

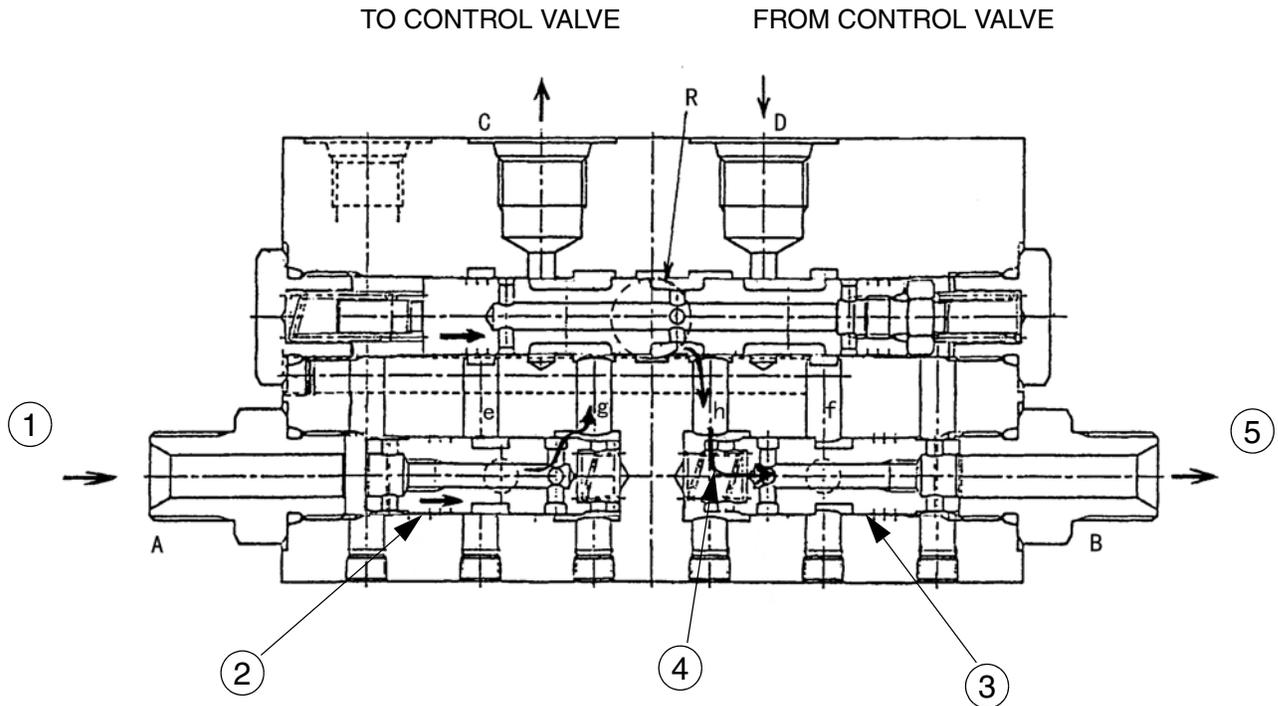
OPERATIONAL DESCRIPTION

Changed over to "SOFT"

Lever in Neutral

(1) The heat oil separated from the oil cooler line enters the cushion valve Port R.

(2) Then, the oil passes the reverse notch spool and goes through passages e and f. After passing the outer circumference of each cushion spool, the oil returns to the hydraulic oil tank via Port T.



CRPH06C008F

- 1 FROM REMOTE CONTROL VALVE
- 2 CUSHION SPOOL
- 3 CUSHION SPOOL

- 4 THROTTLE
- 5 TO REMOTE CONTROL VALVE

Arm OUT, operating

(1) Pilot pressure enters the cushion valve at Port A from the remote control valve. As this pilot pressure enters the left end of the cushion spool and the left end of the reverse notch spool, each spool moves to the right.

