

Issue 05/2013

www.temot.com

Temot *Insight*

TEMOT
INTERNATIONAL

Infomagazine from the Aftermarket Value Network



Dear Business Partners,

As we come to the end of 2013, there is much to enjoy – especially preparing for holiday gatherings and visiting with family, friends and relatives. On the other side, there is plenty of stress with so many end-of-the-year, personal and job-related tasks to complete and deadlines to meet. It is the time to celebrate the year's successes and to reflect upon all that has happened over the past 12 months, in particular the changes, challenges and developments that we have encountered within our organizations.



The new year to come will be a good time to regroup, reexamine and review the organizations' strategies and tactics- both from business and operational perspective. What are your plans for the next year? Let us know and how we can promote them within the TEMOT Insight Infomagazine in 2014!

This very last issue for 2013 of the TEMOT Insight Infomagazine contains again a variety of interesting contributions, new product information, fascinating technological innovations and interviews with Aftermarket Personalities.

Our special thanks within this issue go to:

- **Mr. Marcus Hähner**, Key Account Manager and TEMOT responsible at NTN-SNR Roulements for the “Five minutes with..” interview
- **Mr. Guido Rovaro Brizzi**, Aftermarket Business Unit Director, Brembo SpA, for taking the time to answer our 10+1 interview questions.

Many thanks to all of you for your continuous support, suggestions and feedback in 2013!

The TEMOT International Team is hoping that you, your friends, colleagues and family find peace and have a safe, healthy and happy holiday season—however you choose to celebrate. And let's all hope for a more prosperous year 2014, full of challenges and opportunities.

A handwritten signature in blue ink that reads "Zina Branti". The signature is fluid and cursive.

Zina Branti
Communication Manager

Content

Temot Insight

TI Special

Five minutes with...Marcus Hähner.....	6
TEMOT Data Management.....	8
AAPEX - „Living in Las Vegas“.....	9
10+1: TEMOT International with Guido Rovaro Brizzi, Brembo SpA.....	13

Shareholder

Iaponiki: “The 3rd edition of our Magazine “Εντός Δρόμου”.....	16
Iaponiki: Facebook.....	17
Moto Profil: Autumn offensive advertising of ProfiAuto.....	18
Doyen Auto: Focus on the API brand at Doyen Auto.....	20
Andrew Page gains a prestigious European logistics award.....	21
Hans Hess: Taking shared advantage of new opportunities.....	22
Exist: MIMS Moscow.....	24

Preferred Supplier

Blueprint: The complete glow plug solution.....	26
Johnson Controls plant in Zwickau now the largest production site for Start-Stopbatteries.....	28
HAZET: Pneumatics - small yet fine tool.....	30
HAZET: New high rack storage area.....	31
Schaeffler: LuK RepSet® 2CT for Renault 6-speed transmission.....	32
Schaeffler: Less is more - new Edition of LuK ClutchCatalogue for Commercial Vehicles.....	33

Infomagazine from the Aftermarket Value Network

Issue 5/2013

Reinz: High-performance and cost-effective: Electronic engine sealing frame with integrated cable feed-through.....	34
Sogefi unpacks pioneering packaging.....	35
Sogefi: Filters at your fingertips: Sogefi launches updated Purflux catalogue.....	37
Bosch: Universal key to over 100 makes.....	38
Bosch: Exhaust-Gas Technology: Denoxtronic and Departronic.....	40
Bosch: Battery Business Solution from Bosch.....	41
Febi bilstein: Specialist for truck components too.....	42
Philips: Pro-active solution against xenon lamp piracy.....	44
Tenneco: Building your business with steering parts you can trust.....	46
Tenneco: Attractive new packaging coming to full line of monroe® cv shock absorbers.....	49
SKF to keep Volvo rolling forward with wheel hub and suspension bearing units.....	50
SKF vehicle aftermarket launches 2014 edition of its suspension catalogue.....	52
GKN: Countertrack™ and Ballspline™ technology.....	53
TRW's innovative CV steering part 'x-cap' becomes the global benchmark after winning new contracts.....	54
Saleri invests to match increasing demand.....	56
Osram is setting the pace for high performance lamps.....	58
Elring Website delivers service with a PLUS.....	59
Ferodo: Gold Trophy for ECO-Friction technology.....	60
Champion: The best coverage with one compact range.....	61
MANN+HUMMEL: For health and road safety – into the cold season with a fresh filter.....	62
NGK: Leading technology from NGK.....	64
VDO: Multi-Application sensor will be called REDI-Sensor.....	66

.....

Brembo in Ron Howard Rush.....	68
Brembo chosen for 2014 Camaro Z/28.....	70

Associated Supplier

Aisin: The new Aisin CSC kits program.....	71
NTN-SNR and HAZET join forces to revolutionise wheel bearing installation.....	72
Herth+Buss: Loudspeakers or signal equipment for preferred road users.....	74
Herth+Buss: Hydraulic central slave cylinder.....	75
Herth+Buss: Better overview, clearer structures - the new Catalogue Electrics.....	75
Lesjöfors: Superior Springs.....	76
Liqui Moly: Making life easier for workshops and trade.....	78
Denso: A valued business partner.....	80
Mahle: Short journeys can become COSTLY.....	83
Nissens: The wildest range: Intercoolers.....	86
Delphi: Common Rail technology.....	88
ZF Services Presents ZF Parts Catalog for "Oil Change Kits for Automatic Transmissions".....	90

.....



Five minutes with...

...Marcus Hähner

**Key Account Manager, TEMOT responsible,
NTN-SNR Roulements**

For every issue the TEMOT International Team is choosing one aftermarket Industry professional to get to know a little better. The participants are asked to respond to a series of questions that can be answered in about the same amount of time you might spend chatting at the office coffee pot or waiting for an elevator.



*Marcus Hähner,
Key Account Manager, TEMOT responsible, NTN-SNR Roulements*



1. What was your first job in the industry?

I've finished my study in the economic disaster year of 1994. No one was looking for new employees and I had to decide either to go to the employment bureau or to search for alternatives...of course the decision was clear.... So I started selling hoovers from door to door as a self-employed person for the time of 5 months. Though I have been quite successful, this time was extremely mortifying for me. Finally in December 1994 SNR hired this young Hoover sales guy and gave him enough time for a personal development. My first task within SNR was a position as sales engineer for the Industry business Unit. After ten years I was asked by our CEO to make a crazy change...(see below from point 3 on)..

2. What do you like best about your current position?

Even that NTN SNR is now a world leading company within the bearing sector, this company has never lost the sense of "family structures". Due to that and the flat hierarchy I'm in the position to take decisions internally or in front of customers, always with the good feeling that it will be validated by one of my bosses...ok sometimes we have to discuss some decisions more intensively ;-)

3. Did you initially intend to pursue a career in the aftermarket ? If not, what drew you to the industry and what keeps you here?

I've never intended a career in the aftermarket, but when I was asked to join the IAM, it took me just a few seconds for a positive answer. Why? I'm a "car maniac" and I really also appreciate the family sense of the IAM structure and the possibility to meet business partners and friends, even on private level. I think that nowhere else you could combine those aspects in this way.

4. What do you do when not at work?

I spend my free time mainly in the horse stable and on horse jumping contests during the weekends with my 15 year old daughter. Also I love cruising with my Cabriolet (...ok nobody who knows will believe that...maybe it is not really cruising but rather speeding...

5. What one word best sums up your personality?

Always open

6. What was your first car?

Opel Ascona B 2,0l with famous 90 horsepower's, nice looking alluminium rims and affordable...invest at this time (1989) DM 950,00 (€485,00)

7. Who was your childhood hero?

Obelix and I'm glad that after Uderzo & Goscinny the stories will go on

8. Favorite quote or motto?

Never forget where you're coming from! When I was a child my family didn't belong to the well situated part of the society. This motto is a very significant phrase for me and I am always trying to follow it.



TEMOT Data Management

,Grand' team meeting November 2013, Switzerland

After years of working on the several TEMOT Data Management activities, last 14 & 15 November the first 'grand' team meeting took place in Switzerland. For the first time all 22 involved team members from the different data modules (Exhaust, Steering parts, EMS parts, Brake systems, TEMOT car park and data mapping) came together for a 2 day workshop. The meeting was held on the premises of Hostettler Autotechnik in Sursee.

Continuous improvement requires solid communication, not only from management to team member but just as important is the cross-

communication between the individual team members.

Therefore TEMOT's main goal was to introduce the colleagues from Germany, Switzerland, Hungary, Denmark, France, Poland, UK, Latvia to each other and conduct a brainstorm on the several areas of their daily work activities.

Amongst the topics discussed are the shared use of data sources, procedures & work flows and communication channels.

As part of the workshop several groups (teams) were created and within the group possible improvements are prepared and presented to the group.

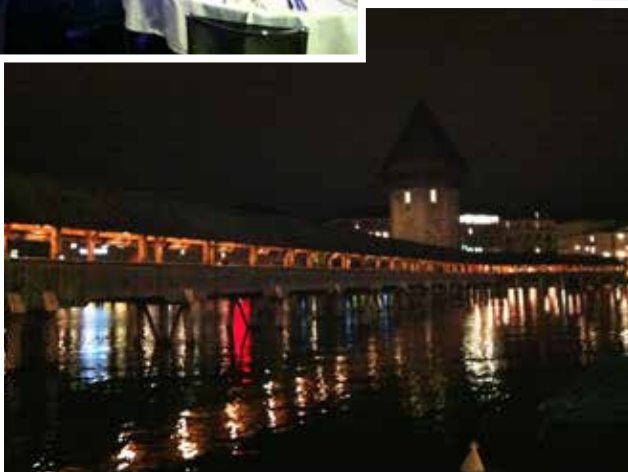
Common decisions on these possible improvements are taken and as a result the last period of 2013 is reserved for cleaning certain data sets and the implementation of several software additions.

Next to the official part of the meeting a shared diner was organized where the colleagues had the opportunity to discuss with each other in an informal environment until the late hours.

General feedback from the participants was positive and we are already looking forward to the next common team meeting.



TI Special



AAPEX



„Living in Las Vegas“

AAPEX Show, November 5th – 7th, Sands Expo Center, Las Vegas, NV



*Kai Guijo-Müller,
Business Development Director*



*Janne Rohoukoski,
Business Development Manager*

With the promising slogan „**You will grow your business**“ the AAPEX presented their this year’s show in Las Vegas. TEMOT International visited AAPEX within Business Development of Global Activities first time together with its new Shareholder Aftermarket Auto Parts Alliance (AAPA, TI Shareholder since 2013).

What did we find? More than we expected! Thousands of new products in every category. Dozens of new suppliers from all around the world were joining over 2,300 other exhibitors. New research, new trends on diagnostics, new education specifically compiled and developed to help WD and workshops to increase their business opportunities. But all in one, our way to Las Vegas brought us to our Shareholder and Business Partners with one goal: Business Development without borders.

AAPEX represents the global motor vehicle aftermarket. More than 130,000 professionals from around the globe participate in Automotive Aftermarket Industry Week in Las Vegas, Nevada. Manufacturers and suppliers who attend AAPEX were represented in almost all automotive related product categories: air conditioning, automotive lighting, electrical systems & batteries, cooling systems, brake systems, undercar, remanufactured parts, steering & suspension, engine & transmission parts, chemicals and lubricants, equipment & tools (including diagnostics, hand tools, machine shop, and service & installation), computer systems & software, paint and body, retail warehouse fixtures and lots more...

After three days of fair in Las Vegas we returned to Europe with an excellent summary: we carried out more than 30 meetings or discussions with our Shareholder and Business Partners, new business opportunities for our existing TISS Suppliers, new partners for our TEMOT DOSI project. We also got new ideas for the area of garages and communication. It was a big pleasure for us to visit booths of **ALL our TEMOT listed Suppliers** attending the show and discuss with our partners about the existing partnership and further development of our common activities.





AAPA



The TEMOT shareholder AAPA in a nutshell

- Name: Aftermarket Auto Parts Alliance, Inc.
- Headquarters located at San Antonio, Texas
- Shareholders 36 in USA, 6 in Canada, 11 in Mexico
- Revenues: 2,7 billion \$ (2012)
- 1 central warehouse and 119 full service warehouses all over the country with over 1,2 million SKU's
- Garages: 3.010 certified service centers
- Brands: AutoValue and Bumper to Bumper are used for market visualization of AAPA
- TEMOT International contact person: Janne Rouhunkoski





F. MOGUL : Roy Kent, Vice President of Sales, Wholesale Distribution (FM), John Washbish, President & CEO (AAPA), Janne Rouhunkoski (TEMOT), Dan Rader, Vice President Category Management (AAPA), Wayne D. Buts, Vice President Product Management (AAPA), Edward A. Szubielski, Vice President World Trade (FM).



AISIN: Kai Guijo Müller (TEMOT)
Hiromi Kato, Senior Director AISIN Europe SA (Aisin).



HELLA: Kai Guijo Müller (TEMOT)
Christian Burkhardt, Business Development Manager (Hella).



TRW: Kai Guijo Müller (TEMOT), Alex Ashmore, Vice President & GM Global (TRW), Janne Rouhunkoski (TEMOT).



VALEO : Kai Guijo Müller (TEMOT),
Françoise Blais, Marketing Director Valeo Service (Valeo), Janne Rouhunkoski (TEMOT).



NISSENS: Klavs Pedersen, Vice President Automotive (Nissens), Kai Guijo Müller (TEMOT).



MANN FILTER: Rainer F. Kohl, Director Sales Private Label (Mann Filter), Kai Guijo Müller (TEMOT).



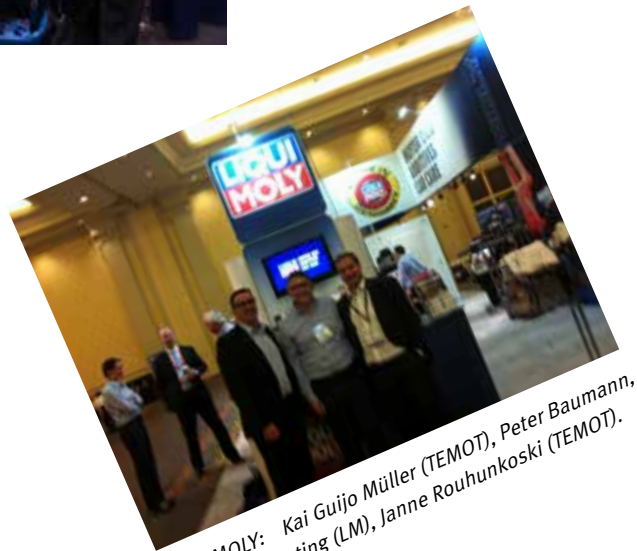
DENSO: David Arriaga, Program Distributor Manager IAM (Denso), Frank Cisec, Senior Manager IAM (Denso), Kai Guijo Müller (TEMOT), Nigel Cole, Manager International Groups (Denso), Francis Labun, Vice President (Denso).



HAZET: Kai Guijo Müller (TEMOT), Andreas Kämpfer (HAZET), Janne Rouhunkoski (TEMOT).



NGK: American Team NGK, Kai Guijo Müller & Janne Rouhunkoski (TEMOT).



LIQUI MOLY: Kai Guijo Müller (TEMOT), Peter Baumann, Head of Marketing (LM), Janne Rouhunkoski (TEMOT).

10+1

Thesis – Antithesis

**TEMOT International
with...**

...Guido Rovaro Brizzi

**Aftermarket Business Unit Director,
Brembo SpA**



1. The automotive Aftermarket is the same the last 10 years...

The automotive Aftermarket has seen far-reaching changes in recent years, caused by factors outside the industry, such as the recession, stagnation, reduced consumer purchasing power, as well as internal factors, such as the challenge of OES, globalisation and the consolidation process.

European parts manufacturers now have to face a twofold challenge: on one hand, the re-thinking of our industrial footprint, to respond to the competitive pressure generated by globalisation; on the other, a new approach to the market due to a shift in focus from production to distribution. Today the starting point must be the work of mechanics and players in the distribution chain, their needs, their prospects... it is no longer a question of selling a product but proposing a concept that makes our customers' offer more competitive.

2. There are no major challenges for Brembo in the IAM

Brembo faces many challenges. The trends that characterised the change of the last decade will see further acceleration and will be joined by other phenomena such as on-line sales, increasingly budget oriented demand, growth in the low-cost segment and significant polarisation of distribution, with a handful of large international players and many small local realities. Brembo is the leading brake system specialist in the premium segment. Brembo's Aftermarket Business

Unit matches up to the major players on the market, offering a very broad range of products and services. We cannot and do not want to compete with them on the same basis: our specialized know how and flexibility must be our strength in proposing a significantly personalised and innovative offer to support our customers' premium proposal.

3. There is nothing but a Premium segment in the Aftermarket

We are increasingly witnessing the development of different approaches to the market, with growth in the low cost segment.

We believe that the right positioning for Brembo is the premium segment - the natural consequence of a leadership in the production of original equipment brake systems. Brembo is the number one choice for top car makers, as well as the largest brake disc manufacturer in the world, with a production capacity of more than 50 million units per year.

Our goal is to offer all customers the best braking components available on the market for their cars. Brembo Aftermarket products are manufactured in the same factories as original equipment and subjected to the same validation cycles. Brakes are safety components: we make no compromise when it comes to quality and performance.

4. The average garage has only one criterion for the choice of a supplier: price...

For the Aftermarket professional price is not simply the purchasing

cost. It is also important to consider the service received, the profit margin on re-sales, easy and trouble-free procurement, the absence of returns or defects, customer satisfaction and customer loyalty. All in all, especially for premium products, the value perceived goes far beyond the purchasing price.

5. The meaning of "Brand" is overestimated for players in the independent Aftermarket...

I think, on the contrary, that there is a risk today of underestimating brand value, as well as the obligations and responsibilities that a strong brand entails.

The Brembo brand includes the value of more than 200 Formula 1 victories, of having been a braking system manufacturer for top vehicle makers for more than 40 years, of always being the partner of leading distributors in Europe and the value of being a recognised, leading company, ensuring quality and innovation.

The daily challenge is to ensure continuity to what has been achieved so far, be consistent, always meet the expectations of those who choose Brembo and never give way to the temptation of resorting to shortcuts that would diminish the value of our brand. Even at the cost of sacrifices in the short term: brand value is generated by everyday actions.

6. It is easy for the Warehouse Distributor to be successful in the market

Not at all! On the contrary, I believe

10 + 1

that our customers have to tackle every day the challenge posed by OES, as well as competitors and new players that could well change the rules of the market at any time. Continuing to be a leader requires great effort in terms of investments in technology and resources allocated to growth, as well as in managerial skills in order to understand and manage the continually evolving market dynamics.

I would add that a success factor for our partners is the ability to create strong partnerships with manufacturers: a prompt and effective response to technical, commercial and supply chain distribution requires synergy between market players.

7. Brembo should be the first choice of a Warehouse Distributor simply because....

Yes of course. For two reasons: image and profit.

Brembo is the ideal partner for distributors willing to characterize their offer with the best brands in the various product categories. I have a great respect for our competitors' brands, but I am convinced that Brembo is the best choice for brakes.

On the other hand, Brembo has a selective approach to distribution, seeking intelligent market coverage and investing in long-term partnerships.

Therefore, by offering Brembo, our customers position the product at the highest market levels in a context of limited competition. With Brembo, our partners maximise their long-term profits.

8. There is no correlation between market consolidation and Brembo's strategy

Brembo's strategy has been guided, among other factors, by the consolidation trend of the market. Seeking a small number of partnerships with the best players on the market means forming alliances with those who, on one hand, know better than others how to read the needs of the market and on the other are themselves the protagonists of the consolidation process.

9. There is no need for any IAM player to get prepared for the future....

The coming years will see major changes and challenges for everyone. We will have to develop very flexible strategies and business models. Training to be ready is not just a matter of survival but also the chance to catch new and interesting opportunities.

