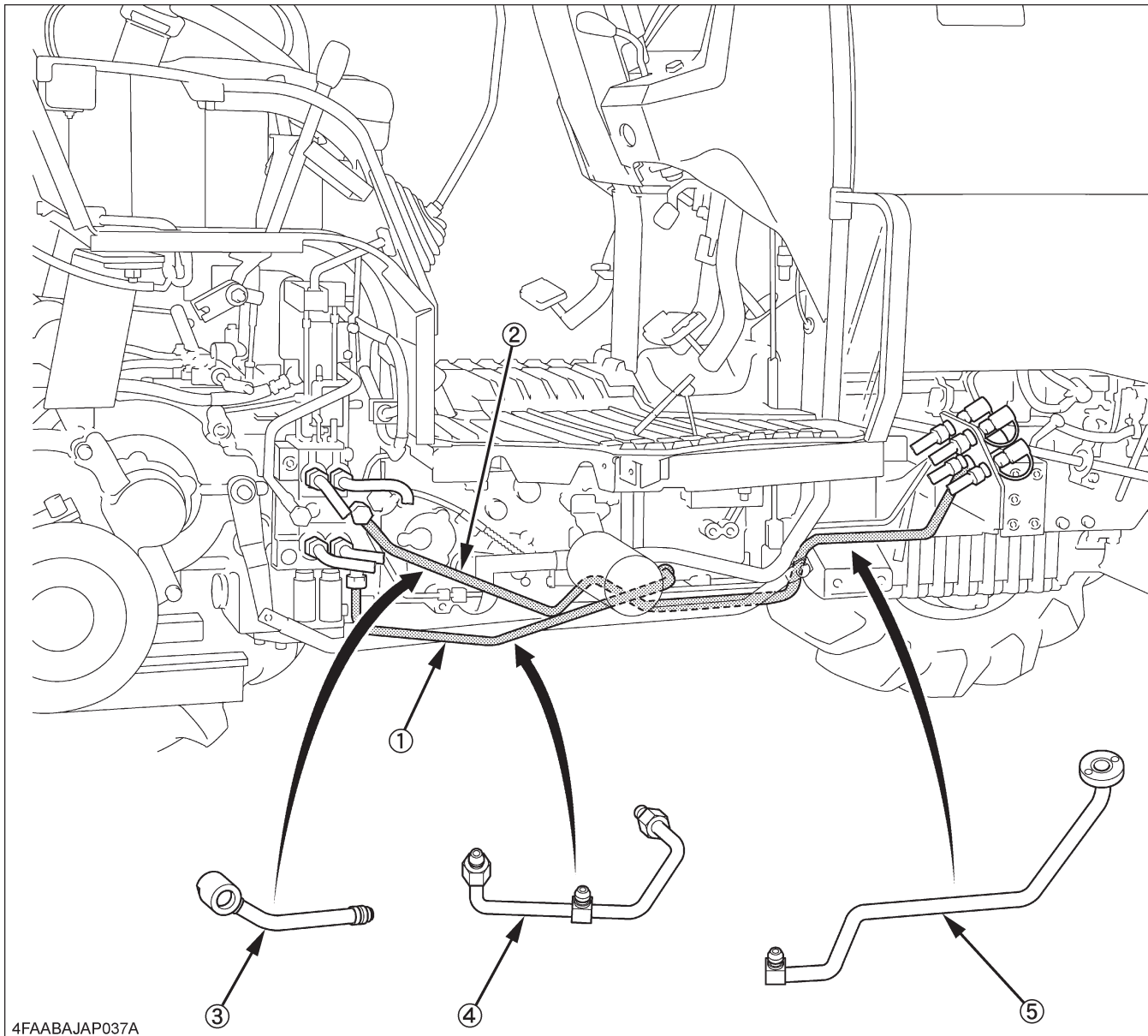


3RD FUNCTION (OPTION)

Here are the procedures that are related to assemble the 3rd function kit.

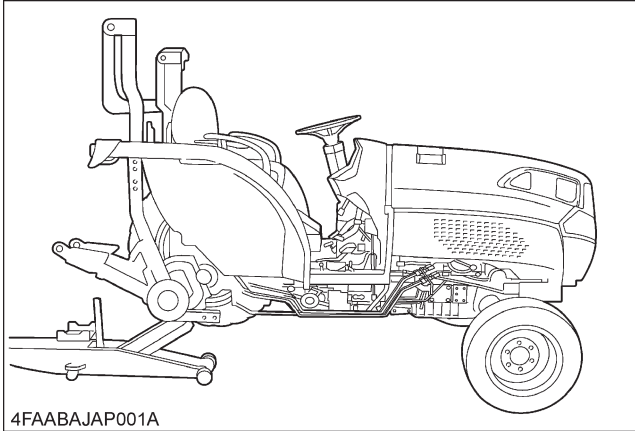
1. Removing the valve tank tube and inlet tube from the tractor.
2. Fitting the accompanying inlet 3rd tube, tank tube and power beyond tube to the tractor.
3. Connecting the tubes and hoses with the hydraulic valve.



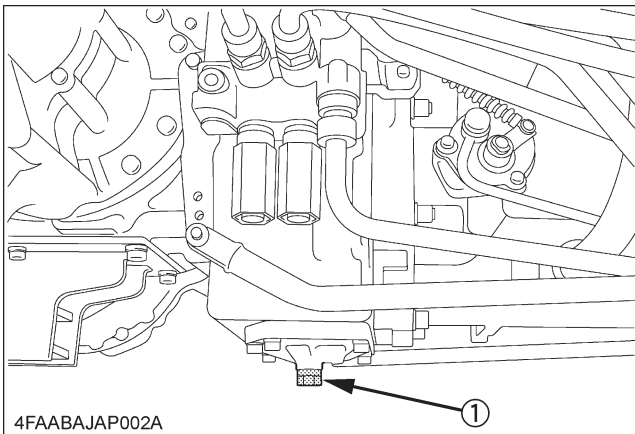
- 4FAABAJAP037A
- (1) Valve tank tube
 - (2) Inlet tube
 - (3) Power beyond tube
 - (4) Tank tube
 - (5) Inlet 3rd tube

■ Inlet Tube Disassembly

1. Remove the rear tire RH and fender RH. Remove also the front loader main frame and sub frame, the backhoe frame and other members, if attached in place.

