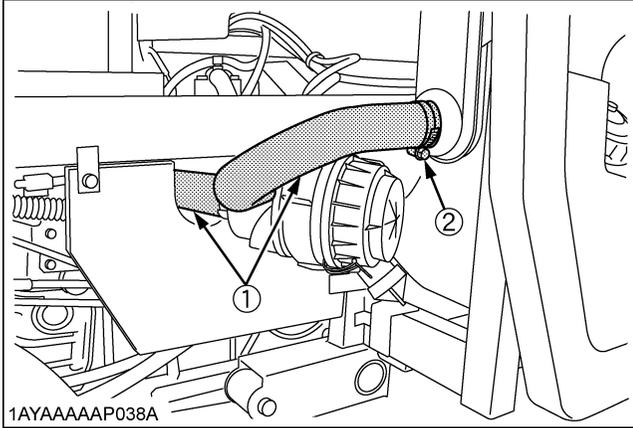


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(1) Suction hose  
(2) Gear pump

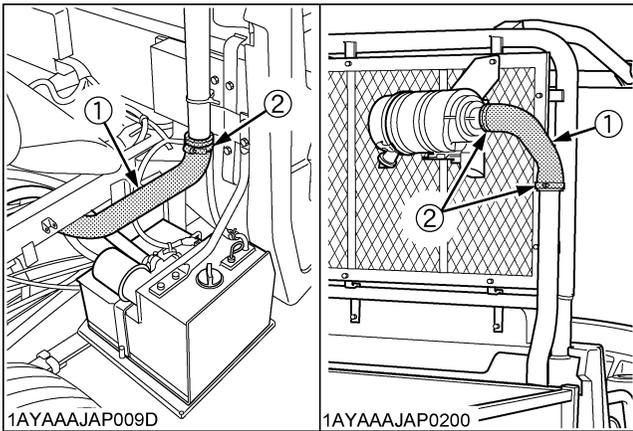
**■Checking Intake Air Line**

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



- (1) Hose  
(2) Hose clamps

**[Hydraulic utility valve equipped model]**

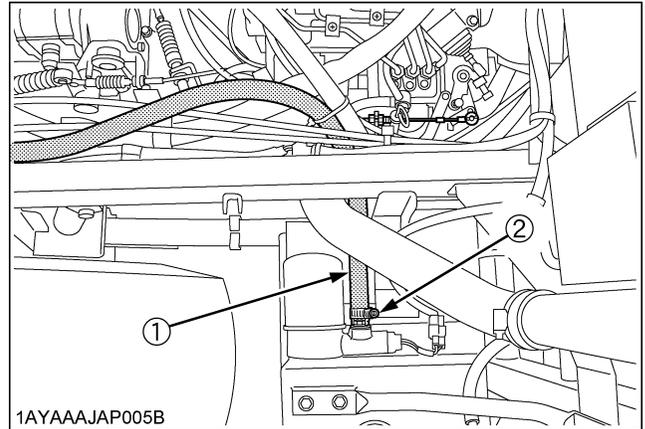


- (1) Hose  
(2) Hose clamps

**■Checking Hydraulic Auxiliary Oil Line**

**[Hydraulic utility valve equipped model]**

1. Check to see if the 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) Hose clamps

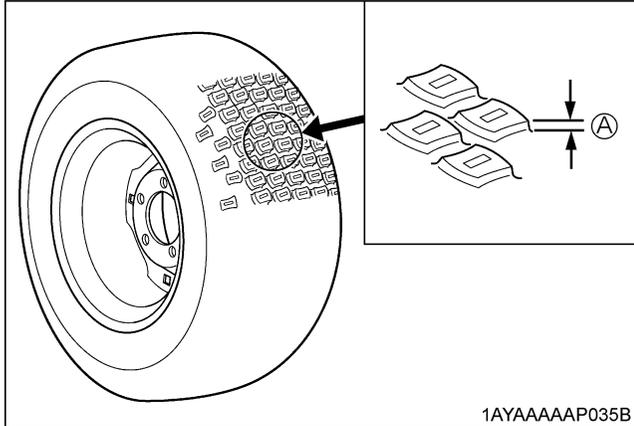
## EVERY 300 HOURS

### ■ Checking Tire

1. Check to see if tires are not damaged.
2. If the tires are cracked, bulged, or cut, or they are worn out, replace or repair them at once.

### ◆ Tire Tread Depth

Always replace the tires when the tread depth is worn to minimum allowable.



1AYAAAAAP035B

(A) 3 mm (0.12 in.)

