

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 of 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

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. Nineteen 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 which are intended to help individuals and nations fulfill the potential inherent in their environment. 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.

California Proposition 65

▲ WARNING ▲

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

UNIVERSAL SYMBOLS

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

	Safety Alert Symbol		Position Control-Raised Position
	Diesel Fuel		Position Control-Lowered Position
	Fuel-Level		Draft Control-Shallow Position
	Engine-Rotational Speed		Draft Control-Deep Position
	Hourmeter/Elapsed Operating Hours		3-Point Lowering Speed Control
	Engine Coolant-Temperature		Remote Cylinder-Retract
	Engine Coolant-Temperature		Remote Cylinder-Extend
	Parking Brake		Hazard Warning Lights
	Engine Intake/Combustion Air-Filter		Headlight-Low Beam
	Battery Charging Condition		Headlight-High Beam
	Engine Oil-Pressure		Four-Wheel Drive-On
	Turn Signal		Four-Wheel Drive-Off
	Engine-Stop		Four-Wheel Drive-On
	Electrical power-accessories		Fast
	Engine-Run		Slow
	Diesel Preheat/Glow Plugs(Low Temperature Start Aid)		Creep
	Engine-Start		Tractor-Forward Movement-Overhead View of Machine
	Engine-Emergency Stop		Tractor-Rearward Movement-Overhead View of Machine
	Power Take-Off Clutch Control-Off Position		Engine Speed Control
	Power Take-Off Clutch Control-On Position		
	Differential Lock		

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. 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.



SAFETY FIRST

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



DANGER : Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



WARNING : Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION: Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

IMPORTANT : Indicates that equipment or property damage could result if instructions are not followed.

NOTE : Gives helpful information.

CONTENTS

▲ SAFE OPERATION	1	HYDRAULIC UNIT	44
SERVICING OF TRACTOR	11	3-POINT HITCH CONTROL SYSTEM ...	44
SPECIFICATIONS	12	REMOTE HYDRAULIC	
SPECIFICATION TABLE	12	CONTROL SYSTEM	45
TRAVELING SPEEDS	13	TIRES, WHEELS AND BALLAST	50
IMPLEMENT LIMITATIONS	15	TIRES.....	50
		WHEEL ADJUSTMENT	50
		BALLAST.....	52
		CAB OPERATION	54
		DOOR AND WINDOW	54
		DOME LIGHT	55
		WORK LIGHT	55
		WIPER	56
		AIR CONDITIONER.....	56
		REAR/SIDE DEFOGGER	
		(if equipped)	62
		CIGARETTE LIGHTER/	
		ASHTRAY.....	62
		INSTALLING THE	
		IMPLEMENT CONTROL BOX	62
Operation Section			
INSTRUMENT PANEL AND CONTROLS ...	17		
PRE-OPERATION CHECK	19		
DAILY CHECK	19		
OPERATING THE ENGINE	20		
STARTING THE ENGINE.....	20		
STOPPING THE ENGINE.....	23		
WARMING UP	24		
JUMP STARTING	24		
OPERATING THE TRACTOR	25		
OPERATING NEW TRACTOR	25		
STARTING	26		
STOPPING	33		
CHECK DURING DRIVING	33		
PARKING.....	34		
OPERATING TECHNIQUES	35		
PTO	37		
PTO OPERATION.....	37		
THREE-POINT HITCH & DRAWBAR	39		
3-POINT HITCH	40		
DRAWBAR	43		

Maintenance Section

MAINTENANCE	63
SERVICE INTERVALS	63
LUBRICANTS	65
PERIODIC SERVICE	66
HOW TO OPEN THE HOOD	66
DAILY CHECK	67
EVERY 50 HOURS	71
EVERY 100 HOURS	72
EVERY 200 HOURS	77
EVERY 300 HOURS	83
EVERY 400 HOURS	84
EVERY 600 HOURS	86
EVERY 800 HOURS	90
EVERY 1500 HOURS	90
EVERY 3000 HOURS	90
EVERY 1 YEAR.....	90
EVERY 2 YEARS	90
SERVICE AS REQUIRED	92
STORAGE	96
TRACTOR STORAGE	96
REMOVING THE TRACTOR FROM STORAGE	96
TROUBLESHOOTING	97
ENGINE TROUBLESHOOTING	97
OPTIONS	98

SAFE OPERATION

Careful operation is your best insurance against an accident.

Read and understand this manual carefully before operating the tractor.

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

1. BEFORE OPERATING THE TRACTOR

1. Know your equipment and its limitations. Read this entire manual before attempting to start and operate the tractor.
2. Pay special attention to the danger, warning and caution labels on the tractor.
3. 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.

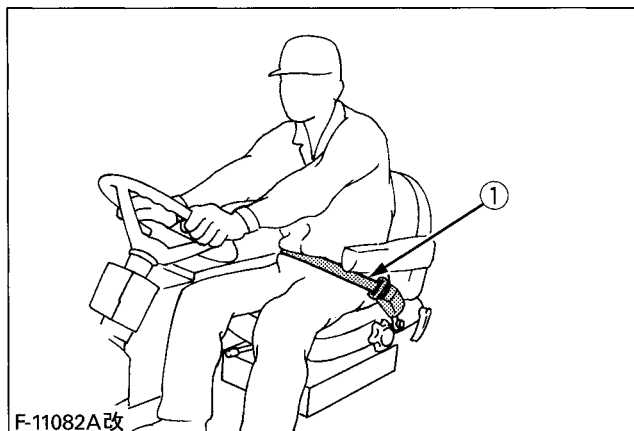
If the tractor is equipped with a foldable ROPS it may be temporarily folded down only when absolutely necessary for areas with height constraints.

(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.

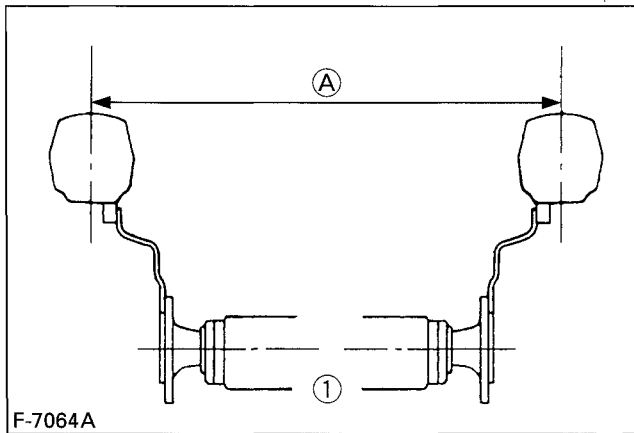


F-11082A改

(1) Seat belt

4. 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.
5. Do not operate tractor or any implement attached to it while under the influence of alcohol, medication, controlled substances or while fatigued.
6. Carefully check the vicinity before operating 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.
7. Before allowing other people to use your tractor, explain how to operate and have them read this manual before operation.
8. 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.
9. 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.)
11. Keep your tractor clean. Dirt, grease, and trash build up may contribute to fires and lead to personal injury.
12. 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.

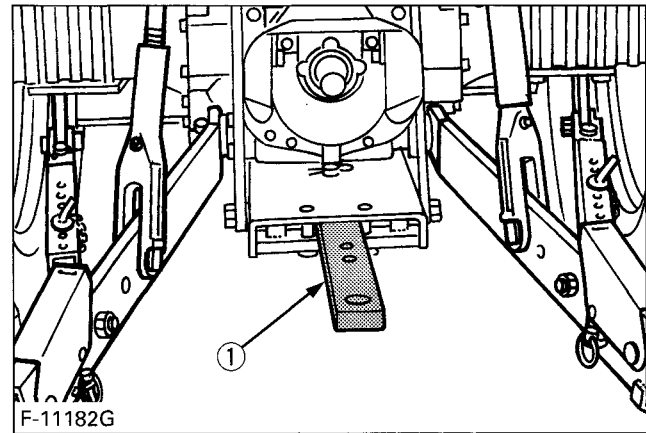
2. OPERATING THE TRACTOR

◆ Starting

1. Always sit in the operator's seat when starting engine or operating levers or controls.
2. Before starting the engine, make sure that all levers (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.
3. 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.
4. Do not operate or idle engine in a non-ventilated area. Carbon monoxide gas is colorless, odorless, and deadly.

◆ Working

1. 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

2. Keep all shields and guards in place. Replace any that are missing or damaged.
3. Avoid sudden starts. To avoid upsets, slow down when turning, on uneven ground, and before stopping.
4. The tractor cannot turn with the rear wheel or 4-wheel 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.
6. Watch where you are going at all times. Watch for and avoid obstacles. Be alert at row ends, near trees, and other obstructions.
7. 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.

1. Never assume that children will remain where you last saw them.
2. Keep children out of the work area and under the watchful eye of another responsible adult.
3. Be alert and shut your machine down if children enter the work area.
4. Never carry children on your machine. There is no safe place for them to ride. They may fall off and be run over or interfere with your control of the machine.
5. Never allow children to operate the machine even under adult supervision.
6. Never allow children to play on the machine or on the implement.
7. 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.

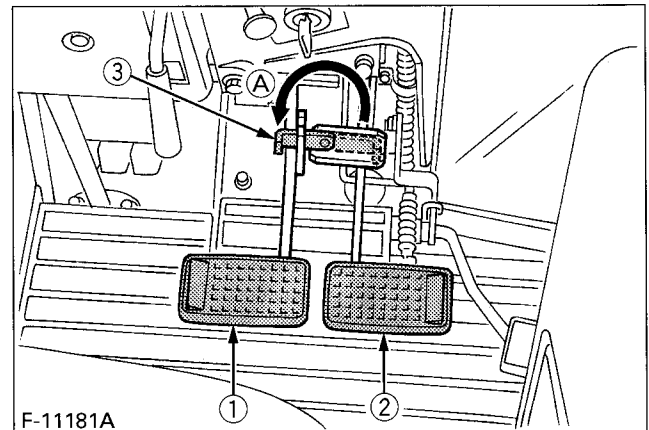
◆ Operating on slopes

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

1. To avoid upsets, always back up steep slopes. If you cannot back up the slope or if you feel uneasy on it, do not operate on it. Stay off slopes too steep for safe operation.
2. Driving forward out of a ditch, mired condition or up a steep slope increases the risk of a 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.
3. Keep all movement on slopes slow and gradual. Do not make sudden changes in speed or direction.
4. 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.
5. To improve stability on slope, set widest wheel tread as shown in "TIRE,WHEEL AND BALLAST" section. Follow recommendations for proper ballasting.

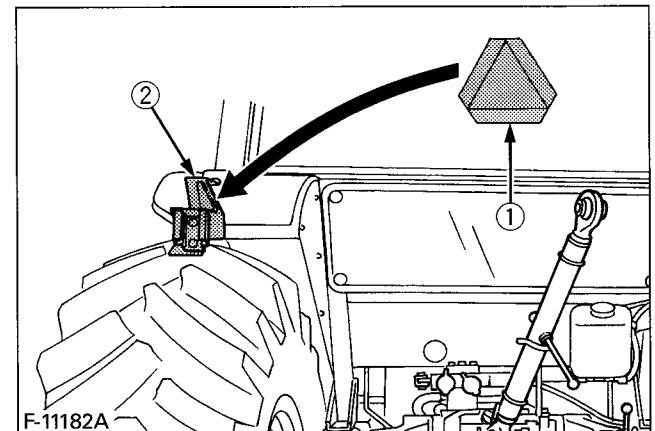
◆ Driving the tractor on the road

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



(1) Brake pedal (LH) (A) Whenever traveling on the road
(2) Brake pedal (RH)
(3) Brake pedal lock

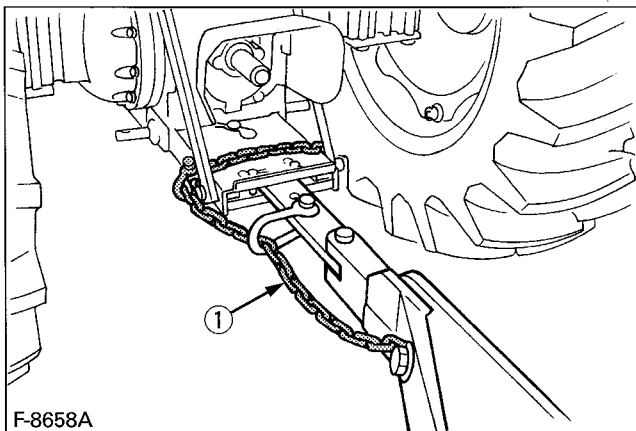
2. Check the front wheel engagement. The braking characteristics are different between two and four wheel drive. Be aware of the difference and use carefully.
3. Always slow the tractor down before turning. Turning at high speed may tip the tractor over.
4. Make sure that the Slow Moving Vehicle (SMV) sign is clean and visible. Use hazard lights and turn signals as required.



(1) SMV emblem
(2) Bracket

5. Observe all local traffic and safety regulations.
6. Turn the headlights on. Dim them when meeting another vehicle.
7. Drive at speeds that allow you to maintain control at all times.
8. Do not apply the differential lock while traveling at road speeds. The tractor may run out of control.
9. Avoid sudden motions of the steering wheel as they can lead to a dangerous loss of stability. The risk is especially great when the tractor is traveling at road speeds.

10. 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.



F-8658A

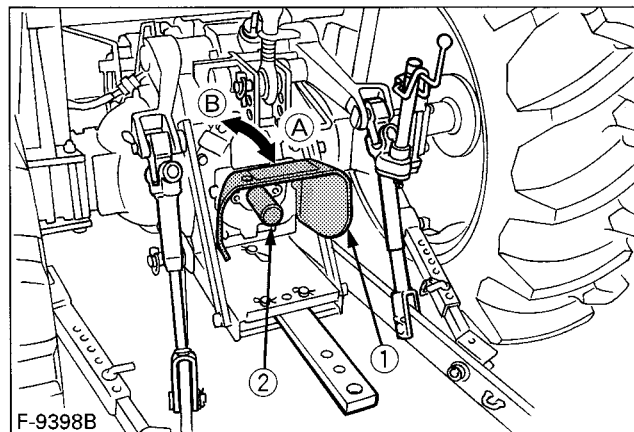
(1) Safety chain

3. PARKING THE TRACTOR

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

4. OPERATING THE PTO

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



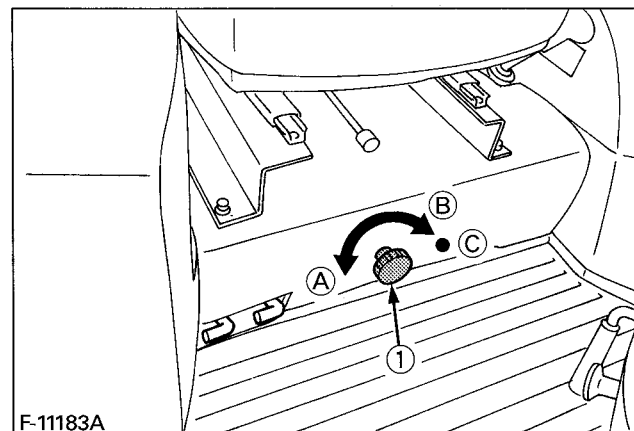
F-9398B

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

3. 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

1. Use the 3-point hitch only with equipment designed for 3-point hitch usage.
2. When using a 3-point hitch mounted implement, be sure to install the proper counterbalance weight on the front of the tractor.
3. When transporting on the road, set the implement lowering speed knob in the "LOCK" position to hold the implement in the raised position.



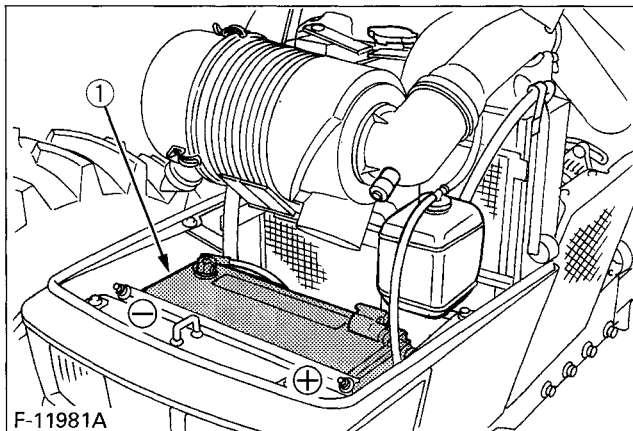
F-11183A

(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.

1. Allow the tractor time to cool off before working on or near the engine, muffler, radiator, etc.
2. Always stop the engine before refueling. Avoid spills and overfilling.
3. Do not smoke when working around battery or when refueling. Keep all sparks and flames away from battery and fuel tank. The battery presents an explosive hazard, because it gives off hydrogen and oxygen especially when recharging.
4. Before "jump starting" a dead battery, read and follow all of the instructions. (See "JUMP STARTING" in "OPERATING THE ENGINE" section)
5. Keep first aid kit and fire extinguisher handy at all times.
6. 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.
7. Disconnect the battery's ground cable before working on or near electric components.
8. To avoid the possibility of battery explosion, do not use or charge the refillable type battery if the fluid level is below the LOWER (lower limit level) mark. Check the fluid level regularly and add distilled water as required so that the fluid level is between the UPPER and LOWER levels.
9. To avoid sparks from an accidental short circuit, always disconnect the battery's ground cable (-) first and reconnect it last.

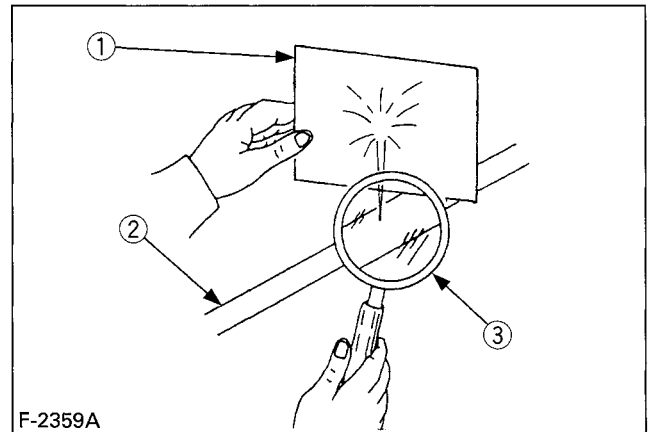


F-11981A

(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.



F-2359A

(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.

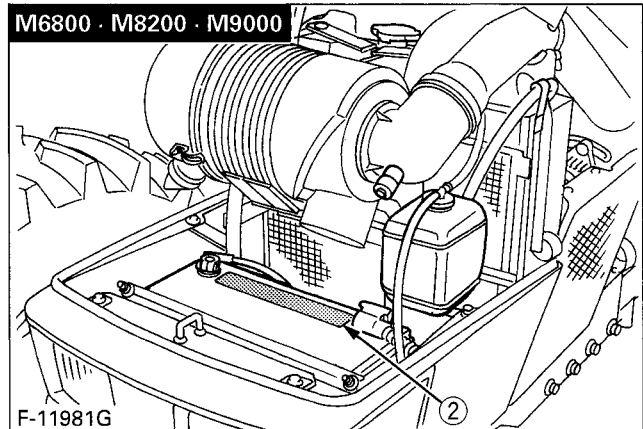
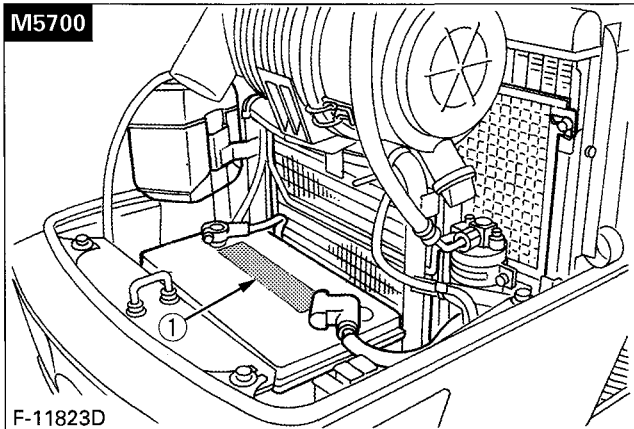
8. DANGER, WARNING AND CAUTION LABELS

① Part No. 3A999-1274-1[M5700]

⚠ DANGER / POISON				CAUTION • JUMP STARTING • INSTALLATION	
 SHIELD EYES EXPLOSIVE GASES CAN CAUSE BLINDNESS OR INJURY	 NO • SPARKS • FLAMES • SMOKING	 SULFURIC ACID CAN CAUSE BLINDNESS OR SEVERE BURNS	 FLUSH EYES IMMEDIATELY WITH WATER	Don't let vehicles touch. Put emergency brake ON. Set both vehicles in PARK (NEUTRAL if manual transmission) and turn ignition and electrical accessories off. Attach jumper cables in this order: ① dead positive to ② good positive; ③ good negative to ④ engine block or frame of dead vehicle. Start GOOD VEHICLE and let run for a few minutes. Then start DEAD VEHICLE. Remove cables in reverse order: ④ ③ ② ①. ALWAYS CONNECT GROUNDED CABLE LAST. CLEAN AND SECURELY CONNECT EACH CABLE END TO BATTERY TERMINAL OF SAME POLARITY. SECURELY FASTEN BATTERY WITH PROPERLY INSTALLED HOLD-DOWN.	
KEEP OUT OF THE REACH OF CHILDREN DO NOT TIP KEEP VENT CAPS TIGHT AND LEVEL			GET MEDICAL HELP FAST		

② Part No. 3A999-1275-1[M6800 · M8200 · M9000]

⚠ DANGER/POISON				CAUTION • JUMP STARTING • INSTALLATION	
 SHIELD EYES EXPLOSIVE GASES CAN CAUSE BLINDNESS OR INJURY	 NO • SPARKS • FLAMES • SMOKING	 SULFURIC ACID CAN CAUSE BLINDNESS OR SEVERE BURNS	 FLUSH EYES IMMEDIATELY WITH WATER	Don't let vehicles touch. Put emergency brake ON. Set both vehicles in PARK (NEUTRAL if manual transmission) and turn ignition and electrical accessories off. Attach jumper cables in this order: ① dead positive to ② good positive; ③ good negative to ④ engine block or frame of dead vehicle. Start GOOD VEHICLE and let run for a few minutes. Then start DEAD VEHICLE. Remove cables in reverse order: ④ ③ ② ①. ALWAYS CONNECT GROUNDED CABLE LAST. CLEAN AND SECURELY CONNECT EACH CABLE END TO BATTERY TERMINAL OF SAME POLARITY. SECURELY FASTEN BATTERY WITH PROPERLY INSTALLED HOLD-DOWN.	
KEEP OUT OF THE REACH OF CHILDREN DO NOT TIP			GET MEDICAL HELP FAST		



① Part No. 6C150-4743-1

 WARNING	<p>BEFORE DISMOUNTING TRACTOR:</p> <ol style="list-style-type: none"> 1. ALWAYS SET PARKING BRAKE. Leaving transmission in gear with the engine stopped will not prevent tractor from rolling. 2. PARK ON LEVEL GROUND WHENEVER POSSIBLE. If parking on a slope, position tractor across the slope. 3. LOWER ALL IMPLEMENTS TO THE GROUND. 4. STOP THE ENGINE.
	

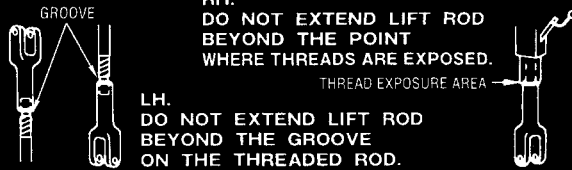
② Part No. TA040-4965-2

	<p style="text-align: center;">⚠ DANGER</p> <p>TO AVOID POSSIBLE INJURY OR DEATH FROM A MACHINE RUNAWAY.</p> <ol style="list-style-type: none"> 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. 2. Start engine only from operator's seat with transmission and PTO OFF. Never start engine while standing on the ground.
---	--


④ Part No. TA040-4935-1

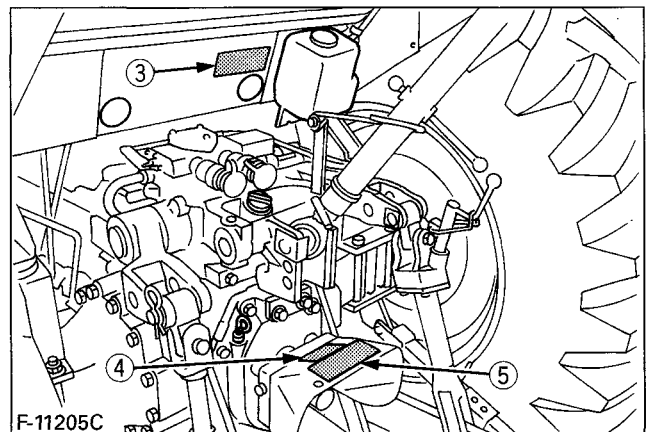
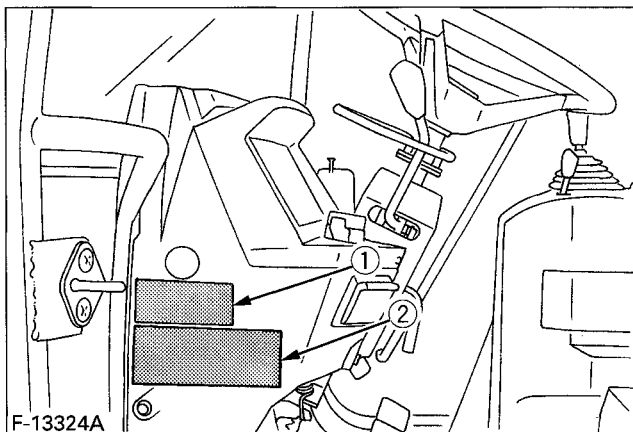
<p style="text-align: center;">⚠ WARNING</p> <p>TO AVOID PERSONAL INJURY:</p> <ol style="list-style-type: none"> 1. Attach pulled or towed loads to the drawbar only. 2. Use the 3-point hitch only with equipment designed for 3-point hitch usage.
--

③ Part No. 3A111-9856-3

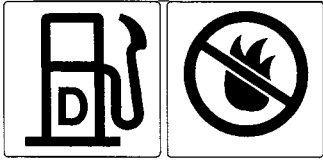
<p style="text-align: center;">⚠ CAUTION</p> <p>TO AVOID INJURY FROM SEPARATION:</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>RH. DO NOT EXTEND LIFT ROD BEYOND THE POINT WHERE THREADS ARE EXPOSED.</p> </div> <div style="width: 45%;"> <p>LH. DO NOT EXTEND LIFT ROD BEYOND THE GROOVE ON THE THREADED ROD.</p> </div> </div>	
	

⑤ Part No. TA040-4959-3

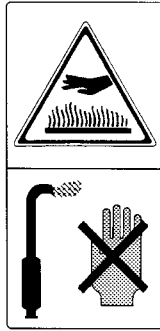
	<p style="text-align: center;">⚠ WARNING</p> <p>TO AVOID PERSONAL INJURY.</p> <ol style="list-style-type: none"> 1. Keep PTO shield in place at all times. 2. Do not operate the PTO at speeds faster than the speed recommended by the implement manufacturer. 3. For trailing PTO-driven implements, set drawbar at towing position. (see operator's manual)
--	---



① Part No. TA040-4956-2
Diesel fuel
only No fire



② Part No. 32310-4958-1
Do not touch hot surface
like muffler, etc.



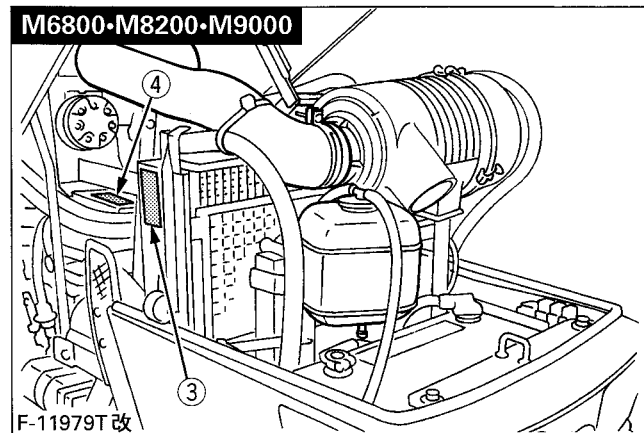
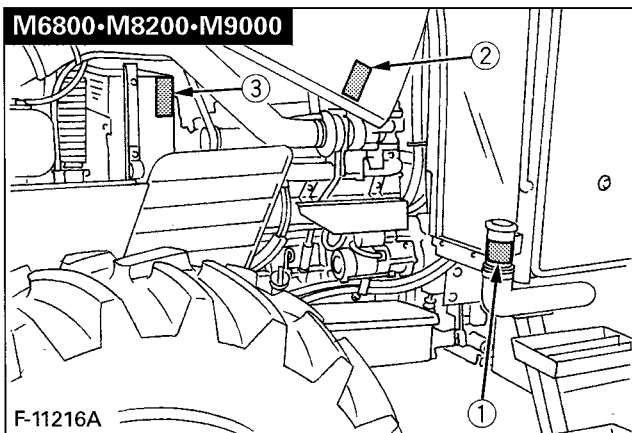
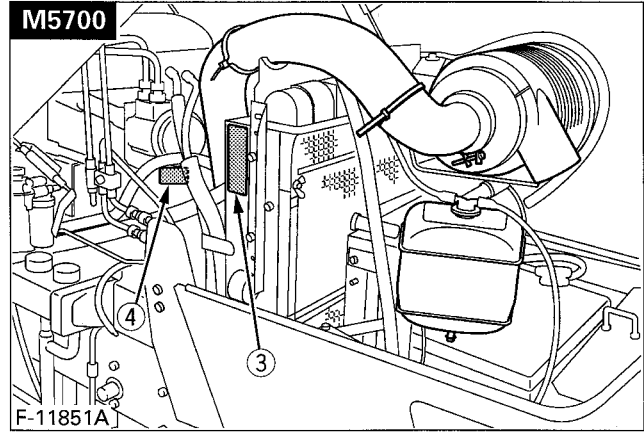
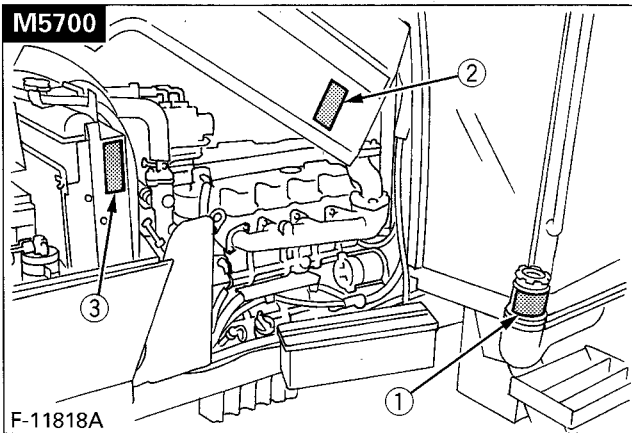
③ Part No. 32751-4958-1
Stay clear of engine
fan and fanbelt.



④ Part No. TA040-7295-1

CAUTION REFRIGERANT UNDER HIGH PRESSURE	
Improper service methods may cause personal injury. This air conditioning system should be serviced by your dealer or any other qualified service shop. See Repair Manual for details.	
Refrigerant R134a Max. 1.05kg (2.31 lbs.) USE ONLY	Oil ND-OIL8 SAE USE ONLY
MFD. BY NIPPONDENSO CO.,LTD. JAPAN	

A100



① Part No. 3F240-9836-1

CAUTION**TO AVOID PERSONAL INJURY:**

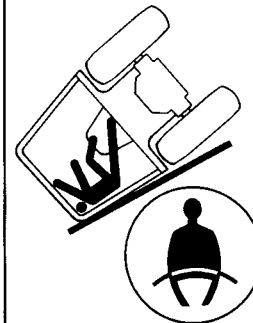
1. Read and understand the operator's manual before operation.
2. Before starting the engine, make sure that everyone is at a safe distance from tractor and the PTO is off.
3. Do not allow passengers on the tractor at any time.
4. Before allowing other people to use the tractor, have them read the operator's manual.
5. Check the tightness of nuts and bolts regularly.
6. Keep all shields in place and stay away from all moving parts.
7. 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, set the parking brake, stop the engine and remove the key.

② Part No. 35080-6528-2

CAUTION

Pull the engine stop knob back and hold it until the engine stops in case of emergency.

③ Part No. TA040-4902-1

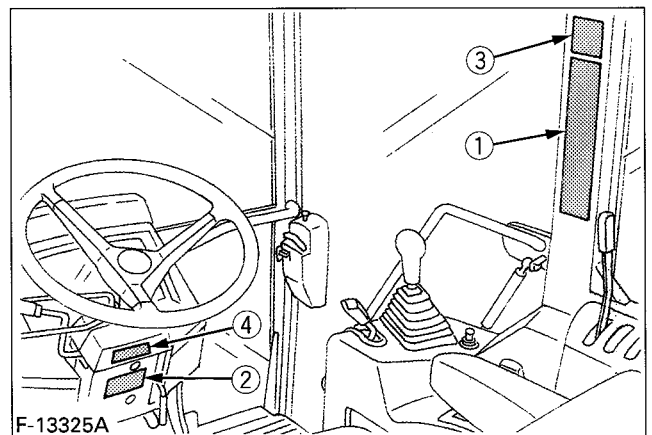
WARNING

TO AVOID INJURY OR DEATH FROM ROLL-OVER:
Always use seat belt when driving.

④ Part No. 3F240-9857-1

WARNING

To avoid free wheeling when shifting the shuttle lever while on a slope: Stop completely by using the brake and by depressing the clutch pedal. Start off after selecting shuttle direction by releasing the clutch pedal.

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

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

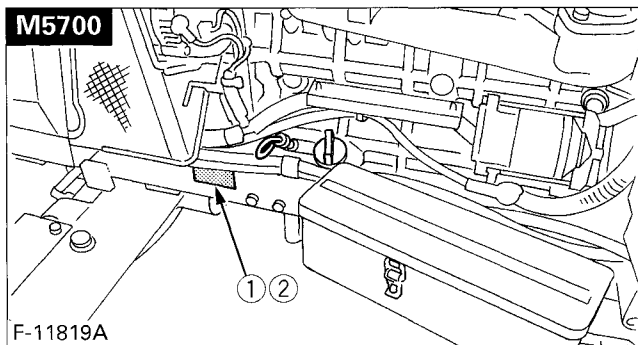
SERVICING OF TRACTOR

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.

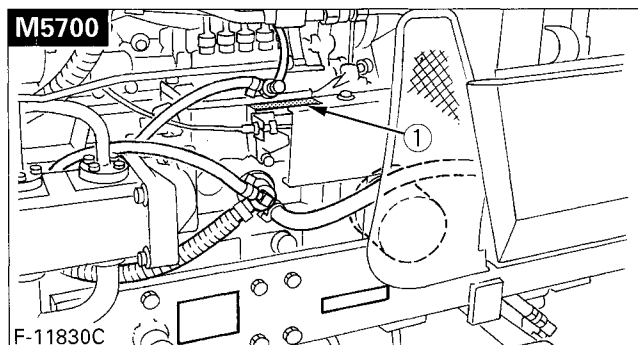
For service, contact the KUBOTA Dealership from which you purchased your tractor or your local KUBOTA Dealer.

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.

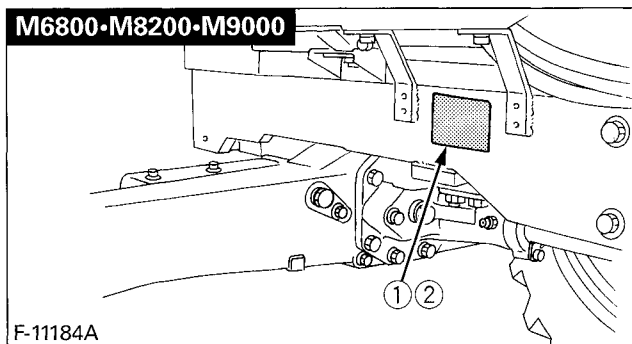
	Type	Serial No.
Tractor	_____	_____
CAB	_____	_____
Engine	_____	_____
Date of Purchase	_____	
Name of Dealer	_____	
	(To be filled in by purchaser)	



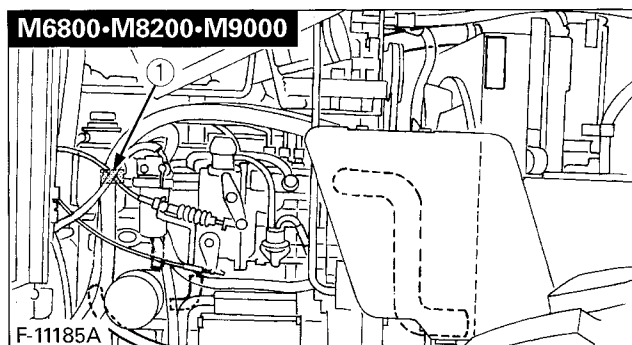
(1) Tractor identification plate
(2) Tractor serial number



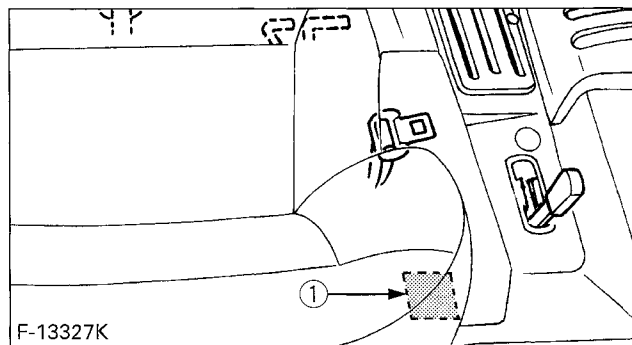
(1) Engine serial number



(1) Tractor identification plate
(2) Tractor serial number



(1) Engine serial number



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

SPECIFICATIONS

SPECIFICATION TABLE







Model		M5700	M6800	M8200	M9000	
		4WD	4WD	4WD	4WD	
Model		F2803-EA	V3300-E	V3300-TE	V3300-TIE	
Type		Vertical, water-cooled 4 cycle diesel engine				
Number of cylinders		5	4			
Total displacement	L(cu.in.)	2.746 (167.6)	3.318 (202.5)			
Bore and stroke	mm(in.)	87 X 92.4 (3.4 X 3.6)	98 X 110 (3.9 X 4.3)			
Net power	kW(HP)	42.5 (57)*	50.7 (68)*	61.2 (82)*	67.2 (90)*	
PTO power (factory observed)	kW(HP)/rpm	38.8 (52) */ 2800	46.3 (62) */ 2600	54.5 (73) */ 2600	59.7 (80) */ 2600	
Maximum torque	N·m(ft·lbs)/rpm	183 (135.0) / 1400 to 1600	235 (173.3) / 1300 to 1500	285 (210.2) / 1300 to 1500	311 (229.4) / 1400 to 1600	
Battery capacity		12V, CCA700A	12V, CCA1000A			
Fuel		Diesel fuel No.1 (below -10°C (14°F)), Diesel fuel No.2 (above -10°C (14°F))				
Fuel tank capacity	L(U.S.gals.)	95 (25.1)		110 (29.1)		
Engine oil capacity	L(U.S.qts.)	8 (8.5)	10.7 (11.3)			
Coolant capacity	L(U.S.qts.)	7.3 (7.7)	8.5 (9.0)	9.0 (9.5)		
Overall length		mm(in.)	3480 (137.1)	3600 (141.8)	3805 (149.8)	3845 (151.4)
Overall width (minimum tread)		mm(in.)	1850 (72.8)	1860 (73.2)	1980 (78.0)	
Overall height (with CAB)		mm(in.)	2515 (99.0)	2520 (99.3)	2480 (97.6)	2530 (99.6)
Wheel base		mm(in.)	2075 (81.7)	2125 (83.7)	2250 (88.6)	
Tread	Front	mm(in.)	1330 (52.4) 1430 (56.3)	1420 (55.9) 1520 (59.8)	1420 (55.9) 1520 (59.8)	1520 (59.8) 1620 (63.8)
	Rear	mm(in.)	1420 (55.9) to 1720 (67.7)		1520 (59.8) to 1920 (75.6)	
Minimum ground clearance		mm(in.)	430 (16.9) (COVER TANK)	440 (17.3) (BRACKET DRAWBAR)	430 (16.9) (BRACKET DRAWBAR)	450 (17.7) (BRACKET DRAWBAR)
Weight (With CAB)		kg (lbs.)	2090 (4607)	2330 (5137)	2740 (6040)	2800 (6175)
Standard tire size	Front tires		9.5-22	9.5-24	11.2-24	12.4-24
	Rear tires		16.9-28	16.9-30	18.4-28	18.4-30
Clutch		Multiple wet disc hydraulic				
Steering		Hydrostatic Power Steering				
Transmission		8 forward and 8 reverse fully synchronized main shift				
Braking system		Multiple wet disk mechanical				
Differential		Bevel gears with diff. lock (Rear)	Bevel gears with diff. lock (Front, Rear)			
Hydraulic control system		Position, draft and mix control				
Pump capacity	L(U.S.qts.)/min	41.6 (44.0)		41.6 (44.0) [64.3 (67.9) for CANADA model]	64.3 (67.9)	
Three point hitch		Category I and II		Category II		
Max. lifting force	At lifting points	kg(lbs.)	1900 (4200) At lower link end with links horizontal	2050 (4550) At lower link end with links horizontal	2500 (5560) At lower link end with links horizontal	
	24.in. behind lifting point	kg(lbs.)	1500 (3307)		2100 (4630)	
Remote hydraulic control		One remote valve with detent and self-canceling		One remote valve (Two for Canada model)		
System pressure		MPa(kgf/cm ²)	19.1 (195)		19.6 (200)	
Traction system		Swinging drawbar, adjustable in direction				
Live PTO (Independent)	Direction of turning	Clockwise, viewed from tractor rear				
	Standard PTO	540 rpm at 2295 engine rpm		540 rpm at 2205 engine rpm		

NOTE: * Manufacturer's estimate The company reserves the right to change the specifications without notice.

