The Bodyshop of the Future

Welcome to our latest edition of ‘The Spark’ Newsletter!

In this edition, we take a look at some of the factors affecting the need for change in the Body repair area of automotive dealer network development.

Automotive brands have a continued focus on build quality, occupant and pedestrian safety, fuel efficiency and an ever-growing obligation to be more environmentally conscious throughout the vehicle lifecycle. These elements are driving an increasing use of high-strength, light-weight and composite technologies in the manufacturing process.

The support requirements for body repair operations is evolving in a manner not at all dissimilar to the way that technology advancements drove the need for manufacturers to support complex vehicle systems with diagnostic equipment over the past 20 years.

Gains in fuel efficiency have been realized through advances in engine management technology but an ever increasing number of OEM’s are trending toward the inclusion of alloys in vehicle platforms and composites in fixtures, to achieve efficiency gains that match consumer expectations.

The net effect of these changes to traditional manufacturing methodologies is the realization, by both OEM’s and the Body Repair Industry, that vehicle-specific repair processes and technician competency certification is the key to ensuring vehicles are repaired back to pre-accident condition following any type of collision damage. The application of incorrect repair techniques by untrained technicians using inappropriate equipment, inevitably results in an unsafe repair that adversely affects the intended collision dynamics of the vehicle.
The Body Shop of the Future (cont’d from page 1)

Integrated vehicle safety technologies is another factor that significantly affects the body shop’s ability to competently carry out what was once considered the most basic repair. As an example, the replacement of a bumper was once a simple operation that all body repairers were capable of carrying out. Today many bumpers form part of the mounting system for complex collision avoidance systems that require recalibration before a vehicle can be put back into service.

As these technologies become more prevalent, it is becoming increasingly evident to automotive brands that individual body shops have the skills, equipment and processes to continue repairing all makes of vehicles. Specialization in targeted vehicle brands is a real outcome that many leading body repair facilities are now contemplating as the business model of the future.

Vehicle technologies, dealership processes and equipment, dealer staff skills, vehicle motor insurance, customer satisfaction, customer retention and, of course, the brand experience, are some of the critical challenges that are shaping the need for an effective body repair network development strategy.

The 2013 IBIS Middle East symposium was hailed as a success, with attendees from more than 170 industry representatives, including Jaguar Land Rover, Audi, Ford, Nissan, GM, Chrysler, Honda and Kia, as well as major dealer groups, suppliers and key insurers, in attendance.

Future trends, technologies and repair methods, along with an overview of the automotive body repair market, were the themes from guest speakers who gave regional perspectives around global issues. They also provided real world examples of how to overcome problems synonymous with the industry.

Speakers included representatives from TTi Global, Audatex, AXA Insurance, Al Futtaim, Audi, Jaguar Land Rover MENA and Thatcham UK.

The event was conducted over two days with topics that included future technology, body shop network development programs, estimating and insurance, lean body shop models and the importance of attracting and retaining people in the globally diminishing workforce.

As event sponsors, TTi Global gave a presentation on the importance of attracting, recruiting and retaining people, and on skills for the future. Tim Marshall, speaker and team member from the UK, emphasized the importance of attracting the right people and how to nurture them throughout their career.

Delivering his key message that “employing the right person and caring for them develops loyal and high-performing teams, delivering great results” rang true with the audience, given that
IBIS Middle East 2013 (cont’d)

the Middle East region employs transient labor from other countries and this requires good selection processes.

Patrick McDonnell, also a TTi Global team member, spoke on behalf of Jaguar Land Rover MENA. Pat gave insight into his role in implementing the JLR MENA’s Global Body & Paint Standards throughout the region, and how technology is driving significant changes in the way vehicles are repaired.

IBIS started in 2001 and is recognized as the leading global conference and networking event for collision industry leaders and influencers.

A global event is held annually along with several regional events throughout the world.

TTi Global is proud to support IBIS and the body shop industry with specialized knowledge and services delivered to all regions.

The World Needs Skills

On a recent visit to Australia, TTi Global was fortunate enough to meet with WorldSkills Australia to discuss the significance of the event and how global economic conditions, from growth to downturn and recovery, have impacted the WorldSkills competition. The following is a discussion with Mark Callaghan, CEO of WorldSkills Australia. Mark is responsible for delivering WSA’s vision of contributing to Australia’s sustainable economic prosperity through the development, recognition and promotion of excellence in skills.

Q: WorldSkills has been established for many years now. Can you elaborate on its humble beginnings and how it has evolved into what it is today?

