

INSTALLATION MANUAL

REF NO.	BA04007
DATE	May 27, 2004

- SUBJECT:** INSTALLATION OF A 3-SPOOL CONTROL VALVE SYSTEM
- PURPOSE:** To introduce an installation procedure for a 3-spool control valve system including the related piping.
- APPLICATION:** WA600-1 Wheel Loader Serial Number 10865 and UP
 WA600-1A Wheel Loader Serial Number 10865 and UP
 WA600-1D Wheel Loader Serial Number 10865 and UP
 WA600-1L Wheel Loader Serial Number A10081 and UP
 WA600-1LC Wheel Loader Serial Number A50001 and UP
 WA600-1LE Wheel Loader Serial Number A51001 and UP
 568 Wheel Loader Serial Number 7001 and UP
- FAILURE CODE:** P000B3
- DESCRIPTION:** To introduce the installation procedures for the newly prepared 3-spool control valve and the piping related to the system.

MACHINE PREPARATION

1. Park the machine on a flat level surface; lower the work equipment to the ground. Shut off the engine and cycle the controls to remove any residual hydraulic pressure from the work equipment circuits. Turn the parking brake switch on and block the tires.
2. Remove the key from the ignition switch until the repairs are complete. Place a tag on the steering controls advising: "This machine is being repaired. It should not be started or moved for any reason until the tag is removed by the person doing the repairs."



WARNING! Observe all safety and precautionary standards as dictated by the environment and work conditions under which the equipment will be inspected, reworked and repaired. Consult the "Shop Manual" and "Operator's and Maintenance Manual" and your "Komatsu district service manager" with any/all questions regarding safety.

Remark

These instructions are intended to supplement the service data contained in the appropriate "Shop Manual". Always refer to that manual for Removal, Installation, Disassembly and Reassembly instructions when not contained in this document.

PART TO BE INSTALLED**3- SPOOL PART NUMBERS**

Item	Part Number	Description	Qty.	Ref.	Remark
1	709-13-11700	VALVE ASSEMBLY	1		New 3-spool valve
2	426-867-1110	HOSE	1		
3	07000-13038	O-RING	1		
4	07000-13048	O-RING	1		
5	07378-11400	HEAD	2		
6	07000-13048	O-RING	2		
7	07371-31465	FLANGE	4		
8	07372-21240	BOLT	8		
9	01643-51232	WASHER	8		Rework current part
10	426-876-1121	BRACKET	1		
11	426-877-1110	TUBE L.H.	1		
12	426-877-1120	TUBE R.H.	1		
13	07000-13045	O-RING	2		
14	01010-81245	BOLT	8		
15	01643-51232	WASHER	8		
16	426-877-1130	TUBE L.H.	1		
17	426-877-1140	TUBE R.H.	1		
18	07000-12060	O-RING	2		
19	07371-32076	FLANGE	4		
20	07372-21240	BOLT	8		
21	01643-51232	WASHER	8		
22	07122-01417	HOSE	2		
23	07000-13048	O-RING	4		
24	07371-31465	FLANGE	8		
25	07372-21240	BOLT	16		
26	01643-51232	WASHER	16		
27	426-877-1150	TUBE L.H.	1		
28	426-877-1160	TUBE R.H.	1		
29	07000-13048	O-RING	2		
30	07378-11400	HEAD	2		
31	07371-31465	FLANGE	4		
32	07372-21240	BOLT	8		
33	01643-51232	WASHER	8		
34	426-877-1181	PLATE	2		
35	01010-81026	BOLT	4		

