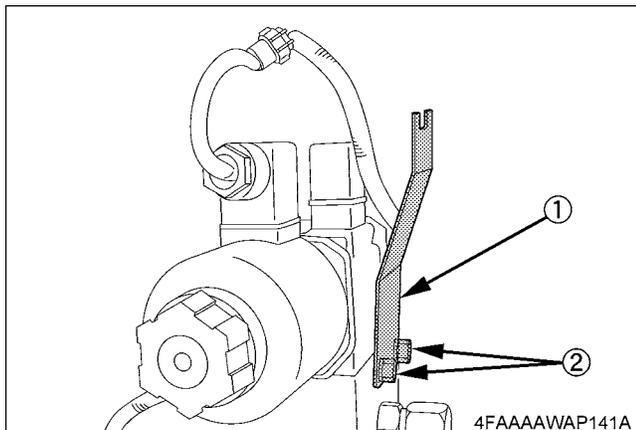


**■3rd Function (if equipped)**

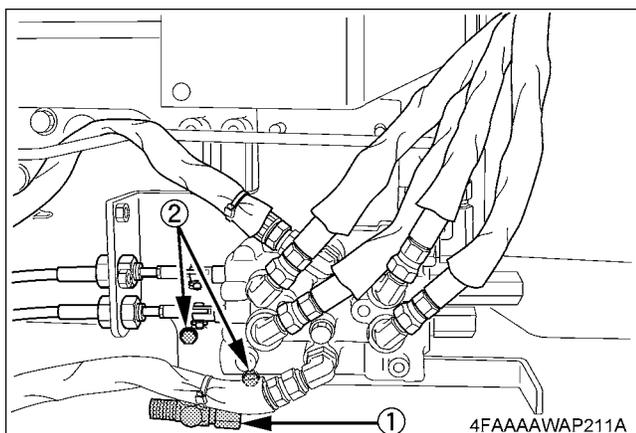
1. Attach the relay stay to the solenoid valve assy.



(1) Relay stay (Solenoid valve assy)  
(2) 2-M8 x 16 bolts

Tightening torque: See "TIGHTENING TORQUE OF BOLTS AND NUTS" section.

2. Assemble the following parts as shown below.

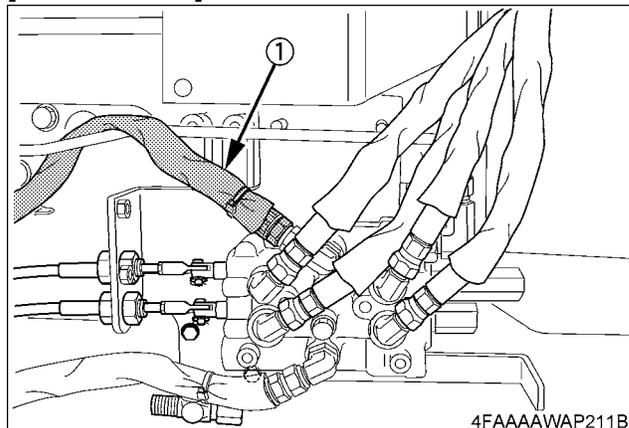


(1) Solenoid valve assy  
(2) 2-M10 x 30 bolts with washers

Tightening torque: See "TIGHTENING TORQUE OF BOLTS AND NUTS" section.

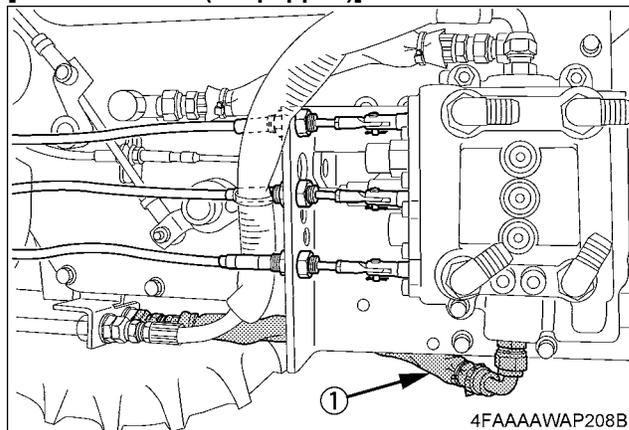
3. Disconnect the pump line hose.

**[Standard valve]**



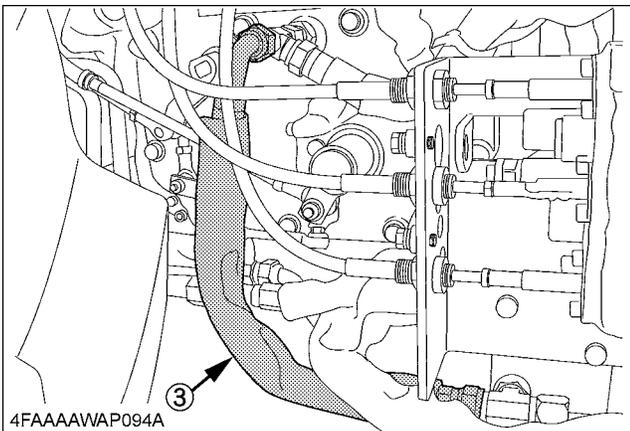
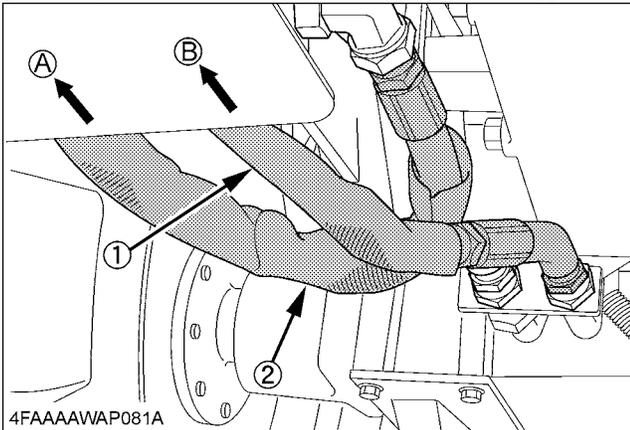
(1) Pump line hose

**[Self-level valve (if equipped)]**

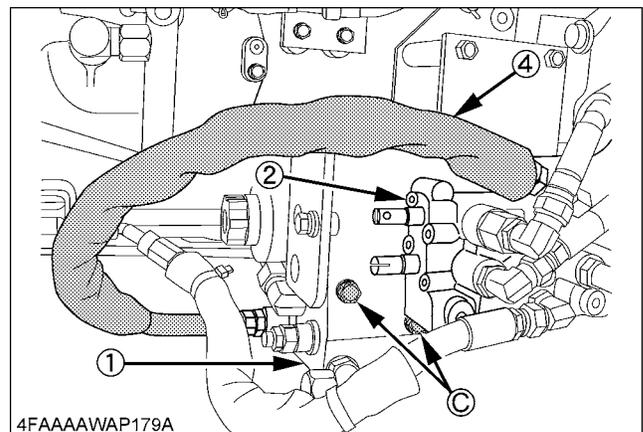
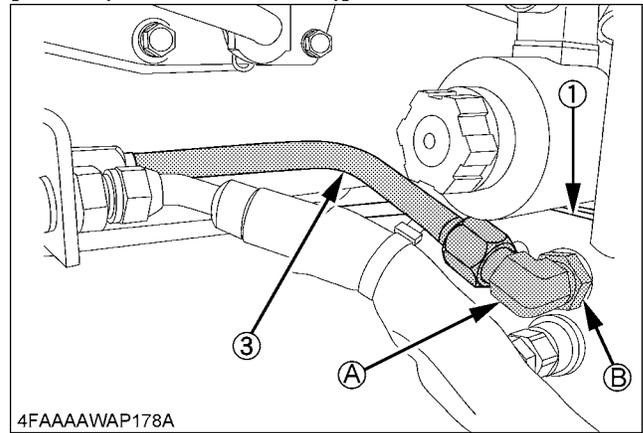


(1) Pump line hose

4. Assemble the following parts as shown below.  
**[M7991 (ROPS MODEL), M7992 (CAB MODEL)]**



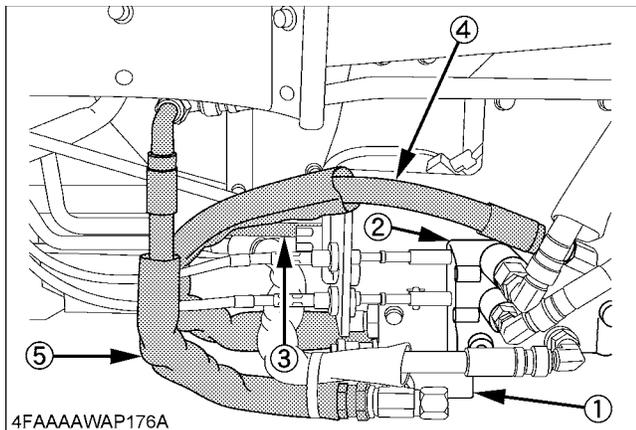
**[M7949 (LA1154SU MODEL)]**



(1) Pump line hose 1 (300 mm (11.8 in.), 7/8-UNF and 7/8-UNF)  
 Tightening torque: See "TIGHTENING TORQUE OF ADAPTORS, ELBOWS AND OTHERS" section.

