Update Date : 2020-01-09 Print Date : 2020-02-27

SPRING BRAKE CONTROL VALVE

DATA AND SPECIFICATIONS

EN0680202I200010

Type	**Variable pressure control type**
Outlet pressure difference between parking and releasing stroke at a specified lever angle	**Within 147 kPa {1.5 kgf/cm^2, 21.33 lbf/in.^{2}}**

DESCRIPTION

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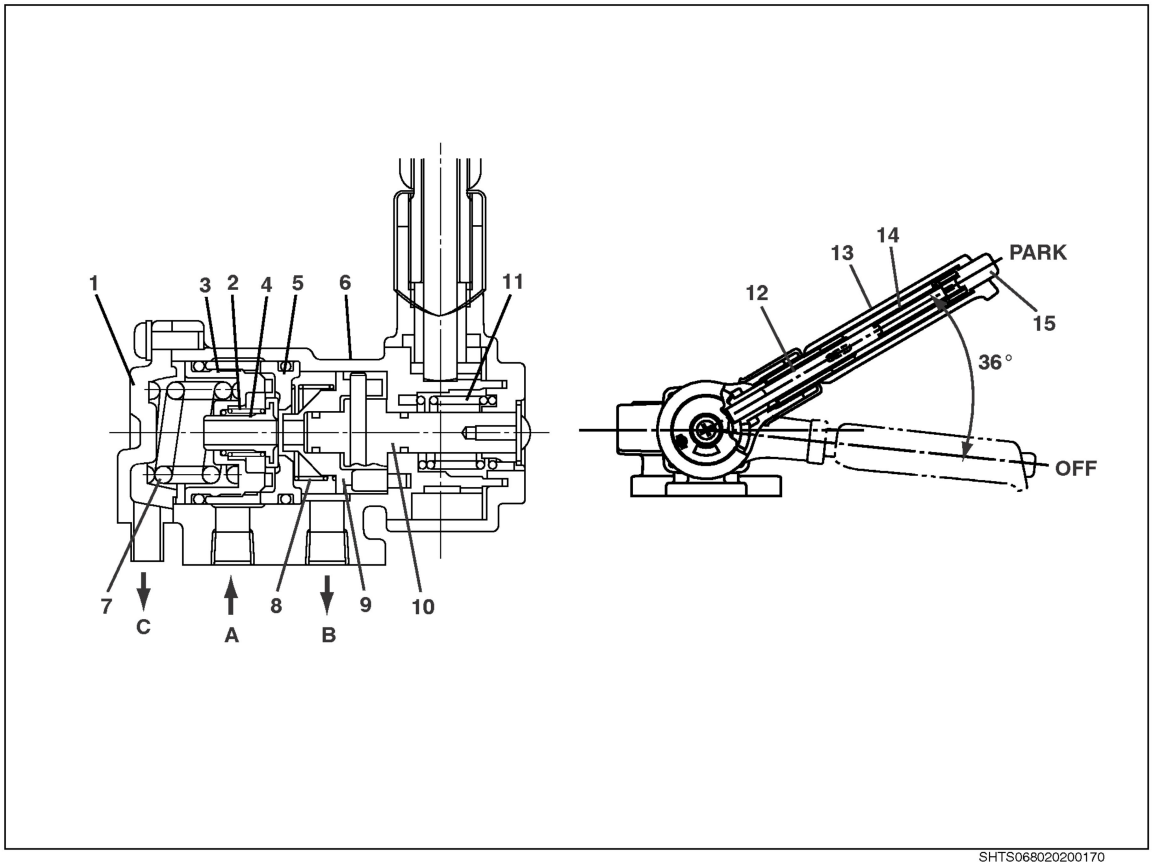

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1	Body cover	7	Piston spring	13	Grip
2	Feed valve spring	8	Valve seat spring	14	Compression spring
3	Piston	9	Cam	15	Release rod
4	Feed valve	10	Cam holder	A	Inlet
5	Valve seat	11	Return spring (If so equipped)	B	Outlet
6	Valve body	12	Pull rod	C	Exhaust (PARK)