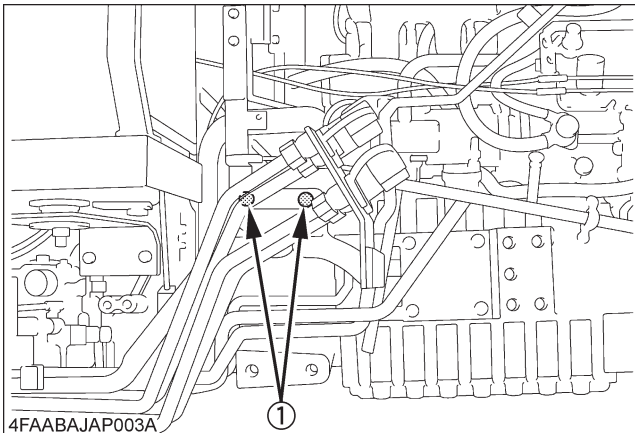


2. Drain the oil completely from the drain plug.



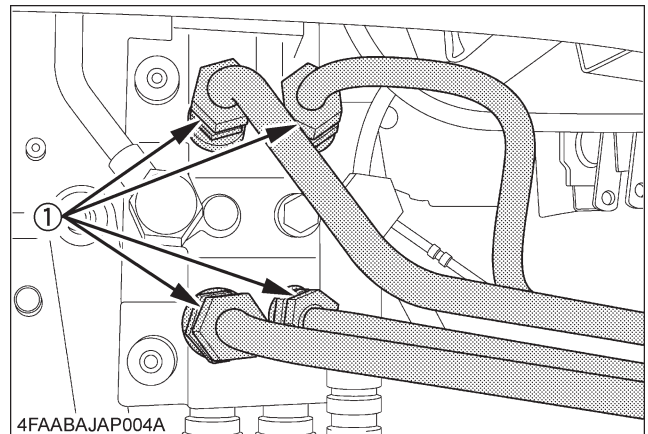
(1) Drain plug

3. Remove the coupler stay mounting bolts.



(1) 2-M16 bolts

4. Loosen the valve tubes.

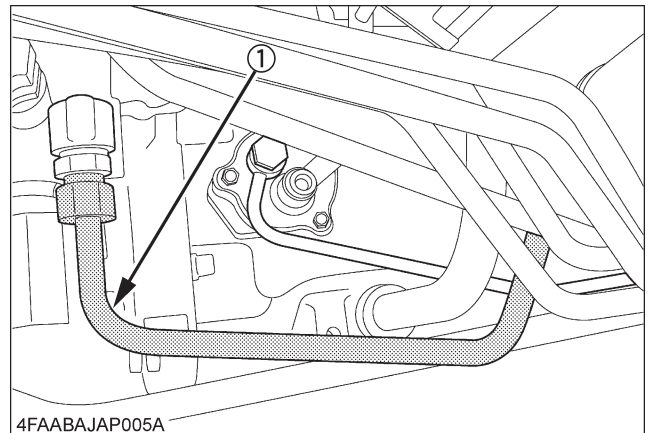


(1) 4-Valve tubes

5. Disconnect the valve tank tube.

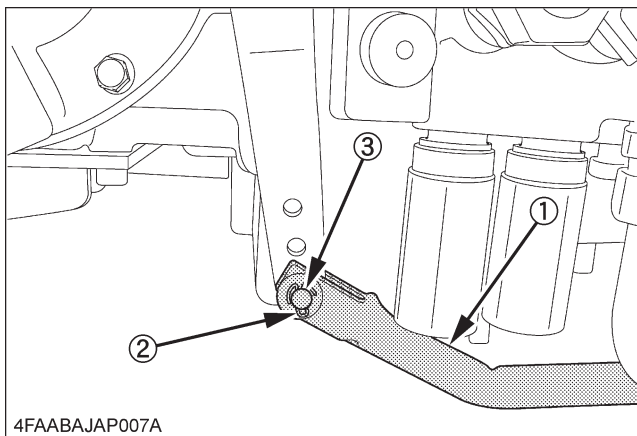
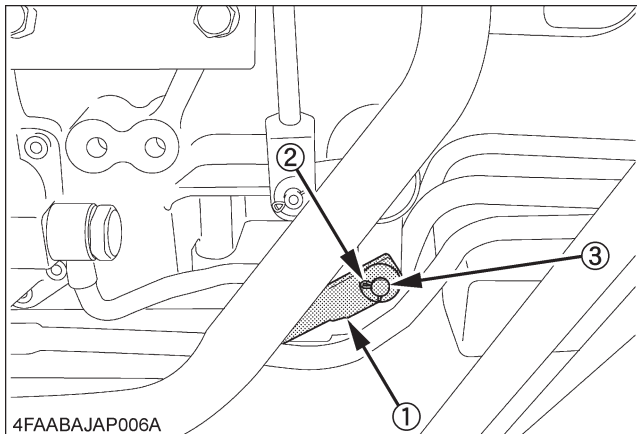
NOTE :

- Be careful not to lose the copper packings when disconnecting the tractor hydraulic tubes.



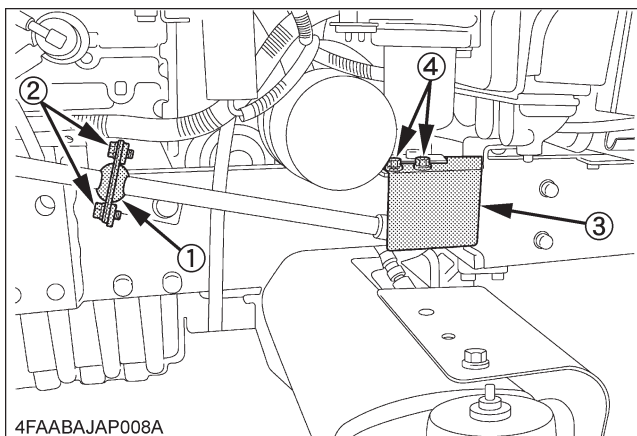
(1) 1-Valve tank tube

6. Remove the brake rod RH.



- (1) 1-Brake rod RH
- (2) 2-Split pins
- (3) 2-Joint pins

7. Remove the bearing flange and joint cover.

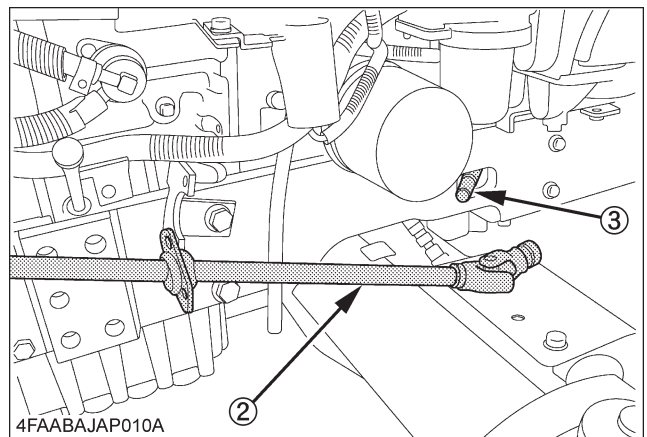
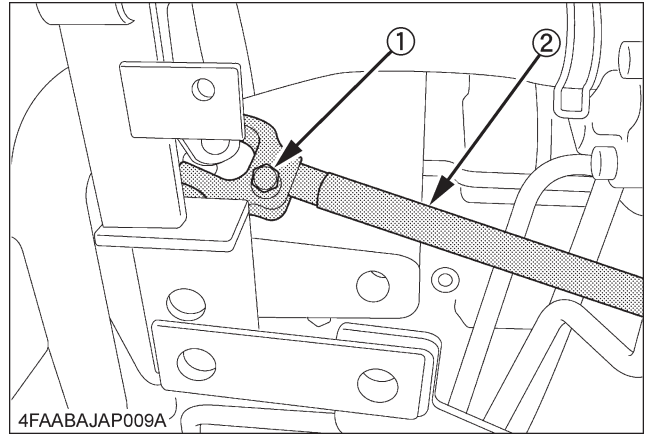


- (1) 1-Bearing flange
- (2) 2-M8 x 16 bolts
- (3) 1-Joint cover
- (4) 2-M8 x 12 bolts

8. Remove the bolt and draw out the universal joint from the joint shaft.

NOTE :

- Pull the universal joint out of the joint shaft. Temporarily reapply the bolt in its original position.

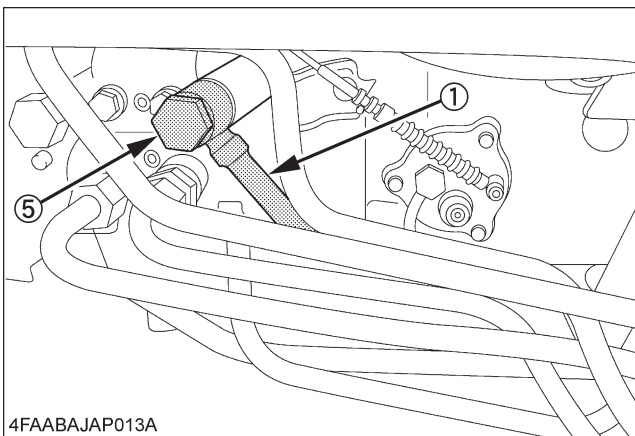
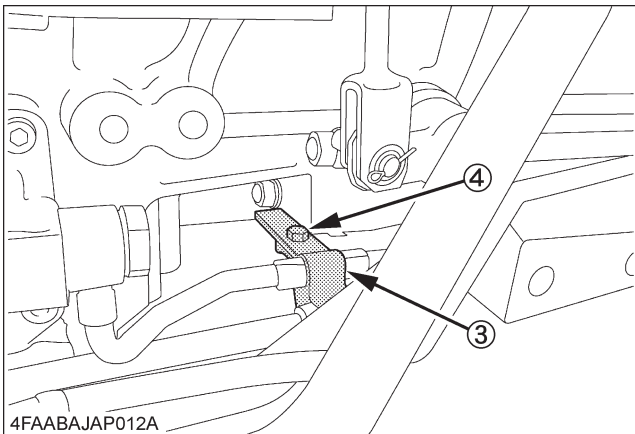
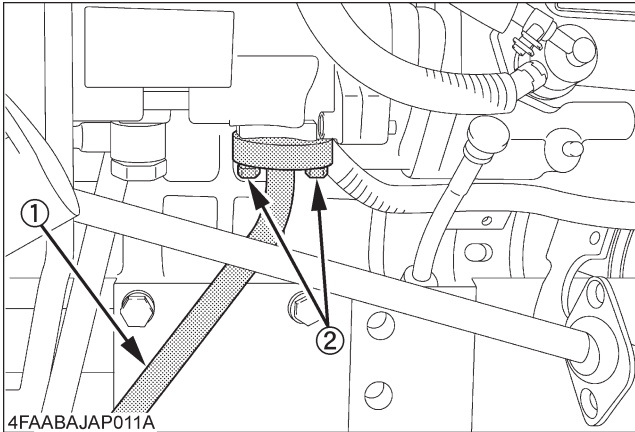


- (1) 1-M8 x 20 bolt
- (2) 1-Universal joint
- (3) 1-Joint shaft

9. Disconnect the inlet tube.

NOTE :

- O-ring will be used again. Be sure to handle it with care and not to lose it.