3- SPOOL PART NUMBERS

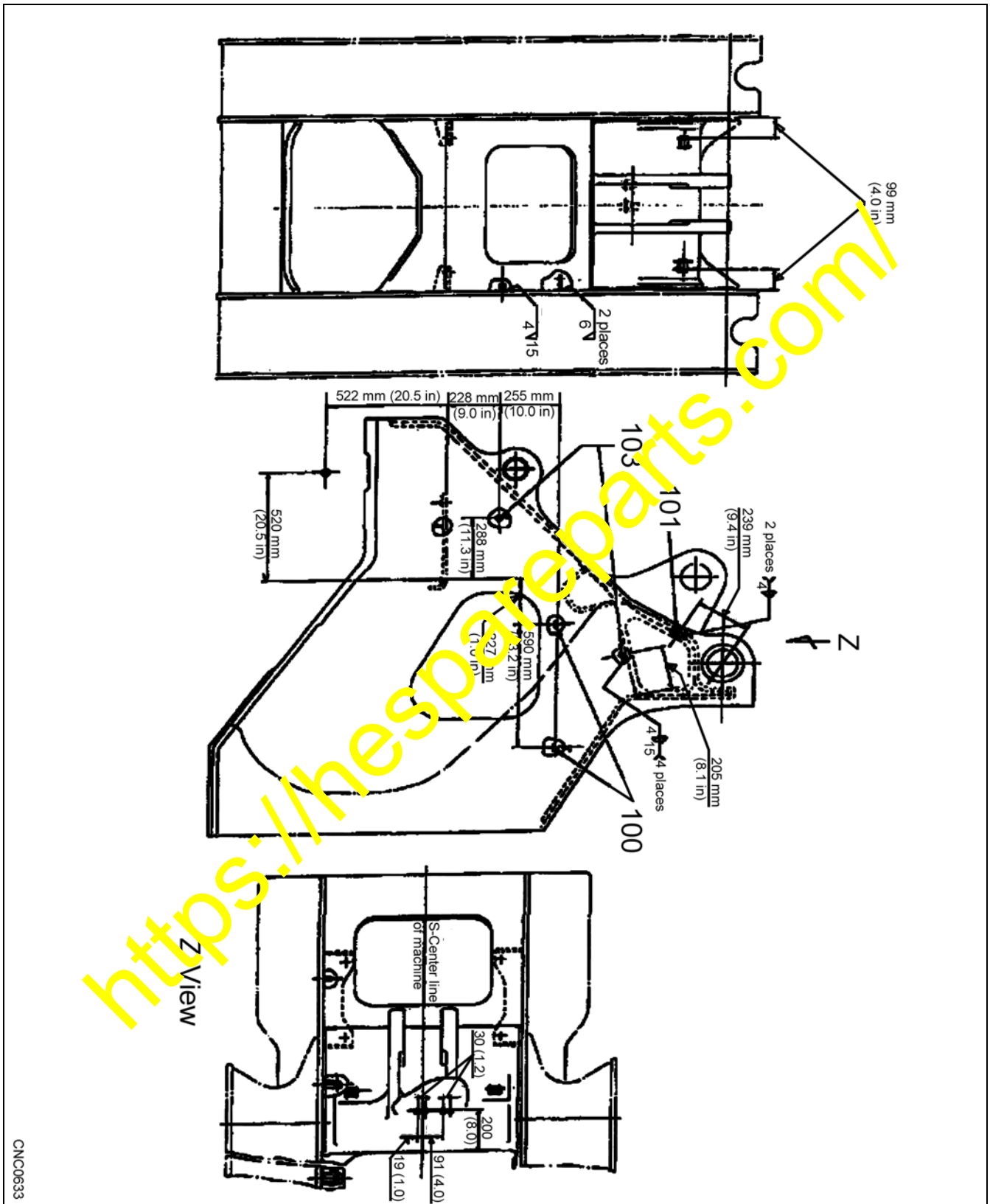
36	01643-31043	WASHER	4
37	07283-34354	CLIP	2
38	01597-01009	NUT	4
39	01643-31032	WASHER	4
40	426-877-1190	PLATE	2
41	01010-81230	BOLT	4
42	01643-31032	WASHER	4
43	07283-34354	CLIP	8
44	07283-54353	SEAT	8
45	01597-01009	NUT	16
46	01643-31032	WASHER	16
47	702-16-34003	PPC VALVE	1
48	421-877-1410	PLATE	1
49	01435-00820	BOLT	3
50	07102-20204	HOSE	1
51	205-62-74190	ELBOW	1
52	07002-11223	O-RING	3
53	421-877-1420	ELBOW	1
54	421-877-1430	JOINT	1
55	07000-12018	O-RING	4
56	706-46-56290	EYE BOLT	1
57	07260-20936	HOSE	1
58	07281-00197	CLAMP	4
59	07102-20311	HOSE	2
60	205-62-55270	NIPPLE	2
61	07002-11423	O-RING	2
62	426-877-1431	TUBE	1
63	426-877-1441	TUBE	1
64	426-877-1410	TUBE	1
65	426-877-1420	TUBE	1
66	07235-10315	ELBOW	2
67	07002-12034	O-RING	2
68	07283-21529	CLIP	2
69	01596-00807	NUT	4
70	01643-30823	WASHER	4
71	08036-01814	CLIP	2
72	04434-51510	CLIP	6

3- SPOOL PART NUMBERS

73	01010-81020	BOLT	4	
74	01643-31032	WASHER	4	
75	07040-11409	PLUG	2	
76	07002-11423	O-RING	2	
77	421-877-1460	LEVER	1	
78	113-43-23420	KNOB	1	
79	07020-00675	FITTING	1	
80	06120-02016	BEARING	2	
81	06122-02004	SEAL	2	
82	421-43-18890	RED	1	
83	04256-50616	BALL JOINT	1	
84	01508-40603	NUT	1	
85	04256-40615	BALL JOINT	1	
86	01580-10605	NUT	1	
87	01596-00606	NUT	2	
88	01643-30623	WASHER	2	
89	421-877-1491	TRUNNRUN	1	
90	421-43-28110	NUT	2	
91	421-43-18561	LEVER ASSEMBLY	1	
92	01596-00807	NUT	1	
93	01643-30823	WASHER	1	
94	421-43-18591	PLATE	4	
95	04205-10620	PIN	4	
96	01641-20608	WASHER	4	
97	04050-11612	COTTER PIN	4	
98	419-43-18160	SCOT	1	
99	419-43-18160	SCOT	1	
100	426-877-1220	SEAT	2	Rework current part
101	426-877-1220	SEAT	2	Rework current part
102	426-877-1220	SEAT	2	Rework current part
103	209-69-34880	SEAT	5	Rework current part
104	426-877-1250	ANGLE	2	Rework current part
105	426-877-1260	ANGLE	2	Rework current part

