

211-02 Power Steering
Removal and Installation

2019 Ranger
Procedure revision date: 10/10/2018

Steering Gear - 4WD

Base Part Number: 3D080

Special Tool(s) / General Equipment

Tie Rod End Remover

Removal

NOTE: Removal steps in this procedure may contain installation details.

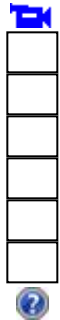
1. If installing a new steering gear, connect the scan tool and upload the module configuration information from the PSCM.
Refer to: [Module Programming](#) (418-01 Module Configuration, General Procedures).

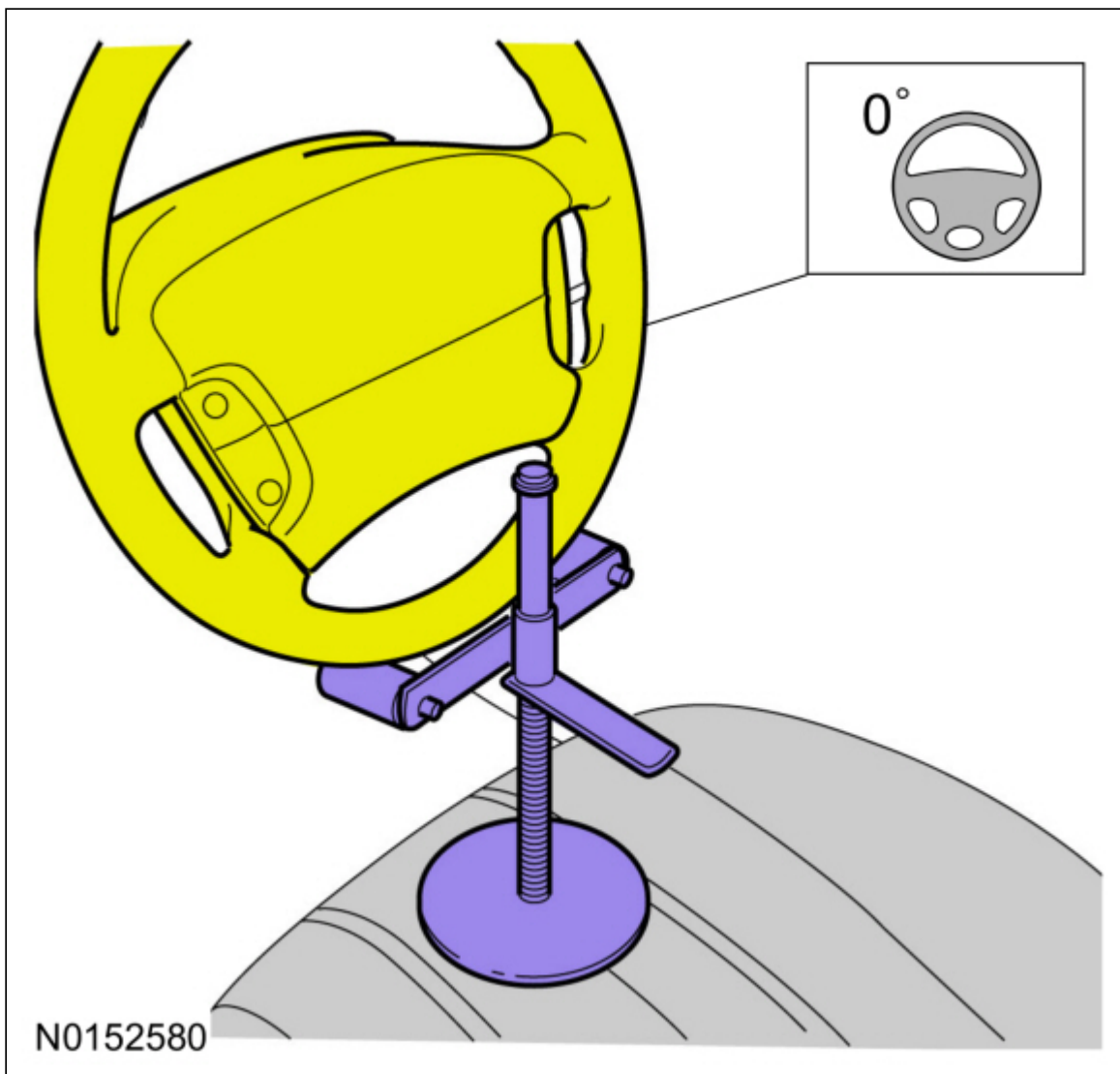
2. **NOTICE: Disconnect the battery ground cable anytime the steering linkage is being serviced or damage to the steering gear may occur resulting in steering gear replacement.**