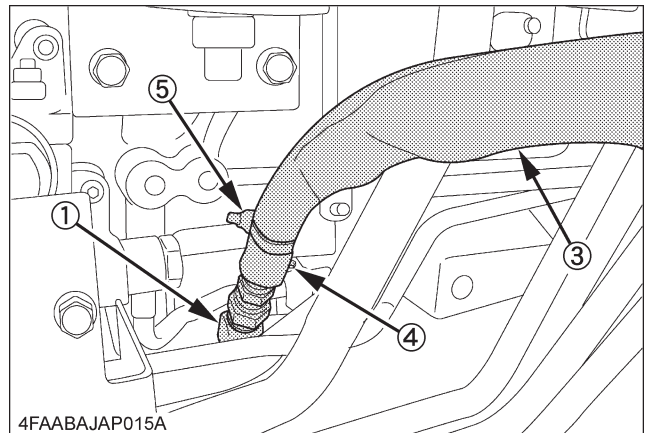
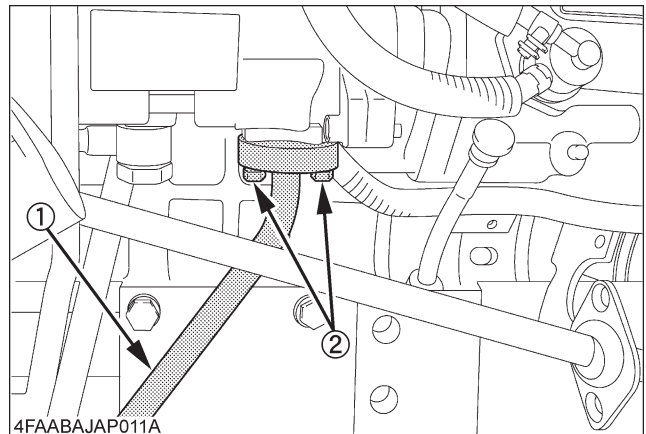
- (1) 1-Inlet tube
- (2) 2-M8 bolts
- (3) 1-Metal fitting
- (4) 1-M8 bolt
- (5) 1- Plug bolt

■ Inlet 3rd Tube Assembly

1. Connect the inlet 3rd tube and inlet hose.
Temporarily connect the inlet hose. Do not tighten it up.

NOTE :

- (1) Be sure to put the O-ring to the inlet 3rd tube.
- (2) Be sure to put the rubber in between the inlet 3rd tube and the metal fitting.



- (1) 1-Inlet 3rd tube
- (2) 2-M8 bolts

Tightening torque : 23.6 to 27.4 N-m
(2.4 to 2.8 kgf-m, 17.4 to 20.2 ft-lbs)

- (3) 1-Inlet hose
- (4) 1-Metal fitting
- (5) 1-M8 bolt

IMPORTANT :

- Tighten the bolts to their respective specified torques.

2. Connect the tank tube and tank hose.

NOTE :

- Orient the tank hose toward the tractor front, as shown below. Make sure the hose is out of contact with nearby tubes and others parts.

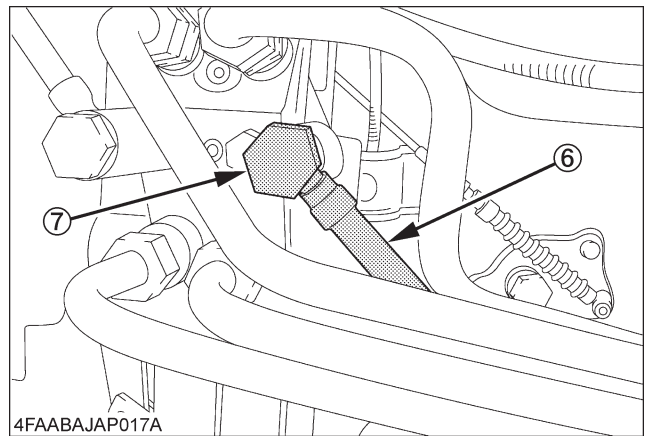
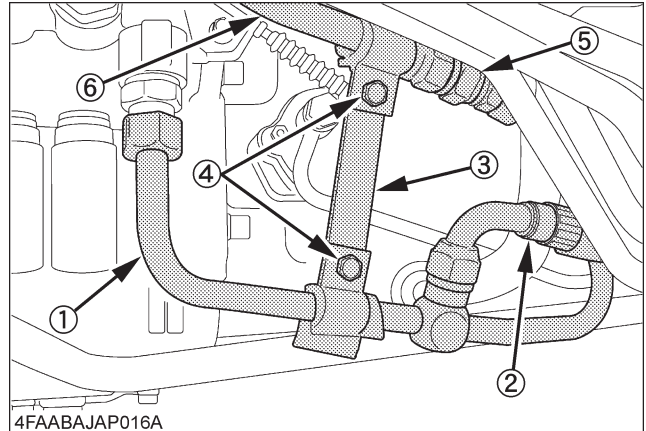
3. Temporarily connect the power beyond tube and power beyond hose in their respective positions.

4. Attach the metal fitting and secure the tank tube and power beyond tube.

NOTE :

- With the power beyond tube and tank tube temporarily connected and secured with the metal fitting, make sure they are out of contact with nearby tubes and others parts. Then tighten up the metal fitting with bolts.

5. Tighten the power beyond tube and power beyond hose.



(1) 1-Tank tube

Tightening torque : 47.0 to 54.0 N-m
(4.8 to 5.5 kgf-m, 34.7 to 39.8 ft-lbs)

(2) 1-Tank hose

Tightening torque : 43.0 to 50.0 N-m
(4.4 to 5.1 kgf-m, 31.7 to 36.9 ft-lbs)

(3) 1-Metal fitting

(4) 2-M8 bolts

Tightening torque : 23.6 to 27.4 N-m
(2.4 to 2.8 kgf-m, 17.4 to 20.2 ft-lbs)

(5) 1-Power beyond hose

Tightening torque : 43.0 to 50.0 N-m
(4.4 to 5.1 kgf-m, 31.7 to 36.9 ft-lbs)

(6) 1-Power beyond tube

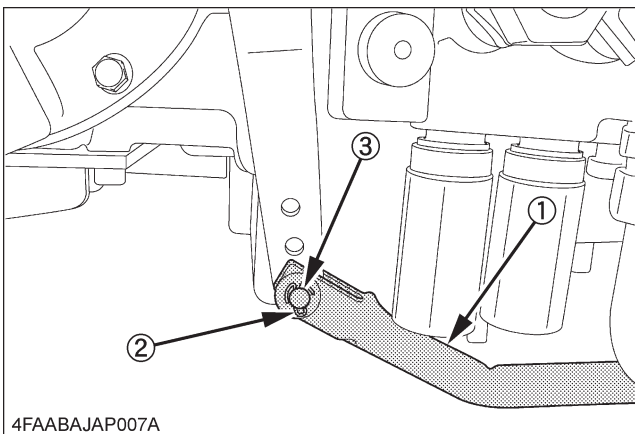
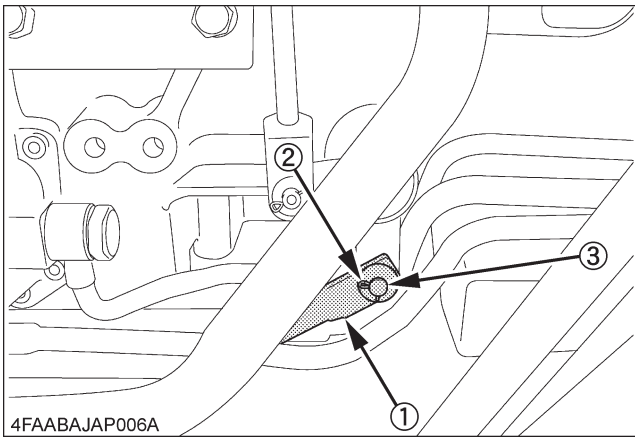
(7) 1-Plug bolt

Tightening torque : 48.8 to 55.2 N-m
(5.0 to 5.6 kgf-m, 36.0 to 40.7 ft-lbs)

6. Attach the brake rod RH.

IMPORTANT :

- Split the split pins on both sides as shown below.

