

Product: 2002 Kubota WSM M4900,M5700 Tractor Service Repair Workshop Manual
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WSM

**WORKSHOP MANUAL
TRACTOR**

M4900 • M5700

Kubota

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TO THE READER

This Workshop Manual has been prepared to provide servicing personnel with information on the mechanism, service and maintenance of KUBOTA tractors M4900 and M5700. It is divided into two parts, "Mechanism" and "Servicing" for each section except "ENGINE" section.

■ Mechanism

Information on the construction and function are included. This part should be understood before proceeding with troubleshooting, disassembling and servicing.

■ Servicing

The heading "General" section comes general precautions, check and maintenance and special tools. Other section, there are troubleshooting, servicing specification lists, checking and adjusting, disassembling and assembling, and servicing which cover procedures, precautions, factory specifications and allowable limits.

All information illustrations and specifications contained in this manual are based on the latest product information available at the time of publication.

The right is reserved to make changes in all information at any time without notice.

January 2002

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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 repair 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.



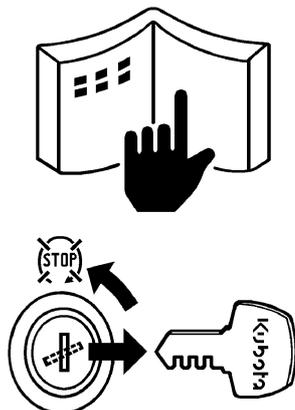
CAUTION : Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.



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

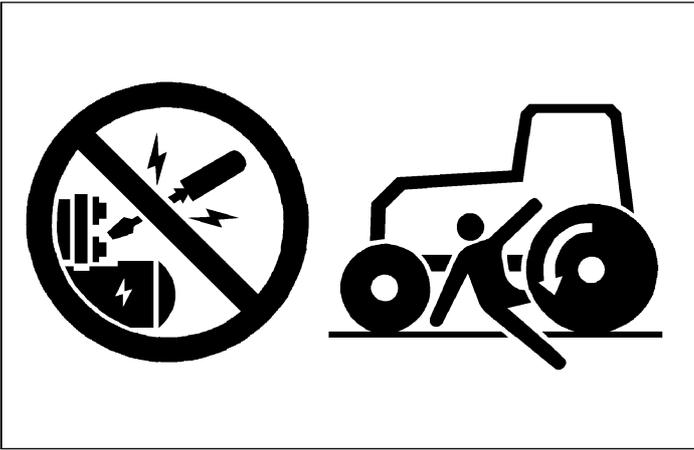


NOTE : Gives helpful information.



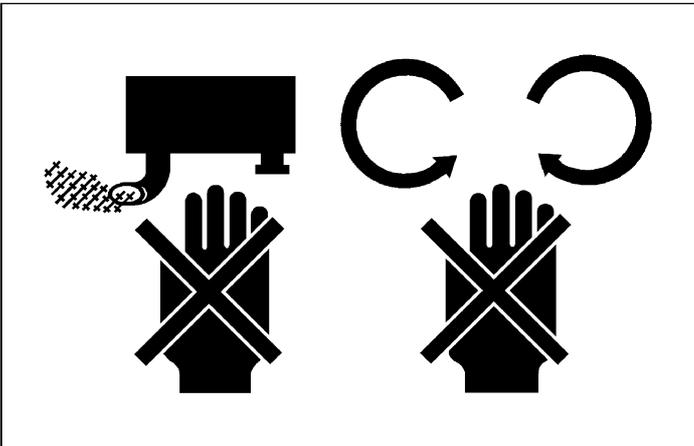
BEFORE SERVICING AND REPAIRING

- Read all instructions and safety instructions in this manual and on your machine safety decals.
- Clean the work area and machine.
- Park the machine on a firm and level ground, and set the parking brake.
- Lower the implement to the ground.
- Stop the engine, and remove the key.
- Disconnect the battery negative cable.
- Hang a "DO NOT OPERATE" tag in operator station.



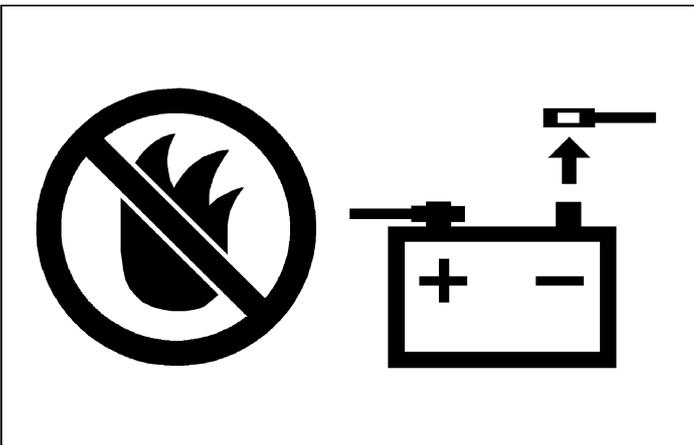
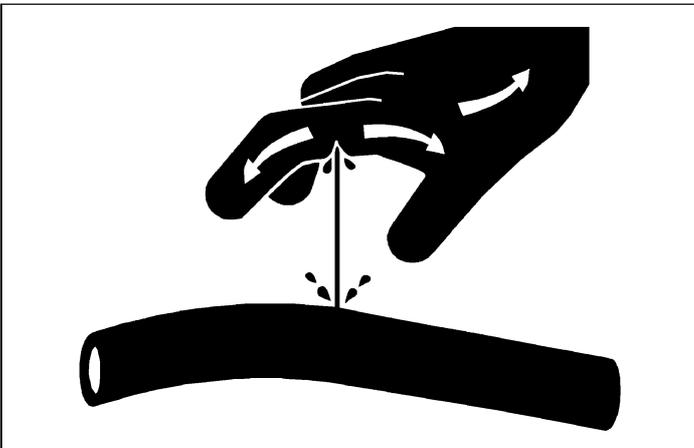
SAFETY STARTING

- Do not start the engine by shorting across starter terminals or bypassing the safety start switch.
- Do not alter or remove any part of machine safety system.
- Before starting the engine, make sure that all shift levers are in neutral positions or in disengaged positions.
- Never start the engine while standing on ground. Start the engine only from operator's seat.



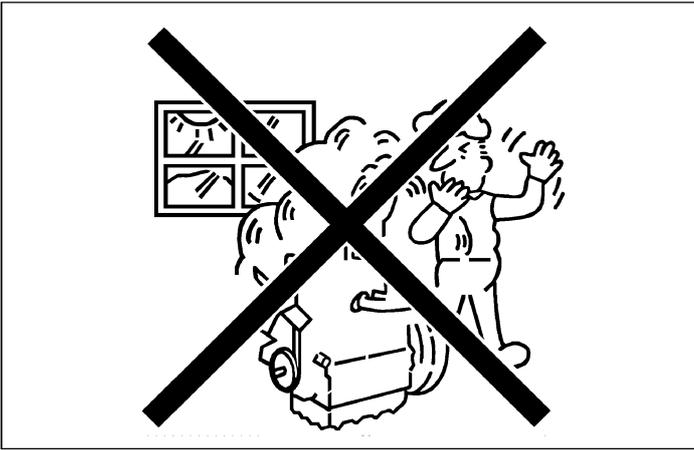
SAFETY WORKING

- Do not work on the machine while under the influence of alcohol, medication, or other substances or while fatigued.
- Wear close fitting clothing and safety equipment appropriate to the job.
- Use tools appropriate to the work. Makeshift tools, parts, and procedures are not recommended.
- When servicing is performed together by two or more persons, take care to perform all work safely.
- Do not work under the machine that is supported solely by a jack. Always support the machine by safety stands.
- Do not touch the rotating or hot parts while the engine is running.
- Never remove the radiator cap while the engine is running, or immediately after stopping. Otherwise, hot water will spout out from radiator. Only remove radiator cap when cool enough to touch with bare hands. Slowly loosen the cap to first stop to relieve pressure before removing completely.
- Escaping fluid (fuel or hydraulic oil) under pressure can penetrate the skin causing serious injury. Relieve pressure before disconnecting hydraulic or fuel lines. Tighten all connections before applying pressure.



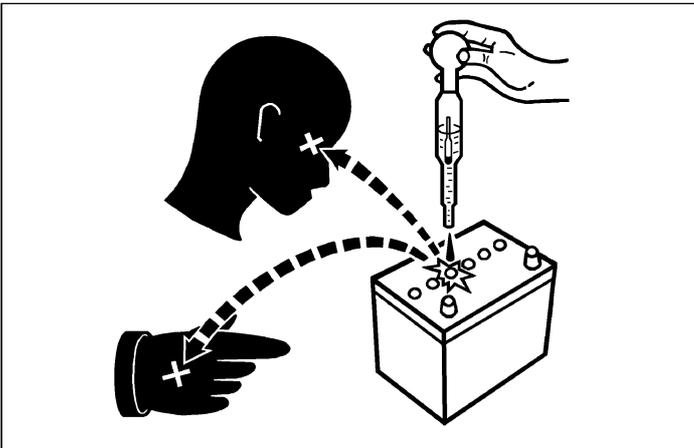
AVOID FIRES

- Fuel is extremely flammable and explosive under certain conditions. Do not smoke or allow flames or sparks in your working area.
- To avoid sparks from an accidental short circuit, always disconnect the battery negative cable first and connect it last.
- Battery gas can explode. Keep sparks and open flame away from the top of battery, especially when charging the battery.
- Make sure that no fuel has been spilled on the engine.



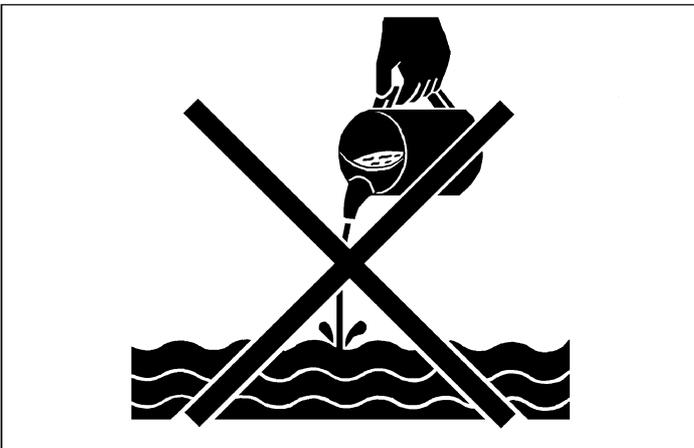
VENTILATE WORK AREA

- If the engine must be running to do some work, make sure the area is well ventilated. Never run the engine in a closed area. The exhaust gas contains poisonous carbon monoxide.



