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TyreAsia

TRACKING THE TYRE WORLD

Tom Thomas

NEW CHAIRMAN FOR ATRC

Guan Bingzheng, Executive President, MESNAC Machinery

MESNAC

To Advance Rubber Industry To A Higher Level

TIRED OF POOR SOCIETAL STANDING, OR IS IT TIME TO ROLL TYRE EDUCATION OUT?

Adam Gosling

Most commercial aircraft tyres have multiple tread lives, in simple terms they are retreaded not just once, not just twice but quite often more than three times. The travelling public does not consider not to board a plane because it has retreaded tyres fitted yet would never consider putting retreads on their own vehicles

By Adam Gosling, Tyre Safe, Australia

As an industry we've done ourselves no favours. Yes, a big statement to make, so ask any of your clients do they enjoy buying the items that serve them tirelessly and keep them safe? Most, if honest, will answer that tyres are a grudge buy, everyone bitches about having to replace their tyres again even though they're given them years of faithful service, kept them safe and comfortable tyres are still a grudge purchase. Why?

We've failed over the years to educate the motoring public about the benefits that tyres give us, how they keep us safe whilst providing a comfortable ride, even a plush ride when considering the modern radial tyre. Now, the purchasing is done mainly on price, what's the lowest price you can give us? Quality is rarely entertained, except for

those who demand performance from their tyres such as racing aficionados or drivers of performance cars that appreciate high quality products. For the main people just want cheap, so we as an industry have not been successful in educating our end users as to why a quality tyre is worth buying.

Promoting benefits

Auto manufacturers promote their vehicles with safety features prominent, additions that make a driver's life easier, they understand that functionality partners with form. What does a daily commuter care about the tread pattern on their tyres? Why not? The tyre industry has not bothered to promote the benefits. In considering vehicle emissions have we, the tyre industry, promoted using our tyres at the appropriate inflation pressures? The TNO organisation from Europe detailed such savings in their report (TNO 2013 R10986 search on this!) detailing payback times of less than 2 years, and that's considering oil at $100 / barrel and with no catastrophic tyre failures.

Remember pushing your bicycle home because it had a flat tyre? Yes, it was hard work because the rolling resistance of the tyre had increased exponentially. So if there is a single tyre that is down on pressure on our vehicle would you notice the increased fuel consumption? Probably not because of the vagaries of city driving. For a fleet of vehicles be they taxis or trucks a reduction of 1 – 2% in annual fuel burn equates to large numbers, so why are tyre manufacturers and retailers so afraid to educate the general public?

Having just attended a global retread conference (ARC 2018) and had confirmed my prior knowledge of the environmental advantages of using retreads over single use low price tyres I'm wondering why we, the tyre industry, have not publicised this aspect, show that we are environmentally aware, that we care about the costs of operating our modern motor vehicles.

Some tyre manufacturers demonstrate their social responsibilities by showing that there is the equivalent of just 4 hand prints supporting our cars, that the tread design of the tyre is critical to the performance of our tyres. These aspects are supported by engineering, large research and development budgets. The rise of the budget product has been to the detriment of quality of our industry, there's no argument about this. Any product produced on a low budget will not perform as well as a soundly research and designed product.

The push to have minimum tread depths increased from 1.6 mm to 3 mm is evidence of this. A tyre tread pattern should perform at a similar level for its entire tread life, not just at the start. How many of the general public know why we have tyres with a tread pattern? Anyone with any knowledge of racing will understand that a slick tyre, i.e. one with no tread pattern will yield far superior levels of traction that a treaded tyre, in dry conditions. When wet pavement is encountered with a slick tyre you may as well be driving on ice. Like all aspects of tyre performance, the designer has to account for the worst conditions. Inflation pressure is exactly the same, it has to consider the maximum load the tyre will experience as well as the maximum speed, the worst the tyre will see.

I ask the question again, have we as an industry actually educated our end users in why our products are important to them, how they can save money, how they can keep them safe?

Wrong perception

The general consideration of retreaded tyres is not very good, yet millions of people use retreaded tyre every day, in high speed high load applications. Most commercial aircraft tyres have multiple tread lives, in simple terms they are retreaded not just once, not just twice but quite often more than three times. The travelling public does not consider not to board a plane because it has retreaded tyres fitted yet would never consider putting retreads on their own vehicles. Why? Because we've not bothered to educate them as to why our tyres are worthy of purchasing, of why our products will provide superior service and sound economics.

