TO THE READER

This Workshop Manual has been prepared to provide servicing personnel with information on the mechanism, service and maintenance of KUBOTA Tractors L2600 and L3000. It is divided into two parts, "Mechanism" and "Servicing" for each section.

■ Mechanism

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

■ Servicing

Under 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 production information available at the time of publication.

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

March 2000

12530Z00010

⚠ SAFETY FIRST

This symbol, the industry's "Safety Alert Symbol", is used throughout this manual and decals 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.**

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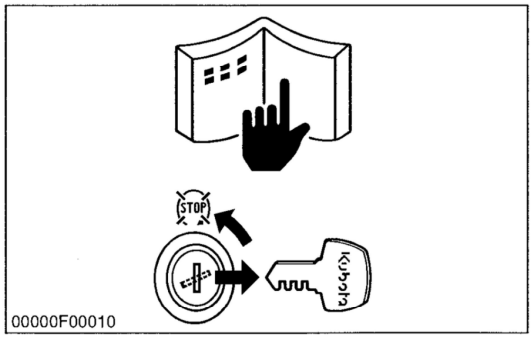

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BEFORE SERVICING AND REPAIRING

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

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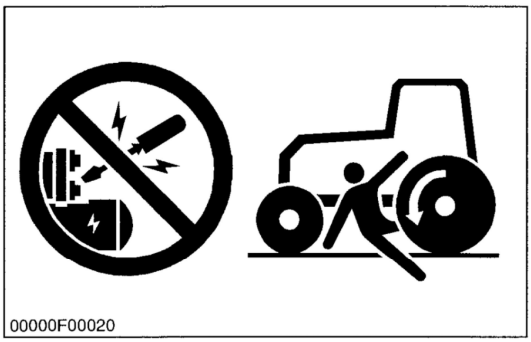
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SAFETY STARTING

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

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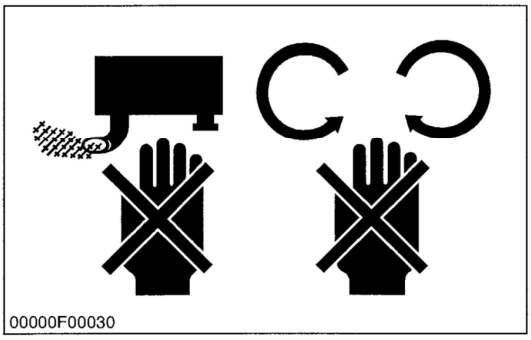
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SAFETY WORKING

(1) Do not work on the machine while under the influence of alcohol, medication, or other substances or while fatigued.
(2) Wear close fitting clothing and safety equipment appropriate to the job.
(3) Use tools appropriate to the work. Makeshift tools, parts, and procedures are not recommended.
(4) When servicing is performed together by two or more persons, take care to perform all work safely.
(5) Do not work under the machine that is supported solely by a jack. Always support the machine by safety stands.
(6) Do not touch the rotating or hot parts while the engine is running.
(7) 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.
(8) 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.

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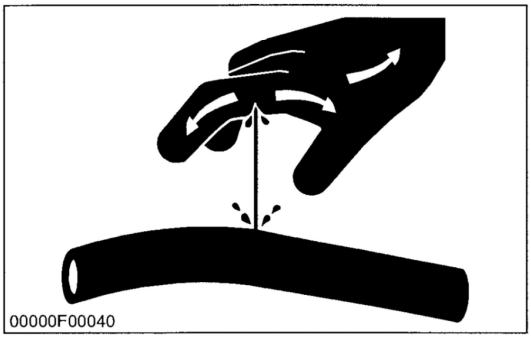
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AVOID FIRES

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

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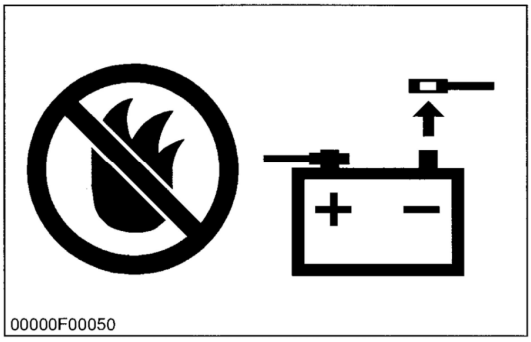
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VENTILATE WORK AREA

(1) 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.

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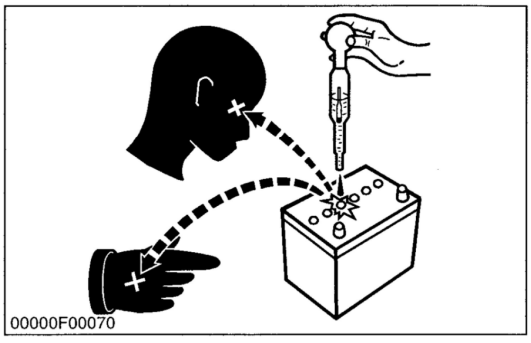

PREVENT ACID BURNS

(1) 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.

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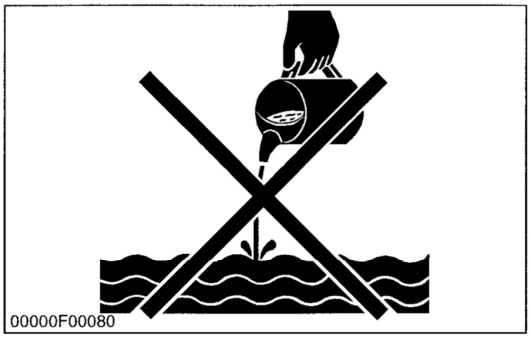

DISPOSE OF FLUIDS PROPERLY

(1) 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.

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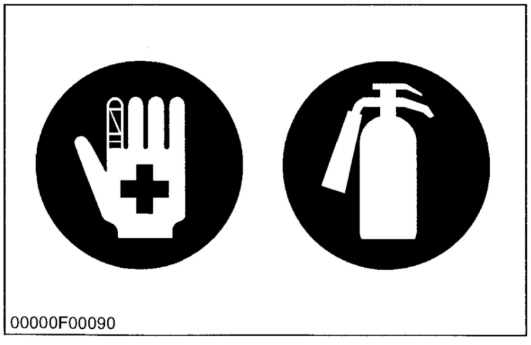

PREPARE FOR EMERGENCIES

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

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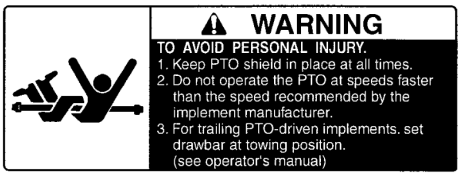
SAFETY DECALS

- **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.

① Part No. TA040-4965-2

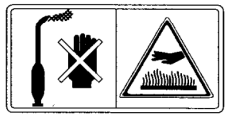
② Part No. TA040-4959-3

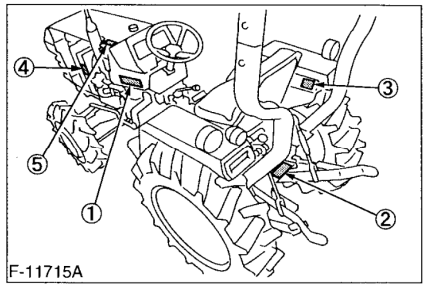


③ Part No. TA040-4935-1

④ Part No. 32751-4958-1
Stay clear of engine fan and fanbelt.