Disconnect the battery ground cable.

Refer to: [Battery Disconnect and Connect](#) (414-01 Battery, Mounting and Cables, General Procedures).

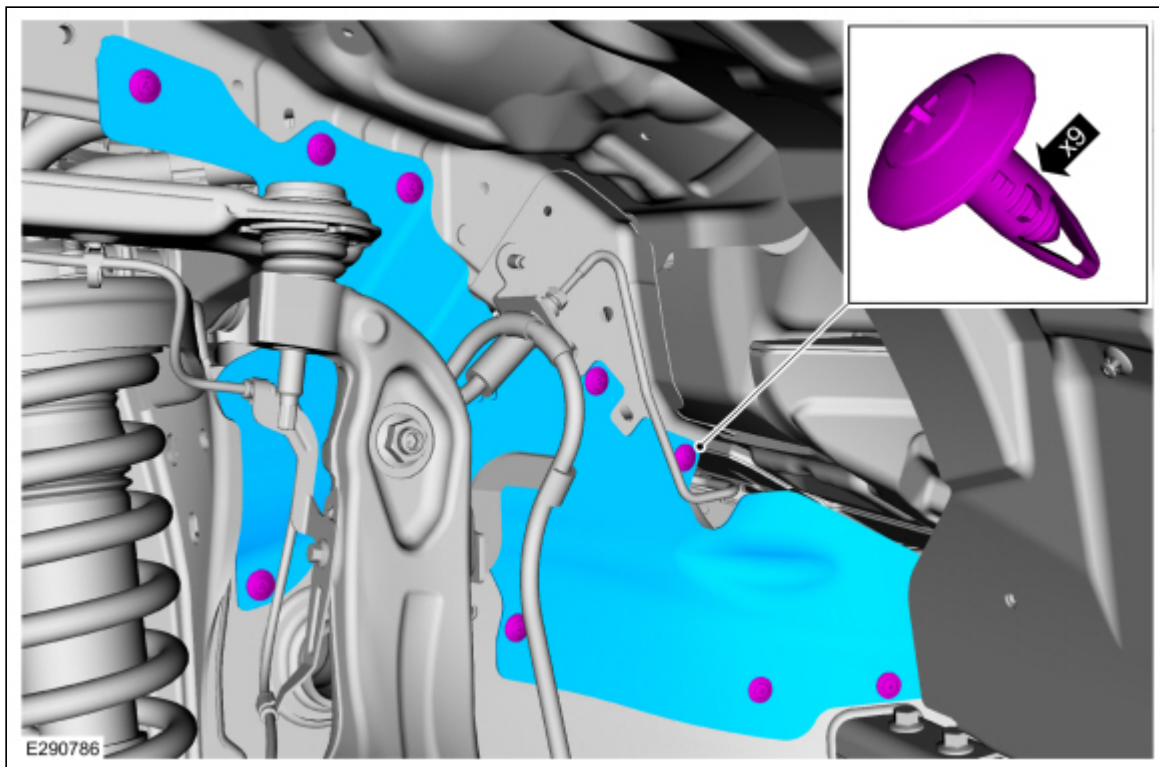
3. Using a holding device, hold the steering wheel in the straight-ahead position.





