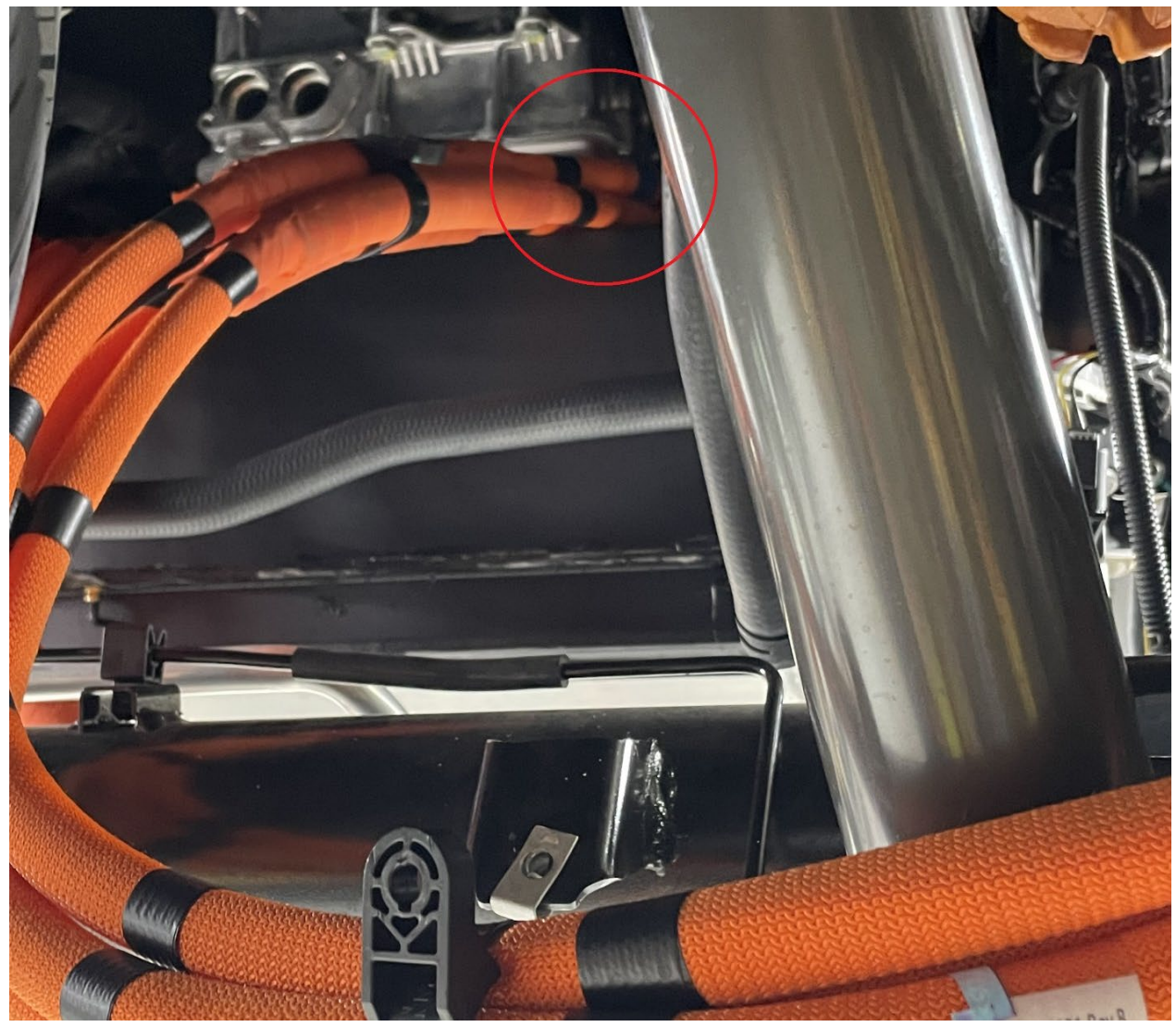
Service procedure for R&R Rear Brake Caliper Assemblies

- Turn on the vehicle, push the brake pedal and press the start/stop switch go to system ready, and select D on PRNDL. Move the vehicle onto the hoist and raise the hoist.
- Release park brakes manually by using the park brake switch.
- Get out of the vehicle and disconnect the Park brake connectors on Rear left and rear right calipers, then transition vehicle to OFF power mode.