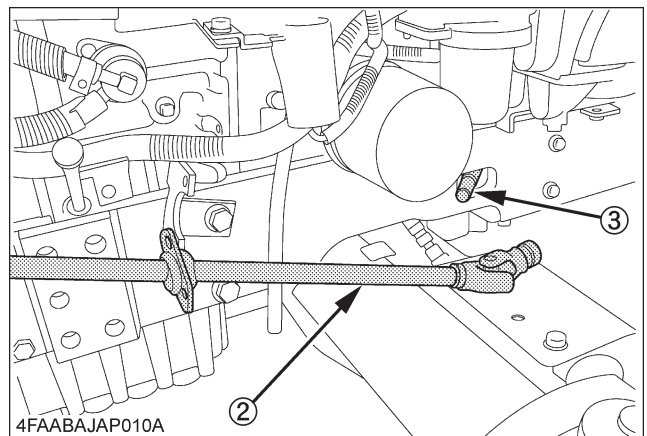
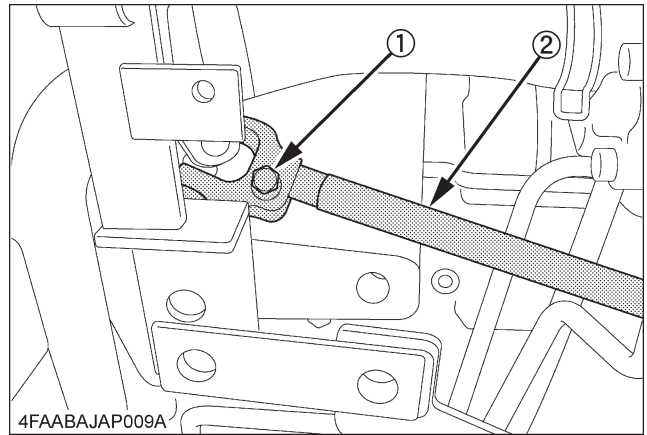


- (1) 1-Brake rod RH
- (2) 2-Split pins
- (3) 2-Joint pins

IMPORTANT :

- Tighten the bolts to their respective specified torques.

7. Remove the temporarily applied bolt. Fit the universal joint into the joint shaft. Temporarily reapply the bolt back in position.

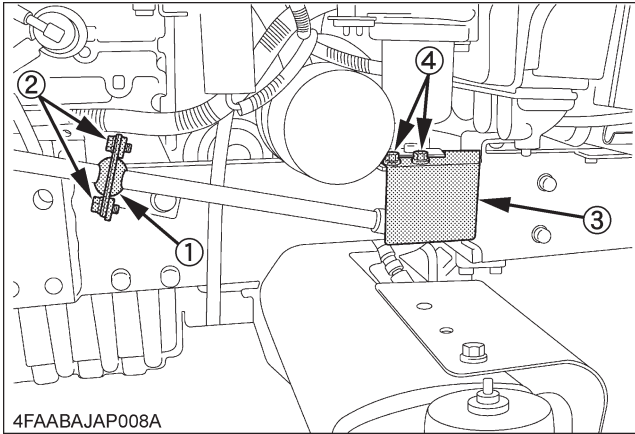


- (1) 1-M8 x 20 bolt
- (2) 1-Universal joint
- (3) 1-Joint shaft

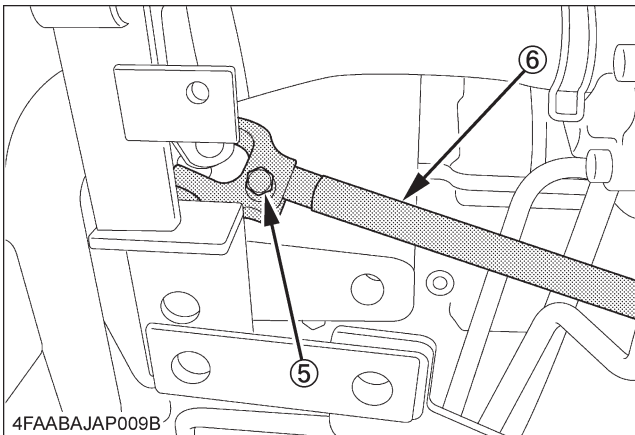
8. Attach the bearing flange and joint cover and tighten them with bolts.

NOTE :

- Before tightening the bolts, make sure the joint is out of contact with nearby parts.



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- (1) 1-Bearing flange
- (2) 2-M8 x 16 bolts

Tightening torque : 23.5 to 27.5 N-m
(2.4 to 2.8 kgf-m, 17.3 to 20.3 ft-lbs)

- (3) 1-Joint cover
- (4) 2-M8 x 12 bolts

Tightening torque : 23.5 to 27.5 N-m
(2.4 to 2.8 kgf-m, 17.3 to 20.3 ft-lbs)

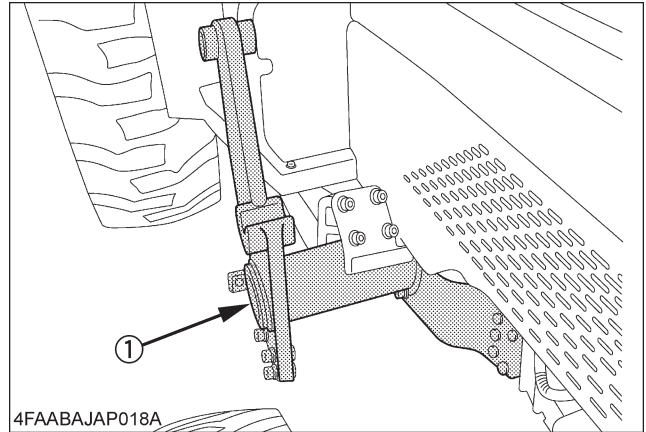
- (5) 1-M8 x 20 bolt
- (6) 1-Universal joint

Tightening torque : 23.5 to 27.5 N-m
(2.4 to 2.8 kgf-m, 17.3 to 20.3 ft-lbs)

9. Attach the front loader and main frame RH.

NOTE :

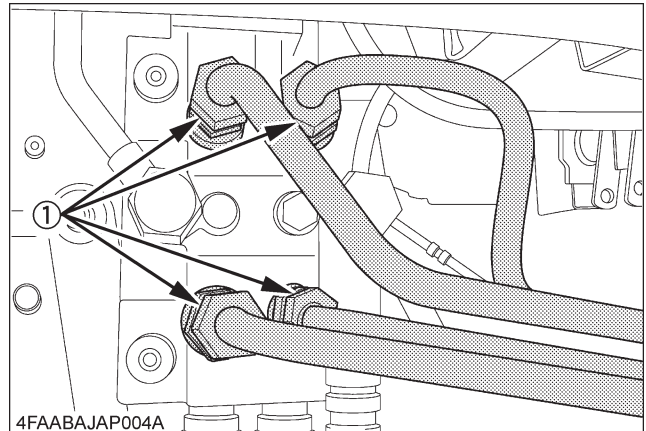
- (1) Keep all the bolts temporarily tight.
- (2) See "Main Frame" section for setting up.



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- (1) 1-Main frame RH

10. Tighten the valve tubes.

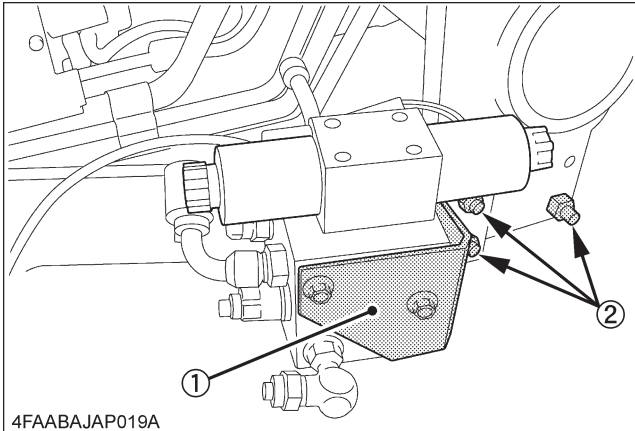


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- (1) 4-Valve tubes

Tightening torque : 47.0 to 54.0 N-m
(4.8 to 5.5 kgf-m, 34.7 to 39.8 ft-lbs)

11. Attach 3rd function assembly to the frond loader and sub frame RH.

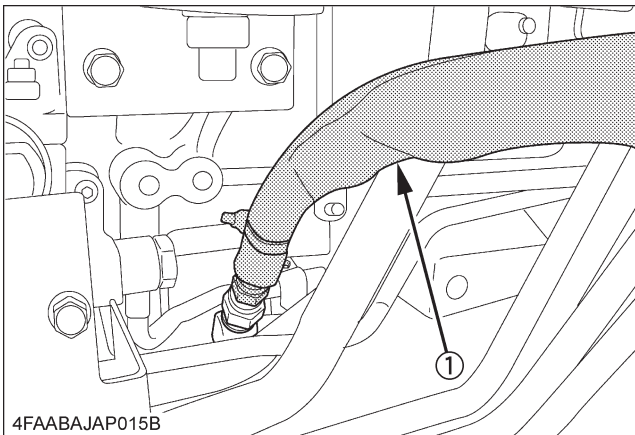


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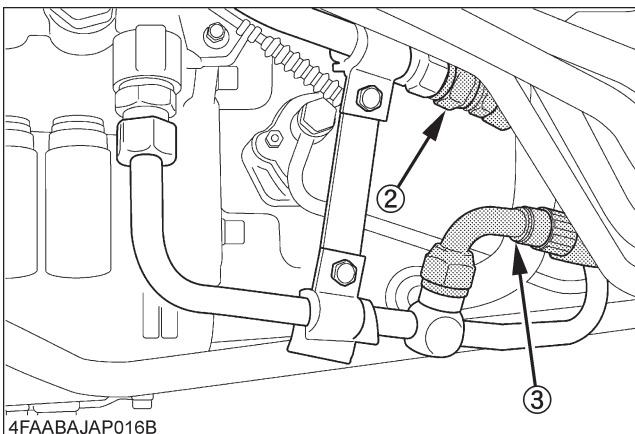
- (1) 1-3rd function assembly
- (2) 3-M16 bolts
3-M16 spring lock washers
3-5/8 hardened plain washers
3-M16 nuts

