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2020.0 DEFENDER (LE), 211-02

POWER STEERING

STEERING GEAR (G2415582)

mcx30.com

REMOVAL AND INSTALLATION

SPECIAL TOOL(S)



JLR-211-342

Steering Gear Clamp



JLR-211-344

Tie Rod Removal and Installation Tool

PART(S)

STEP	PART NAME	QUANTITY
Installation Step 1	Steering gear bolts	2
Installation Step 6	Steering column lower shaft lower bolt	1

REMOVAL

NOTE:

- This procedure contains some variation in the illustrations depending on the vehicle specification, but the essential information is always correct.
- This procedure contains illustrations showing certain components removed to provide extra clarity.

1. Disconnect the startup battery ground cable.

Refer to: [Startup Battery Disconnect and Connect](#) (414-00 Battery and Charging System - General Information, General Procedures).

2. Raise and support the vehicle on a suitable 2-post lift.

Refer to: [Jacking and Lifting](#) (100-02 Jacking and Lifting, Description and Operation).

- 3.

NOTE:

Repeat this step for the other side.

Remove the front wheel and tire assembly.

Refer to: [Wheel and Tire](#) (204-04 Wheels and Tires, Removal and Installation).

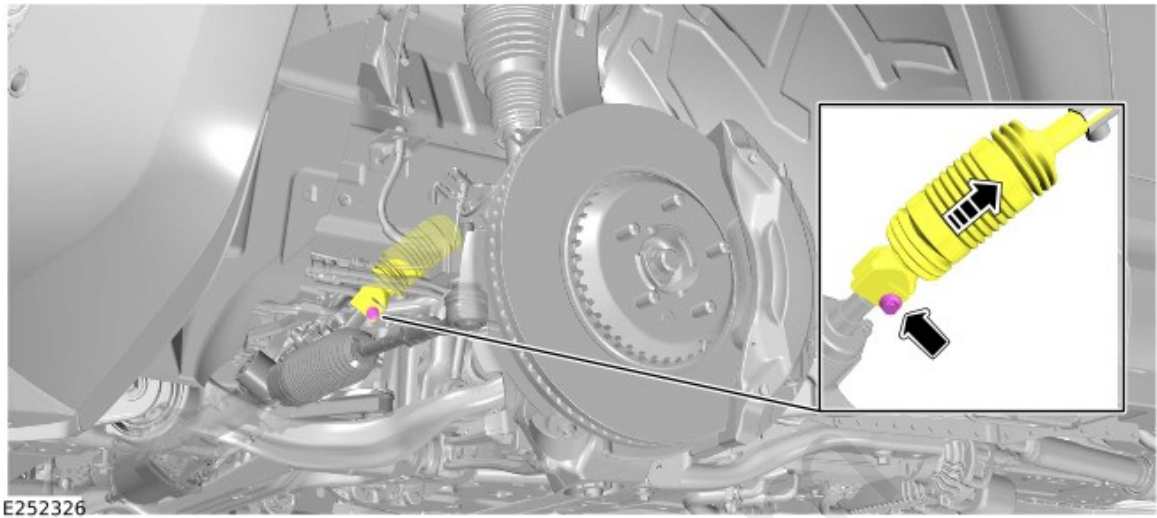
4. Remove the engine undershield.

Refer to: [Engine Undershield](#) (501-02 Front End Body Panels, Removal and Installation).

5.

⚠ CAUTION:

Align the steering to the straight ahead position. Do not allow the steering wheel to rotate when the steering column is disconnected.



- Remove and discard the steering column lower shaft to steering gear bolt.
- Release the steering column lower shaft from the steering gear.

6.

⚠ NOTE:

Repeat this step for the other side.

