For Earth, For Life

KUBOTA Technical Support centre Europe

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Zweibrücken
11.04.2019

S E R V I C E – B U L L E T I N

Reference-N°: KTSE - SB - 1904

Improvement Kit for Arm Juddering Phenomenon

Approved by:	☒ International Quality Assurance department
	☐ Kubota Technical Support centre Europe

Affected distributors:
- ☒ KBD
- ☒ KE
- ☒ KUK

Classification:
- ☐ 1. Information
- ☒ 2. Fix on a failure basis
- ☐ 3. Recommended product improvement
- ☐ 4. Mandatory campaign

Model	Serial N°
KX080-4Alpha	All

A. Subject

Especially when using particular heavy attachments, and worse with 2-piece boom version, the arm movement could get somehow jerky which can possibly make, for example, fine levelling operation difficult.
For those particular cases, a special field modification kit was developed to improve this phenomenon.
In case of customer complaint, the modifications indicated in this bulletin must be followed.

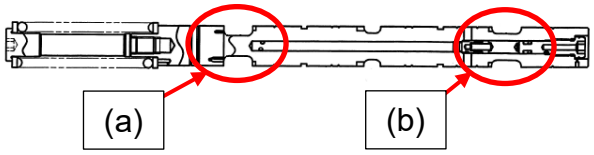
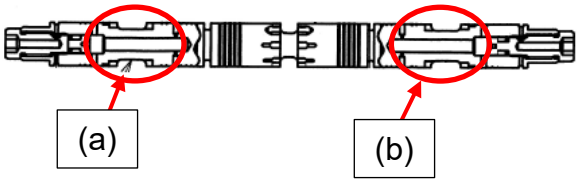
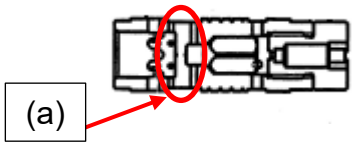
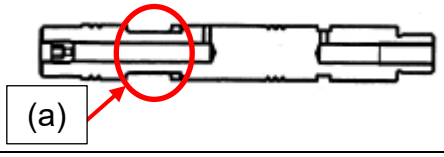
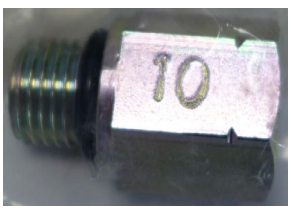
B. Service Information

⚠ WARNING:
To avoid personal injury:

- Park the machine on a flat and level ground.
- Keep the bucket or other attachment down on the floor.
- Stop the engine and remove the starter key.
- Release the residual pressure from the hydraulic circuit.
- Use working clothes and personal protective equipment to avoid personal injury.
- Follow the local safety directives in your country.
- If you work with other persons, make sure your signals are fully understandable and mutually communicative for added safety.
- Hydraulic components and engine parts can be hot. Wait until all components cooled down to avoid burns.

Repair outline:

Please follow the attached original installation instructions from Kubota Japan (page 3 to 35). Note that the kit is compatible with both mono-boom and 2-piece boom versions.
Take special care for the cleanliness during repair work to avoid contamination of the hydraulic system as consequentially stuck spools could be then leading to dangerous situations when operating the machine. Do not insert the spools with force, but insert them very carefully, well aligned with the bore, so that they must slide smoothly once inserted.

Parts identification table	
(a) "K" mark (b) Number mark travel spool "126" boom spool "128" arm spool "129"	
(a) "K" mark (b) Number mark swivel spool "599"	
(a) "K" mark (compensator)	
(a) "K" mark (unload spool)	
Orifice (a) Identification mark no identification mark = Ø 0,8 mm "10" = Ø 1,0 mm "11" = Ø 1,1 mm "12" = Ø 1,2 mm "14" = Ø 1,4 mm	

Tools and consumables:

Long nose pliers	
Circlip pliers	
Ratchet handle	
Socket (width across flats 14 mm)	
Socket (width across flats 30 mm)	
Spanner (width across flats 14 mm)	
Spanner (width across flats 17 mm)	
Spanner (width across flats 19 mm)	
Spanner (width across flats 22 mm)	
Spanner (width across flats 24 mm)	
Spanner (width across flats 27 mm)	
Spanner (width across flats 30 mm)	
Spanner (width across flats 32 mm)	
Hexagonal wrench (width across flats 3 mm)	
Hexagonal wrench (width across flats 5 mm)	
Hexagonal wrench (width across flats 6 mm)	
Torque Wrench (2.5~197 N·m)	
Telescopic magnet bar (magnet diameters less than 10 mm)	
Hose plug (1/4)	Qty 2
Hose plug (3/8)	Qty 2
Hose plug (9/16U)	Qty 2
Hose plug (13/16U)	Qty 1
Hose plug (1U)	Qty 1
Vacuum pump	
Paper wiper	
Cleaning fluid	
Air duster gun	

PROCEDURE

Install the kit in order of the following procedure:

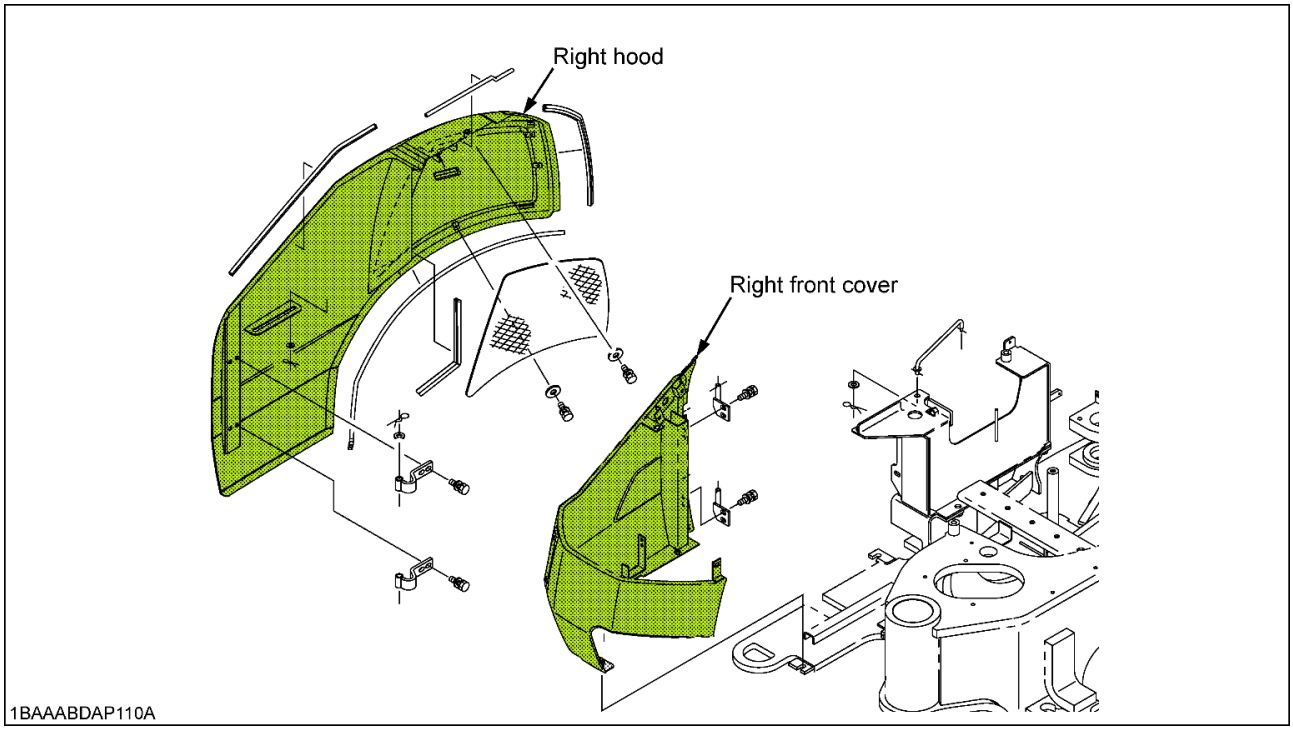
(A) Step 1-Step 8: Control valve

(B) Step 1-Step 3: Hydraulic pump

(A) Control valve

Step 1.

Remove the right front cover and right hood of the machine.



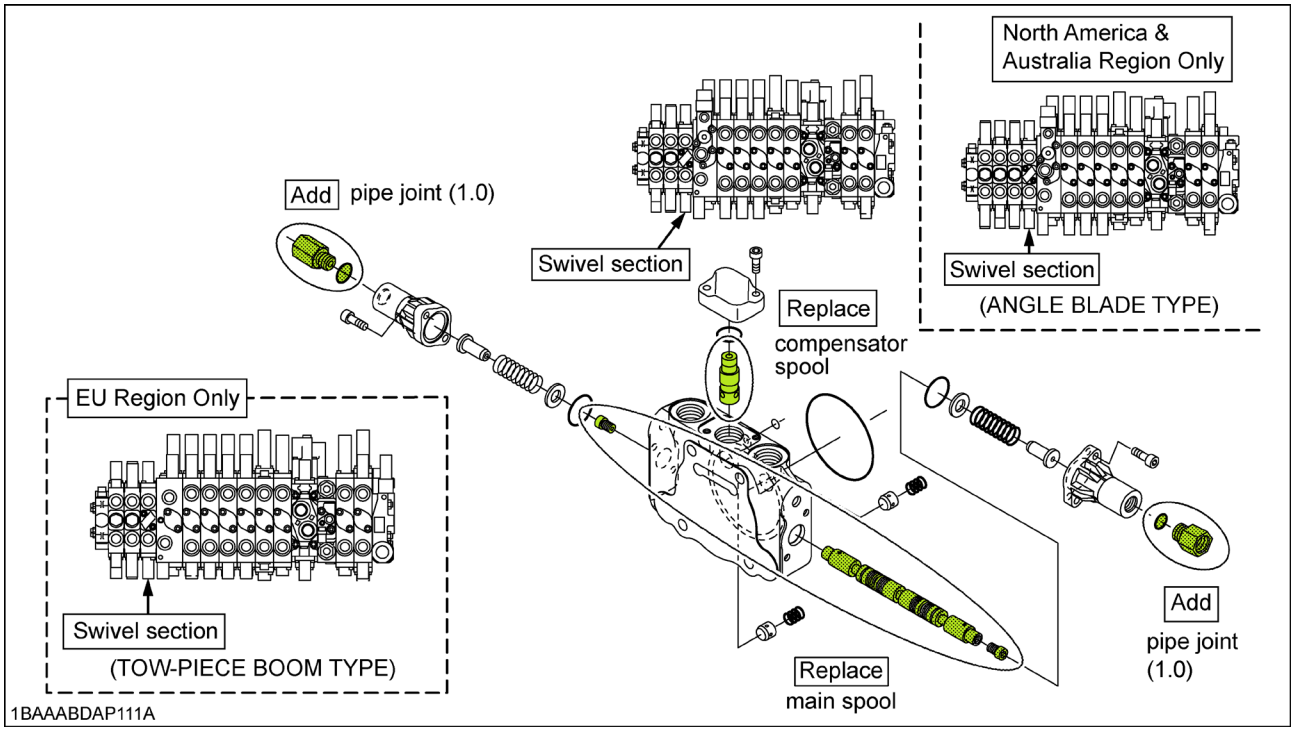
1. Remove the right hood.
   <Required tool>
   - Long nose pliers
2. Remove the right front cover.

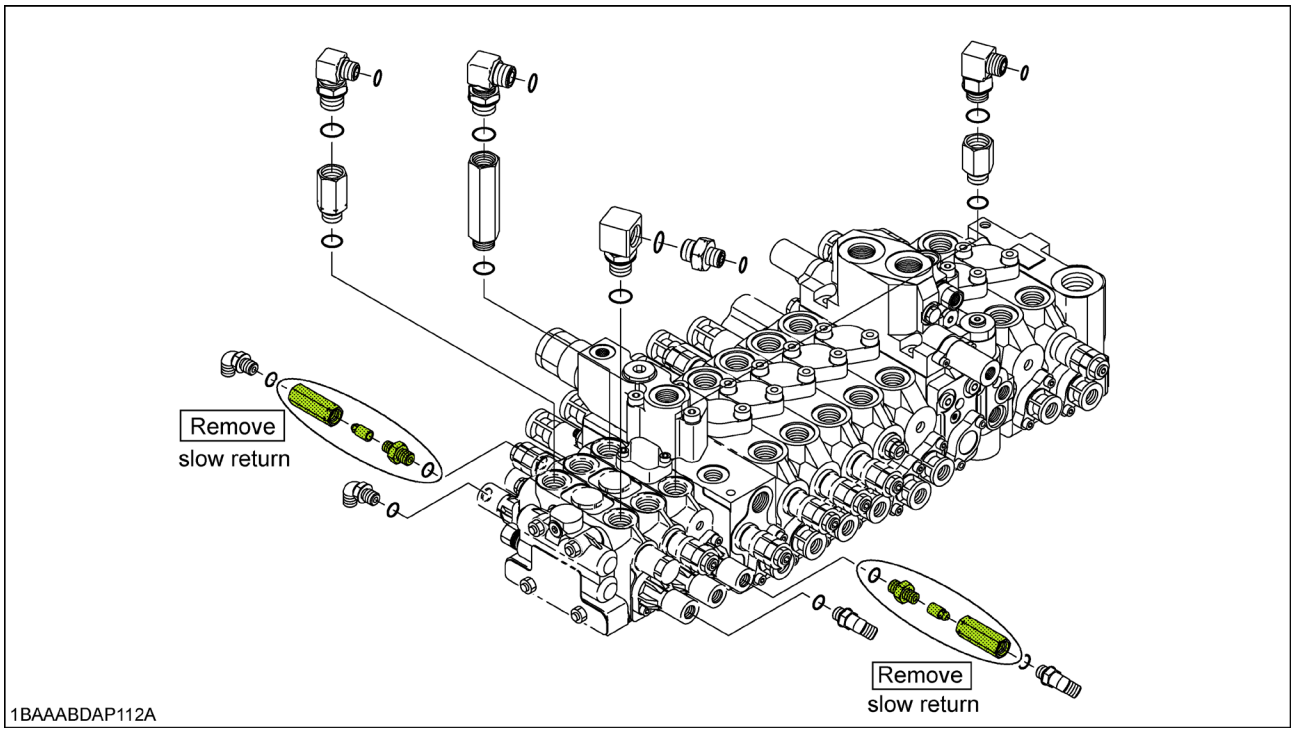
<Required tools>

- Ratchet handle
- Socket (width across flats 14 mm)

Step 2. Swivel section

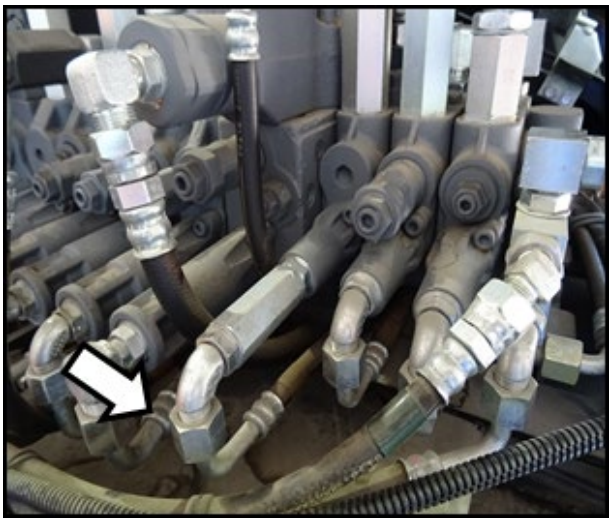
Replace the main spool and the compensator spool, remove the slow return on both sides of the pilot line and replace it with the pipe joint (1.0).