How do we as an industry face up to this situation and roll into a single cohesive package, just as we sell our tyres, to promote tyres and the role the humble servant we know as a tyre plays in our societies around the globe?

If I had the answer to this question I'd not be writing this article, I'd be celebrating that we are an industry that shows leadership and fulfils our societal obligations.

I do call upon the various tyre associations representing the retreading industry, the new tyre retailers, the tyre manufacturers, the motoring associations representing drivers, the insurance companies who foot the bill for tyre related road accidents to all consider how to educate the end users in the critical role that tyres play in our world. Without the humble tyre we'd be in an immobile world where safety and comfort would be nowhere near what we enjoy these days.

We have a lot to thank Mr Goodyear and Mr Dunlop for but why aren't we out there telling people?

It's no longer necessary that tyres are a grudge purchase, why is a tyre any different to a cell phone?

Chin Hong Meng

CHALLENGES AND OPPORTUNITIES FOR THE MALAYSIAN TYRE RETREADING INDUSTRY

By Chin Hon Meng, Tyre Retreading Manufacturers Association of Malaysia

The Malaysian retreaders adhere to stringent industries proven and approved practices at every step of tyre treading process with sophisticated machineries. Since November 2007, it has been a mandatory requirement in Malaysia, for retreads to be manufactured according to MS 224 (Retreaded pneumatic rubber tyres for commercial vehicles), which stipulates that retreaded tyres are tested to the same load and speed criteria as new tyres as to ensure & proving that the quality, integrity and performance of retreaded tyres are, at the very least, on a par with that of new tyres.

Current scenario:

There are about 60 tyre retreaders certified with MS 224 in Malaysia.

Retreads has dropped from 2.470 million pieces in 2012 to 1.303 million pieces in 2017 which has dropped by almost 58% in the last 5 years.

Retread tyres Sales Ex-factory has dropped from RM 205.0 million in 2016 to RM 181.6 million in 2017 which has dropped by almost 11.4% last year alone.

Retreads has been substituted tremendously with the "Cheap Chinese Tier 3-4 New Tyres" from 0.42 million pieces in 2012 to 1.75 million pieces in 2017 which has increased by almost 317% in the last 5 years (Import of new tyres into Malaysia in 2017 is around RM2.3 Billion) as a results of product dumping in local market.

Due to imposition of anti-dumping import duty on Chinese new tyres into US & Europe, as well as the trade war between US & China, the Malaysia Government should take cautious steps to prevent product dumping in the local market created by the diversion from the trade wars.

Challenges: There will be continue downward pricing pressure for retreads put on the markets by cheap imports, however, retreads cost has escalating especially labor cost where (Foreign Workers Levy up from RM1,250 to RM1,850 per annum, RM10,000 per annum for FW > 10 years, minimum wages revised from RM 1,000 to RM1,500 over the next 5 years), increases in utilities cost due to price revision of gas, water & electricity tariff, higher machineries & transport maintenance cost due to depreciating ringgit, which already start to impact retreads margins.


David Stevens

US RETREAD MARKET AND WAYS FORWARD FOR THE RETREAD INDUSTRY

By David Stevens, TRIB

The market share for retreaded truck tyres in the US in 2017 (based on units) showed Bridgestone/Bandag leading with 44 %, followed by Goodyear/Michelin/ Oliver Marangoni (23.5%) and Continental and others (22%). The number of retread plants in the US is dominated by those for truck tyres (680) followed by OTR (8), aircraft (5) and passenger cars (4). Most plants follow pre-cure process (94%), with only 6% adopting mold cure.

New tyres make the majority in the US truck tyre replacement market. There has been a steady climb in the number of new tyres used, reaching 19.2 million in 2017. It was 15.7 million in 2013. There has been a fall in the use of retreaded truck tyres. It was 15.6 million in 2014, which later dipped to around 14 million in later years. The average selling price has also fallen from USD245 in 2016 to USD 231 in 2017.

Price comparisons illustrate the Problem:

• Low-cost, low-quality Chinese tyres – 11R22.5 sell out price is around $170

• Dealers can buy them for around $125

• Cost of production of a US produced tyre is around $135 (material and variable labor only).