10. Being a TEMOT Supplier is just a coincidence...

For Brembo, TI is the opportunity to summarise our relationship with the market. Our size and our presence in all countries obliges us to develop and stimulate relationships that help us understanding the international distribution scenario and evaluate the quality of our business in an objective and effective manner.

Temot is among the most significant groups for us, since the characteristics of its members ideally match our own structure and philosophy. In this context, being a preferred supplier is undoubtedly a differentiating factor. It emphasizes sharing

of intents and investments for the common objective of an even better market service.

11. Co-operation with an international group is a necessary evil

In the medium term, every player justifies its presence on the market on the basis of how much it contributes to adding value to the industry. I think that International Groups play an important role for our industry, by facilitating the selection of distributors and manufacturers and by contributing to the market consolidation. They ensure that the best distributors deal with the best manufacturers and vice versa. It is in everyone's best interest that the Aftermarket develops in terms of professionalism and quality of its players. It is necessary in order to counteract OES competition.

Partnership with International Groups is costly for parts manufacturers, such as Brembo, but as long as they keep fulfilling their key role in this industry, it generate added value to our business. ■■

Thesis – Antithesis

Iaponiki



“The 3rd edition of the Magazine “Εντός Δρόμου”

The third edition of Iaponikis' inhouse magazine 'Entos Dromou'.

3 months after the launch of the magazine, the third edition contains interesting information about the company, its partners and aftermarket news. The size of the magazine has already been increased – 32 pages so far- in order to accommodate all subjects presented. Back in January with the 4th edition, it will, to a great extent, include articles about IAPONIKI's 40th anniversary.



TEMOT Challenge Award

Iaponiki S.A.
Winner of the
TEMOT SEE Challenge 2013

Theodore Lekkas
Theodore Lekkas
Area Sales Manager
Southeast Europe

SCHAEFFLER
AUTOMOTIVE AFTERMARKET

LUK **INA** **FAG**

IAPONIKH A.E.
www.iaponiki.gr



IAPONIKI S.A.

AUTOMOTIVE SPARE PARTS - WORKSHOP EQUIPMENT



Shareholder

Facebook

The FACEBOOK profile for AUTOFIT in Greece, has reached over 3.557 likes until now and the number of fans is increasing day per day.

The AUTOFIT garages owners continue to embrace this move with increasing enthusiasm.

Drivers and facebook users seem to “like and share” the status updates published in the AUTOFIT profile. This shows that they visit the page and are interested in the subjects presented.

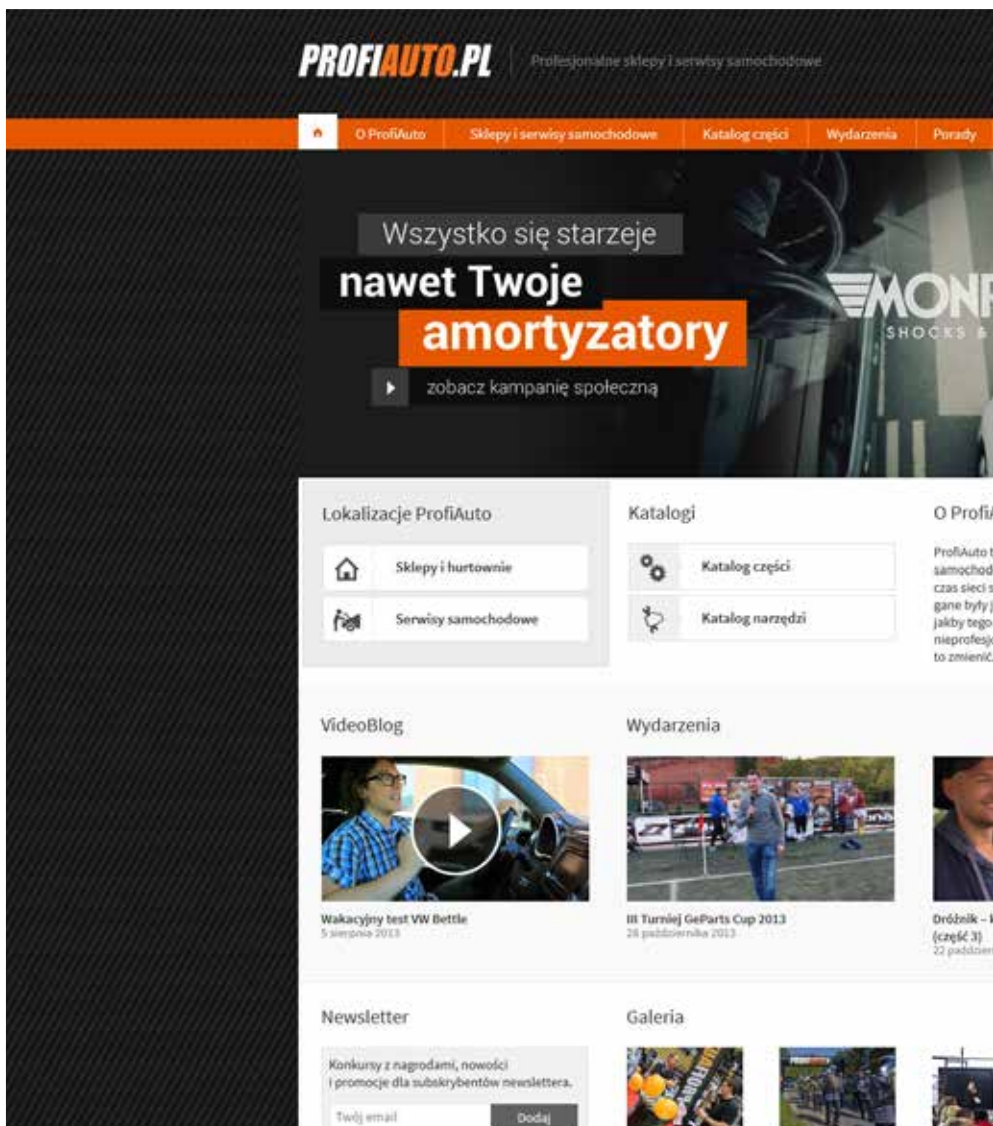
After a successful campaign in summer 2013, Iaponiki has organized another one that will expire on 31st of December. Facebook users can win the inspection as well as the necessary lubricants for their vehicles. Iaponiki will continue to support the advertisement channel through social medias for AUTOFIT among others (radio etc), as Iaponiki believes that the impact in the market is strong.




Autumn offensive advertising of ProfiAuto

The period of October and November is a very busy one for ProfiAuto – the association of more than one hundred Moto – Profil’s major business partners.

The network is promoted on TV and the Internet . For this purpose a 30-second video ad has been produced, which was issued in the biggest Polish TV channels more than 1000 times. In addition, at the beginning of October we launched a brand new website profiauto.pl, which was completely rebuilt and now meets all the requirements of a modern website, including the operation on all mobile devices. These intensified efforts succeeded with a very satisfactory number of website visitors. Television advertising and its surprising development located on ProfiAuto ‘s Videoblog attract new customers and build brand image of ProfiAuto .



Strona główna Mapa sklepów i serwisów samochodowych

Lokalizacje ProfiAuto

-  Sklepy i hurtownie
-  Serwisy samochodowe

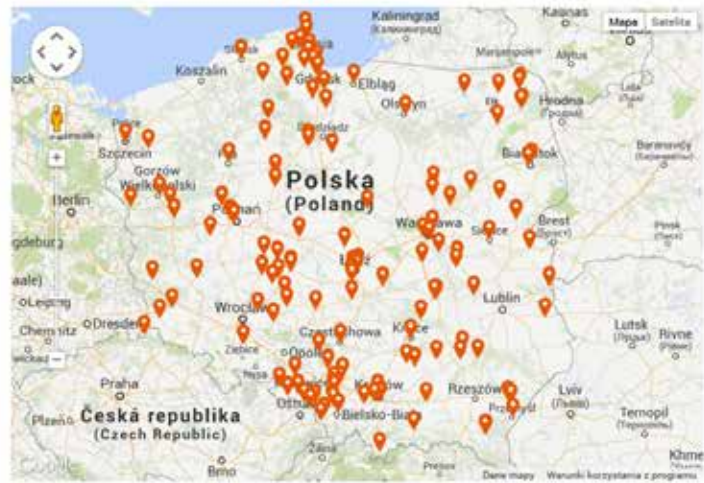
Newsletter

Konkursy z atrakcyjnymi nagrodami, nowości i promocje dla subskrybentów newslettera.

Mapa sklepów i serwisów samochodowych

Wybierz punkt z mapy...

- Sklepy i hurtownie
- Serwisy samochodowe



...lub wypełnij formularz:

ProfiAuto

- O nas
- Promocje
- Porady
- Centrum prasowe
- Kontakt

Sklepy i serwisy

- Sklepy i hurtownie
- Serwisy samochodowe

Katalogi

- Katalog części
- Katalog narzędzi

Wydarzenia

- Kalendarium wydarzeń
- Galerie

VideoBlog

- Program motoryzacyjny
- Profi kierowca
- Profi mechanik



Auto

to zupełnie nowa jakość na rynku...
...części zamiennych. Dotych...
...sklepów motoryzacyjnych postrze...
...nako słabo zaopatrzone, drogie i...
...było mało, posiadające...
...onalną obsługę. Przyszł ci czas aby



kontynuacja kampanii ProfiAuto

2013



Focus on the API brand at Doyen Auto

In Belgium

Last September, Doyen Auto organised the third API Convention in the south of France. The number of participants attending the event was up 11% compared to the number of visitors last year. Key figures of the API Convention: 5 days; 800 participants; 1000 m2 of space for the “fair” and 33 exhibitors. The aim of the event was to bring together Doyen Auto, manufacturers and API distributors, as well as their garages, within a pleasant setting to strengthen the links between all parties. One of the



benefits of being an API distributor is having access to the full Doyen Auto range. Distributors also benefit from a comprehensive offer targeted at garages handling all makes of vehicle; and care is taken to ensure that multi-brand garages stay up to date with techniques to stand out from competitors.

In France

The French API Convention was given an enthusiastic welcome. Held in Barcelona, it attracted many visitors and recorded exceptional attendance figures (86%). And these numbers clearly show the high loyalty levels of distributors and garages towards their brand. This positive trend was further emphasised during the Grand Prix des Réseaux awards event, as 1,2,3 AutoService received the top prize for the 5th consecutive year.

The Grand Prix des Réseaux ranks after-sales brands (multiple makes) on the basis of a TNS SOFRES survey conducted on a wide panel of garages belonging to the different networks.

1,2,3 AutoService came out in pole position with increased marks for satisfaction and loyalty, clearly demonstrating the high quality of the work carried out by the API brand and its distributors in the field.

To further underscore this success, an API distributor was awarded the trophy for the “Best Franchise and Partner in France” by the Federation of European Partnership and Franchise Networks (IREF)! The outstanding performance of the franchisee further highlights and rewards the entire API network.



Doyen

- The API Convention also provided Doyen Auto with an opportunity to announce the launch of an entirely new brand called “Carfirst”, specifically aimed at bodywork professionals. Covering a raft of areas ranging from preparation to repair, and also maintenance and protection, Carfirst products are designed to facilitate and professionalise activities carried out in the workshop. Visitors at the API Convention received a sneak preview of the new brand.
- Doyen Auto Belgium also took advantage of the event to present its new managing director, Bernard De Smet, who has taken over from Didier Schicks – now heading the Product Marketing & Corporate Purchasing Department.



Andrew Page gains a prestigious European logistics award

Andrew Page Limited gained an important and prestigious award at the 2013 European Supply Chain Excellence Awards held at the Park Lane Hotel in London.

The awards scheme is organised by Europe's leading logistics magazine Supply Chain Standard in association with PricewaterhouseCoopers.

Andrew Page were recognised in the logistics and distribution category for the establishment of their Markham Vale distribution centre and the award secured against fierce competition from a number of high profile international companies such as Dell. The project was supported by Hatmill, a supply chain and logistics consultancy.



Commenting on the award Andrew Page CEO, Bill Duffy said. "We are delighted to receive this coveted award. It is a true reflection of the hard work by our logistics team here at Andrew Page and their customer focussed approach to our business".

Andrew Page invested substantially in distribution facilities at Markham Vale in Derbyshire, close to the M1, in 2012. The 100,000 sq. ft. facility became fully operational in the summer of last year. Logistics were enhanced with a fleet of Mercedes-Benz 26-ton Axor trucks providing a nationwide delivery service to its 93 branch network.

"We are very proud to have been recognised for the strategic decision to move to a centralised logistics operating model." said Andrew Page, Operations & Logistics Director, Paul Mohan. "The core of our strategy is that we supply ever increasing ranges of parts that are available and delivered locally, fast and with certainty to ensure positive customer experience every time. We are absolutely focused on a right first time, every time service and the centralised approach is already proving successful".

Simon Dixon, Managing Director of Hatmill said. "The award recognises the way in which the Markham Vale distribution centre was designed and launched, by using leading stock management and handling processes from a range of industry sectors. We are delighted to receive this recognition with Andrew Page".

Hans Hess



Taking shared advantage of new opportunities

MOTOO / 300 visitors at the 9th Annual Garage Concept Partner Conference in Neuss

Shareholder

For the ninth time, MOTOO dealership owners met with their headquarters for the annual conference. Several exciting presentations and interesting exhibitors served up highlights for this entertaining day, which capped off with a prize drawing for a brand-new car.

To kick off the conference, Hess Group CEO Philipp Hess offered a look into the future of the industry. Capably defending and expanding market positions, he argued, means keeping one's eyes open for current trends. As an example, he pointed to the growing online business in the spare parts and service segment. He also made clear that concept partners will play a great role in the mutual ongoing search for new business opportunities in this area.

Following this presentation, Systems Manager Mitja Bartsch then took the stage to provide further details on new services and MOTOO-related developments in the past several months. He is convinced that MOTOO and its concept partners enjoy a unique collaboration. "Right from the start, all projects are reviewed together with the optimisation team and jointly carried out." This has facilitated a relationship of trust among everyone involved, which one could powerfully sense in the large number of visitors, the great atmosphere, and the constructive discussions at the event in Neuss.

After learning how the MOTOO concept has grown to currently encompass 180 garages and 58 spare parts dealerships, attendees also received an update on the latest innovations to already existing services. Mitja Bartsch presented the new MOTOO Internet presence, the 0% repair cost financing and the new MOTOO mobility guarantee. These

MOTOO aktuell



MOTOO.Die Werkstatt:

- L Zugänge 2013: 18
- L Abgänge: 10 (i.d.R. zum Jahresende)

service components have been reconceived from the ground up and will replace the previous services in the coming weeks.

The high point of the Partner Conference was this year's MOTOO prize drawing competition. This marked the fourth time that MOTOO headquarters had organised such a campaign. More than 40,000 customers participated, both at MOTOO dealerships and over the Internet. This year's main prize, a brand-new VW Polo in the MOTOO Performance Edition, went to a lucky customer in Bergisch Gladbach. Answering a direct telephone call from the stage, the surprised winner seemed a bit doubtful at first, but the thunderous applause of the 300 visitors soon convinced him. After that, he was overjoyed. ■ ■

Exist



MIMS Moscow

The 17th Moscow International Motor Show, which took place from 26th -29th of August, attracted more than 600 exhibitors from over 30 countries.

Known as the most important automotive event in Russia, the MIMS is an unique event for professionals to dig a little deeper into the Russian automotive aftermarket.

The TEMOT International shareholder EXIST was present during the fair with a large booth, which served as ground to strengthen the relationship with their customers and suppliers. The company's management held over 76 meetings during the MIMS.

In the evening of the 27th of August, EXIST invited 280 of the most important customers and suppliers to an unforgettable Gala Dinner at the Restaurant Jagger. with show acts from The Bolshoi Theatre, a concert by the well-known Ex-Modern Talking singer Thomas Anders and a dinner that is even appreciated by sophisticated gourmets, the evening topped off an exciting day at the fair.

Within the setting of the Gala Dinner, EXIST also honored the performance of the following TEMOT International suppliers with an award:

- ZF Russia: Best Logistics 2012
- Brembo: Best growth in 2012
- Ferdinand Bilstein: Best TEMOT Evaluation by Exist in 2012
- Schaeffler Russia: Best New Supplier 2012
- Bosch: Overall Market Leader 2012
- The "Best Non TEMOT Supplier 2012" award for the second time in a row was given to ThyssenKrupp Bilstein.

The 17th Moscow International Motor Show for EXIST was characterized by a lot of constructive meetings, highly active clients and an outstanding Gala Dinner evening. EXIST will remain in the focus as the leader in the Russian Automotive Aftermarket and we all can be curious what will be in the box for 2014!



Ballet dancers from the Bolshoi Theater performing classic and modern ballet



Mr. Valdislav Domoratskiy, President of the company Exist welcoming all guests



Overall Market Leader 2012



Brembo: Best growth in 2012



Ferdinand Bilstein: Best TEMOT Evaluation by Exist in 2012



Schaeffler Russia: Best New Supplier 2012



Musical entertainment with Thomas Anders



ZF Russia: Best Logistics 2012



Shareholder

Blueprint

bilsteingroup®

The complete glow plug solution

Since September 2010, Blue Print has been supplying the independent aftermarket with the tools and technical information required to perform specific jobs, which are all directly linked to parts in their market leading range for Asian & American vehicles.

As winter rapidly approaches, an apt and illustrative example of this strategy is Blue Print's, 'Complete Glow Plug Solution'.

Figures have shown that Glow Plug sales can more than quadruple over the winter and Blue Print's range contains over 150 Glow Plug references, which cover more than 1,700 Asian & American applications and are all covered by a 3 Year Unlimited Mileage Warranty.

Obviously, the first thing to do when changing a set of Glow Plugs is to remove the old set, and depending on their location, this can throw up access issues – to combat this, Blue Print now supplies 8, 10 and 12mm, Glow Plug Sockets.

Aside from their location, Glow Plugs can be difficult to remove due to a build-up of carbon in the aperture, which in the most extreme cases can cause the tips to break off and be left in the head. In addition, Glow Plugs fail prematurely from being overheated from the inside out (relay constantly on), or outside in (carbon build-up



REMOVE

 **Glow Plug Sockets**

Using Blue Print's extra long 8mm, 10mm and 12mm Glow Plug Sockets, remove the old plugs with ease.

		
ADG05512 8mm	ADG05513 10mm	ADG05514 12mm

Preferred Supplier

2

CLEAN

Glow Plug Reamer

Over 90% of premature Glow Plug failures are caused by carbon build-up, so clean the apertures with Blue Print's Glow Plug Reamer every time.



ADG0551
M10 x 1 & M10 x1.25 threads

around the plug tip), which is what happens over 90% of the time.

Because of this, the apertures must be cleaned on every Glow Plug replacement in order to avoid premature failure issues, or subsequent removal problems. For this, Blue Print now supplies a Glow Plug Aperture Cleaner which is suitable for engines which use M10 x 1 and M10 x 1.25 threaded Glow Plugs and is essential for a professional and long lasting replacement.

Once this simple process is complete, the new Blue Print Glow Plugs can be fitted using the applicable socket and Blue Print's drive, 5>25Nm Low Torque Wrench. The Torque Wrench is perfect for all low torque requirements, including Glow Plugs, which removes the possibility of over tightening which is another common cause of failure.

So, when you are changing Glow Plugs on Asian & American vehicles this winter remember to Remove, Clean and Replace with Blue Print...



BLUE PRINT®



REPLACE

Torque Wrench

Blue Print Glow Plugs are all covered by a 3 Year Warranty, so fit them using Blue Print's Low Range Torque Wrench, for precise tightening.



ADG05515
low torque

3

Blue Print is a bilstein group brand.

