

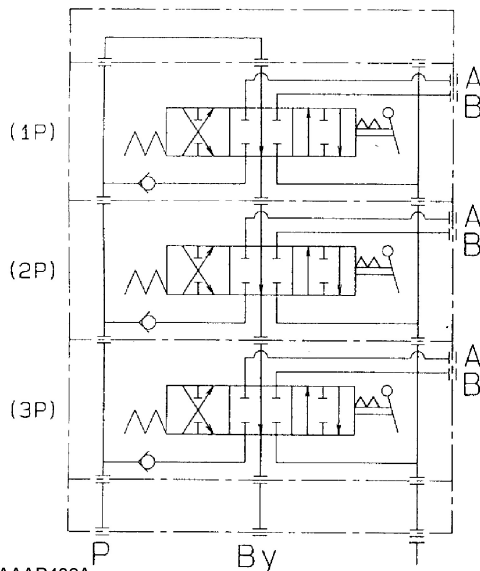
INSTRUCTION MANUAL

DOUBLE ACTING REMOTE HYDRAULIC CONTROL VALVE ASSEMBLY for KUBOTA TRACTOR MX4900 / MX5400 / MX6000 with CAB

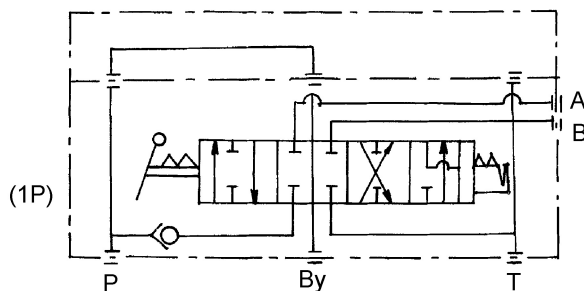
These remote valve assemblies are used to take hydraulic power out of the tractor hydraulic system and to send it by way of hydraulic hoses to an implement to be actuated.

1. HYDRAULIC CIRCUIT DIAGRAM

■ Standard Type



■ Floating Type



NOTE :

- The floating valve can be attached as the second segment only.

2. STANDARD

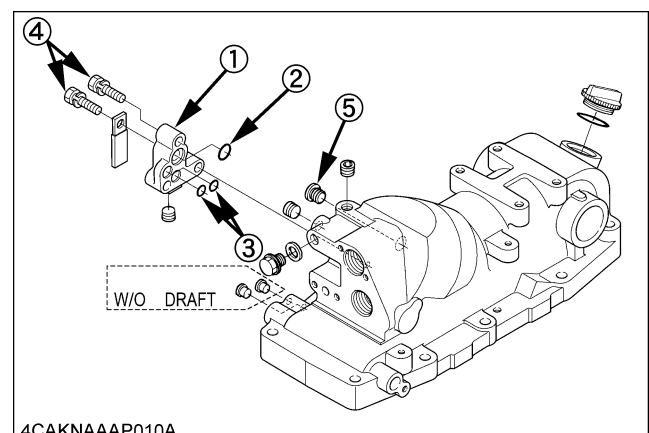
- (1) Hydraulic coupler joint : NPSF 1/2"
- (2) Max. pressure (tractor's relief valve) :
18.1 MPa (185 kgf/cm², 2632 psi)
- (3) Max. Flow rate :
35.8 L/min. (37.8 U.S.qts.)

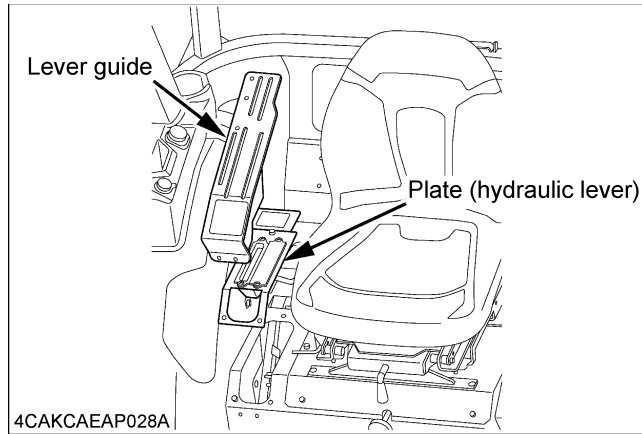
3. ASSEMBLY PROCEDURE

Check service package kit with attached parts list to be certain all parts are included in the service package.

A. Prior to Mounting Remote Valve Unit, Remove the Following Parts.

- | | |
|---------------------|--------|
| (1) Cyl. side cover | 1 pc. |
| (2) O-ring | 1 pc. |
| (3) O-rings | 2 pcs. |
| (4) Bolts | 3 pcs. |
| (5) Plug | 1 pc. |





B. COUPLER COMPATIBILITY

■ WG# and Coupler Versions

Remote Hydraulic	WG#	Previous/New	Part Number of Coupler		Model Code
			Coupler (Female)	Coupler (Male)	
1st. Remote Hydraulic	MX6891	Previous-type	35861-8200-0	35861-8219-2	TC860-98251
	MX6891A	New-type	TC830-9602-0	TC830-9606-0	
2nd. Remote Hydraulic	MX6892	Previous-type	35861-8200-0	35861-8219-2	TC860-98281
	MX6892A	New-type	TC830-9602-0	TC830-9606-0	
3rd. Remote Hydraulic	MX6893	Previous-type	35861-8200-0	35861-8219-2	TC860-98291
	MX6893A	New-type	TC830-9602-0	TC830-9606-0	

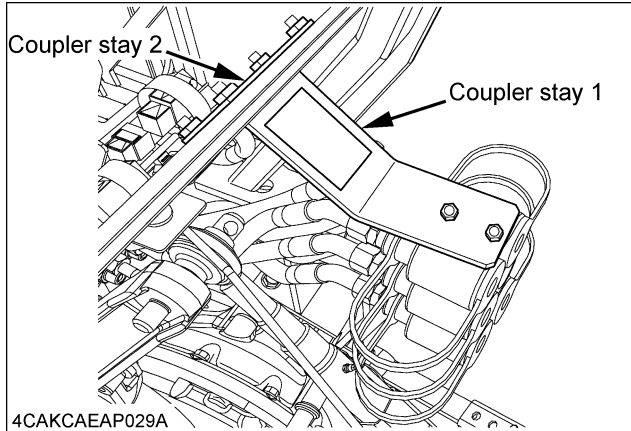
NOTE :

- When customers have previous-type couplers and add a valve, please purchase previous-type couplers.
- It is not possible to assemble previous-type couplers and new-type couplers.