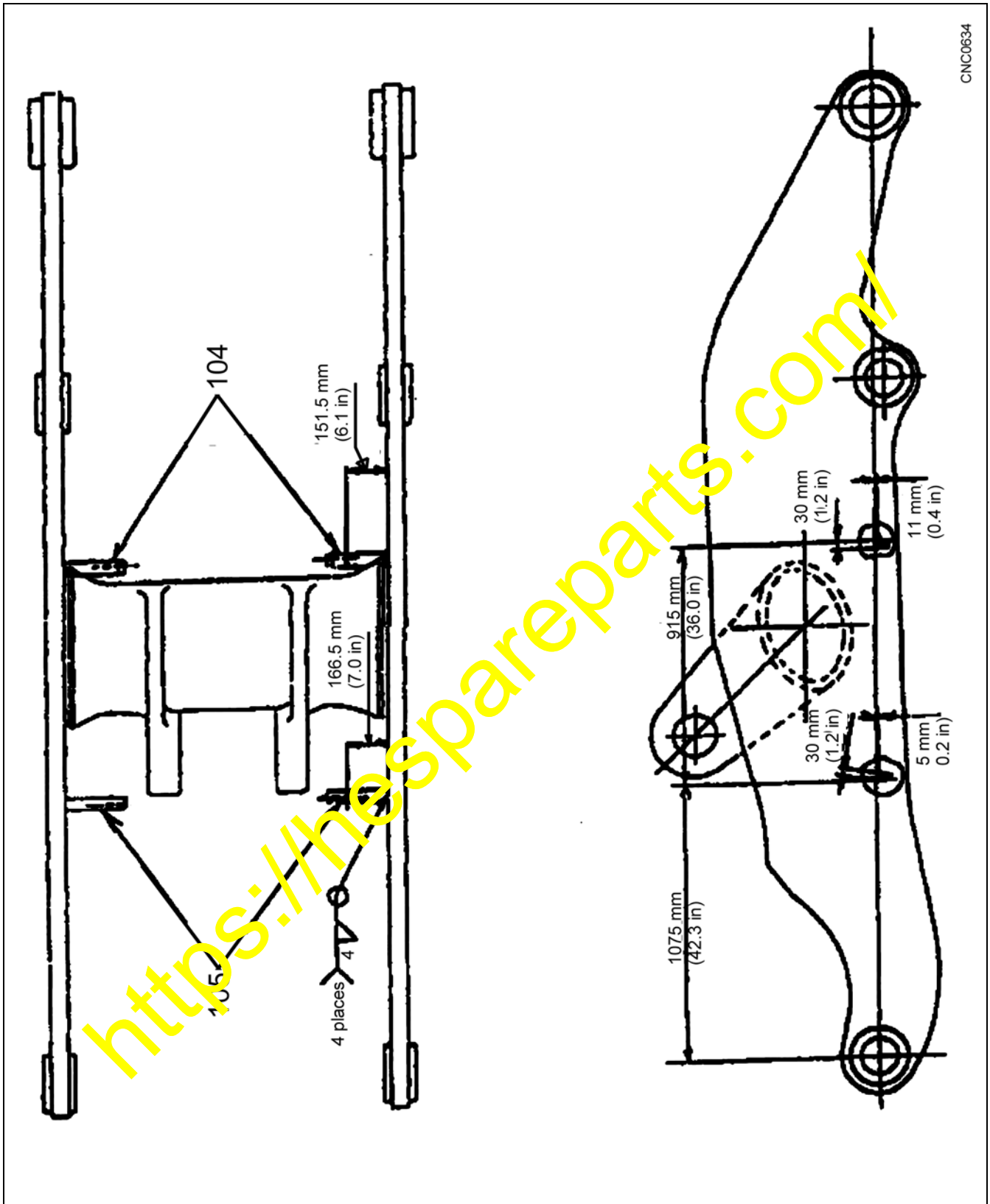
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REWORK PROCEDURES