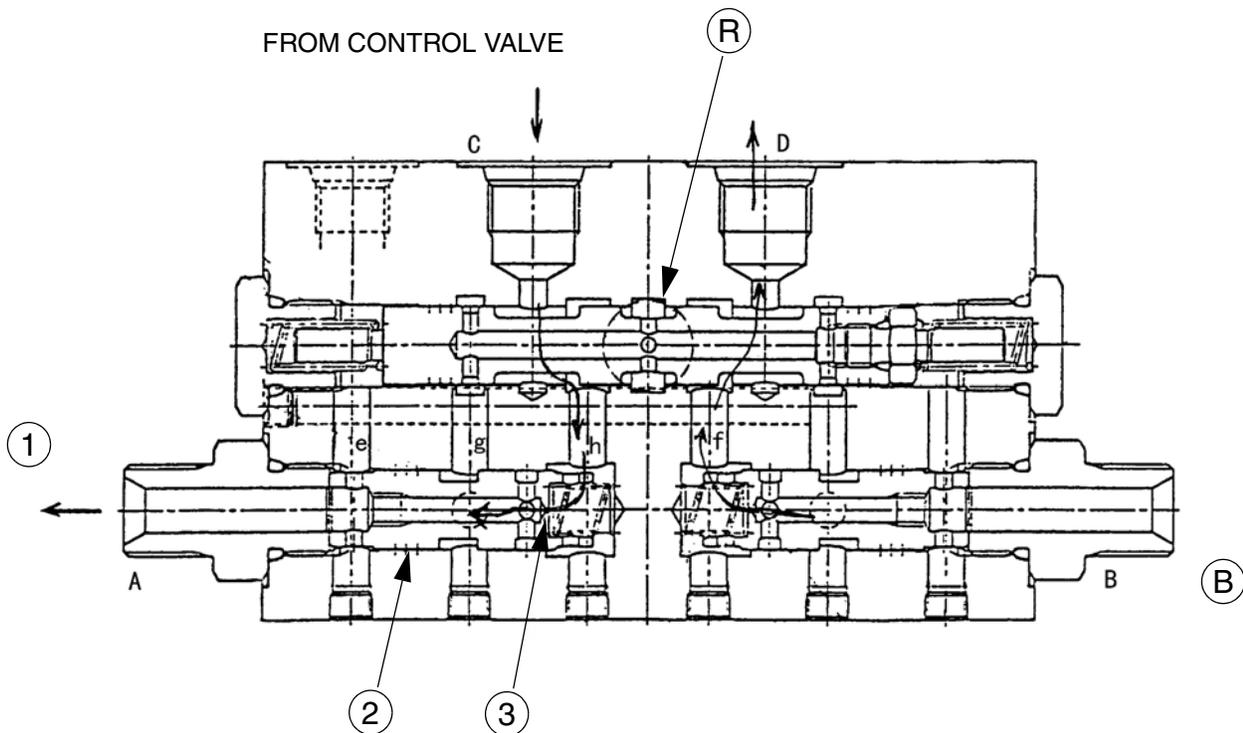
(2) The pilot pressure in the cushion spool enters the chamber g via the spool opening.

Then, the pressure passes the outer circumference of the reverse notch spool and goes into the control valve via Port C.

(3) The pilot pressure return oil from the control valve passes the outer circumference of the reverse notch spool and goes into the chamber f via Port D. Then, the oil passes the outer circumference of the cushion spool and returns to the hydraulic oil tank through Port T.

(4) At this time, as the reverse notch spool is switched over to the right, the passages e and f are closed to the heat oil at the Port R. Therefore, the oil passes passage h and enters the left end of the cushion spool. The heat oil passes the cushion spool throttles c and d and enters the remote control V via Port B. (The heat oil releases the remote control valve).

Arm OUT, stopped



1 TO REMOTE CONTROL VALVE
2 CUSHION SPOOL

3 THROTTLE

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(1) As the pilot pressure from the remote control valve stops, the reverse notch spool returns to the neutral position.
(2) The cushion spool also returns to the neutral position and the pilot return oil from the control valve passes the throttles.

