



AFTERMARKET

NOW
AVAILABLE
FOR MORE
MODELS

OE QUALITY AS GOOD AS NEW

Exchange Electrical Powered Steering Systems.

Designed for vehicle manufacturers, supplied to workshops, relied on worldwide.

Fit TRW True Originals in your workshop.

TRUE ORIGINALS

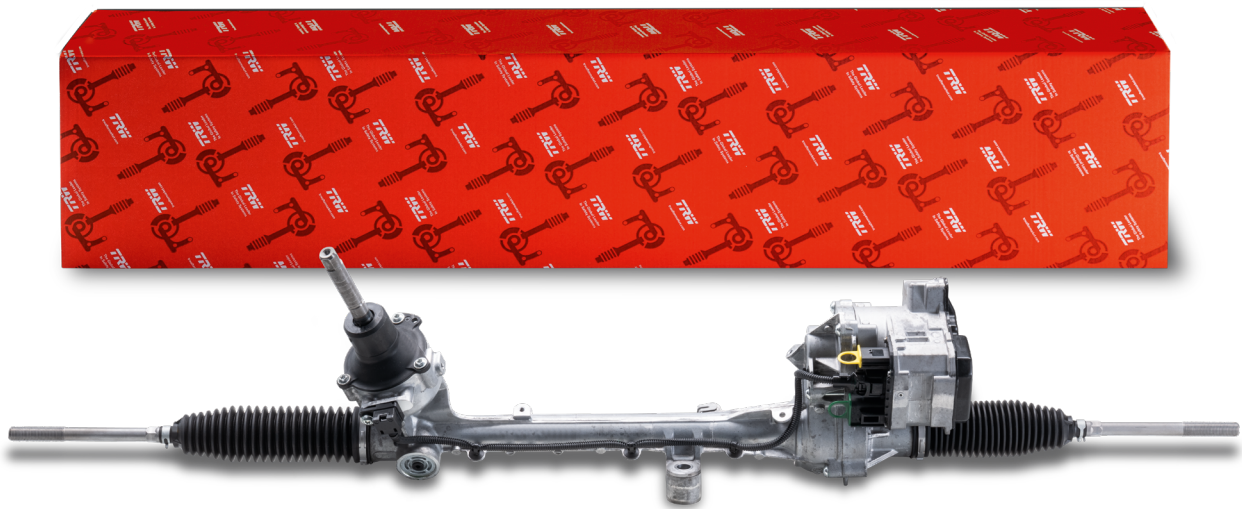
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TRW

SAFE IN THE KNOWLEDGE THAT TRW OE QUALITY EPS SYSTEMS ARE AS GOOD AS NEW

As indispensable as the engine is for acceleration, as important as brakes are for deceleration. Electric power steering (EPS) systems are just as vital when it comes to a vehicle's comfort, safety and agility.

One in three new vehicles in Europe are fitted with a TRW-branded steering system. So who better to remanufacture steering systems professionally? During remanufacturing by ZF Aftermarket the exact same specifications apply as with OE. Even hardware and software improvements are incorporated into the remanufacturing process. So you always offer your customer a premium product based on the latest technology.



Fully tested, safely packaged and available for more vehicle models – the state-of-the-art TRW EPS systems.

For a safe repair in line with current market value

TRW has over 15 years' experience in remanufacturing electric steering systems. So you can rest assured that quality, service life and performance of remanufactured products are the same as new parts. Prior to delivery, all steering systems undergo a final performance and functionality test (100% check). As such, remanufacturing is not just a resource-saving, cost-effective alternative for a repair in line with current market value. It is also a reliable solution that always offers the very latest technology.

TRW steering systems – with the innovative strength of a leading automotive supplier

Forward-looking technologies for the mobility of the future come to life in our development centres across the globe. Electric power steering systems not only reduce CO₂ emissions of today's vehicles, they are also an important prerequisite for safety and comfort technologies such as intelligent lane keeping assist systems and autonomous driving.