(2) Pump line hose 2  
 (For standard valve: 710 mm (28.0 in.), 3/4-UNF and 7/8-UNF)  
 (For self-level valve: 570 mm (22.4 in.), 3/4-UNF and 7/8-UNF)  
 Tightening torque: See "TIGHTENING TORQUE OF ADAPTORS, ELBOWS AND OTHERS" section.

(3) Tank hose (460 mm (18.1 in.), 7/8-UNF and 7/8-UNF)  
 Tightening torque: See "TIGHTENING TORQUE OF ADAPTORS, ELBOWS AND OTHERS" section.

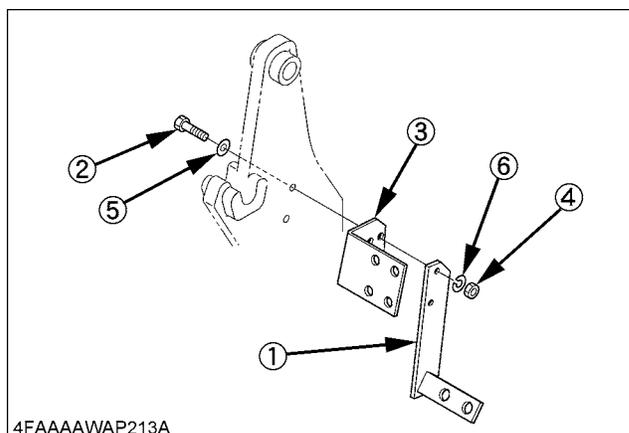
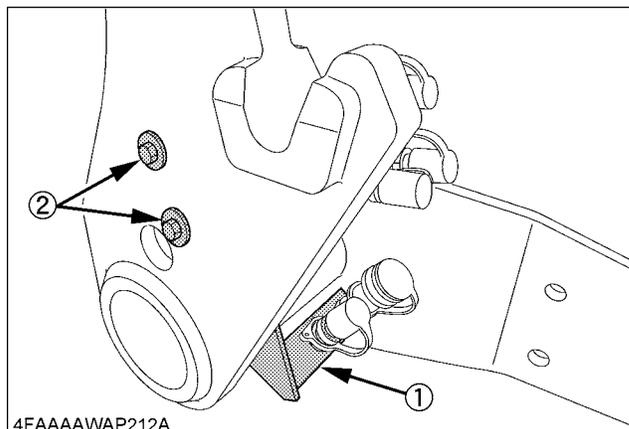


- (1) Solenoid valve block
- (2) Control valve (ST)
- (3) Pump line pipe (7/8-UNF and 7/8-UNF)  
Tightening torque: See "TIGHTENING TORQUE OF ADAPTORS, ELBOWS AND OTHERS" section.
- (4) Pump line hose (710 mm (28.0 in.), 3/4-UNF and 7/8-UNF)  
Tightening torque: See "TIGHTENING TORQUE OF ADAPTORS, ELBOWS AND OTHERS" section.
- (5) Tank hose (460 mm (18.1 in.), 7/8-UNF and 7/8-UNF)  
Tightening torque: See "TIGHTENING TORQUE OF ADAPTORS, ELBOWS AND OTHERS" section.
- (A) Pump line fitting
- (B) Pump line fitting nut
- (C) 2-M10 x 30 bolts with washers

**NOTE :**

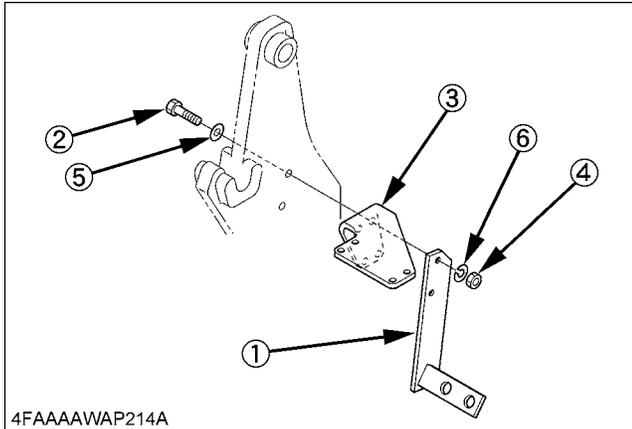
- If the pump line pipe (3) cannot be properly connected, loosen the nut (B) and the bolts (C). After assembling the pump line pipe (3), tighten the nut (B) and the bolts (C).  
Each tightening torque: See "TIGHTENING TORQUE OF BOLTS AND NUTS" section.

5. Fit the coupler stay assembly as shown below.



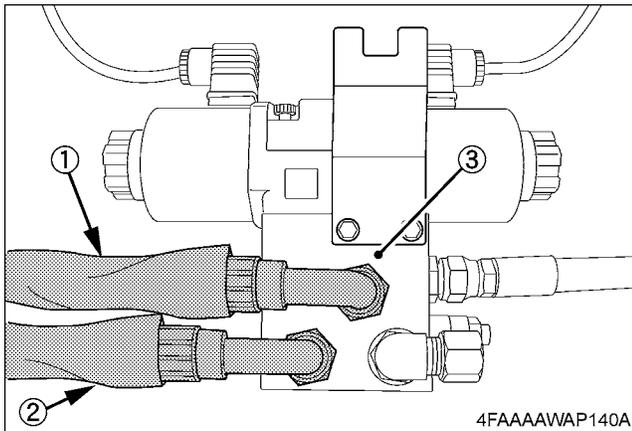
- (1) Coupler stay assy
- (2) 2-M10 x 60 bolts (original)  
Tightening torque: See "TIGHTENING TORQUE OF BOLTS AND NUTS" section.
- (3) Connector stay assy
- (4) 2-M10 nuts (original)
- (5) 2-M10 plain washers (original)
- (6) 2-M10 spring lock washers (original)

**[Multi coupler (if equipped)]**



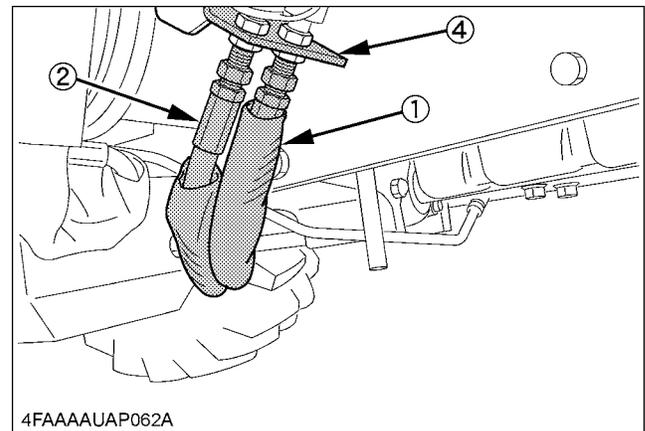
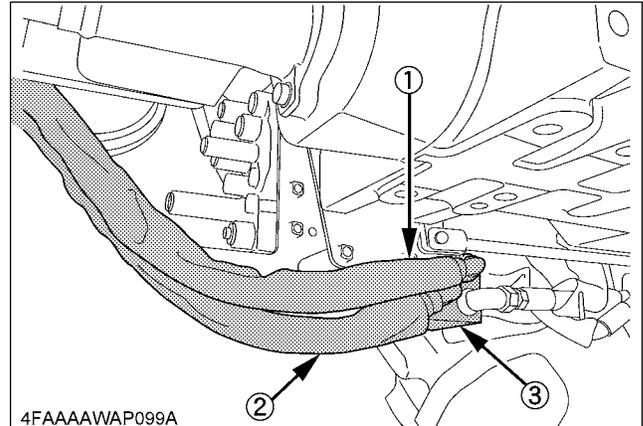
- (1) Coupler stay assy
  - (2) 2-M10 x 60 bolts (original)
- Tightening torque: See "TIGHTENING TORQUE OF BOLTS AND NUTS" section.
- (3) Multi coupler stay assy (original)
  - (4) 2-M10 nuts (original)
  - (5) 2-M10 plain washers (original)
  - (6) 2-M10 spring lock washers (original)