• Sell out of a retread, not including the cost of the casing is around $135

• Sell out price in China is approx. $180 - $220 per tyre

Fleets know retreads are still the answer. A quality new tyre with two retreads can deliver 500% more mileage than a low-cost, low-quality Chinese tyre that must be discarded after one use. About 90% of fleets with 1,000 or more trucks use retreaded tyres in their operations. Smaller, cash-strapped operations are making tyre decisions against their own long-term economic interests.

Addressing tariffs - United Steel Workers (USW) – International Trade Commission (ITC) case: • At final vote (with one recusal), ITC decides not to implement duties on truck and bus tyres between 23-65%. • In November – USW files brief with US Court of International Trade challenging ITC determination.

Other tariffs: A range of tyres and and tyre-related products from China are included in potential list of products as part of USTR Section 301 Investigation. TRIB has testified at ITC in August in favour of tariffs on truck and bus tyres, in amounts recommended by Department of Commerce in the USW case. As a result of investigation, the Trump administration implemented 10% tariffs starting September 24th.

Karun Sanghi

OPPORTUNITIES AND CHALLENGES FOR THE AUTOMOTIVE, TYRE AND RETREAD SECTORS – THE INDIAN PERSPECTIVE

By Karun Sanghi, TREA

Recent investments by the Indian tyre industry have been to the tune of US$ 5.7 billion in greenfield and brownfield projects.

The turnover from the Indian tyre industry has seen steady growth over the years. It was Rs 43000 during 2011-12 and reached 530000 in 2016-17. Overall tyre production, including that of commercial vehicles, reached 180.26 million units in 2017-18.

Tyre exports from India (in value terms) grew at a healthy CAGR of 18% between FY2001-02 till FY2012-13 thereafter registering a decline in growth from FY2012-13 till FY2016-17 (CAGR of -3%). In FY17-18, however, tyres worth US$ 1.73 billion (highest export value till date) were exported from India (a 20% YoY increase over the previous year). Of the total of about US$1.5 billion worth of tyre exported from India in CY2017, Agriculture (Farm), Truck & Bus (T&B) and Industrial/OTR tyres accounted for about 90% of the total Tyre exports (in value terms). T&B and Agriculture Tyre exports from India accounted for 50% of the total of about 13 million no. of Tyres exported from India in CY2017.

Key challenges faced by the Indian tyre industry:

• Supply shortfall of domestically available Natural Rubber (tyre industry has no other option but to import. Import tariffs for Natural Rubber are high (@ 25% or Rs. 30/kg, whichever is lower) and import conditions are restrictive).

• Regulations & legislations (environment related) impacting the Auto and Tyre sector mainly arising due to uncertainty and lack of clarity in government policy/decision making.

• Increasing tyre imports, especially from China (notwithstanding adequate domestic capacity created on the basis of substantial investments)

• The Indian government has also increased import duties on radial passenger vehicle tyres from 10% to 15%.

Vehicle sales data: Commercial vehicle industry in India has been gaining sales momentum over last 2-3 years and despite the shift to BS-IV was not all smooth, the industry managed to grow by almost 20% in FY 2017-18. Both Light Commercial Vehicles (LCVs) and Medium & Heavy Commercial Vehicles (M&HCVs) have posted growth by 25.42% and 12.48% respectively. Overall the commercial vehicle sales in India registered a total domestic sales of over 856,000 units. The industry had sold 714,000 units in FY 2016-17.

Retreading is an extremely fragmented business in India. There are about 12,000 retreaders in India. The largest would produce 200,000 tyres/year and an average retreader would produce 2500-3500 tyres/year. So the largest players have 2.5% market share and an average player has between .03-.04% market share. Most existing players have seen volumes fall between 10% and 40% in the last 3 years.

The retreading industry has been waiting for the market to consolidate. Demonetisation has come and gone. We thought the small players would exit! That has not happened. GST has come. Again we thought the small unorganised players would exit…. Did not happen! Radialization in commercial vehicle tyres was expected to push out the smaller players. That too did not happen. The market is not growing. Possibly it will shrink further with increased radialisation.

Adam Gosling

DO YOU ASSUME YOU TYRES ARE OK?