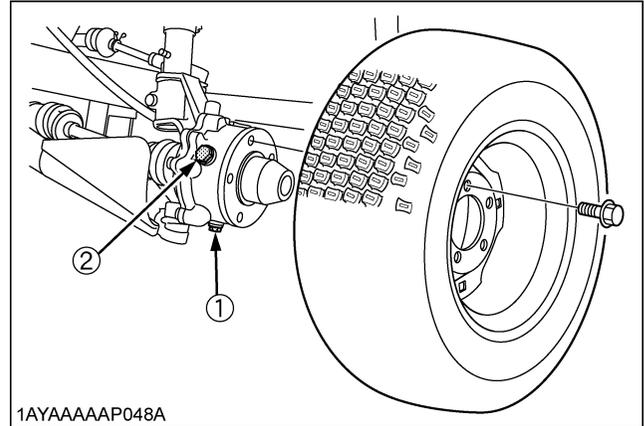
## EVERY 400 HOURS

### ■ Changing Knuckle Case Oil

1. Remove the tire.
2. Park the vehicle on a firm, flat and level surface.
3. To drain the used oil, remove the drain and filling plugs at the LH knuckle case and drain the oil completely into the oil pan.
4. After draining, reinstall the drain plug.
5. Fill with the new oil up to the filling port level. (See "LUBRICANTS, FUEL AND COOLANT" in "MAINTENANCE" section.)
6. After filling, reinstall the filling plug.
7. Use the same procedure to change the RH knuckle case oil.

Oil capacity (one side)

Ref. 0.15 L (0.16 U.S.qts.)



1AYAAAAAP048A

- (1) Drain plug  
(2) Filling plug

### ■ Changing Transmission Fluid



#### CAUTION

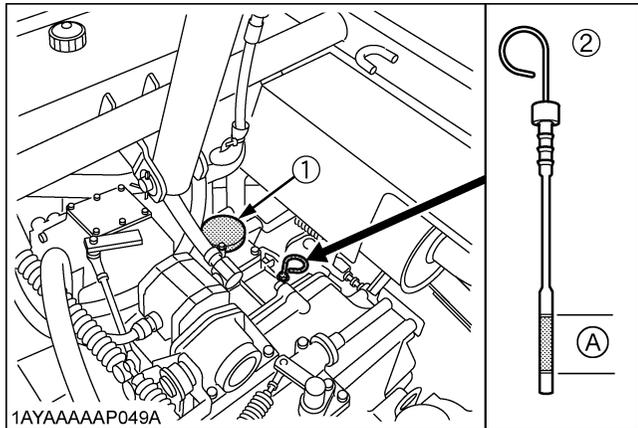
To avoid personal injury:

- Be sure to stop the engine before changing the oil.
- Allow engine to cool down sufficiently, oil can be hot and can burn.

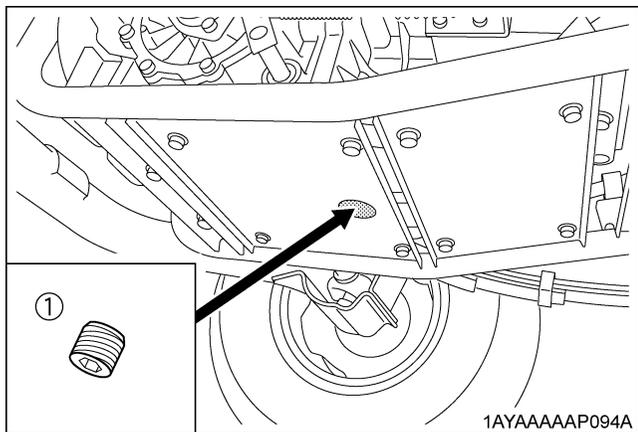
1. Park the vehicle on a flat surface, raise the cargo bed, and mount the safety support.
2. To drain the used oil, remove the drain plug at the bottom of the transmission case and drain the oil completely into the oil pan.
3. Clean off metal filings with clean rags at the drain plug with magnet.
4. After draining, reinstall the drain plug.

5. Fill with the new KUBOTA SUPER UDT fluid up to the upper notch on the dipstick.  
(See "LUBRICANTS, FUEL AND COOLANT" in "MAINTENANCE" section.)
6. After running the engine for a few minutes, stop the engine and check the oil level again; add oil to prescribed level.

Oil Capacity	10 L (2.6 U.S.gals.)
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(1) Oil inlet (A) Oil level is acceptable within this range  
(2) Dipstick



(1) Drain plug with magnet

◆ **Cleaning magnetic plug**

Remove the magnetic plug and clean off metal filings.