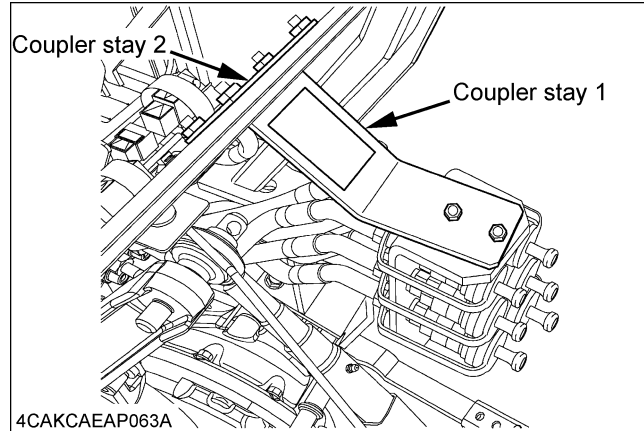
C. Assembling Remote Valve Unit According to the Following Procedure. (Refer to the Attached Parts List.)

1. Place the label ((1) and (2)) on the hyd. lever guide (A).
2. Place the label ((3) or (4) or (5)) on the coupler stay 1 (29).

[Previous-type couplers]



[New-type couplers]



3. Apply grease to the O-rings ((6), (7), (8), (9), (10)) and place in the O-ring grooves on the pipe assembly (11) and return pipe (12).
Assemble the parts ((11), (13) and (C)) by tightening the bolts (14).
◆ Tightening torque : 22.5 to 24.5 N·m (2.3 to 2.4 kgf·m, 16.6 to 18.1 lbf·ft.)

* To add another valve, take the following steps. Disconnect the hydraulic hoses; remove the valve assemblies ((13) and (C)) from the tractor; remove the bolts (14); place the added valve in between; tighten up the 2nd-gang and 3rd-gang bolts ((15) and (16)); finally take the below steps 9 to 13.
4. Attach the return pipe (12) to the remote valve assembly.
5. Attach the remote valve assembly to the hydraulic cylinder (D) with the bolts (17). Do not tighten the bolts.
6. Attach the valve stay (18), plain washers (38) on the brake case and remote valve assembly with the bolts ((19), (20)).
7. Tighten the bolts ((17), (19), (20)).
◆ Tightening torque :

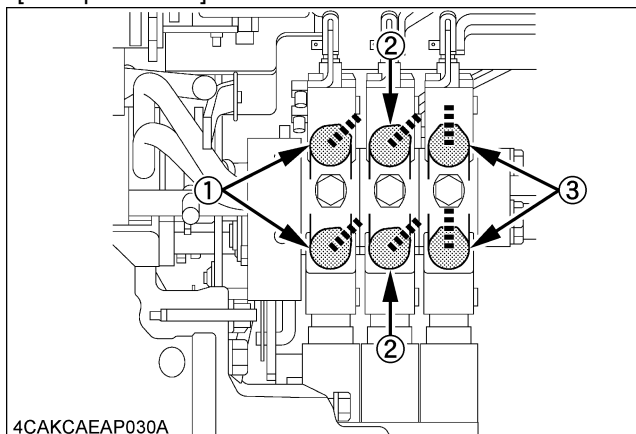
M10 x 30	48.1 to 55.9 N·m (4.9 to 5.7 kgf·m, 35.5 to 41.2 lbf·ft.)
M8 x 20, M8 x 35	23.5 to 27.5 N·m (2.4 to 2.8 kgf·m, 17.3 to 20.3 lbf·ft.)
M12 x 35	77.5 to 90.2 N·m (7.9 to 9.2 kgf·m, 57.2 to 66.5 lbf·ft.)
8. Attach the plate (hydraulic lever) (44) and cover (loader lever) (45) on the floor seat.
9. Cut the lever tube (21) moderately.
 - Original : 130 mm (5.1 in.)
 - For 1st. lever : 85 mm (3.3 in.)
 - For 2nd. lever : 110 mm (4.3 in.)
 - For 3rd. lever : 130 mm (5.1 in.) *Same as original
10. After installing the lever tube (21), attach the control lever ((23), (24), (25)) to the remote valve assembly with the joint pins (26), plain washers (27) and split pins (28). After installing the guide (hydraulic lever) (A), install lever grip (22).
*When installing the 3rd. lever, attach the 3rd. guide (hydraulic lever).
11. Install coupler stay 1 (29) and coupler stay 2 (46) in the CAB. Apply and tighten bolts (30) to fix them.
◆ Tightening torque : 23.5 to 27.5 N·m (2.4 to 2.8 kgf·m, 17.3 to 20.3 lbf·ft.)

[Previous-type couplers]

Whole goods number (WG#): MX6891, MX6892, MX6893

12. Attach the couplers (31) and holder (32) to the coupler stay 1 (29) with the bolts ((33) or (34) or (35)), spring washers (36) and nuts (37).
 ◆ Tightening torque : 23.5 to 27.5 N·m (2.4 to 2.8 kgf·m, 17.3 to 20.3 lbf·ft.)
13. Tighten the hydraulic hoses ((39), (40) or (41), (42) or (42), (43)) securely to the remote valve and couplers (32) to avoid oil leakage. (Refer to the following drawings.)
 ◆ Tightening torque : 49.0 to 58.9 N·m (5.0 to 6.0 kgf·m, 36.2 to 43.4 lbf·ft.)