TRAVELING SPEEDS

M5700-M6800









km/h (mph) (At rated engine rpm)

Model			M5700	M6800
Tire size (Rear)			16.9-28	16.9-30
Shuttle Shift lever	Range gear Shift lever	Main gear Shift lever	Standard model	Standard model
Forward 	 (Low)	1	2.9 (1.8)	2.7 (1.7)
		2	3.9 (2.4)	3.6 (2.2)
		3	6.0 (3.7)	5.6 (3.5)
		4	8.9 (5.5)	8.3 (5.1)
	 (High)	1	10.4 (6.5)	9.7 (6.0)
		2	14.0 (8.7)	13.0 (8.1)
		3	21.5 (13.4)	20.0 (12.4)
		4	32.0 (19.9)	29.8 (18.5)
Reverse 	 (Low)	1	3.0 (1.9)	2.8 (1.8)
		2	4.1 (2.5)	3.8 (2.3)
		3	6.2 (3.9)	5.8 (3.6)
		4	9.3 (5.8)	8.6 (5.4)
	 (High)	1	10.9 (6.8)	10.2 (6.3)
		2	14.6 (9.1)	13.6 (8.5)
		3	22.5 (14.0)	20.9 (13.0)
		4	33.4 (20.8)	31.1 (19.4)

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

M8200-M9000

km/h (mph) (At rated engine rpm)

Model			M8200, M9000					
Tire size (Rear)			18.4-28		18.4-30		16.9-34	
Shuttle Shift lever	Range gear Shift lever	Main gear Shift lever	Standard model	Hi speed model	Standard model	Hi speed model	Standard model	Hi speed model
Forward 	 (Creep)	1	0.38 (0.24)	1.3 (0.79)	0.41 (0.26)	1.4 (0.85)	0.42 (0.26)	1.4 (0.85)
		2	0.59 (0.37)	2.0 (1.2)	0.64 (0.40)	2.1 (1.3)	0.64 (0.40)	2.1 (1.3)
		3	0.91 (0.57)	3.0 (1.9)	0.98 (0.61)	3.2 (2.0)	0.99 (0.61)	3.3 (2.0)
		4	1.2 (0.77)	4.1 (2.5)	1.3 (0.83)	4.4 (2.7)	1.3 (0.83)	4.4 (2.7)
	 (Low)	1	2.3 (1.4)	2.5 (1.5)	2.5 (1.5)	2.5 (1.5)	2.5 (1.5)	2.5 (1.5)
		2	3.6 (2.2)	3.8 (2.4)	3.8 (2.4)	3.8 (2.4)	3.8 (2.4)	3.8 (2.4)
		3	5.5 (3.4)	5.9 (3.7)	5.9 (3.7)	5.9 (3.7)	5.9 (3.7)	5.9 (3.7)
		4	7.4 (4.6)	8.0 (4.9)	8.0 (4.9)	8.0 (5.0)	8.0 (5.0)	8.0 (5.0)
	 (High)	1	9.5 (5.9)	10.2 (6.3)	10.2 (6.3)	10.2 (6.4)	10.2 (6.4)	10.2 (6.4)
		2	14.6 (9.1)	15.7 (9.7)	15.7 (9.7)	15.8 (9.8)	15.8 (9.8)	15.8 (9.8)
		3	22.5 (14.0)	24.2 (15.0)	24.2 (15.0)	24.3 (15.1)	24.3 (15.1)	24.3 (15.1)
		4	30.5 (18.9)	32.7 (20.3)	32.7 (20.3)	32.9 (20.4)	32.9 (20.4)	32.9 (20.4)
Reverse 	 (Creep)	1	0.39 (0.24)	1.3 (0.80)	0.42 (0.26)	1.4 (0.86)	0.42 (0.26)	1.4 (0.86)
		2	0.60 (0.37)	2.0 (1.2)	0.64 (0.40)	2.1 (1.3)	0.65 (0.40)	2.1 (1.3)
		3	0.92 (0.57)	3.0 (1.9)	0.99 (0.62)	3.3 (2.0)	1.0 (0.62)	3.3 (2.0)
		4	1.3 (0.78)	4.1 (2.6)	1.3 (0.83)	4.4 (2.8)	1.3 (0.84)	4.5 (2.8)
	 (Low)	1	2.3 (1.4)	2.5 (1.6)	2.5 (1.6)	2.5 (1.6)	2.5 (1.6)	2.5 (1.6)
		2	3.6 (2.2)	3.9 (2.4)	3.9 (2.4)	3.9 (2.4)	3.9 (2.4)	3.9 (2.4)
		3	5.5 (3.4)	5.9 (3.7)	5.9 (3.7)	6.0 (3.7)	6.0 (3.7)	6.0 (3.7)
		4	7.5 (4.7)	8.0 (5.0)	8.0 (5.0)	8.1 (5.0)	8.1 (5.0)	8.1 (5.0)
	 (High)	1	9.6 (5.9)	10.3 (6.4)	10.3 (6.4)	10.3 (6.4)	10.3 (6.4)	10.3 (6.4)
		2	14.7 (9.2)	15.8 (9.8)	15.8 (9.8)	15.9 (9.9)	15.9 (9.9)	15.9 (9.9)
		3	22.7 (14.1)	24.4 (15.2)	24.4 (15.2)	24.5 (15.2)	24.5 (15.2)	24.5 (15.2)
		4	30.8 (19.1)	33.0 (20.5)	33.0 (20.5)	33.2 (20.6)	33.2 (20.6)	33.2 (20.6)

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

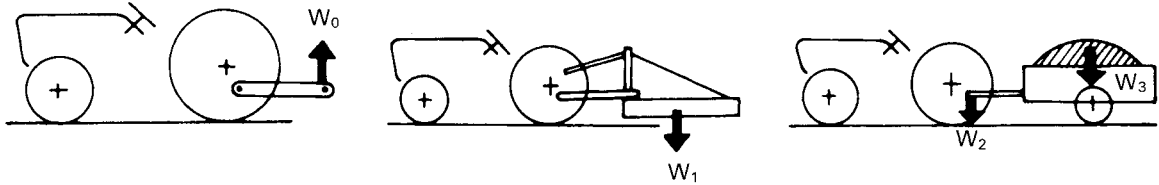
IMPLEMENT LIMITATIONS

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 (max. width) with farm tires		Lower link end max. lifting capacity W_0
	Front	Rear	
	4WD		
M5700	1430 mm (56.3 in.)	1720 mm (71.7 in.)	1900 kg (4190 lbs.)
M6800	1520 mm (59.8 in.)		2050 kg (4550 lbs.)
M8200			1920 mm (75.6 in.)
M9000	1620 mm (63.8 in.)		

	Actual figures		
	Implement weight W_1 and / or size	Max. Drawbar Load W_2	Trailer loading weight W_3 Max. capacity
M5700	As in the following list (Shown on the next page)	1000 kg (2200 lbs.)	4500 kg (9900 lbs.)
M6800			5000 kg (11000 lbs.)
M8200		1500 kg (3300 lbs.)	6000 kg (13200 lbs.)
M9000			6000 kg (13200 lbs.)

Lower link end max. hydraulic lifting capacity W_0
 Implement weight The implement's weight which can be put on the lower link: W_1
 Max. drawbar load W_2
 Trailer loading weight The max. loading weight for trailer (without trailer's weight): W_3



NOTE:

- Implement size may vary depending on soil operating conditions.

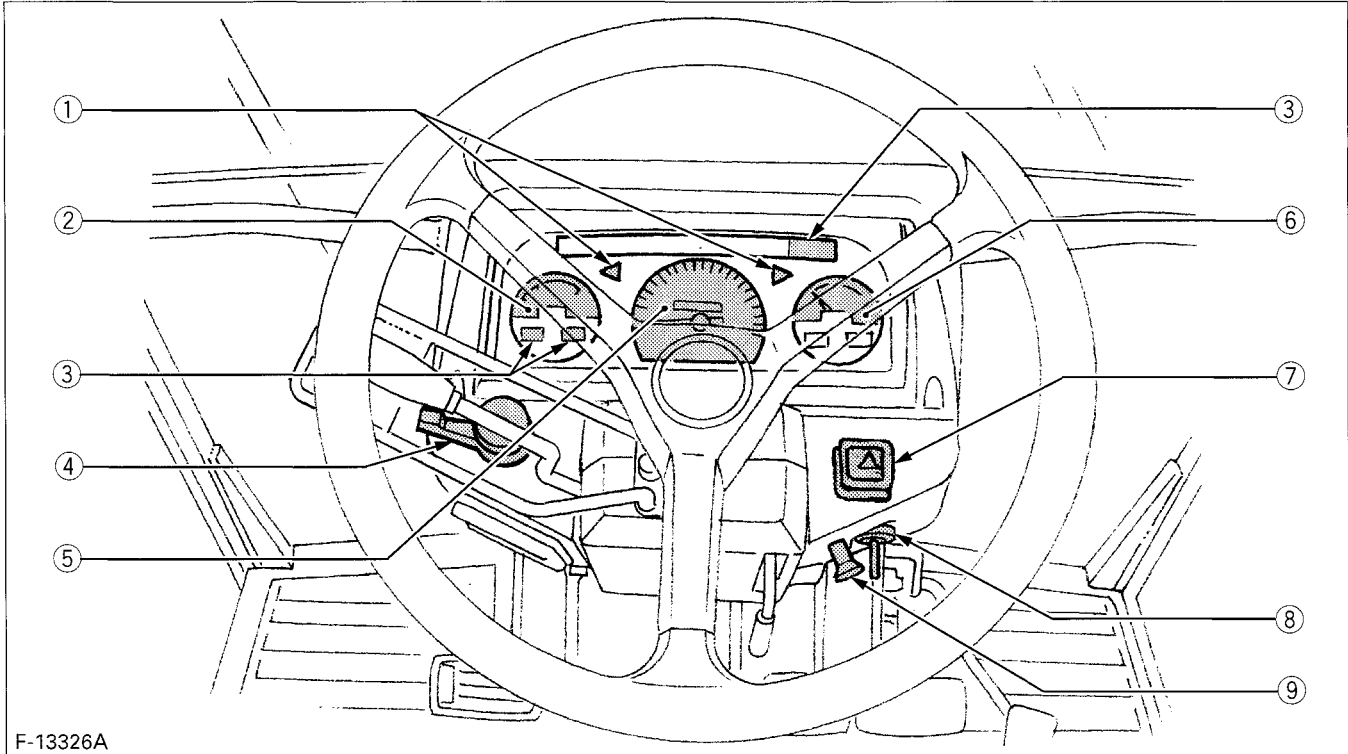
No.	Implement		Remarks		M5700	M6800	M8200	M9000	
					4WD	4WD	4WD	4WD	
1	Slurry Tank		Max. Tank Capacity	L (gals.)	3000 (790)	3000 (790)	4000 (1060)	4000 (1060)	
			Max. Load Capacity	kg (lbs.)	4000 (8800)	4000 (8800)	5000 (11000)	5000 (11000)	
2	Trailer		Max. Load Capacity	kg (lbs.)	4500 (9900)	5000 (11000)	6000 (13200)	6000 (13200)	
			Max. Drawbar Load	kg (lbs.)	1000 (2200)	1000 (2200)	1500 (3300)	1500 (3300)	
3	Mower	Rotary – Cutter	Max. Cutting Width	mm (in.)	2130 (84)	2130 (84)	2300 (90)	2300 (90)	
			Max. Weight	kg (lbs.)	540 (1200)	540 (1200)	600 (1320)	600 (1320)	
		Flail Mower (Heavy)	Max. Cutting Width	mm (in.)	3050 (120)	3050 (120)	3660 (144)	3660 (144)	
			Max. Weight	kg (lbs.)	800 (1760)	800 (1760)	1000 (2200)	1000 (2200)	
Sickle Bar	Max. Cutting Width	mm (in.)	2130 (84)	2130 (84)	2743 (108)	2743 (108)			
4	Sprayer		Max. Tank-Capacity	Mid	L (gals.)	680 (180)	680 (180)	800 (200)	1000 (260)
				Rear 3P	L (gals.)	680 (180)	680 (180)	800 (200)	1000 (260)
				Drawbar	L (gals.)	3500 (920)	4000 (1030)	4500 (1200)	5000 (1320)
5	Rotary Tiller		Max. Tilling Width	mm (in.)	2130 (84)	2330 (91)	2400 (96)	2400 (96)	
			Max. Weight	kg (lbs.)	800 (1760)	800 (1760)	1000 (2200)	1000 (2200)	
6	Bottom Plow		Max. Size		14 in. X 3 16 in. X 2 18 in. X 1	16 in. X 3 18 in. X 2	16 in. X 4 18 in. X 3 24 in. X 1	14 in. X 5 16 in. X 4 20 in. X 3 24 in. X 1	
			Max. Weight	kg (lbs.) 3P Type	450 (1000)	550 (1200)	750 (1650)	900 (2000)	
7	Disc-harrow	3P Type	Max. Size		18 in. X 24	20 in. X 24	24 in. X 24	24 in. X 28	
			Max. Harrowing Width	mm (in.)	2130 (84)	2450 (96)	2850 (112)	3300 (130)	
			Max. Weight	kg (lbs.)	450 (1000)	550 (1200)	750 (1650)	900 (2000)	
		Drawbar Type	Max. Harrowing Width	mm (in.)	2750 (108)	3050 (120)	3660 (144)	4300 (168)	
8	Disc Plow		Max. Size		24 in. X 3 26 in. X 2	26 in. X 3	26 in. X 4 28 in. X 4	26 in. X 4 28 in. X 4	
			Max. Weight	kg (lbs.)	450 (1000)	550 (1200)	750 (1650)	900 (2000)	
9	Sub Soiler		Numbers of Cultivating Tines		2	2	2	2	
			Cultivating Depth	mm (in.)	400 (16)	450 (18)	500 (20)	550 (22)	
10	Cultivator		Max. Width	mm (in.)	3660 (144)	4270 (168)	4880 (192)	5490 (216)	
			Number of Rows		4	4	6	6	
			Max. Weight	kg (lbs.)	450 (1000)	550 (1200)	750 (1650)	900 (2000)	
11	Front Blade*1,*2		Max. Cutting Width	mm (in.)	1820 (72)	2130 (84)	2430 (96)	2600 (102)	
			Max. Oil Pressure	MPa (kgf/cm ²)	19.1 (195)	19.1 (195)	19.6 (200)	19.6 (200)	
12	Rear Blade		Max. Cutting Width	mm (in.)	1820 (72)	2130 (84)	2430 (96)	2600 (102)	
			Max. Oil Pressure	MPa (kgf/cm ²)	19.1 (195)	19.1 (195)	19.6 (200)	19.6 (200)	
13	Front Loader*1,*2		Max. Lifting Capacity	kgf (lbs.)	1000 (2200)	1160 (2552)	1250 (2750)	1250 (2750)	
			Max. Oil Pressure (Extra Hydro Kit)	MPa (kgf/cm ²)	18.6 (190)	18.6 (190)	20.5 (210)	20.5 (210)	
14	Box Blade		Max. Cutting Width	mm (in.)	1820 (72)	2130 (84)	2430 (96)	2430 (96)	
			Max. Weight	kg (lbs.)	450 (1000)	550 (1200)	750 (1650)	800 (1760)	
15	Back Hoe*2		Max. Digging Depth	mm (in.)	2530 (100)	2530 (100)	3050 (120)	3050 (120)	
			Max. Weight	kg (lbs.)	900 (2000)	900 (2000)	1200 (2650)	1200 (2650)	
16	Snow Blade		Max. Width	mm (in.)	1820 (72)	2130 (84)	2430 (96)	2600 (102)	
			Max. Weight	kg (lbs.)	450 (1000)	550 (1200)	750 (1650)	800 (1760)	

NOTE:

- Implement size may vary depending on soil operating conditions.
- *1 Must remove front weight with this implement.
- *2 Need subframe

INSTRUMENT PANEL AND CONTROLS

Instrument Panel, Switches and Hand Controls

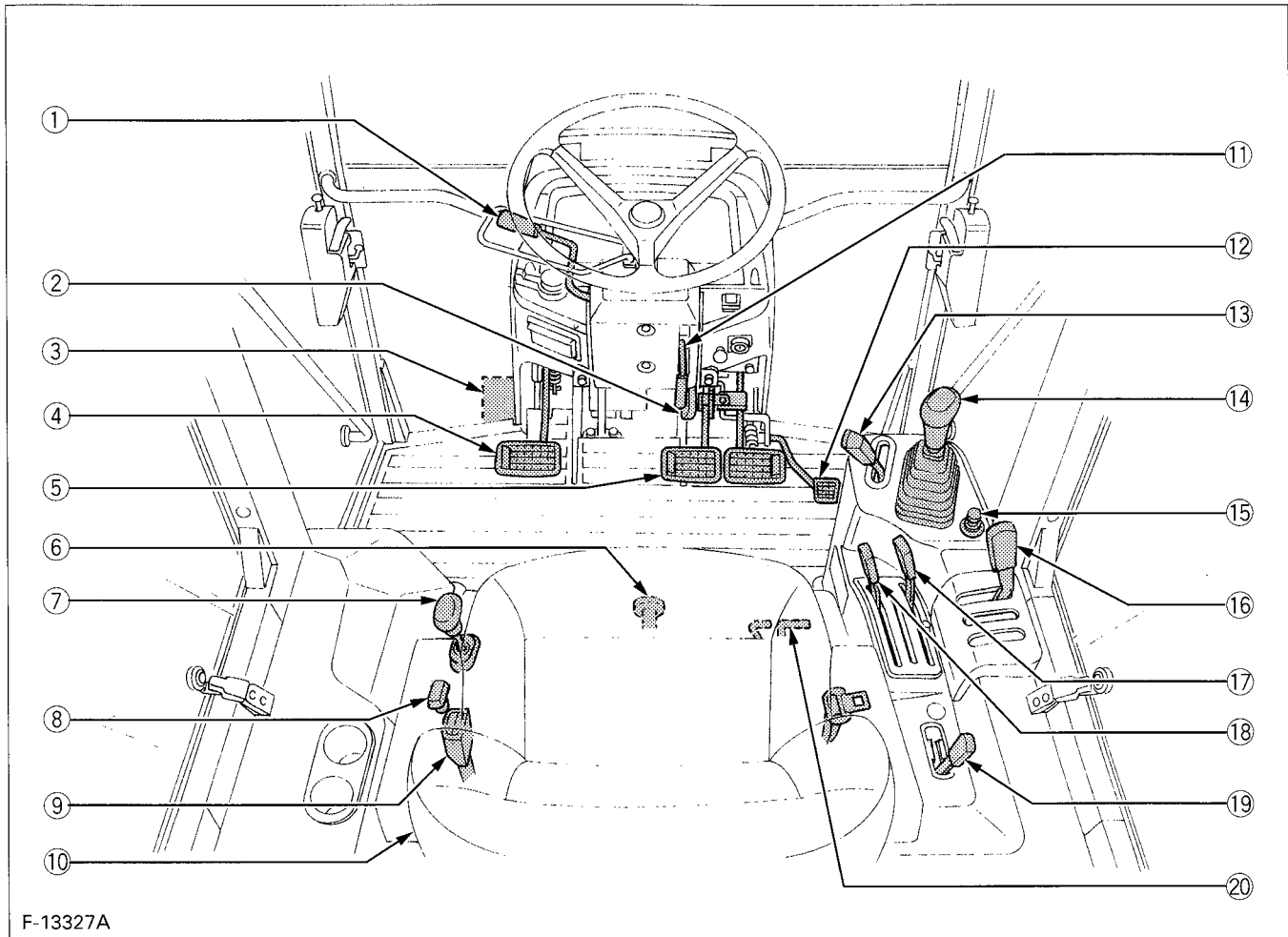


F-13326A

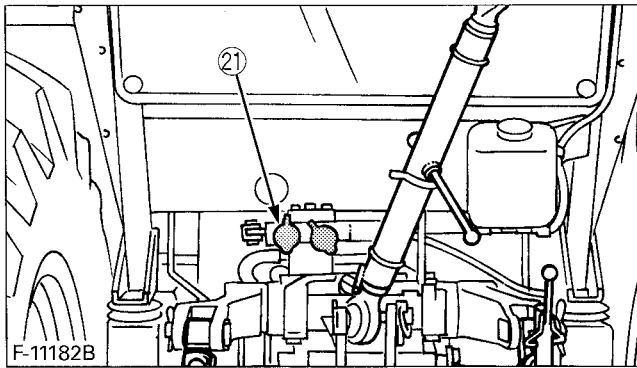
ILLUSTRATED CONTENTS

(1) Turn signal / Hazard light indicator	28
(2) Fuel gauge	33
(3) Easy Checker™	22, 33
(4) Head light switch	27
Turn signal light switch	28
(5) Hourmeter / Tachometer	34
(6) Coolant temperature gauge	34
(7) Hazard light switch	28
(8) Key switch	22
(9) Engine-emergency stop knob	21, 23

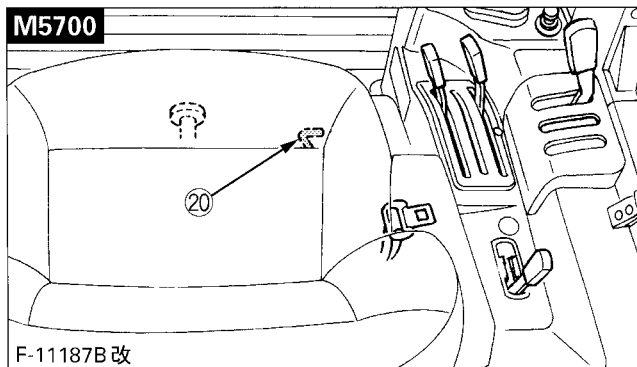
Foot and Hand Controls



F-13327A



F-11182B



F-11187B改

ILLUSTRATED CONTENTS

(1) Hydraulic-shuttle shift lever	21, 30
(2) Parking brake lever	20, 34
(3) Tool box	—
(4) Clutch pedal	29
(5) Brake pedal	28
(6) 3-Point hitch lowering speed knob	45
(7) Range gear shift lever	21, 30
(8) Front wheel drive lever	32
(9) Seat belt	27
(10) Operator's seat	26
(11) Tilt lever	27
(12) Foot throttle	22, 32
(13) Hand throttle lever	22, 32
(14) Main gear shift lever	21, 30
(15) Cigarette lighter	62
(16) Remote control valve lever	46
(17) Position control lever	21, 29, 44
(18) Draft control lever	21, 44
(19) PTO clutch control lever	21, 37
(20) Differential lock pedal	35
(21) Remote control valve coupler	46

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, the parking brake "ON" and implements lowered to the ground.

Check item

- Walk around inspection
- Check engine oil level
- Check transmission oil level
- Check coolant level
- Check water separator
(See "DAILY CHECK" in periodic service section.)
- Clean grill and radiator screen
- Check condenser screen
- Clean intercooler screen **[M9000]**
- Check air cleaner evacuator valve
(When used in a dusty place)
- Check brake pedal
- Check indicators, gauges and meter
- Check lights
- Check seat belt
- 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, to place PTO lever in "OFF" position and to depress the clutch pedal completely before starting the engine.

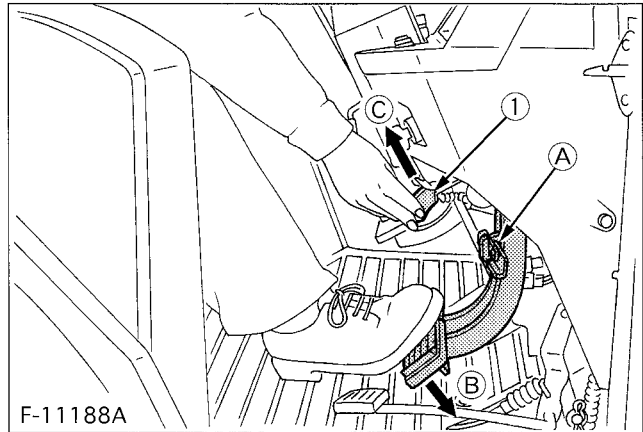
IMPORTANT:

- 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.
2. To release the parking brake, depress the brake pedals again.



(1) Parking brake lever

(A) Interlock the brake pedals

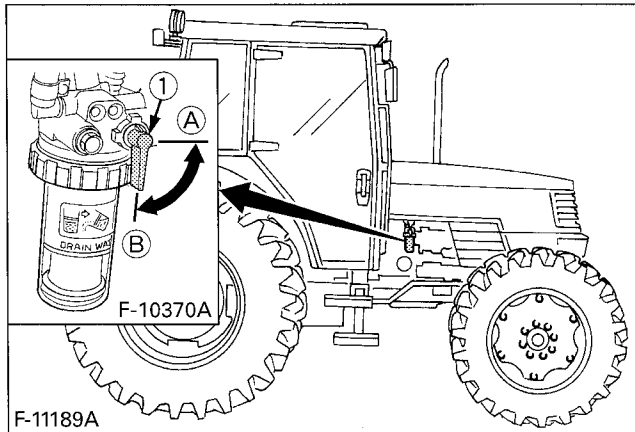
(B) "DEPRESS"

(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.

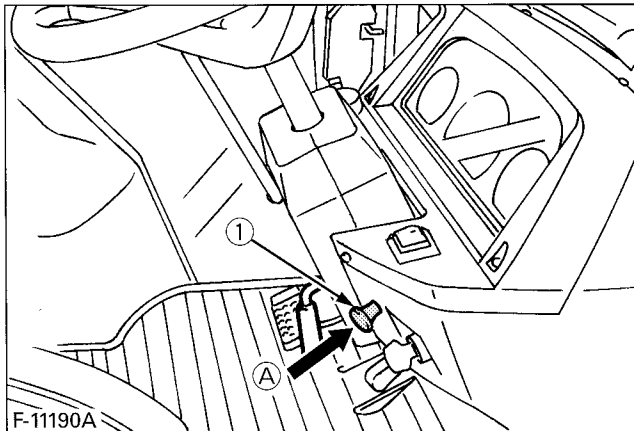
2. Make sure the fuel cock is in the "OPEN" position.



(1) Fuel cock (A) "CLOSE" (B) "OPEN"

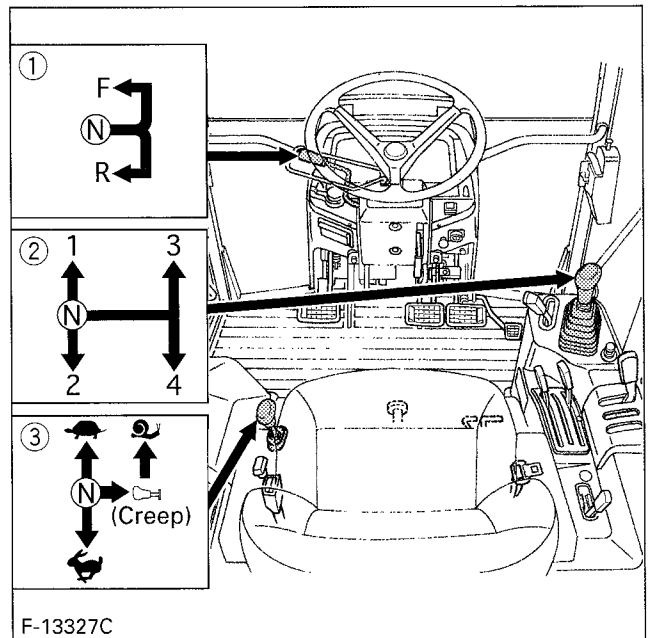
3. Make sure the engine-emergency stop knob is pushed in.

Push in the engine-emergency stop knob if it is pulled out, or the engine will not start.



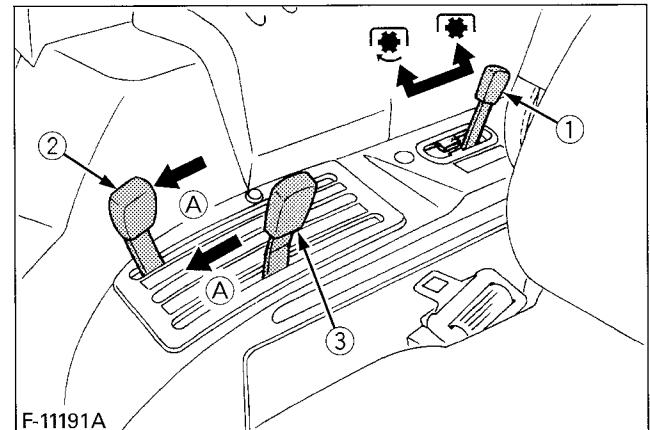
(1) Engine-emergency stop knob (A) "PUSH"

4. Place the shift levers in "NEUTRAL" position.



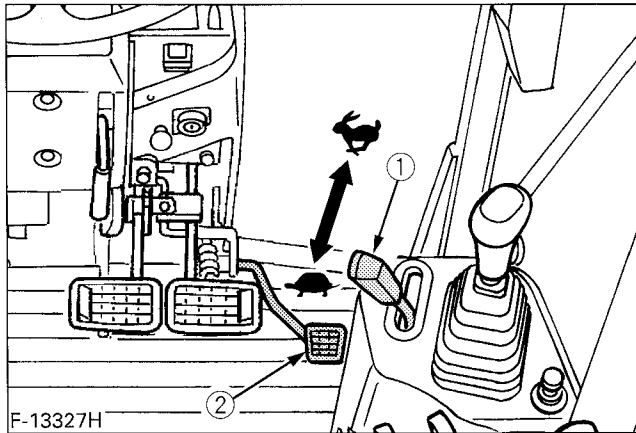
(1) Hydraulic-shuttle shift lever (N) "NEUTRAL POSITION"
 (2) Main gear shift lever
 (3) Range gear shift lever
 [Creep speed : M8200 / M9000 (if equipped)]

5. Place the PTO clutch control lever in "OFF" position and hydraulic control levers in "LOWEST" position.



(1) PTO clutch control lever (2) Position control lever (3) Draft control lever
 [ON] "ON"
 [OFF] "OFF"
 (A) "DOWN"

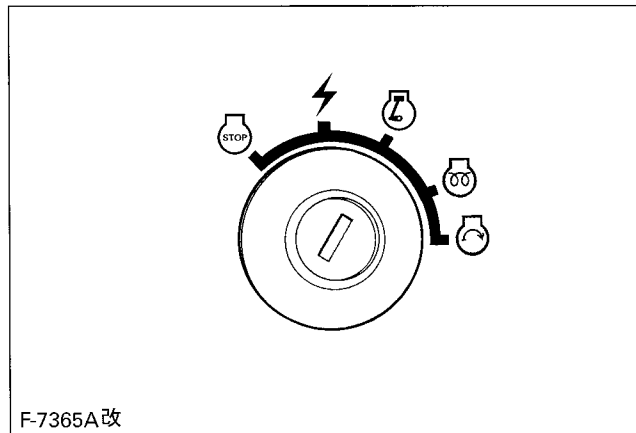
6. Set the throttle lever to about 1/2 way.



(1) Hand throttle lever
 (2) Foot throttle

"INCREASE"
 "DECREASE"

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



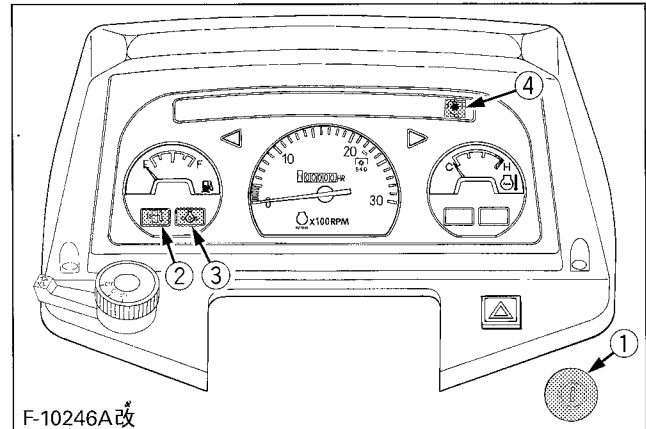
"OFF"
 "ACC"
 "ON"
 "PREHEAT"
 "START"

NOTE:

ACC...All the accessories can be used while the engine is stopped.

◆ Check Easy Checker™ Lamps:

1. When the key is turned "ON", lamps (2) (3) should come on. If trouble should occur at any location while the engine is running, the warning lamp corresponding to that location comes on.
2. The PTO warning lamp (4) comes on while PTO clutch control lever is engaged "ON" and goes off when disengaged "OFF".



(1) Key switch
 (2) Fuel level
 (3) Engine oil pressure
 (4) PTO clutch

IMPORTANT:

- Daily checks with the Easy Checker™ only, are not sufficient. Never fail to conduct daily checks carefully by referring to Daily Check. (See "DAILY CHECK" in Periodic Service Section)

8. Fully depress the clutch pedal, turn the key to "PREHEAT" position and hold it for the preheating.

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

M5700

Temperature	Preheating Time
Over 0°C (32°F)	2 to 3 sec.
0 to -5°C (32 to 23°F)	5 sec.
-5 to -15°C (23 to 5°F)	10 sec.
Limit of continuous use	20 sec.

M6800-M8200-M9000

Temperature	Preheating Time
Over 10°C (50°F)	NO NEED
10 to -5°C (50 to 23°F)	5 sec.
Below -5°C (23°F)	10 sec.
Limit of continuous use	20 sec.

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

IMPORTANT:

- Because of the safety devices, the engine will not start except when the PTO clutch control lever is placed in the "OFF" position and shuttle shift lever is placed in the "NEUTRAL" position.

Cold Weather Starting

When the ambient temperature is below -5°C (23°F) and the engine is very cold. (If the engine fails to start after 10 seconds, turn off the key for 30 seconds. Then repeat steps 8 and 9. 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).

10. Check to see that all the lamps on the Easy Checker™ are "OFF".

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

11. Release the clutch pedal.

STOPPING THE ENGINE

M5700-M6800

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

M8200-M9000

1. After slowing the engine to idle, wait 3 to 5 minutes for turbo to slow down then turn the key to "OFF".
2. Remove the key.

Engine-Emergency Stop Knob



CAUTION

To avoid personal injury:

- Pull the engine-emergency stop knob back and hold it until the engine stops in case of emergency.

The engine stops when the key is turned OFF.

If the engine does not stop, pull the engine-emergency stop knob back and hold it until the engine stops.

After the engine has stopped, be sure to push the engine-emergency stop knob back in, or the engine will not start next time.



(1) Engine-emergency stop knob

(A) Pull to "STOP"

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 warm-up.
- 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 and Transmission Oil at 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°C (14°F)	Approx. 10 minutes
-15 to -10°C (5 to 14°F)	10 to 20 minutes
-20 to -15°C (-4 to 5°F)	20 to 30 minutes
Below -20°C (-4°F)	More than 30 minutes

IMPORTANT:

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

JUMP STARTING



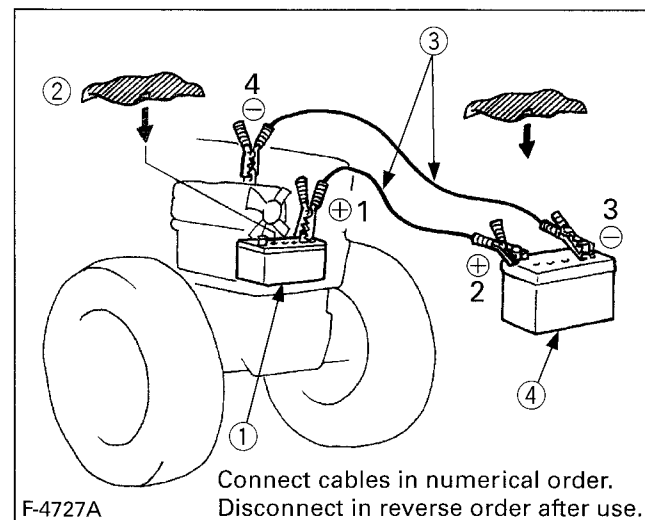
CAUTION

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.

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



(1) Dead battery

(2) Lay a damp rag over the vent caps

(3) Jumper cables

(4) Helper battery

IMPORTANT:

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

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)

STARTING

1. Adjusting the Operator's Position.

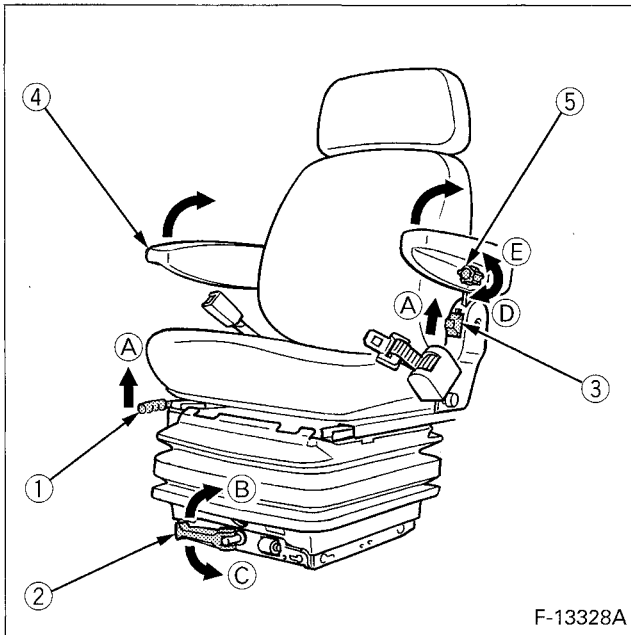
Operator's Seat



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.



F-13328A

- | | |
|--------------------------------|---------------------------|
| (1) Travel adjust lever | (A) "UNLOCK" |
| (2) Weight adjust lever | (B) "TO INCREASE TENSION" |
| (3) Backrest tilt adjust lever | (C) "TO DECREASE TENSION" |
| (4) Arm rest | (D) "TO INCREASE ANGLE" |
| (5) Arm rest angle adjust knob | (E) "TO DECREASE ANGLE" |

◆ 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.

◆ Weight adjustment

Turn the weight adjust lever to achieve the optimum suspension setting.

◆ Tilt adjustment

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

◆ Height adjustment

Pull up with your hands the seat pan in front of seat belt to the desired height of the three available positions.

Once it has reached the highest level, it will return to the lowest level.

