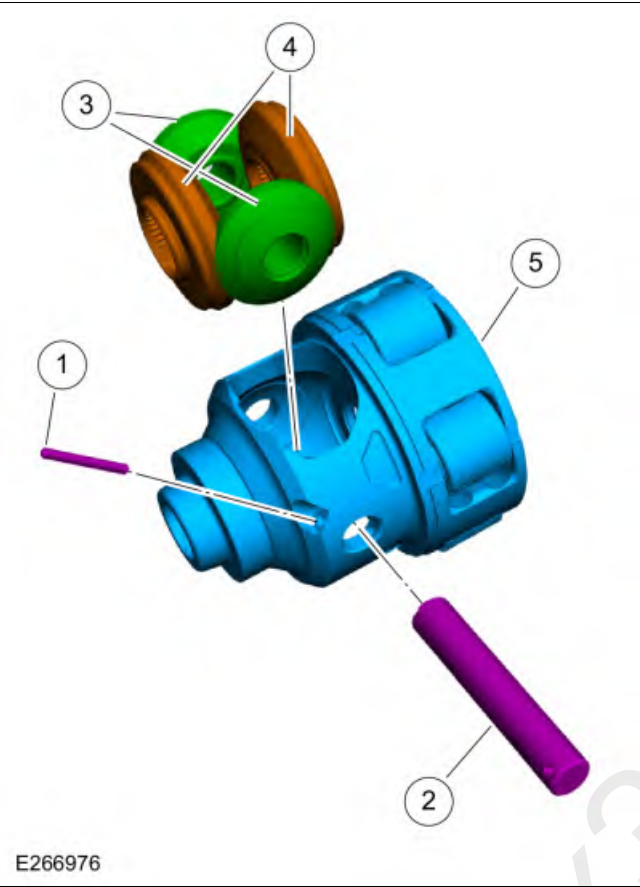


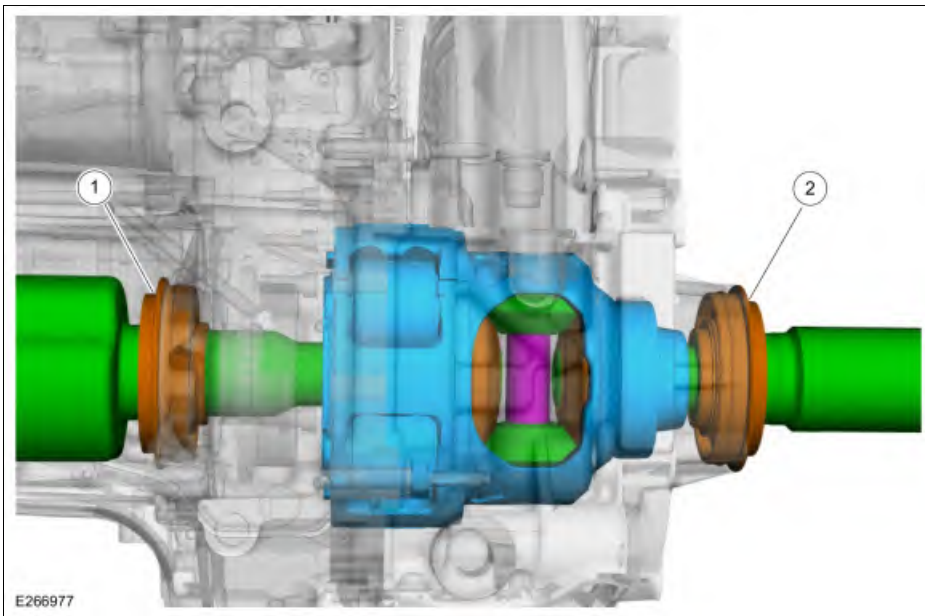
Differential

Differential Exploded View



Item	Description
1	Roll pin
2	Pinion shaft
3	Pinion gears
4	Side gears
5	Differential housing

Differential Cutaway View and External Sealing



Item	Description
1	LH halfshaft seal
2	RH halfshaft seal

Differential

The differential allows the halfshafts and wheels to rotate at different speeds during cornering.

The differential assembly consists of the following components:

- Differential case (part of the final drive carrier)
- Two pinion gears supported by a pinion shaft
- Two side gears supported by the differential case and halfshafts

When driving in a straight line, both front wheels rotate at relatively the same speed. This means both side gears are rotating at the same speed as well, while both pinion gears revolve (but do not rotate) with the side gears. During cornering, the wheel on the outside of the turn is forced to rotate faster than the wheel on the inside of the turn. Since the side gears must now rotate at different speeds, the pinion gears rotate on the pinion shaft allowing the drive axles to rotate at different speeds while still transferring output torque.