



SAFE OPERATION

Careful operation is your best insurance against an accident.

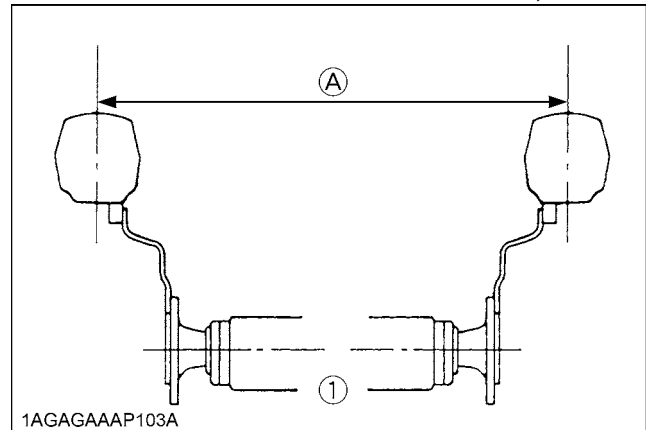
Read and understand this manual carefully before operating the tractor.

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

1. BEFORE OPERATING THE TRACTOR

1. Know your equipment and its limitations. Read this entire manual before attempting to start and operate the tractor.
2. Pay special attention to the danger, warning and caution labels on the tractor.
3. Do not operate the tractor or any implement attached to it while under the influence of alcohol, medication, controlled substances or while fatigued.
4. Before allowing other people to use your tractor, explain how to operate and have them read this manual before operation.
5. Never wear loose, torn, or bulky clothing around tractor. It may catch on moving parts or controls, leading to the risk of an accident. Use additional safety items, e.g. hard hat, safety boots or shoes, eye and hearing protection, gloves, etc., as appropriate or required.
6. Do not allow passengers to ride on any part of the tractor at anytime. The operator must remain in the tractor seat during operation.
7. Check brakes, clutch, linkage pins 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.)
8. Keep your tractor clean. Dirt, grease, and trash build up may contribute to fires and lead to personal injury.
9. Use only implements meeting the specifications listed under "IMPLEMENT LIMITATIONS" in this manual or implements approved by KUBOTA.
10. Use proper weights on the front or rear of the tractor to reduce the risk of upsets. When using the front loader, put an implement or ballast on the 3-point hitch to improve stability. Follow the safe operating procedures specified in the implement or attachment manual.

11. The narrower the tread, the greater the risk of a tractor upset. For maximum stability, adjust the wheels to the widest practical tread width for your application. (See "TIRES, WHEELS AND BALLAST" section.)



(1) Rear wheels

(A) Tread Width

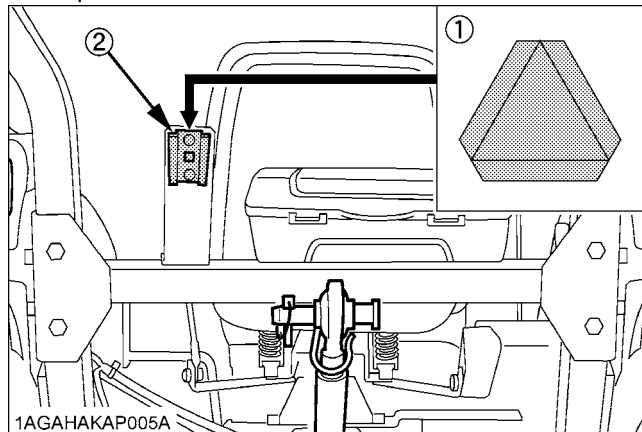
12. Do not modify the tractor. Unauthorized modification may affect the function of the tractor, which may result in personal injury.

◆ CAB, ROPS

1. KUBOTA recommends the use of a CAB or Roll Over Protective Structures (ROPS) and seat belt in almost all applications. This combination will reduce the risk of serious injury or death, should the tractor be upset. Check for overhead clearance which may interfere with a CAB or ROPS.
2. Set parking brake and stop engine. Remove any obstruction that may prevent raising or folding of the ROPS. Do not allow any bystanders. Always perform function from a stable position at the rear of the tractor. Hold the top of the ROPS securely when raising or folding. Make sure all pins are installed and locked.
3. If the CAB or ROPS is loosened or removed for any reason, make sure that all parts are reinstalled correctly before operating the tractor.
4. Never modify or repair any structural member of a CAB or ROPS because welding, bending, drilling, grinding, or cutting may weaken the structure.
5. If any structural member of the CAB or ROPS is damaged, replace the entire structure at your local KUBOTA Dealer.
6. If the tractor is equipped with a foldable ROPS it may be temporarily folded down only when absolutely necessary for areas with height constraints. (There is no operator protection provided by the ROPS in the folded position. For operator safety the ROPS should be placed in the upright and locked position and the seat belt fastened for all other operations.)

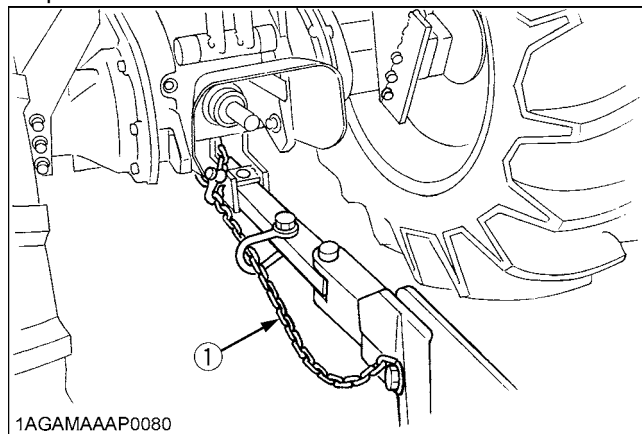
▲-4 SAFE OPERATION

4. Make sure that the Slow Moving Vehicle (SMV) sign is clean and visible. Use hazard lights and turn signals as required.



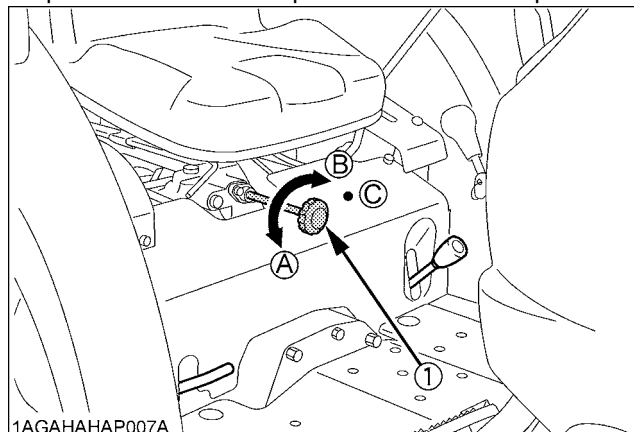
(1) SMV emblem
(2) Bracket

5. Observe all local traffic and safety regulations.
6. Turn the headlights on. Dim them when meeting another vehicle.
7. Drive at speeds that allow you to maintain control at all times.
8. Do not apply the differential lock while traveling at road speeds. The tractor may run out of control.
9. Avoid sudden motions of the steering wheel as they can lead to a dangerous loss of stability. The risk is especially great when the tractor is traveling at road speeds.
10. Keep the ROPS in the "UP" position and wear the seat belt when driving the tractor on the road. Otherwise, you will not be protected in the event of a tractor roll-over.
11. Do not operate an implement while the tractor is on the road. Lock the 3-point hitch in the raised position.
12. When towing other equipment, use a safety chain and place an SMV emblem on it as well.