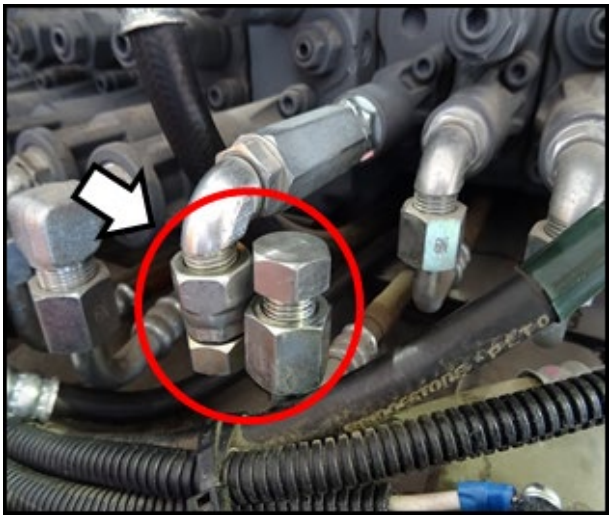




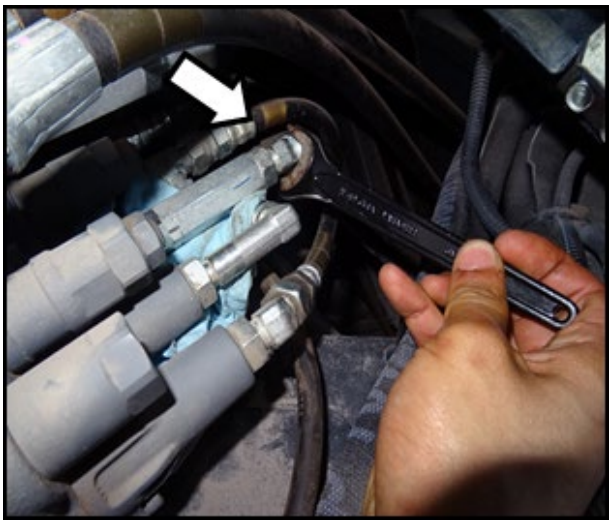
1. Remove the pilot hose fitting of the swivel section and plug it (both sides).

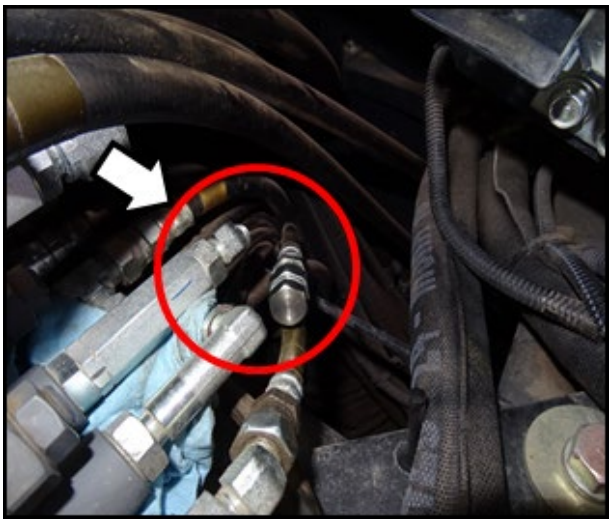
[Outside]





[Inside]

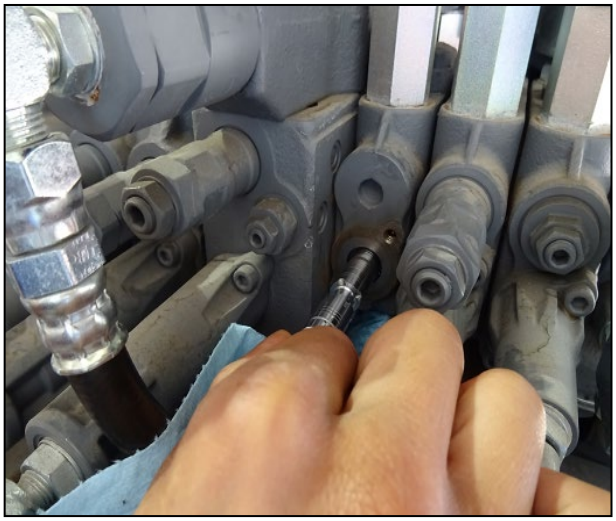




<Required tools>

- Spanner (width across flats 17 mm)
- Spanner (width across flats 19 mm)
- Hose plug (1/4)

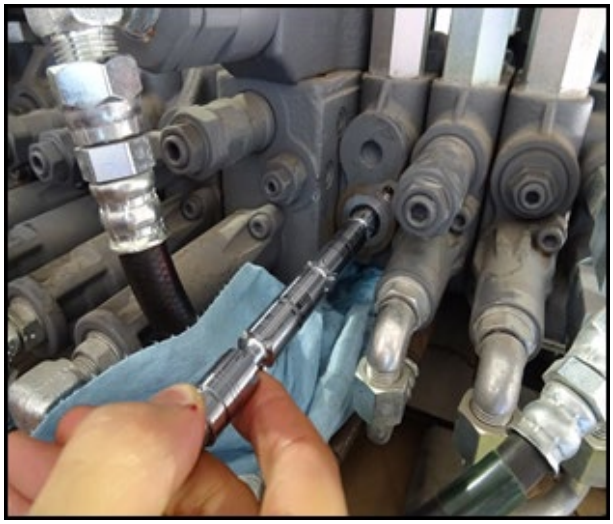
2. Remove the spool cap, spring and spring seat, then pull out the spool.



<Required tools>

- Hexagonal wrench (width across flats 5 mm)

3. Flush the countermeasure spool and insert it into the swivel section of the valve.



4. Reassemble the spool cap, spring and spring seat.

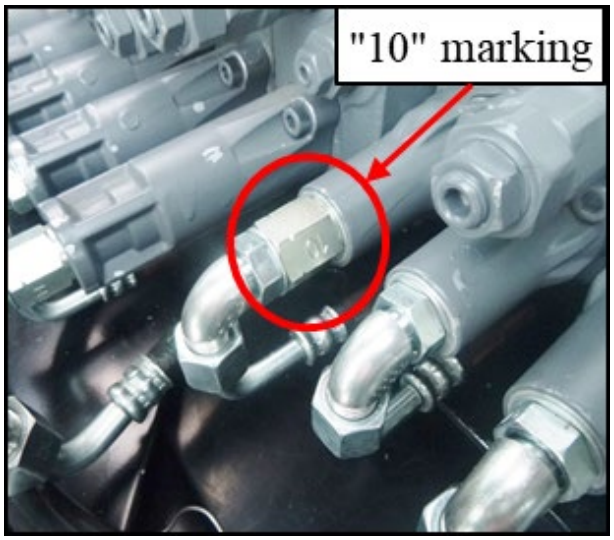
NOTE:

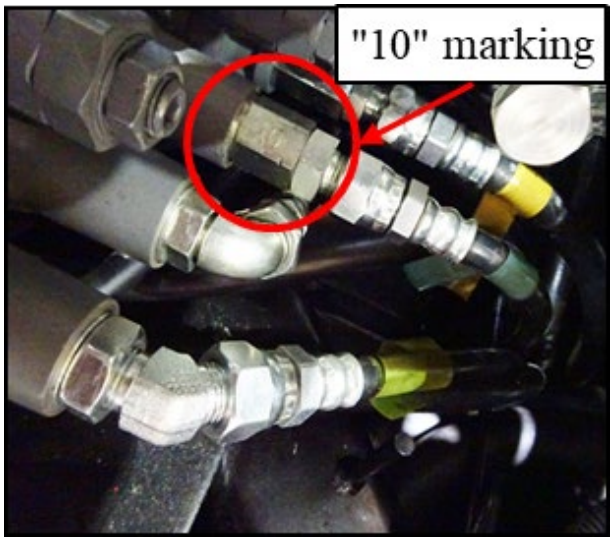
- Be careful not to forget to install O-ring.
- Tightening torque of hexagon socket head bolt: 8.8 to 10.8 N-m

<Required tools>

- Hexagonal wrench (width across flats 5 mm)
- Torque Wrench

5. Remove the original slow return, then flush the pipe joint (1.0) and add it to both sides of the pilot line.
   (There is "10" marking on the side of the pipe joint)

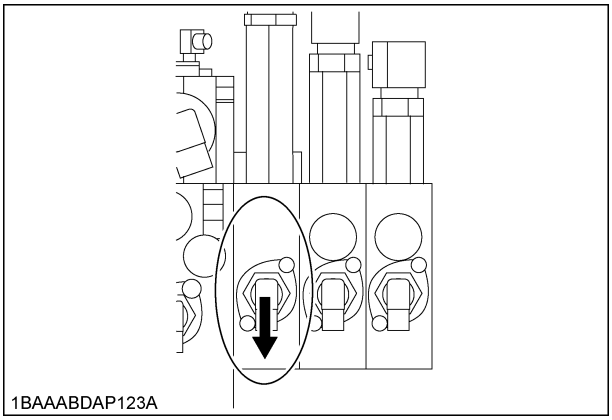




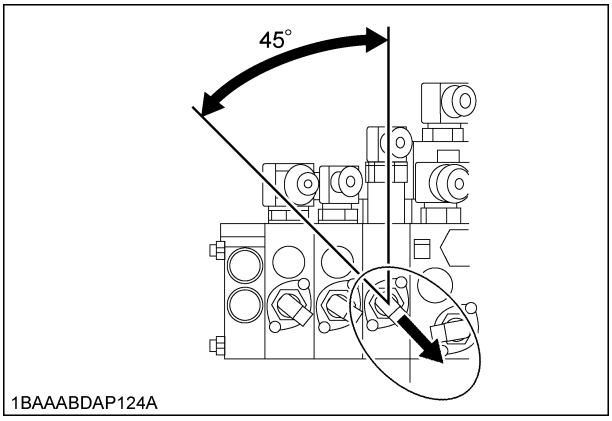
NOTE:

- Since the angle of the elbow joint changes after adding the pipe joint (1.0), readjust it as follows.

<Outside of the machine>



<Inside of the machine>



NOTE:

- Tightening torque of pipe joint (1/4) and elbow joint (1/4): 24.5 to 29.4 N-m

<Required tools>

- Spanner (width across flats 14 mm)
- Spanner (width across flats 17 mm)
- Spanner (width across flats 19 mm)
- Torque Wrench

6. Reconnect the pilot hose fitting in the swivel section (both sides).

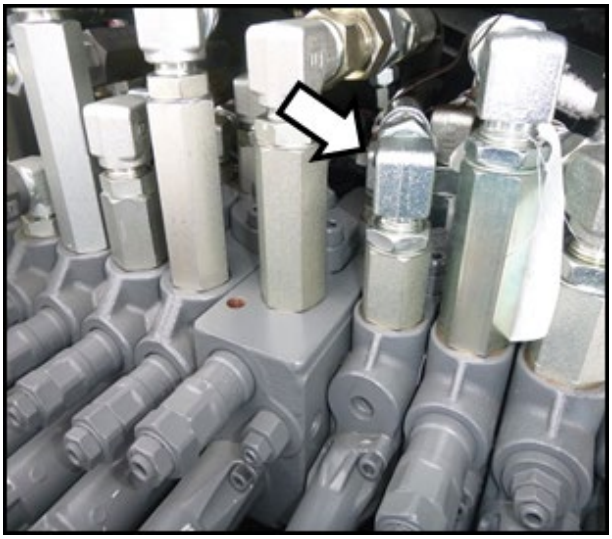
NOTE:

- Tightening torque of pilot hose fitting (1/4): 24.5 to 29.4 N-m

<Required tools>

- Spanner (width across flats 17 mm)
- Spanner (width across flats 19 mm)
- Torque Wrench

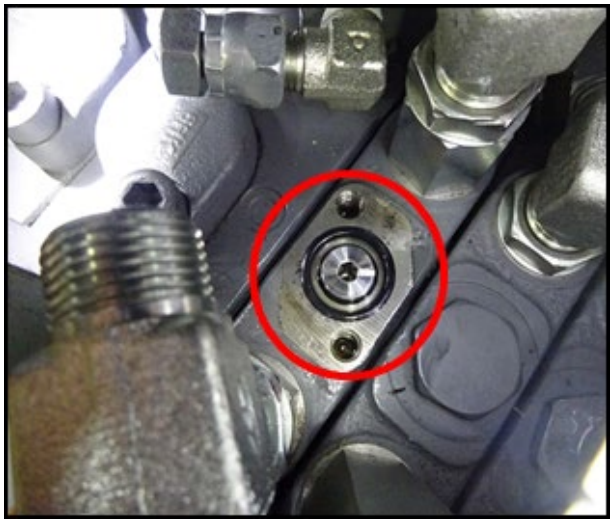
7. Remove the high-pressure hose fitting of the swivel section and plug it (swivel left side).



<Required tools>

- Spanner (width across flats 22 mm)
- Spanner (width across flats 27 mm)
- Hose plug (13/16U)

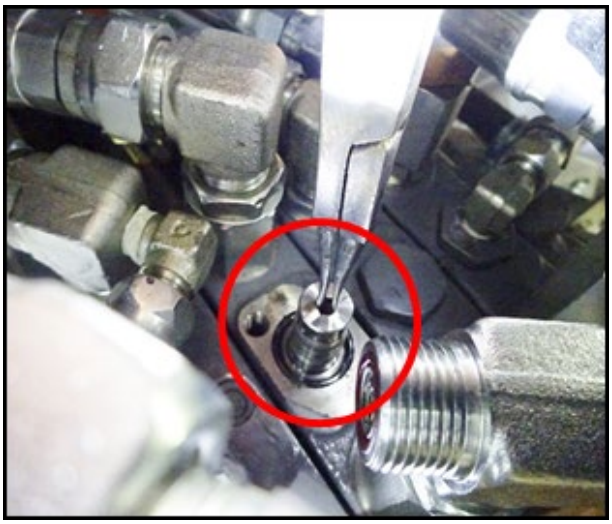
8. Remove the cap of the compensator spool.



<Required tool>

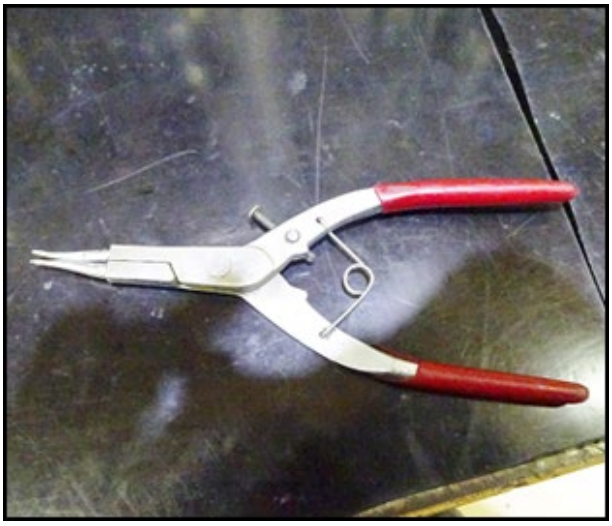
- Hexagonal wrench (width across flats 6 mm)

9. Pull out the compensator spool using the circlip pliers (see the figure below).



NOTE:

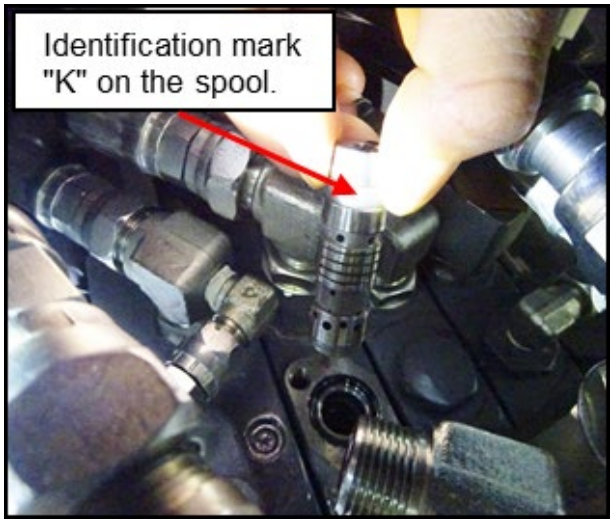
- When pulling out the compensator spool, be careful not to pinch the other places indicated in the figure above (to prevent scratching of the spool).
- To pull out the compensator spool, please use the circlip pliers of the type shown below.



<Required tool>

- Circlip pliers

10. Flush the countermeasure spool and insert it into the compensator-port of the swivel section.



11. Reassemble the cap of the compensator spool.

NOTE:

- Be careful not to forget to install O-ring.
- Tightening torque of hexagon socket head bolt: 31.4 ± 1.0 N-m

<Required tools>

- Hexagonal wrench (width across flats 6 mm)
- Torque Wrench

12.Reconnect the high-pressure hose of the swivel section (swivel left side).