By Adam Gosling, Tyre Safe

Those who assume, without properly checking, their tyres are OK are those who stand by the roadside watching the flat tyre and blame the tyre for the trouble! Tyres cannot just fall apart for no reason. Predominantly they fall apart because they are not carrying the right amount of air in them. It is important to send the message across that the tyre performs best when they have everything right.

As a retreader, the prime focus is to use the right casings. If the casings are in the best possible condition, then the tyre quality will be good. The reject rate of casings must be reduced. Quality casings are very important.

Visual assessment of tyre pressure is also important. A truck driver must be able to look at the tyre and realize if the tyre pressure is right. Half full is half flat, one must realise. It affects the load-bearing capacity of the tyre.

Using technology one can understand what the tyres are experiencing and when they are experiencing. Tyre heat is of great important. Heat is the mortal enemy of a tyre. An overheated tyre cannot be retreaded. The heat destroys the bonding between the casing and the tread. The tread flies off. Overheating can even lead to the truck catching fire.

A tyre running underinflated with no obvious signs of damage can be dangerous. It can burst and can be fatal. It happens and it happens too often. When a tyre runs underinflated, do not just put more air into it. Take it off and get it inspected by an expert. Tyre inspection is critical. Tyre pressure is absolutely critical.

Tyre Pressure Monitoring Systems (TPMS) have been mandated in USA from 2008, European Union 2012, Korea & Taiwan 2013, and China 2014. TPMS is recognised as a legitimate road safety tool but it is also a great tool for tyre management. Real time tyre pressures will increase vehicle safety and provide positive economic returns.

Dato Dr Zairossani Mohd Nor

STATUS AND GROWTH OF TYRE RETREAD INDUSTRY IN MALAYSIA

By Dato Dr Zairossani Mohd Nor, MRB

The main function of the Malaysian Rubber Board (MRB) is to promote and develop rubber industry in Malaysia through various services, policy-making and R&D programmes. There are 4 research stations, including Tun Abdul Razak Research Centre (TARRC) in London, and three research institutes.

Malaysia's position in global rubber industry in 2017 as a customer: World's largest consumer of natural rubber latex; 6th largest consumer of natural rubber; and 10th largest consumer of rubber (natural and synthetic).

As a producer: World's largest manufacturer of medical rubber gloves; 2nd largest manufacturer of rubber catheters, condom & thread; largest manufacturer Nitrile Butadiene Rubber (NBR) latex; and 5th largest producer of natural rubber.

Malaysia imported RM 2,343 million worth of tyres in 2017. Out of this 95.7% were new tyres. The import of retreaded tyres was only 1.2%. The capacity of retreaded tyres in Malaysia is 150,000 – 170,000 pcs per month. In 2017 the export of retreaded tyres was of a value of RM 19.98 million, out of which buses and truck tyres (51.76%) and aircraft tyres (41.92%) led the list. There has been a steady increase in export of retreaded tyres by 19.8% during 2015-2017. Among imported retreaded tyres (RM 27.34 million) also aircraft tyres made up the largest part – 83.11%.

Challenges of retreads industry in Malaysia mainly relate to safety issues, cost, quality, material, raw materials, poor vehicles & tyre maintenance, overloading & speeding, cheap new tyres and hazardous/toxic materials. Roles and responsibilities have been marked by the government for import of used tyres, control on manufacturing of retread tyres, selling and buying of retreaded tyres and also on the usage of roads and highways.

R&D in retreading industry is focused on green and renewable materials, environmental management, and sustainable development. There is also emphasis on finding new and enhanced applications; manufacturing technology (reduction in cost, green technology, value-added products); standards & enforcement; increasing productivity of NR; sharing of wealth, as well as on social economic study.

Dato Dr Zairossani Mohd Nor

STRIVING TO ACHIEVE BETTER SAFETY, FASTER TURNAROUND TIME BY MINIMISING DOWNTIME, AND INCREASE EFFICIENCY

By Mohd Azhar Mohd Wazir, Kit Loong Tyre Management

Tyre management is not just simply acquisition and maintenance. It involves many factors including safety, regulatory compliance, scrap tyre analysis, tyre selection, transportation, management reports, real time information, uptime. On the administration side it includes inventory control, technician training, breakdown rescue, waste tyre disposal, vehicle readiness, driver training, and control tyre budget.