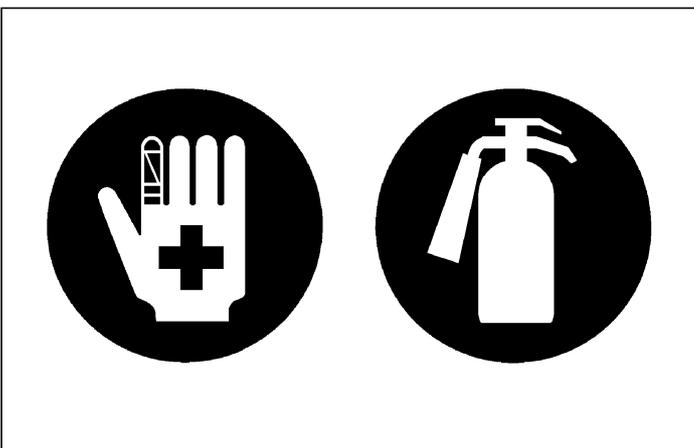
PREVENT ACID BURNS

- Sulfuric acid in battery electrolyte is poisonous. It is strong enough to burn skin, clothing and cause blindness if splashed into eyes. Keep electrolyte away from eyes, hands and clothing. If you spill electrolyte on yourself, flush with water, and get medical attention immediately.



DISPOSE OF FLUIDS PROPERLY

- Do not pour fluids into the ground, down a drain, or into a stream, pond, or lake. Observe relevant environmental protection regulations when disposing of oil, fuel, coolant, electrolyte and other harmful waste.



PREPARE FOR EMERGENCIES

- Keep a first aid kit and fire extinguisher handy at all times.
- Keep emergency numbers for doctors, ambulance service, hospital and fire department near your telephone.

SAFETY DECALS

The following safety decals are installed on the machine.

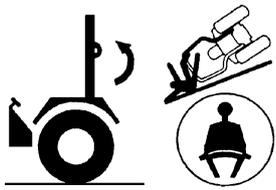
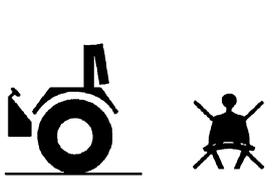
If a decal becomes damaged, illegible or is not on the machine, replace it. The decal part number is listed in the parts list.

[ROPS Type]

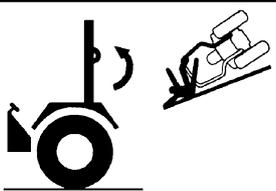
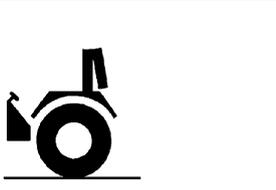
(1) Part No. TA040-4965-2

	<p>⚠ 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.
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(2) Part No. 3A111-9848-2 (for North America and Oceania)

	<p>⚠ WARNING</p> <p>TO AVOID INJURY OR DEATH FROM ROLL-OVER:</p> <ul style="list-style-type: none"> • Keep Roll-Over Protective Structures (ROPS) in the upright and locked position. • Fasten SEAT BELT before operating.
	<p>THERE IS NO OPERATOR PROTECTION WHEN THE ROPS IS IN THE FOLDED POSITION.</p> <ul style="list-style-type: none"> • Check the operating area and fold the ROPS only when absolutely necessary. • Do not wear SEAT BELT if ROPS is folded. • Raise and lock ROPS as soon as vertical clearance allows. • Read ROPS related instructions and warnings.

(2) Part No. 3A114-9848-1 (for Euro and Asia)

	<p>⚠ WARNING</p> <p>TO AVOID INJURY OR DEATH FROM ROLL-OVER:</p> <ul style="list-style-type: none"> • Keep Roll-Over Protective Structures (ROPS) in the upright and locked position.
	<p>THERE IS NO OPERATOR PROTECTION WHEN THE ROPS IS IN THE FOLDED POSITION.</p> <ul style="list-style-type: none"> • Check the operating area and fold the ROPS only when absolutely necessary. • Raise and lock ROPS as soon as vertical clearance allows. • Read ROPS related instructions and warnings.

(3) Part No. TA040-4935-1

<p>⚠ 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.
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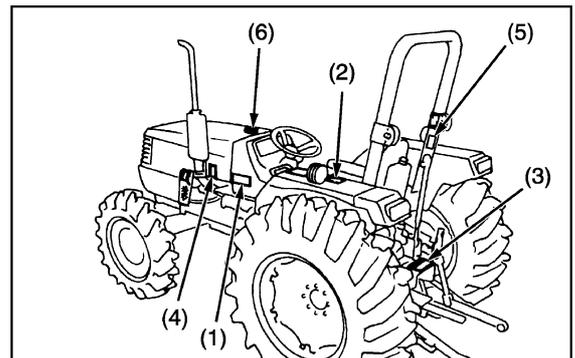
(5) Part No. 3A111-9544-1

<p>⚠ WARNING</p> <p>Never modify or repair a ROPS because welding, grinding, drilling or cutting any portion may weaken the structure.</p>
<p>⚠ CAUTION</p> <p>TO AVOID INJURY WHEN RAISING OR FOLDING ROPS:</p> <ul style="list-style-type: none"> • Set parking brake and stop engine. • Remove any obstruction that may prevent raising or folding of the ROPS. • Do not allow any bystanders. • Always perform function from a stable position at the rear of the tractor. • Hold the top of the ROPS securely when raising or folding. • Make sure all pins are installed and locked.

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



(6) Part No. 6C040-4741-2
No fire



(1) Part No. 35260-3491-3

⚠ CAUTION

TO AVOID PERSONAL INJURY:

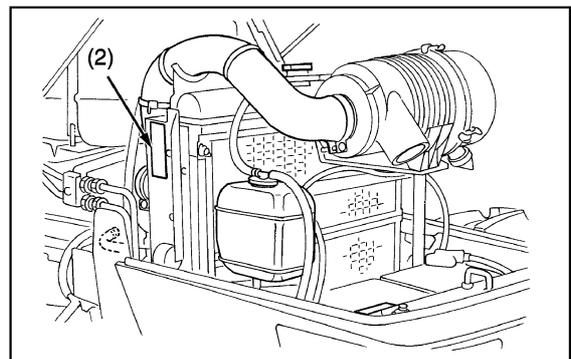
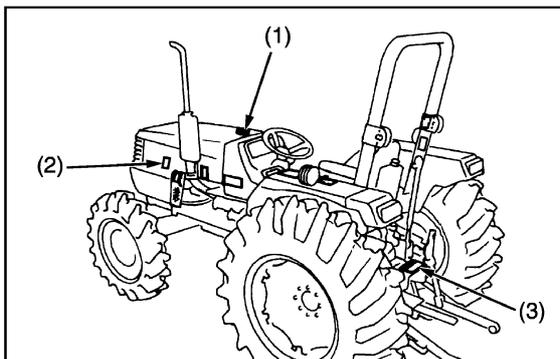
1. Read and understand the operator's manual before operation.
2. Before starting the engine, make sure that everyone is at a safe distance from the tractor and that the PTO is OFF.
3. Do not allow passengers on the tractor at any time.
4. Before allowing other people to use the tractor, have them read the operator's manual.
5. Check the tightness of all nuts and bolts regularly.
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. 32751-4958-1
Stay clear of engine fan and fanbelt.



(3) Part No. TA040-4959-3

	<h3 style="margin: 0;">⚠ WARNING</h3> <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)
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T18100ZZ00201

(1) Part No. 35080-6528-2

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

(2) Part No. 3A111-9856-3

⚠ CAUTION
 TO AVOID INJURY FROM SEPARATION:

RH.
 DO NOT EXTEND LIFT ROD BEYOND THE POINT WHERE THREADS ARE EXPOSED.

LH.
 DO NOT EXTEND LIFT ROD BEYOND THE GROOVE ON THE THREADED ROD.

THREAD EXPOSURE AREA

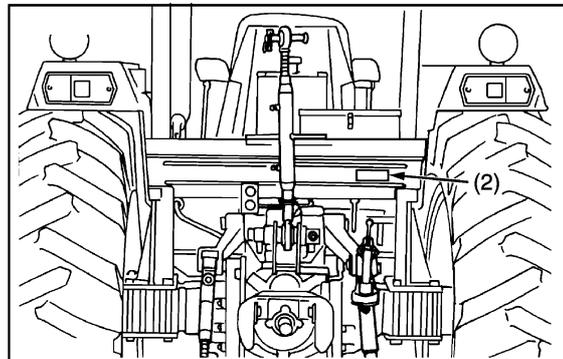
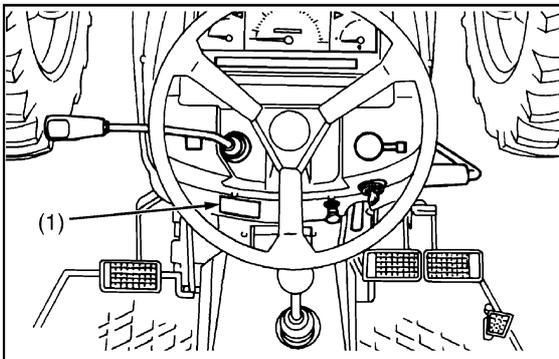
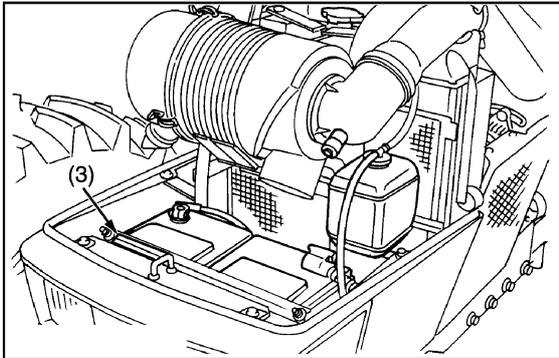
(3) Part No. 6C040-5559-1 (for Euro, Oceania and Asia)

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

KEEP VENT CAPS TIGHT AND LEVEL

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

KEEP OUT OF REACH OF CHILDREN



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
4. If a component with danger, warning and caution labels 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.