6. Connect the hydraulic hose A-1 and hydraulic hose A-2 to the solenoid valve assembly.



- (1) Hydraulic hose A-1 (648 mm (25.5 in.), 7/8-UNF)
- Tightening torque: See "TIGHTENING TORQUE OF ADAPTORS, ELBOWS AND OTHERS" section.
- (2) Hydraulic hose A-2 (648 mm (25.5 in.), 7/8-UNF)
- Tightening torque: See "TIGHTENING TORQUE OF ADAPTORS, ELBOWS AND OTHERS" section.
- (3) Solenoid valve assy

7. Connect Hydraulic hose A-1 and Hydraulic hose A-2 to coupler stay assembly.

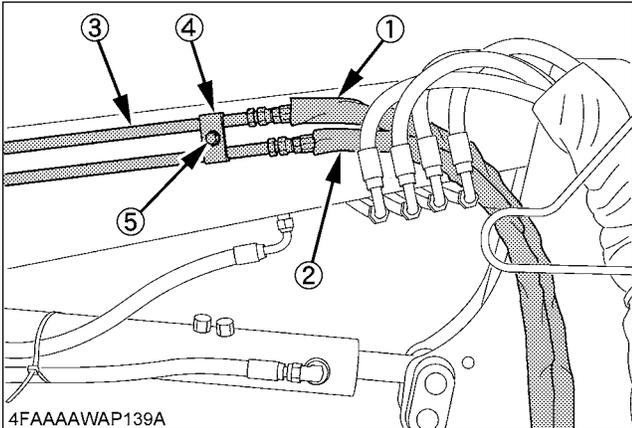


- (1) Hydraulic hose A-1 (3/4-UNF)
- Tightening torque: See "TIGHTENING TORQUE OF ADAPTORS, ELBOWS AND OTHERS" section.
- (2) Hydraulic hose A-2 (3/4-UNF)
- Tightening torque: See "TIGHTENING TORQUE OF ADAPTORS, ELBOWS AND OTHERS" section.
- (3) Solenoid valve assy
  - (4) Coupler stay assy

**NOTE :**

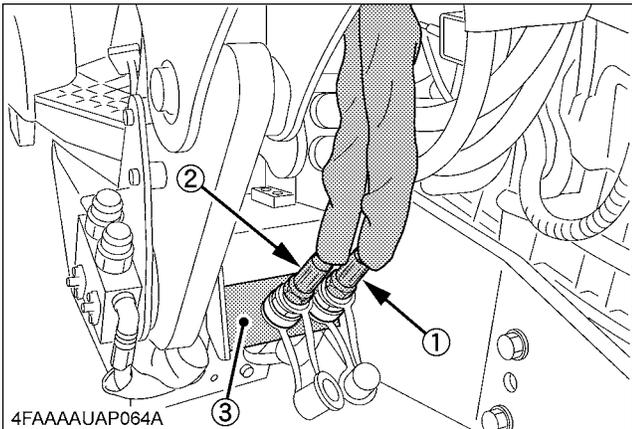
- When connecting, be careful not to interfere the brake link.

8. Install tubes to the boom and install the hydraulic hoses to the tubes.



- (1) Hydraulic hose mid-1 (with nipple) (3/4-UNF)  
Tightening torque: See "TIGHTENING TORQUE OF ADAPTORS, ELBOWS AND OTHERS" section.
  - (2) Hydraulic hose mid-2 (with coupler) (3/4-UNF)  
Tightening torque: See "TIGHTENING TORQUE OF ADAPTORS, ELBOWS AND OTHERS" section.
  - (3) 2-Tubes
  - (4) 2-Tube stays
  - (5) 2-M8 x 35 bolts  
2-Collars
- Tightening torque: See "TIGHTENING TORQUE OF BOLTS AND NUTS" section.

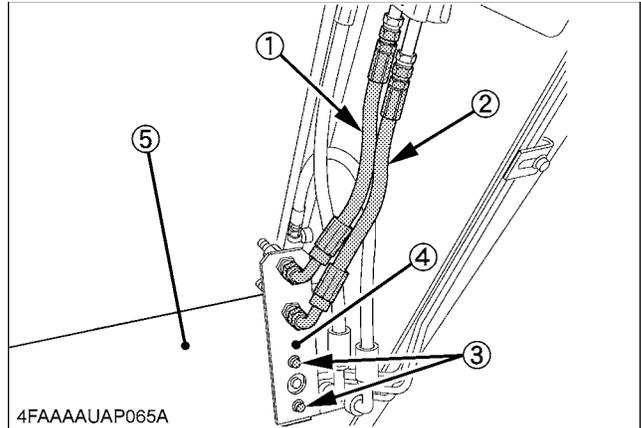
9. Connect the hydraulic hoses to the coupler stay assy.



- (1) Hydraulic hose mid-1 (with fitting)
- (2) Hydraulic hose mid-2 (with coupler)
- (3) Coupler stay assy

10. Remove the M8 bolts from the cover.  
Using the M8 bolts contained in the kit, secure the stay (provided with the hydraulic hose joint) and the cover together in position.

11. Connect the hydraulic hose hitch 1 and hydraulic hose hitch 2 between the pipe and hitch stay assembly.

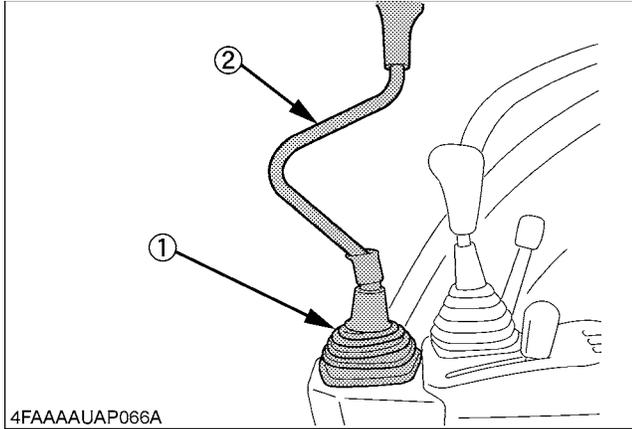


- (1) Hydraulic hose hitch-1
- (2) hydraulic hose hitch-2
- (3) 2-M8 x 40 bolts
- (4) Stay
- (5) Cover

**■ Controller and Wire Harness for 3rd Function**

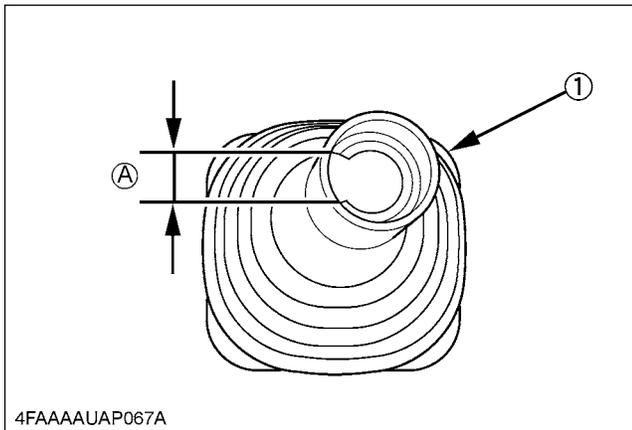
**◆ M7991 (ROPS MODEL), M7992 (CAB MODEL)**

1. Remove the lever boot first and then the lever.



(1) Lever boot  
(2) Control lever

2. Cut the lever boot as shown below.

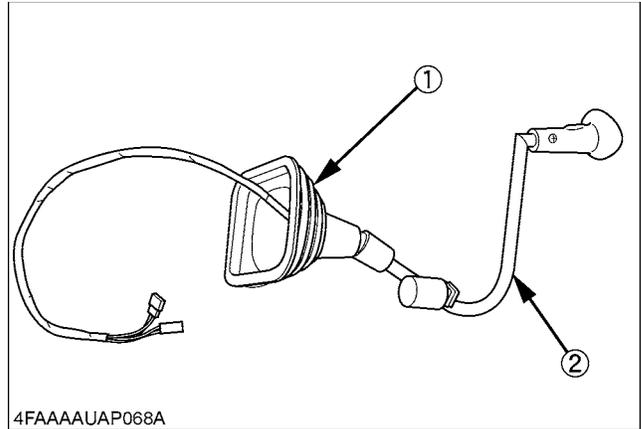


(1) Lever boot (A) 15 mm (0.6 in.)