A: The WorldSkills movement grew out of the need for skilled workers in Spain. In order to promote the value of VET as a viable pathway, the Spanish developed a series of skills competitions. Following these internal competitions in 1947, which drew around 4,000 apprentices to compete, neighboring country, Portugal, joined the competition. In 1950, the first ‘International’ competition was held in Madrid amongst competitors from Spain, Portugal, Germany, Great Britain, France, Morocco and Switzerland. The 42nd WorldSkills Competition was held in July 2013 in Leipzig, Germany, and included:

- 1,004 competitors from 52 countries
- 46 skill categories
- 1,000 industry/training experts
- 200,000 plus visitors over the four days of competition

There are currently 67 member countries of WorldSkills International.

Q: The world economies have changed dramatically over the past five years. What impact has this had on the way competing countries approach the annual event?

A: Initially, with the advent of the global financial crisis, many countries reduced their involvement at the international competition (which is held every two years) in an effort to minimize costs and often as a direct reflection on the level of investment from Governments and industry.

However, many countries now realize the value of skills and of ‘human capital’ and, as such, there are many countries that are now investing heavily in their WorldSkills involvement – they directly relate success at a WorldSkills level with their ability to promote skills and increased economic capacity.

In my time with WorldSkills, South Korea have been the leaders in terms of performance. The value and recognition that the South Koreans place on the success of their WorldSkills competitors is similar to the way in which we in Australia value, recognize and promote our sports stars.

In 2013, Australia was placed outside the top 10 (13th position) for the first time in many years. While I believe we still have a very high level of skills in this country, the investment in skills across the board is lacking. This is evident in our international performance as we are now competing against nations who invest a lot more in skills and in WorldSkills.
**Q:** The automotive industry is a significant part of WorldSkills. How do changes in automotive technology impact on preparations for the automotive competition?

**A:** There are currently three automotive skill categories in the WorldSkills International Competition: Auto Body Repair, Car Painting and Automobile Technology (Automotive Mechanics). At the national level in Australia, we also offer competition in Auto Electrical and Heavy Vehicle Mechanics.

One of the aims of WorldSkills in Australia, and internationally, is to ensure that the competition remains current and relevant, because competition in all categories is continually changing with the advent of new technologies. We are heavily reliant on industry to provide the latest technologies and equipment for competition and training. Accessibility to the latest and relevant technologies will greatly impact on the individual’s preparation for a competition, as it is imperative that a competitor is familiar with all technologies, equipment and materials if they are to perform to the best of their ability.

One of the benefits of participating at the international level is that the individual is often exposed to new techniques and technologies that may not yet be available in Australia (or their respective country). This individual can then pass on this knowledge to others at their workplace, or in the industry in general.

**Q:** Teaching body and paint trade skills has a high cost in capital investment; many industry stakeholders are reluctant to invest. What are your thoughts on how training could be delivered to the body and paint industry into the future?

**A:** In my experience, the investment by the automotive industry in training has been relatively strong. There are specialized centers that have been established (e.g. BMW in Clayton in Melbourne), as well as partnerships that have been established between vehicle manufacturers and individual TAFE (Technical and Further Education) institutes. My concern is that with the departure of car manufacturing in this country, there may not be the level of investment by these companies in training in the future.

From a WorldSkills Australia perspective, we always struggle to procure vehicles and vehicle parts to conduct our competitions. On the other hand, the level of investment from suppliers of the materials and equipment required to stage the competition has always been very high. We all need to continue to investigate more cost-effective ways of training delivery. We are already seeing the increasing use of technology and we all need to embrace this more. The use of simulators – whether it be a spray paint simulator or a welding simulator – are examples of technology that is already being used. They are also great ways to introduce people to the industry; allowing them to have a go at the skill and see if it is something that interests them. At the end of the day, the use of technology and investment in training needs to continue.

**Q:** How do you see industries benefiting from WorldSkills into the future and, being industry specific, how can body and paint stakeholders including vehicle manufacturers, Governments, business operators, suppliers and insurers work together for a sustainable future?

**A:** The real value of WorldSkills is that it promotes awareness of the opportunities available. We all know that we need people with the right skills – now and into the future. It should be incumbent on all stakeholders to work together to ensure we promote opportunities and to promote excellence/quality.

Skills excellence should be seen as aspirational – something everyone needs to strive for. Skills excellence will ultimately improve individual and organizational success, as well as improve performance and productivity. Training should be seen as an investment, not a cost. All stakeholders need to work together to attract the right people into the right skills, and to promote a career in a trade or skill as a viable ‘first choice’ option.

