WSM

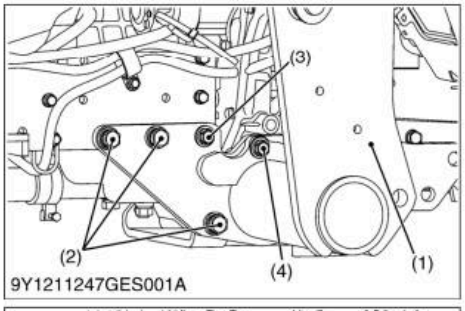
WORKSHOP MANUAL
FRONT LOADER

LA434AU

Kubota

KiSC issued 11, 2015 A

[3] CHECK POINTS OF EVERY 50 HOURS



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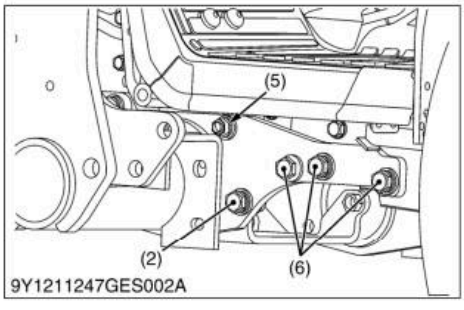

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Checking Main Frame Mounting Bolts and Nuts Torque

CAUTION
- **Never operate front loader with a loose main frame.**
- **Any time bolts and nuts are loosened, retighten to specified torque.**
- **Check all bolts and nuts frequently and keep them tight.**

1. Check the main frame bolts and nuts regularly especially when new. If they are loose, tighten them as follows.

Tightening torque	Main frame mounting bolt (2), (6)	150 N·m 15.1 kgf·m 110 lbf·ft
	Main frame mounting bolt and nut (3), (5)	90 N·m 9.2 kgf·m 66.5 lbf·ft
	Main frame mounting bolt (4)	80 N·m 8.1 kgf·m 59 lbf·ft

(1) Main Frame
(2) Bolt (M14)
(3) Bolt (M12, Pitch 1.75)
(4) Bolt (M12)
(5) Nut (M12)
(6) Bolt (M14)

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[4] CHECK POINTS OF AFTER 20 to 30 HOURS of INITAL LOADER OPERATION

After 20 to 30 hours of initial loader operation, re-tighten all mounting bolts and nuts to the required torque value.

Tightening torque	Main frame (Front axle frame)	M14 bolts	150 N·m 15.3 kgf·m 111 lbf·ft
		M12 bolts (Pitch 1.75)	80.0 N·m 8.2 kgf·m 59.0 lbf·ft
	Main frame (Clutch housing)	M12 bolts (Pitch 1.75)	80.0 N·m 8.2 kgf·m 59.0 lbf·ft
	Main frame (Center frame)	M14 bolts	150 N·m 15.3 kgf·m 111 lbf·ft

