WSM

WORKSHOP MANUAL
TRACTOR

L3130,L3430,L3830,
L4630,L5030

Kubota

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GENERAL

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4. LUBRICANTS, FUEL AND COOLANT

	Place	Capacity			Lubricants, fuel and coolant
		L3130	L3430	L3830	
1	Fuel tank	40 L 10.6 U.S.gals 8.8 Imp.gals			No. 2-D diesel fuel No. 1-D diesel fuel if temperature is below –10 °C (14 °F)
2	Cooling system (ROPS Type)	6.0 L 6.3 U.S.qts 5.3 Imp.qts		7.5 L 7.9 U.S.qts 6.6 Imp.qts	Fresh clean water with anti-freeze
	Cooling system (CABIN Type)	–		8.7 L 9.2 U.S.qts 7.7 Imp.qts	
3	Engine crankcase (with filter)	5.7 L 6.0 U.S.qts 5.0 Imp.qts		6.7 L 7.1 U.S.qts 5.9 Imp.qts	Engine oil : API service classification CD, CE or CF Above 25 °C (77 °F) : SAE30, 10W-30 or 10W-40 0 to 25 °C (32 to 77 °F) : SAE20, 10W-30 or 10W-40 Below 0 °C (32 °F) : SAE10W, 10W-30 or 10W-40
4	Transmission case	42 L 11.1 U.S.gals 9.2 Imp.gals		43 L 11.4 U.S.gals 9.5 Imp.gals	KUBOTA UDT or SUPER UDT fluid*
5	Front axle case	6.5 L 6.9 U.S.qts 5.7 Imp.qts			KUBOTA UDT or SUPER UDT fluid* or SAE80, 90 gear oil

Greasing

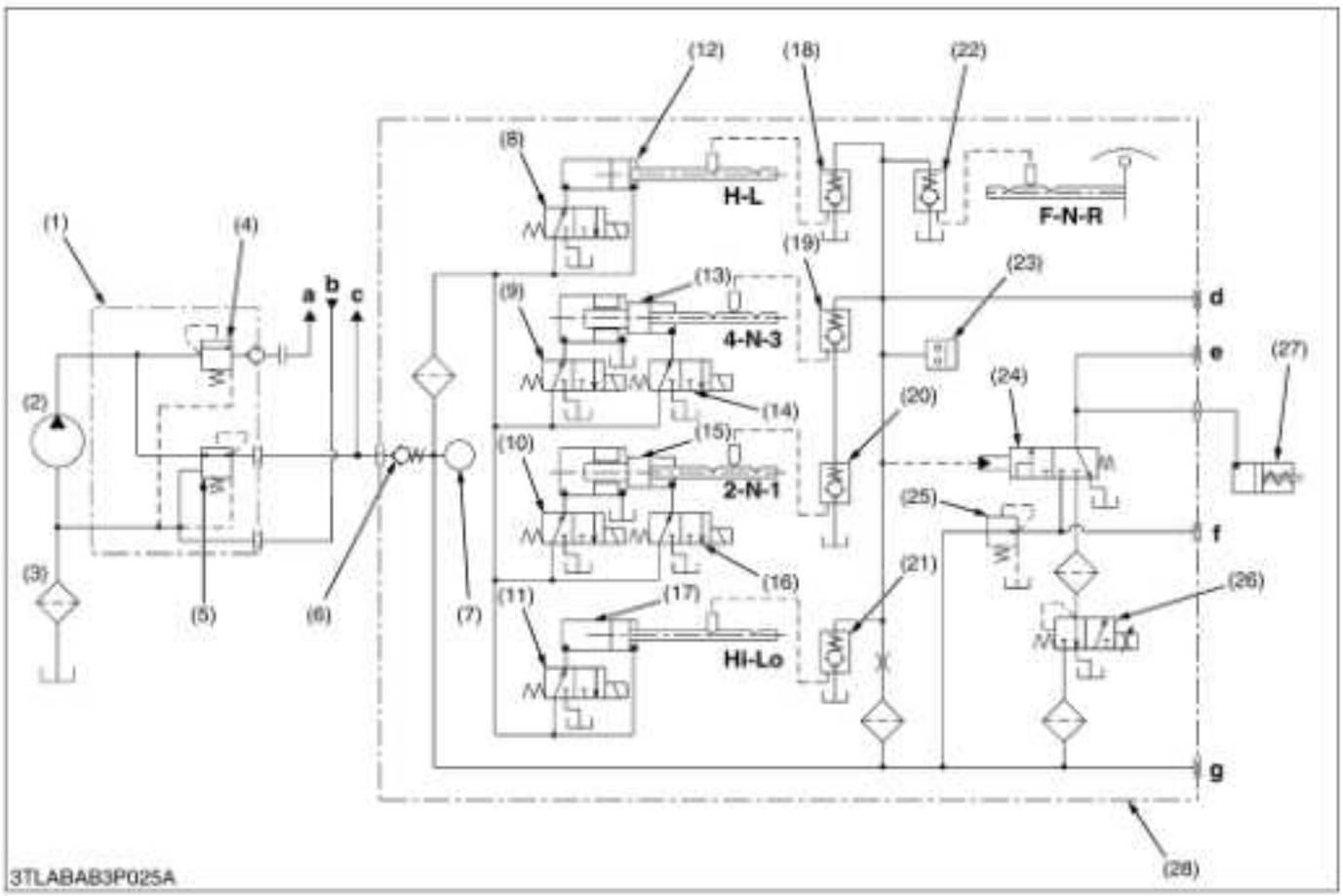
	Place	No. of greasing point	Capacity	Type of grease
6	Front axle support	2	Until grease overflows	Multipurpose type grease
	Top link	2		
	Top link bracket (if equipped)	2 (with draft control)		
	Lift rod	1		
	Lift cylinder	4		
	Battery terminal	2	Moderate amount	
	Throttle cable	Oiling		Engine oil

