

For Earth, For Life



KUBOTA Technical Support centre Europe

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Zweibrücken
07.05.2018

SERVICE-BULLETIN

Reference-N°: KTSE - SB - 1804

Reinforcement of Cabin Door Hinges

| | |
|--------------|--|
| Approved by: | <input checked="" type="checkbox"/> International Quality Assurance department |
| | <input type="checkbox"/> Kubota Technical Support centre Europe |

Affected distributors:

- ☒ KBD
- ☒ KE
- ☒ KUK

Classification:

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

| Model | Serial N° |
|-------|-----------|
| U27-4 | → 60028 |

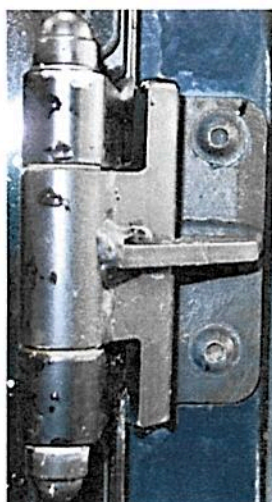
A. Subject

Cases of cracks on the cabin frame around the door hinge fixation have been reported. Investigation revealed that this was a result of material fatigue.

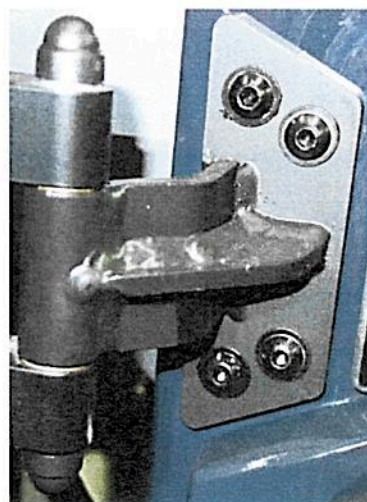
As a series countermeasure,

- the left-hand cabin post was reinforced,
- the hinge contact plates were enlarged and the fixation was improved by two additional bolts,
- a door stopper was added on the rear left-hand post.

For field units, please take the following measures as soon as possible.



Original



Series countermeasure

B. Service Information

WARNING:

To avoid personal injury:

- Park the machine on a flat and level ground.
- Keep the bucket or other attachment down on the floor.
- Stop the engine and remove the starter key.
- Release the residual pressure from the hydraulic circuit.
- Use working cloths and personal protective equipment to avoid personal injury.
- Follow the local safety directives in your country.
- If you work with other persons, make sure your signals are fully understandable and mutually communicative for added safety.
- Hydraulic components and engine parts can be hot. Wait until all components cooled down to avoid burns.

Repair outline:

To prevent or repair cracks of the cabin pillar around the door hinges, install the parts included in the special kit according the following instructions.

Remarks:

- This repair has no impact to the OPG certification; no stability relevant parts are concerned.
- Repair is possible on all cabins, even if having advanced crack condition.