CNC0633

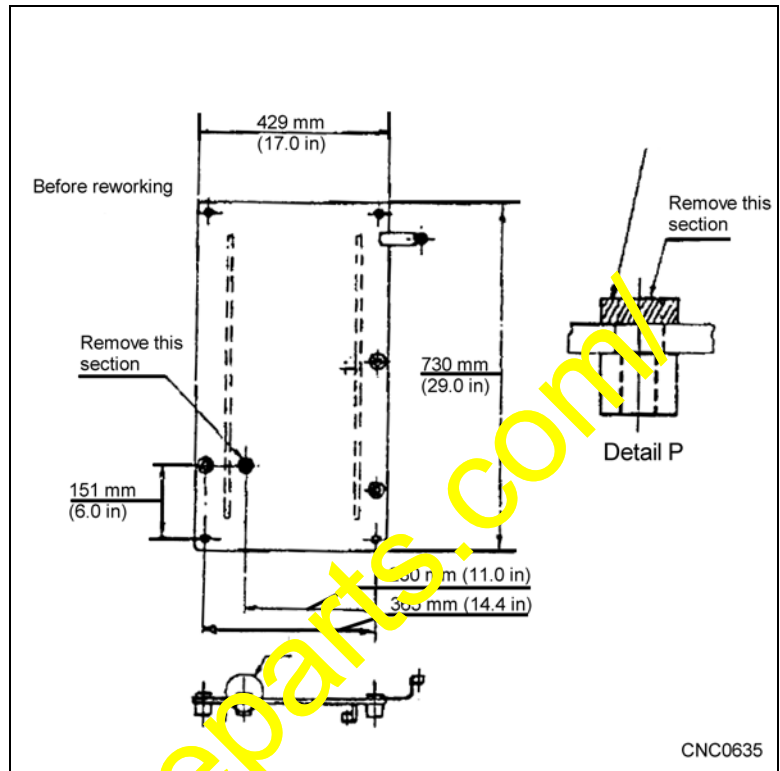
★ Rework front frame



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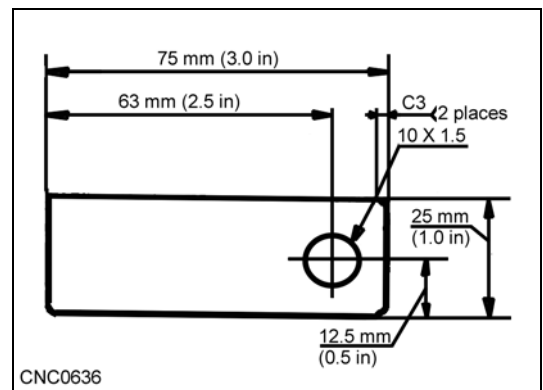
★ Rework boom assembly

★ Rework valve mounting bracket (This rework is not necessary when ordering (426-876-1121))

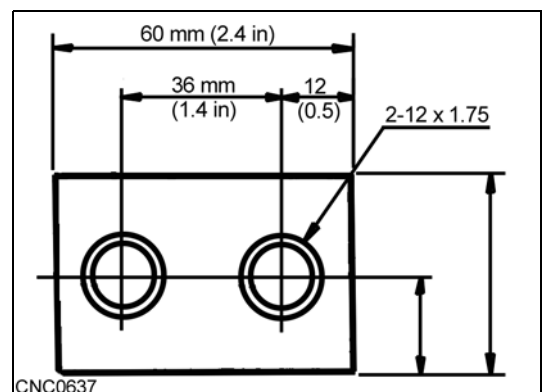


REWORK IN DETAIL

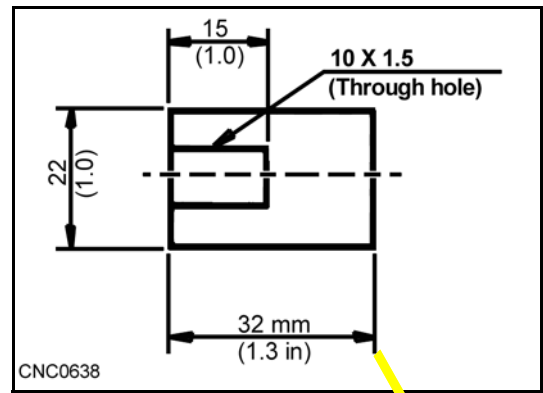
- Detail of part (426-877-1220)
Material: SS41F
Quantity: 2 pcs/unit



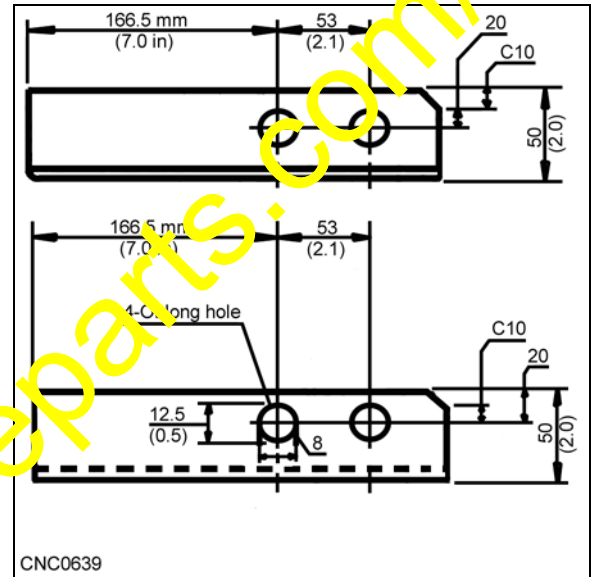
- Detail of part (426-877-1230)
Material: SS41F
Quantity: 2 pcs/unit