Preferred Supplier

Johnson Controls plant in Zwickau now the largest production site for Start-Stop batteries

- State premier Stanislaw Tillich opens expanded factory
- Site capacity quadrupled to 6.6 million batteries
- More than €100 million invested since 2008



*Aerial shot of the Johnson Controls battery plant in Zwickau, Reichenbacher Strafle.
Photo: Johnson Controls, Ralph Koehler/propicture*

With an investment of more than €100 million, Johnson Controls has expanded its Zwickau plant to make it the world's largest production site for AGM (Absorbent Glass Mat) batteries. The global market leader celebrated completion of the expansion work on 28 September and was joined by the workforce, political and commercial figures and the company's senior management.

By investing in the site, Johnson Controls is responding to growing demand for AGM batteries. "The need for Start-Stop batteries will continue to rise significantly in the next few years," explained Holger Jetses, European head of Johnson Controls Power Solutions, at the grand opening in Zwickau. By 2018, around 80% of all new vehicles manufactured in Europe will be fitted with Start-Stop technology. "AGM batteries made in Zwickau play a major role in original equipment manufacturing. With the expansion of our plant, we are ideally prepared for the challenges that lie ahead," continued Jetses. Production capacity now stands at 6.6 million batteries.

With the VARTA® brand and the VARTA® Start-Stop Plus battery, Johnson Controls also offers AGM technology in the form of replacement parts for vehicles with Start-Stop systems. The battery is the heart of the Start-Stop system, as it supplies all on-board electrical devices with power whenever the vehicle comes to a stop, and restarts the motor as soon as the clutch is depressed. As good as the original, the VARTA® Start-Stop Plus battery is equal to these exacting requirements.

A long-established site with a bright future

Amongst the guests at the grand opening was Saxony's state premier Stanislaw Tillich. In the past three years, the Free State of Saxony and the Federal Government have supported the site with subsidies totalling €14.7 million. "All over the

world, millions of motorists rely on high-performance batteries from Saxony every time they start their engine. This reliability is no coincidence; it's down to the extensive experience and ongoing innovation that characterise both high-quality Johnson Controls batteries and Saxony as a place to do business," explained Tillich.

Batteries have been made in Zwickau for more than a century. Since 2005, the plant has been the main production site for AGM batteries from Johnson Controls. With the largest expansion project to date, the company has gradually enlarged

the site by more than 60% over the last few years. The new additions include a manufacturing hall, a logistics building and four state-of-the-art assembly lines. During the course of the expansion, the number of employees has more or less doubled, rising from roughly 200 to the current figure of 400.

And the environment has benefited too: the site's CO2 emissions will drop to around 500 tonnes a year. "The investment in the expansion programme demonstrates that the Zwickau site will continue to be of vital importance to the company," said Works Manager Matthias Horn.



With Saxony's state premier Stanislaw Tillich amongst the guests, a family event was held on Saturday to celebrate the expansion of the Johnson Controls battery plant in Zwickau. From left to right: Holger Jetses, European head of Johnson Controls Power Solutions; Stanislaw Tillich, CDU, Saxony's state premier; Matthias Horn, Works Manager at the Zwickau site. Photo: Johnson Controls



Preferred Supplier

New mini air ratchets from HAZET



Pneumatics: small yet fine tools

To be able to attain the best working results – even when space is at a premium – a professional range of tools should not be without convenient small versions of tools. HAZET, the Remscheid-based manufacturer of quality tools and tool equipment, is therefore now introducing its new generation of mini air ratchets to complement the successful versions of its popular ratchet models in response to this need.

The handy tools are available in three versions. The 9020 P-2 and 9021 P-2 models are particularly small with a length of 150 mm and weigh a mere 0.5 kg. The 6.3 = ¼" model 9020 P-2, with an output of 40 Nm, also enables manual retightening for torques → 60 Nm. The 10 = ¾" variant 9021 P-2, with an output of 54 Nm, is designed for manual retightening for torques → 20 percent above DIN. The 260 mm short 12.5 = ½" ratchet with an output of 108 Nm allows manual retightening for torques → 400 Nm and weighs 1.24 kg.



HAZET 9022 P-2 12.5 ½"



HAZET 9021 P-2 10 ¾"



HAZET 9020 P-2 6.3 ¼"

Preferred Supplier



Everything in one case

Whoever wishes to have the right accessory parts conveniently within reach cannot go wrong with the practical mini air ratchet set 9020 P-2/24. It contains the new mini model 9020 P-2 and 23 other parts such as various square adapters in the SmartCase. All parts are safely stored in the proven Safety-Insert-System soft foam insert and snugly embedded.

All mini air ratchets are available with an impressive air outlet adjustable by 360°. The innovative, completely closed head prevents cuttings or other foreign bodies from getting inside, thereby increasing the tool's service life even more. The ratchets are clockwise or anticlockwise in operation and are infinitely adjustable. They also come with cold-insulated handles and work at an operating pressure of 6.3 bar.



HAZET builds a new high rack storage area in Heinsberg



The enduring growth of the company over the last years makes an increase of capacity necessary.



„Due to the very enduring growth in previous years we are bursting at the seams, so that an expansion of the storage capacity has become apparent for some time“, says Carsten Scholz, director of the marketing department at HAZET.

The manufacturer of quality tools and workshop equipment based in Remscheid, HAZET, builds a new high-modern high rack storage area at its facility in Heinsberg, where the logistics centre is already based. With an area of 3,400 m² and a height of 14 m, the tool manufacturer doubles its previous storage capacity.

Preferred Supplier



This considerable expansion is not only based on reasons of capacity. It serves primarily the further, client-oriented increase of the supply rate as well as the constant optimization of the material flow: „Orders which are placed until the early afternoon will be sent on the same day and are at the client's on the following day“, says Scholz. The increase in speed and rapidity in the processing of orders as well as the protection of the three facilities in North Rhine-Westphalia are the main aspects of this investment of the German tool manufacturer.

Start of construction is planned for beginning of September and the attainment of full functionality is planned to be reached in a year, i. e. September 2014. „This increase in capacity is supposed to last until the end of the decade,“ according to Scholz, „though we are gladly willing to be argued out of this objective through corporate expansion with our clients!“

Schaeffler

LuK RepSet® 2CT for Renault 6-speed transmission

With the LuK RepSet® 2CT for vehicles by Renault (6-speed transmission DC4) Schaeffler Automotive Aftermarket has now developed another repair solution for dry double clutch systems.

The Aftermarket experts premiered the new repair solution at the recently ended Equip Auto in Paris. This new repair solution enables independent garages to repair dry double clutch systems of Renault vehicles – specifically Mégane III and Scénic III models with the K9K engines. Also on exhibition was the complementary LuK Special Tool for a professional (de-) installation of the double clutch.

With the introduction of the LuK RepSet® 2CT repair solution for Renault vehicles (6-speed transmission DC4), Schaeffler Automotive Aftermarket continues to expand its portfolio for repairing dry double clutch systems. The Aftermarket experts had already introduced a dry double clutch repair solution for Audi, Seat, Skoda and Volkswagen vehicles with a 7-speed transmission in the previous year.

All these LuK RepSet® 2CT repair solutions are practical, complete solutions. Besides the double clutch, they provide the precision-tuned components required for the professional replacement of the appropriate double clutch system. As wear can also be expected at engagement systems, the LuK repair solutions include not only guide sleeve, snap rings and fastening screws, but also lever actuators / engagement lever and engagement bearings.

Also on display for the first time at Equip Auto was the complementary LuK Special Tool from Schaeffler Automotive Aftermarket, which allows to combine all modules to make professional repairs of today's and future LuK dry double clutch systems. This gives garages a basic tool set with a module make-up that contains those tools needed for all repairs of LuK dry double clutch systems. This basis tool set, when combined with any of the vehicle-specific tool sets, offers a truly complete solution. And, for those customers using the former Special Tool (Art. 400 0240 10) the Aftermarket specialists have developed a solution as well. There is a special module which, combined with the former tool, ensures the same technical standard. In addition with comprehensive training package, technical brochures, detailed repair instructions and training videos showing how to replace a double clutch – Schaeffler Automotive Aftermarket now enables independent garages worldwide to repair LuK double clutch systems. It also makes fast and efficient work possible, minimizes sources for error and creates cost benefits.



LuK RepSet® 2CT for the Renault 6-speed transmission (DC4) – the counter springs and lever actuators are tuned to work together at the plant, so they must be matched up correctly when installing the engagement system.



The LuK RepSet® 2CT – the repair solution from Schaeffler Automotive Aftermarket for dry double clutch systems, here for Renault vehicles with the 6-speed transmission (DC4).



Preferred Supplier

Schaeffler



Less is more - new Edition of LuK Clutch Catalogue for Commercial Vehicles

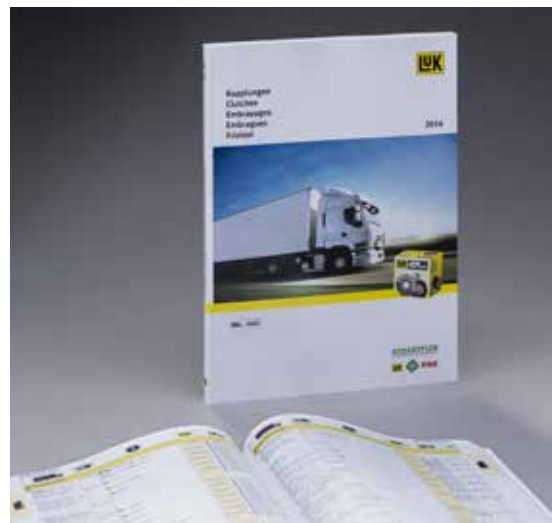
Schaeffler Automotive Aftermarket is presenting an all-new edition of its LuK clutch catalogue for commercial vehicles.

The new edition has been completely reworked, has a host of non-verbal content and is now almost 200 pages thinner and even easier to use than its predecessor. At the same time, it contains an even larger portfolio of products: On a total of 270 pages, the catalogue not only has the entire LuK clutch portfolio for heavy commercial vehicles, it also contains bus applications for the first time. Included as well are links to the LuK RepSet SmarTAC – a high-performance and long-life repair solution that meets the requirements for wear-resistance of clutch systems in commercial vehicles.

The Aftermarket specialists focused on user-friendliness when creating the new edition. An intelligent catalogue structure makes it easy to navigate, while descriptive pictograms make finding the necessary spare parts fast and easy for the user. The catalogue pages each list the model, model year, article group and the article numbers belonging to it. Cross-references, combined with how the tab pages are color-coded, mean users can directly find the right parts list. All information is available in five languages – German, English, French, Italian and Spanish.

Similar to the previous version, the new catalogue covers all models of the “Big 7” European heavy commercial vehicle manufacturers beginning with vehicles built in 1993. Newly-added is the LuK clutch portfolio for busses – for the nameplates Bova, MAN, Mercedes-Benz, Neoplan, Renault, Scania, Setra and Volvo. The LuK RepSet SmarTAC, which is conceived for both heavy commercial vehicles and busses, is integrated into this information as well.

The 2014 LuK clutch catalogue for commercial vehicles is now available at Schaeffler Automotive Aftermarket’s distribution partners, and online at www.schaeffler-aftermarket.com and at the garage portal www.repxpert.com. All information in the new catalogue is available on the TecDoc DVD as well.



Even more comprehensive but thinner than the previous edition – the new 2014 LuK clutch catalogue for commercial vehicles has about 270 pages of parts information, not only for heavy commercial vehicles, but it contains for the first time Schaeffler Automotive Aftermarket’s entire clutch portfolio for busses as well.

Preferred Supplier

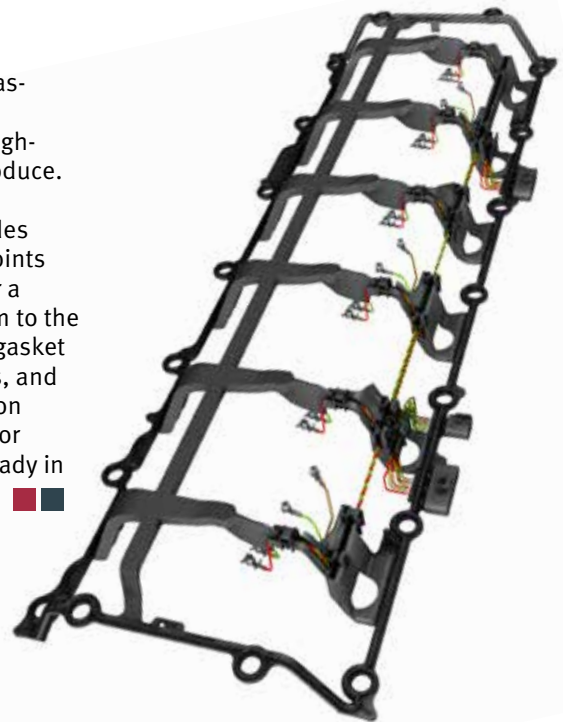
Reinz

High-performance and cost-effective: Electronic engine sealing frame with integrated cable feed-through

Dana's newly developed electronic connector gasket puts the company in an ideal position to prepare for future applications that unite a wide variety of material combinations in a single sealing concept.

Dana's specialized expertise in amalgamating polyamides, elastomers, and electrical components in a media-impermeable combination creates the ideal conditions for exceptionally high-performance, special-purpose frames that are cost-effective to produce.

This is the only development of its kind in Europe to date. It provides a cylinder-head seal that is thoroughly impermeable to oil at all points where cables run into and out of the engine. A cut-out provides for a protected cable feed-through from the engine management system to the interior of the cylinder head. This is how the electronic connector gasket innovatively unites the functions of sealing, electrical connections, and cable routing in a single product. Dana offers the complete solution of coordinated components under the successful brand name Victor Reinz®. The new gasket with its built-in cable feed-through is already in serial use in diesel engines.



Victor Reinz Electronic Connector Gasket



Primerless connection between sealing frame and elastomer

Preferred Supplier

Sogefi unpacks pioneering packaging

Sogefi, the OE and aftermarket filter specialist, has unveiled a new, optimised packaging system designed to reduce environmental impact and facilitate logistics. The first phase of the project is about to be implemented and covers packaging for the company's aftermarket cabin air filters.



The key goal for the project was to create an environmentally friendly product that would minimise logistical work for all parties involved. The innovative new packaging for Sogefi cabin air filters is made entirely of transparent, 100 per cent recyclable polypropylene 50 micron plastic. The same material is used for the label, allowing a quicker and more efficient recycling process. In contrast to the usual cardboard box, the material hermetically seals the product, offering full protection from dust and humidity – two major risks to cabin air filters.

All-round advantages

Despite its flexibility, the plastic wrapping serves as an excellent defence against physical damage, thanks to the resistance of the material in combination with the sealing process. Because it can mould to the product, the package itself is smaller and lighter than a box.

"This represents genuine added value for our customers," says Andrea Taschini, General Manager of the Sogefi Aftermarket Business Unit. "Less weight and bulk optimises transportation costs as well, and leaves our customers up to 15 per cent more space for storage. The transparent wrapping also means quicker handling and fewer returns, because the content is immediately visible to the mechanic."

Innovative design

Sogefi's new packaging is part of the company's strategy of continuous innovation in both its products and their delivery. The latest technologies were included in the design of this particular solution. Each package bears a QR code to give the user immediate access to online fitting instructions, which are also included inside the pack in printed format. In addition, key specifications such as the serial number and barcode are clearly displayed on two sides; one being a removable label.

This packaging project by the leading automotive equipment supplier for OE and aftermarket filters was officially launched at the Equip Auto trade fair in October, and will be implemented to the market during the first half of 2014. Other packaging projects are scheduled to be extended to other product groups at a later date. ■ ■

FILTRES purflux

LIGHT VEHICLE
CATALOGUE 2014

OE supplier to the top car makers. **soGEFI** GROUP

Filters at your fingertips: Sogefi launches updated Purflux catalogue

Sogefi Group, Europe's leading OE and aftermarket filter manufacturer, has announced the release of its updated Purflux catalogue. The publication contains the latest filter products, and confirms Sogefi's leadership in introducing new parts for recently launched car models.

The 2014 Purflux catalogue features a total of 118 new parts, corresponding to the latest vehicles that have come onto the market in the past year. These include the Volkswagen Golf VII, the Mercedes CLA (C117), the Vauxhall/Opel Adam, the Renault Clio IV and Captur and the just-released Peugeot 308 II. The presence of these recent models confirms Sogefi's leadership in reacting swiftly to new car market entries. Every new filter has been clearly identified and can be searched easily by vehicle manufacturer and filter type, thanks to the efficient layout. Despite the many new entries, however, this year's edition has 502 pages - making it only slightly larger than last year's catalogue. This was achieved by moving older vehicle models from the paper catalogue to the online version.

First to market

For Andrea Taschini, General Manager of Sogefi Aftermarket Business Unit, the catalogue is more than just a comprehensive listing of Purflux products. "It means that we are the leader in product introductions in general and particularly for new vehicles," he said. "We intend to continue our efforts to maintain our leadership position." The key to this strategy is giving distributors and garages quick and efficient access to the latest original Sogefi filtration technology with expertly designed reference tools.

Breadth and depth

Offering all-makes, OE quality oil, air, cabin air, petrol and diesel filters, the Purflux brand programme delivers a complete replacement filter solution for every customer - with the added reassurance of a long heritage of quality and innovation.

Established in 1956, Purflux has brought original Sogefi filtration performance to the independent aftermarket for more than 50 years.

Today Sogefi's expert engineers continually drive innovation through the brand. To enhance the high quality filtration media and components used, developments in recent years have included highly efficient Chevron pleating, and compact, lightweight filters using fewer metallic parts. This visionary approach ensures that today's Purflux filters meet and exceed the exacting engineering demands and tighter tolerances of modern vehicle engines.

New to range

Purflux also continually expands its ranges, responding quickly to bring replacement filters to market for the latest cars launched. For example, recent additions have included nine new air filter references covering applications such as the BMW 5 Series, Honda Civic and Volkswagen Up! Around 40 cabin air filters were also introduced in 2013, for applications including the Mazda CX-9, Mitsubishi Colt and Hyundai Grandeur. ■■



Universal Key to Over 100 Makes

ESI[tronic] 2.0 Truck: 10,000 Cases of Diagnosis for LCVs, Trucks and Buses

Whether large trucks or fast delivery vans, they should not stay at the workshop for too long: Time is money – for both customers and haulage company. Considering the large amount of sophisticated vehicle systems, "experience plus a rough guess" is just not enough anymore for profitable work.

Preferred Supplier



It's Worth It: Attending Any Customer

Nowadays more and more workshops prefer to rely on a master key which can easily be used by any mechanic in a mobile manner – Bosch ESI[tronic] 2.0 Truck. This continuously updated workshop software helps to repair

trucks, trailers, LCVs and buses quickly and to bring them back onto the road. It contains all relevant information and instructions for more than 10,000 diagnostic cases concerning commercial vehicles. With over 100 makes included, it is difficult to surpass its market coverage – on a global scale.

Technical Information: Especially for Commercial Vehicles

ESI[tronic] 2.0 Truck reliably guides the mechanic through the vehicle diagnosis. It provides the indispensable ECU diagnosis functions such as: readout and deletion of fault codes, selection of actual values, activation of actuators, resetting

of service intervals and adjusting components. The trucks', trailers', LCVs' and buses' model range, engine power, engine code and axle configuration are included to match the specific vehicle to be inspected. Furthermore, it features comprehensive technical information such as circuit diagrams, service and repair information and important facts about commercial vehicles.

Recent Vehicle Data Included

Once the customer arrives, ESI[tronic] 2.0 Truck is already set: Relevant service and repair information for new vehicle models is available as early as six months after the market launch.

Suitable for Any Workshop

The information and data required for the service of commercial vehicles is available within ESI[tronic] 2.0 Truck. The widespread combination of information types provides the

appropriate depth of information for any workshop – from the all-rounder to the expert.

Dream Team: ESI[tronic] 2.0 and Bosch Test Equipment

Current vehicle information and state-of-the-art measuring technology for troubleshooting, repair and maintenance go hand in hand. Practically all Bosch testers are thus “powered by ESI[tronic] 2.0”.