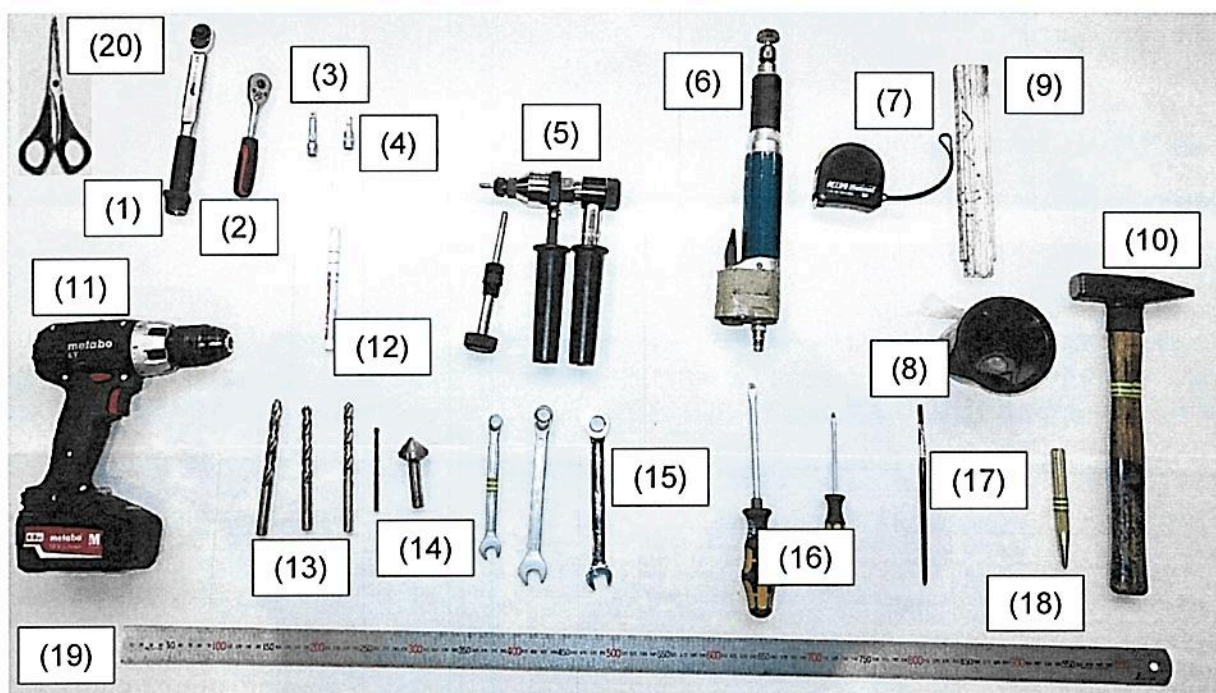


Before field countermeasure



After field countermeasure

Tools and consumables:



- | | |
|---|--|
| (1) Torque wrench 5 N·m - 60 N·m | (10) Hammer |
| (2) Ratchet | (11) Drilling machine |
| (3) Extension bar 40 mm | (12) White pen marker |
| (4) Allen socket 5 mm | (13) Drills Ø 6 mm, 10 mm, 10,5 mm, 11 mm |
| (5) Ratchet rivet nut tool M6, M8 or rivet nut setting pliers M6, M8 | (14) Countersink |
| (6) Grinder with flap wheel or sandpaper | (15) Wrenches 10 mm, 2x 13 mm |
| (7) Tape measure | (16) Slotted screwdrivers 0,8X4,0; 1,2X6,5 |
| (8) Two-component paint (colour irrelevant, used as rust protection) | (17) Brush |
| (9) Folding meter | (18) Punch |
| | (19) Ruler (1000 mm) |
| | (20) Scissors |

Not shown:

Penetrating oil, plastic shims 10 mm thickness, tensioning belt 5 m

Note:

Tightening torques not indicated in present service bulletin are to be taken from the torque specification tables of the machine workshop manual.

Step 1:

Close the cabin door and remove the protection caps (1) of the door hinges.

Note:

The caps will be reused.

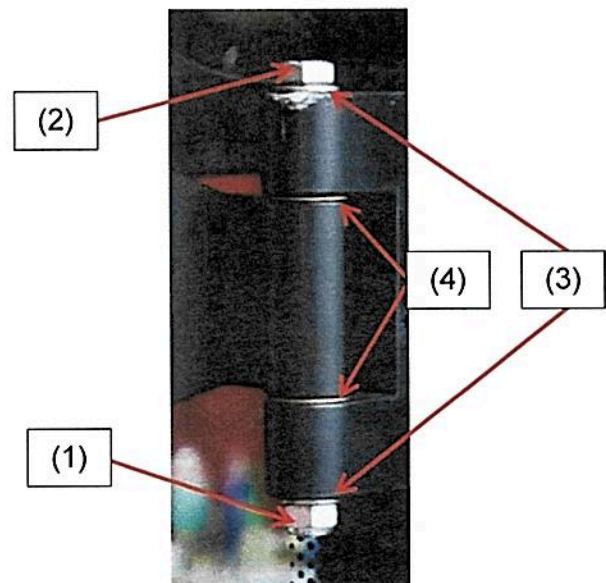


Step 2:

Remove the nut (1) and the bolt (2), the washers (3), and the brass washers (4) from both hinges.