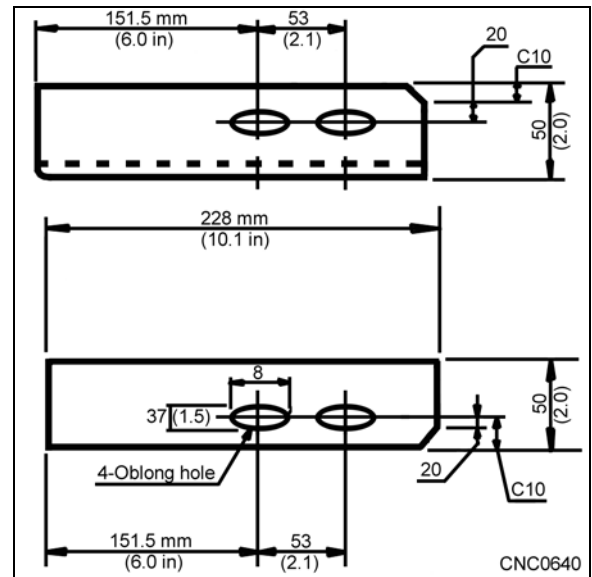
- Detail of part (209-62-34880)
Material: SS41B
Quantity: 5 pcs/unit



- Detail of part (426-877-1260)
Material: SS41A
Quantity: 2 pcs/unit



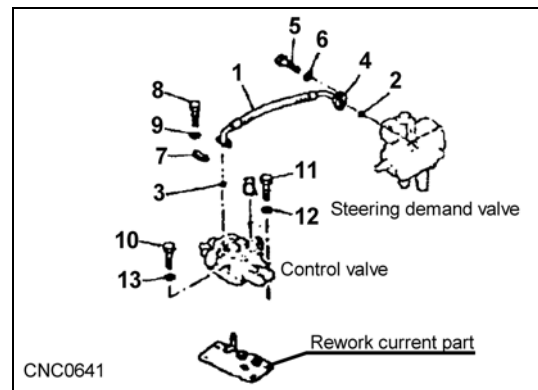
- Detail of part (426-877-1250)
Material: SS41A
Quantity: 2 pcs/unit



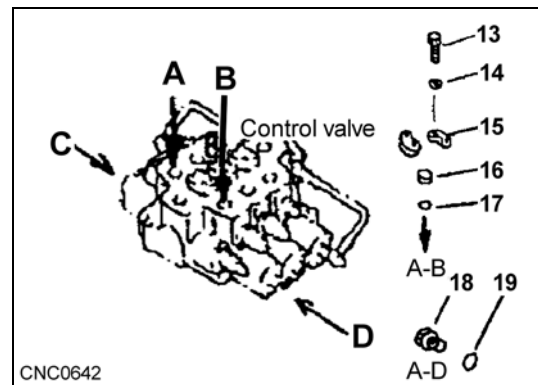
ASSEMBLY PROCEDURES

Item	Part Number	Description	Qty.	Ref.	Remark
1	426-974-EEEE0	HOSE	1		
2	37000-13038	O-RING	1		
3	07000-13048	O-RING	1		
4	07371-31229	FLANGE, SPLIT.	2		Reuse current part
5	07372-21035	BOLT	4		Reuse current part
6	01643-51032	WASHER	4		Reuse current part
7	07371-31465	FLANGE, SPLIT.	2		Reuse current part
8	07372-21240	BOLT	4		Reuse current part
9	01643-61232	WASHER	4		Reuse current part
10	01011-61630	BOLT	1		Reuse current part
11	01011-61605	BOLT	2		Reuse current part
12	01643-31645	WASHER	3		Reuse current part
13	07372-21240	BOLT	8		
14	01643-51232	WASHER	8		
15	07371-31465	FLANGE	4		
16	07378-11400	HEAD	2		
17	07000-13048	O-RING	2		
18	07040-11409	PLUG	2		
19	07002-11423	O-RING	2		

- ★ Assemble (709-13-11700) valve as shown:
 - a. Replace control valve with the prepared part
 - b. Replace valve mounting bracket with the reworked bracket.
 - c. Replace hose No. 1 with prepared part.