Typical cost drivers in managing own tyre - Depot: Inventory management/space; skills, tyreman; tools & equipment; administrative staff; inspection preparation, tyre breakdown services; tyre maintenance.

In today's business environment, we are facing multitude of demanding situations that requires complex decision making. Fleet operators are facing constant pressure to reduce operating costs. At KLCT, we have taken up this challenge and demonstrates the effective tyre management through KL Sigma Formula to ensure Mobility in Control.

Through Sigma Formula KL delivers "SC3" :- S: Safety; C: Competitiveness (Operation Efficiency); C : Cost Effectiveness; C: Control - which is the ultimate Value / Product & Services that we sell. By performing the formula, the integration of the five elements is established, and ultimately achieving lower cost per kilometre

There are many factors affecting overall tyre cost. It depends on numerous parameters, such as tyre compound, manufacturer, brand, type, size, vehicle type, vehicle configuration, tyre position, road conditions, road surface characteristics, environmental conditions, driver habits, and many others.

In real world, 60% of the tyres will be damaged in ways that are beyond our control, and that will wipe out all the time and effort we have put into maintaining the tyres.

Fleet's operators want to track their fleet tyres, identify where the problems are, what type of tyre injuries their fleet getting and where they occur, both physical location as well as the spot on the tyre.

Once these problems have been identified, they can start to manage them – "Mobility in Control." KL currently manages more than 50,000 running wheels with total contracts on hand, mainly from GLC companies, such as RapidKL for city bus, Multimodal Freight for haulage, etc.

Dato Mohamed Noor Sany

ADVANCE HEAVY VEHICLE DRIVERS COMPETENCY PROGRAMME (AHV-DCP)

By Dato Mohamed Noor Sany, CICM

Bridget Driscoll is the first road fatality victim recorded in Croydon, UK, on 17th August 1896. Bridget was knocked down by a vehicle travelling at 4 mph. At the inquest, the Jury returned a verdict of "accidental death" and no prosecution was made. Since 1896, over 200,000,000 have died in road accidents.

Today, road accidents is the 9th leading cause of death in the world and if nothing is done drastically, it will rank as the 5th leading global cause of deaths by 2022

Under the provision of the Occupational Aafety & Health Act, even if the obligation of duty is contracted out, the ownership of accountability cannot be delegated. If the haulage contractor and/or sub-contractor falls short of their HSSE obligations under the act, then the contract holder can also be held, jointly and severally (vicariously) liable.

In Malaysia's chemical industries the biggest hazard & risk exposure in not in our production or plants, but on the roads. Malaysia is still very much unregulated in the transportation of hazardous (DG) cargo. If left unchecked, it's a matter of time before a major catastrophe happens, and when it happens, everybody in the chemical industries pays the cost.

The area of the biggest impact in road safety lies in the management of driver and driving safety, and the biggest are of safety performance in driver and driving safety is in the area of drivers training. A trained, skilled and competent driver will be able to manage most difficult road risk and exposure, despite challenges in vehicle and route risk.

The Industry objective was to develop a mandatory basic Heavy & Dangerous Goods driver training package. The Quality training protocol includes: Teach – Coach – Demo – Assess – Certify; Covers theory, practical, in-cab & on-the-road; Use of training aids (touch & feel); Adult learning approach

It addresses the key basic skills that a typical driver lacks: Vehicle knowledge; mindset issues; legislative awareness; defensive driving skills & knowledge; Fatigue management understanding, knowledge and appreciation;

The Advance Heavy Vehicle – Driver Competency Programme (AHV-DCP) is currently the only Driver Safety competency-based training that is internationally recognised certified training by the Institute of Motor Industries (IMI), UK.

Stefan Pertz

TYRE SAFETY

By Stefan Pertz, Asian Trucker

In Malaysia there are two accidents every day that are caused by blown-out tyre or tyre debris on the road. between 2010 and 2015, we had 1035 accidents that were caused by drink-driving. That is about 200 a year and that caused by tyre issues is about 800 a year. There are a lot of issues that contribute to tyre safety.