Note:

The washers and the bolt will be reused, the nuts (1) can be scrapped.



Step 3:

Remove the door (1).

Note:

The approximate weight of the door is 16 kg.

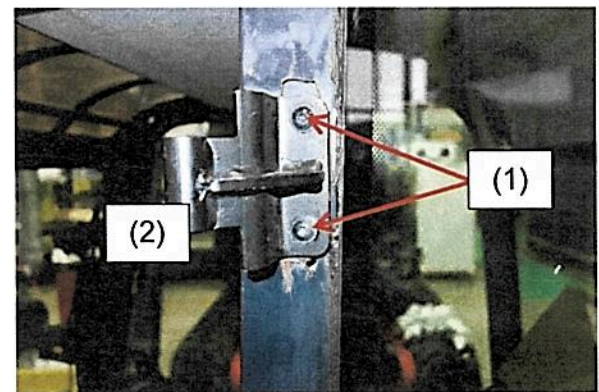


Step 4:

Remove the bolts (1) and both hinges (2) of the cabin door.

Note:

The bolts and the door hinges can be scrapped.

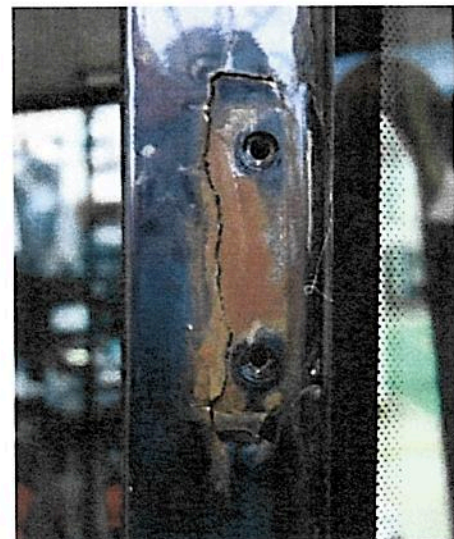


Step 5:

Take a picture clearly showing the area under both upper and lower hinges.

Note:

The picture will need to be attached to the warranty claim.



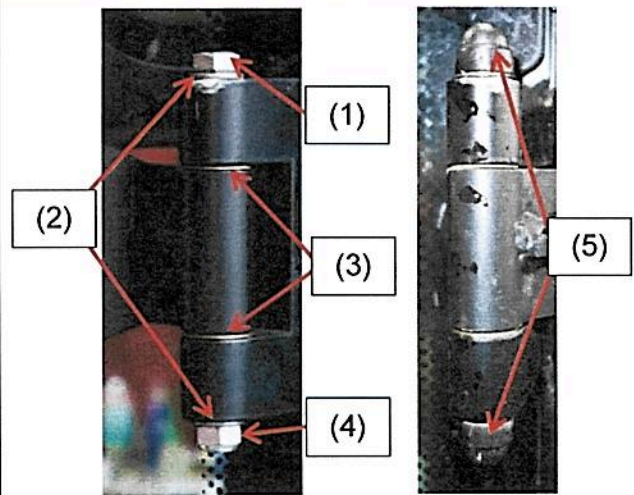
Step 6:

Assemble the new door hinges to the door. Screw-in the new locknut (4) until it contacts the door hinge, then loosen it for a quarter turn and assemble the caps (5).

