Document Information

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Vehicles affected: All Models

Location: Chassis – Suspension

Concern: Damper Leak/Oil found around shock absorber during an inspection

Condition: Permanent and/or upon inspection.

Diagnostic Trouble Codes

N/A

Measure

McLaren deploy 3 Spring and Damper Solutions across our product:

1. CVSA2: Stand-alone Spring/Damper unit with Front and Rear Anti Roll Bars for Roll control. Fitted to the following vehicles:

P13: 540C, 570S, 570S Spider, 570GT, 600LT, 600LT Spider

P22: GT

2. Kinetic: Interconnected Spring/Damper units with Hydraulic Roll Control and Rear Z-Bar for Pitch Control. Fitted to the following vehicles:

P11: 12C, 12C Spider, 625C, 650S, 650S Spider, 675LT, 675LT Spider

P14: 720S, 720S Spider

3. K-Damper: Interconnected Damper units with Hydraulic Roll and Heave control. Fitted to the following vehicles:

P12: P1

P15: Senna

The following section details the hydraulic interfaces along with the process to be followed if a component failure is expected.

CVSA2 Damper

Known locations for component quality occurrences are identified below.

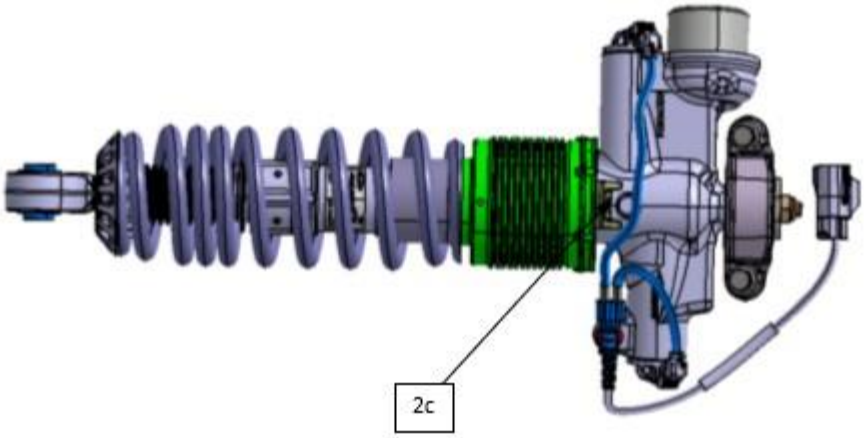
1. Rod Seal Leak

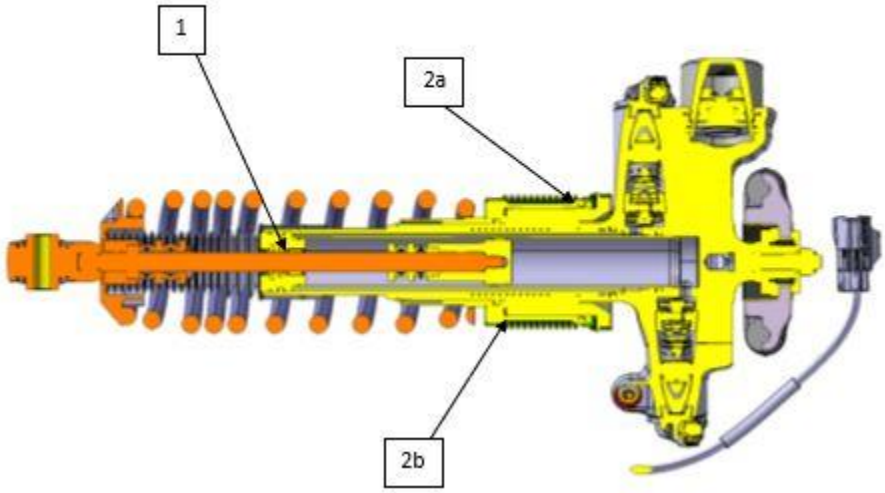
Leak propagates from the seal pack and runs down the rod before gathering at the lower spring coils. Usually identifiable by a spring that displays dirt contamination on its lower coils but is clean above this point.

