

WSM

WORKSHOP MANUAL
**TRACTOR, MOWER,
FRONT LOADER**

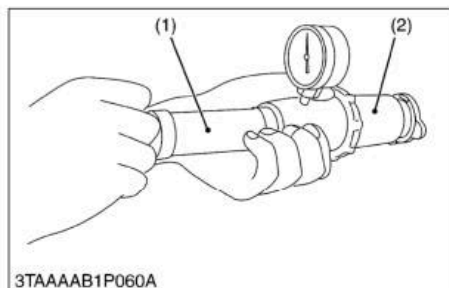
**BX1870, BX2370, BX2670,
RCK48-18BX, RCK54-23BX,
RCK60B-23BX,
RCK48P-18BX, RCK54P-23BX,
RCK54D-26BX, RCK60D-26BX,
LA203A, LA243A**

Kubota

CAUTION

- When removing the radiator cap, wait at least ten minutes after the engine has stopped and cooled down. Otherwise, hot water may gush out, scalding nearby people.

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Radiator Cap Air Leakage

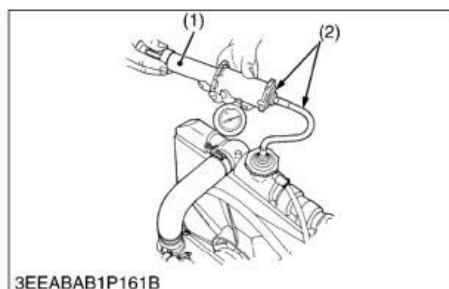
- Set a radiator tester (1) and an adaptor (2) on the radiator cap.
- Apply the specified pressure 88 kPa (0.90 kgf/cm², 13 psi), and measure the time for the pressure to fall to 59 kPa (0.60 kgf/cm², 8.5 psi).
- If the measurement is less than the factory specification, replace the radiator cap.

Pressure falling time	Factory specification	More than 10 seconds for pressure fall 88 → 59 kPa (0.90 → 0.60 kgf/cm ² , 13 → 8.5 psi)
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(1) Radiator Tester

(2) Adaptor

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Radiator Water Leakage

- Pour a specified amount of water into the radiator.
- Set a radiator tester (1) and an adaptor (2) and raise the water pressure to the specified pressure.
- Check the radiator for water leaks.
- For water leak from the pinhole, repair with the radiator cement. When water leak is excessive, replace the radiator.

Radiator water leakage test pressure	Factory specification	No leak at specified pressure
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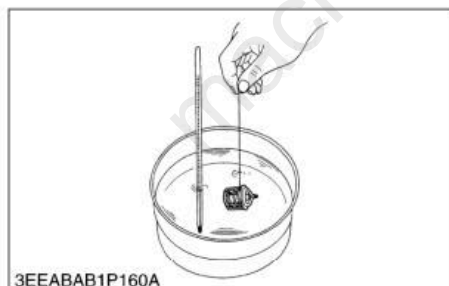
NOTE

- The pressure of the leak test is different from each radiator specification. Thus, do the leak test, refer to the test pressure of each radiator specification.

(1) Radiator Tester

(2) Adaptor

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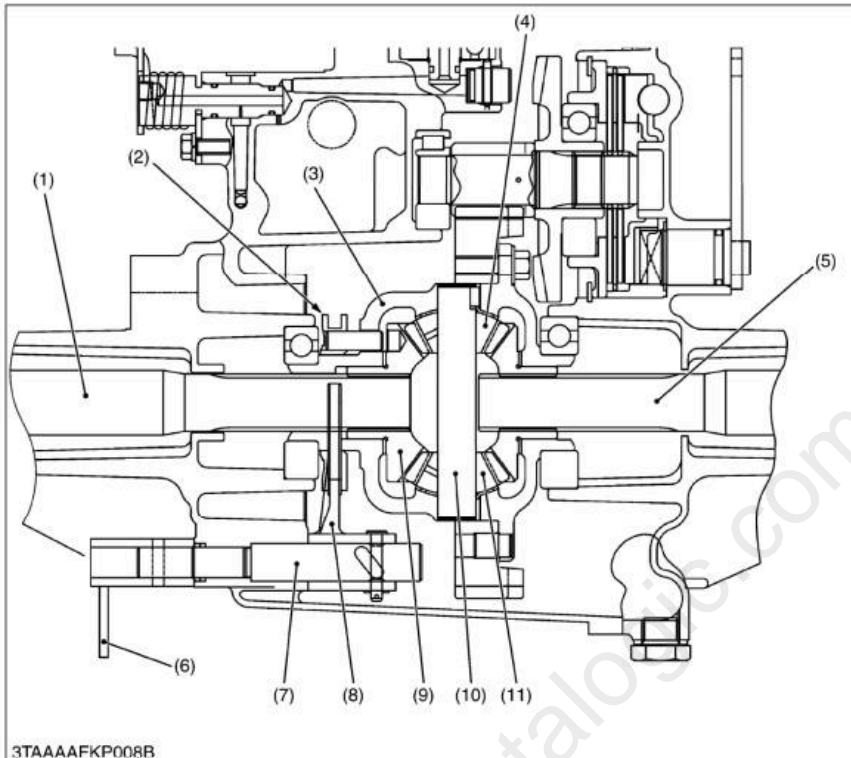
Thermostat Valve Opening Temperature

- Suspend the thermostat in the water by a string with its end inserted between the valve and seat.
- Heating the water gradually, read the temperature when the valve opens and leaves the string.
- Continue heating and read the temperature when the valve opens approx. 8 mm (0.3 in.).
- If the measurement is not within the factory specifications, replace the thermostat.