NOTE:

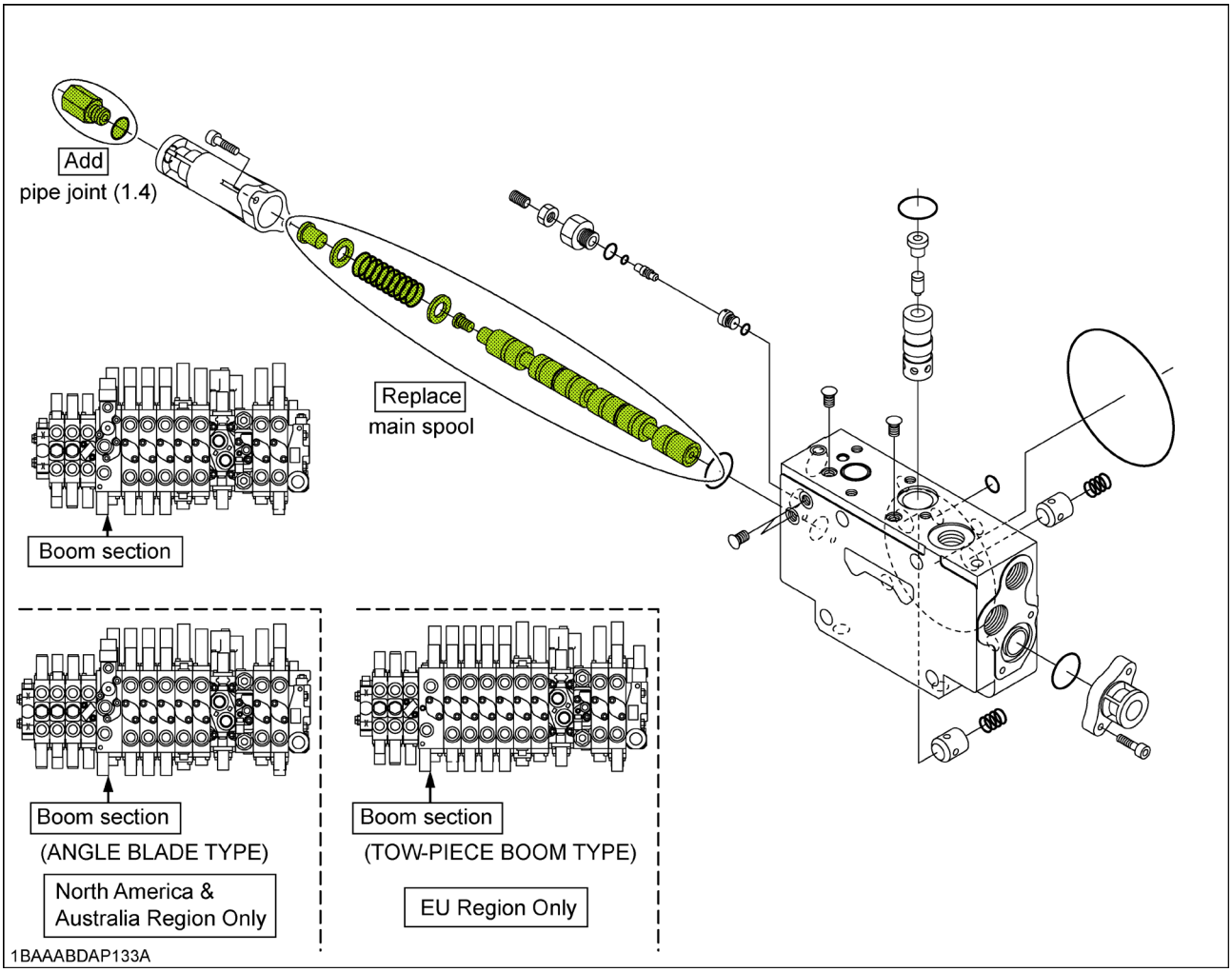
- Before connecting the hose, be careful not to forget to install the O-ring in the connecting surface between the pipe joint and the high-pressure hose.
- Tightening torque of the swivel hose (13/16U): 70.6 to 86.2 N-m

<Required tools>

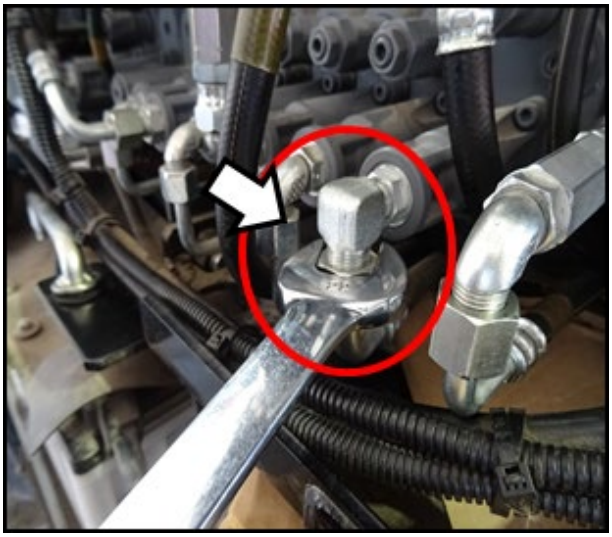
- Spanner (width across flats 22 mm)
- Spanner (width across flats 27 mm)
- Torque Wrench

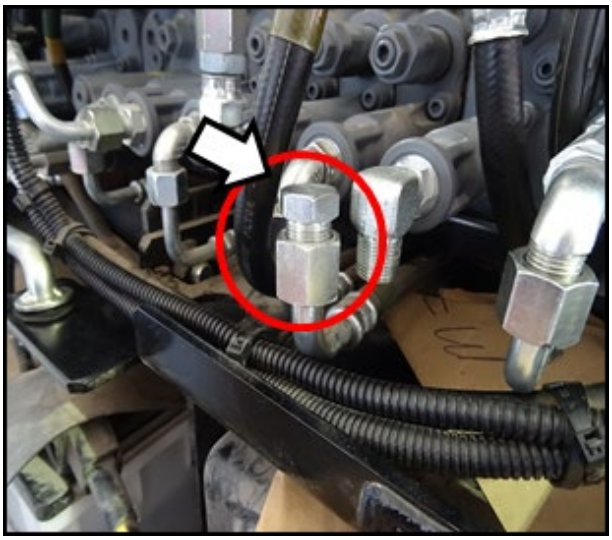
Step 3. Boom section

Replace the main spool and add the pipe joint (1.4) to the pilot line on the lifting side of the boom section.



1. Remove the pilot hose fitting of the boom section and plug it (Outside of the valve only).

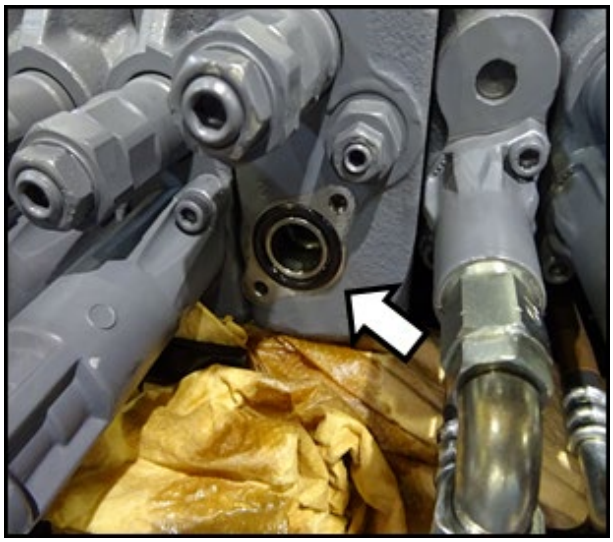




<Required tools>

- Spanner (width across flats 19 mm)
- Spanner (width across flats 22 mm)
- Hose plug (3/8)

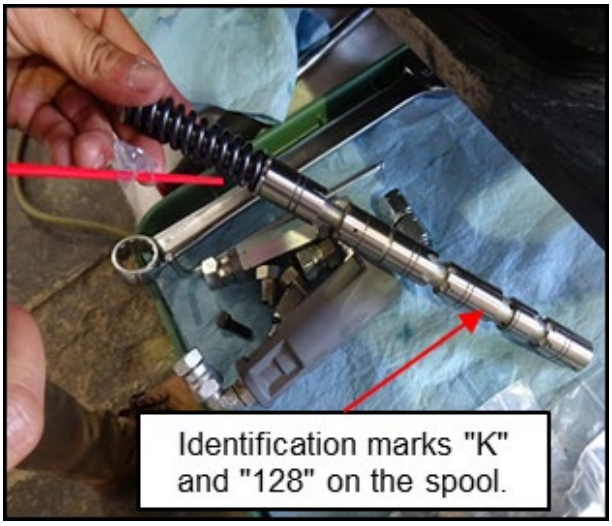
2. Remove the spool cap, then pull out the spool.



<Required tool>

- Hexagonal wrench (width across flats 5 mm)

3. Flush the countermeasure spool and insert it into the boom section of the valve.



4. Reassemble the spool cap.

NOTE:

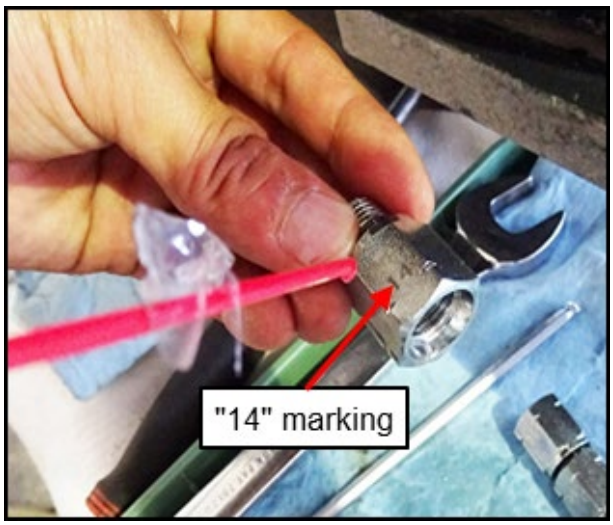
- Be careful not to forget to install O-ring.
- Tightening torque of hexagon socket head bolt: 8.8 to 10.8 N-m

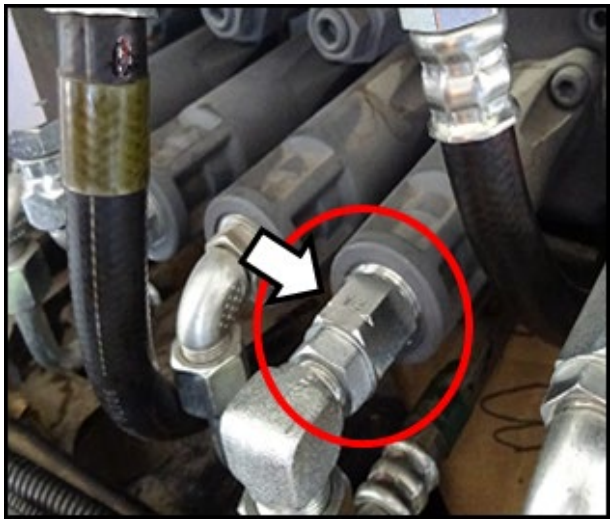
<Required tools>

- Hexagonal wrench (width across flats 5 mm)
- Torque Wrench

5. Flush the pipe joint (1.4) and add it to the pilot line (Outside only).

(There is "14" marking on the side of the pipe joint)





NOTE:

- Tightening torque of pipe joint (1/4) and elbow joint (1/4): 24.5 to 29.4 N-m

<Required tools>

- Spanner (width across flats 17 mm)
- Spanner (width across flats 19 mm)
- Torque Wrench

6. Reconnect the pilot hose fittings in the boom section.

NOTE:

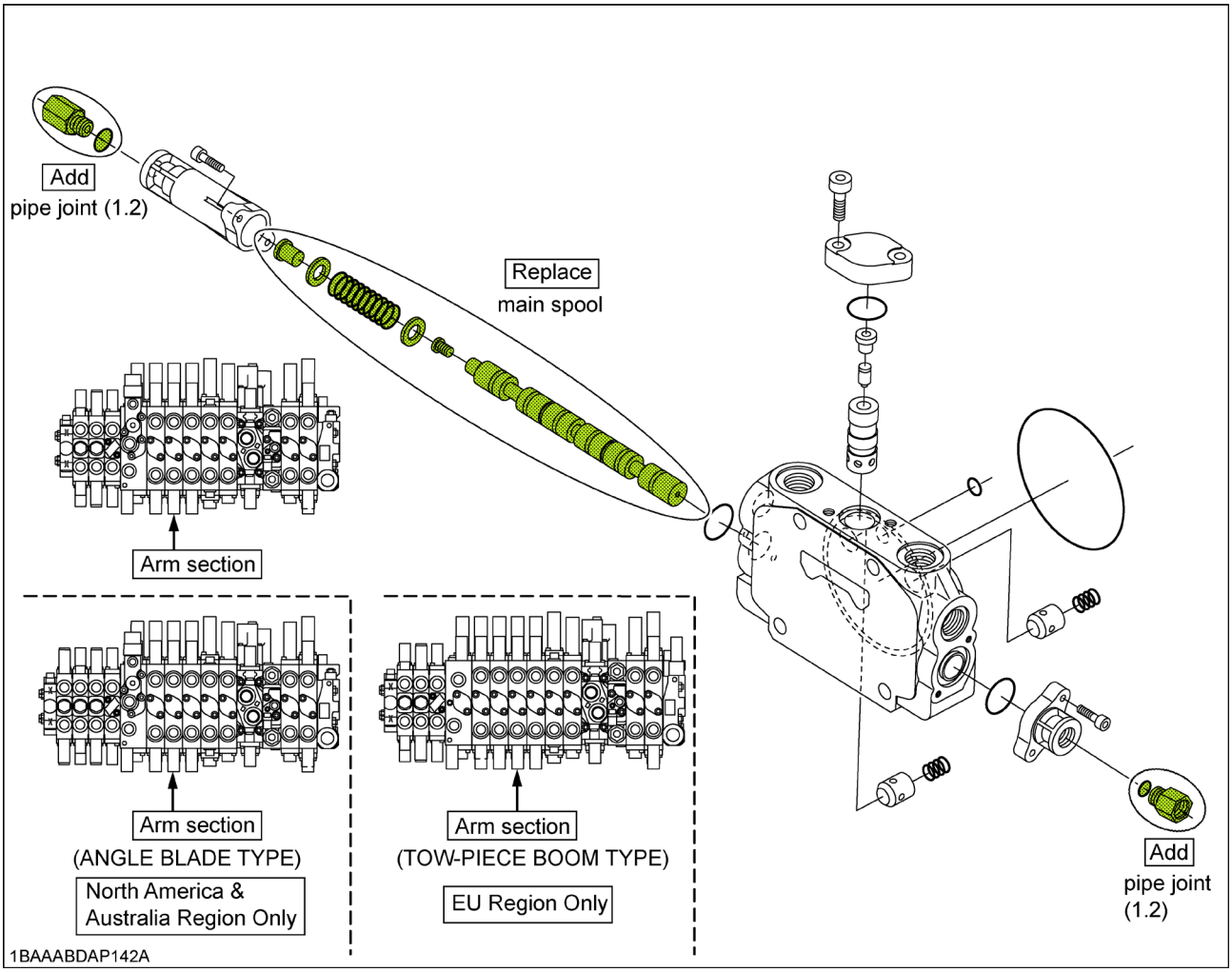
- Tightening torque of pilot hose fitting (3/8): 37.2 to 42.1 N-m

<Required tools>

- Spanner (width across flats 19 mm)
- Spanner (width across flats 22 mm)
- Torque Wrench

Step 4. Arm section

Replace the main spool of the arm section and add the pipe joint (1.2) on both sides of the pilot line.

