INTRODUCTION

This Workshop Manual is composed of three sections.

■ **First section**
Servicing information for the F2000 Kubota front mower.

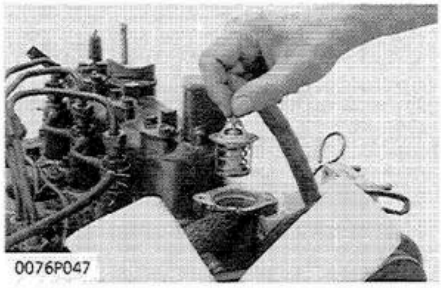
■ **Second section**
Servicing information for the F2000-II and F2400 Kubota front mowers. Please note, however, that the servicing information for the F2000 which applies also to the F2000-II and F2400 is not repeated in this section.

■ **Third section**
Servicing information for the F2400B Kubota front mowers. Please note, however, that the servicing information for the F2400 which applies also to the F2400B is not repeated in this section.

Please make full use of this workshop manual to service Kubota front mowers and ensure your customers' complete satisfaction

April. '91

[8] THERMOSTAT, WATER PUMP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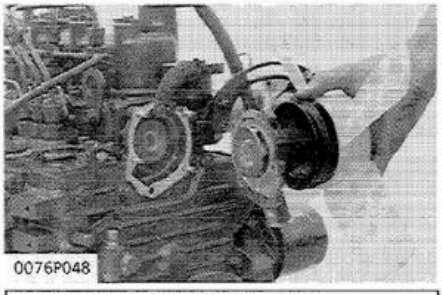
Thermostat

1. Remove the thermostat cover.
2. Remove the thermostat.

(When reassembling)

- Apply a non-drying adhesive only at the thermostat cover side of the gasket.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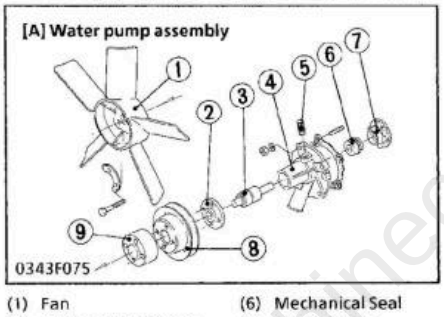
Water Pump

1. Remove the water pump from gear case cover.
2. Remove the fan and fan pulley.

■ IMPORTANT

- **If changing the water pump, change the whole one (Code No: 15531-7303-1)**
- **If disassembling the water pump, check to see the clearance between the water pump impeller and body.**

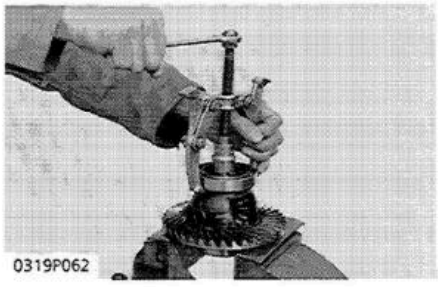


(1) Fan
(2) Water Pump Flange
(3) Ball Bearing
(4) Water Pump Body
(5) Return Pipe
(6) Mechanical Seal
(7) Water Pump Impeller
(8) Fan Pulley
(9) Fan Collar

