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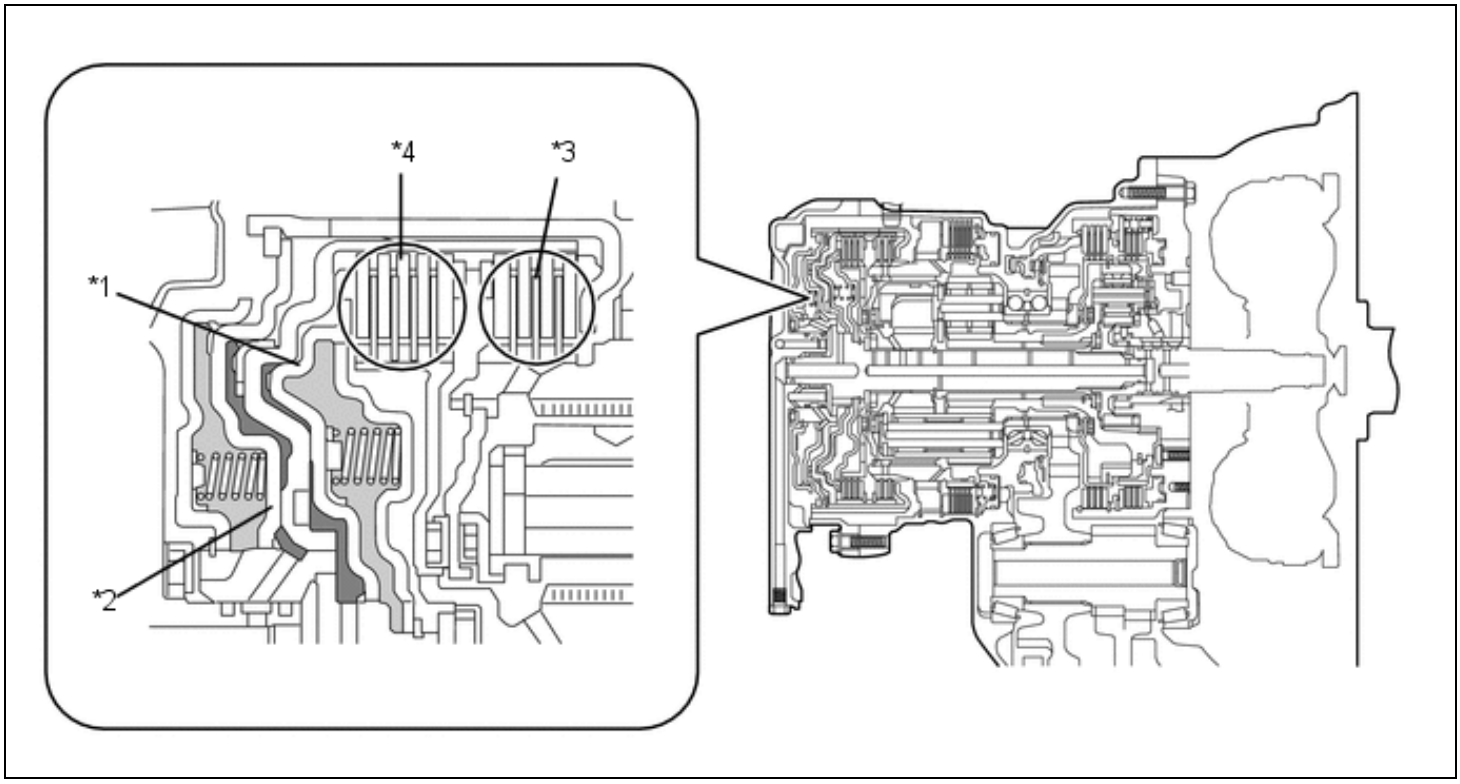
| **Title:** U760F AUTOMATIC TRANSMISSION / TRANSAXLE: AUTOMATIC TRANSAXLE SYSTEM: CENTRIFUGAL FLUID PRESSURE CANCELING MECHANISM; 2013 MY RAV4 [12/2012 - ] | | |

# CENTRIFUGAL FLUID PRESSURE CANCELING MECHANISM

## 1. CONSTRUCTION

(a) For the following reason, a centrifugal fluid pressure canceling mechanism is used on the No. 1 clutch (C1) and No. 2 clutch (C2):

(b) The clutch shifting operation is affected not only by the valve body controlling fluid pressure but also by the centrifugal fluid pressure from the fluid that is present in the clutch piston oil pressure chamber (chamber A). The centrifugal fluid pressure canceling mechanism uses chamber B to reduce the effects of the centrifugal fluid pressure caused by the fluid in chamber A. As a result, smooth shifting with excellent response is achieved.