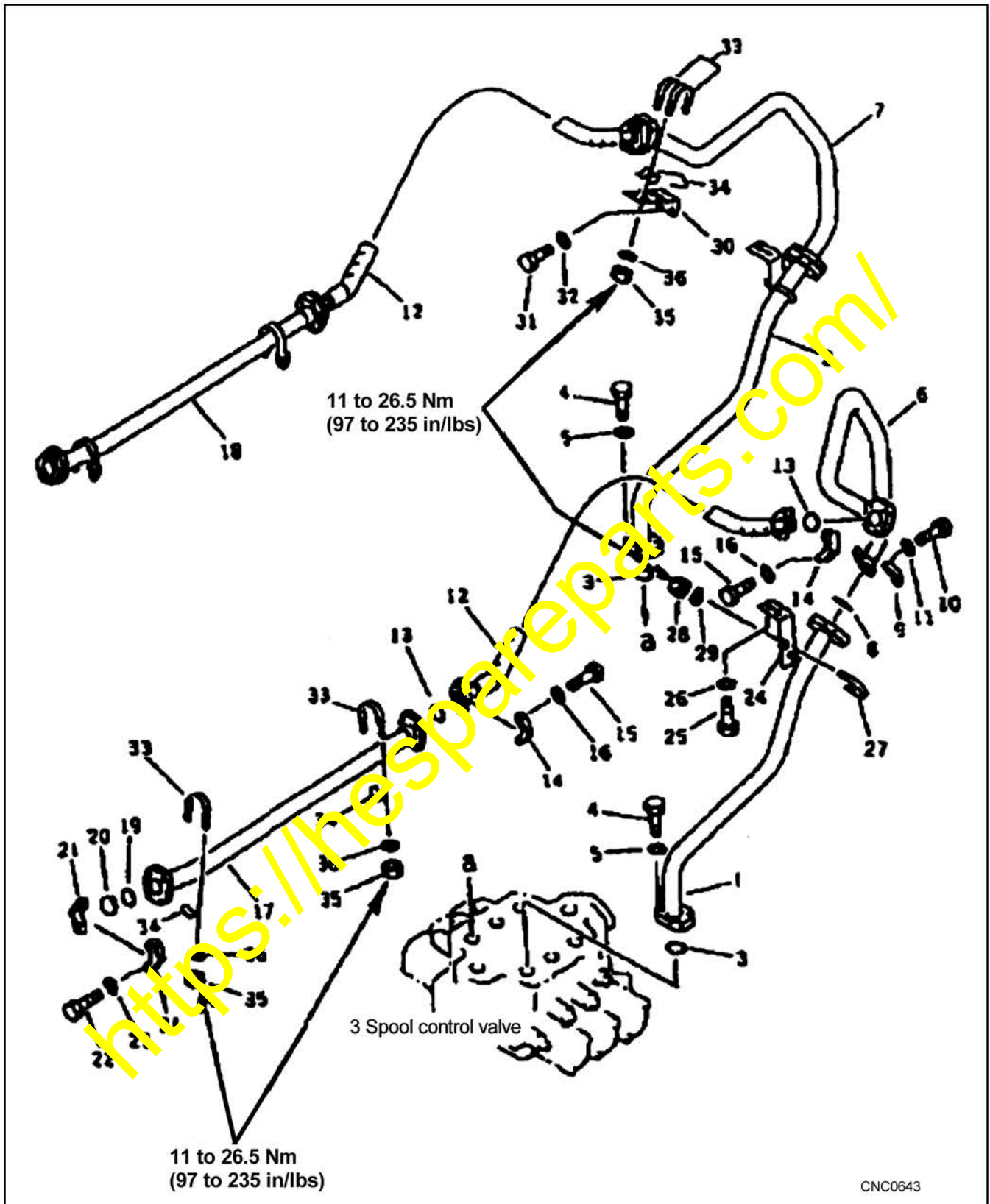


- ★ When installing the valve only, plug piping ports (A through D).