Tightening torque : 225 N-m (22.9 kgf-m, 166 ft-lbs)

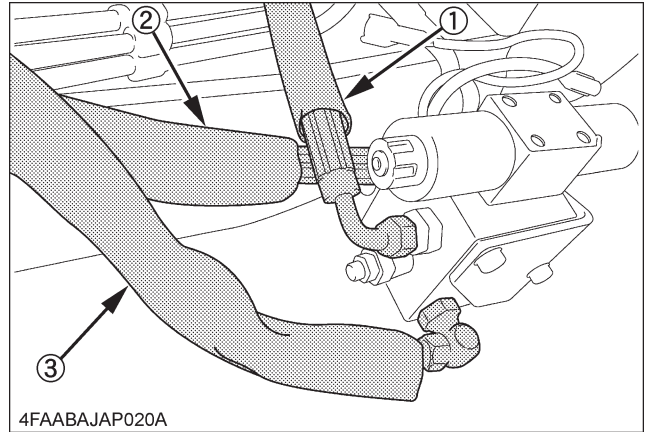
12. Connect hoses to the 3rd function assembly.



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- (1) 1-Inlet hose
- (2) 1-Power beyond hose
- (3) 1-Tank hose

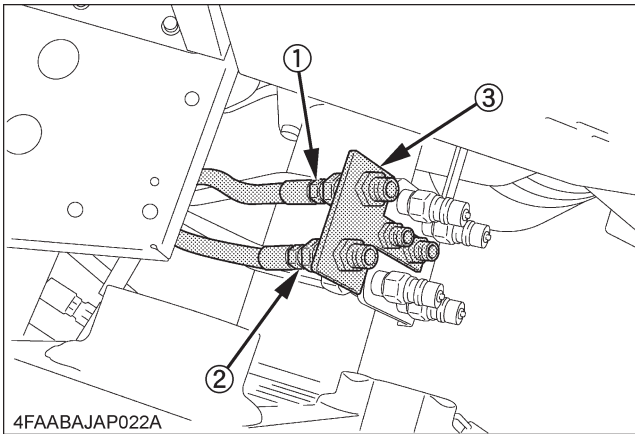
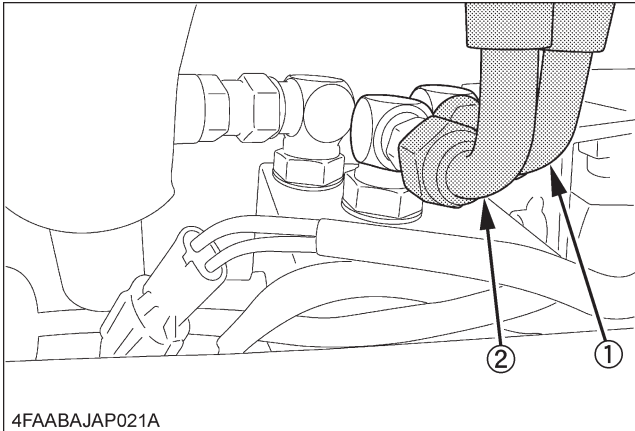
Tightening torque : 35.0 to 41.0 N-m

(3.6 to 4.2 kgf-m, 25.8 to 30.2 ft-lbs)

IMPORTANT :

- Tighten the bolts to their respective specified torques.

13. Install the coupler stay and connect the hydraulic hose A and 3rd function assembly to the coupler stay.



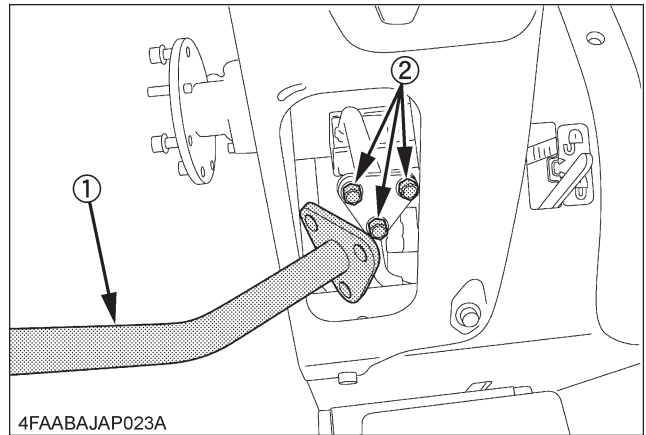
- (1) 1-Hydraulic hose A
- (2) 1-Hydraulic hose A

Tightening torque : 35.0 to 41.0 N-m
(3.6 to 4.2 kgf-m, 25.8 to 30.2 ft-lbs)

- (3) 1-Coupler stay

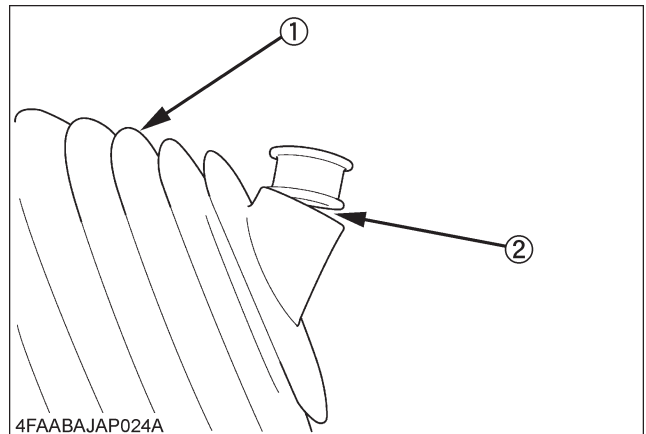
■ 3rd Function Lever Section (ROPS Model)

1. Remove the original lever.



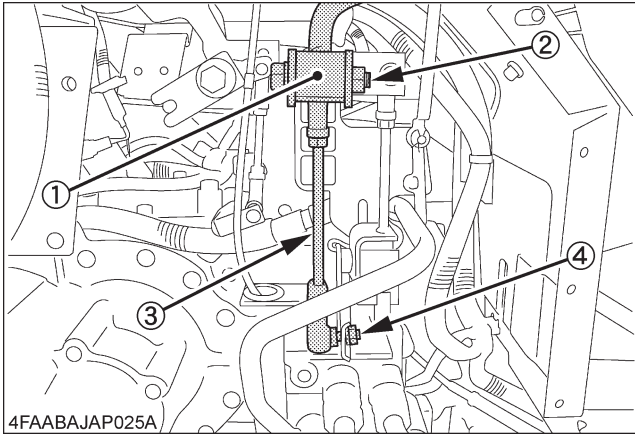
- (1) 1-Original lever
- (2) 3-M18 bolts

2. Detach the grip and lever boot from the original lever.
3. Cut the detached lever boot as shown below.



- (1) 1-Lever boot
- (2) Line for cutting

4. Remove the bolt and nut, and then take out the lever assembly.



- (1) 1-Lever assembly
- (2) 1-Bolt
1-Nut
- (3) 1-Rod
- (4) 1-Nut

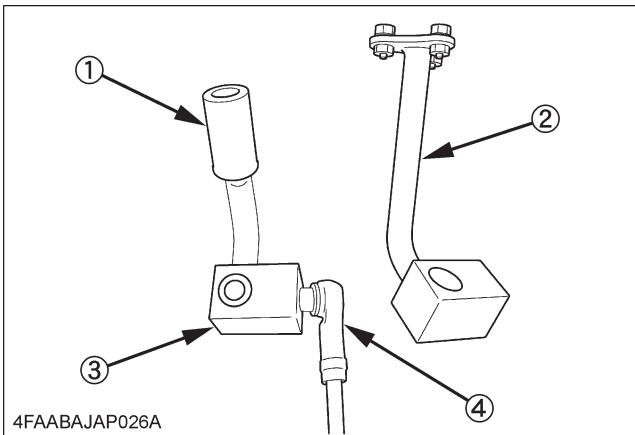
IMPORTANT :

- Tighten the bolts to their respective specified torques.

5. Remove the sleeve and rod from the lever assembly and fit them to the control lever 2.

IMPORTANT :

- (1) Make sure to put the sleeve to the control lever 2.
- (2) Apply Loctite 271 or equivalent in fitting the rod into position.