◆ Arm rest

Arm rest may be set at upright position if desired.

◆ Arm rest angle adjustment

Turn the arm rest angle adjust knob to the desired angle.

■ Seat Belt



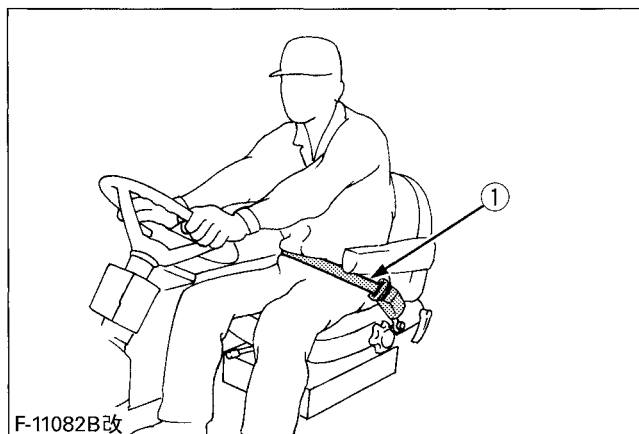
WARNING

To avoid personal injury:

- Always use the seat belt when any ROPS or CAB is installed.

Adjust the seat belt for proper fit and connect the buckle.

This seat belt is auto-locking retractable type.



F-11082B改

(1) Seat belt

■ Tilt Steering Adjustment

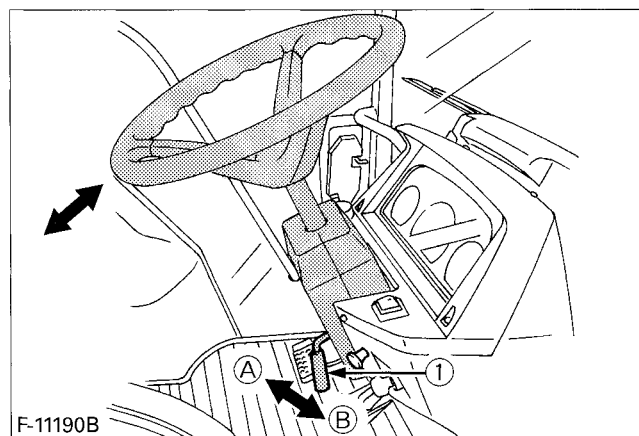


CAUTION

To avoid personal injury:

- Do not adjust the steering wheel while the tractor is in motion.
- Make sure the steering wheel is locked after adjusting.

Steering wheel is adjustable when tilt lever is unlocked.



F-11190B

(1) Tilt lever

(A) "UNLOCK"

(B) "LOCK"

2. Selecting Light Switch Positions.

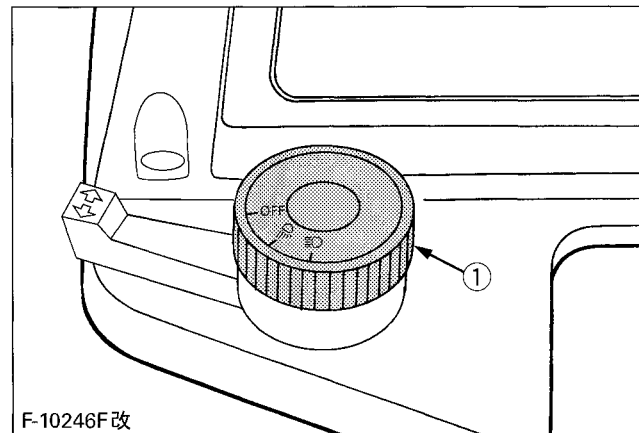
■ Head Light Switch

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

OFF ... Head lights OFF.

☉ ... Head lights ON, high beam.

☉ ... Head lights dimmed, low beam.



F-10246F改

(1) Head light switch

Turn Signal / Hazard Light Switch

Hazard Light

1. When the hazard light switch is pushed, the hazard lights flash, along with the L/H and R/H indicators on the instrument panel.
2. Push the hazard light switch again to turn off the hazard lights.

Turn Signal with Hazard Light

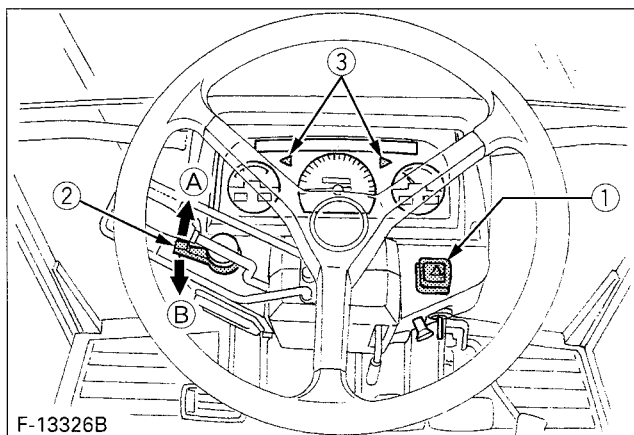
1. To indicate a right turn with the hazard lights already flashing, turn the switch clockwise.
2. To indicate a left turn with the hazard lights already flashing, turn the switch counterclockwise.
3. When the left or right turn signal is activated in combination with the hazard lights, the indicated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

Turn Signal without Hazard Light

1. To indicate a right turn without hazard lights, turn the switch clockwise.
2. To indicate a left turn without hazard lights, turn the switch counterclockwise.
3. When the left or right turn signal is activated without the hazard lights, the indicated turning light will flash and the other will stay on.

NOTE:

- The hazard light switch is operative when the key switch is in either the "ON" or "OFF" position.
- The turn signal light switch is only operative when the key switch is in the "ON" position.
- Be sure to return the turn signal switch to center position after turning.



(1) Hazard light switch (A) "RIGHT TURN"
 (2) Turn signal light switch (B) "LEFT TURN"
 (3) Hazard / Turn signal indicator

3. Checking the Brake Pedal.

Brake Pedals (Right and Left)



WARNING

To avoid personal injury:

- Applying only one rear wheel brake at high speeds could cause the tractor to swerve or roll-over.
- Incorrect or unequal brake pedal adjustment can cause the tractor to swerve or rollover even when the pedals are locked together.

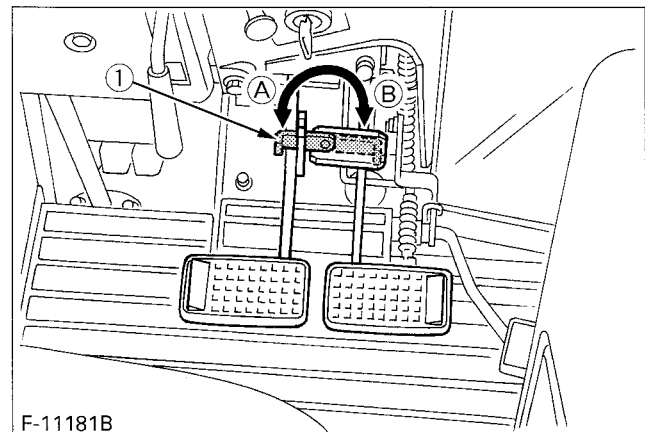


CAUTION

To avoid personal injury:

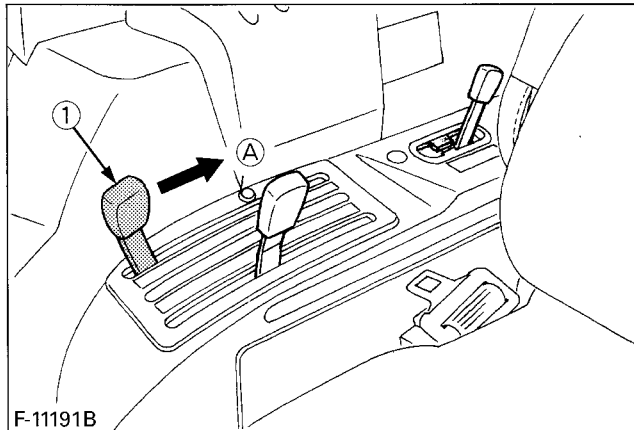
- An accident may occur if the tractor is suddenly braked, such as by heavy towed loads shifting forward or loss of control.
- The braking characteristics are different between two and four wheel drive. Be aware of the difference and use carefully.
- When driving on icy, wet, or loose surfaces, make sure the tractor is correctly ballasted to avoid skidding and loss of steering control, utilize to engage front wheel drive. (if equipped) Operate at reduced speed.

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.
2. 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.



(1) Brake pedal lock (A) "LOCK"
 (B) "RELEASE"

4. Raise the Implement. (see "HYDRAULIC UNIT" section)



F-11191B

(1) Position control lever (A) "UP"

5. Depress the Clutch Pedal.

■ Clutch Pedal

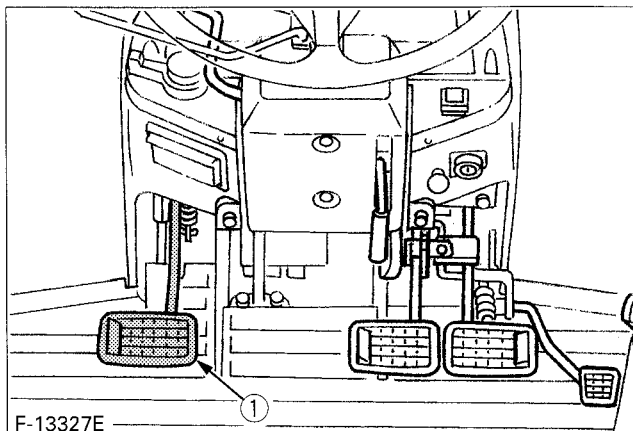


CAUTION

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.



F-13327E

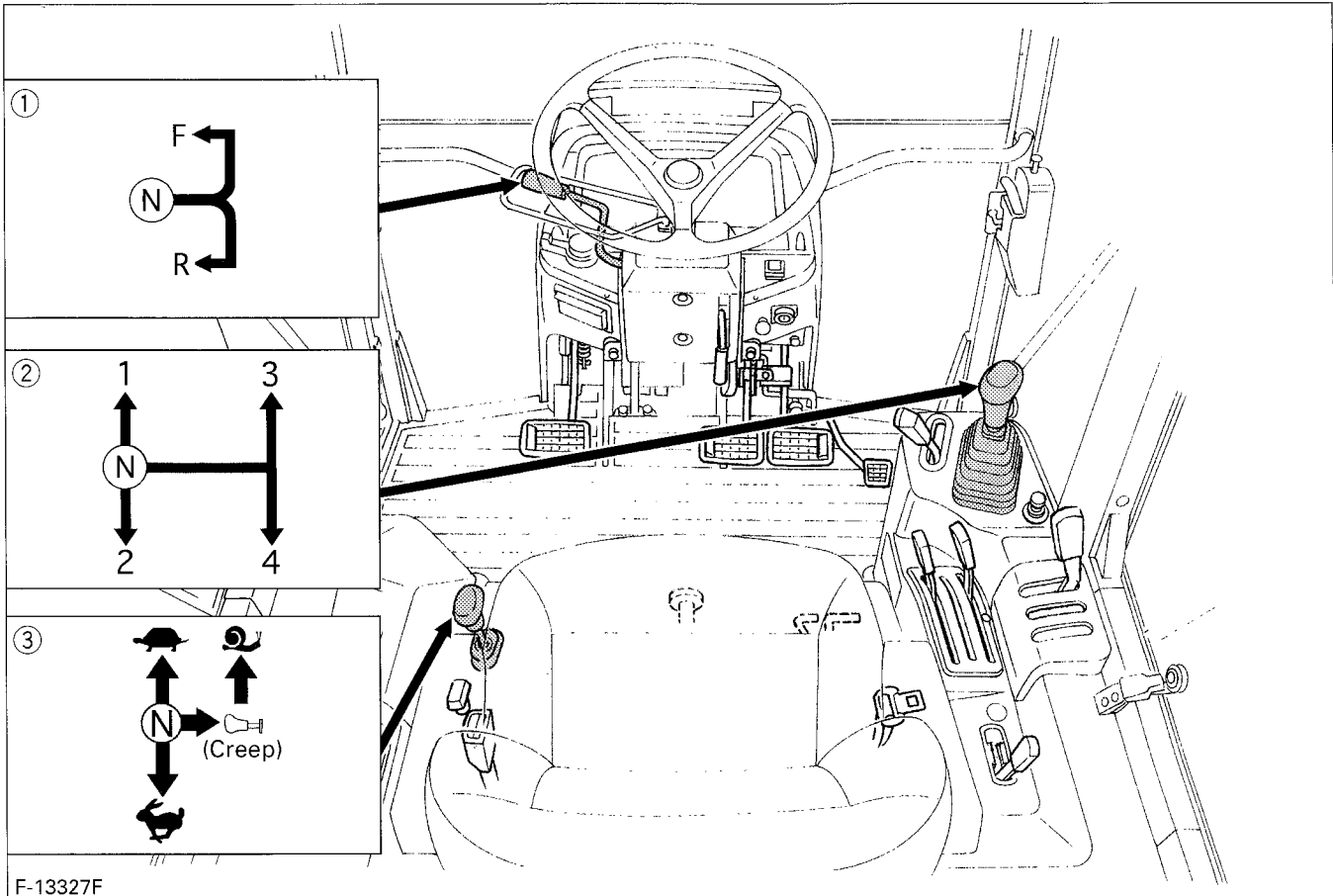
(1) Clutch pedal

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. Selecting the Travel Speed.



F-13327F

(1) Hydraulic - shuttle shift lever

(2) Main gear shift lever

(3) Range gear shift lever

(F) "FORWARD"

(N) "NEUTRAL POSITION"

(R) "REVERSE"

☘ "LOW"

☘ "HIGH"

☘ "CREEP" [M8200-9000 (if equipped)]

The main gear shift lever pattern is in the form of an "H". The range gear shift lever moves in the form of an "I" in 2 stages, "HIGH" and "LOW".

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

■ 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 the clutch is depressed.

IMPORTANT:

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

■ Hydraulic-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 does not require clutch operation.

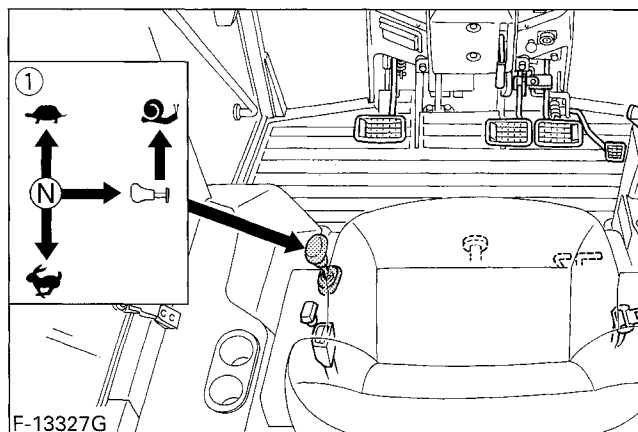
IMPORTANT:

- The hydraulic-shuttle shift lever may be shifted while the tractor is moving slowly.

M8200-M9000**Creep Speed (if equipped)**

Shift the range gear shift lever to "🌀" to obtain low speeds.

This shifting requires clutch operation.



(1) Range gear shift lever

🌀 ... Creep ON

NOTE:

- How to shift the range gear shift lever to the creep speed (🌀) position.

1. Place the range gear shift lever in neutral position.
2. Push down the range gear shift lever and shift it forward.

◆ **Creep speed (attained by shifting the range 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 the 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 range gear shift lever.

Front Wheel Drive Lever

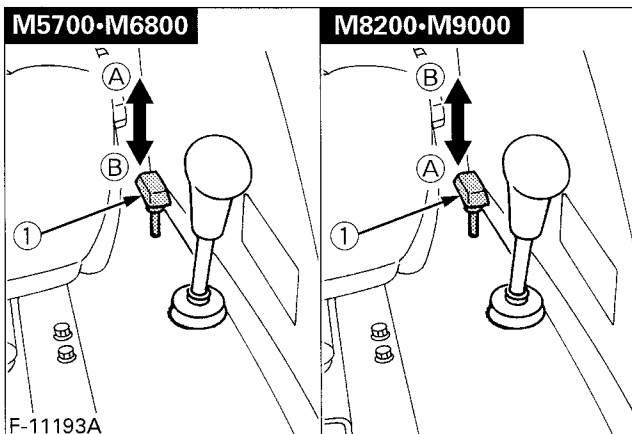


CAUTION

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 of the tractor 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

(A) "ON"

(B) "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:

1. When greater pulling force is needed, such as working in a wet field, when pulling a trailer, or when working with a front-end loader.
2. When working in sandy soil.
3. When working on a hard soil where a rotary tiller might push the tractor forward.
4. For increased braking at reduced speed.

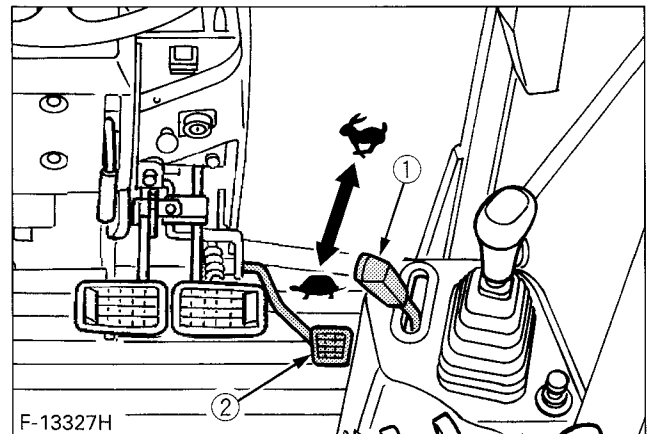
7. Accelerate the Engine.

Hand Throttle Lever

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

↑ "INCREASE"

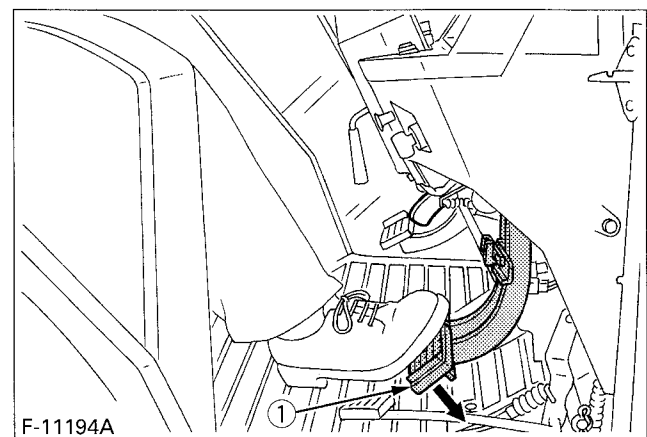
(2) Foot Throttle

↓ "DECREASE"

8. Unlock the Parking Brake and Slowly Release the Clutch.

Parking Brake Lever

To release the parking brake, depress the brake pedals again.



(1) Brake pedals

STOPPING

Stopping

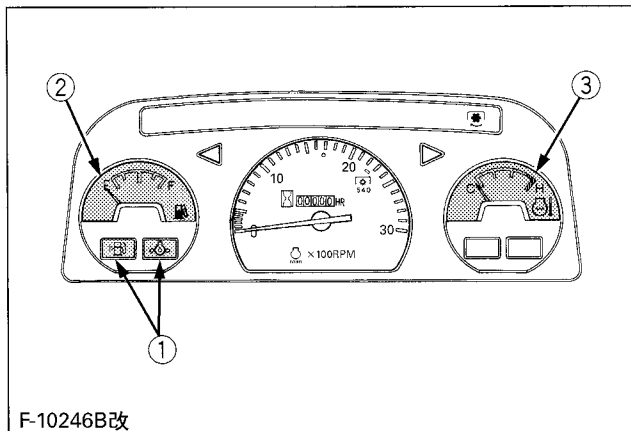
1. Slow down the engine.
2. Step on the clutch and brake pedal.
3. After the tractor has stopped, disengage the PTO, lower the implement to the ground, shift the transmission to neutral, release the clutch pedal, and set the parking brake.

CHECK DURING DRIVING

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, check the following items to see that all the parts are functioning normally.



F-10246B改

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

Easy Checker™

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

Never operate the tractor while Easy Checker™ lamp is on.

Engine oil pressure

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

Fuel level

If the fuel in the tank goes below the prescribed level, the warning lamp in the Easy Checker™ will come on. (less than 10 L (2.6 gals.))

If this should happen during operation, refuel as soon as possible.

(See "Checking and Refueling" in daily check in periodic service section.)

Electrical charge

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

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

NOTE:

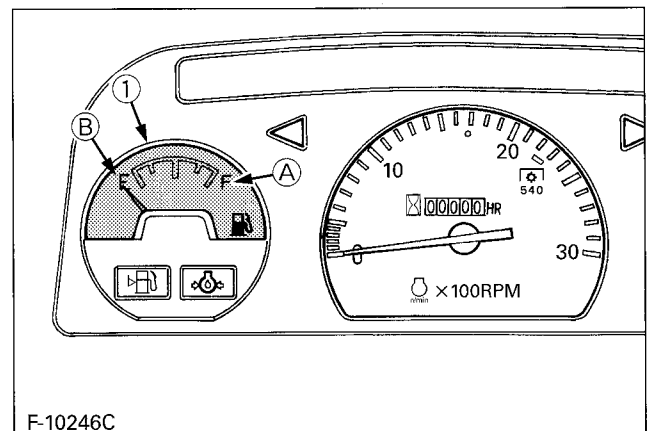
- For checking and servicing of your tractor, consult your local KUBOTA Dealer for instructions.

Fuel Gauge

When the key switch is on, the fuel gauge indicates the fuel level.

Be careful not to empty the fuel tank. Otherwise air may enter the fuel system.

Should this happen, the system should be bled (See "Bleeding Fuel System" SERVICE AS REQUIRED Section)



F-10246C

- (1) Fuel gauge
- (A) "FULL"
- (B) "EMPTY"

Coolant Temperature Gauge

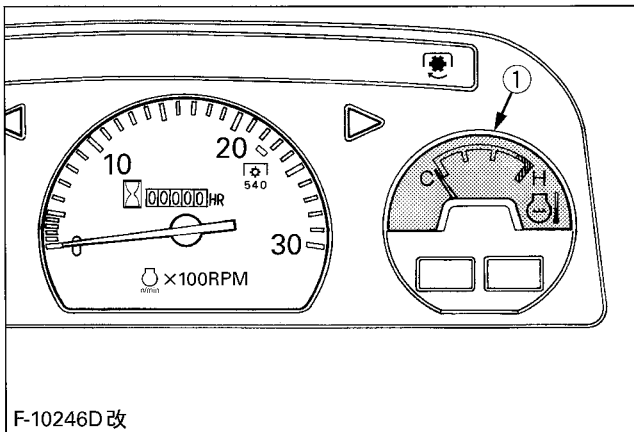


CAUTION

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", this gauge indicates the temperature of the coolant. "C" for "cold" and "H" for "hot."
- If the indicator reaches the "H" position (red zone), engine coolant is overheated. Check the tractor by referring to "Troubleshooting" section.

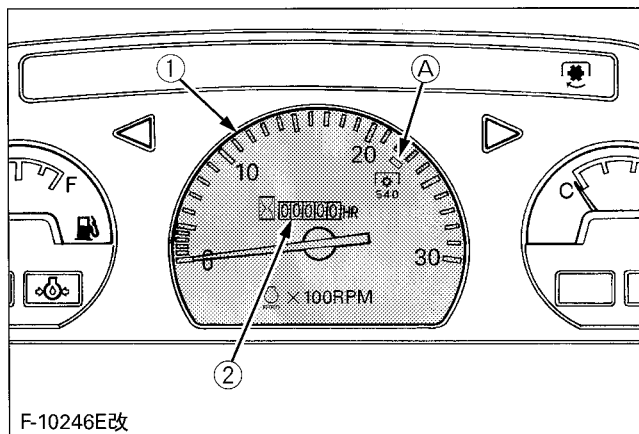


(1) Coolant temperature gauge

Hourmeter/Tachometer

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

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



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

PARKING

Parking



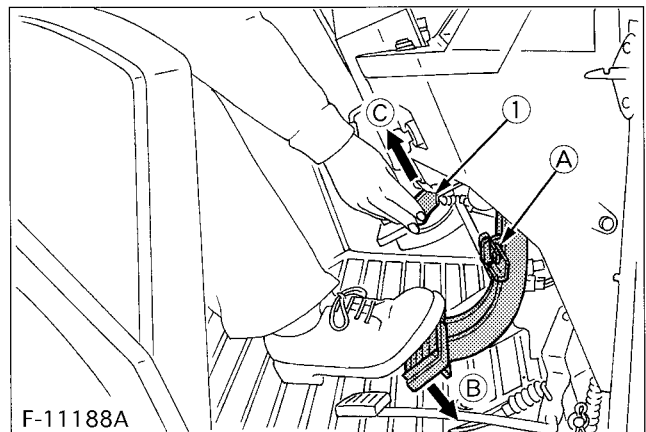
CAUTION

To avoid personal injury:

BEFORE DISMOUNTING TRACTOR

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

- When parking, be sure to set the parking brake. To set the parking brake;
 - Interlock the brake pedals.
 - Depress the brake pedals.
 - Latch the brake pedals with the parking brake lever.



(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.

IMPORTANT:

- Do not leave your tractor in the rain. If it cannot be avoided, cover the muffler pipe to prevent water entering.

OPERATING TECHNIQUES

Differential Lock



WARNING

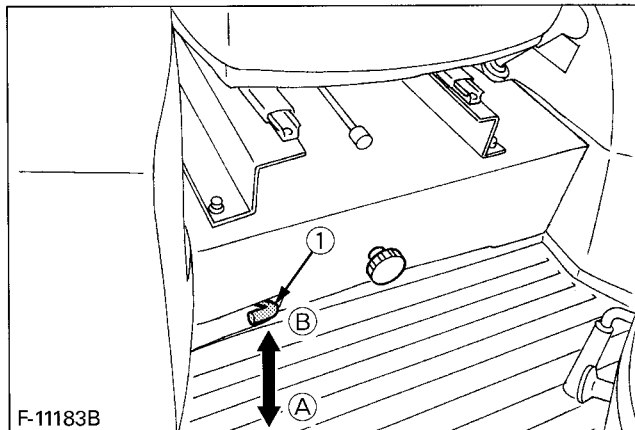
To avoid personal injury due to loss of steering control:

- Do not operate the tractor at high speed with any differential lock engaged.
- Do not attempt to turn with the rear wheel or 4-wheel differential lock engaged.
- Be sure to release the rear wheel or 4-wheel differential locks before making a turn in field conditions.

M5700

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.



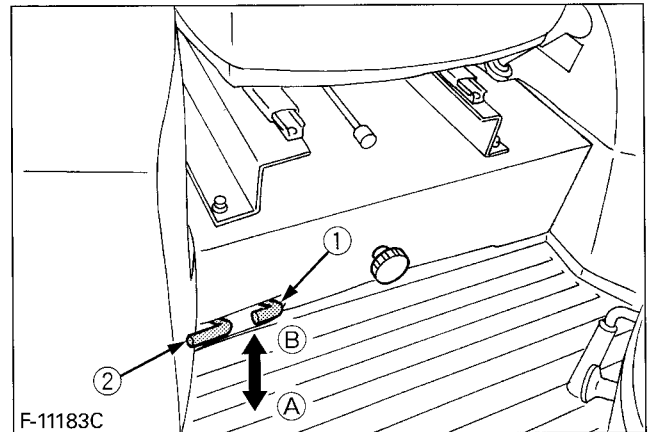
(1) Differential lock pedal (Rear wheel) (A) Press to "ENGAGE" (B) Release to "DISENGAGE"

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.

M6800-M8200-M9000

1. If the front and/or rear wheels should slip while driving straight in field conditions, step on the 4-wheel differential lock pedal. The four wheels will then turn together, reducing slippage.
2. If the front and/or rear wheels slip while in a turn in field conditions, step on the front wheel differential lock pedal only. The front wheels alone will rotate together for easy turning.



(1) 4-wheel differential lock pedal (Rear and Front wheel) (A) Press to "ENGAGE" (B) Release to "DISENGAGE"
(2) Front wheel differential lock pedal (Front wheel only)

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.
- To prevent damage to power train, do not attempt to turn the tractor when 4-wheel differential lock pedal is pressed down.
- If the differential lock cannot be released:
 - 4-wheel differential lock pedal: --- Step lightly on the brake pedals alternately.
 - Front wheel differential lock pedal: --- Turn the steering wheel alternately.

■ Operating the Tractor on a Road



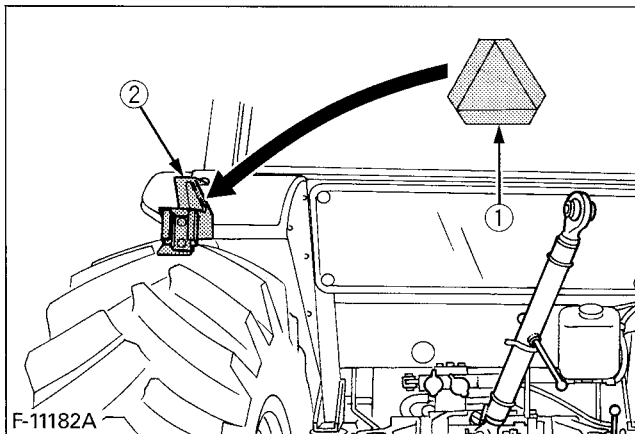
CAUTION

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.

1. Be sure wheel tread is adjusted to provide maximum stability.
(See "Wheel Adjustment" in Tires, Wheels and Ballast section.)
2. Slow down for slopes, rough ground, and sharp turns, especially when transporting heavy, rear mounted equipment.
3. Before descending a slope, shift to a gear low enough to control speed without using brakes.

■ Directions for Use of Power Steering

1. 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.
2. When the steering wheel is turned all the way to the stop, the relief valve is activated. Do not hold the steering wheel in this position for a long period of time.
3. Avoid turning the steering wheel while the tractor is stopped, or tires may wear out sooner.
4. The power steering mechanism makes the steering easier. Be careful when driving on a road at high speeds.

PTO

PTO OPERATION



CAUTION

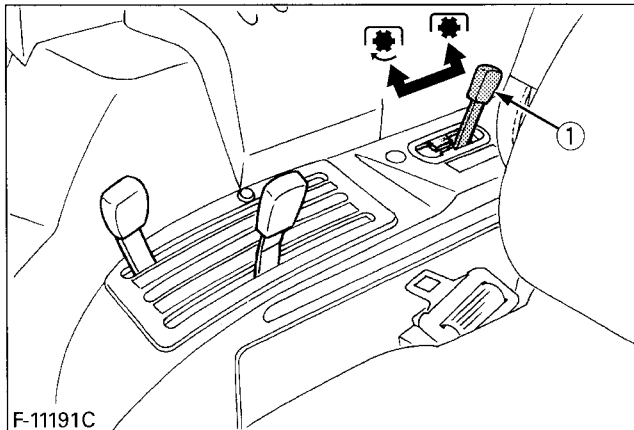
To avoid personal injury:

- 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 and 6-spline shaft.
2. 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.



F-11191C

(1) PTO clutch control lever "ON" "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.

Tractor model	Engine speed rpm	PTO speed rpm
M5700 M6800	2295	540
M8200 M9000	2205	540

NOTE:

- There is a PTO-1 (540rpm) indicated mark on the tachometer board.
- Tractor engine will not start if the PTO clutch control lever is in the engaged "ON" position.

1000 rpm PTO Shaft (option)

M8200-M9000

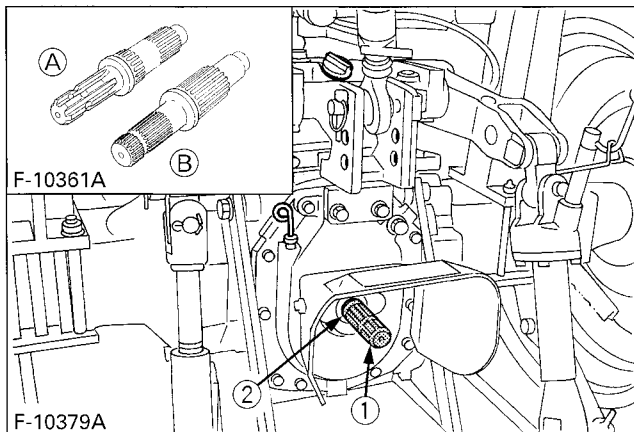


WARNING

To avoid personal injury:

- Be sure to observe the PTO shaft speed prescribed for the individual implements. It is extremely dangerous to run an implement at high speed that is meant to be operated at low speed. Use only when this higher rpm is specifically recommended by the implement manufacturer.

By interchanging the PTO shafts, two different PTO shaft speeds can be obtained.



(1) PTO shaft (A) 540 rpm PTO shaft
(2) Snap ring (B) 1000 rpm PTO shaft

◆ PTO shaft interchanging procedure

1. The 6-spline 540 rpm PTO shaft is standard equipment.
2. Place an oil pan under the PTO shaft to catch oil spillage. Remove the snap ring, and then the PTO shaft.
3. Install the 21-spline PTO shaft (1000 rpm). To ensure that it is tight, push it in by turning.
4. Reinsert the snap ring.
5. Set the distance from drawbar pin hole to the rear end of PTO shaft according to the following instructions.

	PTO Shaft Type	Distance
540 rpm	6-spline	355 mm (14 in.)
1000 rpm	21-spline	406 mm (16 in.)

Tractor model	Engine speed rpm	PTO speed rpm
M8200	2035	540
M9000	2389	1000

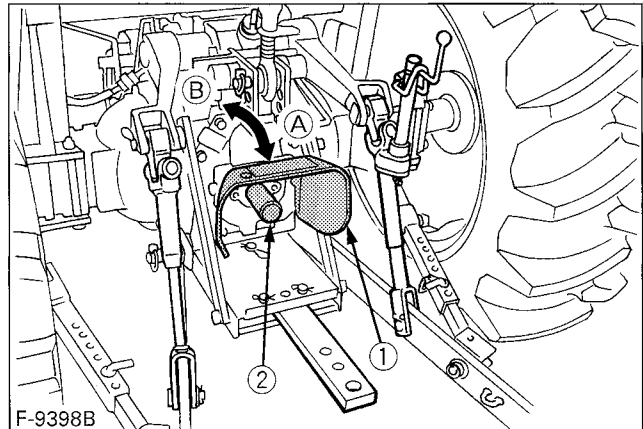
IMPORTANT:

- For maximum PTO shaft speeds of various implements, see the implement Operator's Manual.

PTO Shaft Cover and Shaft Cap

Keep the PTO shaft cover in place at all times. Replace the PTO shaft cap when the PTO is not in use. Before connecting or disconnecting a drive shaft to PTO shaft, be sure engine is "OFF" raise up the PTO shaft cover.

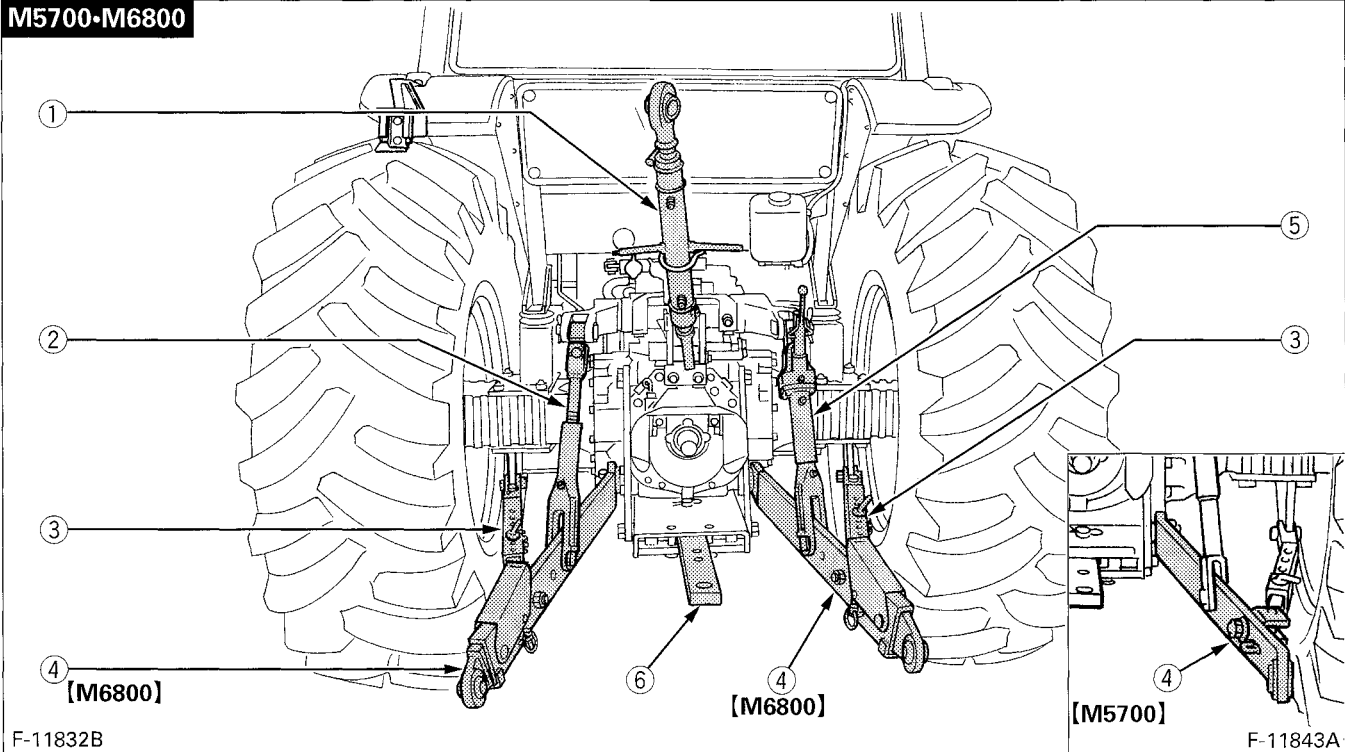
Afterward be sure to return the PTO shaft cover to the "NORMAL POSITION".



