

For Earth, For Life



KUBOTA Technical Support centre Europe

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SERVICE – BULLETIN

Reference-N°: KTSE - SB - 1405

Possible Engine Oil Drain Hose Failures

| | |
|--------------|--|
| 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° |
|--------|-----------|
| U10-3 | → 23223 |
| K008-3 | → 25567 |

A. Subject

Two different problems were reported from the market, which cause leakage of the engine oil drain hose (illustration 1): the hose is broken (Illustration 2) or the hose is chafed-through (Illustration 3). Investigation revealed that the breakage is a result of rubber material fatigue caused by engine vibration whereas chafing is a result of improper hose routing.

Although several preventive countermeasures were taken in production, we herewith inform the measures to take against this problem in case this problem happens in the field.

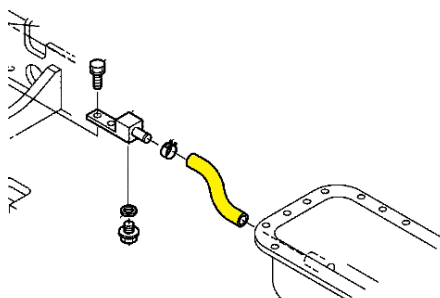


Illustration 1



Illustration 2

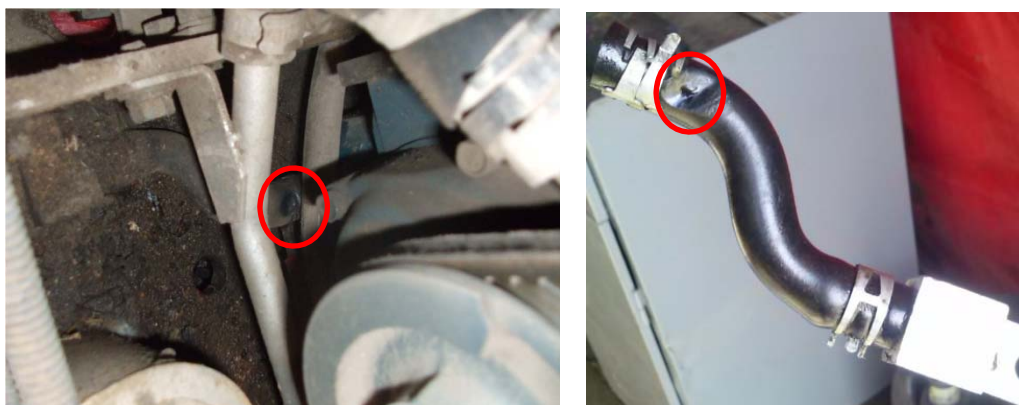


Illustration 3

B. Service Information

IGNORE THE INSTALLATION MANUAL INCLUDED IN THE KITS – INSTEAD FOLLOW THE INSTRUCTIONS BELOW.

To avoid personal injury:

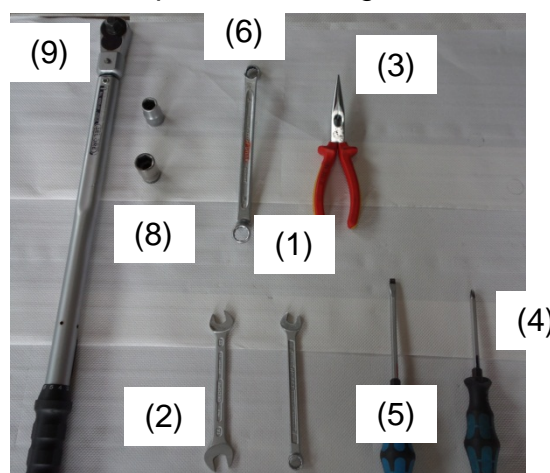
- Park the machine on a flat and level ground.
- Keep the bucket and other attachments down on the ground.
- Release the residual hydraulic pressure from the system.
- Hydraulic components and engine parts can be hot. Wait until all components are cooled down to avoid burns.
- Use working clothes and protective equipment to avoid personal injury.
- Follow the local safety directives in your country.

Repair outline:

If the engine oil drain hose is either chafed-through or broken, the improved hose kit should be installed as described below. Special care should be taken to respect the routing instructions.

