PowerTALK™ News

Published Monthly by Power Systems Research
Data · Forecasting · Solutions™

April 27, 2021 Volume 6 No. 4

Worldwide News & Analysis

In This Issue

About Us

Power Systems Research (PSR) is a world leader in providing power equipment information, whether it's pure data, analysis, forecasting or specific business intelligence. This product information ranges from IC engines to battery-electric and hybrid powertrain technologies. PSR has been providing world class business and market intelligence to industry leaders for more than 40 years. How can we help you? For details, call **+1 651.905.8400** or email **info@powersys.com**. **www.powersys.com**

Power Systems Research: Data...Forecasting...Solutions

PowerTALK™ News Available in Japanese

To better meet the needs of our readers who prefer to read PowerTALK™ News in Chinese or Japanese, we now offer articles from Asia in Chinese and Japanese, as well as English. Click here to read directly in **Japanese**.

PowerTALKを日本語でお読みいただけるようになりました

日本語で読みたいという読者様のニーズに応えるために、アジアから日本語の記事を提供しています。日本語をご希望の方は**こちら**をクリックしてください。

Questions, Comments? Contact Joe Delmont, Editor
jdelmont@powersys.com | +1 651.905.8422 | www.powersys.com

Click Here To Go To Page 1

Listen To New PSR PowerTALK Podcast

Now, you can listen to the leading analysts and editors from Power Systems Research discuss the outlook for powertrain news each Tuesday by region and by targeted industry segments on PSR PowerTALK Podcast. **PSR**

Visit the PSR PowerTALK Podcast Archive.

Truck Production Index

By Chris Fisher, Senior Commercial Vehicle Analyst
and Jim Downey, Vice President - Global Data Products

Q1 2021 Global Truck Production Index falls 42.5%

Power Systems Research TPI *Truck Production Index*

St. Paul, MN — The Power Systems Research Truck Production Index (PSR-TPI) dropped 42.5% for the three-month period ended March 31, 2021, declining from 186 to 107, from Q4 2020. The year-over-year (Q1 2020 to Q1 2021) improvement for the PSR-TPI was 15%, in which it climbed from 93 to 107.

The PSR-TPI measures truck production globally and across six regions: North America, China, Europe, South America, Japan & Korea and Emerging Markets.

This data comes from **OE Link™**, the proprietary database maintained by Power Systems Research.

Click Here To Go To Page 1

Truck Production Index

Continued from page 2

Global Index. While the decline in commercial vehicle demand in China will lower global vehicle demand this year, improved demand is expected in all other regions.

Chris Fisher

Jim Downey

All Regions. Except for China, demand for medium and heavy commercial vehicles has bottomed out and is expected to increase this year and into 2022 as the various economies improve and Coronavirus vaccinations increase. The market will also experience periodic supply chain disruptions primarily due to the impact from the Coronavirus.

North America. Since the latter part of last year, heavy commercial truck orders have been extremely strong as freight rates remain very high. Both contract rates and spot rates are currently in record territory primarily driven by consumer spending, a strong housing market and an improving manufacturing sector. The anticipation of the stimulus spending and increasing vaccination rates for Covid-19 are also driving optimism in the economy. However, supply chain issues particularly regarding semiconductors will be the biggest obstacle for sustainable production this year.

Europe. Last year, medium and heavy commercial truck sales declined by 25.7% in the EU. Heavy truck sales declined by 27.3% and bus registrations dropped by 21% compared with 2019. However, order rates have shown significant strength during the past six months and sales are expected to improve significantly this year, primarily for the heavy truck segment. The biggest impediment to improved sales will likely be issues surrounding the supply chain for vehicle components and materials as a result of the impact from the Coronavirus.

South Asia. Commercial vehicle demand is expected to improve for much of this region this year. After a 53% decline in Indian MHCV production last year, an improvement of 35% is expected in 2021. While this is good news, it will still be a few years before Indian demand reaches more historic levels. The segment will continue to face headwinds due to excess capacity in the market, driver shortages, increased rail freight usage, relative constant freight rate, and booming fuel prices. The PLI scheme implemented by the government will provide some push to the Indian market from 2022.

South America. Medium and heavy commercial vehicle production declined by approximately 25% in 2020 with medium and heavy buses seeing the sharpest decline. While orders and production improved during the fourth quarter of 2020, concerns about supply chain disruption could hinder production levels this year. With increased vaccinations and a more stabilized regional economy, PSR expects production to return to pre-pandemic levels later this year.