- (1) Bolt
- (2) Washer
- (3) Brass washer
- (4) Nut
- (5) Caps

Note:

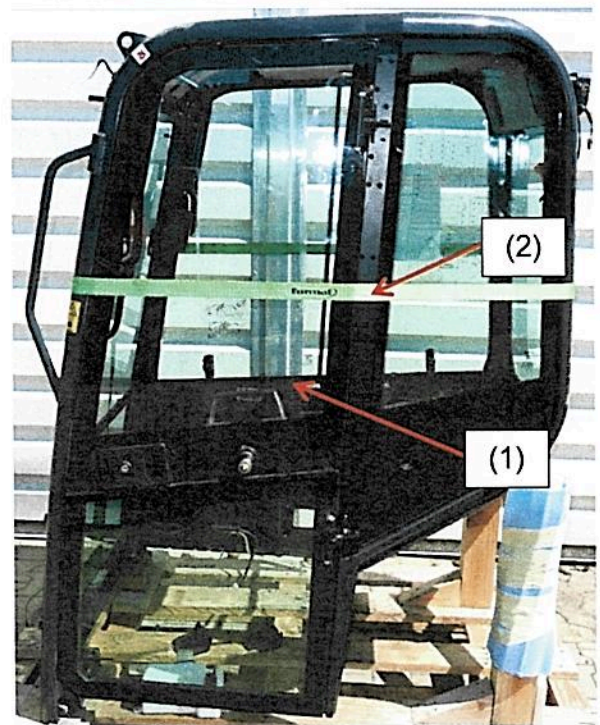
Upper door hinge RH418-9471-0
Lower door hinge RH418-9472-0

**Step 7:**

Position the door (1) in the frame.

Note:

Ensure that the door is arrested in the catch. Secure the door with a tensioning belt (2) against falling out.



Step 8:

Adjust the upper and lower door hinge with the positioning bolt (RH418-9479-0) and use the door hinges as template for marking with a 10,5 mm drill.

Note:

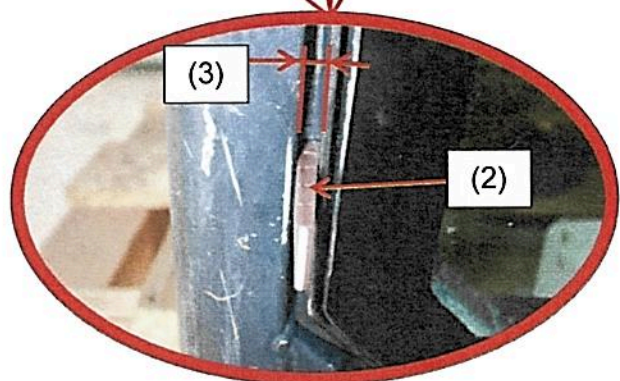
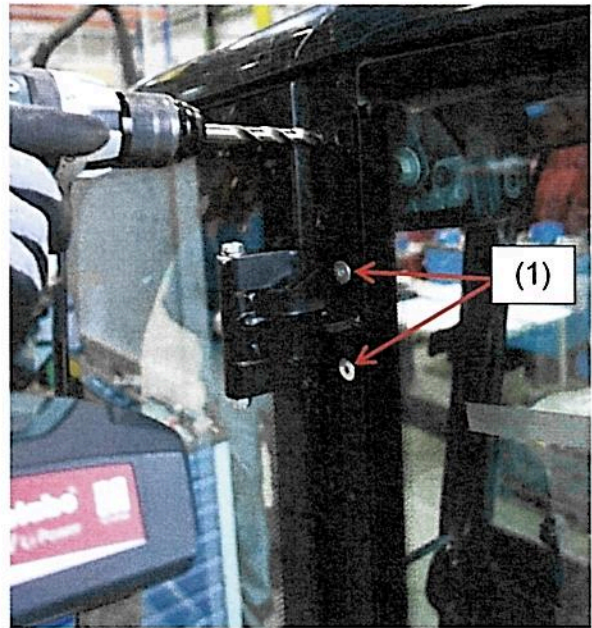
In case the original threads are completely broken out or not usable, adjust the door position using plastic shims (2). The gap (3) between door and frame should be about 10 mm.