3. Pass the lever boot through the 3rd function control lever, and attach the 3rd function control lever to the tractor.

**NOTE :**

- Pass the harness through the cut opening of the boot.

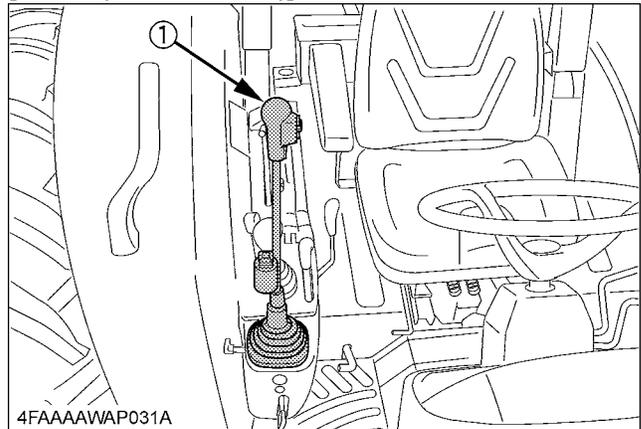


(1) Lever boot  
(2) 3rd function control lever

**NOTE :**

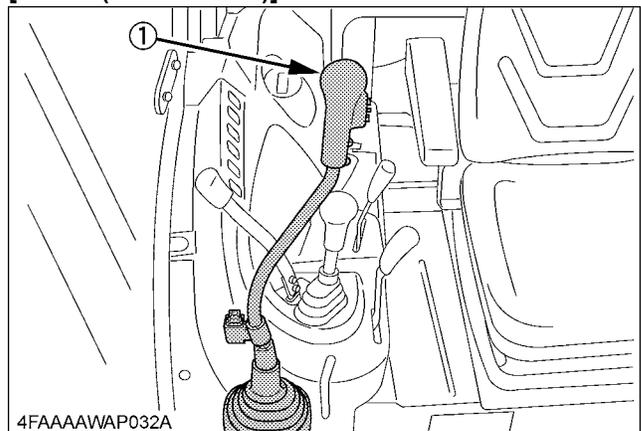
- Install the lever upright in position.

**[M7991 (ROPS MODEL)]**



(1) 3rd function control lever

**[M7992 (CAB MODEL)]**

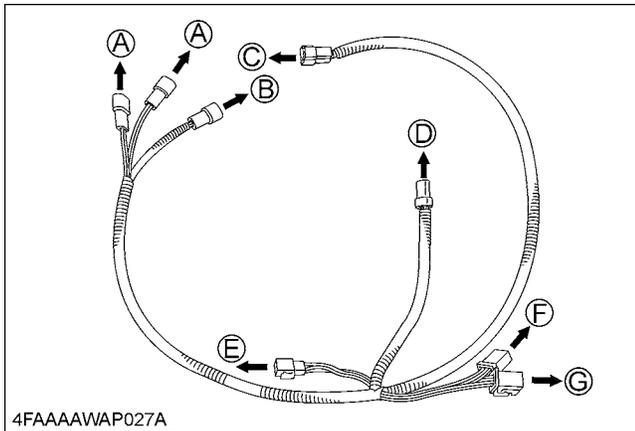


(1) 3rd function control lever

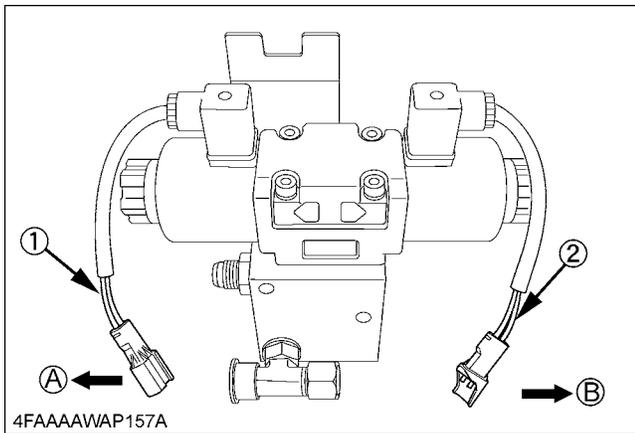
4. Attach the relay to the wire harness, and connect the wire harness to the tractor and solenoid valve harness.

**IMPORTANT :**

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

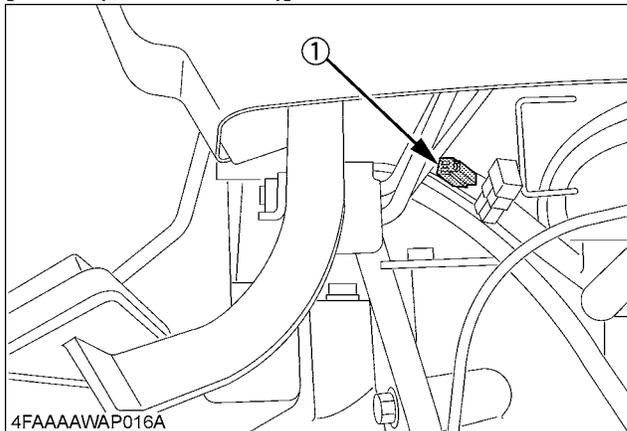


- (A) To 3rd function control lever
- (B) To ON/OFF switch
- (C) To tractor harness [M7991]  
To additional harness [M7992]
- (D) To solenoid valve harness-1
- (E) To solenoid valve harness-2
- (F) To relay
- (G) To relay



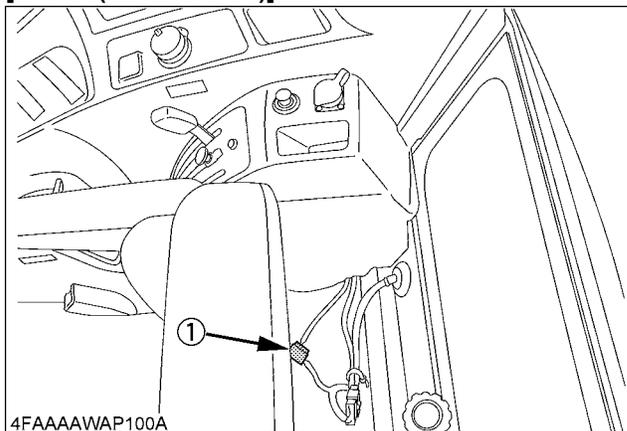
- (1) Solenoid valve harness-1      (A) Rear of tractor
- (2) Solenoid valve harness-2      (B) Front of tractor

**[M7991 (ROPS MODEL)]**



(1) Tractor harness

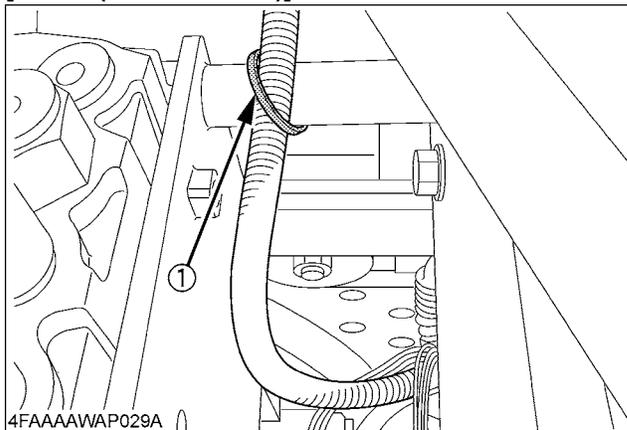
**[M7992 (CAB MODEL)]**



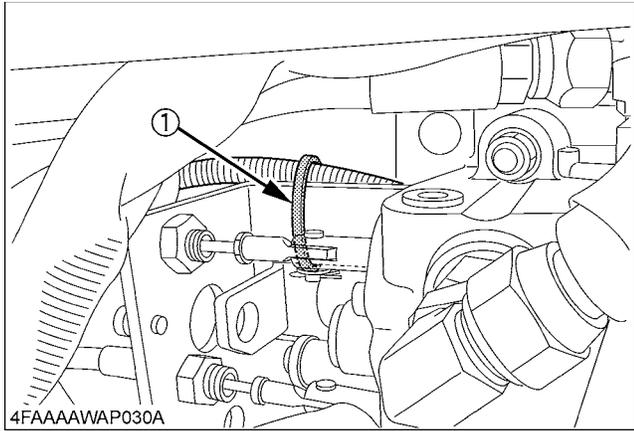
(1) Tractor harness

5. Clamp the wire harness as shown below.

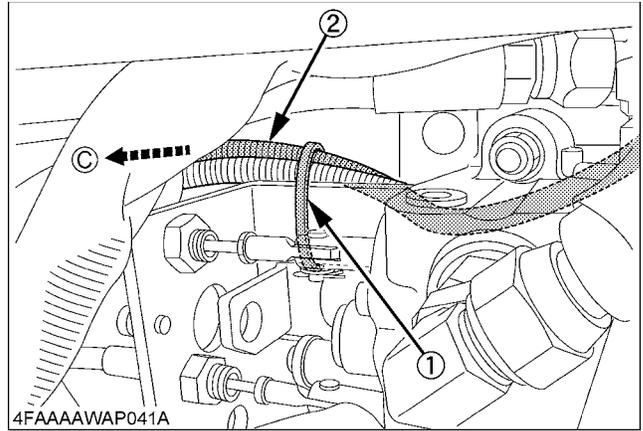
**[M7991 (ROPS MODEL)]**



(1) Clamp (cord band)