2. Nose Lift Collar Leak

    a. Upper Seal – Leak propagates from the upper seal and runs down the outer lift gaiter. Usually identifiable by oil residue on the lift gaiter.

    b. Lower Seal – Leak propagates from the seal pack and runs down the damper body. Usually identifiable by oil residue on the damper gaiter.





If a leak is found, please proceed as follows:

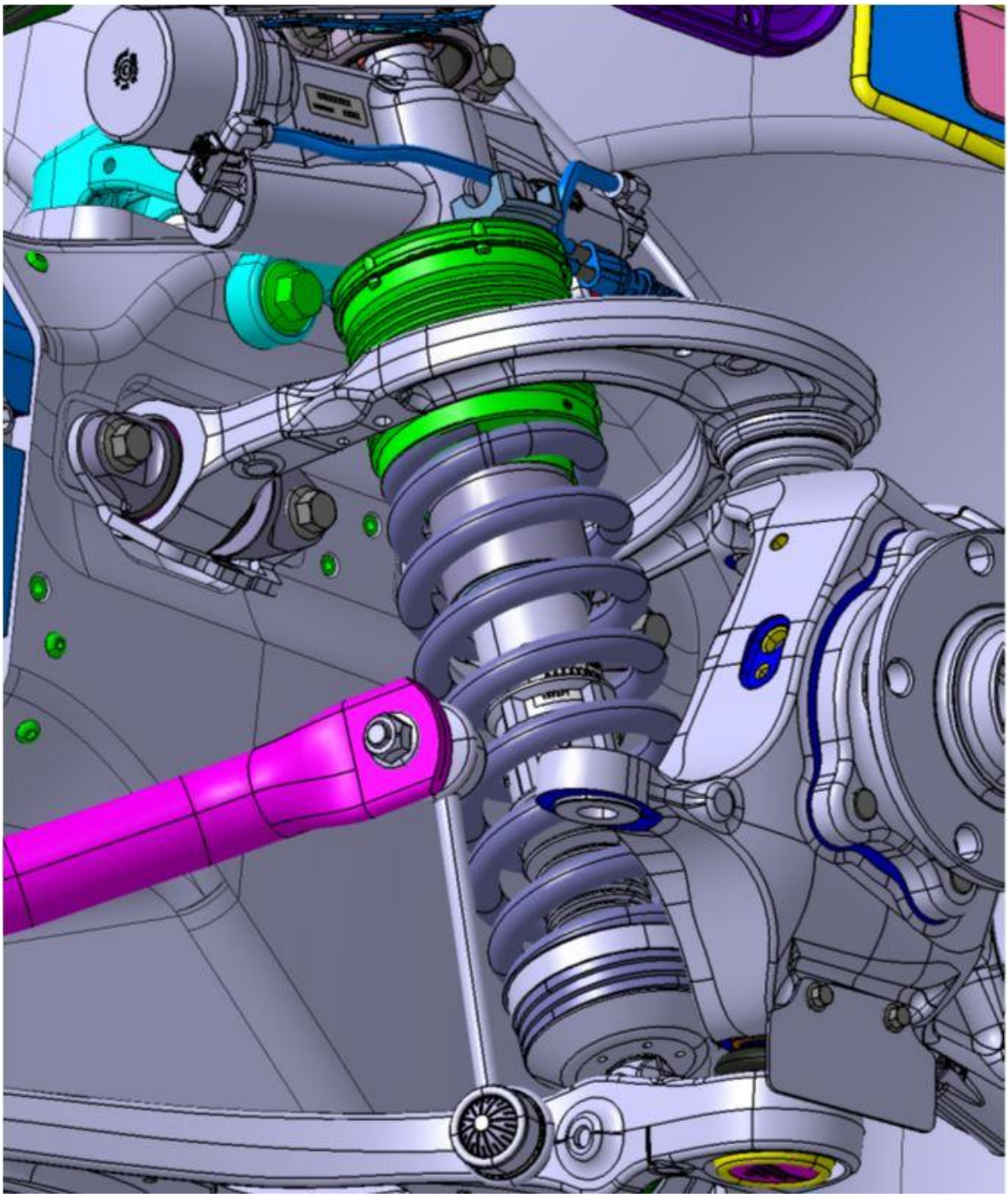
- Take clear, well-lit and in-focus images as they will be required for any warranty claim.
- Clean any oil from affected area using suitable cleaning agents.
- Take vehicle on an assessment test drive.
- Re inspect area; If the leak has not returned, no further action is required.
- If the fluid leak is still present, the damper(s) needs to be replaced. Ensure the following information is available in the WP for warranty purposes. Failing to include this information may result in claim rejection.

