# **OPERATOR'S MANUAL**

# KUBOTA TRACTOR

MODELS L3130-L3430-L3830 L4330-L4630-L5030



READ AND SAVE THIS MANUAL

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# **ABBREVIATION LIST**

Abbreviations	Definitions						
2WD	Two Wheel Drive						
4WD	Four Wheel Drive						
API	American Petroleum Institute						
ASAE	American Society of Agricultural Engineers, USA						
ASTM	American Society for Testing and Materials, USA						
DIN	Deutsches Institut für Normung, GERMANY						
DT	Dual Traction [4WD]						
fpm	Feet Per Minute						
GST	Glide Shift Transmission						
Hi-Lo	High Speed-Low Speed						
HST	Hydrostatic Transmission						
m/s	Meters Per Second						
PTO	Power Take Off						
RH/LH	Right-hand and left-hand sides are determined by facing in the direction of forward travel						
ROPS	Roll-Over Protective Structures						
rpm	Revolutions Per Minute						
r/s	Revolutions Per Second						
SAE	Society of Automotive Engineers, USA						
SMV	Slow Moving Vehicle						

California Proposition 65

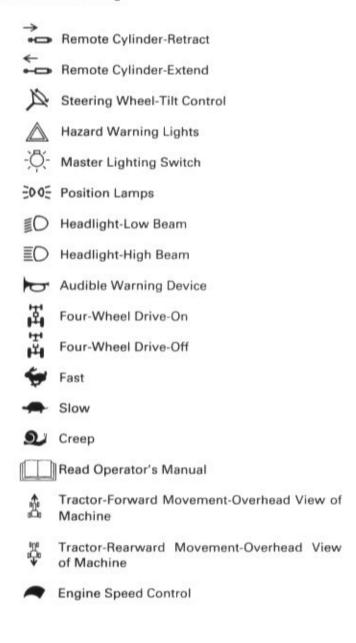
### A WARNING A

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

### **UNIVERSAL SYMBOLS**

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

A	Safety Alert Symbol
副	Diesel Fuel
메	Fuel-Level
	Engine-Rotational Speed
$\boxtimes$	Hourmeter/Elapsed Operating Hours
	Engine Coolant-Temperature
6	Diesel Preheat/Glow Plugs(Low Temperature Start Aid)
(P)	Parking Brake
3	Engine Intake/Combustion Air-Filter
-+	Battery Charging Condition
••••	Engine Oil-Pressure
$\Diamond \Diamond$	Turn Signal
(FTOP)	Engine-Stop
	Engine-Run
0	Starter Control
(STOP)	Engine Shut-Off Control
-	Power Take-Off Clutch Control-Off Position
	Power Take-Off Clutch Control-On Position
<b>(a)</b>	Differential Lock
1	Position Control-Raised Position
2	Position Control-Lowered Position
D	Draft Control-Shallow Position
$\mathcal{V}$	Draft Control-Deep Position
2	3-Point Lowering Speed Control



# **FOREWORD**

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



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.

A

DANGER: Indicates an imminently hazardous situation which, if not

avoided, will result in death or serious injury.

MA WA

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 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

- Know your equipment and its limitations. Read this entire manual before attempting to start and operate the tractor.
- Pay special attention to the danger, warning and caution labels on the tractor.
- 3. 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. If the tractor is equipped with a foldable ROPS it may be temporarily folded down only when absolutely necessary for areas with height constraints.

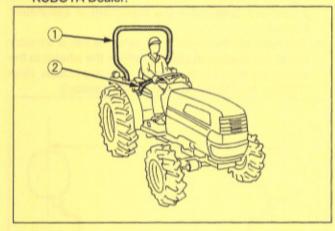
(There is no operator protection provided by the ROPS in the folded position. For operator safety the ROPS should be placed in the upright and locked position and the seat belt fastened for all other operations.)

If the CAB or ROPS is loosened or removed for any reason, make sure that all parts are reinstalled correctly before operating the tractor.

Never modify or repair a ROPS because welding, bending, drilling, grinding, or cutting may weaken the structure.

A damaged CAB or ROPS structure must be replaced, not repaired or revised.

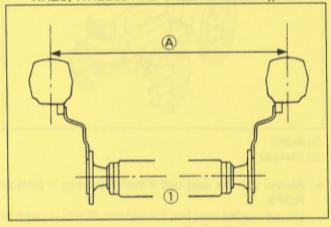
If any structural member of the CAB or ROPS is damaged, replace the entire structure at your local KUBOTA Dealer.



(1) ROPS (2) Seat belt

- Always use the seat belt if the tractor has a CAB or ROPS.
  - Do not use the seat belt if a foldable ROPS is down or there is no ROPS. Check the seat belt regularly and replace if frayed or damaged.
- Do not operate tractor or any implement attached to it while under the influence of alcohol, medication, controlled substances or while fatigued.
- Carefully check the vicinity before operating tractor or any implement attached to it. Check for overhead clearance which may interfere with a CAB or ROPS. Do not allow any bystanders around or near tractor during operation.
- Before allowing other people to use your tractor, explain how to operate and have them read this manual before operation.
- 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.
- Do not allow passengers to ride on any part of the tractor at anytime. The operator must remain in the tractor seat during operation.
- 10. Check brakes, clutch, 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.)
- Keep your tractor clean. Dirt, grease, and trash build up may contribute to fires and lead to personal injury.

- Use only implements meeting the specifications listed under "IMPLEMENT LIMITATIONS" in this manual or implements approved by KUBOTA.
- 13. 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.
- 14. 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

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

#### 2. OPERATING THE TRACTOR

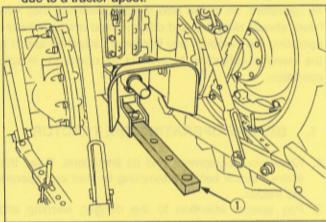
#### Starting

- Always sit in the operator's seat when starting engine or operating levers or controls.
- Before starting the engine, make sure that all levers (including auxiliary control levers) are in their neutral positions, that the parking brake is engaged, and that both the clutch and the Power Take-Off (PTO) are disengaged or "OFF".
  - Fasten the seat belt if the tractor has a CAB or a foldable ROPS in the upright and locked position.
- Do not start engine by shorting across starter terminals or bypassing the safety start switch. Machine may start in gear and move if normal starting circuitry is bypassed.

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

#### Working

 Pull only from the drawbar. Never hitch to axle housing or any other point except drawbar; such arrangements will increase the risk of serious personal injury or death due to a tractor upset.



(1) Drawbar

- Keep all shields and guards in place. Replace any that are missing or damaged.
- Avoid sudden starts. To avoid upsets, slow down when turning, on uneven ground, and before stopping.
- The tractor cannot turn with the differential locked and attempting to do so could be dangerous.
- 5. Do not operate near ditches, holes, embankments, or other ground surface features which may collapse under the tractor's weight. The risk of tractor upset is even higher when the ground is loose or wet. Tall grass can hide obstacles, walk the area first to be sure.
- Watch where you are going at all times. Watch for and avoid obstacles. Be alert at row ends, near trees, and other obstructions.
- When working in groups, always let the others know what you are going to do before you do it.
- 8. Never try to get on or off a moving tractor.

#### Safety for children

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

- Never assume that children will remain where you last saw them.
- Keep children out of the work area and under the watchful eye of another responsible adult.
- Be alert and shut your machine down if children enter the work area.
- Never carry children on your machine. There is no safe place for them to ride. They may fall off and be run over or interfere with your control of the machine.
- Never allow children to operate the machine even under adult supervision.

- Never allow children to play on the machine or on the implement.
- Use extra caution when backing up Look behind and down to make sure area is clear before moving.
- 8. When parking your machine if at all possible park on a firm, flat and level surface; if not, park across aslope. 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

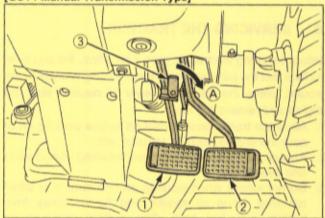
Slopes are major factor related to loss-of-control and tipover accidents, which can result in severe injury or death. All slopes require extra caution.

- 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.
- Driving forward out of a ditch, mired condition or up a steep slope increases the risk of a tractor to be upset backward. Always back out of these situations. Extra caution is required with four-wheel drive models because their increased traction can give the operator false confidence in the tractor's ability to climb slopes.
- Keep all movement on slopes slow and gradual. Do not make sudden changes in speed or direction.
- Avoid disengaging the clutch or changing gears speed when climbing or going down a slope. If on a slope disengaging the clutch or changing gears to neutral could cause loss of control.
- To improve stability on slope, set widest wheel tread as shown in "TIRE,WHEEL AND BALLAST" section. Follow recommendations for proper ballasting.

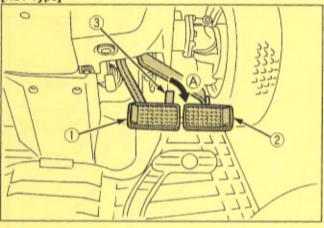
#### Driving the tractor on the road

 Lock the two brake pedals together to help assure straight-line stops. Uneven braking at road speeds could cause the tractor to tip over





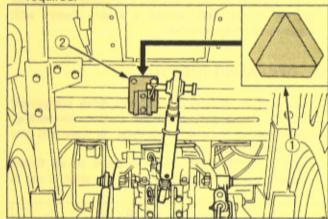
[HST Type]



(1) Brake Pedal (LH)

(A) Whenever travelling on the road

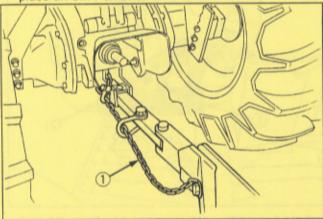
- (2) Brake Pedal (RH)
- (3) Brake Pedal Lock
- Check the front wheel engagement. The braking characteristics are different between two and four wheel drive. Be aware of the difference and use carefully.
- 3. Always slow the tractor down before turning. Turning at high speed may tip the tractor over.
- 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.
- Turn the headlights on. Dim them when meeting another vehicle.
- Drive at speeds that allow you to maintain control at all times.
- Do not apply the differential lock while traveling at road speeds. The tractor may run out of control.
- 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.
- Do not operate an implement while the tractor is on the road. Lock the 3-point hitch in the raised position.

11. When towing other equipment, use a safety chain and place an SMV emblem on it as well.



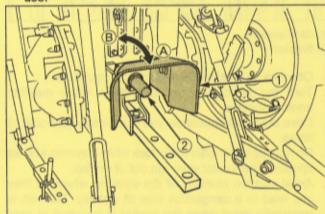
(1) Safety chain

#### 3. PARKING THE TRACTOR

- Disengage the PTO, 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.
- Make sure that the tractor has come to a complete stop before dismounting.
- Avoid parking on steep slopes, if possible park on flat ground, if not, park across a slope, always with attachment on the ground.

#### 4. OPERATING THE PTO

- Wait until all moving components have completely stopped before getting off the tractor, connecting, disconnecting, adjusting, cleaning, or servicing any PTO driven equipment.
- Keep the PTO shaft cover in place at all times. Replace the PTO shaft cap when the shaft is not in use.



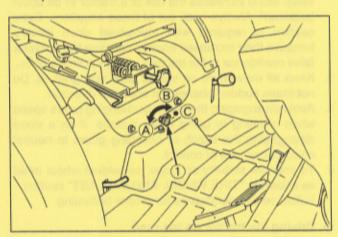
(1) PTO Shaft cover (2) PTO Shaft cap

(A) "NORMAL POSITION"
(B) "RAISED POSITION"

- Before installing or using PTO driven equipment, read the manufacturer's manual and review the safety labels attached to the equipment.
- 4. When operating stationary PTO driven equipment, always apply the tractor parking brake and place chocks behind and in front of the rear wheels. Stay clear of all rotating parts. Never step over rotating parts.

#### 5. USING 3-POINT HITCH

- Use the 3-point hitch only with equipment designed for 3-point hitch usage.
- When using a 3-point hitch mounted implement, be sure to install the proper counterbalance weight on the front of the tractor.
- When transporting on the road, 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

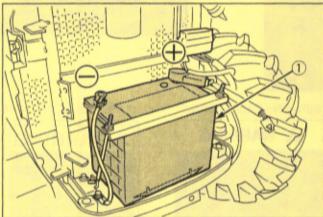
- (A) "FAST"
- (B) "SLOW"
- (C) "LOCK"

#### 6. SERVICING THE TRACTOR

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

- Allow the tractor time to cool off before working on or near the engine, muffler, radiator, etc.
- Always stop the engine before refueling. Avoid spills and overfilling.
- 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.
- Before "jump starting" a dead battery, read and follow all of the instructions. (See "JUMP STARTING" in "OPERATING THE ENGINE" section)

- Keep first aid kit and fire extinguisher handy at all times.
- 6. 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. If the tractor has a coolant recovery tank, add coolant or water to the tank, not the radiator. (See "CHECKING COOLANT LEVEL" in "MAINTENANCE" section)
- Disconnect the battery's ground cable before working on or near electric components.
- 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 between the UPPER and LOWER levels.
- To avoid sparks from an accidental short circuit, always disconnect the battery's ground cable (-) first and reconnect it last.



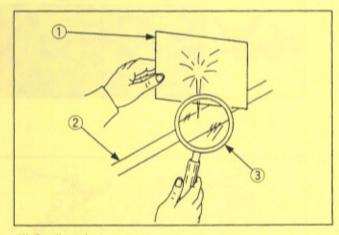
(1) Battery

- 10. Do not attempt to mount a tire on a rim. This should be done by a qualified person with the proper equipment.
- 11. Do not work under any hydraulically supported devices. They can settle, suddenly leak down, or be accidentally lowered. If necessary to work under tractor or any machine elements for servicing or adjustment, securely support them with stands or suitable blocking beforehand.

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



- 13. Securely support the tractor when either changing wheels or adjusting the wheel tread width.
- 14. Make sure that wheel bolts have been tightened to the specified torque.
- 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.



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

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.

#### DANGER, WARNING AND CAUTION LABELS

(1)Part No.TA040-4965-2



#### **A DANGER**

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 Machine may start in gear and move if normal starting circuitry is bypassed.

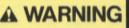
Start engine only from operator's seat with transmission and PTO OFF. Never start engine while standing on the ground

(4)Part No.TA040-4956-2 Desel fuel only. No fire





(2)Part No.TA040-4932-2 [Rigid ROPS type]



TO AVOID PERSONAL INJURY OR DEATH FROM ROLL-OVER:

Kubota recommends the use of a Roll-Over Protective Structures (ROPS) and seat belt in almost all applications

2 Remove the ROPS only when it substantially interferes with operation or itself presents a safety risk (Examples include work in orchards and unevards ALWAYS REINSTALL IT BEFORE USING THE TRACTOR IN OTHER APPLICATIONS

3 Never use just the seat belt or just the ROPS. They must be used together. For further details, consult your Operator's Manual or your local dealer

(5)Part No.TA040-4934-1



TO AVOID PERSONAL INJURY: Do not operate rear-PTO driven implements and mid-PTO driven implements at the same time.

(3)Part No.TA040-4959-3



#### WARNING

TO AVOID PERSONAL INJURY.

1 Keep PTO shield in place at all times.
2 Do not operate the PTO at speeds faster than the speed recommended by the implement manufacturer

For trailing PTO-driven implements set drawbar at towing position

(6)Part No.TA040-4935-1

#### **WARNING**

TO AVOID PERSONAL INJURY:

Attach pulled or towed loads to the drawbar only.

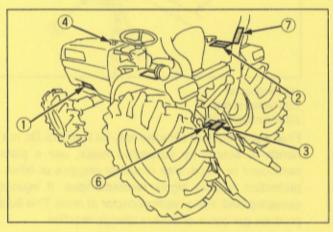
Use the 3-point hitch only with equipment designed for 3-point hitch usage

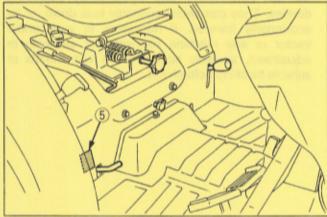
(7)Part No.6C140-4746-1

#### **AWARNING**

TO AVOID PERSONAL INJURY:

Do not modify or repair a ROPS because welding grinding, drilling or cutting any portion may weaken the structure





#### (1)Part No.TA140-4992-1[GST type]



WARNING

BEFORE DISMOUNTING TRACTOR:

1. ALWAYS SET PARKING BRAKE.

Leaving transmission in gear with the engine stopped will not prevent tractor from rolling. will not prevent tractor from rolling

2. PARK ON LEVEL GROUND WHENEVER POSSIBLE parking un a slope, position tractor across

3. LOWER ALL IMPLEMENTS TO THE GROUND. Failure to comply to this warning may allow the wheels to slip, and could cause injury or death.

4. LOCK SHUTTLE SHIFT LEVER IN NEUTRAL.

POSITION AND STOP THE ENGINE.

#### (1)Part No.TA140-4933-1[Manual Transmission type]



BEFORE DISMOUNTING TRACTOR

A WARNING

1. ALWAYS SET PARKING BRAKE.
2. PARK ON LEVEL GROUND WHENEVER POSSIBLE.

LOWER ALL IMPLEMENTS TO THE GROUND. Failure to comply to this warning may allow the wheels to slip, and could cause injury or death. LOCK SHUTTLE SHIFT LEVER IN NEUTRAL POSITION AND STOP THE ENGINE.

#### (1)Part No. TA240-9848-1[HST type]



WARNING

BEFORE DISMOUNTING TRACTOR:

1. ALWAYS SET PARKING BRAKE.

Leaving transmission in gear with the engine stopped will not prevent tractor from rolling PARK ON LEVEL GROUND WHENEVER POSSIBLE

If parking on a slope position tractor across

LOWER ALL IMPLEMENTS TO THE GROUND. Failure to comply to this warning may allow the wheels to slip, and could cause injury or death.

#### (3)Part No.TA240-9848-1 [Foldable ROPS type]



#### **WARNING**

TO AVOID INJURY OR DEATH FROM ROLL-OVER

in the upright and locked position
• Faster SEAT BELT before operating

4. STOP THE ENGINE.



THERE IS NO OPERATOR PROTECTION WHEN THE ROPS IS IN THE FOLDED POSITION. Check the operating arms and fold the HOPE any when absolutely recessory.

• Dir but when SEAT BELT if HOPS is todged.
• Russe and fork ROPS as shown as vertical clearance allows.

(2)Part No.3A111-9554-1 [Foldable ROPS type]

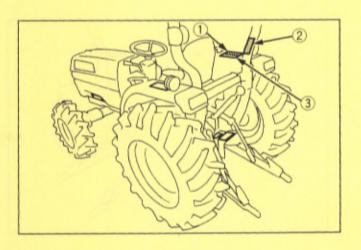
### **WARNING**

Never modify or repair a ROPS because welding. grinding, drilling or cutting any portion may weaken the structure.

#### CAUTION

#### TO AVOID INJURY WHEN RAISING OR **FOLDING ROPS:**

- · 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.



(1)Part No.35260-3491-4

### A CAUTION

#### TO AVOID PERSONAL INJURY:

- 1. Read and understand the operator's manual before operation.
- 2. Before starting the engine, make sure that everyone is at a safe distance from the tractor and that the PTO is OFF.
- 3. Do not allow passengers on the tractor at any time.
- 4. Before allowing other people to use the tractor, have them read the operator's manual.
- 5. Check the tightness of all nuts and bolts regularly.
- Keep all shields in place and stay away from all moving parts.
- Lock the two brake pedals together before driving on the road.
- 8. Slow down for turns, or rough roads, or when applying individual brakes.
- 9. On public roads use SMV emblem and hazard lights, if required by local traffic and safety regulations.
- 10. Pull only from the drawbar.
- 11. Before dismounting, lower the implement to the ground, set the parking brake, stop the engine and remove the key.
- Securely support tractor and implements before working underneath.

(3)Part No. 32751-4958-1 Stay clear of engine fan and fan belt.



(2)Part No.TD060-3012-1



NX110-5MF 12V

AMP HR (20HR) 55

RESERVE CAPACITY (MIN) 133

COLD CRANKING AMPS (-18°C) 582













DUE TO HYDROGEN GAS GENERATED FROM BATTERY, HANDLING WITHOUT CARE CAN CAUSE FIRE AND EXPLOSION - DUE SO HYDROCEN CAS GENERATED FROM MATTERY, HANDLING WITHOUT CARE CAN CAUSE FRE AND EXPLOSE
- CHARGE THIS SOLY FOR STANTING ENDINE, DO NOT APPLY THE PROJUCT FOR OTHER USES.
- CHARGE THIS SATTERY ONLY AT WELL VEHTLATED PLACES, AND AVOID SHORTS OR SPAINS.
- REFER TO THE INSTRUCTION MANUAL OF VEHICLE OR BATTERY BEFORE USING BOOSTER CAUSE.
STAINED WITH ACO, FLUSH OBJECTS MANEDATELY WITH WATER IF ACID BEING SWALLOWED, DRINK PLENTY OF
WATER FROMITTER A GASE OF ACCIDITAL CONTACT CONSULT A DOCTOR MANEDATELY.
- BATTERY FILLED WITH ACO (SO NOT TEL OR SHELL) - FLAMABABLE OD NOT CHARGE HEAR FIRE OR SPARKS
- DO NOT CHARGE RAPICLY - DO NOT DISASSEMBLE THE BATTERY (SEALED TYPE)

0 0 0 2.9 

1234887899999www

DANGER EXPLOSIVE GASES

Cigarettes, flames or sparks could cause battery to explode. Always shield eyes and face from battery. Do not charge or use booster cables or adjust post connections without proper instruction and training.

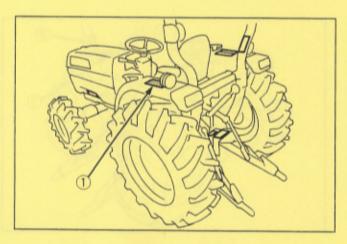
POISON CAUSES SEVERE BURNS

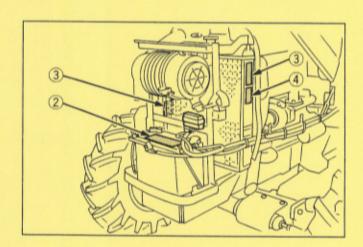
Contains sulfuric acid. Avoid contact with skin, eyes or clothing. In event of accident flush with water and call a physician immediately.

KEEP OUT OF REACH OF CHILDREN

(4)Part No. TC030-4958-1 Do not touch hot surface like muffler. etc.







#### 8. 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.
- Mount new danger, warning and caution labels by applying on a clean dry surface and pressing any bubbles to outside edge.

#### CARE OF DANIERS, WEIGHER AND CARTERS LABELD

- 1. Hosp canger, warming and caution labous disension than from plant union matches
- their Kink is along with material brain regress about the facilities to the profession presents results. It
- Windows demanded at missing devices, warning and garden flows with your labels from your last 100 POTO Dealer.
- 4. If a component with danger, warrang and caution tabelles although the replaced with new park, make nurs into the component of the contract of the contract
- 5. Stourt new danger, visioning and caution tabels by equipme as a clean dry author and proveing any building to suffice

### SERVICING OF TRACTOR

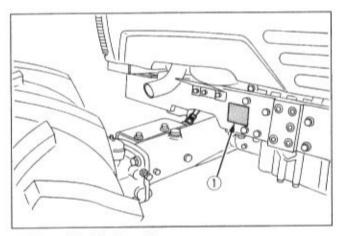
Your dealer is interested in your new tractor and has the desire to help you get the most value from it. After reading this manual thoroughly, you will find that you can do some of the regular maintenance yourself.

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

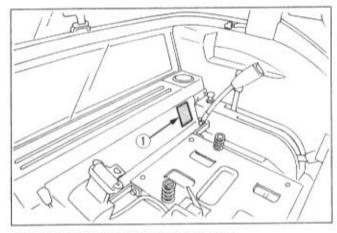
For service, contact the KUBOTA Dealership from which you purchased your tractor or your local KUBOTA Dealer. When in need of parts, be prepared to give your dealer the tractor, CAB and engine serial numbers.

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

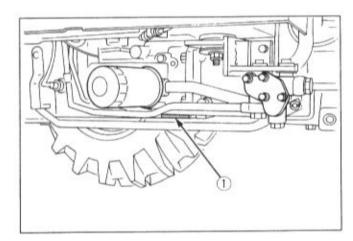
	Type	Serial No
Tractor		
CAB		
Engine		
Date of Purchase		
Name of Dealer		
(To be filled in by pur	chaser)	



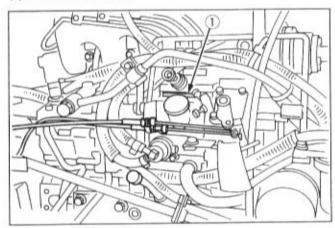
(1) Tractor identification plate



(1) CAB identification plate (CAB Serial No.)