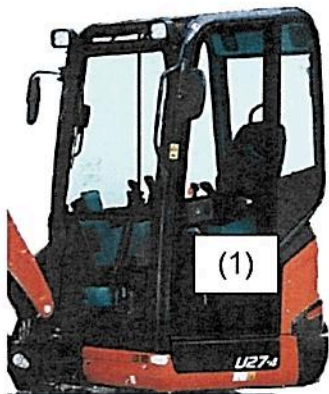
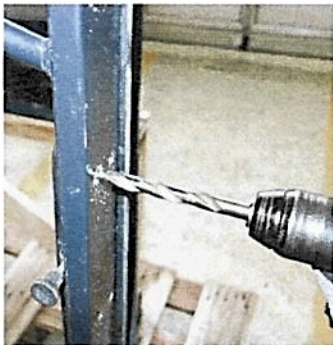
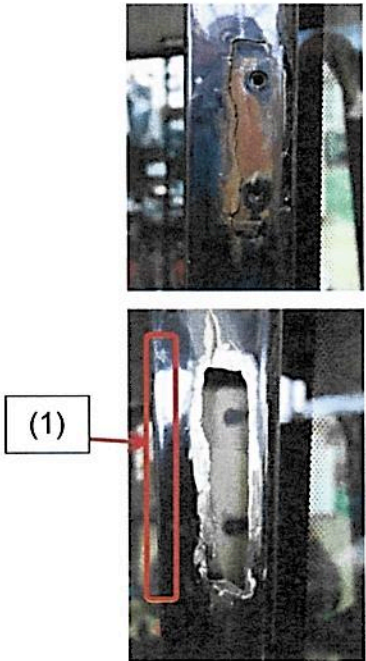
Step 9:

Remove the positioning bolts (1) and the tensioning belt.

Note:

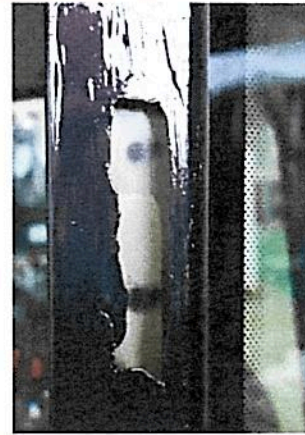
The positioning bolts can be scrapped.



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|--|--|
| <p>Step 10: Remove the door (1).</p> <p><u>Note:</u> The approximate weight of the door is 16 kg.</p> |  |
| <p>Step 11: Predrill all marks with 6 mm and finish with 11 mm drills.</p> |  |
| <p>Step 12: Remove the burrs with a countersink.</p> | |
| <p>Step 13: Remove all loose parts and ensure to have a flat and clean surface. Remove the rust. If possible, try not to remove the paint in area (1), because this area will remain as a visible surface.</p> <p><u>Note:</u> These pictures show an extreme case; the whole inner reinforcement plate had to be removed but the repair of the cabin remains possible.</p> |  |

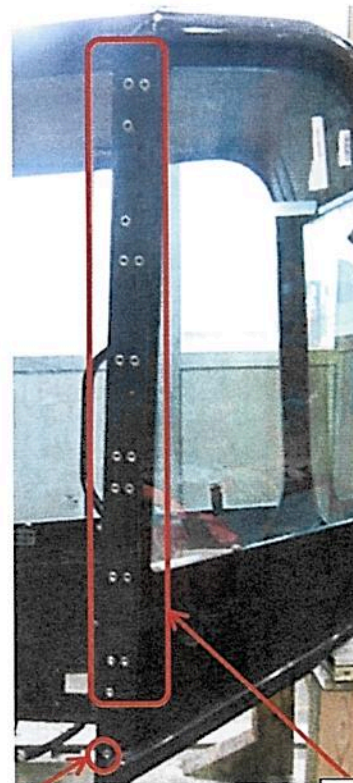
Step 14:

Apply paint for rust protection diligently onto the grinded areas and drilling holes.



Step 15:

Install one M8 long rivet nut (1) (RH418-9476-0) and 17 M8 short rivet nuts (2) (RH418-9475-0).



Step 16:

Position the door in the frame.

