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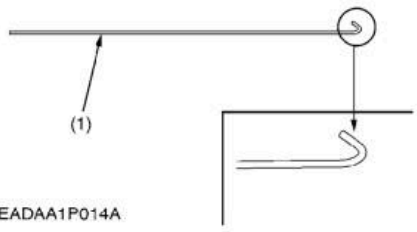
WORKSHOP MANUAL
TRACTOR

L2800 L3400

Kubota

KiSC issued 10, 2005 A



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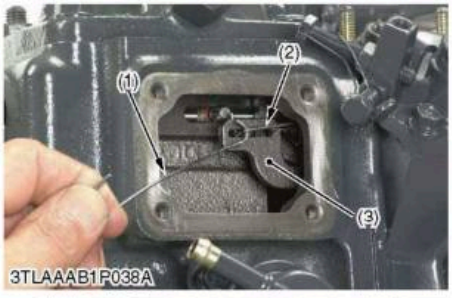

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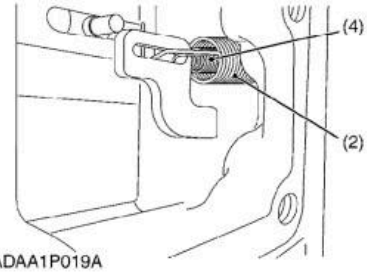

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Governor Springs and Speed Control Plate

■ **NOTE**

- **Specific tool (1) :**
  1.2 mm diameter hard wire with its end hooked, overall length 200 mm (7.87 in.).
  The tip of wire is bent like the hook to hang governor springs.

1. Remove the injection pump cover.
2. Remove the speed control plate mounting nuts and bolts.
3. Using the specific tool (1), undo the large governor spring (2) from the fork lever (3).
4. Using the specific tool, undo the small governor spring (4) from the fork lever (3).
5. Set the speed control lever (5) as the photo.
6. Take out the speed control plate (6) with care not to let the large and small governor springs come off this plate and fall into the gear case.

(When reassembling)

- Hook the small spring (4) first and then the large governor spring (2) on the speed control plate (6).
- Put the specific tool (1) from the injection pump side to catch the large governor spring (2). Keep this spring slightly extended and place the speed control plate (6) in its specified position.
- Using the specific tool (1), hook the small governor spring onto the fork lever (3).

■ **NOTE**

- **Be careful not to stretch the small governor spring too long because otherwise it may get deformed permanently.**
- **Using the specific tool (1), hook the large governor spring (2) onto the fork lever (3).**
- **Make sure both the governor springs (2), (4) are tight on the fork lever (3).**
- **Apply and tighten up the two bolts and two nuts on the speed control plate (6).**
- **Check that the speed control lever (5) positions low idle, after assembling governor springs.**
- **Check that the speed control lever (5) returns to the high idle position rather than the low idle position, after moving the lever to the maximum speed position.**
- **Finally attach the injection pump cover in position.**

(1) Specific Tool
(2) Large Governor Spring
(3) Fork Lever
(4) Small Governor Spring
(5) Speed Control Lever
(6) Speed Control Plate

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Symptom	Probable Cause	Solution	Reference Page
Excessive or Unusual Noise at All Time	● Improper backlash between spiral bevel pinion and spiral bevel gear	Adjust	3-S32
	● Improper backlash between differential pinion and differential side gear	Adjust	3-S35
	● Bearings worn	Replace	3-S30
	● Insufficient or improper type of transmission fluid used	Replenish or replace	G-7, 3-S6
Noise While Turning	● Differential pinions or differential side gears worn or damaged	Replace	3-S35
	● Differential lock binding (does not disengage)	Replace	—
	● Bearing worn	Replace	3-S30

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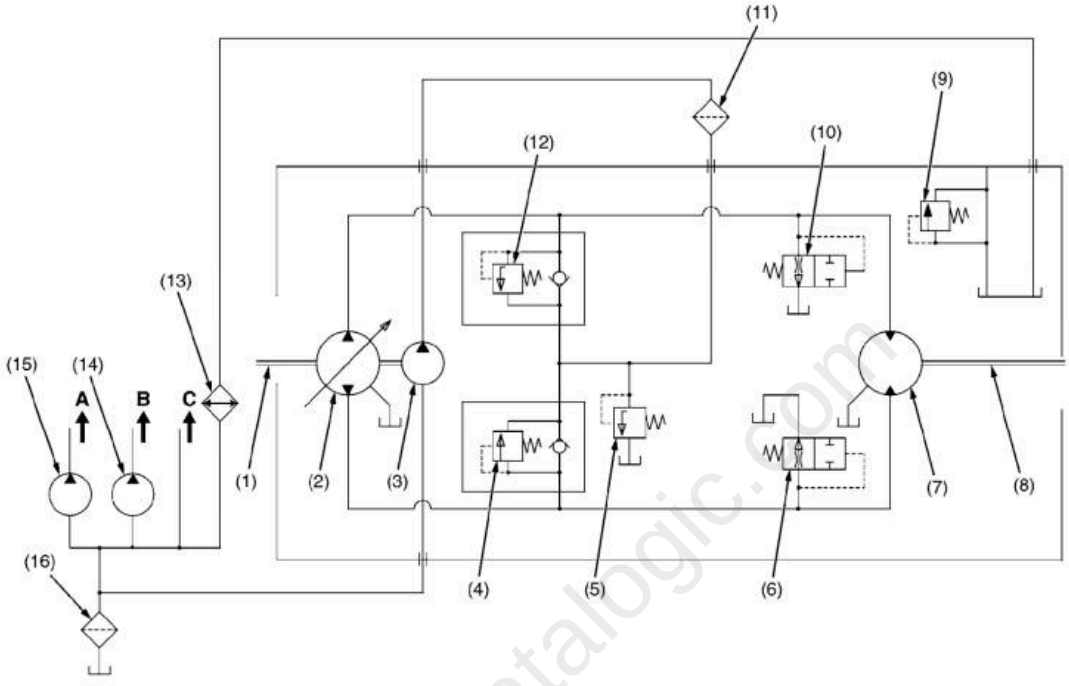
[2] OIL FLOW