(1) Tractor serial number



(1) Engine serial number

# **SPECIFICATIONS**

### SPECIFICATION TABLE [GST Type]

	М	odel	L3130	L3430	L3830	L4330	L4630	L5030		
				L		VD				
	Model		D1503-MA- E-GST	D1703-MA- E-GST	D1803-M- E-GST	V2203-MA- E-GST	V2203-MB- E-GST	V2403-MA E-GST		
	Туре			Indirect inject	tion vertical, w	vater-cooled, 4	l-cycle diesel			
	Number of cy	linders		3		To the second	4			
	Total displace	ement L (cu. ir	1.499 (91.5)	1.647 (100.5)	1.826 (111.4)	2.197 (134.1)		2.434 (148.5)		
_	Bore and stro	ke mm (ir	83x92.4 (3.3x3.6)	87x92.4 (3.4x3.6)	87x102.4 (3.4x4.0)	87x92.4	(3.4x3.6)	87x102.4 (3.4x4.0)		
Engine	Net power*	kW (H	P) 23.1 (31.0)	25.1 (33.6)	27.9 (37.4)	30.6 (41.0)	33.3 (44.7)	37.3 (50.0)		
	PTO power* (factory obse	rved) kW (HP)/rp	19.0 (25.5)/ m 2700	21.3 (28.5)/ 2700	23.9 (32.0)/ 2700	26.9 (36.0)/ 2600	29.5 (39.5)/ 2700	32.8 (44.0) 2700		
	Maximum tor		102.0	108.3	120.7	100000000	(107.8)	162.4		
	Widalindin to	que N-III (II-lb:	(75.9)	(79.9)	(89.0)	140.2	(107.6)	(119.8)		
	Battery capa	city		:123min, :490A		12V,RC:133n	nin,CCA:582A			
	Fuel		Diesel fue	No.1[below -	10℃ (14°F)]	Diesel fuel No	.2[above -10	℃ (14°F)]		
	Fuel tank L (U.S.gals.)		5.)		40 (10.6)			43 (11.4)		
Conneition	Engine crankcase (with filter) L (U.S.qts.)		3.)	5.7 (6.0)			8.2 (8.7)			
Capacities	Engine coola	nt L (U.S.qt	6.0	(6.3)		7.5 (7.9)		8.0 (8.5)		
	Transmission case L (U.S.gals.)			(11.1)		43 (11.4)		45 (11.9)		
	Overall length (without 3p) mm (in.)			(114.8)	2005		(121.3)	3205 (126.2)		
	Overall width (min. tread) mm (in.)		1.) 1520	(59.8)		1690 (66.5)		1710 (67.3		
	Overall height (with ROPS) mm (in.)			2305/2140 (90.7/84.3) 2		2315/2155 (91.1/84.8)		2355/2190		
Dimensions	Wheel base mm (in.)		1805	(71.1)	1840 (72.4)	1895	(74.6)	1915 (75.4		
	Min. ground			(14.2)		375 (14.8)	, , , , ,	405 (15.9)		
		Front mm (in.)		1155 (45.5)			(51.2)	1340 (52.8		
	Tread Rear mm (in.)		1200(47.2	1200(47.2),1300(51.2), 1385(54.5),1480(58.3)		.6),1435(56.5),1530(60.2)		1325(52.2) 1430(56.3		
Weight (with I	ROPS)	kg (lb		1480(3265)		1495(3295) 1575(3470)		1680(3705		
***************************************	Standard	Front		7.2-16		8.3-16		9.5-16		
	tire size	Rear	12	12.4-24		14.9-24		14.9-26		
<u> </u>	Clutch			Dry type single stage						
Traveling system	Steering			Hydrostatic power steering						
system	Transmission	n		Glide shift transmission (12 forward and 8 reverse speeds)						
	Braking syst			Wet disk type						
		radius (with brake) m (fe	et)							
	Hydraulic co			Position control						
	Pump capac		in.					(9.8)		
Hydraulic unit	Three point hitch			SAE category 1			37.0	SAE category 1,2		
unit	Mass	All lift points kg (lb	s.) 1700	1700 (3750		1750				
	Max. lift force	24in. behind lift points kg (lb	1200	(2650)	1750 (3860) 1250 (2760)			1350(2980		
		kg (ib	0.7							

Model				L3130	L3430	L3830	L4330	L4630	L5030
Model		4WD							
	Rear PTO			SAE 1-3/8,6 splines					
	Rear PTO	PTO/Engine speed	rpm		u=15 = -5581	540/	2550		
PTO	MID-PTO (if equipped)				USA No	.5(KUBOTA 1	0-tooth) involu	ıte spline	
		PTO/Engine speed	rpm			2000	/2580		

NOTE: \*Manufacturer's estimate

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

### SPECIFICATION TABLE [Manual Transmission Type]

	M	odel		L313	30	L3430	L38	330	L4330	L4630
				2WD	4WD	4WD	2WD	4WD	4WD	4WD
	Model			D1503-MA	-E-GST	D1703- MA-E- GST	D1803-N	M-E-GST	V2203- MA-E- GST	V2203 MB-E- GST
	Туре				Indirect	injection vert	ical, water-c	ooled, 4-cyc	le diesel	
	Number of c	ylinders		3						4
	Total displac	ement	L (cu. in.)	1.499 (9	1.499 (91.5) 1.647 (100.5)		1.826 (	111.4)	2.197 (134.1)	
Engine	Bore and stro	oke	mm (in.)	O3X32.4 (3.3X3.0)		87x92.4 (3.4x3.6)	87x102.4	(3.4x4.0)	87x92.4	(3.4x3.6)
Liigilie	Net power*		kW (HP)	23.1 (3	1.0)	25.1 (33.6)	27.9	(37.4)	30.6 (41.0)	33.3 (44.7)
	PTO power '		kW (HP)/rpm	19.0 (25.5	5)/2700	21.3 (28.5)/ 2700	23.9 (32	.0)/2700	26.9 (36.0)/ 2600	29.5 (39.5) 2700
	Maximum torque N-m (ft-lbs.)			102.9 (7	75.9)	108.3 (79.9)	120.7	(89.0)	146.2	(107.8)
	Battery capa	city		12V,RC:1	123min,C0	CA:490A	13	2V,RC:133n	nin,CCA:582	2A
	Fuel			Diesel fue	No.1[bel	low -10 ℃ (1	4 °F )]Diesel	fuel No.2[al	bove -10℃	(14°F)]
	Fuel tank		L (U.S.gals.)	40 (10.6)						
Capacities	Engine crani (with filter)	kcase	L (U.S.qts.)			5.7 (6.0)			8.2	(8.7)
	Engine cools	ant	L (U.S.qts.)		6.0 (6.3)			7.5	(7.9)	
	Transmissio	n case	L (U.S.gals.)		42 (11.1)			43 (	11.4)	77 USA
	Overall lengt	h (without 3p)	mm (in.)	29	915 (114.8	3)	2985 (	117.5)	3080	(121.3)
	Overall width	(min. tread)	mm (in.)	1	520 (59.8	)		1690	(66.5)	
	Overall height (with ROPS) mm (in.)			2305/2	2140 (90.7	/84.3)		2315/2155	(91.1/84.8)	
	Wheel base mm (in.)			1810 (71.3)		805 1.1)	1845 (72.6)	1840 (72.4)	923	395 4.6)
	Min. ground	clearance	mm (in.)	360 (14.2)			375	(14.8)		
Dimensions	Front		mm (in.)	1310 (51.6), 1410 (55.5), 1510 (59.4) 1610 (63.4)	1155	i (45.5)	1310 (51.6), 1410 (55.5), 1510 (59.4) 1610 (63.4)	1155 (45.5)	1300	(51.2)
		Rear	mm (in.)		7.2),1300 54.5),1480	The second secon		1435	(50.6), (56.5), (60.2)	
Weight (with	ROPS)		kg (lbs.)	1415 (3120)		460 220)	1430 (3155)	1480 (3265)	500	560 440)
	Standard	Front		6-16	7.5	2-16	6-16		8.3-16	
	tire size Rear				12.4-24			14.	9-24	
Traveling	Clutch					Dry t	ype single s	tage		
system	Steering					Hydrosi	tatic power s	steering		
1867	Transmissio	n		8 forwar	d and 8 re	everse fully sy	nchronized	main and si	huttle transr	nission.
	Braking syst	em					Vet disk type			
	Min. turning	radius (with brak	e) m (feet)	2.6(8.5)	2.7	(8.9)	2.6(8.5)		(8.9)	2.8(9.2

	Mc	odel	L3	130	L3430	L38	330	L4330	L4630	
			2WD	4WD	4WD	2WD	4WD	4WD	4WD	
	Hydraulic con	trol system	Position control							
	Pump capacit	Pump capacity L (U.S.gals)/min.			31.5 (8.3)			35.6 (9.4)	37.0 (9.8)	
Hydraulic	Three point h			SA	AE category	1				
unit	Max.	All lift points kg (lbs.)	1700 (3750)		)	1750 (3860)				
unit	lift force	24in, behind lift points kg (lbs.)	1200 (2650)		)	1250 (2760)				
	System press	ure MPa (kgf/cm²)	17.7 (180)							
	Rear PTO		SAE 1-3/8,6 splines							
PTO	riodi i i i o	PTO/Engine speed	540/2550							
1.0	MID-PTO			USA	USA No.5(KUBOTA 10-tooth) involute spline					
	(if equipped)	PTO/Engine speed				2000/2580				

NOTE: \*Manufacturer's estimate

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

### SPECIFICATION TABLE [HST Type]

	M	odel		L3130	L3430	L3830	L4330	L4630	L5030
		Jun 1				4V			
	Model			D1503-MA- E-HST	D1703-MA- E-HST	D1803-M E-HST	V2203-MA- E-HST	V2203-MB- E-HST	V2403-MA- E-HST
	Туре				Indirect injec	tion vertical, w	rater-cooled, 4	-cycle diesel	
1	Number of cy	linders			3	0	4		
	Total displace	ement	L (cu. in.)	1.499 (91.5)	1.647 (100.5)	1.826 (111.4) 2.197 (134.0)		(134.0)	2.434 (148.5)
	Bore and stro	Bore and stroke mm (in.)		83x92.4 (3.3x3.6)	87x92.4 (3.4x3.6)	87x102.4 (3.4x4.0)	87x92.4	(3.4x3.6)	87x102.4 (3.4x4.0)
Engine	Net power*		kW (HP)	23.1 (31.0)	25.1 (33.6)	27.9 (37.4)	30.6 (41.0)	33.3 (44.7)	37.3 (50.0)
	PTO power* (factory observed)	rved) kW	(HP)/rpm	17.9 (24.0)/ 2700	20.1 (27.0)/ 2700	22.8 (30.5)/ 2700	25.7 (34.5)/ 2600	28.3 (38.0)/ 2700	31.7 (42.5) 2700
	Maximum tor	que N	-m (ft-lbs.)	102.9 (75.9)	108.3 (79.9)	120.7 (89.0)	17 17 17 17 17 17 17 17 17 17 17 17 17 1	6.2 7.8)	162.4 (119.8)
	Battery capacity			12V,RC	:123min, :490A		12V,RC:133n	nin,CCA:582A	
	Fuel			Diesel fue	Diesel fuel No.1[below -10 ℃ (14 °F )][			.2[above -10	"C (14 °F)]
	Fuel tank	L	(U.S.gals.)			40 (10.6)			43 (11.4)
		case (with filter) L	(U.S.qts.)		5.7 (6.0)			8.2 (8.7)	
Capacities	Engine coolant L (U.S.qts.)		6.0 (6.3)			7.5 (7.9)		8.0 (8.5)	
	Transmission		(U.S.gals.)	42 (	11.1)		43 (11.4)		45 (11.9)
	Overall length	h (without 3p)	mm (in.)	2915	(114.8)	2985 (117.5)	3080 (121.2)		3205 (126.2)
	Overall width	(min. tread)	mm (in.)	1520	(59.8)		1690 (66.5)		1710 (67.3
		Overall height (with ROPS) mm (in.)			(90.7/84.3)	231	5/2155 (91.1/	84.8)	2355/2190 (92.7/86.2)
Dimensions	Wheel base mm (in.)			1805	(71.1)	1840 (72.4)	1895	(74.6)	1915 (75.4
		Min. ground clearance mm (in.)		-	360 (14.2)		375 (14.8)		405 (15.9)
		Front	mm (in.)	1155 (45.5)			1300	(51.2)	1340 (52.8
	Tread	- Control of the Cont		1200(47.2),1300(51.2), 1385(54.5),1480(58.3)		1285(50.6),1435(56.5),1530(60.2)			1325(52.2) 1430(56.3
Weight (with	ROPS)		kg (lbs.)	1992	500 305)	1515 (3340)	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	600 525)	1700(3750
	Standard	Front		7.	2-16		8.3-16		9.5-16
	tire size	Rear		12.4-24			14.9-24		14.9-26
	Clutch	-		Dry type single stage					
Traveling system	Steering					Hydrostatic	power steering	)	
ayatam	Transmissio	n			Hy	drostatic trans	mission (3 spe	eeds)	
	Braking syst	em				Wet d	lisk type		
	Min. turning	radius (with brake)	m (feet)			2.7(8.9)			2.8(9.2)
	Hydraulic co	ntrol system				Positio	n control		
	Pump capac	ity L(U.S	3.gals)/min.		31.5 (8.3)		35.6 (9.4)	37.0	(9.8)
Hydraulic	Three point	hitch		SAE category 1				SAE category 1,2	
unit	Mari	All lift points	kg (lbs.)	1700	(3750)		1750	(3860)	0
	Max. lift force	24in, behind lift p	oints	1200	(2650)		1250 (2760)	)	1350(2980
		kg (lbs.)			17.7 (180)				

	M	odel	L3130	L3430	L3830	L4330	L4630	L5030		
	1410	oder	4WD							
	Rear PTO		SAE 1-3/8,6 splines							
PTO	Real FTO	PTO/Engine speed		540/2640		540/2440	540/2640	540/2660		
FIG	MID-PTO	-РТО		USA No.	5 (KUBOTA 1	0-tooth) involu	ite spline			
	(if equipped)	PTO/Engine speed		2000/2670		2000/2470	2000/2670	2000/2690		

NOTE: \*Manufacturer's estimate

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

### TRAVELING SPEEDS

### ■GST Type

(At rated engine rpm)

Model		L3130-L3430	L3830	L4330	L4630	L5030
Tire size (Rear)		12.4 - 24	14.9 - 24	14.9 - 24	14.9 - 24	14.9 - 26
Shuttle shift lever	Main gear shift lever	km/h (mph)	km/h (mph)	km/h (mph)	km/h (mph)	km/h (mph)
Forward	1	1.6 (1.0)	1.5 (0.9)	1.6 (1.0)	1.5 (0.9)	1.5 (0.9)
	2	2.3 (1.4)	2.1 (1.3)	2.2 (1.4)	2.1 (1.3)	2.2 (1.4)
	3	3.1 (1.9)	2.9 (1.8)	3.0 (1.9)	2.9 (1.8)	2.9 (1.8)
	4	3.7 (2.3)	3.5 (2.2)	3.6 (2.2)	3.5 (2.2)	3.5 (2.2)
	5	4.5 (2.8)	4.2 (2.6)	4.4 (2.7)	4.2 (2.6)	4.3 (2.7)
	6	5.4 (3.4)	5.1 (3.2)	5.3 (3.3)	5.1 (3.2)	5.2 (3.2)
	7	6.5 (4.0)	6.3 (3.9)	6.4 (4.0)	6.3 (3.9)	6.5 (4.0)
	8	7.8 (4.8)	7.6 (4.7)	7.7 (4.8)	7.6 (4.7)	7.8 (4.8)
	9	9.2 (5.7)	8.9 (5.5)	9.0 (5.6)	8.9 (5.5)	9.1 (5.7)
	10	11.1 (6.9)	10.7 (6.6)	10.9 (6.8)	10.7 (6.6)	11.0 (6.8)
	11	18.0 (11.2)	17.4 (10.8)	17.6 (10.9)	17.4 (10.8)	17.9 (10.9)
	12	26.6 (16.5)	25.7 (16.0)	26.0 (16.2)	25.7 (16.0)	26.4 (16.4)
Reverse	1	1.5 (0.9)	1.4 (0.9)	1.5 (0.9)	1.4 (0.9)	1.5 (0.9)
	2	2.2 (1.4)	2.0 (1.2)	2.1 (1.3)	2.0 (1.2)	2.1 (1.3)
	3	3.5 (2.2)	3.3 (2.1)	3.4 (2.1)	3.3 (2.1)	3.4 (2.1)
	4	5.2 (3.2)	4.9 (3.0)	5.1 (3.2)	4.9 (3.0)	5.0 (3.1)
	5	7.5 (4.7)	7.2 (4.5)	7.3 (4.5)	7.2 (4.5)	7.4 (4.6)
	6	10.6 (6.6)	10.2 (6.3)	10.4 (6.5)	10.2 (6.3)	10.5 (6.5)
	7	17.2 (10.7)	16.6 (10.3)	16.8 (10.4)	16.6 (10.3)	17.1 (10.6)
	8	25.4 (15.8)	24.5 (15.2)	24.8 (15.4)	24.5 (15.2)	25.2 (15.7)

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

#### With creep speed model

(At rated engine rpm)

	Model	L463	CAB	
Creep	gear shift lever	High O	Low 🖭	
Tire	size (Rear)	14.5	9-24	
Shuttle shift lever	Main gear shift lever	km/h (mph)	km/h (mph)	
Forward	1	1.5 (0.9)	0.17 (0.11)	
	2	2.1 (1.3)	0.24 (0.15)	
	3	2.9 (1.8)	0.32 (0.20)	
	4	3.5 (2.2)	0.39 (0.24)	
	5	4.2 (2.6)	0.47 (0.29)	
	6	5.1 (3.2)	0.57 (0.35)	
	7	6.3 (3.9)	0.71 (0.44)	
	8	7.6 (4.7)	0.85 (0.53)	
	9	8.9 (5.5)	1.00 (0.62)	
	10	10.7 (6.6)	1.20 (0.75)	
	11	17.4 (10.8)	1.95 (1.21)	
	12	25.7 (16.0)	2.88 (1.79)	
Reverse	1	1.4 (0.9)	0.16 (0.10)	
	2	2.0 (1.2)	0.23 (0.14)	
	3	3.3 (2.1)	0.37 (0.23)	
	4	4.9 (3.0)	0.55 (0.34)	
	5	7.2 (4.5)	0.81 (0.50)	
	6	10.2 (6.3)	1.15 (0.71)	
	7	16.6 (10.3)	1.86 (1.16)	
	8	24.5 (15.2)	2.75 (1.71)	

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

### ■HST Type

(At rated engine rpm)

Model		L3130-L3430	L3830	L4330	L4630	L5030
Tire size (Rear	)	12.4 - 24	14.9 - 24	14.9 - 24	14.9 - 24	14.9 - 26
	Range gear shift lever	km/h (mph)	km/h (mph)	km/h (mph)	km/h (mph)	km/h (mph)
Forward	L	0 to 6.3 (0 to 3.9)	0 to 5.9 (0 to 3.7)	0 to 6.2 (0 to 3.9)	0 to 5.9 (0 to 3.7)	0 to 6.1 (0 to 3.8)
	М	0 to 12.1 (0 to 7.5)	0 to 11.4 (0 to 7.1)	0 to 11.9 (0 to 7.4)	0 to 11.4 (0 to 7.1)	0 to 11.8 (0 to 7.3)
	н	0 to 27.0 (0 to 16.8)	0 to 25.3 (0 to 15.7)	0 to 26.4 (0 to 16.4)	0 to 25.3 (0 to 15.7)	0 to 26.1 (0 to 16.2)
Reverse	L	0 to 5.7 (0 to 3.5)	0 to 5.3 (0 to 3.3)	0 to 5.5 (0 to 3.4)	0 to 5.3 (0 to 3.3)	0 to 5.5 (0 to 3.4)
	М	0 to 10.9 (0 to 6.8)	0 to 10.3 (0 to 6.4)	0 to 10.7 (0 to 6.6)	0 to 10.3 (0 to 6.4)	0 to 10.6 (0 to 6.6)
	н	0 to 24.3 (0 to 15.1)	0 to 22.8 (0 to 14.2)	0 to 23.8 (0 to 14.8)	0 to 22.8 (0 to 14.2)	0 to 23.5 (0 to 14.6)

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

#### ■Manual Transmission Type

(At rated engine rpm)

Model			L3130-L3430	L3830	L4330	L4630	L5030
Tire size (Rea	ar)		12.4 - 24	14.9 - 24	14.9 - 24	14.9 - 24	14.9 - 26
Shuttle shift lever	Range gear shift lever	Main gear shift lever	km/h(mph)	km/h (mph)	km/h (mph)	km/h (mph)	km/h (mph)
Forward		1	1.6 (1.0)	1.5 (0.9)	1.6 (1.0)	1.5 (0.9)	1.5 (0.9)
	Low	2	2.3 (1.4)	2.1 (1.3)	2.2 (1.4)	2.1 (1.3)	2.2 (1.4)
	Low	3	3.7 (2.3)	3.5 (2.2)	3.6 (2.2)	3.5 (2.2)	3.5 (2.2)
		4	5.4 (3.4)	5.1 (3.2)	5.3 (3.3)	5.1(3.2)	5.2 (3.2)
	High	1	7.8 (4.8)	7.6 (4.7)	7.7 (4.8)	7.6 (4.7)	7.8 (4.8)
		2	11.1 (6.9)	10.7 (6.6)	10.9 (6.8)	10.7 (6.6)	11.0 (6.8)
		3	18.0 (11.2)	17.4 (10.8)	17.6 (10.8)	17.4 (10.8)	17.9 (10.9)
		4	26.6 (16.5)	25.7 (16.0)	26.0 (16.2)	25.7 (16.0)	26.4 (16.4)
Reverse		1	1.5 (0.9)	1.4 (0.9)	1.5 (0.9)	1.4 (0.9)	1.5 (0.9)
	Low	2	2.2 (1.4)	2.0 (1.2)	2.1 (1.3)	2.0 (1.2)	2.1 (1.3)
	Low	3	3.5 (2.2)	3.3 (2.1)	3.4 (2.1)	3.3 (2.1)	3.4 (2.1)
		4	5.2 (3.2)	4.9 (3.0)	5.1 (3.2)	4.9 (3.0)	5.0 (3.1)
		1	7.5 (4.7)	7.2 (4.5)	7.3 (4.5)	7.2 (4.5)	7.4 (4.6)
	High	2	10.6 (6.6)	10.2 (6.3)	10.4 (6.5)	10.2 (6.3)	10.5 (6.5)
		3	17.2 (10.7)	16.6 (10.3)	16.8 (10.4)	16.6 (10.3)	17.1 (10.6)
		4	25.4 (15.8)	24.5 (15.2)	24.8 (15.4)	24.5 (15.2)	25.2 (15.7)

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

### IMPLEMENT LIMITATIONS

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

	Tread	d (max.width) with farm t	ires			
	Front		Rear	Lower link end max. lifting capacity W <sub>o</sub>		
	2WD	4WD	1480mm (58.3 in.)			
L3130	1610mm (63.4in.)	1155mm (45.5 in.)	1480mm (58 3 in )	1700 kg (3750 lbs.)		
L3430			146011111 (56.5 111.)			
L3830	1580mm (62.2 in.)					
L4330		1200mm (51.2 in )	1530mm (60.2 in.)	1750 kg (3860 lbs.)		
L4630		1300mm (51.2 in.)	nm (51.2 in.)	1750 kg (5000 ibs.)		
L5030		1340mm (52.8 in.)	1430mm (56.3 in.)			

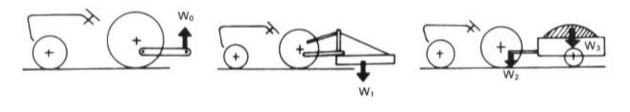
		Actual figures	
	Implement weight W <sub>1</sub> and / or size	Max. Drawbar Load W <sub>1</sub>	Trailer loading weight Wa
3130		500 kg (1100 lbs.)	1500 kg (3300 lbs.)
L3430			2000 kg (4400 lbs.)
_3830	As in the following list		2500 kg (5500 lbs.)
L4330	(Shown on the next page)	650 kg (1430 lbs.)	3000 kg (6600 lbs.)
_4630		7177351	
L5030			

Lower link end max, hydraulic lifting capacity ... Wo

Implement weight......The implement's weight which can be put on the lower link:W

Max. drawbar load......W<sub>2</sub>

Trailer loading weight ......The max. loading weight for trailer (without trailer's weight): W<sub>3</sub>



#### NOTE:

Implement size may vary depending on soil operating conditions.