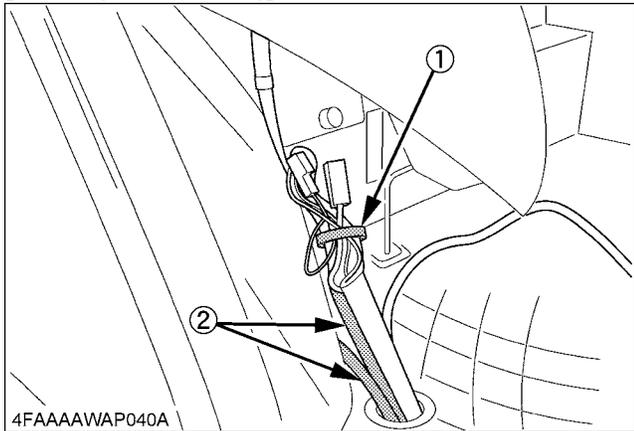


(1) Clamp (cord band)



(1) Clamp (cord band) (C) To additional harness  
(2) Wire harness

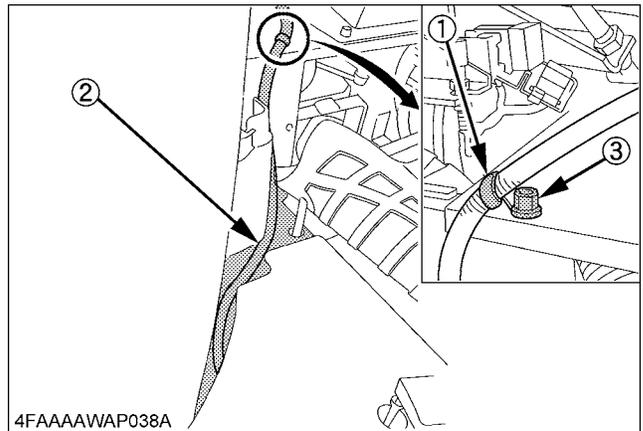
**[M7992 (CAB MODEL)]**



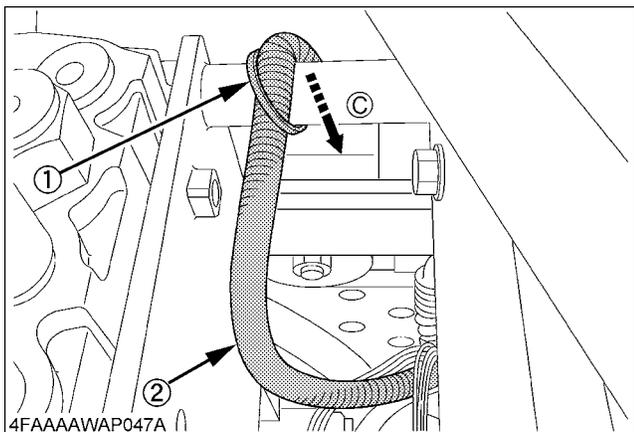
(1) Clamp (cord band)  
(2) Controller cable

Pass the wire harness along with its coupler facing the back of the tractor.

Put an additional harness in the interior trim clearance. Remove the bolt and clamp the harness.

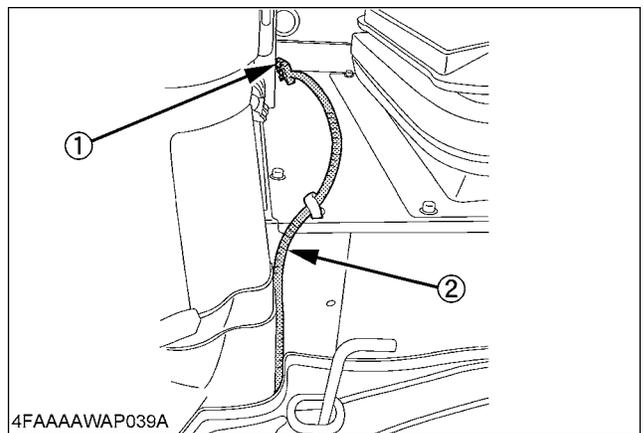


(1) Clamp (cord band) (3) Bolt  
(2) Additional harness



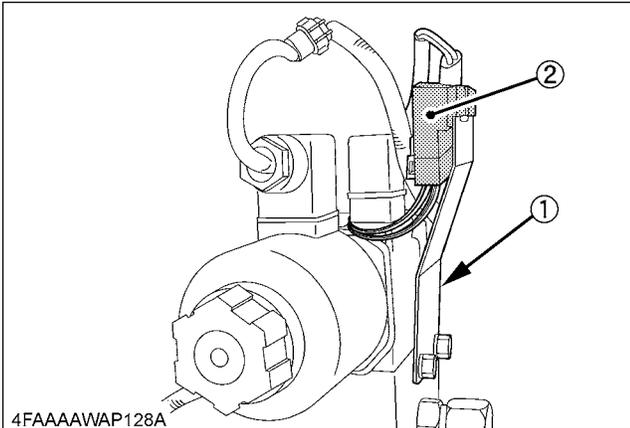
(1) Clamp (cord band) (C) To additional harness  
(2) Wire harness

Connect the additional harness to the tractor harness.



(1) Tractor harness (2) Additional harness

6. Fix the relays to the relay stay.

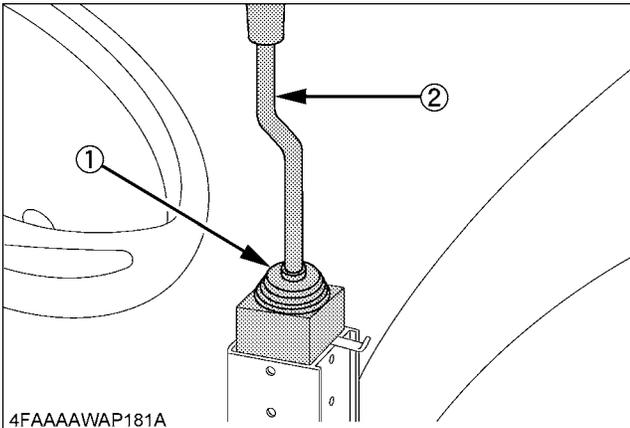


4FAAAAWAP128A

- (1) Relay stay (Solenoid valve assy)
- (2) 2-relays

◆ **M7949 (LA1154SU MODEL)**

1. Remove the lever boot first and then the lever.



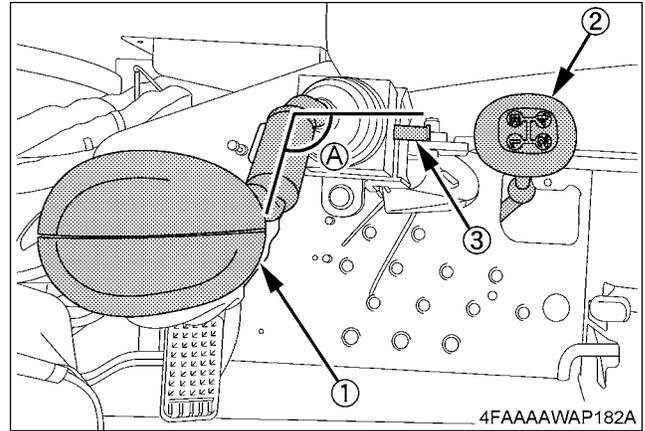
4FAAAAWAP181A

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

2. Pass the lever boot through the 3rd function control lever, and attach the 3rd function control lever to the tractor.

**NOTE :**

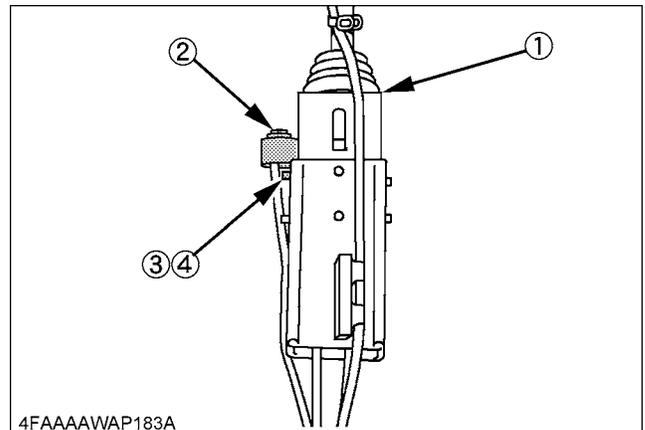
- Install the lever upright in position.



