## FEBRUARY/MARCH 2020 automodi

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THE 2020 BOARD MEMBER APPOINTMENTS





















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## CONTENTS - FEBRUARY/MARCH 2020

	COLUMNS		
05	Driver's Seat: Jakkie Olivier, CEO of the RMI		
07	Editor's Letter: Kate Kennedy		
09	merSETA: Wayne Adams; Acting CEO		
66	Tailpiece: Ford Wildlife Foundation provides mobility		
	UPDATES		
12	RMI news		
16	Outlook for SAMBRA		
18	Computers on wheels		
26	Maintenance is crucial		
	INDUSTRY NEWS		
20	Golf supports education		
31	ZF highlights progression toward automated driving		
32	Taxi industry urged to "go green"		
33	Investing in the future		
34	Tata enriches lives of youth		
36	Free State graduates return from China		
37	Helping learners put their best foot forward		
42	Can bodyshops capitalise on consumer impatience?		
50	Nissan's twin-motor all-wheel-control tech is a force		
	to be reckoned with		
56	Goodyear to purchase dynamic driving simulator		
58	VW honours 2019's best trainee		
60	Audi SA's leadership changes		
	COVER STORY		
22	Automotive Remanufacturers' Association		
	ARA is ready for a new chapter		
	FEATURE		
38	Tech Talk		
	Playing with numbers		
44	Labour Law		
54	Negligence in the workplace  Less bounce to the ounce		
<b>J</b> 4	Shock absorbers in the spotlight		
46	Legal Eagle		
	Business rescue remedies to creditors		
62	Workshop		
	Fixes for the Fiat 500X and the Subaru WRX		

## **BELONGING IS BETTER BUSINESS**



## Here's why...



## Legacy and unity

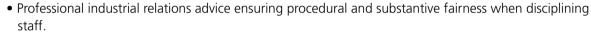
- We've been representing the retail motor industry for more than **100 years**.
- With more than **8,000-member** businesses, our unity is our strength.

### > Your voice

### RMI represents the industry at:

- Centralised wage negotiations.
- Various MIBCO and Industry-related Boards and committee structures.
- Various South African Bureau of Standards (**SABS**) committees and working groups.
- The National Regulator for Compulsory specifications (NRCS), defending our industry when compulsory specifications and standards are compromised.
- The Moto Health Care Fund, Industry Provident Funds and the Sick, Accident and Maternity Pay Fund.
- Meetings hosted by reputable organisations recognised by government, big business, consumers and relevant stakeholders like Business Unity SA (BUSA).

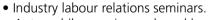
## Supports your business





- Exceptional CPA support at the National Consumer Commission (NCC) and the Motor Industry Ombudsman of South Africa (MIOSA).
- Facilitation of a business-to-business complaint where both parties are RMI members, with a complaint resolution rate in excess of 95%.
- Training needs and representation via merSETA and W&RSETA.
- Industry-specific products like **RMI4BEE**, **RMI4LAW**, **RMI4OHS** and **RMI4SURE**.

## Keeps you in the know



- Automobil magazine and weekly web letters.
- Commenting on industry topics in the media, and participating in and hosting numerous conventions and shows.























## The start of a new decade

And the evolution of a new-look automotive industry



## Where belonging matters

wish all of our valued members, industry stakeholders and staff the very best for 2020. We are positive and excited about the start of this year and the new stories we will be sharing with you through *Automobil*.

As mentioned in the last edition we have launched the new RMI and associational logos and merged 13 associations into eight. Each of the logos has been simplified and modernised, whilst still retaining its unique essence and rich heritage.

This change has also prompted us to relook how *Automobil* is managed in 2020 and we felt it made sense, in line with the general trend in printed media worldwide, to reduce the publication of our magazine from monthly to every second month. We will focus on six excellent issues which will each enjoy a two-month shelf life, commencing with this edition.

The magazine remains an important and valued source of information for the industry. During the next few months we will be carrying out some further research to ensure both our content, and the platform on which it is presented, remains relevant, appropriate and in line with changing media trends and the growth in digital news. We will be contacting readers and would appreciate your input in this regard.

We will continue to share weekly news in our RMI web letter. We will also continue producing a digital version of the magazine which can be easily downloaded from our website. This is an easy and quick way to access *Automobil*.

We are living in changing and dynamic times with artificial intelligence (AI), robotics and automation being applied to create ingenious innovations and speeding up the evolution of industries. The retail motor environment is no exception. We will need to keep abreast of this fast-moving transformation, especially around customer care and aftersales service issues.

A priority of the RMI will be to ensure we ready our members for these changes through awareness, education, and skills development. I have no doubt our objectives and actions this year will influence not only the automotive industry, but generations to come. A newlook automotive industry is no longer a dream. It is happening and it is happening at a rapid rate. How our members and business owners think about their future in the industry, how they prepare for the change and most importantly how they meet the ever increasing demands of consumers will largely be influenced by our actions and aspirations at the beginning of this new decade.

We all are faced with concerning external challenges over which we have little or no control. An ongoing low growth economy and performance with the threat of a downgrade to junk status by Moody's and other rating agencies; pressure from load shedding and Eskom's inability to provide sustainable power for businesses and industry to produce and deliver products and services coupled with a lack of appropriate skills and leadership to save our country from a total collapse will colour our business landscape this year. A collective effort, effective co-operation and collaborative relationships amongst all key stakeholders are therefore fundamental as we enter the year 2020.

We hope you enjoy our latest edition. The focus of this edition is on one of our newly-merged associations, the Automotive Remanufacturers' Association (ARA). ARA represents the remanufacturing trade sector. ARA promotes the responsible reuse of remanufactured engine components for a 'greener' environment (carbon footprint). Its members are dedicated to providing consumers with only the best advice, finest service delivery, and highest quality workmanship.

The RMI and its various associations and structures remain committed to making a difference in the lives of business owners and the economy going forward. Our hope is that 2020 be the beginning of great and lasting outcomes in the automotive industry – outcomes we can all be proud of in time to come.

Jakkie Olivier

For information on the RMI and its workings, visit www.rmi.org.za or call 011 886 6300

## CONSTITUENT **ASSOCIATIONS**



### A DRIVING FORCE IN SOUTH AFRICA'S AUTOMOTIVE AFTERMARKET

The Retail Motor Industry Organisation is a proactive, relevant, retail and associated motor industry organisation recognised as the leading voice in South Africa's automotive aftermarket. It serves the daily needs of its members and plays a key role in enabling motor traders to deliver a superior service to motoring consumers. Eight Associations fall proudly under the RMI umbrella. Inter-associational business-to-business trading is encouraged in the interests of all stakeholders.



#### ARA - Automotive Remanufacturers' Association

ARA represents the remanufacturing trade sector. This includes component remanufacturers involved in safety-critical components. inclusive of but not limited to vehicle cooling, turbocharger and braking systems; automotive engineers who machine and remanufacture engine components by way of expert engineering – ultimately rebuilding engines to its original specifications; and specialists in the repair, servicing and remanufacturing of diesel fuel injection systems fitted to diesel engines in earth moving equipment, highway trucks, stationary engines and passenger vehicles. ARA promotes the responsible reuse of remanufactured engine components for a 'greener' environment (carbon footprint). Its members are dedicated to providing consumers with only the best of advice, finest service delivery, and highest quality workman-



### SAPRA - South African Petroleum Retailers' Association

SAPRA represents the interests of all petroleum retailers in South Africa. Its aim is to improve growth and profitability for the investor. SAPRA plays an important role in tracking global and local trends that affect sustainability and help retailers remain relevant in an ever-changing business environment. Retailers voice concerns through one of the seven regional chairs strategically located around the country, into a National Executive Committee (NEC), where strategy and solutions are developed. This bottom up approach is a fundamental SAPRA imperative.



#### MIWA - Motor Industry Workshop Association

MIWA, the Independent Workshop Association, representing general repairs, auto electrical; air conditioning; accessories and fitment as well as transmission and driveline workshops strives to remain ahead of the ever-changing technologies and best practices of the aftermarket motor industry. MIWA encourages members to support inter-associational, business-to-business trading with a view to strengthen the RMI. MIWA remains the leading resource for members ensuring continued relevance and sustainability.



### SAVABA - South African Vehicle and Bodybuilders' Association

SAVABA members are professional, certified and regulated vehicle body builders in South Africa who manufacture commercial vehicle body applications (tanker, coal, refrigerated trucks and trailers) and SAVABA bus bodies (commuter and tourist type). Members manufacture using the latest equipment and highly trained staff to ensure strict compliance with NRCS regulations; SABS standards and all other legal specifications and requirements.



miwa

### NADA - National Automobile Dealers' Association

NADA represents the interests of business people who own or operate new motor vehicle and motorcycle franchise dealerships and qualifying used motor vehicle and motorcycle outlets. NADA is committed to the image enhancement of the retail motor business, facilitating the interface between dealers and OEMs; importers and distributors; building relationships between dealers and customers and bringing relevant industry issues to the attention of government. NADA is the respected voice on all matters relating to motor vehicle and motorcycle dealer business.



### TEPA - Tyre, Equipment, Parts Association

TEPA represents tyre dealers; garage/workshop equipment and tool importers and distributors; auto part wholesalers, retailers and independent operators in the aftermarket motor parts industry as well as manufacturers and importers of parts for the automotive aftermarket. The members of TEPA represent, promote, sell and endorse the use of legitimate, bona fide, quality branded products. TEPA members also export parts, equipment and components into Africa and other countries in the world. TEPA encourages at all times inter-associational RMI business-to-business trading, intent on strengthening the RMI Organisation as a whole. TEPA is seen as the mark of integrity and fair trade for the consumer, the business operator and the government. The Association is the legitimate voice of the tyre, equipment, and parts industry in South Africa and is positioned as an intermediary between government, business, and the consumer.



### SAMBRA-South African Motor Body Repairers' Association

SAMBRA is the pre-eminent motor body repair association in South Africa representing the majority of accredited motor body repairers. SAMBRA's grading system, which was introduced over 30 years ago, regulates repair standards in the motor body repair industry in South Africa and instils confidence in consumers and industry stakeholders alike. The Association works in close collaboration with various key industry stakeholders including Insurers, Original Equipment Suppliers, paint and equipment suppliers, the labour department and trade unions, as well as related SETAs - to maintain industry sustainability and development. It ensures the provision of technical and business management skills training in order for members to meet the demands of the industry.



### VTA - Vehicle Testing Association

The VTA represents private vehicle testing stations that are committed to operating within the law in accordance with the Road Traffic Act and the relevant SANS standards. In this highly regulated environment, the association represents the interests of its members at government level working groups and is committed to enhancing the reputation of the industry in all the spheres.

WE ARE BETTER TOGETHER



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## EDITOR'S LETTER

## Regular maintenance FTW



Editor: Kate Kennedy

hen you look at the cost of living today, you know that the old tradition of replacing your vehicle every three to five years is just not possible anymore. Even if you stick to demo models of small cars, the costs involved with a new set of wheels doesn't allow for many

people to update their rides too often. Research by the AA reveals that 40% of respondents are holding onto their vehicles for up to 10 years.

My little Kia Rio is going on for nine years and, at just over 100,000km, has not had any major problems. Admittedly, there are a few body work repairs that I haven't seen to and my car-washing schedule is extremely erratic, but the car is running just fine. I attribute this good fortune

to regular maintenance at a local dealership. And to ensure that I'm able to get my car serviced every year, I have signed up for a maintenance plan since the initial two-year plan expired. I pay a monthly fee to a third party which allows me to drop my car at the dealership once a year without having to worry about paying for the standard service.

On page 26, Dewald Ranft, Chairman of MIWA, explains why it's so important to keep a regular maintenance schedule, and it's not all about the eventual resale value.

Also in this issue, we look at the impact artificial intelligence is having on the retail motor sector (page 28); the recipients of Ford Rangers as part of the company's wildlife conservation project (page 66); and how Castrol's liquid engineering is helping to drive down the cost of ownership (page 31).

'Til next time Kate (RMI)

## Enrol in our Nated Engineering Studies **Motor Trade Course.**



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## TELL US WHAT'S ON YOUR MIND











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## INDUSTRY COMMENT



### Opportunities abound for companies following the successful '19 Matric class.

ith the highest pass rate in 25 years, companies in the mer-sector are spoiled for choice from a large pool of candidates for apprenticeships and learnerships.

The '19 Matric class opens wonderful breaks for manufacturing, engineering and related companies to gear up their training for greater demand, given the vast opportunities that are arising from the highly successful investment conferences held by President Cyril Ramaphosa.

Our Return on Investment tool, which we launched last year with the Retail Motor Industry Organisation, makes it clear that investment in training can have up to 200% return within the first two years.

This tool enables a company to quickly and simply estimate the potential

contribution a single apprentice can make during the training period.

Companies interested in training in the Automotive Mechanic, Automotive Spray Painter and Automotive Body Repairer disciplines can easily calculate their financial returns on apprenticeships. This tool is available via the merSETA website.

Although domestic new vehicle sales declined again up to December 2019, there has been substantial growth in our vehicle exports.

According to NAAMSA, vehicle exports registered another annual record with total exports at 386,863 units which is an improvement of 35,724 vehicle exports or a gain of 10,2% compared to the 351,139 vehicles exported in 2018.

Exports of passenger cars, in particular, registered a substantial rise, in volume terms, of 17.7%.

Many don't realise that total automotive revenue in South Africa amounted to R503 billion in 2018. Figures for 2019 will certainly show an increase given the higher exports.