Tools:

- (1) Spanner 10mm
- (2) Spanner 12mm
- (3) Long-nosed pliers
- (4) Phillips screwdriver PH2
- (5) Flat-blade screwdriver
- (6) Ring spanner 14mm
- (7) Ratchet wrench
- (8) Socket 14mm, 17mm, 19mm
- (9) Torque wrench 40N·m-200N·m



Step 1:

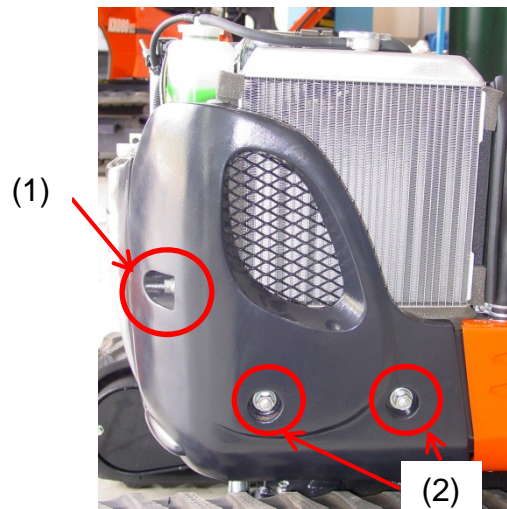
Swivel the machine 45° clockwise as shown and lower the bucket and dozer to the ground. Release the hydraulic pressure from the system.

**Step 2:**

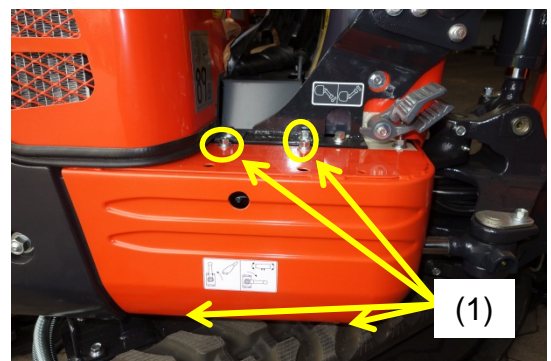
Disassemble the bonnet by removing the snap pins and the washers (1). Push the bonnet to the left hand side.

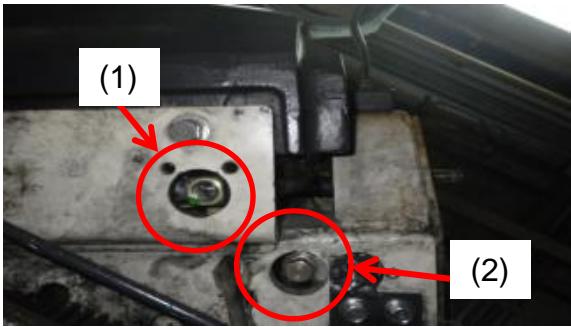
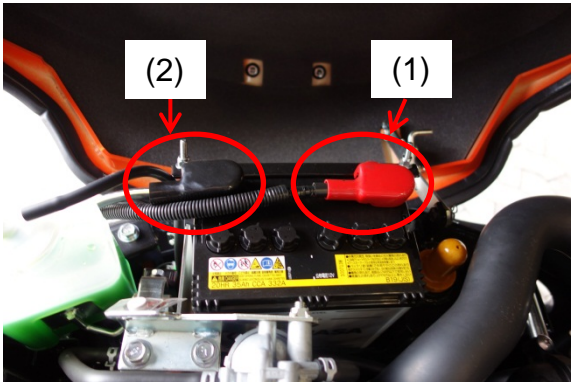
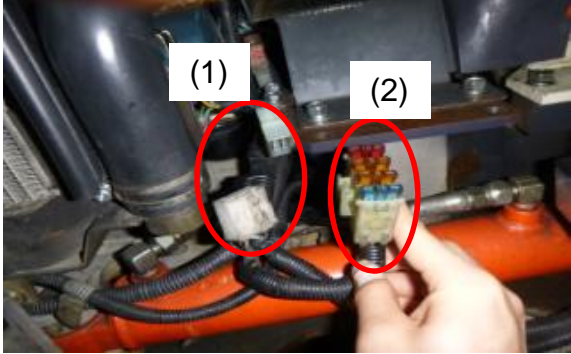
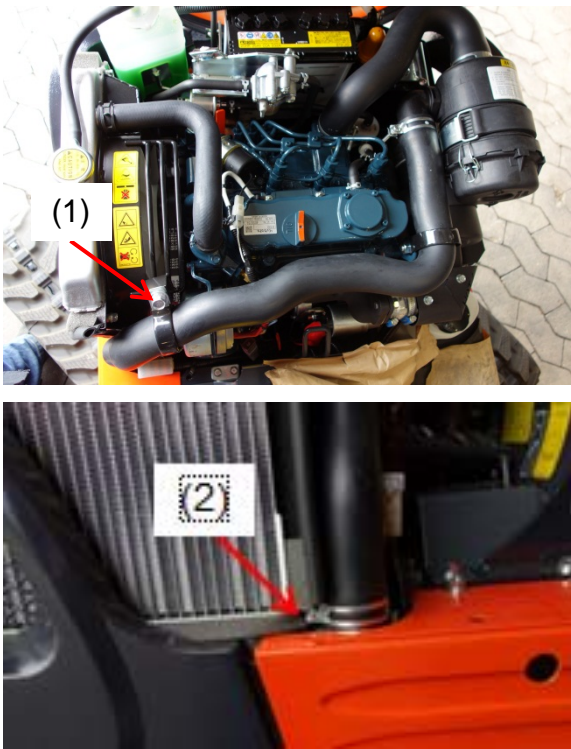
**Step 3:**