* KUBOTA original transmission hydraulic fluid.

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[5] HYDRAULIC CONTROL SYSTEM

(1) Hydraulic Circuit and System Outline



(1) Regulating Valve Assembly
(2) Hydraulic Pump
(3) Hydraulic Oil Filter
(4) Regulating Valve
(5) Pressure Reducing Valve
(6) Check Valve
(7) Oil Temperature Sensor
(8) Solenoid Valve 6 (Main Range Shift)
(9) Solenoid Valve 3
(10) Solenoid Valve 1
(11) Solenoid Valve 5 (Sub-range Shift)
(12) Shift Piston (Main Range Shift)
(13) 3-4 Shift Piston
(14) Solenoid Valve 4
(15) 1-2 Shift Piston
(16) Solenoid Valve 2
(17) Shift Piston (Sub-range Shift)
(18) Shift Check Valve (Main Range Shift)
(19) 3-4 Shift Check Valve
(20) 1-2 Shift Check Valve
(21) Shift Check Valve (Sub-range Shift)
(22) Shift Check Valve, Shuttle
(23) Pressure Switch
(24) Clutch Valve
(25) Low-pass Valve
(26) Proportional Reducing Valve
(27) GST Clutch
(28) GST Valve Assembly

a : To Steering Controller
b : From Steering Controller
c : To PTO Clutch Valve
d : Check port for pilot pressure
e : Check port for clutch pressure
f : Check port for Low-pass pressure
g : Check port for system pressure

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1. TROUBLESHOOTING

COMPRESSOR

Symptom	Probable Cause	Solution	Reference Page
Noisy (Compressor ON)	• Bearing of compressor worn or damaged	Replace	10-S29
	• Valves in compressor damaged	Replace	10-S29
	• Belt slipping	Adjust or replace	G-29
	• Compressor bracket mounting screws loosen	Tighten	–
	• Piping resonant	Tighten or add clamp	–
(Compressor OFF)	• Blower defective	Repair or replace	10-S33
	• Bearings of magnetic clutch, idle pulley or crank pulley worn or damaged	Replace	–

