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# WORKSHOP MANUAL

# GZD15

Kubota

KiSC issued 04, 2006 A

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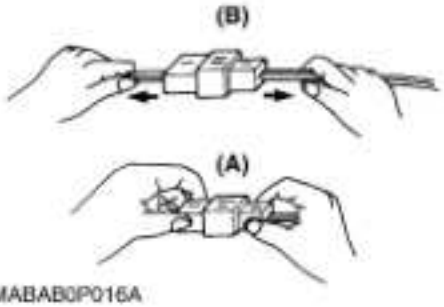
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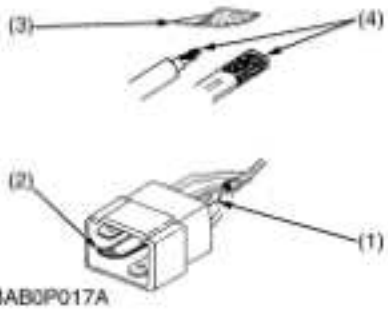


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- In separating connectors, do not pull wire harnesses.
- Hold connector bodies to separate.

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

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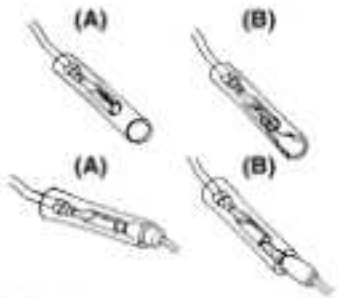


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- Use sandpaper to remove rust from terminals.
- Repair deformed terminal. Make certain there is no terminal being exposed or displaced.

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

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

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

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## [5] HANDLING OF CIRCUIT TESTER

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

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# 2. SERVICING SPECIFICATIONS

| Item | | Factory Specification | Allowable Limit |
|---|---|---|---|
| Brake Spring Length at Parking | Setting length | 27 mm<br>1.06 in. | — |
| Regulator Valve | Setting pressure | 0.5 to 0.6 MPa<br>5.1 to 6.1 kgf/cm$^2$<br>72.5 to 87.0 psi | — |
| PTO Clutch | Operating pressure | 0.98 to 1.08 MPa<br>10.0 to 11.0 kgf/cm$^2$<br>142.3 to 156.6 psi | — |
| Check and High Pressure Relief Valve | Relief valve setting pressure | 18.5 to 22.5 MPa<br>189 to 230 kgf/cm$^2$<br>2683 to 3263 psi | — |
| Maximum Speed at Maximum Engine rpm | Wheel rotation | 140 to 160 rpm | |
| Motion Control Lever Alignment | Gap | 0 to 2 mm<br>0 to 0.08 in. | — |
| | Space | 10 to 20 mm<br>0.4 to 0.8 in. | — |
| 19T Bevel Gear to Spiral Bevel Gear | Backlash | 0.15 to 0.30 mm<br>0.0059 to 0.0118 in. | — |

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| Symptom | Probable Cause | Solution | Reference Page |
|---|---|---|---|
| **Grass Collector Does Not Dump** | ● Control valve malfunctioning | Repair or replace | 4-S6, S7 |
| | ● Lift cylinder damaged | Repair | 4-S10, S11 |
| | ● Relief valve spring damaged | Replace | 4-S6 |
| | ● Relief valve setting pressure too low | Adjust | 4-S5 |
| | ● Hydraulic pump defective | Replace | — |
| | ● Oil strainer clogged | Clean or replace | G-23 |
| | ● Suction pipe loosened or broken | Repair or replace | — |
| | ● Suction pipe O-ring damaged | Replace | — |
| | ● Insufficient transmission oil | Refill | G-17, 21 |
| | ● Lift arm wire adjustment is not proper | Adjust the length of lift arm wire | 4-S4 |
| **Grass Collector Does Not Close** | ● Control valve malfunctioning | Repair or replace | 4-S6, S7 |
| | ● Lift cylinder damaged | Repair | 4-S10, S11 |
| | ● Relief valve spring damaged | Replace | 4-S6 |
| | ● Relief valve setting pressure too low | Adjust | 4-S5 |
| | ● Hydraulic pump defective | Replace | — |
| | ● Oil strainer clogged | Clean or replace | G-23 |
| | ● Suction pipe loosened or broken | Repair or replace | — |
| | ● Suction pipe O-ring damaged | Replace | — |
| | ● Insufficient transmission oil | Refill | G-17, 21 |
| | ● Lift arm wire adjustment is not proper | Adjust the length of lift arm wire | 4-S4 |