- Insert a blunt-ended bar (“pedal prop”) between driver’s seat and brake pedal, and adjust driver’s seat position such that the brake pedal is pushed 1” to 2” from it’s normal home position (this will greatly reduce the amount of brake fluid lost when the rear brake hoses are disconnected).

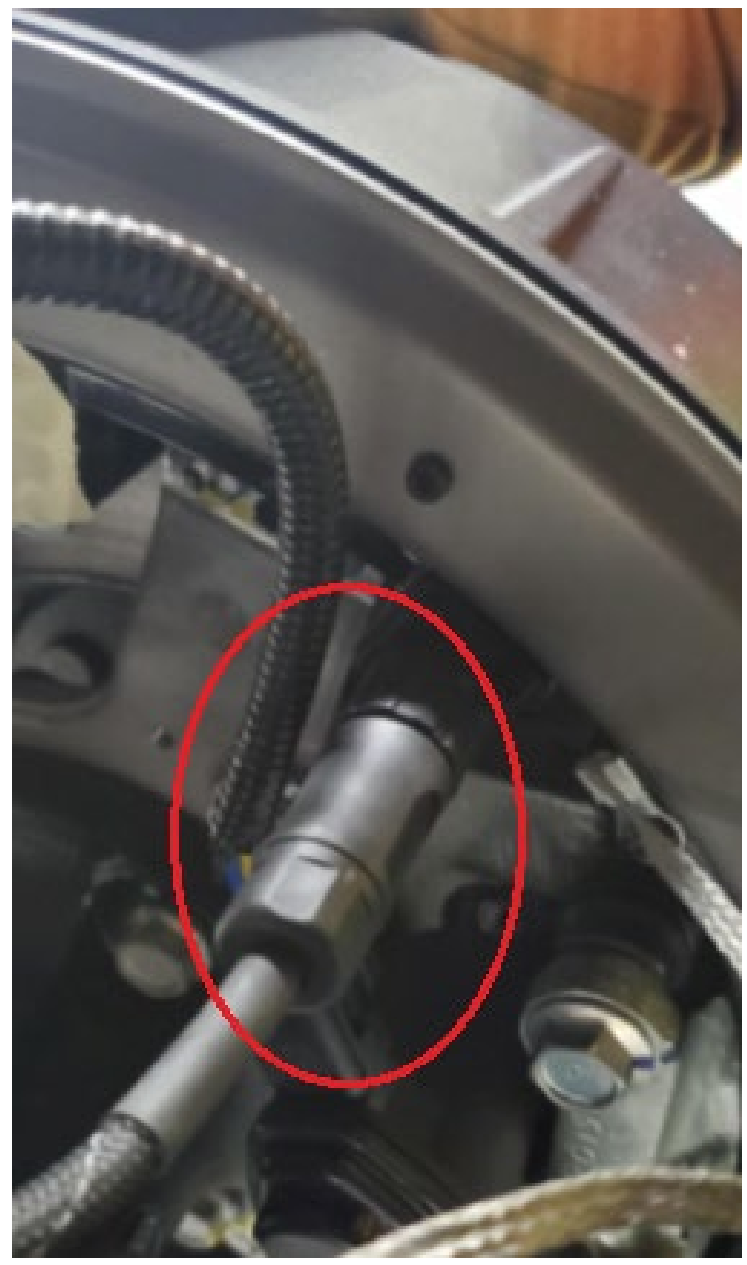
Service procedure for R&R Rear Brake Caliper Assemblies

- Disconnect the 12V battery. Please Refer to the document: 12V disconnect procedure.
- Remove lug nuts and wheel/tire assembly.
- Disconnect HV lines on the inverter side.