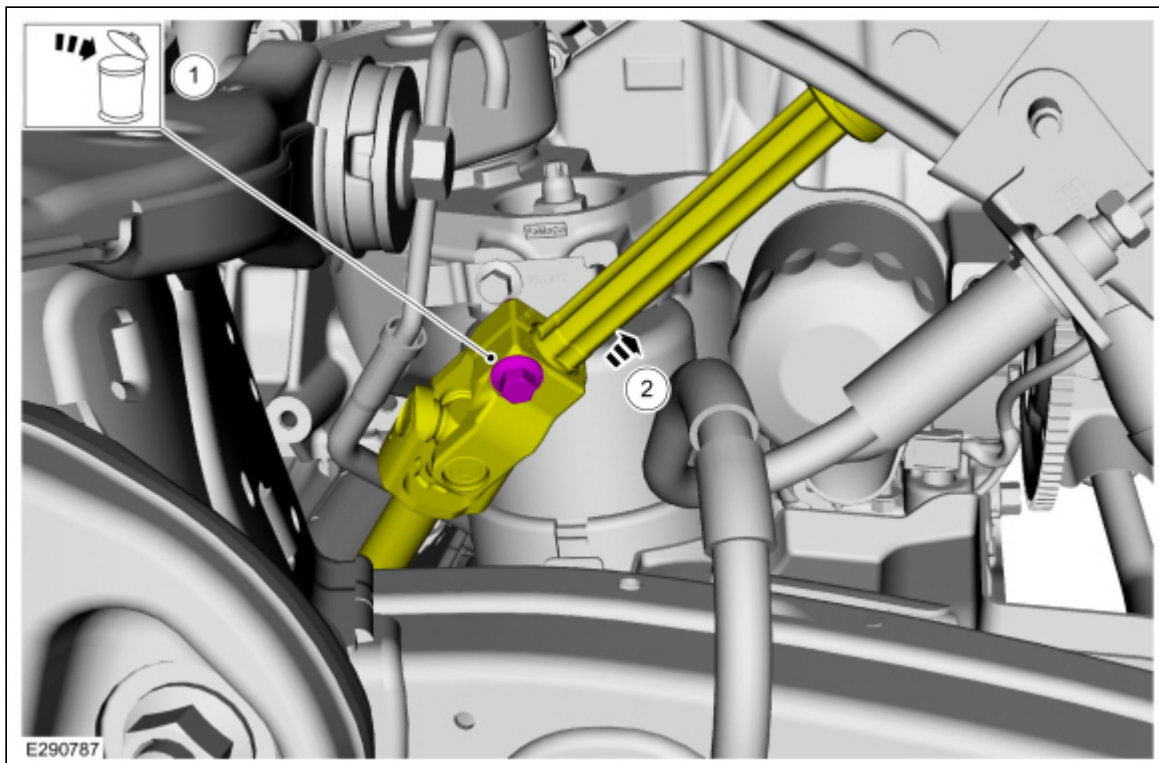
4. Remove the front wheels and tires.
Refer to: [Wheel and Tire](#) (204-04A Wheels and Tires, Removal and Installation).
5. Remove the engine front undershield.
Refer to: [Engine Front Undershield](#) (501-02 Front End Body Panels, Removal and Installation).
6. Remove the retainers and the splash shield.