Note:

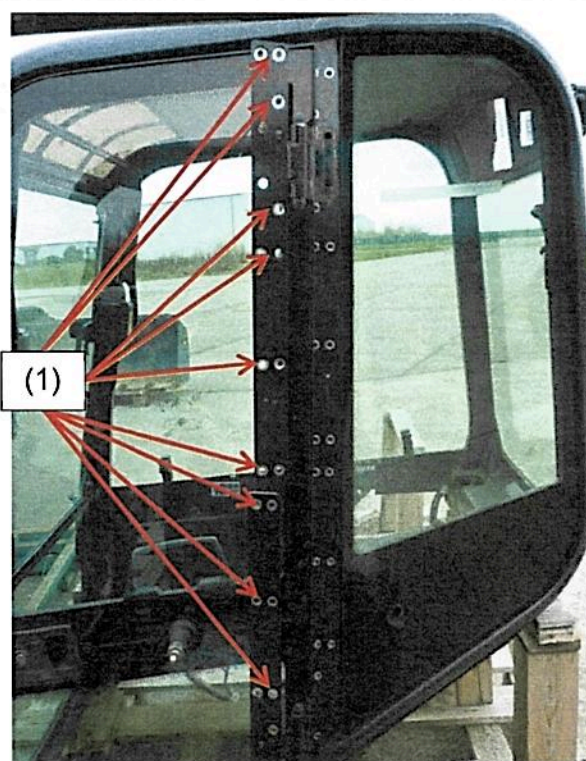
Ensure that the door is arrested in the catch. Support the door with your hand against falling out.

Step 17:

Add a washer (1) (RH418-9474-0) into each sink of the upper and lower door hinges.

Note:

Applying grease in the sink will prevent the washers from falling out during assembly.

**Step 18:**

Assemble the new door hinges to the cabin, with 22 bolts (RH418-9473-0).

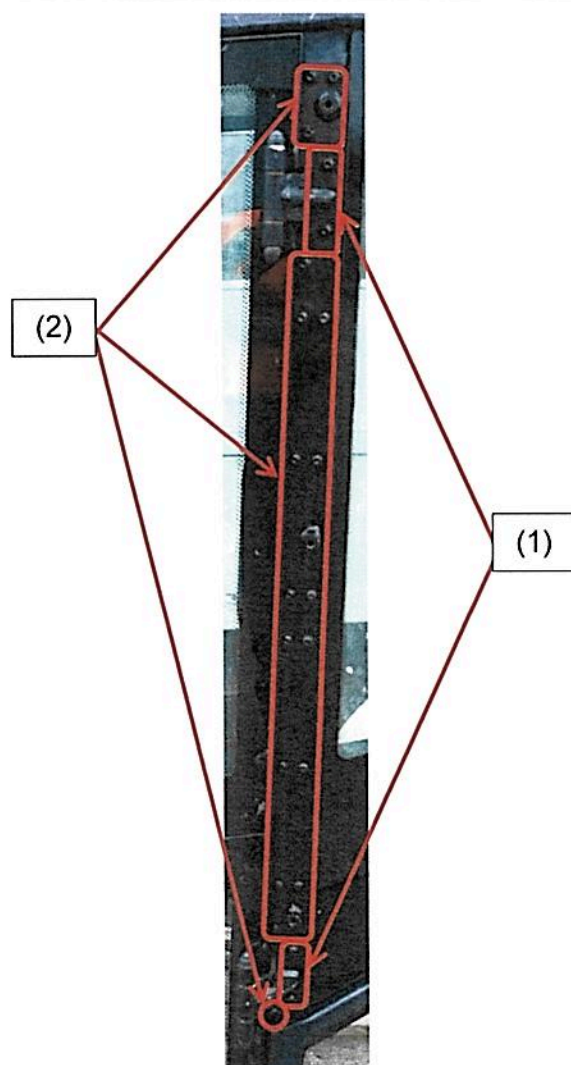
Tightening torque:

(1) 14,5 N·m – 15,5 N·m

(2) 16,5 N·m – 17,5 N·m

Note:

If some or even all bolts (1) cannot be installed anymore because the threads were too heavily damaged, it is not a problem and the remaining 18 bolts are enough to guarantee the durability of the door fixation.