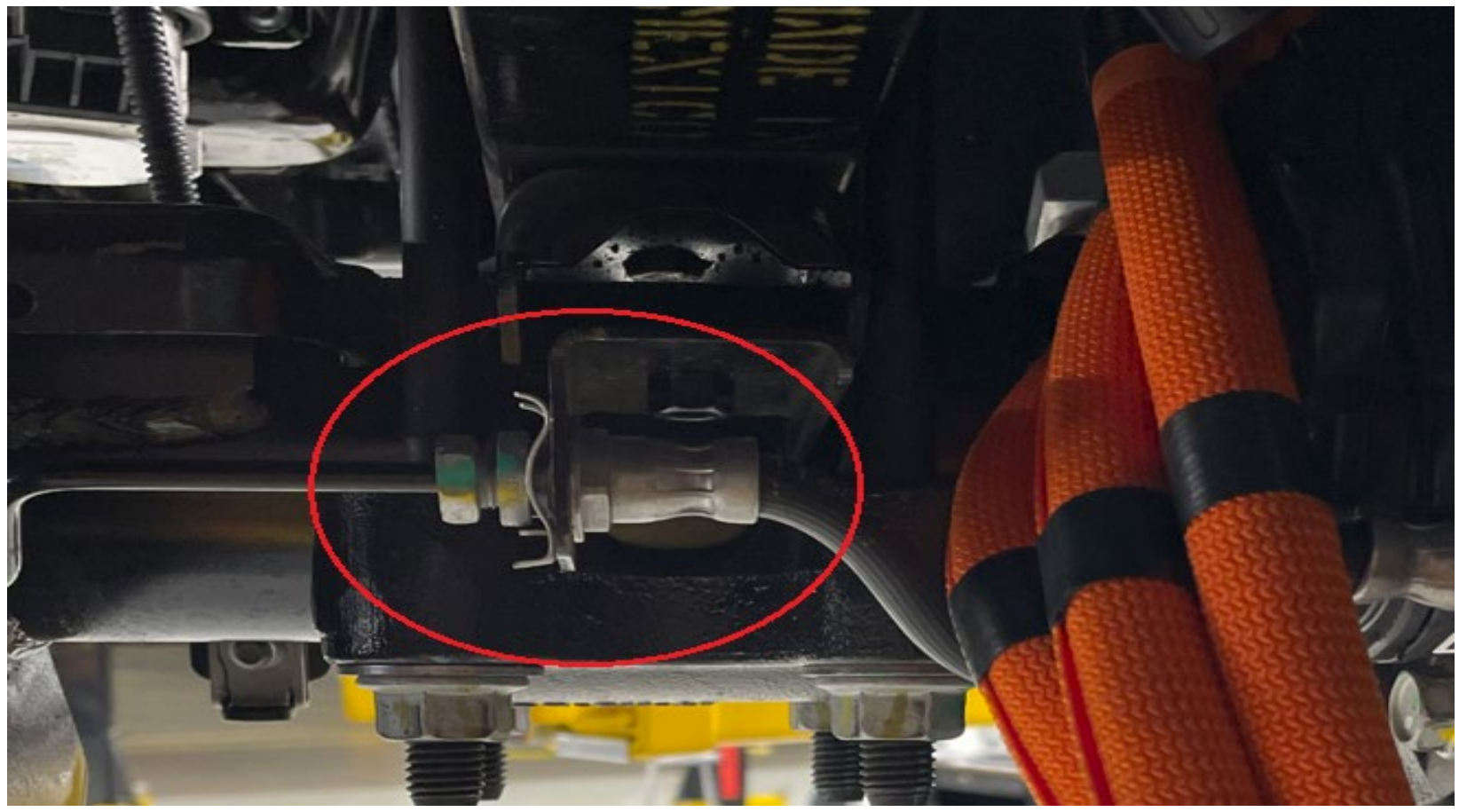


Service procedure for R&R Rear Brake Caliper Assemblies

- Disconnect the ground connections at the motor stator.
- Disconnect the Temperature sensor on the motor stator.

