

# WSM

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WORKSHOP MANUAL

**TRACTOR**

**M5N-091, M5N-111**

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**Кубота**

## SERVICING

### 4. Checking, disassembling, and servicing

### 3. ENGINE

1. Press out the used valve guide with the valve guide replacing tool.
2. Clean the new valve guide and valve guide bore, and apply engine oil to them.
3. Press fit the new valve guide with the valve guide replacing tool.
4. Ream accurately the I.D. of the valve guide to the specified dimension.

#### 4.6.1.8 Correcting valve

##### NOTE

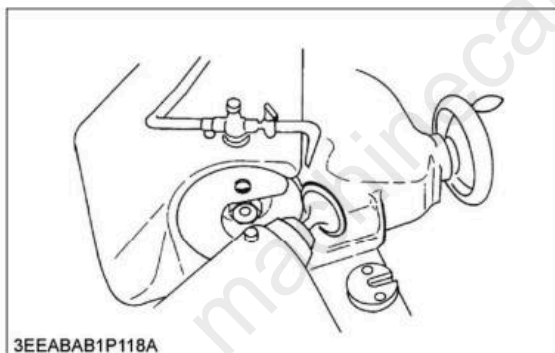
- Before you correct the valve and valve seat, check the valve stem and measure the I.D. of the valve guide section. Repair them if necessary.
- After you correct the valve seat, be sure to check the valve recessing.

##### Tool required

- Valve refacer

1. Correct the valve face angle with a valve refacer.

Valve face angle	Service specification	Intake	1.0 rad 60°
		Exhaust	0.79 rad 45°

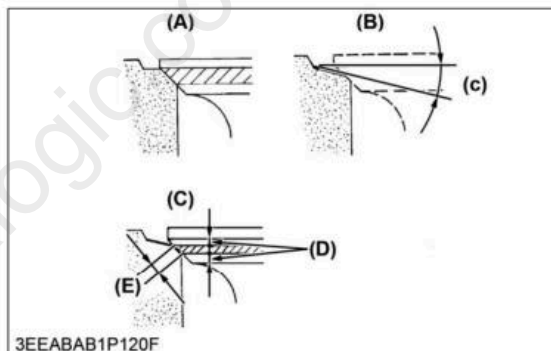
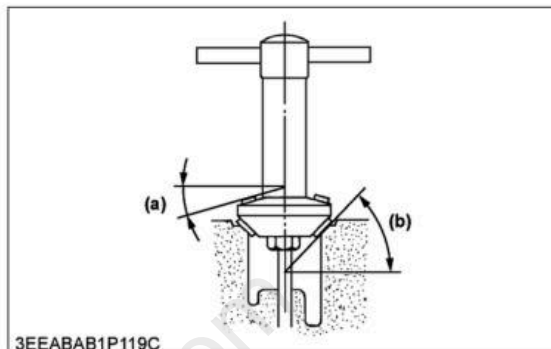


#### 4.6.1.9 Correcting valve seat

##### NOTE

- Before you correct the valve and valve seat, check the valve stem and measure the I.D. of the valve guide section. Repair them if necessary.
1. Slightly correct the seat surface with a valve cutter. Use 0.52 rad (30°) valve seat cutter for intake and 0.26 rad (15°) valve seat cutter for exhaust.
  2. Correct the seat surface with a valve seat cutter.

Valve seat angle	Service specification	Intake	1.0 rad 60°
		Exhaust	0.79 rad 45°



- (A) Check the contact  
 (B) Correct seat width  
 (C) Check the contact  
 (D) Identical dimensions  
 (E) Valve seat width  
 (a) 0.26 rad (15°) or 0.52 rad (30°)  
 (b) 0.79 rad (45°) or 1.0 rad (60°)  
 (c) 0.52 rad (30°) or 0.26 rad (15°)