    a. Clear, well-lit and in-focus images of the before and after condition.

b. Direction on the assumed failure, based on the failure modes identified above.

c. Clear, well-lit and in-focus images of the label showing the part no. of the faulty damper.

CVSA2 Damper overview image



Kinetic Damper

Known locations for component quality occurrences are identified below.

1. Rod Seal Leak

   Leak propagates from the seal pack and runs down the rod before gathering at the lower spring coils. Usually identifiable by a spring that displays dirt contamination on its lower coils but is clean above this point.

2. Kinetic Line Leak

   Residue between the O-Rings (2a) and Backing Plate (2b) can run down the machined surface on the damper forging. This can be wiped clean and will not return.

3. Pressure Sensor Leak

   If pressure sensor is only hand tight a leak can be present. If pressure sensor torque is to target, oil residue is usually a result of a weep from the Kinetic Lines (see point 2).

4. Accumulator Leak

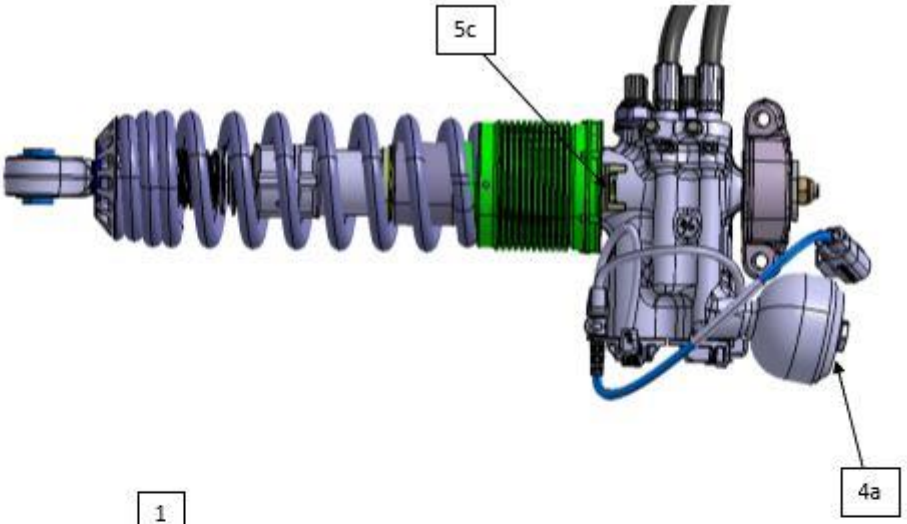
   Oil present around either the top surface of the accumulator (4a) or around the interface with the Valve Housing forging (4b).