COMPONENT LOCATOR

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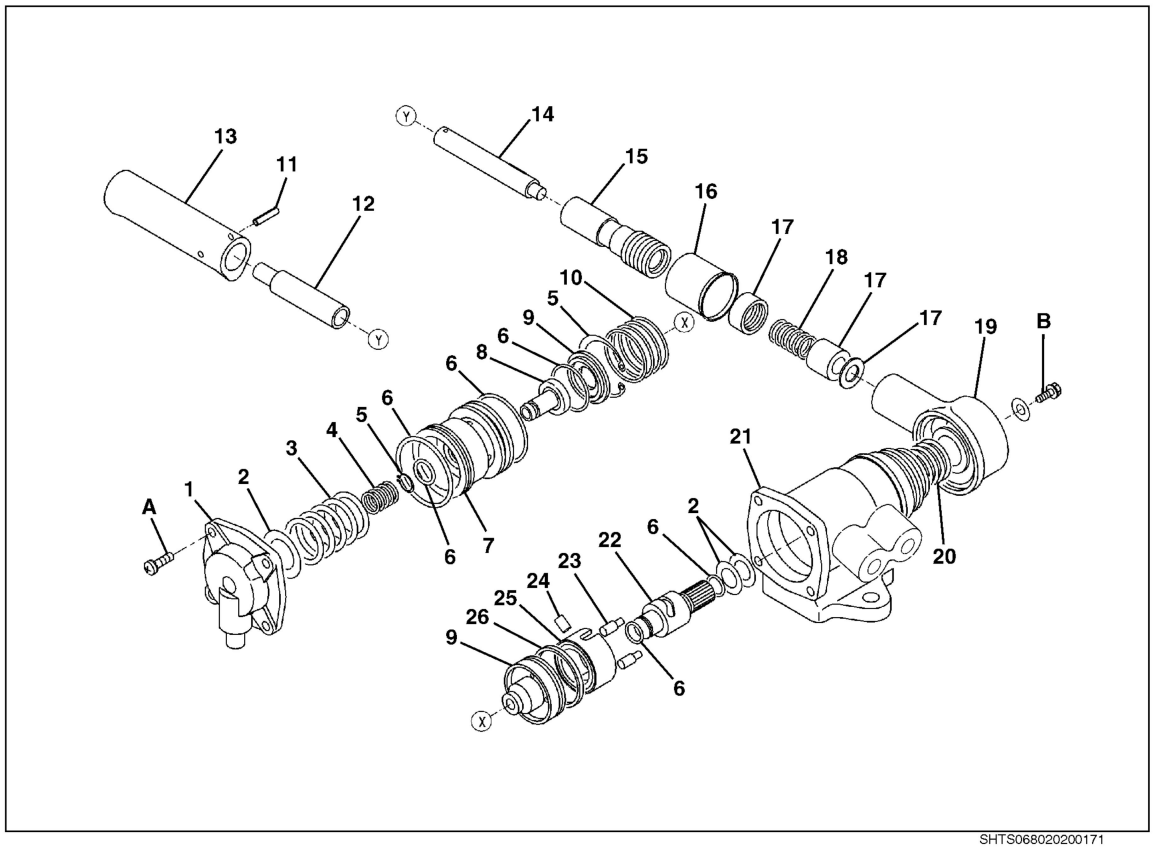

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1	Body cover	10	Valve seat spring	19	Body cap
2	Shim	11	Lock pin	20	Return spring (If so equipped)
3	Piston spring	12	Release rod knob	21	Valve body
4	Feed valve spring	13	Grip	22	Cam holder
5	Retainer ring	14	Pull rod	23	Body pin
6	O-ring	15	Supporter	24	Cam holder pin
7	Piston	16	Cover	25	Cam
8	Feed valve	17	Stopper	26	Piston guide
9	Valve seat	18	Compression spring		

Tightening torque **Unit: N·m {kgf·cm, lbf·ft}**

A	5.4-7.4 {55-75, 4.0-5.4}	B	3.4-4.9 {35-50, 2.6-3.6}

OVERHAUL

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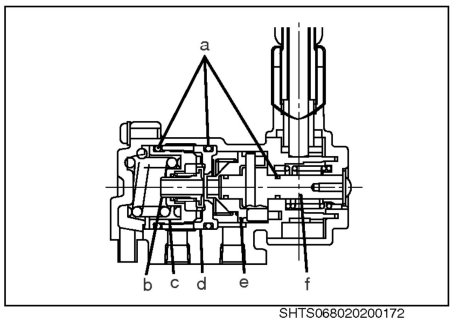

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IMPORTANT POINTS - ASSEMBLY

1. LUBRICATION

(1) When assembling the spring brake control valve, replace the feed valve, valve seats and O-rings.