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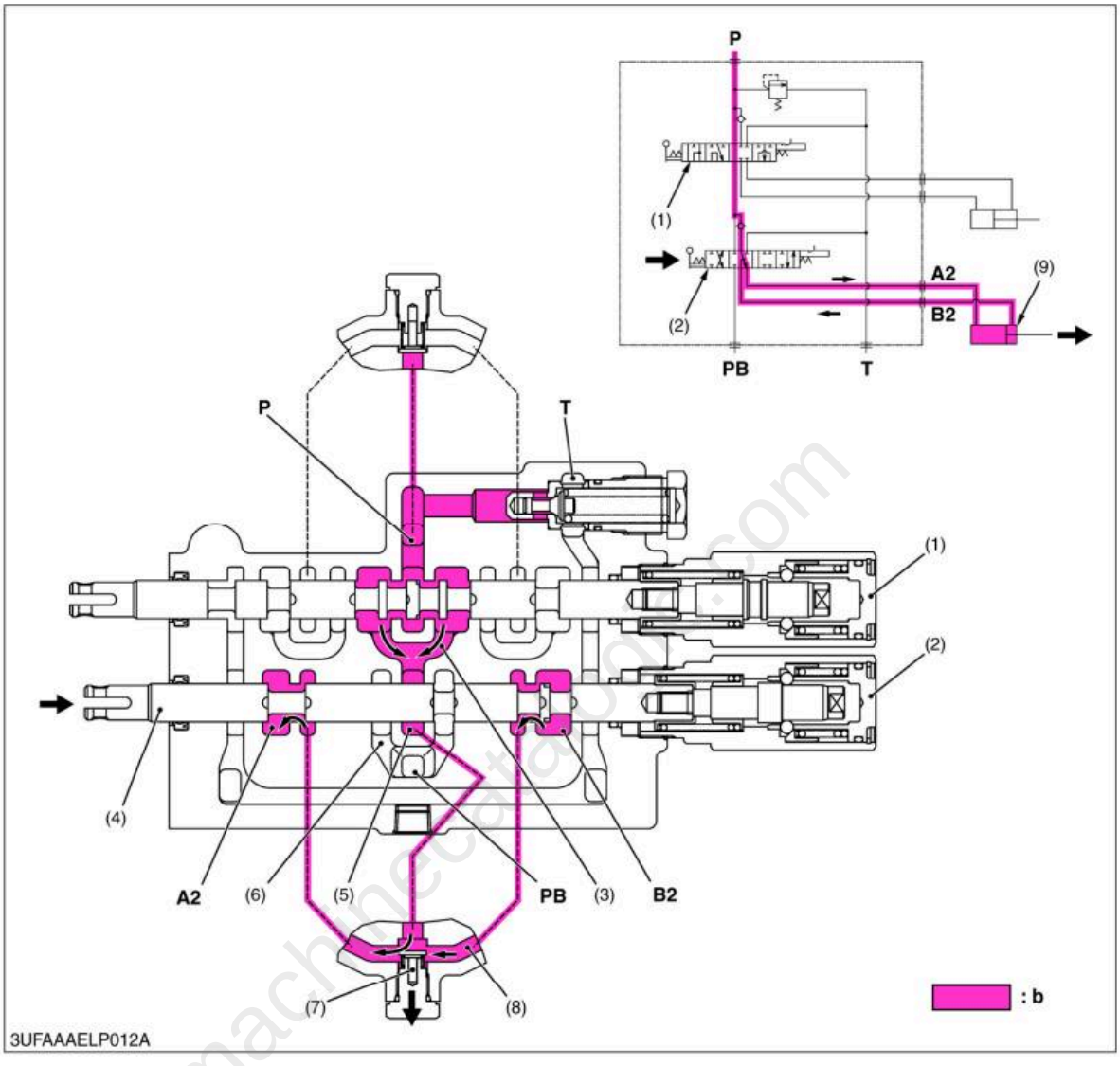
Control Lever at "DUMP 1" Position



(1) Boom Control Section
(2) Bucket Control Section
(3) **PB** Passage 1
(4) Spool
(5) Neutral Passage 2
(6) **PB** Passage 2
(7) Load Check Valve
(8) Passage 2
(9) Bucket Cylinder

P: **P Port**
T: **T Port**
PB: **PB Port**
A2: **A2 Port (To Bucket Cylinder)**
B2: **B2 Port (From Bucket Cylinder)**
b: **High Pressure**

1. When the hydraulic control lever is set to the **"DUMP 1"** position, the spool (4), which forms oil passages among passage 2 (8), **A2** port and **B2** port.
2. The pressure-fed oil from the **P** port flows through the boom control valve, opens the load check valve, and flows to the bucket cylinder to extend the cylinder through the notched section of the spool and **A2** port.
3. Return oil from the bucket cylinder (9) flows from the **B2** port to the passage 2 (8), and flows to the **A2** port together with the pressure-fed oil from the **P** port.
   As a result, the dump speed is increased.

(Reference)

- The oil pressure of the **A2** port and **B2** port is identical, but the bucket cylinder extend by the difference of received pressure area (cylinder rod part).

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(Continued)

And then, the spill guard valve (9) restricts the bucket's roll back movement. The spill guard valve mechanism is explained at the "[3] SPILL GUARD VALVE" in this section.

