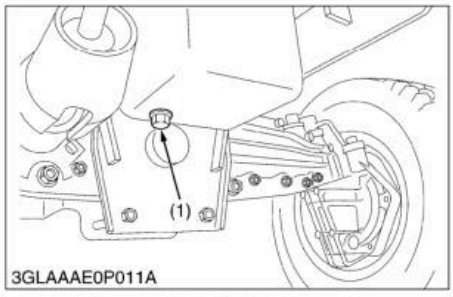
WSM

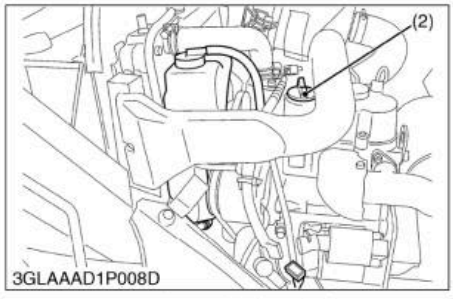
WORKSHOP MANUAL

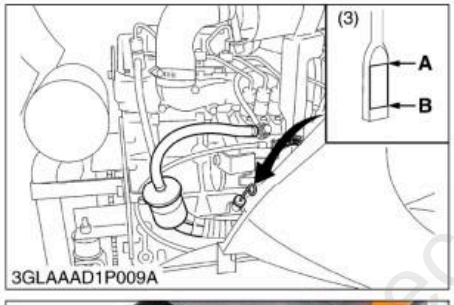
GR2110

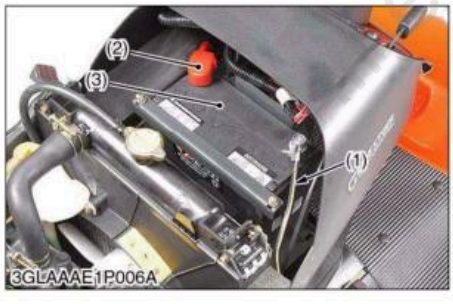
Kubota

KiSC issued 04, 2010 A









Draining Engine Oil

1. Start and warm up the engine for approx. 5 minutes.
2. Place an oil pan underneath the engine.
3. Remove the drain plug (1) to drain oil.
4. After draining, screw in the drain plug (1).

(When refilling)

- Fill the engine oil up to the upper line on the dipstick (3).

■ **IMPORTANT**

- **Never mix two different type of oil.**
- **Use the proper SAE Engine Oil according to ambient temperature.**
  Refer to "4. LUBRICANTS, FUEL AND COOLANT" at "G. GENERAL" section.

Engine Oil	Capacity	2.8 L 2.96 U.S.qts 2.46 Imp.qts

(1) Drain Plug
(2) Oil Inlet
(3) Dipstick

A : Upper Level
B : Lower Level

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Battery

CAUTION

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

1. Open the bonnet.
2. Remove the radiator net.
3. Disconnect the negative cable (1) from the battery.
4. Disconnect the positive cable (2) from the battery and remove the battery (3).

(1) Negative Cable
(2) Positive Cable
(3) Battery

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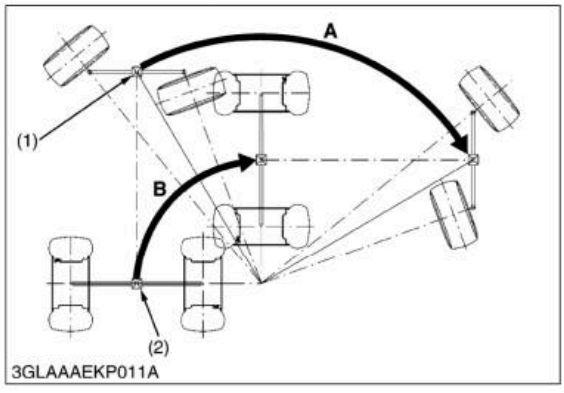
The following paragraphs describe how the machines equipped with normal 4WD and the Glide Steer turn.



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■ For Normal 4WD

The machine with four wheels has a wheel base.

Because of this, turning the machine creates a difference in the length of tracks made by the differential gears in the front axle and in the rear axle.

Assuming that the average speeds of the right and left front wheels and of the right and left rear wheels are equal to those of the differential gears in the frontaxle and in the rear axle, respectively.

Also assuming that the speeds of the differential gears in the front axle and in the rear axle are the same, the right and left rear wheels will free-spin by the difference in the length of tracks, causing damage to turf.

A large steering angle of the front axle results in a shorter turning radius of the machine. But a larger steering angle makes an even larger difference in the length of tracks made by differential gears in the front axle and in the rear axle.

Therefore, on a minimum turn, the right and left rear wheels will have more free-spins, causing greater damage to turf.