(1) Safety chain

13. Set the implement lowering speed knob in the "LOCK" position to hold the implement in the raised position.



(1) 3-point hitch lowering speed knob

(A) "FAST"
(B) "SLOW"
(C) "LOCK"

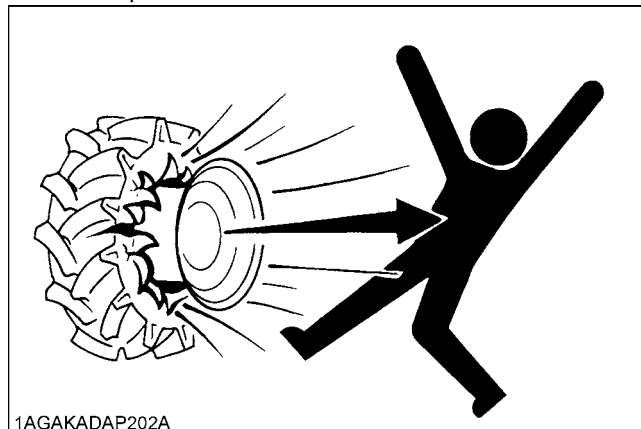
3. PARKING THE TRACTOR

1. Disengage the PTO, lower all implements to the ground, place all control levers in their neutral positions, set the parking brake, stop the engine, remove the key from the ignition and lock the cab door (if equipped). Leaving transmission in gear with the engine stopped will not prevent tractor from rolling. (HST type)
2. Make sure that the tractor has come to a complete stop before dismounting.
3. Avoid parking on steep slopes, if at all possible park on a firm and level surface; if not, park across a slope and chock the wheels.
Failure to comply with this warning may allow the tractor to move and could cause injury or death.

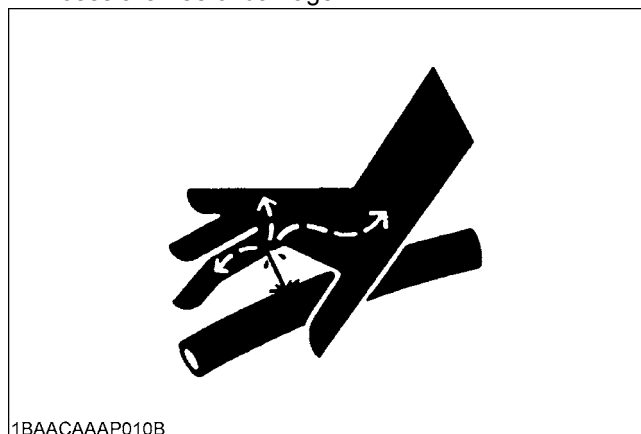
4. OPERATING THE PTO

1. Wait until all moving components have completely stopped before getting off the tractor, connecting, disconnecting, adjusting, cleaning, or servicing any PTO driven equipment.

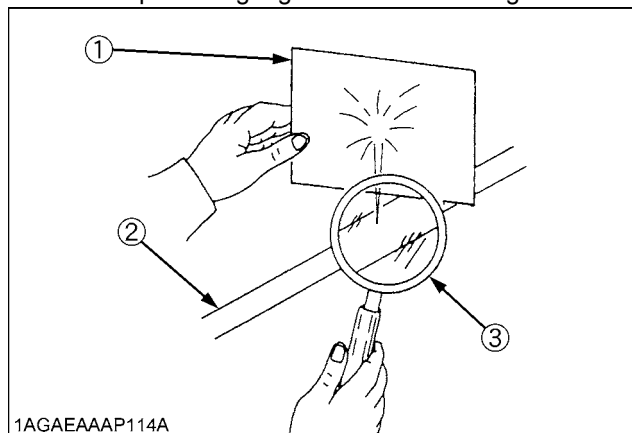
11. Always maintain the correct tire pressure. Do not inflate tires above the recommended pressure shown in the operator's manual.



12. Securely support the tractor when either changing wheels or adjusting the wheel tread width.
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 tractor or any machine 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.



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

17. Do not open high-pressure fuel system.
High-pressure fluid remaining in fuel lines can cause serious injury. Do not disconnect nor attempt to repair fuel lines, sensors, or any other components between the high-pressure fuel pump and injectors on engines with high pressure common rail fuel system.
18. To avoid hazardous high voltage, turn the key switch to the OFF position if it is necessary to check to repair the computer, harness or connectors.
19. During Diesel Particulate Filter (hereinafter called DPF) regenerating operations, exhaust gases and exhaust filter components reach temperatures hot enough to burn people, or ignite or melt common materials.
20. Keep the tractor away from people, animals or structures which may be susceptible to harm or damage from hot exhaust gases.
21. To prevent fires, keep the DPF muffler and its surroundings clear of anything flammable and keep clean at all times.
22. During regeneration, white exhaust gas may be visible. Do not allow regeneration in a non-ventilated space.
23. During regeneration, do not leave the tractor.

SERVICING OF TRACTOR

Your dealer is interested in your new tractor 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 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 tractor or your local KUBOTA Dealer.

When in need of parts, be prepared to give your dealer the tractor, CAB/ROPS and engine serial numbers.