**IMPORTANT :**

- Do not operate the vehicle immediately after changing the transmission fluid.  
Run the engine at medium speed for a few minutes to prevent damage to the transmission.

■ **Replacing Hydraulic Auxiliary Tank Oil Filter**

[Hydraulic utility valve equipped model]

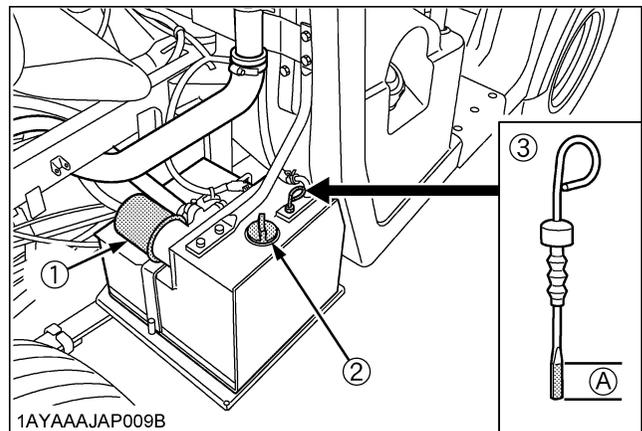


**CAUTION**

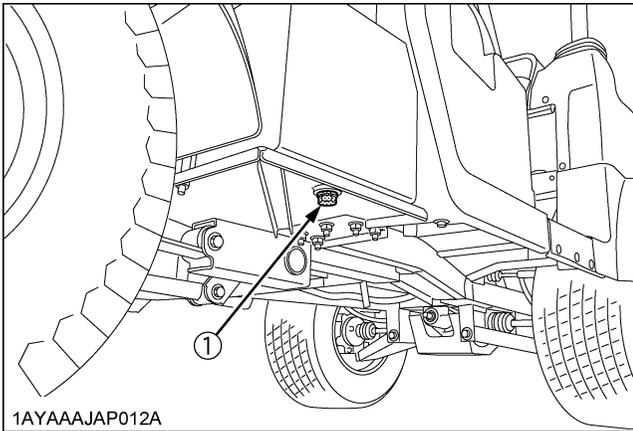
To avoid personal injury:

- Be sure to stop the engine before changing the oil filter.
- Allow engine to cool down sufficiently, oil can be hot and can burn.

1. Park the vehicle on a firm, flat and level surface, raise the cargo bed and mount the safety support.
2. Remove the oil filter. (Take care of the oil that spills from filter.)
3. Put a film of clean transmission oil on the rubber seal of the new filter.
4. Quickly tighten the filter until it contacts the mounting surface, then, with a filter wrench, tighten it an additional 1 turn only.
5. After the new filter has been replaced, fill the auxiliary tank oil up to the upper notch on the dipstick.
6. After running the engine for a few minutes, stop the engine and check the oil level again, add oil to the prescribed level.
7. Make sure that the hydraulic auxiliary tank oil doesn't leak past the seal on the filter.



(1) Hydraulic auxiliary tank oil filter (A) Oil level is acceptable within this range  
(2) Filling plug  
(3) Dipstick



(1) Drain plug

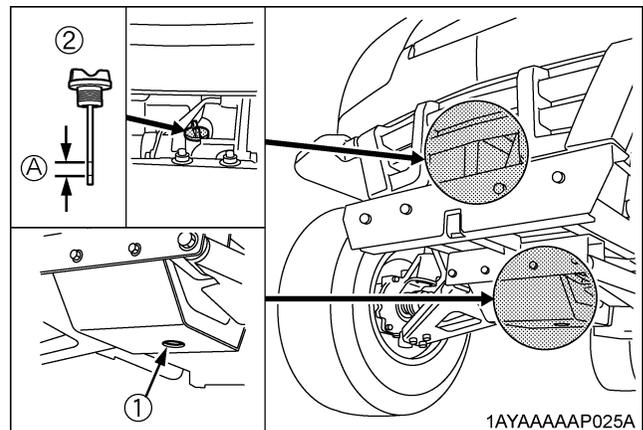
**IMPORTANT :**

- To prevent serious damage to the hydraulic line, use only a KUBOTA genuine filter.

**Changing Front Axle Case Oil**

1. Park the vehicle on a firm, flat and level surface.
2. To drain the used oil, remove the drain and filling plugs at the front axle case and drain the oil completely into the oil pan.
3. After draining, reinstall the drain plug.
4. Fill with the new oil up to the upper notch on the dipstick.  
(See "LUBRICANTS, FUEL AND COOLANT" in "MAINTENANCE" section.)
5. After filling, reinstall the filling plug.