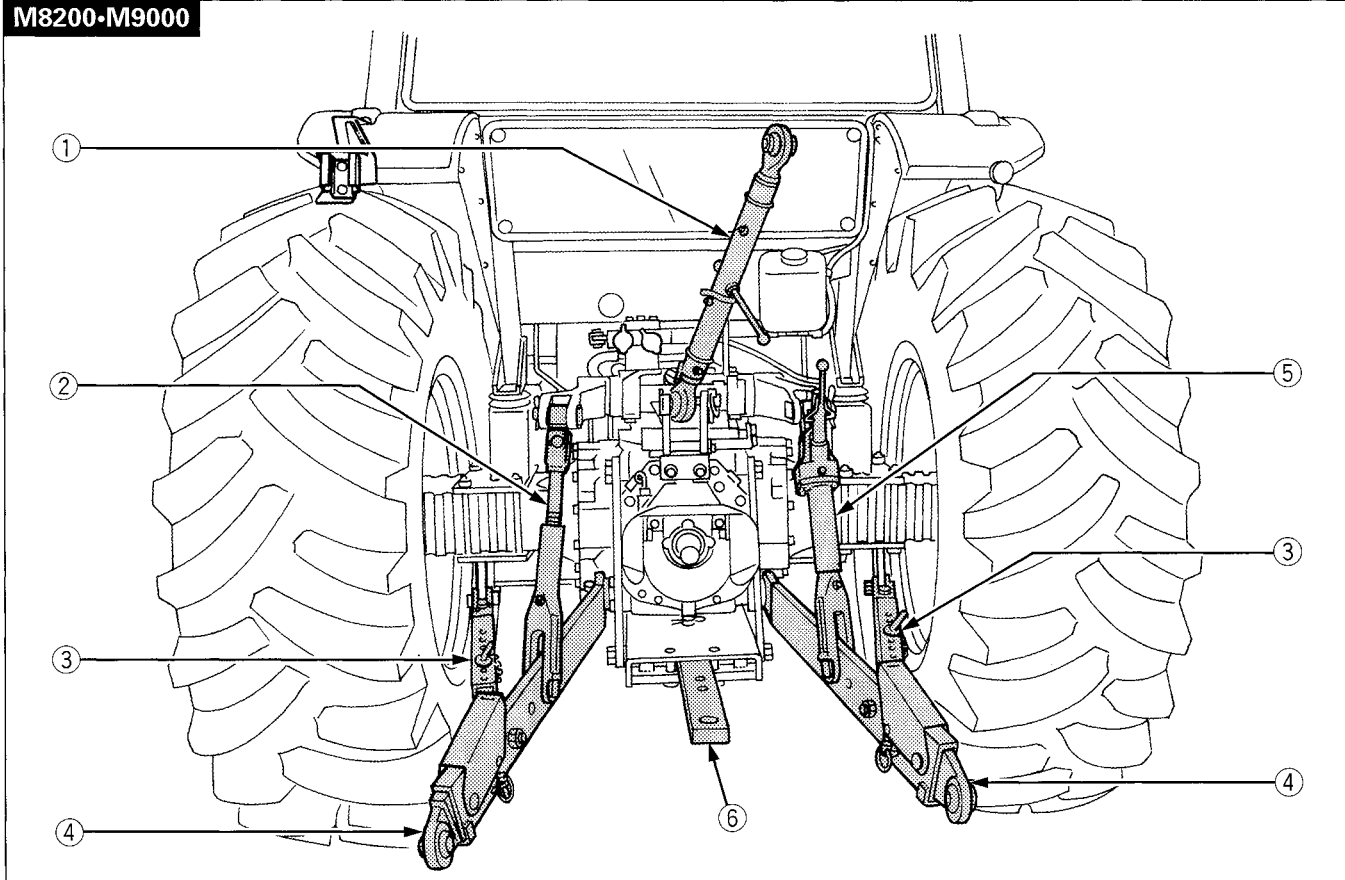
(1) PTO shaft cover (A) "NORMAL POSITION"
(2) PTO shaft cap (B) "RAISED POSITION"

THREE-POINT HITCH & DRAWBAR

M5700-M6800



M8200-M9000



- (1) Top link
- (2) Lifting rod (Left)
- (3) Telescopic stabilizers
- (4) Lower link
- (5) Lifting rod (Right)
- (6) Drawbar

3-POINT HITCH

1. Make preparations for attaching implement.

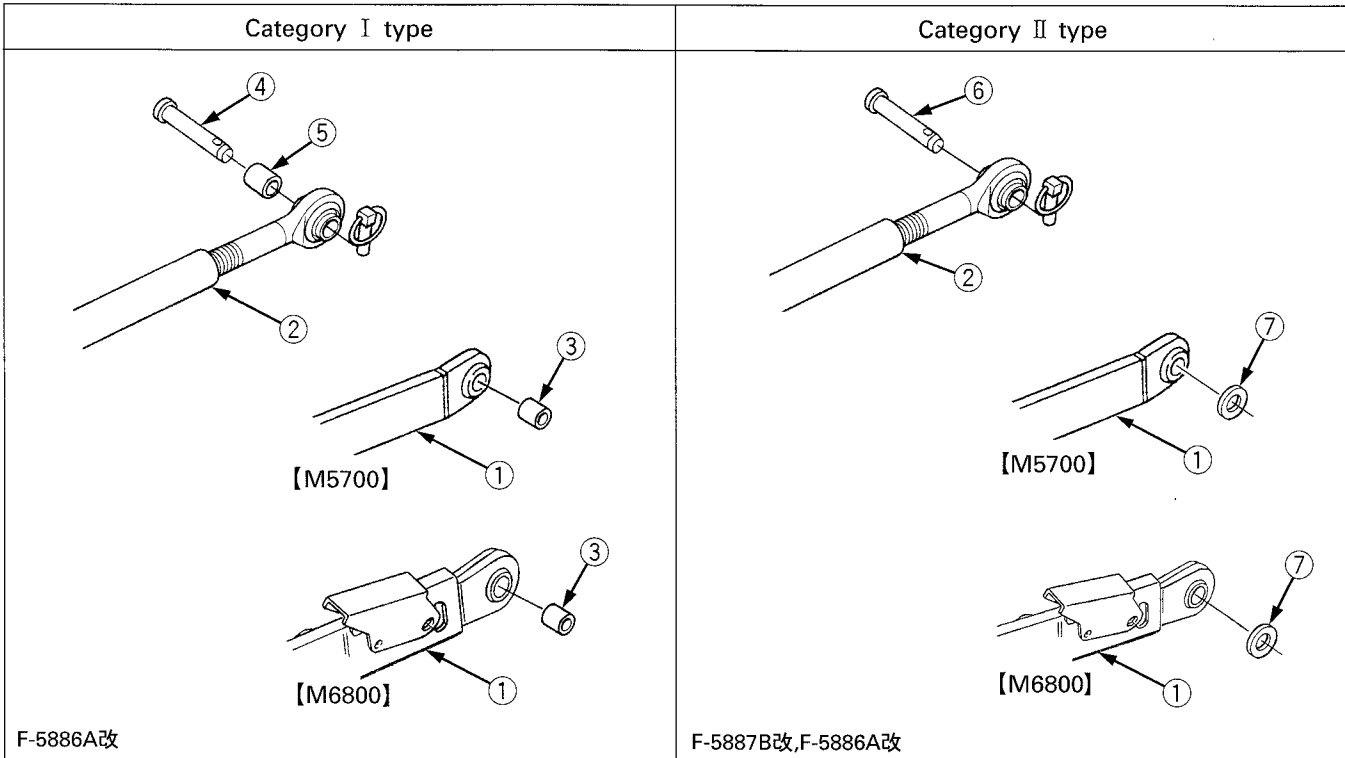
Category I & II M5700-M6800

M5700-M6800 have both category I & II.

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

To change from category I to category II.

1. Remove adjusting collar from the lower link.
2. Add side collar onto both the lower links.
3. Remove adjusting collar from the rear top link pin.
4. Use the correct rear top link pin for category II.



(1) Lower link
(2) Top link

(3) Collar, lower link (I)
(4) Top link rear pin (I)

(5) Collar, top link (I)
(6) Top link rear pin (II)

(7) Collar, side (II)

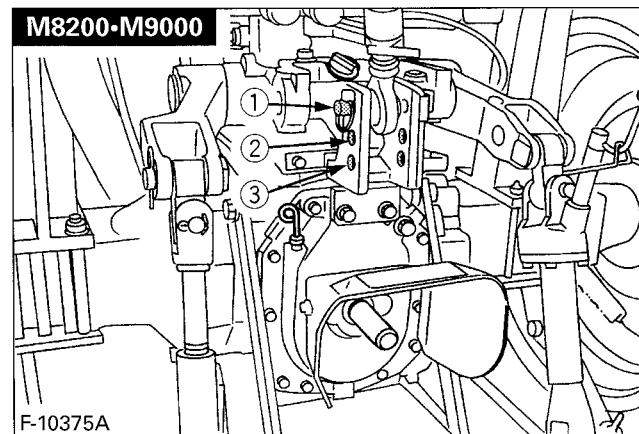
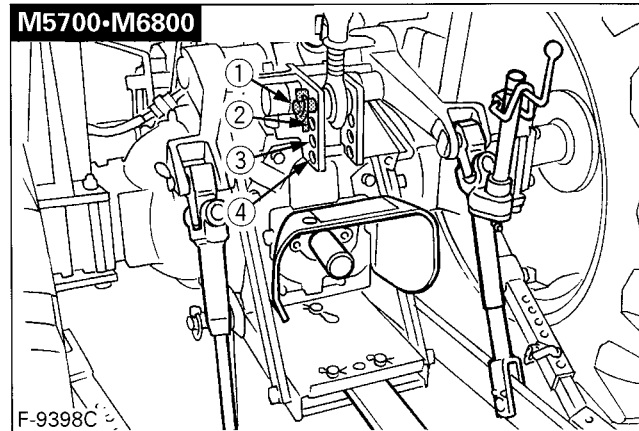
Category II M8200-M9000

M8200 • M9000 have category II 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 lower set of top link mounting holes. If draft control is not required, it is recommended to use the top set (1).



Drawbar

Remove the drawbar if a close mounted implement is attached.

2. Attaching and detaching implements



CAUTION

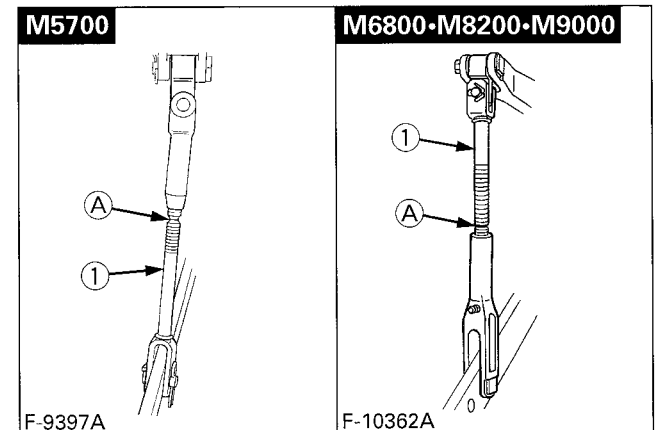
To avoid personal injury:

- 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.
- Do not exceed maximum allowable length of either lifting rod, or the lifting rod will come apart and the 3-point equipment may fall.

Lifting Rod (Left)

By turning the rod itself, the lifting rod varies its length.

When extending the rod, do not exceed the groove on the rod thread.



(1) Lifting rod

(A) "GROOVE"

■ Lifting Rod (Right)



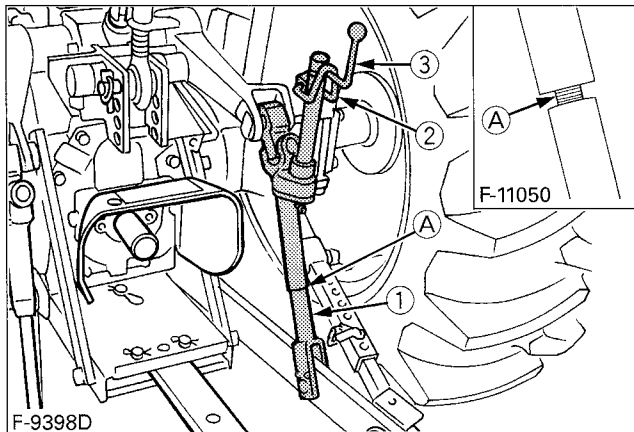
CAUTION

To avoid personal injury:

- Do not extend lifting rod beyond the point where threads are exposed.

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) Lifting rod
- (2) Handle stopper
- (3) Adjusting handle
- (A) "THREAD"

■ Top Link

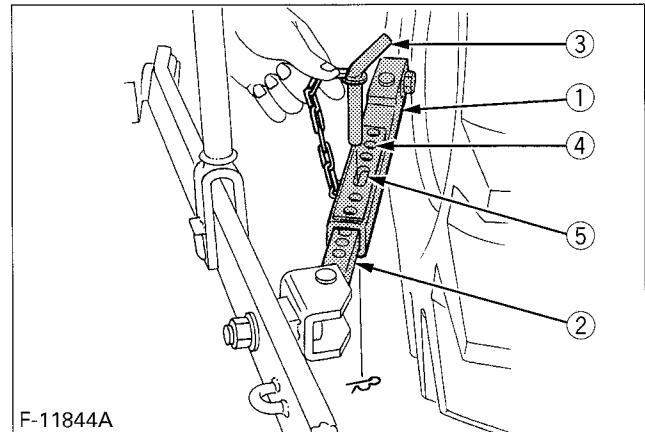
1. Adjust the angle of the implement to the desired position by shortening or lengthening the top link.
2. The proper length of the top link varies according to the type of implement being used.

■ 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 five 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.



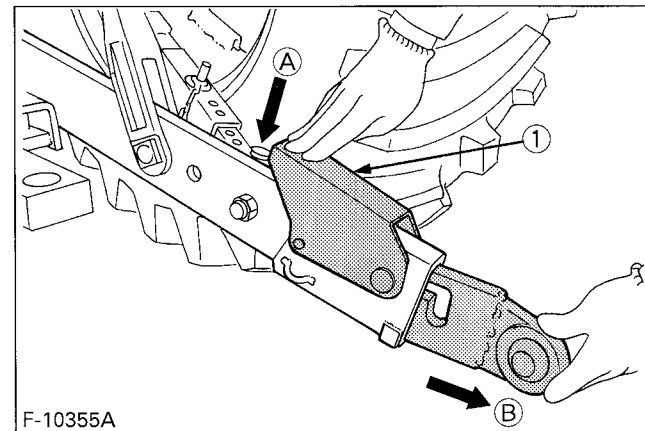
- (1) Outer tube
- (2) Inner bar
- (3) Set-pin
- (4) Hole
- (5) Slot

■ Telescoping Lower Links

M6800-M8200-M9000

To attach an implement, follow the instructions below:

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



- (1) Lever
- (A) "PUSH"
- (B) "PULL OUT"

DRAWBAR



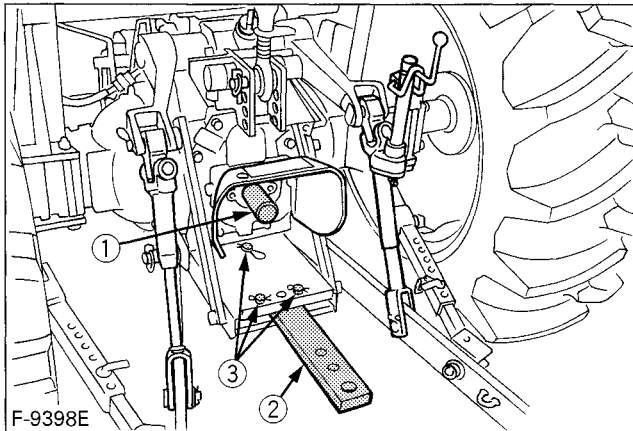
WARNING

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.

NOTE:

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

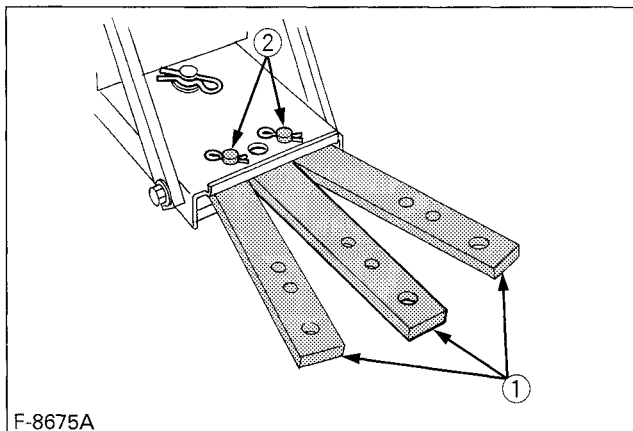


F-9398E

- (1) PTO shaft
- (2) Drawbar
- (3) Drawbar pin

■ Swing Drawbar

The drawbar can be used in three different ways as illustrated below. Assemble it correctly with drawbar pins.



F-8675A

- (1) Drawbar
- (2) Drawbar pin

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

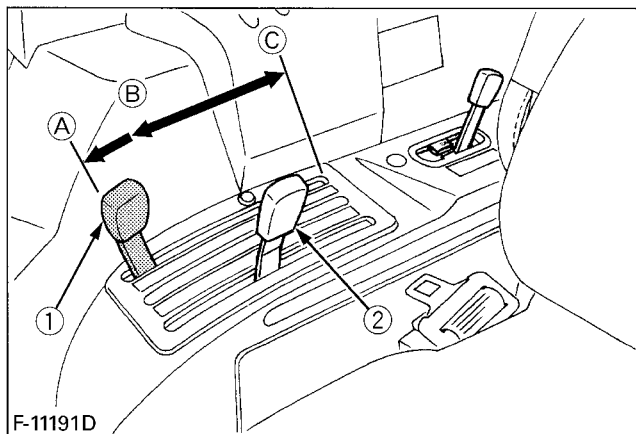
IMPORTANT:

- 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 hitch mounted implement regardless of the amount of pull required.

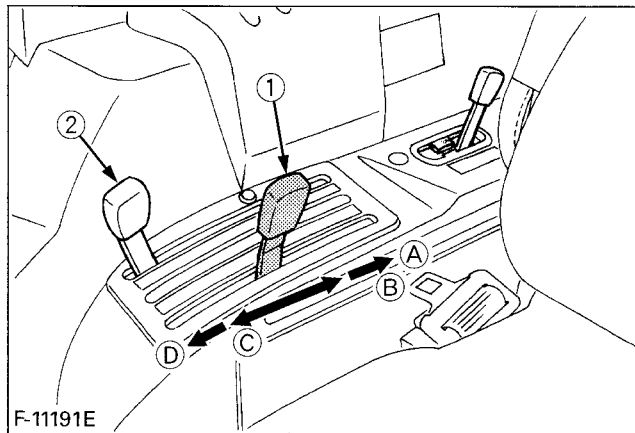


- (1) Position control lever (A) "FLOAT"
 (2) Draft control lever (B) "DOWN"
 (C) "UP"

■ Draft Control

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.

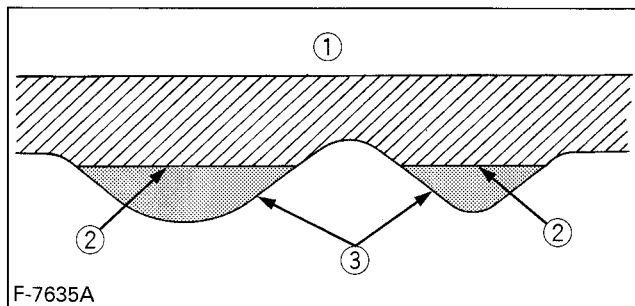


- (1) Draft control lever (A) "UP" (M8200/M9000 only)
 (2) Position control lever (B) "SENSITIVE"
 (C) "INSENSITIVE"
 (D) "FLOAT"

■ 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 penetration 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

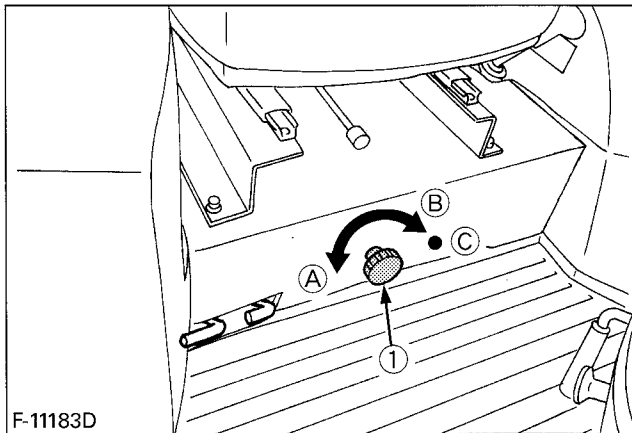


CAUTION

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"

REMOTE HYDRAULIC CONTROL SYSTEM

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

It is not possible to use triple segments with flow control valve.

■ Remote Control Valve

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

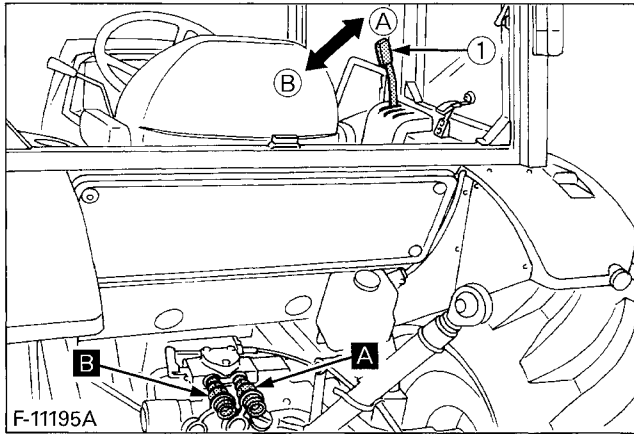
- Double acting valve with detents and self cancelling: This valve may be placed in the detent mode. The lever will stay in this position until the pressure reaches a predetermined level or a cylinder reaches the end of its stroke. Then it will automatically return to neutral.
- Double acting valve with float position: This valve may be placed in the float mode with the control lever all the way forward. The cylinder is free to extend or retract, letting an implement such as a loader bucket follow the ground.

NOTE:

- This float valve can be attached as the second or third segment.

Remote Control Valve Lever

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



(1) Remote control valve lever (A) "PUSH"
(B) "PULL"

		Pressure →	
		Returning ←	
Lever (1)		Push	Pull
Port	A	Out →	In ←
	B	In ←	Out →

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.

NOTE:

- Connect the pressure of load side of implement cylinders to port **B** which has built in load check valve to prevent leak down.
- To use the single-acting cylinder with the float valve, connect this cylinder to the **B** port. To extend a single-acting cylinder, pull the remote control valve lever rearward. To retract a cylinder, push it fully forward to the "FLOAT" position. Do not hold it in the down position, the transmission fluid may be overheat.

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.
3. Insert the implement coupler to the tractor hydraulic coupler.
4. Pull the implement coupler slightly to make sure couplers are firmly connected.

◆ Disconnecting

1. Lower the implement first to the ground to release hydraulic pressure in the hoses.
2. Clean the couplers.
3. Relieve pressure by moving hydraulic control levers with engine shut off. Pull the hose straight from the hydraulic coupler to release it.
4. 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.

Flow Control Valve(option)

The optional flow control valve may be added for the following purposes.

1. To operate within limits, the remote control valve (2) above the flow control valve (3) and the 3-point hitch at the same time without one affecting the other.
2. To operate within limits, the remote control valve (2) above the flow control valve (3) and the other remote control valve (1) at the same time without one affecting the other. Activating the remote control valve (1) will interrupt the operation of the 3-point hitch.
3. To maintain within limits, the constant speed of an attachment (hydraulic motor RPM, for example) when connected to the remote control valve (2) above the flow control valve (3).

NOTE:

- At slower engine speeds the total hydraulic flow rate may be inadequate for simultaneous operation of the remote control valve (2) and the 3-point hitch or the remote control valve (1), or operation of an attachment connected to the remote control valves (1)(2). Under these conditions, the engine speed must be increased to provide additional hydraulic flow.

Adjusting the flow rate



CAUTION

To avoid the possibility of personal injury be aware of the following when making adjustments:

- The 3-point hitch operation is influenced by the combination of the adjustment of the flow control valve and the engine speed.
- The 3-point hitch may raise slowly or not at all at low engine RPM.
- The 3-point hitch may raise suddenly if engine RPM is increased, or, flow control adjustment is changed.

Refer to the illustration below.

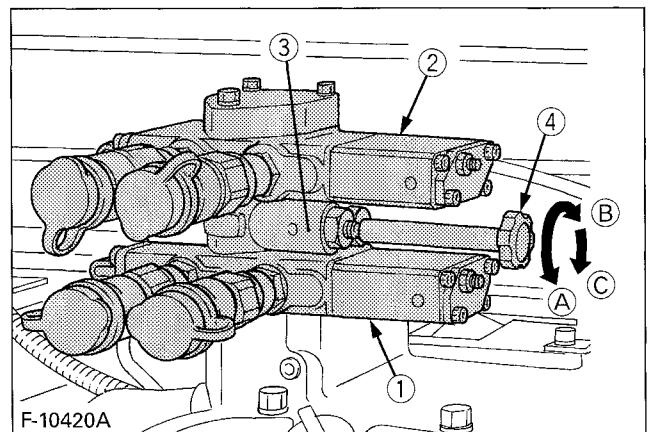
1. The flow rate for the remote control valve (2), located above the flow control valve (3), can be adjusted.
2. Turn the flow control knob (4) counterclockwise (A), and the flow rate for the remote control valve (2) increases. A clockwise turn (B) of the knob causes the flow to decrease. If the knob is turned all the way (C), there will be no flow.
3. To adjust the flow rate, set the engine speed to the operating RPM, turn the flow control knob once all the way clockwise (C), and then turn it gradually counterclockwise until a required flow rate is reached.

NOTE:

- Full adjustment of the valve will occur in approximately 1 1/2 revolutions of the flow control knob. Turning the flow control knob beyond this point will have no effect on the flow rate.

IMPORTANT:

- When there is no need to adjust the flow rate, turn the flow control knob all the way counterclockwise and keep it in this position.



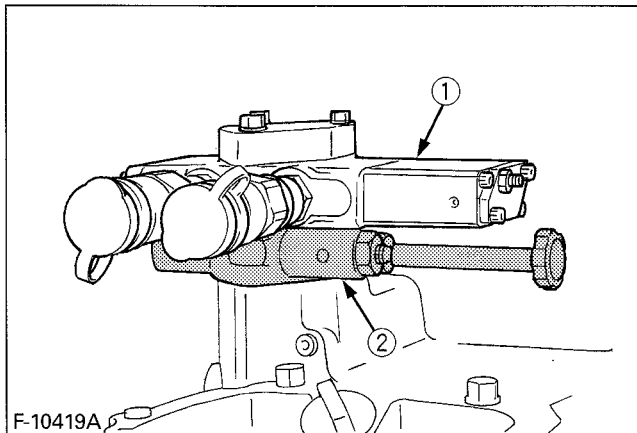
(1) Remote control valve (1) (A) "INCREASE"
 (2) Remote control valve (2) (B) "DECREASE"
 (3) Flow control valve (C) "STOP"
 (4) Flow control knob

Positions and advantages of the flow control valve

Refer to illustration below.

◆ Position 1

1. The attachment control speed (hydraulic motor RPM, for example) of the remote control valve (1) can be maintained at a constant level within limits.
2. The remote control valve (1) and the 3-point hitch can be operated at the same time. The 3-point lift speed will be influenced by the level of flow required at remote control valve (1).

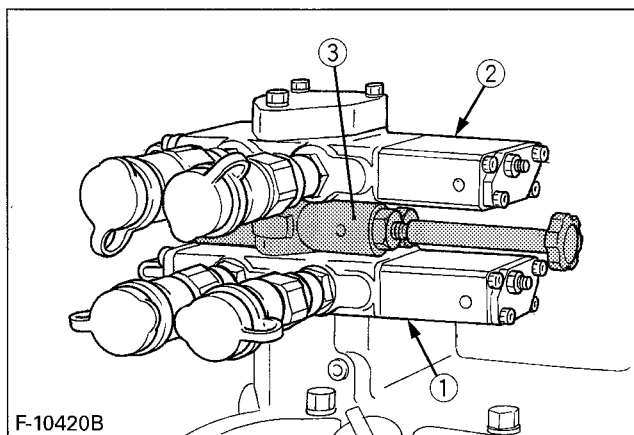


(1) Remote control valve (1)

(2) Flow control valve

◆ Position 2

1. The attachment control speed (hydraulic motor RPM, for example) of the remote control valve (2) can be maintained at a constant level.
2. The remote control valve (2) and the 3-point hitch can be operated at the same time with the speed of the 3-point being influenced by the adjustment range of the flow control valve.
3. Remote control valves (1) and (2) can be operated at the same time with operation of the 3-point hitch being interrupted by activation of valve (1).
4. The operation of valve (1) is influenced by the flow adjustment to valve (2).
5. The 3-point hitch lift speed and the flow available for valve (1) are influenced by the flow adjustment of valve (2).



(1) Remote control valve (1)

(2) Remote control valve (2)

(3) Flow control valve

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.

Implement	Soil condition	Top link mounting holes	F-11191F ① Position control lever ② Draft control lever	F-2016A Gauge wheel	F-9399C ① Telescopic stabilizers	Remarks	Adjustment			
							YES/NO	Loose	Tighten	
Moldboard plow	Light soil	3 or 4	Draft and Mixed control (Place the draft control lever to the suitable position and set the implement pull with the position control lever)	YES/NO	① Telescopic stabilizers	Insert the set-pin through the slot on the outer tube that align with one of the holes on the inner bar. For implements with gauge wheels, lower the position control lever all way.	Telescopic stabilizer should be tight enough to prevent excessive implement movement when implement is in raised position. For implements with gauge wheels, lower the position control lever all way.	YES	YES/NO	NO
	Medium soil	2 or 3								
Disc plow	Heavy soil	2 or 3	Position control	YES/NO	① Telescopic stabilizers	Insert the set-pin through the slot on the outer tube that align with one of the holes on the inner bar. For implements with gauge wheels, lower the position control lever all way.	Telescopic stabilizer should be tight enough to prevent excessive implement movement when implement is in raised position. For implements with gauge wheels, lower the position control lever all way.	YES	YES/NO	NO
	—	2, 3 or 4								
Harrower (spike, springtooth, disc type)	—	2 or 3	Position control	YES/NO	① Telescopic stabilizers	Insert the set-pin through the slot on the outer tube that align with one of the holes on the inner bar. For implements with gauge wheels, lower the position control lever all way.	Telescopic stabilizer should be tight enough to prevent excessive implement movement when implement is in raised position. For implements with gauge wheels, lower the position control lever all way.	YES	YES/NO	NO
	Sub-soiler	2 or 3								
Weeder, ridger	—	2 or 3	Position control	YES/NO	① Telescopic stabilizers	Insert the set-pin through the slot on the outer tube that align with one of the holes on the inner bar. For implements with gauge wheels, lower the position control lever all way.	Telescopic stabilizer should be tight enough to prevent excessive implement movement when implement is in raised position. For implements with gauge wheels, lower the position control lever all way.	YES	YES/NO	NO
Earthmover, digger, scraper, manure fork, rear carrier	—	1								
	Mower (mid- and rear-mount type) Hayrake, tedder ...	—	1	Position control	YES/NO	① Telescopic stabilizers	Insert the set-pin through the slot on the outer tube that align with one of the holes on the inner bar. For implements with gauge wheels, lower the position control lever all way.	Telescopic stabilizer should be tight enough to prevent excessive implement movement when implement is in raised position. For implements with gauge wheels, lower the position control lever all way.	YES	YES/NO

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.

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
Front	9.5L-15, 6PR	220 kPa(2.2 kgf/cm ² , 32 psi)
	9.5-20, 6PR	200 kPa(2.0 kgf/cm ² , 29 psi)
	9.5-22, 6PR	200 kPa(2.0 kgf/cm ² , 29 psi)
	9.5-24, 6PR	180 kPa(1.8 kgf/cm ² , 26 psi)
	10.00-16, 6PR	200 kPa(2.0 kgf/cm ² , 29 psi)
	11.2-24, 6PR	160 kPa(1.6 kgf/cm ² , 23 psi)
Rear	12.4-24, 6PR	140 kPa(1.4 kgf/cm ² , 20 psi)
	16.9-28, 6PR	120 kPa(1.2 kgf/cm ² , 18 psi)
	16.9-30, 6PR	120 kPa(1.2 kgf/cm ² , 18 psi)
	16.9-34, 6PR	120 kPa(1.2 kgf/cm ² , 18 psi)
	18.4-28, 6PR	110 kPa(1.1 kgf/cm ² , 16 psi)
	18.4-30, 6PR	110 kPa(1.1 kgf/cm ² , 16 psi)

NOTE:

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

WHEEL ADJUSTMENT



CAUTION

To avoid personal injury:

- When working on slopes or when working with a trailer, set the wheel tread as wide as practical for maximum stability.
- 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.
- Support tractor securely on stands before removing a wheel.
- Never operate tractor with a loose rim, wheel, or axle.

Front Wheels (with four wheel drive)

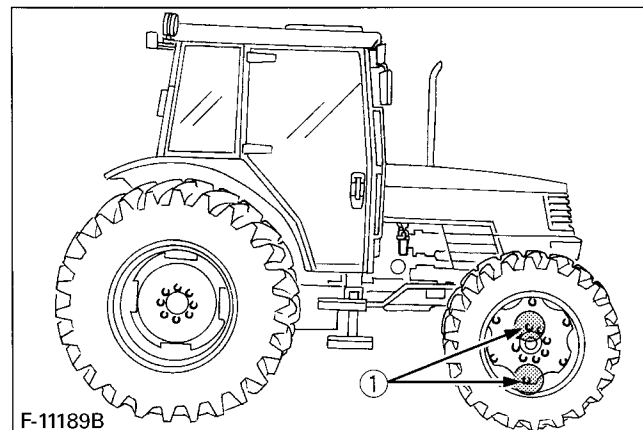
Front tread width can be adjusted as shown with the standard equipped tires.

To change the tread width

1. Remove the wheel rim and disk mounting bolts.
2. Change the position of the rim and disk (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.

IMPORTANT:

- Always attach wheels as shown in the drawing.
- 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 (200 yards) and thereafter according to service interval.
(See "MAINTENANCE" section)



(1) **[M5700]**

168 to 196 N·m (17.1 to 20.0 kgf·m) (124 to 145 ft·lbs)

[M6800-M8200-M9000]

260 to 304 N·m (26.5 to 31 kgf·m) (192 to 224 ft·lbs)

NOTE:

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

M5700	1330 mm (52.4 in.)	1430 mm (56.3 in.)
M6800 M8200	1420 mm (55.9 in.)	1520 mm (59.8 in.)
M9000	1520 mm (59.8 in.)	1620 mm (63.8 in.)

Rear Wheels

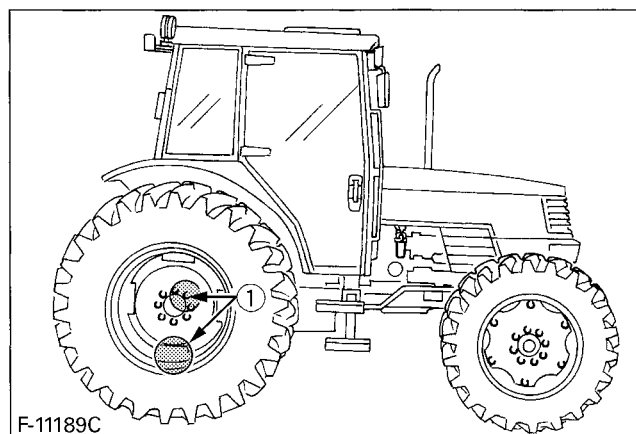
Rear tread width can be adjusted as shown with the standard equipped tires.

To change the tread width

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

IMPORTANT:

- Always attach tires as shown in the drawings.
- 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) 260 to 304 N·m (26.5 to 31.0 kgf·m)
(192 to 224 ft·lbs)

M5700	16.9–28	—	1420 mm (55.9 in.)	1520 mm (59.8 in.)	1620 mm (63.8 in.)	1720 mm (67.7 in.)
M6800	16.9–30	—	1420 mm (55.9 in.)	1520 mm (59.8 in.)	1620 mm (63.8 in.)	1720 mm (67.7 in.)
M8200	18.4–28	1520 mm (59.8 in.)	1620 mm (63.8 in.)	1720 mm (67.7 in.)	1820 mm (71.7 in.)	1920 mm (75.6 in.)
M9000	18.4–30	1520 mm (59.8 in.)	1620 mm (63.8 in.)	1720 mm (67.7 in.)	1820 mm (71.7 in.)	1920 mm (75.6 in.)

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

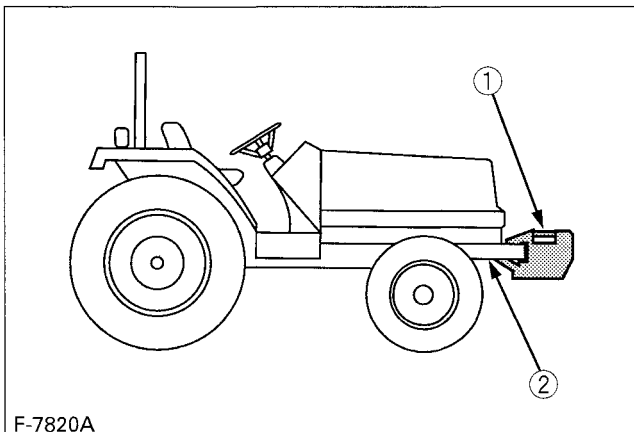
Add weights if needed for stability and improve traction.

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.



F-7820A

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

IMPORTANT:

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

	Maximum weight
M5700-M6800	47 kg X 8 Pieces (830 lbs.)
M8200-M9000	47 kg X 10 Pieces (1040 lbs.)

NOTE:

- Bumper weight : 90 kg (199 lbs.)

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, and/or cast iron disks.

Cast Iron Disk (option)

M6800-M8200-M9000

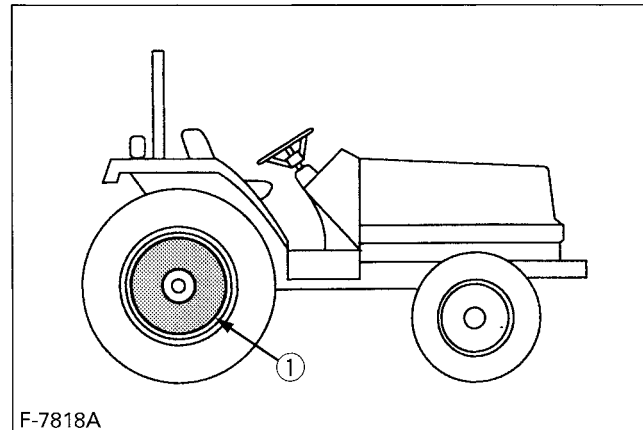
On models M6800, M8200 and M9000, the cast iron rear wheel disk may be utilized to provide additional rear weight.

Tire size	Cast Iron Disk
16.9-30 18.4-28 18.4-30	158 kg X 2 Pieces (700 lbs.)
16.9-34	270 kg X 2 Pieces (1200 lbs.)

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.



F-7818A

- (1) Rear wheel weights

IMPORTANT:

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

Rear wheel weight	72.6 kg X 2 Pieces (320 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.

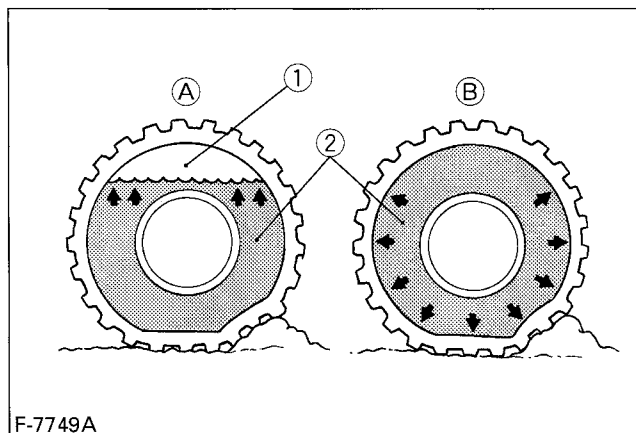
Use of this method of weighting the wheels has the full approval of the tire companies. See your tire dealer for this service.

Liquid weight per tire (75 Percent filled)

Tire sizes	16.9-28	16.9-30	16.9-34	18.4-28	18.4-30
Slush free at -10°C (14°F) Solid at -30°C (-22°F) [Approx. 1 kg (2 lbs.) CaCl ₂ per 4 L (1 gal.) of water]	295 kg (651 lbs.)	314 kg (693 lbs.)	346 kg (762 lbs.)	357 kg (786 lbs.)	385 kg (848 lbs.)
Slush free at -24°C (-11°F) Solid at -47°C (-53°F) [Approx. 1.5 kg (3.5 lbs.) CaCl ₂ per 4 L (1 gal.) of water]	317 kg (699 lbs.)	338 kg (746 lbs.)	376 kg (829 lbs.)	387 kg (852 lbs.)	414 kg (912 lbs.)
Slush free at -47°C (-53°F) Solid at -52°C (-62°F) [Approx. 2.25 kg (5 lbs.) CaCl ₂ per 4 L (1 gal.) of water]	339 kg (747 lbs.)	357 kg (787 lbs.)	399 kg (880 lbs.)	411 kg (907 lbs.)	436 kg (960 lbs.)