⑤ Part No. 32330-4958-1
Do not touch hot surface like muffler, etc.





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① Part No. 35260-3491-3

⚠ C A U T I O N

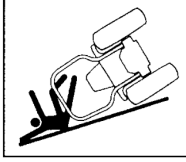
TO AVOID PERSONAL INJURY:

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 red 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.

⑤ Part No. 32751-4958-1
Stay clear of engine fan and fanbelt

② Part No. TA040-4932-2

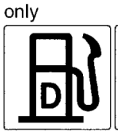
⚠ WARNING



TO AVOID PERSONAL INJURY OR DEATH FROM ROLL-OVER:

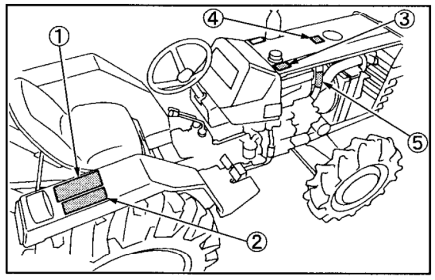
1. Kubota recommends the use of a Roll-Over Protective Structures (ROPS) and seat belt in almost all applications.
2. Remove the ROPS only when it substantially interferes with operation or itself presents a safety risk. (Examples include work in orchards and vineyards.) ALWAYS REINSTALL IT BEFORE USING THE TRACTOR IN OTHER APPLICATIONS.
3. Never use just the seat belt or just the ROPS. They must be used together. For further details, consult your Operator's Manual or your local dealer.

③ Part No. TA040-4956-1
Diesel fuel only



No fire

④ 32330-4954-1
Never open the radiator cap when hot



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 locations (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.

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SPECIFICATIONS

Model			L2600	
			2WD	4WD
PTO power			16.8 kW (22.5 HP)*	
Engine	Maker		KUBOTA	
	Model		D1403-EA	D1403-EA-2
	Type		Vertical, water-cooled, 4-cycle diesel	
	Number of cylinders		3	
	Bore and stroke		80 × 92.4 mm (3.1 × 3.6 in.)	
	Total displacement		1.393 L (85.0 cu.in.)	
	Engine gross power		20.1 kW (27.0 HP)*	
	Rated revolution		46.7 s^{-1} (rps) [2800 min^{-1} (rpm)]	
	Maximum torque		77.5 N·m (57.5 ft-lbs)	
	Battery		550-Cold cranking Amps at −18 °C (−0.4 °F)	
	Fuel		Diesel fuel No.2-D	
Capacities	Fuel tank		31 L (8.2 U.S.gals., 6.8 Imp.gals.)	
	Engine crankcase (with filter)		5.5 L (5.8 U.S.qts., 4.8 Imp.qts.)	
	Engine coolant		6 L (6.3 U.S.qts., 5.3 Imp.qts.)	
	Transmission case		28 L (7.4 U.S.gals., 6.2 Imp.gals.)	
Dimensions	Overall length (without 3P)		2663 mm (104.8 in.)	2647 mm (104.2 in.)
	Overall width (Minimum tread)		1292 mm (50.9 in.)	
	Overall height (with ROPS)		2110 mm (83.1 in.)	
	Overall height (Top of steering wheel)		1380 mm (54.3 in.)	
	Wheel base		1555 mm (61.2 in.)	1565 mm (61.6 in.)
	Minimum ground clearance		345 mm (13.6 in.)	310 mm (12.2 in.)
	Tread	Front	1025 mm (40.35 in.)	1010 mm (39.8 in.)
		Rear	1020 mm (40.2 in.)	
Weight (with ROPS)			960 kg (2116 lbs.)	1070 kg (2359 lbs.)
Clutch			Dry type Single stage	
Travelling system	Tires	Front	5.00-15	7-16
		Rear	11.2-24	
	Steering		Recirculating ball type manual steering	Integral type power steering
	Transmission		Gear shift, 8 forward and 2 reverse	
	Brake		Wet disk type	
	Minimum turning radius (with brake)		2.4 m (7.9 feet)	
Hydraulic unit	Hydraulic control system		Position control	
	Pump capacity		17.3 L (4.6 U.S.gals., 3.8 Imp.gals.)/min.	27.2 L (7.2 U.S.gals, 6.0 Imp.gals.)/min.
	Three point hitch		Category I	
	Maximum lifting force	At lift points	900 kg (1985 lbs.)	
		24 in. behind lift points	651 kg (1435 lbs.)	
	System pressure		15.2 MPa (2205 psi)	
PTO	Rear PTO		SAE 1-3/8, 6-splines (with overrunning clutch)	
	Revolution		1 speed (9.0 s^{-1} (r/s) at 40.5 engine s^{-1} (r/s)) (540 min^{-1} (rpm) at 2430 engine min^{-1} (rpm))	

NOTE : * Manufacturer's estimate

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Model			L3000	
			2WD	4WD
PTO power			20.5 kW (27.5 HP)*	
Engine	Maker		KUBOTA	
	Model		D1503-ELA-1	
	Type		Vertical, water-cooled, 4-cycle diesel	
	Number of cylinders		3	
	Bore and stroke		83 × 92.4 mm (3.3 × 3.6 in.)	
	Total displacement		1.499 L (91.5 cu.in.)	
	Engine gross power		23.9 kW (32.1 HP)*	
	Rated revolution		45.0 s^{-1} (rps) [2700 min^{-1} (rpm)]	
	Maximum torque		96.1 N·m (70.9 ft-lbs)	
	Battery		550-Cold cranking Amps at −18 °C (−0.4 °F)	
	Fuel		Diesel fuel No.2-D	
Capacities	Fuel tank		31 L (8.2 U.S.gals., 6.8 Imp.gals.)	
	Engine crankcase (with filter)		5.5 L (5.8 U.S.qts., 4.8 Imp.qts.)	
	Engine coolant		6 L (6.3 U.S.qts., 5.3 Imp.qts.)	
	Transmission case		28 L (7.4 U.S.gals., 6.2 Imp.gals.)	
Dimensions	Overall length (without 3P)		2677 mm (105.4 in.)	
	Overall width (Minimum tread)		1292 mm (50.9 in.)	
	Overall height (with ROPS)		2110 mm (83.1 in.)	
	Overall height (Top of steering wheel)		1380 mm (54.3 in.)	
	Wheel base		1585 mm (62.4 in.)	1595 mm (62.8 in.)
	Minimum ground clearance		345 mm (13.6 in.)	310 mm (12.2 in.)
	Tread	Front	1025 mm (40.35 in.)	1010 mm (39.8 in.)
		Rear	1020 mm (40.2 in.)	
Weight (with ROPS)			990 kg (2183 lbs.)	1100 kg (2425 lbs.)
Clutch			Dry type Dual stage	
Travelling system	Tires	Front	5.00-15	7-16
		Rear	11.2-24	
	Steering		Integral type power steering	
	Transmission		Gear shift, 8 forward and 2 reverse	
	Brake		Wet disk type	
	Minimum turning radius (with brake)		2.4 m (7.9 feet)	
Hydraulic unit	Hydraulic control system		Position control	
	Pump capacity		26.2 L (6.9 U.S.gals., 5.8 Imp.gals.)/min.	
	Three point hitch		Category I	
	Maximum lifting force	At lift points	900 kg (1985 lbs.)	
		24 in. behind lift points	651 kg (1435 lbs.)	
	System pressure		15.2 MPa (2205 psi)	
PTO	Rear PTO		SAE 1-3/8, 6-splines (without overrunning clutch)	
	Revolution		1 speed (9.0 s^{-1} (r/s) at 38.3 engine s^{-1} (r/s)) (540 min^{-1} (rpm) at 2300 engine min^{-1} (rpm))	