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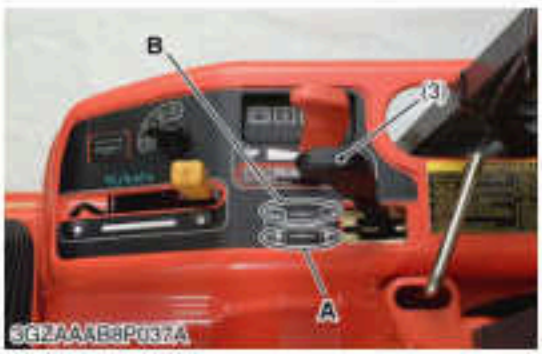
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# 3. CHECKING, DISASSEMBLING AND SERVICING

## [1] HYDRAULIC CONTROL VALVE AND PUMP

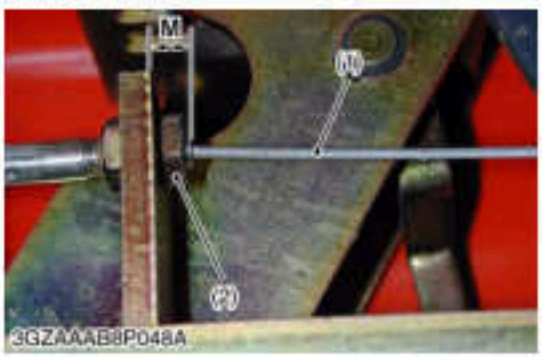
### (1) Checking and Adjusting (GZD15-HD(E) Serial No. : Below 10736)










Adjusting Length of Lift Arm Wire

1. Start the engine.
2. Lift up the grass collector and keep it at horizontal as shown in the picture.
3. Adjust the length of the lift arm wire so that the control lever can be shifted from **"LIFT"** position (**A**) to **"DUMP"** position (**B**).
4. If the wire adjustment is not proper, the control lever can not be shifted, or the control lever can be shifted at the lowest position.
5. After adjusting the wire adjustment, check whether the control lever operates smoothly.

| | | |
|---|---|---|
| Length of lift arm wire adjustment (**L**) | Reference value | 8.5 mm<br>0.33 in. |
| Length of lift arm wire adjustment (**M**) | Reference value | 6.0 mm<br>0.24 in. |

(1) Grass Collector Wire
(2) Nut
(3) Control Lever

**A: "LIFT" Position**
**B: "DUMP" Position**
**L: Length of Lift Arm Wire Adjustment (Lift Cylinder Side)**
**M: Length of Lift Arm Wire Adjustment (Control Lever Side)**

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Adjusting Neutral

**CAUTION**

- **Park the machine on a hard and level surface.**
- **If it is necessary to run engine in an enclosed area, use a gas tight exhaust pipe extension to remove the fumes.**
- **Always try to work in a well-ventilated area.**
- **Lift up and secure with jack stands or blocking the rear of the machine, do not run the machine while adjusting.**
- **Do not adjust only one of the following adjustment; exclude !MOTION CONTROL LEVER POSITION". They are relative each other.**

1. Turn key switch to OFF position.
2. Apply the parking brake.
3. Set the motion control levers (1) to **Neutral lock** position.
4. Remove the set knobs of seat frame, then raise and latch the seat assembly.
5. Remove the connector from the seat safety switch, then **temporarily** install a jumper wire across the terminals in the connector of the wiring harness.
6. Raise the rear of machine and block up so that rear wheel can rotate freely.
7. Loosen the lock nuts from the ball joints on the two rods.
8. Start the engine.
9. Move the throttle lever to **Max. speed** position.
10. Release the parking brake.
11. Adjust the speed control rod (2) length by rotating the double nuts on the rod appropriate direction until the rear wheel does not rotate.
12. The left rod assembly controls left wheel and the right rod assembly controls right wheel.
13. Repeat on opposite side of unit, tighten lock nuts (3) securely against ball joint.
14. Shut off the machine. Remove jumper wire from wire harness connector and plug connector or into seat safety switch.

**■ IMPORTANT**

- **The right and left motion control lever (1) can be adjusted independently.**

(1) Motion Control Lever
(2) Speed Control Rod
(3) Lock Nut

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