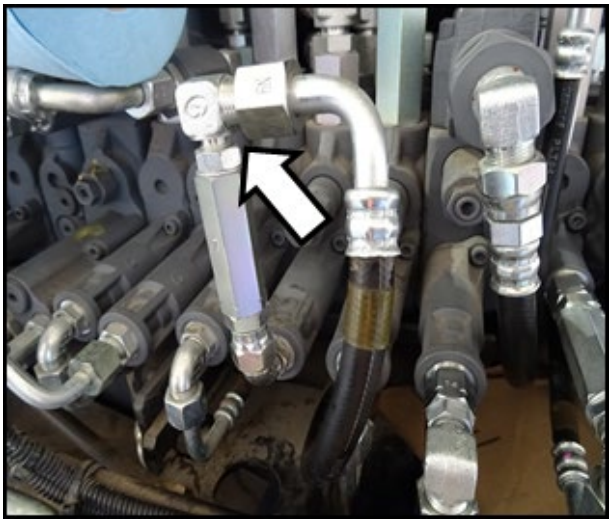


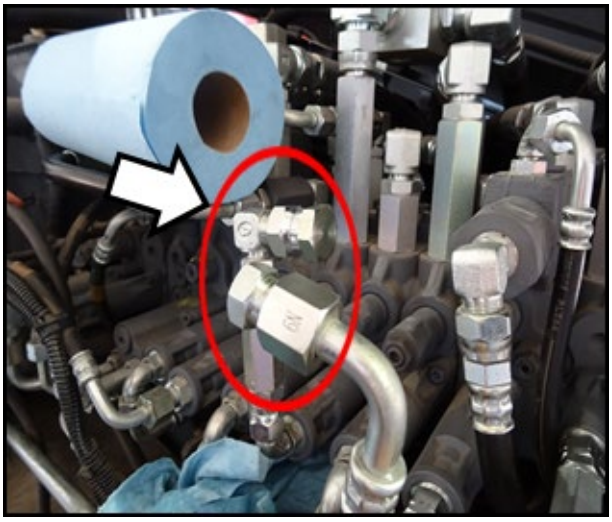
1. Remove the pilot hose fitting of the arm section and plug it (both sides).

NOTE:

- Since the arm section on the inner side of the valve is difficult to access, remove the high-pressure hose on the boom raising side and the bucket dump side before working.

[Out side]



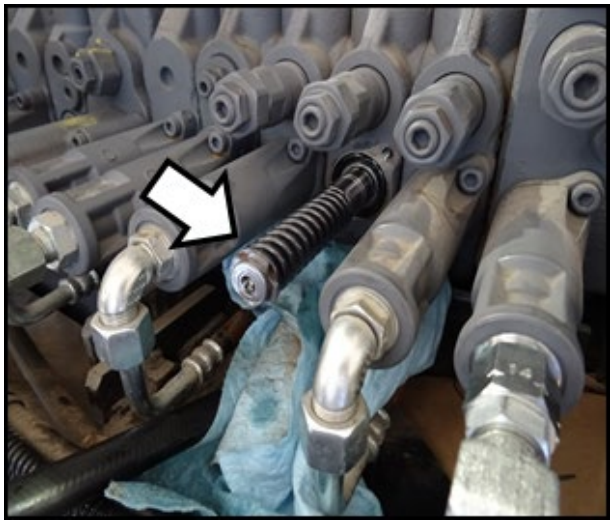


[In side]

<Required tools>

- Spanner (width across flats 19 mm)
- Spanner (width across flats 22 mm)
- Spanner (width across flats 24 mm)
- Spanner (width across flats 27 mm)
- Spanner (width across flats 30 mm)
- Spanner (width across flats 32 mm)
- Hose plug (3/8)
- Hose plug (13/16U)
- Hose plug (1U)

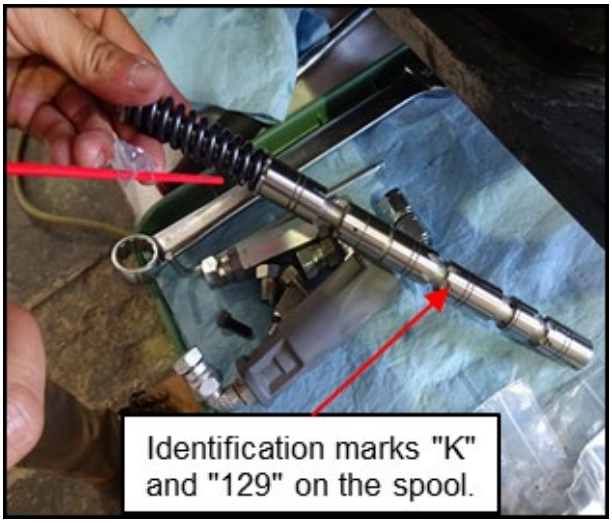
2. Remove the spool cap, then pull out the spool.



<Required tool>

- Hexagonal wrench (width across flats 5 mm)

3. Flush the countermeasure spool and insert it into the arm section of the valve.



4. Reassemble the spool cap.

NOTE:

- Be careful not to forget to install O-ring.
- Tightening torque of hexagon socket head bolt: 8.8 to 10.8 N-m

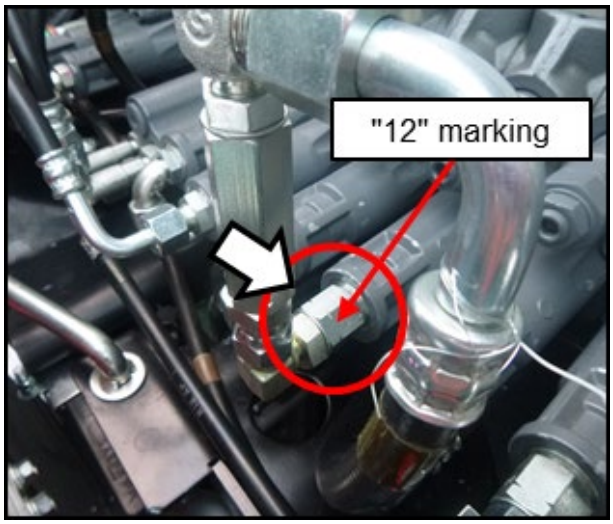
<Required tools>

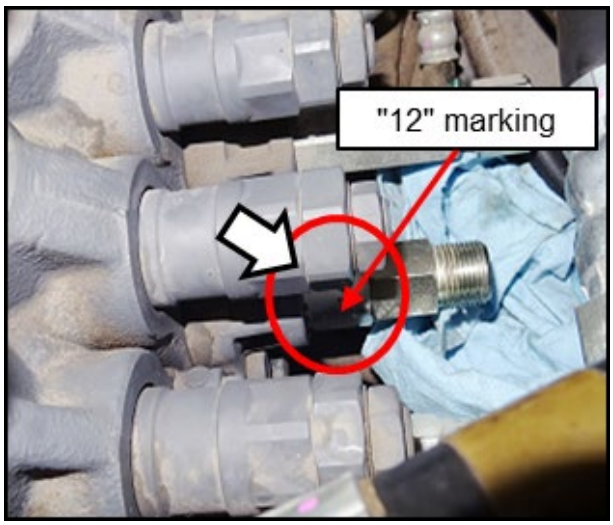
- Hexagonal wrench (width across flats 5 mm)
- Torque Wrench

5. Flush the pipe joint (1.2) and add it to both sides of the pilot line. (There is "12" marking on the side of the pipe joint)

NOTE:

- Tightening torque of pipe joint (1/4): 24.5 to 29.4 N-m





<Required tools>

- Spanner (width across flats 17 mm)
- Spanner (width across flats 19 mm)
- Torque Wrench

6. Reconnect the pilot hose and high-pressure hose.

NOTE:

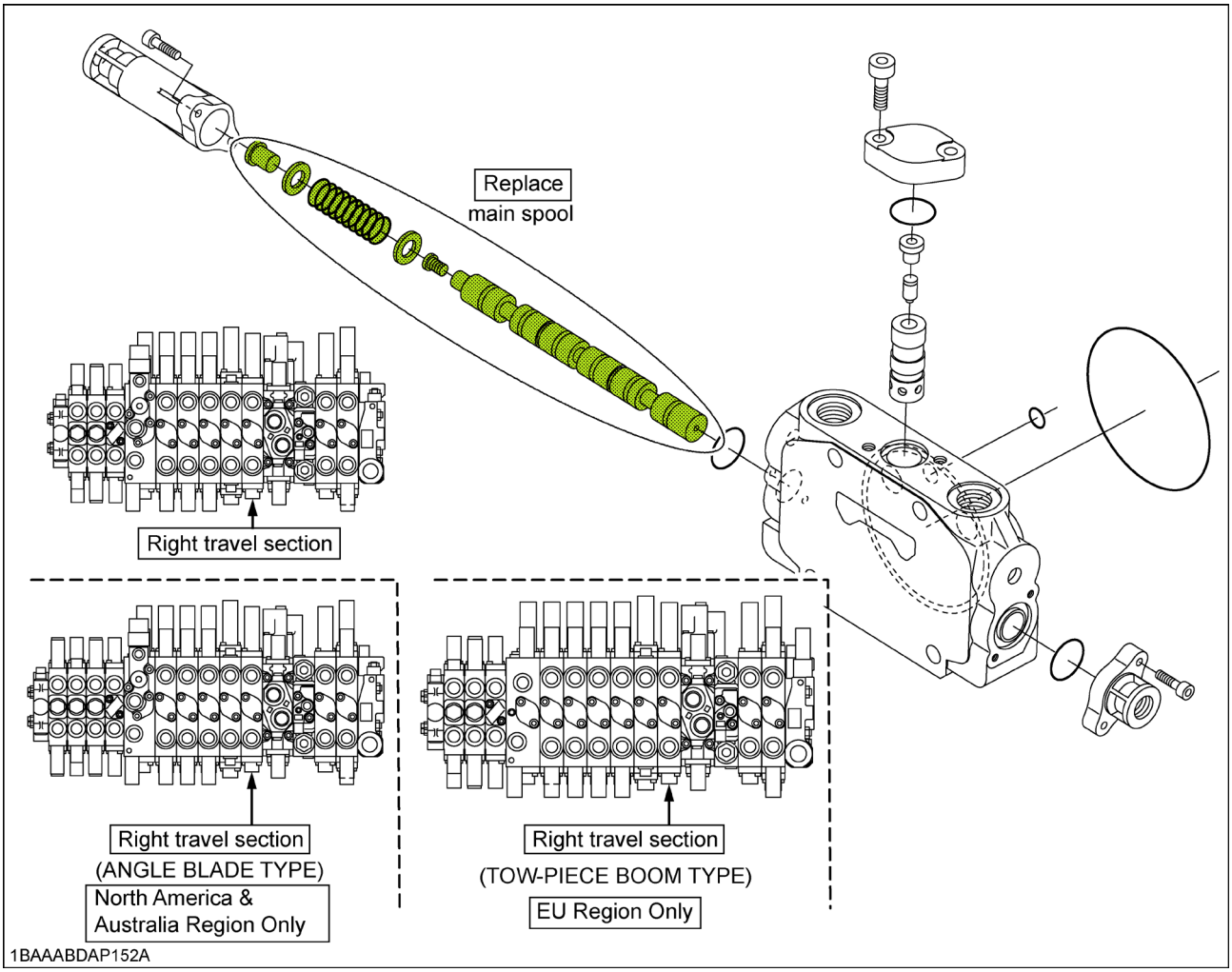
- Before connecting the high-pressure hose, be careful not to forget to install O-ring in the connecting surface between the pipe joint and the high-pressure hose.
- Tightening torque of pilot hose fitting (1/4): 24.5 to 29.4 N-m
- Tightening torque of pilot hose fitting (3/8): 37.2 to 42.1 N-m
- Tightening torque of high-pressure hose fitting (13/16U): 70.6 to 86.2 N-m
- Tightening torque of high-pressure hose fitting (1U): 105.8 to 129.4 N-m

<Required tools>

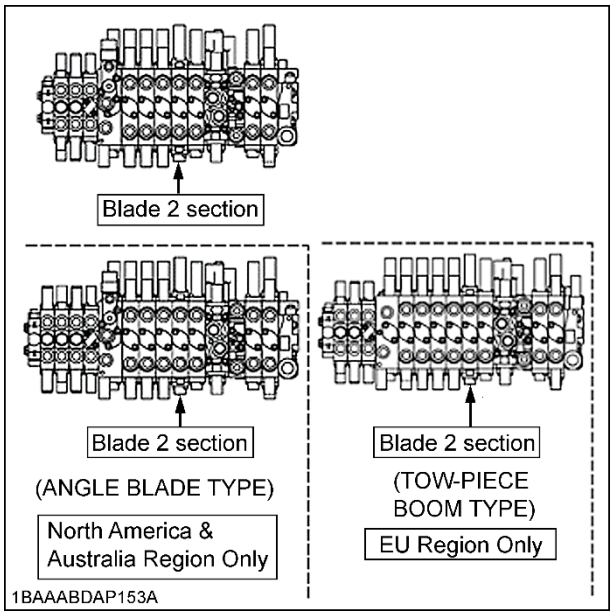
- Spanner (width across flats 17 mm)
- Spanner (width across flats 19 mm)
- Spanner (width across flats 22 mm)
- Spanner (width across flats 24 mm)
- Spanner (width across flats 27 mm)
- Spanner (width across flats 30 mm)
- Spanner (width across flats 32 mm)
- Torque Wrench

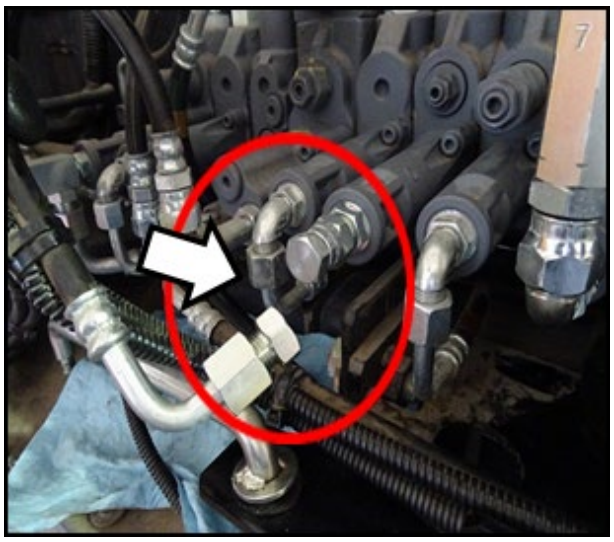
Step 5. Right travel section

Replace the main spool of the right travel section.



