# WSM

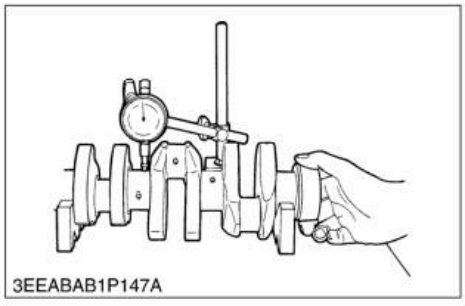
## WORKSHOP MANUAL
## TRACTOR

# B2630HSD,B3030HSD, B3030HSDC



Kubota

KiSC issued 08, 2018 A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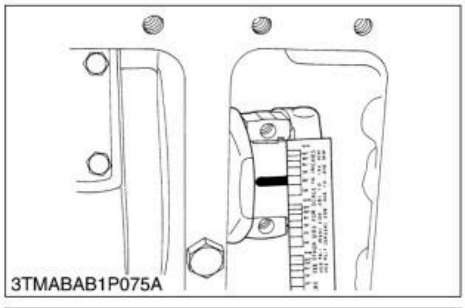
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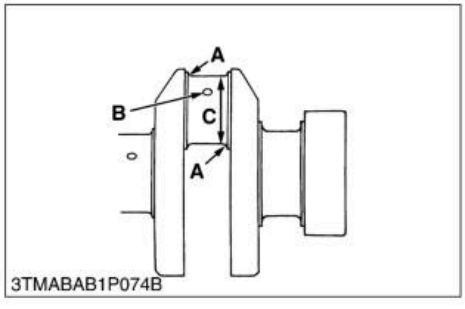

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## Crankshaft Alignment

1. Support the crankshaft with V blocks on the surface plate at both end journals.
2. Set a dial indicator with its tip on the intermediate journal.
3. Measure the crankshaft alignment.
4. If the measurement exceeds the allowable limit, replace the crankshaft.

| | | |
|---|---|---|
| Crankshaft alignment | Allowable limit | 0.02 mm<br>0.0008 in. |

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## Oil Clearance between Crankpin and Crankpin Bearing

1. Clean the crankpin and crankpin bearing.
2. Put a strip of plastigauge on the center of the crankpin.
3. Install the connecting rod cap and tighten the connecting rod screws to the specified torque, and remove the cap again.
4. Measure the amount of the flattening with the scale, and get the oil clearance.
5. If the oil clearance exceeds the allowable limit, replace the crankpin bearing.
6. If the same size bearing is useless because of the crankpin wear, replace it with an undersize one referring to the table and figure.

■ **NOTE**

- **Never insert the plastigauge into the crankpin oil hole.**
- **Be sure not to move the crankshaft while the connecting rod screws are tightened.**

| | | |
|---|---|---|
| Oil clearance between crankpin and crankpin bearing | Factory spec. | 0.029 to 0.091 mm<br>0.0011 to 0.0036 in. |
| | Allowable limit | 0.20 mm<br>0.0079 in. |

| | | |
|---|---|---|
| Crankpin O.D. | Factory spec. | 39.959 to 39.975 mm<br>1.5732 to 1.5738 in. |
| Crankpin bearing I.D. | Factory spec. | 40.040 to 40.050 mm<br>1.5764 to 1.5767 in. |

**(Reference)**

- Undersize dimensions of crankpin

| Undersize | 0.2 mm<br>0.008 in. | 0.4 mm<br>0.016 in. |
|---|---|---|
| Dimension **A** | 2.8 to 3.2 mm radius<br>0.1102 to 0.1260 in. radius | 2.8 to 3.2 mm radius<br>0.1102 to 0.1260 in. radius |
| *Dimension **B** | 1.0 to 1.5 mm relief<br>0.0394 to 0.0591 in. relief | 1.0 to 1.5 mm relief<br>0.0394 to 0.0591 in. relief |
| Dimension **C** | 39.759 to 39.775 mm dia.<br>1.5653 to 1.5659 in. dia. | 39.559 to 39.575 mm dia.<br>1.5574 to 1.5581 in. dia. |
| The crankpin must be fine-finished to higher than (0.8-S) ▽▽▽▽<br>*Holes to be de-burred and edges rounded with 1.0 to 1.5 mm (0.0394 to 0.0591 in.) relief. | | |

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## (3) PTO Clutch Case


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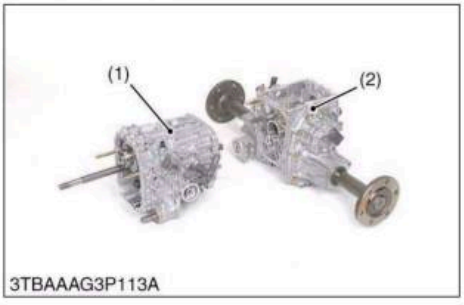

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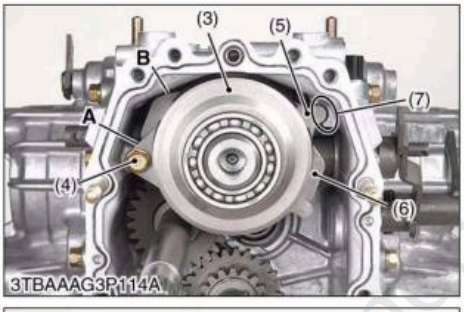