The environmental alternative in OE quality

Remanufacturing defective steering racks saves 50–90% of valuable raw materials and up to 90% of energy compared with manufacturing a new product. As such, remanufacturing contributes significantly to protecting the environment.

TRW TECHNOLOGY IN DETAIL: THE EPS STEERING RACK WITH TOOTHED-BELT DRIVE

Innovative steering technology

The EPS Belt Drive integrates a host of different components in a single steering rack: steering angle and steering torque sensor, a brushless motor with integrated electronic control unit (ECU), belt drive and recirculating ball drive.

The key advantages of the EPS Belt Drive are:

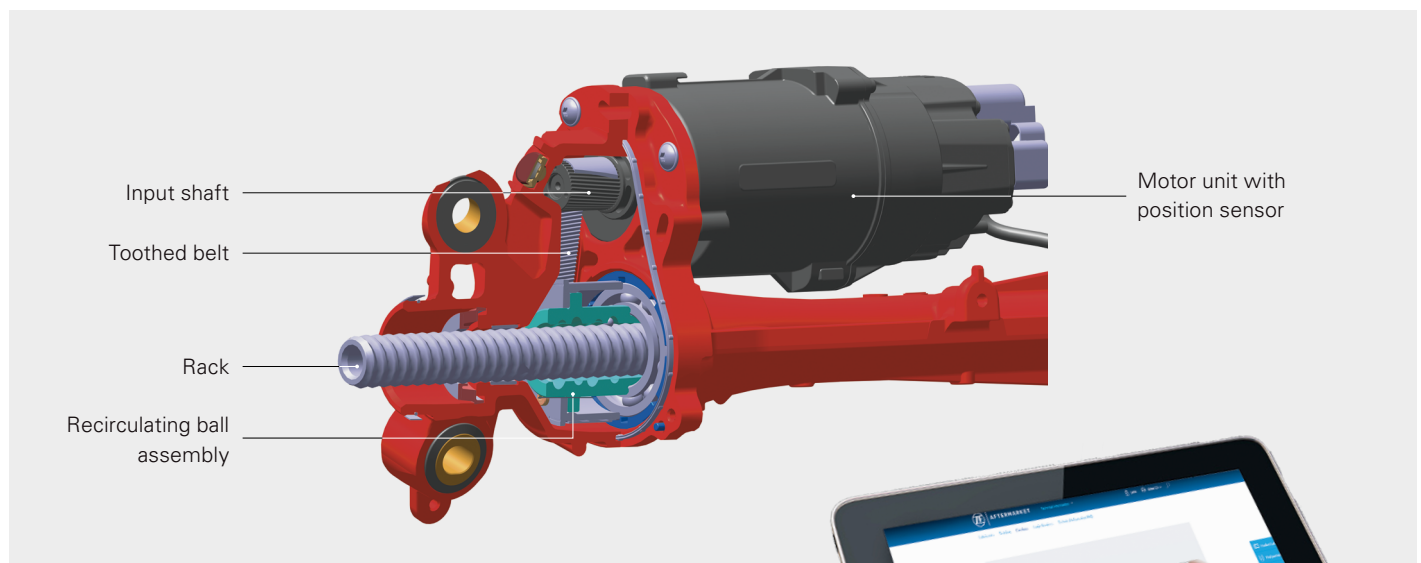
- Direct steering feeling and precise response
- Quiet operation by decoupling the drive via the belt drive
- Additional comfort and safety functions, such as parking assistance, Lane Keeping Assist, steering wheel vibration when drifting out of the lane, and much more
- Fuel economy of up to 0.33 l per 100 km; compared with hydraulic steering systems, this reduces CO₂ emissions by around 8 g/km.

Function and structure

The steering system detects the driver's steering requirement by using a torque/rotation angle sensor and transfers this information digitally to the steering control unit. The control unit uses additional information, such as the vehicle speed, to calculate the required steering assistance, which is provided via the electric motor.