NOTE : * Manufacturer's estimate

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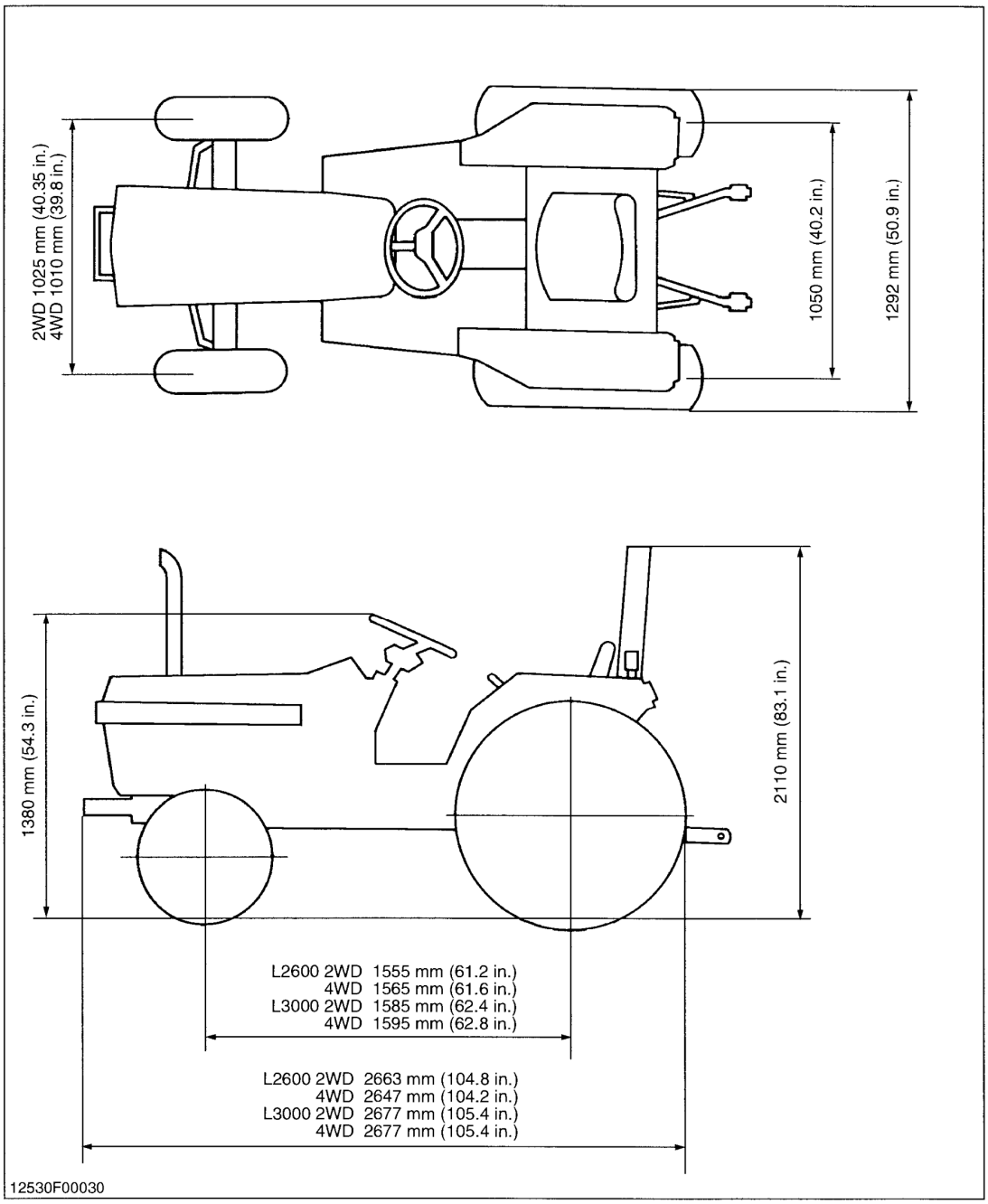
DIMENSIONS



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G GENERAL

G GENERAL

GENERAL

CONTENTS

[1] FEATURES

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(1) E-TVCS (Three Vortex Combustion System) Diesel Engine
(2) Dual Stage Clutch (L3000)
A dual stage clutch is a combination of two single plate clutches. One clutch controls power transmitted to the traveling, and the other to the PTO.
(3) Large-capacity Fuel Tank
(31 L, 8.2 U.S.gals., 6.8 Imp.gals.)
(4) Meter Panel of Easy Checker
(5) Integral Power Steering (Power Steering Type)
(6) Rear Differential Gear (L3000)
4-pinions type adopted as standard.
(7) 3-Point Hitch
Standard equipped with the stabilizer for improved working efficiency.
(8) Maximum Speed
17.8 km/h (11.1 mph) (L2600 with 11.2 – 24 tire)
19.3 km/h (12.0 mph) (L3000 with 11.2 – 24 tire)
for greater mobility.

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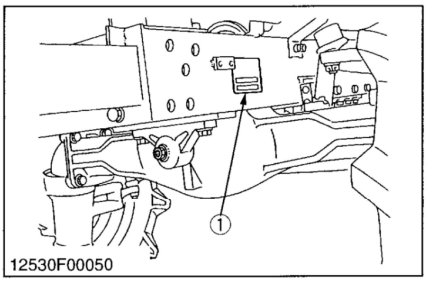
[2] TRACTOR IDENTIFICATION



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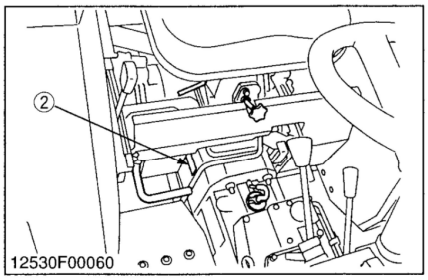

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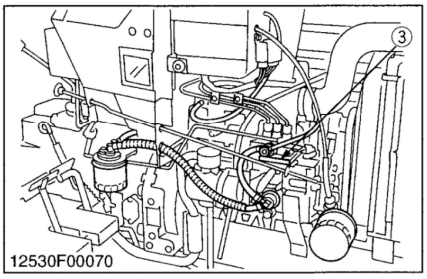

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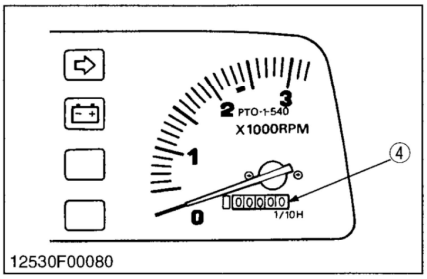

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When contacting your local KUBOTA distributor, always specify engine serial number, tractor serial number and hour meter reading.