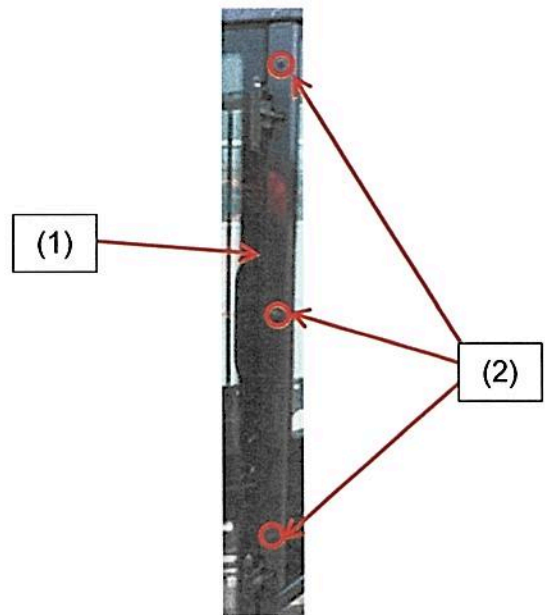


Step 19:

Test the functionality of the door.

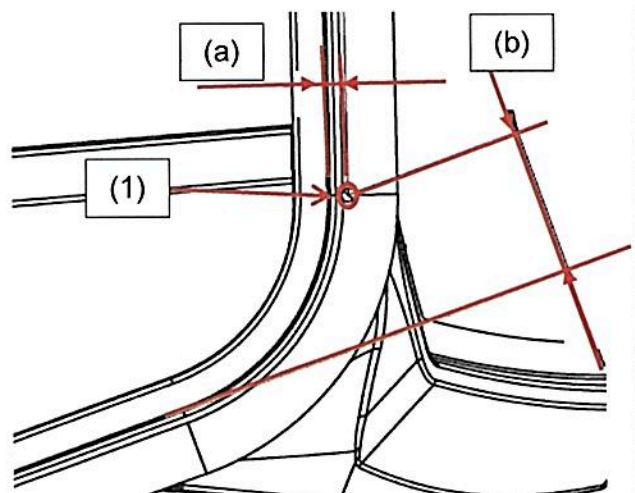
Step 20:

Attach the cover (1) (RH418-9477-0) with three bolts (2) (RH418-9478-0) to the new door hinges.

**Step 21:**

Mark the point (1).

- (a) 13 mm
- (b) 107 mm



Step 22:

Set a center mark.



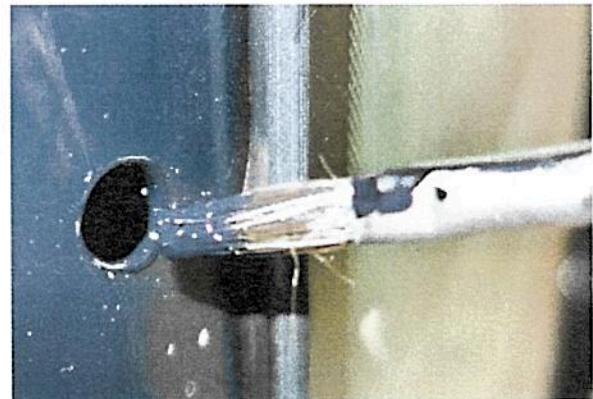
Step 23:

Predrill the mark with 6 mm and finish with 10 mm drill.



Step 24:

Remove the burrs with a countersink.



Step 25:

Paint the holes for rust protection.