IMPORTANT:

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



F-7749A

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

CAB OPERATION

DOOR AND WINDOW

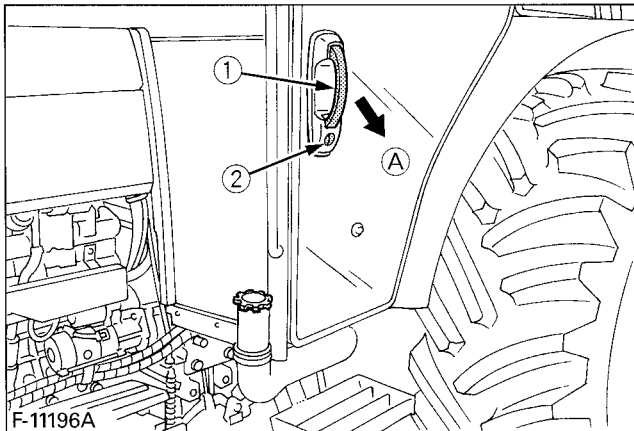
Locking and Unlocking the Door

From the outside Insert the key into the key hole. Turn the key clockwise to unlock the right door. Turn the key counterclockwise to unlock the left door. To lock the doors, turn the key in the opposite direction. The key can be removed when it is in the vertical direction.

From the inside Push down the lock knob to lock the door. Pull up the lock knob to unlock the door.

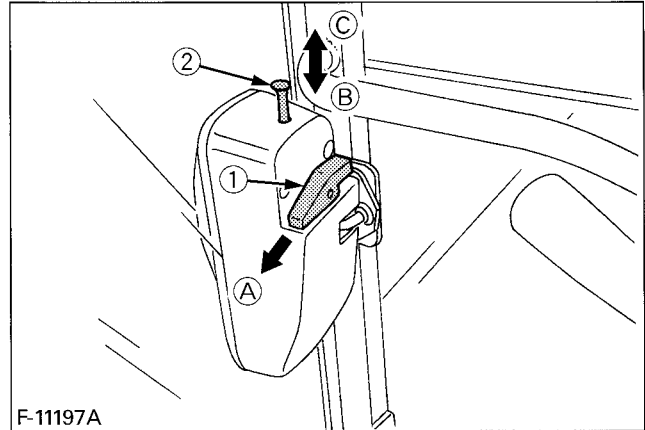
Opening the Door

From the outside Unlock the door, and pull the outer door handle.



(1) Outer door handle (A) "PULL"
(2) Key hole

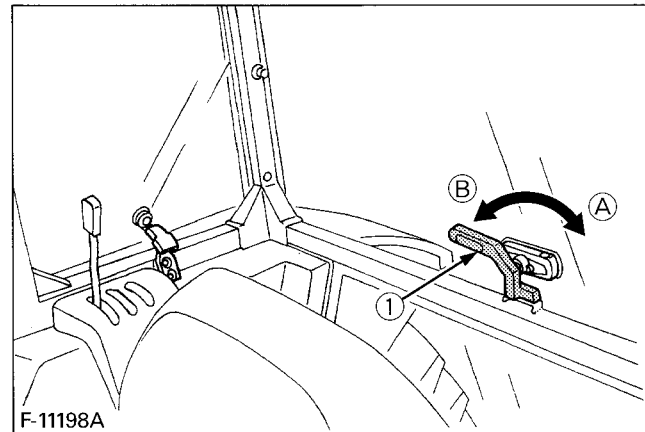
From the inside Unlock the door and pull the inner door handle.



F-11197A
(1) Inner door handle (A) "PULL"
(2) Lock knob (B) "PUSH"(Lock)
(C) "PULL"(Unlock)

Rear Window

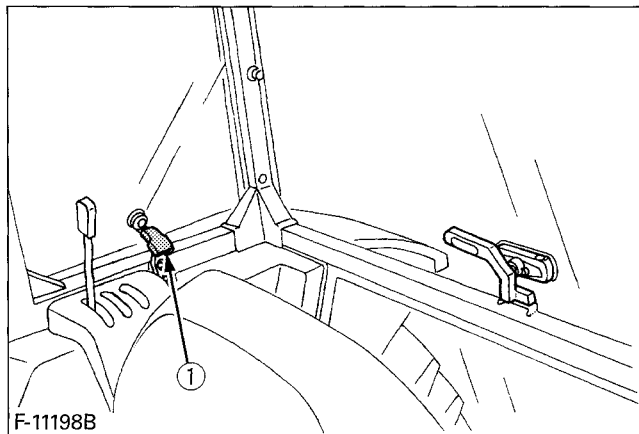
Turn the rear window handle clockwise to the vertical position and push the handle. The rear window is opened by the gas spring cylinder.



F-11198A
(1) Rear window handle (A) "OPEN"
(B) "CLOSE"

Side Window

Pull the side window handle and push the side window to open the window.



F-11198B

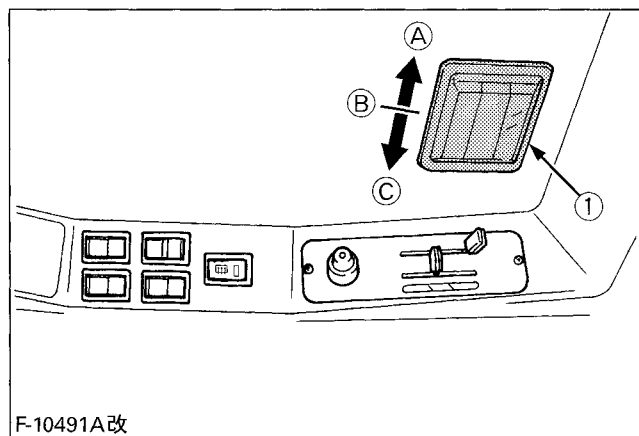
(1) Side window handle

DOME LIGHT

Dome Light

Sliding the dome light lens will give the following light condition:

- OFF The light does not turn on when the door is opened.
- DOOR The light turns on when the door is opened. It turns off when the door is closed.
- ON The light turns on regardless of the door position.



F-10491A改

(1) Dome light

- (A) "OFF"
- (B) "DOOR"
- (C) "ON"

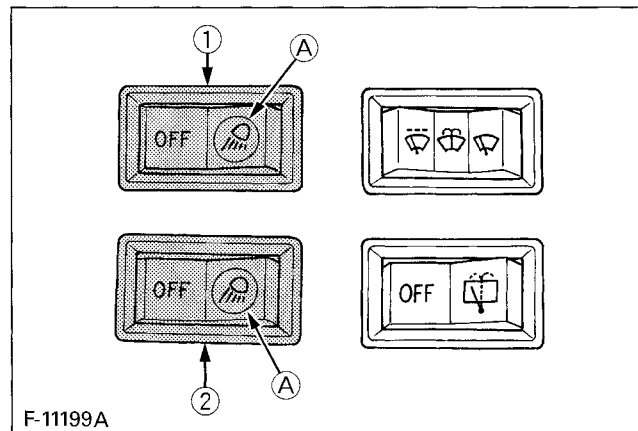
IMPORTANT:

- The battery will discharge if the dome light remains on. Be sure to check the dome light lens position and/or door closure.

WORK LIGHT

Work Light Switch

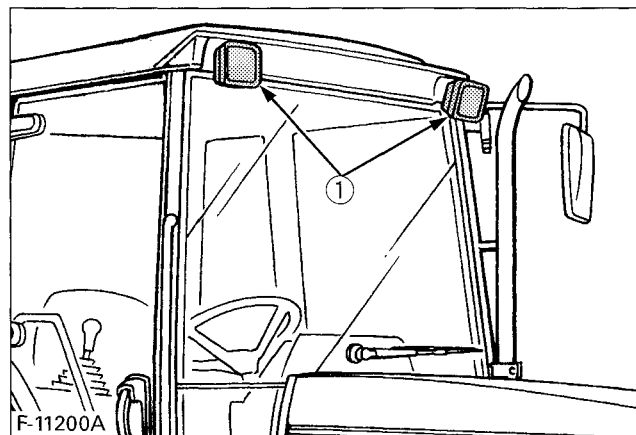
Turn on the key switch and press the right half of the work light switch. The work light and the switch's indicator light up. Press the left half of the work light switch to turn off the light and indicator.



F-11199A

- (1) Front work light switch (A) Indicator for work lights
- (2) Rear work light switch (if equipped)

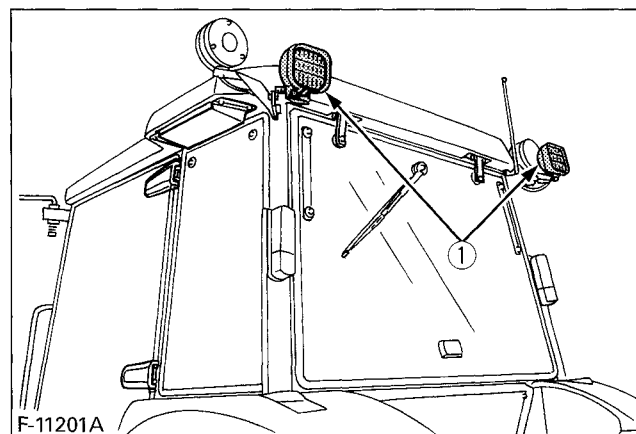
Front Work Light



F-11200A

(1) Front work light

Rear Work Light (if equipped)



F-11201A

(1) Rear work light

WIPER

■ Front Wiper/Washer Switch

1. Turn on the key switch and press the right half of the wiper switch to the first step, the wiper only is activated.

When the switch is pressed further to the second step, washer liquid jets out.

The jetting continues while the switch is pressed and the wiper is activated continuously.

2. Press the left half to the first step, the wiper is activated at regular intervals.

When the switch is pressed further to the second step, washer liquid jets out and the wiper is activated at regular intervals.

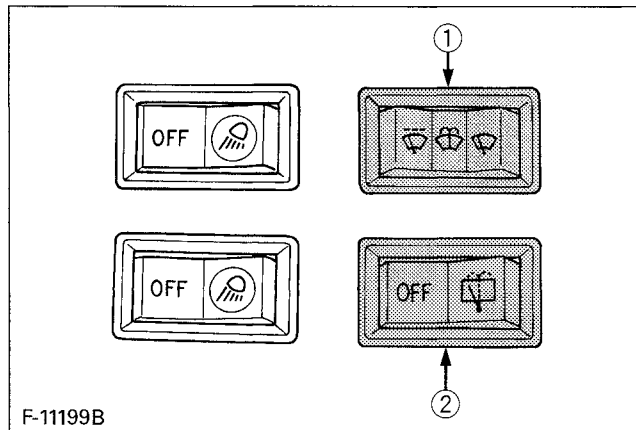
■ Rear Wiper/Washer Switch (if equipped)

1. Turn on the key switch and press the right half of the wiper switch to the first step, the wiper only is activated.

When the switch is pressed further to the second step, washer liquid jets out.

The jetting continues while the switch is pressed and the wiper is activated continuously.

2. Press the left half of the wiper / washer switch, washer liquid only jets out.



(1) Front wiper / Washer switch

(2) Rear wiper / Washer switch (if equipped)

IMPORTANT:

- Do not activate the wipers when the windows are dry, they may be scratched.
Be sure to jet washer liquid first and then activate the wipers.

■ Using the Wipers in Cold Season

1. While not used in cold season, keep the wiper blades off the windshield to prevent them from being stuck with ice.
2. If the windshield is covered with snow, scrape it off the windshield before using the wipers.
3. If the wiper blades are stuck on the windshield with ice and fail to move, be sure to turn the main key switch to "OFF" and remove the ice off the blades. Then place the main key switch back to "ON".
4. When commercially available cold-season wiper blades are used, make sure their size is the same as or smaller than that of the standard ones.

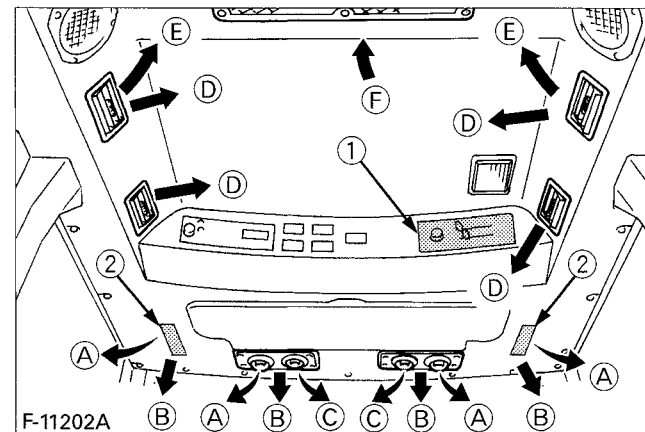
IMPORTANT:

- In cold season, the wiper blades and the wiper motor might get overloaded and in trouble. To avoid this, be sure to take the above precautions.

AIR CONDITIONER

■ Air Flow

Air in the CAB and fresh air introduced into the CAB flow as shown below. Adjust the 8 or 10 air ports to obtain the desired condition.



(1) Control panel

(2) Door air outlet
(if equipped)

(A) "DOOR WINDOW"

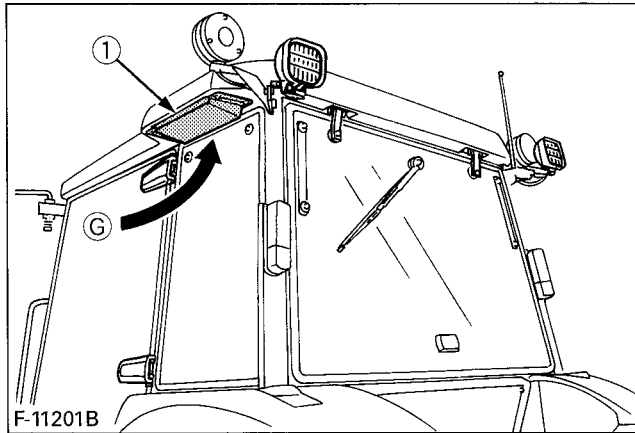
(B) "FOOT AREA"

(C) "WIND SHIELD"

(D) "FACE AREA"

(E) "BACK AREA"

(F) "INNER AIR RECIRCULATION"



(1) Fresh air filter (G) "FRESH AIR INLET"

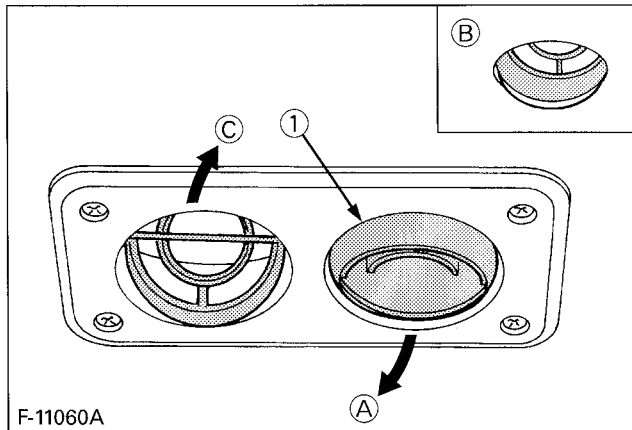
IMPORTANT:

- Do not pour water directly into the fresh air port while washing the vehicle.

■ Air Control Vent

◆ Front air outlet

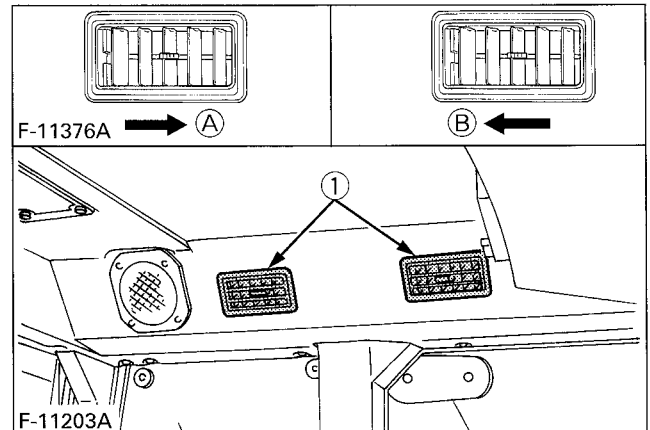
The front air outlets can be independently adjusted as required. To defrost the windshield, rotate the outlets toward the windshield.



(1) Front air outlet (A) "WINDSHIELD" (B) "CLOSED" (C) "CHEST AREA"

◆ Side air outlet

The side air outlets can be adjusted to direct air on to the operator or the rear of the CAB.



(1) Side air outlet (A) "OPEN" (B) "SHUT"





CAUTION

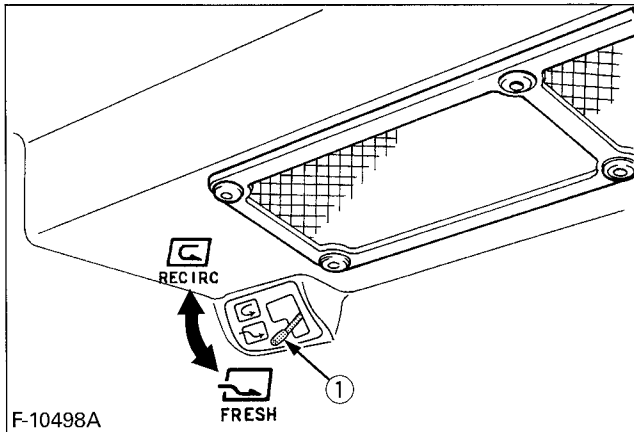
To avoid personal injury;

- Replace the water hoses every two seasons.
- Daily inspection
Have the tractor repaired immediately if any of the following defects are discovered.
(Such defects may cause burns or injury. They may also cause engine seizure or other serious failure.)
 - Scratches, cracks or swelling in water hoses
 - Water leakage at water hose joints
 - Missing or damaged water hose protective wrap or grommet.
 - Loose mounting bolt, damaged bracket
- Do not touch the water hoses and the heater with your hand. You may get burned.
- If the windows fail to defrost in extreme conditions or become cloudy when dehumidifying the CAB, wipe off moisture with soft cloth.
- Do not block all the air outlets of the air conditioner. A trouble may result.

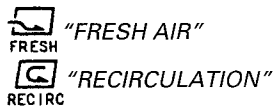
◆ **Recirculation / Fresh Air Selection Lever**

FRESH AIR: Set the lever to the  position, and fresh air will flow into the CAB. This is helpful when you work in dusty conditions or if the glass windows get foggy.

RECIRCULATION: Set the lever to the  position, and the in-CAB air will be recirculated. This is useful for cooling or heating the CAB quickly or keeping it extra cool or warm.



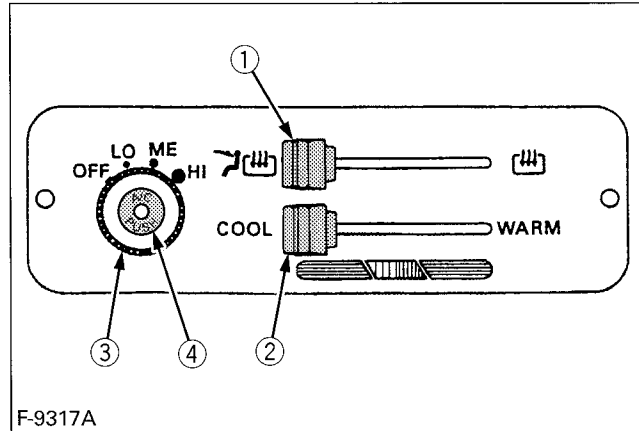
(1) Recirculation/
fresh air selection lever



NOTE:

- When heating, do not keep the lever at the "RECIRCULATION" position for a long time. The windshield easily gets foggy.
- While working in dusty conditions, keep the lever at the "FRESH AIR" position. This increases the pressure in the CAB, which helps prevent dust from coming into the CAB.

■ **Control panel**



- (1) Mode lever
- (2) Temperature control lever
- (3) Blower switch
- (4) Air conditioner switch with indicator light

◆ **Mode lever**

Set the mode lever to the desired position.



[without door air outlet]

Air is blown from the front and side air outlets.

[with door air outlet]

Air is blown from the front, side air outlets and door air outlets.



Air is blown from only the front air outlets.

◆ **Temperature Control Lever**

Set this lever at the desired position to obtain the optimum air temperature. Move the lever to the right to obtain warmer air. Move it to the left to obtain cooler air.

◆ **Blower Switch**

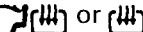

Air volume can be changed in three steps. At the "HI" position, the largest air volume is obtained.

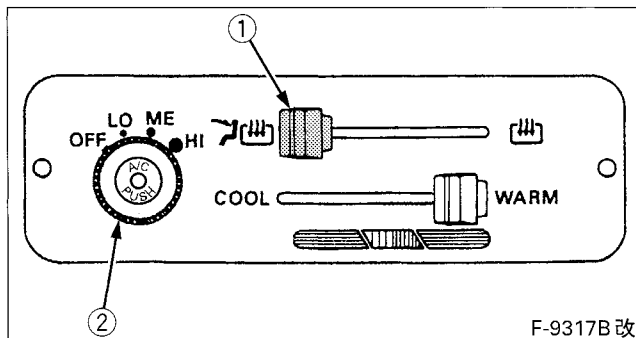
◆ **Air Conditioner Switch**

Push this switch to activate the air conditioner. An indicator light will light up when the switch is set to "ON". Push switch again to turn air conditioner off, in which case the indicator light will be off.

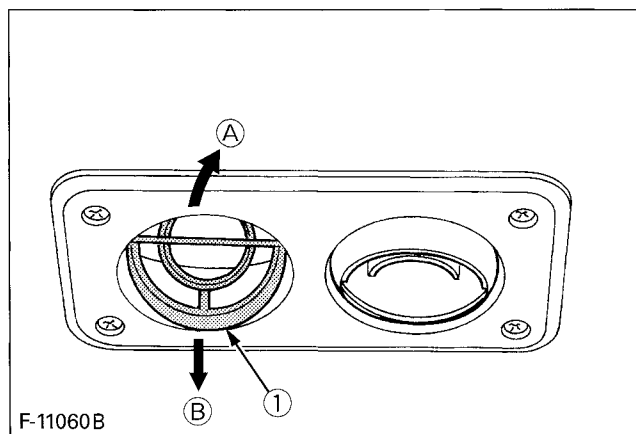
■ Operation

◆ Heating

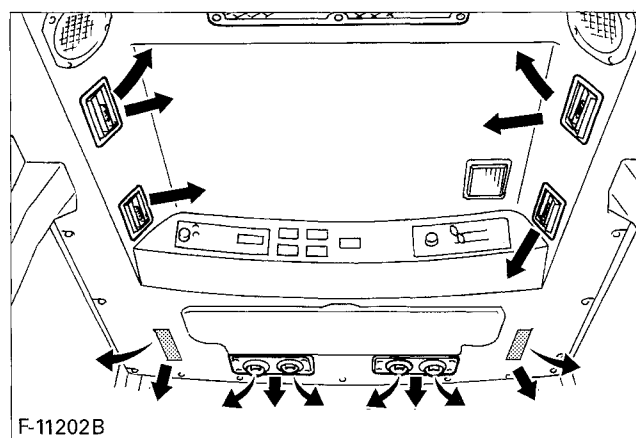
1. Set the mode lever to the  or  position.
2. Set the recirculation / fresh air selection lever to the "FRESH AIR" position. To raise the temperature in the CAB quickly, set this lever to the "RECIRCULATION" position.
3. Adjust the blower (LO/ME/HI) switch and the temperature control lever to achieve a comfortable temperature level.



- (1) Mode lever
(2) Blower switch




- (1) Front air outlet
(A) "CHEST AREA"
(B) "FOOT AREA"



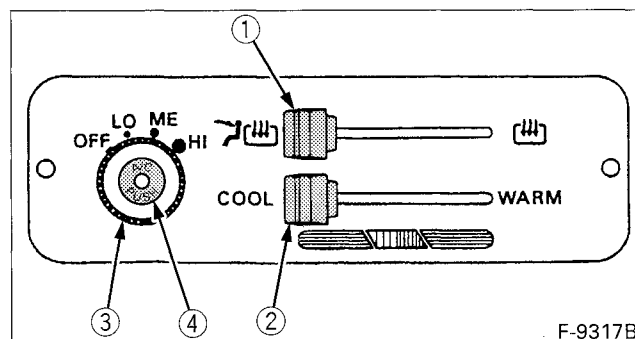
F-11202B

◆ Cooling or dehumidifying-heating

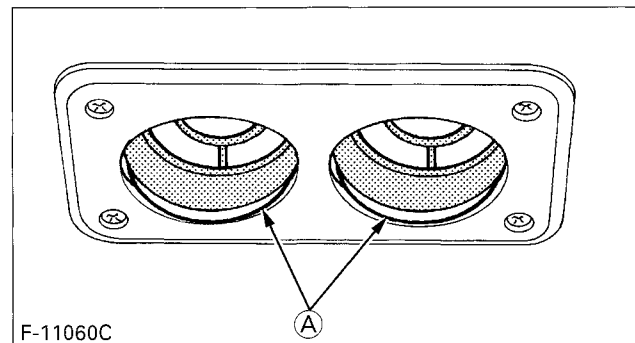
1. Set the mode lever to the  position.
2. Shut the front air outlet.
3. Set the recirculation / fresh air selection lever to the "FRESH AIR" position. To fall the temperature in the CAB quickly, set this lever to the "RECIRCULATION" position.
4. Press and turn on the air-conditioner switch with indicator.
5. Turn on the blower (LO/ME/HI) switch.
6. Adjust the temperature control lever to the "COOL" or an intermediate position to achieve a comfortable temperature level.

NOTE:

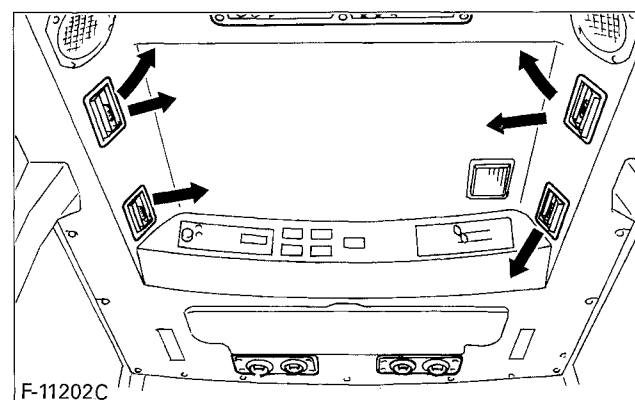
- In summer when the heater is not used, keep the temperature control lever at the "COOL" (leftmost) position. Otherwise, hot air will raise the temperature in the CAB.



- (1) Mode lever
(2) Temperature control lever
(3) Blower switch
(4) Air conditioner switch with indicator light




(A) "CLOSED"



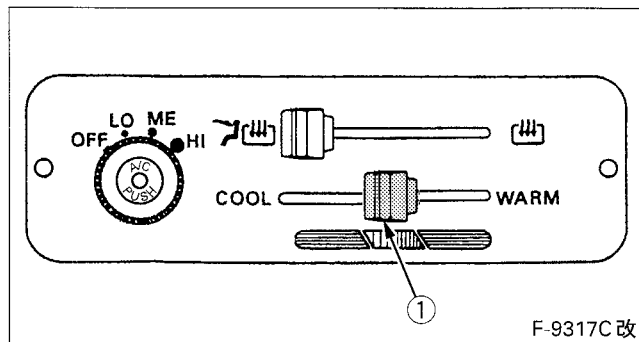
F-11202C

◆ **Foot warming and head cooling**

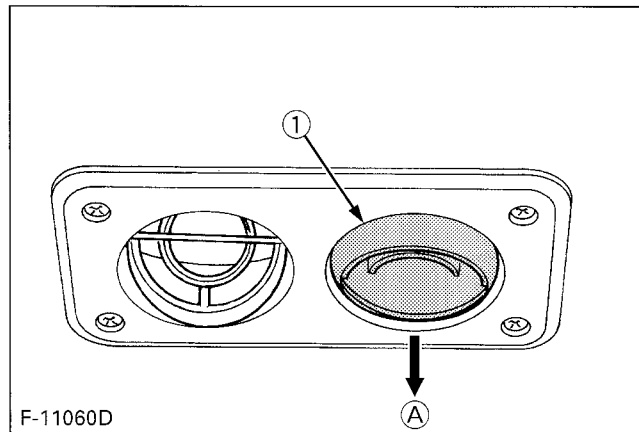
1. Set the mode lever to the  position.
2. In the cooling or dehumidifying-heating mode, set the temperature control lever at the center position.
3. Open the front air outlet and direct it to your feet.

NOTE:

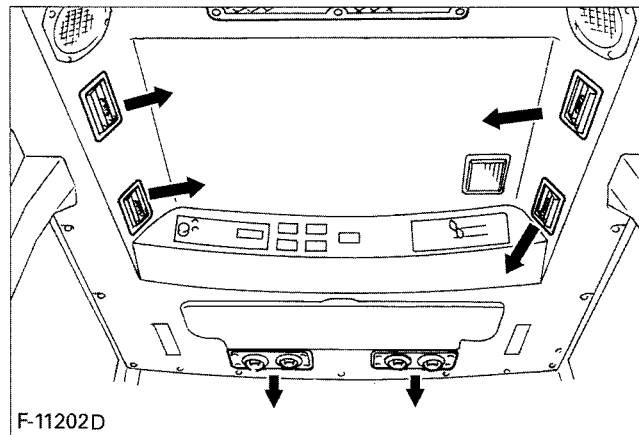
- Shut the door air outlet. [with door air outlet]
4. You can feel your head cool and your feet warm.



(1) Temperature control lever




(1) Front air outlet (A) "FOOT AREA"

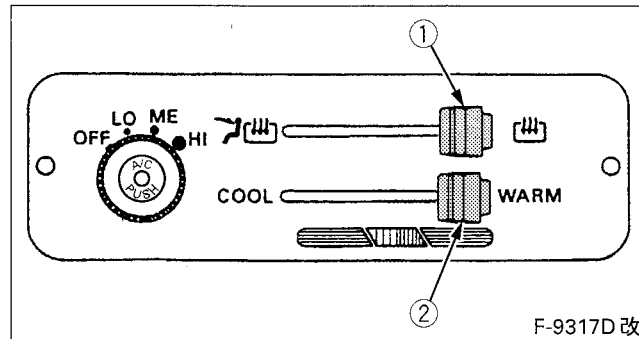


F-11202D

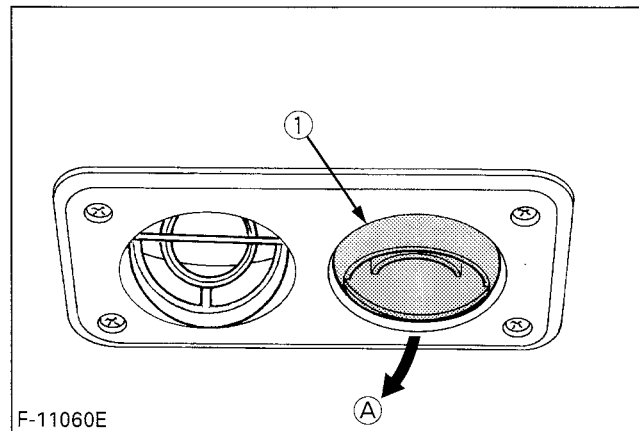
◆ **Defrosting or demisting [without door air outlet]**

To defrost or demist the windshield, take the following steps.

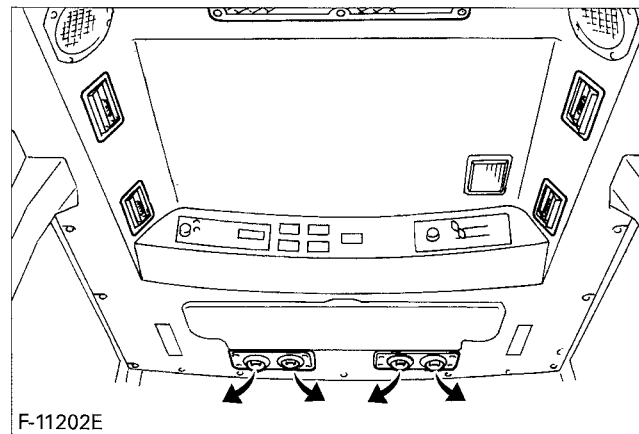
1. Set the mode lever to the  position.
2. Open the front air outlet and direct it to the windshield.
3. Set the recirculation / fresh air selection lever to the "FRESH AIR" position.
4. Set the blower switch and the temperature control lever to the "HI" and "WARM" (rightmost) positions, respectively.



(1) Mode lever
(2) Temperature control lever




(1) Front air outlet (A) "WINDSHIELD"

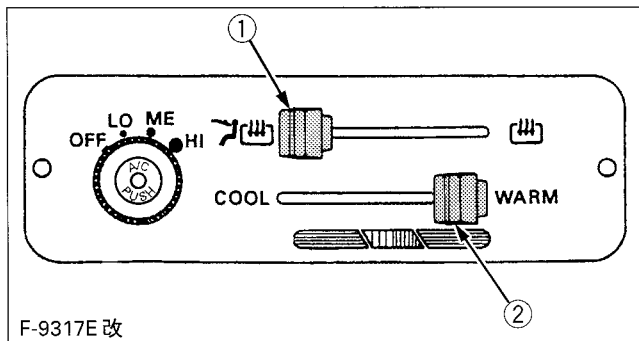


F-11202E

◆ Defrosting or demisting [with door air outlet]

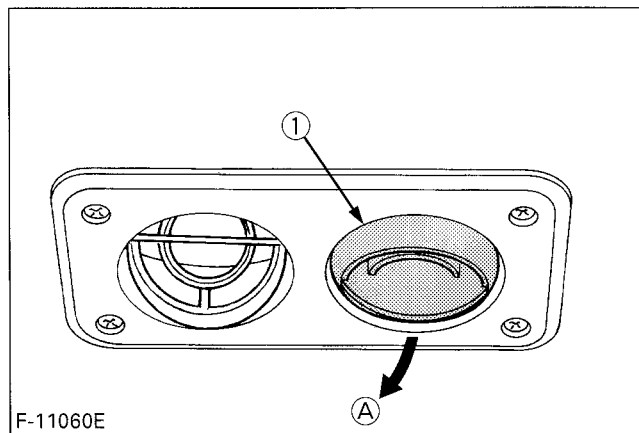
To defrost or demist the windshield, take the following steps.

1. Set the mode lever to the  position.
2. Open the front air outlet, door air outlet and direct it to the windshield.
3. Shut the side air outlet.
4. Set the recirculation / fresh air selection lever to the "FRESH AIR" position.
5. Set the blower switch and the temperature control lever to the "HI" and "WARM" (rightmost) positions, respectively.



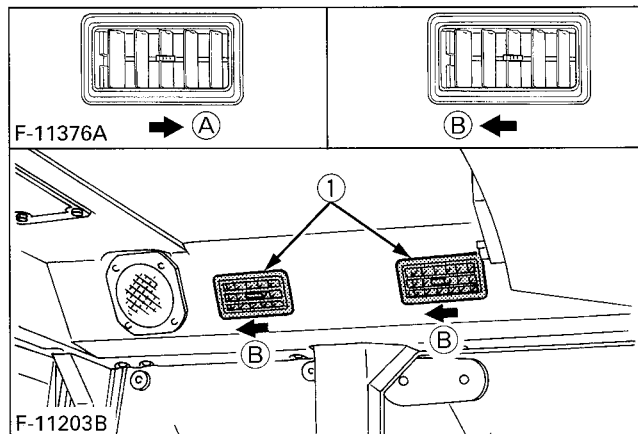
F-9317E 改

- (1) Mode lever
- (2) Temperature control lever



F-11060E

- (1) Front air outlet
- (A) "WINDSHIELD"

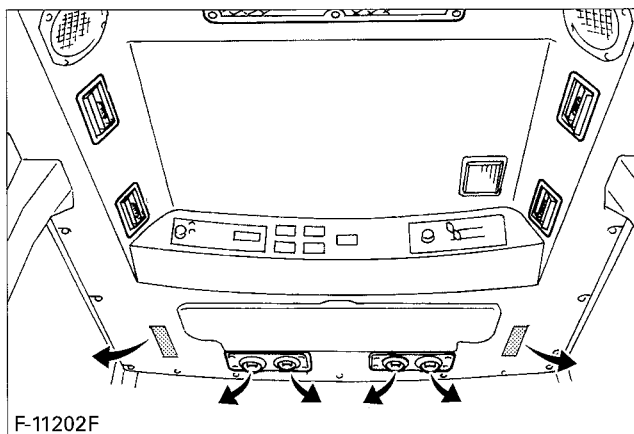


F-11376A

(1) Side air outlet


(A) "OPEN"

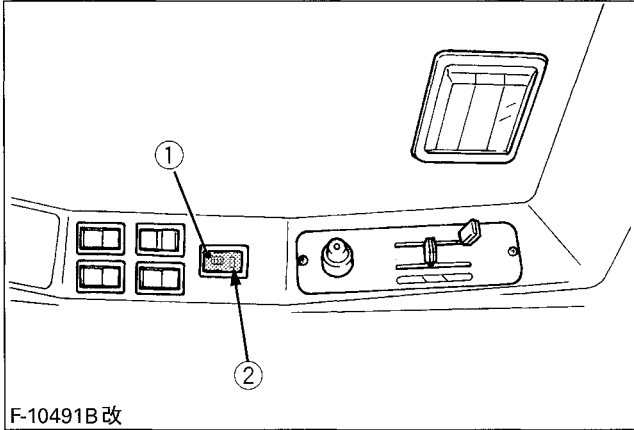
(B) "SHUT"



F-11202F

REAR / SIDE DEFOGGER (if equipped)

To activate the rear / side window defoggers, press the switch marked  while the key switch is in the "ON" position. Then, the yellow light on the switch turns on. After about 15 minutes, the defoggers automatically turn off as well as the yellow light. To turn the defogger off, press the switch once more.



F-10491B改

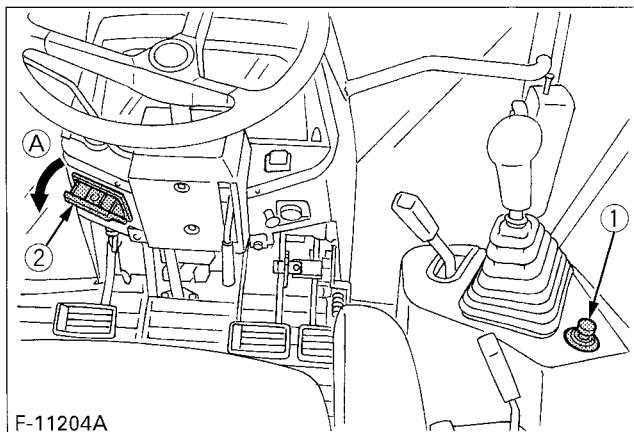
- (1) Defogger switch
- (2) Yellow light

IMPORTANT:

- The battery will discharge if the defogger and the key switch remain in the "ON" or "ACC" positions with the engine stopped. Always use the defogger with the engine running.

CIGARETTE LIGHTER/ASHTRAY

Push the lighter knob down to activate, with the key switch in the "ON" or "ACC" positions. Lighter will move up when ready to use.

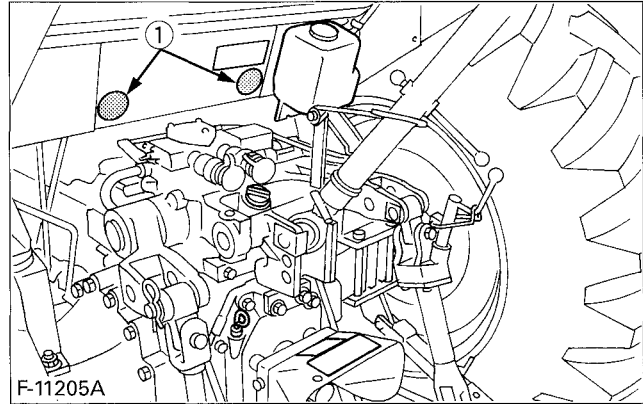


F-11204A

- (1) Cigarette lighter
- (A) "OPEN"
- (2) Ashtray

INSTALLING THE IMPLEMENT CONTROL BOX

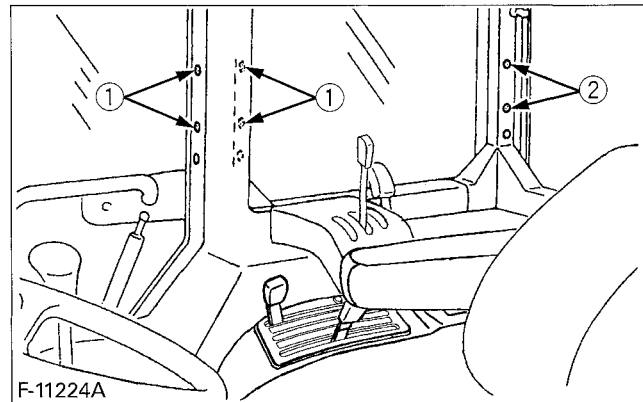
1. Make an opening in each of the rubber caps. Introduce the implement control cable and hydraulic hose through these openings into the CAB.