New to ESI[tronic] 2.0 Truck: Service Tasks at First Glance

The tab „Service Tasks“ now sums up service tasks relevant to the workshop. The mechanic thus does not have to search each and every service function among the different types of information anymore.

Useful Display of Actual Values

Actual values can now be read out at the instrument display. Depending on the actual value, the current

value is displayed. In addition the respective minimum and maximum values are shown too. Custom actual-value clusters facilitate the overview.

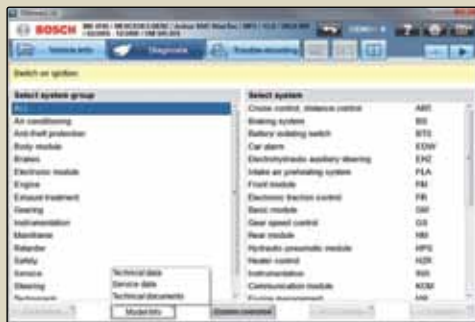


Neat: service tasks



Actual value indicator with instruments

ESI[tronic] 2.0 Truck – DVD 2013/3



New ECU-diagnosis software for 112 makes.

Make	Model	from ... to ...
ASHOK LEYLAND	4019	12/2012 -
BMC (SANAYI VE TICARET)	Professional	1/2012 -
FORD	Cargo-World-Truck C	1/2012 -
ISUZU	D-Max	4/2012 -
IVECO	Daily 2012	9/2012 -
	Daily	4/2012 -
	Stralis Hi-Way	1/2013 -
	Trakker 2013	1/2013 -
MITSUBISHI FUSO TRUCK & BUS CO	Canter	5/2012 -
		9/2012 -
SCANIA	G-Serie 2007	10/2012 -
	K-Serie	9/2012 -
	P-Serie 2004	10/2012 -
	R-Serie 2004	10/2012 -
VOLVO	FH II Serie	9/2012 -
	FM-Serie	4/2013 -
	FMX	4/2013 -

Integration of new makes and models

Diagnosis: Step by Step

Once finished the ECU diagnosis, the intuitive-to-use ESI[tronic] 2.0 Truck guides the mechanic through the repair procedure – in an targeted manner.



Exhaust-Gas Technology: Denoxtronic and Departronic

Bosch Systems Effectively Support to Reduce Emissions and Particles

With Denoxtronic and Departronic, Bosch offers two proven exhaust-gas treatment systems for commercial-vehicle applications.

Denoxtronic allows nitrogen oxides to be reduced by up to 95 percent, and fuel consumption by up to five percent. Departronic injects a controlled amount of fuel into the exhaust pipe, allowing the regeneration of the particulate filter. Denoxtronic and Departronic can be jointly controlled in the engine control unit (ECU) or by a separate dosing control unit (DCU). They help commercial-vehicle manufacturers to comply with future emissions standards such as US16, Euro VI, and Tier 4 final.

Denoxtronic: reliable, robust system for all markets and segments

Denoxtronic 2.2 is designed for use in the heavy and medium-duty

segments, as well as in off-highway applications such as tractors and construction machinery. In addition, it can be used in engines in the marine segment.

The new Denoxtronic 6-x, an especially cost-effective and robust variant, has been designed as a modular kit, and can thus cover all markets and commercial-vehicle segments.

Denoxtronic has a long service life and, thanks to its modular construction, can be integrated flexibly and easily into many different vehicle models.

Departronic: fuel dosing system for regenerating the particulate filter

The Bosch Departronic diesel-dosing system regenerates particulate filters in medium and heavy-duty commercial vehicles, as well as in off-highway applications. It injects a precisely metered quantity of diesel into the exhaust flow, upstream of the oxidation catalyst. As this fuel burns, exhaust temperatures rise to roughly 600 degrees Celsius. This temperature increase causes the soot collected in the particulate filter to burn off. Compared with post-injection in the engine itself, Departronic is more economical: since the engine oil is not diluted nearly as much, if at all, it does not need to be changed nearly as often.



The successful second Departronic generation has been in series production since 2010, and has been improved in a variety of ways.

Because Departronic can now handle a higher fuel supply pressure, diesel can be pumped into the system more flexibly from the low-pressure circuit of the diesel injection system. Departronic is self-cleaning and thus requires no maintenance. Its components are designed to withstand the conditions to be found in commercial vehicles and the off-highway environment.

The entire system has also been made lighter and more compact than the previous generation, and is designed for 12 and 24-volt operation.



Bosch Denoxtronic - Exhaust Gas Treatment for passenger cars and light commercial vehicles (video)



Bosch Denoxtronic - Exhaust Gas Treatment for commercial vehicles (video)



Bosch Departronic2 - particulate filter regeneration for passenger cars and commercial vehicles (video)



Battery Business Solution from Bosch – A Win-Win for All Concerned

With over one billion lead-acid batteries produced every year, accounting for around 75% of the total global demand for lead, the question of what to do with old batteries has become more important than ever. Not just from an environmental perspective, but also a business and regulatory perspective. The Battery Business Solution from Bosch takes this issue and turns it into positives for the entire value chain.

Up then down, then up again

An ongoing subject in the lead-acid battery market is the unstable pricing. This is largely caused by the price of lead – a key factor in the cost of batteries – continuously fluctuating over time. By applying the Battery Business Solutions model from Bosch, wholesalers, distributors and workshops can avoid this affecting their battery business.

More stable and beneficial purchasing prices

By purchasing batteries from one of

the wholesalers or distributors participating in the program, workshops can obtain an important price advantage. Combining this with the Battery Collection System allows for the offsetting of the lead value of the old battery. This means that when workshops return the old battery when buying a new Bosch battery, the lead value can be deducted from the purchase price and they basically pay for the base price of the battery only. Applying this model has the additional advantage of eliminating the price fluctuations caused by constant lead value changes in the market, leading to a much more stable purchasing price.

Simple and efficient

As wholesalers regularly make deliveries, old batteries are easily collected – all lead acid batteries, not just Bosch ones – at the same time. In cooperation with a certified partner, these old batteries are then collected from the wholesaler and taken to one of our certified partner

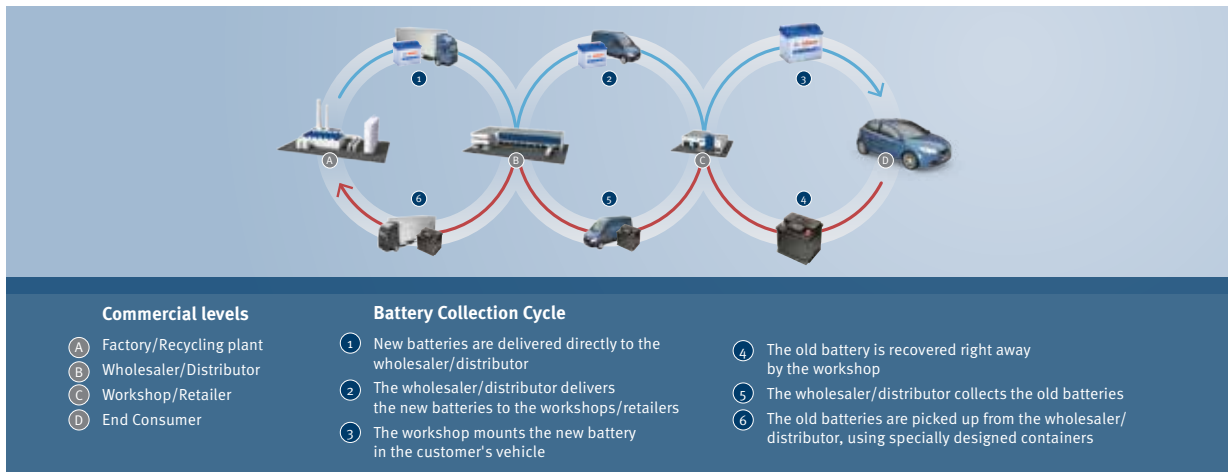
sites. Here all the lead is recycled before being used in the production of new, high-performance Bosch batteries, thereby avoiding dangerous products ending up in the environment. Workshops not only reduce the amount of space required for storing old batteries, but also comply with local legislation regarding the disposal of dangerous goods.

Increased sales

The convenience for the end customer of being able to efficiently dispose of their old battery while the new one is being fitted translates into increased sales potential for workshops.

An all round win

In short, the Battery Business Solution from Bosch benefits everyone: wholesalers and distributors, workshops, car owners and the environment. It is both convenient, makes good business sense and is sustainable. A win-win for all concerned!



Solutions Made in Germany.™



Truck 
Division

febi bilstein: Specialist for truck components too

World-famous product brand febi is mainly associated with spare parts for passenger cars. However, febi bilstein, established as a supplier and manufacturer in 1844, also commends itself in the heavy commercial vehicles sector with a widely diversified range of components and services.

With more than 15,000 applications, febi bilstein's Truck Division offers an extensive range for the "big 7" European commercial vehicle manufacturers. The range is being expanded significantly in the course of a new campaign with its "We do trucks too" headline. More than 1,000 product developments are planned for 2013 alone. In this case, the core competence lies in chassis components but febi bilstein is also considerably expanding the commercial vehicle range in product groups such as belt drive components and electrics.

Autumn will also see the launch of ProKits as a new product for commercial vehicles. These kits have already been successful for years in the passenger car sector. The advantages, whether for passenger cars or commercial vehicles, are exactly the same. febi bilstein's ProKits provide a practice-oriented solution for workshops which include a complete set of all the parts required for a professional repair.

Mountings are a perfect example of this. It is imperative to replace them at the same time as because they are also subject to significant stress during normal driving and can be equally worn. However, these are often missing from sets offered by many other suppliers. febi bilstein now provides a solution in the truck sector too, because it guarantees to supply all the necessary components and to combine them under a single product number. For the workshops this means no more extra sourcing trips which inevitably involve a loss of time and money.

febi ProKits for commercial vehicles can be illustrated based on the example of the king pin kit (febi 06015). In addition to the king pin and the associated axle bushings, it includes locking cap, roller bearings, o-rings, shaft seal rings and circlips.

Axle pins, bushings and bearings are safety-critical components where poor quality can lead to failure of the steering or impair braking. febi bilstein manufactures the axle pins and axle bushings in-house at the Ennepetal site and thus guarantees dimensionally-accurate production and strict quality controls.

Preferred Supplier



One of the febi ProKits for commercial vehicles is the king pin kit (febi 06015)

In addition to the king pin ProKits, febi Truck Division will offer other product lines as ProKits, starting with steering rods, track rods and track rod ends.

Further information may be obtained at: www.febiprokit.com

The febi brand is part of the bilstein group, an independent corporate group which unites the prestigious product brands febi, SWAG and Blue Print under one roof. Further information can be found at: www.bilsteingroup.com

New in Range: Sump pan (febi 38681)

febi bilstein is pleased to introduce 38681*, composite oil pan module, suitable in application to Volvo FH/NH12 and D12 engines.

While keeping in line with OE thermal dynamics and capacity characteristics, febi composite modules are also impact resistant and offer a weight saving of up to 60% against comparable steel constructed counterparts. Adding to this febi bilstein's composite materials are 100% recyclable, meaning end of life units can still be counted towards those green targets.

*Available separately: sealing gasket (febi 39670)



febi 38681 to fit: Volvo FH12, FM12, FH/FM, NH12, Motor D 12 D (OE-Nr. 20702520)

Philips xenon lighting

PHILIPS

Pro-active solution against xenon lamp piracy

Philips is the first automotive lighting manufacturer to address the xenon-lamp piracy issue.

Preferred Supplier



Counterfeit Philips xenon lamps are becoming increasingly available through online and offline distribution channels. These counterfeit lamps are poor imitations of inferior quality. Buying, selling or being in possession of counterfeit products is illegal. To protect our customers and all consumers from counterfeit Philips lighting products, we've created a pro-active solution using unique, state-of-the-art technology. **Philips Certificate of Authenticity (COA) is now available on every new xenon lamp package you buy.** In 2014, Philips will widely communicate and promote the new copy protection in B2B and B2C media.

The COA on each package has a unique **Security Code**. Under strong light the Security Code shimmers in rainbow colors using the iridescent technology. There is also a **Moving Code** whereby under direct light a moving digit is visible, repeating the last digit of the Security Code. By changing the angle of the COA in direct light, the digit will move up and down.

Using the Security Code customers can verify the authenticity of the Philips product on a dedicated, fully secure Internet platform by either scanning the QR code or connecting to **www.philips.com/original**.

Philips is committed to helping protect its customers from poor imitations of inferior quality that may damage a vehicle or result in personal injury.

Always ensure that you are buying genuine Philips products.



To connect to the secure internet platform **www.philips.com/original**



Xenon Vision

Standard Xenon bulbs experience slight changes in color over time and this has meant previously that a replacement Xenon bulb will often look mis-matched, compared to the remaining headlamp. The solution has always been to replace Xenon bulbs in pairs.

Philips new Xenon Vision bulb, the new standard Xenon lamp from Philips, addresses this problem, matching the color of an existing Xenon bulb, so that motorists will now only have to buy replacement Xenon bulbs singly, offering noticeable cost saving benefits.



Philips Xenon Vision



Standard xenon replacement lamp



Xenon BlueVision ultra

Philips new Xenon BlueVision ultra is aimed at the motorist who is looking for individual style in a replacement Xenon bulb.

The human eye responds to blue light, perceiving it as being closer to daylight and BlueVision ultra has been designed with a clear outer tube with blue stripes that produce a pronounced blue effect. The bulb projects light at a color temperature of up to 6000K – the highest in the market place – and it means that the motorist perceives it as being like driving in daylight.

The Xenon BlueVision Ultra delivers 10% more light than previous generation Xenon lights (Philips Xenon UltraBlue), while its distinct blue tint makes any car equipped with it stand out from the crowd.



Philips Xenon BlueVision ultra



Standard xenon lamp



Xenon X-tremeVision

The X-tremeVision halogen light has won numerous awards and Philips is now proud to introduce its Xenon counterpart.

Officially rated as the first +50% Xenon lamp, Xenon X-tremeVision is the brightest Xenon headlamp yet to have come to market. Xenon X-tremeVision achieves this thanks to an optimized burner geometry whose fine tuning delivers increased light levels where they are most needed.

The result is a longer beam to see obstacles earlier, together with a greater perceived visual difference, thanks to the increased color temperature of 4800K. The more bluish light delivers in turn enhanced peripheral vision. Xenon X-tremeVision offers a significant boost to driving safety.



Philips Xenon X-tremeVision



Standard xenon lamp

Preferred Supplier



Building Your Business With Steering Parts You Can Trust

OE-Quality Designs, Sophisticated Elastomers Driving Growth For Steering and Suspension Service Providers

Having a customer return just a few days or weeks following a steering and suspension repair is rarely a good thing. Any complaint – whether about noise, vibration, harshness, poor steering response, or other issue – could damage your hard-earned reputation. As an automotive professional, therefore, you need to rely on a steering and suspension manufacturer you can trust.

How do you define trust? Two key criteria are original equipment technology and OE-quality performance. “OE quality” is a claim made by many parts manufacturers, but in reality it requires an extensive investment in engineering resources – an investment typically made only by global manufacturers that have built strong relationships with leading vehicle manufacturers.

Tenneco and the Monroe® brand rank among the elite OE manufacturers who are also trusted leaders in the replacement parts category. And when it comes to well-earned trust, few brands can compare to Monroe®, which is a global leader in complete “undercar” solutions, including shock absorbers, springs, track control arms, ball joints, tie rods, bushings, and a full range of other OE-quality components.

Preferred Supplier



Redefining Elastomer Science

Have you ever wondered how vehicle manufacturers can deliver such high levels of steering precision and response without also encountering unwanted NVH issues? One of the keys to this exceptional performance is found in the bushings and other elastomeric components featured in modern steering and suspension systems. Yet, while many elastomeric parts look alike, their formulations -- and resulting performance -- can be quite different.

CLEVITE® *Elastomers*

“When a steering and suspension supplier says they offer OE technology, it is important to ask whether they are an OE elastomers manufacturer, because that is where much of the engineering focus is being placed today,” said Christian Claeskens, senior product manager for Tenneco and the Monroe® Steering and Suspension range.

Tenneco is one of the world’s leading manufacturers of advanced elastomeric compounds and components for automotive and commercial vehicle use. The company’s engineers leverage this OE leadership to help determine the ideal materials and designs for the service market. Among Tenneco’s OE customers are Audi, Chevrolet, Fiat, Ford, Honda, PSA, Renault, Toyota, and Volkswagen. This leadership at the OE level helps ensure that every Monroe® Steering and Suspension component provides the strength and responsiveness demanded by today’s consumers.

Trust...and Availability

Tenneco understands that it’s not enough to simply talk about OE-quality parts – suppliers must also invest in the extensive coverage needed to help workshops earn every service opportunity. Few suppliers in the past year have matched the Monroe® brand’s determined investment in new parts, with approximately 400 components added to the range. In addition, Monroe® offers a broad offer of “first-to-market” components for the latest and most popular vehicles, including:

- Ford Focus III and C-Max II – Both ALU (light power petrol & Eco boost engines) and sheet-metal (high power petrol & diesel engines) control arm versions available
- Peugeot 508 – Forged track control arm and other components
- VW Up, Seat Mii and Skoda Citigo – Sheet-metal control arm and other S&S

Preferred Supplier





Achieve Diagnostic Expertise

Do you have all of the tools to help identify every steering and suspension opportunity? Here are a few new tools that are certain to help make you and your team even more proficient in diagnosing the latest steering and suspension systems:

Monroe® Steering & Suspension Tool (KSW101)

Finally, a fast, easy way to check steering and suspension components for wear. This innovative tool enables one person to articulate the wheel-end to check for component wear when the suspension is not under load.



Watch the video

Free Monroe® e-Learning Modules

Tenneco offers an extensive library of free, interactive training modules that present critical technical information, diagrams, images, video and other resources in easily understandable segments – all available through the **Monroe.com** website.

These self-directed modules include:

- Steering Systems Training
- All About Suspensions
- Continuously Controlled Electronic Suspension
- Commercial Vehicles Training
- Monroe® Elastomers



Watch the videos to learn which Monroe® product is right for your vehicle

2014 “Tenneco On Tour” road show

If you haven’t visited this interactive, vehicle technology road show, you’ll be amazed at what you can learn about next-generation ride control, steering and suspension, and emissions control systems. If you’ve already taken part, you can look forward to an all-new road show being developed for 2014.



For more information and to find the latest Monroe® products for any vehicle application, simply visit the convenient **www.monroecatalogue.eu** electronic catalogue.

Preferred Supplier

Tenneco



Attractive new packaging coming to full line of monroe® cv shock absorbers

Tenneco's Monroe® Magnum and Van-Magnum® ranges of commercial vehicle shock absorbers and seat dampers are now being offered in attractive, robust new packaging designed to highlight the Monroe brand's global reach and Tenneco's leadership as an original equipment ride control supplier.

The striking new black-and-yellow packaging and enhanced label graphics correspond with the brand's global trade dress, ensuring a consistent, recognizable and highly professional appearance in all selling situations.

The new package and label graphics have already been introduced to the Monroe Magnum offer of axle shocks for trucks, trailers and buses. They are now being integrated into the Monroe Magnum cabin dampers offer as well as the complete range of Monroe Van-Magnum shock absorbers and seat dampers.

"It is important that commercial vehicle operators have confidence that every shock or cabin damper features the same world-class design and quality that have made Monroe a leading choice around the globe. Now they can quickly recognize the distinctive black-and-yellow Monroe design and be certain they have made a smart choice for their vehicles," said Olivier Schyns, senior marketing manager, Tenneco Europe Aftermarket.

To learn more about Monroe axle shocks and cabin and seat dampers for commercial vehicles, please contact your Monroe supplier or Tenneco sales representative, or visit www.monroe.com or www.monroecatalogue.eu.