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(1)	Pump Shaft	(5)	Charge Relief Valve	(11)	Oil Filter	(16)	Oil Filter
(2)	Variable Displacement Pump	(6)	Neutral Valve	(12)	Check and High Pressure Relief Valve	**A :**	**To Hydraulic Block**
(3)	Charge Pump	(7)	Fixed Displacement Motor	(13)	Oil Cooler	**B :**	**To Power Steering**
(4)	Check and High Pressure Relief Valve	(8)	Output Shaft (Motor)	(14)	Pump	**C :**	**From Steering Controller**
		(9)	Case Relief Valve	(15)	Pump		
		(10)	Neutral Valve				

The pump (2) and motor (7) are joined in a closed hydraulic loop and most of oil circulates within the main oil circuit. When the variable swash-plate is at right angle to the pump piston, the oil is not send to the motor (7). When the variable swash-plate is tilted to forward or reverse, oil forced out of pump (2) at high pressure and send to the motor.

But the neutral valve (6), (10) in the main oil circuit lines are open and pass the oil to the case when in neutral, and oil pressure in their lines becomes low. And when the oil pressure in the high pressure line increase to a specified pressure, the neutral valve (6), (10) closes. Then the output shaft (8) rotates with the motor and oil is forced out of motor at low pressure and return to the pump (2). On the other hand, oil is send to the main circuit with the charge pump (3) through the filter (11) and check valve and excessive oil passes to the case through the charge relief valve (5). The case relief valve (9) controls pressure in the HST case.

The high pressure relief valve (4), (12) between the two lines in the main oil circuit monitors the oil pressure in each line, it opens and close the oil into another line.

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1. TROUBLESHOOTING

Symptom	Probable Cause	Solution	Reference Page
Excessive Steering Wheel Play	● Backlash between sector gear shaft and rack (piston) too large	Adjust	7-S8
	● Steering linkage worn	Replace	—
	● Sector gear shaft worn	Replace	7-S6
Tractor Pulls to Right or Left	● Tire pressure uneven	Adjust	G-55
	● Steering wheel play too small	Adjust	7-S4
	● Improper toe-in adjustment	Adjust	6-S6
Front Wheels Vibration	● Steering linkage worn	Replace	—
	● Improper toe-in adjustment	Adjust	6-S6
Hard Steering	● Transmission fluid improper or insufficient	Change	G-7, 15, 16
	● Oil leak from pipe joint	Retighten	—
	● Hydraulic pump malfunctioning	Replace	7-S7, S13
	● Improper relief valve adjustment	Adjust	8-S8
	● Relief valve malfunctioning	Replace	7-S8
	● Valve housing and sleeve malfunctioning	Replace	7-S6, S7, S8
	● Seals in the steering gear box damaged	Replace	7-S7
	● Backlash between sector gear shaft and rack (piston) too small	Adjust	7-S8
	● Air in the hydraulic pipes	Air vent	—
Low Operating Pressure	● Hydraulic pump malfunctioning	Replace	7-S7, S13
	● Improper relief valve adjustment	Adjust	8-S8
	● Relief valve malfunctioning	Replace	7-S8
	● Seals in the steering gear box damaged	Replace	7-S7
	● Rack (piston) malfunctioning	Replace rack (piston) assembly	7-S7
	● Oil leak from pipe or pipe broken	Replace	—
Steering Wheel Does Not Return to Neutral Position	● Valve housing and sleeve jammed	Repair or replace	8-S6, S7, S8
	● Valve housing oil seal damaged	Replace	7-S7
Steering Force Fluctuates	● Insufficient oil	Replenish	—
	● Insufficient bleeding	Bleed	—
	● Control valve malfunctioning	Replace	7-S7
Noise	● Insufficient oil	Replenish	—
	● Air sucked in pump from suction circuit	Repair	—
	● Pipe deformed	Replace	—

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Full Version Available

Kubota L3400 Tractor Workshop Manual

This is a short preview. The complete manual contains all chapters, wiring diagrams, torque specifications and full service procedures.