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

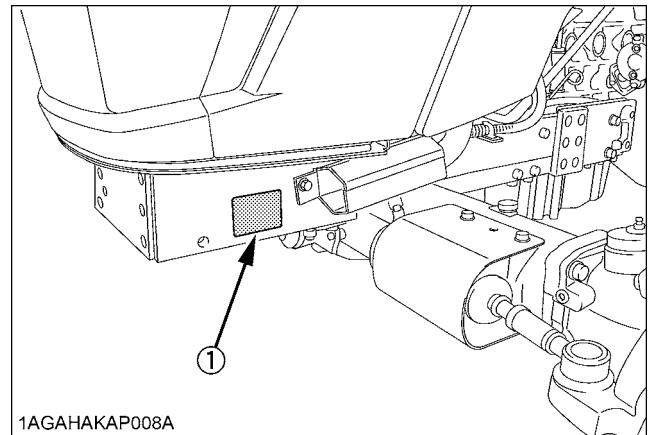
| | Type | Serial No. |
|--------------------------------|------|------------|
| Tractor | | |
| CAB / ROPS | | |
| Engine | | |
| Date of Purchase | | |
| Name of Dealer | | |
| (To be filled in by purchaser) | | |

◆ Warranty

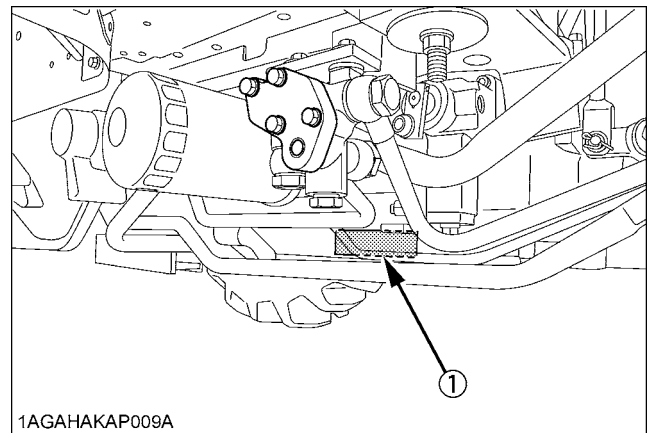
This tractor is warranted under the KUBOTA Limited Express Warranty, a copy of which may be obtained from your selling dealer. No warranty shall, however, apply if the tractor has not been handled according to the instruction given in the Operator's Manual even it is within the warranty period.

◆ Scrapping the tractor and its procedure

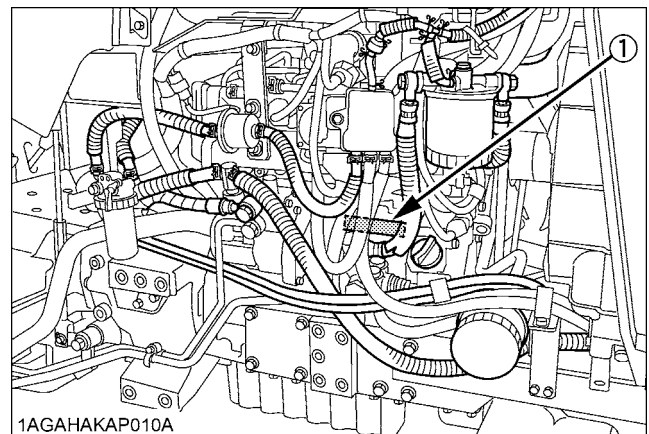
To put the tractor out of service, correctly follow the local rules and regulations of the country or territory where you scrap it. If you have questions, consult your local KUBOTA Dealer.



(1) Tractor identification plate



(1) Tractor serial number









(1) Engine serial number

TRAVELING SPEEDS

[Manual Transmission Type]



(At rated engine rpm)

| Model | | | MX4800 / MX5200 | |
|--|---|-----------------------|-----------------|------|
| Tire size (Rear) | | | 14.9-26 | |
| | Range gear shift lever | Main gear shift lever | km/h | mph |
| Forward  | Low  | 1 | 1.6 | 1.0 |
| | | 2 | 2.2 | 1.4 |
| | | 3 | 3.6 | 2.3 |
| | | 4 | 5.4 | 3.3 |
| | High  | 1 | 7.6 | 4.7 |
| | | 2 | 10.8 | 6.7 |
| | | 3 | 17.5 | 10.9 |
| | | 4 | 25.9 | 16.0 |
| Reverse  | Low  | 1 | 1.5 | 0.9 |
| | | 2 | 2.1 | 1.3 |
| | | 3 | 3.3 | 2.1 |
| | | 4 | 4.9 | 3.1 |
| | High  | 1 | 7.0 | 4.3 |
| | | 2 | 9.9 | 6.1 |
| | | 3 | 16.1 | 10.0 |
| | | 4 | 23.7 | 14.7 |

The company reserves the right to change the specifications without notice.

[HST Type]

(At rated engine rpm)

| Model | | MX4800 / MX5200 / MX5800 | |
|--|------------------------|--------------------------|-----------|
| Tire size (Rear) | | 14.9-26 | |
| | Range gear shift lever | km/h | mph |
| Forward  | L | 0 to 6.0 | 0 to 3.7 |
| | M | 0 to 11.8 | 0 to 7.3 |
| | H | 0 to 25.9 | 0 to 16.1 |
| Reverse  | L | 0 to 5.5 | 0 to 3.4 |
| | M | 0 to 10.6 | 0 to 6.6 |
| | H | 0 to 23.3 | 0 to 14.5 |

The company reserves the right to change the specifications without notice.

OPERATING THE ENGINE



WARNING

To avoid personal injury or death:

- Read "Safe Operation" in the front of this manual.
- Read the danger, warning and caution labels located on the tractor.
- 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 all shift levers to the "NEUTRAL" positions and to place PTO clutch control switch in "OFF" position before starting the engine.

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.

EXHAUST AFTERTREATMENT DEVICES



WARNING

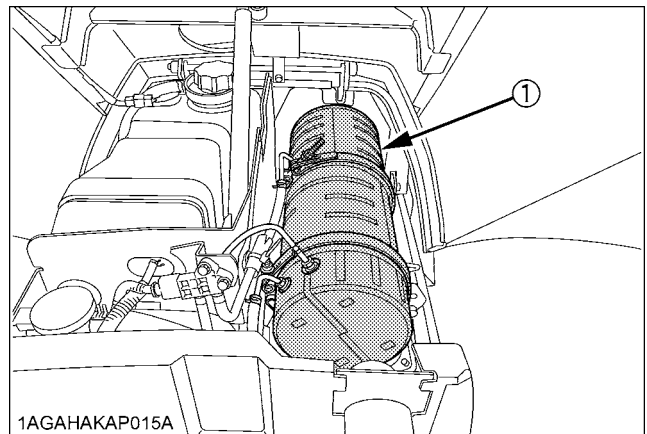
To avoid personal injury or death:

- During Diesel Particulate Filter (DPF) regenerating operations, exhaust gases and exhaust filter components reach temperatures hot enough to burn people, or ignite or melt common materials.
- Keep tractor away from people, animals or structures which may be susceptible to harm or damage from hot exhaust gases.
- During regeneration, white exhaust gases may be visible. Do not allow regeneration in a non ventilated garage or confined area.
- During regeneration, do not leave the tractor.