[Set up direction]

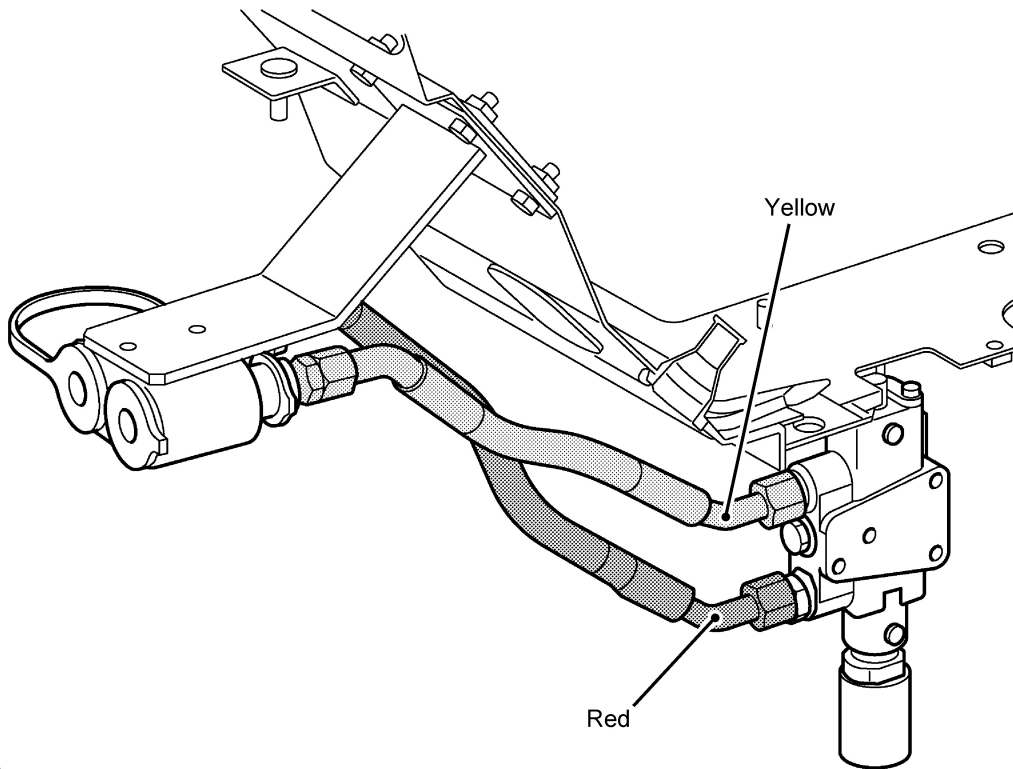


- (1) 1st.: To be tilted 45° to the right.
 (2) 2nd.: To be tilted 45° to the right.
 (3) 3rd.: To be straight up.

NOTE :

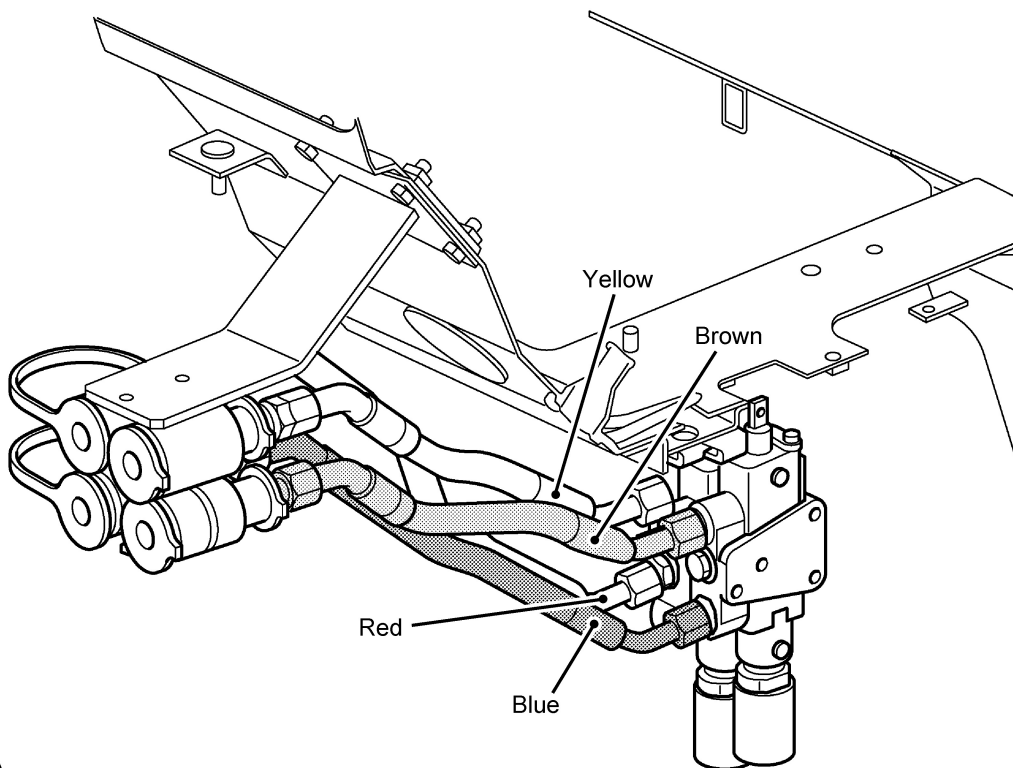
- Make sure the hydraulic hoses and 3P link do not interfere each other with the coupler stay 1 (29).
- When installing the hydraulic hoses, be sure not to confuse the colors of the hydraulic hoses.