Remove the bolt (1), spanner size 17mm, and the two nuts (2) with a spanner size 19mm and remove the weight RH (attention about 30kg weight).

**Step 4:**

Remove the cover RH by unscrewing the four bolts (1) with a spanner size 14mm (two bolts on the top and two bolts on the bottom side).



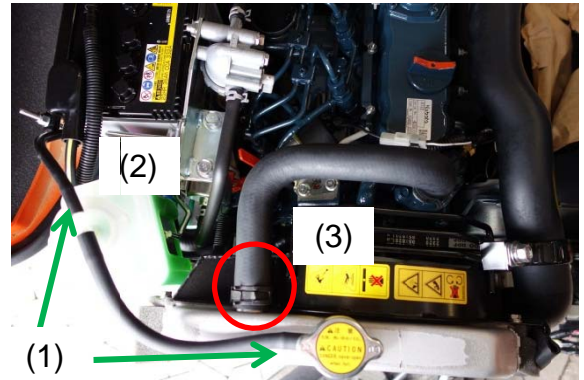
| | |
|--|--|
| <p><u>Step 5:</u> Drain the coolant by removing the plug (1) of the radiator.</p> |  |
| <p><u>Step 6:</u> Drain the engine oil by opening the plug (2) of the oil pan.</p> | |
| <p><u>Step 7:</u> Disconnect the terminals from the battery; to avoid a short circuit, disconnect the black – terminal (2) first and then the red + terminal (1).</p> |  |
| <p><u>Step 8:</u> Disconnect the connector of the regulator (1) and remove the fuse box (2).</p> |  |
| <p><u>Step 9:</u> Remove the bolts (1) and loosen the air intake hose band (2). Disconnect the air intake hose.</p> |  |

Step 10:

Remove the expansion hoses (1) and the reserve tank (2).

Step 11:

Remove the band of the coolant hose (3), and disconnect it from the radiator.

**Step 12:**

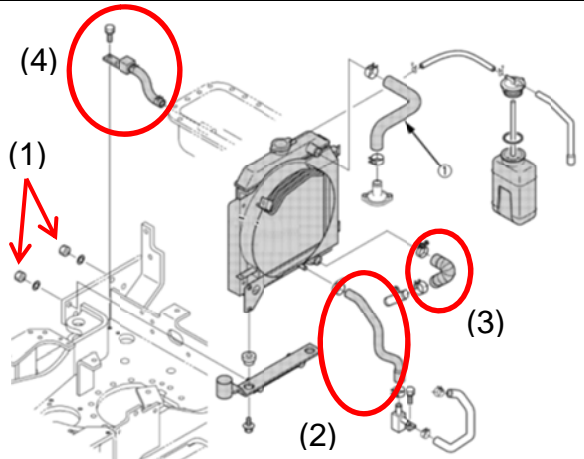
Remove the radiator support (1) fixing nuts and tilt the radiator forward, to disconnect the drain hose (2), and the radiator hose (3).