1. Remove the pilot hose fitting of the blade 2 section and plug it to make it easy to access.

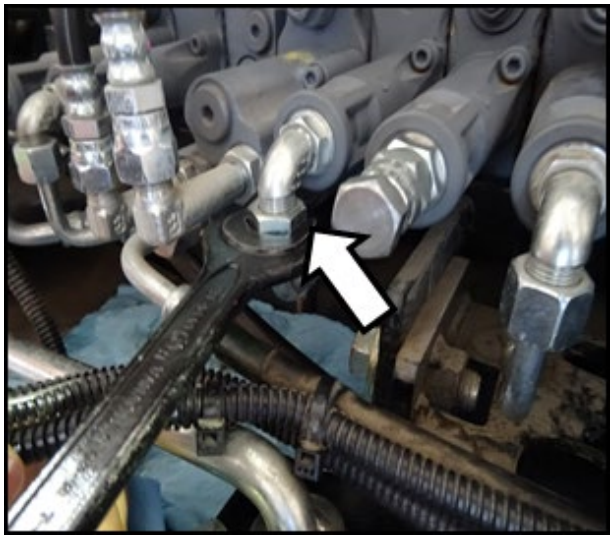


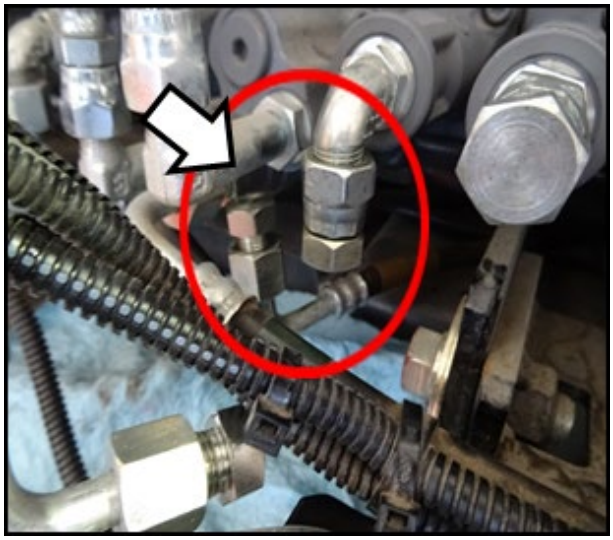


<Required tools>

- Spanner (width across flats 17 mm)
- Spanner (width across flats 19 mm)
- Hose plug (1/4)

2. Remove the pilot hose fitting of the right travel section and plug it (Outside of the valve only).

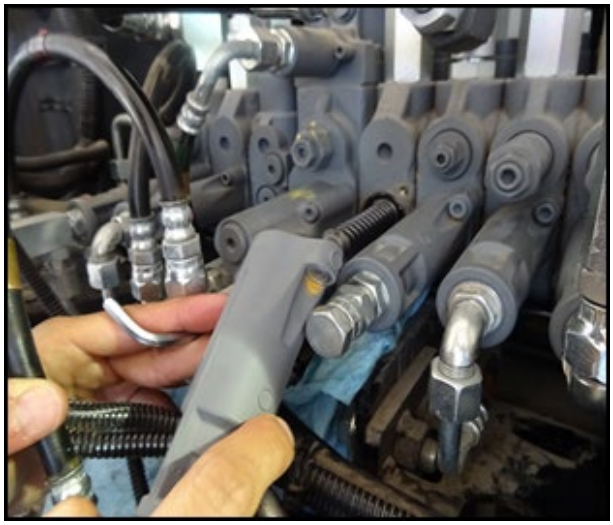


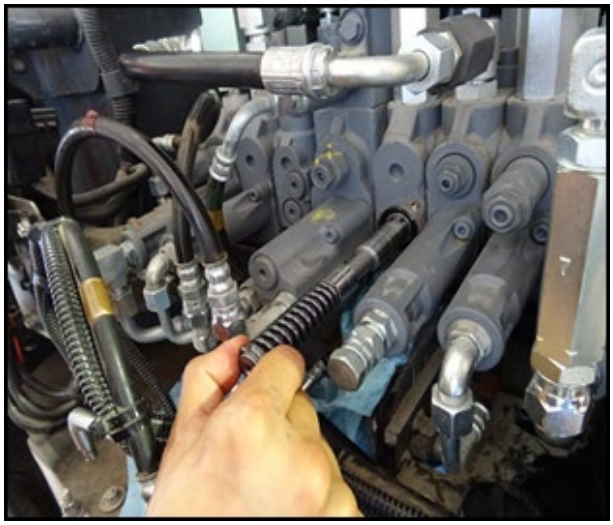


<Required tools>

- Spanner (width across flats 17 mm)
- Spanner (width across flats 19 mm)
- Hose plug (1/4)

3. Remove the spool cap, then pull out the spool.





<Required tool>

- Hexagonal wrench (width across flats 5 mm)

4. Flush the countermeasure spool and insert it into the right travel section of the valve.

5. Reassemble the spool cap and reconnect the pilot hose of the blade 2 section and the right travel section which had been removed.

NOTE:

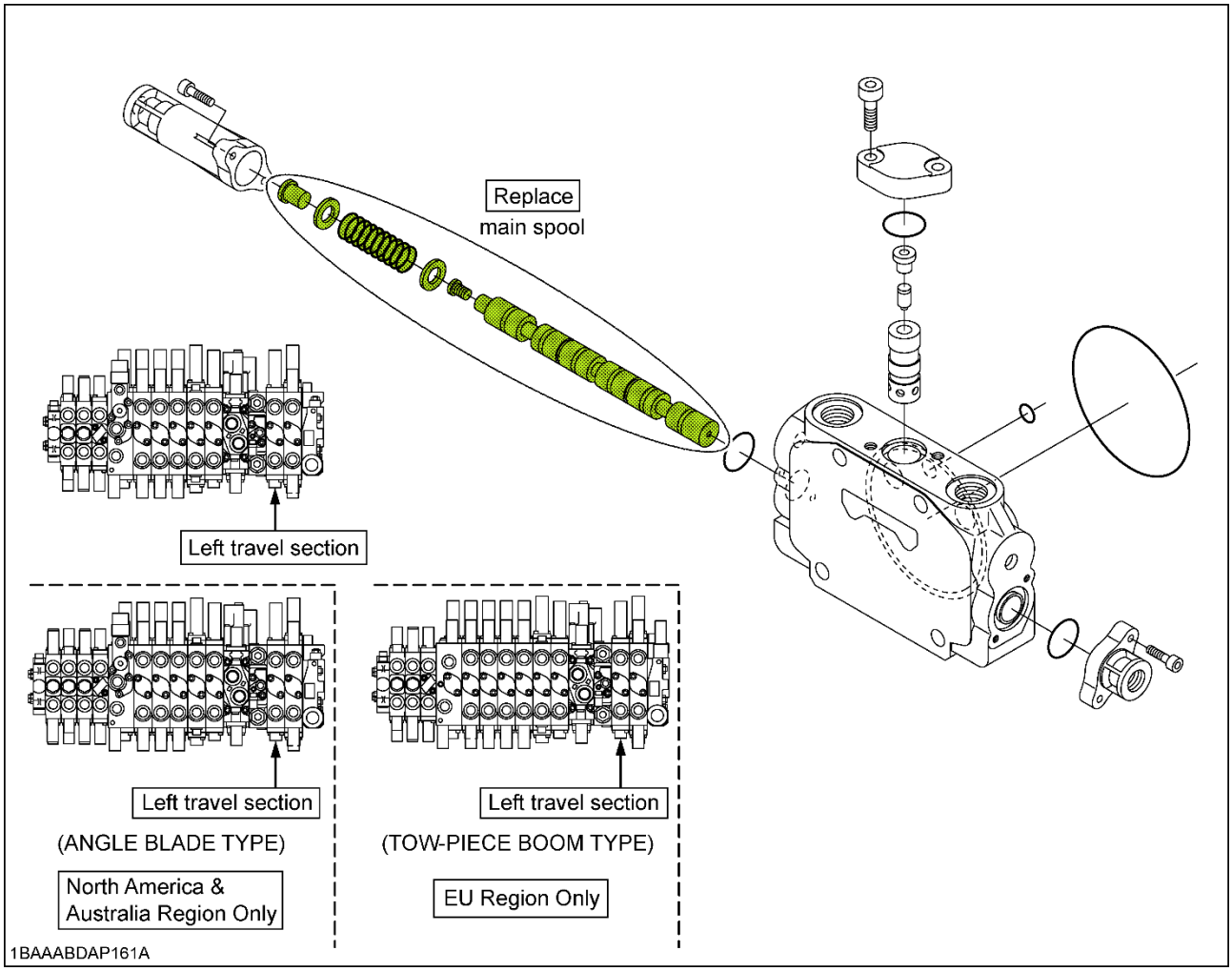
- Be careful not to forget to install O-ring.
- Tightening torque of hexagon socket head bolt: 8.8 to 10.8 N-m
- Tightening torque of pilot hose fitting (1/4): 24.5 to 29.4 N-m

<Required tools>

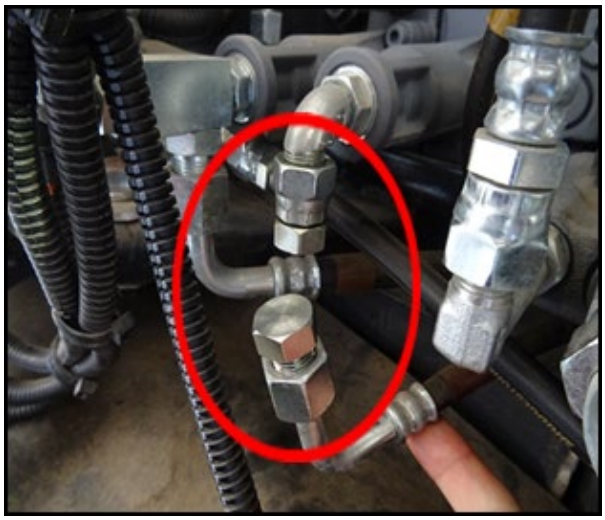
- Hexagonal wrench (width across flats 5 mm)
- Spanner (width across flats 17 mm)
- Spanner (width across flats 19 mm)
- Torque Wrench

Step 6. Left travel section

Replace the main spool of the left travel section.



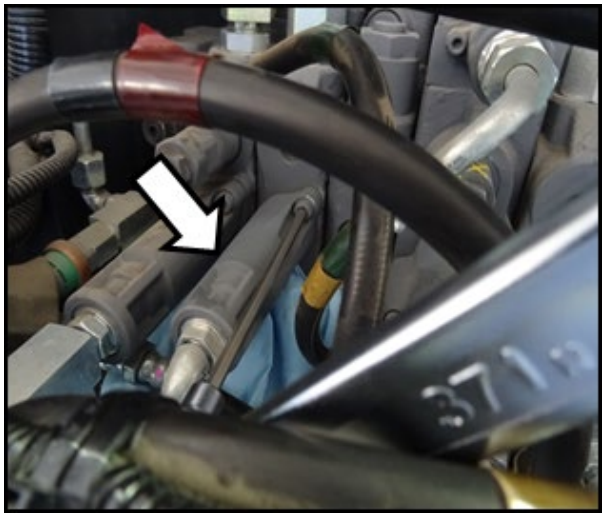
1. Remove the pilot hose fitting of the left travel section and plug it (Outside of the valve only).



<Required tools>

- Spanner (width across flats 17 mm)
- Spanner (width across flats 19 mm)
- Hose plug (1/4)

2. Remove the spool cap, then pull out the spool.



<Required tool>

- Hexagonal wrench (width across flats 5mm)

3. Flush the countermeasure spool and insert it into the left travel section of the valve.

4. Reassemble the spool cap and reconnect the pilot hose of the left travel section.

NOTE:

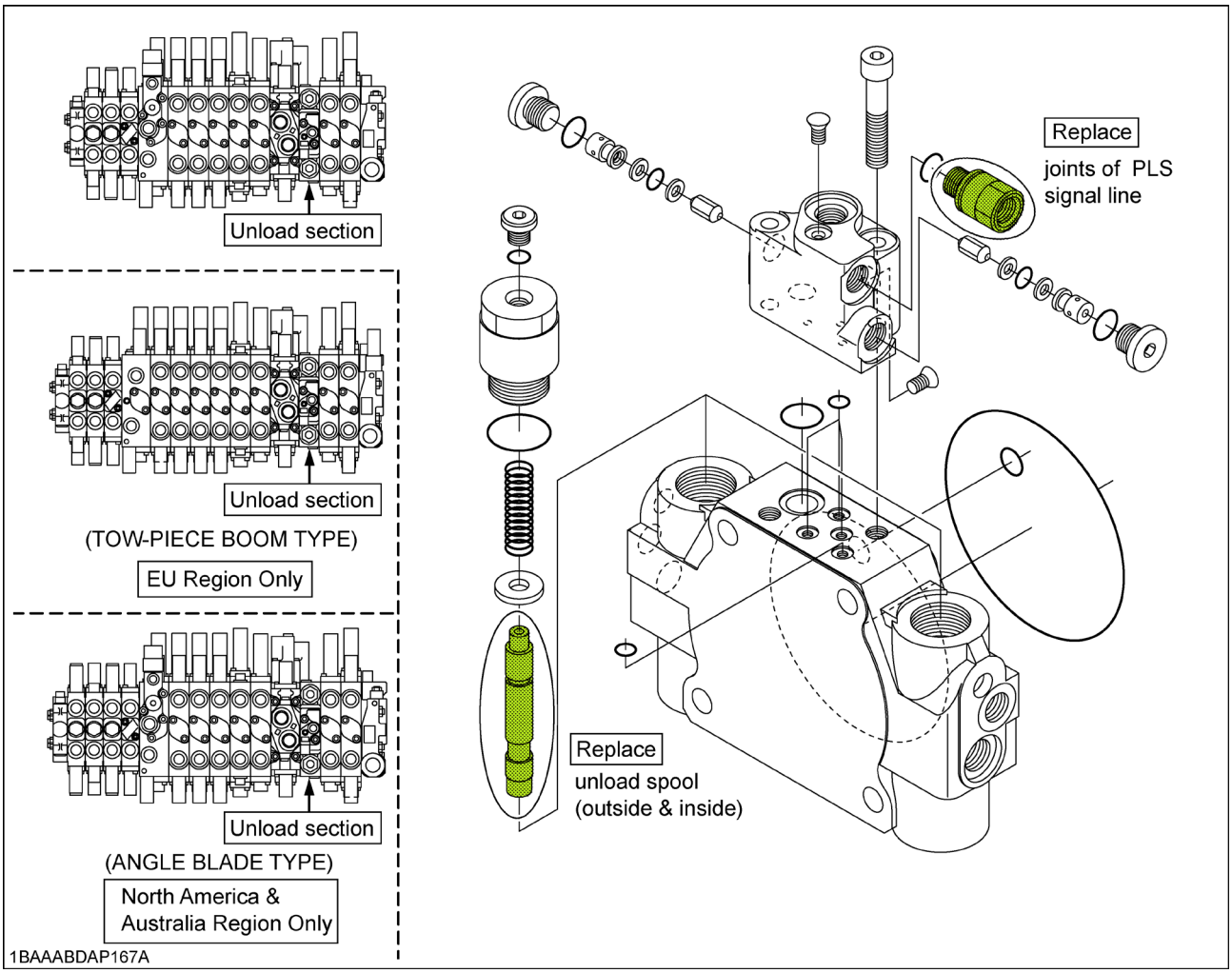
- Be careful not to forget to install O-ring.
- Tightening torque of hexagon socket head bolt: 8.8 to 10.8 N-m
- Tightening torque of pilot hose fitting (1/4): 24.5 to 29.4 N-m

<Required tools>

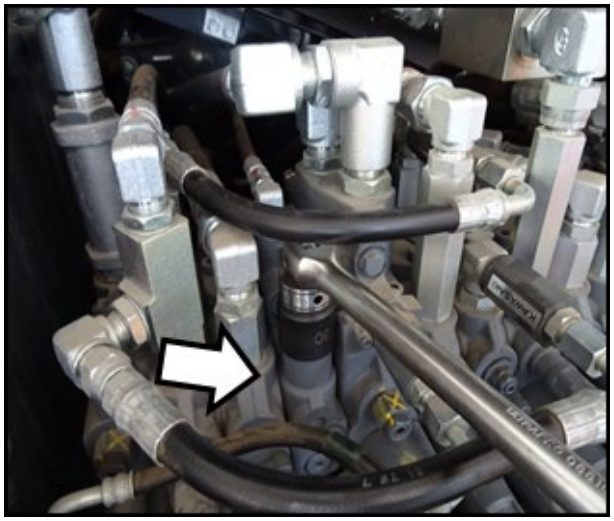
- Hexagonal wrench (width across flats 5 mm)
- Spanner (width across flats 17 mm)
- Spanner (width across flats 19 mm)
- Torque Wrench

Step 7. Unload section

Replace the two unload spools and the joints of PLS signal line from the pipe joint (0.7) to the combination of the pipe joint (0.8) and the pipe joint (1.1) and the pipe joint (T).



1. Remove the spool plug on the outside of the valve and the spring inside the spool plug.



<Required tools>

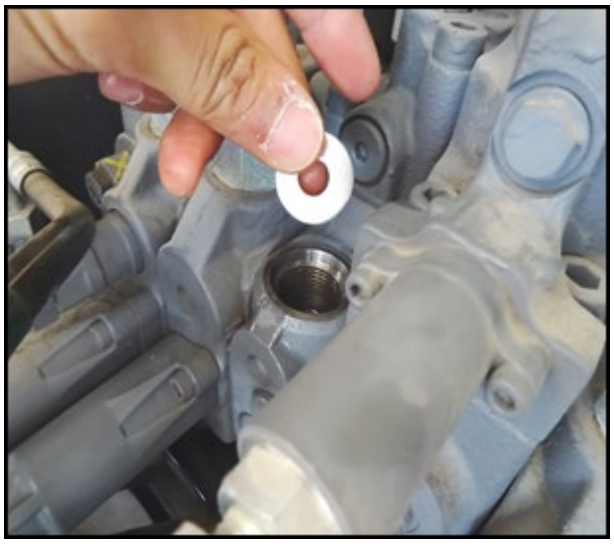
- Ratchet handle
- Socket (width across flats 30 mm)

2. Pull out the spool and the spring seat using the pliers as shown in the figure below.

<Required tool>

- Long nose pliers

3. Flush the unload spool and the removed spring seat and then insert them into the valve.



NOTE:

- When assembling the spool, be careful of the spool direction. The thinner side of the spool is upward.