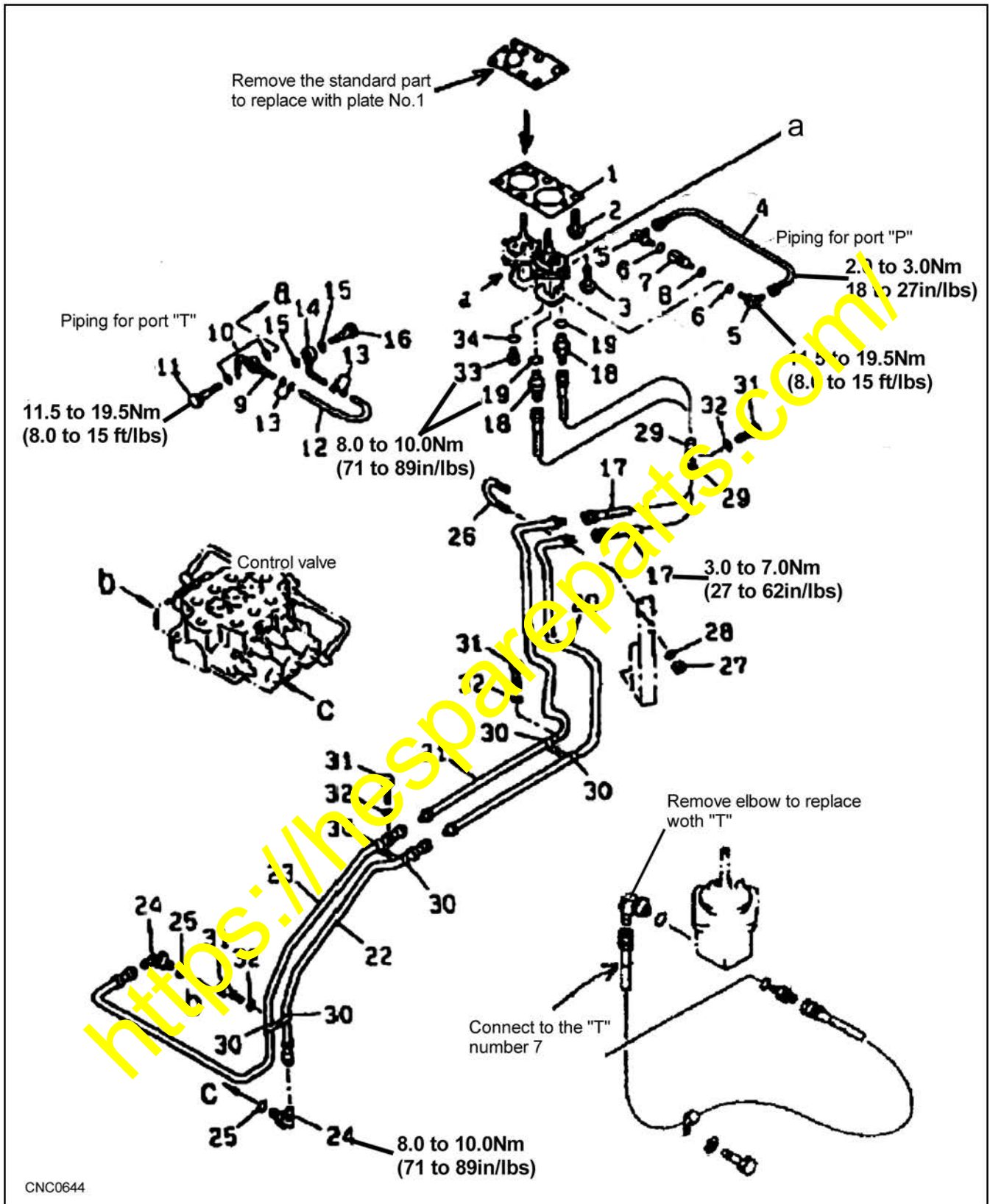


Item	Part Number	Description	Qty.	Ref.	Remark
1	426-877-1110	TUBE	1		
2	426-977-1120	TUBE	1		
3	07000-13345	O-RING	2		
4	01010-81245	BOLT	8		
5	01643-51232	WASHER	9		
6	426-877-1130	TUBE	1		
7	426-877-1143	TUBE	1		
8	07000-12060	O-RING	2		
9	07371-32076	FLANGE, SPLIT.	4		
10	07372-21240	BOLT	8		
11	01643-51232	WASHER	8		
12	01122-01417	HOSE	2		
13	07000-13046	O-RING	4		
14	07371-31465	FLANGE, SPLIT.	4		
15	07372-21240	BOLT	16		
16	01643-51232	WASHER	16		
17	426-877-1150	TUBE	1		
18	426-877-1160	TUBE	1		
19	07000-13048	O-RING	2	---	
20	07378-11400	HEAD, SLEVE.	2	---	blank parts when the
21	07374-31465	FLANGE, SPLIT.	4	---	attachment is not
22	07372-21240	BOLT	8	---	installed
23	01643-51232	WASHER	8	---	
24	426-671-1181	PLATE	2		
25	01010-81425	BOLT	4		
26	01643-31332	WASHER	4		
27	07283-14354	CLIP	2		
28	01597-01009	NUT.	4		
29	01643-31032	WASHER	4		
30	426-877-1120	PLATE.	2		
31	01010-81230	BOLT	4		
32	01643-36232	WASHER	4		
33	01283-34354	CLIP	8		
34	07283-54353	SEAT	8		
35	01597-01009	NUT.	16		
36	01643-31032	WASHER	16		