This alone should encourage you, company owners, to take on apprentices and increase training ventures at your premises.

Make use of the opportunity to engage new apprentices and launch learnerships as the '19 Matric class enters the job market in the next few months.

'Till next month! Wayne Adams merSETA Acting CEO

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## The 2020 RMI Board



he RMI's leadership for 2020 and 2021 was chosen and sworn into office in 2019. Serving on the Board are business persons who have been elected by the RMI's regional and constituent association's committee structure, together with non-executive directors appointed from the broader business community and the CEO of the RMI. Jeánne Esterhuizen was, once again, reappointed as President and Frans Maritz was elected as Vice-President for 2020 and 2021. The RMI strategic objectives will continue to be actively driven by the RMI Board of Directors together with the RMI's Senior Executives for the ultimate benefit of all members.

Jeánne Esterhuizen	Non-Executive Director (RMI President)
Frans Maritz	TEPA Chairperson (RMI Vice-President)
Jakkie Olivier	Chief Executive Officer
Vuyani Mpofu	Non-Executive Director
Advocate Jeremiah Modiba	Non-Executive Director
Jan Schoeman	Chief Operations Officer
Eduan Naude	SAVABA National Chairperson
Riaan Botha	RMI Eastern Cape Regional Chairperson
George Jacovides	RMI KwaZulu Natal Regional Chairperson
Danie Fourie	RMI Free State / Northern Cape Regional Chairperson
Andrea Bogner	RMI Highveld Regional Chairperson
Eugene Ranft	MIWA National Chairperson
Mark Dommisse	NADA National Chairperson
Trevor Gordon	Vice-Chairperson RMI Labour Executive Committee
Ferose Oaten	VTA National Chairperson & RMI Western Cape Regional Chairperson
Frank MacNicol	ARA National Chairperson
Lindsay Bouchier	RMI Border Regional & RMI Labour Executive Committee Chairperson
Les McMaster	RMI Northern Regional Chairperson
Charles Canning	SAMBRA National Chairperson
Sello Molemela	SAPRA National Chairperson
Gary McCraw	Company Secretary
Renee Coetsee	Financial Director

12 - FEBRUARY/MARCH 2020 www.automobil.co.za



























## RMI NEWS





















































Cape Regional Chairperson











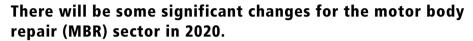






## Outlook for SAMBRA





t's not going to be business as usual says Richard Green, National Director of the South African Motor Body Repairers' Association (SAMBRA), a proud association of the Retail Motor Industry Organisation (RMI) and the custodian of industry standards and sustainability in the sector.

SAMBRA, whose members are responsible for repairing over 80% of all insured repair claims in the country, interface with all the key players in the formal MBR sector including short term motor insurers; insurer intermediaries; OEM approval programmes; OEM and alternative part suppliers; paint and equipment suppliers and MBRs servicing that market.

Green anticipates a decline in intermediary participants in the short term insurance sector and an increase in direct motor insurance – potentially more effective business partners than intermediary-driven insurers.

"Direct insurance models better suit our industry, as the current system is administratively ineffective and expensive," he says.

He also predicts OEM approval programmes will remain an integral part of the industry, though the form may change dramatically. "We must not lose the connection between our two industries, as the connection is essential to ensure continued skills development

without it repair quality will suffer. SAMBRA will continue to focus on cost reduction of these programmes," he says.

If OEMs wish to maintain the current part supply levels, they will need to seek more effective and production efficient mechanisms. "The cost of premium vehicle parts is currently not sustainable and alternative parts manufacturers have already made significant inroads into the genuine parts market. Unless OEMs produce creative and effective alternatives, the erosion of their market share will continue. An additional impact is the increase in effective repair technology which allows MBRs to repair panels that were previously replaced.

SAMBRA'S right of lien will, in our view, negate insurers' parts purchase/payment strategy," says Green.

In the paint and equipment sector, more local production is a necessity as only a small percentage of paint and equipment supplied to the MBR market in South Africa is locally produced. "There has never been a better time to be in the collision repair industry – because of the opportunities arising through consolidation. There's a five-year window, and the clocks have already been ticking for two or three years.

"OEMs need to encourage competition in the sector by approving a wider range of paints for application to their vehicles," says Green.



Government needs to look at encouraging investment in this industrial sector. A fair, unrestricted and competitive business environment in the MBR sector will grow small businesses and stimulate employment. "As a sector we strongly reject any bias, no matter what form it takes and will robustly oppose any form of unfair business practice," says Green.

But business growth won't happen in the large MBR business sector. "We believe the real growth opportunity lies in small business sector that can remain agile in service offering, and will, in future, be multi-faceted under the same 'roof' focussing on Non-Structural Repair (NSR) MBR work and allied services. As an industry we are committed to working tirelessly with all of our business partners to ensure a sustainable trading environment."

The MBR industry will need to regroup, regain sector independence and focus on production efficiencies by developing skill and using of best available repair technology to maximise profit margins. "We owe our customers the best possible level of repair quality and service and we owe ourselves the correct levels of ROI. We will achieve this by declining to work at unsustainable rates; by securing working capital by exercising our right of lien and by eradicating the senseless invoice discounting practices," concludes Green.

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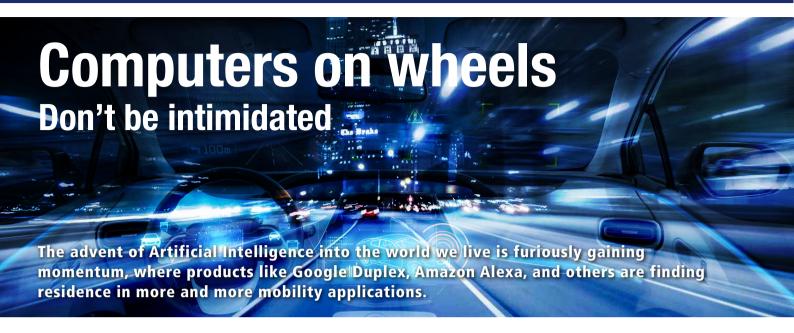






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hese Al-related processes aim to provide the consumer with seamless interactions with service providers. Ultimately the goal is to provide consumers with integrated environments and products. In the automotive industry the trend is moving that way too.

Everyday cars are becoming more and more technologically advanced. This should not be intimidating, says Hedley Judd, National Director of the Tyre, Equipment, Parts Association (TEPA), a proud association of the Retail Motor Industry Organisation (RMI), but rather exciting news for motorists.

"When we think technology, we think laptops, cell phones, TV sets etc. What's interesting is that much of the technology in motor vehicles is comparable to the technology in these types of items," he says.

The motor vehicle has an Engine Control Unit (ECU), Body Control Module (BCM), screens of different types, and of course the communication system to the outside world, either via a wi-fi-linked hotspot or a Bluetooth link to the cell network.

"The ECU and the BCM are both effectively computers with processors and memory that are programmed to function according to set rules depending on the external input from the engine or the vehicle via the driver. The screens referred to are the infotainment screen and nowadays in many vehicles the instrument cluster has become a computer-like screen as well. Finally, the communication language would be understandable to the drivers of today's vehicles."

When examining the modern home there are accessories which may or may not be linked to a computer system or may just be transmitting information continuously, which is accessed at random when required. These are accessories such as security alarms, security cameras, light controls, geyser controls, irrigation systems, and entertainment controls to mention a few.

"Again, if this analogy is transposed with the motor vehicle many of the same technology possibilities apply," says Judd.

The modern motor vehicle has cameras in various locations all performing different functions. These form part of the

advanced driver assistance system (ADAS). These cameras are all feeding information (data) to one of the onboard computers which in turn then provide warnings and or even adjustments to the vehicle. This ADAS system controls functions like Lane Drift assist, proximity alerts, rain sensing, road conditions, and vehicle following distances for autonomous braking and or brake warning alerts – even effective when reversing with an integrated reversing camera that can apply braking as well.

"The vehicles lights are controlled by the BCM according to light sensors that send messages to the BCM to manage the lighting. The majority of modern vehicles also have alarm systems which are integrated to the ECU and BCM in efforts to reduce unwanted joy rides," he explains.

The data is continuously stored by the ECU and BCM units. This is where, when coupled to the external world via a connection of some description, your vehicle is then able to provide you with reactive information such as brakes or tyres that need replacing, or that the vehicle needs a service. "Your vehicle will then assist you in scheduling the appointments for the repairs or servicing."





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## INDUSTRY NEWS









## Golf supports education

## NAACAM Golf Day proceeds to support maths and science education.

he National Association for Automotive Component and Allied Manufacturers (NAACAM) will host its inaugural golf days, hosted by Sasfin, in the automotive manufacturing hubs of Johannesburg (Kyalami Country Club on 12 March), Port Elizabeth (Humewood on 26 March) and Durban (Royal Durban on 19 March). All proceeds will be donated to the Centre for the Advancement of Science and Mathematics Education (CASME).

CASME focuses on professional development and support for teachers through training and provision of resources for science and mathematics teaching in under-resourced and previously disadvantaged communities. It operates throughout the schooling sector

from Foundation Phase to Grade 12 throughout South Africa and implements a range of interventions in support of the Department of Basic Education.

Renai Moothilal, NAACAM Executive Director, said that South Africa's economic prosperity depends on the availability of sufficient highly educated and trained people in science, mathematics and technology. "Increasing such availability, particularly with people from disadvantaged backgrounds, will go a long way to addressing structural growth and inequality, especially as we move into a technology intensive working future. CASME is one of the organisations successfully addressing this need and we are proud to be associated with them."

Brenden Adriaanzen, National Manager, Sasfin Commercial Solutions, an associate member of NAACAM, said Sasfin is committed to working with NAACAM in supporting existing members and attracting new members and specifically Blackowned component manufacturers.

"The golf day will be the perfect platform to network with new potential manufacturers entering the automotive supply chain. The event has been well received and it is encouraging to see that entries are filling up fast."

The field will be limited to 30 four-balls and sponsorship opportunities are still available. For more info email: naacam@sasfin.com (RMI)



The merSETA is one of 21 Sector Education and Training Authorities (SETAs) established to facilitate skills development in terms of the Skills Development Act of 1998 (as amended). The 21 SETAs broadly reflect different sectors of the South African economy. The merSETA encompasses Manufacturing, Engineering and Related Services.

The various industry sectors are covered by five chambers within the merSETA:











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## RMI ASSOCIATION OF THE MONTH

# ARA initiating the spark for 2020 ARA

For a brand-new and exciting chapter

With the Automotive Remanufacturers' Association (ARA) officially launching our new and improved look, and a fresh, amalgamated association in December 2019 (as part of the RMI's New Thinking Model – NTM) we're ready and geared-up to start a brand new decade with a line-up of industry-relevant, high-stake, and high-priority projects – in benefit of industry at large.



## Launching ARAs new and improved look

The RMI has effectively moved from having 13 different associations to eight stronger, more aligned businesses all falling under the RMI brand. Each of the logos has been modernised, whilst still retaining its unique essence and rich heritage. It was also the ideal time to look at new identities as many of our associations have merged.

ARAs modern new identity extends not only to ARA, but across RMI, and its (now) eight Constituent Associations. This is a milestone that not only brings the industry closer together, but also gives it a bigger footprint and a stronger voice. We are very excited about the future prospects for ARA and its position in the industry. As an amalgamated association, we now have stronger bargaining power with industry and relevant stakeholders.

Our new association represents the remanufacturing trade sector. This includes component remanufacturers involved in safety-critical components, inclusive of, but not limited to, vehicle cooling; turbocharger and braking systems; automotive engineers who machine and remanufacture engine components by way of expert engineering – ultimately rebuilding an engine to its original specifications; and specialists in the repair, servicing and remanufacturing

of diesel fuel injection systems fitted to diesel engines in earth moving equipment, highway trucks, stationary engines and passenger vehicles.

ARA promotes the responsible reuse of remanufactured engine components for a 'greener' environment (carbon footprint). Its members are dedicated to providing consumers with only the best of advice, finest service delivery, and highest quality workmanship.

The new ARA logo reflects the consolidation of three similar strong trade sector associations operating together in the remanufacturing trade sector. The universally recognised engine icon was used as the central design. It is made up of three colours that represent the three amalgamated strengths namely: automotive engineering, automotive components and diesel fuel injection. The spark, strategically placed in the centre, is a powerful symbol of a healthy engine. It symbolises igniting a remanufactured engine and refers to new beginnings.



## **Meet the ARA National Executive Committee (NEC)**

It pleases us to congratulate and formally introduce to you the ARA NEC, who will take the association from strength to strength. The ARA office is excited about each NEC Committee Members' individual and unique skill-set, and leadership that will set ARA apart – showcasing to industry that passion and hard work will net great results.