T18100ZZ00301

[CABIN Type]

(1) Part No. 3A999-1274-1 (for North America)

<p>⚠ DANGER / POISON</p>		<p>CAUTION • JUMP STARTING • INSTALLATION</p>	
<p>SHIELD EYES EXPLOSIVE GASES CAN CAUSE BLINDNESS OR INJURY</p> 	<p>NO • SPARKS • FLAMES • SMOKING</p> 	<p>SULFURIC ACID CAN CAUSE BLINDNESS OR SEVERE BURNS</p> 	<p>FLUSH EYES IMMEDIATELY WITH WATER</p> 
<p>KEEP OUT OF THE REACH OF CHILDREN DO NOT TIP KEEP VENT CAPS TIGHT AND LEVEL</p>		<p>GET MEDICAL HELP FAST</p>	
<p>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.</p>			<p>LEAD RETURN RECYCLE</p> 
<p>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.</p>			

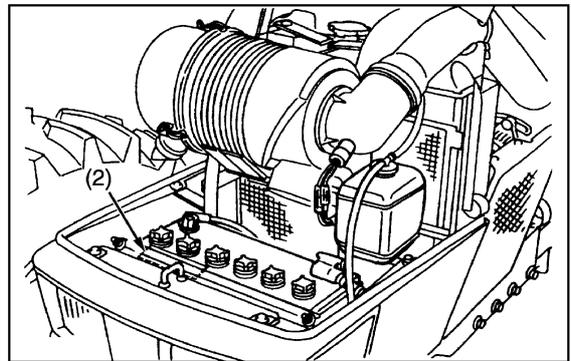
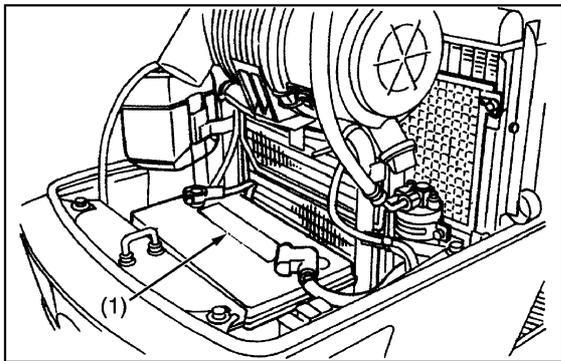
(2) Part No. 6C040-5559-1 (for Euro, Oceania and Asia)

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

KEEP VENT CAPS TIGHT AND LEVEL

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

KEEP OUT OF REACH OF CHILDREN

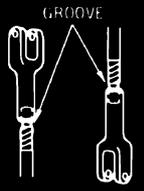


T18100ZZ00401

(1) Part No. TA040-4965-2

	<p align="center">⚠ DANGER</p> <p>TO AVOID POSSIBLE INJURY OR DEATH FROM A MACHINE RUNAWAY.</p> <ol style="list-style-type: none"> Do not start engine by shorting across starter terminals or bypassing the safety start switch. Machine may start in gear and move if normal starting circuitry is bypassed. Start engine only from operator's seat with transmission and PTO OFF. Never start engine while standing on the ground.
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(2) Part No. 3A111-9856-3

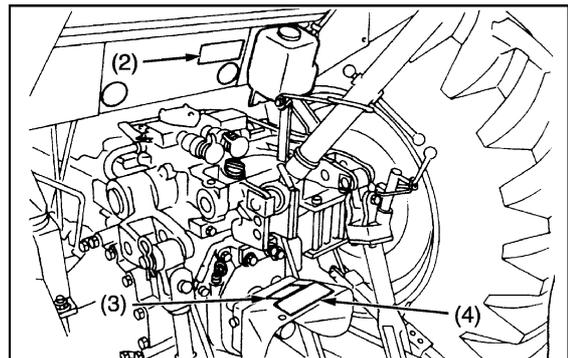
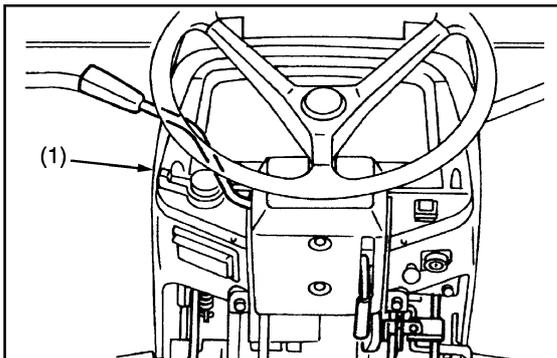
<p align="center">⚠ CAUTION</p>	
<p align="center">TO AVOID INJURY FROM SEPARATION:</p>	
	<p align="center">RH. DO NOT EXTEND LIFT ROD BEYOND THE POINT WHERE THREADS ARE EXPOSED.</p> <p align="center">THREAD EXPOSURE AREA</p> 

(3) Part No. TA040-4935-1

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

(4) Part No. TA040-4959-3

	<p align="center">⚠ WARNING</p> <p>TO AVOID PERSONAL INJURY.</p> <ol style="list-style-type: none"> Keep PTO shield in place at all times. Do not operate the PTO at speeds faster than the speed recommended by the implement manufacturer. For trailing PTO-driven implements, set drawbar at towing position. (see operator's manual)
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T18100ZZ00501

(1) Part No. TA040-4956-2

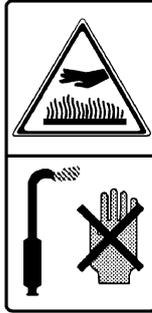
Diesel fuel
only

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

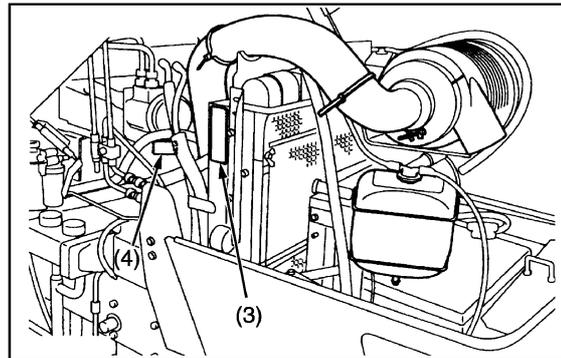
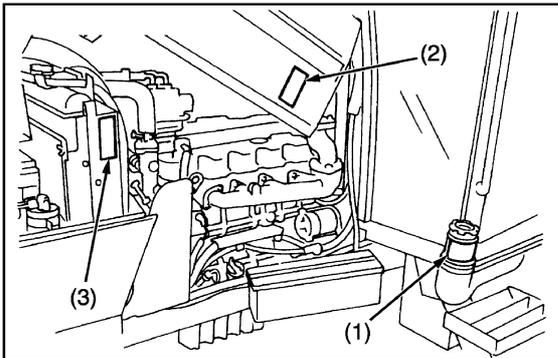
CAUTION REFRIGERANT UNDER HIGH PRESSURE

Important service methods may cause personal injury. This air conditioning system should be service by your dealer or any other qualified service shop. See Repair Manual for details.

Refrigerant
R134a Max. 1.05 kg (2.31 lbs.)
USE ONLY Min. 0.95 kg (2.09 lbs.)

Oil
ND-OIL8 SAE
USE ONLY J-639

MFD. BY NIPPONDENSO CO., LTD JAPAN



T18100ZZ00601

(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

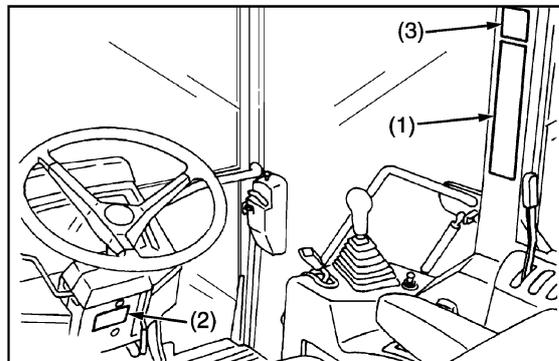
Pull the engine stop knob back and hold it until the engine stops in case of emergency.

(3) Part No. TA040-4902-1
(for North America and Oceania)

⚠ WARNING



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



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
4. If a component with danger, warning and caution labels 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.

SPECIFICATIONS

[ROPS TYPE]