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**Summary of the top 10 nations in the WorldSkills International Competition for the last three competitions.**

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<th>Year</th>
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<td>2009</td>
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<td>London, UK</td>
<td>Ireland</td>
<td>Brazil</td>
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<td>2013</td>
<td>Leipzig, Germany</td>
<td>Switzerland</td>
<td>Japan</td>
<td>Chinese Taipei</td>
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Vehicle body construction is becoming lighter and stronger for reasons of environment, economics and safety. Repairability of new materials always becomes a challenge to replicate in a re-manufacture process.

A new challenge on the horizon is the increase of carbon fiber composite technology into mainstream vehicle manufacturing.

At the recent International Tokyo Motor Show, held in early December, a clear change in technology was evident with most major brands showcasing hybrids and electric vehicles. To keep the vehicle weight down, the use of ultra-lightweight composites is necessary.

We talked to David Benbow, a recognized authority on the repair of carbon fiber, for his opinion about what it means for the body and paint industry.

David, composite bodies in the manufacturing of vehicles are now becoming mainstream. Why is that?

The bottom line answer is the fuel/energy efficiency being sought by all manufacturers of all types of vehicles; whether they be cars, buses, trucks, trains or planes. Part of that equation is weight saving, and composites contribute hugely to that part of the equation.

What does that mean for the body repair industry?

Largely, it will require a change of mindset. Composite materials are a relatively new concept. Early experimentation started around the 1940’s in the military, so there is approximately 70 years of experience working with these materials. Metal, on the other hand, has been worked with for thousands of years so there is much more of a database to work from. To get the best out of composite design requires a different approach to getting the best out of metal. Likewise, the repair of such materials requires a different approach. That said, composites being relatively new, there is constant development of materials and
methodologies in the search for more cost-effective production and repair solutions. Two factors, which currently can be viewed as negatives in the composite arena, are 1) the cost of materials and 2) the fact that the work is very labor intensive. Both of these areas are under constant development to reduce costs.

So, in summary, the body repair industry will need to understand the basics of the material and its manufacture; when armed with this knowledge it will have a better understanding of how to perform the repair. The fastest way to gain knowledge will be through recognized training.

▶ Does the repair process differ for body repair and paint?

To repair composites, all paint in the area of the repair will need to be removed before any repair is undertaken. There are specific ways of removing paint which must be adhered to, as the use of incorrect chemicals could cause irreparable damage to the part. The actual repair of a composite is very different to the repair of a metal part. All of the correct techniques can be learned through appropriate training. Final paint of a repaired area will, again, require some specific primer materials in order to generate a Class A surface finish. These may well be manufacturer dependent.

▶ What warrants replacement on a damaged composite panel?

All composite damage is repairable. The question is: what is economically repairable? Can it be repaired to an acceptable standard at a price less than replacement? This may well become industry- or insurance-led with manufacturers, through appropriate training which sets out specific targets.

There may be circumstances whereby replacement parts are not available, in which case reconstruction techniques would need to be employed. Such techniques could include partial mold production from original panels to give the base for reconstructing the exact shape of a repaired panel. There are many techniques available which can be learned from more advanced training.

Composite materials do require a setting time and the chemistry of a particular resin system will determine that time. Another influential factor on setting times is temperature and humidity. For example, a repair in a cold workshop in the UK will require a different approach to that in a warm humid workshop in Malaysia. There are many different products available from manufacturers that take into account these climatic variations.

In May, Lori Blaker will be the keynote speaker at the IBIS Bodyshop conference in Spain. She will be discussing how to drive business performance through people and how to retain talent.
One of TTi Global’s largest projects in China is Dealer Network Development support for Qoros Automotive. Qoros is a new international car brand, based in Shanghai. Qoros launched its first vehicle, the Qoros 3 sedan, in 2013. This vehicle achieved a 5-star Euro NCAP safety rating, making it the highest scoring vehicle tested in 2013.

TTi Global provides 30-40 staff for the Qoros Network Development project. We are currently responsible for finding potential Qoros dealers, pitching them, carrying out assessment of candidates, and then guiding dealers through the whole process of launching their dealership.

Jacky Huang, based in our Shanghai office, is our Dealer Selection Specialist. Jacky is responsible for finding new dealers in the East region of China and was also the one responsible for finding and securing the first authorized Qoros dealer in Nanjing.

Andrew Tam, Director of Syncar Group, the first dealer appointed by Qoros, was the one who initially received contact from Jacky about this new opportunity. Andrew Tam said, when Jacky first told him about the Qoros project “I didn’t even know about Qoros. I even asked him to repeat the name three times.” A few weeks later, TTi Global and Qoros met with Andrew Tam and the Chairman from Syncar Group. Andrew said, “After talking about the business philosophy, product concepts and network plan, the chairman was interested in the project.”