4. Reassemble the spool plug and spring.

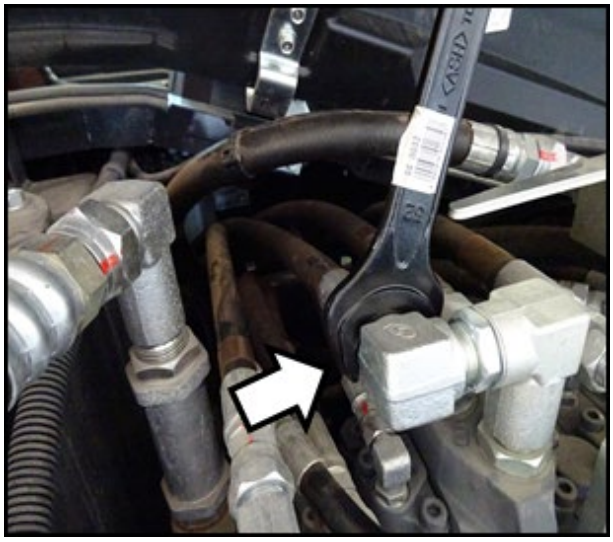
NOTE:

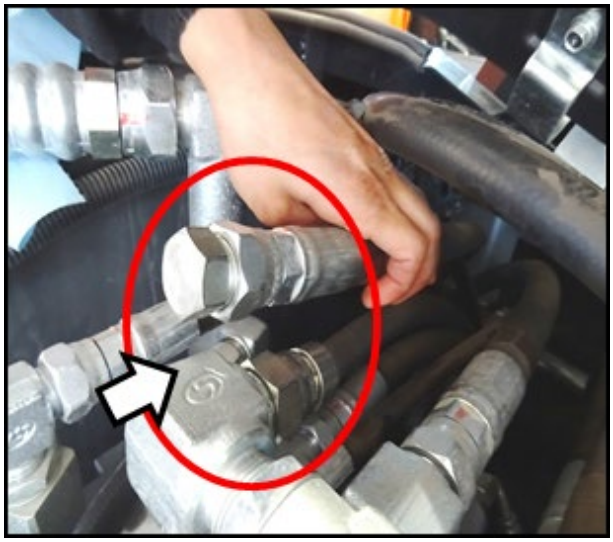
- Tightening torque of spool plug: 167 to 197 N-m

<Required tools>

- Ratchet handle
- Socket (width across flats 30 mm)
- Torque Wrench

5. Remove the P2 delivery hose and plug it to make it easy to access.

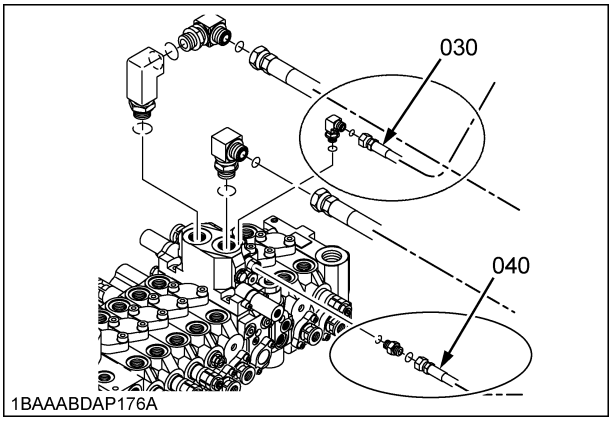




<Required tools>

- Spanner (width across flats 27 mm)
- Spanner (width across flats 30 mm)
- Spanner (width across flats 32 mm)
- Hose plug (1U)

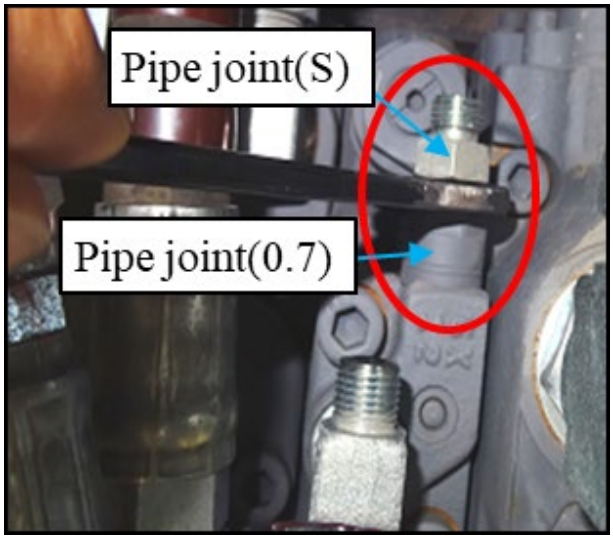
6. Remove the PPS signal hose and the PLS signal hose and plug them.
   Upper side (030): PPS signal hose
   Lower side (040): PLS signal hose

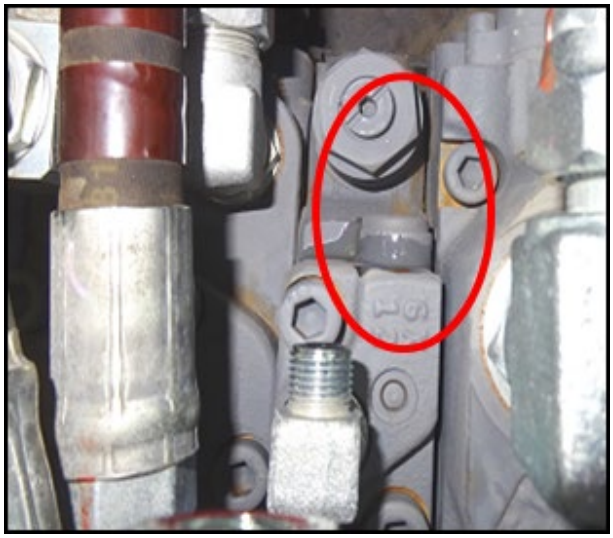


<Required tools>

- Spanner (width across flats 19 mm)
- Hose plug (9/16U)

7. Remove the pipe joint (0.7) and pipe joint (S) of the PLS signal line.





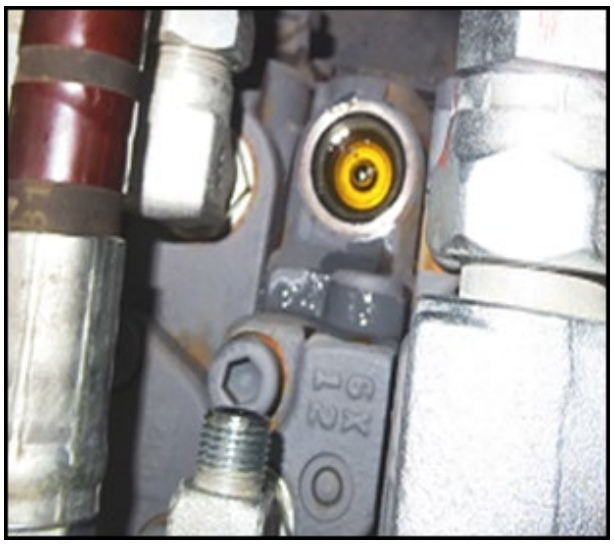
NOTE:

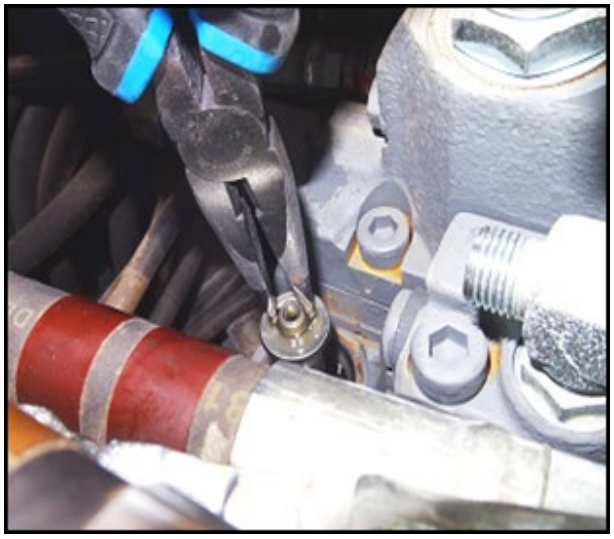
- The pipe joint (S) should be reused.

<Required tool>

- Spanner (width across flats 19 mm)

8. Remove the spool plug on the inside of the valve and the spring inside the spool plug, then pull out the spool and the spring seat.





<Required tools>

- Ratchet handle
- Socket (width across flats 30 mm)
- Long nose pliers

9. Flush the unload spool and the removed spring seat and then insert them in the valve same as when replacing the unload spool on the outside of the control valve.

NOTE:

- The spool for countermeasures has "K" identification mark.
- When assembling the spool, be careful of the spool direction. The thinner side of the spool is upward.

10. Reassemble the spring and the spool plug.

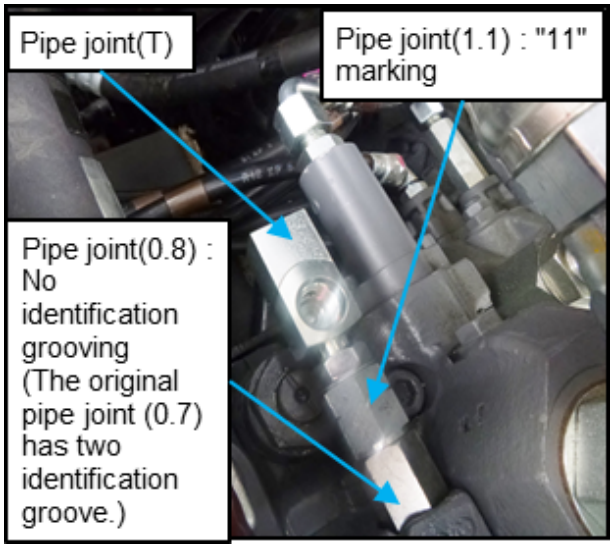
NOTE:

- Tightening torque of spool plug: 167 to 197 N-m

<Required tools>

- Ratchet handle
- Socket (width across flats 30 mm)
- Long nose pliers

11. Flush the pipe joint for the PLS signal line, and attach the pipe joint (0.8), the pipe joint (1.1) and pipe joint (T) to the PLS signal port of the valve as shown in the picture below.



NOTE:

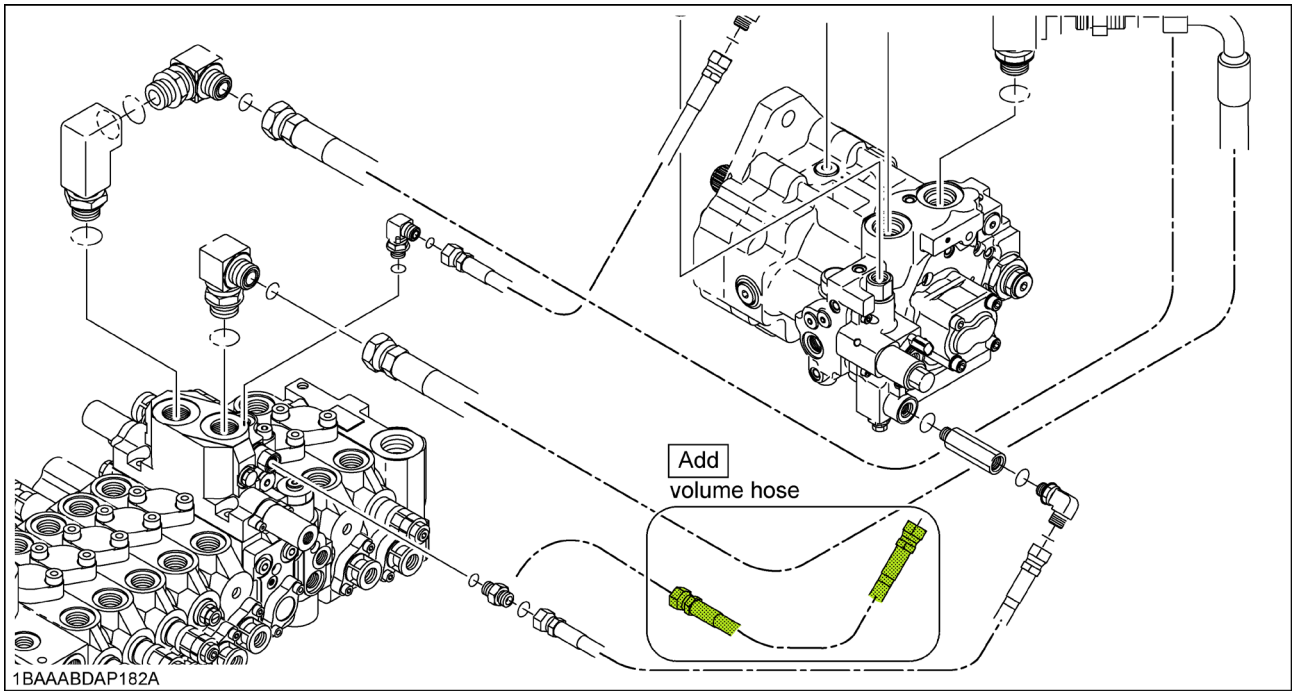
- Assemble the pipe joint (0.8), then install the pipe joint (1.1).
- Tightening torque of the pipe joint (0.8), the pipe joint (1.1) and the pipe joint (T): 24.5 to 29.4 N-m

<Required tools>

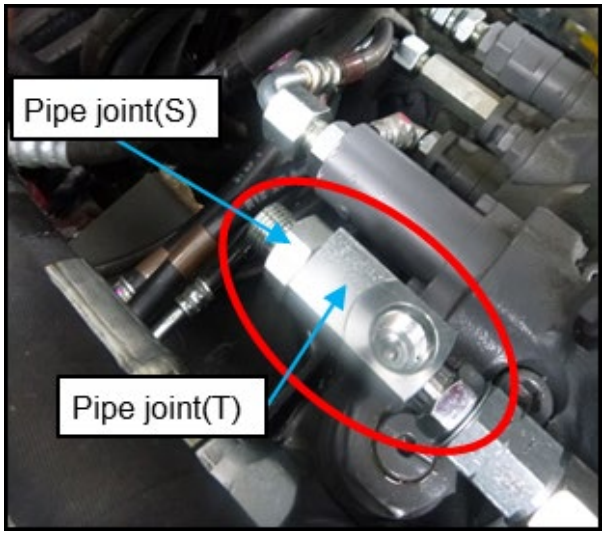
- Spanner (width across flats 17 mm)
- Spanner (width across flats 19 mm)
- Spanner (width across flats 22 mm)

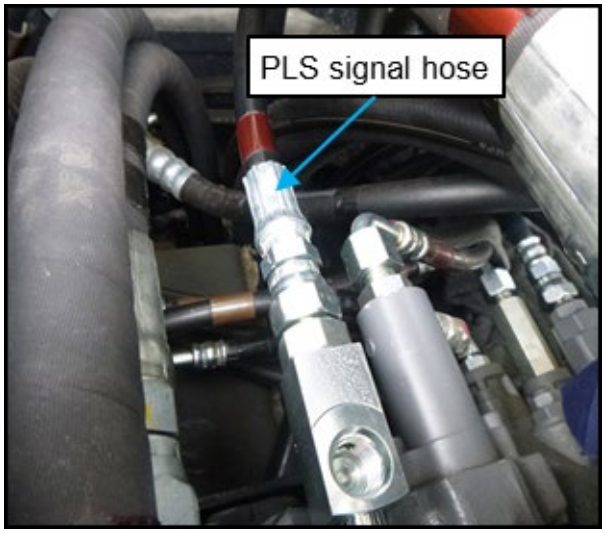
Step 8.