■ 1st. Remote Hydraulic [Whole goods number (WG#): MX6891]



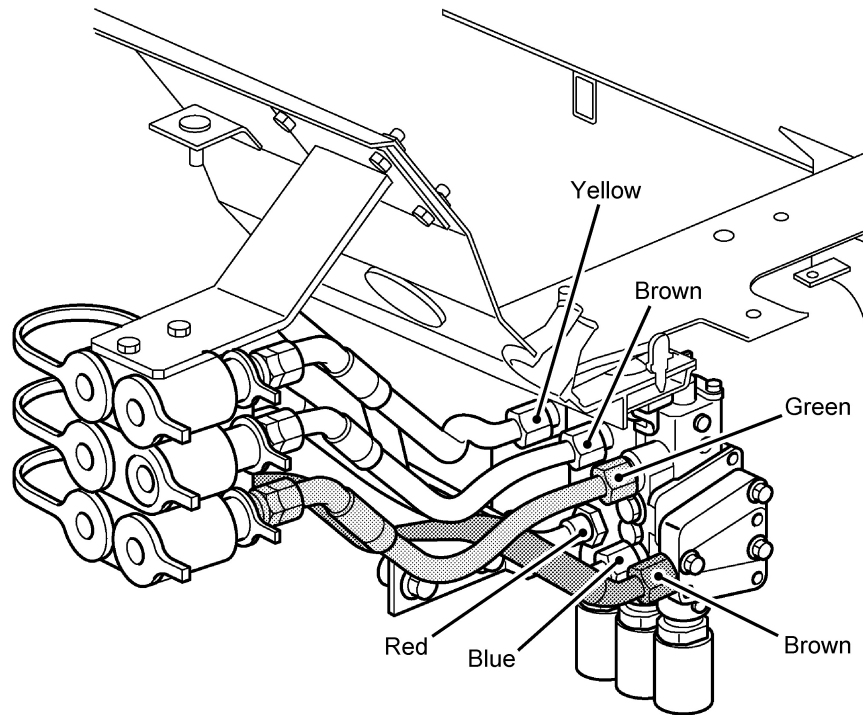
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■ 2nd. Remote Hydraulic [Whole goods number (WG#): MX6891, MX6892]



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■ 3rd. Remote Hydraulic [Whole goods number (WG#): MX6891, MX6892, MX6893]

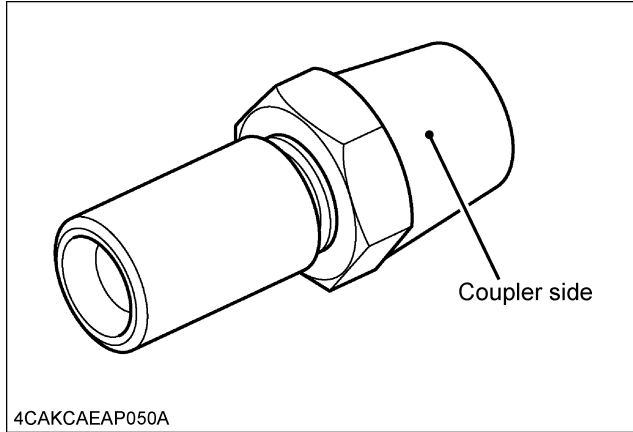


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[New-type couplers]

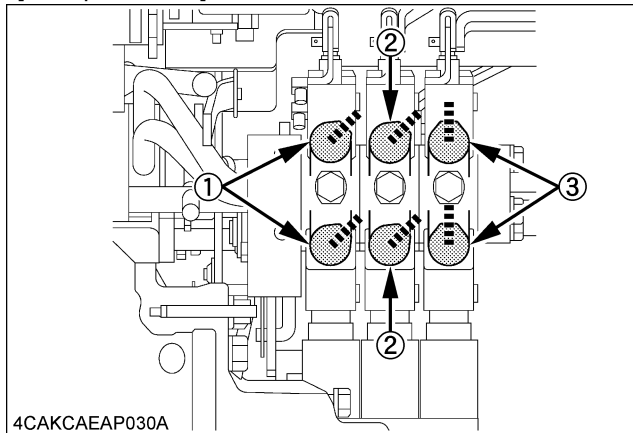
Whole goods number (WG#): MX6891A, MX6892A, MX6893A or later

12. Install the bracket (53) to the coupler stay 1 (29) with the bolts (54).
 ◆ Tightening torque : 23.5 to 27.5 N·m (2.4 to 2.8 kgf·m, 17.3 to 20.3 lbf·ft.)
13. Wrap a seal tape around the coupler side of the adapter (55).



14. Attach the adapters (55) to the bracket (53) with the nuts (56).
 ◆ Tightening torque : 34.0 to 40.0 N·m (3.5 to 4.1 kgf·m, 25.1 to 29.5 lbf·ft.)
15. Attach the coupler (57) to the adapter (55) by hand. Then tighten it an additional 1 and a half turns.
16. Attach the plugs (58), tighten the hydraulic hoses ((39), (40) or (41), (42) or (42), (43)) securely to the remote valve and adapters (55) to avoid oil leakage. (Refer to the following drawings.)
 ◆ Tightening torque : 49.0 to 58.9 N·m (5.0 to 6.0 kgf·m, 36.2 to 43.4 lbf·ft.)

[Set up direction]