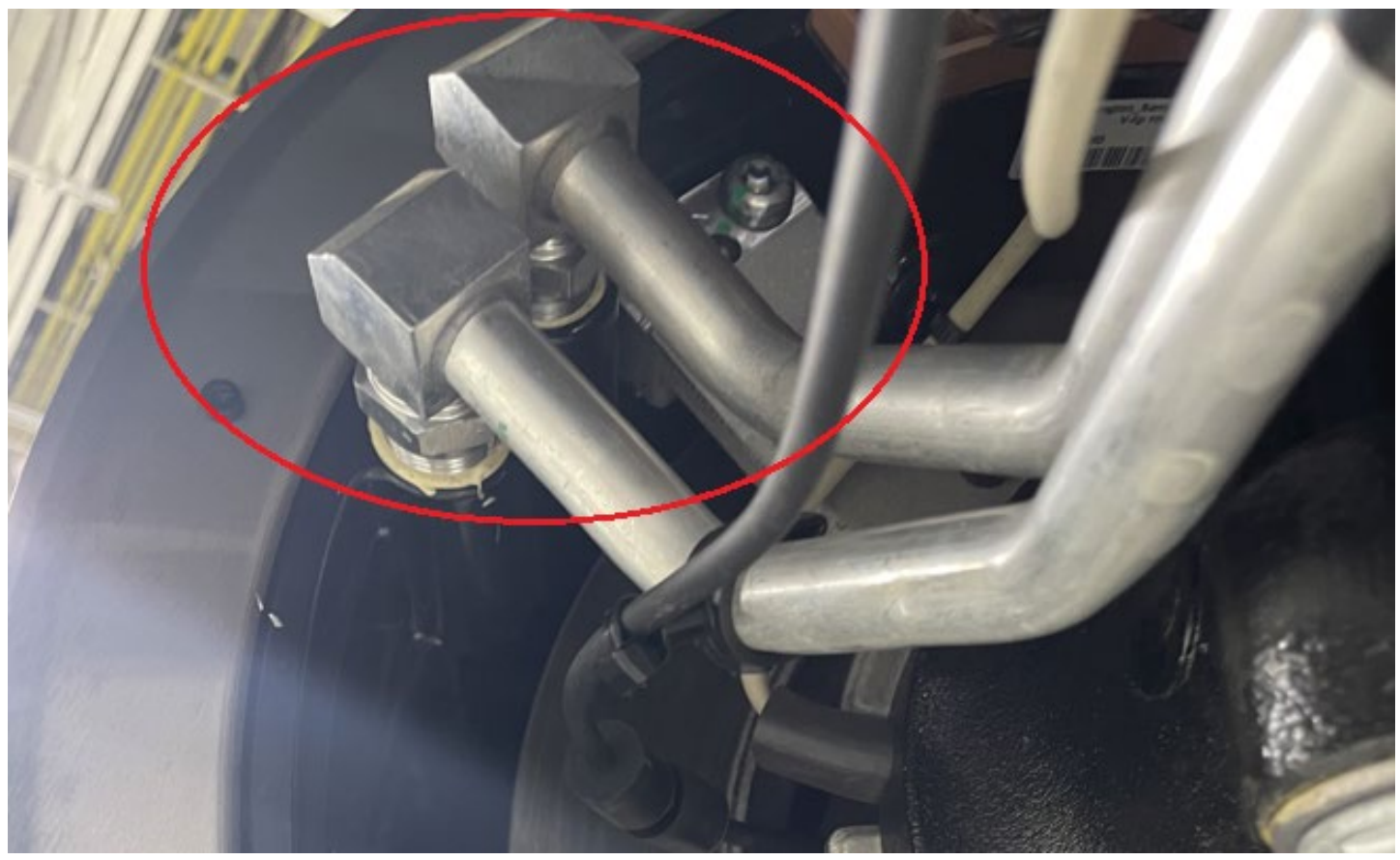


- Disconnect the brake jounce hose to brake line. Place a dripping pan to avoid any spills of brake fluid on the floor.



Service procedure for R&R Rear Brake Caliper Assemblies

- Detach coolant connections on the motor stator. Place a dripping pan to avoid any spills of coolant on the floor.