Preferred Supplier



SKF



SKF to keep Volvo rolling forward with wheel hub and suspension bearing units

The long history between these two companies has been expanded even further with SKF set to supply wheel hub bearing units and suspension bearing units for Volvo's next generation of premium vehicles including the Volvo V40.



Preferred Supplier

This year has been an important one for SKF and the Volvo Car Corporation with the announcement that SKF will be supplying the wheel bearing hub units for future Volvo vehicles - vehicles that are being developed according to ground-breaking specifications under the scalable product architecture (SPA) platform.

With SPA, the Volvo Car Corporation is focusing on the development of lightweight automotive designs with a goal to reduce vehicle weight without negatively impacting its performance or comfort. The SKF third generation hub bearing units (HBU3) are optimized for reduced weight and include high performance seals with reduced friction. This solution is robust and withstands more strain for increased reliability and prolonged life.

“We are delighted to have been awarded the largest contract ever received by SKF from Volvo Car Corporation. It is also one of the most significant orders received from our automotive customers. Working in close cooperation, we used our technical knowledge and expertise to meet their very challenging requirements for a high performance design that meets their weight reduction goals. The robust technical solution that we have developed will be supplied to Volvo Car Corporation utilizing our global manufacturing footprint”, says Trygve Sthen, President, SKF Automotive.

In addition, SKF announced last year the signing of a seven-year contract with Volvo Car Corporation for the delivery of rear wheel bearing units and front suspension bearing units for the newly launched Volvo V40 car model. The contract covers the full production volume for the model series.

SKF has developed rear wheel hub bearing units specifically designed for the V40 and for the premium demands of Volvo Car Corporation. These, along with the MacPherson suspension bearing units, are reliable technical solutions developed for the tough requirements of the automotive market.

The products are manufactured in France and Italy and SKF has started delivering them.

SKF offers a complete portfolio of products and services to the automotive industry that help reduce CO2 emissions, including the next generation of low-friction, lightweight solutions to reduce emissions, increase fuel efficiency and compete in a rapidly changing market.

SKF already offers OE quality aftermarket solutions for the Volvo V40

In order to fully prepare customers for future demand, SKF has already developed several aftermarket kits for the Volvo V40:

“Our aim is to provide a comprehensive range of high quality and

where possible OE supplied products for the Volvo V40”, comments Michael Bohm, head of product management and business development. “This may be a new vehicle, however, aftermarket demand will soon be coming in and we want our customers to be ready and fully prepared.”

The SKF aftermarket offer for the Volvo V40 will be extended over the coming months with additions to all product lines in order to fulfil the “one-stop shop” promise.

For additional product information, check SKF online catalogue at www.vsm.skf.com or download the “SKF Automotive parts search” iPhone application.



	Wheel bearing kit	Suspension kit	Timing belt kit	Timing belt kit with water pump	Water pump kit	Multi-V belt	Multi-V tensioner kit	Freewheel Alternator Pulley kit
VOLVO V40 engine								
D2	VKBA 6790 VKBA 6791	VKDA 35435 T			VKPC 83259	VKMM 6PK966	VKM 33164	
D3	VKBA 6790 VKBA 6791	VKDA 35435 T		VKMC 06220	VKPC 86635	VKMM 5PK891		VKM 03654
D4	VKBA 6790	VKDA 35435 T		VKMC 06220	VKPC 86635	VKMM 5PK891		VKM 03654
T3 GTDi	VKBA 6790	VKDA 35435 T	VKMA 04215		VKPC 84217	VKMM 6PK1555	VKM 34115	
T4 GTDi	VKBA 6790	VKDA 35435 T	VKMA 04215		VKPC 84217	VKMM 6PK1555	VKM 34115	
T5	VKBA 6790 VKBA 6791	VKDA 35435 T		VKMC 06038	VKPC 86618	VKMM 5PK891		

SKF vehicle aftermarket launches 2014 edition of its suspension catalogue



The latest version of the SKF vehicle aftermarket suspension catalogue is now available. This new catalogue contains useful information to help customers find what they need quickly and efficiently.

The latest edition of the catalogue features:

- 85 new kits in the total 325, which represents a 35% increase since the previous catalogue edition;
- 234 additional car models covered including the recent Peugeot 2008, Volvo V40 II and VW Golf VII;
- 10,000 links to passenger cars and light commercial vehicles covering European and Asian car models ;
- 78% coverage of the car parc in Europe (both European and Asian brands);
- A new addition to the SKF suspension product range – the suspension repair kit. This kit includes all necessary top mount components as well as the auxiliary spring bumper and dust cover for rear or front axle;
- A comprehensive aftermarket product portfolio including top mount kits, suspension arm kits, strut protection kits and suspension repair kits;
- High quality product images for all kits showing their detailed content for quick product recognition;
- Full OE cross-list to help identify corresponding SKF kits;
- Shock absorber cross-lists for Kayaba, Monroe, Sachs and TRW to help identify complementary SKF kits (top mount and strut protection kits) required to make a complete repair

Olivier Vigier, SKF's Chassis Product Manager, says *“Building on years of experience as a supplier of MacPherson components to OEMs worldwide, SKF is dedicated to providing a complete OE quality suspension range to the independent aftermarket. This catalogue illustrates our strong commitment to remaining a major aftermarket player in the suspension area.”*

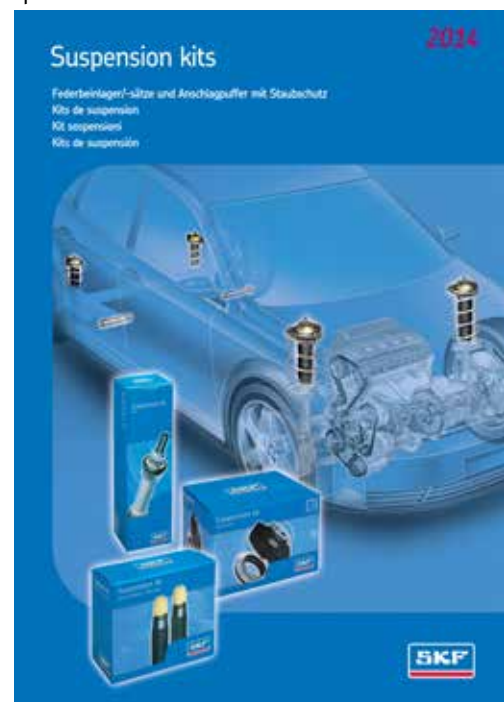
The catalogue information is also available online at www.vsm.skf.com as well as from the “SKF Automotive parts search”

iPhone application.

VKDC 35535 T



VKDA 35610 T



Countertrack™ and Ballspline™ technology

**New generation of driveshafts from GKN.
Now also available in the independent aftermarket**

With the new driveshafts for the Volvo models XC60 and XC90, starting immediately GKN is also supplying the independent automotive repair market with OE-identical replacement driveshafts with Countertrack™ and Ballspline™ technology. That means the supplier guarantees that the specific characteristics of these vehicle models are maintained by installing the correct spare part for the front wheel drive.

SUVs are increasingly shaping today's streetscape. It's been a long time since they were primarily used as offroad vehicles; they are now being used on our streets just like cars in daily travel. And that also changes the demands placed on these vehicles. Latest generation SUV's perfectly combine the comfort of a passenger car with the offroad characteristics of this type of vehicle. Achieving these combined driving characteristics requires a special suspension. That results in wheel travels that exceed the requirements placed on a standard driveshaft. GKN, the leading driveshaft manufacturer, has developed the solution: Equipped with the new, so-called SX- and SIO joints with Ballspline™ plunge device, based on a ball bearing, the driveshaft for the Volvo models XC60 and XC90 constitutes the solution for extreme plunge capacities and a high mounting angle while at the same time improving the NVH (Noise, Vibration, Harshness) behaviour.

Driveshafts for Volvo XC60 and XC90 models with the new CV joint generation and Ballspline™ technology for the independent aftermarket are available exclusively under the GKN brands Spidan and Löbro.

To find out more about our Spidan and Löbro products and services, please visit

www.gknservice.com ■ ■



SPIDAN®
Original GKN Parts

TRW



TRW's innovative CV steering part 'x-cap' becomes the global benchmark after winning new contracts

TRW Automotive Aftermarket has secured new contracts at both original equipment (OE) and aftermarket level for its innovative heavy commercial vehicle (HCV) TRW Proequip branded steering part, X-CAP.

Preferred Supplier





The TRW designed and manufactured tie rod end encompasses the very latest steering technology and is the smallest and lightest component of this kind on the market, making it the global benchmark and part of choice for a growing number of customers.

TRW's OE business has won new contracts with: Albion (Leyland Trucks); Daimler Truck; Scania and Volvo Truck to supply X-CAP across Europe and South America from 2013. As a direct result of these new contract wins, the aftermarket business has also secured several new accounts helping to further bolster successful and ever growing sales. The TRW Proequip brand continues to go from strength to strength. Sales of HCV steering and suspension parts in 2012 were up 20 per cent over 2011 figures.

Dennis Christ, European HCV channel marketing manager, TRW Automotive Aftermarket, explained: "We launched X-CAP into the European aftermarket exactly three

years ago. A smaller, stronger, more durable product with a new design of dust cover for better part protection, combined with reduced torque for enhanced steering comfort exceeded the requirements of a market focussed on decreasing component weight and limiting vehicle emissions.

"With its innovative technology and the benefits they bring, we were confident of the success of X-CAP; our sales figures support this and show that the market is in complete agreement."

Designed by TRW engineers and carrying a 20 year patent, X-CAP is manufactured by TRW at its facility in Krefeld-Gellep, Germany. The programme comprises about 200 references to meet individual customer requirements regarding fitting position and load characteristics.

"We have a considerable OE market share on drag links and tie rod ends and our aim is to offer an X-CAP solution for each tie rod end to the market," Dennis explained.

"In the heavy commercial vehicle industry we are dealing with powerful vehicles designed to carry a great deal of weight. The weight of the chassis plus potential load means that any additional component weight will affect the dynamic energy of the vehicle, and could therefore affect its performance. The dynamic energy of an object is the energy produced by the combination of its weight and speed. Each braking and steering action subjects a vehicle to unseen dynamic forces by placing load on the individual components."

Launched at Automechanika Frankfurt, in 2008, the OE quality TRW Proequip programme is taken to market under the strapline of: 'The heavyweight in safety' and the portfolio now comprises: steering & suspension parts; brake pads; shock absorbers and remanufactured steering gears.

For more information, access: www.trwaftermarket.com/trwproequip

Saleri



Saleri invests to match increasing demand

Industrie SALERI Italo SpA, the Italian water pump specialist, doesn't feel the crisis, as turnover in the first 10 month of 2013 shows a +30% overall growth, with OEM sales boosting with a score of +50% compared to last year and Aftermarket sales reaching a satisfactory +8%.

Preferred Supplier



The turnover forecast for 2013 is 90 Mio€ and the plan based on Aftermarket budgets and OE open orders leads to 135 Mio € in 2015, more than tripled compared to 2005.

The engine of such remarkable growth is the technological development of the product in the original equipment market, which has seen the evolution of the mechanical water pump from a relatively simple device into a more complex product: the variable or the electrical water pump.

Most of the expected future growth in the OE will be linked to this new generation of products which soon will become part of Saleri's strategic aftermarket offer.

In the independent aftermarket, the growth is also due to significant investments made with the aim of improving the SIL brand image in the market.

To be able to face this production increase, Saleri invested in new capacity and available space.

In August 2013, the production and logistic capacity has been extended with a new building of 12,000 sqm, in the same compound as the headquarters and the current factory in Lumezzane (Brescia area, Northern Italy).

In November 2013, Saleri negotiated with the Unions to increase the



flexibility of working time, achieving an agreement to extend operational time of 24 hours a day, 7 days out of 7, to exploit fully some strategic production equipments.

New fully automated machining and assembly lines are due to be operational by the beginning of 2014 and with these new investments Saleri now works on a total surface of 30,000 sqm and will reach in 2014 an annual production capacity of 4.5 million water pumps.

30,000 sqm of total surface means

- + capacity
- + flexibility
- + space for buffer stock

- + reactivity in aftermarket
- + production equipment ready for new generation water pumps

This most likely makes of Saleri the biggest European producer of water pumps delivering both the Original Equipment market and the Independent Aftermarket, where it is providing premium quality products and constantly improving the service to its distributors and repairers.

Preferred Supplier



Osram



Osram is setting the pace for high performance lamps

Osram is taking another step forward in its development of the Night Breaker family and offering even more powerful versions of the high-performance lamps in the form of Night Breaker Unlimited.

Compared to other commercially available halogen car lamps, the halogen lamps can deliver up to 110 per cent more light on the road. The xenon version, Xenarc Night Breaker Unlimited, can achieve up to 70 per cent more light compared to standard products. One reason for the constant success of the market leader for light applications in the car sector is the constant advancement of its product range. And this also applies to the most successful car retrofit products in Osram's history: the lamps in the Night Breaker range. Performance especially has been improved further in the Night Breaker Unlimited lamps. The halogen version can achieve up to 110 per cent more light on the road, a light cone that can be up to 40 meters longer and 20 per cent whiter light compared to standard halogen bulbs. The xenon lamp, Xenarc Night Breaker Unlimited, can not only deliver up to 70 per cent more light on the road, but also can produce an up to 20 meter longer light cone and up to 5 per cent whiter light compared to standard xenon lamp.

High-performance lamps such as those in the Night Breaker series facilitate safe and fatigue-free driving. Obstacles and dangers are also detected quicker and more effectively. The whiter light means that objects appear in a more natural light, which is important for warning and information signs, for example. The intense white light not only delivers enhanced safety, but also upgrades the car's appearance.

Support in the sales area

With the market launch, a special Night Breaker Unlimited display can be used directly at Point of Sale to present the product and push sales. Osram also offers special advertising materials for dealers. Alongside information material, sales staff can also make use of a variety of advertising materials. These include window stickers featuring 3D designs, ceiling hangers and a demo tool that demonstrates the effectiveness of the lamps on the sales shelf. An image film can also be obtained from Osram.



The Night Breaker family welcomes two new members: Night Breaker Unlimited and Xenarc Night Breaker Unlimited, which can deliver up to 110 and 70 per cent more light on the road respectively compared to conventional lamps.





Das Original

Elring Elring Website Delivers Service with a PLUS



Our website is also available in mobile format with installation videos to help you fit new components such as cylinder-head gaskets.



To complement its high-quality aftermarket products, Elring offers its vehicle workshop and retail partners a range of highly practical services that includes training courses, seminars and the Elring website, which is packed with useful information on all the subjects that vehicle professionals have to deal with every day.

Comprehensive Multilingual Package of Online Services

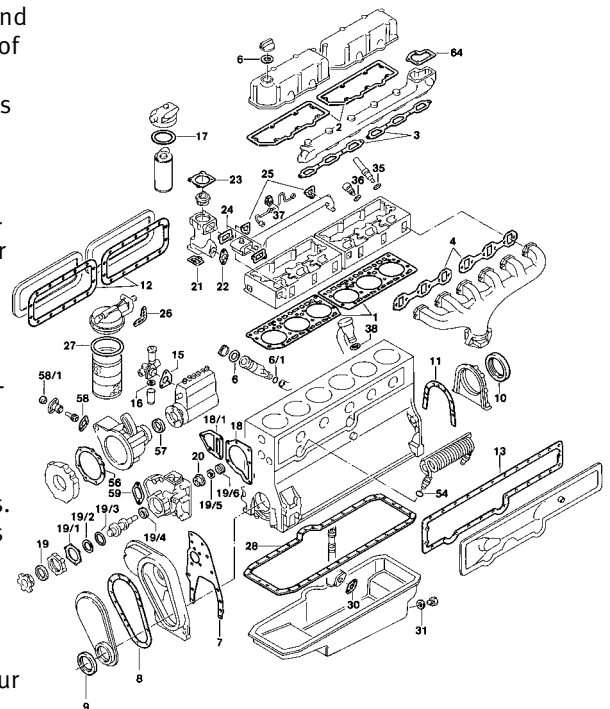
To give you a flavor of what you can find on our English-language website at www.elring.de/en/home.html, there are tips from the gasket expert, information on sales and technical matters, as well as details of Elring's entire portfolio. "Elring stands for service, and that goes for our website, too," says Hans-Dieter Schwarz, Head of the Aftermarket division.

There are exploded diagrams showing the individual components that make up an engine, and on our home page you'll find links to the Elring partner search page along with details of the latest trade shows, our online catalog and an option to sign up for our newsletter. What's more, the website is available in seven languages – another example of the importance we attach to customer service.

Special feature: installation videos

Naturally, all Elring products are accompanied by printed instructions for installation. We have also produced a series of handy videos to help mechanics install our components. The videos provide clear yet detailed explanations for every step of the installation process. Pictograms are used to focus on the key stages. "Our installation videos are a unique selling point when it comes to aftermarket support, and we intend to publish new ones on a regular basis," says Schwarz.

For even more interactive content, see our redesigned YouTube channel at www.youtube.com/elringdasoriginal. Alongside all our assembly videos, you'll find a range of film material designed to highlight Elring's expertise in the OE segment. Feel free to leave comments on the videos and ask any questions you may have. This service is also available to mechanics without direct access to the internet. Just give the Elring Service Team a call on +49 7123 724-799.



Exploded diagrams by Elring for selected vans and commercial vehicles.

Preferred Supplier



Ferodo



Gold Trophy for ECO-FRICTION® technology

With Ferodo you have a promise you can count on, with leading Braking expertise and OE Pedigree.

Ferodo ECO-FRICTION® recognised for its innovation.

2013
Winner

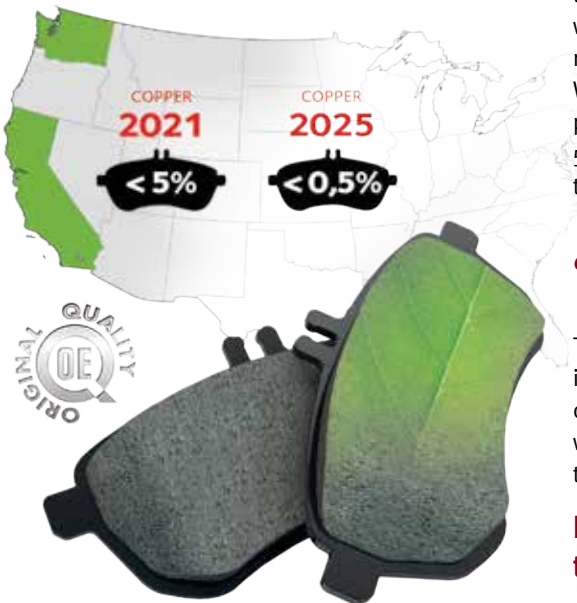


Ferodo ECO-FRICTION® of Federal-Mogul, the ecological brake pads with low or zero copper, won the Golden Trophy of the International Grand Prix of Automotive innovation awards 2013 in the French fair Equip Auto, in the 'parts and post equipment' category. Elected among hundreds of qualitative products and services, the ECO-FRICTION® brake pads of Ferodo, was recognised by the jury, composed of international journalists from 20 countries, for its innovative technology and environmental friendly product feature.



'You're in control' of Braking expertise.

Alongside a commitment to perfect braking on and off the road, Ferodo commits to protect the environment. Due to fragments of copper which are deposited on the road surface after a brake application, and the environmental issues this can cause to aquatic organisms once washed away into fresh water, legislation has been passed in California and Washington to reduce and ultimately eliminate copper from brake pads by 2025. With a determination to provide a solution, and ahead of anticipated legislation in Europe, Ferodo undertook a challenging 5 year period of dedicated R&D, testing over 1,500 raw materials to reach a final formulation of 25 components.



'You're in control' of OE Pedigree.