■ Diesel Particulate Filter (DPF) Muffler

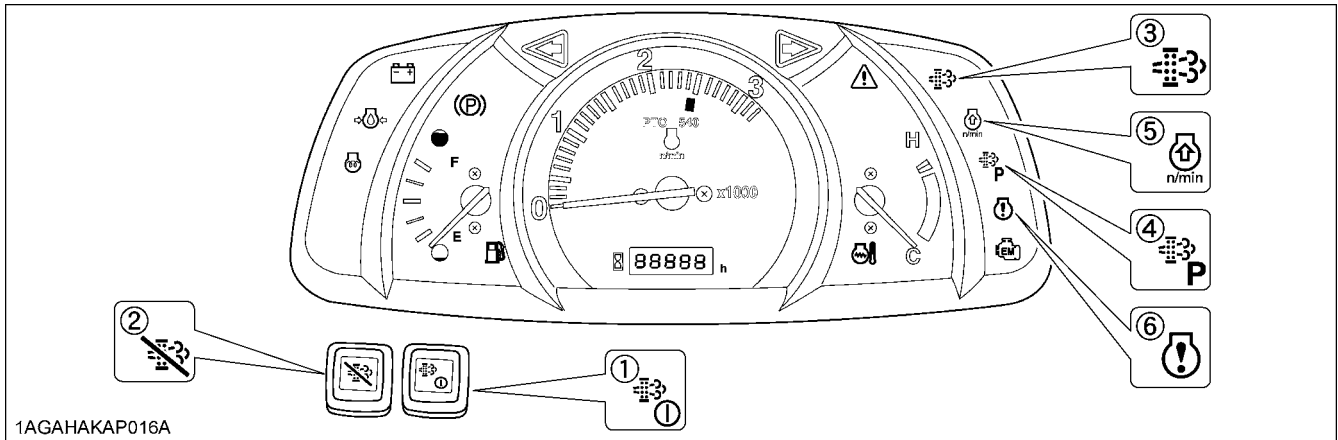
This tractor is equipped with an engine with a DPF (Diesel Particulate Filter) muffler which serves to reduce hydrocarbons, carbon monoxide and other gases, all of which are contained in diesel engine emissions, to harmless carbon dioxide and water. The DPF also traps PM (particulate matter).

Please handle exhaust aftertreatment devices correctly and in an environmentally responsible manner.



(1) Diesel Particulate Filter (DPF)


Operating Procedure for Regeneration Inhibit Mode



- (1) Parked regeneration switch (3) Regeneration indicator (5) Engine RPM increase indicator
 (2) DPF INHIBIT switch (4) Parked regeneration indicator (6) Engine warning indicator


■Regeneration Operating Procedure

1. Start the engine.

2. Press the DPF INHIBIT switch , and the switch lamp illuminates.

Switch lamp ON: Regeneration Inhibit Mode selected.

Switch lamp OFF: Auto Regeneration Mode selected.

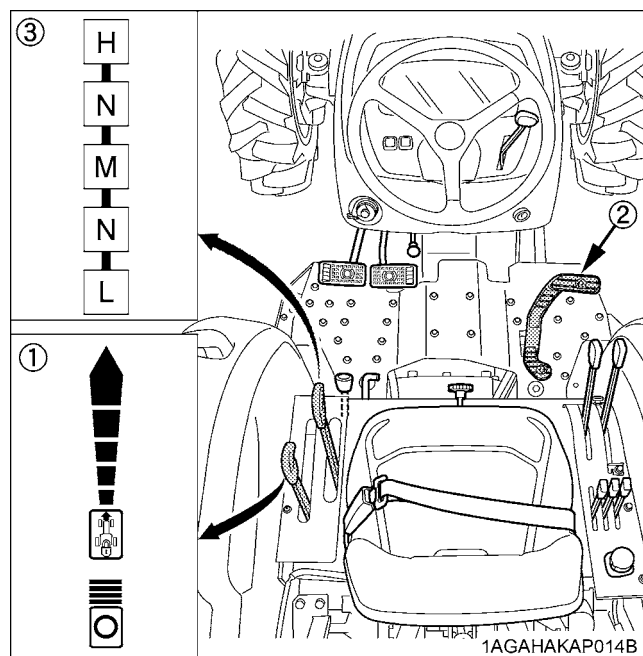
3. When the parked regeneration indicator  starts flashing:

A specific amount of PM has accumulated in the DPF muffler.

Move the tractor to a safe place and activates the DPF muffler. Follow the "Operating Procedure for Parked Regeneration" procedure.

3. Make sure the cruise control lever is in "OFF" position.
Place the Speed control Pedal in "NEUTRAL" position.
Place the range gear shift lever in "NEUTRAL" position.

[HST Type]



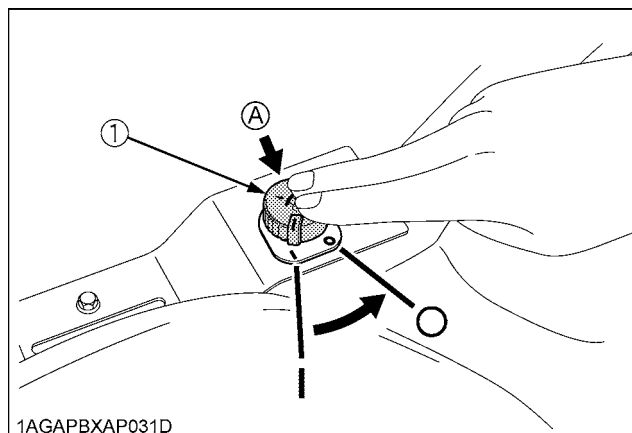
- (1) Cruise control lever
- (2) Speed control pedal
- (3) Range gear shift lever

(N) "NEUTRAL POSITION"
○ "OFF POSITION"

NOTE :

- Depress the both brake pedals together, doing so the cruise control lever automatically returns to the off position.
- When removing the foot from speed control pedal, the pedal automatically returns to the neutral position.

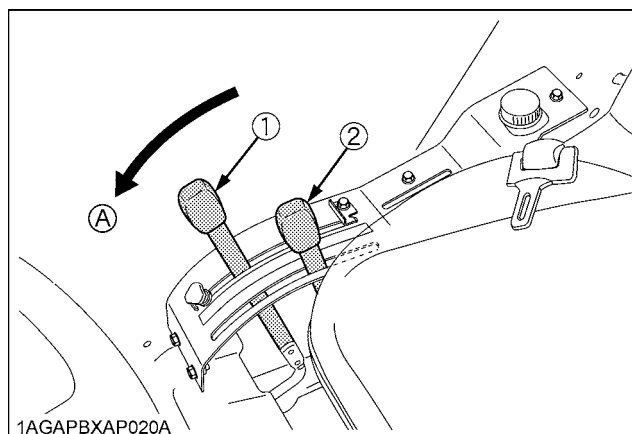
4. Place the PTO clutch control switch in "OFF" position.