(1) Differential Gear (Front)
(2) Differential Gear (Rear)

A : Track made by Differential Gear (Front)
B : Track made by Differential Gear (Rear)

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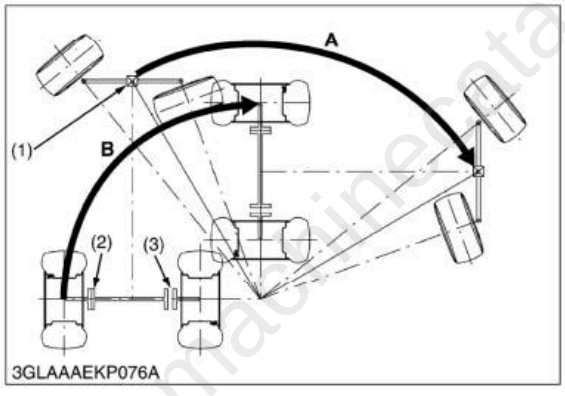

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■ For Glide Steer System

In the Glide Steer system, driving power is transmitted only to the right and left front wheels and the rear wheel on the outside of the turn. The rear wheel on the inside of the turn does not receive driving power.

Assuming that the speeds of the differential gear in the front axle and of the rear wheel on the outside of the turn are the same.

At this time, even with a larger steering angle of the front axle, the difference in the length of tracks made by the differential gear in the front axle and the rear wheel on the outside of the turn is smaller than 4WD.

Therefore, on a minimum turn, the right and left rear wheels will have fewer free-spins, thus providing a turn-friendly mechanism.

(1) Differential Gear (Front)
(2) Steering Clutch (Engaged)
(3) Steering Clutch (Disengaged)

A : Track made by Differential Gear (Front)
B : Track made by Rear Wheel on Outside of Turn

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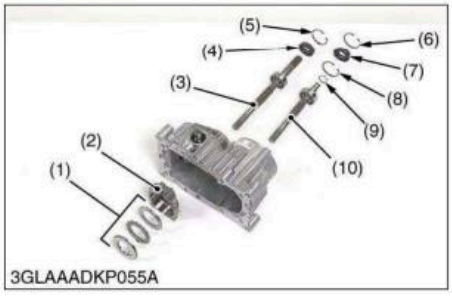

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Swashplate, Pump Shaft and Motor Shaft

1. Remove the swashplate (2) and thrust ball bearing (1) from the HST housing.
2. Remove the internal snap ring (5), and tap out the pump shaft (3) and oil seal (4).
3. Remove the internal snap ring (6) and the oil seal (7).
4. Remove the internal snap ring (8), and tap out the motor shaft (10).

■ **NOTE**

- **When removing the oil seal (7), take care not to damage the HST housing.**

(When reassembling)

- Apply clean transmission oil to thrust ball bearing (1).

(1) Thrust Ball Bearing
(2) Swashplate
(3) Pump Shaft
(4) Oil Seal
(5) Internal Snap Ring
(6) Internal Snap Ring
(7) Oil Seal
(8) Internal Snap Ring
(9) External Snap Ring
(10) Motor Shaft

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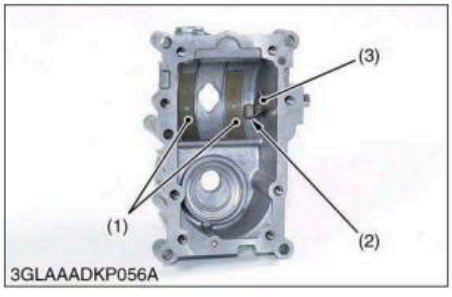

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Cradle Bearing, Slot Guide and Trunnion Arm

1. Remove the slot guide (2) and trunnion arm (3).
2. Remove the cradle bearings (1) from the HST housing.

(When reassembling)

- Apply clean transmission oil to the cradle bearings (1) and trunnion arm.
- Fasten down the cradle bearing to the HST housing.

(1) Cradle Bearing
(2) Slot Guide
(3) Trunnion Arm

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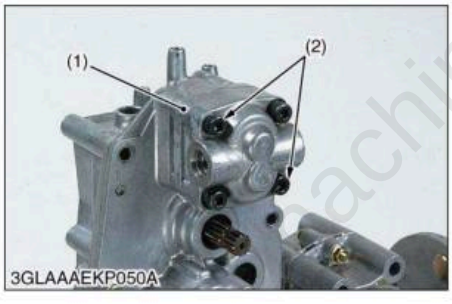
(2) Transaxle Case



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Hydraulic Pump

1. Unscrew the hydraulic pump mounting screws (2).
2. Remove the hydraulic pump (1).

(When reassembling)

Tightening torque	Hydraulic pump mounting screw	17.7 to 20.6 N·m 1.8 to 2.1 kgf·m 13.1 to 15.2 lbf·ft

(1) Hydraulic Pump
(2) Hydraulic Pump Mounting Screw

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2. SERVICING SPECIFICATIONS

Item		Factory Specification	Allowable Limit
Main Relief Valve	Setting Pressure	9.5 to 11.0 MPa 97 to 112 kgf/cm^2 1378 to 1595 psi	–

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Full Version Available

Kubota GR2110 Lawn Tractor Workshop Manual

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