No.	Imple	ment	Remarks		L3130	L3430	L3830	L4330	L4630	L5030
1	Trailer		Max. load capacity	kg (lbs.)	1500(3300)	2000(4400)	2500(5500)	3000(6600)	3000(6600)	3000(6600
1	Trailer		Max. drawbar load	kg (lbs.)	500(1100)	650(1430)	650(1430)	650(1430)	650(1430)	650(1430
		Mid-	Max. cutting width	mm (in.)	1829(72)	1829(72)	1829(72)			
		mount	Max. weight	kg (lbs.)	200(440)	200(440)	200(440)			
		Rotary	Max. cutting width	mm (in.)	1829(72)	1829(72)	1829(72)	1829(72)	1829(72)	2134(84)
2	Manuer	-Cutter	Max. weight	kg (lbs.)	350(770)	350(770)	420(926)	420(926)	420(926)	480(1058
2	Mower	Flail	Max. cutting width	mm (in.)	1524(60)	1524(60)	1524(60)	1524(60)	1524(60)	1829(72)
		Mower	Max. weight	kg (lbs.)	400(880)	400(880)	400(880)	400(880)	400(880)	500(1100
		Sickle	Max. cutting width	mm (in.)	2134(84)	2134(84)	2134(84)	2134(84)	2134(84)	2134(84)
		Bar	Max. weight	kg (lbs.)	500(1100)	500(1100)	500(1100)	500(1100)	500(1100)	500(1100
3	3 Sprayer	Rear mount	Max. tank capacity	L (gal.)	300(80)	300(80)	400(106)	400(106)	400(106)	500(132)
3	Sprayer	Pull type	Max. tank capacity	L (gal.)	800(210)	1000(264)	1200(317)	1200(317)	1200(317)	2000(528
4	Rotary Tiller		Max. tilling width	mm (in.)	1524(60)	1524(60)	1524(60)	1524(60)	1524(60)	1829(72)
5	Bottom F	low	Max. size		12inx2/ 16inx1	12inx2/ 16inx1	14inx2	14inx2	14inx2	16inx2
	Disk harrow: Pull type		Max. harrowing width	mm (in.)	1829(72)	1829(72)	1981(78)	1981(78)	1981(78)	2134(84
6			Max. weight	kg (lbs.)	350(770)	350(770)	400(880)	400(880)	400(880)	400(880)
7	Chisel Plow		Max. width	mm (in.)	1829(72)	1829(72)	1829(72)	1829(72)	1829(72)	1829(72
			Max. weight	kg (lbs.)	350(770)	350(770)	350(770)	350(770)	350(770)	350(770
8	Broad Caster		Max. tank capacity	L (gal.)	200(53)	250(66)	300(80)	300(80)	300(80)	300(80)
0			Max. weight	kg (lbs.)	100(220)	100(220)	100(220)	100(220)	100(220)	100(220)
9	Manure 5	Spreader	Max. capacity	kg (lbs.)	1500(3300)	1500(3300)	2000(4400)	2000(4400)	2000(4400)	2000(440
			Max. width	mm (in.)	1829(72)	1829(72)	2134(84)	2134(84)	2134(84)	2438(96
10	Cultivato	r	Number of rows		1	1	2	2	2	4
			Max. weight	kg (lbs.)	300(660)	350(770)	400(880)	400(880)	400(880)	400(880)
			Max. cutting width	mm (in.)	1829(72)	1829(72)	1829(72)	2134(84)	2134(84)	2134(84
11	Front Bla	ide	Max. oil pressure kg	f/cm²(psi)	175(2490)	175(2490)	175(2490)	175(2490)	175(2490)	175(2490
			Sub frame	=======	Necessary	Necessary	Necessary	Necessary	Necessary	Necessar
12	Rear Bla	de	Max. cutting width	mm (in.)	1829(72)	1829(72)	1829(72)	1829(72)	1829(72)	1829(72
			Max. oil pressure kg	f/cm²(psi)	175(2490)	175(2490)	175(2490)	175(2490)	175(2490)	175(2490
12			Max. lifting capacity	kg (lbs.)	720(1590)	720(1590)	720(1590)	850(1880)	850(1880)	850(1880
13	Front-en	d Loader	Max. oil pressure kg	f/cm²(psi)	180(2560)	180(2560)	180(2560)	180(2560)	180(2560)	180(2560
			Sub frame		Necessary	Necessary	Necessary	Necessary	Necessary	Necessar
14	Box Blad	e	Max. cutting width	mm (in.)	1651(65)	1651(65)	1651(65)	1829(72)	1829(72)	1829(72
			Max. weight	kg (lbs.)	400(880)	400(880)	400(880)	470(1040)	470(1040)	470(1040
	61 9390 E		Max. digging depth	mm (in.)	2286(90)	2286(90)	2286(90)	2286(90)	2286(90)	2286(90)
15	Back Ho	В	Max. weight	kg (lbs.)	450(990)	450(990)	450(990)	450(990)	450(990)	450(990)
			Sub frame		Necessary	Necessary	Necessary	Necessary	Necessary	Necessar
16	Snow Bla	ade	Max. width	mm (in.)	1829(72)	1829(72)	1829(72)	2134(84)	2134(84)	2134(84)
			Max. weight	kg (lbs.)	350(770)	350(770)	350(770)	400(880)	400(880)	400(880)
17	Snow Blo	ower	Max. working width	mm (in.)	1702(67)	1702(67)	1702(67)	1829(72)	1829(72)	1829(72)
			Max. weight	kg (lbs.)	280(620)	280(620)	280(620)	330(730)	330(730)	330(730)

NOTE :

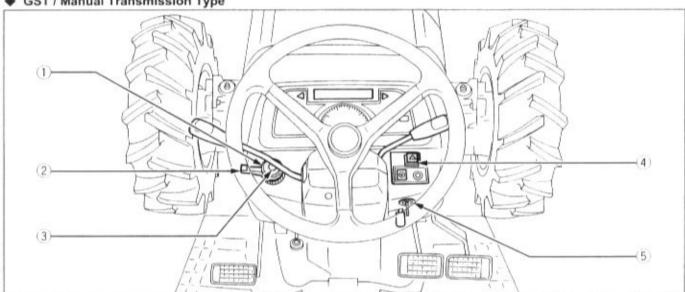
● Implement size may vary depending on soil operating conditions.

# **INSTRUMENT PANEL AND CONTROLS**

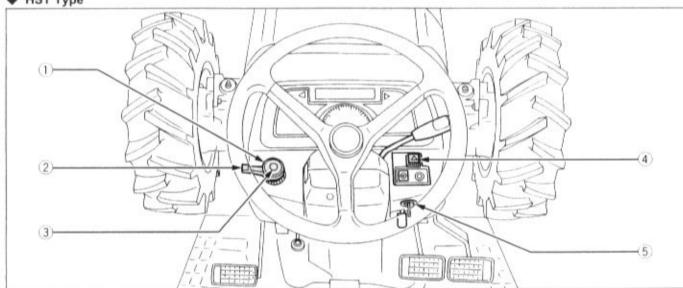
#### ■ Instrument Panel, Switches and Hand Controls

(3) Horn button (if equipped).....

♦ GST / Manual Transmission Type

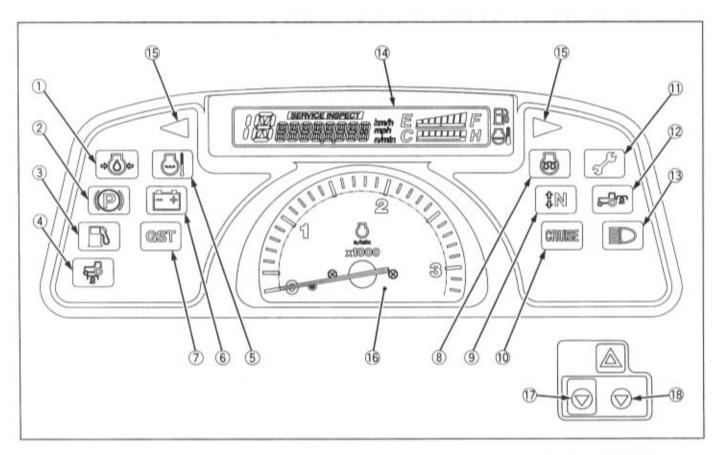


HST Type



	ILLUSTRATED CONTENTS		ILLUSTRATED CONTENTS					
(1)	Head light switch	29	(4) Hazard light switch	29				
(2)	Turn signal light switch		(5) Key switch					

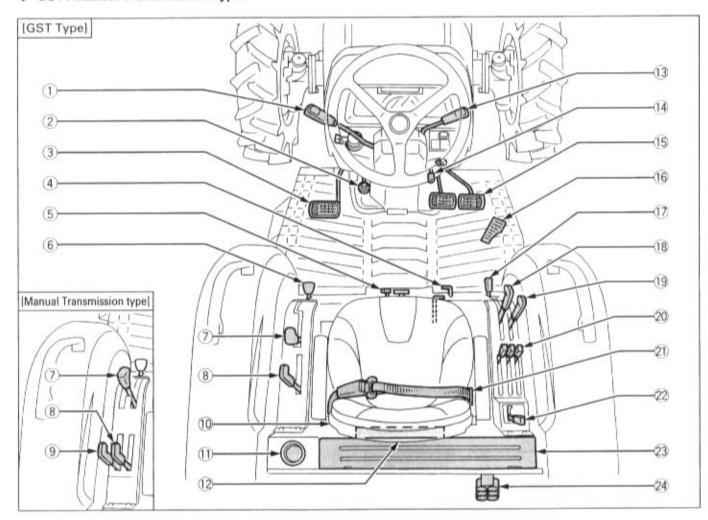
30



ILLUSTRATED CONTENTS		ILLUSTRATED CONTENTS		
(1) Engine oil pressure indicator	42	(10) Cruise control indicator [HST Type]	38	
(2) Parking brake indicator	38	(11) SERVICE INSPECT indicator	42	
(3) Fuel level indicator	42	(12) Rear PTO indicator	48	
(4) Mid-PTO indicator (if equipped)	47	(13) High-beam indicator	29	
(5) Engine overheat indicator		(14) IntelliPanel display	40	
(6) Electrical charge indicator		(15) Turn signal indicator	29	
(7) GST warning indicator [GST Type]		(16) Tachometer	43	
(8) Glow plug indicator	23	(17) Display mode button	40	
(9) Shuttle indicator "Neutral"		(18) Travel speed button	40	
[GST / Manual transmission Type]	34			

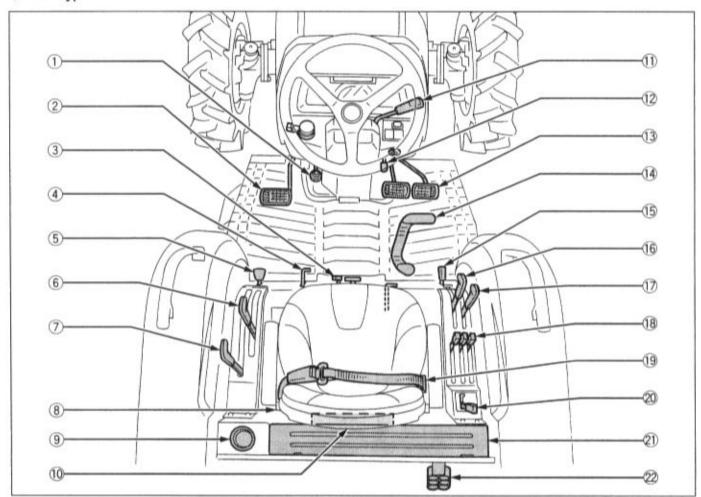
#### ■ Foot and Hand Controls

#### ♦ GST / Manual Transmission Type



	ILLUSTRATED CONTENTS			ILLUSTRATED CONTENTS	
(1)	Shuttle shift lever [GST Type]		(12)	Glove box	29
1.10	Synchro-shuttle shift lever		(13)	Hand throttle lever	38
	[Manual Transmission Type]	33,35	(14)	Parking brake lever	38,44
(2)	Steering wheel tilt pedal	29	(15)	Brake pedal	31
(3)	Clutch pedal	32	(16)	Foot throttle	38
(4)	Differential lock pedal	45	(17)	Mid-PTO lever (ifquipped)	47
(5)	3-Point hitch lowering speed knob	55	(18)	Position control lever	54
(6)	Front wheel drive lever	37	(19)	Draft control lever (if equipped)	54
(7)	Main gear shift lever	33,35	(20)	Remote control valve lever (if equipped)	5€
(8)	Creep gear shift lever (if equipped)	37	(21)	Seat belt	29
(9)	Range gear shift lever (Hi-Lo)	36	(22)	PTO clutch controllever	47
	[Manual Transmission Type]		(23)	Tool-ox	
(10)	Operator's seat	28	(24)	Remote control valve coupler (if equipped)	56
1111	Cup holder				

#### HST Type



#### ILLUSTRATED CONTENTS ILLUSTRATED CONTENTS (1) Steering wheel tilt pedal..... Parking brake lever..... 29 (12)38,44 Clutch pedal..... (2)32 (13)Brake pedal..... 31 (3)3-Point hitch lowering speedknob..... 55 (14)Speed control pedal..... 38 Differential lock pedal..... (4) 45 (15)Mid-PTO lever (if equipped)..... 47 (5)Front wheel drive lever..... 37 (16)Position control lever..... 54 (6)Range gear shift lever (L-M-H)..... 36 (17)Draft control lever (if equipped)..... 54 (7) Cruise control lever..... 38 (18)Remote control valve lever (if equipped)..... 56 (8)Operator's seat..... 28 (19)Seat belt..... 29 (9)Cup holder..... (20)PTO clutch control lever..... 47 (10)Glove box..... Tool-box..... 29 (21)Hand throttle lever..... (11) 38 Remote control valve coupler (if equipped)...... 56

# PRE-OPERATION CHECK

# DAILY CHECK

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



## CAUTION

To avoid personal injury:

 Be sure to check and service the tractor on a level surface with the engine shut off and the parking brake "ON" and implement lowered to the ground.

#### Check item

- Walk around inspection
- Check engine oil level
- Check transmission oil level
- Check coolant level
- Clean grill, radiator screen and oil cooler
- Check air cleaner dust indicator (When used in a dusty place)
- Check brake and clutch pedal
- Check indicators, gauges and meter
- Check lights
- Check seat belt and ROPS
- 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 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 lever in "OFF" position before starting the engine.

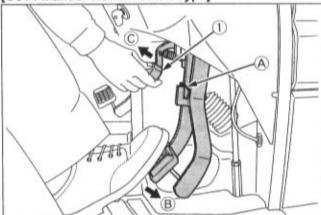
#### IMPORTANT:

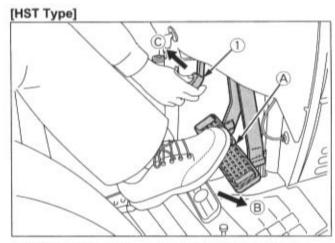
- Do not use starting fluid or ether.
- To protect the battery and the starter, make sure that the starter is not continuously turned for more than 10 seconds.

# STARTING THE ENGINE

- 1. Make sure the parking brake is set.
- 1. To set the parking brake;
  - (1) Interlock the brake pedals.
  - (2) Depress the brake pedals.
  - (3) Latch the brake pedals with the parking brake lever.
- To release the parking brake, depress the brake pedals again.

[GST / Manual Transmission Type]





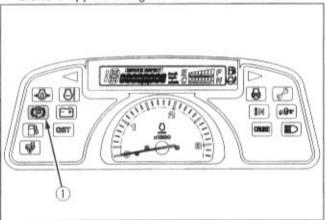
- (1) Parking brake lever
- (A) Interlock the brake pedals
- (B) "DEPRESS"
- (C) "PULL"

#### IMPORTANT:

 To prevent damage to the parking brake lever, make sure that brake pedals are fully depressed before pulling the parking brake lever up.

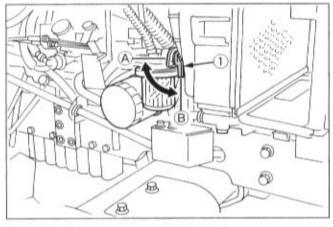
#### NOTE:

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



(1) Parking brake indicator

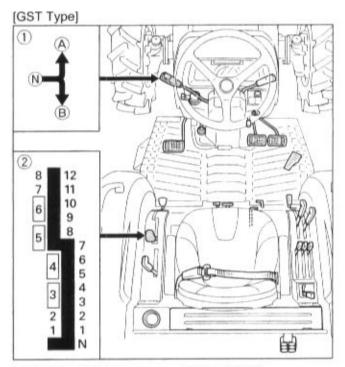
# Make sure the fuel cock is in the open position.



(1) Fuel cock

(A) "CLOSE" (B) "OPEN"

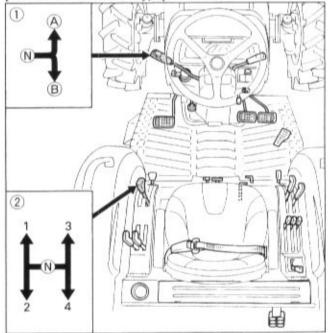
# Place the shift levers in "NEUTRAL" position.



- (1) Shuttle shift lever
- (2) Main gear shift lever

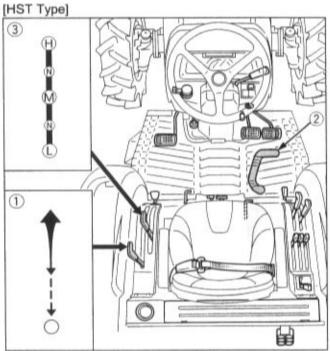
(A)"FORWARD"
(B)"REVERSE"
(N)"NEUTRAL POSITION"





- (1) Synchro shuttle shift lever
- (2) Main gear shift lever
- (A)"FORWARD"
- (B)"REVERSE"
- (N)"NEUTRAL POSITION"

3. Make sure the cruise control lever is in "NEUTRAL" position. Place the Speed control Pedal in "NEUTRAL" position. Place the range gear shift lever (L-M-H) in "NEUTRAL" position.



- (1) Cruise control lever
- (2) Speed control pedal
- (3) Range gear shift lever (L-M-H)
- (N) "NEUTRAL POSITION"
  - ....Cruise

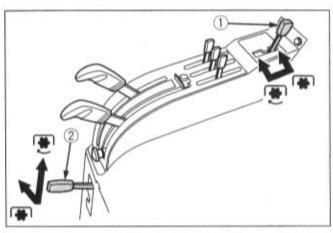
  - "NEUTRAL" POSITION

#### NOTE:

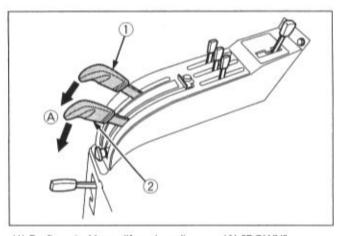
- Depress the both brake pedals together, doing so the cruise control lever automatically returns to the off position.
- Step out the foot from speed control pedal, doing so the pedal automatically returns to the neutral position.

Place the PTO clutch control lever in "OFF" position.

[With Mid-PTO type] Place the Mid-PTO lever in "OFF" position.

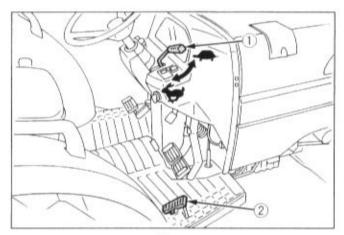


- (1) PTO clutch control lever
- \*\* "ON"
- (2) Mid-PTO lever (if equipped)
- "OFF"
- Place the hydraulic control lever in "LOWEST" position.



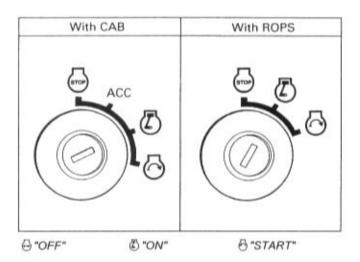
- (1) Draft control lever (if equipped)
- (A) "DOWN"
- (2) Position control lever

## Set the throttle lever to about 1/2 way.



- (1) Hand throttle lever (2) Foot throttle [except HST Type]
- "INCREASE"
- "DECREASE"

#### Insert the key into the key switch and turn it "ON".



#### NOTE:

ACC...

All the accessories can be used while the engine is stopped

# ■ Check Easy Checker™ Lamps:

Turn the key to "ON" position and make sure the following indicators light up or stay off.

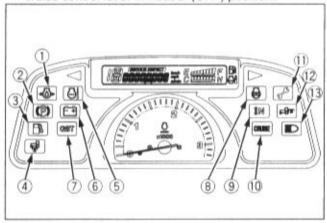
#### Indicators that light up:

 When the key is turned "ON", indicators ① ⑥ should come on. If trouble should occur at any location while the engine is running, the indicator corresponding to that location comes on.

- Glow plug indicator (8) also comes on when the key is turned "ON" to preheat the engine and goes off automatically when preheat is completed.
   Illumination time of indicator varies according to the temperature of coolant.
- The parking brake indicator ② comes on while parking brake is applied and goes off when it is released.
- Turn on the key, and indicators 3 5 7 1 stay on about 1 seconds.
- If the shuttle indicator (9) stays off, place the shuttle shift lever in neutral position.

#### Indicators that stay off:

- If the PTO indicators (4) (2) stay on, disengage (OFF) the PTO.
- If the cruise control indicator @ stays on, place the cruise control lever in neutral (OFF) position.



- (1) Engine oil pressure indicator (9) Shuttle indicator
- (2) Parking brake indicator
- (3) Fuel level indicator
- (4) Mid-PTO indicator (if equipped)
- (5) Engine overheat indicator
- (6) Electrical charge indicator
- (7) GST warning indicator (GST Type)
- (8) Glow plug indicator

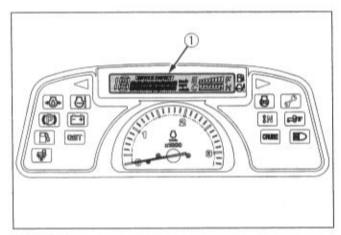
- (GST/Manual
- transmission Type)
- (10) Cruise control indicator (HST Type)
- (11) SERVICE INSPECT
- (12) Rear PTO indicator
- (13) High-beam indicator

#### IMPORTANT:

- Daily checks with the Easy Checker<sup>™</sup> only, are not sufficient. Never fail to conduct daily checks carefully by referring to Daily Check. (See "DAILY CHECK" in Periodic Service section)
- Fully depress the clutch pedal.
- Turn the key to "START" position and release when the engine starts.

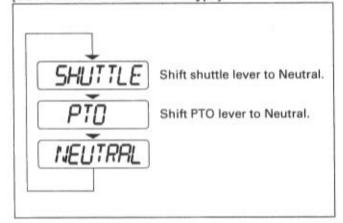
## IntelliPanel Message

If you try to start the engine but the following messages appear alternately in the display, the engine fails to start. Follow the appearing instructions and reset the display.

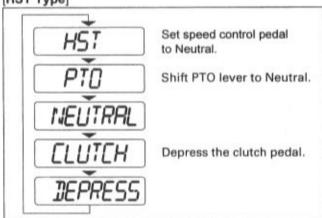


(1)Display





[HST Type]



 Check to see that all the lamps on the Easy Checker<sup>™</sup> are "OFF".

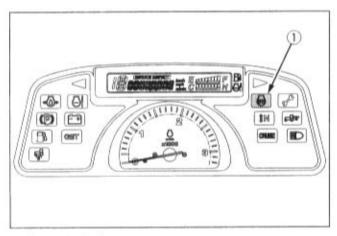
If the lamp is still on, immediately stop the engine and determine the cause.

## 11. Release the clutch pedal.

# COLD WEATHER STARTING

If the ambient temperature is below -5 °C (23 °F) and the engine is very cold, start it in the following manner: Take steps (1) through (8) above.

Turn the key to "ON" (glow plug) and keep it there until glow plug indicator goes off.



(1) Glow plug indicator

## Turn the key to the start position and the engine should start.

(If the engine fails to start after 10 seconds, turn off the key for 30 seconds. Then repeat steps (9) and (10). To protect the battery and the starter, make sure that the starter is not continuously turned for more than 10 seconds.)

#### Block Heater (if equipped)

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

# STOPPING THE ENGINE

- After slowing the engine to idle, turn the key to "OFF".
- 2. Remove the key.

#### NOTE:

 If key does not stop the engine, consult your local KUBOTA Dealer.

# WARMING UP



# CAUTION

To avoid personal injury:

- Be sure to set the parking brake during warmup.
- Be sure to set all shift levers to the "NEUTRAL" positions and to place PTO lever in "OFF" position during warm-up.

For five minutes after engine start-up, allow 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	
Higher than -10 ℃ (14 °F)	Approx. 5 minutes	
-15 to -10 ℃ (5 to 14 °F)	5 to 10 minutes	
-20 to -15 ℃ (-4 to 5 ℉ )	10 to 20 minutes	
Below -20 ℃ (-4 °F)	More than 20 minutes	

#### IMPORTANT:

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

# JUMP STARTING



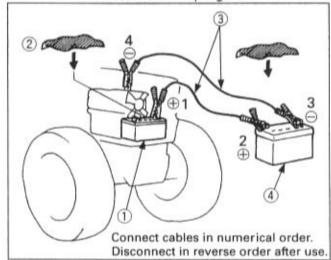
# CAUTION

To avoid personal injury:

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

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

- Bring helper vehicle with a battery of the same voltage as disabled tractor within easy cable reach. "THE VEHICLES MUST NOT TOUCH".
- Engage the parking brakes of both vehicles and put the shift levers in neutral. Shut both engines off.
- 3. Put on safety goggles and rubber gloves.
- Ensure the vent caps are securely in place. (if equipped)
- Cover vent holes with damp rags. Do not allow the rag to touch the battery terminals.
- 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.
- Clamp the other cable to the negative (black, (-) or neg.) terminal of the helper battery.
- Clamp the other end to the engine block or frame of the disabled tractor as far from the dead battery as possible.
- Start the helper vehicle and let its engine run for a few moments. Start the disabled tractor.
- 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 machine has a 12volt negative (-) ground starting system.
- · Use only same voltage for jump starting.
- Use of a higher voltage source on tractors electrical system could result in severe damage to tractors electrical system.

Use only matching voltage source when "Jump starting" a low or dead battery condition.

# OPERATING THE TRACTOR

# OPERATING NEW TRACTOR

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

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

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

- Do not start quickly nor apply the brakes suddenly.
- In winter, operate the tractor 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 tractor at fast speed.

The above precautions are not limited only to new tractors, but to all tractors. But it should be especially observed in the case of new tractors.

## ■ Changing Lubricating Oil for New Tractors

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

# OPERATING FOLDABLE ROPS (if equipped)

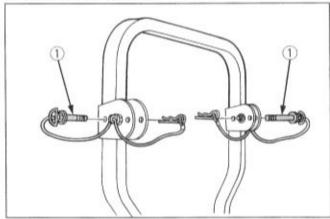


## CAUTION

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

#### ■To Fold the ROPS

Remove both set bolts.



(1) Set bolt

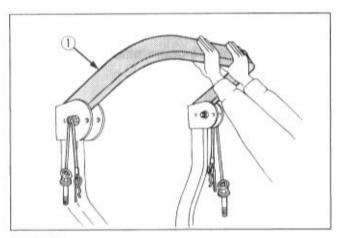
2. Fold the ROPS.



# CAUTION

To avoid personal injury:

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



#### (1) ROPS

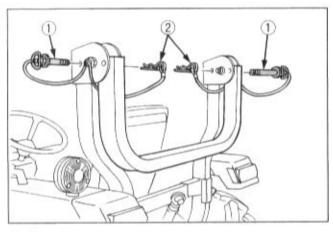
Align set bolt holes and insert both set bolts. Slightly tighten the set bolts and secure them with the hair pin cotters.