The vehicle manufacturer's trust of ECO-FRICTION® technology is demonstrated with new platforms from Mercedes and Audi choosing Ferodo as an OE supplier to future models. The first will be the Mercedes C-Class, due to launch in Q1 2014, where the aftermarket product will go hand-in-hand into the market.

Ferodo ECO-FRICTION® solution, ready today, to serve the challenges of tomorrow.

Go to

 www.ferodo.com

to find out more information on ECO-FRICTION®

The Ferodo brand is a registered trademark of 

Preferred Supplier

Champion



EASYVISION

The best coverage with one compact range



High quality, high coverage, compact range

Champion's compact Easyvision range provides the **best coverage with just a few references**. With only 15 part numbers of Multi Clip flat blades, installers can fit 95% of all cars using the **patented Multi Clip system**.

Thanks to its **improved symmetrical design** and durable construction, Champion Easyvision wipers combine the best quality with an appealing look. This innovative range is complete with **Easy Clip standard blades** for traditional applications as well as all new **Retro Clip flat blades**.

The compact Easyvision range at a glance:

- Multi Clip flat blade wipers: 15 references
- Retro Clip flat blade wipers: 11 references
- Easy Clip conventional blades: 13 references
- Rear blades: 3 references

NEW MOBILE WEBSITE
www.championeasyvision.com



Now in a striking NEW packaging with QR code!

- New blister packaging creates maximum visual impact
- QR code links directly to a mobile website for easy part identification and installation animations
- Up-to-date application data and fitting instructions are provided on the packaging

Easyvision catalogue
CATCM1302



MORE INFO?

Just go to our brand new website www.championeasyvision.com or consult our Easyvision catalogue (CATCM1302)

Preferred Supplier

Champion is a registered trademark of FEDERAL MOGUL

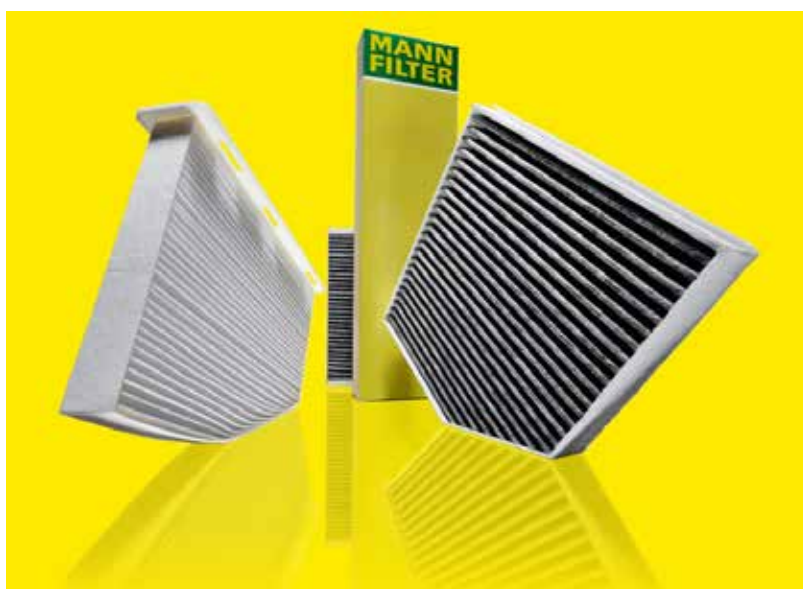
MANN+HUMMEL

MANN FILTER

For health and road safety – into the cold season with a fresh filter

Following the warm, high-pollen season, it's time to replace the cabin filter at the next workshop visit. As the days get shorter and visibility gets worse in autumn and winter, a well-functioning pollen filter makes an important contribution to road safety. It also protects the health of the vehicle occupants and ensures clean air in the vehicle interior.

During the warm spring and summer months, the air is heavily contaminated with pollen. In addition to sooty particles, dust and tyre abrasion, the pollen contributes towards clogging the car's cabin filter. When preparing their cars for the cold and dark season, many motorists think of winter tyres, antifreeze or de-icing spray. "A new cabin filter is equally important. It has to perform at the highest level during the autumn and winter to ensure good visibility and a healthy atmosphere in the passenger compartment," says Emrullah Atilgan, Product Manager cabin filter at MANN-FILTER. Workshops and distributors should inform their customers of this fact, advises the expert. To maintain optimum performance, the cabin filter should be replaced every 15,000 kilometres or once a year at the latest. In reality, however, drivers here only change their cabin filters on average about every six years, according to the findings of the



MANN FILTER experts.

Efficient investment in preventive healthcare

Measurements have revealed that, without a cabin filter, the vehicle occupants are exposed to a significantly higher concentration of pollutants than roadside pedestrians. This can be particularly stressful for people suffering from allergies and children on board. Like a vacuum cleaner, the ventilation system draws in the exterior air, which is contaminated with particles and harmful gases. Up to 540,000 litres per hour of air enter the vehicle interior through the filter, the air conditioning, heating system and blowers. MANN-FILTER cabin filters ensure clean air in the vehicle interior. They clean the aspirated exterior air and remove nearly 100 percent of harmful particles. Over time, however, the core of the filter, the filter medium, gradually clogs up, which can result in a reduction in blower capacity by around 50 to 70 percent. In order

to ensure fully effective air cleaning and a good air flow, the cabin filter should be replaced at timely and regular intervals. A new filter is therefore a good investment in the health of all vehicle users.

A clear view on dark days

Cabin filters also protect the air conditioning system from contamination and increase its operating life as no deposits form in the fine structures of the evaporator when the filter is replaced as specified. At the same time, full cooling and heating output of the air conditioning system is maintained. In the winter, this ensures, for example, that the vehicle interior warms up more rapidly. Full blower capacity is also essential here. If, on the other hand, the air flow decreases due to a clogged filter, misted-up windows and a dangerous glare/greasy film can result. Particularly when faced with oncoming traffic in darkness, the driver's view is significantly impaired. "A clogged filter and a poor air flow can have an impact on the

road safety of the vehicle and the risk of accident is considerably increased," warns Arnulf Thiemel, a specialist for automotive engineering at the German automobile association, ADAC.

Fast and simple upgrade possible

MANN FILTER supplies cabin filters in OE quality for safety, comfort and a healthy climate during driving. Installation instructions for simple and fast replacement at the workshops are provided with each filter. It is also easy to upgrade to an activated carbon filter for virtually all filters. Particle filters retain solid particles such as dust, pollen and soot, whilst combi-filters – thanks to an additional activated carbon layer – also almost completely eliminate harmful gases such as ozone and benzene, as well as unpleasant odours. When changing the filter, the mechanic can generally without any additional effort replace the particle filter by the more effective combi-filter. ■■



NGK

Leading technology from NGK



At this year's IAA, NGK Spark Plug Europe announced many exclusive supply agreements with Europe's leading car manufacturers, among those a brand new glow plug for Mercedes-Benz and a sophisticated spark plug for Audi's new S3.

The second generation of NGK's New High Temperature Ceramic glow plug (NHTC) celebrated its premiere with Mercedes-Benz: The NHTC 2 reaches 1,000 °C in just one second - 0.7 seconds faster than its predecessor - and enables an environmentally-friendly cold start similar to that of gasoline engines. NGK also improved the plug's post and intermediate glowing characteristics to support Mercedes-Benz in making the sound of their diesel engines similar to that of a gasoline engine. In spite of its considerably higher performance, the NHTC 2 requires far less power than its predecessor. Compared to the first generation, power consumption has decreased from 44 to 40 Watts. This measure unburdens the car's alternator and battery and keeps consumption low.

Audi S3: As fast as it is furious - with NGK

Additionally, the most up-to-date version of the Audi S3 compact sports car features an exclusive OE spark plug from NGK. The car is powered by the third generation of the group's turbo-charged EA888 four-in-line engine. This direct injection motor offers a maximum performance of 221 kW (300 hp). For the high performer, NGK designed the PLFER7A8EG spark plug, which features a M14 thread, thus allowing for larger cooling ducts. Additionally, its electrodes were made to combine maximum performance with minimum wear. The centre electrode comes with a platinum alloy tip, while the ground electrode has been equipped with a chip made from the same alloy. Additionally, a copper core in the ground electrode ensures optimal heat dissipation from the combustion chamber. Finally, the plug's "Long Insulator Design" with a cup-shaped terminal ensures very good resistance against electrical breakdowns or failures despite the EA888's high ignition voltages.

Fiat 500L Trekking: Multi-Purpose Vehicle with multiple products from NGK

At the IAA, Fiat showcased the new 500L Trekking - a crossover version of the Multi Purpose Vehicle (MPV) Fiat 500L. NGK is



Preferred Supplier

NGK. THE IGNITION AND SENSOR SPECIALIST.

supplying the company with a wide range of products for the new car. The downsized, turbo-charged TwinAir two-cylinder engine (70 kW / 90 hp) uses the space-saving ILKR9G8 spark plug. It comes with a slim and long-reaching, 26.5-mm M12 thread, as the compact motor offers only limited space. As the engine uses variable valve control to adapt the charging to the current driving situation, the ILKR9G8 faces high charge motion and cylinder pressures. To meet these requirements, it features a centre electrode with laser-welded Iridium tip. Due to its slim design, more ignitable air-fuel mixture comes close to the spark, ensuring ignition reliability and engine efficiency. NGK also is the sole supplier of Lambda sensors for the charged TwinAir engine. Fiat installs the wideband sensor UAA0001-FA001 from the NTK brand as regulating sensor and the binary type OZA629-A2 as diagnostic sensor.

Maserati Ghibli: Powered by NGK

The Ghibli is one of the cornerstones of Maserati's strategy. NGK was selected as exclusive supplier of spark plugs for its gasoline, turbocharged, 3.0-litre V6 engine. It is available in two output categories: The first delivers 243 kW (330 hp), the second 310 kW (410 hp). For both units, NGK supplies the SILKAR8C6DG as exclusive spark plug. It is a double precious metal type, endowed with a 0.6-mm thin Iridium tip on its centre electrode and a platinum chip on the ground electrode. Additionally, the ground electrode features tapered edges to improve mixture accessibility and combustion stability. It also comes with a copper core, which is able to dissipate a large amount of heat from the combustion chamber to level the high thermal load of the engine. ■■



Brembo



Brembo in Ron Howard Rush

Brembo is honored to partner with two-time Academy Award® winner Ron Howard (A Beautiful Mind, Frost/Nixon) for “RUSH”, a spectacular big-screen re-creation of the merciless 1970s rivalry between Formula One drivers James Hunt and Niki Lauda, which will make its U.S. public release in selected theaters on September 20, everywhere else on September 27.

Preferred Supplier



This film is significant to Brembo as it tells the story of the 1976 season, when Lauda's Ferrari with Brembo brakes was a key player in one of the most epic chapters of Formula 1. It was in 1975 that Enzo Ferrari first asked Brembo, the Italian manufacturer of high-performance braking systems, to equip his legendary Scuderia Ferrari with brake discs. Partnered with Clay Regazzoni, Lauda went on to win the F1 Drivers' and Constructors' championships for Ferrari in 1975. This was Brembo's first world championship. Even though Hunt won the championship in 1976 by one point, Ferrari (and Brembo) gained its second-straight Constructor's crown that year. The success story continued in 1977 as Lauda earned his second (of three) F1 Drivers' crowns, the third-straight for Ferrari and Brembo.

Since then, Brembo has continued to equip the Maranello Manufacturer and has become the top supplier to several other major F1 teams, earning 18 Driver's and 23 Constructor's championships, including 14 with Ferrari and the last three with Red Bull in 2010, 2011 and 2012. The current, highly advanced F1 Brembo systems use carbon brake discs as well as aluminum-lithium 6-piston monobloc calipers.

The movie "Rush" accurately depicts the F1 race atmosphere in 1976, including Brembo's original racing logo and colors of the era, featured at the German Grand Prix in Nürburgring, Monza for the unexpected return of Lauda during the Italian GP and during the season closer at the Fuji Speedway in Japan.

"The story of "RUSH" portrays an F1 era quite different from the one we know today," commented Alessio Bonzanni, Brembo's first F1 race engineer. "In the late 70's and 80's the teams would let us work on the car: disassembling all the pads and measuring the wear rates for the race, installing new parts and giving us total responsibility for the brake systems. They changed engines continuously in those days, so when they disassembled the rear axle we needed to bleed the brakes every time. Having a great working relationship with the crew chief was even more important back then."

In 1976, the period when the film is set, Niki Lauda and Clay Regazzoni's cars were the only ones equipped with Brembo brakes. At that time, the company generated sales of less than €1.5 million and had 146 employees. Today Brembo equips half of the Formula One cars, employs over 7000 people and in 2012 generated a turnover of €1.4 billion.

Brembo

Brembo receives GM Quality Excellence Award

Brembo's Mapello disc processing plant receives the prestigious award for high quality.

Brembo's disc processing plant in Mapello, Italy has been awarded the General Motor's Supplier Quality Excellence Award for 2013, during an Opel/Vauxhall event. GM gives this award to suppliers who have excelled in the past 12 months for the highest quality standards in the automotive industry. Brembo, which has always focussed on providing its customers with products of excellent workmanship and extreme technological innovation, surpassed GM's strict selection criteria in 2013 to win the prestigious award, conforming to the 13 specific qualitative tests carried out during the long evaluation process.

This is the second year that GM has honored its suppliers with this particular award, which is intended to enhance mutual cooperation and achievement of the highest levels of excellence in the production of automobiles.

At the award ceremony, GM thanked its partners for their continued contribution to technological growth and the achievement of increasing customer satisfaction standards by providing the highest quality products and scrupulous attention to on time delivery.

The partnership between GM and Brembo began in 2004 with the supply of braking systems for the Cadillac CTS-V line, which continues today.. Other GM cars equipped with Brembo technology include the Opel Insignia OPC, the Opel Astra OPC, the Cadillac ATS, CTS, CTS-V XTS, the Chevrolet Camaro ZL1, Z28 and SS, the Buick Regal GS and the Chevrolet Corvette Stingray.



Brembo



Brembo chosen for 2014 Camaro Z/28

Brembo Ultra-Lightweight Carbon-Ceramic Brakes Used on Z/28

Ever since the rebirth of the Camaro brand in the spring of 2009, Brembo has been the brake system of choice for each new model of the iconic sports car, including the Camaro SS, the Camaro convertible and the 580-hp, supercharged Camaro ZL1. So earlier this year, it was no surprise when the ultimate track-capable Camaro Z/28 debuted at the New York International Auto Show, that it was equipped with Brembo's latest high-performance brake technology.

What was a surprise, however, was how far Chevrolet engineers went in creating the most track-capable model in the Camaro line: capable of 1.05 g in cornering acceleration, curb weight reduction of 300 lbs. less than ZL1, and increased stopping power capable of 1.5 g in deceleration while maintaining a more consistent brake feel.

The braking benefits were achieved by Brembo providing a significantly larger and more robust Carbon-Ceramic Brake System that is unique to high-performance luxury vehicles. The Camaro Z28 remains the only vehicle in its category with carbon-ceramic rotors (394 x 36mm in front and 390 x 32mm in back).

Brembo's long history in Formula 1 played an important role in the development of carbon-ceramic brakes, a sophisticated product now available for use in road traffic. The high-tech brake discs weigh nearly half that of conventional discs made of cast iron, decelerate the vehicle quicker and considerably improve safety of the vehicle. Compared with conventional brake discs, drivers experience a 10% increase in friction coefficient and system operating temperatures 5% below the average temperature of cast-iron brake discs.

The carbon-ceramic discs are paired with state-of-the-art monobloc aluminum calipers (six-piston fronts and four-piston rears), designed specifically for weight savings and drag reduction. The calipers are among the stiffest available with virtually no distortion from high thermal and torque loads, even under the most demanding conditions.

"We are very proud to add the Camaro Z/28 to our North American Original Equipment portfolio and to continue to serve as a strategic partner with Chevrolet," commented Dan Sandberg, President and CEO of Brembo North America.

As the leading supplier of high-performance brakes to premier European auto and motorcycle manufacturers, Brembo has recently achieved significant growth in North America with unique new brake technologies for customers like General Motors, including the Buick (Regal GS), Cadillac (XTS, CTS-V and ATS) and Chevrolet (Camaro SS and ZL1, Corvette ZR1 and C7 Stingray) brands.



Preferred Supplier

Concentric Slave Cylinder Kit

The new Aisin CSC Kit program consists of a series of 46 references covering 129 applications. The CSC Kit is composed of a disc plus cover and hydraulic bearing.

As part from the benefits of an improved pedal feel and ease of installation due to downsizing, the CSC kit also fits to various car brands and models. A detailed application file can be downloaded on the Aisin website:

www.aisin-europe.com



AISIN
HIGH EFFICIENCY COMPACT
CSC KIT
Concentric Slave Cylinder

Improve clutch pedal feel, easier to operate

Improving pedal feel

- Clutch disconnection can be done with less leg strength, which makes declutching easier and reduces likelihood of engine stall while changing gears.
- Reduces fatigue by decreasing foot load during long distance driving.
- Drastically reduces loss of bearing travel.

Easier installation Downsizing

- The size is smaller compared with competitive products.
- Easy to install.

Performance (1000 strokes)

System	Performance (1000 strokes)
Conventional system	100
Competitive product	48
This product (CSC)	30

Light operation

Configuration (Shaft length)

Product	Shaft length (mm)
Competitive product	100
This product (CSC)	94

Shorter shaft length

Preferred Supplier

NTN-SNR and Hazet join forces to revolutionise wheel bearing installation

Wheel bearings are true precision-fit components. Once properly installed, they are very robust and can run flawlessly at high speeds and heavy loads for many years, with little or no maintenance.

The life of the bearing can be affected by the conditions it is used in such as country roads motorways or towns. Wheel bearings are especially sensitive to installation errors, which remain the single most common cause of bearing failure.

Before removing or mounting a bearing, it is very important to establish and maintain a clean and orderly workplace. Ideally, with all the correct tools and replacement component parts being laid out and ready to use before loosening the first screw. To minimise the risk of any micro-deformations or indentations due to mishandling or dropping, the bearings themselves should remain in their packaging until they are ready to be assembled into the hub unit.

Extreme care must also be taken during dismantlement and installation. Precise and proper torque tension (neither too much nor too little) should be applied to installation bolts and central locking nuts. When mounting bearing rings, force should only be applied to the press-fitting ring, never to both rings simultaneously or to the rolling elements themselves. In addition, certain specialty bearings – such as the NTN-SNR Active Sensor Bearing – require a work area free of magnets and magnetic tools to avoid damaging the magnetic encoder component.

The tools themselves should also



Application NTN-SNR Bearing with Compact Wheel Hub / Wheel Bearing Tool Set

Preferred/Associated

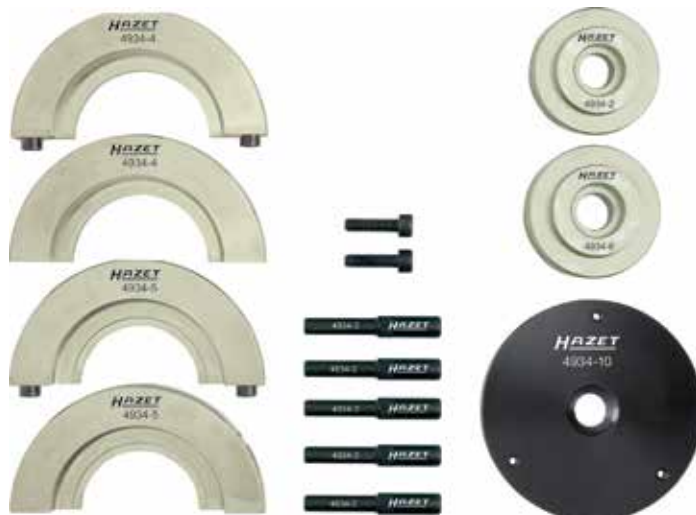
be specially designed for bearing installation and maintenance. Brute force damage due to impatience or improvised tools and repair methods have ruined many a bearing, needlessly consigning parts to the scrap heap. Properly made tools should be crafted from a milder steel than the bearing parts to avoid deforming them during handling, which could cause scratches and spalling in the ring raceway surfaces under heavy load conditions.