DISASSEMBLING AND SERVICING

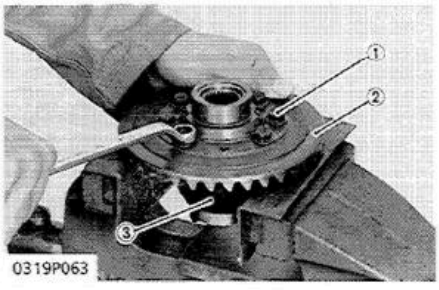
[1] DIFFERENTIAL GEAR

DISASSEMBLING AND ASSEMBLING



Bearing

1. Secure the differential case in a vice.
2. Remove the left and right bearings.



(1) Ring Gear Mounting Screw
(2) Ring Gear
(3) Differential Case

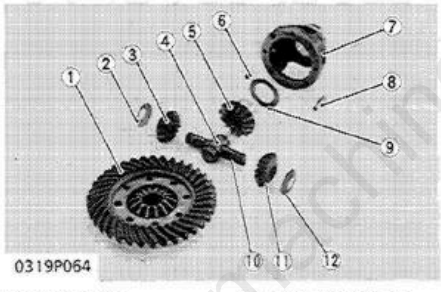
Ring Gear

1. Remove the ring gear mounting screws (1).
2. remove the ring gear (2) from the differential case (3).

(When reassembling)

- Apply liquid lock to the ring gear mounting screws.

Tightening torque	Ring gear mounting screw	29.4 to 34.3 N·m 3.0 to 3.5 kgf·m 21.7 to 25.3 ft-lbs



(1) Ring Gear
(2) Differential Pinion Collar
(3) Differential Pinion
(4) Differential Thrust Collar
(5) Differential Side Gear
(6) Dowel Pin
(7) Differential Case
(8) Straight Pin
(9) Shim
(10) Differential Pinion Shaft
(11) Differential Pinion
(12) Differential pinion Collar

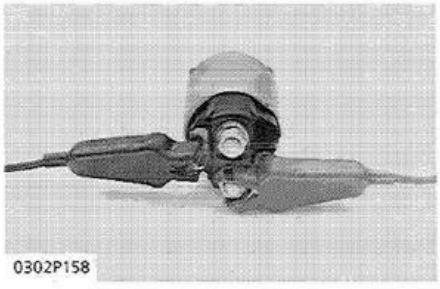
Differential Side Gear and Differential Pinion

1. Put parting marks on the differential pinion and differential side gear.
2. Tap out the straight pin (8) and remove the differential pinion shaft (10).
3. Remove the differential pinion (3), (11), differential pinion collar (2), (12), differential side gear (5), shim (9) and differential thrust collar (4).

(When reassembling)

- Install the differential pinion and differential side gear, aligning the parting marks.

SERVICING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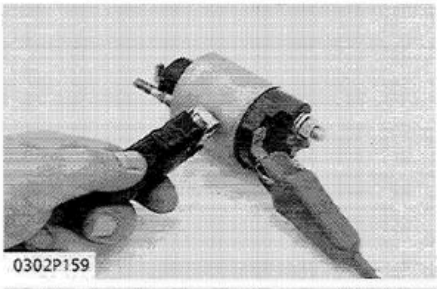
Magnet Switch

1) Pull-In Coil (Attraction Test)

1. Apply 1/2 of the rated voltage (approx. 6V) across the S terminal and C terminal.
2. If the plunger is attracted strongly, the pull-in coil is good, if not, it is defective.

Factory spec.	The plunger should be attracted strongly.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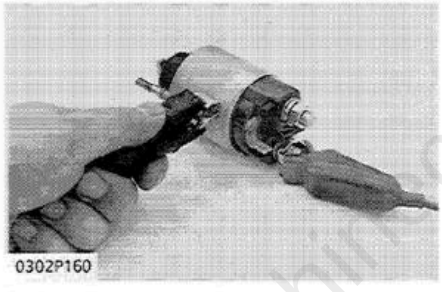
2) Holding Coil (Retention Test)

1. Apply 1/2 of the rated voltage (approx. 6V) across the S terminal and the body, push the plunger in by hand, and then release it.
2. If the plunger stays attracted, the holding coil is good, if not, it is defective.