Now with their first showroom opened, Andrew said, “I think the persistence and the professionalism from Jacky and Qoros played an important role in the decision.”
A BIP also enables an OEM to address the leakage of customer data to agents and insurance companies. By retaining ownership of customer data, vehicle and policy details, a BIP is able to proactively manage a Customer Relationship Management program aimed at ensuring high conversion of insurance renewals. This data can be used to develop a holistic marketing strategy and run campaigns to up-sell and cross-sell other risk solutions.

It is important to note that, in order to realize the benefits of a BIP, the OEM must pay attention to designing a compliant and effective business model suitable for the territory that it operates in. Working with a partner that can deliver a sound value proposition in terms of developing appropriate insurance products, designing compliant sales processes through efficient technology and providing intelligent reporting are critical success factors in implementing a BIP.

The Asian auto industry has experienced significant growth in the past decade. Between 2000 and 2011, the industry multiplied at an annual growth rate of 13%. Although there has been a slowdown in the past few years, the industry is already recovering and is expected to continue to grow annually at a rate of 7%. This resurgence is mainly due to the rise of the middle class across Asia. With a higher disposable income, this population segment is the main driver for new car sales. As the car parc surges, complementary industries like after-sales service and repair shops have benefited greatly.

Another major beneficiary is the auto insurance market, which has witnessed record premiums in the past decade. This continued growth is providing insurance companies with opportunities for further expansion. However, the massive geographic size of Asia, coupled with weak infrastructure, is posing considerable distribution challenges. This has inevitably led to insurance companies relying on agency networks for distribution of motor insurance. From the auto manufacturer’s perspective, this agency approach has led to a dilution of the customer experience associated with its brand. This uncontrolled agency growth has also led to the emergence of a black market for non-original parts; also posing significant reputational risk issues for OEM’s and physical risks to car drivers and passengers. As a result, forward-thinking auto manufacturers are now developing alternative strategies for distributing motor insurance and other associated services.

An optimal solution available to OEM’s is to develop a branded insurance program (BIP) that is sold to clients directly through dealerships during car sales. A BIP, in essence, leverages the OEM brand to provide auto insurance and ancillary products to the OEM’s customers. From a customer’s point of view, purchasing an insurance product that is supported by the OEM guarantees service through authorized repair shops, thereby providing additional peace of mind. Dealers are able to earn additional revenue through insurance sales and insurer-authorized repairs, as well as after-sale services. Dealers are also able to engage with clients effectively to manage the renewal of their insurance packages. The insurance company that works with the OEM is assured of a substantial premium at an efficient cost of sales. As a result, a well-structured BIP is a “win-win” for all stakeholders, including the OEM customer.
As advocates for providing services to all markets in need of assistance, TTi Global provided sponsorship to the first ever body shop conference in Lusaka, Zambia this year. The event focused on ways to improve the standards in the Zambian body repair industry, which is suffering through a lack of trained technicians and controlled repair processes. These issues raised interest from delegates including David Chakonta, Director General of the Technical Education Vocational & Entrepreneurship Training Authority (TEVETA) and other members of the Zambian government. As in many developing nations, the government believes that the need to provide a formalised apprenticeship-training program in the industry is critical to future skills development of the Zambian people.
Collision Auto Africa Conference (cont’d from page 9)

TTi Global added value to the debate on how the industry and education could be supported with skills development programs to enhance the capabilities of the workforce. Team members, Altus van Wyk and Tim Marshall, explained the range of services on offer as a direct response to Zambian issues.

“An increase in both technical skills and business skills are necessary to grow the industry and prepare for the future. Remaining in its current state will increase the risk to its sustainability. Proper process and quality workmanship are critical to ensure a safe repair, which protects customers and ultimately ensures business survival,” van Wyk expressed when discussing how TTi Global can support the region with body shop products and services.

Meet a TTi Global Team Player

Zuo Yong Hong [affectionately known as Jeremy], provides body shop business and technical consulting services to our valued clients in China. Having won the national Toyota Service Skills Competition in China as Body Shop Project Champion and third place in the illustrious Toyota Asia Service Skills Competition, Jeremy is well respected and has the experience to improve body shop performance while enhancing technicians’ service consciousness.

“I contribute my specialty and participate with our team, formulating follow-up action plans through site observation to improve body shop management processes and work flow. Recognition from dealer management and front-line staff of our project team is my greatest satisfaction.”

Our vision is to exceed client satisfaction by sourcing the best staff in the market. We are proud to have Jeremy, and others like him, as a part of the TTi Global Body Shop team.

If you haven’t seen the new website, or our People Driving Change video, be sure to check them out at tti-global.com.

Driving past the ‘locals’ to the conference