Step 13:

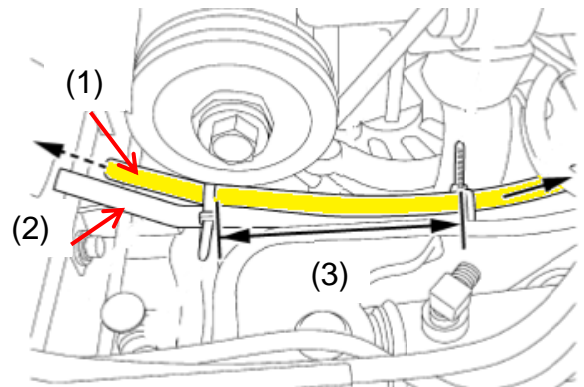
Take out the radiator with shroud and stand.

Step 14:

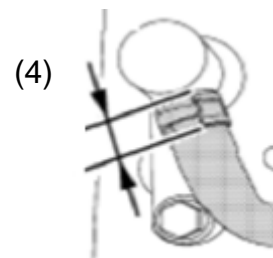
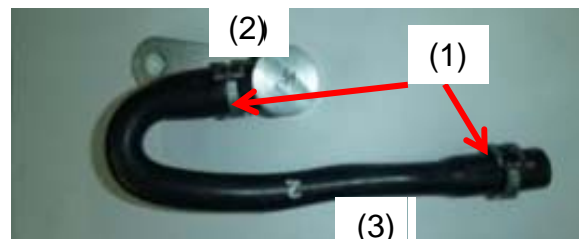
Remove the engine oil drain hose (4) from the engine oil pan by loosening the band. Remove the joint from the frame with a spanner.

**Step 15:** (Only for U10-3)

Check the routing of the hydraulic pilot hose of the pilot pump (1). If the hydraulic hose is positioned beyond the (2) pipe, reposition it as shown in the picture and attach it with two cable binders. The distance (3) between the two cable binders should be approximately 150mm.

**Step 16:**

Attach the two new bands (1) to the new hose, and assemble the hose (3) and the new joint (2) as depicted. The distance (4) between the joint and the outer end of the band should be approximately 15mm.

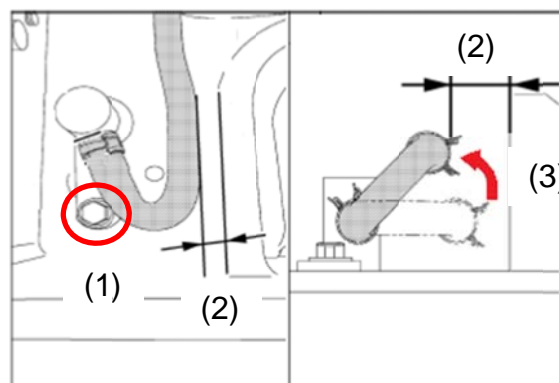


Step 17:

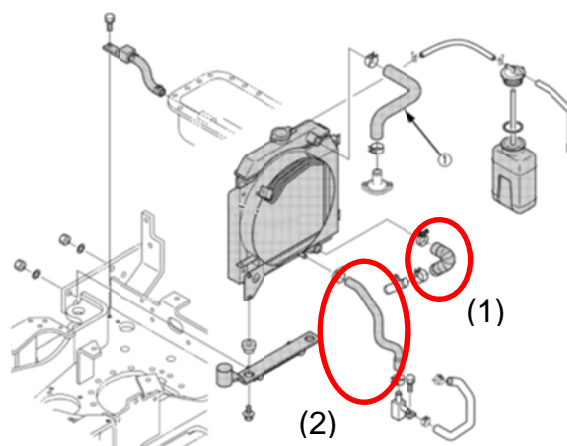
Mount the joint (1) of the new drain hose on the swivel frame with a spanner size 17mm (39,2N·m - 45,1N·m).