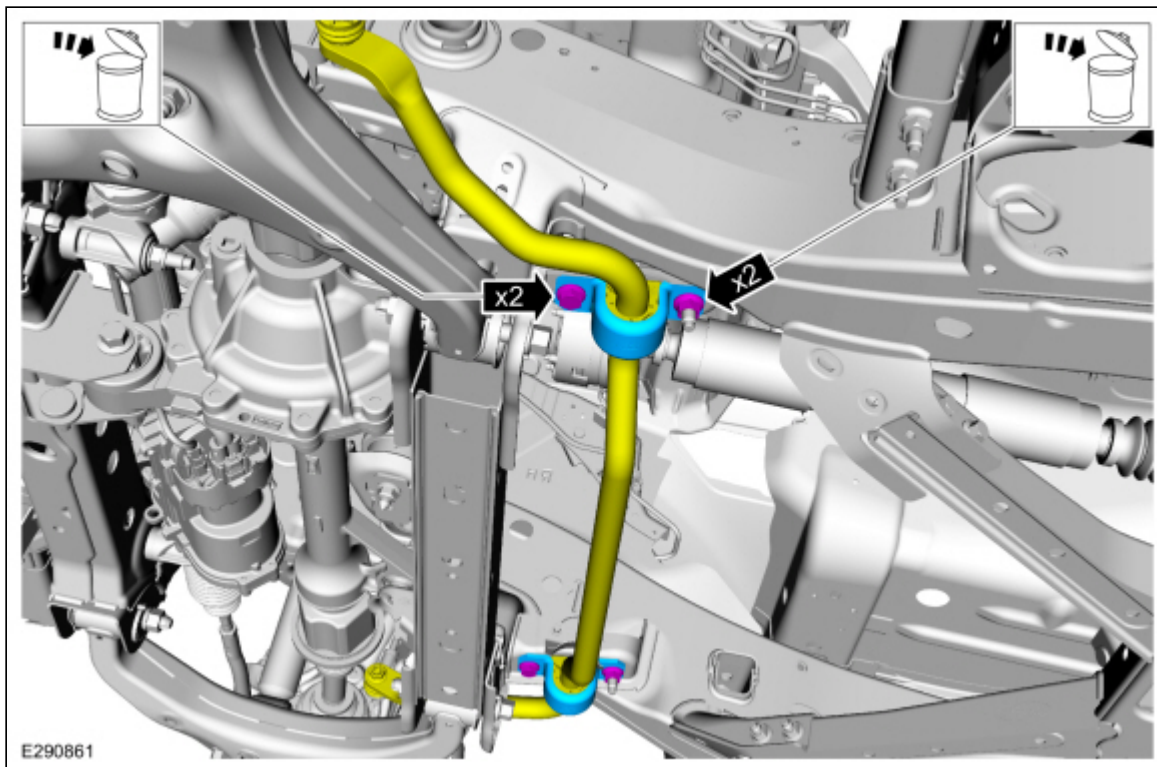


7. **⚠ WARNING:** Do not reuse steering column shaft bolts. This may result in fastener failure and steering column shaft detachment or loss of steering control. Failure to follow this instruction may result in serious injury to vehicle occupant(s).