(2) Apply silicone grease to each sliding surface of the assembly parts, O-rings and O-ring grooves.

a. O-ring

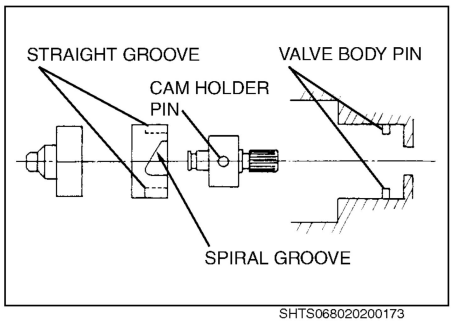
b. Feed valve

c. Piston

d. Valve seat

e. Cam

f. Cam holder



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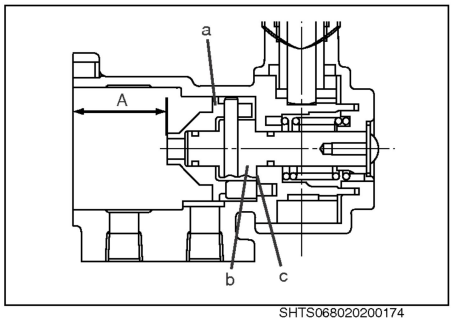
2. ASSEMBLE THE CAM ASSEMBLY.

(1) When assembling the cam and cam holder, make sure that the cam holder pin and spiral groove of the cam are aligned.

(2) When installing the cam assembly to the valve body, the valve body pin and straight groove of the cam must be aligned.



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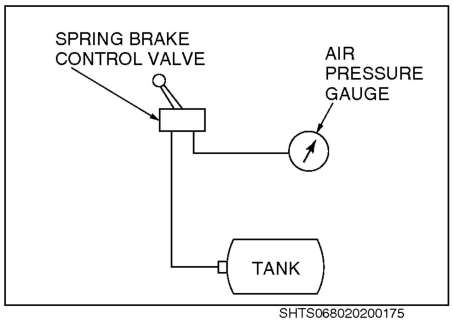
(3) Adjust dimension "A" with the shim.
Assembly standard: 33.8-34.2 mm {1.331-1.346 in.}

a. Cam

b. Cam holder

c. Shim



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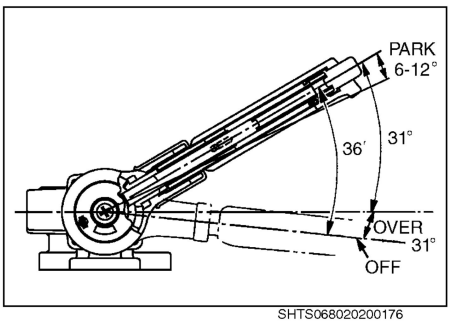
3. SPRING BRAKE CONTROL VALVE PERFORMANCE TEST

(1) First, connect the pressure gauge to the outlet line and apply an air pressure of 834 kPa {8.5 kgf/cm^2, 121 lbf/in.^{2}} to the inlet line.



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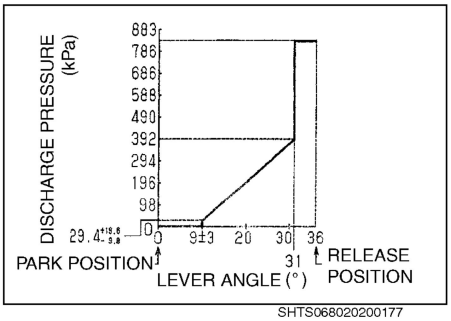

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(2) Move the spring brake control lever towards the OFF position, gradually and confirm that the air pressure in the outlet line meets the characteristic shown in figure.

Standard:

Lever angle:	Outlet pressure: kPa {kgf/cm^2, lbf/in.^{2}}
6-12°	19.6-49 {0.2-0.5, 2.85-7.11}
Over 31°	686 {7.0, 99.54}

NOTICE

The characteristic shown is under the inlet pressure of 834 kPa {8.5 kgf/cm^2, 121 lbf/in.^{2}}

INSPECTION AND REPAIR

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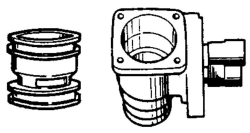
Unit: mm {in.}

Inspection Item	Standard	Limit	Remedy	Inspection Procedure
Piston and valve body: Wear and damage	—	—	Replace, if necessary.	Visual check 
Cam, pin and cam holder: Wear and damage	—	—	Replace, if necessary.	Visual check 
Piston spring: Rust, damage and measure the spring free length	Free length 27.9 {1.098}	25.0 {0.984}	Replace, if necessary.	Measure and visual check 
Feed valve spring and valve seat spring: Rust and damage	—	—	Replace, if necessary.	Visual check