

Hub - Front - LH (Dual Motor) (Remove and Replace)



Correction code 31010802

FRT 0.42

NOTE: Unless otherwise explicitly stated in the procedure, the above correction code and FRT reflect all of the work required to perform this procedure, including the linked procedures. **Do not stack correction codes unless explicitly told to do so.**


NOTE: See [Flat Rate Times](#) to learn more about FRTs and how they are created. To provide feedback on FRT values, email LaborTimeFeedback@tesla.com.

NOTE: See [Personal Protection](#) to make sure wearing proper PPE when performing the below procedure.

Revision History:

- 2023-11-03: Move the step order of removing the brake rotor bolt due to the hub puller tool is updated.
- 1096075-00-A Tool, Hub Puller, Hydraulic
- 1062500-00-A Card, Magnetic Field Viewer

Remove

1. If equipped, remove the LH front wheel center cap.
See [Cap - Wheel \(Remove and Replace\)](#) .
2. Loosen the LH front wheel lug nuts.



CAUTION

Use only hand tools to remove or install the fasteners. Do not use impact or power tools.



CAUTION

Use a 6 point socket. Do not use a 12 point socket or a specialty socket.



3. Loosen the LH front drive unit halfshaft nut.

4. Raise and support the vehicle. See [Raise Vehicle - 2 Post Lift](#) .

5. Remove the LH front wheel. See [Wheel Assembly \(Remove and Install\)](#) .



6. Remove and discard the LH front drive unit halfshaft nut and washers.

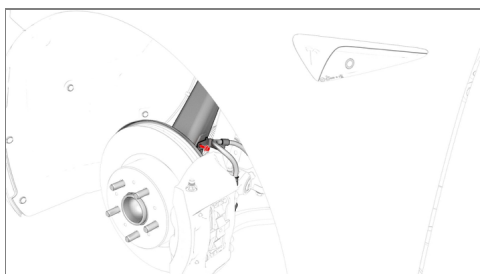
Note
The washers are attached to the nut.

7. Position the hydraulic hub puller tool (1096075-00-A) onto the LH front wheel studs, and then hand tighten the wheel lug nuts (x5).

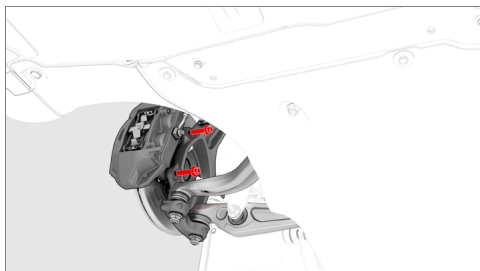
8. Remove the LH front drive unit halfshaft from the LH front hub assembly.

Note
While holding the hub in position, turn the hydraulic hub puller tool handle clockwise to separate the LH front drive unit halfshaft from the hub assembly.

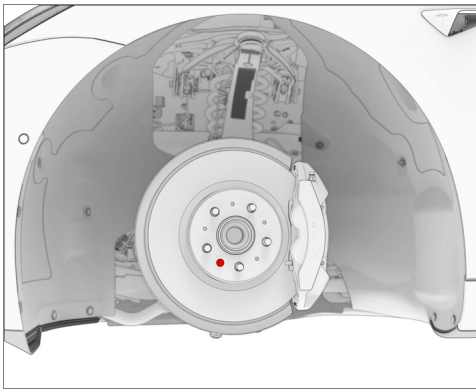
9. Remove the hub puller tool from the LH front wheel studs.



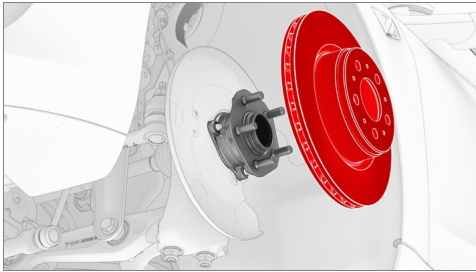
10. Remove the bolt that attaches the front brake hose bracket to the LH front knuckle.



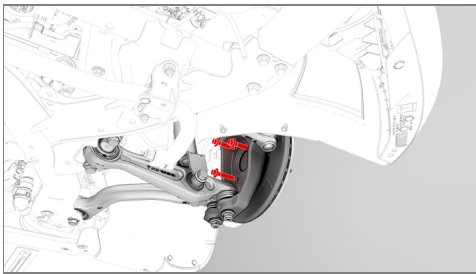
11. Remove and discard the bolts that attach the LH front brake caliper to the LH front knuckle, and then hang the caliper aside with an S-hook.



12. Remove the bolt that attaches the LH front brake rotor to the hub, but do not remove the rotor at this time.

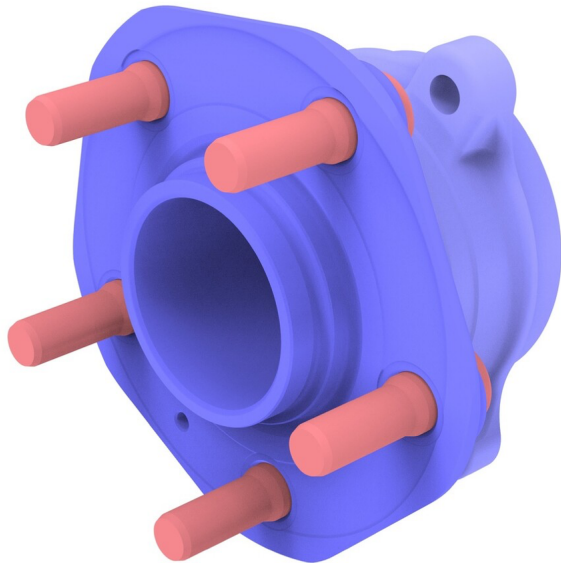


13. Remove the LH front rotor from the vehicle.



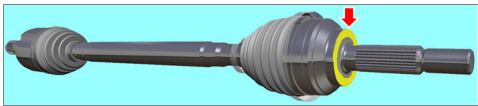
14. Remove the bolts that attach the LH front hub to the LH front knuckle.