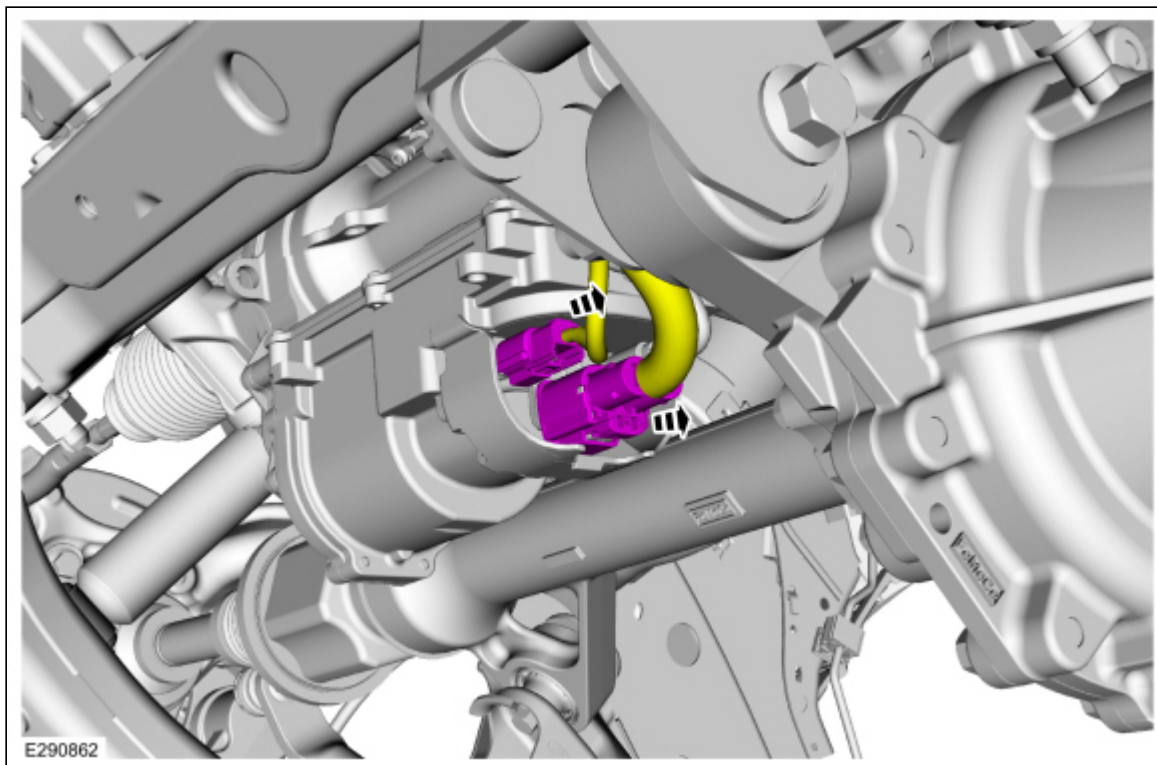
1. Remove and discard the steering column shaft coupler bolt.
Torque: 17 lb.ft (23 Nm)
2. Separate the upper steering column shaft from the lower steering column shaft coupler.



8. Remove and discard the retainers and position aside the stabilizer bar.
Torque: 66 lb.ft (90 Nm)



9. Disconnect the EPAS gear electrical connectors.



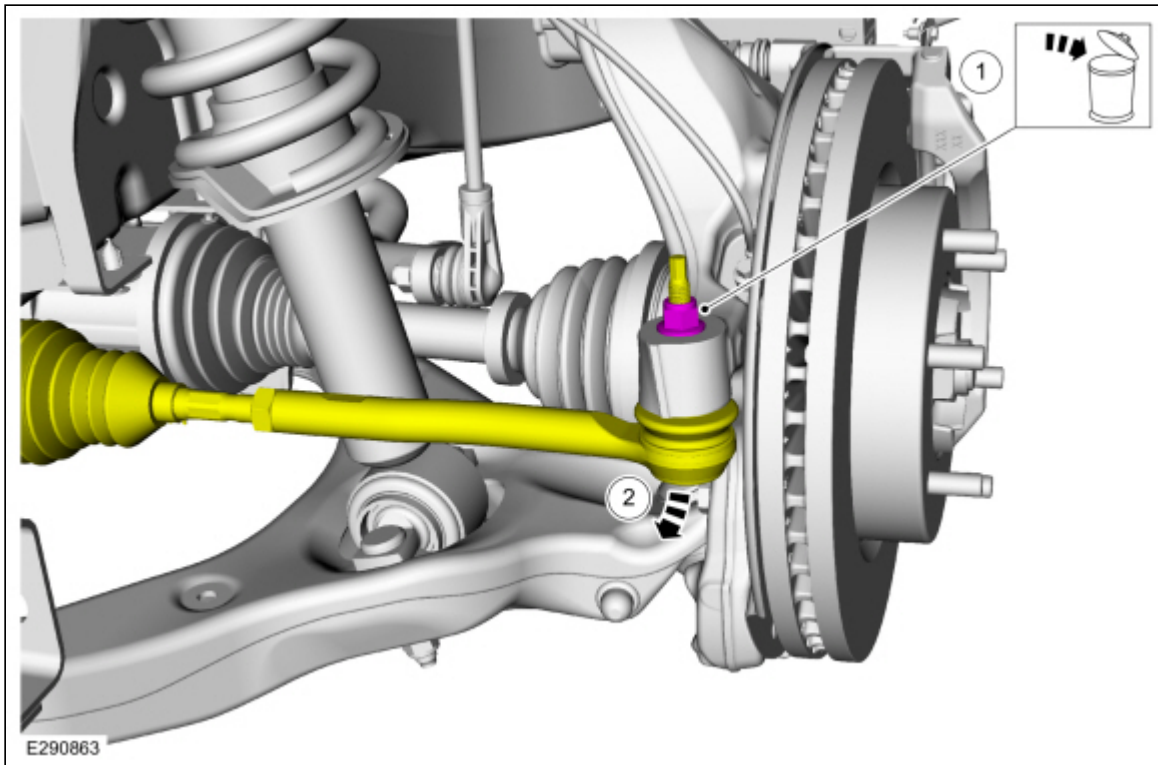
10. **NOTICE:** Do not use a hammer to separate the outer tie-rod end from the wheel knuckle or damage to the wheel knuckle may result.