Add a volume hose to the PLS signal line.



1. As shown in the picture below, attach the pipe joint (S) to the tip port of the pipe joint (T) and connect the PLS signal hose.





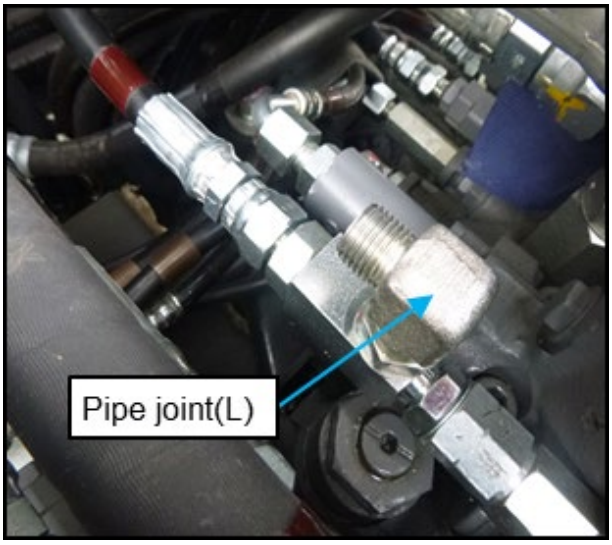
NOTE:

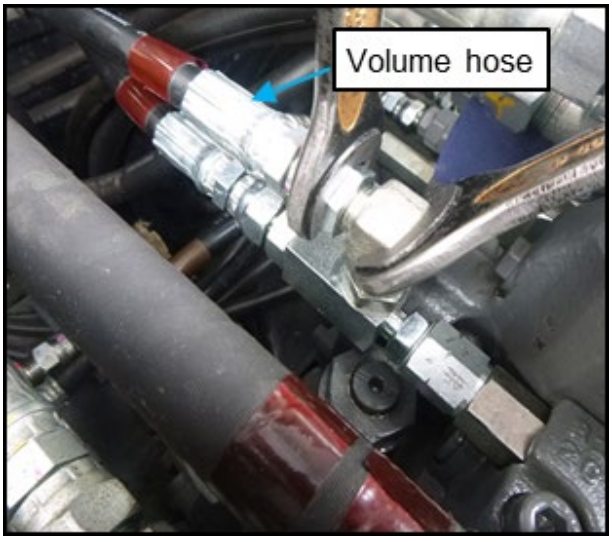
- The pipe joint (S) is the joint removed in step 7- (7).
- Before connecting the PLS signal hose, be careful not to forget to install the O-ring in the connecting surface between the pipe joint and the PLS signal hose.
- Tightening torque of pipe joint (S): 24.5 to 29.4 N-m
- Tightening torque of PLS signal hose (9/16U): 35.2 to 43.1 N-m

<Required tools>

- Spanner (width across flats 19 mm)
- Spanner (width across flats 22 mm)
- Torque Wrench

2. As shown in the picture below, attach the pipe joint (L) to the port on the top of the pipe joint (T) and connect the volume hose to the pipe joint (L).





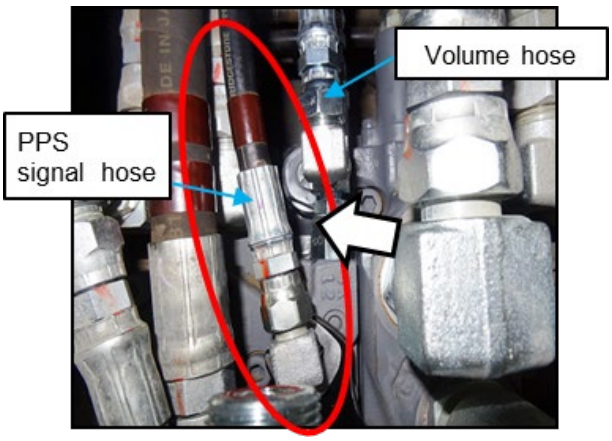
NOTE:

- Plug the hose fitting on the opposite side which is not connected to the joint (L) with the hose plug supplied with the kit.
- Before connecting the volume hose, be careful not to forget to install the O-ring in the connecting surface between the pipe joint and the volume hose.
- Tightening torque of pipe joint (L) and hose plug: 24.5 to 29.4 N-m
- Tightening torque of PLS signal hose (9/16U): 35.2 to 43.1 N-m

<Required tools>

- Spanner (width across flats 19 mm)
- Torque Wrench

3. As shown in the picture below, swing the angle of the PPS pipe joint so as not to contact the pipe joint of the volume hose, then connect the PPS signal hose.



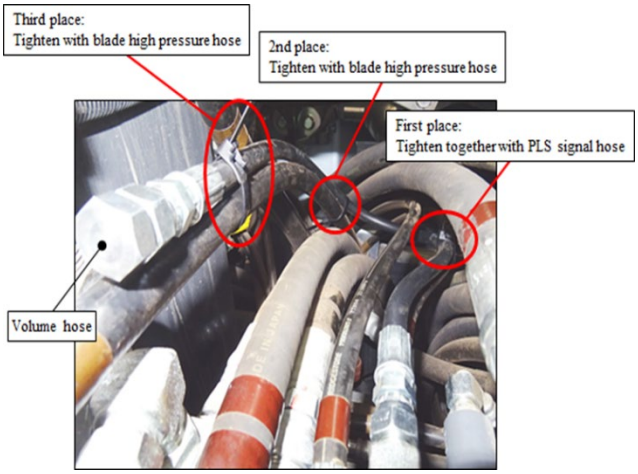
NOTE:

- Before connecting the PPS signal hose, be careful not to forget to install the O-ring in the connecting surface between the pipe joint and the PPS signal hose.
- Tightening torque of the PPS pipe joint: 24.5 to 29.4 Nm
- Tightening torque of PLS signal hose (9/16U): 35.2 to 43.1 N-m

<Required tools>

- Spanner (width across flats 19mm)
- Torque Wrench

4. Route the volume hose as shown in below picture and use the repeat tie to tighten together with the PLS signal hose and blade high-pressure hose (3 places).



5. Reconnect the P2 delivery hose.

NOTE:

- Before connecting the P2 delivery hose, be careful not to forget to install the O-ring in the connecting surface between the pipe joint and the P2 delivery hose.
- Tightening torque of P2 delivery hose (1U): 105.8 to 129.4 N-m

<Required tools>

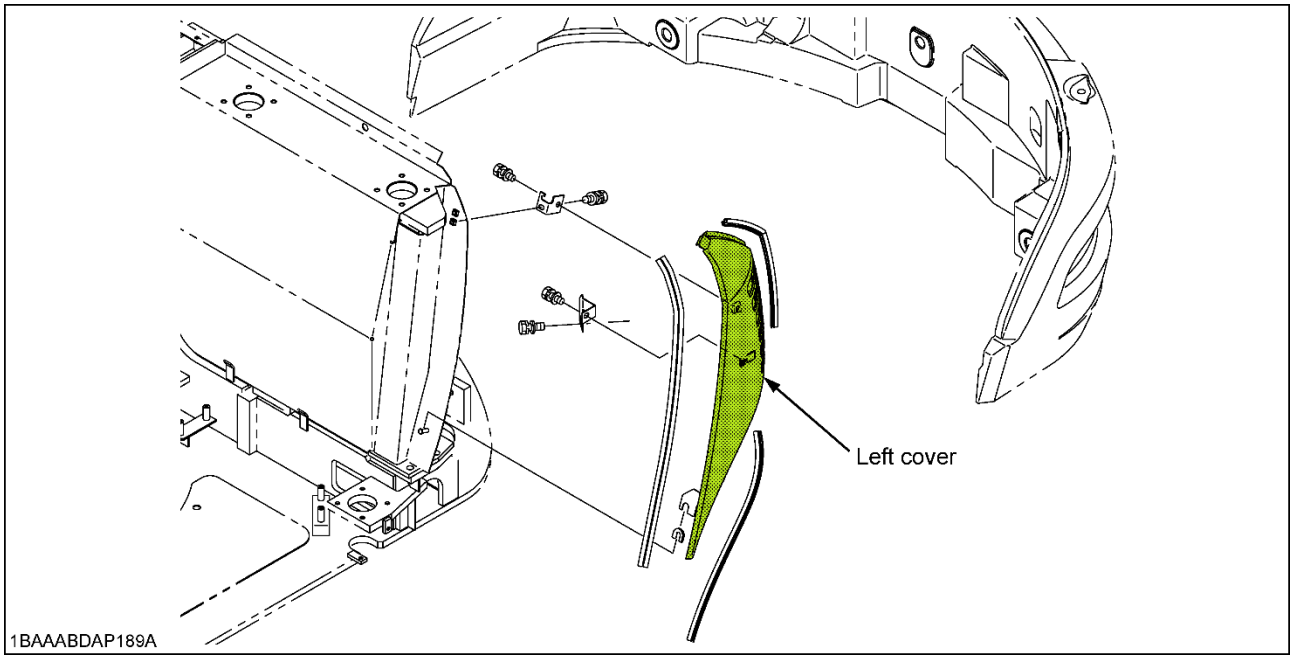
- Spanner (width across flats 27 mm)
- Spanner (width across flats 32 mm)
- Torque Wrench

(B) Hydraulic pump

Step 1.

Remove the left cover.

(1) Remove the left cover.

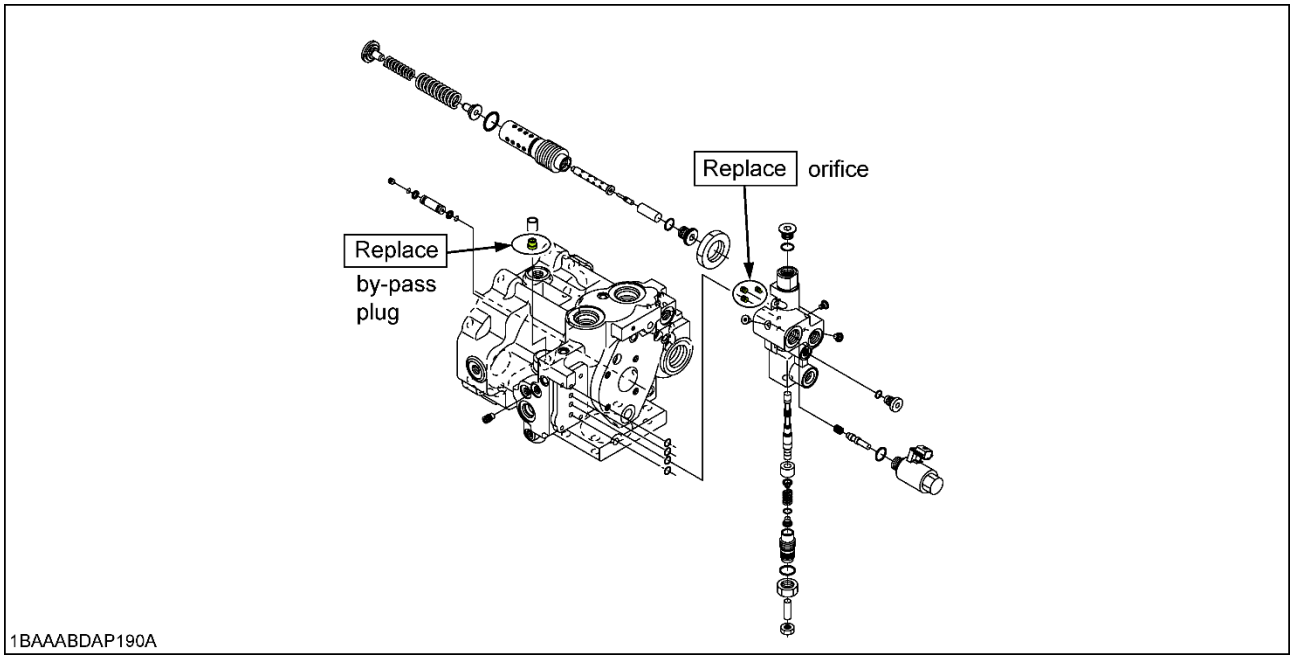


<Required tool>

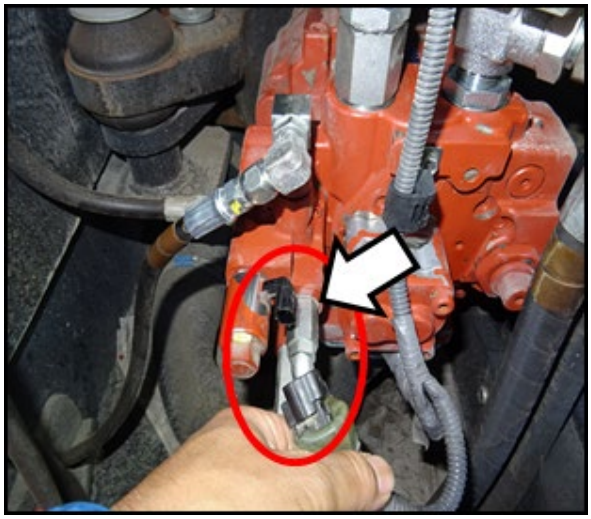
- Ratchet handle
- Socket (width across flats 14 mm)

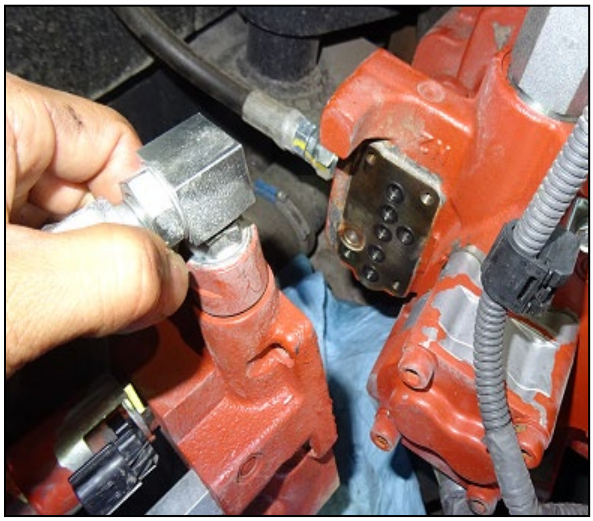
Step 2.

Replace the orifice of LS valve and shut off the bypass circuit by changing the valve seat.



1. Remove the coupler of the eco-mode solenoid, then remove the LS valve.





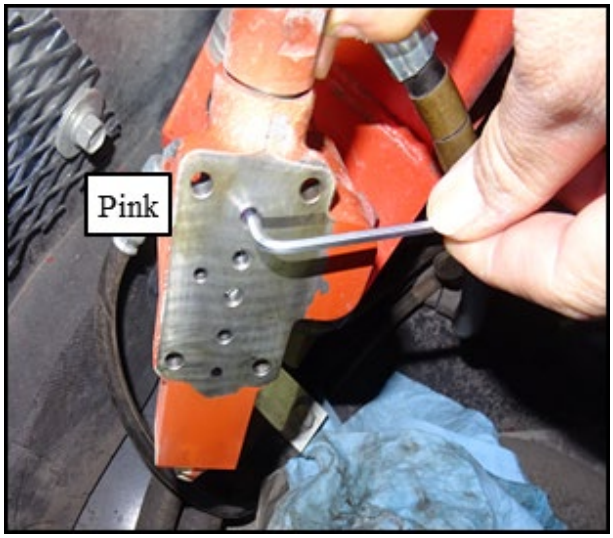
NOTE:

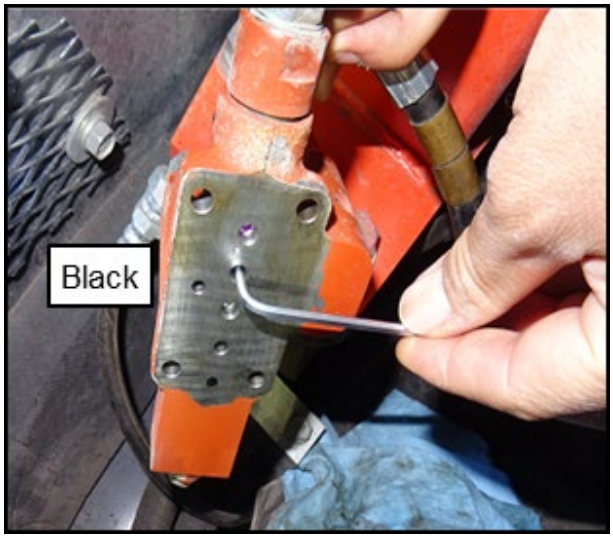
- When removing the LS valve, leave each hose connected.
- When removing the LS valve, be careful not to lose the O-ring because the O-ring tends to fall from the contact surface with the hydraulic pump.