(1) Tractor Identification Plate
(2) Tractor Serial Number
(3) Engine Serial Number
(4) Hour Meter

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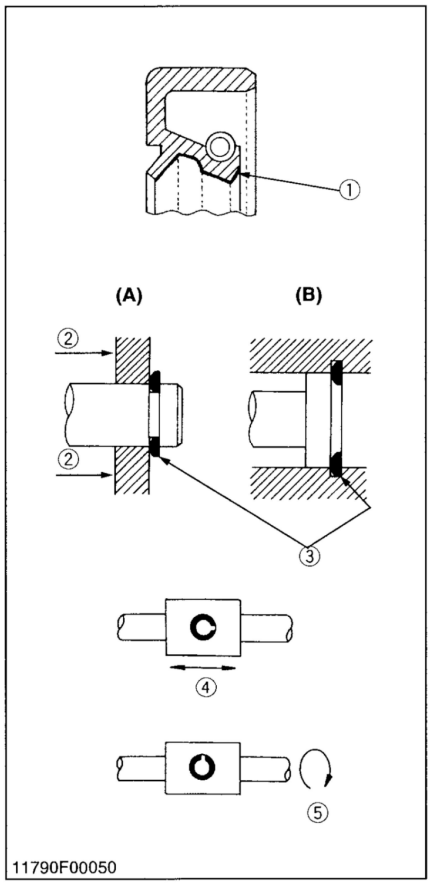
[3] GENERAL PRECAUTIONS



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- During disassembly, carefully arrange removed parts in a clean area to prevent confusion later. 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 tractor 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

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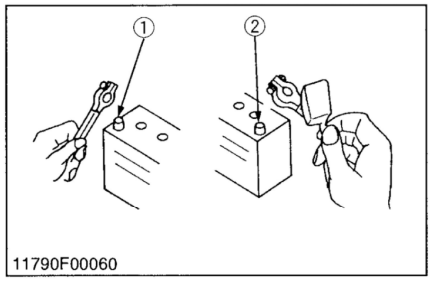
[4] HANDLING PRECAUTIONS FOR ELECTRICAL PARTS AND WIRING



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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 cord, disconnect the negative wire first. When installing the battery cord, connect the positive wire first.**

(1) Negative Terminal (2) Positive Terminal

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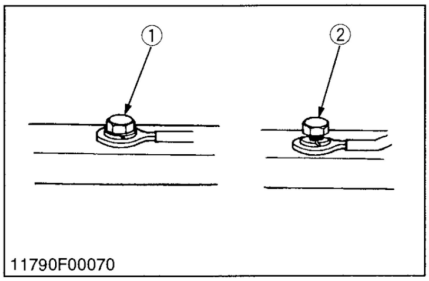
(1) Wiring



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- Securely tighten wiring terminals.

(1) Correct (Securely Tighten)
(2) Incorrect (Loosening Leads to Faulty Contact)

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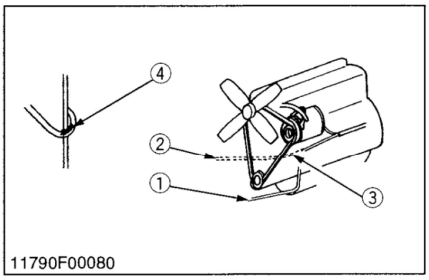

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- Do not let wiring contact dangerous part.

(1) Wiring (Correct)
(2) Wiring (Incorrect)
(3) Dangerous Part
(4) Dangerous Part

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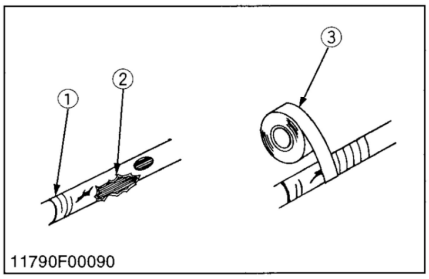

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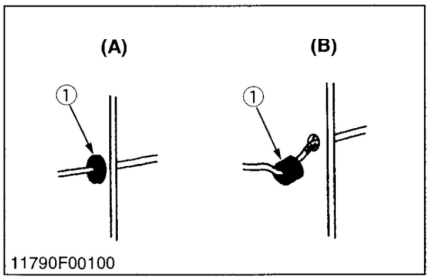
- Repair or change torn or aged wiring immediately.

(1) Damaged
(2) Torn
(3) Insulating Vinyl Tape

11790G00070

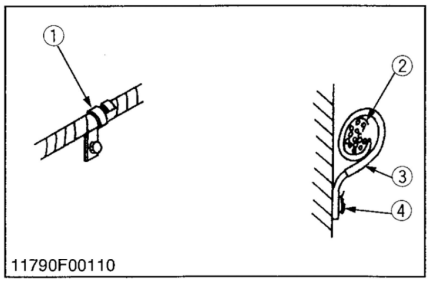


11790F00100

- Securely insert grommet.

(1) Grommet
(A) Correct
(B) Incorrect

11790G00080



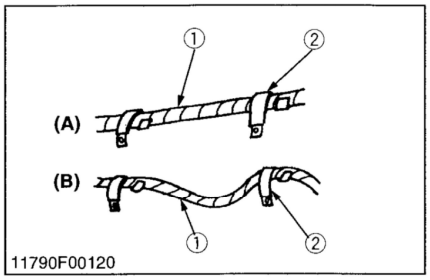
11790F00110

- Securely clamp, being careful not to damage wiring.