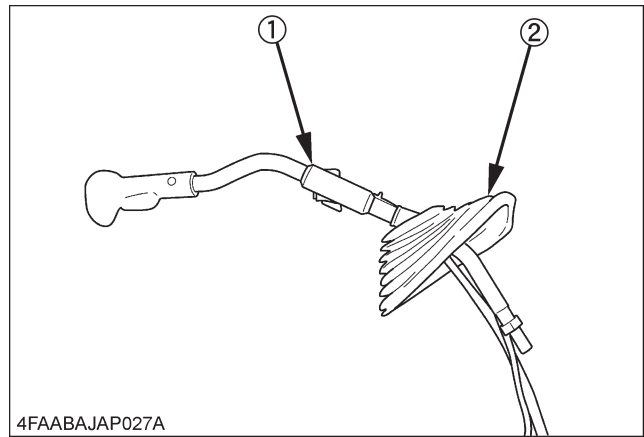


- (1) 1-Control lever 2
- (2) 1-Lever assembly
- (3) 1-Sleeve
- (4) 1-Rod

6. Attach the lever boot to the control lever assembly.

IMPORTANT :

- Make sure not to get the lever harness twisted.

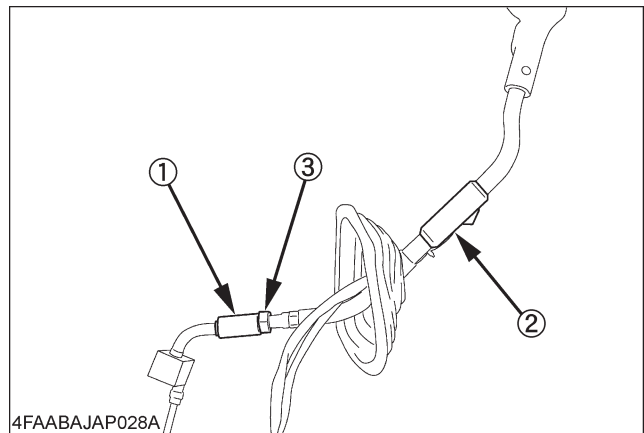


- (1) 1-Control lever assembly
- (2) 1-Lever boot

7. Temporarily attach the control lever 2 to the control lever assembly.

IMPORTANT :

- (1) Screw in the control lever assembly as deep as possible.
- (2) Do not yet get the nut locked.
- (3) Apply Loctite 271 or equivalent in fitting the rod into position.

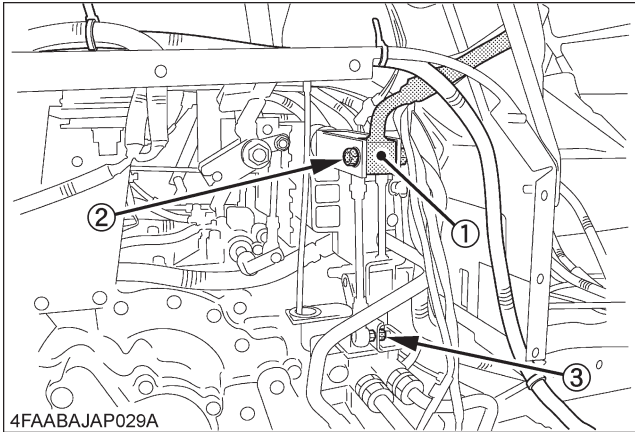


- (1) 1-Control lever 2
- (2) 1-Control lever assembly
- (3) 1-Nut

8. Install the 3rd function lever assembly.

IMPORTANT :

- Apply Loctite 271 or equivalent in fitting the rod into position.

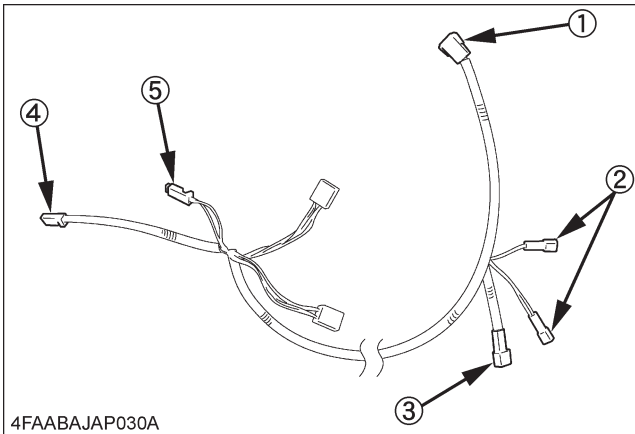


- (1) 1-3rd function lever assembly
- (2) 1-Bolt
1-Nut
- (3) 1-Nut

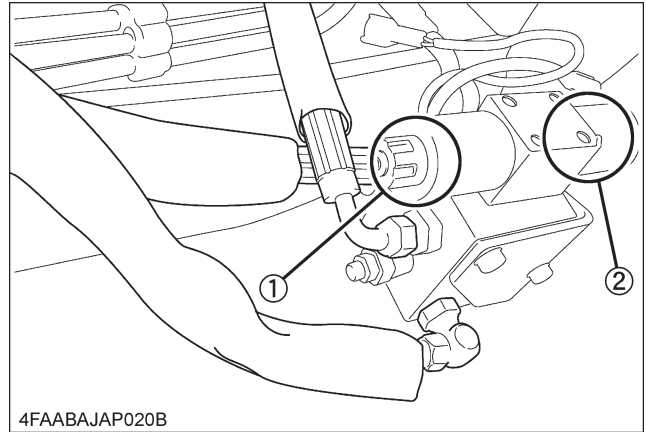
◆ **Wire Harness**

IMPORTANT :

- Connect the wire harness couplers of the 3rd function control lever to their respective same-color couplers.

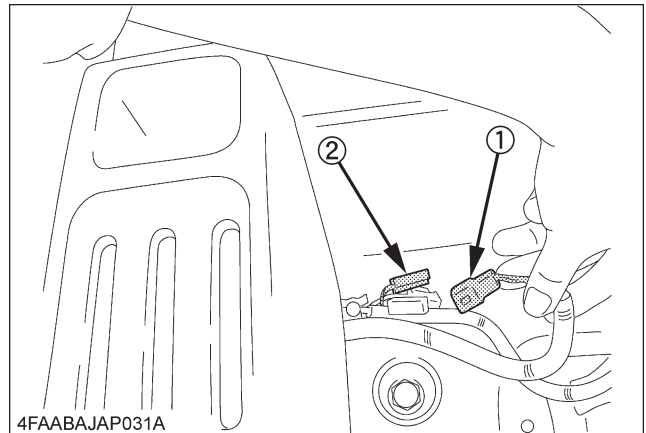


- (1) To tractor harness
- (2) To 3rd function control lever
- (3) To ON/OFF switch
- (4) To solenoid valve harness-1
- (5) To solenoid valve harness-2



- (1) Solenoid valve harness-1
- (2) Solenoid valve harness-2

9. Connect the 3rd function harness with tractor harness.

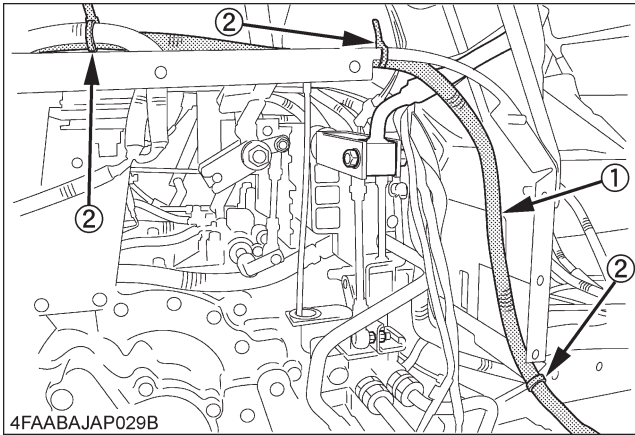


- (1) 3rd function harness
- (2) Tractor harness

10. Pass the 3rd function harness through the lever console. Connect the 3rd function control lever and the ON/OFF switch.

IMPORTANT :

- (1) Using the cord band, secure the 3rd function harness and the tractor harness onto the floor sheet or the like.
- (2) Move the control lever to make sure it does not catch or drag the harnesses.

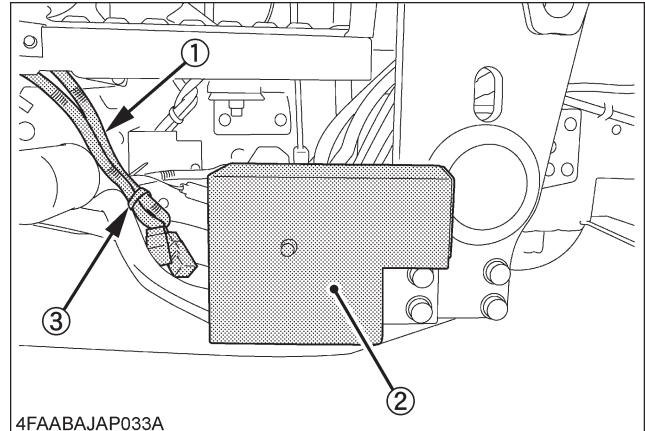


(1) 1-3rd function harness
(2) 3-Cord bands

IMPORTANT :

- Tighten the bolts to their respective specified torques.