F-11205A

- (1) Rubber cap

2. Make the holes in each of the pillar covers located on the marked portion. Install the implement control box in place.

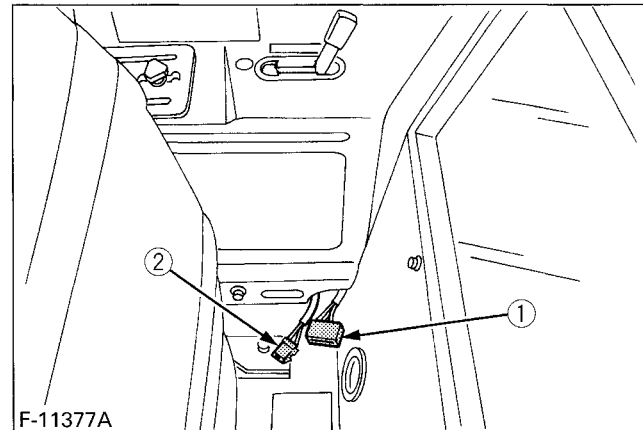


F-11224A

- (1) 4-M8 nuts
- (2) 2-M6 nuts

Electrical Outlet

The trailer electrical outlet and accessory electrical outlet are supplied for use with trailer or accessory.



F-11377A

- (1) Trailer electrical outlet
- (2) Accessory electrical outlet (15A)

MAINTENANCE

SERVICE INTERVALS

No.	Items	Period	Indication on hour meter													Since then	Reference page			
			50	100	150	200	250	300	350	400	450	500	550	600	650			700		
M5700																				
1	Engine oil	Change	☉	○		○		○		○		○		○		○		every 100 Hr	72	
2	Engine oil filter	Replace	☉			○				○					○		every 200 Hr	77		
3	Front axle case oil	Change	☉												○		every 600 Hr	88		
M6800-M8200-M9000																				
1	Engine oil	Change	☉			○				○					○		every 200 Hr	78		
2	Engine oil filter	Replace	☉							○							every 400 Hr	84		
3	Front differential case oil	Change	☉												○		every 600 Hr	88		
4	Front axle gear case oil	Change	☉												○		every 600 Hr	89		
COMMON ITEMS																				
1	Engine start system	Check	○	○	○	○	○	○	○	○	○	○	○	○	○	○	every 50 Hr	71		
2	Wheel bolt torque	Check	○	○	○	○	○	○	○	○	○	○	○	○	○	○	every 50 Hr	72		
3	Battery condition	Check		○		○		○		○		○		○		○	every 100 Hr	74	*6	
4	Greasing	—		○		○		○		○		○		○		○	every 100 Hr	73		
5	Fan belt	Adjust		○		○		○		○		○		○		○	every 100 Hr	76		
6	Brake	Adjust		○		○		○		○		○		○		○	every 100 Hr	77		
7	Air cleaner element 【Double type】	Primary element	Clean	○		○		○		○		○		○		○	every 100 Hr	75	*1	
		Replace															every 1 year	90	*2	
8	Radiator hose and clamp	Secondary element	Replace														every 1 year	90	@	
		Check				○				○					○		every 200 Hr	78		
9	Power steering oil line	Replace															every 2 years	91		
		Check				○				○					○		every 200 Hr	80		
10	Fuel line	Replace															every 2 years	91	@	
		Check				○				○					○		every 200 Hr	80		
11	Toe-in	Adjust				○				○				○			every 200 Hr	80		
		Check				○				○				○			every 200 Hr	79	@	
12	Intake air line	Replace															every 2 years	91	*4	
		Check				○				○				○			every 200 Hr	79	@	
13	Fuel filter	Replace								○						every 400 Hr	85	@		
14	Water separator	Clean	☉							○						every 400 Hr	85			

No.	Items	Period	Indication on hour meter													Since then	Refer- ence page				
			50	100	150	200	250	300	350	400	450	500	550	600	650				700		
15	Hydraulic oil filter	Replace	⊙					○									every 300 Hr	83,84	*5		
16	Transmission fluid	Change	⊙														every 600 Hr	86,87			
17	Front axle pivot	Adjust															every 600 Hr	89			
18	Engine valve clearance	Adjust															every 800 Hr	90	*3		
19	Fuel injection nozzle injection pressure	Check															every 1500 Hr	90	*3 @		
20	Injection pump	Check															every 3000 Hr	90	*3 @		
21	Cooling system	Flush															every 2 years	90			
22	Coolant	Change															every 2 years	90			
23	Fuel system	Bleed																92			
24	Clutch housing water	Drain																Service as required	93		
25	Fuse	Replace																	93,94		
26	Light bulb	Replace																		94	

No.	Items	Period	Indication on hour meter													Since then	Refer- ence page		
			50	100	150	200	250	300	350	400	450	500	550	600	650				700
1	Inner air filter	Clean				○				○							every 200 Hr	82	
2	Fresh air filter	Clean				○				○							every 200 Hr	82	
3	Air conditioner condenser	Check				○				○							every 200 Hr	83	
4	Air conditioner drive belt	Adjust				○				○							every 200 Hr	83	
5	Air conditioner pipes and hose	Check															every 1 year	90	
6	CAB isolation cushion	Check															every 1 year	90	
7	Washer liquid	Add															Service as required	95	
8	Refrigerant (gas)	Check															Service as required	95	

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 After 6 times of cleaning.
- *3 Consult your local KUBOTA Dealer for this service.
- *4 Replace only if necessary.
- *5 Hydraulic oil filter should be changed more often in severe conditions.
- *6 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 the Warranty Statement in detail.

LUBRICANTS

No.	Locations	Capacities				Lubricants			
		M5700	M6800	M8200	M9000				
1	Fuel	95 L (25.1 U.S.gals.)		110 L (29.1 U.S.gals.)		No.2-D diesel fuel No.1-D diesel fuel if temperature is below -10°C (14°F)			
2	Coolant	7.3 L (7.7 U.S.qts.)	8.5 L (9.0 U.S.qts.)	9.0 L (9.5 U.S.qts.)		Fresh clean water with anti-freeze			
3	Washer liquid	1.3 L (1.4 U.S.qts.)				Automobile washer liquid			
4	Engine crankcase (with filter)	8 L (8.5 U.S.qts.)	10.7 L (11.3 U.S.qts.)			<ul style="list-style-type: none"> Engine oil: API Service Classification CD, CE or CF 			
						Above 25°C (77°F)		SAE30, SAE10W-30 or 10W-40	
						0 to 25°C (32 to 77°F)		SAE20, SAE10W-30 or 10W-40	
Below 0°C (32°F)		SAE10W, SAE10W-30 or 10W-40							
5	Transmission case	43 L (45.4 U.S.qts.)		54 L (57.0 U.S.qts.)		• KUBOTA SUPER UDT fluid*			
6	Front axle case	8.0 L (8.5 U.S.qts.)	—				• KUBOTA UDT or SUPER UDT fluid or SAE 80 · SAE 90 gear oil		
7	Front differential case oil	—	5L (5.3 U.S.qts.)	6 L (6.3 U.S.qts.)					
8	Front axle gear case oil	—	3.5 L (3.7 U.S.qts.)						
9	Greasing	No. of greasing points				Capacity	Type of grease		
	Front wheel case support	2				Until grease overflows.	Multipurpose type grease		
	Front axle support	2							
	Steering joint	1							
	Top link	2							
	Top link bracket	2							
	Lift rod	1	3						
	Battery terminal	2				moderate amount			

NOTE: * KUBOTA 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 to complete lubrication of the transmission, it is important that a multi-grade transmission fluid is used in this system. We recommend the use of **KUBOTA SUPER UDT fluid** for optimum protection and performance.
(Consult your local KUBOTA Dealer for further detail.)
Do not mix different brands together.

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

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



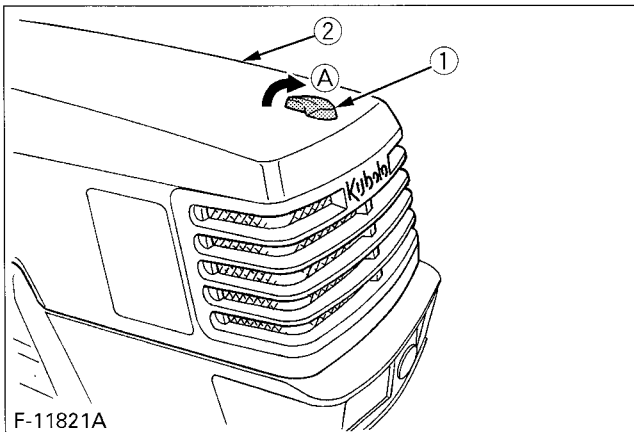
CAUTION

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.



F-11821A

(1) Mascot

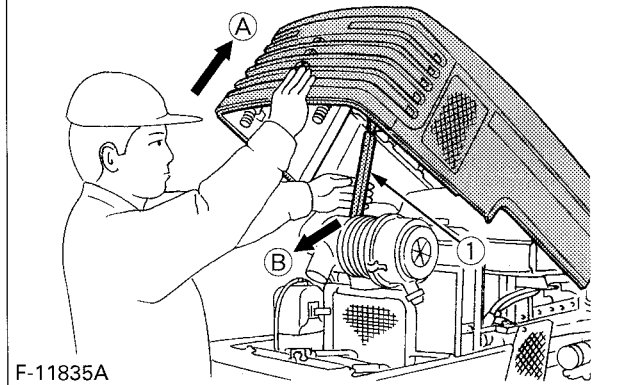
(A) "OPEN"

(2) Hood

NOTE:

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

M5700-M6800



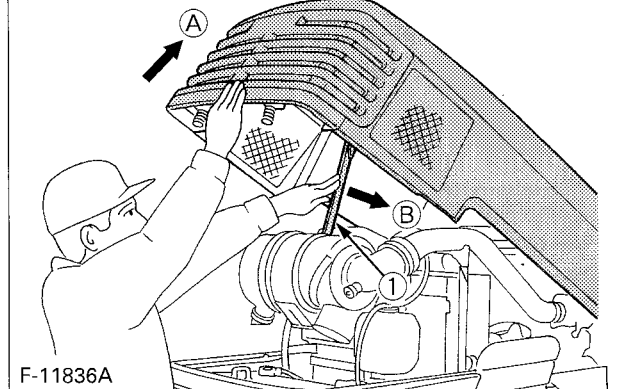
F-11835A

(1) Support link

(A) "HOLD"

(B) "PULL"

M8200-M9000



F-11836A

(1) Support link

(A) "HOLD"

(B) "PUSH"

DAILY CHECK

For your own safety and maximum service life of the machine, make a through 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:

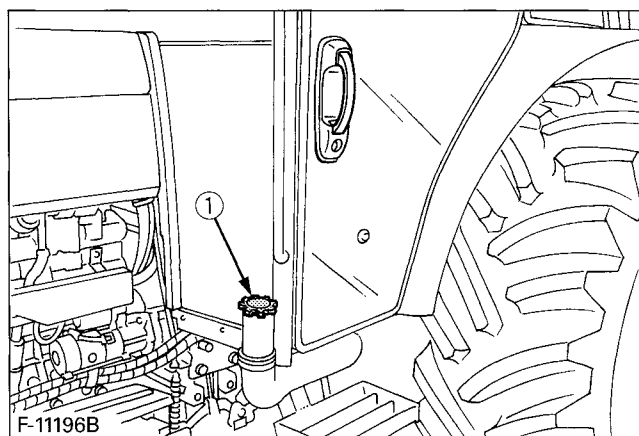
- Do not smoke while refueling.
- Be sure to stop the engine before refueling.

1. Check the amount of fuel by fuel gauge.
2. When the fuel warning indicator lights up, it is time to add fuel.

NOTE:

- Park the tractor on flat ground in order to check this indicator.

3. Use grade No.2-Diesel fuel at temperatures above -10°C (14°F).
Use grade No.1-Diesel fuel at temperatures below -10°C (14°F).



(1) Fuel tank cap

	Fuel tank capacity
M5700-M6800	95 L (17.2 U.S.gals.)
M8200-M9000	110 L (29.1 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 a spill should occur, wipe it off at once, or it may cause a fire.
- To prevent condensation (water) accumulation in the fuel tank, fill the tank before parking overnight.

NOTE:

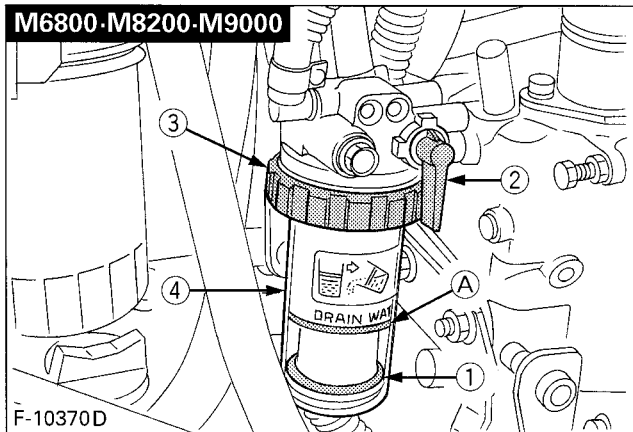
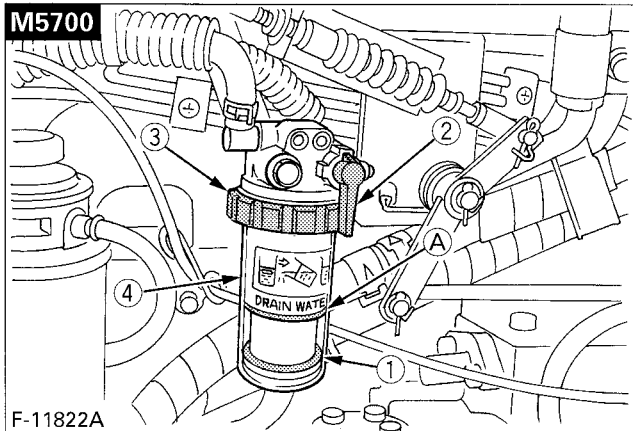
- No.2-D is a distillate fuel of lower volatility for engines in industrial and heavy mobile service.
- Grade of Diesel Fuel Oil According to ASTM D975 (SAE J313 JUN87)

Flash Point $^{\circ}\text{C}$ ($^{\circ}\text{F}$)	Water and Sediment, volume %	Carbon Residue on, 10 percent Residuum, %	Ash, weight %
Min	Max	Max	Max
52 (125)	0.05	0.35	0.01

Distillation Temperatures, $^{\circ}\text{C}$ ($^{\circ}\text{F}$) 90% Point		Viscosity Kinematic cSt or mm^2/s at 40°C		Viscosity Saybolt, SUS at 100°F		Sulfur, weight %	Copper strip Corro- sion	Cetane 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 Water Separator

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



- (1) Red float (A) "WHITE LINE"
 (2) Fuel cock
 (3) Retainer ring
 (4) Cup

IMPORTANT:

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

■ Checking Engine Oil Level

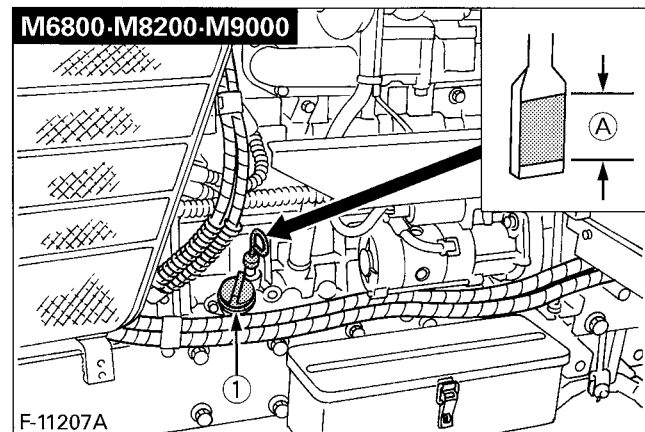
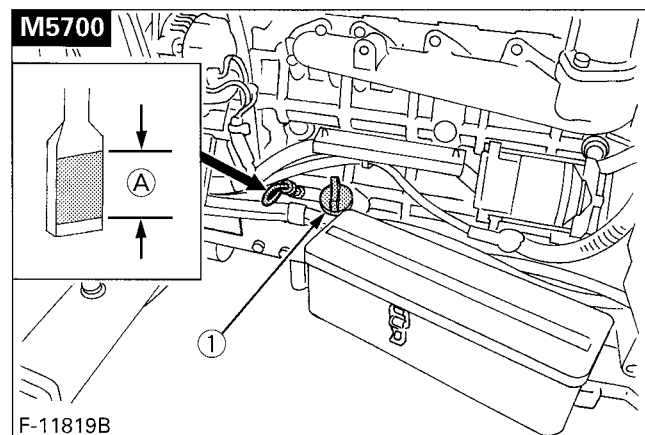


CAUTION

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)



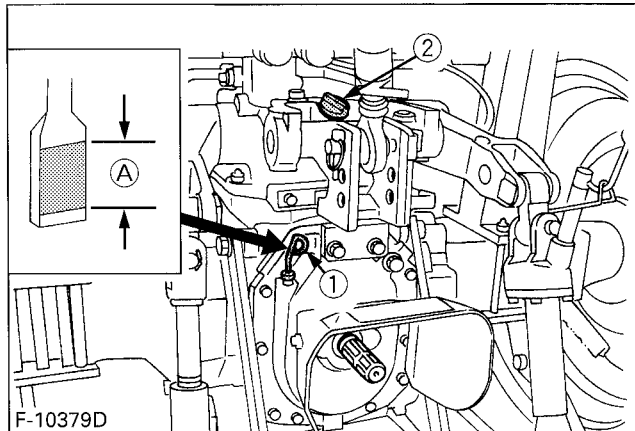
- (1) Oil inlet (A) Oil level is acceptable within this range.

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

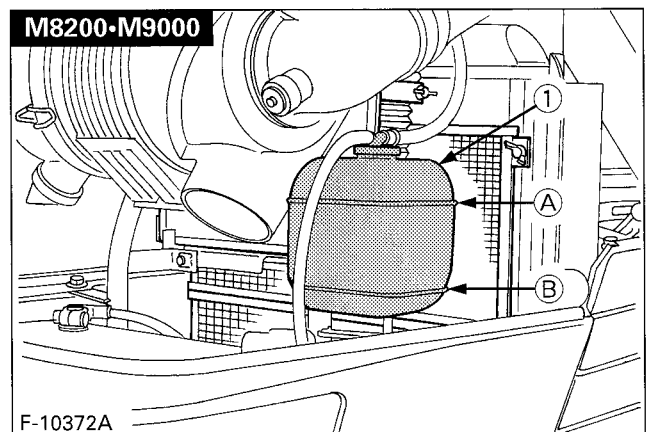
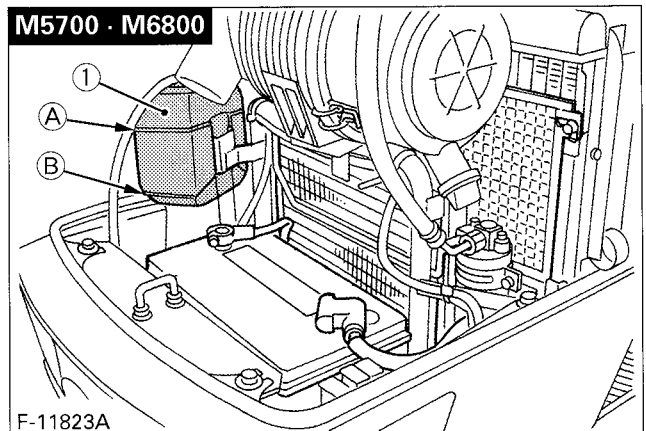


CAUTION

To avoid personal injury:

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

1. Check to see that the coolant level is between the "FULL" and "LOW" marks of recovery tank.
2. 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.)



- (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, Air conditioner condenser and Intercooler Screen



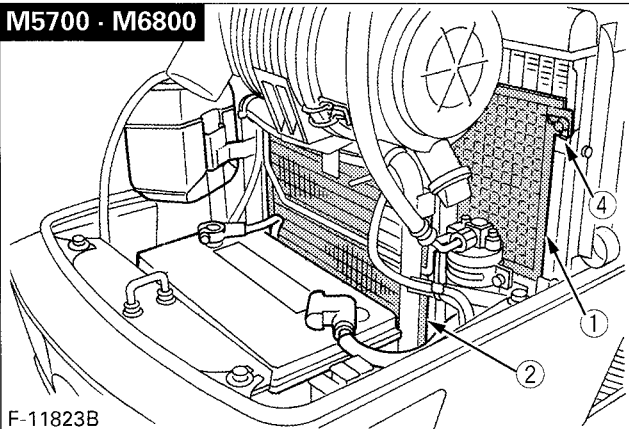
CAUTION

To avoid personal injury:

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

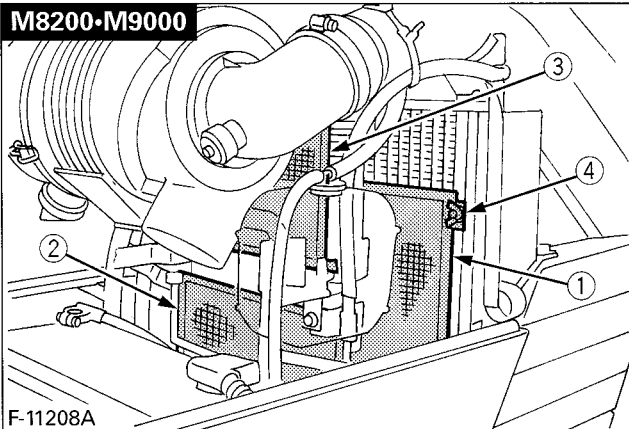
1. Check front grill and side screens to be sure they are clean from debris.
2. Detach the radiator screen and remove all foreign materials.
3. Check air conditioner condenser and intercooler screen to be sure they are clean from debris.

M5700 · M6800



F-11823B

M8200·M9000



F-11208A

- (1) Radiator screen
- (2) Air conditioner condenser screen
- (3) Inter cooler screen [M9000]
- (4) Bolt

IMPORTANT:

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

Cleaning the Battery Mount

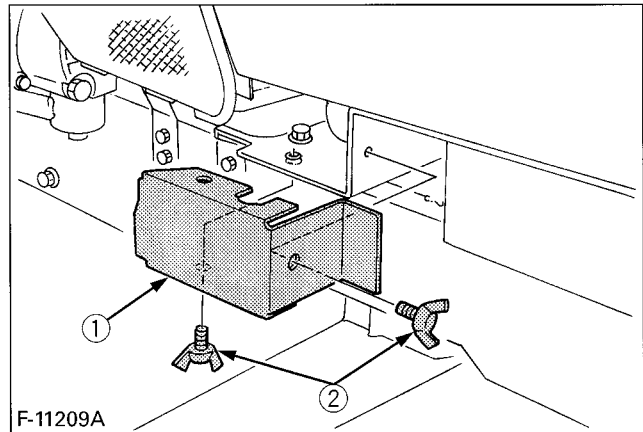


CAUTION

To avoid personal injury:

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

If dust or chaff has accumulated between the battery and radiator, remove the dust cover and clean the front of radiator completely.



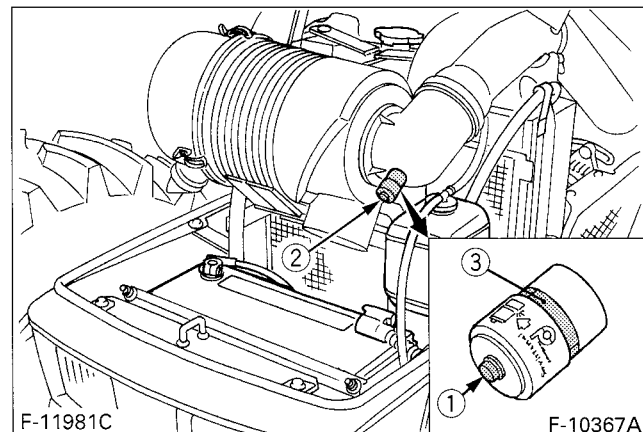
F-11209A

- (1) Dust cover
- (2) Bolt

Checking Dust Indicator

M6800·M8200·M9000

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 the "RESET" button after cleaning.



F-11981C

F-10367A

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

■ Checking Brake Pedals

1. Inspect the brake pedals for free travel, and smooth operation.
2. Adjust if incorrect measurement is found: (See "Adjusting Brake Pedal" in every 100 hours maintenance.)



WARNING

To avoid personal injury:

- Incorrect or unequal brake pedal adjustment can cause the tractor to swerve or rollover even when the pedals are locked together.

■ Checking Gauges, Meter and Easy Checker™

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

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

EVERY 50 HOURS

■ 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.

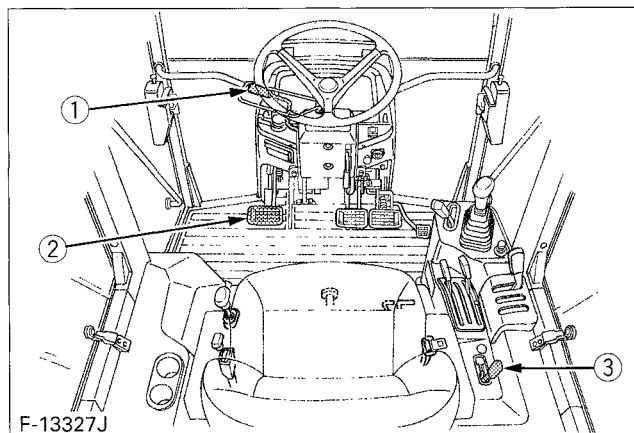
1. Place all control levers in the "NEUTRAL" position.
2. Set the parking brake and stop the engine.

◆ Test 1 : Switch for the shuttle shift lever.

1. Sit on operator's seat.
2. 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. Pull out the engine stop knob and turn the key to "START" position.
6. The engine must not crank.
7. If it cranks, consult your local KUBOTA Dealer for this service.

◆ Test 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. Pull out the engine stop knob and turn the key to "START" position.
6. The engine must not crank.
7. If it cranks, consult your local KUBOTA Dealer for this service.



(1) Shuttle shift lever

(2) Clutch pedal

(3) PTO clutch control lever

■ Checking Wheel Bolt Torque

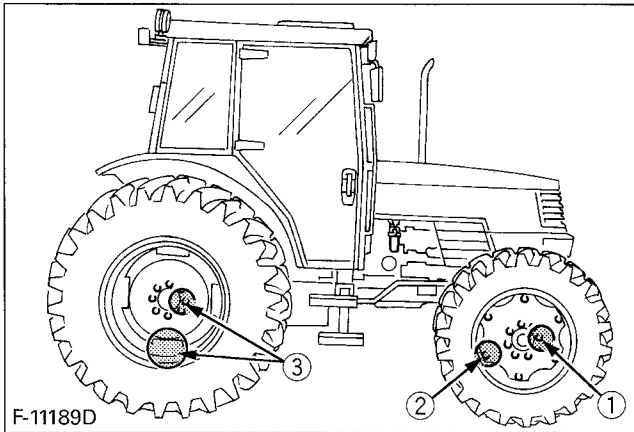


CAUTION

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 there are loosened, tighten as follows.



N·m (kgf·m) [ft·lbs.]

	①	②	③
M5700	168 to 196 (17.1 to 20.0) [124 to 145]		260 to 304 (26.5 to 31) [192 to 224]
M6800 M8200 M9000		260 to 304 (26.5 to 31) [192 to 224]	

EVERY 100 HOURS

■ Changing Engine Oil M5700



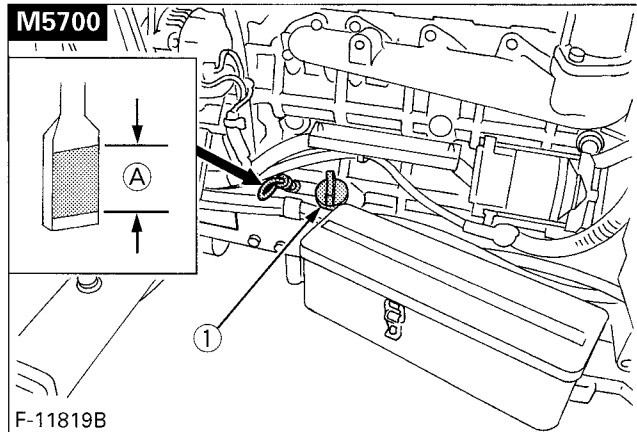
CAUTION

To avoid personal injury:

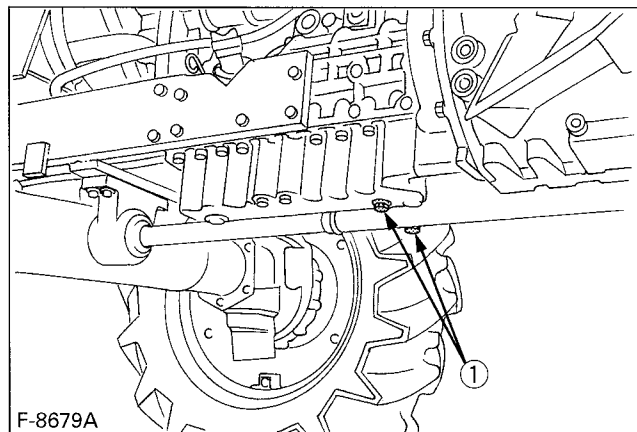
- Be sure to stop the engine before changing the oil.
- Allow engine to cool down sufficiently, oil can be hot and can burn.

1. To drain the used oil, remove the drain plugs 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 plugs.
3. Fill with the new oil up to the upper notch on the dipstick.
(See "LUBRICANTS" in Maintenance Section)

Oil capacity with filter	8.0 L (8.5 U.S.qts.)
--------------------------	----------------------



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

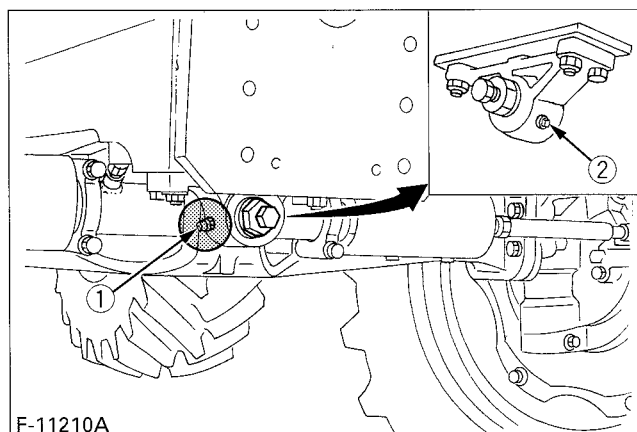
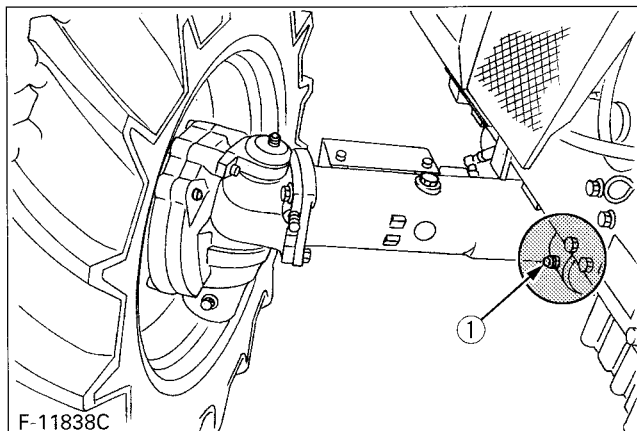


(1) Drain plugs

Lubricating Grease Fittings

Apply a small amount of multipurpose grease to the following points every 100 hours:

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

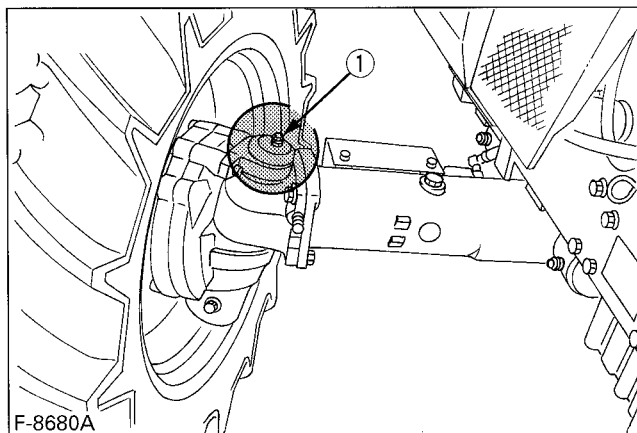


- (1) Grease fitting (Front axle support)
- (2) Breather plug

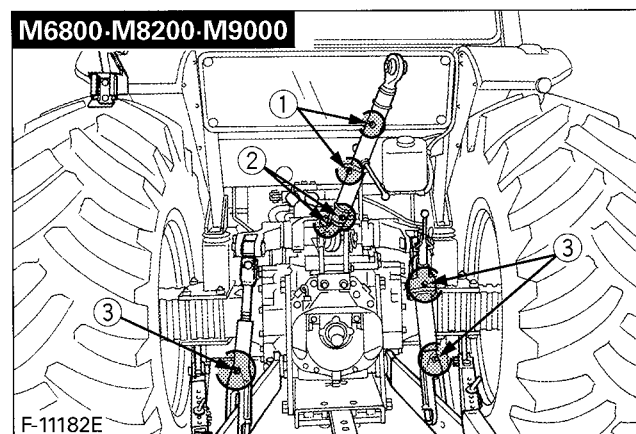
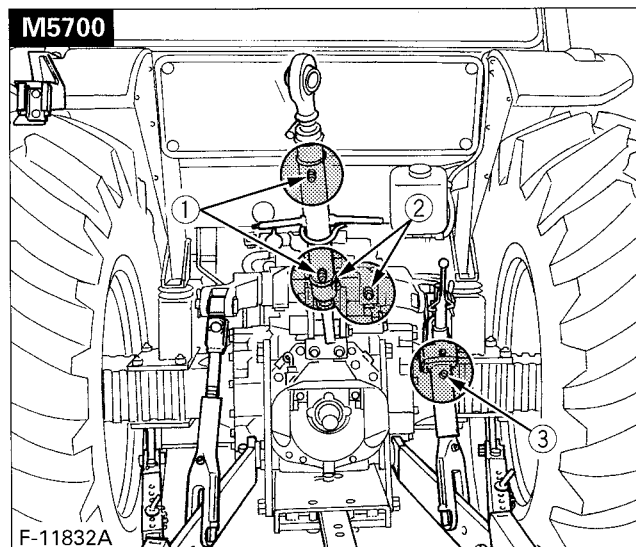
NOTE:

[M5700 type]

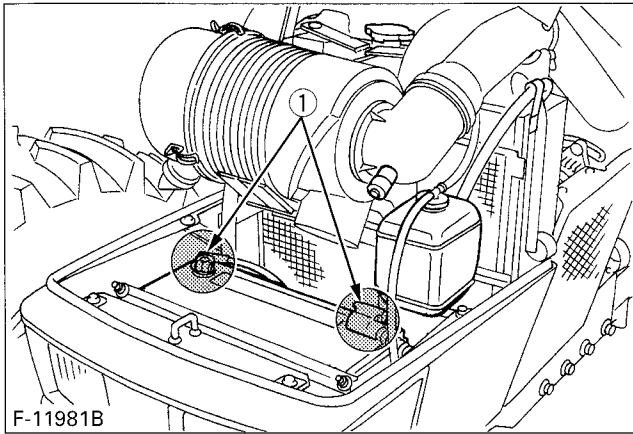
- When apply a grease to forward front axle support, remove the breather plug and apply a grease until grease overflows from breather plug port. After greasing reinstall the breather plug.



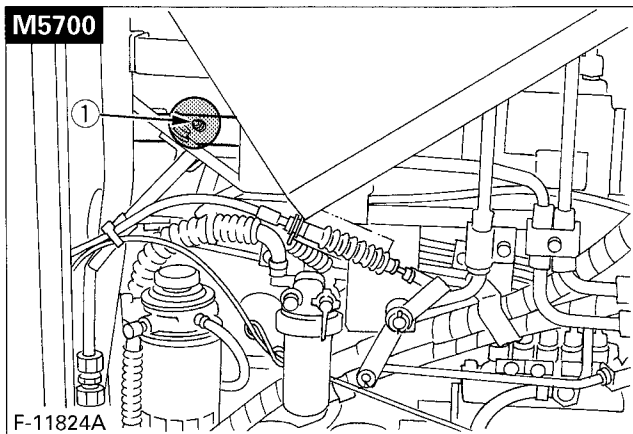
- (1) Grease fitting (Front wheel case support) [RH, LH]



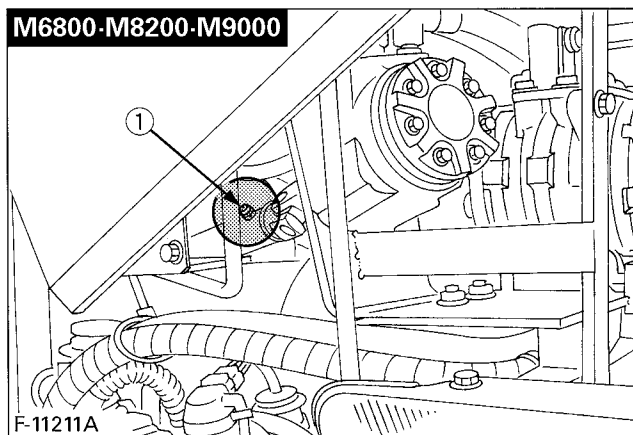
- (1) Grease fitting (Top link)
- (2) Grease fitting (Top link bracket)
- (3) Grease fitting (Lifting rod)



(1) Battery terminals



F-11824A



F-11211A

(1) Grease fitting (Steering joint shaft)

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.

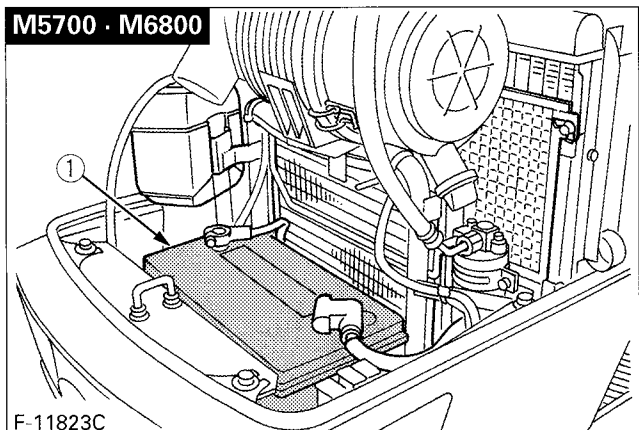


CAUTION

To avoid personal injury:

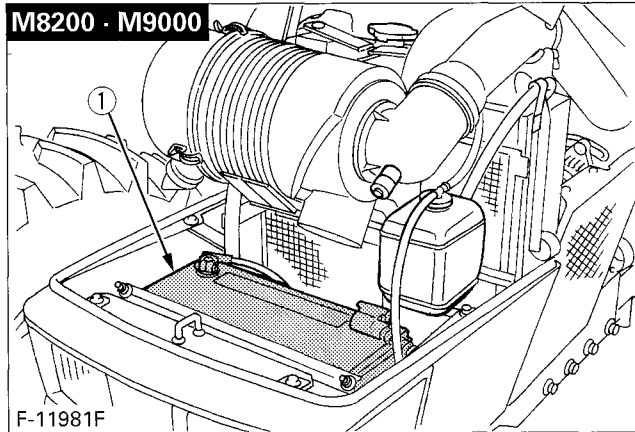
- Never remove the battery cap while the engine is running. Keep electrolyte away from eyes, hands and clothes. If you are spattered with it, wash it away completely with water immediately and get medical attention.
- Keep open sparks and flames away from the battery at all times. Hydrogen gas mixed with oxygen becomes very explosive.
- Wear eye protection and rubber gloves when working around battery.