The fundamental question to be asked is who is responsible for the safety of a tyre. I have not come across any legal requirement for tyre safety training. There are truck drivers carrying dangerous chemicals, bus drivers carrying precious human lives. None of them are qualified to check the safety of a tyre. This is a serious issue.

Airline pilots, for example, do a walk-around before they fly tha plane. I asked a first officer once why should you be doing it when your mechanics can do the job. He replied: "We don't trust them! It's my life and I can't let another person take the final statement of the safety of the tyre. The point is those who are driving or flying should be connected to those trained professionally to see that the tyres they use are safe.

The same goes to tyre workshops. You take your car to them and they work on it, but do you really know if they did the right thing and made sure the tyres are safe. It's not just the tyre. There are ball bearings and bushings and things that fix the tyre to the wheel. They also undergo wear and tear, which also impacts the safety of the tyre.

About China tyres and the general perception that China tyres are unsafe. It is not so. Just because the tyre is made in China does not make it unsafe. It is the materials used in the making of the tyre that determines whether the tyre is safe or not.

David Wilson

ROLE OF SUPPLIERS IN ASSURING A BETTER, MORE COMPETITIVE AND COST EFFICIENT RETREADING INDUSTRY

By David Wilson, Retreading Business

We have to be cautious when using the word "Cheaper" in retreading industry. It is not just about the cost of production, but also includes improving cost-efficiency, the perceived value to the consumer, improving service, product performance and also improving competitiveness when the retread industry can compete with the new tyre industry.

While taking note of the current global environment, we see huge fluctuation in raw material prices. It makes difficult for retreaders to plan in times of crisis. We also see an increasing burden of new legislations, increased interest in retreading from the new tyre industry when big names in the industry are dominating the market. Then there is mixed level of support from governments, mixed awareness of tyre maintenance and fleet management, issues relating to tyres, mostly under-funded campaigns, mostly uncoordinated industry approach, acceptance of budget new tyre v retread scenario, and also pessimism and lack of drive to achieve a marketing-based solution.

Success will depend on quality and customer service. The industry must realize that new tyre manufacturers are not the enemy. Retreading is important to them. Retreaders with their own distribution/service outlets and/or direct access to fleet customers are best equipped to survive. SME pre-cure retreaders are at a disadvantage and therefore need increased support from tread rubber suppliers. The identification of those who can be persuaded is of key importance. Trying to compete on price alone is a dangerous waste of time.

The success of the retreading industry lies in optimizing cost efficiency. Competitiveness lies in the ability to justify, measure and explain pricing as it relates to retreads and new tyres - and particularly the concept of cost per mile (PPK). Investment in continually improving the performance of retreads, particularly relating to mileage and fuel consumption, is also vital in increasing.


Dr Amir Hashim

SPECIALTY NATURAL RUBBER IN TYRE APPLICATION

By Dr Amir Hashim Md Yatim

Specialty Natural Rubber is an established class of spaciality rubber obtained from Natural Rubber latext. MRB worked on developing it in order to enhance some technical drawbacks from Natural Rubber. It is in response to the latest global trends towards sustainable and environmentally rubber products development. The product has been under development for over eight years and is currently well accepted in the market. The modification of NE latex was done at two levels - through deproteinisation (purification) to develop Pureprena and through expoxidation to develop Ekoprena. Ekoprena is a Green Material with superior properties when compared with normal NR. It has a wide range of applications. In tyres it enables better wet grip and rolling resistance. It is a renewable natural resource. MRB has established strict quality control in its manufacture to ensure that the product competes well in the global market.

Pureprena is an eco-efficient rubber for advanced engineering applications. It has varied applications, including in tyres, hydromounts, seals, joint rings, large shock absorbers, suspension bushes and helicopter rotor bearings, underwater applications and large shock absorbers, anti-vibration mountings and surge fenders, and also medical, pharmaceutical and food applications.

MRB is engaged in research and development in tyre technology in projects like material & compounding; tyre processing – both new and retreading; and tyre recycling & waste management. Along with our partners MRB is also woking on future trends in tyre manufacturing - smart tyre, nonpneumatic tyres.

Ecoprena is uded in making green retreads, which performs well in long-haul trucks.

The focus on MRB's R&D is on developing advanced & organic materials, latex masterbatch technology, green tyres, retreading, reducing carbon emission and enhancing the value of natural resources. The idea is finding new areas of applications for natural rubber.