ARA NEC Chairperson & FS/NC Chairperson	Mr Frank Mac Nicol
ARA NEC 1st Vice-Chairperson & KZN Chairperson	Mr Chris Le Roux
ARA NEC 2nd Vice-Chairperson & EC Chairperson	Mr Riaan Botha
ARA NEC Committee Member & PTA Chairperson	Mr Pierre Lourens
ARA NEC Committee Member & JHB Chairperson	Mr Johan Botha
ARA NEC Committee Member & WC Chairperson	Mr Dirk Du Plessis
ARA NEC Co-Opted Member & WC Committee Member	Mr Dave Stalker
ARA NEC Co-Opted Member & KZN Committee Member	Mr Marc Henwood
ARA NEC Co-Opted Member & JHB Committee Member	Mr Willie Prinsloo

## Looking back on 2019

Our achievements include:

- The successful clustering of ERA, SADFIA and ACRA, and joined operations and projects – leading up to the amalgamation process, and formation of ARA.
- The association held in excess of 50-plus high-stake, high-priority Stakeholder Meetings, not to mention NEC EXEC, REC EXEC and Members Meetings in 2019.
- The newly developed qualification

   Engine Management and Fuel
   Injection Systems Mechanic.
- The successful registration (brining into existence) of the Diesel Fuel Injection: Trade Test Centre, at Bosch SA.
- Several good-news stories went out to industry from the ARA camp, such as: Changes in vehicles' fuel systems lead to increased competition; Disability is not an obstacle to success in the motoring industry; Which will prevail – hybrid, electric or gas cars?
- The first member-owned Automotive Machinist Trade Test Centre registered in South Africa – ASTA Trade Test Centre (by GENMO

Engineering, Hendrik Cronje).

- A number of successful graduates from the Almo Engineering/MerSETA/ DoL – UIF/ARA training project.
- ARA, and WERC (World Engine Remanufacturers' Council) collaboration

   on a global scale, with meetings held at AutoMec in Brazil, and Automechanika – Johannesburg.
- SABS Technical representation, for better and safer vehicle operating conditions, on South African roads.
- A very successful ERA, SADFIA, ACRA, in collaboration with WERC, conference, held in September 2019.
- Appointment of TEPAs & ARAs PA: Marietjie Smith.
- Inter-associational meetings between ARA, MIWA and TEPA, which sparked the Collaboration drive for 2020, for greater cohesion between associations.
- ARA joining hands with MIWA for the MIWA HaynesPro initiative.
- Alternative energies i.e. Gas (LPG, LNG etc.) and Hydrogen applications.
- Recognition for long-serving members.
- Governing political party to be approached with industry matters.



## RMI ASSOCIATION OF THE MONTH

## **Collaboration with MIWA and TEPA**

The necessity for associations like ARA, MIWA and TEPA to work in closer proximity with one another was recognised, especially for those whose core functions pertains to vehicle, parts, service and remanufacturing.

Our objectives will speak to associational relevance, associational growth, member integration, cost savings, clearer communications, stronger messaging to the membership and beyond. All of this will be incorporated into combined member meetings and joined projects like the digitalisation of business affairs.



## National Gas-Ready Workshops project: Randburg Diesel & Turbo, taking the lead

"Changes in the fuel systems of vehicles means that more and more competitors have entered the repair and rebuild sectors of the motor industry," says Johan Botha, ARA Regional Chairman.

Botha is also the founder and owner of Randburg Diesel & Turbo in Johannesburg. The company specialises in the repair and rebuild of diesel pumps, injectors and turbochargers as well as starter motors and alternators for all vehicles.

Having recently received the Gold award in the Motor Industry category at the 2019 ROCCI awards, Botha is in a good position to offer advice on what leads to success in the industry. "Honesty and integrity. I also believe in being actively involved in the industry, not only for your own benefit, but also for the benefit of the industry as a whole. Staying up-todate and being part of the changes and finding solutions for the challenges in the industry is key. Randburg Diesel & Turbo strives for the best but can only do so by remaining humble. Support towards the community remains a must. This can be towards charities, support groups, skills development and training. To receive, you must be able and willing to give," he says.



Botha says the biggest challenges the industry will face in the next few years will relate to competitiveness, pricing, parts availability and skilled staff. "These are current factors that will remain challenges in the industry. Aftermarket parts are hurting the repair programme and product quality is a concern. Another challenge will be changes towards electrical vehicles and duel fuel powered vehicles i.e. diesel and gas powered."

Gas conversions is a technology ARA has sourced information on and pursued over time (given the critical importance to stay current in new technologies). We're of the belief that gas will be the energy in demand until Electric and Hybrid Vehicle technology becomes viable options, financially.

LPG runs cleaner in terms of carbonemissions, making it a much greener option, is about half the price of petroleum, and there are more LPG and CNG deposits than oil deposits

24 - FEBRUARY/MARCH 2020 www.automobil.co.za



to be mined. While CNG is an option it is a little more expensive than LPG and it lowers the performance of vehicles by up to 15%. Hydrogen, a carbon neutral fuel, is also becoming a hot topic and being widely researched as a source of alternative energy; it's currently priced more or less on par with petroleum.

Our current skilled workforce—qualified artisans and tradesmen trained as diesel and petrol mechanics, diesel fuel injection technicians, automotive engineers, automotive electricians and others — will be able to perform such a conversion after completing a quick training course. The foundational skill-set is in place but they need just a little bit more knowledge. The Gas-Ready Workshops project that the ARA is overseeing will prepare our members for this technology.







## Background and future prospects of WERC

The World Engine Remanufacturers' Council (WERC) was initially formed in London during 2007, but lost momentum over the years until the various country bodies reestablished contact at Automechanika Frankfurt motoring exhibition on 13 September, where representatives within the remanufactures trade sector across the world revived it; our ARA NEC Chairperson was nominated and seconded as the Council's President elect.

It was agreed that a global body was needed to stimulate cooperation and knowledge-sharing between WERC associations. It was resolved that a global body would have more clout when dealing with some of the larger issues facing the industry and would allow us to interact directly and on a level footing with other global organisations. The intention was to strengthen ties and address issues faced by members around the world. It was noted that global issues could easily be resolved on an information-swop basis.

The purpose of WERC is to create a world alliance of independent engine

rebuilders in search of excellence in their work, better profitability and greater awareness of the new trends that disruptive technology is bringing into the engine rebuilding business.

The re-establishment of WERC is significant as it allows our industry to share global best practices and give the Engine Remanufacturer Trade Sector a unified voice in trade and industry matters. As a world organisation, by taking hands and sharing ideas and information, approaching world governments, stakeholders and suppliers, WERC will be able to resolve mutual concerns faced by multiple countries. WERC will, in all practicality, be an extended benefit to the engine rebuilding world community globally.

Since the re-establishment of WERC, global memberships have increased, collaboration between countries has brought answers and solutions to industry matters, numerous meetings with global entities with the likes of Messe Frankfurt (Automechanika) have been held in Brazil, Russia, Amsterdam, South Africa and America, and will soon meet again in Germany.

## RMI NEWS





## Maintenance is crucial



## As motorists keep their cars for more than 10 years

Economic reasons and newer models becoming more reliable are amongst the reasons why South African motorists are keeping their cars for longer. This is according to research recently published by the Automobile Association. "There's no doubt that vehicle owners are keeping their cars for longer which means that maintenance of vehicles is more crucial than ever," says Dewald Ranft, Chairman of the Motor Industry Workshop Association (MIWA), a proud association of the Retail Motor Industry Organisation (RMI).

he research revealed that 40% of respondents say they now keep their cars for between five and 10 years, with just under 35% saying they are keeping their vehicles for longer than 10 years. "These results point to the increased need for better maintenance of vehicles, and for proper insurance," reports the AA.

"Regular maintenance is key to extending the life of your car, and will help you pick up smaller repairs early enough to prevent more serious faults occurring further down the line," says Ranft.

He advises motorists to keep a close eye on the car's manual and schedule maintenance accordingly. "Even better, set a recurring reminder on your phone to alert you to get your vehicle checked annually. Keeping up with your car's recommended maintenance schedule can help avoid costly problems with your cooling system, drivetrain, suspension and other components."

Motorists should also ensure their car is serviced by a reputable workshop that only uses quality oil, fluids and parts. "While it might sound like an attractive option to service your car as cheaply as

possible, the financial implications in the long run will outweigh the apparent short-term benefit. It's never wise to scrimp on your car's maintenance costs."

In addition to regular maintenance there are a number of other things motorists can do to extend a car's life. Motorists should regularly check the level of fluids in their vehicles, such as the antifreeze, oil, transmission fluid, power steering fluid, and brake fluid. "It's also important to change the oil regularly as this will improve your mileage and protect your engine. To find the recommended mileage between oil changes check your vehicle's service manual, and if still unsure consult with an accredited MIWA workshop. It's important to change the oil filter as well – there is no sense in putting clean oil through a dirty filter," says Ranft.

He also advises motorists to monitor the thickness of their vehicle's brake pads to prevent the pads from wearing down to metal. This will cause damage to the brake disks and possibly the calipers as well. It's worth noting that disks and calipers are far more expensive to replace than pads.

Another tip to make the brakes last longer, is to use the hand brake where possible,

he says. "Even if you are driving a car with an automatic transmission, use your hand brake regularly, especially if you're parked on an incline. It helps keep the brakes adjusted in the rear of the car and makes them last longer."

But most of all, don't ignore small problems. Pay close attention to a vehicle's noises and also to its warning lights and even cosmetic things, like a piece of rubber trim that's loose, he says. "Ignoring a problem only allows it to get worse, and parts for aging vehicles are often difficult to locate.

"If buying a new car isn't a priority then ensuring your current vehicle is properly maintained should be. Regular maintenance is key to extending the life of your car, and will result in a better resale price when that time comes. It is also a cost saver as regular servicing will help you pick up smaller repairs early enough to prevent more serious and costly faults occurring further down the line. Most importantly it ensures that your car is roadworthy. Roadworthiness and road safety need to be priorities for all South Africans as we aim to reduce deaths on our roads," concludes Ranft.

To find a MIWA-accredited workshop near you download the RMI Connect app.



## **RMI Connect**

The RMI Connect mobile app is now available on Play and Apple stores for you to enjoy. Find an RMI accredited member now in your immediately vicinity. Search for any type of motor-related business and find the best member to assist you in your need.

Members now have access to all compliance documentation and valueadded services that RMI has for their accredited members.

RMI share all their events with members and consumers. All the detail is available, enabling you to join us at the events.

RMI members can order their stationery now from their app and in their region, and contact us for any enquiry when they have an issue from the Enquiries section on the app.

RMI provide consumers with the latest RMI news and the Automobil magazine on the RMI Connect App. Send us any complaint about our members so that we can ensure they are compliant.

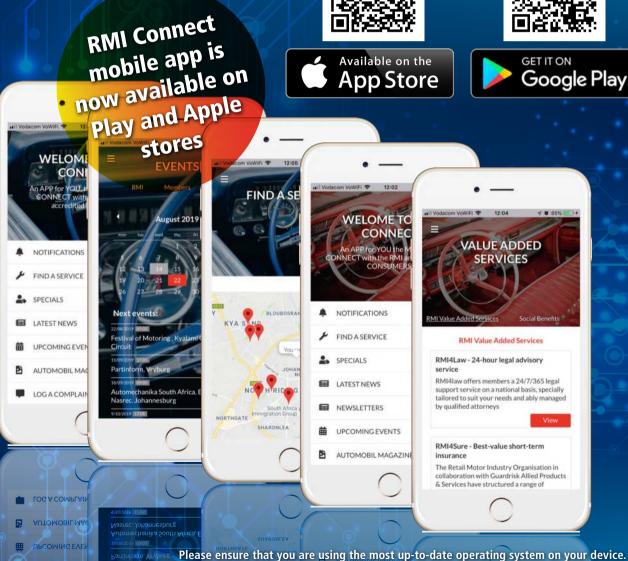
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Available on the App Store







## The impact of AI on jobs in the retail motor sector

The fourth industrial revolution (4IR) is gaining traction in all sectors. Artificial Intelligence (AI), robotics and automation are being applied to create ingenious innovations – advancements aimed at making life easier, improving productivity and speeding up the evolution of industries.

cKinsey Digital reports that most aspects of car manufacturing will transform with AI enabling autonomous vehicles to become mainstream. The transformation is expected to play out within the next two decades. AI technologies are already able to automate at least 30% of activities in about 60% of occupations in the USA and Germany.

According to the report, key areas where AI would revolutionise the car manufacturing process include minimising production line failure; ensuring more productive employees with supported robotic collaboration; creating AI quality control that could be 90% more accurate; ensuring more timely measurement of research and development progress; and adding business support functions like an IT service desk that can be automated to about 90%.

But will these innovations have a negative impact on job security in the car manufacturing and retail industry? The answer probably lies with the champions of these industries – how they embrace the digital potential of the evolving sector, without abandoning their workforce. The retail motor environment will need to keep abreast of this fast-moving transformation. Especially around customer care and aftersales service, with appropriate support and car maintenance, against the backdrop of Al, robotics and automation interventions.

"A priority of the RMI is readying its members for the changes through awareness, education, and skills development," says Jakkie Olivier, CEO of the Retail Motor Industry Organisation (RMI)

However, the retail motor sectors around the world, and in South Africa, cannot rely on educational or training sectors to provide technicians with the necessary futuristic skills. According to The World Economic Forum 65% of pupils presently entering primary school, will end up in a job that does not even exist yet.

To remain relevant, skills development programmes need to be stepped up. "The current workforce would need to become a new generation of coders and software engineers," says Mark Dommisse, Chairman of the National Automobile Dealers' Association (NADA).

He recognises the inevitable transformation of internal combustion engines, making way for alternative power sources, "Today's vehicles aren't stand-alone entities but rather part of a network of navigation and shared information. We are moving to vehicles that will soon be interconnected, electronically controlled and fuelled by a variety of energy sources."

This amplifies the need to evolve job requirements of motor technicians. It also provides some foreshadowing on how the retail landscape should prepare for the onset of increasing AI presence, including robotics and automation. In a white paper on Leadership in the 4IR, Dr David Molapo and Linda Khumalo consider careers in the digital technology industry. They categorise opportunities in the digital technology sector along people, product, process and financial aspects.

