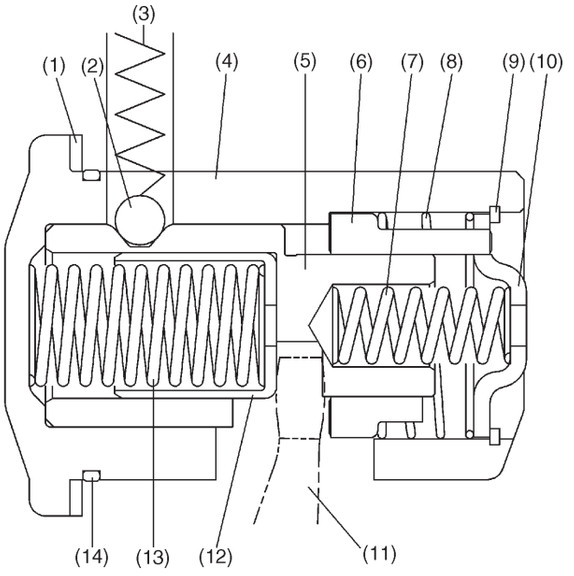
2. Reverse Check Mechanism

A: CONSTRUCTION

The reverse check sleeve is bolted to the transfer case. The reverse accent shaft is inserted in the reverse check sleeve. On the smaller-diameter side of this reverse accent shaft, the reverse check cam is loosely mounted so that it can rotate, and the reverse check sleeve holds the reverse check cam in place with its stepped part.

The reverse return spring, which is inserted in the reverse accent shaft presses the shaft to the left. Further, the reverse check spring is placed in between the reverse check cam and reverse check sleeve, which forces the reverse check cam to the left and in the direction of rotation. Both springs are held down with the reverse check plate that is attached to the reverse check sleeve with the snap ring. The reverse accent shaft has a groove for reverse accent, in which the ball and reverse accent spring are put through a hole drilled in the reverse check sleeve.



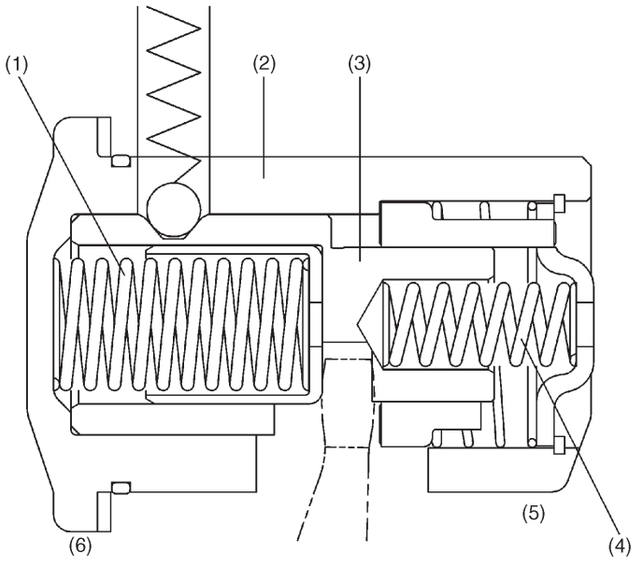
B3H1007A

(1) Select adjust shim
(2) Ball
(3) Reverse accent spring
(4) Reverse check sleeve
(5) Reverse accent shaft
(6) Reverse check cam
(7) Reverse return spring
(8) Reverse check spring
(9) Snap ring
(10) Reverse check plate
(11) Selector arm
(12) Spring cap
(13) 1st return spring
(14) O-ring

B: OPERATION

The reverse check sleeve and reverse accent shaft have a notch, and the selector arm is placed between the notches. The position of the selector arm shown is the neutral position (hereafter referred to as (N) position). The point where the selector arm stops when moved to the left is the 1st and 2nd position. On the contrary, the point where the selector arm stops when moved to the right is the 5th and reverse position.

The selector arm is pushed back to the (N) position by the 1st return spring from the 1st and 2nd side, and by the reverse return spring from the 5th and reverse side.