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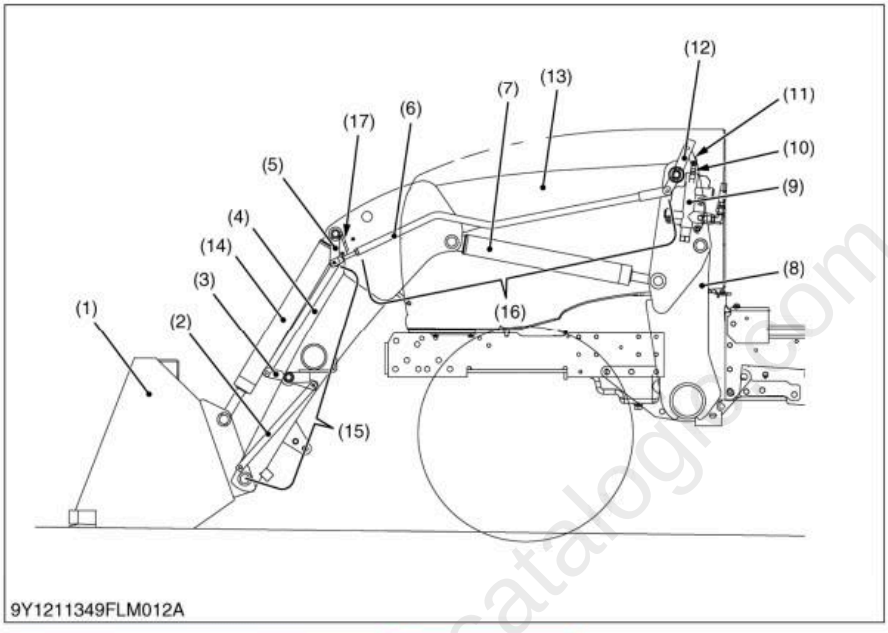
[2] OPERATION

(1) When Bucket is Set on the Ground



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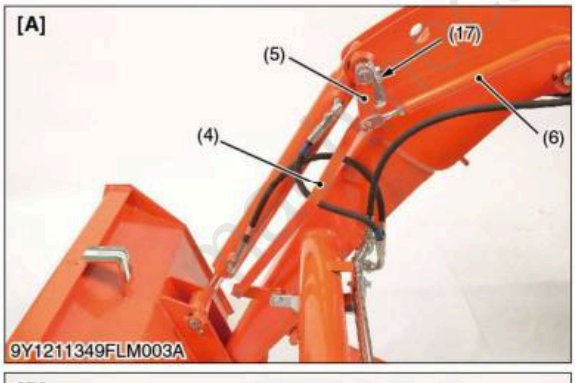
(1) Bucket
(2) Link 8
(3) Link 7
(4) Connecting Link1
(5) Link
(6) Spill Guard Rod
(7) Boom Cylinder
(8) Side Frame (RH)
(9) Spill Guard Valve
(10) Spool
(11) Link 2
(12) Link 1
(13) Loader Frame
(14) Bucket Cylinder
(15) First Linkage
(16) Second Linkage
(17) Stopper

[A] View at Inside of Front Loader Side Frame (RH)
[B] View at Inside of Front Loader Side Frame (RH)
C: Clearance
[D] View at Front Side (RH)
S: Stroke 0 mm (0 in.)



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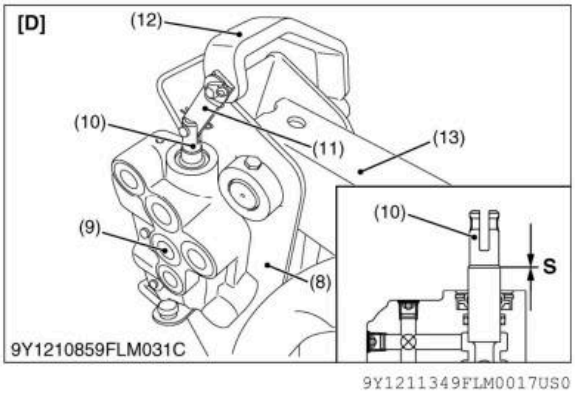
When lowering the bucket on a flat ground, there is clearance between the link (5) and the stopper and the stopper (17) does not push the link (5).

Since the spool is not pushed by the link 1 (12) connected by the spill guard rod (6), the spool (10) is kept at **"NEUTRAL"** and the spill guard control valve does not deliver the pressured oil to the bucket cylinder (14).