4FAAAAWAP182A

- (1) 3rd function control lever
- (A) Perpendicular to the lock lever
- (2) Main gear shift lever
- (3) Lock lever

3. Remove the nuts and spring washer from the controller assy, as shown in the figure. Reattach these parts with the ON/OFF switch in place.



4FAAAAWAP183A

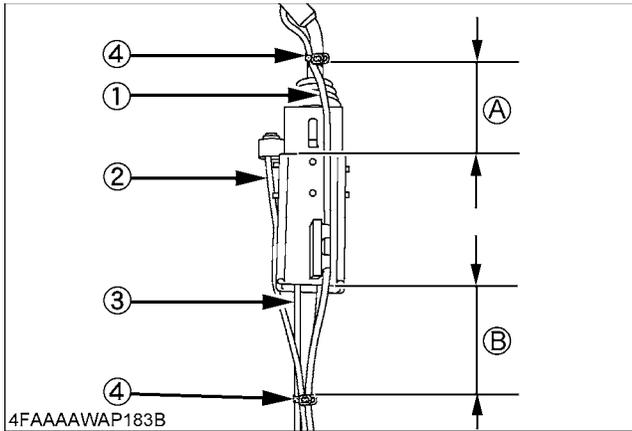
- (1) Controller assy
- (2) ON/OFF switch
- (3) M6 lock nuts (original)

Tightening torque: See "TIGHTENING TORQUE OF BOLTS AND NUTS" section.

- (4) M6 spring washer (original)

4. Remove the sleeve from the controller assy's lever cable.

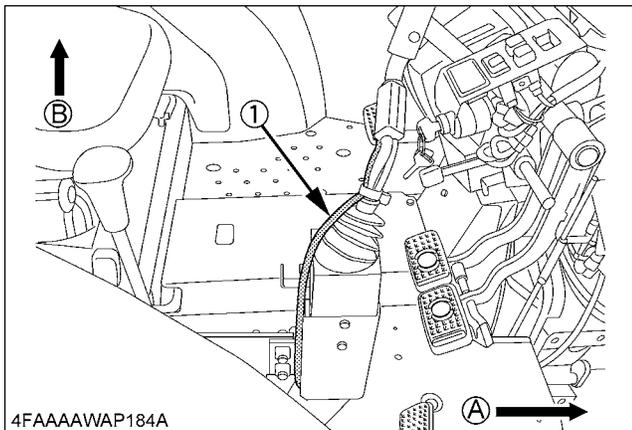
5. Pass the control lever wire harness and the ON/OFF switch wire harness, as shown in the figure. Fix these harnesses and the lever cable with the cord band.



- (1) Control lever harness (A) 110 to 130 mm  
 (2) ON/OFF switch harness (4.3 to 5.1 in.)  
 (3) Lever cable (B) 110 to 150 mm  
 (4) 2-cord bands (4.3 to 5.9 in.)

**IMPORTANT :**

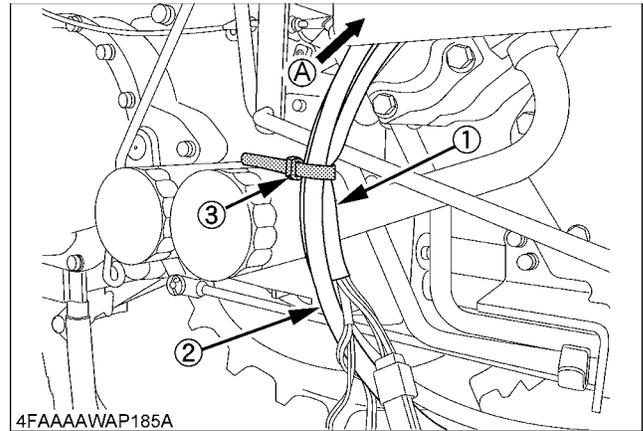
- Tilt the control lever toward the front left of the tractor, as shown in the figure, to make sure the control lever wire harness becomes too tight.



- (1) Control lever harness (A) Toward the tractor front  
 (B) Toward the tractor left side

6. Cover the control lever cable and the wire harnesses with the sleeve (original). Using the cord band, secure these parts back into position.

7. Using the cord band, fix the control lever wire harness and the control lever cable, located below the step, as shown in the figure.

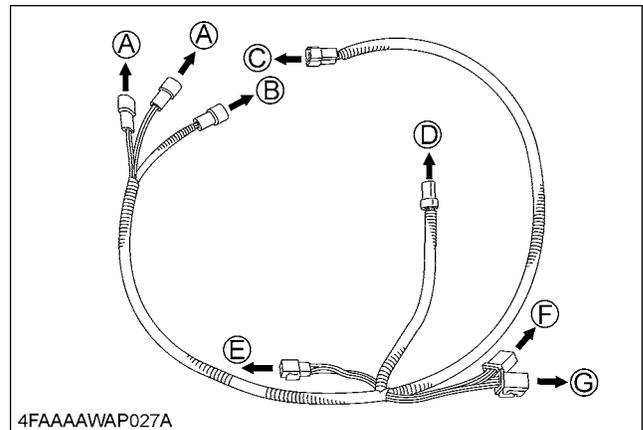


- (1) Lever harness (A) To control lever  
 (2) Lever cable  
 (3) Clamp (cord band)

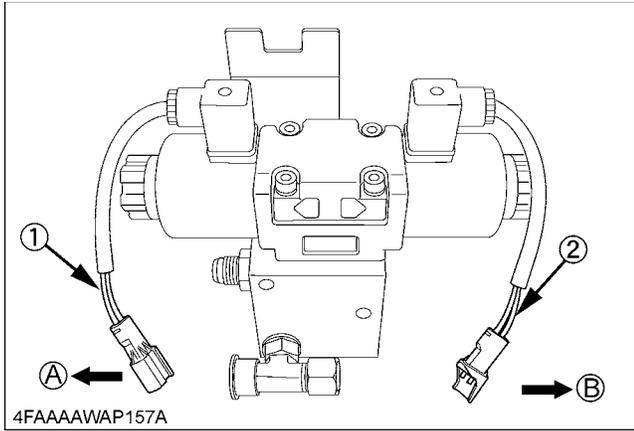
8. Attach the relay to the wire harness, and connect the wire harness to the tractor and solenoid valve harness.

**IMPORTANT :**

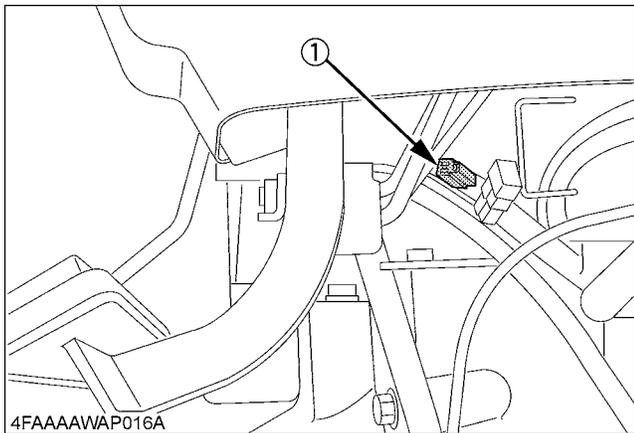
- Connect the wire harness couplers of the 3rd function control lever to their respective same-color couplers.