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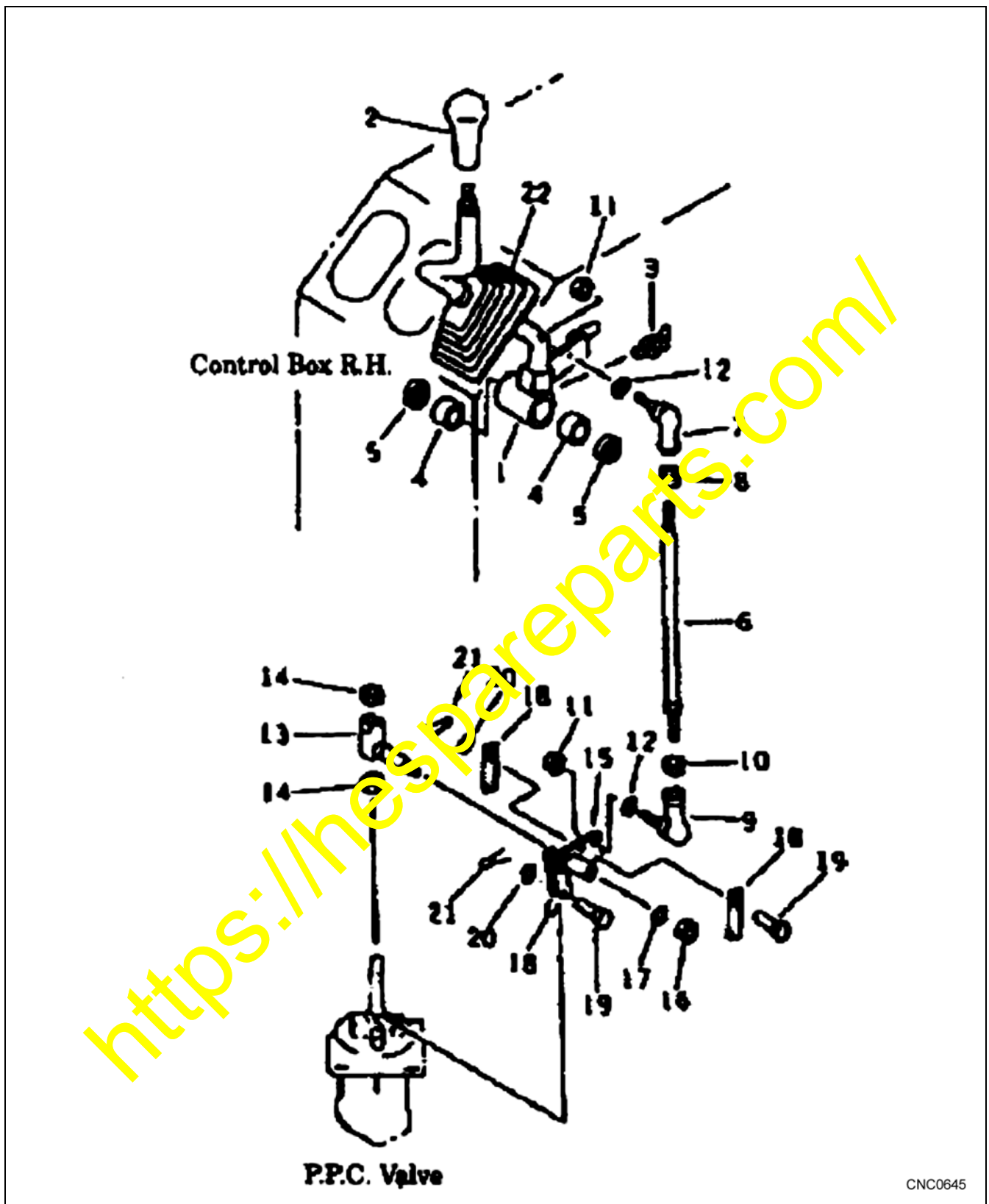


Item	Part Number	Description	Qty.	Ref.	Remark
1	421-677-1410	PLATE	1		
2	01435-00825	BOLT	3		Reuse current part
3	01435-00820	BOLT	3		
4	01102-20204	HOSE	1		
5	205-62-14190	ELBOW	2		
6	07002-11223	O-RING	2		
7	421-877-1420	TEE	1		
8	07002-11223	O-RING	1		
9	421-977-1430	JOINT	1		
10	07000-12018	O-RING	2		
11	706-46-56290	BOLT, JOINT	1		
12	07260-20936	HOSE	1		
13	07281-00197	CLAMP	4		
14	421-62-14960	JOINT	1		Reuse current part
15	07000-12313	O-RING	2		
16	706-46-56290	BOLT, JOINT	1		Reuse current part
17	07102-20311	HOSE	2		
18	205-62-55210	NIPPLE	2		
19	07002-11423	O-RING	2		
20	426-877-1431	TUBE	1		
21	426-877-1441	TUBE	1		
22	426-877-1410	TUBE	1		
23	426-877-1420	TUBE	1		
24	07235-10315	ELBOW	2		
25	07002-12034	O-RING	2		
26	07283-21529	CLIP	2		
27	01596-00807	NUT	4		
28	01643-30823	WASHER	4		
29	08036-01511	CLIP	2		
30	04434-01510	CLIP	6		
31	01010-81020	BOLT	4		
32	01643-31032	WASHER	4		
33	07040-11408	PLUG	2		
34	07002-11423	O-RING	2		



Item	Part Number	Description	Qty.	Ref.	Remark
1	426-677-1460	LEVER.	1		
2	113-43-23420	KNOB	1		
3	07020-00675	GREASE FITTING	1		
4	06120-02016	NEEDLE BEARING	2		
5	06122-02004	BEARING SEAL	2		
6	421-43-16890	ROD.	1		
7	04256-50616	BALL JOINT, L.H. THREAD.	1		
8	01508-40601	NUT, L.H. THREAD	1		
9	04256-40615	BALL JOINT	1		
10	01560-10505	NUT.	1		
11	01596-00606	NUT.	2		
12	01643-30623	WASHER	2		
13	421-877-1491	TRUNNION	1		
14	421-43-28110	NUT.	2		
15	421-43-18561	LEVER ASSEMBLY L.H..	1		
	421-43-18870	BUSHING.	2		
16	01596-00907	NUT.	1		
17	01843-30823	WASHER	1		
18	421-43-18591	PLATE.	4		
19	04205-10620	PIN.	4		
20	01641-20608	WASHER	4		
21	04050-11612	COTTER PIN	4		
22	419-430-13160	BOOT	1		

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★ Refer to Shop Manual for adjustments.