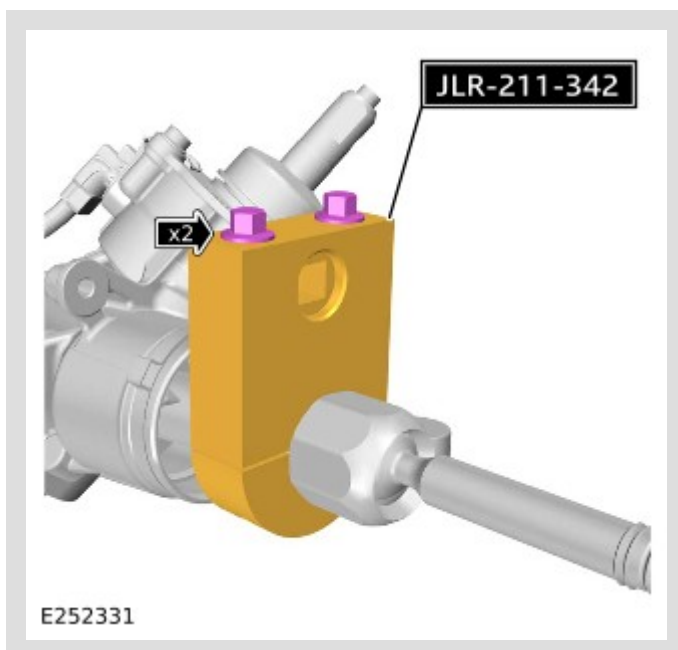
Remove the steering gear boot.

Refer to: [Steering Gear Boot](#) (211-03 Steering Linkage, Removal and Installation).

7.

 NOTE:

Repeat this step for the other side.



Install the special tool and use a suitable wrench to counter hold the steering gear when remove the tie-rod.

Special Tool(s): [JLR-211-342](#)

Torque

Special tool bolts: **24Nm**

8.

⚠ CAUTIONS:

- Make sure to counterhold the component while releasing.
- The maximal loosening torque must not exceed 175Nm/130 lb-ft.

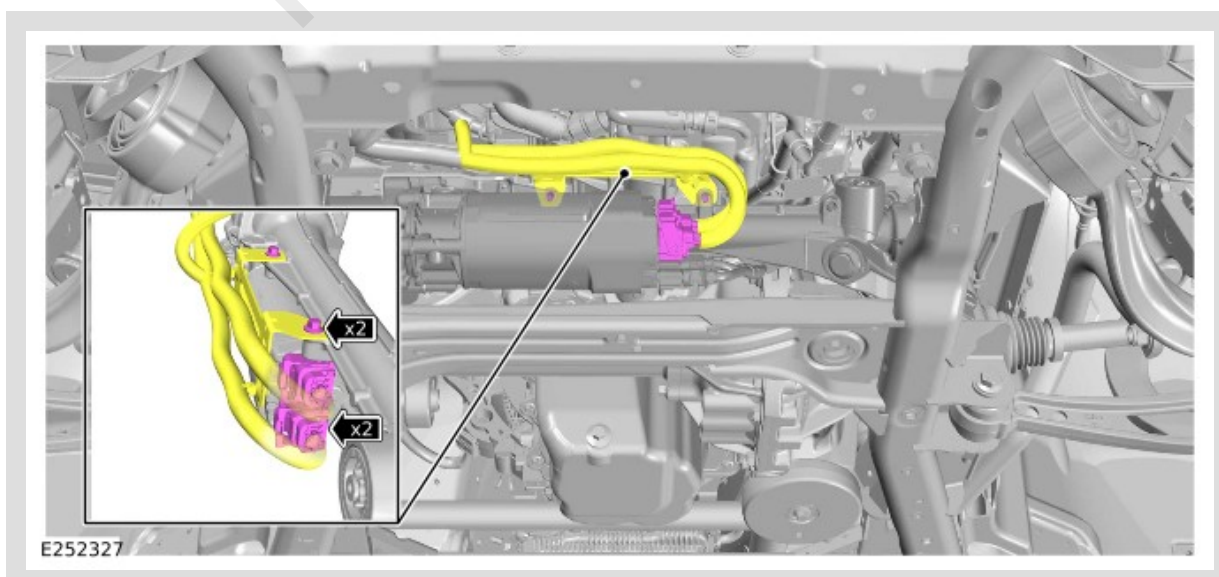
⚠ NOTE:

Repeat this step for the other side.



