



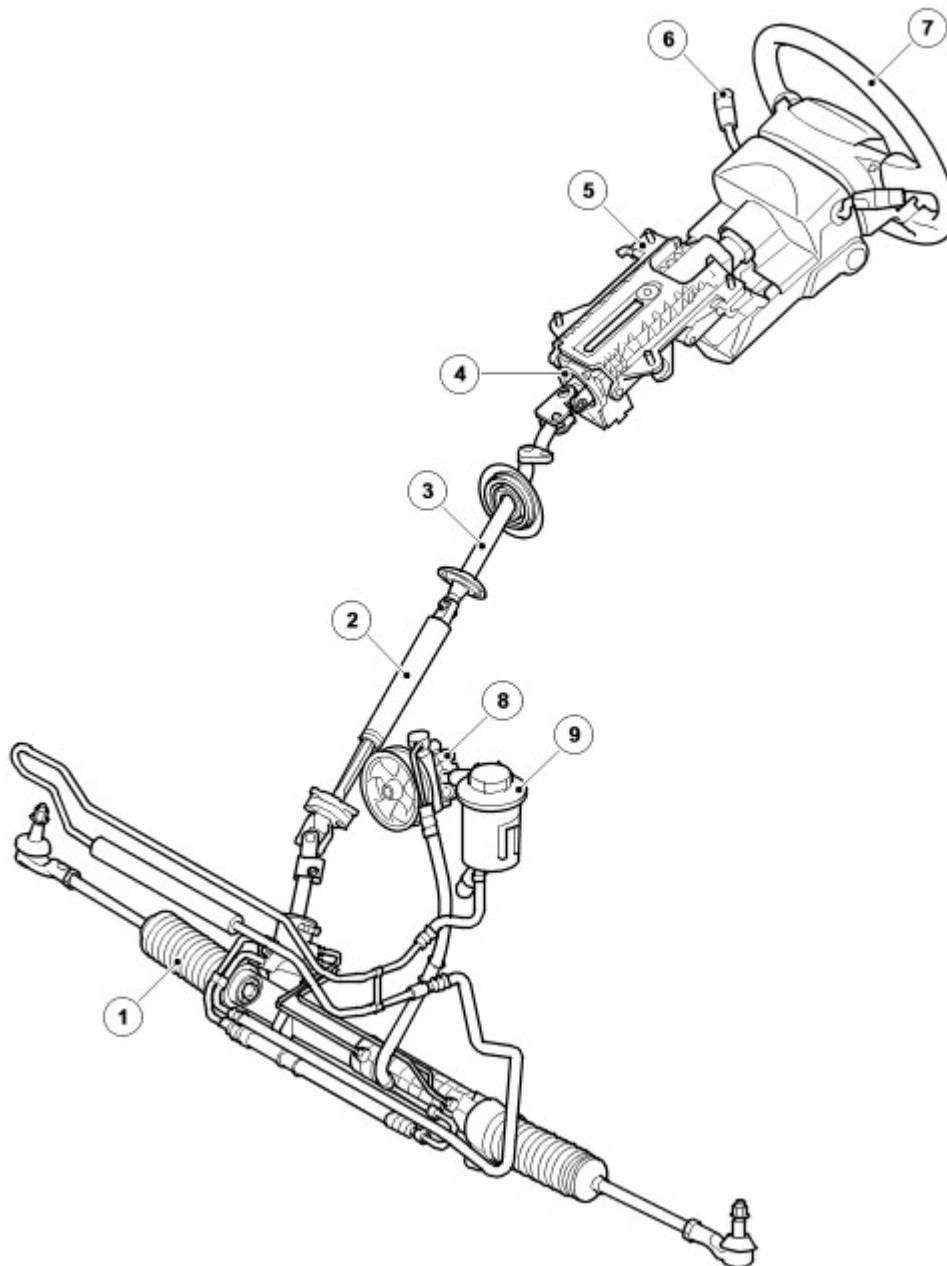
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## Steering System

### Steering System Component Layout

**NOTE :**

4.0L V6 Right Hand Drive shown



E46338

Item	Part Number	Description
1	-	Steering gear
2	-	Lower collapsable shaft

3	-	Intermediate shaft
4	-	Steering angle sensor
5	-	Upper steering column assembly
6	-	Steering column multifunction switches
7	-	Steering wheel
8	-	Power steering pump
9	-	Power steering reservoir

## GENERAL

The steering system on all models comprises the following components:

- steering gear
- power steering pump
- reservoir
- lower collapsable shaft
- intermediate shaft
- upper column assembly
- steering column multifunction switches
- steering wheel.

The steering system uses a rack and pinion steering gear with a conventional end take-off and a pinion power assisted unit. The rack is handed depending on vehicle drive hand but is common to all three engine variants.

Each system uses an engine mounted power steering pump which is driven by an auxiliary belt. The location and attachment of the pump differs between engine variants. A power steering fluid reservoir is mounted near to each pump and provides fluid supply to the pump via a suction hose.

Each steering system incorporates a fluid cooler in the hydraulic pipe layout. The cooler is routed near to the front of the vehicle to benefit from the increased airflow when the vehicle is moving. The power steering fluid is cooled as it returns from the gear to the reservoir via the cooler by air flowing over the cooler.

The upper column components are common to all models and drive hands. A collapsable lower shaft is located on the gear pinion shaft by two flats. An intermediate shaft is located between the lower collapsable shaft and the upper column assembly.

The column assembly, which is attached to the vehicle cross-car beam, provides the location for the steering column reach and rake adjustment lever, the steering column multifunction switches, the steering wheel, the steering column lock and the ignition switch. The column assembly comprises a number of components which are designed to allow the column to collapse in a controlled manner in the event of a frontal impact (reducing occupant loads). The lower collapsible shaft is designed to telescope, and the intermediate shaft to de-couple, to prevent excessive frontal impact loads/displacements being transmitted to the steering column.