Thermostat's valve opening temperature	Factory specification	69.5 to 72.5 °C 157.1 to 162.5 °F
Temperature at which thermostat completely opens	Factory specification	85 °C 185 °F

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(2) Differential Lock



- (1) Rear Axle
- (2) Differential Lock Shifter
- (3) Differential Case
- (4) Differential Pinion
- (5) Rear Axle
- (6) Differential Lock Arm
- (7) Differential Lock Shaft
- (8) Differential Lock Shift Fork
- (9) Differential Side Gear
- (10) Differential Pinion Shaft
- (11) Differential Pinion

3TAAAFKP008B

When resistance to the right and left tires are greatly different due to ground conditions or type of work, the tire with less resistance slips and prevents the tractor from moving ahead. To compensate for this drawback, the differential lock restricts the differential action and causes both rear axles to rotate as a unit.

When the differential lock pedal is stepped on, it causes the differential lock arm (6) and differential lock shaft (7) to rotate, which will move the differential lock shift fork (8) and the differential lock shifter (2) toward the differential side gear (9). The pins on the differential lock shifter (2) go into the holes in the differential case (3) to cause the differential case (3), differential lock shifter (2) and differential side gear (9) to rotate as a unit.

Therefore, differential pinions (4), (11) are unable to rotate around differential pinion shaft (10) and identical revolutions are transmitted to the right and left rear axle (1), (5).

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66T Final Gear

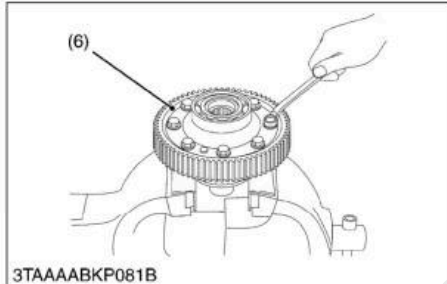
1. Remove the bearing (2) with a puller.
2. Remove the bearing (4) with a puller.
3. Remove the differential lock shifter (5) and 66T final gear (6).
4. Put parting marks on the differential pinions (12), (16) and the differential side gears (9), (14).
5. Tap out the differential pinion shaft (8).
6. Remove the differential pinions (12), (16), the differential pinion washers (13), (17), differential side gears (9), (14) and the differential side gear washers (10), (15).



(When reassembling)

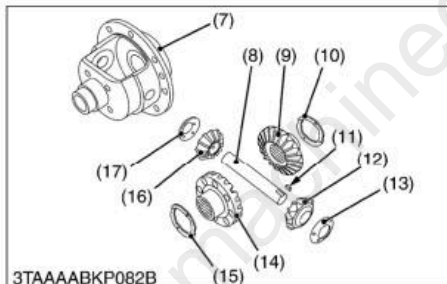
- Install the differential pinion and differential gear, aligning the parting marks.
- Lock the differential pinion shaft (8) by setting the key (11).

Tightening torque	66T final gear mounting bolt	61 to 70 N·m 6.2 to 7.2 kgf·m 45 to 52 lbf·ft
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|----------------------------------|------------------------------------|
| (1) 66T Final Gear | (10) Differential Side Gear Washer |
| (2) Bearing | (11) Key |
| (3) Differential Lock Shift Folk | (12) Differential Pinion |
| (4) Bearing | (13) Differential Pinion Washer |
| (5) Differential Lock Shifter | (14) Differential Side Gear |
| (6) 66T Final Gear | (15) Differential Side Gear Washer |
| (7) Differential Case | (16) Differential Pinion |
| (8) Differential Pinion Shaft | (17) Differential Pinion Washer |
| (9) Differential Side Gear | |

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OPERATOR PRESENCE CONTROL (OPC)

Symptom	Probable Cause	Solution	Reference Page
Engine Does Not Stop	Solenoid fuse blown (15 A)	Replace	G-41
	Engine stop solenoid relay damaged	Replace	6-S16
	Engine stop solenoid damaged	Replace	6-S16
	PTO shift lever switch damaged	Adjust or replace	6-S12
	HST pedal switch damaged	Adjust or replace	6-S13
	Wiring harness disconnected or improperly connected (between key stop solenoid relay and engine stop solenoid, between engine stop solenoid relay and battery positive terminal)	Repair or replace	–
Starter Motor Does Not Operate	Solenoid fuse blown (15 A)	Replace	G-41
	Engine stop solenoid damaged	Replace	6-S16
	Engine stop solenoid relay damaged	Replace	6-S16
	Seat switch or seat turn over switch damaged	Adjust or replace	6-S14
	PTO shift lever switch damaged	Adjust or replace	6-S12
	HST pedal switch damaged	Adjust or replace	6-S13
	Wiring harness disconnected or improperly connected (between key stop solenoid relay and engine stop solenoid, between engine stop solenoid relay and battery positive terminal)	Repair or replace	–
Engine Stops When HST Pedal Is Pushed in Forward or in Reverse	Wrong wiring of seat switch and seat turn over switch	Proper wiring	–
Engine Suddenly Stops	Seat reverse switch	Adjust the switch position	6-S14

CHARGING SYSTEM

Symptom	Probable Cause	Solution	Reference Page
Charging Lamp Does Not Light when Main Switch Is Turned ON	Fuse blown (15 A)	Replace	G-41
	Wiring harness disconnected or improperly connected (between main switch AC terminal and panel board, between panel board and dynamo)	Repair or replace	–
	Alternator damaged	Repair or replace	6-S28
	IC regulator damaged	Replace	–
Charging Lamp Does Not Go Off When Engine Is Running	Wiring harness disconnected or improperly connected (between main switch 30 terminal and dynamo, between panel board and dynamo)	Repair or replace	–
	Alternator damaged	Repair or replace	6-S28
	IC regulator damaged	Replace	–

Full Version Available

Kubota BX1870 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-bx1870-tractor-workshop-manual/>