Model		M4900		M5700		
		2WD	4WD	2WD	4WD	
Engine	Model	F2803-ELA		F2803-EA		
	Type	Vertical, water-cooled, 4-cycle diesel engine				
	Number of cylinders	5				
	Total displacement	2746 cm ³ (167.6 cu.in.)				
	Bore and stroke	87 × 92.4 mm (3.4 × 3.6 in.)				
	Net power	37.7 kW (50.5 HP, 51.3 PS)*		42.5 kW (57 HP, 57.8 PS)*		
	PTO power (factory observe)	33.6 kW (45 HP, 45.7 PS)* / 2600 min ⁻¹ (rpm)		38.8 kW (52 HP, 52.8 PS)* / 2600 min ⁻¹ (rpm)		
	Maximum torque	171 N·m (17.4 kgf·m, 126.1 ft-lbs) / 1400 to 1600 min ⁻¹ (rpm)		183 N·m (18.7 kgf·m, 135 ft-lbs) / 1400 to 1600 min ⁻¹ (rpm)		
	Battery capacity	12 V, CCA : 700 A (for North America) 12 V, CCA : 615 A				
	Fuel	Diesel fuel No. 1 [below -10 °C (14 °F)], Diesel fuel No. 2-D [above -10 °C (14 °F)]				
	Fuel tank capacity	65 L (17.2 U.S.gals., 14.3 Imp.gals.)				
	Engine oil capacity	8.0 L (8.5 U.S.qts., 7.0 Imp.qts.)				
	Coolant capacity	7.3 L (7.7 U.S.qts., 6.4 Imp.qts.)				
	Dimensions	Overall length	3495 mm (137.6 in.)	3405 mm (134.1 in.)	3495 mm (137.6 in.)	3405 mm (134.1 in.)
Overall width (min. tread)		1706 mm (67.2 in.)		1850 mm (72.8 in.)		
Overall height (with ROPS)		2357 mm (93.0 in.)		2375 mm (93.5 in.)		
Wheel base		2000 mm (78.7 in.)				
Tread		Front	1420 to 1820 mm (55.9 to 71.7 in.)	1330 mm, 1430 mm (52.4 in., 56.3 in.)	1420 to 1820 mm (55.9 to 71.7 in.)	1330 mm, 1430 mm (52.4 in., 56.3 in.)
		Rear	1320 to 1720 mm (52.0 to 67.7 in.)		1420 to 1720 mm (55.9 to 67.7 in.)	
Minimum ground clearance		430 mm (16.9 in.) (BRACKET DRAWBAR)		460 mm (18.1 in.) (BRACKET DRAWBAR)		
Weight (with ROPS)	1700 kg (3748 lbs)	1800 kg (3968 lbs)	1750 kg (3858 lbs)	1850 kg (4078 lbs)		
Travelling system	Standard tire size	Front	6.5-16	9.5-22	7.5-16	9.5-22
		Rear	14.9-28		16.9-28	
	Clutch	Dry, single plate				
	Steering	Full hydrostatic power steering				
	Transmission	Shuttle synchromesh, 8F/8R (with creep speed 12F/12R)				
	Braking system	Travelling	Wet type, multiple (mechanical)			
		Parking	Connected with the travelling brake			
	Differential	Front	–	Bevel gears	–	Bevel gears
Rear		Bevel gears with differential lock				
Hydraulic system	Hydraulic control system	Position, draft and mix control				
	Pump capacity	41.6 L (44.0 U.S.qts., 36.6 Imp.qts.) / min.				
	Three point hitch	SAE Category I & II				
	Max. lifting force	At lift points**	1900 kg (4200 lbs)			
		24 in. behind lift points	1500 kg (3307 lbs)			
System pressure	19.1 MPa (195 kgf/cm ² , 2775.4 psi)					
PTO	Independent clutch	Wet type, multiple discs				
	Live PTO (Independent)	Direction of turning	Clockwise, viewed from tractor rear			
		PTO / engine speed	Fixed PTO shaft type with 1 speed : 540 min ⁻¹ (rpm) at 2295 min ⁻¹ (rpm) Fixed PTO shaft type with 2 speeds : 540 min ⁻¹ (rpm) at 2307 min ⁻¹ (rpm) 540E min ⁻¹ (rpm) at 1828 min ⁻¹ (rpm)			
Traction system	Swinging drawbar, adjustable in direction					

Note : * Manufacture's estimate

** At lower link and with links horizontal.

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

[CABIN TYPE]

Model		M4900		M5700		
		2WD	4WD	2WD	4WD	
Engine	Model	F2803-ELA		F2803-EA		
	Type	Vertical, water-cooled, 4-cycle diesel engine				
	Number of cylinders	5				
	Total displacement	2746 cm ³ (167.6 cu.in.)				
	Bore and stroke	87 × 92.4 mm (3.4 × 3.6 in.)				
	Net power	37.7 kW (50.5 HP, 51.3 PS)*		42.5 kW (57 HP, 57.8 PS)*		
	PTO power (factory observe)	33.6 kW (45 HP, 45.7 PS)* / 2600 min ⁻¹ (rpm)		38.8 kW (52 HP, 52.8 PS)* / 2600 min ⁻¹ (rpm)		
	Maximum torque	171 N·m (17.4 kgf·m, 126.1 ft-lbs) / 1400 to 1600 min ⁻¹ (rpm)		183 N·m (18.7 kgf·m, 135 ft-lbs) / 1400 to 1600 min ⁻¹ (rpm)		
	Battery capacity	12 V, CCA : 700 A (for North America) 12 V, CCA : 615 A				
	Fuel	Diesel fuel No. 1 [below -10 °C (14 °F)], Diesel fuel No. 2-D [above -10 °C (14 °F)]				
	Fuel tank capacity	95 L (25.1 U.S.gals., 20.9 Imp.gals.)				
	Engine oil capacity	8.0 L (8.5 U.S.qts., 7.0 Imp.qts.)				
	Coolant capacity	7.3 L (7.7 U.S.qts., 6.4 Imp.qts.)				
Dimensions	Overall length	3570 mm (140.6 in.)	3480 mm (137.1 in.)	3570 mm (140.6 in.)	3480 mm (137.1 in.)	
	Overall width (min. tread)	1706 mm (67.2 in.)		1850 mm (72.8 in.)		
	Overall height (with CAB)	2485 mm (98.1 in.)		2515 mm (99.0 in.)		
	Wheel base	2075 mm (81.7 in.)				
	Tread	Front	1420 to 1820 mm (55.9 to 71.7 in.)	1330 mm, 1430 mm (52.4 in., 56.3 in.)	1420 to 1820 mm (55.9 to 71.7 in.)	1330 mm, 1430 mm (52.4 in., 56.3 in.)
		Rear	1320 to 1720 mm (52.0 to 67.7 in.)		1420 to 1720 mm (55.9 to 67.7 in.)	
Minimum ground clearance	400 mm (15.7 in.) (COVER TANK)		460 mm (16.9 in.) (BRACKET DRAWBAR)			
Weight (with CABIN)		1940 kg (4277 lbs)	2040 kg (4497 lbs)	2020 kg (4453 lbs)	2090 kg (4607 lbs)	
Travelling system	Standard tire size	Front	6.5-16	9.5-22	7.5-16	9.5-22
		Rear	14.9-28		16.9-28	
	Clutch	Dry, single plate				
	Steering	Full hydrostatic power steering				
	Transmission	Shuttle synchromesh, 8F/8R (with creep speed 12F/12R)				
	Braking system	Travelling	Wet type, multiple (mechanical)			
		Parking	Connected with the travelling brake			
Differential	Front	–	Bevel gears	–	Bevel gears	
	Rear	Bevel gears with differential lock				
Hydraulic system	Hydraulic control system	Position, draft and mix control				
	Pump capacity	41.6 L (44.0 U.S.qts., 36.6 Imp.qts.) / min.				
	Three point hitch	SAE Category I & II				
	Max. lifting force	At lift points**	1900 kg (4200 lbs)			
		24 in. behind lift points	1500 kg (3307 lbs)			
System pressure	19.1 MPa (195 kgf/cm ² , 2775.4 psi)					
PTO	Live PTO (Independent)	Direction of turning	Clockwise, viewed from tractor rear			
		PTO / engine speed	Fixed PTO shaft type with 1 speed : 540 min ⁻¹ (rpm) at 2295 min ⁻¹ (rpm) Fixed PTO shaft type with 2 speeds : 540 min ⁻¹ (rpm) at 2307 min ⁻¹ (rpm) 540E min ⁻¹ (rpm) at 1828 min ⁻¹ (rpm)			