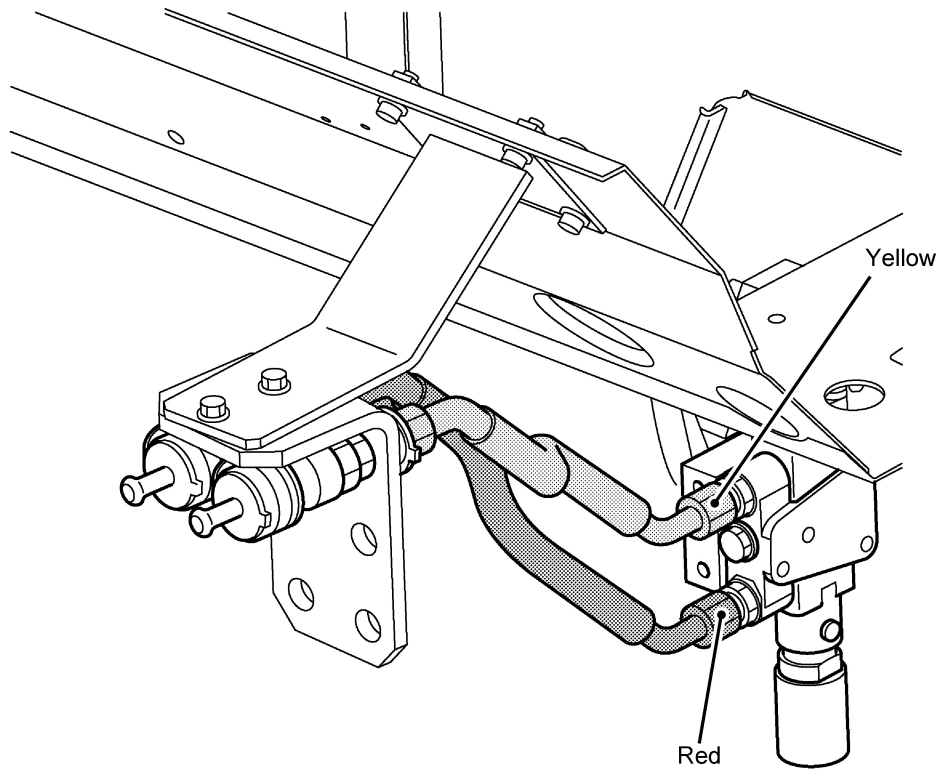


- (1) 1st.: To be tilted 45° to the right.
 (2) 2nd.: To be tilted 45° to the right.
 (3) 3rd.: To be straight up.

NOTE :

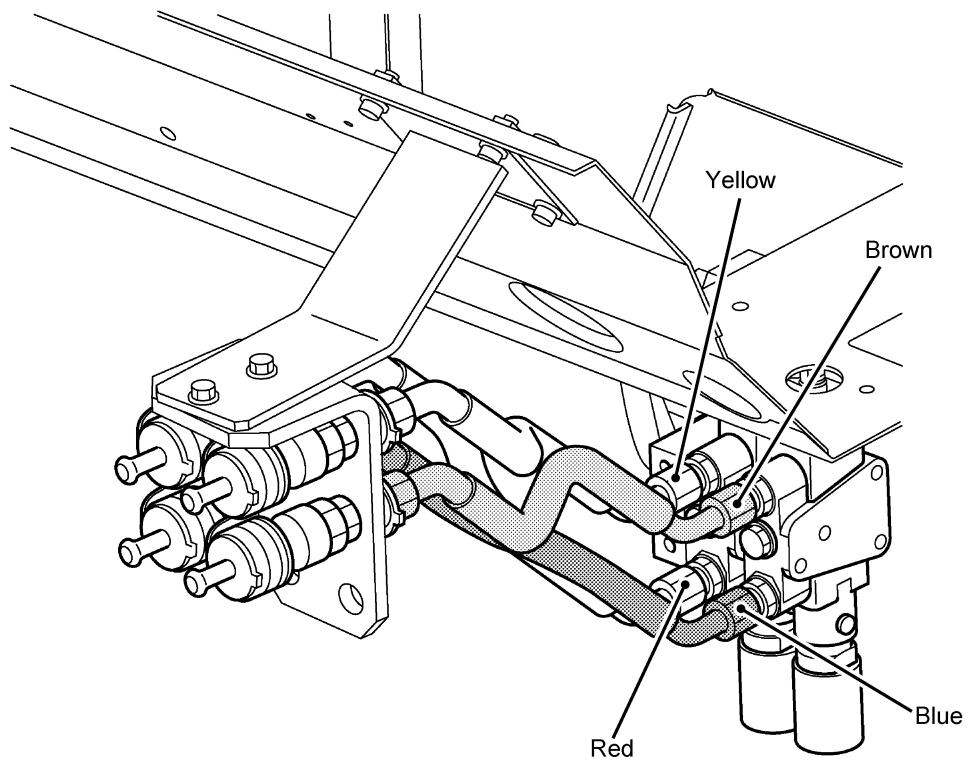
- Make sure the hydraulic hoses and 3P link do not interfere each other with the coupler stay 1 (29).
- When installing the hydraulic hoses, be sure not to confuse the colors of the hydraulic hoses.

■ 1st. Remote Hydraulic [Whole goods number (WG#): MX6891A or later]



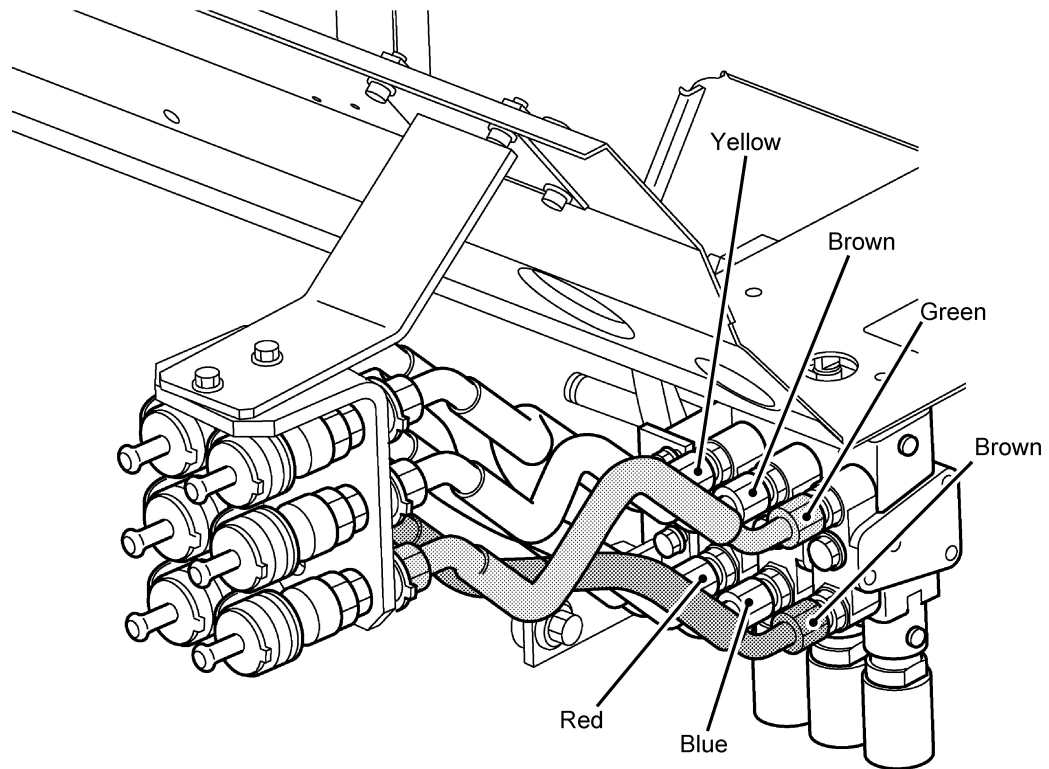
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■ 2nd. Remote Hydraulic [Whole goods number (WG#): MX6891A, MX6892A or later]