# CAUTION

To avoid personal injury:

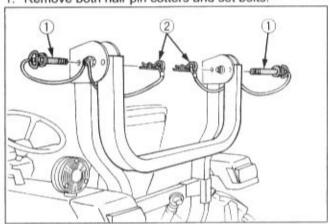
 Make sure that both set pins are properly installed and secured with the hair pin cotters.



(1) Set bolt (2) Hair pin cotter

# ■To Raise the ROPS to Upright Position

1. Remove both hair pin cotters and set bolts.



- (1) Set bolt
- (2) Hair pin cotter
- 2. Raise ROPS to the upright position.



# CAUTION

To avoid personal injury:

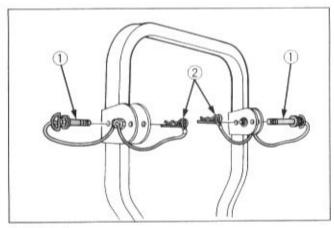
- · Raise the ROPS slowly and carefully.
- Align lock pin holes, insert both set bolts. Slightly tighten the set bolts and secure them with the hair pin cotters.



# CAUTION

To avoid personal injury:

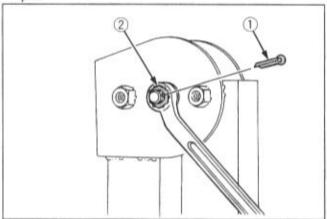
 Make sure that both set bolts are properly installed as soon as the ROPS is in the upright position and secured with the hair pin cotters.



- (1) Set bolt
- (2) Hair pin cotter

# ■Adjustment of Foldable ROPS

- Adjust free fall of the ROPS upper frame regularly.
- If you feel less friction in folding the ROPS, remove the cotter pin ①, tighten the nut ② until you feel the right friction in the movement and then replace the cotter pin.



- (1) Cotter pin
- (2) Nut

# STARTING

1. Adjusting the operator's position.

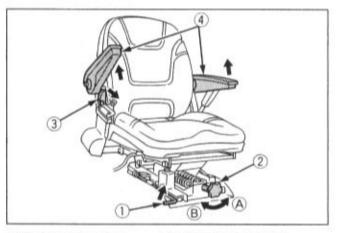
## ■Operator's Seat



# CAUTION

To avoid personal injury:

- Make sure that the seat is completely secured after each adjustment.
- Do not allow any person other than the driver to ride on the tractor.



- (1)Travel adjust lever (2)Suspension adjust knob (3)Backrest tilt adjust lever (4)Arm rest
- (A)To decrease tension (B)To increase tension

## ◆ Travel adjustment

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

#### NOTE

 The operator's seat base has a slope. When lifting the lever, be careful not to allow the seat to slide down forward.

#### Suspension adjustment knob

Turn the suspension adjust knob to achieve the optimum suspension setting.

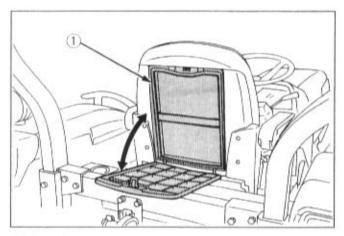
#### Tilt adjustment

Pull the backrest tilt adjust lever and move the backrest to the desired angle.

#### IMPORTANT:

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

### **■Glove Box**



(1) Glove box

#### Seat Belt

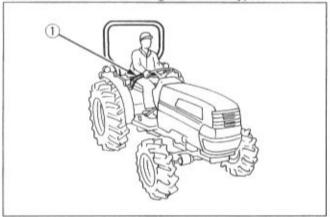


## WARNING

To avoid personal injury:

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

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



(1) Seat belt

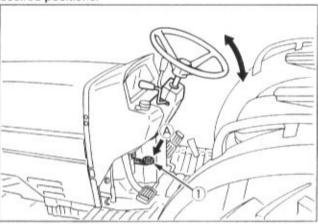
# ■Tilt Steering Adjustment



#### CAUTION

To avoid personal injury:

 Do not adjust the steering wheel while the tractor is in motion. Press down the steering wheel tilt pedal, to release the lock so the steering wheel can be adjusted to one of six desired positions.



(1) Steering wheel tilt pedal

(A) "PRESS DOWN"

### Selecting light switch positions.

## ■Head Light / Turn Signal / Hazard Light Switch

#### Head Light Switch

Turn the light switch clockwise, and the following lights are activated on the switch position.

A OFF.... Head lights OFF.

© #D .... Head lights dimmed, low beam.

## ♦ Hazard Light Switch

When hazard light switch is pushed, the hazard lights flash along with the indicator on the instrument panel. Press the hazard light switch again to turn off the light.

#### Turn Signal with Hazard Light

- To indicate a right turn with the hazard lights already flashing (hazard on), turn the knob clockwise.
- To indicate a left turn with the hazard lights already flashing, turn the knob counterclockwise.
- When the left or right turn signal is activated in combination with the hazard lights, the indicated turning light will flash and the other will stay on.

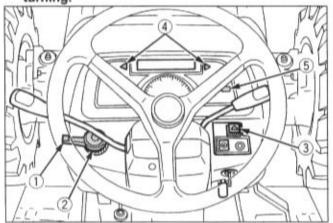
#### ♦ Turn Signal without Hazard light

- To indicate a right turn without hazard lights (hazard off), turn the knob clockwise.
- To indicate a left turn without hazard lights, turn the knob counterclockwise.

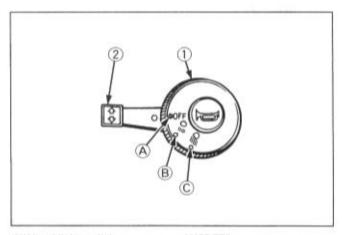
When the left or right turn signal is activated without the hazard lights, the indicated turning light will flash and the other will be on.

#### NOTE:

 Be sure to return switch to center position after turning.



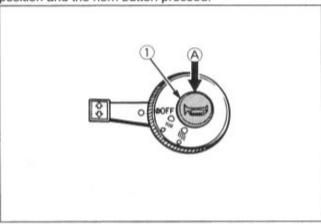
- (1)Turn signal light switch
- (2)Head light switch
- (3)Hazard light switch
- (4) Hazard / Turn signal indicator
- (5)High beam indicator



- (1)Head light switch (2)Turn signal light switch
- (A)"OFF"
- (B)"ON (HIGH)"
- (C)"ON(LOW)"

# ■Horn Button (if equipped)

The horn will sound when the key switch is in the "ON" position and the horn button pressed.



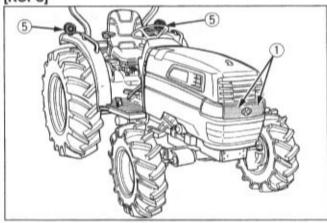
(1)Hom button

(A)"PUSH"

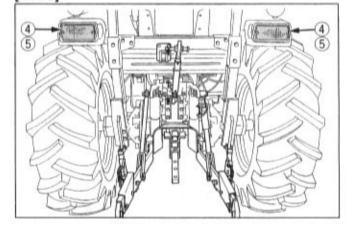
## **■**Tractor Lights

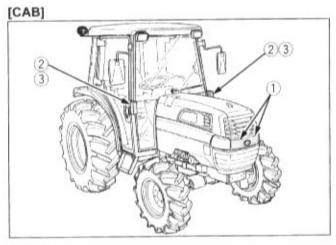
- 1 Head light
- 2 Side turn signal / Hazard light
- 3 Sidemarker light
- 4 Tail light
- (5) Rear turn signal / Hazard light

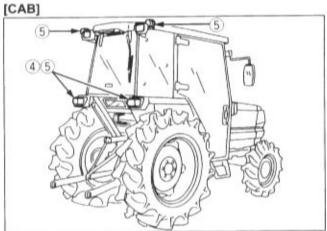
#### [ROPS]



#### [ROPS]







- Checking the brake pedal.
- ■Brake Pedals (Right and Left)



## WARNING

To avoid personal injury:

- Be sure to interlock the right and left pedals. Applying only one rear wheel brake at high speeds could cause the tractor to swerve or roll-over.
- Be sure brake pedals have equal adjustment when using locked together. Incorrect or unequal brake pedal adjustment can cause the tractor to swerve or roll-over.



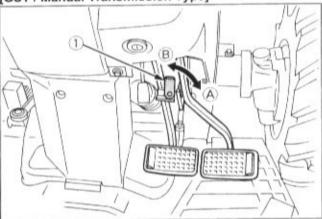
## CAUTION

To avoid personal injury:

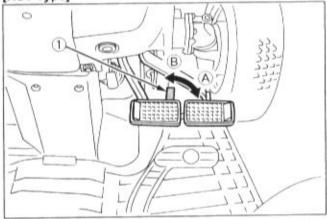
 Do not make sudden braking. An accident may occur such as by heavy towed load shifting forward or loss of control.

- To avoid skidding and loss of steering control when driving on icy, wet, or loose surfaces, make sure the tractor is correctly ballasted, operated at reduced speed, operated with front wheel drive engaged (if equipped).
- The braking characteristics are different between two and four wheel drive. Be aware of the difference and use carefully.
- 1. Before operating the tractor on the road or before applying the parking brake, be sure to interlock the right and left pedals as illustrated below.
- Use individual brakes to assist in making sharp turns at slow speeds (Field Operation Only). Disengage the brake pedal lock and depress only one brake pedal.
- 3. Be sure brake pedals have equal adjustment when using locked together.

[GST / Manual Transmission Type]



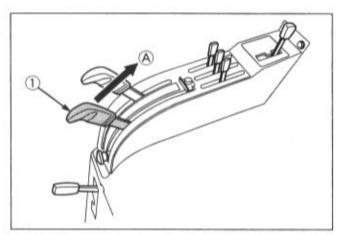




(1) Brake pedal lock

(A) "LOCK" (B) "RELEASE"

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



(1) Position control lever

(A) "UP"

## Depress the clutch pedal.

# ■Clutch Pedal

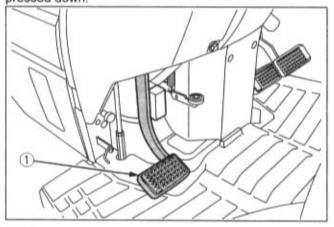


# CAUTION

To avoid personal injury:

 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

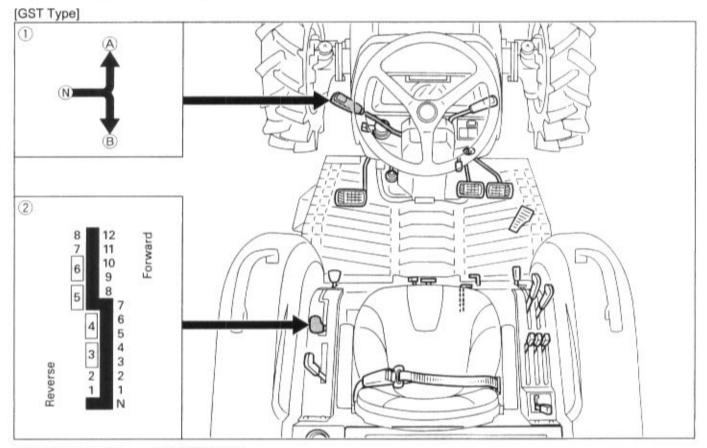
#### IMPORTANT:

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.

# 6.1 Selecting the Travel Speed.



- (1) Shuttle shift lever
- (2) Main gear shift lever
- (A)"FORWARD"
- (B)"REVERSE"
- (N)"NEUTRAL POSITION"

#### ■Shuttle Shift Lever



#### WARNING

To avoid personal injury:

BEFORE DISMOUNTING TRACTOR:

- ALWAYS SET PARKING BRAKE
   Leaving transmission in gear with the engine stopped will not prevent tractor with GST transmission from rolling.
- STOP THE ENGINE AND REMOVE THE KEY

Raise up and shift the shuttle shift lever forward to obtain forward speeds and shift it backward to obtain reverse speeds without using the clutch pedal.

#### IMPORTANT

 Reduce engine speed to low idle before shifting the shuttle shift lever. Shuttle shift change should not be done all at one time.
 Move the shuttle shift lever to the neutral position momentarily before you accomplish the shuttle change, hard or sudden gear shift may cause transmission damage.

#### NOTE:

 When you stand from the seat with the shuttle lever at "FORWARD" or "BACKWARD", whether the machine is moving or not, the engine stops itself.

#### Main Gear Shift Lever

By combination of using the main gear shift lever and the shuttle shift lever, 12 forward speeds and 8 reverse speeds are obtained.

With the Glide Shift Transmission, you can shift at any time, stopped or on-the-go. The Shuttle Shift lever must be in forward or reverse.

There is no need to use the clutch when starting out or shifting up or down.

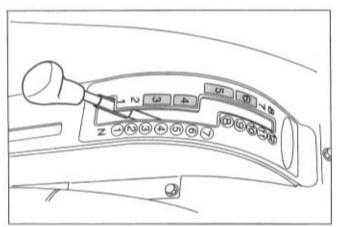
Before dismounting tractor, shift the main gear shift lever and the shuttle lever to the neutral position and set parking brake.

#### IMPORTANT:

- Start in lower gears and shift one gear at a time until desired gear is obtained.
- To prolong clutch life, avoid slipping the hydraulic clutch. Pay attention to the following points:
- Select proper gear and engine speed depending on the type of job.
- Avoid lugging the engine, especially in higher gears. If RPM's drop excessively, shift to a lower gear.
- In cold climate, it may take longer for the tractor to move after the main shift lever is moved. This is because the transmission oil must warm up.
  - Warm up the machine long enough. If there is not enough time to do so, start the machine with the shuttle shift lever or the clutch.
  - There is no problem with a delay in starting.
     The machine will start as the oil temperature increases.

#### NOTE:

 Two speed steps are assigned to each of the backward speed labels 3 thru 6. While using the main gear shift lever in this range for backward movement, however, each label gives just one speed, not two.





## CAUTION

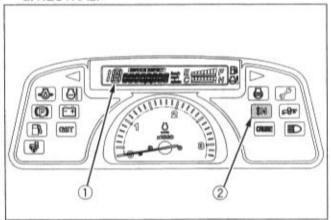
To avoid personal injury:

- Use the clutch when making an emergency stop or working in confined areas, such as getting tractor in position to attach an implement.
- An accident may occur with erratic shifting operation.
  - For safe operation, move main gear shift lever only one gear at a time.
- Shift the main gear shift lever firmly and without hesitation. Improper shift lever position will cause the tractor to momentarily coast on slopes.
- Avoid changing gears when climbing or descending a slope.

- Before ascending or descending a slope, shift to a gear low enough to control tractor speed without using brakes.
  - If you shift gears while ascending or descending a slope, be prepared to use the brakes to maintain control.
- Operate in reverse at slow speeds to maintain control.

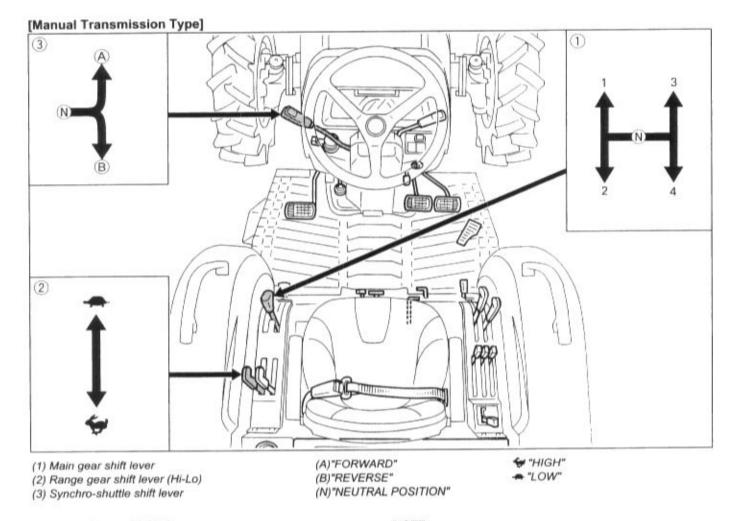
#### ■IntelliPanel Message

- The main gear shift number being selected appears on the display.
- The shuttle indicator stays on while the shuttle lever is at NEUTRAL.



(1) Gear shift number (1 thru 12) N: "NEUTRAL"

(2) Shuttle indicator



#### Main Gear Shift Lever

The main gear shift is fully synchronized to shift without stopping.

#### IMPORTANT:

 The main gear shift may be shifted between speeds on-the-go, but clutch must be depressed.

# ■Range Gear Shift Lever (Hi-Lo)

The range gear shift can only be shifted when tractor is completely stopped and clutch is depressed.

#### IMPORTANT:

 To avoid transmission damage, depress clutch pedal and stop tractor before shifting between ranges.

# ■Synchro-Shuttle Shift Lever

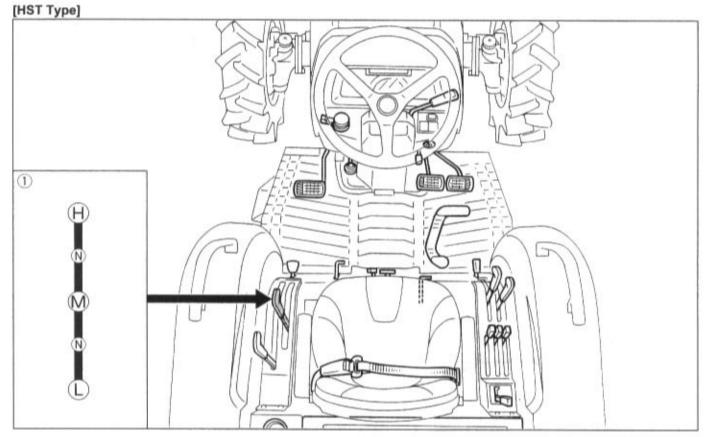
Raise up and shift the shuttle shift lever forward to obtain forward speeds and shift back to obtain reverse speeds. This shifting requires clutch operation.

#### IMPORTANT:

 The synchro-shuttle shift lever may be shifted while the tractor is moving slowly and the clutch is depressed, but sudden gear shift may cause transmission damage.

### NOTE:

 When you stand from the seat with the shuttle lever at "FORWARD" or "BACKWARD", whether the machine is moving or not, the engine stops itself.



(1) Range gear shift lever (L-M-H)

(H)"HIGH" (L)"LOW" (M)"MIDDLE" (N)"NEUTRAL POSITION"

# ■Range Gear Shift Lever (L-M-H)

The range gear shift can only be shifted when the tractor is completely stopped and the speed control pedal is neutral position.

#### IMPORTANT:

To avoid transmission and shift linkage damage when shifting:

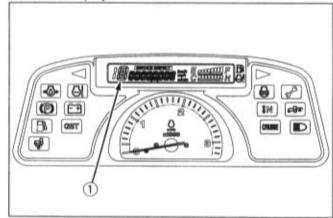
- · Completely stop the tractor using the brake pedals.
- Do not force the range gear shift lever.
- If it is difficult to shift the lever into L, M, or H from neutral position:

On slopes be sure to set the parking brake before starting the procedure.

- Slightly depress the speed control pedal to rotate the gears inside of transmission.
- (2) Release the speed control pedal to neutral position.
- (3) Depress the clutch pedal, wait for a moment and then shift the lever.

# ■IntelliPanel Message

 The range gear shift number being selected appears on the display.



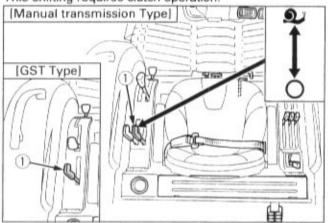
(1) Gear shift number (H-M-L) N: "NEUTRAL"

#### 6.2 Selecting the Travel Speed.

# ■ Creep Gear Shift Lever (if equipped)

Shift the creep gear shift lever at "O" to obtain high speeds and shift it " " to obtain low speeds.

This shifting requires clutch operation.



- (1) Creep gear shift lever
- LOW"......Creep ON
  O"HIGH"......Creep OFF
- Creep speed (attained by shifting the creep gear shift lever to " • ") should be used only when doing one of the following jobs:
- 1. Deep rotary-tilling and harrowing
- 2. Planting
- 3. Turf application
- Creep speed can not be used for any of the following:
- 1. Pulling a trailer
- 2. Front-loader operation
- 3. Front-blade operation
- 4. Earth-moving
- 5. Entering and leaving a field
- 6. Loading onto and unloading from a truck



## CAUTION

To avoid personal injury:

- When you leave the tractor, be sure to apply the parking brake and stop the engine.
- IN APPLYING THE BRAKES:
  - The torque of wheel axle is extremely high while creep speed is being used. Be sure to step down on the clutch pedal completely before applying the brakes, or they will not work.
  - When starting to operate the tractor, be sure to release the parking brakes.
     Misuse of the brakes may cause damage to the transmission and is therefore not acceptable to KUBOTA for coverage under the warranty.

#### IMPORTANT

 Press the clutch pedal completely down and stop the tractor's motion before shifting the creep gear shift lever.

#### Front Wheel Drive Lever

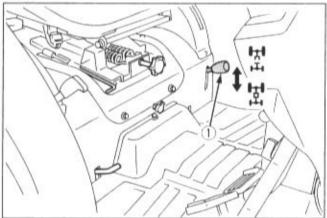


# CAUTION

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 tractor 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 tractor is suddenly braked, such as by heavy towed loads shifting forward or loss of control.
- The braking characteristics are different between two and four wheel drive. Be aware of the difference and use carefully.

Use the lever to engage the front wheels with the tractor stopped. Shift the lever to "ON" to engage the front wheel drive.



(1) Front wheel drive lever

\$ "ON" \$ "OFF"

#### IMPORTANT:

- Depress the clutch pedal before engaging the front wheel drive lever.
- If the front wheel drive lever is difficult to set to OFF, stop the tractor, turn the steering wheel and move the lever.
- Tires will wear quickly if front wheel drive is engaged on paved roads.
- Front wheel drive is effective for the following jobs:
- When greater pulling force is needed, such as working in a wet field, when pulling a trailer, or when working with a front-end loader.
- 2. When working in sandy soil.
- When working on a hard soil where a rotary tiller might push the tractor forward.
- 4. For increased braking at reduced speed.

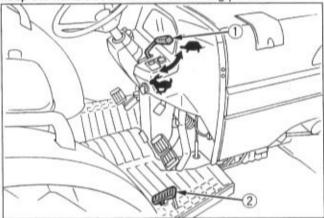
## 7. Accelerate the engine.

#### ■ Hand Throttle Lever

Pulling the throttle lever back increases engine speed, and pushing it forward decreases engine speed.

#### Foot Throttle

Use the foot throttle when traveling on the road. Press down on it for higher speed. The foot throttle is interlocked with the hand throttle lever; when using the foot throttle, keep the hand throttle lever in low idling position.

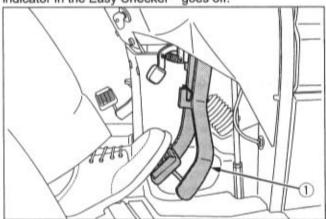


- (1) Hand throttle lever (2) Foot throttle [except HST type]
- ★ "INCREASE"

  ★ "DECREASE"
- Unlock the parking brake and slowly release the clutch.

# **■**Parking Brake Lever

To release the parking brake, depress the brake pedals again. When the parking brake is released, parking brake indicator in the Easy Checker™ goes off.



(1)Brake pedals

# Depress the Speed Control Pedal. [HST Type]

# ■Speed Control Pedal



# WARNING

To avoid personal injury:

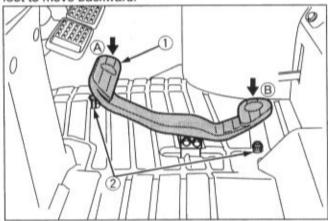
- Do not operate if tractor moves on level ground with foot off of Speed Control Pedal.
- Consult your local KUBOTA Dealer.

#### **Forward Pedal**

Depress the speed control pedal with the toe of your right foot to move forward.

#### Reverse Pedal

Depress the speed control pedal with the heel of your right foot to move backward.



(1)Speed control Pedal (2)Stopper bolt (A)"FORWARD" (B)"REVERSE"

#### IMPORTANT:

 To prevent serious damage to the HST, do not adjust the stopper bolts.

#### NOTE:

 When you stand from the seat with the speed control pedal stepped on or the cruise control pedal engaged (ON), whether the machine is moving or not, the engine stops itself.

#### Cruise Control Lever



## CAUTION

To avoid personal injury:

- Pull the cruise control lever completely to the rear before starting the engine.
- Do not use the cruise control when driving on the road.

 Be sure to connect both the left and the right brakes when driving on the road. The speed cruise control won't be released with single brake activation.

Cruise control is designed for tractor operating efficiency and operator comfort, This device will provide a constant forward operating speed by mechanically holding the cruise control lever at the selected position.

#### ♦ To engage Cruise Control Device

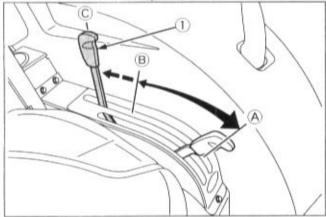
- The proper forward speed will be maintained if you apply the cruise control lever at any position.
- To operate faster than the set speed, depress the speed control pedal further down in this condition. The set speed will be resumed if you release the pedal.

#### ♦ To disengage Cruise Control Device

- Move the lever all the way back and then to "NEUTRAL" position to release the cruise control.
- Depress both brake pedal.