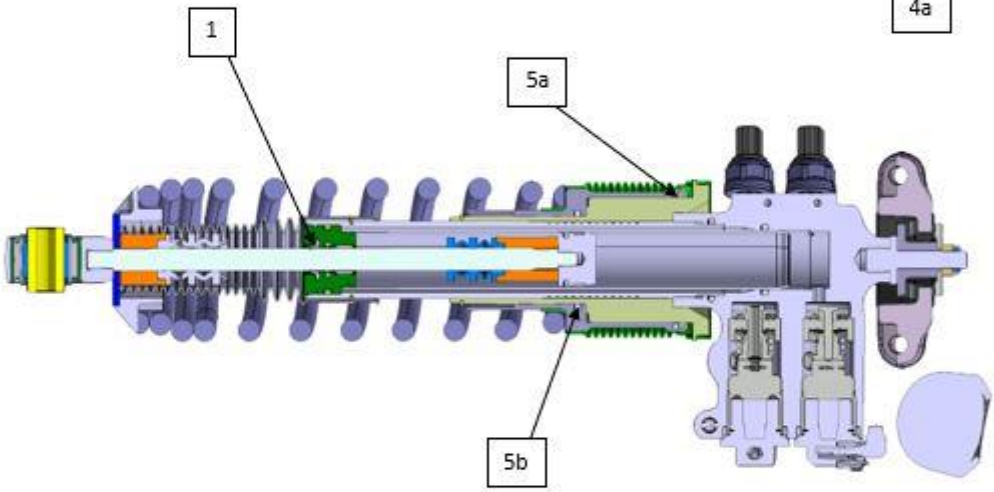
5. Nose Lift Collar Leak

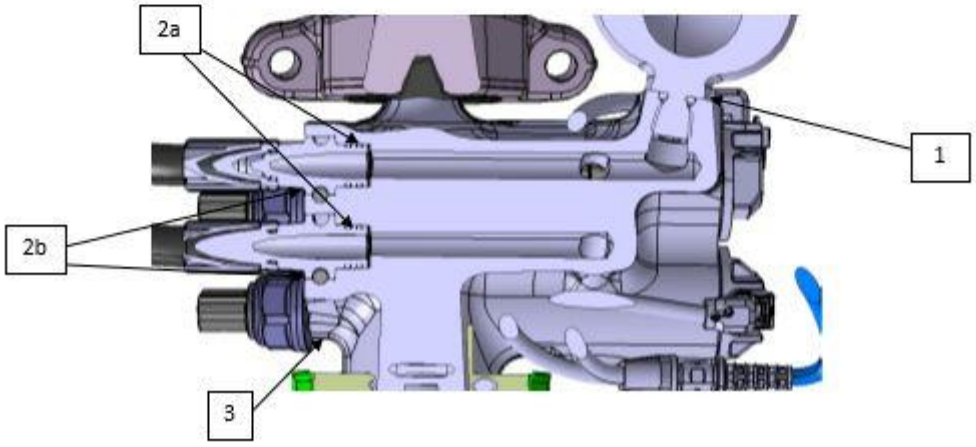
   a. Upper Seal – Leak propagates from the upper seal and runs down the outer lift gaiter. Usually identifiable by oil residue on the lift gaiter.

   b. Lower Seal – Leak propagates from the seal pack and runs down the damper body. Usually identifiable by oil residue on the damper gaiter.

c. Banjo Fitting – Leak propagates from the banjo/lift block interface. Usually identifiable by oil residue running down the front of the lift gaiter from the banjo fitting.