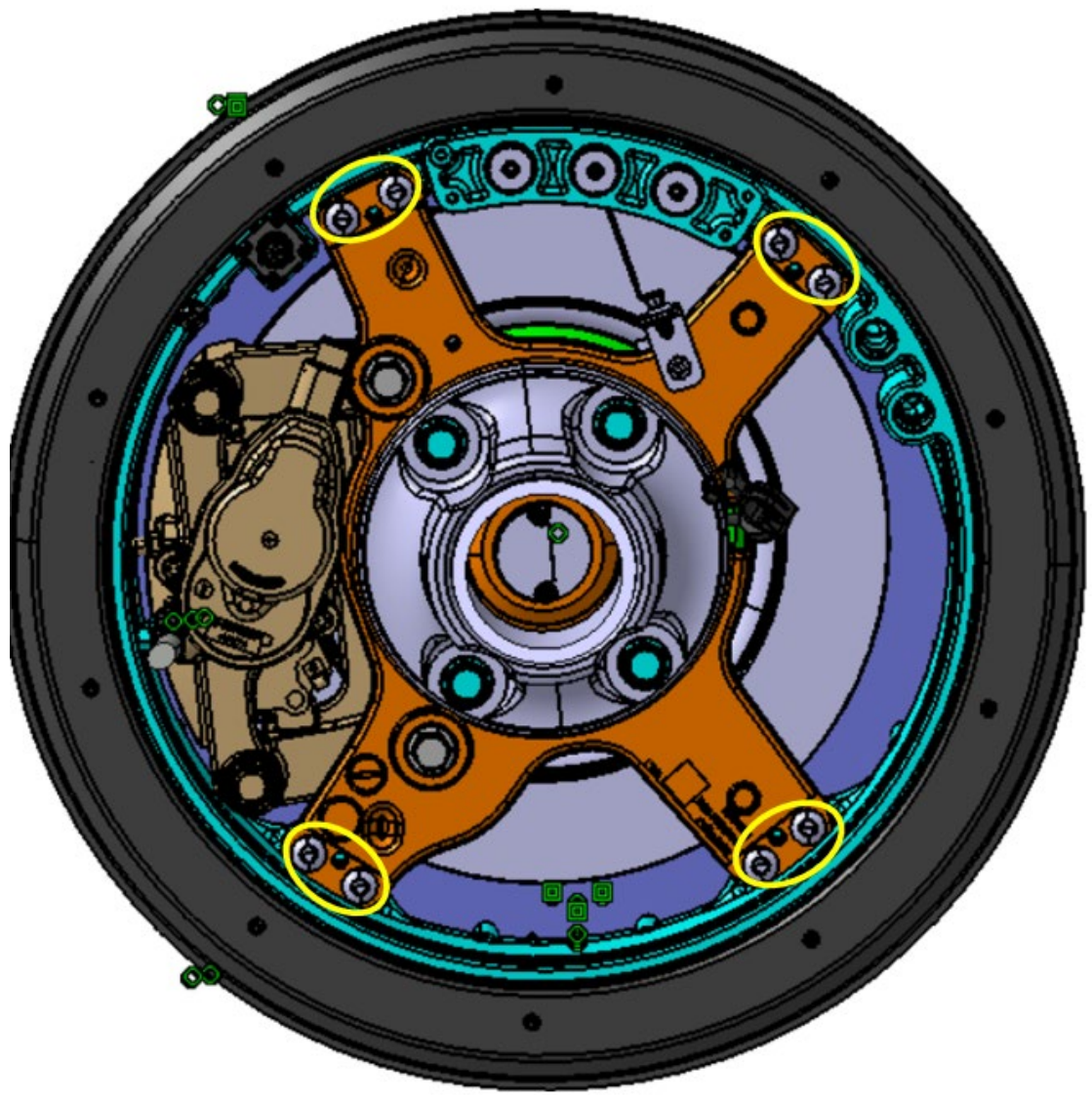


- Remove the Dust covers on the motor. Align the holes on motor rotor and motor stator to install the Brake service tools (BST).