Motor technicians fit into the process aspect. The white paper rates this area as very technical. "Individuals wanting to work in the process departments must study Digital Technology at technical universities", states the white paper. However, it points out, 'there are very few tertiary institutes who specialise in Digital Technology as this is a new industrial sector and universities are starting to establish these departments'.

With academic institutions needing six months to two years for the development of a Bachelor's degree course, the white paper suggests that industries will need to find training partners and encourage self-training by innovators in the areas of nanotechnology, AI and robotics. "The traditional academic institutions still follow the traditional research methodologies and the new Internet world is moving too fast," it states. Subsequently few academic institutions have the capability to respond fast enough.

"It is crucial for the motor retail industry to adapt within this changing factory and workshop environment. Even though fuel-powered cars will be operating in South Africa for many years to come," says Olivier. "While training and educational institutions catch up to the needs dictated by the 4IR, the RMI is committed to invest in an upskill drive. This will ensure that members remain relevant in order to meet their customers' needs and safeguard business sustainability."

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## INDUSTRY NEWS

## ZF highlights progression toward automated driving

Automated and autonomous driving are important technologies in helping make the traffic of the future safer, more efficient and more comfortable. Depending on the application, the market demands different solutions. For the time being, intelligent assistance functions, so-called Level 2+ systems, have the greatest potential for passenger cars.



n contrast, fully automated systems of level 4 and higher will likely become established in commercial vehicles and urban passenger transport. This is proven by new orders which ZF has received from car and commercial vehicle manufacturers.

ZF is an attractive partner when it comes to the realisation of automated and autonomous driving in a wide range of applications. ZF CEO Wolf-Henning Scheider explained why at the the 2020 CES: "ZF already offers complete systems at different price and performance levels and is active in all relevant fields of application with passenger cars, commercial vehicles, and industrial technology."

### First major order for ZF coASSIST

ZF received a major order from a renowned Asian car manufacturer to supply the coASSIST Level 2+ entry-level system for passenger cars from the end of 2020. ZF's scope of supply includes system and software development, as well as sensor technology and central electronic control unit. By combining an advanced sensor suite including cameras and radars with a central control unit, functions such as adaptive cruise control, traffic sign recognition, lane change assist, lane keeping assist and traffic jam support are enabled.

"For passenger cars, we see the greatest potential in Level 2+ concepts for implementing automated driving functions and making them accessible to all drivers," explained Scheider.

Here, assistance functions are combined an additional control unit to form a holistic, powerful and intelligent driver assistance system. The increased range of networked functions results in greater safety and comfort for the driver than with isolated driver assistance systems. Chief among the current challenges to higher levels of automation in passenger cars are the high system costs and the as yet unclarified regulatory guidance. ZF coASSIST will be available for well under \$1,000. In addition to coASSIST, ZF offers other, more powerful Level 2+ systems: ZF coDRIVE and ZF coPILOT.

### Fully automated transport vehicles

"In the case of commercial vehicles, we are already seeing strong demand for systems that make fully automated driving to Level 4 and higher possible," says Scheider.

While the use of fully automated passenger cars in public transport still depends on regulations, commercial vehicles can already operate in highly automated modes within closed areas or defined lanes. In addition, driverless transport at depots or in urban passenger transport offers savings potential that leads to a rapid amortization of system costs.



Based on the ZF ProAI supercomputer, ZF is currently developing the Electronic Control Unit (ECU) for a Level 4 system for an international commercial vehicle manufacturer. The market launch is scheduled for 2024/25.

ZF becomes a provider of software solutions

ZF is also setting the course for

faster and more comprehensive software development: Together with Microsoft, ZF plans to adapt the speed and quality of its processes, methods, and solutions in software engineering to the level of major IT companies.

"The mobility industry continues to undergo major changes. This

is why ZF, too, must continue to change, develop and drive transformation: We have to be able to convince our customers with innovations that offer them – and ultimately the end consumers – added value. And in the future, this will increasingly include software products and services," said Scheider.

## Castrol's liquid engineering drives down total cost of ownership

With the advances of technology in modern diesel engines and ever-tightening emission legislation, the role of engine oil has become extremely important. On top of that, for the owners and operators of all commercial vehicles, efficiency and reliability equal time and money.



eeping trucks productive means keeping them on the road longer between essential maintenance, using fuel more efficiently and extending the life of engines.

Castrol's complete fluid solution of advanced engine oils, transmission fluids, antifreezes and greases make it easier for operators to select the right product for the right application and helps achieve the best possible performance from vehicles," says Shane Solomon, Castrol South Africa, Head of Marketing, Africa.

The Castrol product range for commercial vehicle engines includes lubricants designed to:

- Help improve the fuel efficiency of trucks
- Help maintain engine cleanliness
- Provide excellent wear protection
- Extend the life of the engine

Fierce competition in the trucking industry coupled with commercial vehicle operators facing a multitude of challenges including congested roads and escalating operating costs, mean businesses need to operate at ultimate efficiency. Castrol is fully committed to assisting its trucking customers maximise profit.

"We are able to offer the right specialty products to make sure that a commercial vehicle will keep working effectively. Whether it's an oil, grease, coolant or a hydraulic fluid, Castrol certainly has the

right solution. We are passionate about delivering complete fluid solutions to trucks, tractors and other commercial vehicles through innovation and deep consumer insights, backed with expertise in automotive lubrication technology," concludes Solomon.

Castrol lives and breathes its Liquid Engineering promise. To bring to market the latest in cutting-edge technology and develop the optimum product range to date, Castrol has run over seven million on-road kilometres. This is equal to driving to the moon and back nine times.

The rigorous test regime required more than 290,000 man-hours and equalled 600 engine tests. The analysis covered 97% of all OEM engine lubricant requirements and volumes equated to filling more than 400 trucks.

## INDUSTRY NEWS

## Taxi industry urged to "go green"

The taxi industry in South Africa continues to grow despite a tough economy and is now worth approximately R50 billion a year, with 69% of SA's households using minibus taxis. These taxis are estimated to be responsible for 15 million daily commuter trips. Taxi vehicle maintenance generates millions of litres of used oil, much of which is disposed of illegally.





a known practice for taxi operators and DIY mechanics to dump used oil onto open ground, down storm water drains or to dispose of it with general refuse.

ROSE says that most people don't know that used motor oil is extremely hazardous as it contains harmful toxins and cancer-causing agents. Dumped onto the ground or into storm water drains, it can eventually seep into rivers and lakes, poisoning our drinking water.

he ROSE Foundation (Recycling Oil Saves the Environment), a non-profit organisation funded by the major lubricants producers in South Africa to drive the environmentally responsible collection and recycling of used motor oil, says that the taxi industry is a significant user of lubricating oil. Most importantly, ROSE is concerned about the volumes of used oil that the industry could literally be pouring down the drain, instead of recycling responsibly.

gutter," says ROSE CEO Bubele Nyiba.

The taxi industry is immense – having started in South Africa in the late 1970s to meet the demand of commuters for a more efficient and cost-effective public transport system. Since then the industry has boomed. Figures vary as to how many taxis operate in

This translates into hundreds of thousands

of litres of used lubricating oil which is

thrown onto the ground or into the

potentially not being recycled, but rather

could literally be pouring down the drain, instead of recycling responsibly.

"Taxis drive tremendous distances –

19 billion collective kilometres a year according to Transactional Capital – and

"One litre of used oil can contaminate one million litres of water. There is a very worrying amount of oil being generated by the taxi industry that may be making its way into our environment. "says Nyiba." ROSE is urging the taxi industry to set an example to other road users and to protect the environment by recycling their used oil. We appeal to all taxi operators, drivers and mechanics to think twice before dumping used oil. Put it in a sealable container and take it to a nearby drop-off site, municipal garden refuse site, or auto workshop where it will be collected by a ROSE-registered used oil collector for transport to a refinery where the oil is recycled." (RMI)

according to Transactional Capital – and need to change their oil regularly, often what do taxi drivers do with used motor on the move in taxi ranks or in back yards.

What do taxi drivers do with used motor oil after an oil change? Unfortunately, it is

Taxi operators can contact the ROSE Foundation for more information on: (021) 448 7492 info@rosefoundation.org.za or visit the website www.rosefoundation.org.za

32 - FEBRUARY/MARCH 2020 www.automobil.co.za



## **Investing in the future**

## Making the most of classic car restorations

The classic car market has enjoyed phenomenal success over the past decade. A new world-record was set in August 2017 when a 1950s Aston Martin DBR1 sold at auction for \$22,550,000. And with approximately 30,000 American classic cars shipped into Europe in 2018, this buoyant market needs an expert in the field. This is where Standox comes in.

n classic car restorations, and in times of economic uncertainty, people look to invest their money in something tangible.

Over the past decade, investments in cars have outperformed coins, diamonds and vintage wine by some considerable margin. This trend presents an opportunity for bodyshops to perfect their classic car restoration skills and grow this particular segment of the market.

The Standox Brand Manager for Europe, Middle East and Africa (EMEA), Olaf Adamek, explains, "Classic car restoration requires a high level of both technological know-how and skilled labour, but it can be a lucrative market for bodyshops. The customer base is strong, close-knit and resilient to shifts in the economy. They are often knowledgeable about classic car restoration in general but they look to bodyshops for professional advice on the paint process. They need to feel that their prized possession is in safe hands."

It's important to pay attention to detail when determining the best path for the restoration of a classic car. Sometimes what starts out as a small rust repair turns into a full restoration project with a complete refinishing job, so having access to professional support and the right type of products is key.



### Corrosion

The biggest difference between repairing paint on a classic car and on a modern car is corrosion protection. Until the 1980s, vehicle bodies were mostly built from sheet metal, which is badly affected by moisture and humidity.

"Getting a comprehensive cost for the entire restoration project is vital," says Harald Klöckner, Standox Training and Technical Service Leader for EMEA. "Once that has been made and agreed with the owner, the refinisher's number one priority should be to protect the historical vehicle effectively against corrosion. It's crucial to avoid contact between the putty and the bare metal and to counter the risk of corrosion when preparing the substrate. A thin insulation layer should always be applied between the bare metal and the putty. If not, the putty acts like a dry sponge that absorbs water and passes it on to the metal."

Standox recommends a three-stage buildup consisting of an acid primer and a VOC filler. After the appropriate pre-treatment, the bare metal should be insulated with an acid primer and a VOC filler. The VOC filler isolates sanding marks and pores and helps to even out the surface, making it the ideal foundation for the topcoat.

### An eye for perfect colour-matching

Digitalisation of the colour management process has made the colour matching process for classic cars infinitely easier and more accurate.

When classic cars have very little original paint left due to heavy damage, when the car has been repainted and the original colour is long lost under layers of different paint, or if the colour code is simply not known, Standox supports the bodyshop through the entire colourmatching process and draws on its long-standing classic car restoration experience to identify the right colour.



## INDUSTRY NEWS

## Tata enriches lives of youth

Tata Motors has launched an initiative to train under-privileged youth from Africa under the SkillPro programe, in an effort to enhance their employability. Judas Tlou Kobo and Lesego Faith Banda were invited to participate in the company's intensive nine-month SkillPro training in India.



Motors SkillPro training in India

A ttending the training programme was keen to participa

gave Kobo and Banda the chance to build their skill set and advance their careers in the automotive industry.

"After completing my studies, I did an apprenticeship programme at Tshwane Municipality for three years," says Kobo. "Here, they train students and offer them learnerships in trade skills. I was at home for a while, and was looking for work; that is how I stumbled upon Tata Motors. It so happened that there was an opening for SkillPro students at the time, and I was the first candidate to be selected."

Banda was one of only two females from Africa to be selected to join the group of 24 trainees. "I always had an interest in cars, from a young age," she says." I was applying for a job at the time, and Tata Motors reached out and informed me about the SkillPro programme. I was keen to participate because I wanted to increase my knowledge. I knew that Tata manufactured cars, but I didn't know that they also manufactured trucks and buses."

The Tata Motors SkillPro programme is a unique, all-expenses paid skills development initiative, which involves both theory and practical knowledge on commercial vehicles, including different types of engines, gearboxes, axle systems, and repairing of trucks. It includes a 10-day visit to the dealer workshop, where students attend to actual problems of real customers as part of their training.

"I really enjoyed the electrical training, because I went there with some knowledge of mechanical engineering. I knew nothing about electrical engineering, so I acquired a new skill," says Kobo.

"We got a chance to train on all parts of the machinery – whether it was assembling an engine or working on a gearbox," says Banda. "Everyone got a chance to work on everything. I really enjoyed the on-the-job practical training."

Over and above the technical knowledge acquired, students are also given language classes to improve their English, as well as yoga and music classes. There is also a weekly visit to one of Tata's CSR projects in and around Jamshedpur, India.

Once home, students join the local Tata distributor network for a further three to six months of training. Based on their performance during this period, they may be offered a job. But they are not contractually bound to Tata once they complete their training, and are free to pursue their own career path.

Kobo and Banda are no strangers to adversity, and their advice to other young people eager to acquire marketable skills and enter the job market, is to keep believing and to never give up on one's dreams.

"For Tata, this programme is a step towards delivering better customer satisfaction," says Len Brand, CEO of Tata International Africa. "As our students become professionals, who have been trained on Tata's latest products and technology, so they will become better equipped to handle our local customers' needs. It is also a wonderful window to different cultures for the students. As a result, they become more receptive to different people and situations, and more global in their outlook. These students also become our biggest brand ambassadors."