- (1) PTO clutch control switch

! "ON" (Engaged)
○ "OFF" (Disengaged)
(A) "PUSH"

5. Place the hydraulic control levers in "LOWEST" position.



- (1) Position control lever
- (2) Draft control lever (if equipped)

(A) "DOWN"

JUMP STARTING



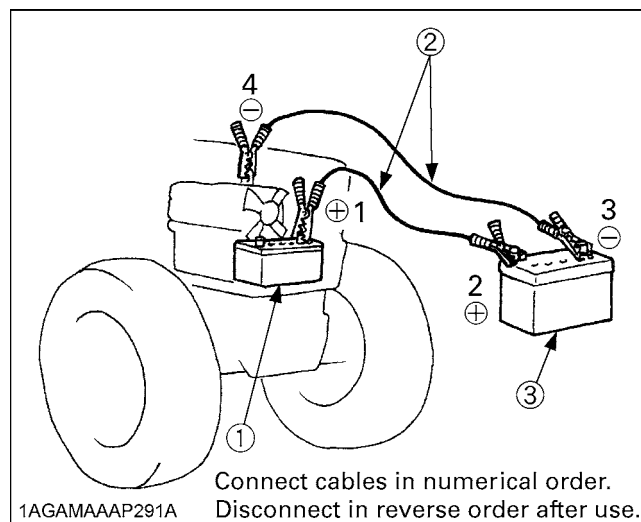
WARNING

To avoid personal injury or death:

- Battery gases can explode. Keep cigarettes, sparks, and flames away from battery.
- If tractor battery is frozen, do not jump start engine.
- Do not connect the other end of the negative (-) jumper cable to the negative (-) terminal of the tractor battery.

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

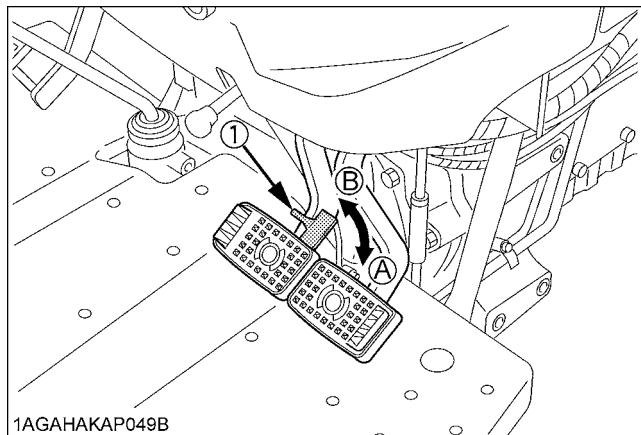
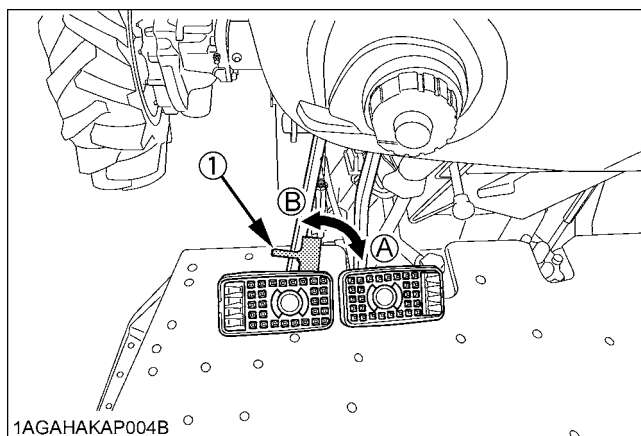
1. Bring the helper vehicle with a battery of the same voltage as disabled tractor within easy cable reach. "THE VEHICLES MUST NOT TOUCH".
2. Engage the parking brakes of both vehicles and put the shift levers in neutral. Shut both engines off.
3. Wear eye protection and rubber gloves.
4. Attach the 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.
5. Clamp the other cable to the negative (black, (-) or neg.) terminal of the helper battery.
6. Clamp the other end to the engine block or frame of the disabled tractor as far from the dead battery as possible.
7. Start the helper vehicle and let its engine run for a few moments. Start the disabled tractor.
8. Disconnect the jumper cables in the exact reverse order of attachment. (Steps 6, 5 and 4).



- (1) Dead battery
(2) Jumper cables
(3) Helper battery

IMPORTANT :

- This machine has a 12 volt negative (-) ground starting system.
- Use only same voltage for jump starting.
- Use of a higher voltage source on tractor's electrical system could result in severe damage to tractor's electrical system.
Use only matching voltage source when "Jump starting" a low or dead battery condition.
- Do not operate the tractor with the battery cable disconnected from the battery.
- Do not operate the tractor without the battery mounted.
- Do not operate the tractor with the battery dead. Charge the battery fully enough before operating the tractor.
Otherwise the tractor might malfunction.

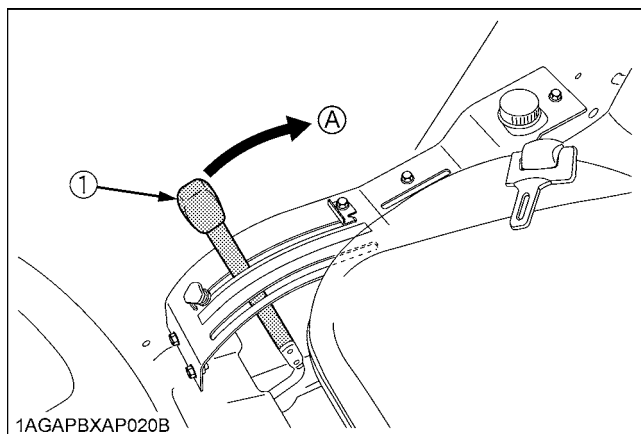
[Manual Transmission Type]**[HST Type]**

(1) Brake pedal lock

(A) "LOCK"

(B) "RELEASE"

4. Raise the implement.
(See "HYDRAULIC UNIT" section.)



(1) Position control lever

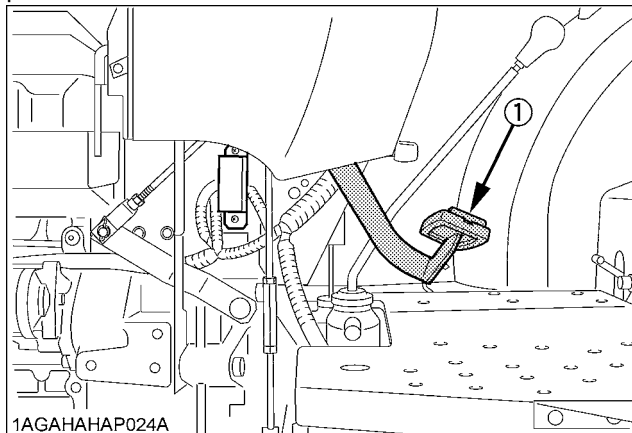
(A) "UP"

5. Depress the clutch pedal.**[Manual Transmission Type]****■ Clutch Pedal****WARNING**

To avoid personal injury or death:

- Sudden release of the clutch may cause the tractor to lunge in an unexpected manner.