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■ 3rd. Remote Hydraulic [Whole goods number (WG#): MX6891A, MX6892A, MX6893A or later]



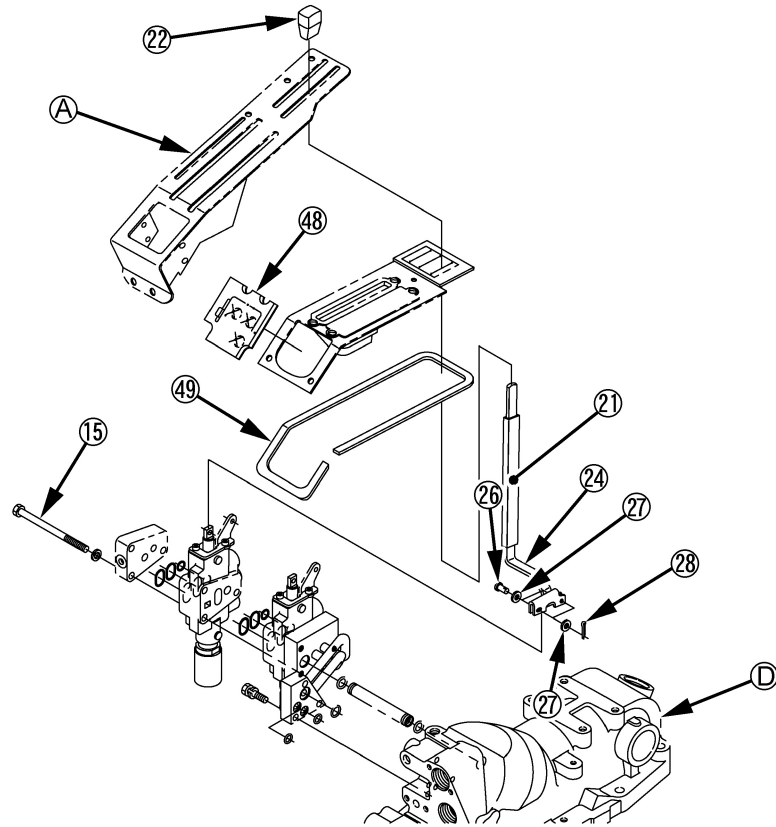
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4. INSPECTION

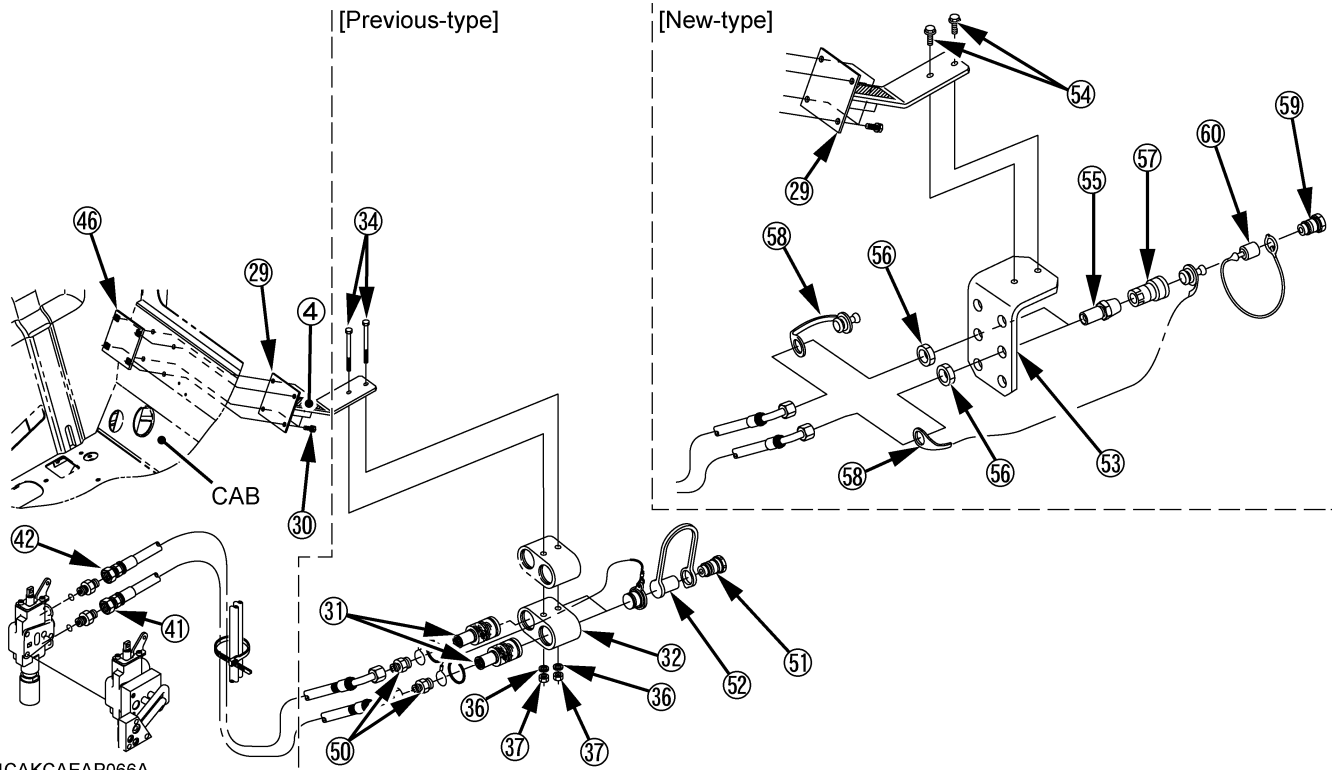
Check the piping and valves for oil leakage before operating the tractor. If any leakage is found, retighten the screw. If this is difficult to do, consult the dealer.