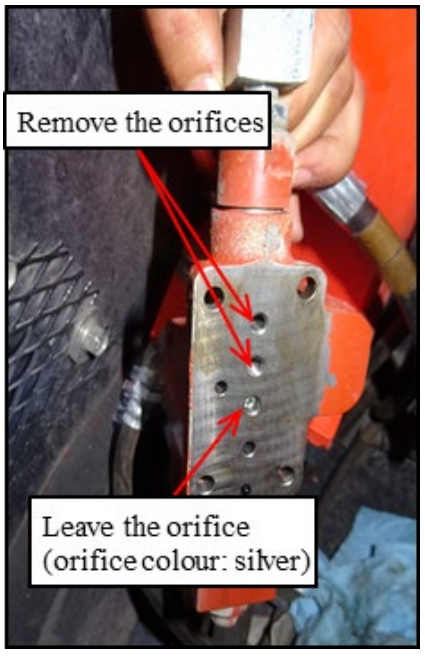
<Required tool>

- Hexagonal wrench (width across flats 5 mm)

2. Remove the two orifices of the LS valve as shown in picture below.
(Color of orifice: pink, black)



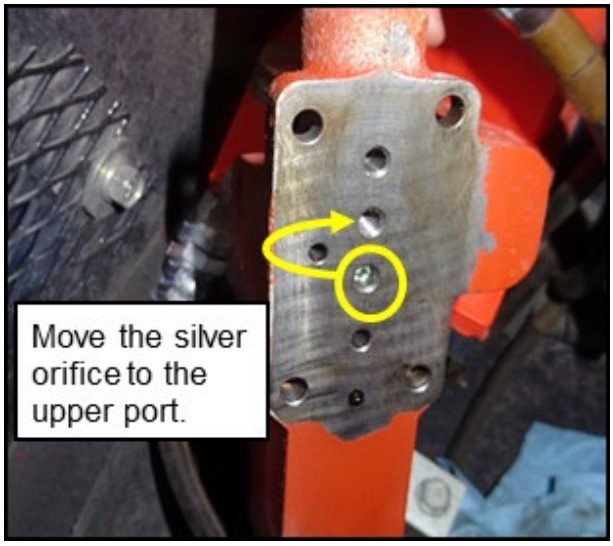




<Required tool>

- Hexagonal wrench (width across flats 3 mm)

3. As shown in the figure on the bellow, move the orifice that was not removed in step 2. to the port above it.



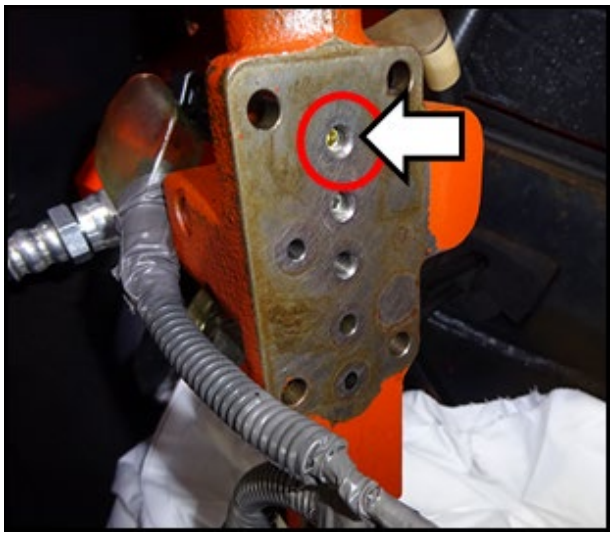
NOTE:

- Tightening torque of the orifice: 2.5 N-m ± 10%

<Required tool>

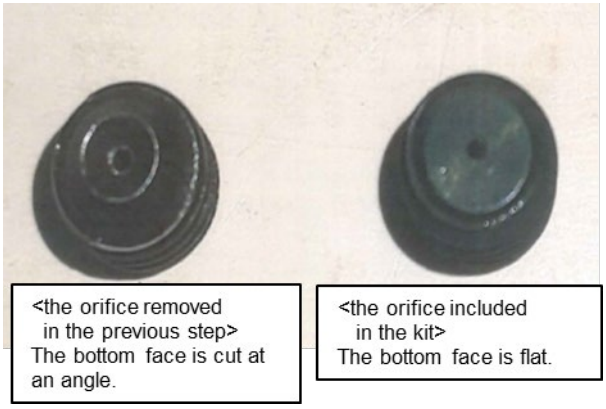
- Hexagonal wrench (width across flats 3 mm)
- Torque Wrench

4. As shown in the figure on the bellow, install the black colored orifice included in the kit to the top port.



NOTE:

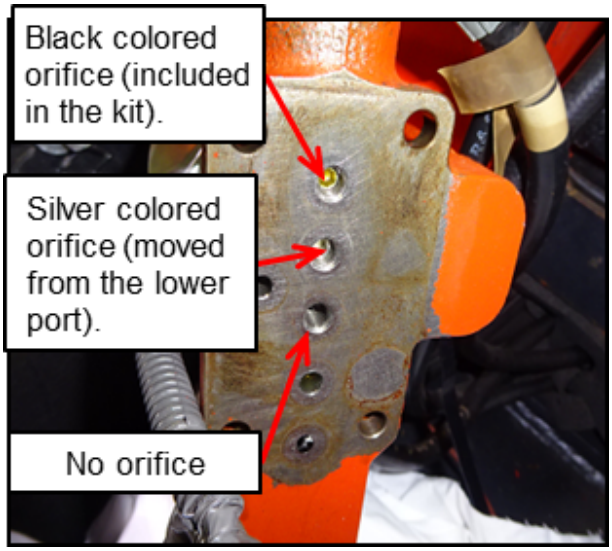
- Don't use the black colored orifice removed in the step 2-2 (page32).
- Tightening torque of the orifice: 2.5 N-m ± 10%



<Required tool>

- Hexagonal wrench (width across flats 3 mm)
- Torque Wrench

5. Please make sure that the orifices are assembled as shown in the figure below.



6. Reassemble the LS valve to the hydraulic pump.

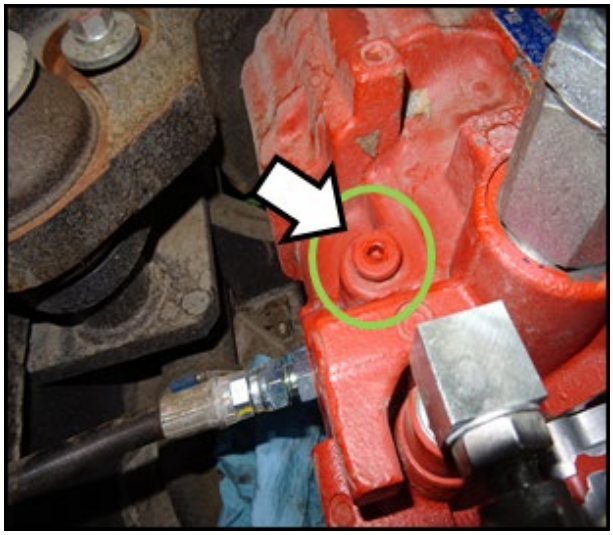
NOTE:

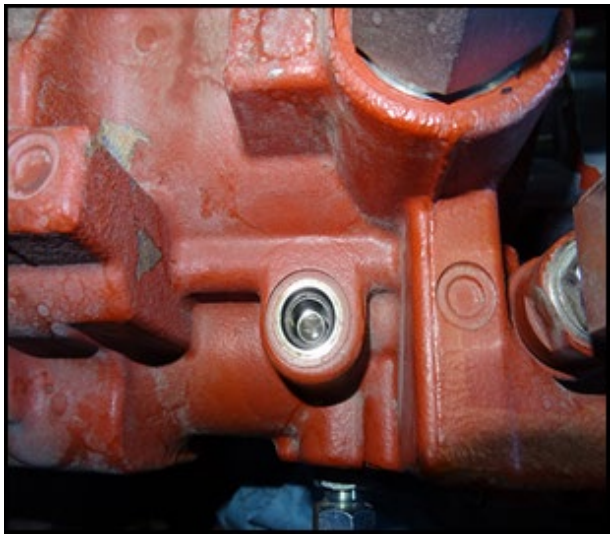
- When reassembling the LS valve, make sure that the O-ring is attached to the contact surface.
- Tightening torque of hexagon socket head bolt: 12.7 N-m ± 10%

<Required tools>

- Hexagonal wrench (width across flats 5 mm)
- Torque Wrench

7. Remove the plug of the bypass circuit located in the back of the LS valve.

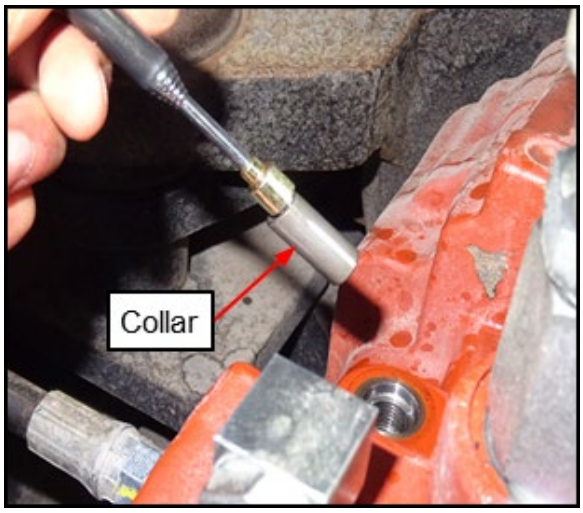


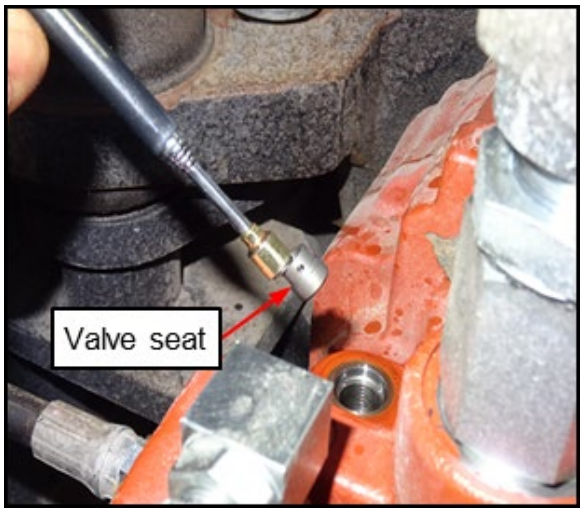


<Required tool>

- Hexagonal wrench (width across flats 6 mm)

8. Using a telescopic magnet bar, remove the collar, steel ball and valve seat from the hydraulic pump.





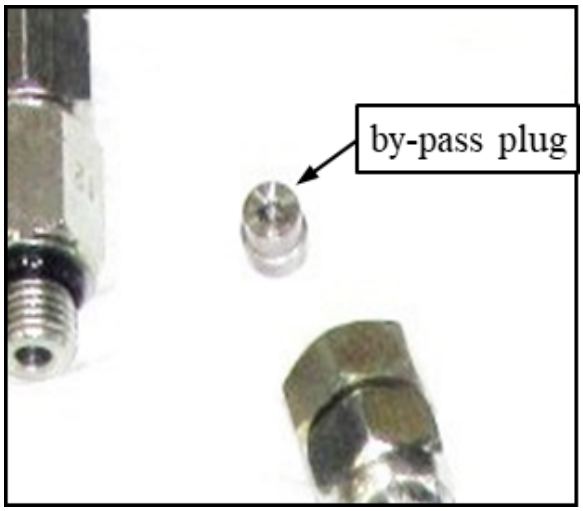
NOTE:

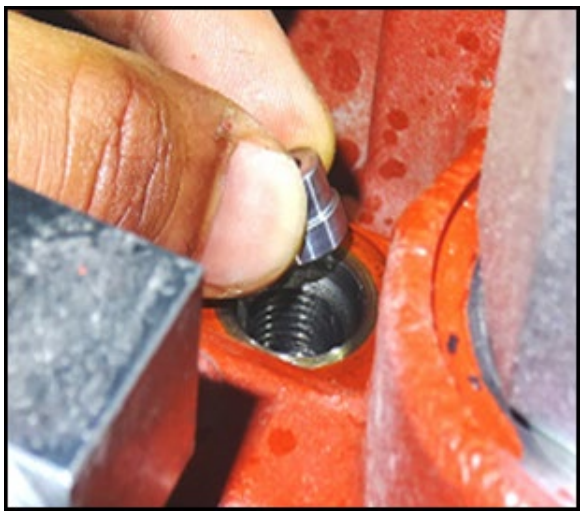
- Prepare magnet bar with magnet diameters less than 10 mm. (If the diameter is 10 mm or more, the magnet will not enter the port.)
- If the valve seat cannot come off, stop vacuuming once, then take out the valve seat, after that restart vacuuming immediately after removing the valve seat.

<Required tool>

- Telescopic magnet bar (magnet diameters less than 10 mm)

9. Insert the bypass plug and the collar into the bypass circuit, then tighten the plug again. (The steel ball and valve seat removed in Step 2-8 are not necessary. Throw them away.)





NOTE:

- When inserting the bypass plug, be careful of the direction of the plug. (See the picture above.)
- Tightening torque of plug of the bypass circuit: 29.4 N-m ± 10%

<Required tools>

- Hexagonal wrench (width across flats 6 mm)
- Torque Wrench

10. Stop vacuuming and run the hydraulic pump.
11. Test the machine and check for oil leakage from each part.

Step 3.

Reassemble the exterior parts.

Reassemble the removed exterior parts (right front cover, right hood and left cover) to the machine.

NOTE:

- Tightening torque of M10 bolt: 48.1 to 55.9 N-m

<Required tools>

- Ratchet handle
- Socket (width across flats 14 mm)

C. Spare Part Information

Part number	Part name	Identification mark	Qty
RD839-9913-0	Spool Kit	---	1
Kit contains:			
RD839-9918-0	Plug (by-pass)	---	1
	Orifice (0.5)	Black colored orifice	1
RD839-9914-0	Spool assy, unload	"K"	2
	Spool assy, boom	"K" and "128"	1
	Spool assy, arm	"K" and "129"	1
	Spool assy, travel	"K" and "126"	2
	Spool assy, swivel	"K" and "599"	1
	Compensator spool assy, swivel	"K"	1
	Pipe joint (0.8)	No identification grooving	1
RD839-9915-0	Hydraulic hose, volume	---	1
RD451-6197-0	Pipe joint (1.0)	"10"	2
RD849-6197-0	Pipe joint (1.1)	"11"	1
RD829-6197-0	Pipe joint (1.2)	"12"	2
RD849-6196-0	Pipe joint (1.4)	"14"	1
RD809-6914-3	Pipe joint (T)	---	1
RD809-6179-0	Pipe joint (L)	---	1
RD839-9919-0	Plug (hydraulic hose, volume)	---	1
55311-4126-0	Repeat tie	---	3
RD839-9916-0	Instruction manual	---	1

D. Warranty Information

1. Conditions:

   Up to 4 years / 4000 hours, whichever comes first

   Basically, this modification should be carried out on a customer claim basis.
   Still, if there are special circumstances that could justify to make it on a pro-active basis on some unit, it is required to obtain the approval from Kubota sales company's Service representative beforehand.

   Parts: Yes
   Labour: 6,6 hours
   Mileage: Yes
   Campaign allowance: No

2. Replaced parts:

   ☐ Return ☐ Store ☐ Attach photos to claim, then scrap ☒ Scrap

   This instruction has priority to the ones given by Kubota Net at time of claim posting.

Ensure to mention this bulletin's reference number on the related warranty claim.