Service procedure for R&R Rear Brake Caliper Assemblies

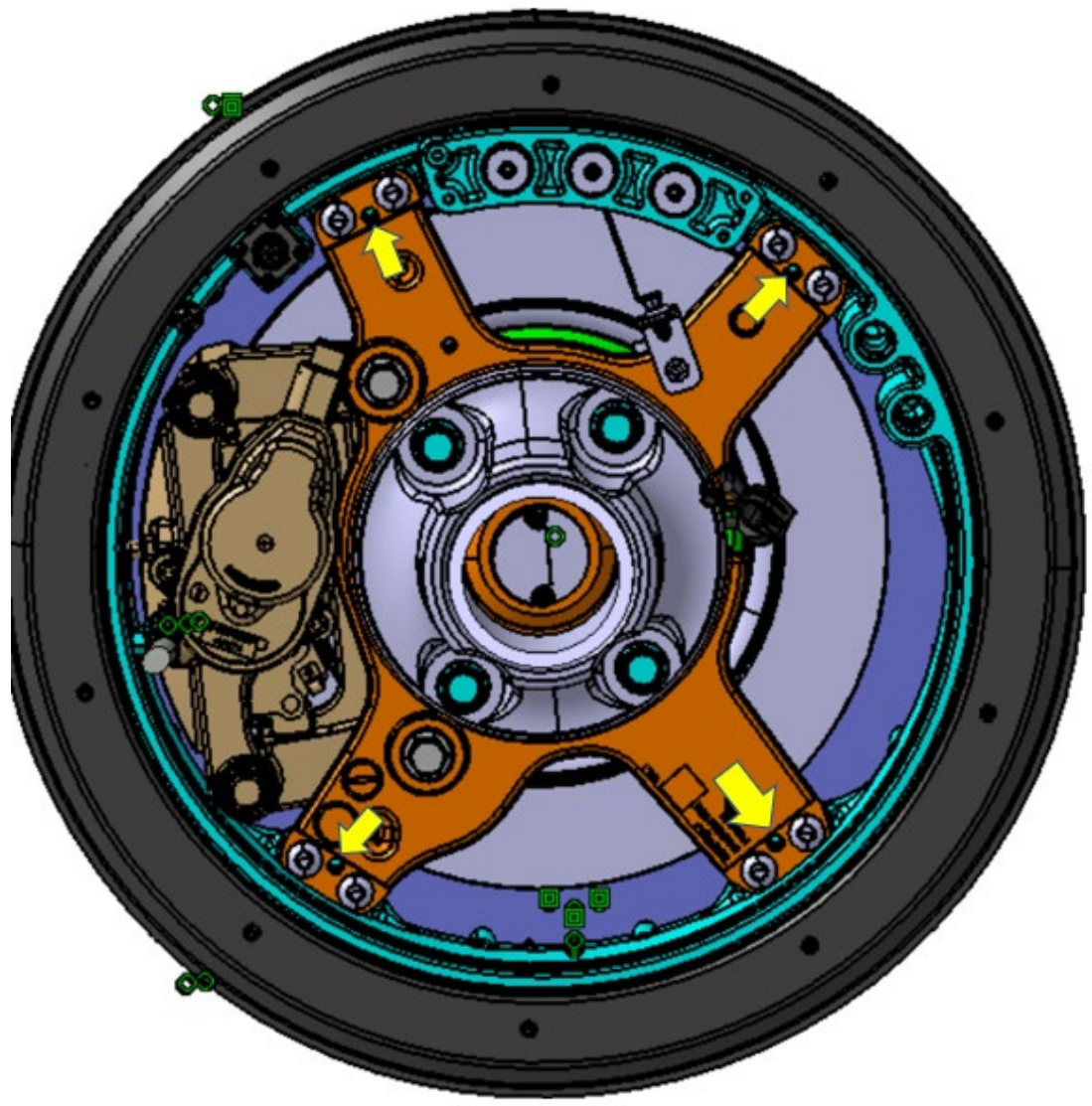
- Position wheel assist lift under hub motor and adjust height to support hub motor assembly.
- Remove 3 countersunk screws that attach motor rotor to bearing hub.

- Remove the 8bolts securing the rear knuckle to motor stator.