Factory spec.	The plunger remains attracted.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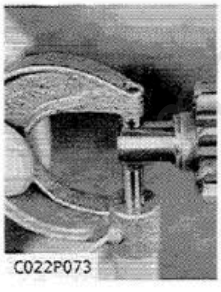
3) Plunger Return Stroke

1. Apply the rated voltage (approx. 12V) between C terminal and the body. Push the plunger in by hand, then release the hand.
2. If the plunger returns immediately, it is good, if not, it is defective.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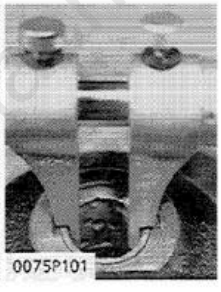
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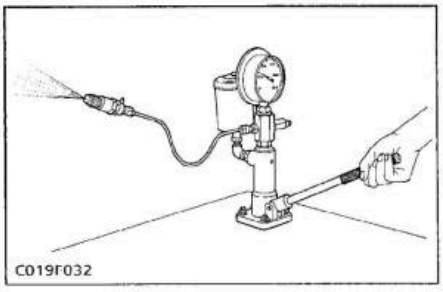
Clearance between Shaft and Bushing

1. Measure the bushing I.D. on the drive side and the commutator side.
2. Measure the shaft O.D. on the drive side and the commutator side, and calculate the clearance.
3. If the clearance exceeds the allowable limit, replace the bushing.

Clearance between shaft and bushing	Factory spec. (Commutator side)	0.03 to 0.10 mm 0.0012 to 0.0039 in.
	(Drive side)	0.05 to 0.10 mm 0.0020 to 0.0039 in.
Shaft O.D.	Factory spec.	12.5 mm 0.4921 in.
Drive bushing I.D.	Factory spec.	12.55 to 12.60 mm 0.4941 to 0.4961 in.
Commutator bushing I.D.	Factory spec.	12.53 to 12.60 mm 0.4933 to 0.4961 in.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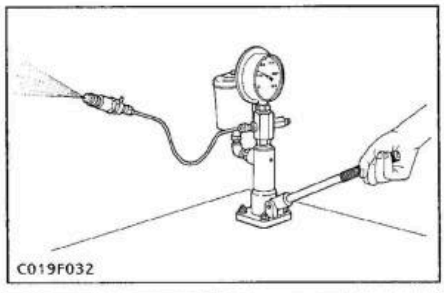
Opening Pressure of Nozzle

1. Set a nozzle to a nozzle tester.
2. Move the tester handle up and down to prime fuel. Measure the pressure of fuel jetting from the nozzle tip.
3. If the measurement is not within the factory specification, adjust with the adjustment washer inside the nozzle holder. Each extra 0.1 mm (0.0039 in.) of washer thickness causes an approximate 1275 kPa (13 kgf/cm², 184.9 psi) increase in fuel injection pressure.

⚠ CAUTION

- **Be careful not to come into direct contact with the injected fumes.**
  The fumes destroy any cells they may touch. They may also cause blood poisoning.

Opening pressure of nozzle	Factory spec.	13.7 to 14.7 MPa 140 to 150 kgf/cm² 1990 to 2133 psi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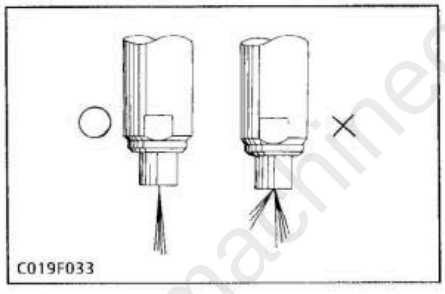
Fuel Tightness of Nozzle Valve Seat

1. Set a nozzle to a nozzle tester.
2. Apply a pressure 12.7 MPa (130 kgf/cm², 1848.6 psi).
3. After keeping the nozzle under this pressure for 10 seconds, check to see if fuel leaks from the nozzle valve seat.
4. If fuel should leak, replace the nozzle piece.

Factory spec.
When the pressure is 12.7 MPa (130 kgf/cm², 1848.6 psi), the valve seat must be oil-tight.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Shape of Fumes Across Nozzle Tip

1. Set the nozzle to a nozzle tester and shoot it in the air. Check the shape of the fumes.
2. If the shape is defective, replace the nozzle piece.

Full Version Available

Kubota F2000 Front Mower Workshop Manual

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