NOTICE: Use care when installing the tie rod separator or damage to the outer tie-rod end boot may occur.

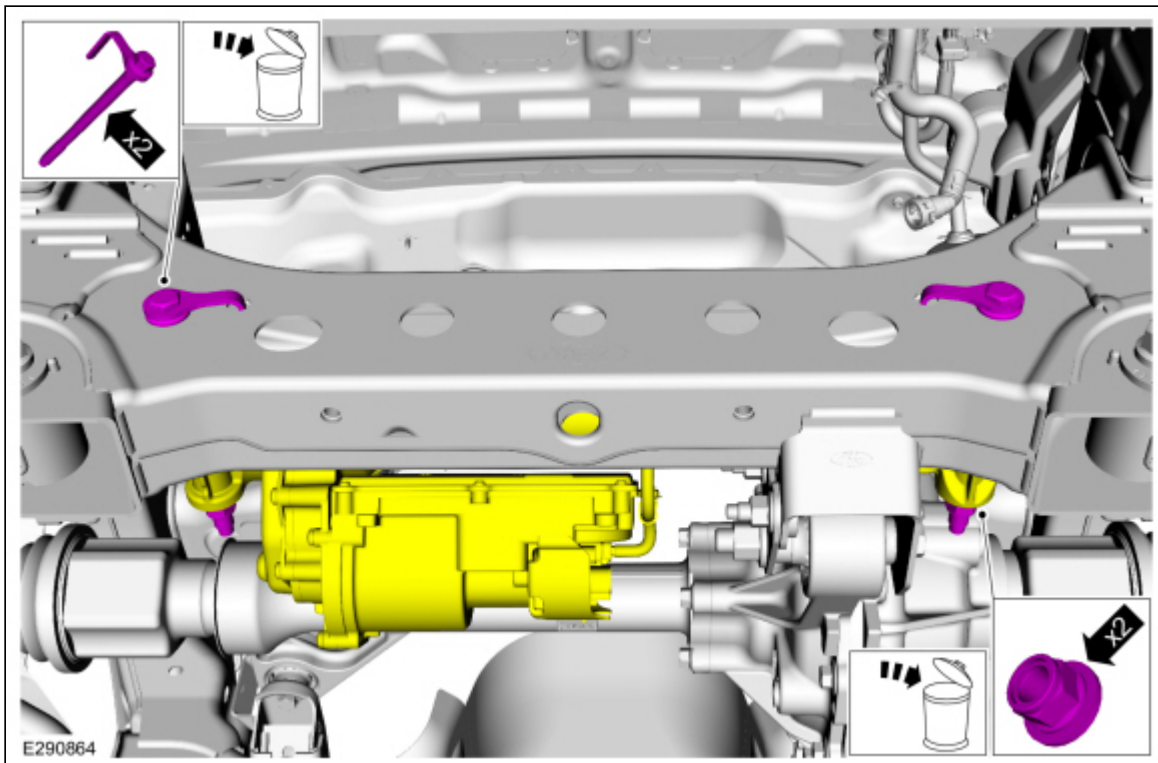
On both sides.