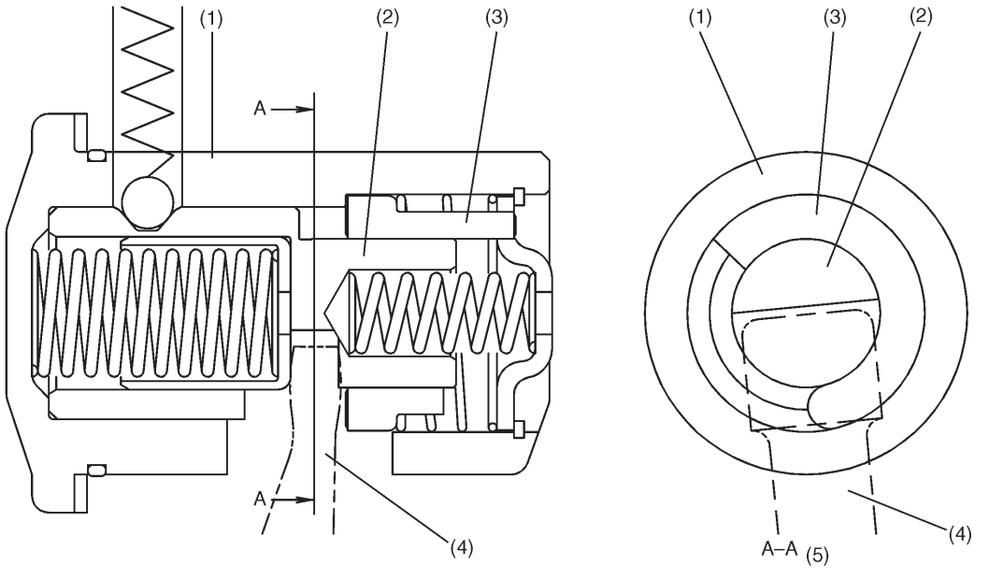


B3H1007B

(1) 1st return spring
(2) Reverse check sleeve
(3) Reverse accent shaft
(4) Reverse return spring
(5) 5th and reverse side
(6) 1st and 2nd side

1. WHEN 5TH AND REVERSE SIDE IS SELECTED

The selector arm pushes the reverse accent shaft and reverse check cam simultaneously and moves to the 5th and reverse side.

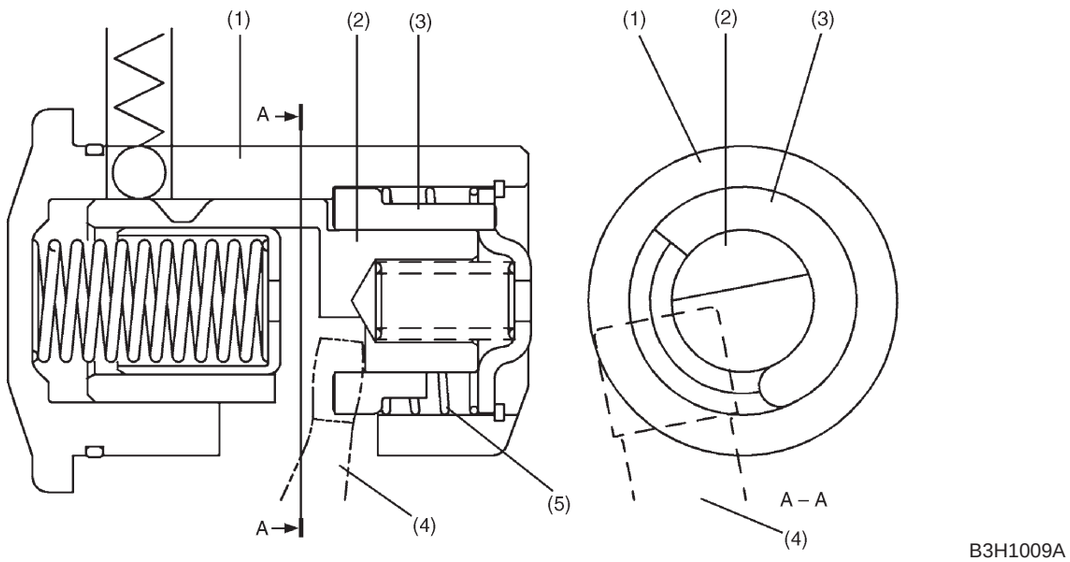


B3H1008B

(1) Reverse check sleeve
(2) Reverse accent shaft
(3) Reverse check cam
(4) Selector arm
(5) Neutral position

2. WHEN SHIFT IS MADE TO 5TH

The selector arm moves to the 5th side pushing the reverse accent shaft. When the selector arm pulls out of the reverse check cam, the reverse check cam is returned to the original position by the reverse check spring.