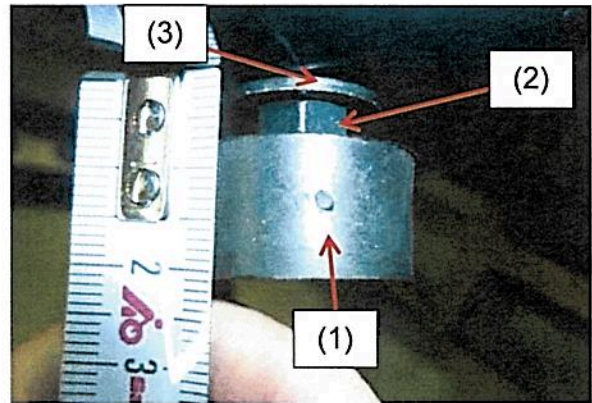
Step 26:

Install the M6 rivet (RH418-9484-0).



Step 27:

Assemble the rubber stopper (1) (RH418-9481-0) with nut (2) (RH418-9482-0) and washer (3) (RH418-9483-0) and adjust it to 20 mm.



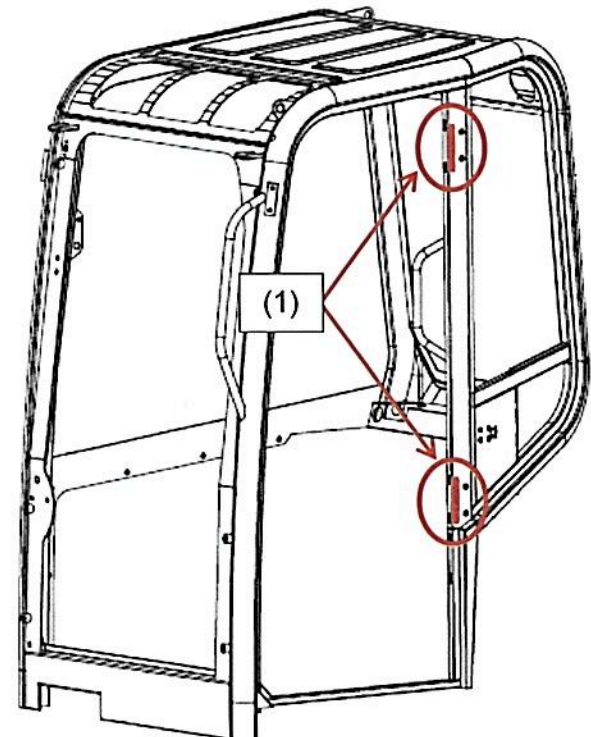
Step 28:

Grease the door latch and hinges.



Step 29:

In case damages would remain partially visible in area (1), trim the label (RH418-9488-0) to cover them up.



C. Spare Part Information

| Part number | Part name | Qty |
|--------------|----------------------|-----|
| RH418-9470-0 | Hinge kit | 1 |
| Kit contains | | |
| RH418-9471-0 | Upper hinge | 1 |
| RH418-9472-0 | Lower hinge | 1 |
| RH418-9473-0 | Bolt M8 (25 mm) | 22 |
| RH418-9474-0 | Washer M8 | 18 |
| RH418-9475-0 | Rivet nut M8 (short) | 18* |
| RH418-9476-0 | Rivet nut M8 (long) | 2* |
| RH418-9477-0 | Hinge cover | 1 |
| RH418-9478-0 | Bolt M8 (15 mm) | 3 |
| RH418-9481-0 | Rubber stopper | 1 |
| RH418-9482-0 | Nut M6 | 1 |
| RH418-9483-0 | Washer M6 | 1 |
| RH418-9484-0 | Rivet nut M6 | 1 |
| RH418-9488-0 | Label | 1 |
| RH418-9479-0 | Bolt (positioning) | 4 |
| 69449-8022-0 | Nut | 2 |

* One additional rivet.

D. Warranty Information

1. Conditions:

| | |
|---------------------|-----------|
| Parts: | Yes |
| Labour: | 2,0 hours |
| Mileage: | Yes |
| Campaign allowance: | Yes |

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.

* Attach a photo clearly showing the area under upper and lower hinges (see step 5).

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

E. Termination date

This campaign must be completed as soon as possible and with the highest priority, and in any case at latest by: 30-03-2019