#### NOTE

- Cruise control will be disengaged automatically when both brake pedals are depressed.
- The cruise control device does not disengage when the individual right or left brake is applied.
- Cruise control device will not operate in reverse.
- Preferably set the cruise control lever, while holding down the speed control pedal. This makes the setting smoother.
- When releasing the cruise mode, be sure to return the cruise control lever fully backward.



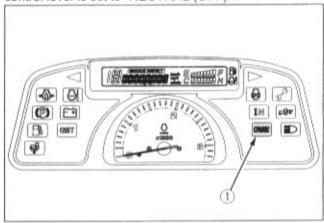
- (1) Cruise control lever
- (A) "INCREASE"
- (B) "DECREASE"
- (C) "NEUTRAL"

#### NOTE:

 When you stand from the seat with the speed control pedal stepped on or the cruise control lever engaged (ON), whether the machine is moving or not, the engine stops itself.

## ■IntelliPanel Message

The cruise control indicator stays on while the machine is running under cruise control. It goes out when the cruise control lever is set to "NEUTRAL (OFF)".



(1)Cruise control indicator

# **STOPPING**

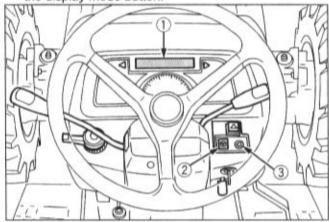
## ■Stopping

- 1. Slow down the engine.
- 2. Step on the clutch and brake pedal.
- After the tractor has stopped, disengage the PTO, lower the implement to the ground, shift the transmission to neutral, release the clutch pedal, and set the parking brake.

# INTELLIPANEL

## ■Changing Display Mode

- Each time the display mode button is pressed, the IntelliPanel display mode changes from 1 thru 5.
   Select the display mode appropriate for the work in question.
- When the key switch is set to "ON", the IntelliPanel will return to the last display mode used.
- Suppose that the display is in any other mode than the traveling speed mode. Press the traveling speed button, and the display switches to the traveling speed mode. To get back to the original display mode, use the display mode button.



- (1) IntelliPanel display
- (2) Display mode button
- (3) Travelling speed button

Display 1: Hour meter mode	5678 h C ==== F	The tractor's total operating hours are displayed.
Display 2 : Trip meter mode	TR 1234 h C	Hold down the display mode button for 2 seconds or longer, and the trip meter resets to [0.0].
Display 3 : Travelling speed mode (mph)	16 mph C muss H	
Display 4 : Travelling speed mode (km/h)	25 km/h E ===== F	
Display 5 : PTO speed mode	PTO OFF Nomin C THE H	The PTO is disengaged (OFF).
	REAR SYD WANTE THE	The speed of the rear PTO, when engaged (ON), is displayed.
	MIII 2200 Main C THE H	The speed of the mid-PTO, when engaged (ON), is displayed instead of the rear PTO.

- NOTE:
  At the leftmost end of the display, the main gear shift number appears on GST type machines, whereas the range gear shift number appears on HST type machines.
- . The response of LCD of the meter sometimes becomes slow, and a visibility sometimes falls in cold weather. But, that is not a trouble.

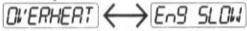
# CHECK DURING DRIVING

## ■IntelliPanel Message

If any of the following messages appears during operation, immediately stop the machine and follow the message's instructions. If the cause of trouble has not been pinpointed, consult your local KUBOTA Dealer.

Engine over heat

If the engine gets overheated, the [A] lamp on the meter panel lights up and the following messages appear alternately.



- 1. Stop operation and set the engine to the idling speed.
- When the coolant temperature has dropped, the following messages appear instead.



- Stop the engine, wait for 30 minutes until the machine cools down, and check the following points.
  - Check the reserve tank and radiator for cooling water shortage or leak.
  - Check the insect screening and radiator for mud and dust deposits.
  - (3) Check the fan belt for slack.

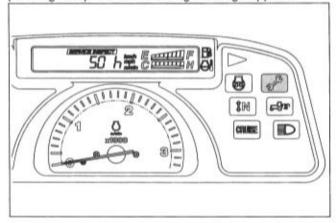
#### IMPORTANT:

section)

 If steam gushes out of the reserve tank's overflow pipe, take the measure discussed above.

#### **♦ SERVICE INSPECT**

Every 50 operating hours, the [ ] lamp on the meter panel lights up and the following message appears.

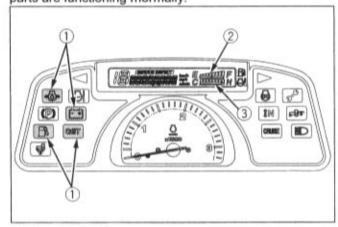


- Finish the job in hand, and do the routine inspection referring to the hours being displayed. (See "SERVICE INTERVALS" in Maintenance
- Reset the lamp as follows.
   Keep pushing both display mode switch and trvelling mode switch for two seconds or more while HOUR METER MODE.

## ■Immediately Stop the Engine if:

- The engine suddenly slows down or accelerates,
- · Unusual noises suddenly are heard,
- Exhaust fumes suddenly become very dark,

While driving, make the following checks to see that all the parts are functioning mormally.



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

## ■Easy Checker

If the indicators in the Easy Checker<sup>™</sup> come on during operation, immediately stop the engine, and find the cause as shown below.

Never operate the tractor while Easy Checker<sup>™</sup> lamp is on.

-- Engine oil pressure

If the oil pressure in the engine goes below the prescribed level, the indicator in the Easy Checker<sup>™</sup> will come on.

If this should happen during operation, and it does not go off when the engine is accelerated to more than 1000 rpm, 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 indicator in the Easy Checker<sup>™</sup> will come on. If this should happen during operation, check the electrical charging system or consult your local KUBOTA Dealer.

⊩⊞ Fuel level

If the fuel in the tank goes below the prescribed level, the indicator in the Easy Checker™ will come on. (less than 4 L) If this should happen during operation, refuel as soon as possible. (See "Checking and Refueling" in daily check in Periodic Service section)

If the GST (Glide Shift Transmission) is troubled, the indicator in the Easy Checker™ will come on. If this should happen during operation, carefully move the tractor to a safe place, contact your local KUBOTA Dealer for repairs

#### NOTE:

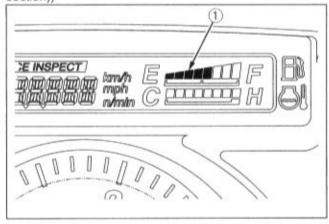
 For checking and servicing of your tractor, consult your local KUBOTA Dealer for instructions.

## Fuel Gauge

When the key switch is on, the liquid crystal blocks 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 as required in Periodic Service section))



- (1) Fuel gauge
- (E) "EMPTY" (F) "FULL"
- Coolant Temperature Gauge

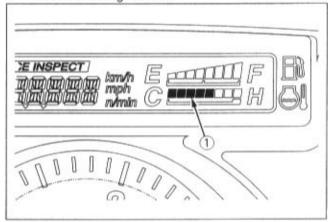


## CAUTION

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.

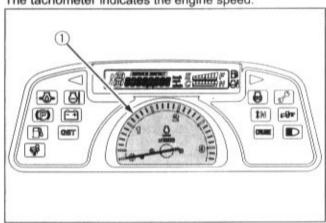
- With the key switch at "ON" the liquid crystal blocks indicates the temperature of the coolant. "C" for "cold" and "H" for "hot."
- If the indicator reaches the "H" position, engine coolant is overheated. Check the tractor by referring to "Troubleshooting" section.



(1) Coolant temperature gauge

#### ■ Tachometer

The tachometer indicates the engine speed.



(1)Engine revolution

# **PARKING**

# ■Parking

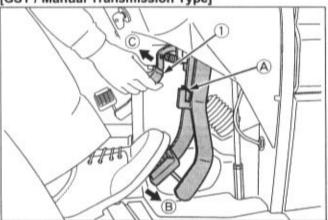


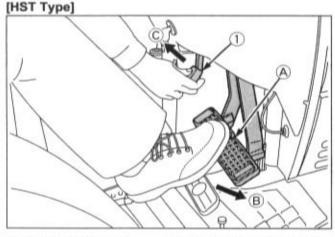
## CAUTION

To avoid personal injury: BEFORE DISMOUNTING TRACTOR

- ALWAYS SET PARKING BRAKE AND LOWER ALL IMPLEMENTS TO THE GROUND.
   Leaving transmission in gear with the engine stopped will not prevent tractor with GST and HST transmission from rolling.
- STOP THE ENGINE AND REMOVE THE KEY.
- When parking, be sure to set the parking brake.
   To set the parking brake;
  - (1) Interlock the brake pedals.
  - (2) Depress the brake pedals.
  - (3) Latch the brake pedals with the parking brake lever.

[GST / Manual Transmission Type]





- (1) Parking brake lever
- (A) Interlock the brake pedals
- (B) "DEPRESS"
- (C) "PULL"

#### IMPORTANT:

- To prevent damage to the parking brake lever, make sure that brake pedals are fully depressed before pulling the parking brake lever up.
- Before getting off the tractor, disengage the PTO, 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.
- If it is necessary to park on an incline, be sure to chock the wheels to prevent accidental rolling of the machine.

# OPERATING TECHNIQUES

#### ■ Differential Lock



## WARNING

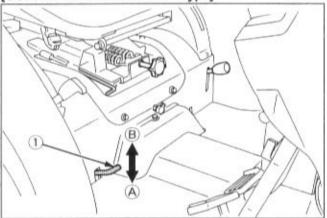
To avoid personal injury due to loss of steering control:

- Do not operate the tractor 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.

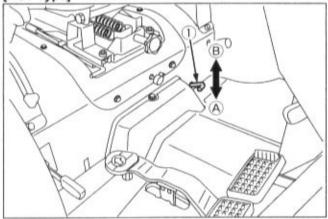
If one of the rear wheels should slip, step on the differential lock pedal. Both wheels will then turn together, reducing slippage.

Differential lock is maintained only while the pedal is depressed.

[GST / Manual Transmission Type]



(HST Type)



- (1) Differential lock pedal
- (A) Press to "ENGAGE" (B) Release to "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, step lightly on the brake pedals alternately.

## ■Operating the Tractor on a Road



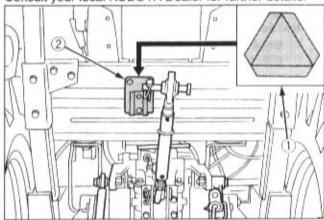
# CAUTION

To avoid personal injury:

- To help assure straight line stops when driving at transport speeds, lock the brake pedals together. Uneven braking at road speeds could cause the tractor to roll-over.
- When traveling on road with 3-point hitch mounted implement attached, be sure to have sufficient front weight on the tractor to maintain steering ability.

Be sure SMV emblem and warning lamps are clean and visible. If towed or rear-mounted equipment obstructs these safety devices, install SMV emblem and warning lamps on equipment.

Consult your local KUBOTA Dealer for further details.



- (1) SMV emblem
- (2) Bracket

# ■Operating on Slopes and Rough Terrain



# CAUTION

To avoid personal injury:

- Always back up when going up a steep slope.
   Driving forward could cause the tractor to tip over backward. Stay off hills and slopes too steep for safe operation.
- Avoid changing gears when climbing or descending a slope.
- If operating on a slope, never disengage the clutch or shift levers to neutral. Doing so could cause loss of control.

- Do not drive the tractor close to the edges of ditches or banks which may collapse under the weight of the tractor. Especially when the ground is loose or wet.
- Be sure wheel tread is adjusted to provide maximum stability.
  - (See "Wheel Adjustment" in Tires, Wheels and Ballast section)
- Slow down for slopes, rough ground, or sharp turns, especially when transporting heavy, rear mounted equipment.
- Before descending a slope, shift to a gear low enough to control speed without using brakes.

# ■Directions for Use of Power Steering

- Power steering is activated only while the engine is running. Slow engine speeds make the steering a little heavier. While the engine is stopped, the tractor functions in the same manner as tractors without power steering.
- 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.
- Avoid turning the steering wheel while the tractor is stopped, or tires may wear out sooner.
- The power steering mechanism makes the steering easier. Be careful when driving on a road at high speeds.

# **PTO**

# PTO OPERATION



# CAUTION

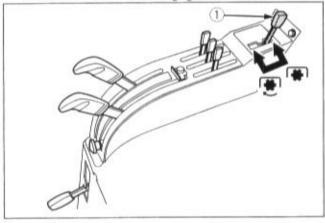
To avoid personal injury:

 Disengage PTO, stop engine, and allow all rotating components to come to a complete stop before connecting, disconnecting, adjusting, or cleaning any PTO driven equipment.

#### **■PTO Clutch Control Lever**

- 1. The tractor has a 540 rpm speed position.
- The PTO clutch control lever engages or disengages the PTO clutch which gives the PTO independent control.

Shift the lever to "ON" to engage the PTO clutch. Shift the lever to "OFF" to disengage the PTO clutch.



(1) PTO clutch control lever

● "ON" I "OFF"

#### IMPORTANT:

- To avoid shock loads to the PTO, reduce engine speed when engaging the PTO, then open the throttle to the recommended speed.
- To avoid damage of PTO clutch and implement, shift the PTO clutch control lever slowly, when engaging the PTO clutch. Do not keep the PTO clutch control lever half way.

Proper warm up is strongly recommended in cold weather.

Do not continuously shift the PTO clutch control lever.

Model GST Type Manual Transmission Type		Engine Speed rpm	Shaft	PTO Speed rpm
		2550		
HST Type	L3830	2680	6-Spline	540
	L4330	2440		
	L5030	2660		

#### NOTE

- Tractor engine will not start if the PTO clutch control lever is in the engaged "ON" position.
- When the clutch pedal is depressed, the PTO disengages. [HST Type]

## ■Mid-PTO (if equipped)



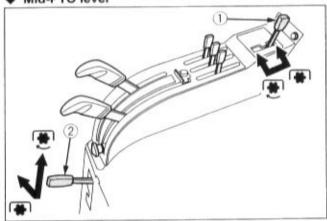
## WARNING

To avoid personal injury:

- Before operation, be sure to select the correct PTO lever (mid/rear).
- Do not operate rear-PTO driven implements and mid-PTO driven implements at the same time.

To use mid-PTO, shift the mid-PTO lever to engaged position and shift the PTO clutch control lever to engaged position.

#### ♦ Mid-PTO lever



- (1) PTO clutch control lever
- (2) Mid-PTO lever

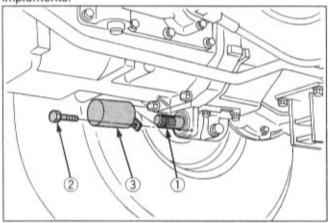
- "ON"
- TOFF"

## Rear and Mid-PTO speed

P	TO REVOL	.UTION (rpm)	
MID-PTO LEVER	РТО	PTO Clutch control leve	
		(#)	<b>→</b> 🖲
<b>(4)</b>	REAR	0	540
	MID	0	0
<b>®</b>	REAR	0	540
	MID	0	2000

#### Mid PTO

The mid PTO is available for KUBOTA approved implements.



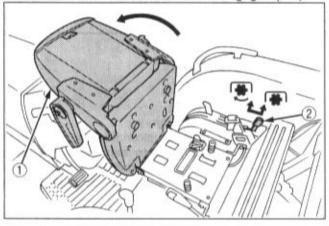
- (1) Mid PTO
- (2) Bolt
- (3) PTO shaft cover

## **■**Stationary PTO

To park the tractor and use the PTO system (for chipper or pump, for example), start the PTO system in the following steps.

- 1. Apply the parking brakes and place blocks at the tires.
- 2. Make sure the shift levers are at NEUTRAL, and start the engine
- 3. Tilt the operator's seat forward.

4. Set the PTO clutch control lever to engaged (ON).



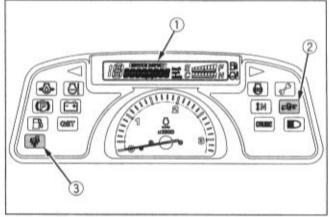
- (1) Seat
- (2) PTO clutch control lever
- **●** "ON"
- TOFF"

#### NOTE:

· Suppose that the PTO system is engaged but you stand from the seat or the seat is not tilted forward. In such case, the engine stops itself.

## ■IntelliPanel Message

- 1. The PTO rpm can be checked in the display. (See "INTELLIPANEL" in Operating the Tractor section)
- 2. When the PTO system gets engaged (ON), the indicator lights up.



- (1)Display
- (2)Rear PTO indicator
- (3)Mid-PTO indicator

NOTE:
Rear PTO "ON"

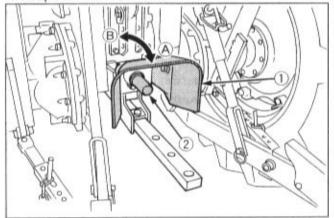
REAR SYD Nomin 6

Mid-PTO "ON"

MII 2200 ,,,,, 6 .... F

## ■PTO Shaft Cover and Shaft Cap

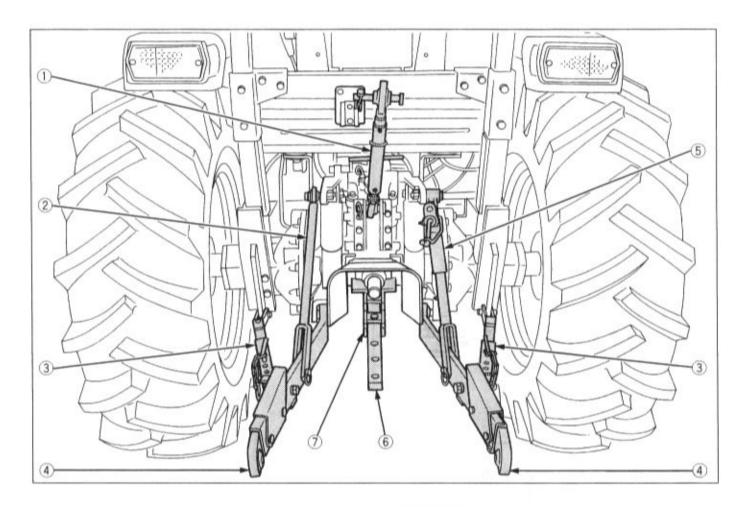
Keep the PTO shaft cover in place at all times. Replacing the PTO shaft cap when the shaft is not in use. When connecting or disconnecting the joint to PTO shaft, raise up the PTO shaft cover.

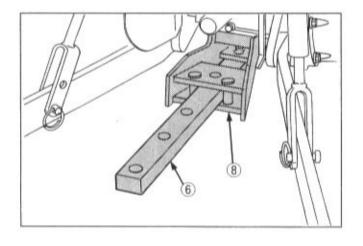


- (1) PTO shaft cover
- (2) PTO shaft cap
- (A)"NOMAL POSITION" (B)"RAISED POSITION"

## 50

# **THREE-POINT HITCH & DRAWBAR**





- (1) Top link
- (2)Lifting rod (Left)
- (3) Telescopic stabilizers
- (4)Lower link
- (5)Lifting rod (Right)
- (6)Drawbar
- (7)Fixed drawbar frame
- (8) Swing drawbar frame [option]

# 3-POINT HITCH

## Make preparations for attaching implement.

# ■Category 1 & 2

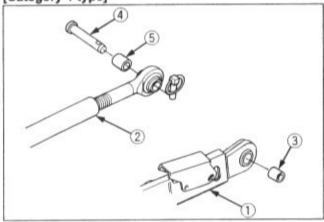
L5030 have both category 1 & 2.

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

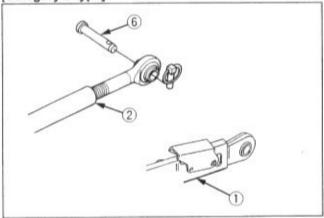
To change from category 1 to category 2.

- 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]







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

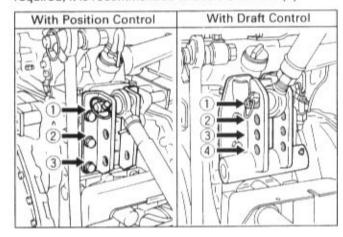
# ■Category 1

L3130,L3430,L3830,L4330,L4630 have category 1 only.

# ■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 close mounted implement is being attached.

## 2. Attaching and detaching implements



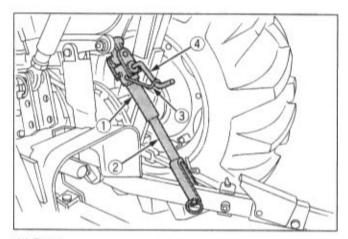
## CAUTION

To avoid personal injury:

- · Be sure to stop the engine.
- Do not stand between tractor and implement unless parking brake is applied.
- Before attaching or detaching implement, locate the tractor and implement on a firm level surface.
- Whenever an implement or other attachment is connected to the tractor 3-point hitch, check full range of operation for interference, binding or PTO separation.

#### ■Lifting Rod (Right)

Level a 3-point mounted implement from side to side by turning the adjusting handle to shorten or lengthen the adjustable lifting rod with the implement on the ground. After adjustment, lock adjusting handle with handle stopper.



- (1) Cover
- (2) Lifting rod (lower)
- (3) Handle stopper
- (4) Adjusting handle

## ■Top Link

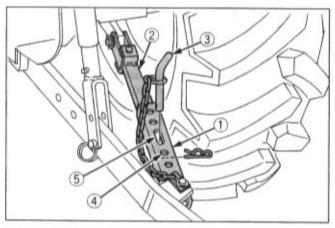
- Adjust the angle of the implement to the desired position by shortening or lengthening the top link.
- The proper length of the top link varies according to the type of implement being used.

## ■Telescopic Stabilizers

Adjust the telescopic stabilizers to control horizontal sway of the implement.

After aligning satisfactorily, insert the set-pin through any one of the four holes on the outer tube that align with one of the holes on the inner bar, both stabilizers will be locked.

If the set-pin is inserted through the slot to engage one of the holes on the inner bar, a limited degree of sway will be permitted.

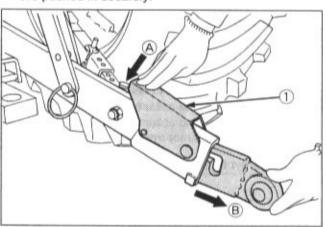


- (1) Outer tube
- (2) Inner bar
- (3) Set-pin
- (4) Hole
- (5) Slot

# ■Telescoping Lower Links

To attach an implement, follow the instructions below:

- Push the levers, pull out the lower link ends, and attach to the implement.
- Back up the tractor slightly to make sure the lower links are pushed in securely.



(1) Lever

(A) "PUSH" (B) "PULL OUT"

## DRAWBAR



## WARNING

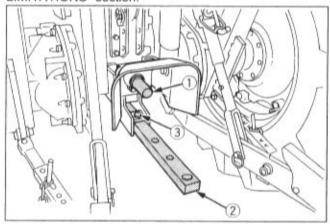
To avoid personal injury:

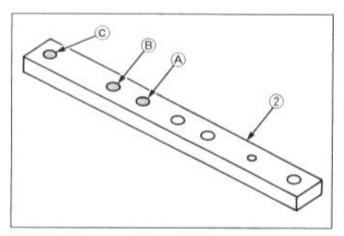
 Never pull from the top link, the rear axle or any point above the drawbar. Doing so could cause the tractor to tip over rearward causing personal injury or death.

## ■Adjusting Drawbar Length

When towing an implement, recommend use of (A) or (B) holes in drawbar.

The drawbar load is referred to "IMPLEMENT LIMITATIONS" section.



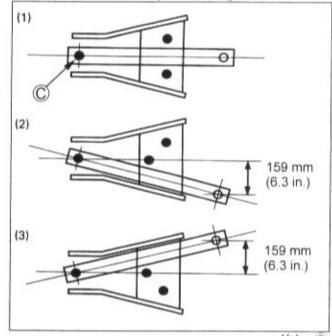


- (1) PTO shaft
- Holes: (A),(B)
- (2) Drawbar
- (3) Drawbar pin

Hole	Tractor model
(A)	L3130, L3430, L3830, L4330, L4630
(B)	L5030

## ■Swing Drawbar

The drawbar can be used in three different ways as illustrated below. Assemble it correctly with joint pins set at the points as marked by • in the figure.



Hole: (C)

# HYDRAULIC UNIT

The standard tractor has 5 hydraulic control systems as shown below. Therefore, use the most appropriate system for the implement you are using.

#### 3-Point Hitch Control System

- 1. Position Control
- 2. Draft Control
- 3. Mixed Control
- 4. Float Control

## Remote Hydraulic Control System

5. Combined Flow Control

#### IMPORTANT:

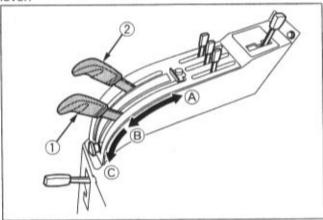
- Do not operate until the engine is warmed up. If operation is attempted when the engine is still cold, the hydraulic system may be damaged.
- If noises are heard when implement is lifting after the hydraulic control lever has been activated, the hydraulic mechanism is not adjusted properly. Unless corrected, the unit will be damaged. Contact your KUBOTA Dealer for adjustment.

## 3-POINT HITCH CONTROL SYSTEM

#### ■ Position Control

This will control the working depth of 3-point implements regardless of the amount of pull required.

Place the draft control lever in the lowest position and set the implement working depth with the position control lever.

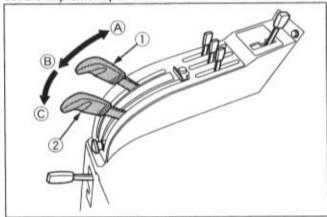


- (1) Position control lever (2) Draft control lever
  - lever
- (A) "UP" (B) "DOWN"
  - (C) "FLOAT"

## ■ Draft Control (if equipped)

This will control the pull of the 3-point implement. As the load on the 3-point hitch changes due to various soil conditions, the draft control system automatically responds to these changes by either raising or lowering the implement slightly to maintain a constant pull.