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AIR CONDITIONING SYSTEM

Does Not Cool (No Air Flow)	• Fuse blown	Replace	G-36
	• A/C main relay defective	Repair or replace	10-S31
	• Blower relay defective	Replace	10-S31
	• Blower motor defective	Replace	10-S33
	• Blower switch defective	Replace	10-S32
	• Wiring harness disconnected or improperly connected	Repair	–
(Compressor Does Not Rotate)	• Fuse blown	Replace	G-36
	• Magnetic clutch defective	Repair or replace	10-S28
	• A/C switch defective	Replace	10-S33
	• Pressure switch defective	Replace	10-S35
	• Belt slipping	Adjust or replace	G-29
(Others)	• Insufficient refrigerant	Check with manifold gauge	10-S13
	• Expansion valve defective	Replace	–
	• Compressor defective	Replace	10-S29
Insufficient Cooling (Insufficient Air Flow)	• Air filter clogged	Clean or replace	G-30
	• Evaporator frosted	Clean or replace thermo switch	10-S41
	• Blower motor defective	Replace	10-S33
(Many Bubbles in Sight Glass)	• Insufficient refrigerant	Check with manifold gauge	10-S13
	• Gas leaking from some place in refrigerating cycle	Repair and charge refrigerant	10-S11
	• Air mixed in	Check with manifold gauge	10-S14
(No Bubbles in Sight Glass)	• Too much refrigerant	Check with manifold gauge	10-S14

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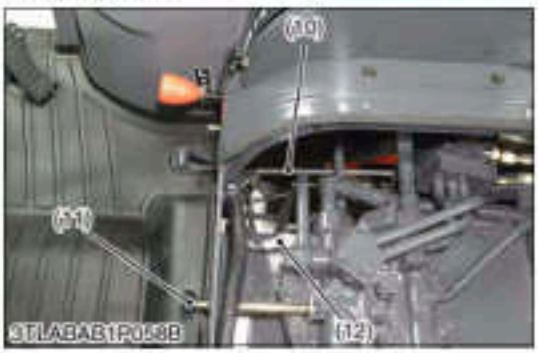
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Seat and Lever Grips

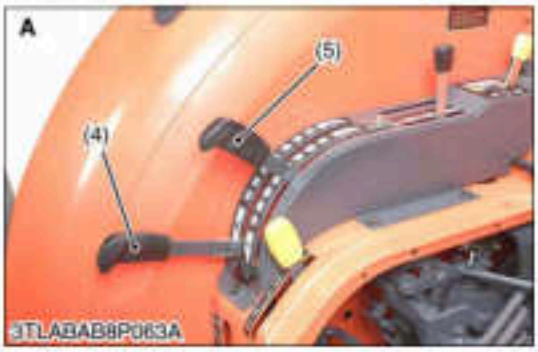
1. Remove the seat (1) with seat bracket.
2. Remove the lever grip for main shift lever (3), range gear shift lever (2), front wheel drive lever (4), auxiliary control lever (7), position control lever (6), draft control lever (5) (if equipped), ground PTO lever (8) (if equipped) and PTO gear shift lever (9) (if equipped).
3. Disconnect the differential lock rod (10).
4. Remove the lowering speed adjusting knob (11).
5. Disconnect the PTO speed change connector (12).

(1) Seat
(2) Range Gear Shift Lever
(3) Main Shift Lever
(4) Front Wheel Drive Lever
(5) Draft Control Lever
(6) Position Control Lever
(7) Auxiliary Control Lever
(8) Ground PTO Lever
(9) PTO Gear Shift Lever
(10) Differential Lock Rod
(11) Lower Speed Adjusting Knob
(12) PTO Speed Change Connector

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Checking Draft Control Sensitivity (If equipped)

1. Attach the test bar (2) to the top link bracket.
2. Start the engine, set at maximum speed.
3. Set the draft control lever (5) to the lowest position. (Refer to figure **A**.)
4. Set the position control lever (4) between lever guide 4 and 5. (Refer to figure **A**.)
5. Lift the test bar (2) upward until the top link bracket (1) comes in contact with the stopper.
6. Confirm the lower link does not rise.
7. Set the draft control lever (4) to 7 position of the lever guide. (Refer to figure **B**.)
8. Lift the test bar (2).
9. Confirm the lower links (3) must rise before the top link bracket (1) contact the stopper.
10. If the specified play is not obtained, readjust the feedback rod. (Refer "Adjusting Draft Control Position Section".)