11. Connect the harness to the solenoid valve harness and attach the cover.



(1) 3rd function harness
(2) Solenoid valve cover
(3) Tie strap

12. Attach the tractor fender RH.

NOTE :

- With the fender in place, move the lever to make sure it is out of contact with the fender and other parts. Then get the nut locked.

13. Attach the rear tire RH.

M16 Bolts, Nuts

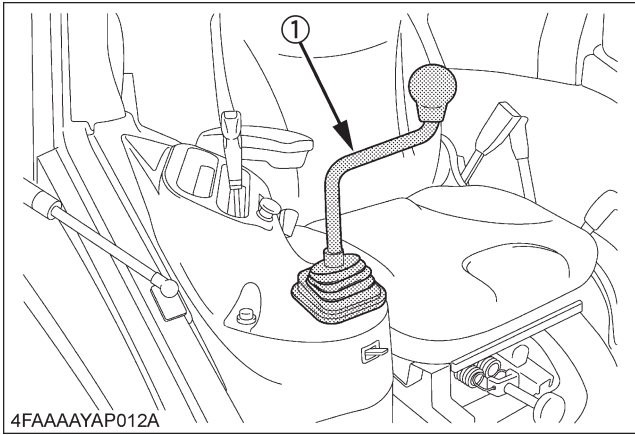
Tightening torque : 196 to 225 N-m

(20.0 to 23.0 kgf-m, 145 to 166 ft-lbs)

14. Apply rubber type bond to the boot and attach the boot to the lever guide.

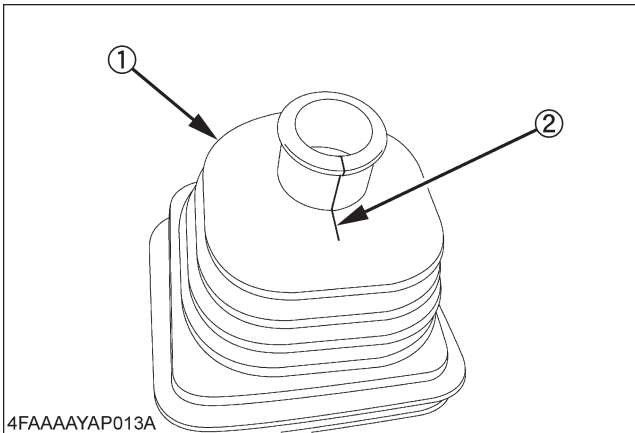
3rd Function Lever Section (CAB Model)

1. Remove the original lever.



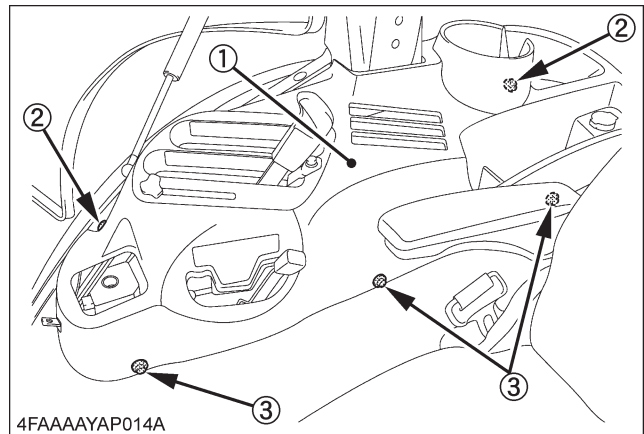
(1) 1-Original lever

2. Detach the lever boot from the original lever.
3. Cut the detached lever boot as shown below.



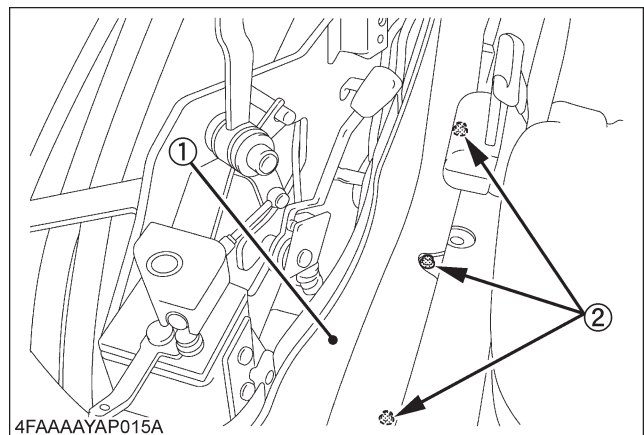
(1) 1-Lever boot
(2) Line for cutting

4. Detach the upper console.



(1) 1-Upper console
(2) 2-M8 bolts
(3) 3-M6 bolts

5. Detach the lower console.



(1) 1-Lower console
(2) 3-M8 bolts

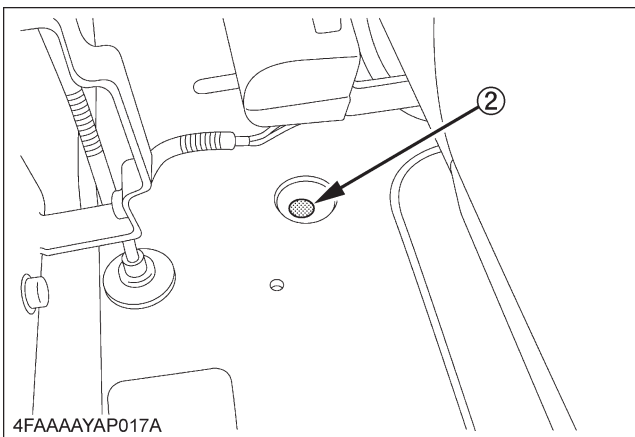
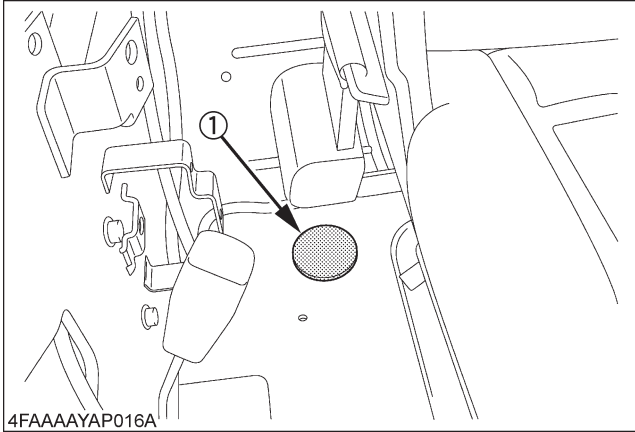
IMPORTANT :

- Tighten the bolts to their respective specified torques.

- Remove the rubber cap from the hole under the seat. Make the 18 mm diameter hole.

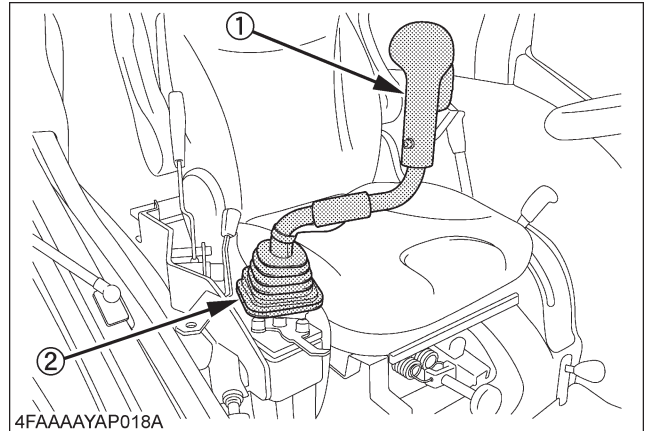
NOTE :

- Just scrape the hole large enough to pass the harness, if desired.



- 1-Rubber cap
- 2-16 mm diameter hole

- Attach the detached lever boot to the control lever assembly (CAB) and install it to the tractor.