(1) Clamp
- Wind Clamp Spirally

(2) Wire Harness
(3) Clamp
(4) Welding Dent

11790G00090

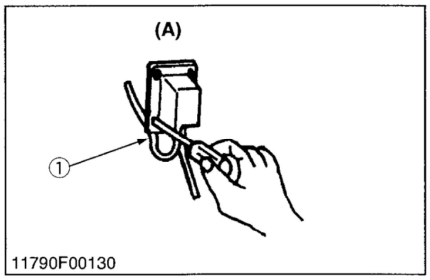


11790F00120

- 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

11790G00100

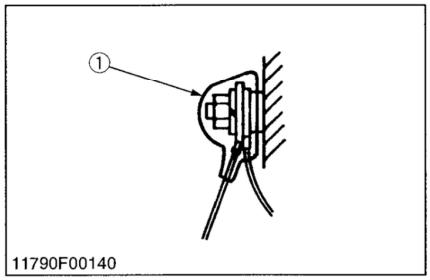


11790F00130

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

(1) Wiring
(A) Incorrect

11790G00110



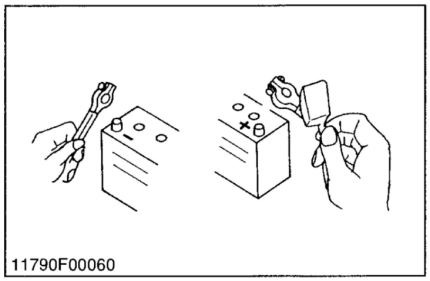
11790F00140

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

(1) Cover
- Securely Install Cover

11790G00120

(2) Battery


11790F00060

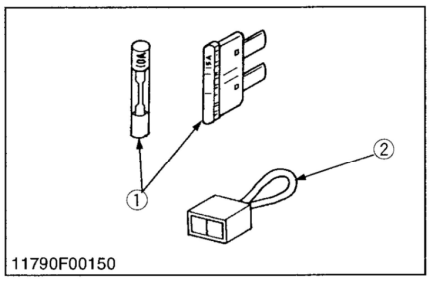
- Take care not to confuse positive and negative terminals.
- When removing battery cord, disconnect negative wire first. When installing battery cord, check for polarity and connect positive wire first.
- Do not install any battery with capacity other than is specified (Ah).
- After connecting cord 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.**

11790G00130

(3) Fuse



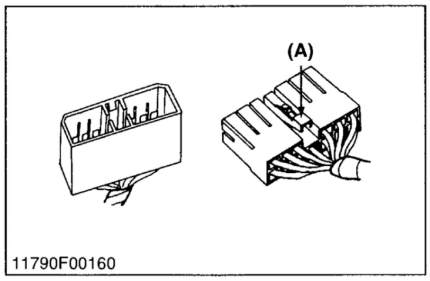
11790F00150

- 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) Fusible Link or Slow Blow Fuse

11790G00141

(4) Connector

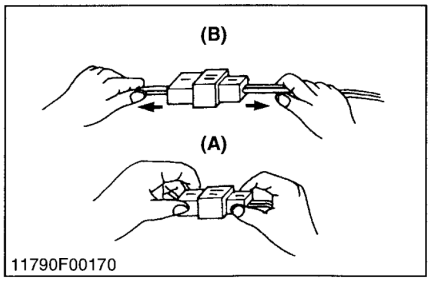


11790F00160

- For connector with lock, push lock to separate.

(A) Push

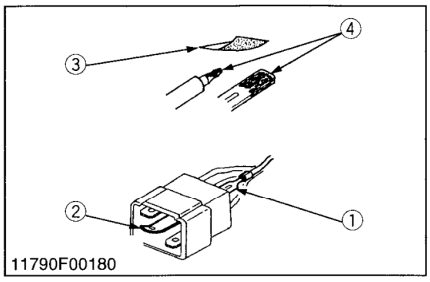
11790G00150



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

(A) Correct **(B) Incorrect**

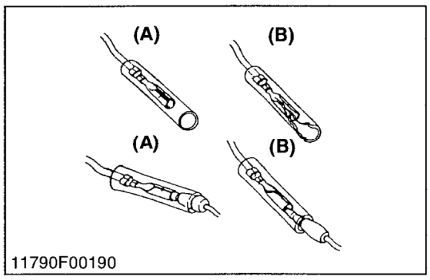
11790G00160



- Use sandpaper to remove rust from terminals.
- Repair deformed terminal. Make certain there is no terminal being exposed or displaced.

(1) Exposed Terminal
(2) Bend Terminal
(3) Sandpaper
(4) Rust

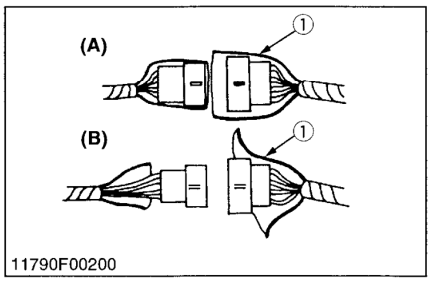
11790G00170



- Make certain that there is no female connector being too open.

(A) Correct **(B) Incorrect**

11790G00180



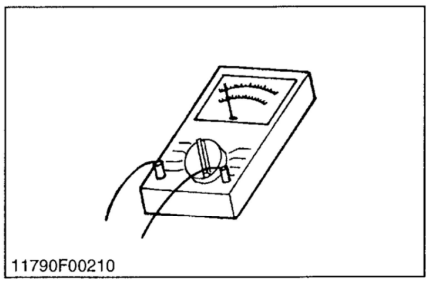
- Make certain plastic cover is large enough to cover whole connector.

(1) Cover

(A) Correct
(B) Incorrect

11790G00190

(5) Handling of Circuit Tester


11790F00210

- Use tester correctly following manual provided with tester.
- Check for polarity and range.

11790G00200

[5] LUBRICANTS, FUEL AND COOLANT

No.	Place	Capacity		Lubricants, fuel and coolant
		L2600	L3000	
1	Fuel tank	31 L 8.2 U.S.gals. 6.8 Imp.gals.		No. 2-D diesel fuel No. 1-D diesel fuel if temperature is below – 10 °C (14 °F)
2	Cooling system	6.0 L 6.3 U.S.qts. 5.3 Imp.qts.		Fresh clean water with anti-freeze
3	Engine crankcase (with filter)	5.5 L 5.8 U.S.qts. 4.8 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
4	Transmission case	28 L 7.4 U.S.gals. 6.2 Imp.gals.		KUBOTA SUPER UDT fluid *
5	Front axle case [4WD]	6.0 L 6.3 U.S.qts. 5.3 Imp.qts.		KUBOTA SUPER UDT fluid * or SAE80, 90 gear oil
6	Steering gear case [Manual steering type]	0.21 L 0.22 U.S.qts. 0.18 Imp.qts.	–	KUBOTA SUPER UDT fluid * or SAE80, 90 gear oil

Greasing

No.	Place	No. of greasing point	Capacity	Type of grease
7	Front wheel hub	2 [2WD]	A small amount	Bearing grease
	Knuckle shaft	2 [2WD]	Until grease overflows	Multipurpose type grease
	Clultch pedal	1		
	Brake pedal	1		
	Pedal shaft	1		
	Top link bracket	2 [with Draft Control (if equipped)]		
	Battery terminals	2		
	Lift rod	1		

* KUBOTA original transmission hydraulic fluid.

■ **NOTE**

(Engine Oil)

- **Oil used in the engine should have an American Petroleum Institute (API) service classification and Proper SAE Engine Oil according to the ambient temperatures as shown above :**

(Transmission Oil)

- **The oil used to lubricate the transmission is also used as hydraulic fluid. To insure proper operation of the hydraulic system and complete lubrication of the transmission, it is important that a multi-grade transmission fluid be used in this system. We recommend the use of KUBOTA SUPER UDT fluid for optimum protection and performance.**

Do not mix different brands together.

- **Indicated capacity of water and oil are manufacture's estimate.**

12530G00030

[6] TIGHTENING TORQUES (GENERAL USE SCREWS, BOLTS AND NUTS)

Screws, bolts and nuts whose tightening torques are not specified in this Workshop Manual should be tightened according to the table below.