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■ 2nd. Remote Hydraulic

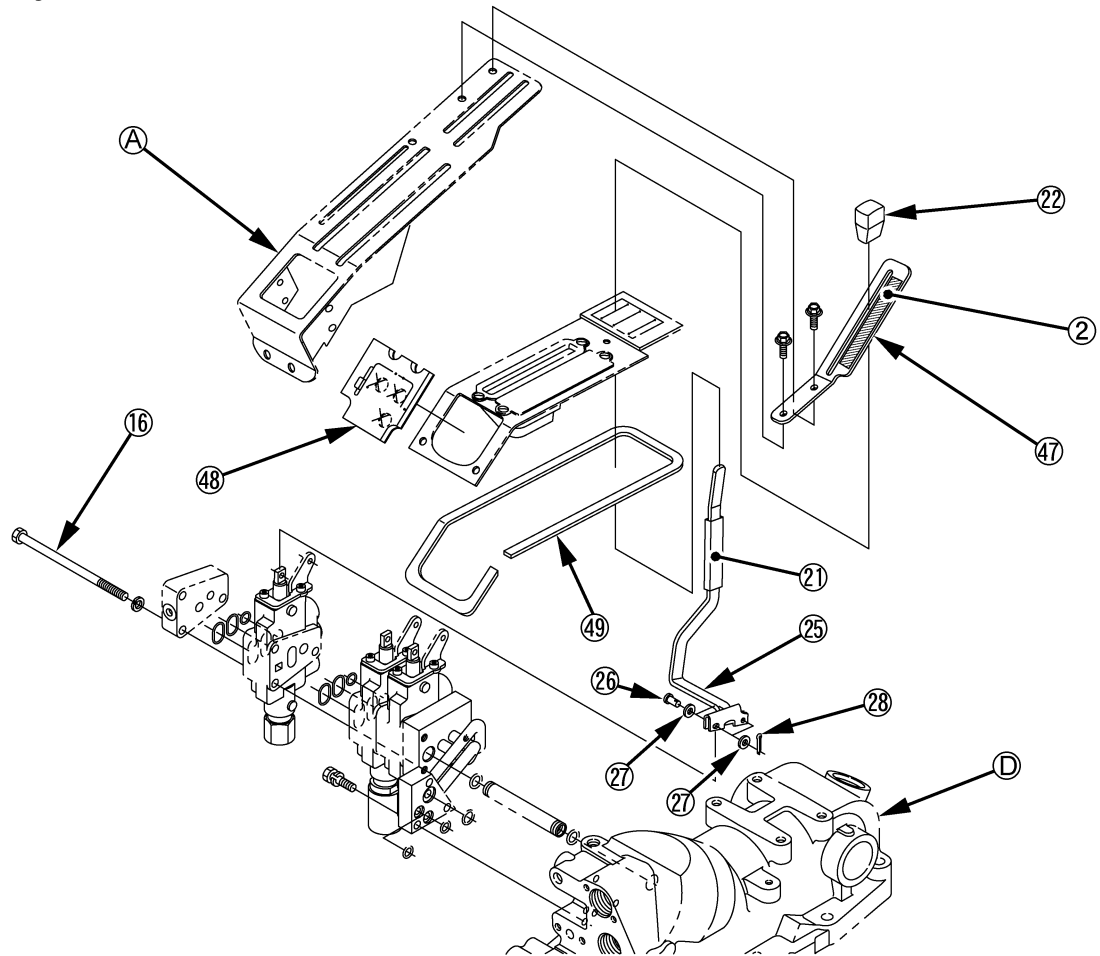


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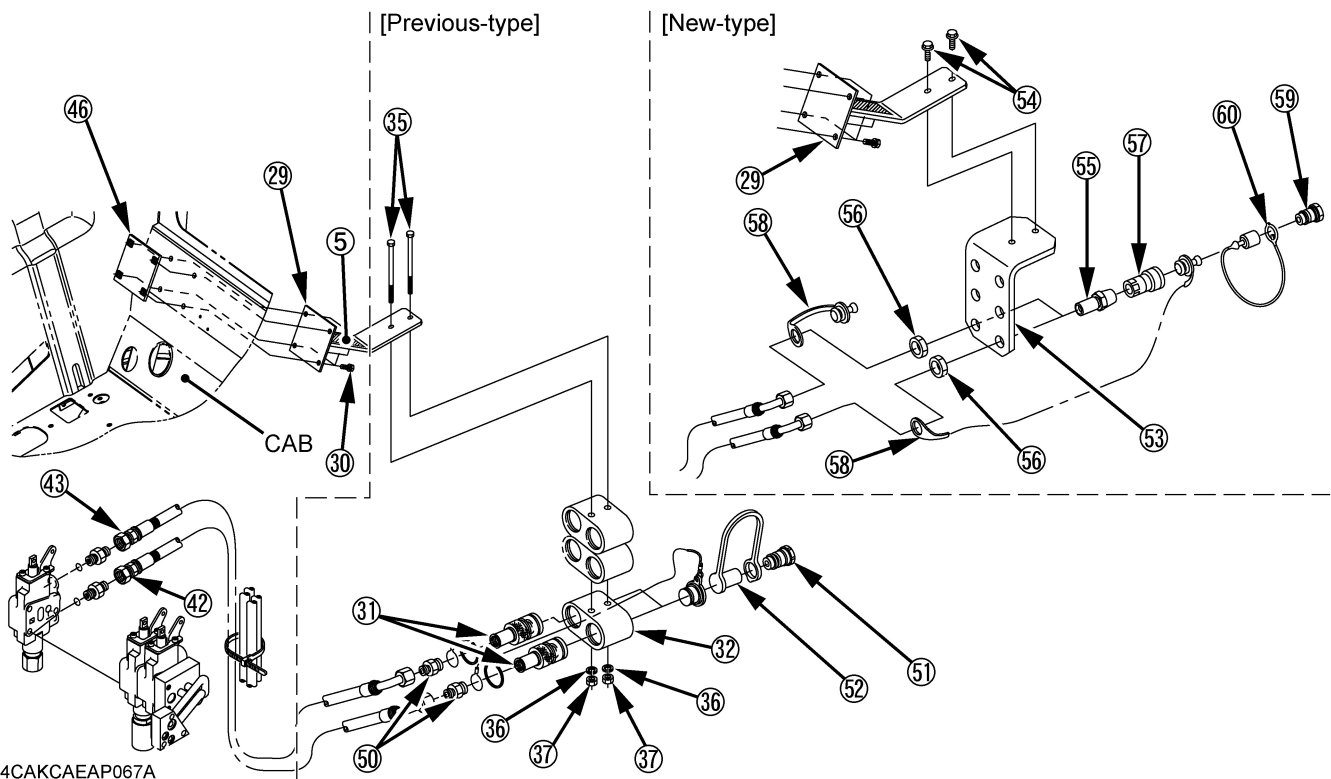


