Request 13
Furnish Ford's assessment of the following vehicle conditions, including:

a. Provide detail related to differences in vehicle drive options and their effect on failure conditions (two wheel drive vs four wheel drive);
b. Provide component details, and production dates, if subject vehicles available with more than one option for the following components;
    i. Power steering pump
    ii. Steering gear
    iii. Hydroboost unit
c. Provide pressure relief detail of the power steering pump;
d. Provide the amount of brake boost gain in relation to operator pedal application.

Answer

The subject vehicles are produced by Ford in a two-wheel drive configuration only. Ford did not produce any of the subject vehicles in a four-wheel drive configuration. The subject vehicles are offered by Ford in a cutaway configuration and a stripped chassis configuration. Cutaway subject vehicles are sold by Ford with a complete passenger compartment, or cab, and have an exposed chassis that can accept aftermarket bodies.

Figure 1: E-Series Cutaway Sample Image

Stripped chassis vehicles are sold by Ford without any body work or passenger compartment.

Figure 2: E-Series Stripped Chassis Sample Image

Ford does not believe that the type of vehicle, stripped chassis or cutaway, has an effect on failure conditions related to the alleged defect. Both vehicle types use a high-pressure power steering line and a jumper line to enable power steering fluid to flow from the power steering pump to the power brake assist booster. The high-pressure power steering line is unique between the stripped chassis and cutaway vehicle type. However, the jumper line and quick-connect fitting used to connect the jumper line and the high-pressure power steering line is common between the vehicle types.