Indication on top of bolt	⟨4⟩ **No-grade or 4T**						⟨7⟩ **7T**						⟨9⟩ **9T**		
Material of bolt	SS400, S20C						S43C, S48C						SCr435, SCM435		
Material of internal thread	Cast iron or steel			Aluminum			Cast iron or steel			Aluminum			Cast iron or steel		
Diameter	N·m	kgf·m	ft-lbs	N·m	kgf·m	ft-lbs	N·m	kgf·m	ft-lbs	N·m	kgf·m	ft-lbs	N·m	kgf·m	ft-lbs
M6 (6 mm, 0.24 in.)	7.84 to 9.31	0.80 to 0.95	5.79 to 6.87	7.84 to 8.83	0.80 to 0.90	5.79 to 6.51	9.80 to 11.2	1.00 to 1.15	7.24 to 8.32	7.84 to 8.83	0.80 to 0.90	5.79 to 6.51	12.3 to 14.2	1.25 to 1.45	9.05 to 10.5
M8 (8 mm, 0.31 in.)	17.7 to 20.5	1.8 to 2.1	13.0 to 15.2	16.7 to 19.6	1.7 to 2.0	12.3 to 14.5	23.6 to 27.4	2.4 to 2.8	17.4 to 20.2	17.7 to 20.6	1.8 to 2.1	13.0 to 15.2	29.4 to 34.3	3.0 to 3.5	21.7 to 25.3
M10 (10 mm, 0.39 in.)	39.2 to 45.0	4.0 to 4.6	29.0 to 33.2	31.4 to 34.3	3.2 to 3.5	23.1 to 25.3	48.1 to 55.8	4.9 to 5.7	35.5 to 41.2	39.2 to 44.1	4.0 to 4.5	28.9 to 32.5	60.8 to 70.5	6.2 to 7.2	44.9 to 52.1
M12 (12 mm, 0.47 in.)	62.8 to 72.5	6.4 to 7.4	46.3 to 53.5				77.5 to 90.1	7.9 to 9.2	57.2 to 66.5	62.8 to 72.5	6.4 to 7.4	46.3 to 53.5	103 to 117	10.5 to 12.0	76.0 to 86.8
M14 (14 mm, 0.55 in.)	108 to 125	11.0 to 12.8	79.6 to 92.5				124 to 147	12.6 to 15.0	91.2 to 108				167 to 196	17.0 to 20.0	123 to 144
M16 (16 mm, 0.63 in.)	167 to 191	17.0 to 19.5	123 to 141				196 to 225	20.0 to 23.0	145 to 166				260 to 303	26.5 to 31.0	192 to 224
M18 (18 mm, 0.71 in.)	245 to 284	25.0 to 29.0	181 to 210				275 to 318	28.0 to 32.5	203 to 235				343 to 401	35.0 to 41.0	254 to 297
M20 (20 mm, 0.79 in.)	334 to 392	34.0 to 40.0	246 to 289				368 to 431	37.5 to 44.0	272 to 318				490 to 568	50.0 to 58.0	362 to 420

12040G00040

[7] MAINTENANCE

No.	Item \ Period		Indication on hour meter													Since then	Important		Reference page
			50	100	150	200	250	300	350	400	450	500	550	600	650	700				
1	Engine oil	Change	★	☆		☆		☆		☆		☆		☆		☆	every 100 Hr			G-13
2	Engine oil filter	Replace	★			☆				☆				☆			every 200 Hr			G-13
3	Transmission fluid	Change	★							☆							every 400 Hr			G-15
4	Transmission strainer	Clean	★							☆							every 400 Hr			G-14
5	Front axle case oil (4WD)	Change	★							☆							every 400 Hr			G-16
6	Front axle pivot	Adjust								☆							every 400 Hr			G-26
7	Greasing	–	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	every 50 Hr			G-18
8	Engine start system	Check	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	every 50 Hr			G-19
9	Wheel bolt torque	Check	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	every 50 Hr			G-19
10	Battery condition	Check		☆		☆		☆		☆		☆		☆		☆	every 100 Hr			G-20
11	Air cleaner element	Clean		☆		☆		☆		☆		☆		☆		☆	every 100 Hr	*	@	G-22
		Replace															every 1 year	**		G-22, 27
12	Fan belt	Adjust		☆		☆		☆		☆		☆		☆		☆	every 100 Hr			G-22
13	Clutch	Adjust	★	☆		☆		☆		☆		☆		☆		☆	every 100 Hr			G-16, 17
14	Brake	Adjust		☆		☆		☆		☆		☆		☆		☆	every 100 Hr			G-23
15	Fuel line	Check		☆		☆		☆		☆		☆		☆		☆	every 100 Hr		@	G-23
		Replace															every 2 years	***		G-23, 28
16	Radiator hose and clamp	Check				☆				☆				☆			every 200 Hr			G-24
		Replace															every 2 years			G-24, 28
17	Intake air line	Check				☆				☆				☆			every 200 Hr		@	G-24
		Replace															every 2 years	***		G-24, 28
18	Toe-in	Adjust				☆				☆				☆			every 200 Hr			G-25
19	Greasing (2WD front wheel hub)	–								☆							every 400 Hr			G-26
20	Fuel filter	Replace								☆							every 400 Hr		@	G-26
21	Steering gear case oil (Manual steering type)	Check								☆							every 400 Hr			G-26
22	Engine valve clearance	Adjust															every 800 Hr			G-26
23	Fuel injection pressure	Check															every 1500 Hr		@	G-26
24	Injection pump	Check															every 3000 Hr		@	G-26
25	Cooling system	Flush															every 2 years			G-27
26	Coolant	Change															every 2 years			G-28
27	Fuel system	Bleed															Service as required			G-28
28	Fuse	Replace																		G-28
29	Light bulb	Replace																		G-28

IMPORTANT :

The jobs indicated by ★ must be done after the first 50 hours of operation.

*** Air cleaner should be cleaned more often in dusty conditions than in normal conditions.**

**** Every year or every 6 times of cleaning.**

***** Replace only if necessary.**

- **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.**

12530G00040

[8] CHECK AND MAINTENANCE

CAUTION

- **Be sure to check and service the tractor on a flat place with engine shut off, the parking brake on and chock the wheels.**

11790G00210

(1) Daily Check

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

Checking

- Check areas where previous trouble was experienced.
- Walk around the tractor.

1) Check the tire pressure, and check for wear and damage.
2) Check for oil and water leaks.
3) Check the engine oil level.
4) Check the transmission fluid level.
5) Check the coolant level.
6) Check the condition of ROPS attaching hardware.
7) Check and clean the radiator screen and grill.
8) Check the bolts and nuts of the tires are tight.
9) Check the number plate or SMV emblem for damage and cleaner replace as necessary if equipped.
10) Care of danger, warning and caution labels.
11) Clean around the exhaust manifold and the muffler of the engine.

- While sitting in the operator's seat.

1) Check the throttle pedal, brake pedals and clutch pedal.
2) Check the parking brake.
3) Check the steering wheel.

- Turning the key switch.

