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**FAO Tom Henman, PMF April Steering & Suspension feature
REMANUFACTURED ELECTRIC STEERING COLUMNS –
AN AFTERMARKET OPPORTUNITY**

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When asked to contribute articles for particular features in PMF, I always try to focus on identifying market opportunities for the professional UK motor factor. In this feature I would like to highlight a very recent opportunity which is now presenting itself – OE quality remanufactured electric steering columns.

We at Remy are fully committed to supporting the independent Aftermarket with the latest technologically advanced products and have recently developed a range of OE quality remanufactured Electric Steering Columns, which we know is the most comprehensive in the European Aftermarket. Until recently replacing an electrically powered steering column was predominantly a 'dealer part only'. Remy's new range provides the Independent Aftermarket with an OE standard product that they can now fit with total confidence.

They are all remanufactured to OE standards. Each individual unit is tested and supplied with its own unique test certificate and is also calibrated for plug and play installation. So you can now access a top quality, fully tested and guaranteed EPS column - and what is more your garage customers will have the equipment, knowledge and confidence to fit it.

That is why the most important aspect of installing quality remanufactured EPS columns successfully is by providing on-going training and awareness. Knowing what is available and how to fit them is important for independent garages – and their technicians - in order to stay ahead of their competition and keep their existing customers happy. Here is some background information on the product itself for you to pass on to your own garage customers:

What is an Electric Steering Column? How do they work?

Electrically Powered Steering, or 'EPS' Columns are present in many vehicles throughout the world and are in a high volume of cars in the UK. The EPS column is targeted at the small to medium vehicle sector, and covers most manufacturers. Repairs associated with this technology are due to historically large sales in Europe over the last decade for vehicles such as Nissan Qashqai, Vauxhall Corsa, Fiat Punto, Peugeot 107, Toyota Aygo, Renault Clio and Nissan Micra.

EPS Column systems detect precisely when assistance is required and use a Permanent Magnetic AC or 'PMAC' electric motor, to reduce effort by providing steering assist to the driver of a vehicle.

Sensors detect the motion and torque of the steering column, and a computer module (ECU) applies assistive torque via the PMAC electric motor coupled directly to the steering column. This allows varying amounts of assistance to be applied depending on driving conditions.

Most EPS Column systems have variable assist, which allows for more assistance as the speed of the vehicle decreases and less assistance from the system during high speed situations. In the event of component failure, a mechanical linkage such as a rack and pinion serves as a back-up in a manner similar to that of hydraulic systems. Electric power steering should not be confused with drive-by-wire or steer-by-wire systems which use electric motors for steering, but without any mechanical linkage to the steering wheel.

Some Common Reasons for OE Failure

The main reasons for failure on the OE unit are due to electronic component failure;

- The torque sensor fails and the unit becomes out of balance.
- Communication failure between the ECU and the column.
- The relay fails and overheats, thus melting the solder and causing the circuit to break.

Turning Green

Automotive manufacturers recognise the need to lead the way in developing and implementing technologies that have a greater positive impact on our environment. This is an age where the term 'Hybrid' is common place and where cars are much more reliant upon the efficiencies of electrically powered and controlled systems.

Specifically Electrically Powered Steering (EPS) benefits include:

- Reduced vehicle fuel consumption
- Reduction in harmful exhaust fumes
- Significant reduction in vehicle assembly time
- Elimination of hydraulic hoses, pumps, reservoirs and associated fluids
- No contaminated fluids as a result of the remanufacturing process

In order to realise the long lasting environmental benefits of EPS systems installed by automotive manufacturers, it is important to understand and be able to remanufacture this technology in the Aftermarket to the very highest standards. At Remy we already offer a vast array of EPS columns, and are continually expanding our offering. So make sure that your garage customers are fully trained on replacing EPS columns.