

For Earth, For Life



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05.12.14

SERVICE – BULLETIN

Reference-N°: KTSE - SB - 1410

Countermeasure against Noise from Unload Unit

Approved by:	<input checked="" type="checkbox"/> International Quality Assurance department
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Affected distributors:

- ☒ KBD
- ☒ KE
- ☒ KUK

Classification:

- ☐ 1. Information
- ☒ 2. Fix on a failure basis
- ☐ 3. Recommended product improvement
- ☐ 4. Mandatory campaign

Model	Serial N°
KX015-4	All
KX016-4	All
KX018-4	All
KX019-4	All

A. Subject

Some cases of jarring noise from the pilot circuit's unload unit have been reported. As countermeasure, a special pilot primary relief valve was adopted as special service part to solve the issue on field machines.

We herewith would like to inform you the measure to take if you encounter this problem.



Original valve

Special valve for service part

B. Service Information

Excavators generate a variety of normal sounds and noises during operation, especially hydraulic high pressure relief valves throttling noise while relieving.

Still, the jarring noise indicated here comes from the pilot circuit and clearly sounds unusual and somehow disturbing. It usually has following particularities:

- 1) mainly with control levers in neutral position (when no function is operated)
- 2) mainly at higher hydraulic oil temperature, but sometimes also at low temperature
- 3) starts at certain engine speed and then would not stop even engine speed is changed
- 4) more often with safety lock lever up rather than down
- 5) more easily occurs when hydraulic circuit is slightly aerated, e.g. with hydraulic oil level low or insufficient air bleeding after hydraulic system service

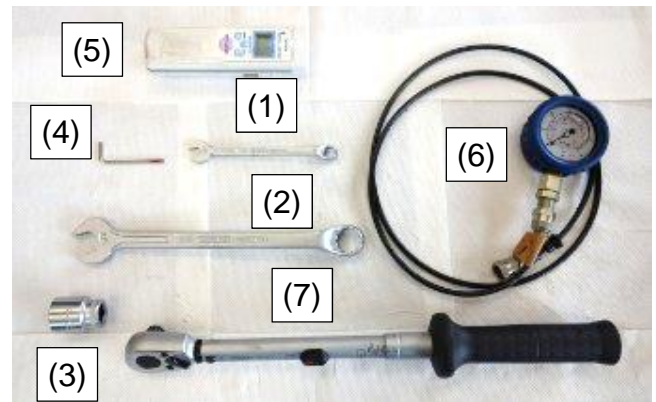
The countermeasure consists in confirming the noise being the above described one, then replacing the original pilot primary pressure relief valve by a special one.

To avoid personal injury:

- Park the machine on a flat ground.
- Keep the bucket and other attachment down on the floor.
- Relieve all internal system pressure.
- Use working clothes and personal protective equipment to avoid personal injury.
- Follow the local safety directives in your country.

Tools

- (1) Spanner, 8mm
- (2) Spanner, 21mm
- (3) Socket, 24mm
- (4) L-wrench, 2,5mm
- (5) Temperature gauge
- (6) Pressure gauge, 6MPa
- (7) Torque wrench

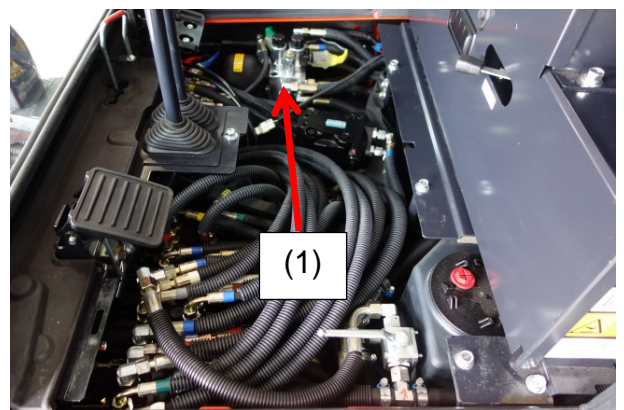


Procedure:

Step 1:

Remove the rubber mat and floor plates to access to the unload unit.

(1) Unload unit



Step 2:

Start the engine and obtain the noise the customer claims about. In this condition, make sure that the noise is actually coming from the unload unit area.

This would confirm that the noise is generated by the pilot primary relief valve.