Place the position control lever in the lowest position and set the implement pull with the draft control lever.

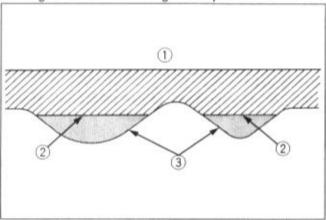


- (1) Draft control lever
- (2) Position control lever
- (A) "SENSITIVE"
- (B) "INSENSITIVE"
- (C) "FLOAT"

#### ■Mixed Control

In draft control, when draft decreases, the implement automatically lowers to increase draft. However, the implement sometimes lowers too much. To limit the degree, the implement can be lowered, set the position control lever at the lowest working depth desired for the implement. Lower the draft control lever to the point where the implement is at the desired depth.

This stops the implement from going too deep and causing loss of traction and ground speed.



- (1) Ground surface
- (2) Implement penetrate limit
- (3) Light soil

#### ■Float Control

Place both the draft control lever and the position control lever in the float position to make the lower links move freely along with the ground conditions.

## ■3-point Hitch Lowering Speed

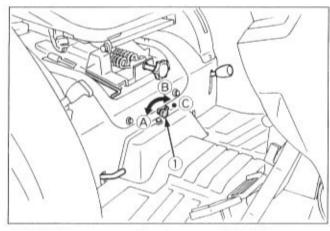


#### CAUTION

To avoid personal injury:

 Fast lowering speed may cause damage or injury. Lowering speed of implement should be adjusted to two or more seconds.

The lowering speed of the 3-point hitch can be controlled by adjusting the 3-point lowering speed knob.



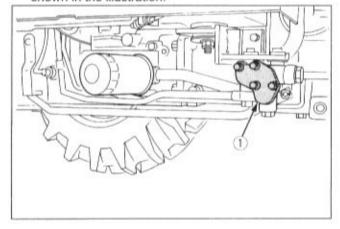
- (1) 3-Point lowering speed knob
- (A) "FAST"
- (B) "SLOW"
- (C) "LOCK"

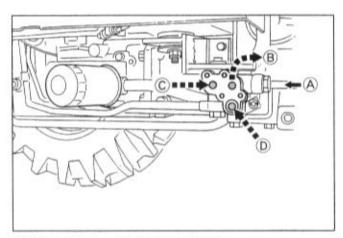
#### ■Hydraulic Block Type Outlet

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

#### When implement is attached

- 1. Remove the block cover.
- 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
  8.3 gals./min (31.5 L/min)
  [L3130, L3430, L3830]
  9.4 gals./min (35.6 L/min)
  [L4330]
  9.8 gals./min (37.0 L/min)
  [L4630, L5030]
  Max pressure
  17.7 MPa (180 kgf/cm<sup>1</sup>, 2560 psi)
  [L3130-L5030]
- (C) From implement (Outlet)
- (D) From implement (Tank port)

# REMOTE HYDRAULIC CONTROL SYSTEM (if equipped)

■ Remote Control 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.

#### Connecting

- 1. Clean both couplers.
- 2. Remove dust plugs.
- Insert the implement coupler to the tractor hydraulic coupler.
- Pull the implement coupler slightly to make sure couplers are firmly connected.

#### Disconnecting

- Lower the implement first to the ground to release hydraulic pressure in the hoses.
- 2. Clean the couplers.
- Relieve pressure by moving hydraulic control levers with engine shut off. Pull the hose straight from the hydraulic coupler to release it.
- Clean oil and dust from the coupler, then replace the dust plugs.

#### NOTE:

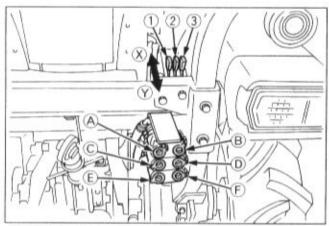
 Your local KUBOTA Dealer can supply parts to adapt couplers to hydraulic hoses.

#### ■Remote Control Valve Lever

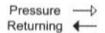
Move the lever up or down and hold. This will raise or lower the implement. Lever will return to neutral when released.

#### IMPORTANT:

- Do not hold the lever in the "pull" or "push" position once the remote cylinder has reached the end of the 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.
- When using the tractor hydraulic system to power front loader, do not operate boom and bucket cylinders simultaneously.



(1)(2)(3) Remote control valve lever (X) "PUSH" (Y) "PULL"



Lever ①		Push		Р	ull	
Port	(A)	In	←	Out	<b></b> →	
Port	(B)	Out	>	In	-	
Lever	2	Pi	ish	Р	ull	
Port	©	In	←	Out	→	
	(D)	Out	→	In	+	
Lever 3		Pu	ish	Р	ull	
Port	Œ	In	<b>←</b>	Out	→	
	(F)	Out	→	In	-	

	Coupler size	
Port (A) (B)		
Port © ®	PT 1/2	
Port ® ®		

#### ■Remote Control Valve

loader bucket follow the ground.

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

## ■Hydraulic Control Unit Use Reference Chart

In order to handle the hydraulics properly, the operator must be familiar with the following. Though this information may not be applicable to all types of implements and soil conditions, it is useful for general conditions.

в арріїсавіс к		with Position		with Draft co	ontrol						
Implement					2			Remarks			
	Soil condition	Top link mounting holes	① Position control lever	Top link mounting holes	1 Position control lever 2 Draft control lever	Gauge wheel	① Telescopic stabilizers				
Moldboard plow	Light soil Medium soil Heavy soil	1 or 2 2 or 3 3		1 or 2 2 or 3 3	Draft and Mixed control			Insert the set-pin through the slot on the outer tube			
Disc plow		2 or 3	1	2 or 3	Place the			that align with one of			
Harrow (spike, springtooth, disc type)								draft control lever to the suitable position	YES/NO	Loose	the holes on the inner bar. For implements with gauge
Sub-soiler		2 or 3	Position control	2 or 3	and set the implement pull with the position control lever			wheels, lower the position control lever all way.			
Weeder, ridger					Position control	YES		Telescopic stabilizer			
Earthmover, digger, scraper, manure fork, rear carrier	_	3		4	Hold the draft control lever at the most front position	YES/NO	Tighten	should be tight enough to prevent excessive implement movement when			
Mower (mid- and rear- mount type)					during operation.	NO		implement is in raised position.			

# TIRES, WHEELS AND BALLAST

## **TIRES**



## WARNING

To avoid personal injury:

- Do not attempt to mount a tire. This should be done by a qualified person with the proper equipment.
- Always maintain the correct tire pressure.
   Do not inflate tires above the recommended pressure shown in the operator's manual.

#### IMPORTANT:

- Do not use tires other than those approved by KUBOTA.
- When you intend to mount different size of tires from equipped ones, consult your dealer about front drive gear ratio for details.

Excessive wear of tires may occur due to improper gear ratio.

#### 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		
	12.4-24, 4PR	140 kPa (1.4 kgf/cm², 20 psi)		
	13.6-28, 4PR	150 kPa (1.5 kgf/cm², 22 psi)		
	14.9-24, 4PR	140 kPa (1.4 kgf/cm², 20 psi)		
	14.9-26, 4PR	140 kPa (1.4 kgf/cm², 20 psi)		
Rear	41/18LL x 16.1, 6PR	70 kPa (0.7 kgf/cm², 10 psi)		
	355/80-D20, 4PR	100 kPa (1.0 kgf/cm², 14 psi)		
	44 x 18-20, 6PR	170 kPa (1.7 kgf/cm², 24 ps		
	420/70-24, 6PR	140 kPa (1.4 kgf/cm <sup>2</sup> , 20 ps		
	17.5L-24, 6PR	140 kPa (1.4 kgf/cm², 20 psi)		
	6.00-16, 4PR	220 kPa (2.2 kgf/cm², 32 psi)		
	7.2-16, 4PR	150 kPa (1.5 kgf/cm², 22 psi)		
	8.3-16, 4PR	150 kPa (1.5 kgf/cm², 22 psi)		
	9.5-16, 4PR	205 kPa (2.1 kgf/cm², 30 psi)		
Front	27 x 8.50-15, 4PR	85 kPa (8.5 kgf/cm <sup>2</sup> , 12 psi)		
	27 x 10.50-15, 4PR	85 kPa (8.5 kgf/cm <sup>1</sup> , 12 psi)		
	29 x 12.50-15, 4PR	140 kPa (1.4 kgf/cm², 20 psi)		
	10-16.5, 6PR	140 kPa (1.4 kgf/cm <sup>2</sup> , 20 psi)		
	7.5L-15, 6PR	220 kPa (2.2 kgf/cm1, 32 psi)		

#### NOTE

 Maintain the maximum pressure in front tires, if using a front loader or when equipped with a full load of front weights.

#### **■** Dual Tires

Dual tires are approved for turf tire applications.

## WHEEL ADJUSTMENT



## CAUTION

To avoid personal injury:

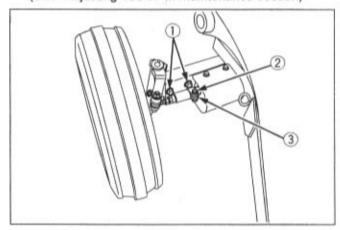
- When working on slopes or when working with trailer, set the wheel tread as wide as practical for maximum stability.
- Support tractor securely on stands before removing a wheel.
- Do not work under any hydraulically supported devices. They can settle, suddenly leak down, or be accidentally lowered. If necessary to work under tractor or any machine elements for servicing or adjustment, securely support them with stands or suitable blocking beforehand.
- Never operate tractor with a loose rim, wheel, or axle.

## Front Wheels (with two wheel drive)

Front tread width can be adjusted as shown with the standard equipped tires.

To change the tread width

- Remove the front axle mounting bolts and the tie-rod mounting bolts.
- Move the front axles (right and left) to the desired position, and tighten the bolts.
- 3. Adjust the toe-in: [ 2 to 8mm (0.1 to 0.3 in.) ] (See "Adjusting Toe-in" in Maintenance section)



- (1) Front axle mounting bolt 124 to 147 N-m (12.6 to 15.0 kgf-m)(91.5 to 108.4 ft-lbs) (2) Tie-rod mounting bolt
- 61 to 71 N-m (6.2 to 7.2 kgf-m)(44.8 to 52.1 ft-lbs) (3) Tie rod clamp

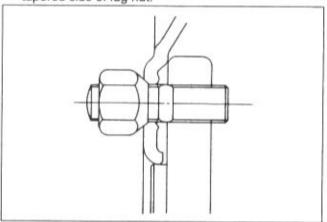
	Models	-Tread	o oo	o oloo	— Tread
Farm	<b>L3130, L3830</b> 6.00-15	1310 mm (51.6 in.)	1410 mm(55.5 in.)	1510 mm (59.4 in.)	1610 mm (63.4 in.)
Farm	<b>L3130, L3830</b> 7.5L-15	1280 mm (50.4 in.)	1380 mm (54.3 in.)	1480 mm(58.3 in.)	1580 mm(62.2 in.)
	L3130, L3830 27 x 8.50-15	1235 mm (48.6 in.)	1335 mm (52.6 in.)	1435 mm (56.5 in.)	1535mm (60.4 in.)
Turf	L3130, L3830 27 x 10.50-15	1215 mm (47.8 in.)	1315 mm (51.8 in.)	1415 mm(55.7 in.)	1515 mm (59.6 in.)
	L3130, L3830 29 x 12.50-15	1315 mm (51.8 in.)	1415 mm (55.7 in.)	1515 mm (59.6 in.)	1615 mm (63.6 in.)

#### IMPORTANT:

 The front tread width for the front loader application on 2WD models should not be greater than 1310mm (51.6 in.) for L3130, L3430.

#### NOTE:

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



## ■Front Wheels (with four wheel drive)

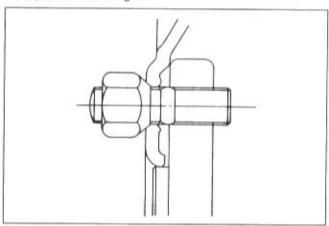
Front tread can not be adjusted.

#### IMPORTANT:

Do not turn front discs to obtain wider tread.

#### NOTE:

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



	Models	L3130-L3410								
	Tires	7.2-16 Farm		27 x 8.50-15 Turf	27 x 10.50-15 Turf	29 x 12.50-15 Turf	10-16.5 IND			
	Tread	1115 mm (43.9 in.)		1200 mm (47.2 in.)	1230 mm (48.4 in.)	1280 mm (50.4 in.)	1235 mm (48.6 in.)			
	Models			L3	830					
	Tires		8.3-16 Turf	27 x 8.50-15 Turf	25 x 10.50-15 Turf	29 x 12.50-15 Turf	10-16.5 IND			
	Tread		1155 mm (45.5 in.)	1200 mm (47.2 in.)	1230 mm (48.4 in.)	1280 mm (50.4 in.)	1235 mm (48.6 in.)			
	Models	L4330, L4630								
Tread	Tires		8.3-16 Farm		27 x 10.50-15 Turf	29 x 12.50-15 Turf	10-16.5 IND			
	Tread	***	1300 mm (51.2 in.)		1375 mm (54.1 in.)	1425 mm (56.1 in.)	1380 mm (54.3 in.)			
	Models	L5030								
	Tires		9.5-16 Farm		27 x 10.5-15 Turf	29 x 12.50-15 Turf	10-16.5 IND			
	Tread		1340 mm (52.8 in.)		1375 mm (54.1 in.)	1425 mm (56.1 in.)	1380 mm (54.3 in.)			

#### NOTE:

IND...for Industrial

#### Rear Wheels

Rear tread width can be adjusted as shown with the standard equipped tires.

To change the tread width

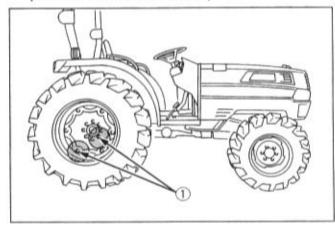
- 1. Remove the wheel rim and / or disk mounting bolts.
- Change the position of the rim and / or disk (right and left) to the desired position, and tighten the bolts.

Models	Tread	Tread	Tread	Tread
L3130, L3430	1200mm	1300 mm	1385 mm	1480 mm
12.4-24 Farm	(47.2 in)	(51.2 in.)	(54.5 in.)	(58.3 in.)
L3830,L4330, L4630		1285 mm	1435 mm	1530 mm
14.9-24 Farm		(50.6 in.)	(56.5 in.)	(60.2 in.)
<b>L3130, L3430</b>		1325 mm	1360 mm	1465 mm
420/70-24 IND		(52.2 in.)	(53.5 in.)	(57.7 in.)
L3830,L4330, L4630		1340 mm	1380 mm	1490 mm
17.5L-24 IND		(52.8 in.)	(54.3 in.)	(58.7 in.)
<b>L5030</b>	1220 mm	1330 mm	1425 mm	1530 mm
13.6-28 Farm	(48.0 in.)	(52.4 in.)	(56.1 in.)	(60.2 in.)
<b>L5030</b> 14.9-26 Farm			1325 mm (52.2 in.)	1430 mm (56.3 in.)
<b>L5030</b>		1360 mm	1395 mm	1500 mm
17.5L-24 IND		(53.5 in.)	(54.9 in.)	(59.1 in.)

Models	Tread
<b>L3130, L3430</b>	1270 mm
355/80-D20 Turf	(50.0 in.)
<b>L3830</b>	1290 mm
355/80-D20 Turf	(50.8 in.)
L3130, L3430	1420 mm
41/18LL x 16.1 Turf	(55.9 in.)
L3830, L4330, L4630, L5030	1440 mm
41/18LL x 16.1 Turf	(56.7 in.)
L3130, L3430	1400 mm
44 x 18-20 Turf	(55.1 in.)
L3830, L4330, L4630, L5030	1415 mm
44 x 18-20 Turf	(55.7 in.)

- If not attached as illustrated, transmission parts may be damaged.
- When re-fitting or adjusting a wheel, tighten the bolts to the following torques then recheck after driving the tractor 200m (200yards) and thereafter according to service interval.

(See "MAINTENANCE" section)



(1) 215 N-m (22kgf-m, 160ft-lbs)

#### IMPORTANT:

Always attach tires as shown in the drawings.

## BALLAST



## CAUTION

To avoid personal injury:

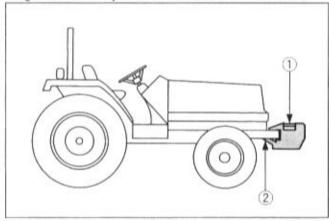
- Additional ballast will be needed for transporting heavy implements. When the implement is raised, drive slowly over rough ground, regardless of how much ballast is used.
- Do not fill the front wheels with liquid to maintain steering control.

#### Front Ballast

Add weights if needed for stability (2WD.4WD models) and improve traction (4WD model). Heavy pulling and heavy rear mounted implements tend to lift front wheels. Add enough ballast to maintain steering control and prevent tip over. Remove weight when no longer needed.

## Front End Weights (option)

The front end weights can be attached to the bumper. See your implement operator's manual for required number of weights or consult your local KUBOTA Dealer to use.



- (1) Front end weights
- (2) Bumper

#### IMPORTANT:

- Do not overload tires.
- Add no more weight than indicated in chart.

Maximum weight	25 kg x 7 Pieces (386 lbs.)
	(300 ibs.)

#### NOTE:

 The front end weights can be attached to the bumper (option on 4WD models - North America only).

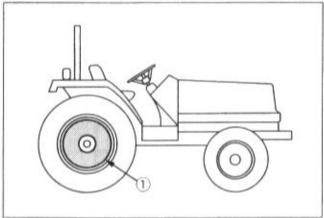
#### Rear Ballast

Add weight to rear wheels if needed to improve traction or for stability. The amount of rear ballast should be matched to job and the ballast should be removed when it is not needed.

The weight should be added to the tractor in the form of liquid ballast, rear wheel weights or a combination of both.

#### Rear Wheel Weights (option)

The rear wheel weights can be attached to the rear wheel. See your implement operator's manual for required number of weights or consult your local KUBOTA Dealer to use.



(1) Rear wheel weights

#### IMPORTANT:

- Do not overload tires.
- Add no more weight than indicated in chart.

Model	Maximum weight per wheel		
L3130, L3430, L3830, L4330, L4630	28 kg x 3 Pieces (185 lbs.)		
L5030	47kg x 3 Pieces (310 lbs.)		

#### ■Liquid Ballast in Rear Tires

Water and calcium chloride solution provides safe economical ballast. Used properly, it will not damage tires, tubes or rims. The addition of calcium chloride is recommended to prevent the water from freezing. Use of this method of weighting the wheels has the full approval of the tire companies. See your tire dealer for this service.

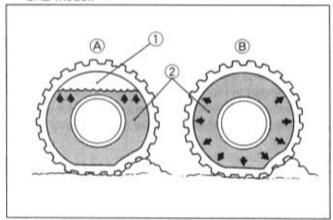
#### Liquid weight per tire (75 Percent filled)

Tire sizes	12.4-24	420/70-24	14.9-24
Slush free at -10 °C (14 °F) Solid at -30 °C (-22 °F) [Approx. 1 kg (2 lbs.) CaCl, per 4 L (1 gal.) of water]	130 kg	195 kg	205 kg
	(285 lbs.)	(430 lbs.)	(450 lbs.)
Slush free at -24 °C (-11 °F) Solid at -47 °C (-52 °F) [Approx. 1.5 kg (3.5 lbs.) CaCl, per 4 L (1 gal.) of water]	135 kg	205 kg	215 kg
	(295 lbs.)	(450 lbs.)	(475 lbs.)
Slush free at -47 °C (-52 °F) Solid at -52 °C (-62 °F) [Approx. 2.25 kg (5 lbs.) CaCl, per 4 L (1 gal.) of water]	145 kg	220 kg	225 kg
	(320 lbs.)	(485 lbs.)	(495 lbs.)
Tire sizes	17.5L-24	14.9-26	13.6-28
Slush free at -10 °C (14 °F) Solid at -30 °C (-22 °F) [Approx. 1 kg (2 lbs.) CaCl, per 4 L (1 gal.) of water]	235 kg	215 kg	185 kg
	(515 lbs.)	(475 lbs.)	(405 lbs.)
Slush free at -24 ℃ (-11 ℉) Solid at -47 ℃ (-52 ℉) [Approx. 1.5 kg (3.5 lbs.) CaCl, per 4 L (1 gal.) of water]	250 kg (550 lbs.)	225 kg (495 lbs.)	200 kg (441 lbs.)
Slush free at -47 ℃ (-52 ℉) Solid at -52 ℃ (-62 ℉) [Approx. 2.25 kg (5 lbs.) CaCl, per 4 L (1 gal.) of	265 kg (585 lbs.)	235 kg (515 lbs.)	215 kg (475 lbs.)

#### IMPORTANT:

water]

- Do not fill tires with water or solution more than 75% of full capacity (to the valve stem level at 12 o'clock position).
- Do not fill tires with water or solution if the tractor is a CAB model.



- (1) Air (2) Water
- (A) Correct-75% Air compresses like a cushion
- (B) Incorrect-100% Full Water can not be compressed

# **MAINTENANCE**

## SERVICE INTERVALS

						Ind	ication	on h	our me	eter			Since then	Ref.		
No.				50	100	150	200	250	300	350	400	450	Since then	page		Т
1	Engine oil	Engine oil		0	0		0		0		0		every 100 Hr	75		
2	Engine oil filter		Replace	0			0				0		every 200 Hr	80		
3	Hydraulic oil filter		Replace	0			0				0		every 200 Hr	80		
4	Transmission oil filte	er[HST]	Replace	0			0				0		every 200 Hr	80		
5	Transmission fluid		Change	0							0		every 400 Hr	84		
6	Front axle case oil		Change	0		-11					0		every 400 Hr	84		
7	Front axle pivot		Adjust										every 600 Hr	85		
8	Greasing			0	0	0	0	0	0	0	0	0	every 50 Hr	72		
9	Engine start system		Check	0	0	0	0	0	0	0	0	0	every 50 Hr	73		
10	Wheel bolt torque		Check	0	0	0	0	0	0	0	0	0	every 50 Hr	74		
11	Battery condition		Check		0		0		0		0		every 100 Hr	78	*5	
	Air cleaner element	Primary	Clean		0		0		0		0		every 100 Hr	76	*1	
12	[Double type]	element	Replace										every 1 year	85	*2	
12	12	Secondary element	Replace										every 1 year	85		@
40	Fuel filter element		Clean		0		0		0		0		every 100 Hr	76		
13			Replace								0		every 400 Hr	84	$\vdash$	@
14	Fan belt		Adjust		0		0		0		0		every 100 Hr	77		
15	Clutch		Adjust		0		0		0		0		every 100 Hr	78		
16	Brake		Adjust	0	0		0		0		0		every 100 Hr	78		
17	Radiator hose and o	lamp	Check				0				0		every 200 Hr	82		
17			Replace										every 2 year	87		
18	Power steering oil li	ne	Check				0				0		every 200 Hr	82		
10			Replace										every 2 year	87		
19	Fuel line		Check		0		0		0		0		every 100 Hr	77		@
10	DON'T CONTROL TO		Replace										every 2 year	87	*3	·
20	HST oil line [HST]		Check				0				0		every 200 Hr	82		
20	80 8		Replace										every 2 year	87		
21	Toe-in		Adjust	Veren			0				0		every 200 Hr	83		
22	Intake air line		Check				0				0		every 200 Hr	83		æ
			Replace										every 2 year	87	*3	(B)
23	Greasing(2WD front	wheel hub)	-								0		every 400 Hr	85		
24	Engine valve cleara	nce	Adjust										every 800 Hr	85	*4	
25	Fuel injection nozzle pressure	Injection	Check										every 1500 Hr	85	*4	@
26	Injection pump		Check										every 3000 Hr	85	*4	@
27	Cooling system		Flush										every 2 year	86	116	
28	Coolant		Change										every 2 year	86		
29	Fuel system		Bleed											88		
30	Clutch housing water	or	Drain										Service as	88		
31	Fuse		Replace										required	88		
32	Light bulb		Replace											89		

200	Home				Indi	cation	on h	our m	eter			Since then	Ref.			
No.	- 1	tems		500	550	600	650	700	750	800	850	900	Since then	page		
1	Engine oil Ch		Change	0		0		0		0		0	every 100 Hr	75		
2	Engine oil filter					0				0			every 200 Hr	80		
3	Hydraulic oil filter		Replace			0				0			every 200 Hr	80		
4	Transmission oil filt	er[HST]	Replace			0				0			every 200 Hr	80		
5	Transmission fluid		Change							0			every 400 Hr	84		
6	Front axle case oil		Change							0			every 400 Hr	84		
7	Front axle pivot		Adjust			0							every 600 Hr	85		
8	Greasing		-	0	0	0	0	0	0	0	0	0	every 50 Hr	72		
9	Engine start system	n	Check	0	0	0	0	0	0	0	0	0	every 50 Hr	73		
10	Wheel bolt torque		Check	0	0	0	0	0	0	0	0	0	every 50 Hr	74		
11	Battery condition		Check	0		0		0		0		0	every 100 Hr	78	*5	
	Air cleaner	Primary	Clean	0		0		0		0		0	every 100 Hr	76	*1	
40	element [Double	element	Replace										every 1 year	85	*2	@
12 t	type]	Secondar y element	Replace										every 1 year	85		
2000	Fuel filter element	1	Clean	0		0		0		0		0	every 100 Hr	76		@
13	T doi mon ordinone		Replace	-	1	-				0			every 400 Hr	84	1	-
14	Fan belt		Adjust	0		0		0		0		0	every 100 Hr	77		
15	Clutch		Adjust	0		0		0		0		0	every 100 Hr	78		
16	Brake		Adjust	0		0		0		0		0	every 100 Hr	78		
	Radiator hose and	clamp	Check			0				0			every 200 Hr	82		
17			Replace										every 2 year	87		
	Power steering oil	line	Check			0				0			every 200 Hr	82		
18			Replace										every 2 year	87		
40	Fuel line		Check	0		0		0		0		0	every 100 Hr	77		a
19			Replace										every 2 year	87	*3	-
20	HST oil line [HST]		Check			0				0			every 200 Hr	82		
20			Replace										every 2 year	87		
21	Toe-in		Adjust			0				0			every 200 Hr	83		_
22	Intake air line		Check			0				0			every 200 Hr	83	1	a
22			Replace										every 2 year	87	*3	-
23	Greasing(2WD fro	nt wheel hub)	-							0			every 400 Hr	85	_	_
24	Engine valve clear	rance	Adjust							0			every 800 Hr	85	*4	$\perp$
25	Fuel injection pozzte Injection		Check										every 1500 Hr	85	*4	@
26	Injection pump Ch		Check										every 3000	85	*4	0
27	Cooling system		Flush										every 2 year	86		
28	Coolant		Change									1 1111	every 2 year	86		
29	Fuel system		Bleed											88		
30	Clutch housing wa	ater	Drain										Service as	88		
31	Fuse		Replace										required	88		
32	Light bulb		Replace									7		89		

#### IMPORTANT

- The jobs indicated by 
   must be done after the first 50 hours of operation.
- \*1 Air cleaner should be cleaned more often in dusty conditions than in normal conditions.
- \*2 Every year or every 6 times of cleaning.
- \*3 Replace only if necessary.
- \*4 Consult your local KUBOTA Dealer for this service.
- \*5 When the battery is used for less than 100 hours per year, check the battery condition by reading the indicator annually.