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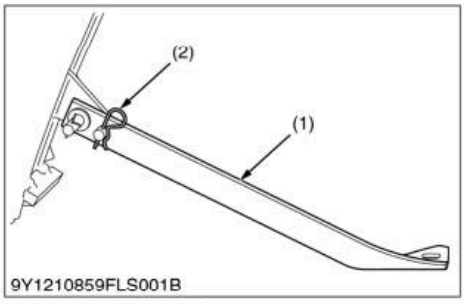
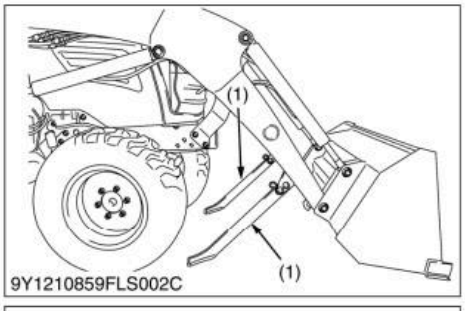
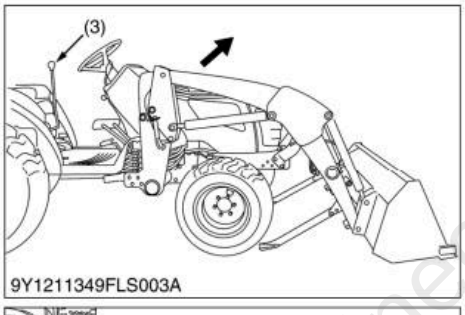
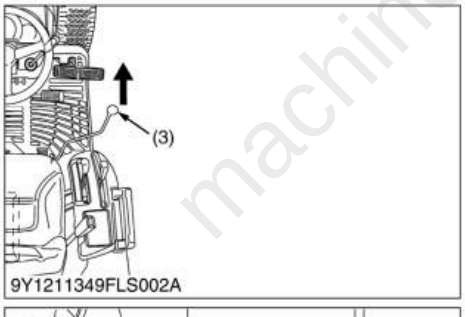
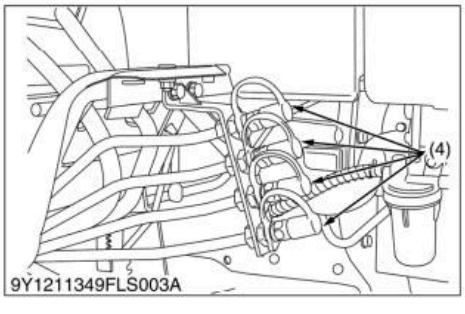
4. REMOVING FRONT LOADER FROM TRACTOR











⚠ WARNING

To avoid serious injury:

- **Make sure an approved bucket is attached before removing the loader from the tractor.**
- **For removing the loader, choose flat and hard ground, preferably concrete.**
- **If the ground surface is soft, place suitable planks on the ground for the bucket and stands.**
- **Before starting the engine or using the hydraulic control valve, always sit in the operator's seat.**
- **Make sure the bucket and stands are at ground level.**

1. Raise the boom until the stands (1) can be rotated.
2. Stop the engine.
3. Remove the spring pins (2) holding the stands (1) to the boom.
4. Slide the stands leftward and rotate them until the hole in the stand and pin on the boom are aligned. Then slide the stands rightward and insert the spring pins (2) as shown.
5. Start the engine and run at idle.
6. Dump the bucket approximately 20 degrees.
7. Lower the boom and raise the front wheels slightly.
8. Stop the engine.
9. Remove the mounting pins from the loader main frame and store them on boom.
10. Start the engine and run at idle. Slowly move the hydraulic control lever (3) to rollback position to raise the loader side frames up and out of the receivers of the main frames as shown.
11. Stop the engine.
12. Slowly release all hydraulic pressure by moving the hydraulic control lever (3) in all directions.
13. Disconnect the 4 hoses with quick couplers at the control valve.
14. Place the protective caps (4) and plugs on the quick coupler ends.
15. Start the engine and slowly back the tractor away from the loader.

■ IMPORTANT

- **Lift the weight off the front wheels with the bucket. Do not attempt to lift them with the stands.**

■ NOTE

Make sure:

- **The hoses are out of contact with the front wheel.**
- **Dirt does not come in contact with the couplers, and there is no oil leakage.**

(1) Stand
(2) Spring Pin
(3) Hydraulic Control Lever
(4) Protective Caps

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