- (A) To 3rd function control lever  
 (B) To ON/OFF switch  
 (C) To tractor harness  
 (D) To solenoid valve harness-1  
 (E) To solenoid valve harness-2  
 (F) To relay  
 (G) To relay

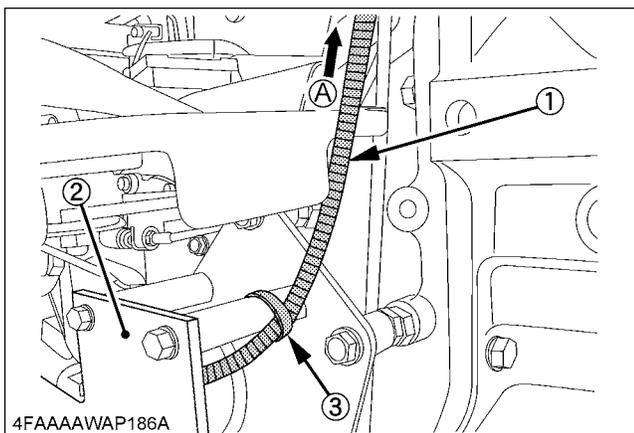


4FAAAWAP157A  
 (1) Solenoid valve harness-1 (A) Rear of tractor  
 (2) Solenoid valve harness-2 (B) Front of tractor



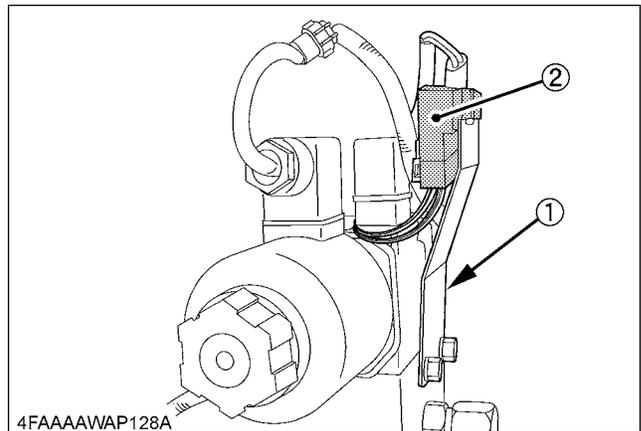
4FAAAWAP016A  
 (1) Tractor harness

9. Clamp the wire harness as shown below.



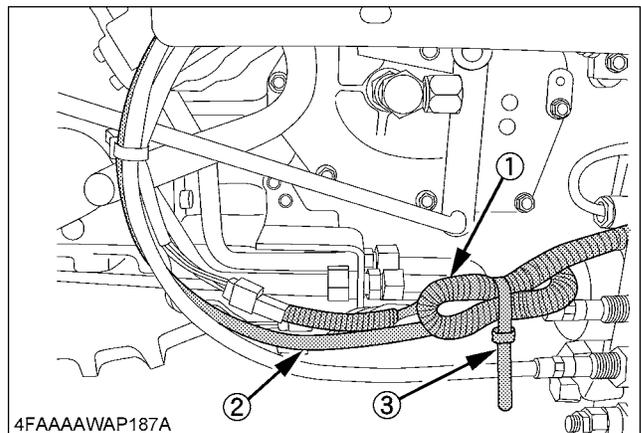
4FAAAWAP186A  
 (1) Wire harness (A) To tractor harness  
 (2) Valve stay  
 (3) Clamp (cord band)

10. Fix the relays to the relay stay.



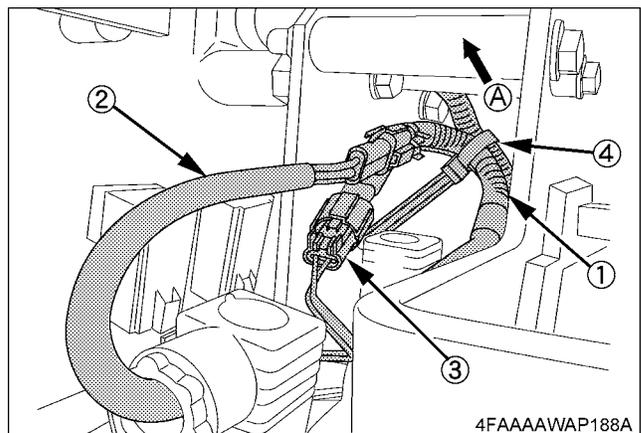
4FAAAWAP128A  
 (1) Relay stay (Solenoid valve assy)  
 (2) 2-relays

11. Fold excess wire harness and secure it to the control lever cable.

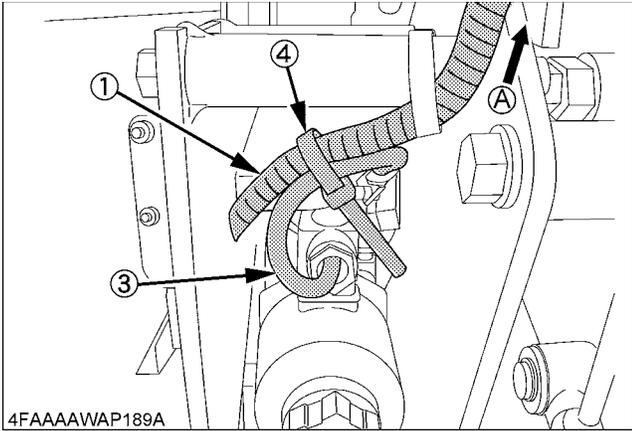


4FAAAWAP187A  
 (1) Wire harness  
 (2) Lever cable  
 (3) Clamp (cord band)

12. Fix the wire harness, connected with the solenoid valve wire harness, together with another wire harness, as shown in the figure.



4FAAAWAP188A

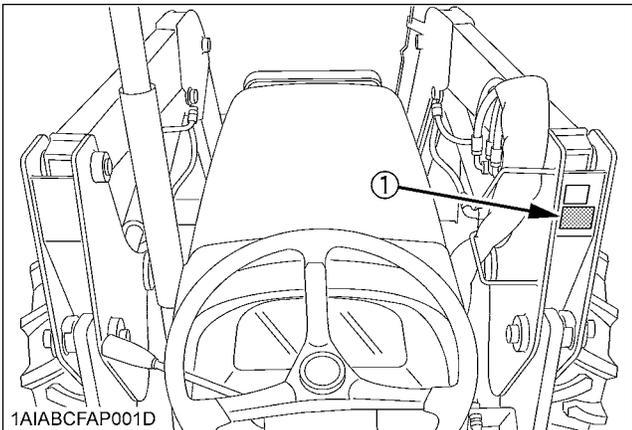


4FAAAAWAP189A

- (1) Wiire harness
- (2) Solenoid valve harness-1
- (3) Solenoid valve harness-2
- (4) Clamp (cord band)

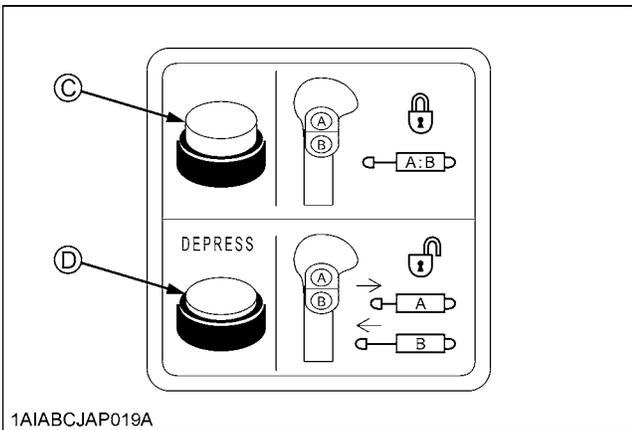
### ■3rd Function Control Operation

1. Apply the label as shown in the illustration.



1AIABCFAP001D

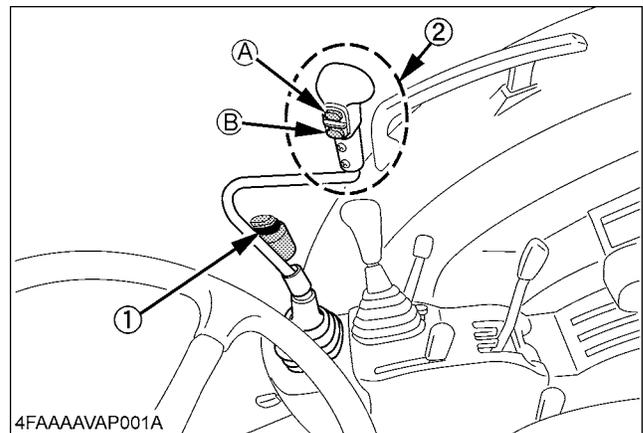
- (1) Label



1AIABCJAP019A

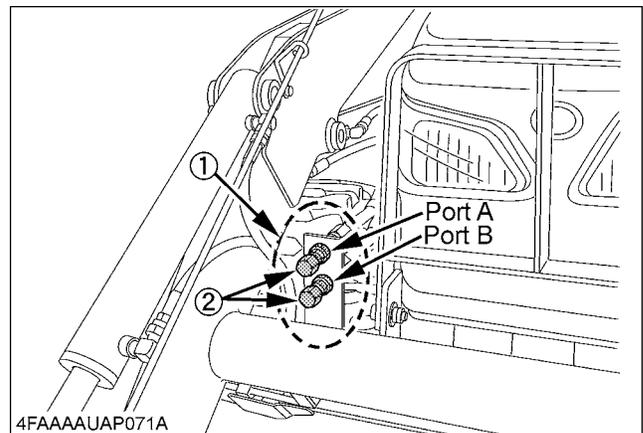
- (C) Front hydraulic valve main switch "OFF"
- (D) Front hydraulic valve main switch "ON"

2. 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).
3. Activation switch  
(1) When pressing the "A" button, hydraulic oil will come out of Port A and return through Port B as long as the switch is pressed.  
(2) When pressing the "B" button hydraulic oil will come out of Port B and return through Port A as long as the switch is pressed.
4. Push the front hydraulic valve main switch again to disengage the front hydraulic valve, and the light of the front hydraulic valve main switch will turn off.



