Steering Column System
Position Statement

Steering Column Inspection and Replacement Criteria Post Collision
18-DEC-2025

This position statement outlines the inspection process and pass/fail criteria for examining a steering column potentially damaged in a vehicle accident. Ensuring the integrity of steering, suspension, and drive axle components is critical for vehicle control and handling. This document details the criteria for determining steering column replacement, focusing on the collapsed length of the steering shaft and the condition of the integrated shear pin. Adhering to these inspection steps is essential to prevent steering column failure in subsequent collisions, maintaining the safety and functionality of the vehicle.

To promote and maintain our rigorous standards of quality and safety, all repairs must be performed by a certified technician using only genuine Lucid Motor parts. The decision to replace the steering column is based on the collapsed length of the steering shaft and the state of the integrated shear pin following a collision.

Steering, suspension, and drive axle components are vital to a vehicle's control and handling; their original design, measurements, and integrity are essential for safe operation. Failure to adhere to the specified inspection steps can result in steering column failure in subsequent collisions.

In the event of a collision, the steering column may collapse as energy is transferred from the point of impact to the driver through the vehicle's steering column crash element. At Lucid Motors, we prioritize safety and provide the following guidelines for steering column inspection and replacement:

1. **Replacement Criteria:** The steering column and Steering Column Control Module (SCCM) shall be replaced if there has been any deployment of the driver's airbag.
2. **Inspection Protocol:** Even if the driver's airbag does not deploy, a thorough inspection of the steering column is mandatory if any of the following occur:
    - The driver has made contact with the steering wheel during the collision.
    - Any visible damage is evident on the steering column, steering wheel, or instrument panel (IP) components.
    - Any Supplemental Restraint System (SRS) component is deployed.
    - Presence of suspension damage requiring replacement of the steering rack.
3. **Two Areas of Inspection:** The inspection of the steering column focuses on two critical areas to assess structural integrity and functionality post-collision, as detailed in our technical resources.

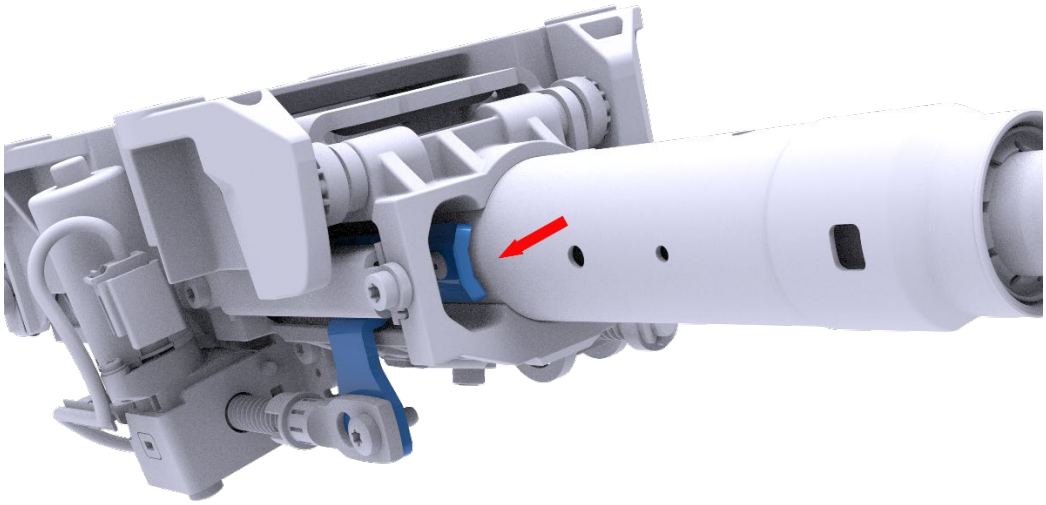
These measures are in place to uphold our commitment to vehicle safety and ensure that every steering system meets our stringent quality standards. By adhering to these guidelines, we prioritize the well-being of our customers and reinforce the reliability of our vehicles in the event of accidents.

Replacement Inspection Procedure
Follow the steps outlined below to inspect the Steering Column Assembly (Steering Column Assy) post-collision. This procedure will determine if the steering column requires replacement.