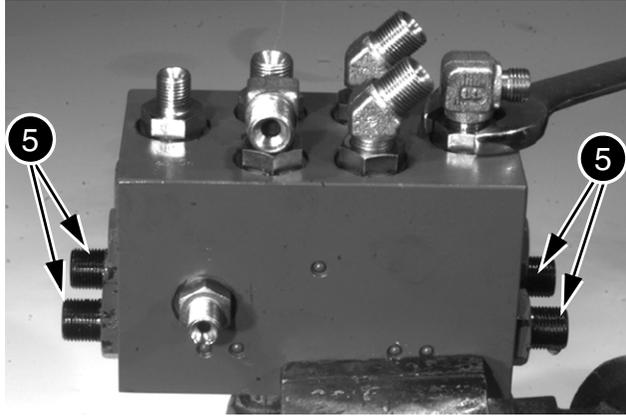
(3) Due to this restricting effect, the spool of the main control valve returns gradually to the neutral position.

CUSHION CONTROL VALVE

Disassembly

NOTE: The numbers within brackets in the following steps refer to the schematic on page 3.

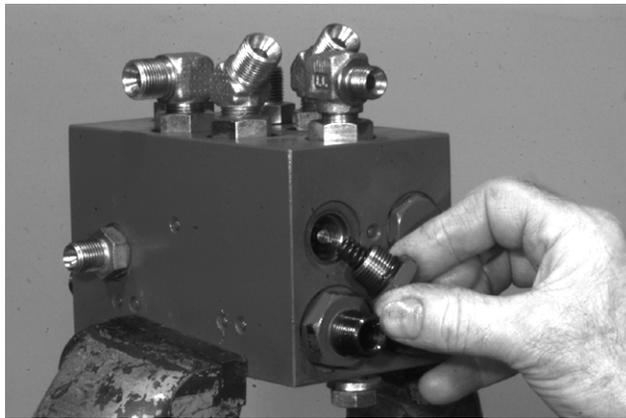
STEP 1



If the cushion control valve has to be replaced, remove the adaptors and elbow unions and install them on the new control valve. Do not remove the four flow restriction adapters (5) installed in the sides of the valve.

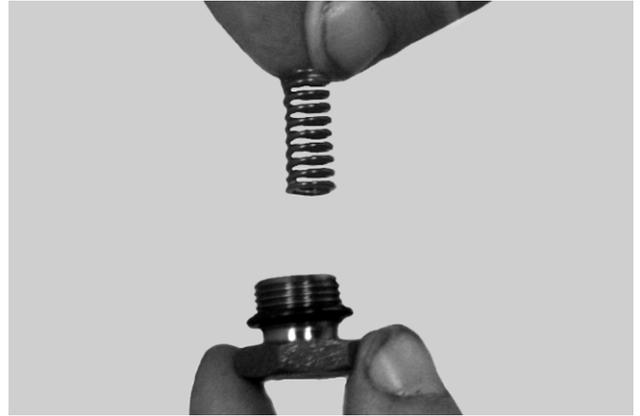
NOTE: Mark parts to ensure correct assembly in same valve bore as removed from.

STEP 2



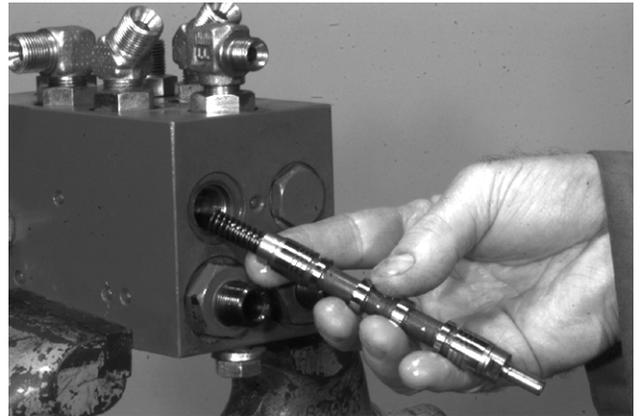
Remove the plug (12) with the O-ring (6) and the spring (11).

STEP 3



Remove the spring (11) and the O-ring (6) of the plug. Scrap the O-ring.

STEP 4



Remove the spool (8) with the O-ring (10), the cap screw (9) and the spring (11) of the control valve.

STEP 5



Put the spool (8) in a vice using wooden shims to protect the spool. Remove the cap screw (9) from the spool (8).