Note : * Manufacture's estimate

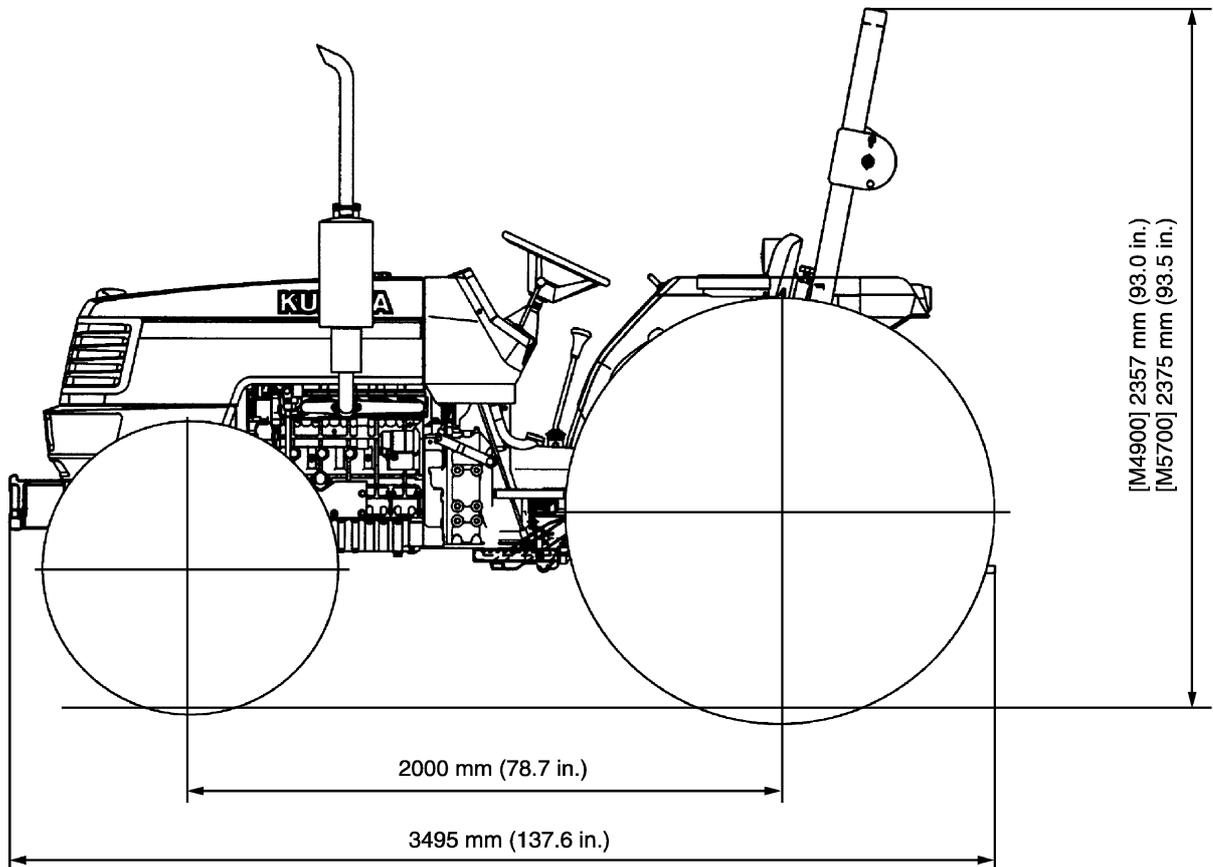
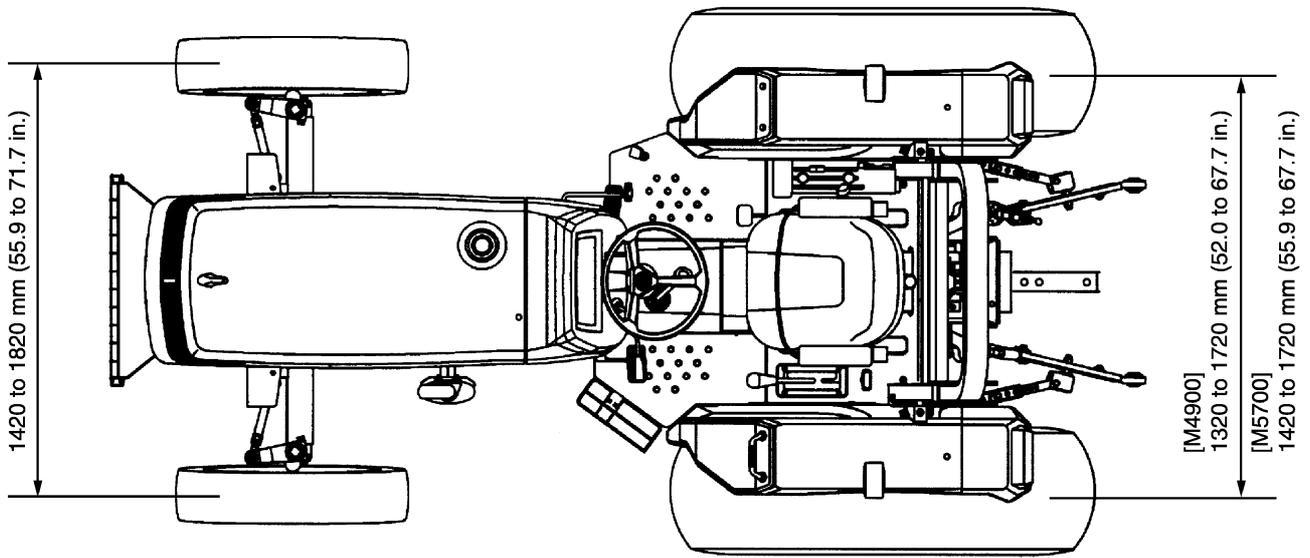
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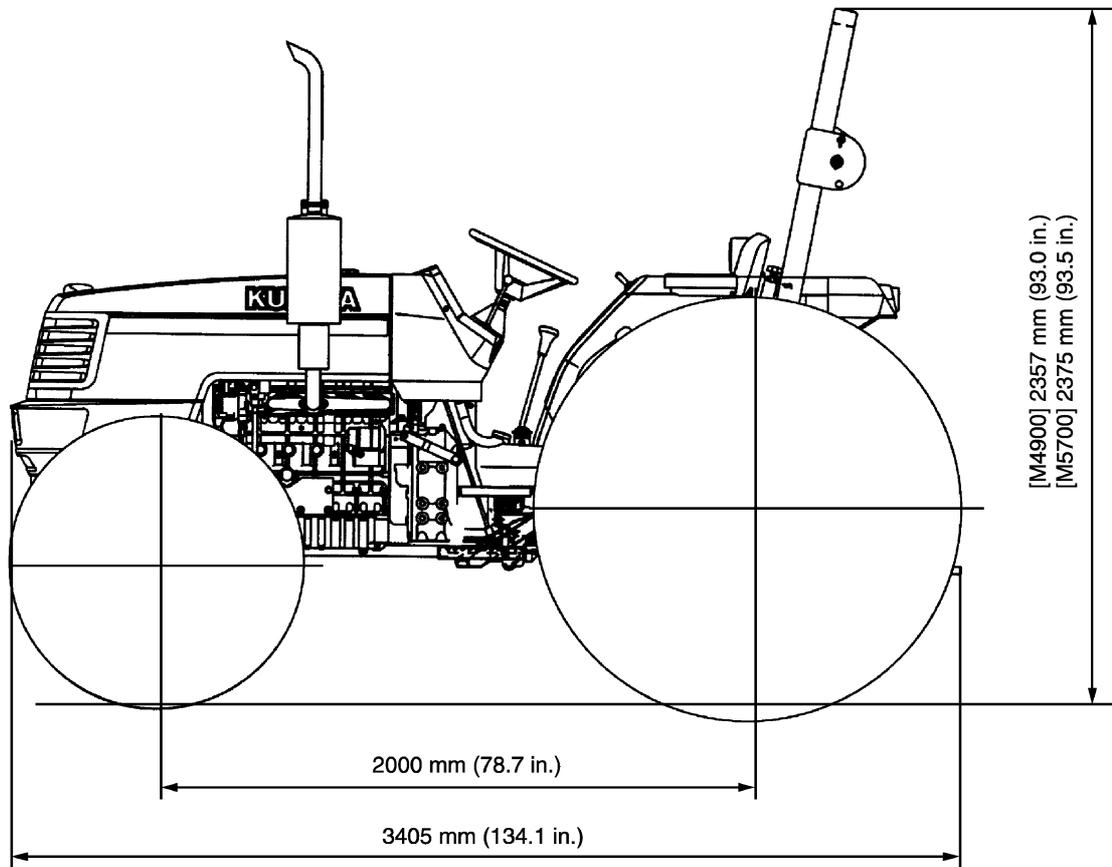
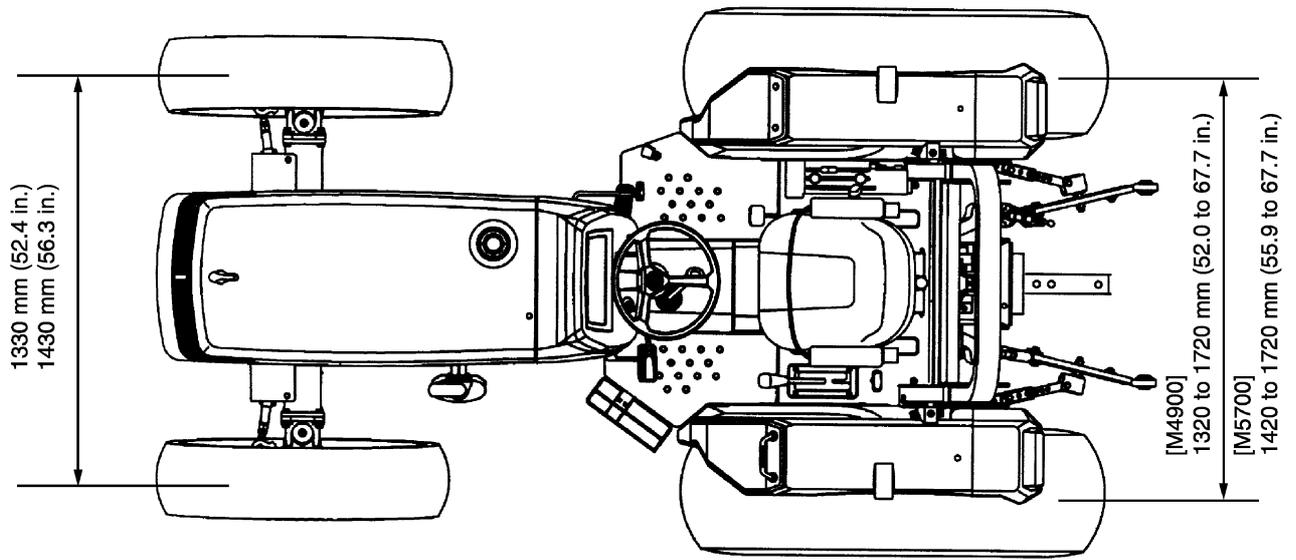
DIMENSIONS

M4900 · M5700 [2WD]