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## INDUSTRY NEWS

## Free State graduates return from China

With matric results fresh in the minds of the 2019 matriculants the race is on to secure tertiary studies and jobs with both undertakings getting more challenging in our tough economic times. But there are always good news stories.



Recently 34 Free State students graduated with different degrees from universities of technology in the People's Republic of China. The qualifications included, among others, degrees in engineering, economy and trade; computer science; and pharmaceutical engineering. In total, 65 Bachelor's Degrees and three Masters Degrees were conferred on international students from various countries.

Such achievements bode well for the province shortly after it celebrated being number one in the country in terms of the 2019 Grade 12 pass rate, with a record breaking 88.4% of

students passing their 2019 National Senior Certificate (NSC) examinations.

Commenting on the graduates from China, Free State Premier, Sisi Ntombela said, "This achievement by our students abroad emphasises the Free State government's passion for education and our collective desire to leave a lasting legacy that will increase the number of appropriately skilled people who will meet the province's demands."

One such skilled graduate recently joined SA Truck Bodies (SATB) in Bloemfontein. Vincent Pono from Botshabelo in the Free State matriculated in 2013. The next year

## Helping learners put their best foot forward

According to a recent UNICEF report, 11.9 children live in income poverty in South Africa, which for many means new school shoes are unaffordable. These same children are expected to walk long distances to school, often over rough terrain such as gravel roads or footpaths. And those who do have shoes, often have ones that do not fit correctly – either too small or too big, with worn-out soles or broken buckles.

Recognising the importance of correctly fitted and comfortable shoes for learners, Sumitomo Rubber South Africa pledged R150,000 and appealed to the company's suppliers to assist further. As a result, a total of R280,000 was raised to equip under-privileged children in the rural areas surrounding their Ladysmith manufacturing plant with brand new school shoes for the 2020 school year. Partnering with Ntenga Footwear and Bhanas Wholesalers, the company delivered a total of 1,670 brand new school shoes to 819 female and 851 male learners from grades eight to 11 at the Bhekinthuthuko Secondary and Steadville High schools.

"Shoes are recognised as a symbol of pride in many communities and cultures. Children are often teased or miss school due to



he was off to China with a scholarship and importance of precision and a successfully graduated with a B.Eng. in Mechanical Engineering in June last year from the Beijing Institute of Technology.

Danie Fourie, Group Marketing and Recruitment Manager SATB, a member of the Retail Motor Industry Organisation (RMI), said they were delighted to employ one of the returning graduates. Pono joined SATB in November last year and is equally excited about this opportunity. He says the four-year course was tough, especially with the language issue.

"During my undergraduate studies, most of the lectures were in Chinese. It was difficult to keep up. So I had to use YouTube and put in double the effort to understand the content."

Pono says he was impressed by the exceptional work ethics of the Chinese and adds, "One of the most important things I have learned is never to underestimate yourself."

He is now enjoying the experience at SATB where he thrives on the

fast-paced working environment,

Jakkie Olivier, CEO of the RMI, says it is encouraging that the motor industry, and in particular the vehicle body building fraternity, employ engineering graduates. The South African Vehicle Body Builders' Association (SAVABA), an RMI association that represents professional vehicle body builders in South Africa, uses only the latest equipment and employs highly trained staff to ensure strict compliance with SABS standards and other legal specifications.

"As an industry we have to urgently address the relevant automotive skills shortages. The reality is that there has been no real focussed skills development and/or underinvestment in human capital for job specific requirements for many years in our country. Skills have been outpaced by technology and this has resulted in a loss of business and profits. Up-skilling

and re-skilling of employees will result in increased productivity."

Louis van Huyssteen, RMI's Training Director, concurs, saying it is all about maintaining professional standards and changing perceptions so young South African learners and graduates view the motor industry as an industry with exciting career prospects. "We need to demonstrate our career pathways and fast track our own training programmes to entice graduates, TVET college graduates and secondary school learners."

"Our industry is committed to government's National Development Plan's vision for 2030," Olivier concludes. "The latest Bargaining Council statistics showed year-on-year growth in both registered employer and employee numbers for the past three years. The RMI understands that government alone cannot meet these goals. Skills development in our sector remains a strategic priority for the RMI, which is driven through our eight associations." (RMI)

the lack, or poor condition, of their shoes, especially in the cold winter months," says Riaz Haffejee, CEO of Sumitomo Dunlop. "Education is one of our key CSI pillars and we work steadfastly to improve the outcomes of the learners at these two high schools. This campaign was a part of our continued support."

"In 2019, Sumitomo Dunlop donated a fully equipped classroom to our school, providing our matric learners with an excellent environment in which to learn and prepare for their final examinations. Our learners and their families are so incredibly grateful for these shoes," said

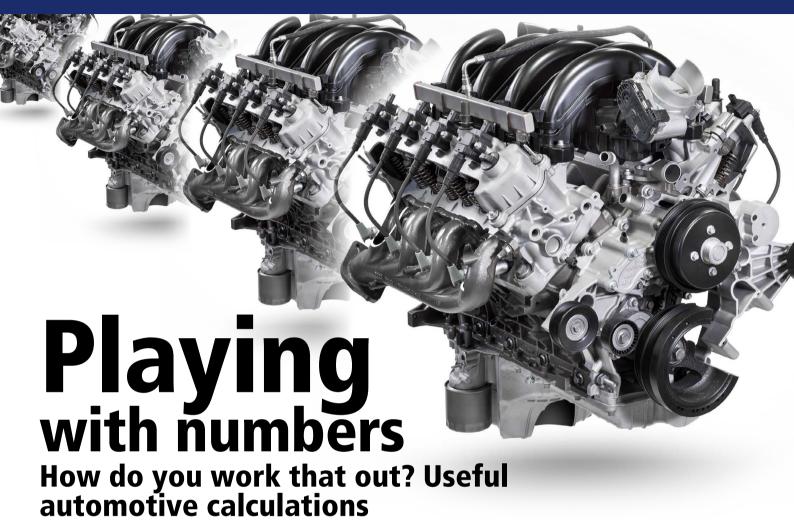
Bhekinthuthuko Secondary School headmaster, Mr Madonsela.

Head of Steadville High, Mrs Shabalala said, "We are overwhelmed by this donation."

Sumitomo Dunlop partners with the two schools to provide tutoring to grade 11 and 12 learners in mathematics and science, stationery and other supplies, hosting career guidance days, bringing in teams of staff from across the country to share their education and career journeys and encourage our learners to stay in school and strive for success. (RMI)



#### TECH TALK



Numbers mean a lot in the motor trade and to get on in life you have to make friends not only with numbers but also calculations. Therefore, I make no apology for including a bit of mathematics in this article.

eaningful numbers have units attached to them, such as rand or kilogram or litres/100 kilometre. The fact that the world is divided into metric and imperial zones of influence, with many overlapping areas, means that that a labelled number such as 7 litres/I00km is perfectly clear to some and meaningless to others unless translated into 40.35 miles/gallon or even 14.29 km/litre. By the way, litres/100km is regarded as a superior way to express fuel consumption because a rising value implies a rising consumption whereas the opposite is true when km/litre is used.

#### **CUBIC CAPACITY**

The cubic capacity (or displacement) of an engine is the theoretical amount of air that an engine can suck in during one cycle of events.

It has been used since early days as a rough-and-ready way to compare engines but has the major disadvantage that the other factors such as maximum power engine speed as well as average cylinder pressures are ignored.

The first step is to calculate the volume of the bore space above each piston at bottom dead centre using the standard formula for a cylinder.



 $V = (\pi/4)B2S$  where

V = volume in cubic centimetres

B = bore in cm (diameter of cylinder)

S = stroke in cm (length of cylinder)  $\pi/4 = 0.7854$ 

The total engine displacement is this value multiplied by the number of cylinders.

#### **COMPRESSION RATIO**

To calculate the compression ratio of a particular engine you have to measure the volume of each combustion chamber by using a burette filled with paraffin and a flat piece of glass or Perspex with a small hole bored in it. Seal the edges of the combustion chamber onto the Perspex with grease. In earlier days each chamber in a multi-cylinder engine would have had a slightly different volume, due to production tolerances, which means that each cylinder will have a slightly different compression ratio. Modern manufacturing techniques ensure that these differences would be very small.

You have to check the position of the pistons at top dead centre. If they are flush with the top of the cylinder block, then you are able to proceed with the calculation, but if they stop slightly below the top of the mating surface then this volume must be added to the combustion chamber volume. Measure the amount that the piston is lower than the block face carefully with a good Vernier gauge, and calculate the volume of the space, using the above formula for a cylinder.

The compression ratio is now given by: CR = (V + v)/v, where V = cubic capacity of one cylinder and v = combustion chamber volume. This formula can easily be remembered

as the total volume above the piston at bottom dead centre divided by the total volume above the piston at top dead centre.

#### **GEARED SPEEDS**

It's sometimes useful to know how to calculate the theoretical speeds in each gear. These will change when the tyre or wheel sizes are changed. The first step is to calculate the vehicle speed per 1,000r/min engine speed. The formula is:

1,000r/min (engine speed) = (60.K)/(G.R) km/h (vehicle speed) where

G = gear ratio

R = final drive ratio

K =wheel circumference in metres.

For example, if the fourth gear ratio is 0.82:1; the final drive ratio is 4.53:1; and the wheel circumference is 1.87 metres then the car speed in fourth gear at 1,000r/min is  $(60 \times 1.87)/(0.82 \times 4.53) = 30.2$  km/h. This means that at 5,000r/min in fourth gear the car will be travelling at  $5 \times 30.2 = 151$  km/h.

Rev counters and speedometers are not accurate, and these values are theoretical. Tyre growth and wear can change them by 3% to 5%.

The wheel circumference should be measured with the car on the ground at the correct tyre pressure. Mark the side of the tyre, and the road, at the point of contact, then roll the wheel for one complete rotation (using your mark as a guide) and measure the distance between the start and end points on the road. This will give you a very realistic value for a particular tyre on a particular car at a particular pressure.

#### **AVERAGE PISTON SPEED**

Average piston speed is easy to calculate and gives a very important indication of the level of inertial stress in an engine. A piston travels twice the length of the stroke for every revolution, hence the average piston speed for N revolutions is equal to the distance travelled per N revolutions divided by the time taken to complete N revolutions. Thus, piston speed =

2.S.N/60 in m/s where

N = r/min

S = stroke in metres.

At the same revs the engine with a higher piston speed will be more highly stressed. Since the stroke length appears in the calculation it shows that a short-stroke engine tends to be less highly stressed than a long stroke engine at the same revs.

#### **SPECIFIC POWER OUTPUT**

The specific power output is given as kW/litre or BHP/litre and is the maximum output of an engine divided by the cubic capacity. This is a useful guide to the state of tune of an engine. A tractor engine develops less power for the same engine size than a racing car and therefore needs less frequent servicing. This gives us a clue to how different engines may be compared, using the kW/ litre as a fussiness yardstick. This measure also tells us how much development has gone into an engine. For example, the fact that automotive diesel engines have doubled their specific output in the last 20 years is a good indication of the amount of research that has gone into diesels in that time.



#### **TECH** TALK

#### **SPECIFIC TORQUE OUTPUT**

This is the ratio N.m/litre and is the maximum torque divided by the cubic capacity. It is even more useful as a comparison yardstick because if the value is multiplied by  $4\pi$  it will give the average pressure on the pistons in kPa. This value has been rising slowly but steadily over the years so that an engine's specific torque output will be an indication of how old the design is. At present any unblown petrol engine developing less than 100N.m/l was likely designed more than 15 years ago. Turbocharged engines obviously develop more torque per litre than unblown engines and this means that they are more highly stressed. This explains why they're so easily damaged by indifferent servicing.

#### **EFFECT OF EXTRA POWER ON MAX SPEED**

This can be calculated theoretically using a formula that connects the power developed by an engine to the vehicle speed. It is

kW = Q.V3

Here V is the maximum speed and Q is a constant for a particular car. Its value depends on the body shape, the drag co-efficient and the air density. The first two values are practically constant for a particular body shape, but the air density varies between a hot and a cold day. If we assume the total drag is the same before and after the engine modification then we can calculate the new maximum speed as follows:

 $V2 = V1(W2/W1)^{1/3}$  where

W1 = power outputbefore modification.

V1 = maximum speed before modification.

W2 = power outputafter modification.

V2 = maximum speed after modification.



This gives us the new maximum speed in terms of the previous maximum speed and the cube root of the ratio of the power outputs.

#### **Power**

One imperial horsepower, sometimes called brake horsepower (BHP) because it's measured on a dynamometer or brake, is equal to 0.746kW. The earlier power unit used in Europe is pferdestarke (PS) in Germany and cheval vapeur (CV) in France. They're both equal to 0.736kW ie 10 watt smaller than horsepower.

Note that BHP should not be confused with the rated horsepower system used in Britain for tax purposes until 1947. In this system a car would be called an 8 HP or a 12 HP but this was a number that depended only on the bore size and the number of cylinders, and was not related to BHP. France and Germany had similar systems. A further complication is that the various standardisation bodies such as the SABS (South Africa), DIN (Germany), CUNA (Italy), SI (international), SAE (USA) and JIS (Japan) prescribe slightly different test conditions, with Europe being stricter than the rest of the world.