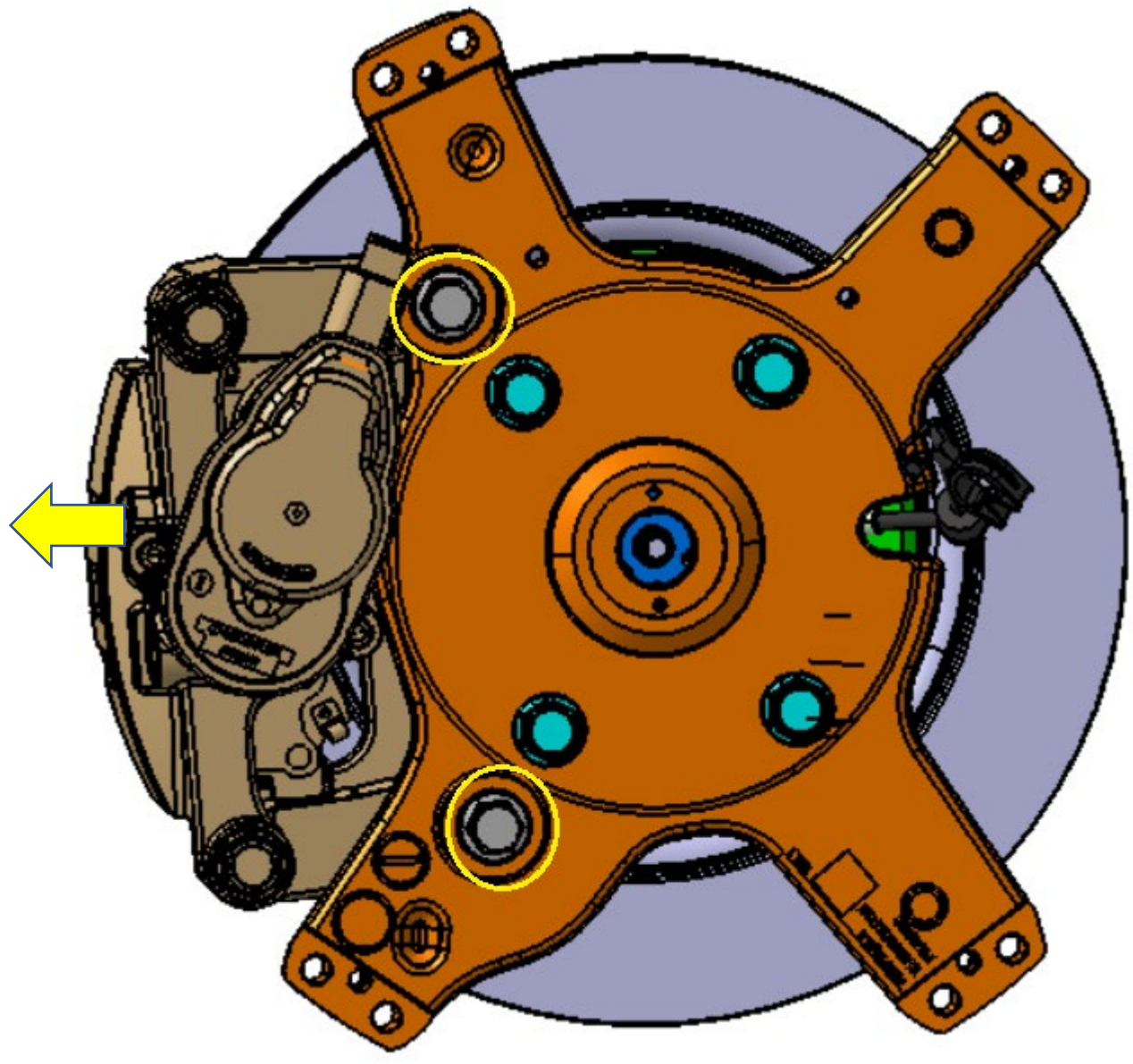


Service procedure for R&R Rear Brake Caliper Assemblies

- Install the 4 provided M6X1.0 jack screws in the indicated holes on the rear knuckle until increased turning resistance is felt. Tighten each screw in one turn increments to separate motor assembly from rear knuckle.



- Remove the caliper bolts and slide out the brake caliper.



- Red Tag the caliper and ship it to back to LMC. Do not use it again.

Service procedure for R&R Rear Brake Caliper Assemblies

Assembly:

- Assemble the motor corner with new rear caliper. Remember to use new brake jounce hose AEEK-043-BB on the Rear left caliper and AEEK-044-BB on the rear right caliper.
- Assembly is reverse of removal process. Please refer to the document for the assembly instructions Hub motor installation HM7.1-12.1 Knuckle Sub Assembly .xlsx.
- install the motor assembly to the axle. Please refer to the document A-CHS01-009_WIP-02202023.pptx
- After all the connections are restored Perform the following bleed procedure on brake system:

Two-person method:

1. Fill brake fluid reservoir to the MAX mark. Elevate and secure vehicle
2. Person 1 removes pedal prop from brake pedal.
3. Person 2 instructs Person 1 to “Pump and Hold”.
4. Person 1 presses and releases brake pedal 3 times, then presses and holds brake pedal.
5. Person 1 says “Holding” loud enough for Person 2 to hear them.
6. Person 2 loosens REAR LEFT bleed screw and allows brake fluid plus trapped air to escape.
7. When brake pedal stops, Person 1 says “Floor” loud enough for Person 2 to hear.
8. Person 2 tightens REAR LEFT bleed screw, then says “Sealed” loud enough for Person 1 to hear.
9. Person 1 removes foot from brake pedal and says “Released” loud enough for Person 2 to hear.
10. The team repeats steps 3 through 9 until no more air escapes from REAR LEFT bleed screw.
11. Fill brake fluid reservoir to the MAX mark.
12. The team repeats steps 3 through 11 at the FRONT LEFT bleed screw.
13. The team repeats steps 3 through 11 at the FRONT RIGHT bleed screw.
14. The team repeats steps 3 through 11 at the REAR RIGHT bleed screw.

- Contact LMC to Perform commissioning/calibration of motor and thermal systems.