1. The original battery is maintenance free type battery. When the performance becomes low, consult with your local KUBOTA Dealer.
2. Clean the battery surface with a clean cloth. Keep the terminals clean and coated with petroleum jelly.



F-11823C

(1) Battery



(1) Battery

Directions for Storage



CAUTION

To avoid personal injury:

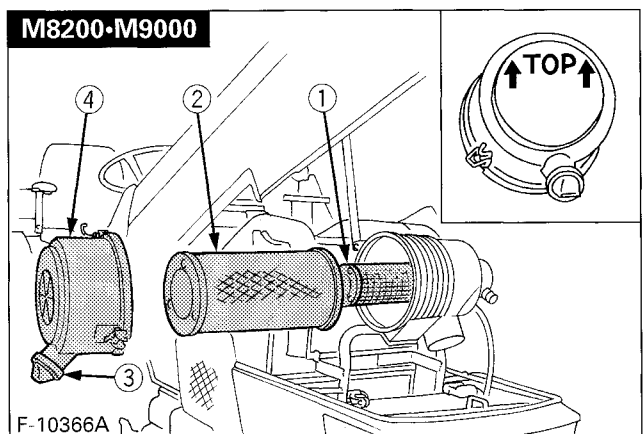
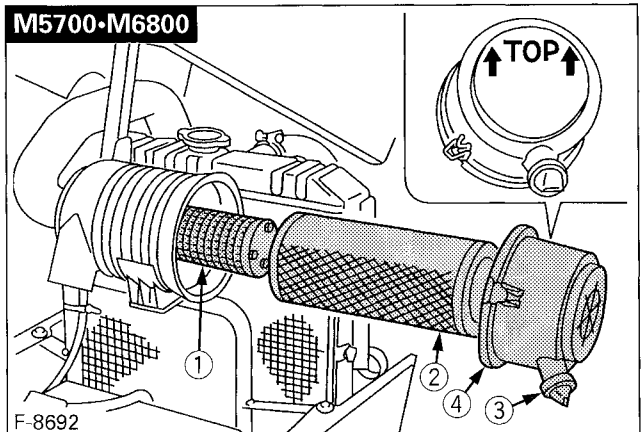
- When connecting the battery, do not reverse the polarities. Connection with reverse polarities will cause spark and troubles to the battery and electrical system in the tractor.
- When disconnecting the cable from the battery, start with the negative terminal first.
- When connecting the cable to the battery, start with the positive terminal first.
- Reversing the steps may cause shortcircuiting, should a metallic tool touch the terminals.
- When storing the tractor for long periods of time, remove the battery from the tractor and store in a cool, dry place.

Cleaning Air Cleaner Primary Element

1. Remove the air cleaner cover and primary element.
2. Clean the primary element :
 - 1) When dry dust adheres to the element, blow compressed air from the inside, turning the element. Pressure of compressed air must be under 490 kPa (5 kgf/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.
3. Replace air cleaner primary element:
Once a year 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) Evacuator valve

(4) Cover

IMPORTANT:

- The air cleaner uses a dry element, never apply oil.
- Do not run the engine with filter element removed.
- Be sure to refit the cover with the arrow ↑ (on the rear of cover) upright. If the cover is improperly fitted, evacuator valve will not function and dust will adhere to the element.
- Do not touch the secondary element except in cases where replacing is required. (See "Replacing Air Cleaner Secondary Element" in Every 1 Year 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.

Adjusting Fan Belt Tension



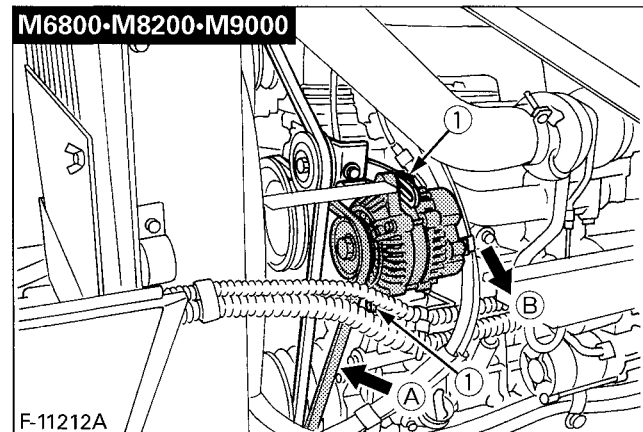
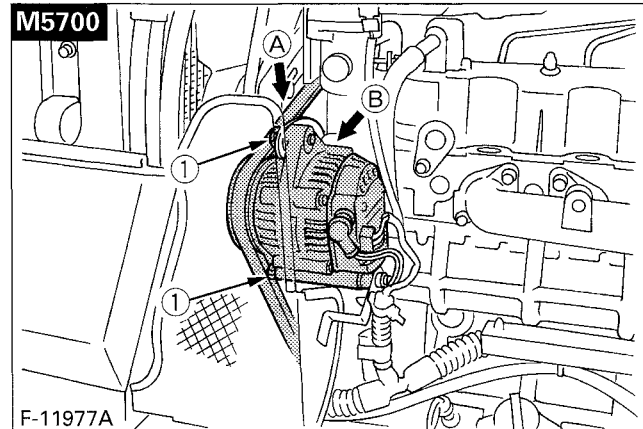
CAUTION

To avoid personal injury:

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

Tractor model	Proper fan belt tension (when the belt is pressed in the middle of the span.)
M5700	A deflection of between 7 to 9 mm (0.28 to 0.34 in.)
M6800 M8200 M9000	A deflection of between 10 to 12 mm (0.39 to 0.47 in.)

1. Stop the engine and remove the key.
2. Apply moderate thumb pressure to belt between pulleys.
3. 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

■ Adjusting Brake Pedal



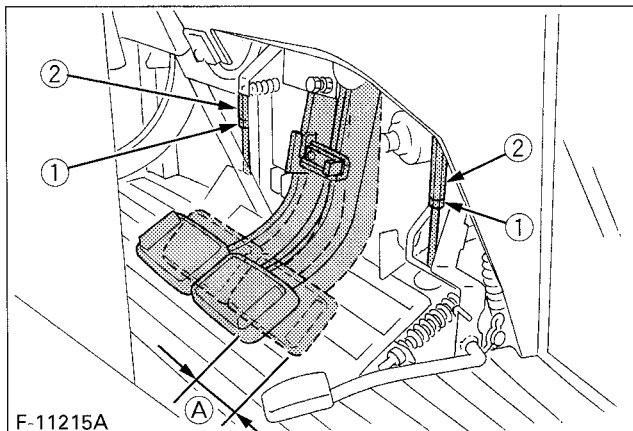
CAUTION

To avoid personal injury:

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

Proper brake pedal free travel	40 to 45 mm (1.6 to 1.8 in.) on the pedal
	Keep the free travel in the right and left brake pedals equal.

1. Release the parking brake.
2. Slightly depress the brake pedals and measure free travel at the top of pedal stroke.
3. 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.



F-11215A

(1) Lock nut
(2) Turnbuckle

(A) Free travel

EVERY 200 HOURS

■ Replacing Engine Oil Filter **M5700**

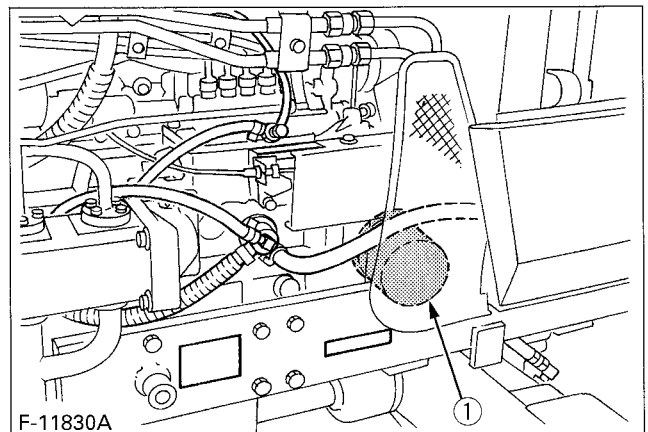


CAUTION

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.
2. Put a film of clean engine oil on the rubber seal of the new filter.
3. 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.



F-11830A

(1) Engine oil filter

IMPORTANT:

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

Changing Engine Oil M6800-M8200-M9000



CAUTION

To avoid personal injury:

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

1. To drain the used oil, remove the drain plugs at the bottom of the engine and drain the oil completely into the oil pan.

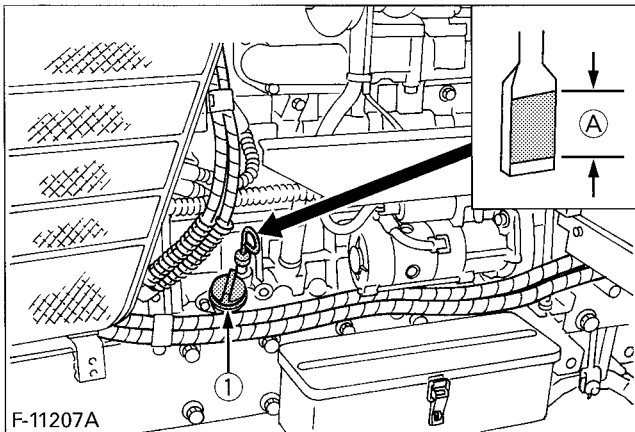
All the used oil can be drained out easily when the engine is still warm.

2. After draining reinstall the drain plugs.

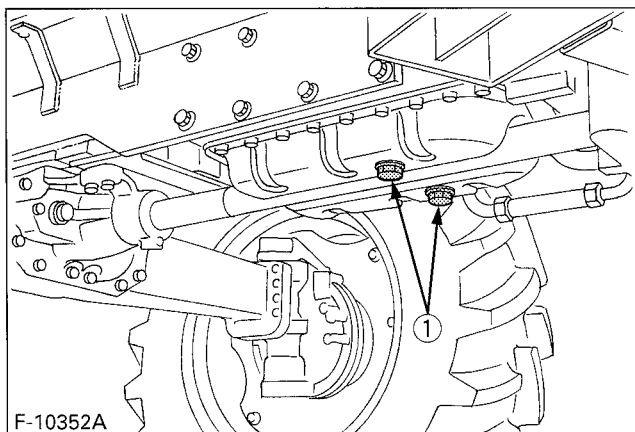
3. Fill with the new oil up to the upper notch on the dipstick.

(See "LUBRICANTS" in Maintenance Section)

Oil capacity with filter	10.7 L (11.3 U.S.qts.)
--------------------------	------------------------



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



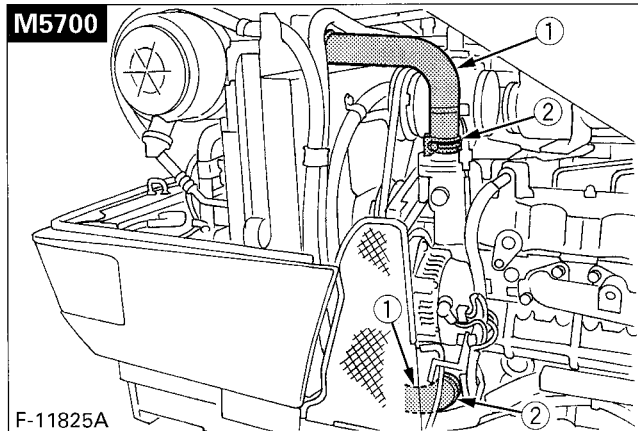
(1) Drain plugs

Checking Radiator Hose and Clamp

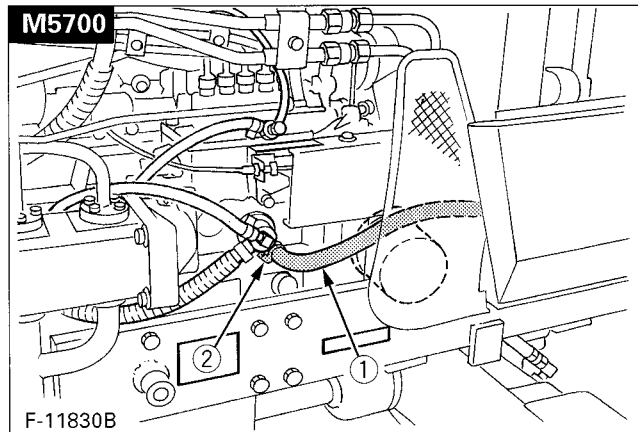
Check to see if radiator hoses are properly fixed every 200 hours of operation or six months, whichever comes first.

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

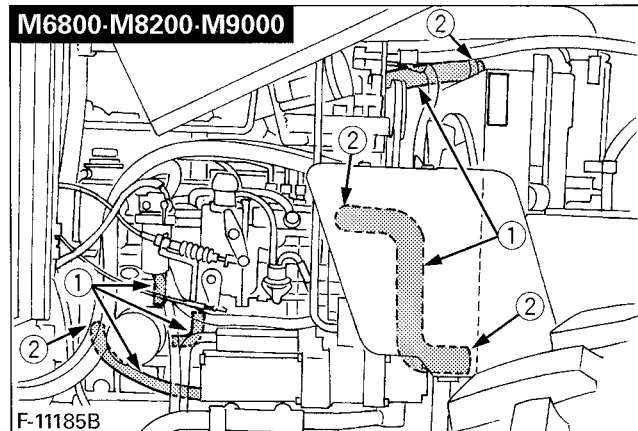
Replace hoses and hose clamps every 2 years or earlier if checked and found that hoses are swollen, hardened or cracked.



F-11825A



F-11830B



F-11185B

(1) Radiator hoses

(2) Hose clamps

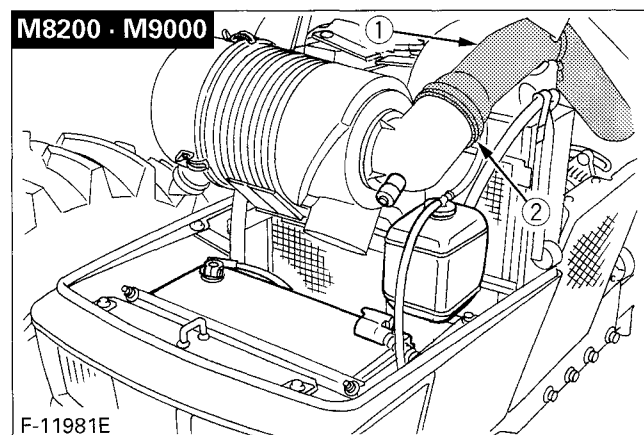
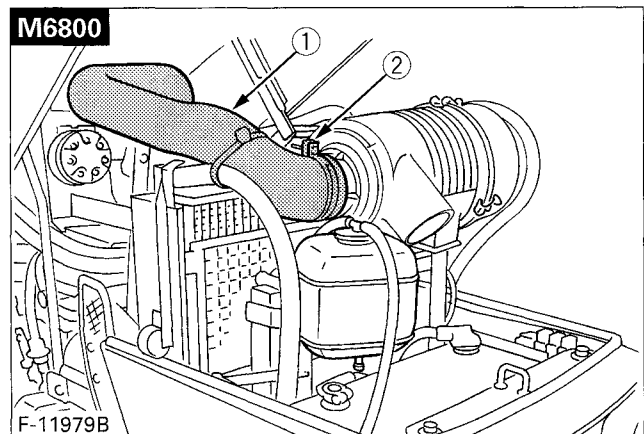
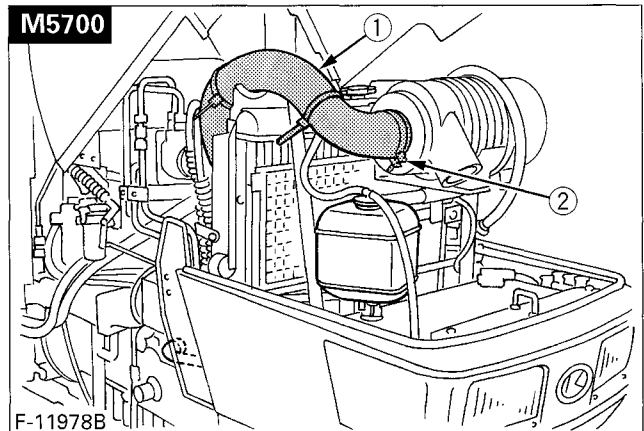
◆ Precaution at Overheating

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

1. Stop the machine operation in a safe place and keep the engine unloaded and idling.
2. Don't stop the engine suddenly, but stop it after about 5 minutes of unloaded idling.
3. Keep yourself well away from the machine for further 10 minutes or while steam is blowing out.
4. 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 the engine again.

■ Checking Intake Air Line

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

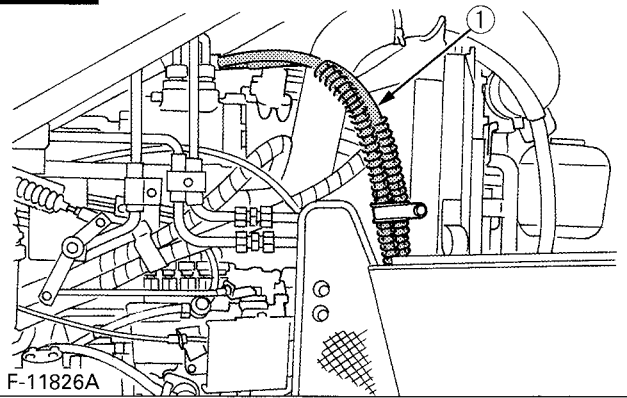


- (1) Hose
(2) Hose clamp

Checking Power Steering Line
Checking Fuel Line

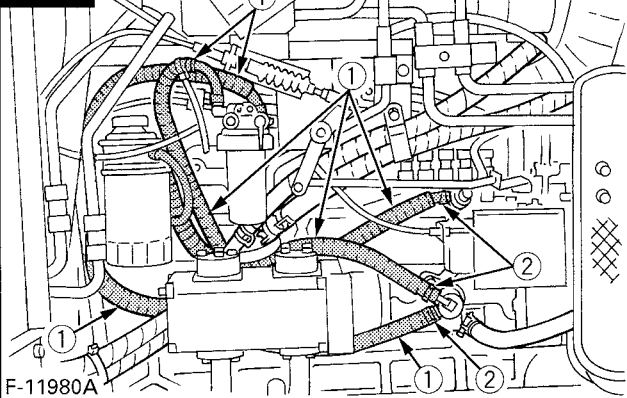
1. Check to see that all lines and hose clamps are tight and not damaged.
2. If hoses and clamps are found worn or damaged, replace or repair them at once.

M5700



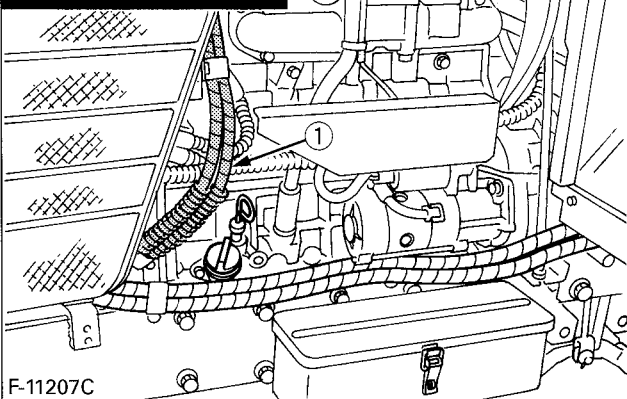
(1) Power steering pressure hoses

M5700



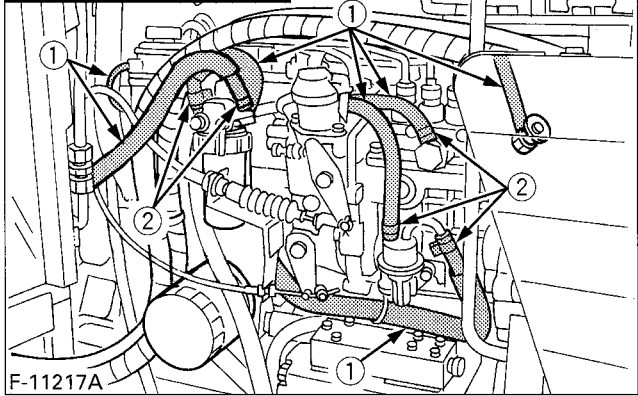
(1) Fuel lines
 (2) Hose clamps

M6800-M8200-M9000



(1) Power steering pressure hoses

M6800-M8200-M9000



(1) Fuel lines
 (2) Clamp bands

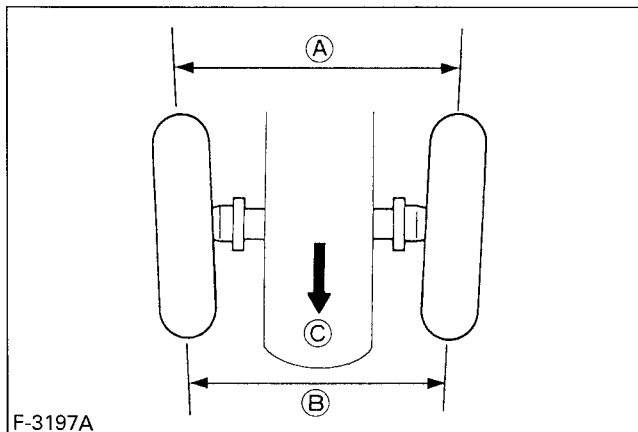
NOTE:

- If the fuel line is removed, be sure to properly bleed the fuel system.
 (See "Bleeding Fuel System" in as required maintenance)

Adjusting Toe-in

Proper toe-in	2 to 8 mm (0.08 to 0.31 in.)
---------------	------------------------------

1. Park tractor on a flat place.
2. Turn steering wheel so front wheels are in the straight ahead position.
3. Lower the implement, lock the park brake and stop the engine.
4. Measure distance between tire beads at front of tire, at hub height.
5. Measure distance between tire beads at rear of tire, at hub height.
6. Front distance should be shorter than rear distance.
 If not, adjust tie rod length.

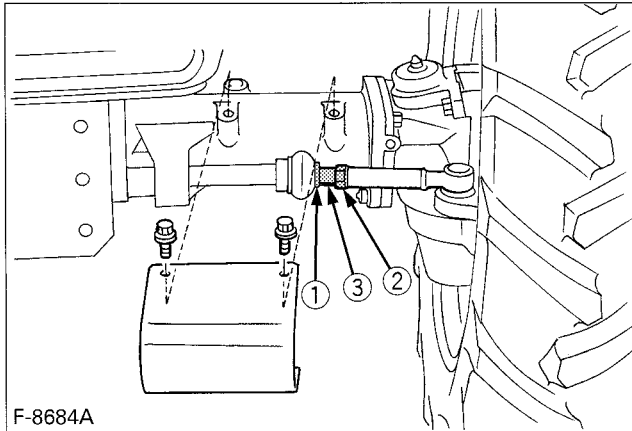


F-3197A

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



(1) Snap ring

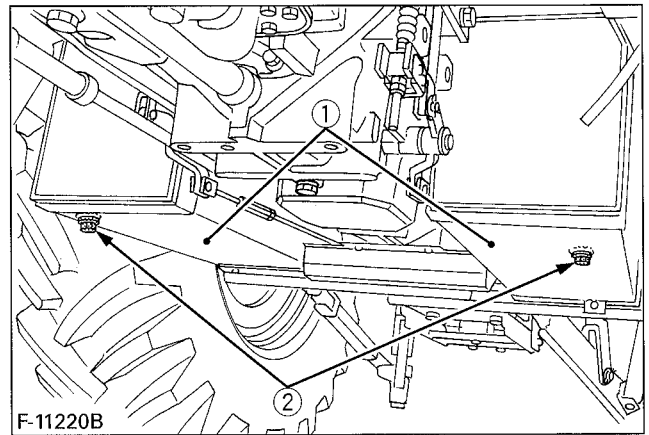
(2) Tie-rod nut

167 to 196N·m (17 to 20kgf·m) (123.2 to 144.6 ft·lbs)

(3) Tie-rod joint

■ Draining the Fuel Tank

Loosen the drain plugs at the bottom of the fuel tanks to let sediments, impurities and water out of the tanks. Finally tighten up the plugs.



(1) Fuel Tank

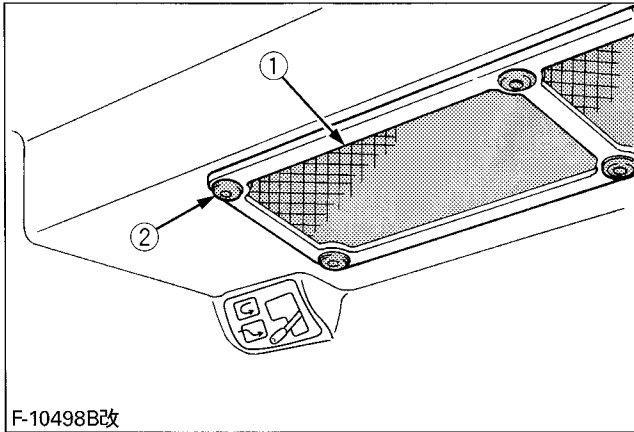
(2) Drain plugs

IMPORTANT:

- If the fuel contains poor qualities with much water in it, drain the fuel tanks at shorter intervals.
- Drain the fuel tanks before operating the tractor after a long period of storage.

■ Cleaning the Inner Air Filter

Remove the inner filter, and blow air from the direction opposite to the filter's normal air flow.

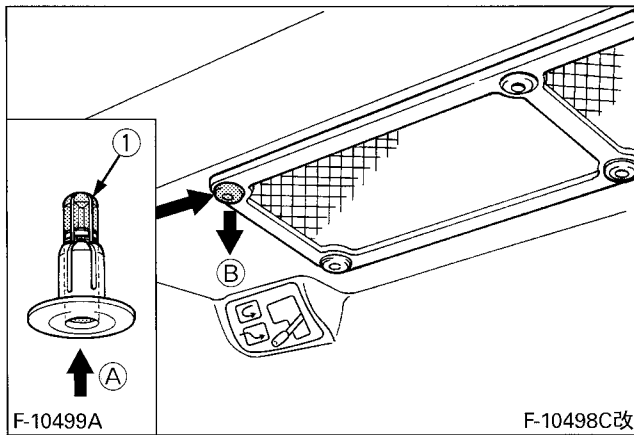


F-10498B改

- (1) Inner air filter
- (2) Push-rivet

◆ How to attach and detach the push-rivet assy.

- Detaching procedure

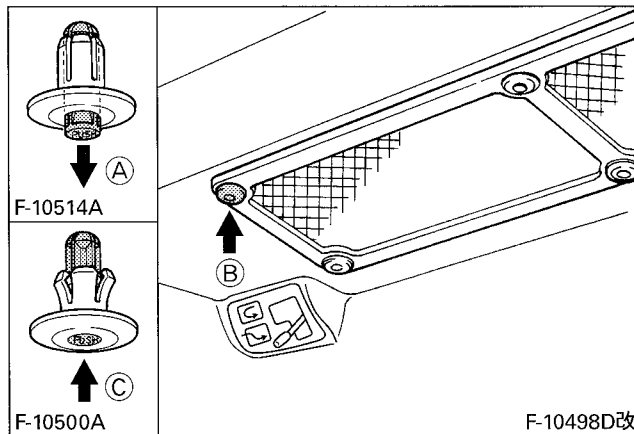


F-10499A

F-10498C改

- (1) Center-rivet
- (A) Push in the center-rivet.
- (B) Pull out the push-rivet assy.

- Attaching procedure



F-10514A

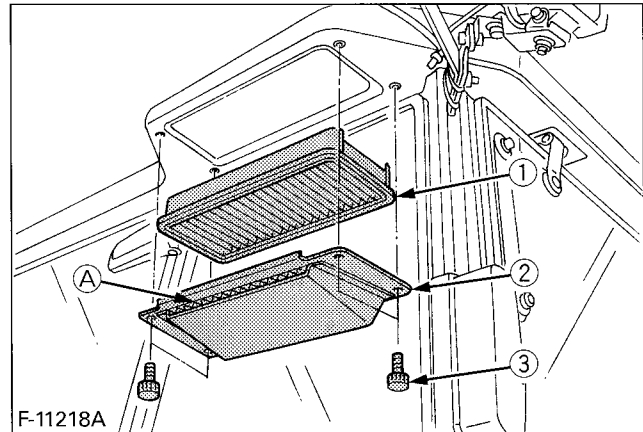
F-10500A

F-10498D改

- (A) Pull out the center-rivet.
- (B) Attach the push-rivet assy.
- (C) Push up the center-rivet.

■ Cleaning the Fresh Air Filter

Remove the knob bolts and pull out filter.



F-11218A

- (1) Fresh air filter
- (A) Air inlet port
- (2) Cover
- (3) Knob bolt

NOTE:

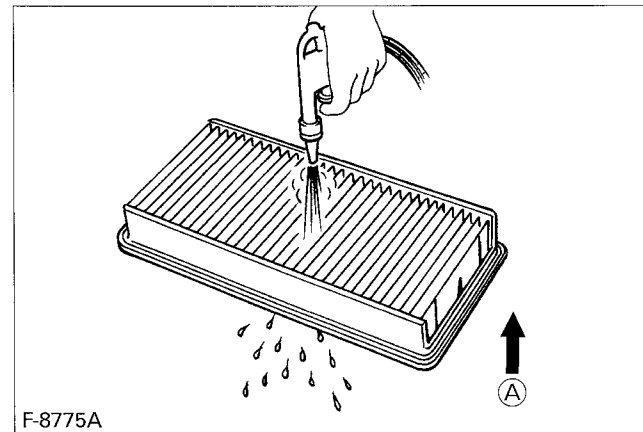
- Attach the filter and cover as illustration above.

◆ Cleaning the air filter

- Normal use
- Blow air from the opposite direction to the filter's normal air flow.

IMPORTANT:

- Do not hit the filter. If the filter becomes deformed, dust may enter into the air-conditioner, which may cause damage and malfunction.



F-8775A

(A) "AIR CONDITIONER AIRFLOW"

NOTE:

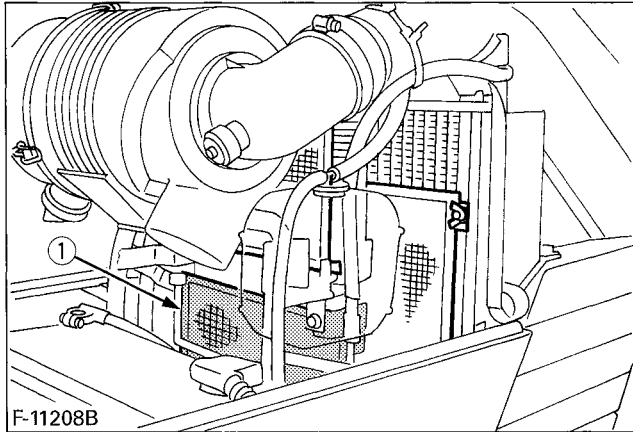
- If the filter is very dirty:
 - Dip the filter in lukewarm water with mild dish washing detergent.
 - Move it up and down as well as left and right to loosen dirt. Rinse the filter with clean water and let it air-dry.

IMPORTANT

- Do not use gasoline, thinner or similar chemicals to clean the filter as damage to the filter may occur.
- It may also cause an unpleasant odor in the CAB when the system is used next.

Checking the Air Conditioner Condenser

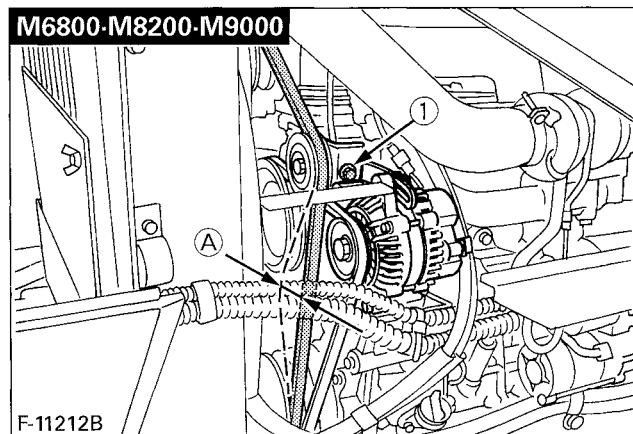
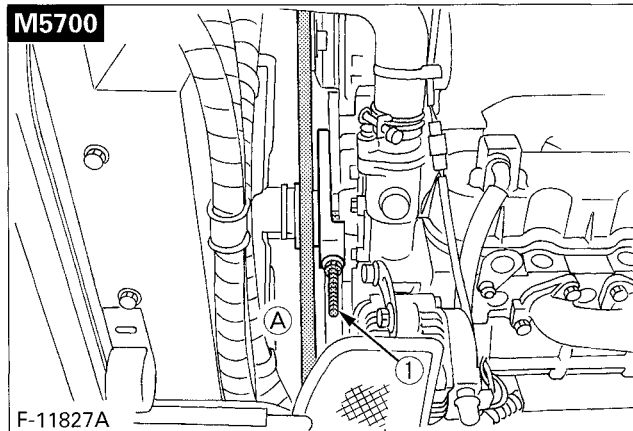
Check air conditioner condenser to be sure it is clean from debris.



(1) Air conditioner condenser

Air-Conditioner Belt Tightness

Push on the belt between the pulleys with a finger. A deflection of 10 to 12 mm (0.4 to 0.48 in.) under a 10 kgf (22 lbs.) load is appropriate.



(1) Adjusting bolt (A) 10 to 12mm (0.4 to 0.48 in.)

EVERY 300 HOURS

Replacing Hydraulic Oil Filter

Cleaning Magnetic Filter

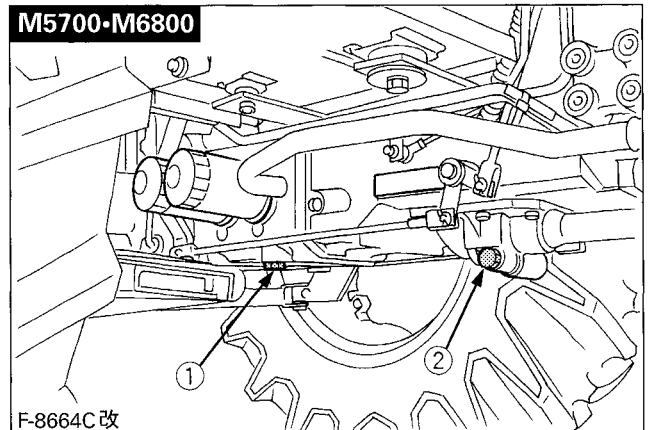


CAUTION

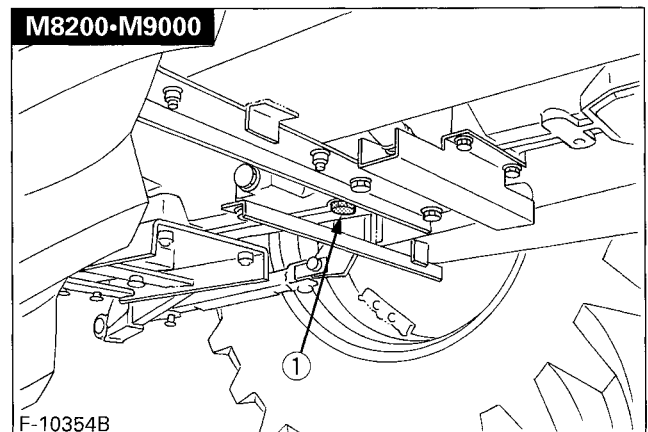
To avoid personal injury:

- Allow engine to cool down sufficiently, oil can be hot and can burn.

1. 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.

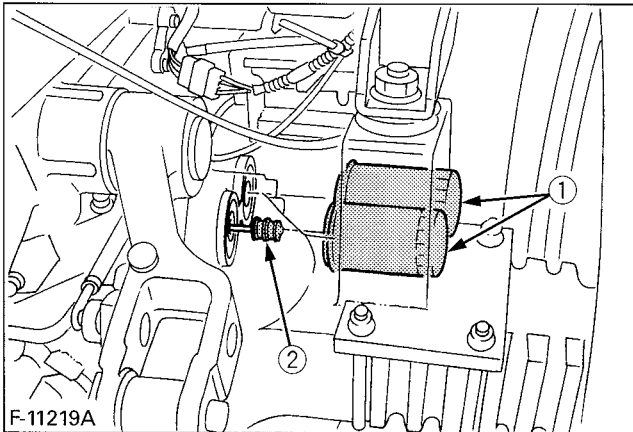


(1) Drain plug
(2) Drain plug



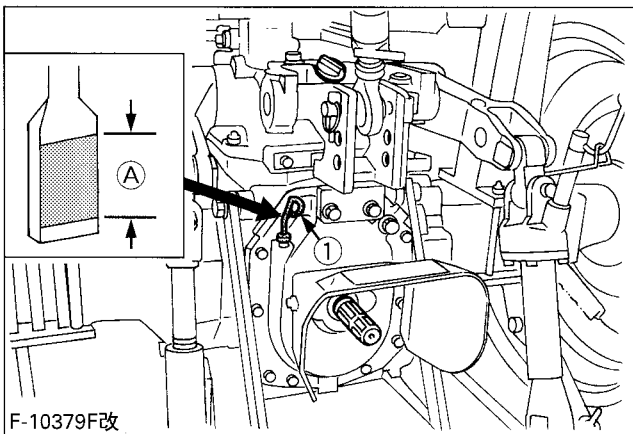
(1) Drain plug

3. Remove the two oil filters.
4. Wipe off metal filings from the magnetic filter with a clean rag.



(1) Hydraulic oil filters
(2) Magnetic filter (Wipe off metal filings)

5. Put a film of clean transmission oil on the rubber seal of the new filters.
6. Tighten the filter quickly until it contacts the mounting surface.
Tighten filter by hand an additional 1/2 turn only.
7. After the new filters have been replaced, fill the transmission oil up to the upper notch on the dipstick.



(1) Gauge (A) Oil level is acceptable within this range.

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

IMPORTANT:

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

EVERY 400 HOURS

Replacing Engine Oil Filter

M6800-M8200-M9000

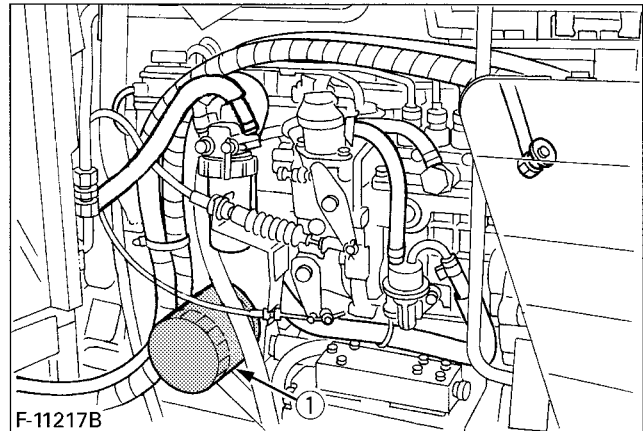


CAUTION

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.
2. Put a film of clean engine oil on the rubber seal of the new filter.
3. 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.



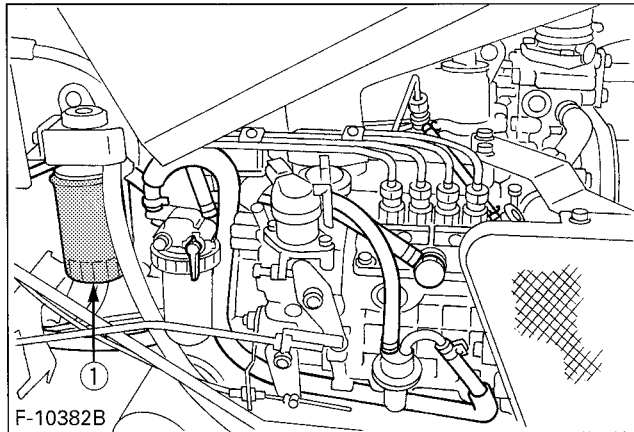
(1) Engine oil filter

IMPORTANT:

- To prevent serious damage to the engine, use only a KUBOTA genuine filter.
- If water contacts the filter element replace the element, do not attempt to clean.