Connect the drain hose to the oil pan and attach the hose band with its projection sideways.

The distance (2) between the drain hose and the frame need to be more than 4mm, to avoid hose damage due to engine damage. To adjust the hose, turn it into the direction of the arrow (3).

**Step 18:**

Connect the radiator hose (1) and the drain hose (2) to the radiator and fix the band.

**Step 19:**

Attach the radiator to the frame with a spanner size 17mm (62,8N·m – 72,3N·m).

**Step 20:**

Connect the radiator hose (1) to the radiator and fix the band.

**Step 21:**

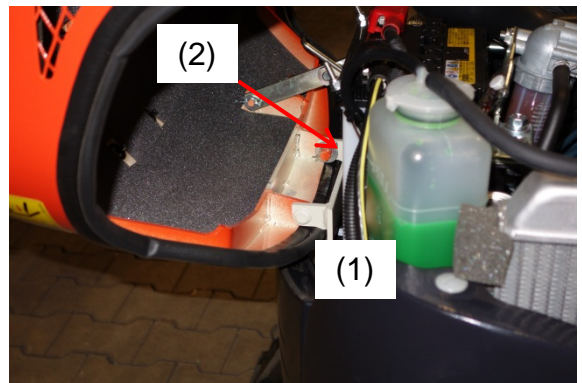
Reinstall the fuse box.

Step 22:

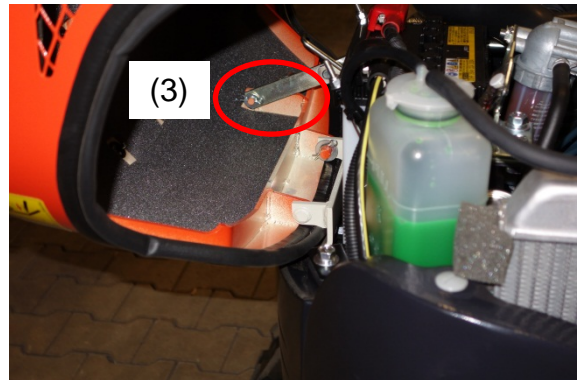
Reconnect the regulator to the wire harness.

Step 23:

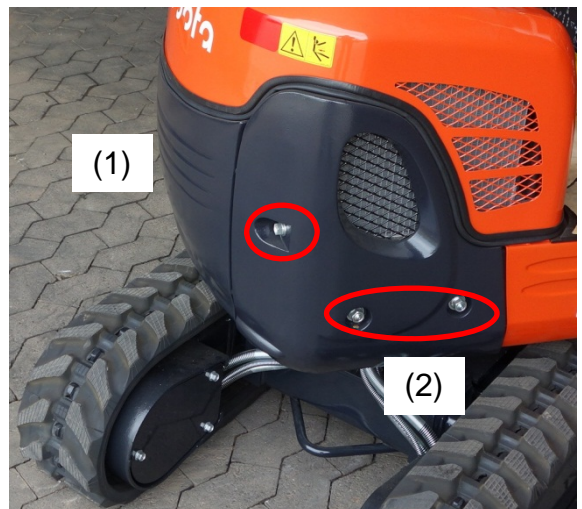
Reassemble the bonnet by fixing the bonnet at the hinge joint (1) and secure the bonnet with the washer and the snap pin (2).

**Step 24:**

Assemble the stay onto the pin (3) and secure it with the washer and snap pin.