An error in any one of these areas can radically reduce the service life of the bearing. Bearing problems leave various telltale clues: a vibrating steering wheel or gas pedal, ABS failure, a damaged periphery or abnormal sounds when parking or driving around corners. Oil leakage also present a visible sign of damage. An inspection of the bearings can reveal even clearer indicators: fatigue spalling, corrosion, indents and ruts in the raceway, as well as scratches and pits in the bearing surfaces. Improper installation may require the vehicle to return to the garage for reservicing after a very few kilometers.

The only way for automotive professionals to be sure of correct fitting and alignment is by using the correct specialist tools. To address this important need, NTN-SNR in Erkrath, the world's largest wheel bearing OEM, and renowned specialist tool manufacturer HAZET in Remscheid have combined their technical expertise and know-how to become a one stop source for wheel bearing supply and maintenance. NTN-SNR Roulements is a leading bearing supplier to Renault, Mercedes, Volkswagen AG, Porsche, Toyota, and many other automobile manufacturers. HAZET produces over 5500 different work instruments and tool's, including a great variety of specialty tools catering for the automotive industry. Together, their alliance supplies all the necessary ball and roller bearings for both European and Asian vehicles. In addition, the two companies are pooling their development efforts to design new products that simplify wheel bearing repair work in automotive garages.



HAZET Compact Wheel Hub / Wheel Bearing Tool Set in plastic case



HAZET 12-parts Compact Wheel Hub / Wheel Bearing Tool Set, diameter: 72 mm for for installing and removing the wheel hub / wheel bearings of built-in parts

NTN-SNR hub wheel bearing



VDO

Multi-Application sensor will be called REDI-Sensor

- The VDO Multi-Application TPMS sensor will be called REDI-Sensor in Europe, just like the successful TPMS solution from the USA
- The VDO REDI-Sensor will be coming onto the European market in the summer of 2014
- Extensive product advantages facilitate TPMS servicing by workshops



Associated Supplier



In only a year from now – on November 1, 2014, to be exact – according to a European directive, every new car in the European Union must be fitted with a tire pressure monitoring system (TPMS). The automobile industry currently is pinning its hopes on two different technologies. In the indirect system, tire pressure is not measured actively, but calculated from the information provided by the wheel speed sensors, whereas in the direct TPM system the tire pressure is measured by sensors directly in the tire. Direct systems with their speedier and more precise measurement have technical advantages over the indirect systems. Regardless of which TPMS technology is installed in the vehicle, new car owners and workshops must recognize that next year will bring changes when it comes to tire service.

Tire service will change in 2014 – REDI-Sensor facilitates TPMS service

With more and more vehicles being equipped with tire pressure monitoring systems, this will have an impact on the workshops' tire service and on specialist tire dealers. Vehicles with indirect systems must be recalibrated after tire pressure is changed or if a tire is replaced. For vehicles with direct systems, the easiest way to ensure proper operation, when used with both summer and winter tires, is to have an additional set of sensors. And this is where the VDO REDI-Sensor makes its mark: whereas in shop business today, virtually every vehicle now equipped with TPMS requires a specific TPMS sensor, in the future workshops will be able to equip a great many of the vehicles on the market with only three different VDO REDI-Sensors. This substantially facilitates stocking and logistics at workshops and in the parts trade.

In addition, the VDO REDI-Sensor can claim other advantages:

No additional sensor programming effort for workshops: Whereas comparable solutions must have the sensor programmed for each vehicle on the spot, i.e. in the workshop, a different approach is taken with the VDO REDI-Sensor: it is delivered "ready for installation", meaning it is already pre-programmed and ready for the OE vehicle relearn procedure – hence the product name, which is derived from the word "ready".

New positioning of the sensor: Most TPMS sensors currently on the market are combined with the tire valve, whereas the VDO REDI-Sensor is attached to the inner liner of the tire. This can help make sensor installation easier for workshops, and protects the sensor better against mechanical damage and dramatically reduces corrosion potential, among other advantages. Since it is positioned inside the tire, the European VDO REDI-Sensor is capable of being combined with virtually any wheel or valve stem style.

Comprehensive TPMS expertise: Continental combines the unique know-how of a leading supplier of automotive electronics with the expertise of a leading tire manufacturer, and can draw on more than ten years' experience in the development and production of direct-measurement TPM systems. In the parts business, Continental boasts a comprehensive TPMS portfolio under the VDO brand ranging from the ContiSys Check TPMS specialty diagnostic tools, to replacement TPMS sensors and service kits. It's also noteworthy that the American REDI-Sensor, from which the European solution has now been derived, continues to be highly successful ever since being introduced in the USA in early 2011. ■■

Loudspeakers or signal equipment for preferred road users

Replacing the entire signal system is a thing of the past

We are now making our products closer to practice. For retrofit work on loudspeakers or signals, vehicle workshops previously had to replace the entire component system. Now, we are offering the option of ordering either the loudspeaker or signal system on their own or even just the cable set for the signal system separately in the Elparts range. Of course this reduces the costs for the replacement or retrofit work if just one component has to be purchased new, for example.

The signal equipment can be divided into three areas

- Loudspeaker system
- the sound module for the signal system and
- the matching cable set for the signal system (sound module)

The loudspeaker system is an electronic horn for continuous operation used by preferred road users (police, fire fighters, ambulances). It has a strong and clear sound, which can be easily heard even in extreme situations (intensive traffic, gatherings of people at major sports events, cultural events etc.). The system with control unit is designed for protection class IP 67 (dust-tight and protected against temporary immersion), the loudspeakers are equipped for protection class IP 66 (dust-tight, protection against strong water jets).

The sound module of the signal system can be replaced. The relevant sound module simply needs to be connected depending on the country the emergency vehicle is to be used in.

A further benefit is the low space requirements of the electronic problem solution. This means it can even be fitted in smaller emergency vehicles used by the police, fire fighters and ambulance service, as well as transporters. The large, pneumatic horns with compressor stop working after approx. 30 minutes of continuous operation, while the electronic version has no restrictions with regard to sound.

Loudspeaker system

Article number: 56360189

Signal system, emergency vehicle

Article number: 56360190

Cable set signal system, emergency vehicle

Article number: 56365021



Hydraulic central slave cylinder

Maintenance-free but not wear-resistant

New in the Jakoparts range: the central slave cylinder, part of the hydraulic clutch system. Force transfer between the pedal and the clutch via a cable from the pedal to a lever mechanism in the clutch housing is now largely regarded as outdated. Even though a large number of motor vehicles still use this mechanical system, the number will continue to decrease over the coming years.

In contrast, the benefits of modern hydraulic clutch systems are clear: We save on components (there is no need for the release fork in the bell housing, for example, as the releaser, slave cylinder and guide sleeve form one component in the central slave cylinder). The friction losses of the system are minimised compared with the mechanical method and the hydraulic system requires a smaller installation space.

What is the technology behind it? The release system with central slave cylinder uses a hydraulic ring cylinder with integrated releaser. The releaser is connected directly to the piston and tensioned against the diaphragm spring fingers of the clutch via the integrated preload springs. The release movement of the clutch, which is the actual clutch procedure, then applies hydraulic pressure.

The central slave cylinder is maintenance-free but not wear resistant. Normally, only the hydraulic fluid used in the hydraulic system has to be replaced depending on the maintenance interval. Nevertheless, the central slave cylinder must still be replaced each time the clutch is changed.

Central slave cylinder, clutch

Article number: J241...



Better overview, clearer structures - the new Catalogue Electrics

Many innovations complete the product range

To order articles from an almost 300-page catalogue can either be a timeconsuming procedure or a comfortable, informative shopping tour. To conjure up the latter feeling for our customers, we have done our homework properly with regard to the catalogue classification. How do customers get to the desired product area quickly? How can they find "their article" as fast as possible? What articles are available in the first place in this area of the product range? Those searching can find prompt answers to all these questions. For example, a kind of miniature overview is available for every product group. The group designation of fanfares for example can be found under the generic term of signalling devices. Associated articles in turn are listed below with the respective page number. It couldn't be easier. This structure on generic level runs through the entire product portfolio and thus optimises the data pool. 40 newly added articles are included in the Electrics Catalogue 2013, amongst others washing water pumps as well as indicator and steering column switches. OE references are always listed here, which is important for the workshop. All in all a clear improvement of the catalogue handling.

Catalogue Electrics 2013

Article number: Katalog 13



Superior Springs

Preventing defects and ensuring optimum performance in every Lesjöfors Coil Spring



Associated Supplier

Automotive coil springs are constantly exposed to the elements and subjected to high levels of stress as they support the weight of the vehicle, isolating it from the road. It is therefore vital that the spring material is of high quality, and the spring surface suitably protected from corrosion to ensure the spring can withstand years' of dynamic use and to minimise the risk of premature failure.



After coiling, every Lesjöfors spring undergoes a multi-stage process to ensure optimum performance and the longest possible service life.

The first stage of the process is stress relieving. To remove negative internal stresses and increase fatigue performance, a low temperature heat treatment is required, after which each spring undergoes shot peening. Shot peening involves bombarding the spring with millions of tiny steel balls which introduces a positive residual stress and improves fatigue strength, as well as creating an optimal surface for painting.

Fig 1. OE tapered wire spring with premature breakage at both end coils.



Fig 2. Coil springs before (left) and after (right) shot peening. Improved fatigue strength and an optimal paint surface.

The positive residual stress reduces shear stress in the spring during compression, and raises the spring performance to the desired level.

Lesjöfors Springs



Pre-setting involves fully compressing the spring in order to implement additional positive stress and further improve fatigue strength. Unlike some manufacturers, every Lesjöfors spring, where the design requires it, is pre-set before leaving the factory, reducing the risk of premature breakage.



Fig 3. The presetting operation involves compressing the spring to implement a positive residual stress.

Once the spring has been shot-peened and pre-set, it goes through a multi stage process to coat the spring with a corrosion-resistant chemical compound called zinc phosphate. Modern suspension springs are manufactured from low alloy spring steels which are not stainless steel, and suspension

systems are designed with the spring fully exposed to the elements. This is a very difficult environment for the steel, and without protection the spring will immediately start to rust.

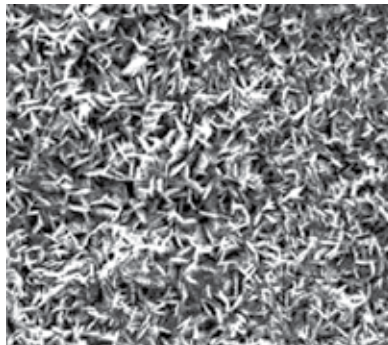


Fig 4. Zinc Phosphate layer giving protection under, and adhesion to, the paint layer.

Zinc phosphate provides protection from corrosion when scratches and other defects occur in the paint layer, and is significantly more effective at preventing corrosion than other methods, such as iron phosphate, sometimes used on cheaper springs. Zinc phosphate offers galvanic or 'sacrificial' protection to the spring via preferential oxidization, meaning that the zinc corrodes before the steel, and generally at a slower rate, prolonging the life of the spring.

Finally, each spring is painted using a process called electrostatic painting, in which epoxy powder paint is sprayed towards the spring before being attracted evenly over the spring surface through use of an electrostatic charge. This method ensures uniform paint coverage with consistent thickness, safeguards against defects in the paint layer, and provides further protection from corrosion.



Fig 5. Coil springs being painted using an epoxy powder coating process.

Lesjöfors are firmly committed to providing the highest quality products. All Lesjöfors springs are manufactured in house to TS16949, ISO19001 and ISO14001, come with a 3 year warranty and match or exceed OE quality, allowing fitment without affecting the vehicle manufacturers warranty and providing complete peace of mind.

For further information, visit:
www.lesjofors-automotive.com



The Lesjöfors factory in Lesjöfors, Sweden.

Liqui Moly



Making life easier for workshops and trade

Good products are just the launching pad for success in business. In order to make life easier for workshops and trade, the motor oil and additive specialist LIQUI MOLY supports them in many areas. This frees them from tiresome additional work and helps the sales of LIQUI MOLY products.

For LIQUI MOLY, the sale of its products is not the last, but the first step in the business relationship with its customers. Nobody should be left alone with LIQUI MOLY but be given help in the sale and use of the products. The company makes a great deal of effort in this area.

Sales employees visit customers to advise them, to inform them about new products, to give them tips and tricks for the use and sale of the products, to enhance their portfolio on offer and to discuss new business opportunities. Orders are then passed on to wholesale. This intensive customer care is unusual for manufacturers who do not sell directly to trade and workshops. It is not entirely selfless, as this close contact can create many suggestions and ideas for new products. If there are technical problems on site and these problems could be solved chemically, the developers get to work in the LIQUI MOLY laboratory. The LIQUI MOLY Throttle Valve Cleaner and its counterpart for diesel engines, the LIQUI MOLY Diesel Intake System Cleaner, are examples of workshop products which were created after suggestions from the workshop floor. The sprays simply and efficiently free up the air inlet of the engines of deposits – a job which used to be associated with laborious removal work.

Along with sales employees, application engineers also support the customers of LIQUI MOLY. They are experienced workshop professionals who explain to the mecha-



Associated Supplier

nics on site how they can optimally use LIQUI MOLY products and get the most out of them. They organise training courses both at LIQUI MOLY and locally. And they answer hundreds of technical queries every day by phone and e-mail. Enquiries are mostly answered immediately or within 24 hours at the latest. Customers deserve not only top products, but also top services is the motto at LIQUI MOLY. That's why the company finds it very important that customers do not get through to an anonymous call centre, but are instead connected to their own engineer who answers every enquiry individually. Fast, unbureaucratic help is emphasised here.

LIQUI MOLY also relieves workshops of tiresome additional work. For smaller workshops there is the oil cupboard in which 60 litre barrels and 20 litre canisters can be cleanly and securely stored to save space. This allows a reserve of various motor oils to be elegantly kept while protecting the environment. In Germany, LIQUI MOLY can optionally also deal with the disposal of old oil, take on the statutory hazardous substance management and the implementation of a skin-protection concept for employees in the workshop. This allows the workshop to concentrate on its actual business and means it no longer has to deal with tiresome administrative work. Such services may not be a part of the core business at the oil and additive manufacturer, but LIQUI MOLY customers should be supported on all sides.

Sponsoring is also a part of this support. LIQUI MOLY takes part in the World Touring Car Championship with its own team. This ensures a significant media response and increases brand recognition, from which every individual dealer and workshop benefits in turn. Also, the races are good opportunities to thank deserved customers on almost every continent.

LIQUI MOLY is more than just products. LIQUI MOLY is a complete package.





A valued business partner

Growing with DENSO

DENSO Europe After Market is proud to bring a huge range of the world's most advanced, original equipment quality replacement car parts to increasing numbers of TEMOT shareholders.

Each partner benefits from DENSO's expert, local sales and technical teams; extensive customer, marketing, training and logistical support working together to achieve sustainable, profitable business growth.

But don't just take it from us – here, three of our customers share their reasons for doing business with DENSO, the benefits it has brought them and what the future holds.

- Serfac Limited is a leading Irish automotive hard parts supplier and the Irish shareholder in TEMOT since 2009
- Distributes products for many of the most prestigious global automotive parts manufacturers
- Unrivalled reputation among its customers as being the market leader for flexibility and responsiveness
- Partner with DENSO since 2011
- DENSO products distributed: Spark Plugs, Glow Plugs, Lambda Sensors, Rotating Electrics, Air Conditioning Compressors, Radiators, EGR Valves, Air Mass Meters and Ignition Coils

“Serfac started doing business with DENSO in 2011. In a market where Asian vehicles comprise over 40% of the car parc, having a strong Asian brand in our product portfolio is vitally important. The DENSO range complements our existing portfolio of quality OE brands and we know that DENSO can offer us the latest technology and the coverage that we require.

We've also been impressed by the company's responsible environmental policy and investment in R&D. Furthermore, very importantly, they are very highly regarded by our customers. The brand has a reputation for high quality automotive innovations and our customers know that when they order a DENSO product, they can be assured of its suitability and reliability. That has undoubtedly added value to our business, as has

DENSO's significant investment in sales and marketing support.

Serfac is continuing to invest heavily in the future and our plans include further developing our existing diesel business with DENSO to exploit new opportunities in the growing diesel market.”



Gillian Fanning,
Marketing Director
Serfac Limited





Iaponiki SA

“As experts and leaders in replacement parts for Asian vehicles, DENSO was a brand that was well known to us at Iaponiki. However in the past we felt that the aftermarket sector was not a priority for them. This has definitely changed. DENSO Europe is moving fast to claim a position in the IAM similar to their leading position in OES. This growth strategy, along with their rapid range development and knowledgeable staff, fulfills our expectations of a premium supplier.

Mario Gundlach, Regional Manager After Market Sales Export with Anna Magopoulou, Marketing Manager, Iaponiki.

- One of the five main distributors of replacement car parts in Greece and the leading distributor of Asian replacement parts
- Partner with DENSO since January 2013
- DENSO products distributed: Spark Plugs, Lambda Sensors, Glow Plugs, Engine Management Systems, Wiper Blades and Cabin Air Filters...and now gradually expanding to include Diesel, Air Conditioning and Rotating as well

Following the recent agreement between DENSO and TEMOT International, our decision to build a relationship with one of the leading spare parts manufacturers globally is already adding value to our business and to our product offering.

DENSO’s innovative and growing product ranges enable us to offer unique solutions to our customers. In many cases our customers now have access to products which are not available to the independent aftermarket anywhere else.

DENSO also complements its extensive range of aftermarket programmes with the right services and tools. Together we are able to organise training seminars, marketing actions and customer support.

We are confident that our cooperation with DENSO will be mutually

beneficial in the future. DENSO will benefit from Iaponiki’s long history and leading position in the Greek aftermarket, helping them to grow faster and develop solutions in line with customers’ expectations. Iaponiki in turn will be able to offer customers a wide range of premium products that is constantly expanding.”



Nikos Magopoulos, Managing Director, Iaponiki S.A.



- Moto-Profil has 20 years of experience in the Polish automotive aftermarket
- 130 leading suppliers and a network of 850 partners in Poland and abroad
- Partner with DENSO since 2009
- DENSO products distributed include: Spark Plugs, Glow Plugs, Lambda Sensors, Mass Air Flow Sensors, EGR Valves, Wiper Blades, Cabin Air Filters, Thermal Systems, Compressors, Starters and Alternators

Moto-Profil

“Moto-Profil was looking for a partner with quality, experience, and very wide range of products for its aftermarket customers. DENSO certainly fulfilled all this and more, and we are now proud to offer their complete aftermarket range.

DENSO’s well known, respected history of designing and engineering original equipment for the world’s leading vehicle manufacturers brings an added prestige to Moto-Profil. We are also delighted that they consistently support us by attending our annual ProfiAuto Show, as well as offering and

organising training programmes and sales promotions.

We hope for even more active participation in the future, both in our development within Polish aftermarket, and the expansion of DENSO’s offering and marketing support. In addition, with help from DENSO we hope to expand on our technical product knowledge, using this to educate and inform customers.”

**Michał Tochowicz, Project Manager
ProfiAuto, Moto-Profil**



Nigel Cole, Manager – DENSO International Networks

“These three examples give an insight into how DENSO actively supports all TEMOT shareholders. We welcome any shareholder to get in touch to discuss ways that DENSO can enhance their business.”

Find out more

Get in touch to discover how DENSO After Market can benefit your business: For more details about DENSO After Market in Europe, contact Nigel Cole, Manager – International Networks, telephone +44 7768 175 305 or email n.cole@denso-sales.co.uk



Mahle

Short journeys can become COSTLY

Why short trips represent a risk for any internal combustion engine, how the engine is damaged as a result... And what the repair shop can do to educate the driver.