Oil capacity	0.6 L (0.6 U.S.qts.)
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(1) Drain plug  
(2) Filling plug with dipstick

(A) Oil level is acceptable  
within this range

## EVERY 500 HOURS

### ■ 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 1500 HOURS

### ■ Checking Fuel Injection Nozzle Injection Pressure

Consult your local KUBOTA Dealer for this service.

## EVERY 3000 HOURS

### ■ Checking Injection Pump

Consult your local KUBOTA Dealer for this service.

## EVERY 1 YEAR

### ■ Replacing Air Cleaner Primary Element and Secondary Element

(See "Cleaning Air Cleaner Primary Element" in "EVERY 100 HOURS" or "EVERY 150 HOURS" in "PERIODIC SERVICE" section.)

## EVERY 2 YEARS

### ■ Changing Brake Fluid

Consult your local KUBOTA Dealer for this service. (See "Checking Brake Fluid Level" in "DAILY CHECK" in "PERIODIC SERVICE" section.)

### ■ Flushing Cooling System and Changing Coolant

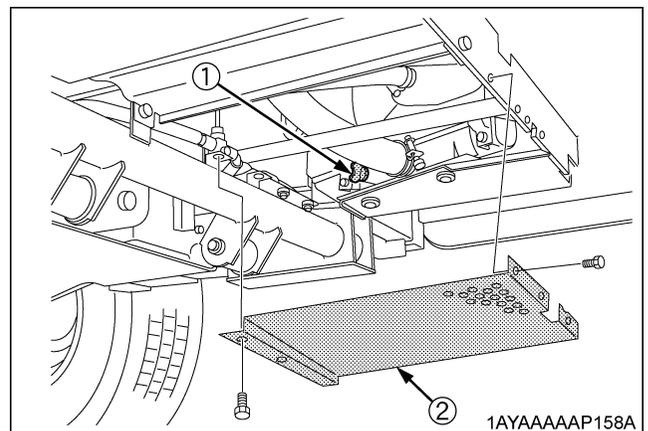
#### CAUTION

To avoid personal injury:

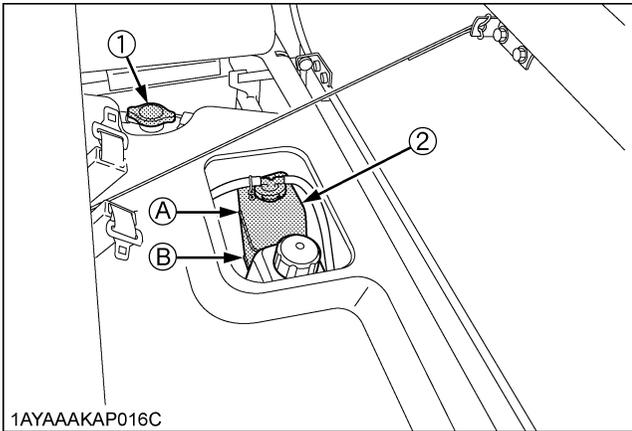
- Do not remove the radiator cap while coolant is hot. When cool, slowly rotate cap to the first stop and allow sufficient time for excess pressure to escape before removing the cap completely.

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

Coolant capacity	4.0 L (4.2 U.S.qts.)
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- (1) Drain plug  
(2) Protective cover



1AYAAKAP016C

(1) Radiator cap  
(2) Recovery tank

(A) "FULL"  
(B) "LOW"

**IMPORTANT :**

- Do not start engine without coolant.
- Use clean, fresh water and anti-freeze to fill the radiator and recovery tank.
- When the anti-freeze is mixed with water, the antifreeze 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****CAUTION**

To avoid personal injury:

- When using antifreeze, put on some protection such as rubber gloves. (Antifreeze contains poison.)
- If should drink antifreeze, throw up at once and take medical attention.
- When antifreeze comes in contact with the skin or clothing, wash it off immediately.
- Do not mix different types of Antifreeze.  
The mixture can produce chemical reaction causing harmful substances.
- Antifreeze is extremely flammable and explosive under certain conditions. Keep fire and children away from antifreeze.
- When draining fluids from the engine, place some container underneath the engine body.
- Do not pour waste onto the grounds, down a drain, or into any water source.
- Also, observe the relevant environmental protection regulations when disposing of antifreeze.

If it freezes, coolant can damage the cylinders and radiator. If the ambient temperature falls below 0°C (32°F) or before a long-term storage, let out cooling water completely, or mix fresh water with long-life coolant and fill the radiator and recovery tank with the mixture.