The items listed above (@ marked) are registered as emission related critical parts by KUBOTA in the U.S.EPA nonroad
emission regulation. As the engine owner, you are responsible for the performance of the required maintenance on the
engine according to the above instruction.
 Please see Warranty Statement in detail.

## **LUBRICANTS**

No.	Locations			(	Capacitie	S		Lubricants			
140,	Locations	L3130 L3430 L3830 L4330 L4630 L5030					L5030	- Addition to			
1	Fuel		(10	40L .6 U.S.ga	als.)	43L (11.3 U.S.gals.)		No. 2-D diesel fuel No. 1-D diesel fuel if temperature is below -10 ℃ (14 ℉)			
2	Coolant	6. (6.3 U	0L S.qts.)	(7	7.5L 8.0L 7.9 U.S.qts.) (8.5 U.S.qts.)		Fresh clean water with	anti-freeze			
							1.00	Engine oil : API Service     or CF	rice Classification CD, CE		
3	Engine crankcase		5.7L			8.	2L	Above 25 °C (77 °F) SAE30, SAE10W or 10W-40			
3	(with filter)	th filter) (6.0 U.S.qts.)				(8.7 U	.S.qts.)	0 to 25 ℃ (32 to 77 °F)	SAE20, SAE10W-30 or 10W-40		
								Below 0 ℃ (32 °F)	SAE10W, SAE10W-30 or 10W-40		
4	Transmission case		L S.gals.)	43 L (	(11.4 U.S.gals.) 45L (11.9 U.S.gals.)		KUBOTA UDT or SUPER UDT fluid*				
5	Front axle case [4WD]	(6	6.5 L .9 U.S.qt	s.)		9.0 L(9.5 U.S.qts.)		<ul> <li>KUBOTA UDT or SUPER UDT fluid* or SAE 80-SAE90 gear oil</li> </ul>			
	Greasing			No. of	greasing	points		Capacity	Type of grease		
	Front wheel hub [2WD]	2	***	2			***				
	Knuckle shaft [2WD]	2		2		-					
	Front wheel case support	****					2	Hall access			
6	Front axle support [4WD]	2						Until grease overflows.	Multipurpose type grease		
	Top link	1					2				
	Top link bracket	2 [with Draft Control (if equipped				if equipp	ed)]				
	Lift rod	2									
	Lift cylinder				4						
	Battery terminal				2			moderate amount			
	Throttle cable				Oiling				Engine oil		

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

- Transmission oil:
  - The oil used to lubricate the transmission is also used as hydraulic fluid. To insure proper operation of the hydraulic system and complete lubrication of the transmission, it is important that a multi-grade transmission fluid be used in this system. We recommend the use of **KUBOTA SUPER UDT fluid** for optimum protection and performance. (Consult your local KUBOTA Dealer for further detail.)
  - Do not mix different brands or grades.
- Indicated capacity 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 tractor or any machine elements for servicing or adjustment, securely support them with stands or suitable blocking beforehand.

## HOW TO OPEN THE HOOD



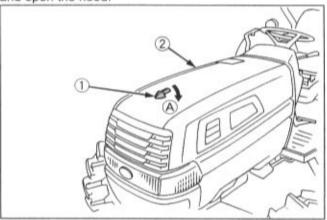
## CAUTION

To avoid personal injury from contact with moving parts:

- Never open the hood while the engine is running.
- Do not touch muffler or exhaust pipes while they are hot; Severe burns could result.
- Support hood with other hand while unlocking support link.

#### ■Hood

To open the hood, twist the mascot to release the latch and open the hood.

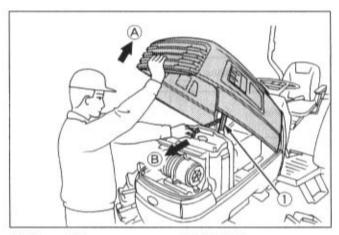


- (1) Mascot
- (2) Hood

(A) "OPEN"

#### NOTE

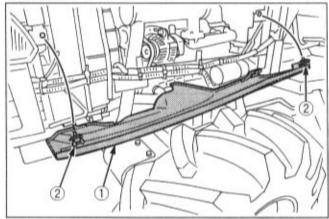
 To close the hood, hold the hood and release the support link.



- (1) Support link
- (A) "HOLD" (B) "PULL"

#### ■ Side Cover

Remove the bolts at both sides. Raise and take away the side cover.

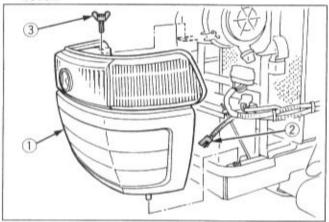


- (1) Side cover
- (2) Wing bolt

#### Front Cover

1. Disconnect the headlight connector.

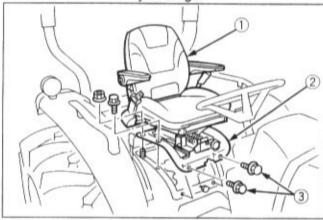
Remove the bolts at both sides and detach the front cover.



- (1) Front cover
- (2) Connector
- (3) Wing bolt

#### Floor Seat

- 1. Remove the bolts on the floor cover.
- 2. Hoist the seat with nylon slings.



- (1) Seat
- (2) Floor seat cover
- (3) Bolt

## DAILY CHECK

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



## CAUTION

To avoid personal injury:

 Be sure to check and service the tractor on a flat place with the engine shut off and the parking brake "ON".

## ■Walk Around Inspection

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

## ■Checking and Refueling

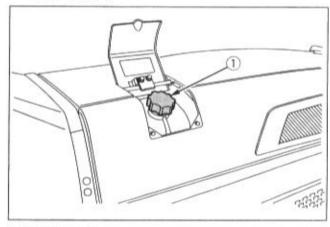


## CAUTION

To avoid personal injury:

- Do not smoke while refueling.
- Be sure to stop the engine before refueling.
- Turn the key switch to "ON", check the amount of fuel by fuel gauge.
- Fill fuel tank when fuel gauge shows 1/4 or less fuel in tank.
- Use grade No.2-Diesel fuel at temperatures above -10 ℃ (14 °F).

Use grade No.1-Diesel fuel at temperatures below -10 ℃ (14 °F).



(1) Fuel tank cap

Fuel tank capacity	L3130,L3430,L3830 L4330,4630	40L (10.6 U.S.gals.)
Capacity	L5030	43 L (11.4 U.S.gals.)

#### 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 condensation (water) accumulation in the fuel tank, fill the tank before parking overnight.

#### NOTE:

- No.2-D is a distillate fuel of lower volatility for engines in industrial and heavy mobile service. (SAE J313 JUN87)
- Grade of Diesel Fuel Oil According to ASTM D975

Flash Point, ℃ (℉)	Water and Sediment, volume %	Carbon Residue on, 10 percent Residuum, %	Ash, weight
Min	Max	Max	Max
52 (125)	0.05	0.35	0.01

Distill Temp tures (°f 90%	pera- , °C F)	Viscosity Kinematic cSt or mm²/s at 40 ℃		Visc Say St at 10	bolt, JS	Sulfur weight %	Cop- per Strip Corro- sion	Ce- tane Num- ber	
Min	Max	Min	Max	Min	Max	Max	Max	Min	
282 (540)	338 (640)	1.9	4.1	32.6	40.1	0.50	No.3	40	

## ■ Checking Engine Oil Level

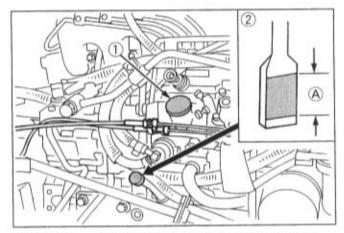


## CAUTION

To avoid personal injury:

- 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 lies between the two 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

(A) Oil level is acceptable within this range.

(2) Dipstick

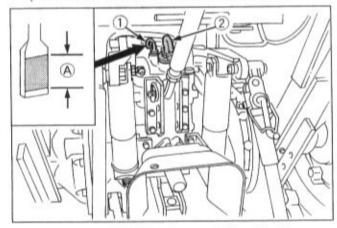
#### IMPORTANT:

- 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 machine on a flat surface, lower the implement 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" in Maintenance section)



(1) Gauge (2) Oil inlet

(A) Oil level is acceptable within this range.

#### IMPORTANT:

If oil level is low, do not run engine.

## ■Checking Coolant Level

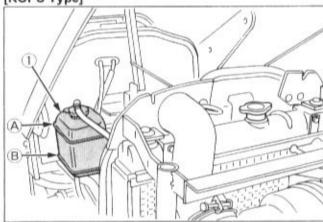


- Do not remove radiator cap while coolant is hot. When cool, slowly rotate cap to the first stop and allow sufficient time for excess pressure to escape before removing the cap completely.
- Check to see that the coolant level is between the "FULL" and "LOW" marks of recovery tank.
- When the coolant level drops due to evaporation, add water only up to the full level.

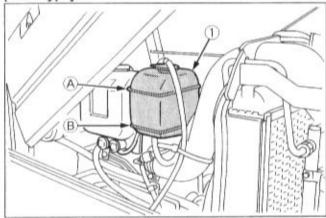
In case of leakage, add anti-freeze and water in the specified mixing ratio up to the full level.

(See "Flush Cooling System and Changing Coolant" in every 2 years maintenance)

[ROPS Type]







- (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.

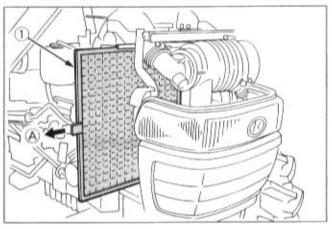
## ■Cleaning Grill, Radiator Screen and Oil Cooler



## CAUTION

To avoid personal injury:

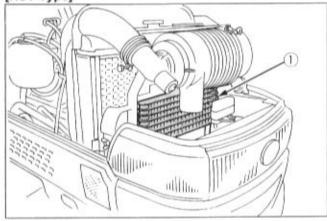
- Be sure to stop the engine before removing the screen.
- Check front grill and side screens to be sure they are clean of debris.
- 2. Detach the screen and remove all foreign materials.



(1) Radiator screen

(A) "DETACH"





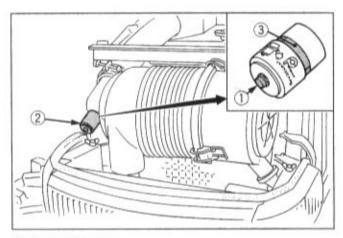
(1) Oil cooler

#### IMPORTANT:

 Grill and screen must be clean from debris to prevent engine from overheating and to allow good air intake for the air cleaner.

## ■Checking Dust Indicator

There is a dust indicator on the air cleaner body. If the red signal on the dust indicator is visible, clean the element immediately. (See "Cleaning Air Cleaner Primary Element" in Every 100 hours maintenance) Reset the red signal by pushing a "RESET" button after cleaning.



- (1) "RESET" button
- (2) Dust indicator
- (3) Red signal

## ■ Checking Brake Pedals and Clutch Pedal



#### WARNING

To avoid personal injury:

- Be sure brake pedals have equal adjustment when using locked together. Incorrect or unequal brake pedal adjustment can cause the tractor to swerve or roll-over.
- Inspect the brake and clutch pedals for free travel, and smooth operation.
- Adjust if incorrect measurement is found: (See "Adjusting Clutch and Brake Pedal" in every 100 hours maintenance)

#### ■ Checking Gauges, Meter and Easy Checker

- Inspect the instrument panel for broken gauge(s), meter(s) and Easy Checker<sup>™</sup> lamps.
- 2. Replace if broken.

## ■Checking Head Light, Hazard Light etc.

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

## ■Checking Seat Belt and ROPS

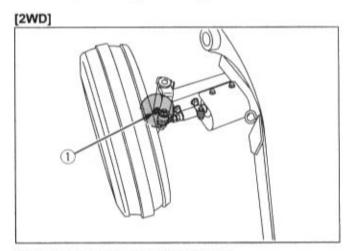
- Always check condition of seat belt and ROPS attaching hardware before operating tractor.
- 2. Replace if damaged.

## **EVERY 50 HOURS**

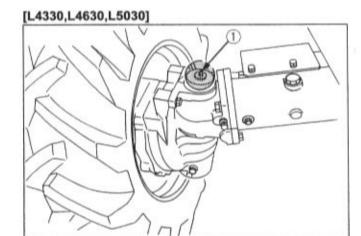
## **■**Lubricating Grease Fittings

Apply a small amount of multipurpose grease to the following points every 50 hours:

If you operated the machine in extremely wet and muddy conditions, lubricate grease fittings more often.



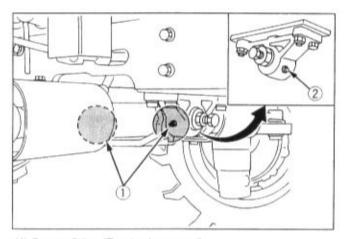
(1) Grease fitting (Knuckle shaft)[RH, LH]



(1) Grease fitting (Front wheel case support)[RH, LH]

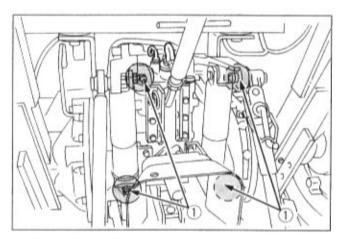
When apply a grease to forward front axle support, remove the breather plug and apply a grease until grease overflows from breather plug port.

After greasing reinstall the breather plug.

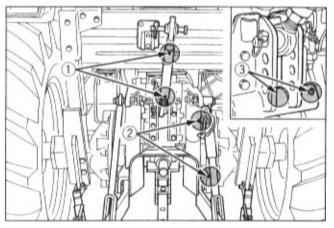


(1) Grease fitting (Front axle support)



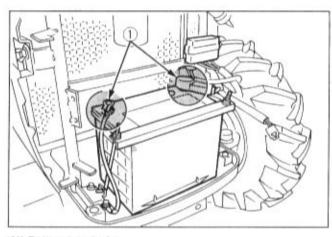


(1) Grease fitting (Lift cylinder)



(1) Grease fitting (Top link)

- (2) Grease fitting (Lifting rod) [RH]
- (3) Grease fitting (Top link bracket)



(1) Battery terminals

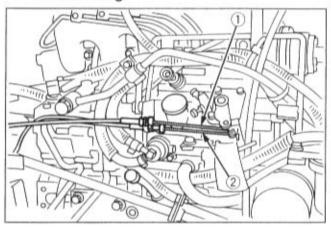
## **■**Oiling



## CAUTION

To avoid personal injury:

 Be sure to stop the engine and remove the key before oiling.



(1) Hand throttle cable

(2) Foot throttle cable [GST/Manual transmission type]

## ■Checking Engine Start System



## CAUTION

To avoid personal injury:

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

#### Preparation before testing.

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

#### [GST / Manual Transmission Type]

#### ◆ Test 1 : Switch for the shuttle shift lever.

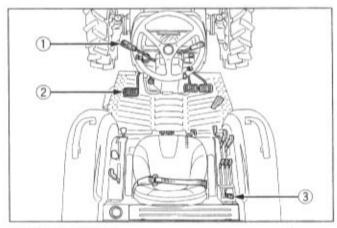
- 1. Sit on operator's seat.
- Shift the shuttle shift lever to the forward or reverse position.
- 3. Depress the clutch pedal fully.
- 4. Disengage the PTO clutch control lever.
- 5. Turn the key to "START" position.
- 6. The engine must not crank.
- If it cranks, consult your local KUBOTA Dealer for this service.

#### ♦ Test 2 :Switch for the PTO clutch control lever.

- 1. Sit on operator's seat.
- 2. Engage the PTO clutch control lever.
- 3. Depress the clutch pedal fully.
- 4. Shift the shuttle shift lever to the neutral position.
- 5. Turn the key to "START" position.
- 6. The engine must not crank.
- If it cranks, consult your local KUBOTA Dealer for this service.

#### Test 3 :Switch for the operator's seat

- 1. Sit on operator's seat.
- 2. Start the engine.
- 3. Engage the PTO clutch control lever.
- 4. Stand up. (Do not get off the machine.)
- The engine must shut off after approximately 1 second.
- If it does not stop, consult your local KUBOTA Dealer for this service.



- (1) Shuttle shift lever
- (2) Clutch pedal
- (3) PTO clutch control lever

#### [HST Type]

#### Test 1 : Switch for the speed control pedal.

- 1. Sit on operator's seat.
- Depress the speed control pedal to the desired direction.
- 3. Depress the clutch pedal fully.
- 4. Disengage the PTO clutch control lever.
- 5. Turn the key to "START" position.
- 6. The engine must not crank.

If it cranks, consult your local KUBOTA Dealer for this service.

#### ◆ Test 2 : Switch for the PTO clutch control lever.

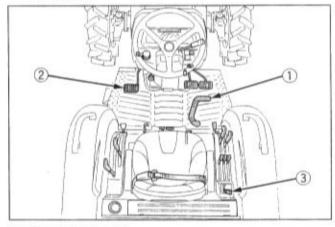
- 1. Sit on operator's seat.
- 2. Engage the PTO clutch control lever.
- 3. Depress the clutch pedal fully.
- 4. Place the speed control pedal in neutral position.
- 5. Turn the key to "START" position.
- 6. The engine must not crank.
- If it cranks, consult your local KUBOTA Dealer for this service.

#### Test 3: Switch for the clutch pedal.

- 1. Sit on operator's seat.
- 2. Disengage the PTO clutch control lever.
- 3. Place the speed control pedal in neutral position.
- 4. Release the clutch pedal.
- 5. Turn the key to "START" position.
- 6. The engine must not crank.
- If it cranks, consult your local KUBOTA Dealer for this service

#### Test 4 :Switch for the operator's seat

- 1. Sit on operator's seat.
- 2. Start the engine.
- 3. Engage the PTO clutch control lever.
- 4. Stand up. (Do not get off the machine.)
- The engine must shut off after approximately 1 second.
- If it not stops, consult your local KUBOTA Dealer for this service.



- (1) Speed control pedal
- (2) Clutch pedal
- (3) PTO clutch control lever

## ■Checking Wheel Bolt Torque



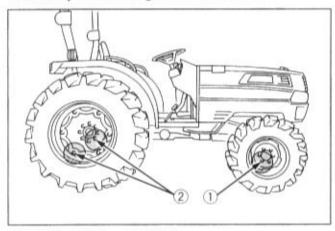
#### CAUTION

To avoid personal injury:

 Never operate tractor with a loose rim, wheel, or axle.

- Any time bolts and nuts are loosened, retighten to specified torque.
- Check all bolts and nuts frequently and keep them tight.

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



(1) 137 N-m (14kgf-m, 100ft-lbs) (2) 215 N-m (22kgf-m, 160ft-lbs)

## **EVERY 100 HOURS**

## ■Changing Engine Oil



## CAUTION

To avoid personal injury:

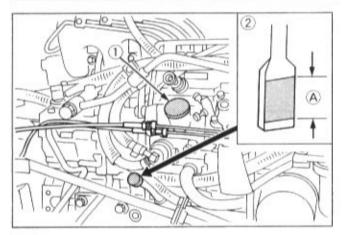
- Be sure to stop the engine before changing the oil.
- Allow engine to cool down sufficiently, oil can be hot and can burn.
- To drain the used oil, remove the drain plug at the bottom of the engine and drain the oil completely into the oil pan.

All the used oil can be drained out easily when the engine is still warm.

- 2. After draining reinstall the drain plug.
- Fill with the new oil up to the upper notch on the dipstick.

(See "LUBRICANTS" in Maintenance section)

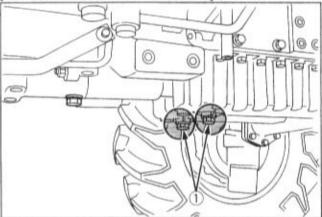
Oil	L3130,L3430,L3830	5.7 L (6.0 U.S.qts.)
capacity with filter	L4330,L4630,L5030	8.2 L (8.7 U.S.qts.)



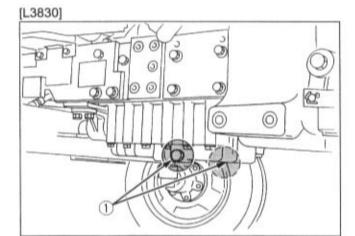
(1) Oil inlet

(A) Oil level is acceptable within this range





(1) Drain plug



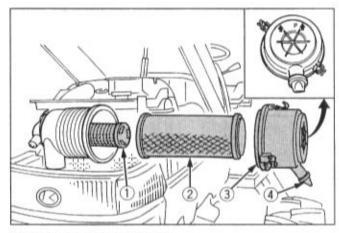
(1) Drain plug

## **■**Cleaning Air Cleaner Primary Element

- 1. Remove the air cleaner cover and primary element.
- 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 490kPa (5kgf/cm², 71 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.
- Replace air cleaner primary element:
   Once yearly or after every sixth cleaning, whichever comes first.

#### NOTE

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



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

#### 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 maintenance)

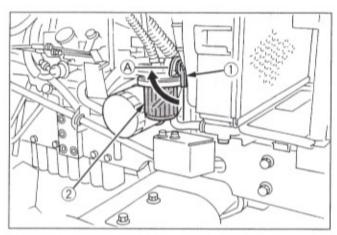
#### Evacuator Valve

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.

#### ■Cleaning Fuel Filter

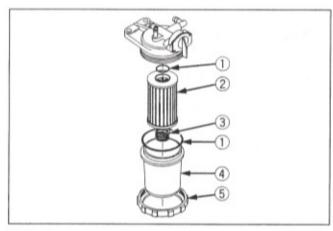
This job should not be done in the field, but in a clean place.

- 1. Close the fuel cock.
- Unscrew the screw ring and remove the filter bowl, and rinse the inside with kerosene.
- Take out the element and dip it in the kerosene to rinse
- After cleaning, reassemble the fuel filter, keeping out dust and dirt.
- Bleed the fuel system.
   (See "Bleeding Fuel System" in service as required.)



- (1) Fuel cock
- (2) Fuel filter bowl

(A) "CLOSE"



- (1) O ring
- (2) Filter element
- (3) Spring
- (4) Filter bowl
- (5) Screw ring

#### IMPORTANT:

 If dust and dirt enters the fuel system, the fuel pump and injection nozzles are subject to premature wear.
 To prevent this, be sure to clean the fuel filter bowl and element periodically.

## ■Adjusting Fan Belt Tension



#### CAUTION

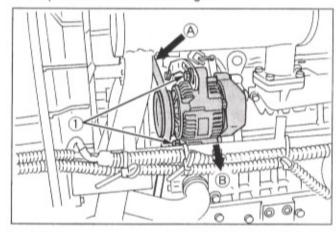
To avoid personal injury:

 Be sure to stop the engine before checking belt tension.

Proper fen 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. Stop the engine and remove the key.

- Apply moderate thumb pressure to belt between pulleys.
- 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.
- 4. Replace fan belt if it is damaged.

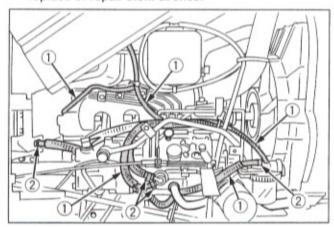


(1) Bolt

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

#### ■Checking Fuel Line

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



- (1) Fuel lines
- (2) Clamp bands

#### NOTE:

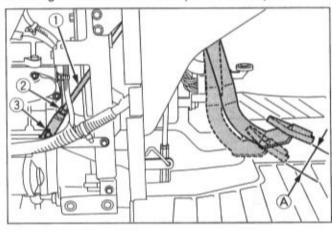
 If the fuel line is removed, be sure to properly bleed the fuel system.

(See "Bleeding Fuel System" in as required maintenance.)

## ■Adjusting Clutch Pedal

Proper clutch pedal free travel	20 to 30 mm (0.8 to 1.2 in.) on the pedal
------------------------------------	---

- 1. Stop the engine and remove the key.
- Slightly depress the clutch pedal and measure free travel at top of pedal stroke.
- If adjustment is needed, loosen the lock nut, remove the clevis pin and adjust the rod length within acceptable limits.
- 4. Retighten the lock nut and split the cotter pin.