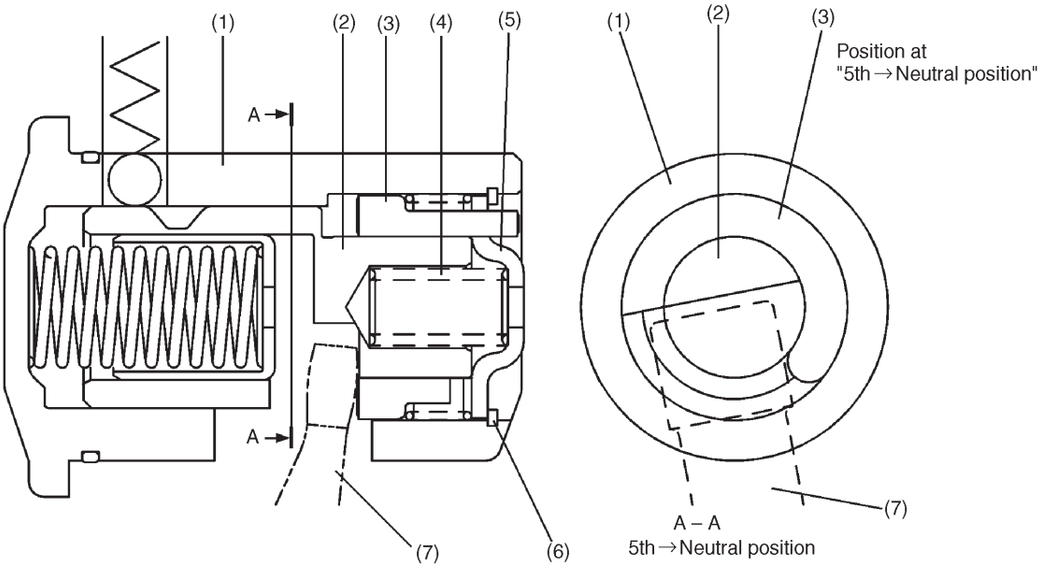


B3H1009A

(1) Reverse check sleeve
(2) Reverse accent shaft
(3) Reverse check cam
(4) Selector arm
(5) Reverse check spring

3. WHEN SHIFT IS MADE FROM 5TH TO REVERSE

The selector arm moves to the reverse side pushing the reverse accent shaft and runs against the selector cam that has already returned. The reverse check cam has a stopper, which hits against the reverse check plate Thus, the reverse check cam cannot rotate further. Accordingly, the selector arm comes to a stop at a point where it has turned the reverse check cam to a certain degree (i.e., (N) position), and the reverse check cam is pushed back to the (N) position by the reverse accent shaft (i.e., the reverse return spring).

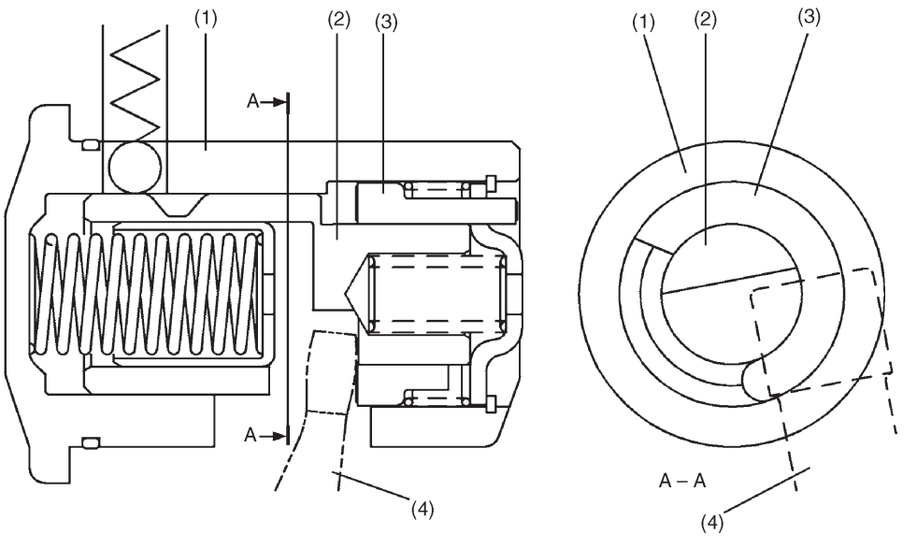


B3H1010A

(1) Reverse check sleeve
(2) Reverse accent shaft
(3) Reverse check cam
(4) Reverse return spring
(5) Reverse check plate
(6) Snap ring
(7) Selector arm

4. WHEN SHIFT IS MADE TO REVERSE

The selector arm again moves to the 5th and reverse side. When the shift is made to reverse, the selector arm moves to the reverse position while pushing the reverse accent shaft and reverse check cam together.



B3H1011A

(1) Reverse check sleeve
(2) Reverse accent shaft
(3) Reverse check cam
(4) Selector arm