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■ 3rd. Remote Hydraulic



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REF. No.	PART No.	PART NAME	Q'TY			REMARKS
			1st.	2nd.	3rd.	
1	TD359-4961-2	MARKING (AUX. CONT. VALVE)	1	-	-	
2	TD170-9672-0	MARK, AUX. CONT. VALVE	-	-	1	
3	TA040-4967-0	MARK, COUPLER	1	-	-	
4	TA040-4962-0	MARK, COUPLER	-	1	-	
5	TA040-4964-0	MARK, COUPLER	-	-	1	
6	04817-00100	O RING	2	-	-	
7	04817-00140	O RING	1	-	-	
8	04817-00110	O RING	2	-	-	
9	04817-05200	O RING	2	-	-	
10	04817-00100	O RING	1	-	-	
11	TC250-9614-0	ASSY PIPE, CONT. VALVE	1	-	-	
12	TA040-9615-0	PIPE, RETURN	1	-	-	
13	YW165-0010-3	ASSY COVER, VALVE	1	-	-	
14	01153-50875	BOLT	3	-	-	
15	01153-50802	BOLT	-	3	-	
16	55411-1514-0	BOLT	-	-	3	
17	01123-50835	BOLT	3	-	-	
18	TA040-9616-4	STAY, AUX. CONT. VALVE	1	-	-	
19	01123-50820	BOLT	2	-	-	
20	01133-51235	BOLT	2	-	-	
21	TD060-9625-0	TUBE, LEVER	1	1	1	
22	TD060-9626-2	GRIP, AUX. CONTR. LEVER	1	1	1	
23	TC860-9622-0	LEVER, AUX. CON. VALVE	1	-	-	
24	TC860-9623-0	LEVER, AUX. CON. VALVE	-	1	-	
25	TC860-9624-0	LEVER, AUX. CON. VALVE	-	-	1	
26	68021-3279-2	PIN	2	2	2	
27	04012-50050	WASHER, PLAIN	4	4	4	
28	05511-51210	PIN, SPLIT	2	2	2	
29	TC860-9655-0	STAY, COUPLER	1	-	-	
30	01123-50820	BOLT, SEMS	4	-	-	
31	35861-8200-0	ASSY, COUPLER	2	2	2	Previous-type
32	35893-8261-2	SUPPORT (COUPLER)	1	1	1	Previous-type
33	01153-50865	HEX. BOLT	2	-	-	Previous-type
34	01153-50802	HEX. BOLT	-	2	-	Previous-type
35	35340-9954-0	BOLT	-	-	2	Previous-type
36	04512-50080	WASHER, SPRING LOCK	2	2	2	Previous-type

REF. No.	PART No.	PART NAME	Q'TY			REMARKS
			1st.	2nd.	3rd.	
37	02156-50080	HEX. NUT	2	2	2	Previous-type
38	6A620-1742-2	WASHER, PLAIN	2	-	-	
39	TD060-9644-3	HOSE, AUX. CONT. VALVE	1	-	-	Yellow
40	TD060-9642-3	HOSE, AUX. CONT. VALVE	1	-	-	Red
41	TC860-9644-0	HOSE (AUX. CONT. VALVE)	-	1	-	Blue
42	TD060-9646-3	HOSE, AUX. CONT. VALVE	-	1	1	Brown
43	TC860-9646-0	HOSE (AUX. CONT. VALVE)	-	-	1	Green
44	TC860-9765-0	PLATE (HYD LEVER, AUX)	1	-	-	
45	TC860-7522-0	COVER (AUX. CONT. VALVE)	1	-	-	
46	TD350-9647-2	STAY (2, COUPLER)	1	-	-	
47	TC860-9625-0	GUIDE	-	-	1	
48	TC860-4764-0	COVER (LOADER LEVER)	1	-	-	
49	TC860-7549-0	SEAL (GUIDE SHIFT)	1	-	-	
50	99063-9341-0	ADAPTER	2	2	2	Previous-type
51	35861-8219-2	ASSY COUPLER MALE	2	2	2	Previous-type
52	35861-9453-2	CAP	2	2	2	Previous-type
53	TC830-9601-0	BRACKET	1	-	-	New-type
54	01754-50820	BOLT, FLANGE	2	-	-	New-type
55	TC830-9600-0	ADAPTER (AUX. HYD)	2	2	2	New-type
56	TC830-9604-0	NUT (AUX. HYD)	2	2	2	New-type
57	TC830-9602-0	COUPLER (FEMALE, LT)	2	2	2	New-type
58	6F172-3883-0	PLUG (BLUE, COUPLER)	2	2	2	New-type
59	TC830-9606-0	COUPLER (MALE)	2	2	2	New-type
60	TC850-8279-0	PLUG (BLUE, COUPLER)	2	2	2	New-type
61	TC860-9814-5	MANUAL, INST (AUX. CONTROL)	1	1	1	This paper