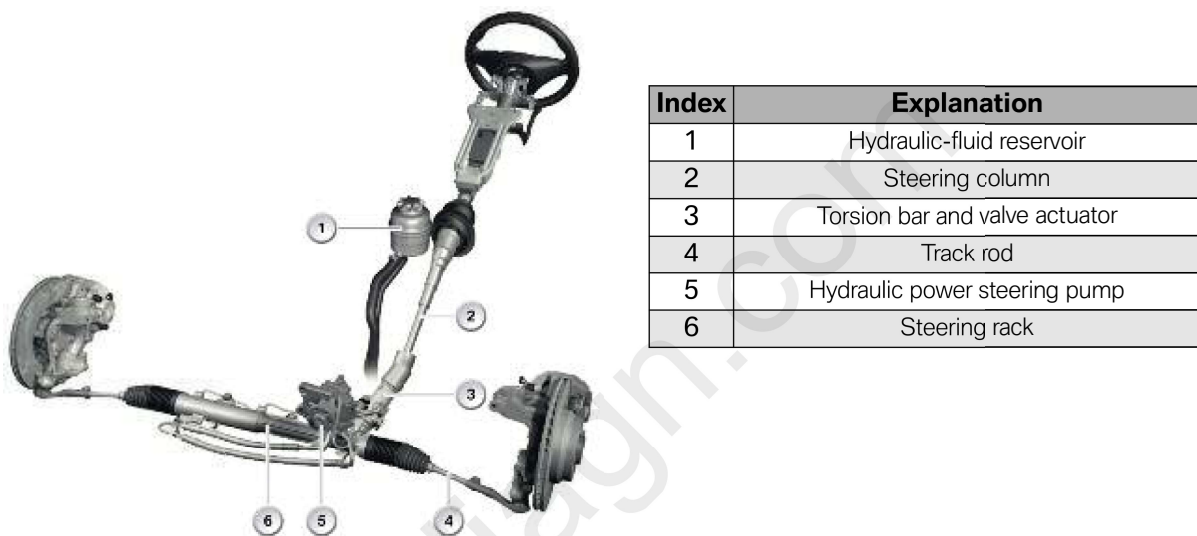


System Overview

Mechanical Design

The electric power steering is an absolutely identical fit with the previously used hydraulic power steering as far as the connections between it and the vehicle are concerned.

For comparison, a hydraulic power steering system and the new EPS with parallel mounted motor are illustrated below.



Hydraulic power steering (typical installation configuration)

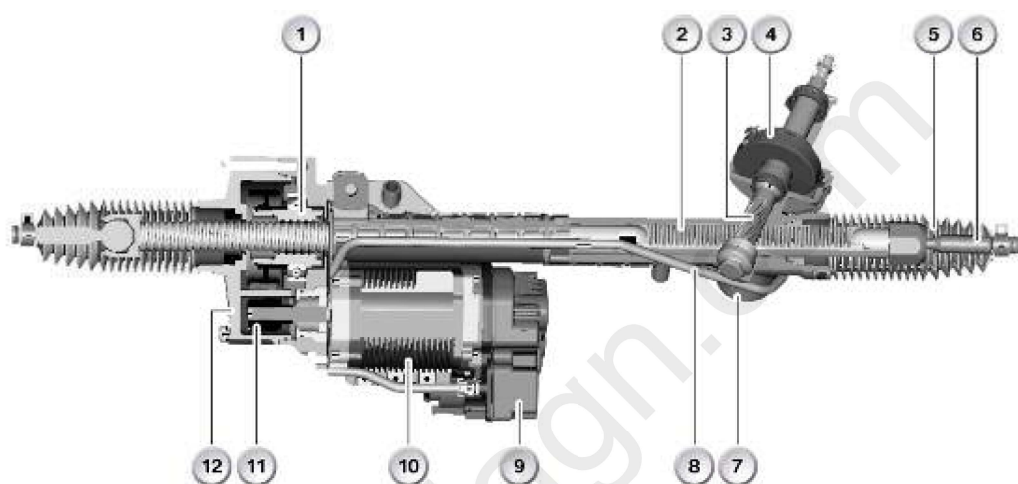


Electric power steering with parallel-mounted motor

The EPS system essentially consists of the following components:

- Steering torque sensor
- EPS control unit
- Electric motor with position sensor
- Reduction gear
- Steering rack

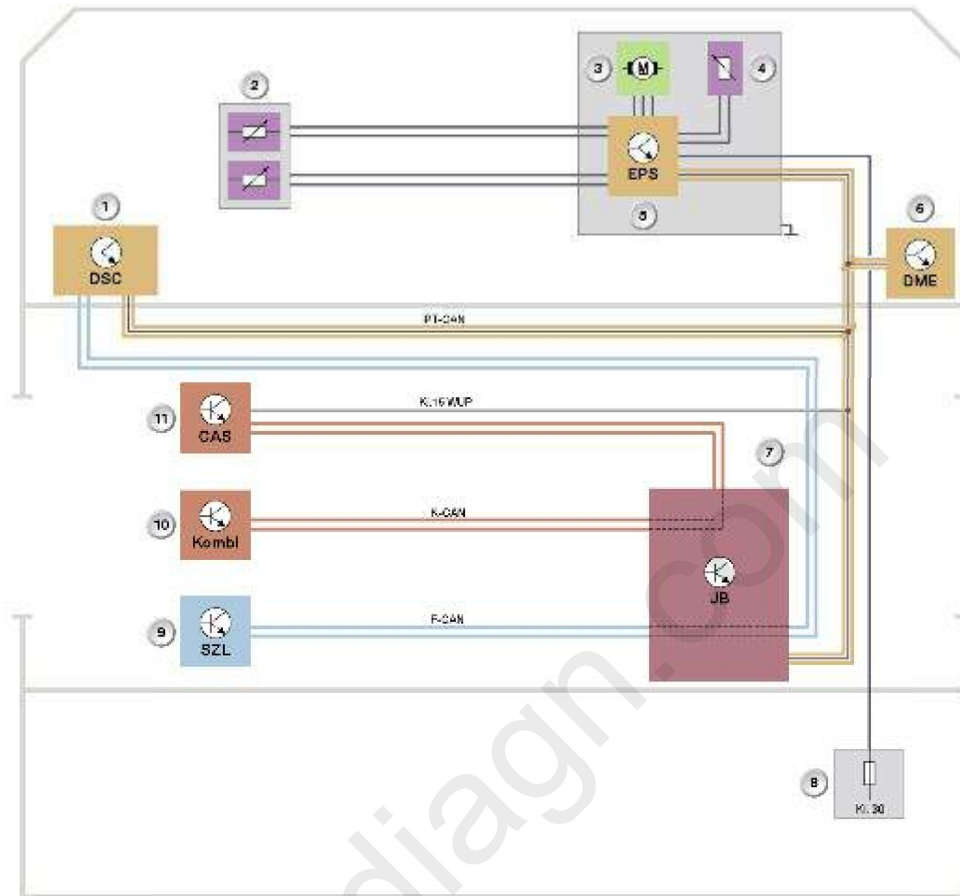
EPS rack-and-pinion steering box with parallel-mounted electric motor



Index	Explanation	Index	Explanation
1	Ball-screw drive (part of reduction gearing)	7	Thrust piece
2	Rack	8	Signal and power lead for steering torque sensor
3	Pinion	9	EPS control unit
4	Steering torque sensor	10	Electric motor
5	Gaiter	11	Toothed-belt drive (part of reduction gearing)
6	Track rod	12	Reduction-gear housing

Note: These components form a preassembled unit (often referred to as "EPS steering rack assembly") that can only be replaced as a complete unit. To do so, the unit has to be disconnected from the tie rods and the lower end of the steering column.

EPS System Circuit Diagram



Index	Explanation
1	DSC control module
2	Steering torque sensor with redundant back-up
3	Electric motor
4	Motor position sensor
5	EPS control unit
6	DME control unit
7	Junction box
8	Fuse in boot (power supply for EPS)
9	Steering column switch cluster with steering-angle sensor
10	Instrument cluster
11	CAS control unit