

# VDS – VOLVO DYNAMIC STEERING

Safety, comfort and relief



*Volvo Dynamic Steering is an option for vehicles with either independent front suspension (left) or rigid front suspension (right).*

## The biggest improvement since power steering was invented

Volvo Dynamic Steering offers a safer and more comfortable ride. It detects irregularities and calculates necessary compensation in order to create a desired predetermined steering feel, independent of load and tyres. At low speeds, this means that the force-amplifying electric motor does most of the steering work, thereby sparing the driver's back, arms and shoulders. At higher speeds, driving is more relaxed as a result of improved directional stability.

In the Volvo Dynamic Steering (VDS) system, a control system and a powerful electric motor assist the hydraulic steering gear. By reading various signals, such as vehicle speed, steering angle and the torque applied by the driver, the software calculates all the variables to obtain optimal steering input.

### Feather-light steering at low speeds

Volvo Dynamic Steering adds force to the power steering mechanism and adapts assistance to the actual need in each situation. At low speed, steering is completely effortless, which is a great benefit when parking and in other manoeuvres with extensive turning of the wheel. At higher speed, the system instead gives added stability.

### Improved directional stability

When driving straight ahead, VDS detects and corrects

all minor deviations from the desired course at a rate of 2,000 times per second. The driver does not need to continuously compensate for sideward drifting and the result is a steadier and more comfortable ride.

### Steering wheel return-to-zero

In parking and other manoeuvring in tight areas, for example in roundabouts, the steering wheel automatically returns to zero. Especially when reversing this saves a lot of strain and effort for the driver, and will substantially reduce the risk of wear-related injuries.

### Suppression of road irregularities

Driving on poor road surfaces is tiring and requires constant directional compensation. VDS does this automatically and helps the driver stay on a straight course. The passengers get a smoother and more comfortable ride.