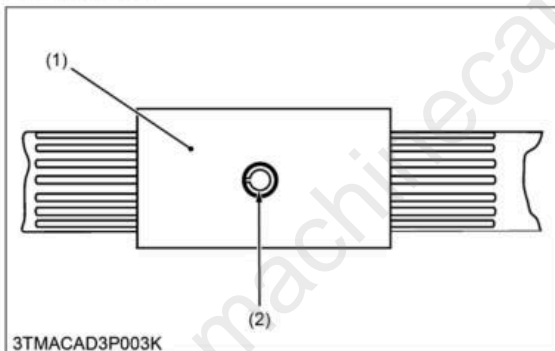
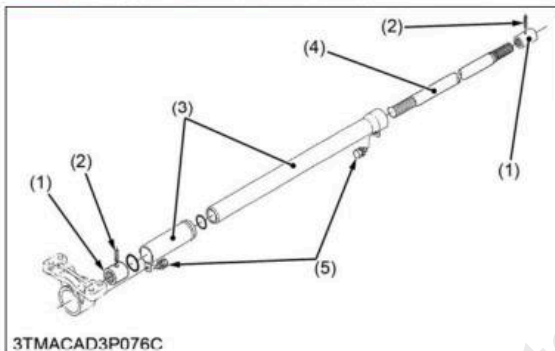
3. After you correct the seat, check that the valve seating is flat. Apply a thin layer of compound between the valve face and valve seat, and lap them with a valve lapping tool.
4. Check the valve seating with prussian blue. The valve seating surface must show good contact on all sides.

Valve seat width	Service specification	Intake	1.5 to 1.9 mm 0.059 to 0.074 in.
		Exhaust	2.0 to 2.3 mm 0.079 to 0.091 in.

##### NOTE

- After you correct the valve seat, be sure to check the valve recessing.

2. Tap out the roll pins (2) and then slide the couplings (1).



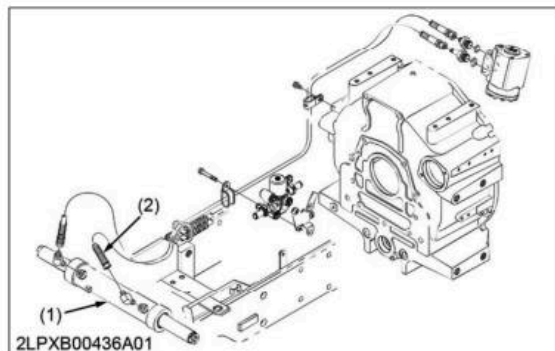
- (1) Coupling (4) Propeller shaft  
 (2) Roll pin (5) Screw  
 (3) Propeller shaft cover

**(When reassembling)**

- Apply the grease to the splines of couplings (1).
- Tap in the roll pins (2) as shown in the figure.

**5.2.4.3.2 Disconnecting power steering hose**

1. Disconnect both power steering hoses (2) from power steering cylinder (1).



- (1) Power steering cylinder (2) Power steering hose

**(When reassembling)**

- Connect the power steering hose with blue tape to the R.H.
- Tighten the power steering hose retaining nut to the specified tightening torque.

Tightening torque	Power steering hose retaining nut	22.6 to 27.5 N·m 2.3 to 2.8 kgf·m 16.7 to 20.3 lbf·ft
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**5.2.4.4 Bonnet and cover**

**5.2.4.4.1 Removing bonnet and cover (Cabin model)**

**■ IMPORTANT**

- When disconnecting the battery cables, disconnect the negative cable first. When connecting, connect the positive cable first.

1. Open the bonnet (1).
2. Remove the bonnet under cover (2), side cover (3) and side bonnet (4) on both side.



- (1) Bonnet (4) Side bonnet  
 (2) Bonnet under cover  
 (3) Side cover

- Be sure to assemble the cabin mount.
- Tighten the screws and the nuts to the specified tightening torque.