(1) Top Link Bracket
(2) Test Bar
(3) Lower Link
(4) Draft Control Lever
(5) Position Control Lever

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(2) Disassembling and Assembling





Seat, Seat Bracket and Cover

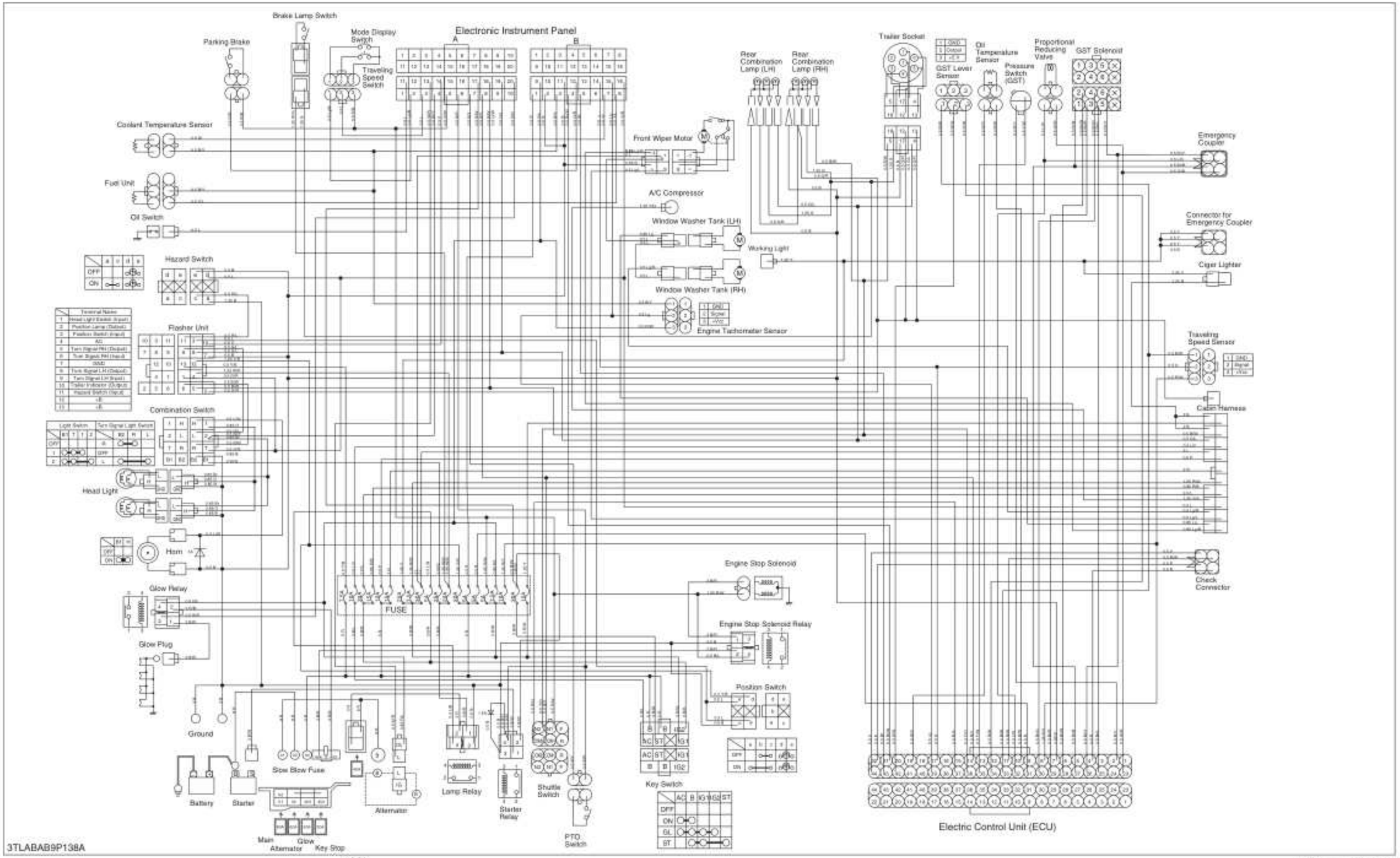
1. Remover the seat (1).
2. Remove the seat bracket (2) together with cover (3).

(1) Seat
(2) Seat Bracket
(3) Cover

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[2] GST MODEL



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