15. Remove the LH front hub from the vehicle.



Install

1. Use a magnetic field viewing card to check the LH front hub's tone ring.

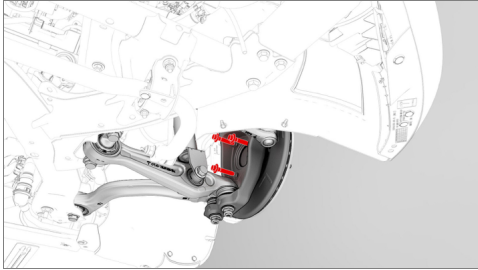


2. Apply *Molykote M-77 Lubricant Paste* to the outboard side of the LH rear halfshaft assembly.


Note
Clean the halfshaft before applying if necessary.

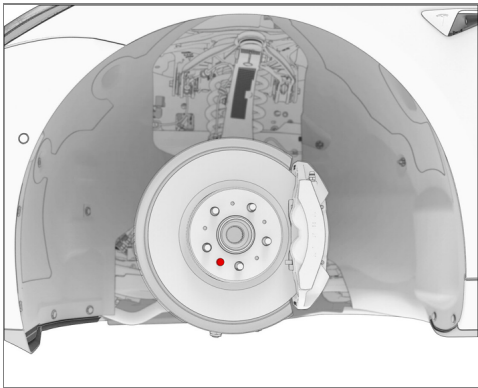
Note
Apply no more than 1 gram to axle only.

3. Line up the LH front drive unit halfshaft splines, and then install the LH front hub on the LH front knuckle.



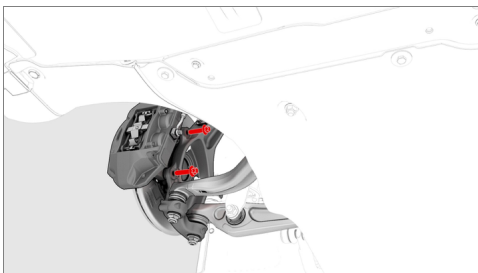
4. Install the bolts that attach the LH front hub to the LH front knuckle.

 **85 Nm (62.7 lbs-ft)**




5. Install the LH front rotor on the LH front hub, and then install the bolt that attaches the rotor to the hub.

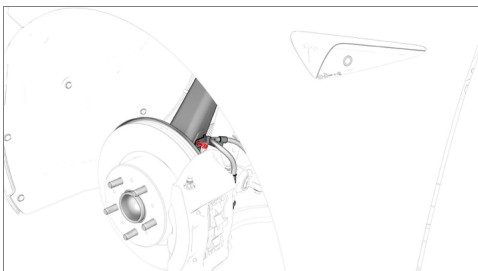
 **5 Nm (3.7 lbs-ft)**



6. Install the new bolts that attach the LH front brake caliper to the LH front knuckle, and then remove the S-hook from the vehicle.

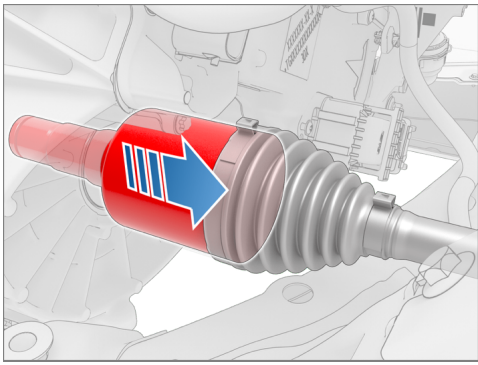
 **94 Nm (69.3 lbs-ft)**

Note
Mark the bolts with a paint pen.



7. Install the bolt that attaches the front brake hose bracket to the LH front knuckle.

 **5 Nm (3.7 lbs-ft)**



8. Pull on the inner halfshaft cup to confirm that the circlip is locked into place. If the halfshaft detaches from the drive unit then reinstall the halfshaft and then test that it is fully seated.

CAUTION


If reinstalling the halfshaft to the drive unit:


- Take care not to damage or displace the oil seals.
- Make sure that the opening of the snap rings are facing towards the bottom of the drive unit.
- Carefully push the halfshaft into the drive unit until there is an audible "click" from the halfshaft stub contacting the pinion shaft.
- There will be a slight pulling sensation on the halfshaft as the halfshaft circlip locks into place.
- Pull on the inner halfshaft cup to confirm that the circlip is locked into place. If the halfshaft detaches from the drive unit then reinstall the halfshaft and then test that it is fully seated.




9. Install the LH front drive unit halfshaft into the LH front hub assembly, and then hand tighten a new halfshaft nut on the halfshaft.


10. Install the LH front wheel and hand tighten the wheel lug nuts.

11. Lower the vehicle until the tires are touching the ground. See [Raise Vehicle - 2 Post Lift](#) .

12. Fully tighten the wheel lug nuts. See [Wheel Assembly \(Remove and Install\)](#) .



13. Fully tighten the new LH front drive unit halfshaft nut.  **300 Nm (221.2 lbs-ft)**

14. If equipped, install the LH front wheel center cap. See [Cap - Wheel \(Remove and Replace\)](#) .

15. Refer to the Alignment Requirement tables to determine whether an EPAS alignment check (EC) or four wheel alignment check (AC) is necessary. If performed, add the alignment check/adjust as a separate activity. See [Alignment Requirement -](#)