- Use the special tools to remove the tie-rod.
Special Tool(s): [JLR-211-344](#)
- Remove the special tool from the steering gear.
Special Tool(s): [JLR-211-342](#)

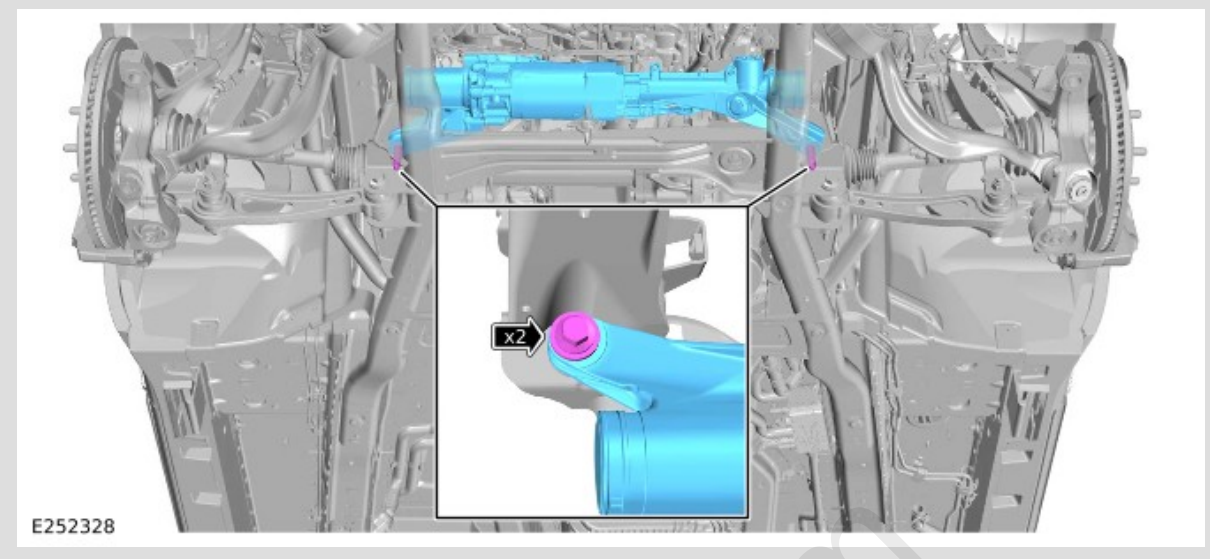
9.



- Disconnect the 2 electrical connectors.

- Remove the 2 bolts.
- Release the wiring harness assembly from the steering gear.

10.



- Remove and discard the 2 bolts.
- Remove the steering gear.

INSTALLATION

1.

- Install the steering gear.
- Install and tighten the new 2 bolts.
Renew Part: [Steering gear bolts](#) Quantity: 2.
Torque
Stage1: **110Nm**
Stage2: **180°**

2.

- Secure the wiring harness assembly to the steering gear.
- Install and tighten the 2 bolts.
*Torque: **8Nm***
- Connect the 2 electrical connectors to the steering gear.

3.

NOTE:

Repeat this step for the other side.

Install the special tool and use a suitable wrench to counter hold the steering gear when install the tie-rod.

Special Tool(s): [JLR-211-342](#)

Torque

Special tool bolts: **24Nm**

4.

CAUTION:

Make sure to counterhold the component while tightening.

NOTE:

Repeat this step for the other side.

- Use the special tools to install the tie-rod.
Special Tool(s): [JLR-211-344](#)
*Torque: **140Nm***
- Remove the special tool from the steering gear.
Special Tool(s): [JLR-211-342](#)

5.

 NOTE:

Repeat this step for the other side.

Install the steering gear boot.

Refer to: [Steering Gear Boot](#) (211-03 Steering Linkage, Removal and Installation).

6.

- Connect the steering column lower shaft to the steering gear.
- Install and tighten the new steering column lower shaft to steering gear bolt.
Renew Part: [Steering column lower shaft lower bolt](#) Quantity: 1.
Torque: 30Nm

7.

 NOTE:

Repeat this step for the other side.

Install the front wheel and tire assembly.

Refer to: [Wheel and Tire](#) (204-04 Wheels and Tires, Removal and Installation).

8.

Install the engine undershield.

Refer to: [Engine Undershield](#) (501-02 Front End Body Panels, Removal and Installation).

9.

Connect the startup battery ground cable.

Refer to: [Startup Battery Disconnect and Connect](#) (414-00 Battery and Charging System - General Information, General Procedures).

10.

Use the Jaguar Land Rover (JLR) approved wheel alignment equipment, check and if necessary adjust the front wheel alignment.

Refer to: [Wheel Alignment](#) (204-00 Suspension System - General Information, General Procedures).