The clutch is disengaged when the clutch pedal is fully pressed down.



(1) Clutch pedal

IMPORTANT :

To help prevent premature clutch wear:

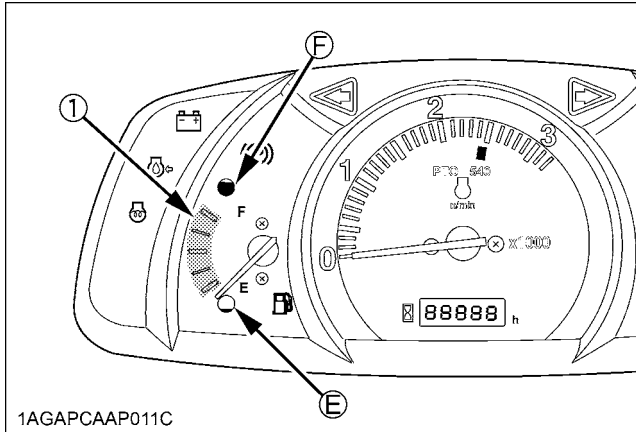
- The clutch pedal must be quickly disengaged and be slowly engaged.
- Avoid operating the tractor with your foot resting on the clutch pedal.
- Select proper gear and engine speed depending on the type of job.

Fuel Gauge

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 (E) "EMPTY" (F) "FULL"

Coolant Temperature Gauge

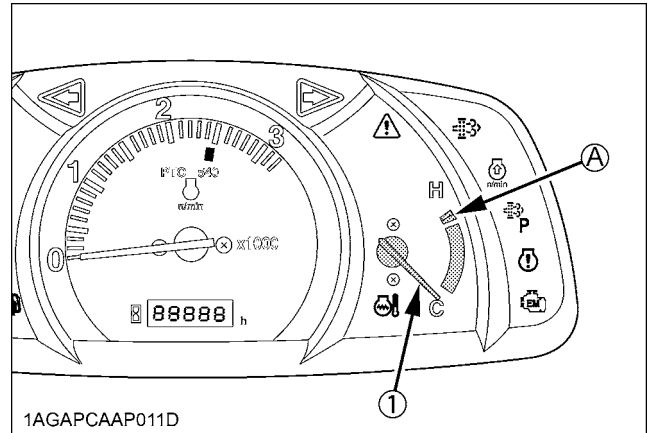


WARNING

To avoid personal injury or death:

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

- With the key switch at "ON", this gauge indicates the temperature of the coolant. "C" for "cold" and "H" for "hot".
- If the indicator reaches the red zone position, engine coolant is overheated. Check the tractor by referring to "TROUBLESHOOTING" section.

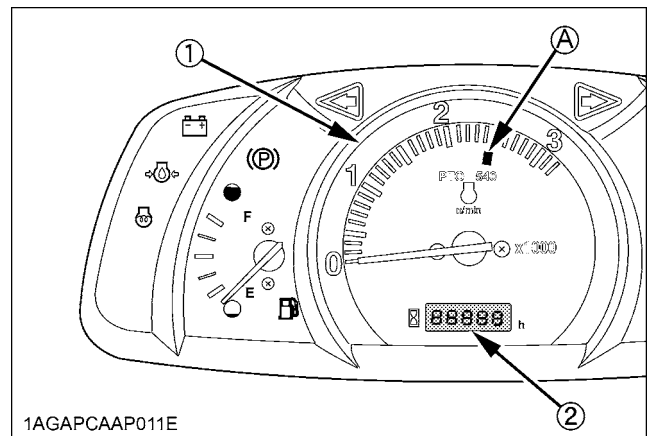


(1) Coolant temperature gauge (A) "RED ZONE"

Hourmeter/Tachometer

This meter gives readings for engine speed, PTO shaft speed and the hours the tractor has been operated.

- The tachometer indicates the engine speed and the 540 PTO shaft speed location on the dial.
- The hourmeter indicates in 5 digits the hours the tractor has been used; the last digit indicates 1/10 of an hour.



(1) Engine revolution (A) PTO : 540 rpm (2) Hours used

3-POINT HITCH

1. Make preparations for attaching implement.

■Category 1 & 2

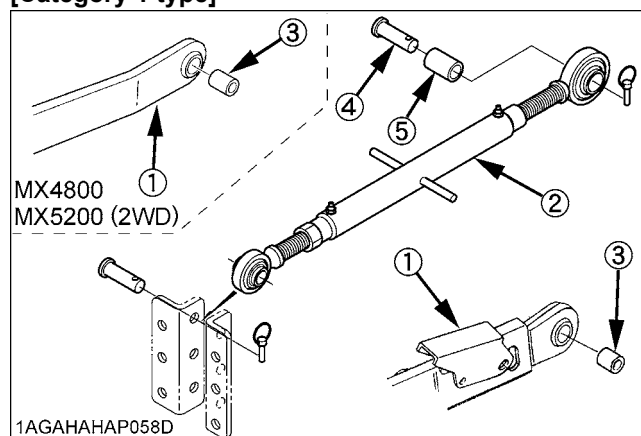
This tractor has both category 1 & 2.

Category 1 type is standard and assemble all parts shown as below.

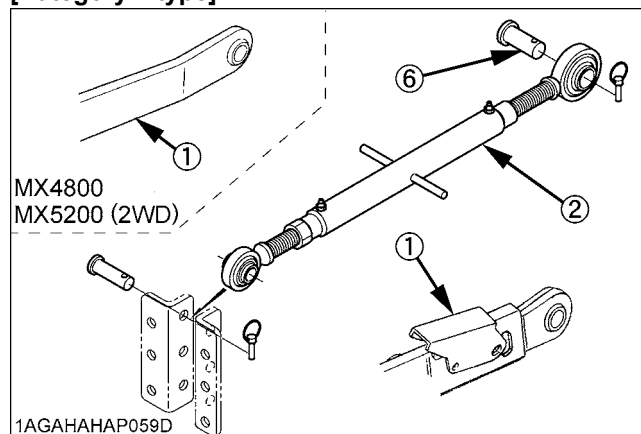
To change from category 1 to category 2.

1. Remove adjusting collar from the lower link.
2. Remove adjusting collar from the rear top link pin.
3. Use the correct rear top link pin for category 2.