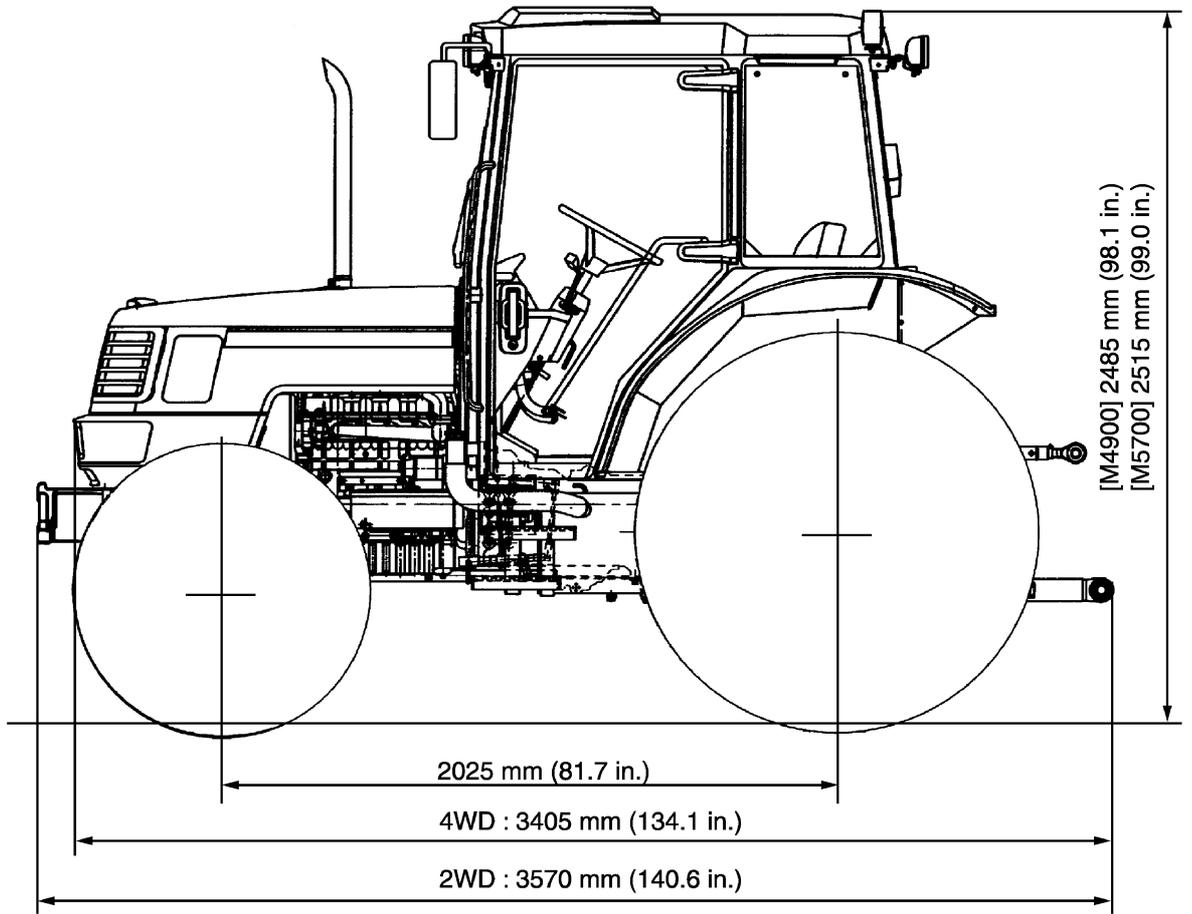
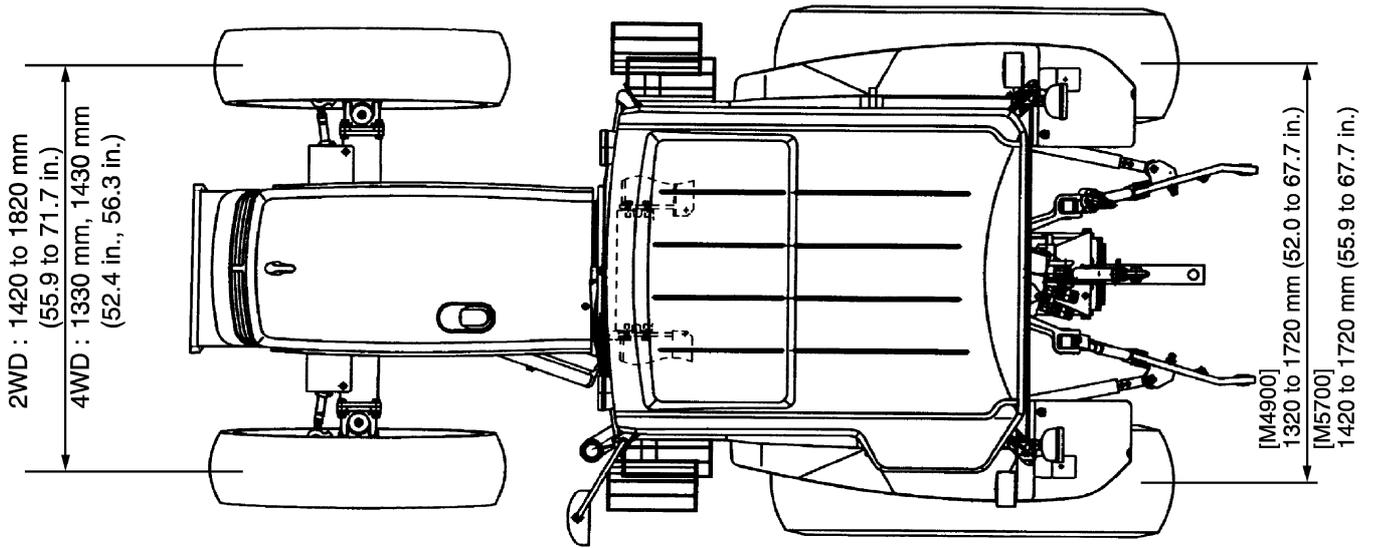
T18100ZZ00801

M4900 · M5700 [4WD]



T18100ZZ00901

M4900 · M5700 [CABIN]



T12170CA00203

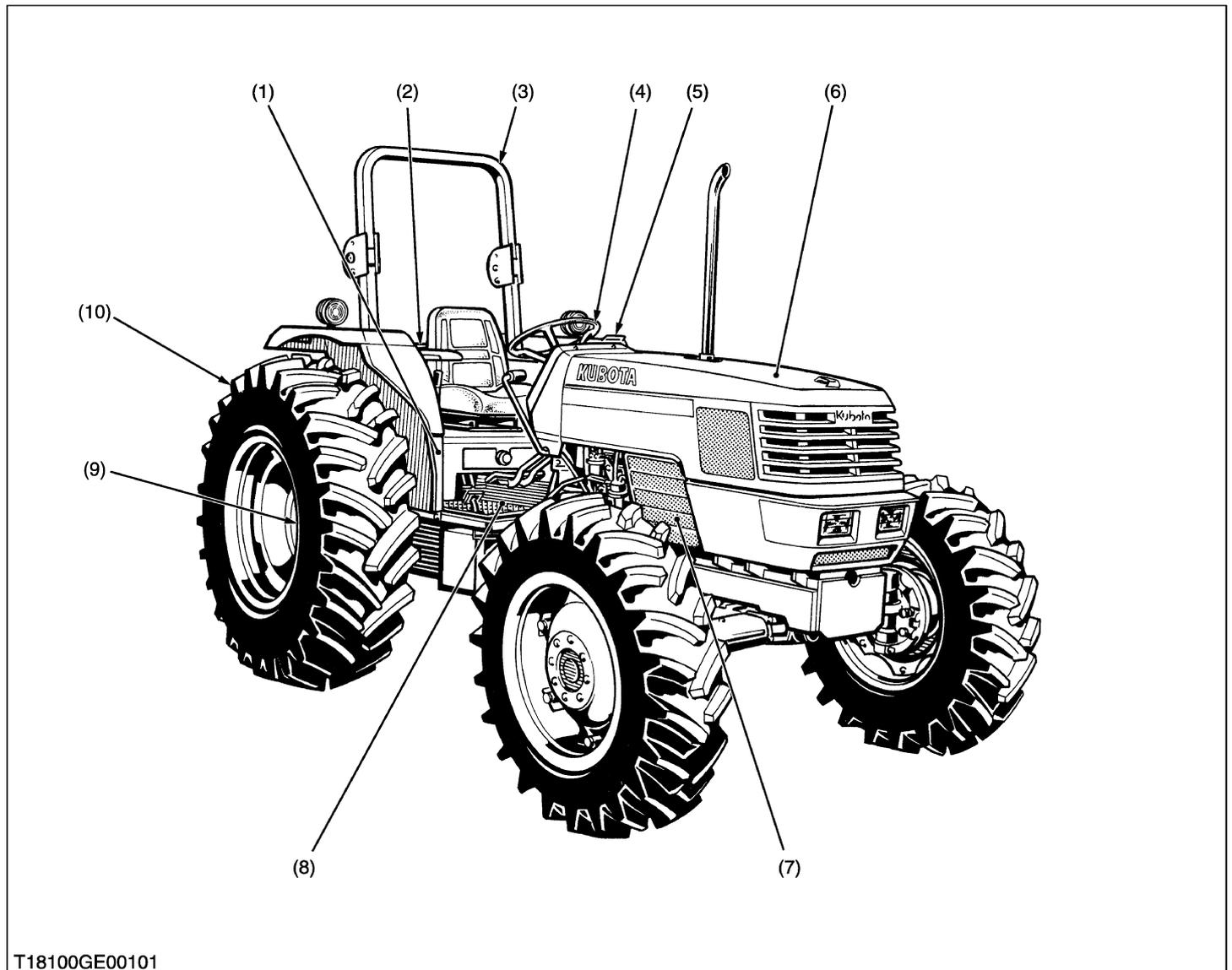
G GENERAL

GENERAL

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1. FEATURES



T18100GE00101

1. Auxiliary Control Valve
2. Independent PTO
Hydraulic PTO Clutch System
3. Foldable ROPS
4. Full Hydrostatic Power Steering
5. Synchro-Shuttle (Forward-Reverse)
6. New Design
7. E-TVCS (Three Vortex Combustion System) Diesel Engine
8. Transmission (Creep Option)
9. Wet Disc Brake
10. Three Point Hitch with Big Lift Power
Three Point Hitch fully Equipped with position, Draft and Mixed Control
11. Comfortable Integral Cab by KUBOTA
Shift Levers Integrally and Ergonomically Positioned Full-Floating Type Flat Deck Wider Piece of Curved Glass Side Glass Open

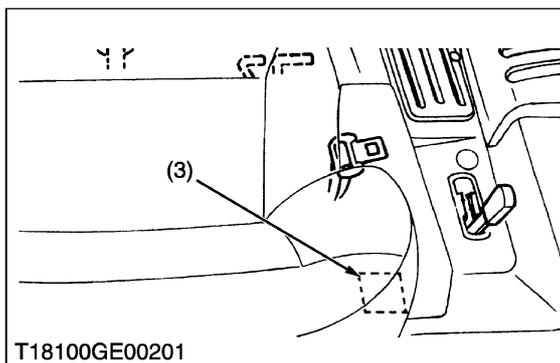
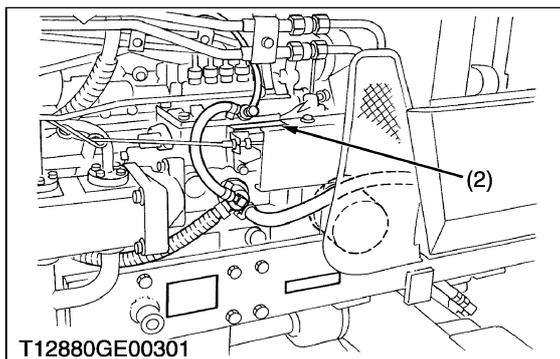
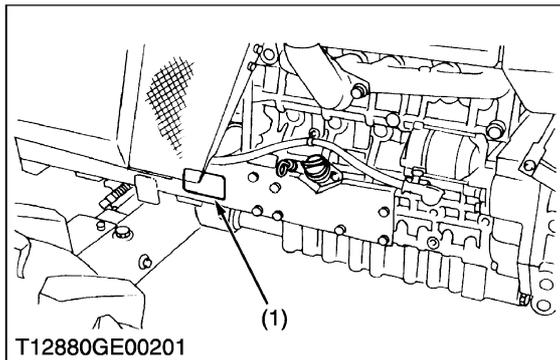
2. TRACTOR IDENTIFICATION

When contracting your local KUBOTA distributor, always specify engine serial number, tractor serial number and hourmeter reading.