In practice the torque output of an engine is measured on a dynamometer, together with the engine speed, and the power output is then calculated from these readings. The formula linking the power and torque values at the same engine speed is:

 $kW = 2\pi TN/(60,000)$  where

 $\pi = 3.142$ 

T = torque in N.m

N = r/min

If you know the power, but want to calculate the torque, then the formula becomes:

 $T = 60,000.kW(2\pi N)$ 

#### **FUEL CONSUMPTION**

MPG to litres/I00km is another popular conversion, but here we can use a magic formula has the same form for both conversions. Either number can be divided into 282.48 to get the equivalent answer. For example, 7 litre/100km divided into 282.48 is equivalent to 40.35 MPG, and 40.35 MPG divided into 282.48 is equal to 7 litres/100km. (RMI)

Take Venter has worked as a mechanic, as an engineer in an engine assembly plant and as a lecturer, but now prefers journalism.







#### What is an Apprenticeship?

The apprenticeship system is a well-known technical training system which includes practical and theoretical training.

Apprenticeships are offered in designated trades, and on passing a trade test, the candidate will be recognised as an artisan.

#### Who is eligible for an Apprenticeship programme?

Any South African citizen, 16 years or older. There are different admission requirements for the various trades. Competence in Maths, Science and English will enhance your chances of selection.

#### How does one apply for the Apprenticeship programme?

- If you are unemployed, you may apply to a company that is offering an apprenticeship programme.
- If you are employed, consult with your employer as to the correct procedures to be followed so that you may pursue such training.
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#### LEADERS IN CLOSING THE SKILLS GAP

#### INDUSTRY NEWS

# Can bodyshops capitalise on consumer impatience?



It's widely known that consumers across the world are growing increasingly impatient as a result of constant technological innovations.



here is a clear demand for better and faster services from customers in all industries. A recent study commissioned by LivePerson revealed that 79% of management believes that consumers are more impatient than ever before and that customers will leave if they do not get what they want when they first make contact with a brand.

"In today's on-demand world, technology has created the belief that everything happens quickly," says Kevin Torfs, Brand Manager for Cromax in Europe, the Middle East and Africa. "Google research shows that 40% of customers will leave a webpage that takes longer than three seconds to load, so it's fair to say that people are more impatient than ever and that companies need to adjust their product and service offerings accordingly."

#### **Capitalising on impatience**

On the face of it, the increasing impatience of customers may seem like a negative trend, but in fact it has important implications and exciting opportunities for bodyshops.

"It might sound unconventional, but the truth is that bodyshops can profit from the impatience of their customers," says Torfs. "Today, the time-saving, material-saving and energy-saving tools and systems from Cromax drive productivity like never before and help bodyshop owners capitalise on customers' demands for swift turnaround times on vehicle repairs. The bottom line is that convenience and speed will ultimately give bodyshops a competitive edge."

#### **Implications and opportunities**

Rather than viewing customer impatience as a thorn in their side, bodyshops should evaluate their operations. By identifying where they

can improve throughput, they will be able to drive productivity whilst satisfying their customers' need for speed. "With the right Cromax product system, the possibilities to capitalise on customer impatience is endless, regardless of the size of the repair," says Torfs.

For jobs that involve minor damage to the vehicle, small area repairs can be carried out with special techniques that speed up the repair process. These repairs give bodyshops the opportunity to profit on small repair jobs while providing a quality service to their customers in a short time frame. The Ultra Productive System enables bodyshops not only to reduce waste and to optimise their workflow, but also to achieve greater costefficiency and increase profit margins.

"The only way to stay in the game and to increase profitability is to understand what customers want and figure out how to give that to them," says Torfs. "Yes, they set the bar higher with expectations of quick turnaround times, but ChromaConnect and our products and tools are all there to help bodyshop owners meet the demand."

#### **Added benefits**

Bodyshops have an opportunity to benefit from trends in customer behaviour. Those who do it well will have an advantage over the competition and gain a good reputation amongst their customers.

Torfs concludes, "The key is to understand the customers and to embrace their impatience as an opportunity for profitability and growth." Moving on to another job?

Don't be tempted to cash in your savings.

If you decide to change jobs and need to make a decision about your retirement fund, the safest option is to opt to stay in the Fund. This is the Default Preservation Option, which means your retirement savings will automatically remain invested as it is now, giving you peace of mind and flexibility.

## REMAIN IN THE RETIREMENT FUND THAT DELIVERS

While it may be tempting to take cash out of your retirement savings when you resign, it is always better to take the long-term view. And with the Motor Industry Retirement Funds, you can have total peace of mind. Our funds have performed very well for several years and have provided significant investment returns to our members.

#### **FLEXIBILITY**

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#### LABOUR LAW

# Negligence in the WORKPLACE

Justifiably, employers may expect their employees to exercise a degree of reasonable care whilst in their employ. By now, this is a settled, common law duty that every employee owes his or her employer.

nfortunately, employees do not consistently exercise the expected degree or standard of care as required of them and such failure is caused by various reasons – attributed to several factors.

In some instances, employees, as an oversight, omit certain actions required in terms of their job descriptions or, in other circumstances, they simply do not have the ability to perform the work for which they have been appointed and despite proper training, they fail to perform or consequently rectify their mistakes.

Some employees are even wilful in their failure to comply with their duties owed to their employers and intentionally cause harm or adverse consequences to the employer as a result.

Whilst various reasons may exist, all these employees fail to exercise a reasonable standard of care.

Employers often deal with negligence in the workplace which is mostly detrimental to them. In Grogan's Workplace Law Handbook, negligence is defined as "the culpable failure to exercise the degree of care expected of a reasonable person." It is noteworthy that negligence in the context of labour law has the same meaning as in other areas of law.



Essentially, it must be established who 'a reasonable person' for purposes of the definition would ordinarily be within the context of a workplace. A reasonable person will be an employee who has the skills, experience and qualifications, which are necessary and required to carry out the work so employed for.

Employers are reminded of the fact that negligence is not only limited to circumstances in which employees do something (act). It will also include situations in which employees fail to act or do nothing (omission).

In order to establish negligence, the employer will need to apply the test for negligence. This test assesses whether a reasonable employee – when in the same situation as the accused employee – would have foreseen that harm might occur or was likely to occur and they would have taken the necessary steps to avoid the harm. In order to qualify as negligence, an employee does not need to cause

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44 - FEBRUARY/MARCH 2020



actual harm to the employer

– the mere possibility of harm
would be sufficient to find the
employee quilty of negligence.

When an employee foresees that his or her actions might result in harm to the employer and despite such probable harm, proceeds with his or her actions or omission, it will no longer be a case of negligence, but rather be wilful and deliberate conduct potentially causing damage to the employer.

In circumstances where an employee made him- or herself guilty of negligence it is imperative that the disciplining procedures are conducted in accordance with the disciplinary code.

A first transgression will normally not be a case for dismissal, except in circumstances which the employee's actions could be considered to be gross and reckless. If the employee is in a senior position, it will be suitable to follow a more rigorous approach in disciplining such an employee. The employee should have ordinarily foreseen the possible consequences of his or her actions.

In the matter between *Transnet* Ltd t/a POSTNET v Owners of The MV Stela Tingas and Another, the court described gross negligence as follows: "It follows, I think, that to qualify as gross negligence the conduct in question...must involve a departure from the standard of the reasonable person to such an extent that it may properly be categorised as extreme; it must demonstrate a complete obtuseness of mind

or, where there is no conscious risk-taking, a total failure to take care..."

In another matter, Moema and Zanzu (2011), the court addressed the aspect of disciplinary action and held as follows: "Disciplinary action may be taken against employees for negligence because employees owe a duty of care to their employers and colleagues. The requirements for a dismissal based on negligence are: the employee failed to exercise the standard of care and skill that can reasonably be expected of him; the lack of care and skill manifested itself in an act or omission that did or could have caused loss to the employer; loss or potential loss to the employer resulted or could have resulted from the employee's negligent act or omission; and the negligence must be gross."

For purposes of the disciplinary process, it is imperative that a causal connection exist between the employee's act or omission and the occurrence of the damage/loss (harm) or the potential of damage/loss.

The requirements for dismissal for negligence could be summarised as follows:

- The employee failed to exercise the reasonable standard of care that was expected of someone in his position;
- The act or the omission of the employee caused damage or could have caused damage to the employer; and
- The negligence was gross in nature.

As a matter of relevance, the MIBCO Main Agreement arranges the consequent recovering of damages from an employee who has caused same by his or her negligence (or wilful conduct).

Particularly, the provisions of clause 9.3 of Section A of the prevailing Main Agreement provides that employers within the motor industry may only hold an employee liable and deduct damages from him or her once he or she has been subjected to formal disciplinary hearings and was found guilty of wilful damage and/or gross negligence which caused the damage to the employer's property or the property of a customer. In respect of damage to the vehicle of an employer, the employer may also, as an alternative, prove reckless driving; driving under the influence of alcohol or drugs, or having driven the vehicle without the permission of the employer in order to recover such damages.

Employers should cautiously deal with matters involving negligence. Dismissal for negligence would be ill-suited upon a first offence, except in circumstances which would be considered reckless and gross.

The disciplinary code should be prevalent in deciding what action should be taken and the test for negligence should be applied rigorously.



Douw Breed is a Director at Barnard Incorporated Attorneys, Centurion.

#### RMI NEWS



In the current economic climate, various businesses, to the utmost frustration of their creditors, are making use of the remedy provided for in Chapter 6 of the Companies Act 71 of 2008 (the Act) i.e. business rescue. The aforesaid frustration to creditors is caused by the statutory moratorium imposed on legal proceedings against a company in business rescue. When a company goes into business rescue, that company's creditors may not take any legal action against that company for the recovery of any outstanding debts without the written consent of the business rescue practitioner or with leave of the court. This situation leads to creditors giving up on legitimate claims against companies as many such creditors are not necessarily au fait with the business rescue process.

reditors, however should not lose heart when a debtor company goes into business rescue. Not only can they often recover their debts, or a substantial part thereof if they take part in the process, but the Act, under certain

circumstances, provides creditors to bring a halt to the proceedings early on. The Act provides that a distressed company can, in terms of section 129 of the Act, enter the business rescue process voluntarily, alternatively an affected person may, in terms of section 131 of the Act, apply to a court for an order placing the company in business rescue. What creditors are often unaware of, the provisions of section 130 which enables a creditor to apply to a court for an order setting aside the



resolution on the grounds that:

- there is no reasonable basis for believing that the company is financially distressed (and that the resolution is purely an abuse of process);
- there is no reasonable prospect for rescuing the company (and that the company should rather be liquidated);
- the company failed to comply with the procedural requirements set out in section 129 of the act; or
- it is just and equitable to do so.

In addition to the above remedies, a creditor may also apply to a court to set aside the appointment of the business rescue practitioner on the grounds that

- the business rescue practitioner does not comply with the requirements of section 138 of the Act. This section requires that a business rescue practitioner
  - o must be a member in good standing of a legal, accounting or business management profession accredited by the Companies and Intellectual Property Commission (the Commission);
  - o is licensed to act as such by the Commission;
  - o is not subject to an order of probation in terms of section 162 (7) of the Act for his or her delinguency as a director;
  - o would not be disqualified from acting as a director of the company in terms of

- section 69 (8) of the Act;
- o does not have any relationship with the company such as would lead a third party to believe that the integrity, impartiality or objectivity of the business rescue practitioner is compromised by that relationship; and
- o is not related to a person who has such a relationship.
- s/he is not independent of the company or its management; or
- s/he does not possess the required expertise having regard to the company's circumstances.

A third remedy for a creditor is to apply to a court for an order that the business rescue practitioner must provide security in order to secure the interests of the company and any affected persons.

In the instance where an affected person applies to a court that a company be placed in business rescue, each affected person (which includes creditors of the company) may participate in the hearing of that application. This entitles a creditor to oppose an application for business rescue. In such proceedings, if a court is not satisfied that the company is financially distressed, or that it failed to pay any amount in terms of a statutory obligation or contract, in respect of employment related matters or that it is otherwise just and equitable to do so, the application can be dismissed and

the court can grant an order that the company be placed under liquidation.

Creditors of companies which enter business rescue proceedings should therefore not immediately give up on the idea of enforcing a claim against the company in business rescue, but should first obtain legal advice on the inner workings of the business rescue process and the prospects of using the remedies available to them.



Andries Stander is a director in the litigation department at Barnard Incorporated Attorneys in Centurion.

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#### INDUSTRY NEWS

# Nissan's twin-motor all-wheel-control tech is a force to be reckoned with

Nissan is elevating the performance capability of electric vehicles with its new twinmotor all-wheel-control technology called e-40RCE. The technology provides instant torque to all four wheels to deliver balanced, predictable power and handling on par with many premium sports cars.





he 'e' represents Nissan's technologies enabled by a 100% electric motor drive system. 4ORCE, pronounced force, evokes physical power and energy with '4' standing for the all-wheel control driving capability.

"The e-4ORCE twin-motor all-wheel control technology offers precise handling and stability, which gives drivers greater confidence and even more excitement than ever before," said Takao Asami, Nissan's Senior Vice-President of Research and Advanced Engineering. "This technology enables excellent cornering performance and traction on slippery surfaces and a comfortable ride for all passengers."

The technology was born from lessons learned in the development of the Nissan GT-R's ATTESA E-TS torque split system and the Nissan Patrol's intelligent 4X4 system.



Engineers developed the e-4ORCE technology to specifically manage electric vehicle power output and braking performance to be smooth and stable. Unparalleled ride comfort is the result of the e-4ORCE technology's ability to minimise vehicle pitch and dive. This is accomplished by employing regenerative braking from both front and rear motors, making city stop-and-go traffic less jostling.