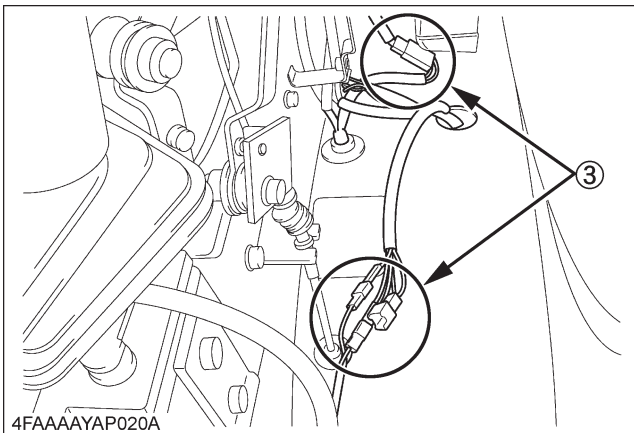
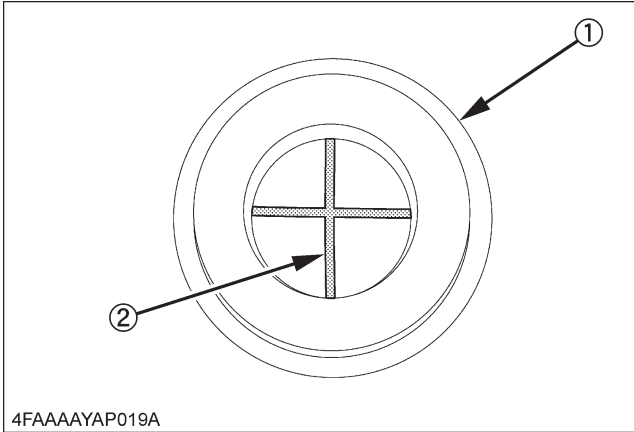


- 1- Control lever assembly (CAB)
- 2- Lever boot

8. Slit the rubber cap crosswise and pass the harness through it.
9. Lay the harness (at the solenoid valve side) out of the cabin. Then make necessary connections inside the cabin console.

NOTE :

- Make sure the harness is out of contact with other parts and not too tight.

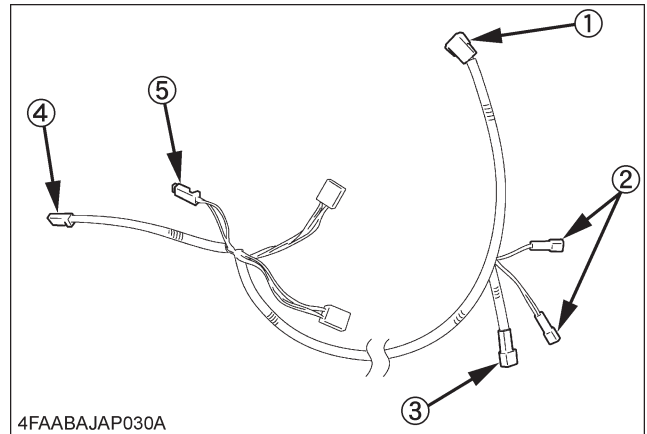


- (1) 1-Rubber cap
- (2) 1-Line for cutting
- (3) 1-3rd function harness

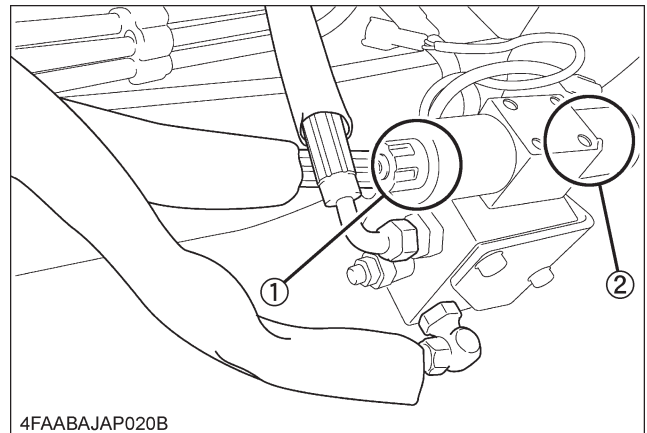
◆ **Wire Harness**

IMPORTANT :

- Connect the wire harness couplers of the 3rd function control lever to their respective same-color couplers.



- (1) To tractor harness
- (2) To 3rd function control lever
- (3) To ON/OFF switch
- (4) To solenoid valve harness-1
- (5) To solenoid valve harness-2

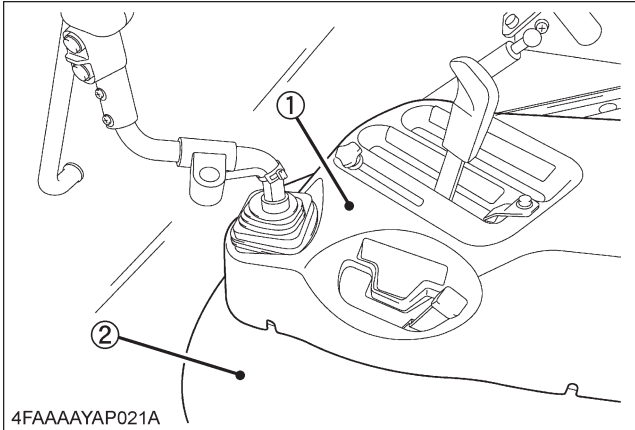


- (1) Solenoid valve harness-1
- (2) Solenoid valve harness-2

10. Put the lower and upper consoles back into position in the reverse order of removal.

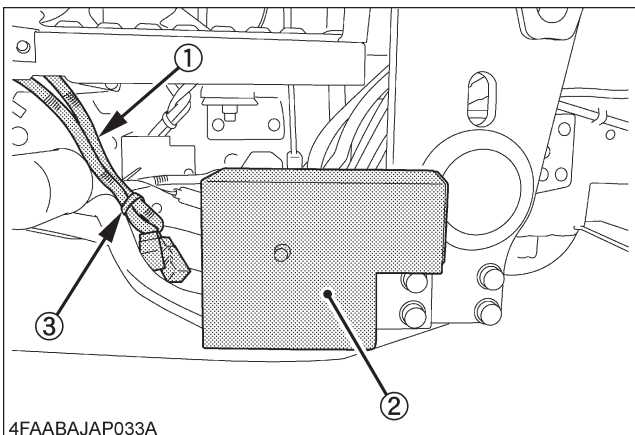
NOTE :

- Make sure the harness and other parts are not caught between the upper and lower consoles.
- Move the control lever and make sure the harness is not caught by the lever or other parts and too tight.



(1) 1-Upper console
(2) 1-Lower console

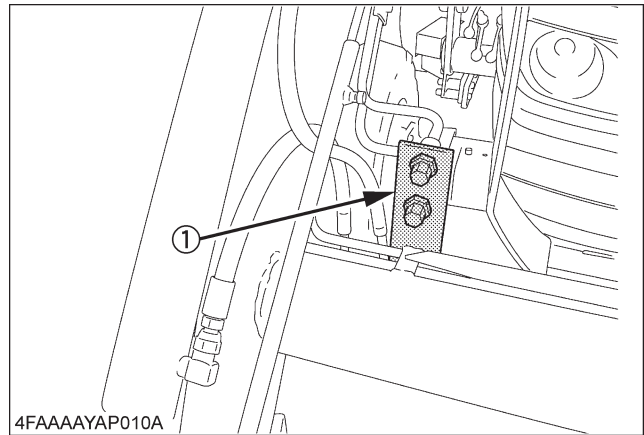
11. Connect the harness to the solenoid valve harness and attach the cover.



(1) 3rd function harness
(2) Solenoid valve cover
(3) Tie strap

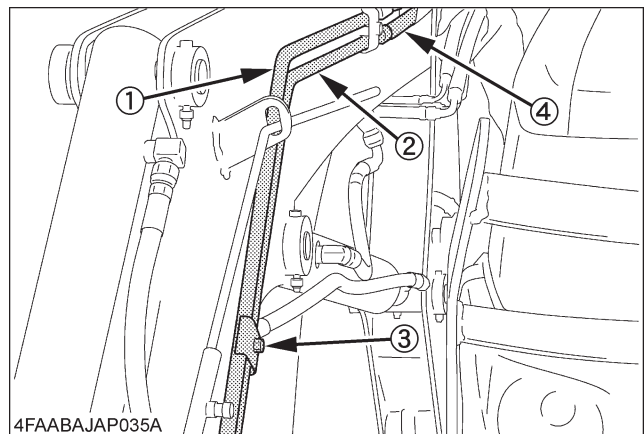
3rd Function Boom Section

1. Attach the coupler stay to the boom.



(1) 1-Coupler stay
2-M8 x 35 sems bolts

2. Fit the 3rd function tube 1 and 2 to the boom.
3. Connect the 3rd function tube 1 and 2 to the mid hydraulic hose.



(1) 1- 3rd function tube 1
(2) 1- 3rd function tube 2
(3) 2-Clamps
2-Collars
2-Sems bolts
(4) 2-Mid hydraulic hoses

4. Front hydraulic valve main switch
Push the front hydraulic valve main switch (1) to engage the front hydraulic valve.
A light on the switch will illuminate to indicate that the front hydraulic valve is on, and to enable the activation switch (2).

5. Activation switch
(1) When pressing the "A" button, hydraulic oil will come out of the port A and return through the port B as long as the switch is pressed.
(2) When pressing the "B" button hydraulic oil will come out of the port B and return through the port A as long as the switch is pressed.