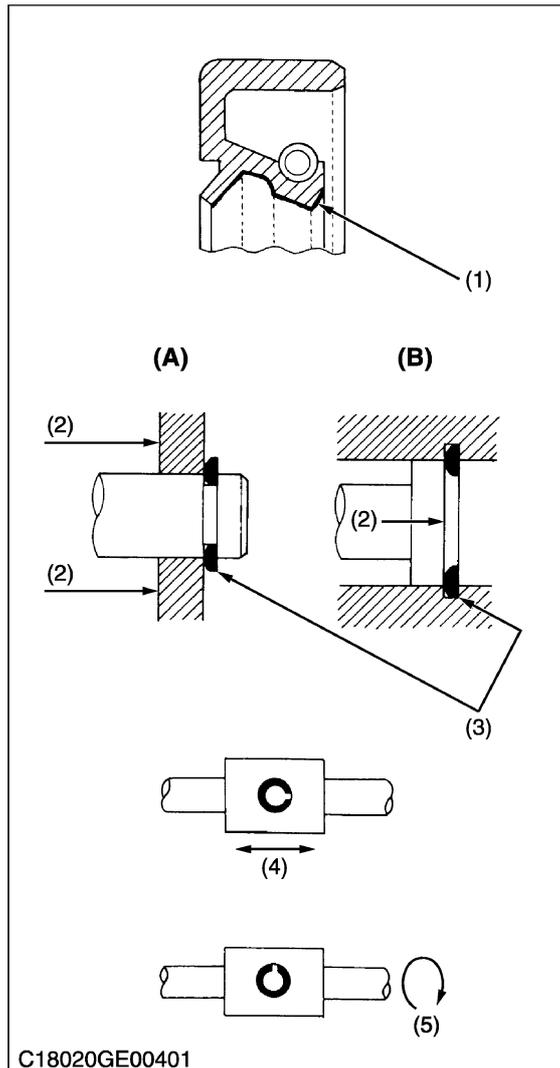
- (1) Tractor Identification Plate
- (2) Engine Serial Number

- (3) Cabin Identification Plate

W1010755



3. GENERAL PRECAUTIONS



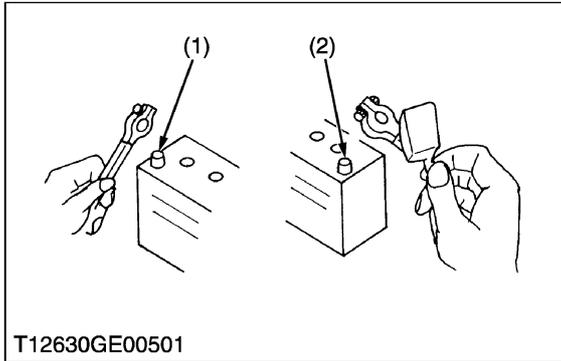
- During disassembly, carefully arrange removed parts in a clean area to prevent confusion later. Screws, bolts and nuts should be installed in their original position to prevent reassembly errors.
- When special tools are required, use KUBOTA genuine special tools. Special tools which are not frequently used should be made according to the drawings provided.
- Before disassembling or servicing electrical wires, always disconnect the ground cable from the battery first.
- Remove oil and dirt from parts before measuring.
- Use only KUBOTA genuine parts for parts replacement to maintain machine performance and to assure safety.
- Gaskets and O-rings must be replaced during reassembly. Apply grease to new O-rings or oil seals before assembling. See the figure left side.
- When reassembling external snap rings or internal snap rings, they must be positioned so that sharp edge faces against the direction from which a force is applied. See the figure left side.
- When inserting spring pins, their splits must face the direction from which a force is applied. See the figure left side.
- To prevent damage to the hydraulic system, use only specified fluid or equivalent.

- (1) Grease
- (2) Force
- (3) Sharp Edge
- (4) Axial Force
- (5) Rotating Movement

- (A) External Snap Ring
- (B) Internal Snap Ring

W1010904

4. HANDLING PRECAUTIONS FOR ELECTRICAL PARTS AND WIRING



To ensure safety and prevent damage to the machine and surrounding equipment, heed the following precautions in handling electrical parts and wiring.

■ IMPORTANT

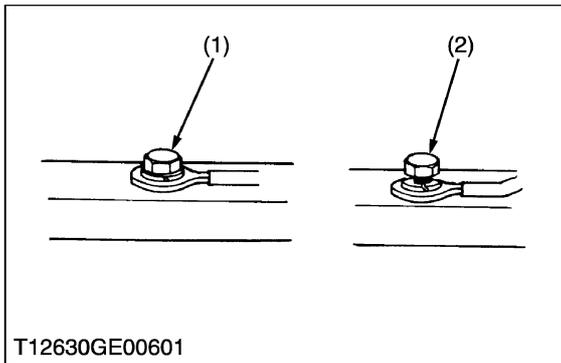
- Check electrical wiring for damage and loosened connection every year. To this end, educate the customer to do his or her own check and at the same time recommend the dealer to perform periodic check for a fee.
- Do not attempt to modify or remodel any electrical parts and wiring.
- When removing the battery cables, disconnect the negative cable first. When installing the battery cables, connect the positive cable first.

(1) Negative Terminal

(2) Positive Terminal

W1011114

[1] WIRING

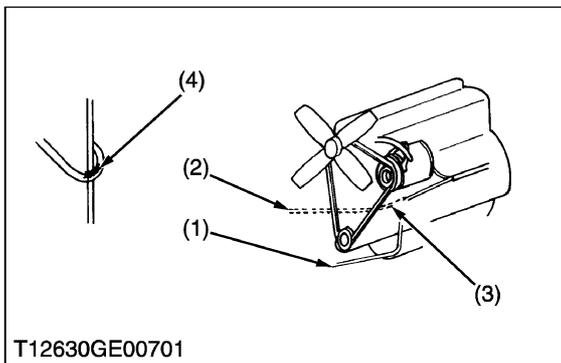


- Securely tighten wiring terminals.

(1) Correct
(Securely Tighten)

(2) Incorrect
(Loosening Leads to Faulty Contact)

W1011216

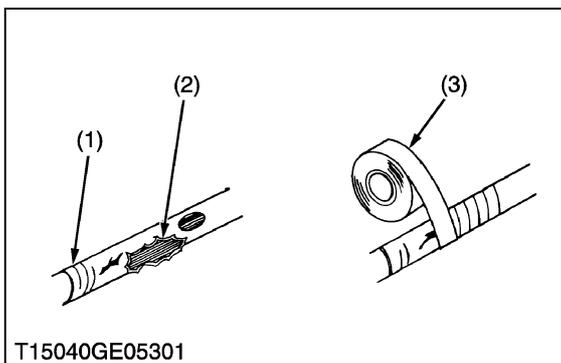


- Do not let wiring contact dangerous part.

(1) Wiring (Correct)
(2) Wiring (Incorrect)

(3) Dangerous Part
(4) Dangerous Part

W1011313

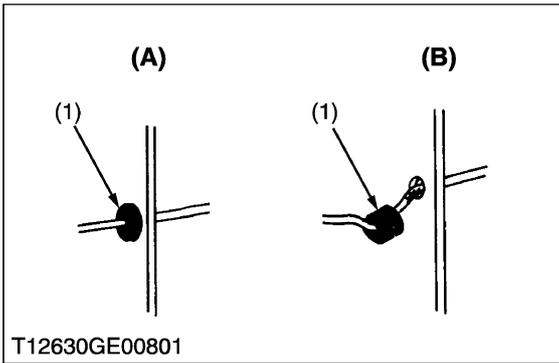


- Repair or change torn or aged wiring immediately.

(1) Aged
(2) Torn

(3) Insulating Vinyl Tape

W1012292

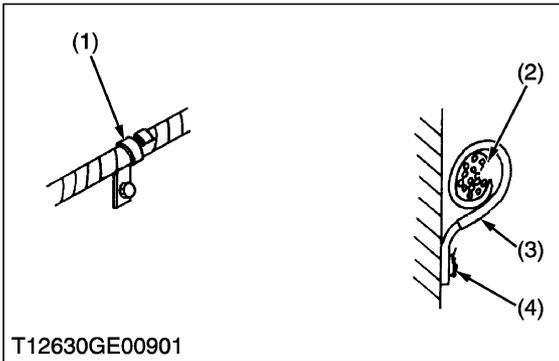


- Securely insert grommet.

(1) Grommet

(A) Correct
(B) Incorrect

W1011388

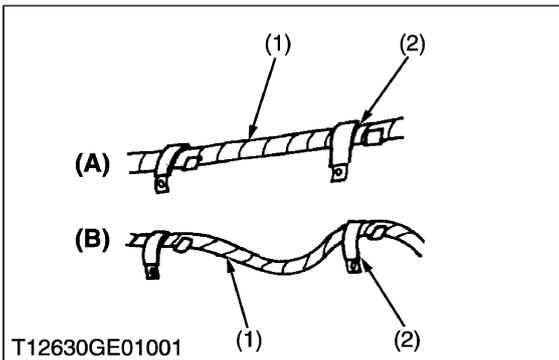


- Securely clamp, being careful not to damage wiring.