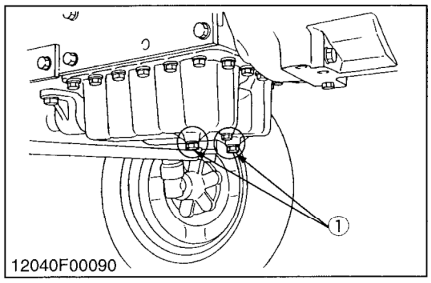
1) Check the performance of the Easy Checker lights.
2) Check head lights, tail lights and hazard lights. Clean if necessary.
3) Check the performance of the meters and gauges.

- Starting the engine.

1) Check to see that the lights on the Easy Checker go off.
2) Check the color of the exhaust.
3) Check the brakes for proper operation.

11790G00220

(2) Check Points of Initial 50 Hours



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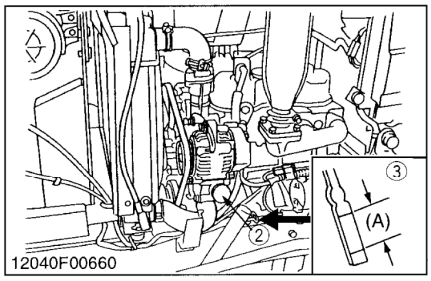


12040F00660

Changing Engine Oil

CAUTION

- **Before changing oil, be sure to stop the engine.**

1. Start and warm up the engine for approx. 5 minutes.
2. Place an oil pan underneath the engine.
3. To drain the used oil, remove the drain plug (1) at the bottom of the engine and drain the oil completely.
4. Screw in the drain plug (1).
5. Fill new oil up to upper line on the dipstick (3).

IMPORTANT

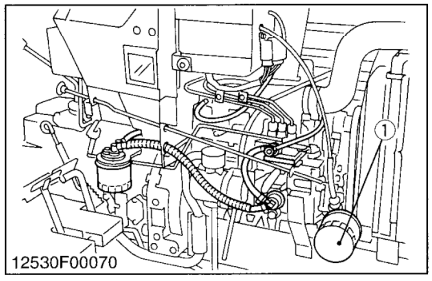
- **When using an oil of different manufacture or viscosity from the previous one, remove all of the old oil.**
- **Never mix two different types of oil.**
- **Use the proper SAE Engine Oil according to ambient temperatures.**
- **Refer to "LUBRICANTS, FUEL AND COOLANT". (See page G-9.)**

Engine oil capacity	5.5 L 5.8 U.S.qts. 4.8 Imp.qts.

(1) Drain Plug
(2) Oil Inlet Plug
(3) Dipstick

(A) Oil level is acceptable within this range.

12530G00050



12530F00070

Replacing Engine Oil Filter Cartridge

CAUTION

- **Be sure to stop the engine before changing oil filter cartridge (1).**
- **Allow engine to cool down sufficiently, oil can be hot and can burn.**

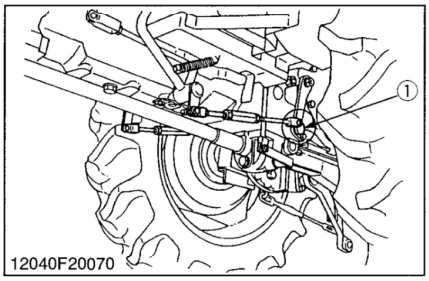
1. Remove the engine oil filter cartridge (1).
2. Put a film of clean engine oil on rubber seal of new filter.
3. Tighten the filter quickly until it contacts the mounting surface. Tighten filter by hand an additional 1/2 turn only.
4. After the new filter has been replaced, the engine oil normally decreases 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.

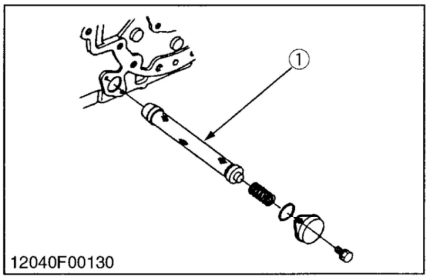
IMPORTANT

- **To prevent serious damage to the engine, replacement element must be highly efficient. Use only a KUBOTA genuine filter.**

(1) Engine Oil Filter Cartridge

12530G00060





Cleaning Transmission Strainer

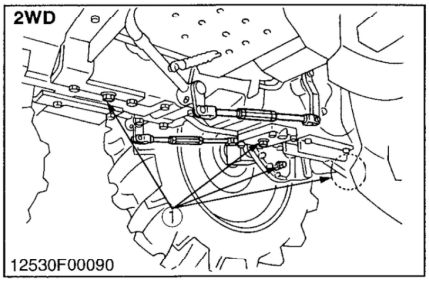
CAUTION

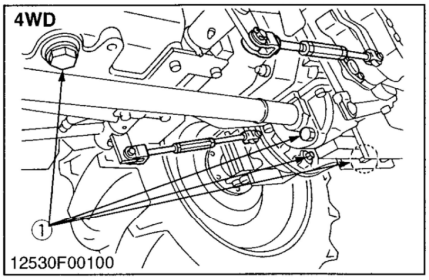
- **Be sure to stop the engine before cleaning the strainer (1).**

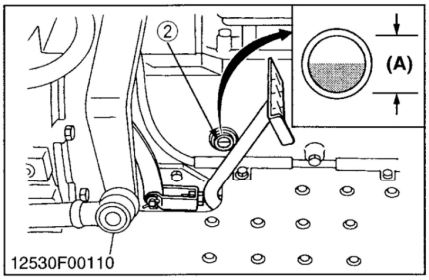
1. When changing the transmission fluid, disassemble and rinse the strainer (1) with nonflammable solvent to completely clean off fillings.
   When reassembling be careful not to damage the parts.

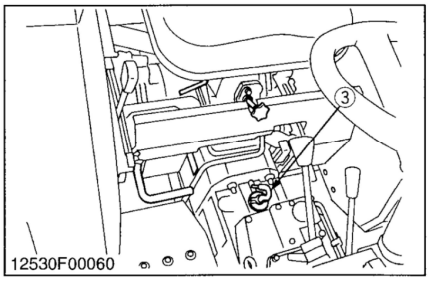
(1) Strainer

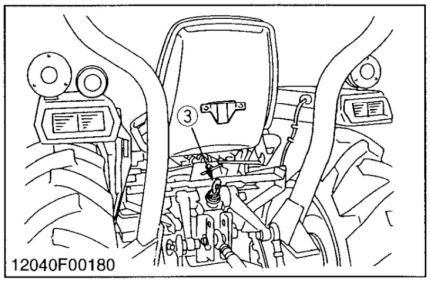
12040G00080











Changing Transmission Fluid

CAUTION

- **Be sure to stop the engine before checking and changing the transmission fluid.**

1. Place an oil pan underneath the transmission case.
2. Remove the drain plugs (1) at the bottom of the transmission case.
3. Drain the transmission fluid.
4. After draining, screw in the drain plugs (1).
5. Fill with the new KUBOTA SUPER UDT fluid up to the upper line of the gauge (2).
6. After running the engine for a few minutes, stop it and check the fluid level again, if low, add fluid prescribed level (**A**).