The power from the motor is transferred by a helical toothed belt to the recirculating ball nut. This nut rotates and pushes, in conjunction with the driver's steering force, the rack to the left or right.

The steering assistance varies depending on the driving condition. When stationary or driving at very low speeds, maximum assistance is available. With increasing vehicle speed, the steering assistance is no longer required and is reduced continuously.



Find what you need quickly right now along with repair instructions for all products, at aftermarket.zf.com/catalog



Sign up for free to the **ZF Aftermarket Portal** for a wide range of additional support and services.



NOW AVAILABLE FOR MORE MODELS

MANUFACTURER	MODEL	FROM	TO	TRW REFERENCE LEFT-HAND DRIVE STEERING RACK	TRW REFERENCE RIGHT-HAND DRIVE STEERING RACK
AUDI	A3 (8P_)	05.2003	12.2015	JRE101	JRE7101
CITROEN	C2 (JM_/JG_)	09.2003		JRE122, JRE123	
CITROEN	C3 I (FC_, FN_)	02.2002		JRE122	
CITROEN	C3 Pluriel (HB_)	05.2003		JRE122	
FORD	FOCUS III	07.2010		JRE160, JRE161, JRE162, JRE163, JRE164, JRE165	JRE7160, JRE7161, JRE7162, JRE7163, JRE7164, JRE7165
FORD	KUGA II	05.2012		JRE164, JRE165	JRE7164, JRE7165
FORD	TOURNEO CONNECT/ GRAND TOURNEO CONNECT Kombi	09.2013		JRE164	JRE7164
FORD	TRANSIT CONNECT	02.2013		JRE164	JRE7164
HYUNDAI	ix35 (LM, EL, ELH)	08.2009		JRE192	
HYUNDAI	TUCSON (TL)	05.2015		JRE191, JRE192	
KIA	SPORTAGE (QL, QLE)	09.2015		JRE191, JRE192	
OPEL	ASTRA K (B16)	06.2015		JRE194, JRE195, JRE196, JRE225, JRE226, JRE227, JRE244, JRE245, JRE246, JRE247, JRE248	JRE7194, JRE7195, JRE7196, JRE7225, JRE7226, JRE7227, JRE7244, JRE7245, JRE7246, JRE7247, JRE7248, JRE7249
PEUGEOT	1007 (KM_)	04.2005		JRE177, JRE178	
RENAULT	ESPACE V (JR_)	02.2015		JRE223	
RENAULT	GRAND SCÉNIC IV (R9_)	09.2016		JRE221	JRE7221
RENAULT	SCÉNIC IV (J9_)	09.2016		JRE221	JRE7221
RENAULT	TALISMAN (L2M_, KP_)	06.2015		JRE222	
SEAT	ALTEA (5P1)	03.2004		JRE101	JRE7101
SEAT	ALTEA XL (5P5, 5P8)	10.2006		JRE101	JRE7101
SEAT	LEON (1P1)	05.2005	12.2013	JRE101	JRE7101
SEAT	TOLEDO III (5P2)	04.2004	05.2009	JRE101	JRE7101
SKODA	OCTAVIA II (1Z_)	02.2004	06.2013	JRE101	JRE7101
SKODA	SUPERB II (3T_)	03.2008	05.2015	JRE101	JRE7101
SKODA	YETI (5L)	05.2009	12.2017	JRE101	JRE7101
VAUXHALL	ASTRA Mk VII (K) (B16)	07.2015		JRE194, JRE195, JRE196, JRE225, JRE226, JRE227, JRE244, JRE245, JRE246, JRE247, JRE248	JRE7194, JRE7195, JRE7196, JRE7225, JRE7226, JRE7227, JRE7244, JRE7245, JRE7246, JRE7247, JRE7248, JRE7249
VOLKSWAGEN	BEETLE (5C_)	04.2011		JRE101	JRE7101
VOLKSWAGEN	CADDY ALLTRACK (SA_)	05.2015		JRE101	JRE7101
VOLKSWAGEN	CADDY III (2K_, 2C_)	03.2004	05.2015	JRE101	JRE7101
VOLKSWAGEN	CADDY IV (SA_)	05.2015		JRE101	JRE7101
VOLKSWAGEN	CC (358)	11.2011	12.2016		JRE7101
VOLKSWAGEN	EOS (1F7, 1F8)	03.2006	08.2015	JRE101	JRE7101
VOLKSWAGEN	GOLF PLUS (5M1, 521)	12.2004	12.2013	JRE101	JRE7101
VOLKSWAGEN	GOLF V (1K_)	10.2003	07.2009	JRE101	JRE7101
VOLKSWAGEN	GOLF VI (5K1, 517, AJ5)	10.2008		JRE101	JRE7101
VOLKSWAGEN	JETTA III (1K2)	09.2004	10.2010	JRE101	JRE7101
VOLKSWAGEN	JETTA IV (162, 163)	09.2009		JRE101	JRE7101
VOLKSWAGEN	PASSAT (362)	08.2010	12.2014		JRE7101
VOLKSWAGEN	PASSAT (3C_)	03.2005	11.2011	JRE101	JRE7101
VOLKSWAGEN	PASSAT (A32, A33)	01.2011			JRE7101
VOLKSWAGEN	PASSAT ALLTRACK (365)	01.2012	12.2014		JRE7101
VOLKSWAGEN	PASSAT CC (357)	05.2008	01.2012		JRE7101
VOLKSWAGEN	PASSAT Variant (365)	08.2010	12.2014		JRE7101
VOLKSWAGEN	SCIROCCO (137, 138)	05.2008	11.2017	JRE101	JRE7101
VOLKSWAGEN	TIGUAN (5N_)	09.2007		JRE101	
VOLKSWAGEN	TOURAN (1T1, 1T2)	02.2003	05.2010	JRE101	JRE7101
VOLKSWAGEN	TOURAN (1T3)	05.2010	05.2015		JRE7101