Ho Kai Poh

RUBBER PROCESSING ADDITIVES ADD VAUE TO TYRE RETREADS

By Ho Kai Poh, Performance Additives

The problems in tyre manufacturing include dealing with mainly soft, flexible and stretchable materials and rubber compounds and fabrics. The process is multi-component and maulti-stage. It is also labour intensive. But we expect uniformity and consistency in processing and finished products.

The benefits of processing additives in tyre industry include: Mixing – Homogenous mixes, improved dispersion of fillers and chemicals, reduced compound viscosity, improved raw compound tackiness. Extrusion – Improved flow properties e.g. extrusion rate, dimensional stability, appearance. Moulding – Better compound flow to fill cavity, easier release of moulded products. Finished tyres: Improved appearance, uniformity and structural integrity.

New materials developed for the tyre industry: HD Silica, nano silica for low rolling resistance tyres; ultra reinforcing carbon black, carbon nano tubes (CNT); Solution SBR, functional SSBR; ND BR, Ecoprena. These materials are more difficult to process, hence challenges the tyre industry to improve processing capability.

Customers of retreaded tyres have conflicting expectations. They look for good and consistent quality, but also want safety and overall low running cost; good abrasion resistance for longer mileage; good cut and chip resistance for on-off road applications; lower fuel consumption and also lower rolling resistance and cooler running.

Processing additives are now used by major tyre and rubber product makers. Prices of processing additives are more now acceptable. There is growing pressure of cost reduction to meet competitions. There is also higher quality requirements for better product performance and brand image.

Processing additives generally used in retread industry in various areas. In moulding, UL230 improves compound flow, external lubricating effect to ease de-moulding. UL 730 is a zinc soap which can improve reversion resistance. It is good for thick section articles e.g. OTR and solid tyres and also for higher moulding temperatures.

(Presntations to be continued in next issue)

WORDS OF PRAISE

Alfred LoH,
VMI

"Excellent presentations and speakers made ARC 2018 an event worth attending which improved my knowledge and business networking. I would also like to attend ATRC 2019 organizing by ABM."

"The presentations by Adam Gosling, Antony Powath Dato' Mohamed Noor Sany were very interesting. The conference is an excellent place to meet people. For the next ARC I would like to be a delegate."

Chin Hon Meng
TRMAM
Camilla Rafailli,
Salvadori SRL

"Asian Retread Conference 2018 was a very good platform for Business networking, Renewing and meeting old contacts and improving knowledge. The topic which David Wilson presented was very interesting. I would like to participate in next ARC as a Delegate. I have a suggestion that you should choose a different location for next edition of ARC and also should include leisure programs."

Adam Gosling
Tyre Safe Australia

"The opening address by YB Dato' Kamarudin Jaffar,and the presentations by David Stevens, Dato' Mohamed Noor Sany, Dr Ngeow Yen Wan were excellent. The conference was very beneficial for business networking, improving knowledge, renewing and meeting old contacts. For the next ARC I would suggest a few topics like OEM Tyre Testing, Road safety from tyres, Highway Engineering & Tyres. I think it will be better to include an interactive workshop in the next edition of ARC. I would like to give ARC 2018 a very good rating."

Prassant Bangera,
Mahant Industries

"Attending ARC 2018 I could renew and meet my old contacts and it helped me improve knowledge. Overall the conference was good including the quality of speakers and presentations. The topics like 'Do you assume your tyres ok', Rubber processing/additives adds value to tyre retreads', RFID technology' and Total cost of ownership and value were very interesting. I suggest in next ARC you should provide authentic vegetarian food (at least Rice and Curry)."

Marco
Salvadori

"The quality of speakers and the presentations were good. The topics I found interesting include 'Do you assume your tyres are ok by Adam Gosling,'Striving to achieve better safety by Mohd Azhar Mohd Wazir and How retreading brings better partnership by Chriss Bloor. The conference helped me to improve business knowledge and business networking. I think next ARC should include topics like 'Recycling/Disposal of end of life retreaded tyre. I suggest in the next edition of ARC you should take beef off the menu to respect Hindu and Buddhist participants and also the mugs should be replaced by cups with plate for hygiene reasons.