(1) Clamp
• Wind Clamp Spirally
(2) Wire Harness

(3) Clamp
(4) Welding Dent

W1011458

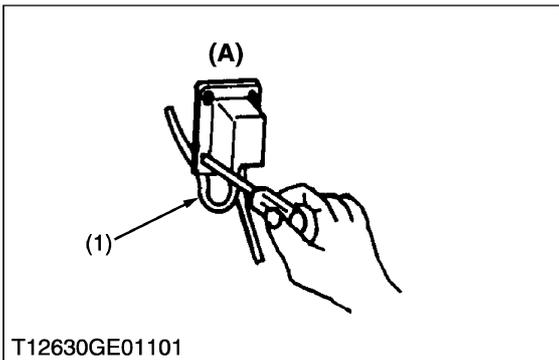


- Clamp wiring so that there is no twist, unnecessary sag, or excessive tension, except for movable part, where sag be required.

(1) Wiring
(2) Clamp

(A) Correct
(B) Incorrect

W1011587

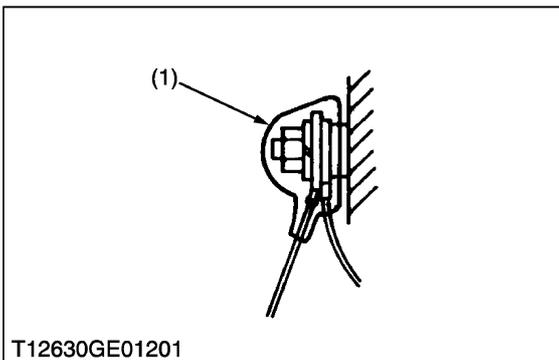


- In installing a part, take care not to get wiring caught by it.

(1) Wiring

(A) Incorrect

W1011670

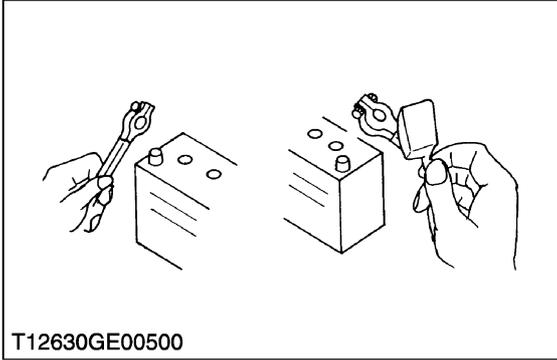


- After installing wiring, check protection of terminals and clamped condition of wiring, only connect battery.

(1) Cover
• Securely Install Cover

W1011735

[2] BATTERY



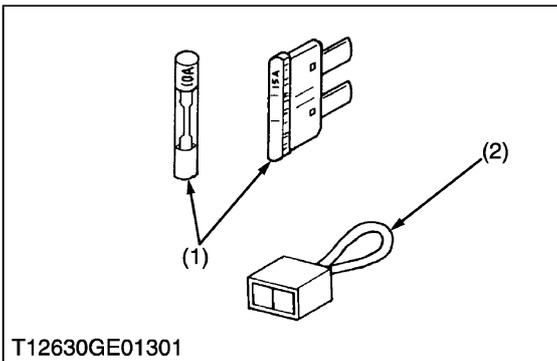
- Take care not to confuse positive and negative terminals.
- When removing battery cord, disconnect negative wire first. When installing battery cord, check for polarity and connect positive wire first.
- Do not install any battery with capacity other than is specified (Ah).
- After connecting cord to battery terminals, apply grease to them and securely install terminal covers on them.
- Do not allow dirt and dust to collect on battery.

! CAUTION

- **Take care not to let battery liquid spill on your skin and clothes. If contaminated, wash it off with water immediately.**
- **Before recharging the battery, remove it from the machine.**
- **Before recharging, remove cell caps.**
- **Do recharging in a well-ventilated place where there is no open flame nearby, as hydrogen gas and oxygen are formed.**

W1011816

[3] FUSE



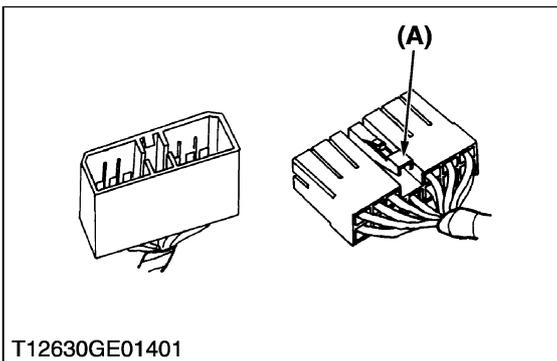
- Use fuses with specified capacity. Neither too large or small capacity fuse is acceptable.
- Never use steel or copper wire in place of fuse.
- Do not install working light, radio set, etc. on machine which is not provided with reserve power supply.
- Do not install accessories if fuse capacity of reserve power supply is exceeded.

(1) Fuse

(2) Slow Blow Fuse

W1012092

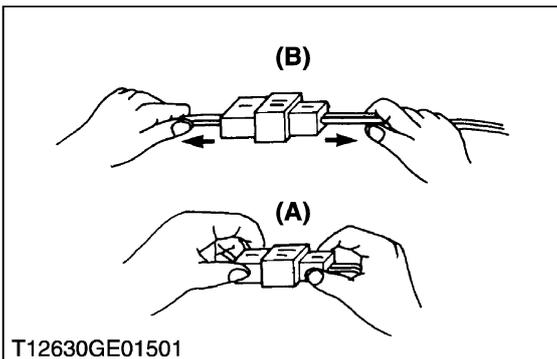
[4] CONNECTOR



- For connector with lock, push lock to separate.

(A) Push

W1012211



- In separating connectors, do not pull wire harnesses.
- Hold connector bodies to separate.

(A) Correct

(B) Incorrect

W1012272

5. LUBRICANTS FUEL AND COOLANT

	Place	Capacity		Lubricants, fuel and coolant	
		M4900 · M5700			
		ROPS	CABIN		
1	Fuel tank	65 L 17.2 U.S.gals. 14.3 Imp.gals.	95 L 25.1 U.S.gals. 20.9 Imp.gals.	No. 2-D diesel fuel No. 1-D diesel fuel if temperature is below -10°C (14°F)	
2	Coolant (Radiator)	7.3 L 7.7 U.S.qts. 6.4 Imp.qts.		Fresh clean water with anti-freeze	
	Coolant (Recovery tank)	1.0 L 1.1 U.S.qts. 0.9 Imp.qts.			
3	Washer liquid	–	1.3 L 1.4 U.S.qts. 1.1 Imp.qts.	Automobile washer liquid	
4	Engine crankcase	8.0 L 8.5 U.S.qts. 7.0 Imp.qts.		Engine oil : API Service Classification CC or CD Below 0°C (32°F) : SAE10W, 10W-30 or 10W-40 0 to 25°C (32 to 77°F): SAE20, 10W-30 or 10W-40 Above 25°C (77°F): SAE30, 10W-30 or 10W-40	
5	Transmission case	40.0 L 42.3 U.S.qts. 35.2 Imp.qts.	43.0 L 45.4 U.S.qts. 37.8 Imp.qts.	KUBOTA SUPER UDT fluid*	
6	Front axle case [4WD]	8.0 L 8.5 U.S.qts. 7.0 Imp.qts.		KUBOTA SUPER UDT fluid or SAE80, SAE90 gear oil	
Greasing					
	Place	No. of greasing point		Capacity	Type of grease
7	Front wheel hub [2WD]	2		Until grease overflows	Multipurpose type grease
	Knuckle shaft [2WD]	2			
	Front wheel case support [4WD]	2			
	Front axle support [4WD]	1			
	Top link	2			
	Top link bracket	2			
	Lift rod	1			
	Steering joint	–	1		
	Battery terminal	2		Moderate amount	

* KUBOTA original transmission hydraulic fluid.

SERVICING

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1. TROUBLESHOOTING

Symptom	Probable Cause	Solution	Reference Page
Front Wheels Wander to Right or Left	• Tire pressure uneven	Adjust	G-52
	• Improper toe-in adjustment (improper alignment)	Adjust	6-S6
	• Clearance between front axle case boss and front axle bracket (front, rear) bushing excessive [4WD Type]	Replace	6-S22
	• Front axle rocking force too small	Adjust	6-S7
	• Front wheel sway excessive	Replace	6-S6
	• Tie-rod end loose	Tighten	6-S10, S11
	• Air sucked in power steering circuit	Bleed	7-S9
• Knuckle shaft bushings worn [2WD Type]	Replace	6-S17	
Front Wheels Can Not Be Driven [4WD Type]	• Propeller shaft broken	Replace	6-S9
	• Front wheel drive gears in transmission broken	Replace	–
	• Front differential gear broken	Replace	6-S12 to S16
	• Shift fork broken	Replace	–
	• Coupling displaced	Reassemble	6-S9
Noise [4WD Type]	• Gear backlash excessive	Adjust or replace	6-S19 to S21
	• Oil insufficient	Replenish	G-8
	• Bearings damaged or broken	Replace	–
	• Gears damaged or broken	Replace	–
	• Spiral bevel pinion shaft turning force improper	Adjust	6-S15

W1014322

2. SERVICING SPECIFICATIONS

2WD TYPE

Item		Factory Specification	Allowable Limit	
Front Wheel Alignment	Toe-in	1.0 to 5.0 mm 0.04 to 0.20 in.	—	
Front Wheel	Steering Angle	0.925 to 0.960 rad. 53 to 55 °	—	
	Axial Sway	5.0 mm 0.197 in.	—	
	Radial Sway	5.0 mm 0.197 in.	—	
Front Axle Middle Boss to Bushing	Clearance	0.050 to 0.150 mm 0.00197 to 0.00590 in.	0.35 mm 0.0138 in.	
	Front Axle Middle Boss	O.D.	39.998 to 40.000 mm 1.57236 to 1.57480 in.	—
	Bushing	I.D.	40.050 to 40.088 mm 1.57677 to 1.57827 in.	—
Knuckle Shaft to Bushing	Clearance	0.020 to 0.125 mm 0.00079 to 0.00492 in.	0.35 mm 0.0138 in.	
	Knuckle Shaft	O.D.	37.975 to 38.000 mm 1.49508 to 1.49606 in.	—
	Bushing	I.D.	38.020 to 38.100 mm 1.49685 to 1.50000 in.	—
Front Wheel Hub	Turning Torque	2.94 to 4.90 N·m 0.3 to 0.5 kgf·m 2.17 to 3.62 ft·lbs	—	

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