**Step 25:**

Reassemble the weight RH; set the weight on the stud bolt (2), tighten the nut with a spanner size 19mm (107.9N·m-125,5N·m) and mount the bolt (1) with a spanner size 17mm (103.0N·m-117,7N·m)

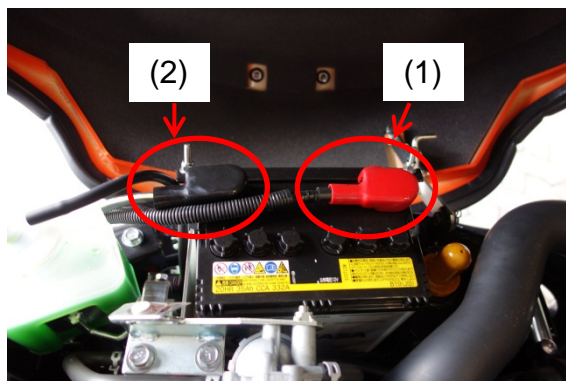
**Step 26:**

Mount the swivel cover RH with a spanner size 14mm (48,1N·m-55,9N·m).



Step 27:

Connect the battery terminal; to avoid short circuit, first connect the red + terminal (1), than connect the black - terminal (2).

**Step 28:**

Reinstall the coolant drain plug (1) with a spanner size 19mm.

Step 29:

Reinstall the engine oil drain plug (2) with a spanner size 19mm.

**Step 30:**

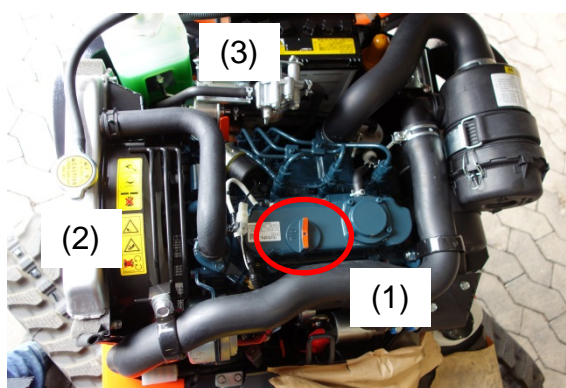
Refill engine oil (1) according to your local ambient (SAE 10W-SAE50 / API CF or API CI-4) about 2.2l

Step 31:

Screw in the oil filler cap.

Step 32:

Fill up the pre mixed coolant Antifreeze G048 (about 3,5l) into the radiator (2) and the expansion tank (3).

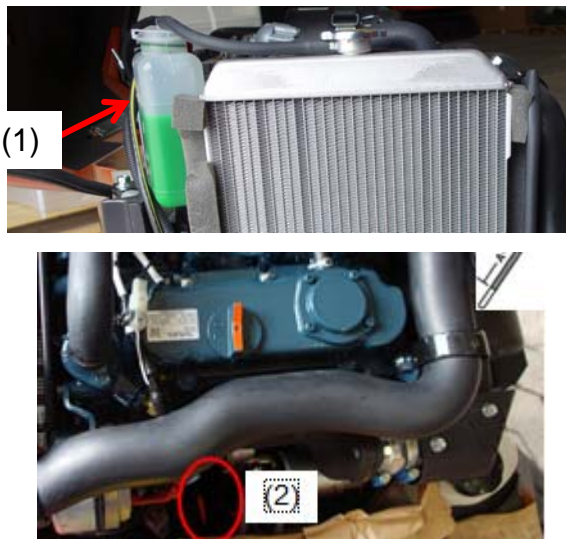
**Step 33:**

Start the engine. The engine oil pressure indicator should disappear immediately after the engine has started; If not stop the engine immediately and check the reason.

Step 34:

Let the engine run in idle speed for about 5min, then check:

- the level of the coolant in the expensing tank (1)
- the level of the engine oil with the dip stick (2)
- for any leakage



C. Spare Part Information

| Pos. | Part number | Part name | Quantity |
|------|--------------|----------------------|----------|
| 1 | RA021-9420-0 | Service kit | 1 |
| | RA021-9423-0 | Hose (drain) | 1 |
| | RA021-9424-0 | Joint | 1 |
| | RA021-4273-0 | Hose band | 1 |
| | RA021-9425-0 | Manual, installation | 1 |

D. Warranty Information

1. Conditions:

Up to 2 years / 2000 hours

Parts: Yes

Labour: 2,5 hours

Mileage: Yes

Up to 3 years / 3000 hours

Parts: Yes

Labour: None

Mileage: None

Up to 4 years / 4000 hours

Parts: 50%

Labour: None

Mileage: None

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 "KTSE-SB-1405" on the related warranty claim.