1. Remove and discard the outer tie rod end nut.
Torque: 46 lb.ft (63 Nm)

2. Separate the outer tie rod end from the wheel spindle.
Use the General Equipment: Tie Rod End Remover

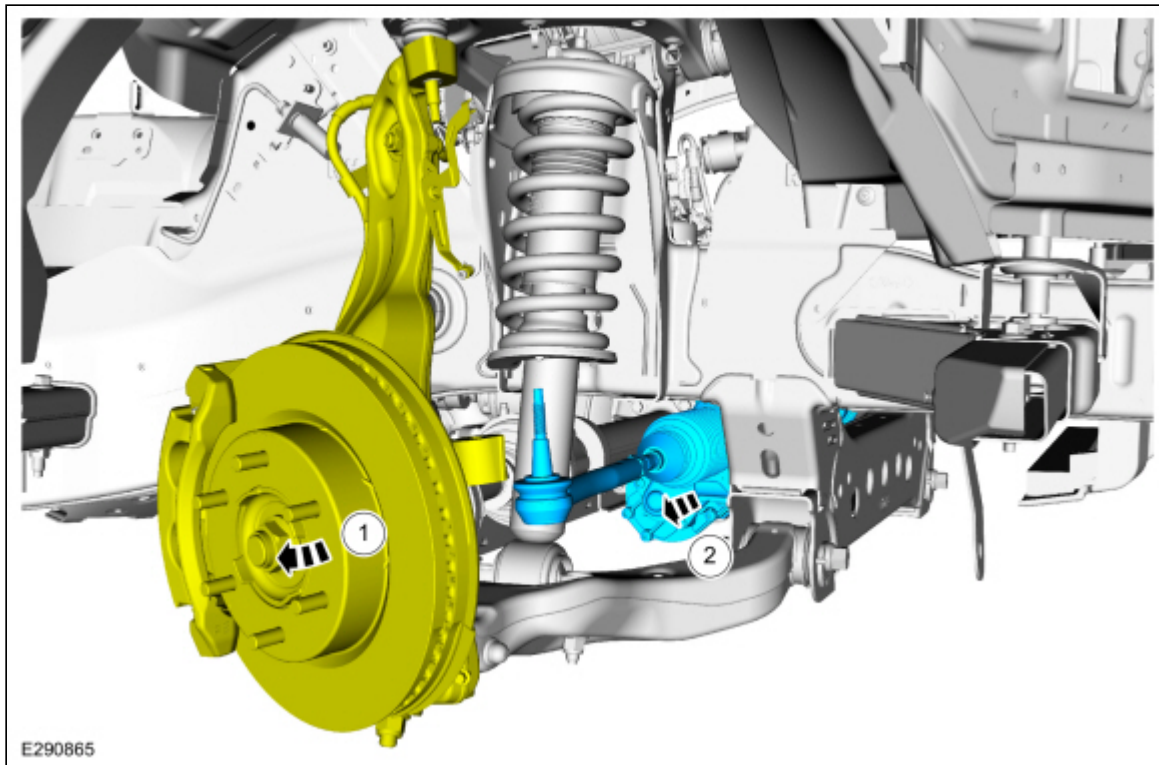


11. Remove and discard the EPAS gear retainers.
Torque: 122 lb.ft (165 Nm)



12. **NOTE:** The EPAS gear is removed and installed from the RH side of the vehicle.

1. Swing the RH spindle assembly outward.
2. Remove the EPAS gear.



Installation

1. To install, reverse the removal procedure.
2. If a new steering gear was installed, download the PSCM configuration from the scan tool to the new PSCM. Refer to: [Module Programming](#) (418-01 Module Configuration, General Procedures).
3. Check and if necessary, adjust front toe. Refer to: [Front Toe Adjustment](#) (204-00 Suspension System - General Information, General Procedures).

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