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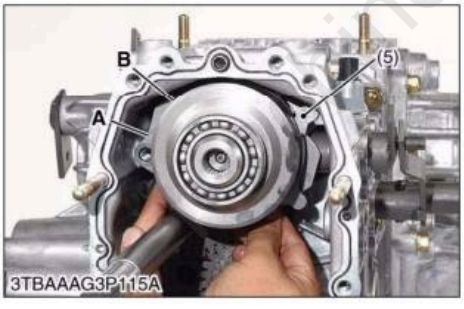

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**Separating Transmission case and PTO Clutch Case**

1. Remove the transmission case mounting bolts.
2. Separate the transmission case (1) from the differential case (2).
3. Remove the PTO brake plate 4 mounting bolt (4).

**(When reassembling)**

- Install the PTO brake plate 4 (5) to the transmission case groove (7) securely as shown in the picture.
- Place the PTO brake plate 2 (6) between **A** and **B**.

| | | |
|---|---|---|
| Tightening torque | Transmission case mounting bolt (M10) and nut | 39.3 to 44.1 N·m<br>4.0 to 4.5 kgf·m<br>29.0 to 32.5 lbf·ft |
| | Hydraulic cylinder mounting bolt (M10) and nut | 39.3 to 44.1 N·m<br>4.0 to 4.5 kgf·m<br>29.0 to 32.5 lbf·ft |

(1) Transmission Case
(2) Differential Case
(3) PTO Clutch Case
(4) PTO Brake Plate 4 Mounting Bolt
(5) PTO Brake Plate 4
(6) PTO Brake Plate 2
(7) Transmission Case Groove
**A : Position**
**B : Position**

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# SERVICING

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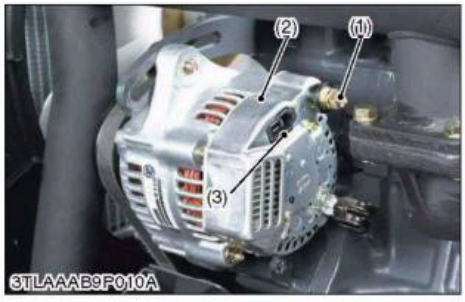
## (11) Alternator (for CABIN)




### Alternator

1. Disconnect the **2P** connector (3) from alternator after turning the main switch **OFF**.
2. Perform the following checkings.

(1) **B** Terminal
(2) Alternator
(3) **2P** Connector

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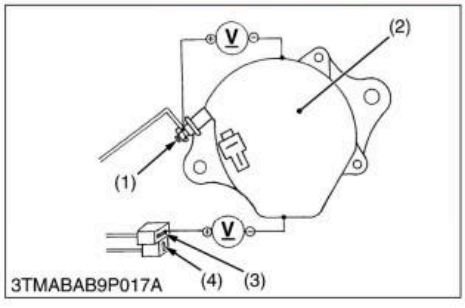


### Connector Voltage

1. Turn the main switch **OFF**. Measure the voltage between the **B** terminal (1) and the chassis.
2. Turn the main switch **ON**. Measure the voltage between the **IG** terminal (3) and the chassis.

| | | |
|---|---|---|
| Voltage (Main switch at **OFF**) | **B** terminal – Chassis | Approx. battery voltage |
| Voltage (Main switch at **ON**) | **IG** terminal – Chassis | Approx. battery voltage |

(1) **B** Terminal
(2) Alternator
(3) **IG** Terminal
(4) **L** Terminal

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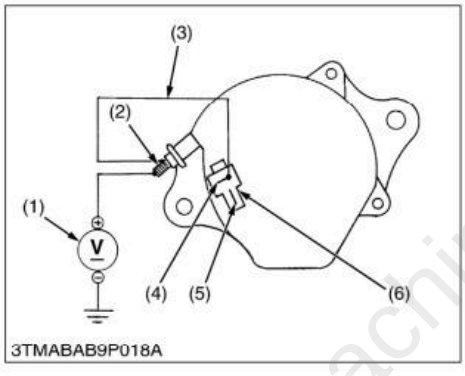


### No-Load Test

1. Connect the **2P** connector (6) to previous positions of the alternator after turning the main switch **OFF**.
2. Connect the jumper lead (3) between **IG** terminal (4) and **B** terminal (2).
3. Start the engine and then set at idling speed.
4. Disconnect the negative cable from the battery.
5. Measure the voltage between the **B** terminal (2) and the chassis.
6. If the measurement is less than the factory specifications, disassemble the alternator and check the IC regulator.

| | | |
|---|---|---|
| Voltage | Factory spec. | More than 14 V |

**(Reference)**

- Once the engine has started, the alternator temperature rises quickly up to an ambient temperature of 70 to 90 °C (158 to 194 °F). As the temperature goes higher than 50 °C (122 °F), the alternator voltage slowly drops; at higher than 100 °C (212 °F), it drops by about 1 V.

(1) Voltmeter
(2) **B** Terminal
(3) Jumper Lead
(4) **IG** Terminal
(5) **L** Terminal
(6) **2P** Connector

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# Full Version Available

Kubota B3030HSDC Tractor Workshop Manual

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