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  
Put the LLC in cooling water in the percentage (%) for a target temperature. When mixing, stir it up well, and then fill into the radiator.
4. The procedure for the mixing of water and antifreeze differs according to the make of the antifreeze and the ambient temperature. Refer to SAE J1034 standard, more specifically also to SAE J814c.

**IMPORTANT :**

- When the antifreeze is mixed with water, the antifreeze mixing ratio must be less than 50%.

Vol % Anti-freeze	Freezing Point		Boiling Point*	
	°C	°F	°C	°F
40	-24	-12	106	222
50	-37	-34	108	226

\* At 1.013 x 10<sup>5</sup>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 mixture reduces in amount by evaporation.
  - (2) If there is a mixture leak, add the LLC of the same manufacturer and type in the same mixture percentage.

\* 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 anticorrosive 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 2 years.

**NOTE :**

- The above data represent industry standards that necessitate a minimum glycol content in the concentrated antifreeze.

- When the coolant level drops due to evaporation, add water only to keep the antifreeze mixing ratio less than 50%. In case of leakage, add antifreeze and water in the specified mixing ratio before filling into the radiator.

### ■ Replacing Radiator Hose (Water pipes)

Replace the hoses and clamps.

(See "Checking Radiator Hose and Clamp" in "EVERY 200 HOURS" in "PERIODIC SERVICE" section.)

### ■ Replacing Power Steering Hose

Consult your local KUBOTA Dealer for this service.

### ■ Replacing Fuel Hose

Consult your local KUBOTA Dealer for this service.

### ■ Replacing Engine Breather Hose

Consult your local KUBOTA Dealer for this service.

### ■ Replacing Brake Master Cylinder (Inner Parts)

Consult your local KUBOTA Dealer for this service.

### ■ Replacing Front Brake Seal

Consult your local KUBOTA Dealer for this service.

### ■ Replacing Rear Brake Cylinder Seal

Consult your local KUBOTA Dealer for this service.

### ■ Replacing Intake Air Line

Consult your local KUBOTA Dealer for this service.

### ■ Replacing Remote Hydraulic Hose

Consult your local KUBOTA Dealer for this service.

## EVERY 4 YEARS

### ■ Replacing Brake Hose

Consult your local KUBOTA Dealer for this service.

## SERVICE AS REQUIRED

### ■ 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 vehicle 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.

### ■ Replacing Fuse

The vehicle electrical system is protected from potential damage by fuses.

A blown fuse indicates that there is an overload or short somewhere in the electrical system.

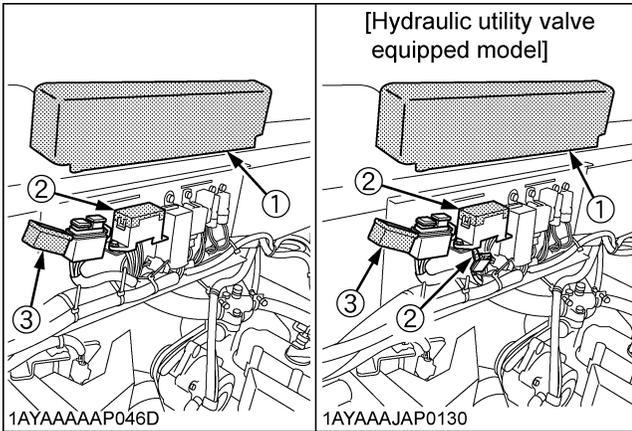
If any of the fuses should blow, replace with a new one of the same capacity.