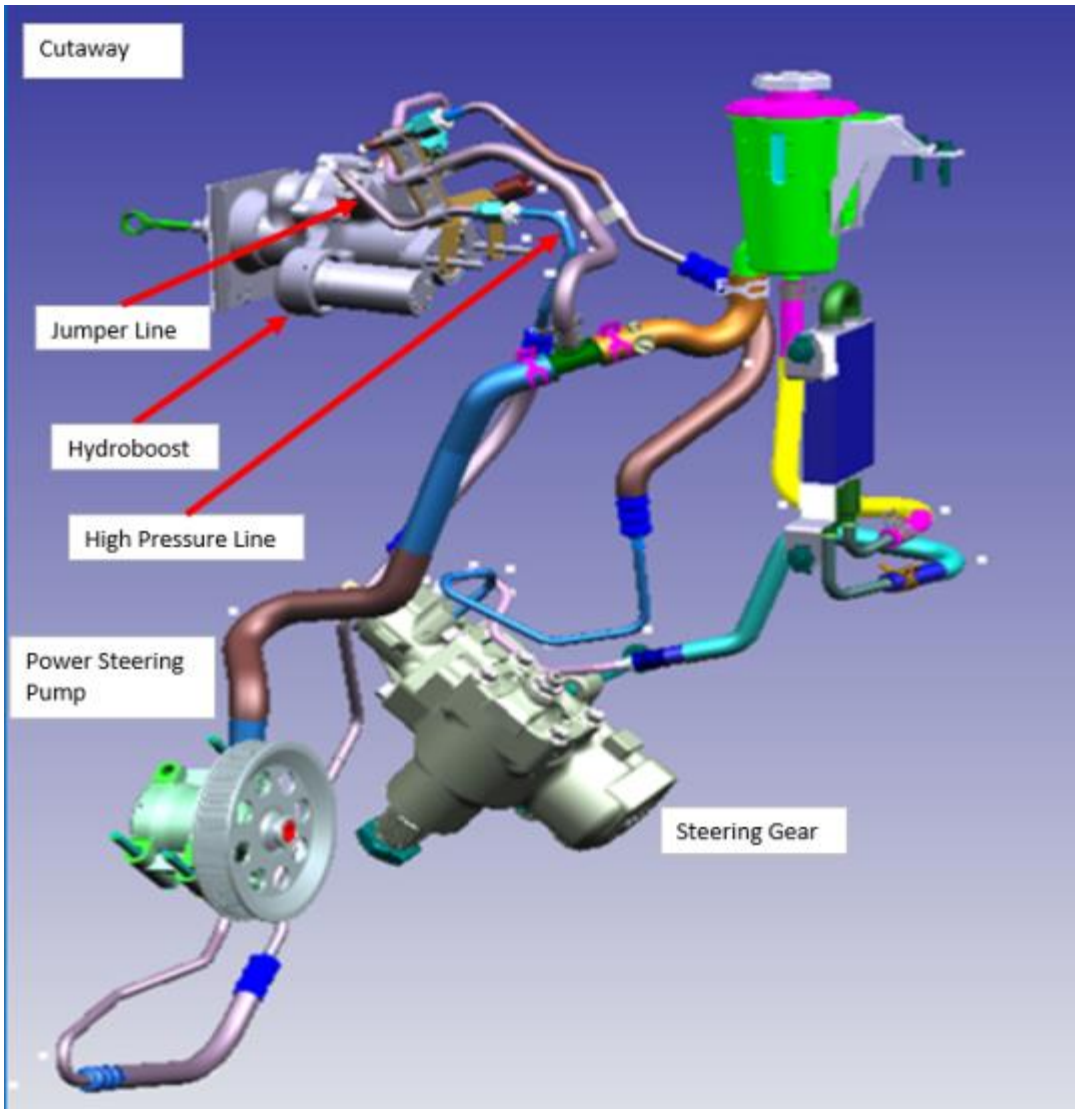

Figure 3: Hydroboost System Components – 2021 – 2022MY E-Series Cutaway

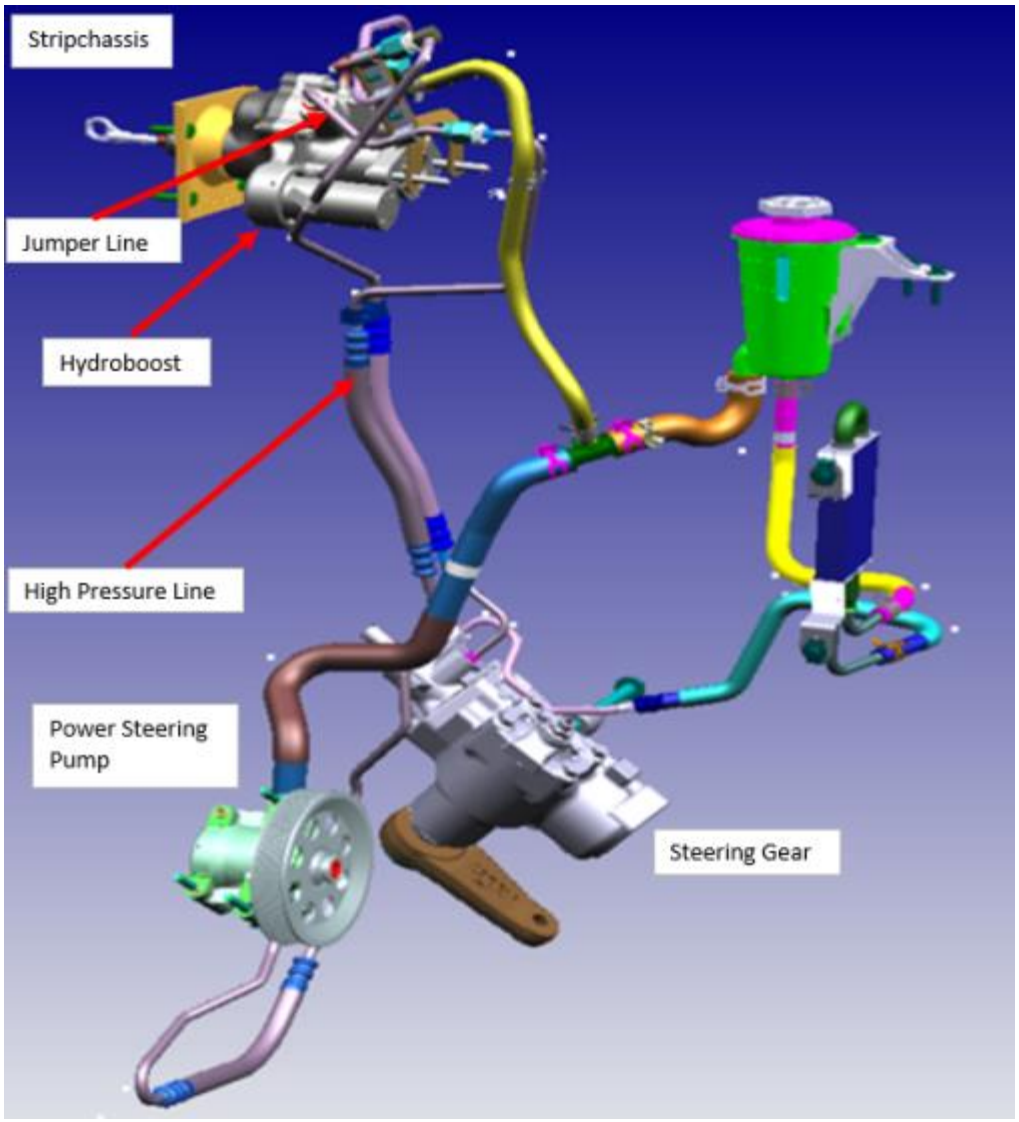

Figure 4: Hydroboost System Components – 2021 – 2022MY E-Series Stripped Chassis

The subject vehicles were sold with only one option for power steering pump, steering gear, and Hydroboost components. These components are also common between the cutaway and stripped chassis vehicles. Furthermore, there were no design changes for these components during the production timespan of the subject vehicles.

The power steering pump equipped on the subject vehicles has a pressure relief valve that relieves excess pressure from the power steering system to prevent damage to components. When the power steering fluid is at or above 80°C, the pressure relief valve will function when the power steering fluid pressure is equal or greater than 105 bar. When the power steering fluid is at 40°C, the pressure relief valve will function when the power steering fluid pressure is equal or greater than 110 bar.

The brake boost gain in relation to operator pedal application is 8.19:1.