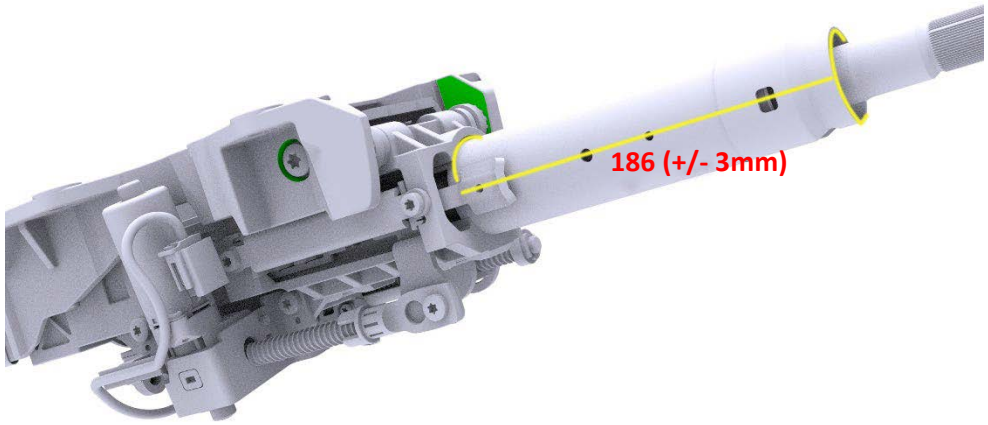
1. **Adjust Steering Column Position:**

- Using the Pilot Panel, adjust the steering column so that it is in the fully extended position.

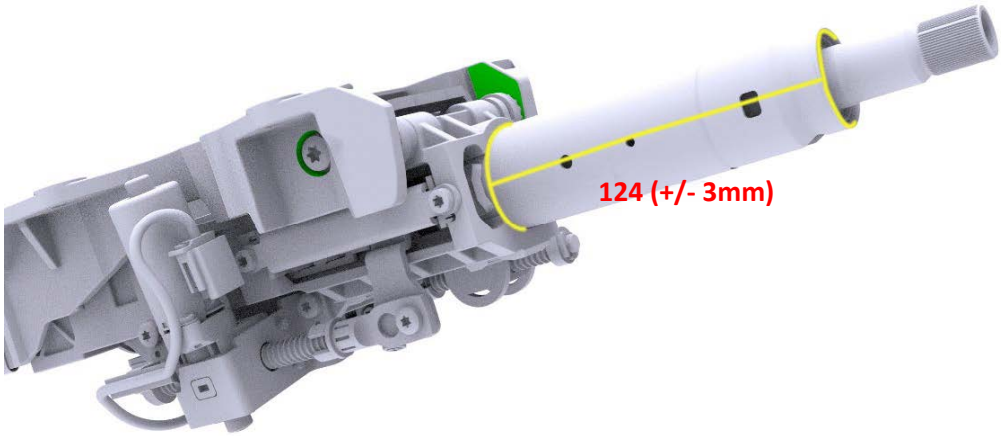
2. **Remove Steering Wheel:**
   - Remove the steering wheel. Refer to the Steering Wheel Replacement procedure.
   - **Note:** If the Driver's Airbag has deployed or if the steering column requires replacement (following the inspection criteria below), the steering wheel and clock spring module must always be replaced.
3. **Remove Column Trim:**
   - Carefully remove any trim covering the steering column to expose the components.
4. **Inspect Shear Pin Tab:**
   - Examine the Shear Pin Tab located on the column shaft for excess root gap. If you notice a gap between the shear pin tab and the column shaft, this indicates the shear pin tab has been broken. Proceed with the following actions:
     - Replace the Steering Column Assy.



5. **Measure Column Shaft Extension:**
   - With the column in the fully lowered and fully extended position, measure the distance from the base of the Column Housing to the end of the Column Shaft using a suitable measuring device. Record this initial measurement.



6. **Collapse Steering Column:**
    - Using the Pilot Panel, keeping the column in its fully lowered position, completely collapse the steering column to its minimum extension.
7. **Re-Measure Column Shaft Extension:**
    - Measure again from the base of the Column Housing to the End of the Column Shaft.



8. **Compare Measurements:**
    - Compare the extended measurement with the collapsed measurement. According to Lucid specifications, if both the extended and collapsed position are less than the specified measurement, replace the Steering Column Assy as indicated.
        - Extended measurement: (186 (+/- 3mm))
        - Collapsed measurement: (124 (+/- 3mm))
9. **Final Assessment:**
    - Based on the inspection results and measurements taken, determine if replacement of the Steering Column Assy is necessary for safe operation and functionality post-collision.
    - **Note:** If the Driver's Airbag has deployed or if the steering column has met the above requirements for replacement, ensure that the steering wheel and clock spring module are replaced to maintain safety and functionality.
10. **Assembly and Testing:**
    - If replacement is required, follow Lucid guidelines to install the new Steering Column Assy and ensure proper assembly and testing procedures are carried out. Refer to the Steering Column Replacement procedure.

Note: Always refer to Lucid's repair manual and guidelines for detailed instructions and safety precautions when performing collision repairs on the steering column assembly.