Tightening torque	Cabin mounting nut (M16, 7T)	176 to 203 N · m 18.0 to 20.7 kgf · m 129.8 to 149.7 lbf · ft
	Cabin mounting screw (M10, 9T)	54.7 to 63.5 N · m 5.6 to 6.5 kgf · m 40.1 to 46.8 lbf · ft
	Final gear case mounting screw and nut (M14, 9T)	150 to 176 N · m 15.3 to 18.0 kgf · m 110.6 to 129.8 lbf · ft
	Cylinder support nut	124 to 147 N · m 12.6 to 15.0 kgf · m 91.5 to 108.4 lbf · ft
	Cylinder support screw	167 to 196 N · m 17.0 to 20.0 kgf · m 123.2 to 144.6 lbf · ft

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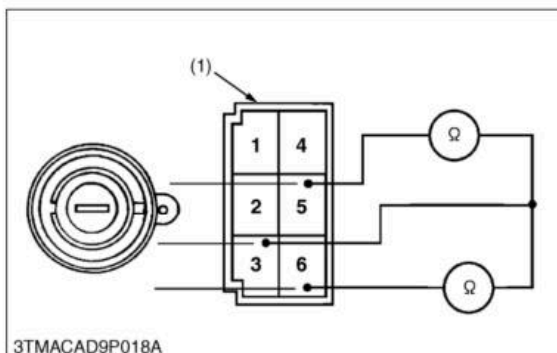
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[5.2.1.1.6 Removing crawler track on page 4-135](#)

[5.2.6.5 Removing crawler frame bracket on page 4-168](#)

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#### 4.3.1.2.4 Checking main switch at start position (Cabin model)

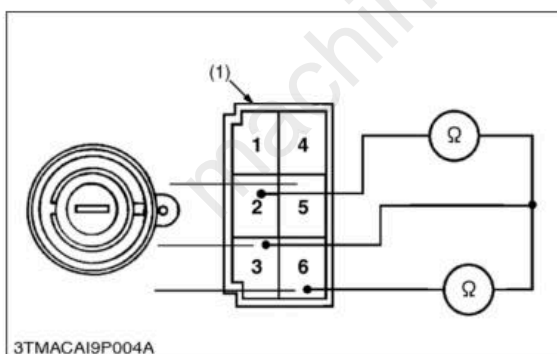


(1) Main switch connector

1. Turn and hold the main switch at the start position.
2. Measure the resistance with an ohmmeter across the terminal 5 and across terminal 3 and the terminal 6.
3. If 0 ohm is not indicated, these contacts of the main switch are damaged.

Resistance	Terminal 3 - Terminal 5	0 Ω
	Terminal 3 - Terminal 6	0 Ω

#### 4.3.1.2.5 Checking main switch at PREHEAT position (Cabin model)

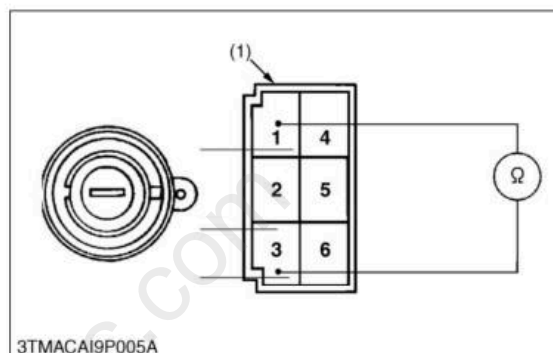


(1) Main switch connector

1. Turn and hold the main switch key at the PREHEAT position.
2. Measure the resistance with an ohmmeter across the terminal 3 and terminal 2, and the terminal 3 and the terminal 6.
3. If 0 ohm is not indicated, these contacts of the main switch are damaged.

Resistance	Terminal 3 - Terminal 2	0 Ω
	Terminal 3 - Terminal 6	0 Ω

#### 4.3.1.2.6 Checking main switch at ACC position (Cabin model)



(1) Main switch connector

1. Turn the main switch key at the ACC position.
2. Measure the resistance with an ohmmeter across the terminal 3 and the terminal 1.
3. If 0 ohm is not indicated, the contact of the main switch is damaged.

Resistance	Terminal 3 - Terminal 1	0 Ω
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# Full Version Available

Kubota M5N-111 Tractor Workshop Manual

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

[VIEW THE FULL MANUAL](https://machinecatalogic.com/kubota-m5n-111-tractor-workshop-manual/)

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