[Category 1 type]



[Category 2 type]

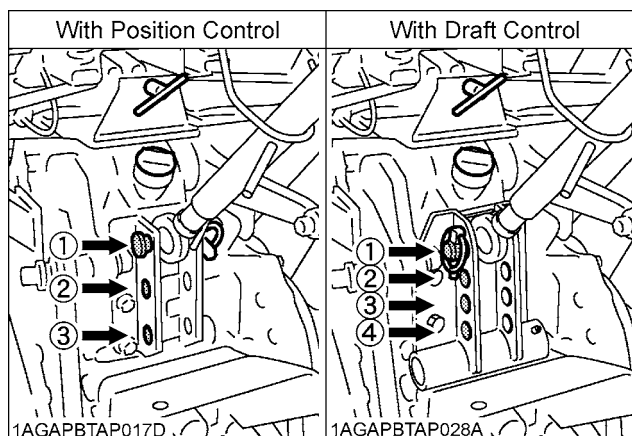


- | | |
|----------------------------|---------------------------|
| (1) Lower link | (4) Top link rear pin (1) |
| (2) Top link | (5) Collar, top link (1) |
| (3) Collar, lower link (1) | (6) Top link rear pin (2) |

■Selecting the top link mounting holes

Select the proper set of holes by referring to the "Hydraulic Control Unit Use Reference Chart" in "HYDRAULIC UNIT" section.

If the hydraulic unit is set for draft control, draft response is more sensitive when an implement is connected to the upper set of top link mounting holes. If draft control is not required, it is recommended to use the low set (4).



■Drawbar

Remove the drawbar if a close mounted implement is attached.

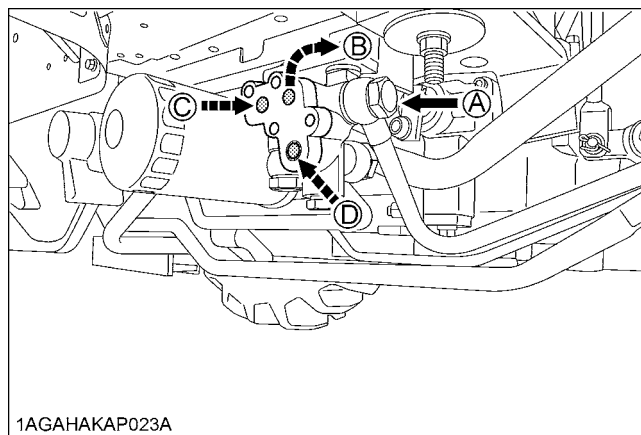
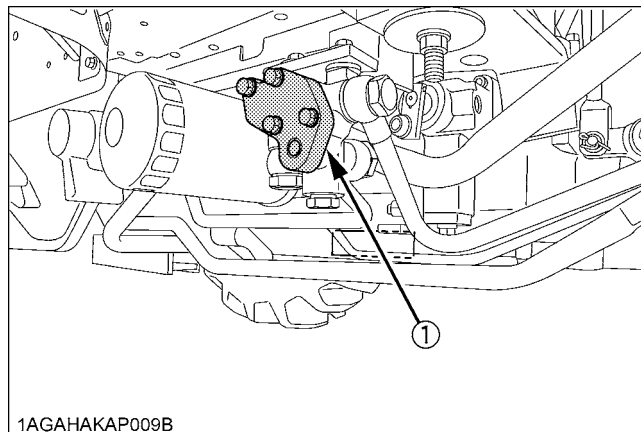
AUXILIARY HYDRAULICS

■Hydraulic Block Type Outlet

Hydraulic block type outlet is useful when adding hydraulically operated implement such as: front end loader, front blade, etc.

When implement is attached

1. Remove the block cover.
2. Route the implement inlet, outlet, and return hoses as shown in the illustration.



(1) Block cover

- (A) From gear pump
(B) To implement
Max flow
35.8 L/min (9.5 gals./min)
Max pressure
17.7 MPa (180 kgf/cm², 2560 psi)
(C) From implement (Outlet)
(D) From implement (Tank port)

REMOTE HYDRAULIC CONTROL SYSTEM (if equipped)

The hydraulic auxiliary control valves can be installed up to triple segments.

■Remote Control Valve

There are two types of remote valves available for these models.

- Double acting valve:
- Double acting valve with float position:
This valve may be placed in the float mode with the control lever all the way forward. The cylinder is free to extend or retract, letting an implement such as a loader bucket follow the ground.

NOTE :

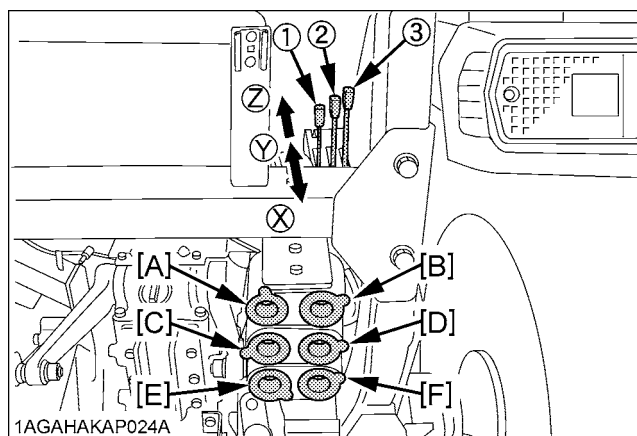
- The floating valve can be attached as the second segment only.

■Remote Control Valve Lever

The remote control valve lever directs pressurized oil flow to the implement hydraulic system.

[Example: Installing triple segment valve]

| | |
|------------|---|
| 1st 3rd | Double acting valve |
| 2nd | Double acting valve with float position |



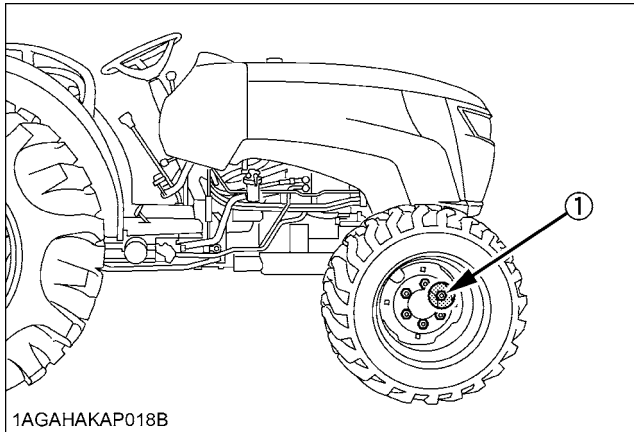
- (1) Remote control valve lever with Double acting valve (1)
(2) Remote control valve lever with Double acting valve / Float position (2)
(3) Remote control valve lever with Double acting valve (3)
(X) "REARWARD"
(Y) "FORWARD"
(Z) "FULL FORWARD"

■ Front Wheels (with 4-wheel drive)

Front tread can not be adjusted.