Similarly, on rough, bumpy roads and when accelerating, motor control is optimised to maintain ride comfort by minimising irregular movement. e-4ORCE increases driver confidence by faithfully tracing the driver's intended line thanks to ultra-high-precision motor and brake control. With the confidence to handle such a variety of road surfaces, even for novice drivers on slippery surfaces, driving becomes more enjoyable.

50 - FEBRUARY/MARCH 2020 www.automobil.co.za



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#### INDUSTRY NEWS

# How to attract the next generation of talent to the bodyshop

The refinish industry's skills shortage is a problem plaguing European bodyshop owners, with regional research indicating that many are fearful it will become a full-blown crisis. Jim Muse, Axalta's Vice President of Refinish for Europe, Middle East and Africa, says to overcome a skills crisis the industry must position the profession as a career for the digitally savvy and environmentally aware.



he refinish industry is under strain from a shortage in skilled labour. Lack of interest from younger generations and an ageing labour force are widely thought to be the main culprits, and while stopping time or halting the aging process are impossible, there is a solution.

"To reverse the dwindling interest in the profession amongst young people we have to give the image of the refinisher's job a much-needed makeover," says Muse. "Innovations in technology mean the profession today is as digital as it is manual, and it is increasingly environmentally aware."

#### Going digital

For many years, refinish work was a static affair, particularly when colour-matching was done with microfiche and then with traditional colour chips. Thanks to rapid developments in technology, the process is now swiftly and accurately carried out in modern bodyshops with advanced digital systems supported by digital colour-matching tools, giving refinishers complete mobility in the bodyshop. In a cloud-based, fully digital colour-management system, refinishers can access features like spectrophotometer

readings, job sheets and colour formulas wirelessly, from any internet-enabled device, such as a smartphone or a tablet, anywhere in the bodyshop.

"Gone are the days of being tied to a PC, having to find colour matches by hand to create spray out cards," Muse continues. "Innovation in technology means that the car paint repair process is becoming faster, easier and more profitable. The digital tools in today's bodyshop make sense to the younger generation of tech-savvy jobseekers."

#### Connect with Gen Z

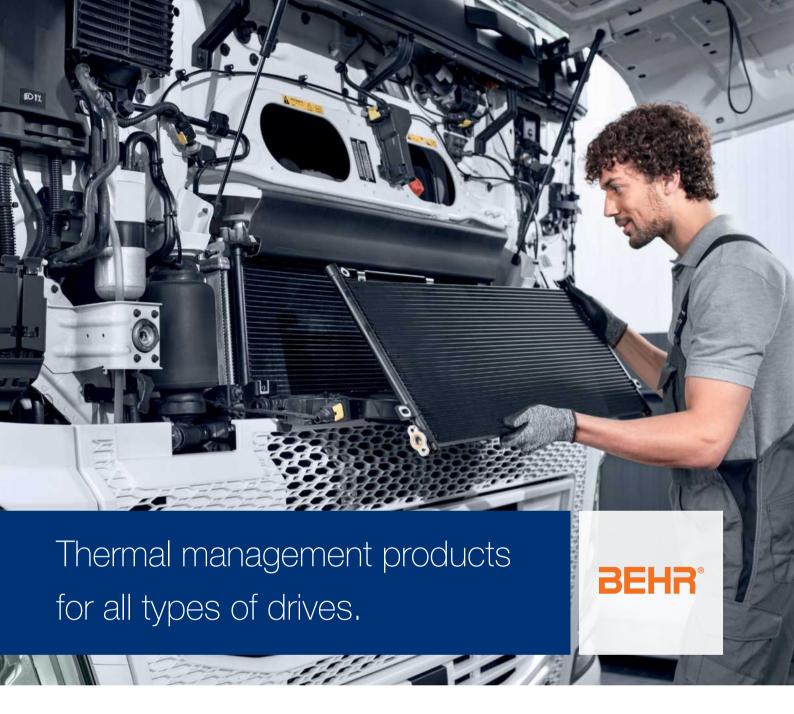
Bodyshop owners typically want to attract the so-called Generation Z – those born between 1995 and 2014, the oldest of whom are now entering the workforce. This is a sizeable cohort, which by 2020 is predicted to comprise nearly a quarter of the world's workforce. A recent survey of more than 12,000 Gen Zers across 17 different countries revealed that 80% aspire to work with cuttingedge technology and 91% state that technology would influence job choice.

"The key to reversing the skills shortage is to demonstrate to Gen Z that our industry is an attractive alternative to other professions. Gen Zers are true digital natives with a stronger environmental mindset than any of their predecessors. They have grown up in a digital world and to them, technology is second nature. In order to hit the right note with this pool of jobseekers, bodyshop owners need to incorporate messages of digitisation and environmental sustainability in their job fair displays and in communication with counsellors at trade schools, for example," says Muse.

#### What the future holds

Businesses of all sizes and across all industries are realising that sustainability and green thinking must be part of their agenda. "We know many bodyshops have their own sustainability goals. They choose product application systems that reduce their impact on the environment, including usage of low energy products that can aid in reducing their carbon footprint. Now, bodyshops have to go one step further and ensure this green thinking, coupled with their digital credentials are on display for the next generation," Muse says.

The refinish industry has work to do to ensure that today's skills shortage doesn't become tomorrow's skills crisis. Bodyshop owners must reverse the tide and draw in new talent by emphasising the right points of the profession to young jobseekers. But as Muse concludes, once hired, the work continues. "Retention ultimately becomes the goal because a strong sense of job satisfaction is a universal requirement for employee retention at any age."



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#### **FEATURE**



# LESS BOUNCE TO THE OUNCE Shock absorbers in the spotlight

A long time ago some American engineer decided to call these components "shock absorbers" with the result that millions of Americans as well as South Africans are under the impression that they absorb the shock that occurs when traveling on uneven surfaces.

Written by Jake Venter

n Britain they're called dampers because that's what they actually do. The movement of the springs absorbs the shock by converting some of the impact energy into kinetic energy while the dampers provide a variable resistance to the movement in order to curb a spring's over-enthusiastic response to a sudden jolt.

The best way to appreciate what the dampers do is to remove them and drive the car without them. This is not possible when the front suspension is by means of McPherson struts but we used to do it in my apprentice days, just for fun, when the dampers were separate fittings. Without

the dampers a car would bounce around and even dance sideways on a slightly rough road in a very entertaining manner.

The car's body movement is also, to a small extent, curbed by inertia of its mass. Truck drivers know that their ride is most comfortable when carrying a heavy load and it is amusing to realise that when Important Persons bounce in their seats in the rear of a long limousine the chauffeur experiences a more comfortable ride.

A damper curbs movement by displacing a small volume of oil against a resistance. It is actually an oil pump whose delivery is restricted by one or more small orifices to increase the pumping effort. The size and arrangement of these orifices determine the damper's characteristics (ie the amount of damping the unit will be able to provide for any set of circumstances). Setting-up the dampers for any vehicle is therefore a bit of a black art. It is always a compromise because any setting is only correct for a particular bump taken at a particular speed with the car carrying a particular load.

Most modern dampers are designed so that the amount of damping is determined by the speed of the suspension movement. In this way the

54 - FEBRUARY/MARCH 2020 www.automobil.co.za



units are able to reduce the three types of suspension movement, which are:

- The up-and-down movement

   the rate of bounce.
- The sideways movement the rate of roll or sway.
- The brake dive and acceleration squat. Dampers usually work in both directions. The primary compression cycle controls the unsprung mass, which are the wheels and axles, while the secondary extension cycle controls the far heavier sprung mass (ie everything above the springs) The damper should therefore have more resistance to movement during the extension cycle than during the compression cycle.

#### **CONSTRUCTION**

Most modern dampers are usually twintube units with an inner and outer tube. The inner tube is the working tube and it contains a piston attached to a rod that runs through a guide and a seal at one end to keep the dirt out. The unit is attached to the car's suspension in such a way that upand-down wheel movement is transferred to the piston via the rod. There are springloaded valves on the underside as well as the topside of the piston and also at the bottom of the working tube. The outer tube is used to store excess hydraulic fluid.

#### **OPERATION**

When a vehicle encounters a bump the damper initially moves upwards and this results in the piston moving downwards in its bore. This compresses the fluid underneath and starts the damper's compression cycle. Some fluid will flow through the valves on both sides of the piston to the space above while some will flow through the valves in the base of the tube into the reserve storage tube.

The spring pressure on the piston valves and the cylinder base valves are chosen so that at lower piston speeds the valves open progressively to restrict the oil flow in such a way that the required damping



characteristics are achieved. At higher piston speeds the valves are fully open so that the damping is controlled by the size and shape of restricting orifices in the path of the moving fluid. A similar action occurs when the damper movement changes direction at the start of the suspension extension cycle.

#### **GAS-CHARGED DAMPERS**

The rapid fluid movement that occurs when a car travels on a very bumpy road tends to cause foaming inside the outer storage tube. This will reduce a damper's effectiveness temporarily because foam is not compressible. This aeration can be curbed by pumping nitrogen into the storage tubes during manufacture. The extra pressure, which could be as high as 10 bar, tends to increase the effective spring rate slightly.

#### **MONO-TUBE DAMPERS**

Piston type dampers have progressed from mono-tube in the early days to the twin-tube at present, but the earlier type has been revived in a form that has a working piston and a dividing piston in a single tube. All the action is controlled by valves in the working piston while the dividing piston floats below the working piston. Its job is to separate the working fluid above it from the nitrogen gas below that is necessary to pressurize the working fluid. These dampers have the important

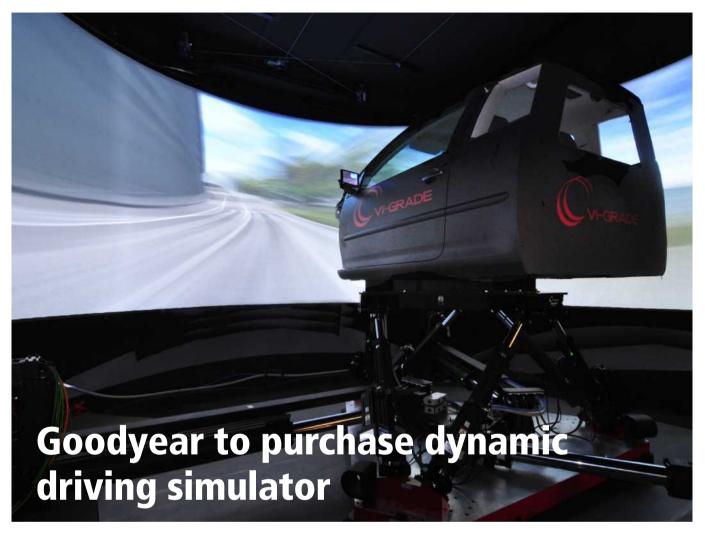
advantage that they can be mounted at any angle, even upside down. They also tend to run cooler than twin-tube units because the single working tube is more exposed to the air. These dampers can be rendered ineffective by a single dent.

#### **MODERN DAMPERS**

Some modern dampers employ positionsensitive damping by means of tapered grooves in the oil passages. These will modify the damping according to where the wheels are in their up-and-down travel. By this means the damping will automatically occur in two modes:

- When the wheels only move up to about the midpoint of their travel the damping is mild and the ride will tend to be more comfortable.
- When the car is driven vigorously the wheels may frequently get close to the suspension bump stops. The damping will be more severe, which is the correct setting the situation.

#### INDUSTRY NEWS



he Goodyear Tyre & Rubber Company will enhance its product development capabilities with the purchase of new VI-grade driving simulators, including a dynamic model, a first for tyre manufacturers.

Goodyear has selected a COMPACT Simulator recently delivered to the company's innovation centre in Luxembourg, Germany, and a Dynamic Driving Simulator DiM250 (Driverin-Motion) that will be installed in Akron, Ohio, in the coming months.

"This level of simulation sophistication will allow Goodyear to drive breakthroughs in future tyre creation, leading to an enhanced customer and driver experience," said Chris Helsel, Goodyear's Senior Vice-President and Chief Technology Officer. "I'm proud to say that Goodyear is leading the industry with VI-grade and our simulation solutions, and we look forward to sharing that benefit with our customers."

The automotive industry trend toward a virtual development cycle provides an opportunity for tyre development and this new simulation avenue will allow Goodyear to work more collaboratively with automobile manufacturers on original equipment fitments.

The driving simulators will be used for virtual development and tuning of dynamic performances of tyres, aided by the ability to simulate a range of driving conditions.

"We are delighted to report on the adoption of our driving simulators at Goodyear," said Guido Bairati, VP Global Sales and Marketing, VI-grade. "Goodyear's vision to purchase and work with us on a dedicated training programme to ensure efficiency in operation of these simulators will give it a distinct competitive advantage."

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#### INDUSTRY NEWS

# VW honours 2019's best trainee

Volkswagen Group South Africa (VWSA) employee Sakhile Mthombeni has been named as one of the top young talents across the Volkswagen Group worldwide.



Holeyko, Best Apprentice from Audi AG Neckarsulm in Germany; and Gunnar Kilian, Board Member for

thombeni joined 11 young women and 37 young men from 20 countries who were honoured for their outstanding performance in their vocations within the group, during the 2019 Best Trainee Award ceremony in Wolfsburg, Germany.

Human Resources in the Volkswagen Group

The certificates for the 2019 ceremony were presented by the Chairman of the Volkswagen Group's Board of

Management, Dr Herbert Diess, along with Gunnar Kilian, Board Member for Human Resources in the Volkswagen Group, and the President of the Global Group Works Council, Bernd Osterloh.