4FAAAAVAP001A

- (1) Front hydraulic valve main switch
- (2) Activation switch



4FAAAAUAP071A

- (1) Front hydraulic outlet
- (2) Plug

## ■ Quick Hitch Frame and Bucket

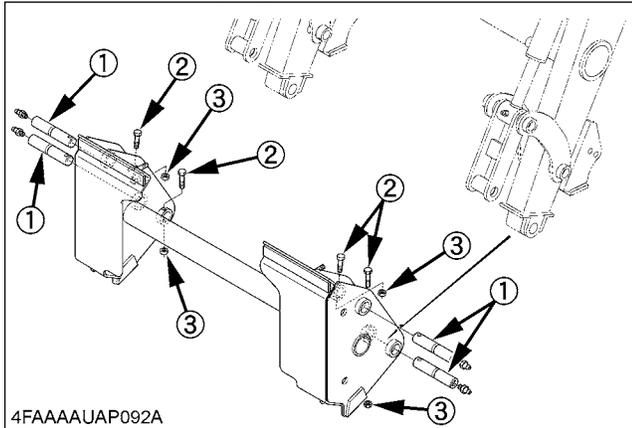
### CAUTION

To avoid personal injury:

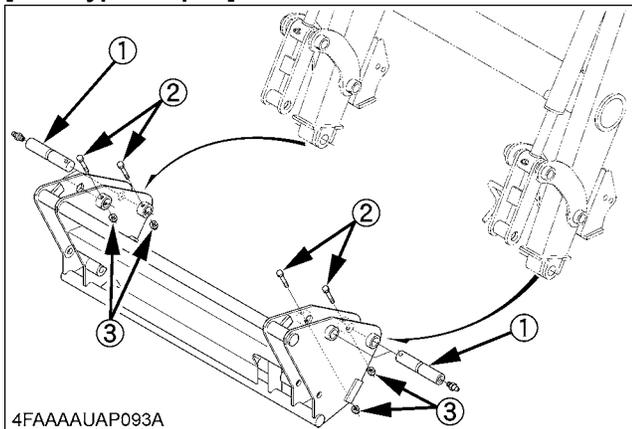
- Do not operate or mount loader without quick attach or bucket installed to loader. Damage may occur to bucket cylinders without these conditions being set.

1. Attach the quick hitch frame to the boom and bucket links as shown.

#### [Quick attach coupler]



#### [Euro type coupler]

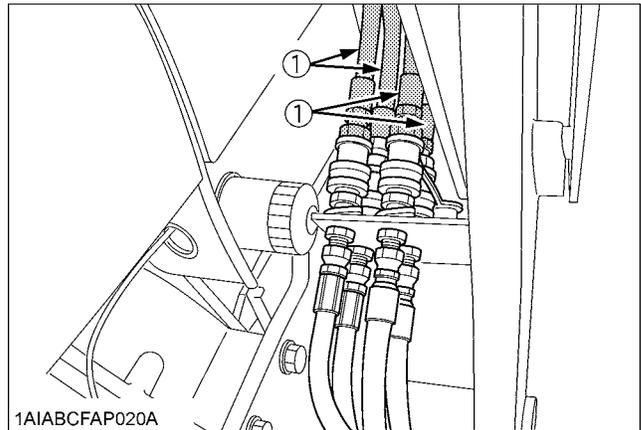


- (1) 4- Pin 3
- (2) 4- M8 x 65 hex. bolts
- (3) 4- M8 locking nuts

2. Attach the bucket to the quick hitch.  
(See operator's manual)

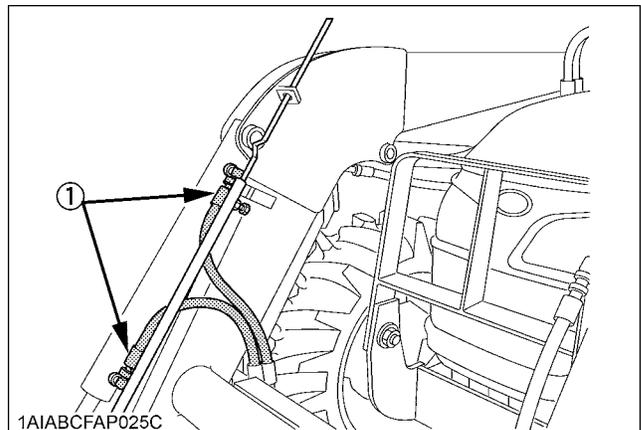
## ■ Hydraulic Hoses

1. Connect four hydraulic hoses, with quick couplers, between the hydraulic tube lines and the control valve as indicated with color marks. Then connect the protective caps and plugs to each other.



- (1) Hose 1 and hose 2

2. Adjust Hose 10 which connects the bucket cylinder to the hydraulic tubes, so that the hoses do not touch the level indicator rod.

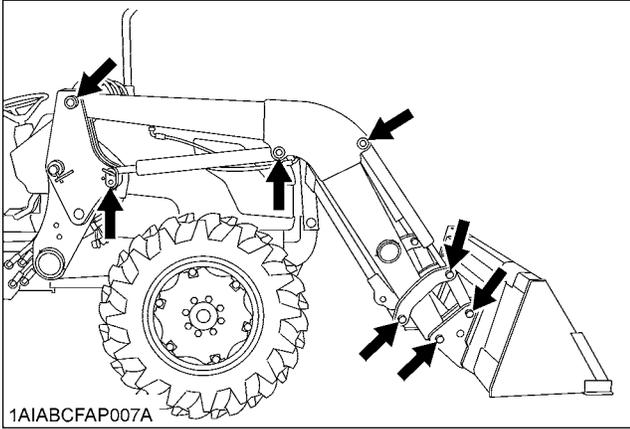


- (1) Hose 10

## PRE-OPERATION CHECK

### ■ Lubrication

Lubricate all grease fittings with SAE multipurpose grease.

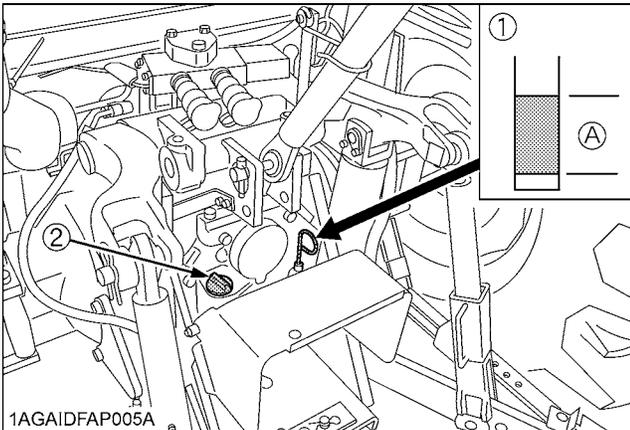


### ■ Transmission Fluid

Check the tractor transmission fluid level. Add fluid if necessary. Refer to the tractor operator's manual for instructions and proper fluid. Repeat this check after purging air from the system. At that time, it will be necessary to add transmission fluid.

#### IMPORTANT :

- To check the tractor transmission fluid level, lower the bucket to the ground and lower the 3-point hitch.



(1) Gauge  
(2) Oil inlet

(A) Oil level is acceptable within this range

## ESTIMATED ASSEMBLY TIME

Refer to the following table for the estimated assembly time from opening the crate to finishing assembling the loader.

Assembly time on the table are just reference under average conditions with the following assumptions.

- (1) When assembly is performed by two workers.
- (2) Following tools and equipment are prepared.
  1. Chain hoist or crane.
  2. Impact wrench, Ratchet wrench, Torque wrench, Socket wrench, Spanner wrench.
  3. Nylon strap.

| Remote Valve Type Loader |           |
|--------------------------|-----------|
| LA1154                   | 1.5 hours |