IMPORTANT :

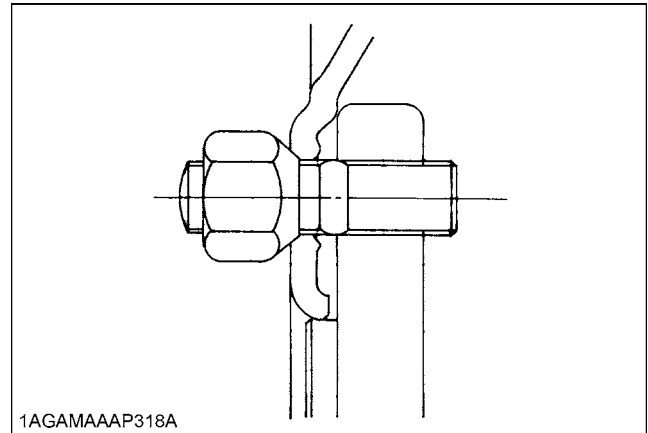
- Do not turn front discs to obtain wider tread.
- When re-fitting or adjusting a wheel, tighten the bolts to the following torques then recheck after driving the tractor 200 m (200 yards) and 10 times of shuttle movement by 5 m (5 yards), and thereafter according to service interval.
(See "MAINTENANCE" section.)



(1) 124.0 to 147.0 N-m (12.6 to 15.0 kgf-m, 91.5 to 108.4 ft-lbs)

NOTE :

- Wheels with beveled or tapered holes: Use the tapered side of lug nut.



| | | | | |
|-----------------------------------|-------|-----------------------|-----------------------|-----------------------|
| <p>Tread</p> <p>1AGAMAAAP392A</p> | Tire | 9.5-16 Farm | 12-16.5 IND | 29 x 12.5-15 Turf |
| | Tread | 1325 mm (52.2 in.) | 1325 mm (52.2 in.) | 1305 mm (51.4 in.) |

NOTE :

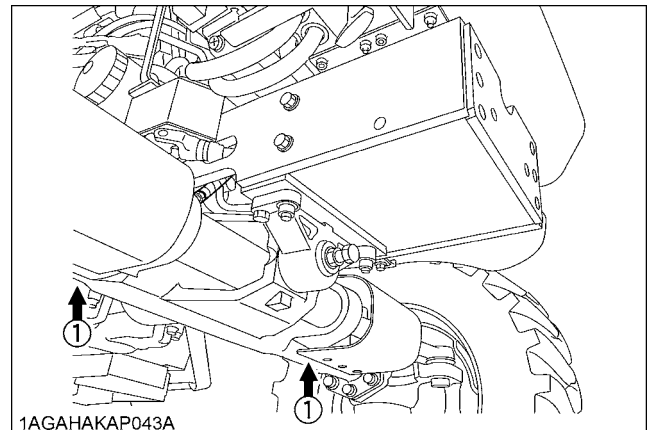
- IND...for Industrial



WARNING

To avoid personal injury or death:

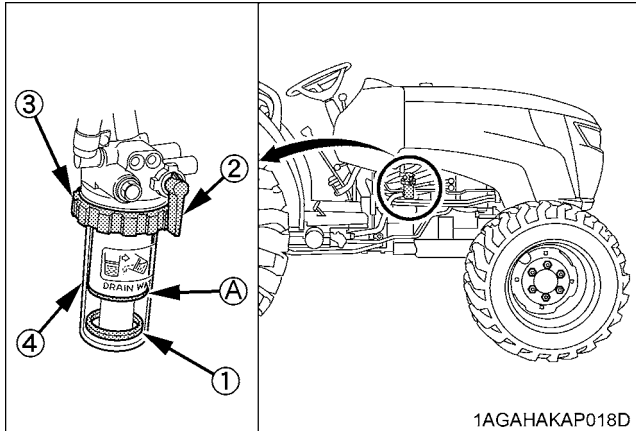
- Before jacking up the tractor, park it on a firm and level ground and chock the rear wheels.
- Fix the front axle to keep it from pivoting.
- Select jacks that withstand the machine weight and set them up as shown below.



(1) Jack points

■ Checking Water Separator

1. As water is collected in the water separator, the red float is raised.
2. When the red float has reached the white line, close the fuel cock, loosen the retainer ring, take out the cup, and clean the cup. Be careful not to break the element.
3. Place the cup back into position. Bleed the fuel system.
(See "SERVICE AS REQUIRED" in "PERIODIC SERVICE" section.)



- (1) Red float
(2) Fuel cock
(3) Retainer ring
(4) Cup

(A) "WHITE LINE"

IMPORTANT :

- If water is drawn through to the fuel pump, extensive damage will occur.

■ Checking Engine Oil Level

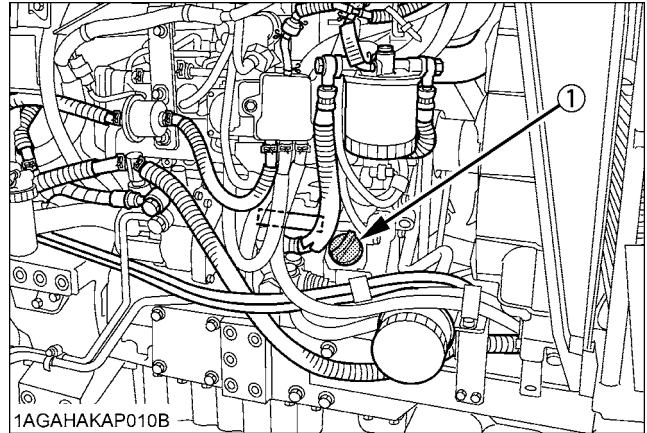


WARNING

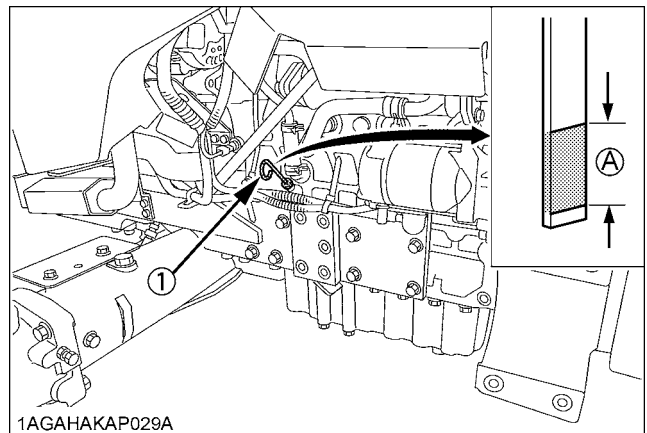
To avoid personal injury or death:

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

1. Park the machine on a flat surface.
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 lines between the 2 notches. If the level is too low, add new oil to the prescribed level at the oil inlet.
(See "LUBRICANTS" in "MAINTENANCE" section.)



(1) Oil inlet



(1) Dipstick

(A) Oil level is acceptable within this range.

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.

NOTE :

- At times a small amount of fuel, which is used to regenerate the DPF, may get mixed with the engine oil and the engine oil may increase in volume.