At the awards ceremony, Diess congratulated the 49 apprentices on being selected from more than 19,000 apprentices across the Group. "This is a great achievement," said Diess. "You have completed your apprenticeship

at a time when the industry is changing drastically. I would like each of you to play an active role in shaping this transformation."

Mthombeni, 30, works at VWSA's National Sales Organisation (NSO) in Johannesburg as a Product Pricing Analyst in the Product Marketing department.

"I am truly grateful for this accolade," she said. "It shows that hard work does pay off and that this is the beginning of greater things to come. I am now even more appreciative of the Volkswagen family and its core values and spirit after visiting Germany and receiving the award."

"We are very proud to have one of our young talents recognised by the group for her achievements," said Thomas Schaefer, Volkswagen Group South Africa Chairman and Managing Director. "As VWSA we pride ourselves on attracting and developing dedicated employees who live the value of excellence, and this accolade proves that our talent is excellent on a global level.

"VWSA remains committed to investing in training programmes, such as our Graduate Trainees, which bring new talent to the organisation and offers opportunities to deserving young graduates," concluded Schaefer.



#### Staff changes at Ford

Ford Motor Company South Africa (FMCSA) appointed Felix Sebata as Product Communications Specialist for South Africa on 1 November 2019.



n his role, Sebata will lead all productrelated communication functions, including media relations. He takes over from Minesh Bhagaloo, who was promoted to General Manager Communications earlier this year.

"We welcome Felix into his new role heading up Product Communications for Ford South Africa," says Bhagaloo. "His dedication and enthusiasm for the brand has been evident throughout his time with Ford, and will be a great asset for this department."

Sebata, who is a Chartered Public Relations Practitioner and a member of the Public Relations Institute of Southern Africa (PRISA), brings with him a wealth of experience garnered from almost 15 years in the public relations industry.

While most of his years were spent supporting clients in the public sector, his passion for motoring saw him take up a role as contributing motoring writer for an online news outlet, which ultimately led to his secondment to Ford within the Communications department.

#### Graham Boswell Retires after 47 years

FMCSA is celebrating the remarkable career of its longest-serving employee during its 96-year local history. Graham Boswell retired in September 2019 after having served the company for a truly exceptional 47 years.

"Ford is very much a family-oriented company, founded by Henry Ford in 1903, and is currently led by his great-grandson, Bill Ford, who is the Executive Chairman," says Neale Hill, MD of FMCSA. "It is fantastic to see this kind of legacy in our South African operations where three generations of the same family have grown up living the brand and contributing to its success.

"On behalf of Ford Motor Company, we honour Graham Boswell and thank him for his dedication to the company over all these years. The Boswell family is an integral part of Ford's history in Port Elizabeth, and they set an outstanding example for others to follow," Hill adds.

Boswell began his career at Ford's Neave vehicle plant in the aptly named Henry Ford Road in Port Elizabeth on 8 May 1972, following in the footsteps of his father who worked for the company for almost 30 years.

"I had to drop out of school to help my dad put bread on the table because we were nine brothers and two sisters," says Boswel. "My father always told us that Ford was a great company to work for. Ford has been very good to the Boswell family, giving us the opportunity to grow and develop as part of the business."

Although he started out in stores, Boswell soon joined the Fire and Safety team, an essential role he fulfilled throughout his career - later moving to the nearby Struandale Engine Plant where Ford's local manufacturing operations are now based.



#### INDUSTRY NEWS



sif Hoosen who has been managing the Marketing, Product and Public Relations portfolio for the past three years, will now head up the Audi Sales, Operations and Volume Planning team.

Hoosen has been part of Volkswagen Group South Africa since 2004 and has built up the majority of his 16-year tenure with the company within the realm of sales and retail, having previously been in charge of this function for both the Volkswagen Passenger Vehicles and Audi brands. This year, he returns to his forte, in an effort to support the Audi brand's retail efforts of growing its premium market share in South Africa.

He will be succeeded by Tarryn Knight who joins the Audi brand after five years of looking after Marketing and Product for Volkswagen Commercial Vehicles. Prior to this, Knight has held various roles in Brand Management and Marketing Research as part of her almost 14 year career with Volkswagen Group South Africa. Knight brings in a diverse skillset to oversee the areas of advertising, PR,

digital marketing, events, product and price planning, all of which will form part of her new portfolio.

"It's an incredibly exciting year for the Audi brand in 2020. With the youngest product portfolio on the horizon, Audi's new model onslaught is stronger than it has ever been



before. It is therefore imperative that our leadership team has the sufficient experience and passion to carry us through this new era. I am happy to have both Asif and Tarryn leading the respective sales, product and marketing portfolios for Audi and I wish them well in their new roles," said Trevor Hill, Head of Audi South Africa.



60 - FEBRUARY/MARCH 2020



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#### FIAT 500X: WHISTLING NOISE FROM GLOVEBOX AREA

**Problem:** We have a 2015 Fiat 500X in for service and the customer has complained of a whistling noise coming from the glovebox area. We have heard an intermittent whistling noise from the glovebox but have not found the cause of the noise. Can you help?

**Solution:** Yes, from the whistling noise you have described we are aware of one fix for the Fiat 500X. The whistling noise is due to excessive clearance between the glovebox air flow adjustment disc and the glovebox liner, allowing air to bypass the glovebox air flow adjustment disc. Fit a modified glovebox air flow adjustment disc, available from Fiat parts department, to the glovebox liner Fig. 1.1. This should rectify the fault.

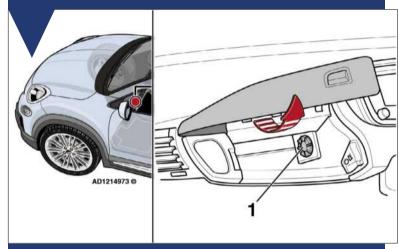


Illustration reference: RH\_fia199

#### SUBARU WRX: ENGINE MALFUNCTION INDICATOR LAMP (MIL) ILLUMINATED AND TROUBLE CODES STORED IN FAULT MEMORY

**Problem:** A customer is complaining that their 2014 Subaru WRX has the engine malfunction indicator lamp (MIL) illuminated. There are several trouble codes in the engine control module fault memory that relate to the fuel system. This is the second time the vehicle has come in with the same faults. Can you help?

**Solution:** Yes, we are aware of a problem affecting Subaru models with direct injection petrol engines. The cause is water ingress into the injectors. Fit modified injectors complete with protective rubber cover Fig.1.1. Erase trouble codes. Carry out road test to confirm the faults have been rectified.

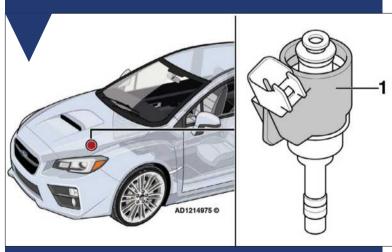


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Advance On Point Solutions (Pty) Itd	Cape Town	Handel Willowmore	Willowmore
Advance On Point Solutions (Pty) Itd	Claremont	Handel Winbura	Winburg
Advance On Point Solutions (Pty) Itd	Johannesburg	Handel Dordrecht	Dordrecht
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Handel Rosendal	Rosendal	Vulstasie Clocolan	Clocolan
Handel Rouxville	Rouxville	Vulstasie Cradock	Cradock
Handel Steynsburg	Steynsburg	Vulstasie Orddock  Vulstasie Dewetsdorp	Dewetsdorp
Handel Steynsrus	Stynsrus	Vulstasie Elliot	Elliot Elliot
Handel Strydenburg	Strydenburg	Vulstasie Fauresmith	
Handel Trompsburg	Trompsburg		Fauresmith
	pobulg	Vulstasie Fiksburg	Fiksburg
		Vulstasie Hobhouse	Hobhouse
		Vulstasie Hofmeyer	Hofmeyer
	autocomos	Vulstasie Koffiefontein	Koffiefontein
al Delin	L	Vulstasie Ladybrand	Ladybrand
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Zastron



# The RMI Connect App



#### Q: Why an RMI APP?

**A:** To provide members and consumers with information relating to the RMI and its members – Belonging is Better Business.

#### Q: Is there a charge to belonging?

**A:** The app is completely free and is a value add for RMI members.

#### Q: Why is the MIBCO number used to verify members?

**A:** A method of verification is required for members to join the app. On investigation it transpired that the one constant amongst the majority of our members is their MIBCO number. If you do not have a MIBCO number, please call the RMI and we will create a unique number for you to join the RMI connect App. When inputting the number just type in the numerals with no spaces, dashes or dots.

#### Q: How are the members reflected when requesting a service?

**A:** 10 members are reflected in any one search up to 100km away. Thus, if there are a lot of members that fulfil the search command you typed in, only the first 10 members, geographically closest to you, will reflect.

#### Q: Why am I not remembered when I exit the app?

**A:** We are serious about keeping your data secure and do not save your access details on your device. You are only logged in as long as the session on the app is open.

#### Q: Who do I call if I am battling to use the app?

A: Call the RMI on 011 789 2542 and we will assist you.

#### Q: Why am I battling to access the consumer and member side using the same email?

**A:** Each prospective user will only be allowed to use their email address once. In order for a member to access the app as a consumer, they will need to have a second email address and register for a second time. However, the member side of the app has all the information and functionality of the consumer side so there is no need to register for both.

#### Q: How often is the database updated?

A: The database is updated twice a day at 7am and 1pm.

#### Q: Why can't I change my member detail on the app? Why must I call RMI?

**A:** Our members are extremely important to us and your information is protected jealously. As such we will not allow changes to our database without your written consent.

#### Q: I love the app, but find reading information on a small screen just too difficult, can I access my information on a laptop?

**A:** Yes. Type *https://rmibs.co.za/app* into your desktop browser and you will view the desktop version of the app on your laptop. You just log in with the same details you registered on the mobile app. To be able to upload member news, events, newsletters, or update your coordinates, business categories and industry sectors and add a special, you can go to *https://rmibs.co.za/portal* and log in with the same email address and password you have registered on the app.

# Ford Wildlife Foundation provides mobility to conservation organisations

Ford Motor Company of Southern Africa (FMCSA) continued its long-standing support for environmental and wildlife organisations in Southern Africa through the Ford Wildlife Foundation (FWF), In late 2019, five new and eight existing conservation projects received Ford Ranger Double Cab 4x4 pickups, on a two-year loan.



he Ford Wildlife Foundation plays a crucial role in providing mobility for the wide-ranging and far-reaching conservation efforts across South Africa and its neighbouring countries," says Neale Hill, MD of FMCSA. "We currently have 25 Ford Rangers on loan to wildlife and conservation non-profit organisations throughout the region. By providing these projects with the exceptionally capable Ford Ranger, we are living up to our 'Go Further' brand promise by helping these dedicated organisations, teams and individuals to protect our precious natural resources for future generations. "We are committed to making a positive difference through improving the lives of people, and strengthening the conservation of endangered animals and habitats. This is achieved by supporting education, research and conservation projects across Southern Africa," Hill adds.

The Mabula Ground Hornbill Project was the first to receive its loan Ford Ranger, driving their efforts to protect the endangered Southern Ground-Hornbill. The Mabula project, which has been running for 19 years, operates in all four provinces where the Southern Ground-Hornbill occurs – Limpopo, Mpumalanga, Eastern Cape and KwaZulu-Natal – with the population estimated to be only 400 family groups remaining.

Overberg Renosterveld Conservation Trust (ORCT) also received a Ford Ranger to assist in saving the last remnants of one of South Africa's most endangered ecosystems. According to ORCT, the Renosterveld – located between Botrivier and Heidelberg in the Western Cape – boasts an exceptional variety of species, yet is teetering on the brink of functional extinction.

FWF also provided a Ford Ranger to the Southern African Foundation for the Conservation of Coastal Birds in Cape Town to assist in its efforts to rescue orphaned or injured seabirds, such as the endangered African penguin, Cape gannet, Cape cormorant and Bank cormorant.

The Carnivore Conservation Programme created by the Endangered Wildlife Trust is now proudly powered by Ford too, as the Ranger pickup is used to protect and monitor South Africa's most endangered carnivore – the African Wild Dog – which is listed on the International Union for Conservation of Nature Red List of Threatened Species.

Another exciting project adopted into the FWF fold is the establishment of a new 30,000-ha Grasslands Protected Area in the northern region of the Eastern Cape. Co-ordinated by the World Wide Fund for Nature, the project site is located in an isolated inland area with many mountain passes and mostly dirt roads, including the famous Naudé's Nek Pass which peaks at 2,590 metres, making it one of the highest passes in South Africa. It's in these tough conditions where the Ford Ranger 4x4 excels, providing safe and dependable transport for the project teams.

"The Ford Rangers, produced at our Silverton plant in Pretoria, prove that they are truly 'Built Ford Tough' by conquering some of the most remote and challenging terrains across the region that these teams face in their unwavering commitment to ensure the sustainability of our fauna and flora," Hill states.

FWF also renewed its support for eight existing initiatives as part of the two-year agreements, all of which received new replacement vehicles. This included the Sea Search Research and Conservation Project; Cederberg Leopard Project; Saving the Survivors that cares for injured or orphaned rhinos; the Black Rhino Range Expansion Project; Cheetah Metapopulation Project; Coral Reef Programme; SA Cranes, Wetlands and Communities Project; and the Important Bird Area Critical Grasslands Project.

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