#### IMPORTANT :

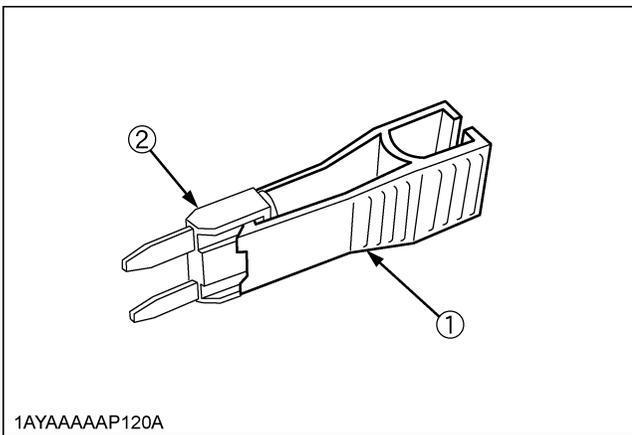
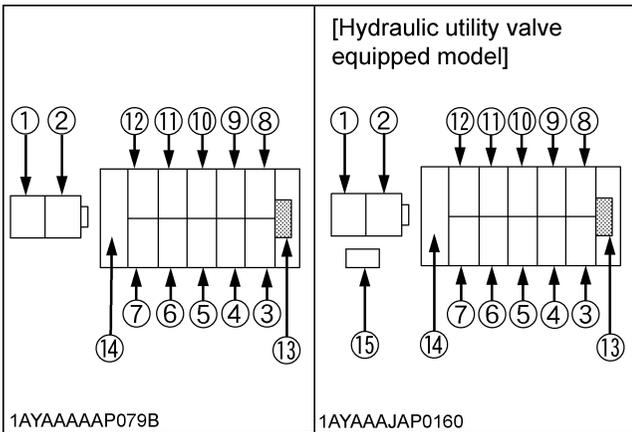
- Before replacing a blown fuse, determine why the fuse blew and make any necessary repairs. Failure to follow this procedure may result in serious damage to the vehicle electrical system. Consult your local KUBOTA Dealer for specific information dealing with electrical problems.

#### ◆ Replacement procedure

1. Disconnect the negative cable of the battery.
2. Remove the cover and the fuse box cover.
3. Pull out the blown fuse using FUSE PULLER in the fuse box.
4. Insert a new fuse into the fuse box.
5. Install the fuse box cover and the cover.
6. Connect the negative battery cable.



- (1) Cover
- (2) Fuse box cover
- (3) Slow-blow fuse box cover



- (1) Fuse puller
- (2) Fuse

◆ Protected circuit

Fuse No.	Capacity (A)	Protected circuit
1	Slow-blow fuse (50)	Key switch
2	Slow-blow fuse (60)	Alternator
3	15	Head lamp, Tail lamp, Panel
4	5	Glow lamp
5	10	(Hazard)
6	20	Fan motor
7	15	Eng. Stop
8	15	Alternator, Brake lamp, Fan motor relay
9	5	Panel, Eng. Stop control
10	10	12V DC output
11	10	Horn
12	15	(Work light)
13	---	Fuse puller
14	5, 10, 15, 20	Spare
15 *	20	Oil cooler fan motor

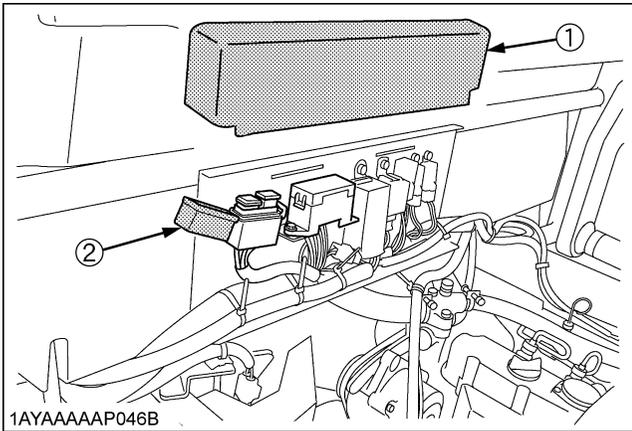
\* Hydraulic utility valve equipped model

■ Replacing Slow-Blow Fuses

The slow-blow fuses are intended to protect the electrical cabling. If any of them have blown out, be sure to pinpoint the cause. Never use any substitute, use only a KUBOTA genuine part.

◆ Replacement procedure

1. Disconnect the negative cable of the battery.
2. Remove the cover and the slow-blow fuse box cover.
3. Pull out the slow-blow fuse.
4. Insert a new slow-blow fuse into the slow-blow fuse box.
5. Install the slow-blow fuse box cover and the cover.
6. Connect the negative battery cable.



- (1) Cover
- (2) Slow-blow fuse box cover

### ■ Replacing Light Bulb

1. Head lights  
Take the bulb out of the light body and replace it with a new one.
2. Other lights  
Detach the lens and replace the bulb.

Light	Capacity
Head lights	37.5 W
Tail light	5 W
Brake light	21 W
Easy Checker(TM)	3.8 W (14V, 0.27A)
Turn signal light (front)	20 W (if equipped)
Turn signal light (rear)	21 W (if equipped)
Work light	27 W (if equipped)
Instrument panel light	3.8 W (14V, 0.27A)

### ■ Cleaning Oil Cooler Net

(See "Cleaning Oil Cooler Net" in "DAILY CHECK" in "PERIODIC SERVICE" section.)