The Principle Of The Combustion Engine Is: Combustion

Combustion engines are thermal engines. The combustion of the fuel in the engine creates kinetic energy. The optimum combustion of the fuel-air mixture is the prerequisite for the engine to run highly efficiently. A modern engine works very efficiently when interacting with the exhaust after-treatment system—assuming the engine runs within the intended operating temperature range.

What happens at low temperatures?

During cold start and warm-up phase, unburnt fuel and condensation water form the combustion process form condensate on the cylinder bores and dilute the lubricating oil film. The poorer lubricating performance of the oil film causes increased component wear, particularly on the cylinder and the piston rings. The condensate also enters the lubricating oil circuit, where it dilutes the engine oil. Consequently, the diluted engine oil comes into contact with all moving components supplied by the oil circuit, which leads to increased wear. Hence, it is crucial that the engine reaches its operating temperature quickly. The formation of condensate is exceptionally low under these circumstances, as condensates evaporate from the engine oil... and the combustion process is correspondingly more efficient as a rule.

Short-Journey mode and its symptoms

If an engine is predominantly run for short journeys, condensates will gather in the engine oil over a longer period of time. Warning signs include:

- Milky slime on the oil filler cap
- Rising oil level in the engine
- Water droplets on the oil dipstick

An oil change with filter replacement is absolutely necessary as soon as just one of these signs is identified.



Warning sign: yellowish slime on the oil cap—an indication of condensate in the engine oil.

Diesel engines: particularly susceptible to shortjourney Damage—as a matter of principle

Diesel engines suffer particular damage when frequently used for short journeys.

This is because they are not only confronted with condensate deposits in the engine oil, there is an additional challenge: the load from the particulate filter. This filter's job is to capture soot particles from exhaust gases and "neutralise" them, i.e. allow for residue-free combustion if possible. These soot particles arise particularly during the warm-up phase, as well as during acceleration and at full load. After a certain mileage—dependent on the operating conditions—the particulate filter must regenerate. To this end, the control unit in many diesel engines sporadically injects a specific amount of diesel fuel defined in the operating map, which causes the temperature in the particulate filter to rise and enables the combustion of the collected particulate.

And herein lies the problem of diesel engines operated in short-journey mode: if the engine seldom reaches its optimum operating temperature, regeneration cannot occur—or at the very least not very thoroughly—, or any regeneration process started is discontinued as the engine is shut off. Furthermore, the extra fuel injected to trigger the start of the regeneration process will further dilute the lubricating oil film. At the same time, the engine oil will not reach the temperatures required to dissipate the collected fuel. As a result, the particulate filter will clog up with particulate and carbon, as will all components in the exhaust gas system such as the exhaust gas turbocharger, EGR guides and coolers, and the EGR valve. In the best-case scenario, this leads to increased fuel consumption—or directly to the

premature failure of the vehicle or specific components.

The coolant thermostat—vital for warming up

The coolant thermostat plays an important role in warming up the engine well and, most importantly, quickly. Only when the thermostat works properly and the main disc seals perfectly when closed does the engine quickly reach its operating temperature. A faulty thermostat will unnecessarily prolong the warmup phase—with negative consequences for the entire drive unit.

Short journeys put a strain not only on the engine

When drivers complain about a considerably higher fuel consumption compared with the car manufacturer's specification, this may also be caused by a driving profile comprising frequent short journeys. In order for the exhaust after-treatment system to reach its operating temperature as quickly as possible and to reduce the increased internal friction in the drive unit by heating the engine oil, an increased quantity of fuel is injected during the first seconds or minutes after starting the cold engine, which will push up consumption accordingly.

The clogging of exhaust after-treatment systems, caused by frequent short journeys, negatively impacts consumption: when the exhaust back pressure increases, the engine requires more fuel to reach a target speed. Conversely, the exhaust system becomes more heavily clogged. The system is destined for complete failure.

Short and sweet: What your customers should know about short journeys

DIESEL - YES OR NO?

- Generally, when deciding on a drive type, consideration

should be given to whether the vehicle will be used for frequent short journeys. If so, then a petrol engine is most definitely the better choice.

RECOGNISING THE WARNING SIGNS

- Slime on the oil filler cap, rising oil level, condensate on the oil dipstick, or other indicators mean: an oil change with filter replacement is immediately necessary.
- If the engine takes longer to reach the operating temperature (usually a gradual process), the cooling circuit must be examined and repaired, if necessary.

CHECKING THE OIL QUALITY

- Oils that burn free of ash contribute towards a long particulate filter service life. Therefore, it is advisable to use the engine oils approved by the engine manufacturer for the corresponding vehicle.

OPTIMISING DRIVING BEHAVIOUR

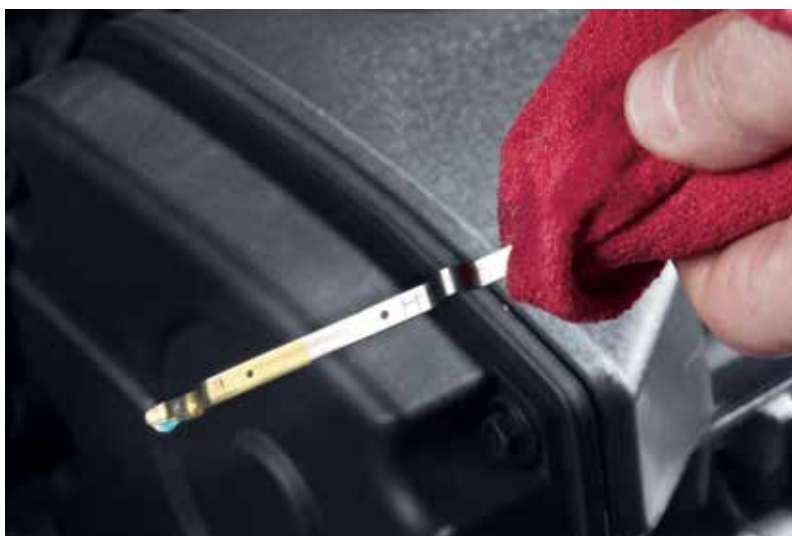
- A longer journey should be driven at least once per week to bring the engine to its optimum operating temperature. In diesel engines, this causes the engine control to perform a particulate filter regeneration. (The engine speed should be kept within a medium speed and load range.)
- Winter mode: Do not run the engine warm while stationary. Instead, drive off as soon as you have started the engine and without switching on the heating, if safe to do so. This allows the engine to reach its operating temperature more quickly, because no heat is being drawn away from the cooling system.



Has the oil level increased? Not a miracle, there is condensation in the oil sump.



Journeys at a lower temperature range increase engine part wear.



Water in the engine oil can also be seen on the oil dipstick.



Oil dilution caused by oil temperatures that are too low. The consequence: conrod bearing damage.

The Widest Range: Intercoolers

Today, Nissens' range of intercoolers consists of more than 300 products, covering 75% of the European car park, including both cars and utility vehicles, and we are offering intercoolers to the most popular truck applications.

Nissens is prepared to follow the market trends and meet the demands of the market – with a clear objective of increasing the wide product range of all types of vehicle intercoolers.

A supreme availability

Every aftermarket player, from garage to wholesaler, looks for suppliers who can offer a complete market coverage program with supreme availability and stock holding. Nissens' logistics concept - with stock volumes that are optimized according to the market demand - guarantees a unique availability on intercoolers combined with quick deliveries.

High quality

Nissens' product offer provides a high-quality cooling performance that corresponds 100% with the OE standards. In the product development process, we thoroughly submit all intercoolers to corrosion, vibration, pressure impulse, thermal expansion and thermal performance tests.

Designed for high performance

Nissens' intercoolers are designed with specially-cut side panels, which

can resist the stress caused by high temperatures.



Cooling performance

Nissens' intercooler cores are made in a solid soldered-aluminium construction which consists of tubes equipped with turbulators and fins with louvers. This ensures an optimal surface to exchange heat from the hot air.



Durability

Nissens' plastic tanks are reinforced and made of plastic containing at least 30-35% fibre glass. No recycled plastics are used in the mixture.

Furthermore, the plastic tanks meet the latest OE requirements regarding temperature resistance up to 190°C.

All Nissens' truck intercoolers are applied a special welding technique, ensuring a very strong welding seam, which enhances the durability compared to traditionally welded intercoolers.






Perfect finish

Nissens' intercoolers smoothly fit the mounting points on the vehicle and are recognized as spare parts matching the OE standards 100%. The products' fixed connections, overflow pipes and no fault tolerance as to length, diameter and bending angle ensure the right part dimensions and shape, enabling an easy installation.



Today, Nissens' intercooler range alone is based on 343 complete parts covering more than 800 OE numbers and dedicated to the market's most popular cars, vans and trucks. The table below shows some of the market's most popular intercoolers, which are of course available from Nissens.

			O.E.	<i>Nissens</i>
Audi A6 (04-11)	2.7-3.0 TDI	11/04-	4Fo.145.805 E	96576
Citroën C3 (02-)	1.4 HDI	04/02-	0384.G2	96774
Citroën C4 (04-)	1.6 HDI	11/04-	0384.H5	96718
Dacia/Renault Sandero (08-)	1.5 DCI	05/08-	82 00 047 162	96855
DAF XF 105 (05-)	410-460-510	10/05-	1677327	97059
Ford Fiesta (01-)	1.4-1.6 TDCi	11/01-	5S6H 9L440 AE	96643
Ford Mondeo (07-)	1.8-2.0-2.2 TDCi	02/07-	1742060	96560
Iveco Stralis (02-)	440S54-440S56	02/02-	41214448	97022
Kia Sorento (10-)	2.0-2.2 CRDi	11/09-	282712F000	96537
Mercedes-Benz W203 (00-)	180K-200K-230K-200-220-270CDI	04/00-	203 500 06 00	96714
Opel Astra J (09-)	2.0i-Turbo-1.7-2.0 CDTi	11/09-	13267647	96557
Peugeot 307 (00-)	2.0 HDI	08/00-	0384.F6	96790
Peugeot 308 (09-)	1.6 HDI	03/09-	0384.N9	96514
Renault Clio (05-)	1.5 DCI	06/05-	82 00 471 888	96645
Renault Megane II (02-)	1.5-1.9 DCI	09/02-	8200700172	96728
RVI Magnum DXI (05-)	440-460-480-500	05/05-	50 01 873 716	97058
Scania R-Series (04-)	G-P-R	08/04-	1747660	97062
Volkswagen Transporter T5 (03-)	1.9-2.0-2.5 TDI	04/03-	7H0.145.804 B	96683
Volkswagen Golf V (03-)	1.4-2.0 TFSi-1.9-2.0 TDI	10/03-	1K0.145.803 T	96715
Volkswagen Golf VI (08-)	1.6-2.0 TDI	10/08-	1K0.145.803 AS	96568
Volkswagen Polo (09-)	1.6 TDI	06/09-	6R0.145.805	96566
Volkswagen Touran (03-)	1.9-2.0 TDI	02/03-	1K0145803H	96619

To access Nissens' entire intercooler range, please consult our on-line catalogues at www.nissens.com/catalogue.

Common Rail technology

The introduction of Common Rail technology has brought with it new challenges for the aftermarket.

Every technician that has had to replace a Common Rail injector is aware that they each have their own individual characterisation code. But what exactly is this code and how important is it? We asked Guillaume Faber, Engineering Manager at Delphi, to explain the importance of C2i/C3i Code reprogramming.

Hi Guillaume! Tell us, what exactly is a Delphi C2i/C3i code?

All Delphi Common Rail injectors feature either an Individual Injector Characterisation (C2i), or, on the latest generation systems, an Improved Individual Injector Characterisation (C3i) code. This takes the form of a 16 digit, hexadecimal code for C2i, or a 20 digit, alpha-

numerical code for C3i. The code relates to the specific characteristics of each injector such as flow rates, response times and performance at different pressures, and is designed to allow precision management of the fuel injected into each cylinder for optimum engine efficiency, and to enable the ECU to be calibrated with the injection system. These characteristics are recorded to a code during manufac-

ture, and subsequently attached to the injector. During vehicle assembly the code is programmed to the ECU.

Why are these codes required?

Even with state-of-the art manufacturing facilities, it is impossible to produce injectors that are absolutely identical. With Common Rail





injectors operating at extremely high pressures, even microscopic physical variations between injectors will cause discrepancies in the amount of fuel delivered by each injector. This in turn will result in inefficient engine performance, which could lead to reduced power, increased engine noise and excessive smoke.

The amount of fuel that is delivered by the injector is proportional to the injection time (pulse) and rail pressure. Therefore, it is possible to compensate for manufacturing variances by managing the pulse time applied to each injector to conform to homologation of emission levels (Euro3 to Euro6 – Tier3 to Tier4).

Delphi's characterisation codes are generated by measuring the flow rate of each injector at four different pressures (200, 800, 1200 & 1600 bar). These measurements are then compared against a target (average) injector performance to assess what pulse time adjustment is required in order to obtain the required fuel delivery. This adjustment is translated into the 16 or 20 digit C2i or C3i code.

The impact for the aftermarket technician

Every Delphi Common Rail injector, be it new or repaired, should have a label with a characterisation code applied to it. It is essential that the ECU is re-programmed with this code when the injector is fitted to the vehicle. This will ensure that the adjustment to the pulse times is made and that the correct fuel delivery is maintained.

Failure to do this will mean that the ECU will continue to work with the previous injector's characteristics, leading to issues such as reduced power, excessive smoke and increased engine noise.

How should the ECU be re-programmed?

To replace a Delphi Common Rail injector, the technician must use a diagnostic tool that is capable of writing the C2i or C3i code to the ECU. Delphi's DS100E or DS150E with Diesel Max software and DI-AMAND is the only OE recognised tool targeted at independent ga-

rages and workshops that can provide this capability. In addition to this unique diesel capability, the simple, compact tool, offers full diagnostics across other key vehicle electronic systems. With this, the technician will be able to read and erase fault codes, as well as read real time data. The DS tool with Diesel Max software is also available as part of the Delphi Service Centre – Diesel module. C2i or C3i are secured with a checksum to eliminate any error.

How does coding affect the repair of injectors?

When an injector is repaired, its characteristics will be significantly changed. It is therefore essential that a new C2i or C3i code is allocated to the injector to reflect the performance of the repaired injector. As the generation of the code is a complex procedure, specialist test equipment and software is required to generate these codes in the aftermarket. Only members of the authorised Delphi Common Rail repair network possess the equipment required (Hartridge test benches & IRIS software) to accurately generate C2i and C3i codes. Therefore Delphi Common Rail injector repairs should only be carried out at authorised outlets and repaired injectors should only be purchased through authorised distributors. To find your nearest authorised workshop, capable of repairing Delphi Common Rail injectors, visit the service locator on delphi.com/am.

ZF Services



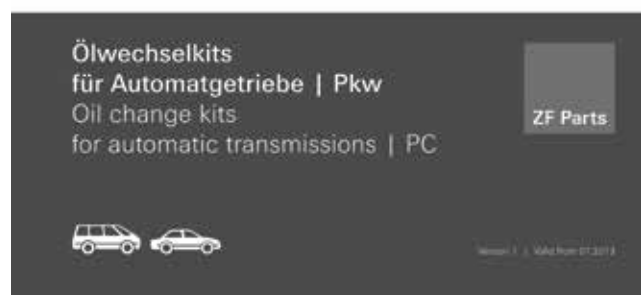
ZF Services Presents ZF Parts Catalog for "Oil Change Kits for Automatic Transmissions"

- ZF Parts oil change kits for passenger cars listed in clear format
- Complete packages for nearly 600 vehicle types
- Timely change of transmission oil prevents wear

On the aftermarket, ZF Services offers oil change kits under the ZF Parts brand for almost every ZF 5-speed and 6-speed automatic transmission – in other words, for 600 vehicle types. The appropriate complete package can be found swiftly in the new "Oil Change Kits for Automatic Transmissions" catalog and the subsequent repair job is easy to carry out since the workshops no longer have to assemble the individual components one by one. In addition, ZF Services has developed a service information with valuable tips for oil changes, and this is available online at www.zf.com/serviceinformation.

ZF automatic transmissions ensure comfortable and dynamic gear shifting in equal measure for passenger cars. For this reason, they have an elaborate design whereby the oil has a significant impact on the shifting quality and service life. Ex works, ZF transmissions are filled with high quality, fully or partly synthetic ZF LifeguardFluid: Under normal conditions, this lasts for the whole life of the transmission, but may need replacing if rigorous demands are placed on the vehicle - perhaps through frequent towing or fast, sporty driving. Workshops should thus recommend an oil change to this customer group after between 80 000 and 120 000 kilometers or eight years.

ZF Services has put together complete tailor-made packages for this. Since spring 2013, these have





been available for almost 600 vehicle types and are clearly and concisely listed in the newly issued ZF Parts catalog, "Oil Change Kits for Automatic Transmissions". Designed as an international document, it consists of a 21-page main section in German and English, as well as introductions in seven further languages (French, Spanish, Italian, Polish, Russian, Greek, and Chinese). It is available in printed form, which workshops can order via their wholesale contacts, and in digital, PDF format for download at www.zf.com/services/catalog. Furthermore, the latest version of all products is always presented online, via the "WebCat" catalog.

Individual and complete

Each of the eleven kits is specifically tailored for the respective ZF 5-speed or 6-speed automatic transmission. The package contains all the spare parts needed by the workshop for the oil change: magnets, filter or oil pan, seal, clamping screws, and screw plug. Moreover, there are seven liters of the ZF LifeguardFluid, matching the corresponding transmission type. This makes life a great deal easier for mechanics because they receive the components in a package that is tailor-made for each vehicle model – the time-consuming searching and ordering of numerous single components is a thing of the past.

The use of a ZF Parts oil change kit is appropriate for many jobs on automatic transmissions in passenger cars: It is not only designed for an oil change involving a filter replacement, but also for various maintenance and repair jobs on transmissions where the oil has to be drained. Using these kits restores the ZF automatic transmission to full functionality.

Everything you need to know for an oil change

ZF Services does not only support workshop activities by supplying new products, it also passes on its technical expertise as a service partner to the businesses concerned. Ultimately, oil changes on automatic transmissions are far more effective if you have an overview of the potential "problem areas" from the outset. Most importantly: To prevent damage to the transmission, you should always adhere strictly to the instructions of the vehicle manufacturer. ZF Services has compiled a service information (no. 30094) with valuable tips/operation instructions for oil changes,

and this is available online at www.zf.com/serviceinformation.

For example, the engine should not run when there is no oil in the transmission - towing the vehicle should also be avoided at all costs. Particular precision is required for changing the oil pan: With the old pan, all the screws must firstly be loosened in the order specified so as to avoid distortion. This also applies in reverse when screwing on the new pan with its seal, and here you also have to pay attention to the correct tightening torque. When refilling the oil, only ZF LifeguardFluid may be used, which is contained in the transmission-specific kit – namely without additives, as these change the chemical composition of the oil. At the conclusion, the transmission oil level must accord exactly with the filling specification laid down. If it is too low, the transmission will be damaged. If the oil level is too high, the excess oil will leak from the transmission through the overflow when heated and may combust if it makes contact with hot parts, such as the exhaust system.

By carrying out professional oil changes, the workshop positions itself as a professional and forward-thinking service provider for its customers: Since wear to the automatic transmission is minimized, it will last longer - breakdowns and general malfunctions are excluded to a large extent. Similarly, shifting comfort once again returns to the level of a new vehicle. Last but not least, fresh transmission oil also always contributes to lower fuel consumption and, consequently, lower CO₂ emissions. ■■

TEMOT International Autoparts GmbH

Europaring 60

D - 40878 Ratingen

Tel.: +49 2102 74243

Fax: +49 2102 742450

info@temot.com

www.temot.com



The aftermarket value network