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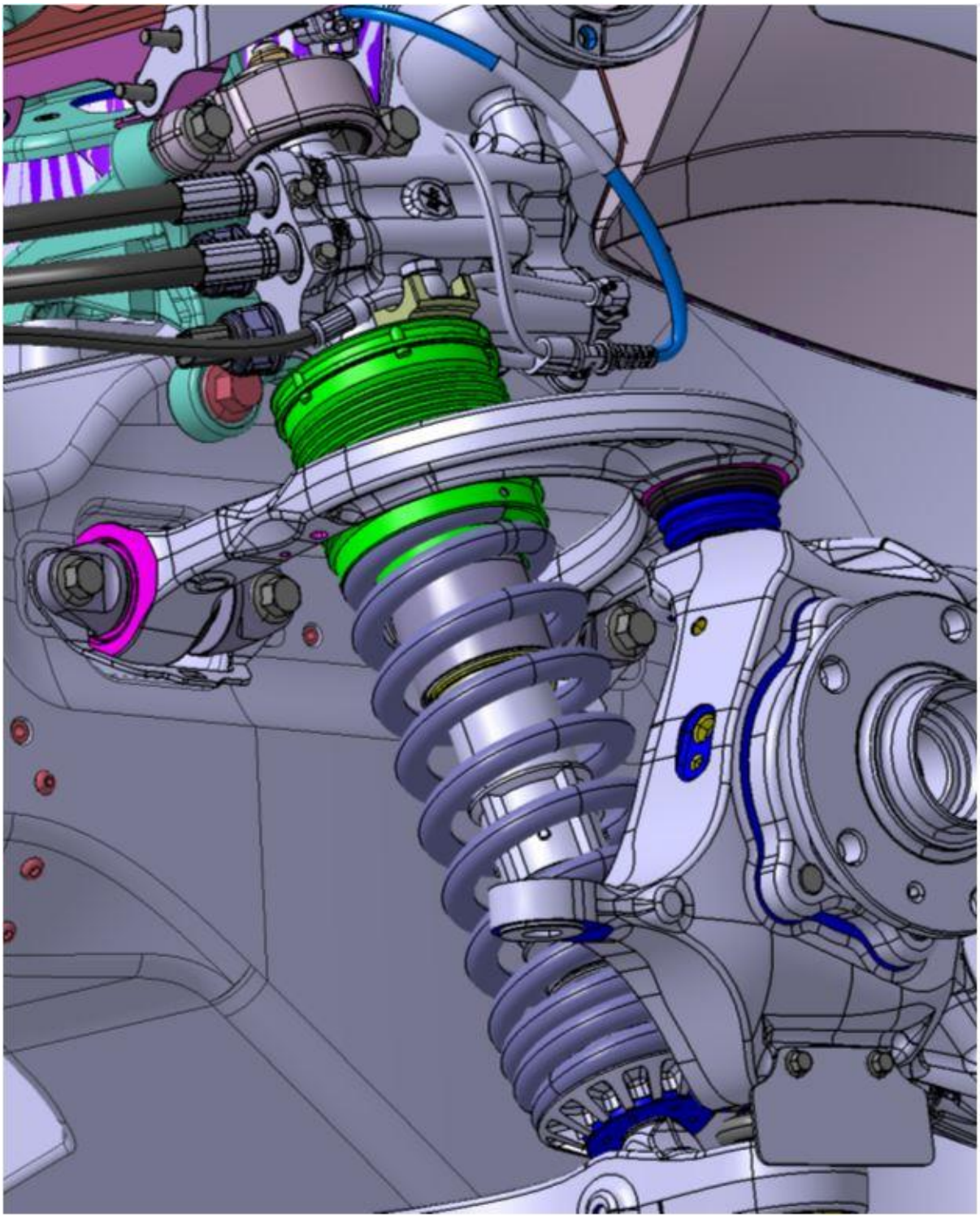
- Re inspect area; If the leak has not returned, no further action is required.
- If the fluid leak is still present, the damper(s) needs to be replaced. Ensure the following information is available in the WP for warranty purposes. Failing to include this information may result in claim rejection.

    a. Clear, well-lit and in-focus images of the before and after condition.

    b. Direction on the assumed failure, based on the failure modes identified above.

    c. Clear, well-lit and in-focus images of the label showing the part no. of the faulty damper.

Kinetic Damper overview image



K-Damper

Known locations for component quality occurrences are identified below.

1. Rod Seal Leak

Leak propagates from the seal pack and runs down the heave body. Usually identifiable by a discolouration of the heave body.

2. Kinetic Line Leak

   Residue between the O-Rings (2a) and Backing Plate (2b) can run down the machined surface on the damper forging. This can be wiped clean and will not return.