Step 3:

Stop the engine. Release the accumulator's pilot pressure by shifting the control joysticks for at least 30s with the starter switch on "ON" position and the safety lock lever down.

Step 4:

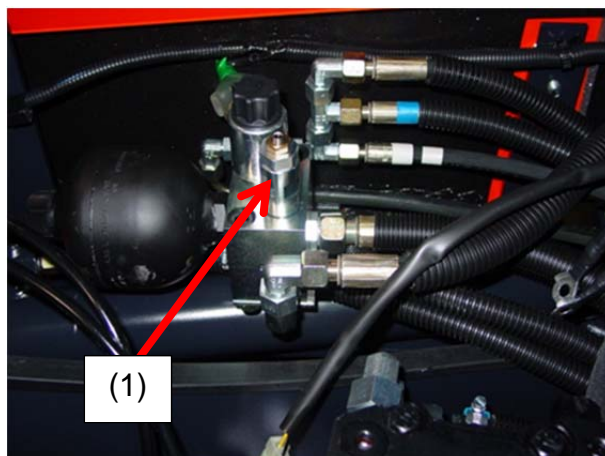
Dismount the original relief valve (1) using the 21mm spanner.

CAUTION!

The valve may jump-out and hot pressurized oil may splash-out if the pressure in the accumulator was not released as described in step 3.

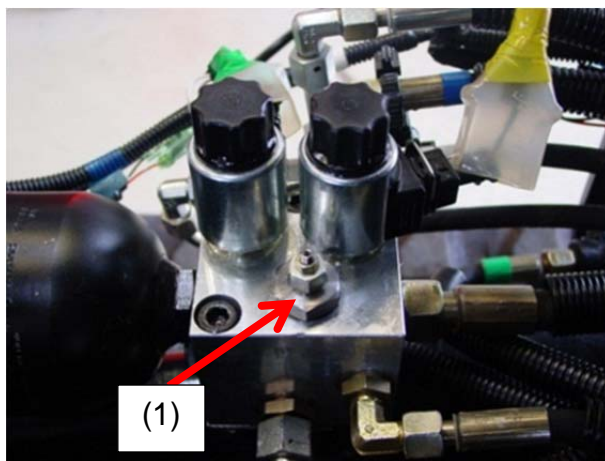
Note:

The connection of a vacuum pump is not necessary.

**Step 5:**

Install the special relief valve (1) using the 24mm socket and ratchet.

Valve tightening torque: 20-30N·m

**Step 6:**

Check the primary pilot pressure and adjust it if needed.

Specification:

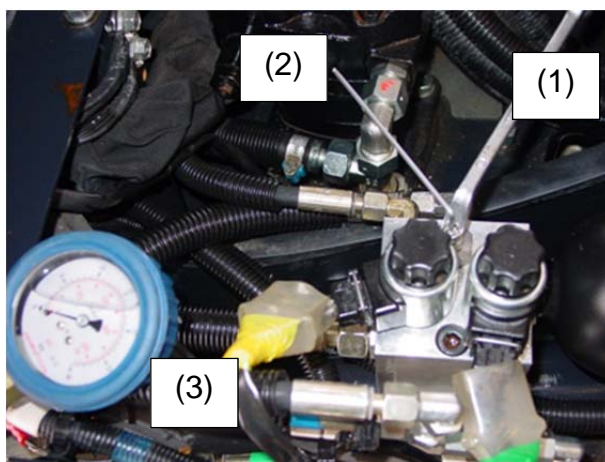
4,5-5,0MPa, measured at the pilot pump testing port.

(at max. engine speed and 50+/-5°C hydraulic oil temp)

(1) Spanner, 8mm

(2) L-wrench, 2,5mm

(3) Pressure gauge, 6MPa

**C. Spare Part Information**

Part number	Part name	Qty
RG158-6268-0	Valve (relief, SER, PT)	1

D. Warranty Information

1. Conditions:

Parts:	RG158-6268-0
Labour:	0,75 hours
Mileage:	Yes
Campaign allowance:	No

2. Replaced parts:

☐ Return ☐ Store ☐ Attach photos to claim, then scrap ☒ Scrap

This instruction has priority to the ones given by Kubota Net at time of claim posting.

Ensure to mention this bulletin's reference number on the related warranty claim.