# STORAGE



## CAUTION

To avoid personal injury:

- Do not clean the vehicle 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 from the key switch to avoid unauthorized persons from operating the vehicle and getting injured.

## VEHICLE STORAGE

If you intend to store your vehicle for an extended period of time, follow the procedures outlined below.

These procedures will insure that the vehicle is ready to operate with minimum preparation when it is removed from storage.

1. Check the bolts and nuts for looseness, and tighten if necessary.
2. Apply grease to vehicle areas where bare metal will rust also to pivot areas.
3. Unload from cargo bed.
4. Inflate the tires to a pressure a little higher than usual.
5. Change the engine oil and run the engine to circulate oil throughout the engine block and internal moving parts for about 5 minutes.
6. With all implements lowered to the ground, coat any exposed hydraulic cylinder piston rods with grease (if equipped).
7. Remove the battery from the vehicle. Store the battery following the battery storage procedures.  
(See "Checking Battery Condition" in "EVERY 100 HOURS" in "PERIODIC SERVICE" section.)
8. Keep the vehicle in a dry place where the vehicle is sheltered from the elements. Cover the vehicle.
9. Store the vehicle indoors in a dry area that is protected from sunlight and excessive heat. If the vehicle must be stored outdoors, cover it with a waterproof tarpaulin.  
Put boards under the tires to keep dampness away from tire.  
Keep the tires out of direct sunlight and extreme heat.

### IMPORTANT :

- When washing the vehicle, be sure to stop the engine. Allow sufficient time for the engine to cool before washing.
- Do not wash with a high-pressure car-washing machine.
- Cover the vehicle after the muffler and the engine have cooled down.

## REMOVING THE VEHICLE FROM STORAGE

1. Check the tire air pressure and inflate the tires if they are low.
2. Install the battery. Before installing the battery, be sure it is fully charged.
3. Check the alternator belt tension.
4. Check all fluid levels (engine oil, transmission oil, engine coolant and any attached implements).
5. Start the engine. Observe all gauges. If all gauges are functioning properly and reading normal, move the vehicle outside. Once outside, park the vehicle and let the engine idle for at least five minutes. Shut the engine off and walk around vehicle and make a visual inspection looking for evidence of oil or water leaks.
6. 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.		<ul style="list-style-type: none"> <li>No fuel flow.</li> </ul>	<ul style="list-style-type: none"> <li>Check the fuel tank and the fuel filter. Replace filter if necessary.</li> </ul>
		<ul style="list-style-type: none"> <li>Air or water is in the fuel system.</li> </ul>	<ul style="list-style-type: none"> <li>Check to see if the fuel line coupler bolt and nut are tight.</li> <li>Bleed the fuel system. (See "Bleeding Fuel System" in "SERVICE AS REQUIRED" in "PERIODIC SERVICE" section.)</li> </ul>
		<ul style="list-style-type: none"> <li>In winter, oil viscosity increases, and engine revolution is slow.</li> </ul>	<ul style="list-style-type: none"> <li>Use oils of different viscosities, depending on ambient temperatures.</li> </ul>
		<ul style="list-style-type: none"> <li>Battery becomes weak and the engine does not turn over quick enough.</li> </ul>	<ul style="list-style-type: none"> <li>Clean battery cables and terminals.</li> <li>Charge the battery.</li> <li>In cold weather, always remove the battery from the engine, charge and store it indoors. Install it on the vehicle only when the vehicle is going to be used.</li> </ul>
Insufficient engine power.		<ul style="list-style-type: none"> <li>Insufficient or dirty fuel.</li> <li>The air cleaner is clogged.</li> </ul>	<ul style="list-style-type: none"> <li>Check the fuel system.</li> <li>Clean or replace the element.</li> </ul>
Engine stops suddenly.		<ul style="list-style-type: none"> <li>Insufficient fuel.</li> </ul>	<ul style="list-style-type: none"> <li>Refuel.</li> <li>Bleed the fuel system if necessary.</li> </ul>
Exhaust fumes are colored.	Black	<ul style="list-style-type: none"> <li>Fuel quality is poor.</li> <li>Too much oil.</li> <li>The air cleaner is clogged.</li> </ul>	<ul style="list-style-type: none"> <li>Change the fuel and fuel filter.</li> <li>Check the proper amount of oil.</li> <li>Clean or replace the element.</li> </ul>
	Blue white	<ul style="list-style-type: none"> <li>The inside of exhaust muffler is dumped with fuel.</li> <li>Injection nozzle trouble.</li> <li>Fuel quality is poor.</li> </ul>	<ul style="list-style-type: none"> <li>Heat the muffler by applying load to the engine.</li> <li>Check the injection nozzle.</li> <li>Change the fuel and fuel filter.</li> </ul>
Engine overheats		<ul style="list-style-type: none"> <li>Engine overloaded.</li> </ul>	<ul style="list-style-type: none"> <li>Shift to lower gear or reduce load.</li> </ul>
		<ul style="list-style-type: none"> <li>Low coolant level.</li> </ul>	<ul style="list-style-type: none"> <li>Fill cooling system to the correct level; check radiator and hoses for loose connections or leaks.</li> </ul>
		<ul style="list-style-type: none"> <li>The motor driven fan does not turn.</li> </ul>	<ul style="list-style-type: none"> <li>Check to see if the fuse is not blown.</li> <li>Check the electric system.</li> </ul>
		<ul style="list-style-type: none"> <li>Dirty radiator core or grille screens.</li> </ul>	<ul style="list-style-type: none"> <li>Remove all trash.</li> </ul>
		<ul style="list-style-type: none"> <li>Coolant flow route corroded.</li> </ul>	<ul style="list-style-type: none"> <li>Flush cooling system.</li> </ul>