3. Pressure Sensor Leak

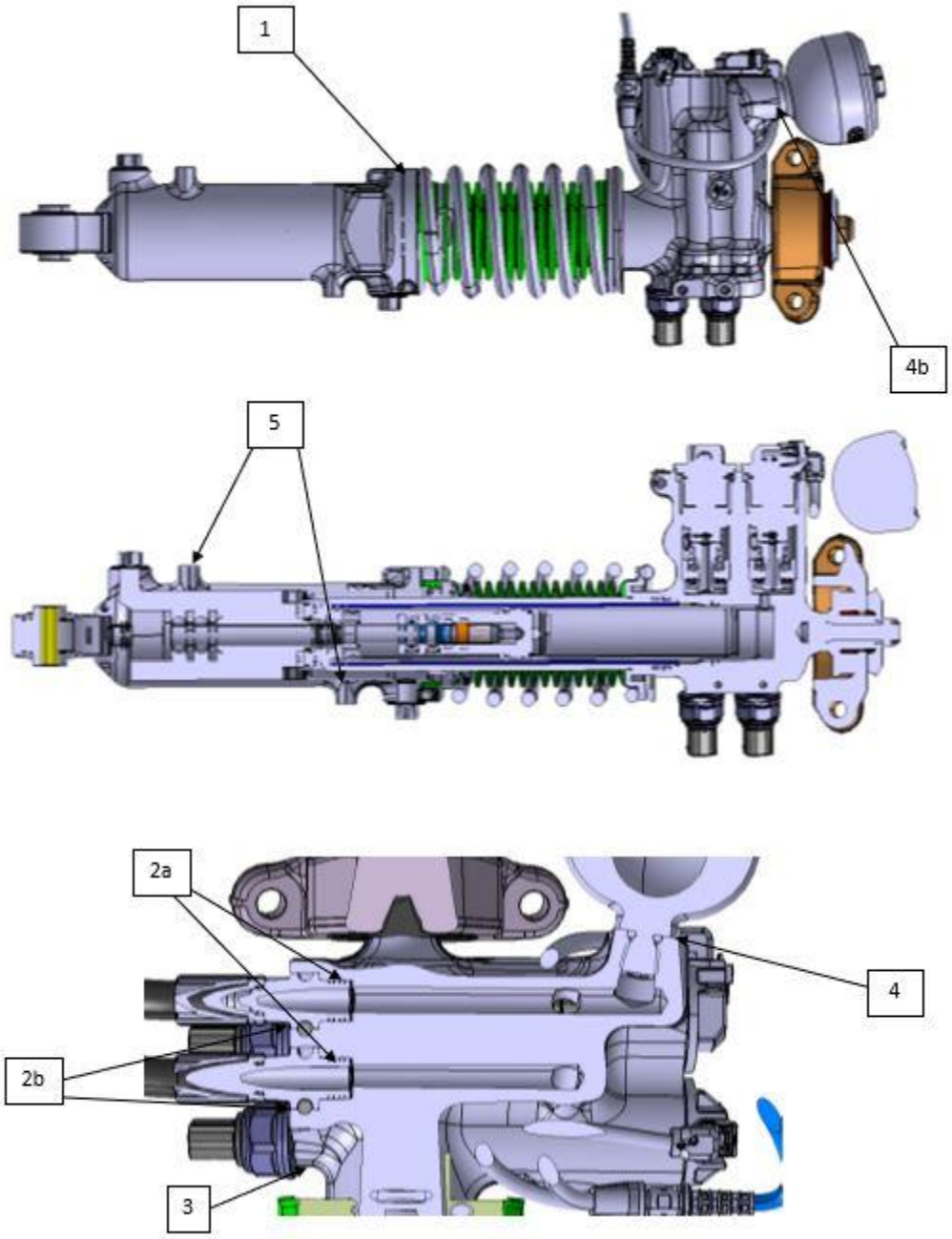
   If pressure sensor is only hand tight a leak can be present. If pressure sensor torque is to target, oil residue is usually a result of a weep from the Kinetic Lines (see point 2).

4. Accumulator Leak

   Oil present around either the top surface of the accumulator (4a) or around the interface with the Valve Housing forging (4b).

5. Heave Circuit Banjo Fitting.

6. Oil leak from the banjo connections, usually a function of an incorrectly torque fastener.



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    c. Clear, well-lit and in-focus images of the label showing the part no. of the faulty damper.

K-Damper overview image