



# Electric Power Assist Steering (EPAS) with Pull-Drift Compensation

Ford's EPAS with Pull-Drift Compensation technology constantly measures the driver's steering input, adapts to changing road conditions and helps compensate for slight directional shifts caused by factors such as crowned road surfaces or steady crosswinds.

**3** Nearly complete EPAS compensation

**2** Less driver compensation  
Green Arrow = EPAS aids compensation

**1** Red Arrow = Driver steering compensation

- 1** A pull or drift sensation in steering can be caused by factors such as crowned roads or steady winds.
- 2** Ford's Pull-Drift Compensation technology enables the EPAS system to gradually increase steering compensation in these conditions.
- 3** The driver does not need to make an extra effort to help maintain driving comfort straight down the road.

## Technology Highlights

- Pull-Drift Compensation is a software-based technology enabled by Ford's shift to fuel-efficient Electric Power Assist Steering (EPAS) systems.
- The technology detects road conditions – such as a crowned road surface or crosswinds – and adjusts the EPAS steering system to help the driver compensate for pulling and drifting.
- For drivers, Pull-Drift Compensation is designed to be unnoticeable as the system adjusts to help with pulling or drifting conditions.
- Because EPAS uses an electric motor to provide steering assistance, its control can be precisely programmed to enable technologies such as Pull-Drift Compensation or Active Park Assist – a new option debuting on several 2010 Ford, Lincoln and Mercury vehicles – that help or take over steering.

## How It Works

- Pull-Drift Compensation starts with EPAS technology, which replaces the traditional hydraulic-assist power-steering pump with an electric motor. This increases fuel economy because the electric motor operates only when steering assistance is required.
- Sensors constantly measure steering-wheel torque applied by the driver to maintain the vehicle's path. Continuous adjustments are made as the system resets to adapt to changing road conditions or maneuvers, such as the vehicle turning a corner.
- When the system detects a pulling or drifting condition, such as a crowned road surface, it provides torque assistance to help make steering easier. For drivers, this assistance is seamless and imperceptible.
- EPAS technology can be fine-tuned by engineers to fit the driving characteristics of varying products, whether it's a luxury sedan or sporty compact SUV.

## Customer Benefits

- EPAS with Pull-Drift Compensation is designed to help reduce a source of annoyance for many motorists faced with uneven roads or crosswinds.
- EPAS with Pull-Drift Compensation is projected to significantly improve customer satisfaction with steering in these situations.
- The 2008 Ford Escape, one of the first vehicles to feature this technology, reduced the rate of customer steering complaints by 50 percent.
- EPAS is a demonstrative example of technology that increases fuel economy while enabling innovation to aid drivers.

### Model Availability:

2009 Ford Escape, Mercury Mariner; 2010 Ford Fusion, Mercury Milan, Ford Flex, Ford Taurus SHO, Lincoln MKS and Lincoln MKT.

By 2012, nearly 90 percent of Ford's North American lineup will feature EPAS with Pull-Drift Compensation.