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

## BATTERY TROUBLESHOOTING

Trouble	Cause	Countermeasure	Preventive measure
<b>Starter does not function.</b>	● 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.	
<b>From beginning starter does not function, and lights soon become dim.</b>	● Insufficient charging.	● Charge battery sufficiently.	● Battery must be serviced properly before initial use.
<b>When viewed from top, the top of plates look whitish.</b> * Refillable type battery only	● 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.
<b>Recharging is impossible.</b>	● Battery life expired.	● Replace battery.	
<b>Terminals are severely corroded and heat up.</b>	● Poor terminal connection.	● Clean the terminal and tighten securely.	● Keep the terminal clean and tight. Apply grease and treat with anti-corrosives.
<b>Battery electrolyte level drops rapidly.</b> * Refillable type battery only	● There is a crack or pin holes in the electrolytic cells.	● Replace battery.	
	● Charging system trouble.	● Consult your local KUBOTA Dealer.	

- If you have any questions, consult your local KUBOTA Dealer.
- The factory-installed battery is non-refillable type.

## MACHINE TROUBLESHOOTING

Trouble	Cause	Countermeasure
Machine operation is not smooth.	● Hydrostatic transmission fluid is insufficient.	● Replenish oil.
	● Filter is clogged.	● Replace the filter.
Machine does not move while engine is running.	● Parking brake is on.	● Release the parking brake.
	● Transmission fluid level is insufficient.	● Replenish oil.
Brakes not working correctly	● Brake fluid level is low.	● Check fluid level.
	● Air is in brake system.	● Consult your KUBOTA Dealer.
	● Brake pads are worn.	● Consult your KUBOTA Dealer.
Brake noise	---	● Consult your KUBOTA Dealer.

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

# OPTIONS

Consult your local KUBOTA Dealer for further details.

- Backup Beeper
- Bed Liner
- Cab Heater (cab only)
- Camo Steel Cab
- Console Kit  
(for cab, with FM / AM / CD unit / blower / dome light)
- Engine Hand Throttle Kit
- Fabric Cover
- Front Accessory Box
- Front Heavy Load Springs  
(required for cab or enclosure or front blade)
- Front Heavy Load Strut
- Front Mud Guard
- Front Trailer Hitch & Pin
- Front Work Light  
(for plastic canopy or no canopy, one or two)
- Glove Box
- Golf Cage
- Headrest
- Hydraulic Bed Lift Kit
- Hydraulic Bed Lift Kit with One Remote
- Hydraulic Upgrade Kit  
(to put remote feature on the unit with Bed Lift)
- Large Front Guard (Silver)
- Metal Canopy (FOPS)
- Plastic Canopy
- Rear Trailer Hitch & Pin
- Rear Work Light  
(for plastic canopy or no canopy, one or two)
- Safety Glass Windshield  
(for canopy)
- Snow Blade (72") require Heavy Duty Spring Kit
- Soft Cab  
(W/ soft doors and Safety Glass Wind Shield)
- Speedometer
- Steel Cab  
(W/ steel doors)
- Strobe Light
- Superwinch ATV 2000
- Tail Lamp Guards
- Turn Signal / Hazard Light Kit
- Warn 2.5CI
- Winch Mounting Kit
- Windshield Single Wiper Kit  
(for cab or wind shield) (one or two for one unit)
- Work Lights Kit  
(for metal canopy or cab, include two lights for front or rear)