- (1) Clutch rod
- (2) Nut
- (3) Clevis pin

(A) Free travel

#### ■Adjusting Brake Pedal



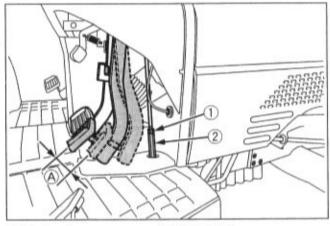
#### CAUTION

To avoid personal injury:

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

Proper brake pedal	15 to 20 mm (0.6 to 0.8 in.) on the pedal.
free travel	Keep the free travel in the right and left brake pedals equal.

- 1. Release the parking brake.
- Slightly depress the brake pedals and measure free travel at top of pedal stroke.
- If adjustment is needed, loosen the lock nut and turn the turnbuckle to adjust the rod length within acceptable limits.
- 4. Retighten the lock nut.



- (1) Lock nut
- (2) Turnbuckle

(A) Free travel

## **■**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:

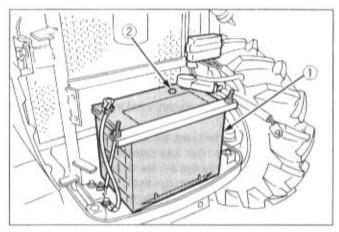
- Never remove the vent caps while the engine is running.
- Keep electrolyte away from eyes, hands and clothes. If you are spattered with it, wash it away completely with water immediately and get medical attention.
- Wear eye protection and rubber gloves when working around the battery.

The factory-installed battery is of non-refillable type. If the indicator turns white, do not charge the battery but replace it with new one.

Mishandling the battery shortens the service life and adds to maintenance costs.

The original battery is maintenance free, but needs some servicing.

If the battery is weak, the engine will be difficult to start and the lights will be dim. It is important to check the battery periodically.



(1) Battery (2) Indicator

#### How to read the indicator

Check the battery condition by reading the indicator.

	State of indicator display
Green	Specific gravity of electrolyte and quality of electrolyte are both in good condition.
Black	Needs charging battery.
White	Needs changing battery.

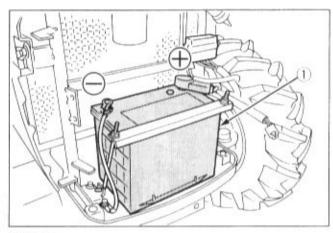
#### Battery Charging



#### 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

- 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.
- 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.
- The battery is charged if the indicator display turns green from black.
- When exchanging an old battery for a new one, use battery of equal specification shown in table 1.

Table 1

Tractor model	Battery TYPE	Volts (V)	Capacity at 5H.R(A.H)
L3130 L3430	75D26R	12	52
L3830 L4330 L4630 L5030	80D26R	12	55

Tractor model	Reserve Capacity (min)	Cold Cranking Amps	Normal Charging Rate (A)
L3130 L3430	123	490	6.5
L3830 L4330 L4630 L5030	133	582	6.5

#### Direction for Storage

 When storing the tractor for a long period, remove the battery from tractor, adjust the electrolyte to the proper level and store in a dry place out of direct sunlight. 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.

## **EVERY 200 HOURS**

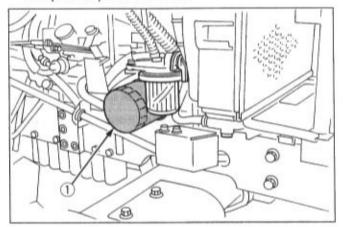
## Replacing Engine Oil Filter



## CAUTION

To avoid personal injury:

- Be sure to stop the engine before changing the oil filter cartridge.
- Allow engine to cool down sufficiently, oil can be hot and can burn.
- 1. Remove the oil filter.
- Put a film of clean engine oil on the rubber seal of the new filter.
- Tighten the filter quickly until it contacts the mounting surface.
  - Tighten filter by hand an additional 1/2 turn only.
- 4. 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.



(1) Engine oil filter

#### IMPORTANT:

- To prevent serious damage to the engine, use only a KUBOTA genuine filter.
- ■Replacing Hydraulic Oil Filter / Replacing Transmission Oil Filter [HST Type]

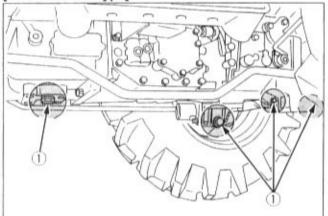


## CAUTION

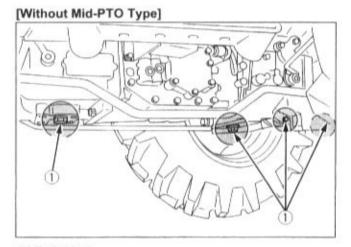
To avoid personal injury:

- Be sure to stop the engine before changing the oil filter cartridge.
- Allow engine to cool down sufficiently, oil can be hot and can burn.
- Remove the drain plugs at the bottom of the transmission case and drain the oil completely into the oil pan.
- 2. After draining reinstall the drain plugs.

#### [With Mid-PTO Type]

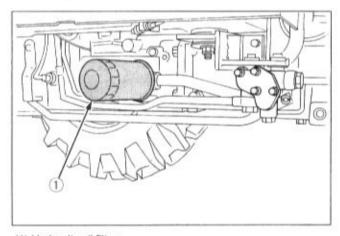


(1) Drain plugs

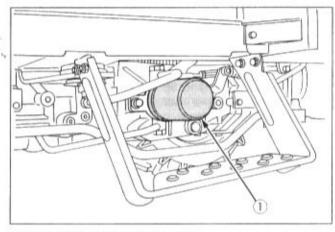


(1) Drain plugs

#### 3. Remove the oil filter.



(1) Hydraulic oil filter

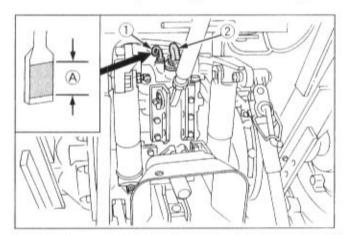


(1) Transmission oil filter [HST Type]

- Put a film of clean transmission oil on the rubber seal of the new filter.
- [Hydraulic oil filter]
   Quickly tighten the filter until it contacts the mounting
   surface, then tighten it by hand an additional 1/2 turn
   only.

[Transmission oil filter]

- Quickly tighten the filter until it contacts the mounting surface, then, with a filter wrench, tighten it an additional 1 turn only.
- After the new filters have been replaced, fill the transmission oil up to the upper notch on the dipstick.



(1) Gauge (2) Oil inlet

(A) Oil level is acceptable within this range.

- After running the engine for a few minutes, stop the engine and check the oil level again, add oil to the prescribed level.
- Make sure that the transmission fluid doesn't leak past the seal on the filter.

#### IMPORTANT:

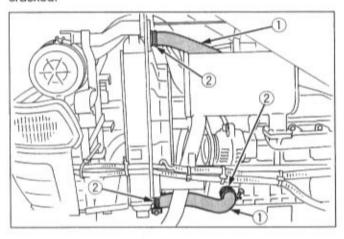
 To prevent serious damage to the hydraulic system, use only a KUBOTA genuine filter.

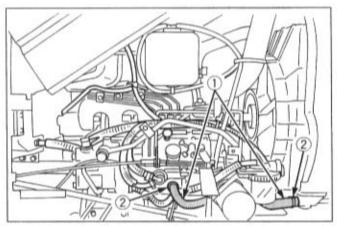
## ■ Checking Radiator Hose and Clamp

Check to see if radiator hoses are properly fixed every 200 hours of operation or six months, whichever comes first.

- If hose clamps are loose or water leaks, tighten bands securely.
- 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

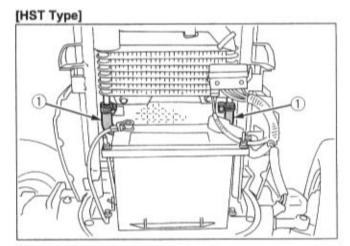
#### Precaution at Overheating

Take the following actions in the event the coolant temperature be nearly or more than the boiling point, what is called "Overheating"

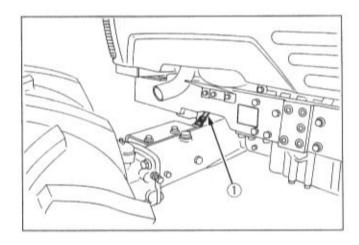
- Stop the machine operation in a safe place and keep the engine unloaded idling.
- Don't stop the engine suddenly, but stop it after about 5 minutes of unloaded idling.
- Keep yourself well away from the machine for further 10 minutes or while the steam blown out.
- Checking that there is no danger such as burn, get rid
  of the causes of overheating according to the manual,
  see "Troubleshooting" section, and then, start again
  the engine.

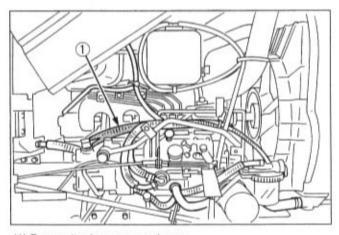
## ■Checking HST Oil Line [HST Type] / Checking Power Steering Line

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



(1) HST oil line

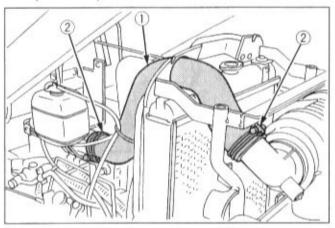




(1) Power steering pressure hoses

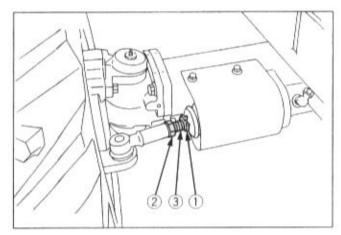
## ■Checking Intake Air Line

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



- (1) Hose
- (2) Hose clamps

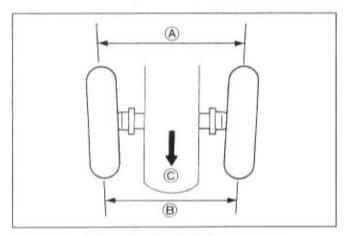
- Turn the tie-rod joint to adjust the rod length until the proper toe-in measurement is obtained.
- Retighten the tie-rod nut.
- 5. Attach the snap ring of the tie-rod joint.



- (1) Snap ring
- (2) Tie-rod nut
- (3) Tie-rod joint

#### ■Adjusting Toe-in

- 1. Park tractor on a flat place.
- Turn steering wheel so front wheels are in the straight ahead position.
- Lower the implement, lock the park brake and stop the engine.
- Measure distance between tire beads at front of tire, hub height.
- Measure distance between tire beads at rear of tire, hub height.
- Front distance should be 2 to 8mm less 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. Detach the snap ring.
- 2. Loosen the tie-rod nut.

## **EVERY 400 HOURS**

## ■Changing Transmission Fluid

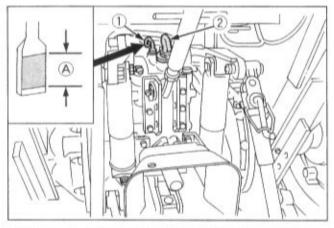


## CAUTION

To avoid personal injury:

- Allow engine to cool down sufficiently, oil can be hot and can burn.
- To drain the used oil, remove the drain plugs at the bottom of the transmission case and drain the oil completely into the oil pan.
- 2. After draining reinstall the drain plugs.
- Fill with the new KUBOTA SUPER UDT fluid up to the upper notch on the dipstick.
  - (See "LUBRICANTS" in Maintenance section)
- After running the engine for a few minutes, stop the engine and check the oil level again; add oil to prescribed level.

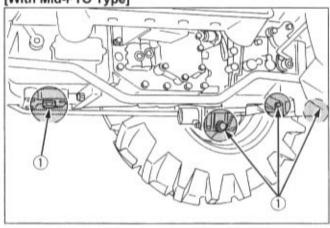
Oil Capacity	L3130, L3430	42 L (11.1 U.S.gals.)
	L3830, L4330, L4630	43 L (11.4 U.S.gals.)
	L5030	45 L (11.9 U.S.gals.)



(1) Gauge (2) Oil inlet

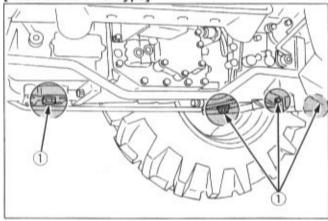
(A) Oil level is acceptable within this range





(1) Drain plugs

[Without Mid-PTO Type]



(1) Drain plugs

#### IMPORTANT:

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

Run the engine at medium speed for a few minutes to prevent damage to the transmission.

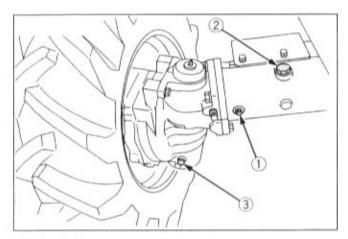
#### ■ Replacing Fuel Filter Element

(See "Cleaning fuel filter" in every 100 hours maintenance)

## ■Changing Front Axle Case Oil

- To drain the used oil, remove the right and left drain plugs and filling plug at the front axle case and drain the oil completely into the oil pan.
- 2. After draining reinstall the drain plugs.
- 3. Remove the oil level check plug.
- Fill with the new oil up to the check plug port. (See "LUBRICANTS" in Maintenance section)
- 5. After filling reinstall the filling plug and check plug.

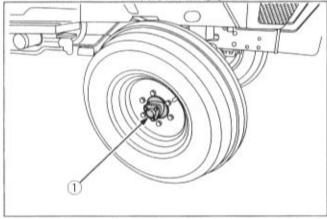
Oil	L3130,L3430,L3830	6.5 L (6.9 U.S.qts.)
capacity	L4330,L4630,L5030	9.0 L (9.5 U.S.qts.)



- (1) Check plug
- (2) Filling plug
- (3) Drain plug

#### ■ Lubricating Grease Fitting [2WD]

Detach the cover, and apply bearing grease.



(1) Front wheel hub cover

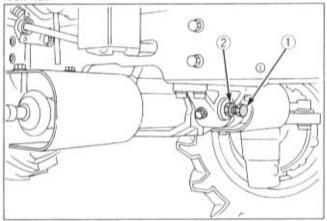
## **EVERY 600 HOURS**

## ■Adjusting Front Axle Pivot

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

#### Adjusting procedure

Loosen the lock nut, tighten the adjusting screw all the way, and then loosen the screw by 1/6 turn. Retighten the lock nut.



- (1) Adjusting screw
- (2) Lock nut

## **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 maintenance)

## **EVERY 2 YEAR**

## ■Flush Cooling System and Changing Coolant

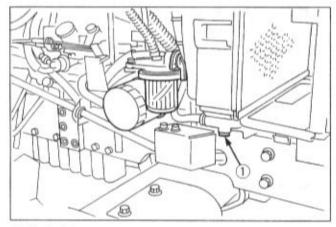


## CAUTION

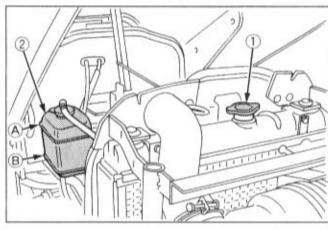
To avoid personal injury:

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

Coolant capacity	L3130,L3430	6.0L (6.3 U.S.gts.)
	L3830,L4330,L4630	7.5 L (7.9 U.S.qts.)
	L5030	8.0 L (8.5 U.S.qts.)



(1) Drain plug



- (1) Radiator cap
- (A) "FULL"
- (2) Recovery tank
- (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.

#### NOTE:

 On cab type machines, fresh water circulates through the heater. This means that one more liter or so of fresh water is required.

In changing fresh water, pour fresh water up to the filler port of the reserve tank. Turn ON the heater (shift the temperature control lever toward WARM), and run the engine for a while in order to warm fresh water. Then stop the engine.

When fresh water has cooled down, some of the fresh water in the reserve tank is sucked. Now the reserve tank is appropriately filled with fresh water.

#### ■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 reserve tank with the mixture.

- Long-life coolant (hereafter LLC) comes in several types. Use ethylene glycol (EG) type for this engine.
- 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.
- Mixing the LLC Put the LLC in cooling w

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 %	Freezing Point	Boiling Point*
Anti-freeze	°C	°C
40	-24	106
50	-37	108

- \* At 1.013 x 10°Pa (760mmHg) 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
  - 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.)
- 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.
- 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 in to the radiator.

## ■ Replacing Radiator Hose (Water pipes)

Replace the hoses and clamps.

(See "Checking Radiator Hose and Clamp" in every 200 hours maintenance)

## ■Replacing Power Steering Hose

Replace the hoses and clamps.

(See "Checking Power Steering line" in every 200 hours maintenance)

## ■ Replacing HST Oil Line [HST Type]

Replace the hoses and clamps.

(See "Checking HST Oil Line" in every 200 hours maintenance)

## ■Replacing Fuel Hose

Replace the hoses and clamps.

See "Checking Fuel line" in every 100 hours maintenance)

## ■Replacing Intake Air Line

Consult your local KUBOTA Dealer for this service.

## SERVICE AS REQUIRED

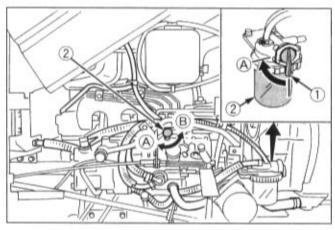
#### ■Bleeding Fuel System

Air must be removed:

- 1. When the fuel filter or lines are removed.
- 2. When tank is completely empty.
- After the tractor has not been used for a long period of time.

#### Bleeding procedure is as follows:

1. Fill the fuel tank with fuel, and open the fuel cock.



- (1) Fuel cock (2) Air vent cock
- (A) "CLOSE"
- (B) "OPEN"
- 2. Open the air vent cock on the fuel injection pump.
- Start the engine and run for about 30 seconds, and then stop the engine.
- 4. Close the air vent cock.

#### IMPORTANT:

 Always close the air vent cock except for bleeding fuel lines.

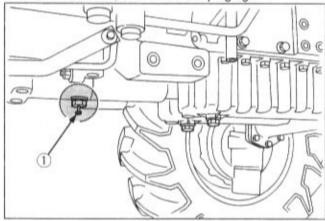
Otherwise, engine runs irregularly or stalls frequently.

#### ■ Draining Clutch Housing Water

The tractor is equipped with split pin plug under the clutch housing.

After operating in rain, snow or tractor has been washed, water may get into the clutch housing. Check it by pushing in the split pin.

If water enters into the clutch housing, remove the plug and drain the water, then install the plug again.



(1) Split pin plugs

#### ■Replacing Fuse

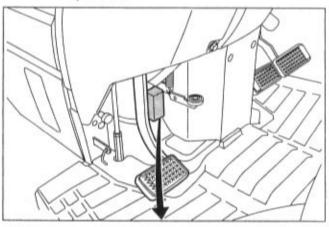
The tractor electrical system is protected from potential damage by fuses.

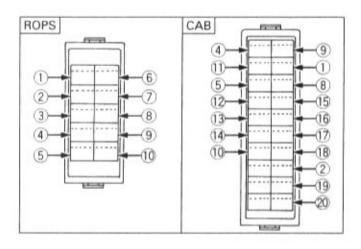
A blown fuse indicates that there is an overload or short somewhere in the electrical system.

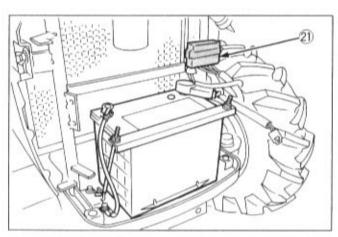
If any of the fuses should blow, replace with a new one of the same capacity.

#### 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 tractor electrical system. Refer to the troubleshooting section of this manual or your local KUBOTA Dealer for specific information dealing with electrical problems.







## **♦** Protected circuit

No. (A)		Protected circuit	ROPS	CAB	
1	7.5 Alternator		0	0	
(2)	15	Head lights	0	0	
(3)	15	Hazard	0		
4	5	Panel	0	0	
(5)	5	T/M Controller 1 [GST Type]	0	0	
(6)	7.5	Work light	0	1000	
7	5	Brake lamp switch	0	***	
(8)	10	T/M Controller 2 [GST Type]	0	0	
9	5	Key stop	0	0	
(10)	30	Starter relay	0	0	
11	20	Hazard		0	
(12)	10	Dome lamp	***	0	
(13)	15	Aircon blower	***	0	
(14)	10	Radio cassete		0	
(15)	20	Cigar lighter		0	
(16)	7.5 Aircon compressor			0	
07)	30	30 Wiper		0	
(18)	15	15 Flasher		0	
(19)	15	Work light		0	
20	30	Defogger		0	
20	Slow blow fuse			0	

## ■Replacing Light Bulb

- Head lights and rear combination lights:
   Take the bulb out of the light body and replace with a new one.
- Other lights:
   Detach the lens and replace the bulb.

Light	Capacity	
Light	ROPS	CAB
Head lights	25W / 25W	
Tail light	8W	
Hazard and Turn signal light	27W	
Hazard and Turn signal light (rear)		23W
Hazard and Turn signal light (front)		23W
Side marker light		10W
Room light	0.535	10W
Work light		27W
Instrument panel light	1.1W	

## **STORAGE**



## CAUTION

To avoid personal injury:

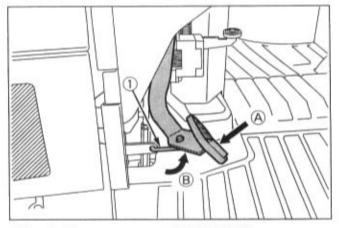
- Do not clean the machine with engine running.
- To avoid the danger of exhaust fume poisoning, do not operate the engine in a closed building without proper ventilation.
- When storing, remove the key from the key switch to avoid unauthorized persons from operating the tractor and getting injured.

## TRACTOR STORAGE

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

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

- Check the bolts and nuts for looseness, and tighten if necessary.
- Apply grease to tractor areas where bare metal will rust also to pivot areas.
- 3. Detach the weights from the tractor body.
- 4. Inflate the tires to a pressure a little higher than usual.
- Change the engine oil and run the engine to circulate oil throughout the engine block and internal moving parts for about five minutes.
- 6. Pull the engine stop knob all the way out.
- Keep the clutch disengaged. If the clutch is left engaged for a long period of time, the clutch plate may rust, making clutch disengagement impossible at the next operation.



- (1) Lock plate
- (A) "DEPRESS"
- (B) "HOOK TO LOCK"
- With all implements lowered to the ground, coat any exposed hydraulic cylinder piston rods with grease.

- Remove the battery from the tractor. Store the battery following the battery storage procedures. (See "Battery condition" in every 100 hours in periodic service section)
- Keep the tractor in a dry place where the tractor is sheltered from the elements. Cover the tractor.
- 11. Store the tractor indoors in a dry area that is protected from sunlight and excessive heat. If the tractor must be stored outdoors, cover it with a waterproof tarpaulin. Jack the tractor up and place blocks under the front and rear axles so that all four tires are off the ground. Keep the tires out of direct sunlight and extreme heat.

#### IMPORTANT:

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

# REMOVING THE TRACTOR FROM STORAGE

- Check the tire air pressure and inflate the tires if they are low.
- Jack the tractor up and remove the support blocks from under the front and rear axles.
- Install the battery. Before installing the battery, be sure it is fully charged.
- 4. Check the fan belt tension.
- Check all fluid levels (engine oil, transmission/ hydraulic oil, engine coolant and any attached implements).
- 6. Start the engine. Observe all gauges. If all gauges are functioning properly and reading normal, move the tractor outside. Once outside, park the tractor and let the engine idle for at least five minutes. Shut the engine off and walk around tractor and make a visual inspection looking for evidence of oil or water leaks.
- With the engine fully warmed up, release the parking brake and test the brakes for proper adjustment as you move forward. Adjust the brakes as necessary.

# **TROUBLESHOOTING**

## **ENGINE TROUBLESHOOTING**

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

Trouble		Cause	Countermeasure	
Engine is difficult to start or won't start.		No fuel flow.	<ul> <li>Check the fuel tank and the fuel filter.</li> <li>Replace filter if necessary.</li> </ul>	
		Air or water is in the fuel system.	<ul> <li>Check to see if the fuel line coupler bolt are nut are tight.</li> <li>Bleed the fuel system (See "Bleeding Fuel System" in as require maintenance)</li> </ul>	
		<ul> <li>In winter, oil viscosity increases, and engine revolution is slow.</li> </ul>	<ul> <li>Use oils of different viscosities, depending on ambient temperatures.</li> <li>Use engine block heater (Optional)</li> </ul>	
		<ul> <li>Battery becomes weak and the engine does not turn over quick enough.</li> </ul>		
Insufficient engine power.		<ul><li>Insufficient or dirty fuel.</li><li>The air cleaner is clogged.</li></ul>	Check the fuel system.     Clean or replace the element.	
Engine stops sudde	nly.	Insufficient fuel.	Refuel. Bleed the fuel system if necessary.	
Exhaust fumes are colored.	Black	<ul> <li>Fuel quality is poor.</li> <li>Too much oil.</li> <li>The air cleaner is clogged.</li> </ul>	<ul> <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> <li>The inside of exhaust muffler is dumped with fuel.</li> <li>Injection nozzle trouble.</li> <li>Fuel quality is poor.</li> </ul>	<ul> <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		Engine overloaded	Shift to lower gear or reduce load.	
		Low coolant level	Fill cooling system to the correct level; check radiator and hoses for loose connections or leaks.	
		Loose or defective fan belt	Adjust or replace fan belt.	
		Dirty radiator core or grille screens	Remove all trash.	
		Coolant flow route corroded	Flush cooling system.	

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

## 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, and transportation.

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



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