*The TRW products described above are specially designed for their respective intended use indicated. The products may only be used for this intended use. However, ZF Group makes neither an explicit nor an implied guarantee for the suitability of the products for certain intended uses neither explicitly agreed nor made in writing between ZF Group and its customers. The details in this flyer are, in particular, not binding with regard to the nature of the products. Only those written agreements made in the ordering process, in particular those concerning the nature of each product, shall be decisive in terms of ZF Group's contractual obligations. Proper assembly of the products is also a prerequisite for this guarantee. Details in advertising material are non-binding and cannot be consulted in determining the nature of the products. Subject to change without notice. Errors and omissions excepted.



STEERING SYSTEMS BY TRW. NOW AVAILABLE FOR MORE VEHICLES!



ZF Aftermarket constantly adapts its portfolio to market needs and has substantially extended its TRW replacement program for EPS systems. In addition to the existing product portfolio of EPS systems, the innovative EPS steering racks with belt (EPS Belt Drive) and dual pinion (EPS Double Pinion Drive) are now also available for many passenger car models.

The TRW product brand is your guarantee of reliability and durability.

MAXIMUM QUALITY FOR ALL APPLICATIONS

In addition to the EPS steering racks featured in this brochure, ZF Aftermarket offers a further selection of TRW steering system components:

Steering racks

- Without power steering assistance
- With hydraulic power steering assistance

Steering columns

- With electric power steering assistance

Steering pumps

- Mechanically driven
- Electrically driven



As part of ZF Group, every TRW True Originals part is built to meet the challenge, just like our dedicated people around the world who bring them to you. Backed by a global network of original aftermarket experts TRW True Originals products set the standards for safety and quality.



TRUE ORIGINALS

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