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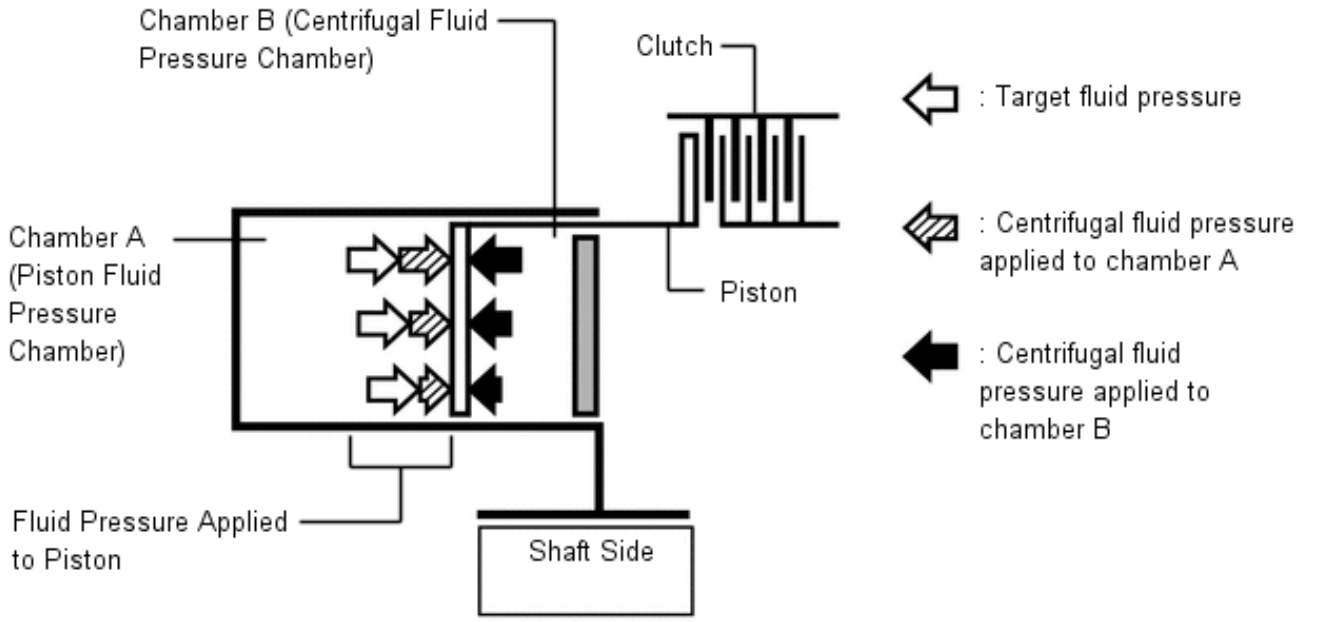
| *1 | No. 2 Clutch (C2) Piston | *2 | No. 1 Clutch (C1) Piston |
| *3 | No. 2 Clutch (C2) | *4 | No. 1 Clutch (C1) |
| | Chamber A | | Chamber B |

(c) Chamber B is filled by fluid supplied to the shaft for lubrication. As a result of filling chamber B, the same amount of fluid pressure is present on both sides of the piston due to centrifugal force. This cancels the effects of fluid pressure on the piston caused by centrifugal force. Accordingly, it is not necessary to discharge the fluid through the use of a check ball, and highly responsive and smooth shifting characteristics are achieved.

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| Fluid pressure applied to piston | − | Centrifugal fluid pressure applied chamber B | = | Target fluid pressure (original clutch pressure) |