■ Replacing Fuel Filter

1. Remove the fuel filter.
2. Put a film of clean fuel on rubber seal of new filter.
3. Tighten the filter quickly until it contacts the mounting surface.
Tighten filter by hand an additional 1/2 turn only.
4. Bleed the fuel system.
(See "Bleeding Fuel System" in as required maintenance)

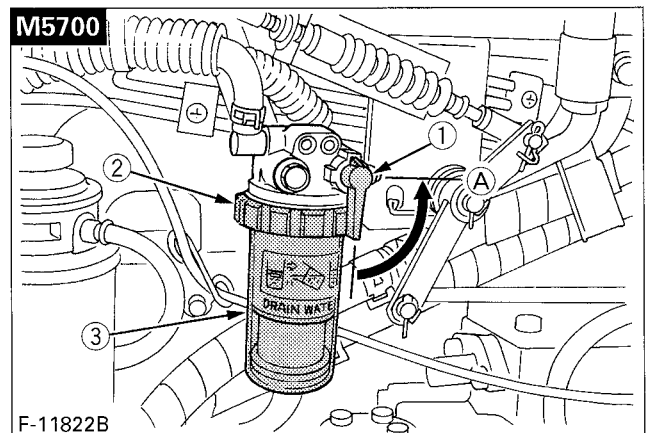


(1) Fuel filter

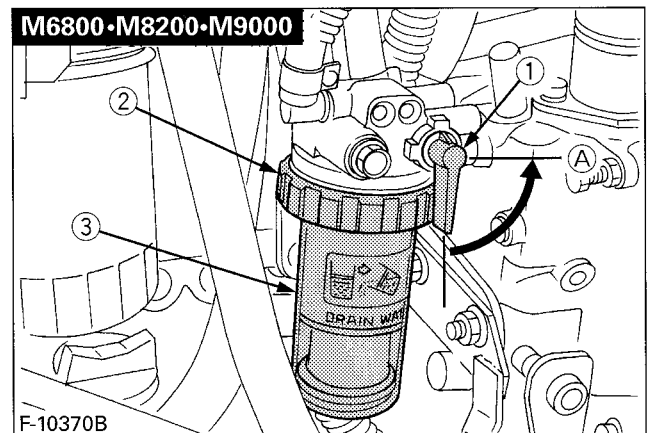
■ Cleaning Water Separator

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

1. Close the fuel cock.
2. Unscrew the retainer ring and remove the cup, and rinse the inside with kerosene.
3. Take out the element and dip it in the kerosene to rinse.
4. After cleaning, reassemble the water separator, keeping out dust and dirt.
5. Bleed the fuel system.
(See "Bleeding Fuel System" in as required maintenance)



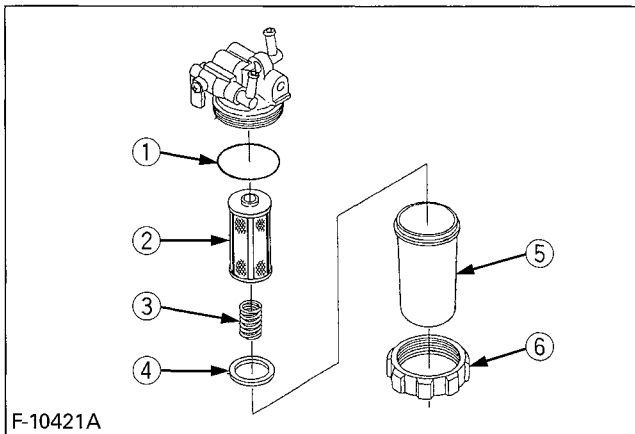
F-11822B



F-10370B

- (1) Fuel cock
(2) Retainer ring
(3) Cup

(A) "CLOSE"



F-10421A

- (1) O ring
- (2) Element
- (3) Spring
- (4) Red float
- (5) Cup
- (6) Retainer ring

EVERY 600 HOURS

Changing Transmission Fluid



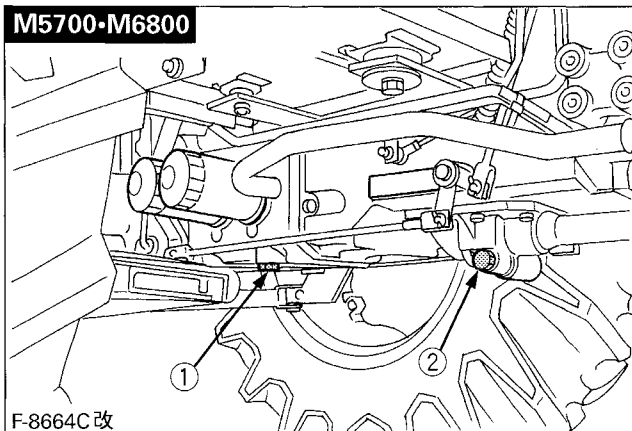
CAUTION

To avoid personal injury:

- Allow engine to cool down sufficiently, oil can be hot and can burn.

1. 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.

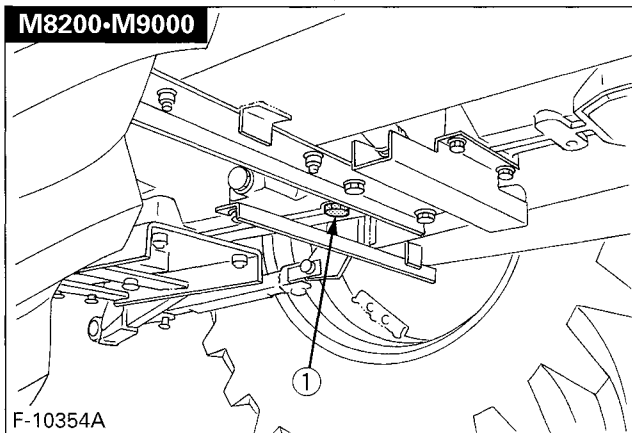
M5700-M6800



F-8664C改

- (1) Drain plug
- (2) Drain plug (4WD only)

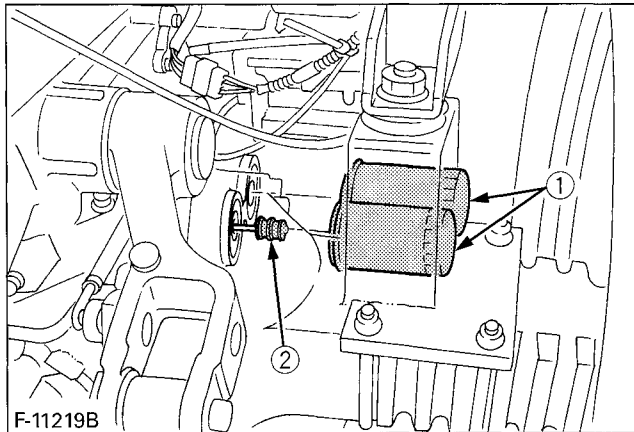
M8200-M9000



F-10354A

- (1) Drain plug

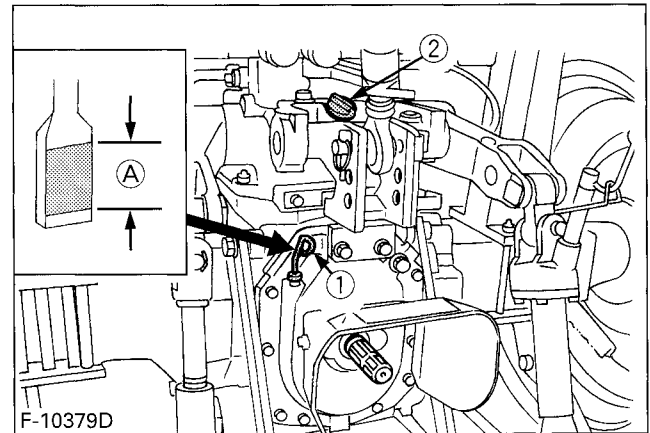
3. Remove the two oil filters.
4. Wipe off metal filings from the magnetic filter with a clean rag.



- (1) Hydraulic oil filter
 (2) Magnetic filter (wipe metal filings)

5. Put a film of clean transmission oil on rubber seal of new filters.
6. Tighten each filter quickly until it contacts the mounting surface.
Tighten filter by hand an additional 1/2 turn only.
7. Fill with the new KUBOTA SUPER UDT fluid up to the upper notch on the dipstick.
(See "LUBRICANTS" in Maintenance Section)
8. After running the engine for a few minutes, stop the engine and check the oil level again; add oil to prescribed level.
9. Make sure that the transmission fluid doesn't leak past the seal on the filters.

Tractor model	Oil capacity
M5700 M6800	43 L (45.4 U.S.qts.)
M8200 M9000	54 L (57.0 U.S.qts.)



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

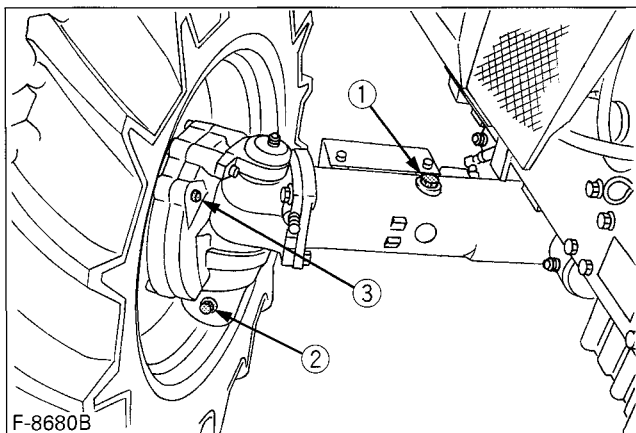
IMPORTANT:

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

Changing Front Axle Case Oil M5700

1. 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 right and left breather plugs.
4. Fill with the new oil.
(See "LUBRICANTS" in Maintenance Section)
5. After filling reinstall the filling plug and breather plugs.

Oil capacity	8.0 L (8.5 U.S.qts.)
--------------	----------------------

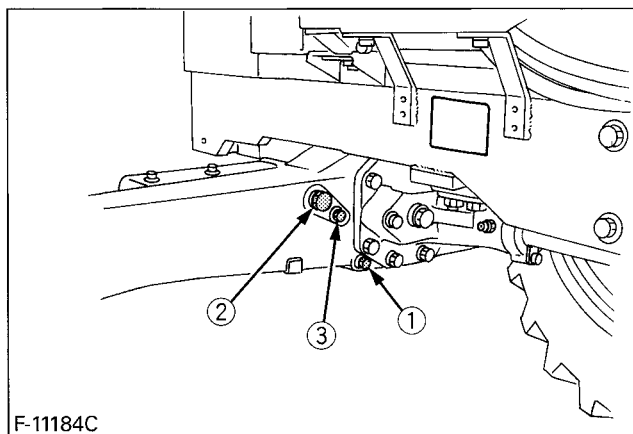


- (1) Filling plug
(2) Drain plug
(3) Breather plug

Changing Front Differential Case Oil**M6800-M8200-M9000**

1. To drain the used oil, remove the drain and filling plug at the front differential case and drain the oil completely into the oil pan.
2. After draining reinstall the drain plug.
3. Remove the oil level check plug.
4. Fill with the new oil up to the lower rim of check plug port.
(See "LUBRICANTS" in Maintenance Section)
5. After filling reinstall the filling plug and check plugs.

Tractor model	Oil capacity
M6800-M8200	5.0 L (5.3 U.S.qts.)
M9000	6.0 L (6.3 U.S.qts.)



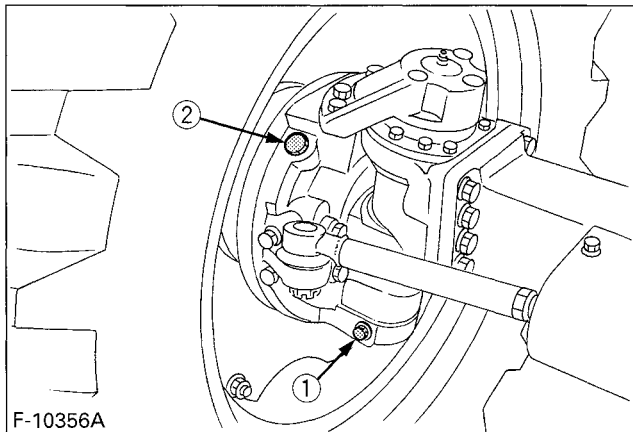
- (1) Drain plug
(2) Filling plug
(3) Check plug

Changing Front Axle Gear Case Oil

M6800-M8200-M9000

1. To drain the used oil, remove the right and left drain plugs and drain the oil completely into the oil pan.
2. After draining reinstall the drain plugs.
3. Fill with the new oil up to the filling plug port.
(See "LUBRICANTS" in Maintenance Section)
4. After filling reinstall the filling plugs.

Oil capacity	3.5 L (3.7 U.S.qts.) for each side
--------------	------------------------------------



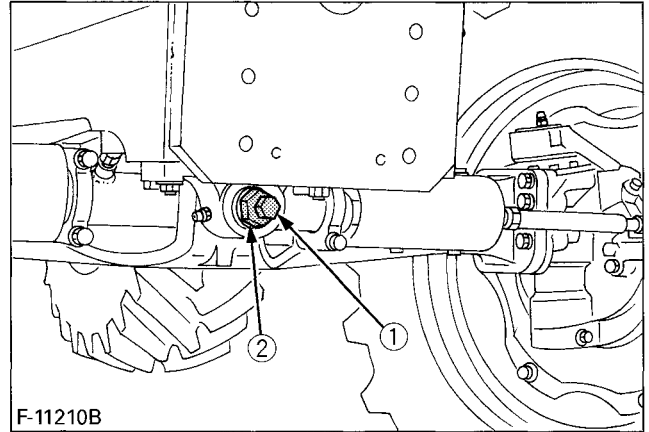
- F-10356A
- (1) Drain plug
(2) Filling plug

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.



F-11210B

- (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.)

■ Checking the Air-conditioner Pipe and Hose

1. Check to see that all lines and hose clamps are tight and not damaged.
2. If hoses and clamps are found worn or damaged, consult your local KUBOTA Dealer for this service.

■ Checking the CAB Isolation Cushion

Check the cushion for any breakage or fatigue. Replace them if they are deteriorated.

EVERY 2 YEARS

■ Flushing Cooling System and Changing Coolant



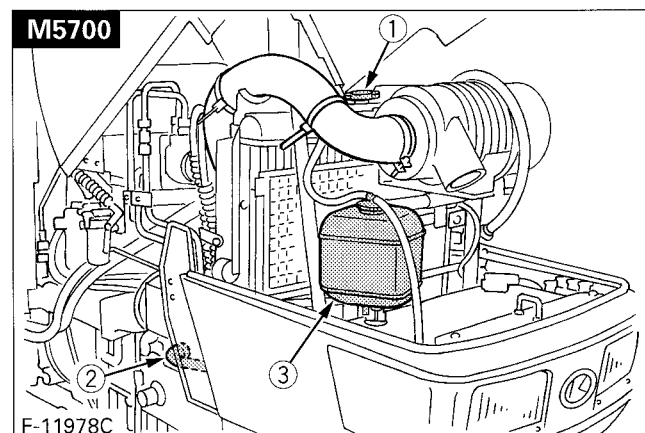
CAUTION

To avoid personal injury:

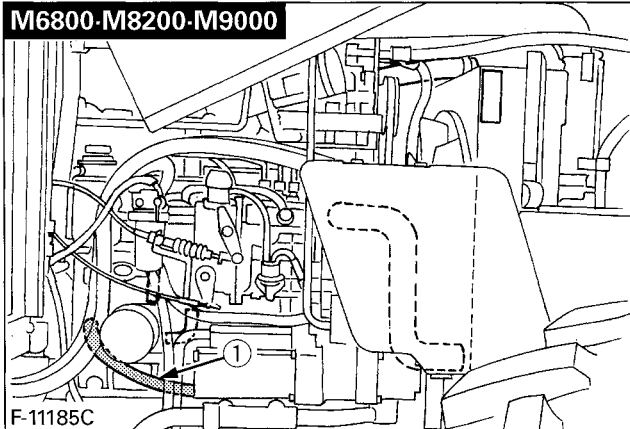
- Do not remove the radiator cap when the engine is hot. Then loosen cap slightly to the stop to relieve any excess pressure before removing cap completely.

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

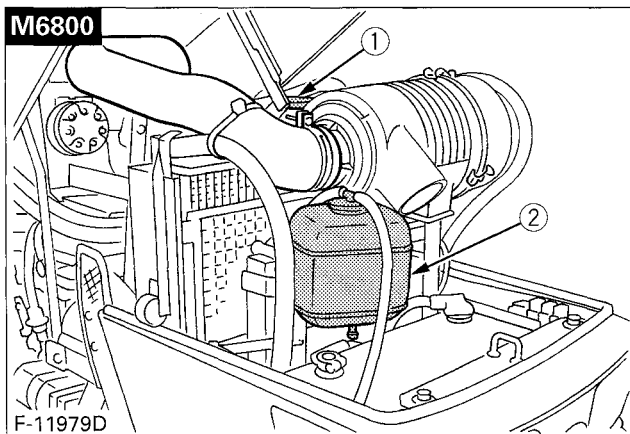
Tractor model	Coolant capacity
M5700	7.3 L (7.7 U.S.qts.)
M6800	8.5 L (9.0 U.S.qts.)
M8200 M9000	9.0 L (9.5 U.S.qts.)



- (1) Radiator cap
(2) Radiator hose
(3) Recovery tank

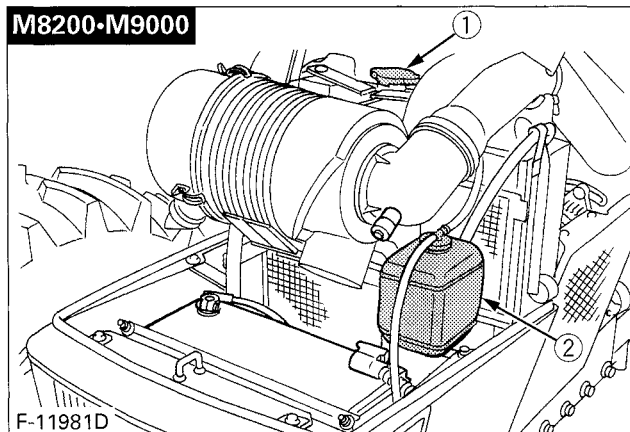


(1) Radiator hose



(1) Radiator cap

(2) Recovery tank



(1) Radiator cap

(2) Recovery tank

IMPORTANT:

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

Anti-Freeze

If cooling water freezes, it can damage the cylinders and radiator. It is necessary, if the ambient temperature falls below 0°C (32°F), to remove cooling water after operating or to add anti-freeze to it.

1. There are two types of anti-freeze available; use the permanent type (PT) for this engine.
2. Before adding anti-freeze for the first time, clean the radiator interior by pouring fresh water and draining it a few times.
3. The procedure for mixing of water and anti-freeze differs according to the make of the anti-freeze and the ambient temperature, basically it should be referred to SAE J1034 standard, more specifically also to SAE J814c.
4. Mix the anti-freeze with water, and then fill into the radiator.

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

* At 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.

NOTE:

- The above data represents industry standards that necessitate a minimum glycol content in the concentrated anti-freeze.
- When the cooling water level drops due to evaporation, add water only. In case of leakage, add anti-freeze and water in the specified mixing ratio.
- Anti-freeze absorbs moisture. Keep unused anti-freeze in a tightly sealed container.
- Do not use radiator cleaning agents when anti-freeze has been added to the cooling water. (Anti-freeze contains an anti-corrosive agent, which will react with the radiator cleaning agent forming sludge which will affect the engine parts.)

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, if necessary.

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

Replacing Fuel Hose

Replace the hoses and clamps, if necessary.

(See "Checking Fuel Line" in every 200 hours maintenance.)

Replacing Intake Air Line

Consult your local KUBOTA Dealer for this service.

SERVICE AS REQUIRED

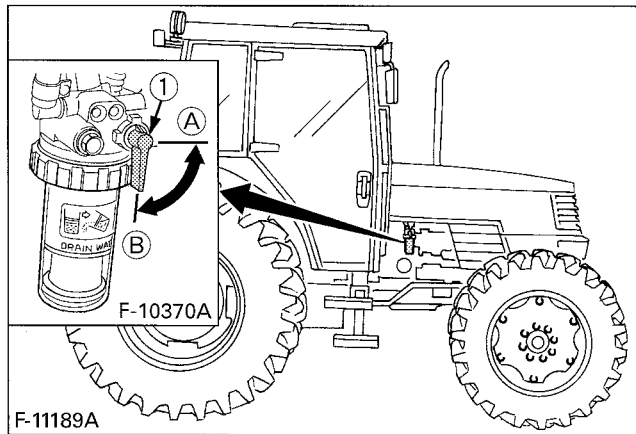
■ Bleeding Fuel System

Air must be removed:

1. When the fuel filter or lines are removed.
2. When water is drained from water separator.
3. When tank is completely empty.
4. After the tractor has not been used for a long period of time.

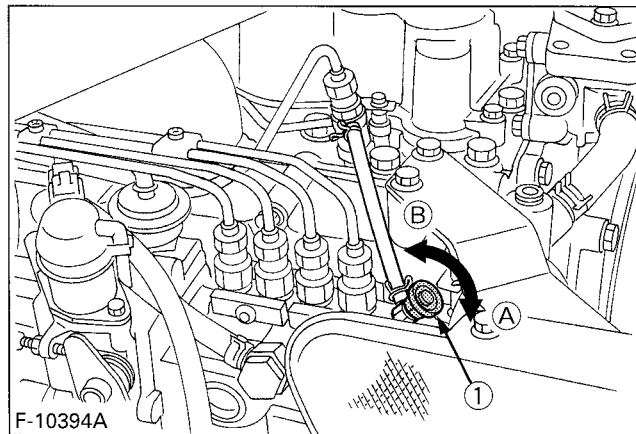
◆ Bleeding procedure is as follows:

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



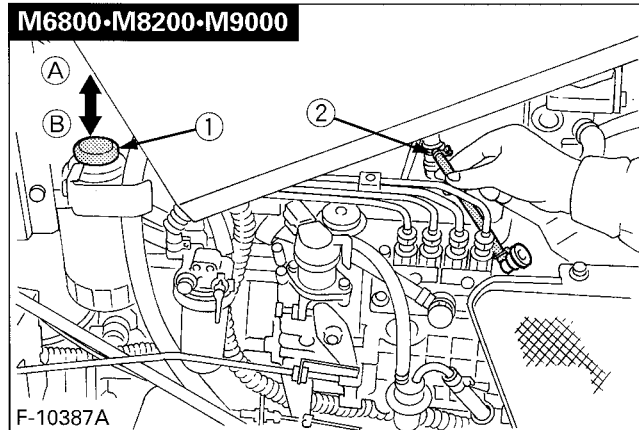
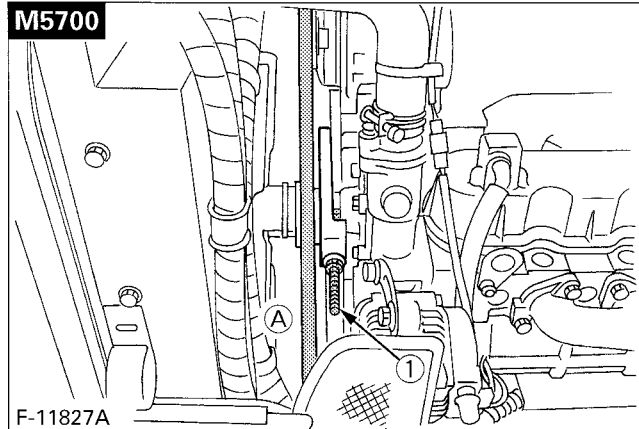
- (1) Fuel cock (A) "CLOSE"
(B) "OPEN"

2. Open the air vent cock on the fuel injection pump. **[M6800-M8200-M9000]**



- (1) Air vent cock (A) "CLOSE"
(B) "OPEN"

3. Pump the fuel pump knob(1) located on the top of the fuel filter. The fuel pump knob will pump easily at first and with added resistance as air is purged from the system. To make sure air is completely purged, pinch the fuel overflow hose with fingers, if a pulsation is felt when the knob is pumped, then, no air remains.



- (1) Fuel pump knob (A) "UP"
(2) Fuel overflow hose (B) "DOWN"

4. Set the hand throttle lever at the maximum speed position, turn the key switch to start the engine, and then reset the throttle lever at the mid speed (around 1500 rpm) position. If engine doesn't start, try it several times at 30 second intervals.

IMPORTANT:

- Do not hold key switch at engine start position for more than 10 seconds continuously. If more engine cranking is needed, try again after 30 seconds.

5. Accelerate the engine to remove the small portion of air left in the fuel system.
6. If air still remains and the engine stops, repeat the above steps.
7. Close the air vent cock. **[M6800-M8200-M9000]**

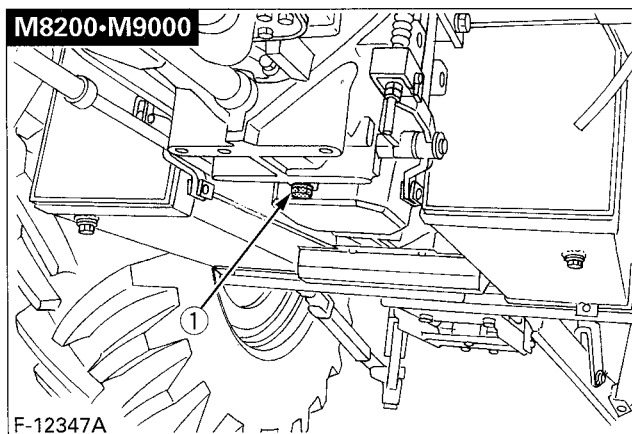
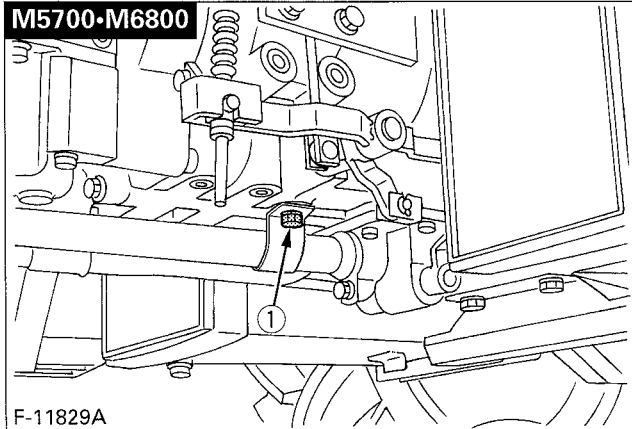
IMPORTANT:

- 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 a drain plug under the clutch housing.

After operating in rain, snow or tractor has been washed, water may get into the clutch housing. Remove the drain plug and drain the water, then install the plug again.



(1) Water drain plug

■ Replacing Fuse

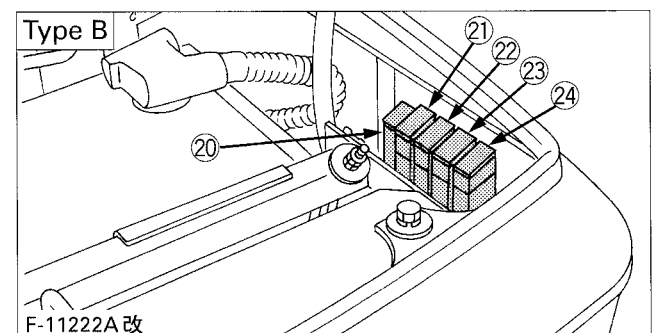
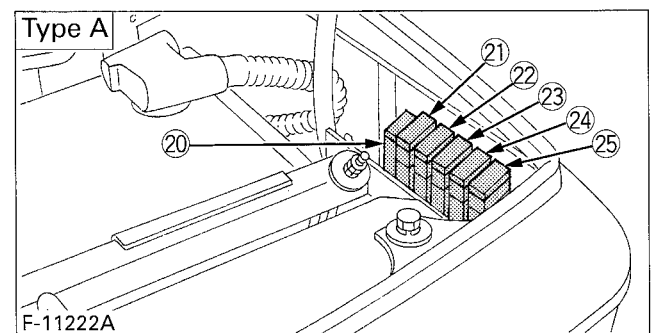
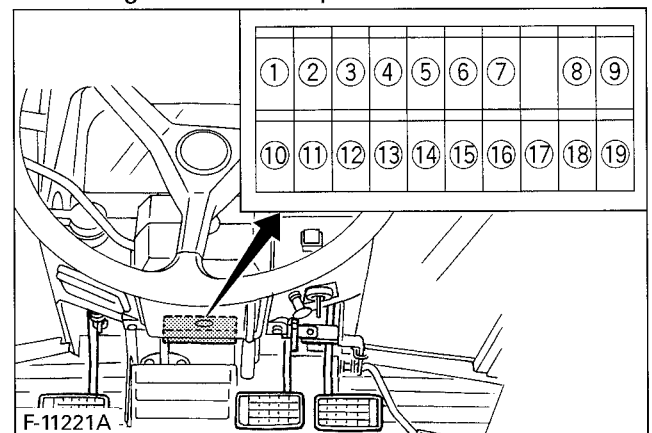
The tractor electrical system is protected from potential damage by fuses.

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
【Type A】

FUSE No.	CAPACITY (A)	Protected circuit
①	15	Flasher (Hazard)
②	10	Dome light
③	10	Air con. (Compressor)
④	25	Air con. (Fan motor)
⑤	5	Air con. (Control)
⑥	15	Wiper
⑦	5	Radio
⑧	15	Spare
⑨	25	Spare
⑩	10	Engine panel
⑪	15	Turn signal-Stop lamp
⑫	15	Auxiliary power
⑬	15	Head light-Tail lamp-Horn
⑭	20	(Rear) Deffogger (if equipped)
⑮	20	(Side) Deffogger (if equipped)
⑯	15	Work Light (Front)
⑰	15	Work Light (Rear)
⑱	15	Cigarette lighter
⑲	20	Spare (if equipped)
⑳	65 Slow blow fuse	Check circuit against wrong battery connection
	75 Slow blow fuse (if equipped)	
㉑	30	Battery
㉒	30	Accessory
㉓	30	Main key
㉔	30	Air con. (Fan motor)
㉕	30	Deffogger (if equipped)

【Type B】

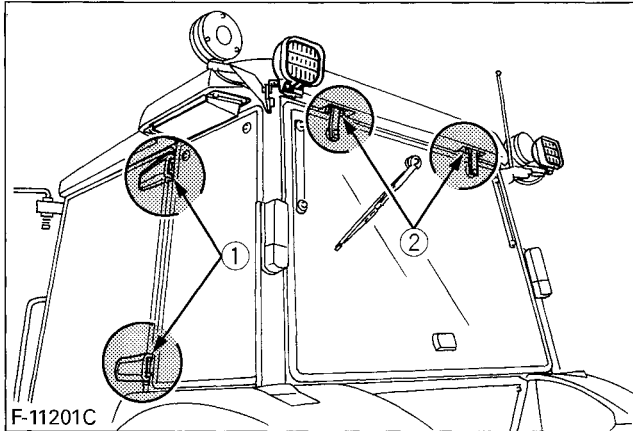
FUSE No.	CAPACITY (A)	Protected circuit
①	15	Flasher (Hazard)
②	10	Dome light
③	10	Air con. (Compressor)
④	20	Air con. (Fan motor)
⑤	5	Air con. (Control)
⑥	15	Wiper
⑦	5	Radio
⑧	15	Spare
⑨	20	Spare
⑩	10	Engine panel
⑪	15	Turn signal-Stop lamp
⑫	15	Auxiliary power
⑬	15	Head light-Tail lamp-Horn
⑭	20	(Rear) Deffogger (if equipped)
⑮	20	(Side) Deffogger (if equipped)
⑯	15	Work Light (Front)
⑰	15	Work Light (Rear)
⑱	15	Cigarette lighter
⑲	—	—
⑳	65 Slow blow fuse	Check circuit against wrong battery connection
	75 Slow blow fuse (if equipped)	
㉑	30	Battery
㉒	30	Accessory
㉓	30	Main key
㉔	30	Deffogger (if equipped)
㉕	—	—

■ Replacing Light Bulb

- Head 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
Head light	45/45W
Tail light	8W
Turn signal light	15W
Hazard light	27W
Instrument panel light	3.4W
Easy checker	1.4W, 3W
Work light	55W
Dome light (Room lamp)	10W

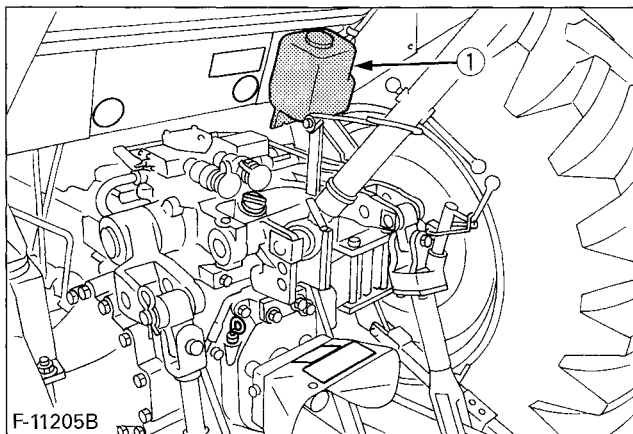
Lubricating Points



- (1) Door hinge
- (2) Rear window hinge

Adding The Washer Liquid

Add a proper amount of automobile washer liquid. (Tank capacity: 1.3 liters (1.4 U.S. qts.))



- (1) Washer liquid tank

Checking the Amount of Refrigerant (gas)



WARNING

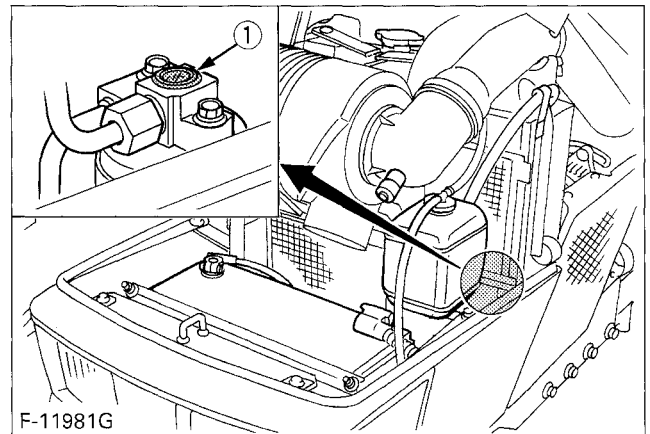
To avoid personal injury:

- Liquid contact with eyes or skin may cause frostbite.
- In the event of a leakage, wear safety goggles. Escaping refrigerant can cause severe injuries to eyes.
- In contact with a flame, R134a refrigerant gives a toxic gas.
- Do not disconnect any part of the refrigeration circuit of the air conditioning system. Consult your local KUBOTA Dealer for assistance and service.

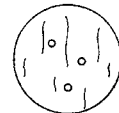
A shortage of refrigerant impairs the air-conditioner performance. Check the following points. If it is indicated that the amount of refrigerant is extremely low, ask your dealer to inspect and charge.

Checking procedure

1. Run the air-conditioner in the following conditions.
 - Engine speed: About 1500 rpm
 - Temperature control lever: Maximum cooling position (leftmost)
 - Fan switch: Highest blow (HI)
 - Air-conditioner switch: ON
2. Look into the sight glass to see if the refrigerant is flowing through its circuit.

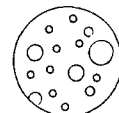


- (1) Sight glass



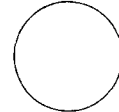
Proper

Little or no air bubbles in the refrigerant flow.



Low:

Lots of air bubbles in the refrigerant flow (air bubbles or foam passing continuously).



Overfull or

no refrigerant: Colorless and transparent.

F-11073A

IMPORTANT:

- Charge only with R134a not R12 refrigerant (gas).

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.

1. Check the bolts and nuts for looseness, and tighten if necessary.
2. 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.
5. 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.
7. Keep the PTO clutch control lever at "DISENGAGE" position while tractor is stored for a long period of time.
8. With all implements lowered to the ground, coat any exposed hydraulic cylinder piston rods with grease.
9. 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.)
10. 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

1. Check the tire air pressure and inflate the tires if they are low.
2. Jack the tractor up and remove the support blocks from under the front and rear axles.
3. Install the battery.
4. Check the fan belt tension.
5. 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.
7. With the engine fully warmed up, release the parking brake and test the brakes for proper adjustment as you move forward. Adjust the brakes as necessary.

TROUBLESHOOTING

ENGINE TROUBLESHOOTING

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

Trouble		Cause	Countermeasure
Engine is difficult to start or won't start.		<ul style="list-style-type: none"> No fuel flow. 	<ul style="list-style-type: none"> Check the fuel tank and the fuel filter. Replace filter if necessary.
		<ul style="list-style-type: none"> Air or water is in the fuel system. 	<ul style="list-style-type: none"> Check to see if the fuel line coupler bolt and nut are tight. Bleed the fuel system (See "Bleeding Fuel system" in as required maintenance)
		<ul style="list-style-type: none"> In winter, oil viscosity increases, and engine revolution is slow. 	<ul style="list-style-type: none"> Use oils of different viscosities, depending on ambient temperatures. Use engine block heater. (Option)
		<ul style="list-style-type: none"> Battery becomes weak and the engine does not turn over quick enough. 	<ul style="list-style-type: none"> Clean battery cables and terminals. Charge the battery. In cold weather, always remove the battery from the engine, charge and store it indoors. Install it on the tractor only when the tractor is going to be used.
Insufficient engine power.		<ul style="list-style-type: none"> Insufficient or dirty fuel. The air cleaner is clogged. 	<ul style="list-style-type: none"> Check the fuel system. Clean or replace the element.
Engine stops suddenly.		<ul style="list-style-type: none"> Insufficient fuel. 	<ul style="list-style-type: none"> Refuel. Bleed the fuel system if necessary.
Exhaust fumes are colored.	Black	<ul style="list-style-type: none"> Fuel quality is poor. Too much oil. The air cleaner is clogged. 	<ul style="list-style-type: none"> Change the fuel and fuel filter. Check the proper amount of oil. Clean or replace the element.
	Blue white	<ul style="list-style-type: none"> The inside of exhaust muffler is dumped with fuel. Injection nozzle trouble. Fuel quality is poor. 	<ul style="list-style-type: none"> Heat the muffler by applying load to the engine. Check the injection nozzle. Change the fuel and fuel filter.
Engine overheats.		<ul style="list-style-type: none"> Engine overloaded. 	<ul style="list-style-type: none"> Shift to lower gear or reduce load.
		<ul style="list-style-type: none"> Low coolant level. 	<ul style="list-style-type: none"> Fill cooling system to the correct level; check radiator and hoses for loose connections or leaks.
		<ul style="list-style-type: none"> Loose or defective fan belt. 	<ul style="list-style-type: none"> Adjust or replace fan belt.
		<ul style="list-style-type: none"> Dirty radiator core or grille screens. 	<ul style="list-style-type: none"> Remove all trash.
		<ul style="list-style-type: none"> Coolant flow route corroded. 	<ul style="list-style-type: none"> Flush cooling system.

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

OPTIONS

Consult your local KUBOTA Dealer for further details.

- Work Light
 - High visibility for night work
- Rear Wiper
- Radio with Cassette Player
- Trailer electrical outlet
 - For operating remote lighting
- Double Acting Remote Hydraulic Control Valve with Float Position
- Double Acting Remote Hydraulic Control Valve with Detents and Self-Cancelling
- Flow Control Valve Kit
- 60 L/min Pump Up-Grade Kit **[M8200]**
- Clevis Type Swinging Drawbar
- Rear Wheel Weights
 - For rear ballast
- Rear Cast Iron Disk **[M6800-M8200-M9000]**
- Front bumper
- Front end weights
 - For front ballast
- 540/1000 rpm PTO Speed Kit **[M8200-M9000]**
- Creep Speed Kit **[M8200-M9000]**