IMPORTANT

- **Use only multi-grade transmission fluid. Use of other fluides may damage the transmission or hydraulic system.**
- **Refer to "LUBRICANTS, FUEL AND COOLANT". (See page G-9.)**
- **Never work the tractor immediately after changing the transmission fluid. Keeping the engine at medium speed for a few minutes to prevents damage to the transmission.**
- **Do not mix different brands oil together.**

Transmission fluid capacity	28 L 7.4 U.S.gals. 6.2 Imp.gals.

(1) Drain Plug
(2) Gauge
(3) Filling Plug

(A) Oil level is acceptable within this range.

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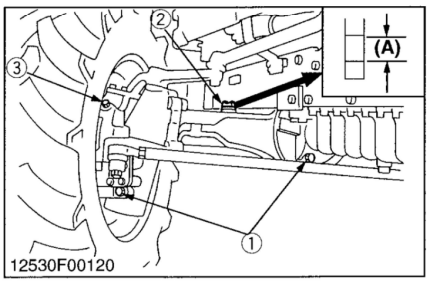

Changing Front Axle Case Oil (4WD)

1. To drain the used oil, remove the drain plugs (1) and filling plug (2) at the front axle case and drain the oil completely into the oil pan.
2. After draining reinstall the drain plugs (1).
3. Remove the breather plugs (3).
4. Fill with the new oil up to the upper notch on the dipstick (2).
   How to check :
   Wipe dipstick clean with a rag and screw it into axle hole. Remove dipstick again to see if the oil level is between the upper and lower limits.
5. After filling reinstall the filling plug (2) and breather plugs (3).

■ IMPORTANT

- **Use KUBOTA SUPER UDT fluid or SAE80, 90 gear oil. Refer to "LUBRICANTS, FUEL AND COOLANT". (See page G-9).**

Front axle case oil capacity	6.0 L 6.3 U.S.qts. 5.3 Imp.qts.

(1) Drain Plug
(2) Filling Plug (with level gauge)
(3) Breather Plug
(A) Oil level is acceptable within this range

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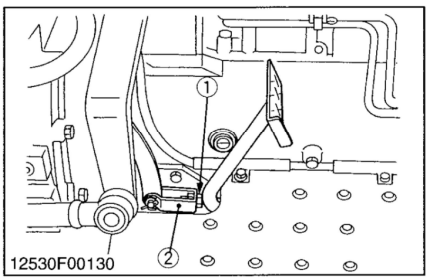

Adjusting Clutch Pedal Free Play (L2600)

1. Stop the engine and remove the key.
2. Slightly depress the clutch pedal and measure free play at top of pedal stroke.
3. If adjustment is needed, loosen the lock nut (1), and turn the turn buckle (2) to adjust the clutch pedal free play within factory specification.
4. Retighten the lock nut (1).

Clutch pedal free play	Factory spec.	20 to 30 mm 0.8 to 1.2 in.

(1) Lock Nut (2) Turnbuckle

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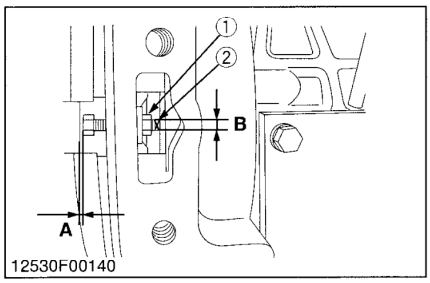

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Adjusting Clutch Pedal Free Play (L3000)

1. At first adjust the clutch pedal free play, as is mentioned above.
2. Remove the cover located on the right side of flywheel housing case.
3. Loosen the lock nut (1), tighten the adjust bolt (2) by using 6 mm spanner until head of the bolt contacts pressure plate slightly. Make 7/6 turn counterclockwise to give 1.4 to 1.5 mm (0.055 to 0.059 in.) clearance.
4. Tighten the lock nut (1), holding the adjusting bolt (2).
5. Turn the flywheel to adjust the clearance of other adjusting bolts (three bolts).
6. Repeat step 3 and readjust clutch pedal free play if necessary.

Clearance (**A**) between pressure plate and adjusting bolt	Factory spec.	1.4 to 1.5 mm 0.055 to 0.059 in.

Tightening torque	Lock nut	15.7 to 21.6 N·m 1.6 to 2.2 kgf·m 11.6 to 15.9 ft-lbs

(1) Lock Nut
(2) Adjusting Bolt

(B) 6 mm (0.24 in.)

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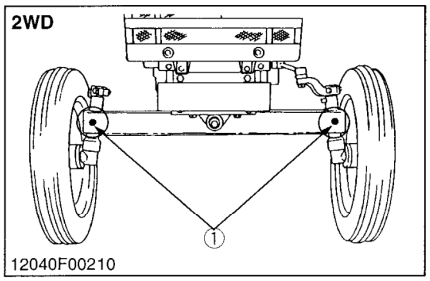
(3) Check Points of Every 50 Hours



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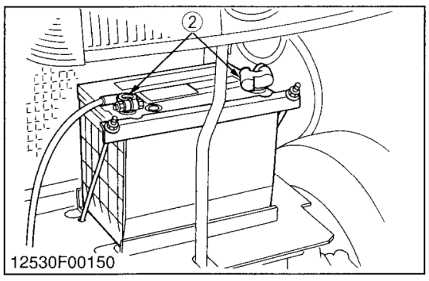

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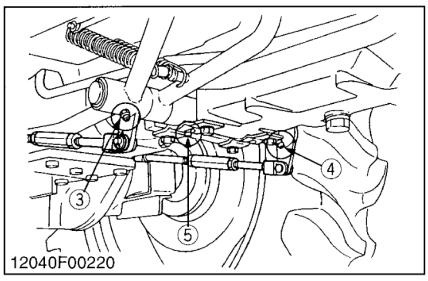

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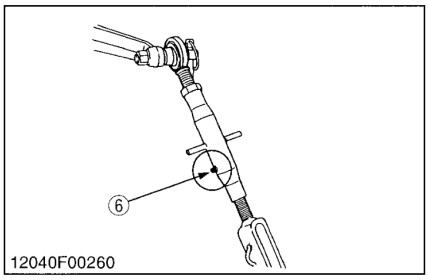

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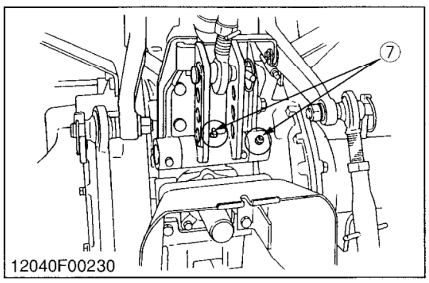

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Greasing

1. Apply grease to the following points every 50 hours.
2. If you operated the machine in extremely wet and muddy conditions, lubricate grease fittings more often.

(1) Knuckle Shaft (RH, LH)
(2) Battery Terminal
(3) Brake Pedal
(4) Clutch Pedal
(5) Pedal Shaft
(6) Lifting Rod (RH)
(7) Top Link Bracket [with Draft Control (if equipped)]

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