Japan/Korea. After a significant decline in medium and heavy commercial vehicle demand last year, Japan and Korean production is expected to rebound this year and into 2022 for both the domestic and export markets. An improving

Click Here To Go To Page 1

Truck Production Index

Continued from page 3

After the GDP declined 3.5% last year, the worst performance in almost 75 years, the US economy is set for a strong comeback.

global economy along with increased Coronavirus vaccines will help drive the improvement in demand. However, due to ongoing supply chain disruptions production levels are expected to be somewhat volatile this year.

Greater China. Demand for heavy trucks is expected to be down sharply this year as a result of the Chinese governmental requirement to replace all China III and lower emission vehicles with vehicles meeting China V or China VI emission standards by the end of last year. This along with stricter punishment of overloaded vehicles and the implementation of the Euro VI emission regulations in July will slow demand particularly in the last half of the year. The cost of the emission technology for Euro VI vehicles are not offset with any significant improvement in fuel economy which will likely lead to some level of truck pre-buy during the first half of this year. **PSR**

North America Report

Fastest NA Economic Growth Is Expected Since 1980s

By Yosyf Sheremeta, PhD, Dir. of Prod. Mgt. & Customer Experience

Yosyf Sheremeta

(April 1, 2021) SUMMARY. After the GDP declined 3.5% last year, the worst performance in almost 75 years, the US economy is set for a strong comeback. In fact, we could see GDP growth exceeding 6% this year.

There are many reasons to be optimistic about 2021. Strong readings of macro-economic factors combined with the economic cycle reset backed by the government initiatives and policies support our estimates for the current year and beyond.

Our positive outlook is based on the reviews of the key economic indicators, including GDP, unemployment, and inflation. In our previous forecasts, we discussed recovery trends for the post-pandemic period, stating a return of demand for most markets in 2021, especially during H2 2021.

Based on the strong macroeconomic developments during the past six months, economic re-opening trends expected for the next six months and combined with favorable government policies, we now expect even stronger overall growth for the year 2021.

Actually, based on our analysis of the expected growth trend and the economic reviews in major publications, we think US growth can surpass the growth level from 1984 – the highest one since 1950s.

Yes, it is a long stretch to reach the levels of 7.2% GDP growth we saw in 1984; however, it is not that far from the major economic consensus of 6.8% growth in 2021 vs 2020.

Click Here To Go To Page 1

North America Report

Continued from page 4

Furthermore, with the additional stimulus support provided by the American Rescue Plan Act of 2021, US economic growth could rival China's for the first time in decades. Should the US reach the growth levels of 1984 (at 7.2%), this will outpace Chinese government's growth of 6%. Should this growth pattern materialize, this would be a remarkable achievement because the US economy is a much more mature economy — and was blown away by China's explosive growth out of the Great Recession.

Other legislation related to government policies that is worth mentioning is the future proposed new spending on infrastructure, green energy, and education. This future proposed combined spending would be in the area of US$3 trillion and would certainly serve as a catalyst to prolonged growth supported by major investments from the government.

If passed, this would certainly create new markets and new opportunities for our industry. We will continue to monitor these developments, as they could drive profound changes to this industry.

We have mentioned the electrification trend of vehicles and equipment in the past. We expect these developments and trends to accelerate in the near future. The impact of this trend will touch a majority of the applications/products that we track in our databases. We already see viable alternatives to ICE powered products entering the market during the next 12-36 months, and this trend will accelerate in the mid-term.

Gradual re-opening of the economy should unleash enormous pent-up demand among Americans to purchase consumer equipment, eat at restaurants, go to the movies, stay in hotels, and use air travel. Many consumers have stocked up cash waiting for just this moment. Based on a few estimates, consumers in the US have built up $2.3 trillion in excess savings — money that can be drawn down as the economy reopens. Consumer spending will help drive the demand and support strong growth trend.

We continue to see a favorable fiscal policy and a stable economic situation in the US. At this time, we expect it will take at least until 2022-2023 before GDP surpasses its Q4 2019 peak. Fiscal policy with near zero interest rates, which government has promised to keep in place for the near future, will provide a good platform for the economic recovery and allow us to look optimistically into 2021-2022. We believe this is a critical factor as it re-assures both consumers and businesses of low interest rates and it helps drive demand for goods and services.

The key factor and the foundation to the economic recovery is strong fiscal policy. With extra cash in hands of US consumers, combined with low interest rates, and strong growth expectations, the inflation concerns have re-surfaced. This was particularly reflected by the rise of Treasuries during the months of February and March.

Increased inflation concerns have put a break on stock market growth, especially to the growth-oriented companies such as the technology sector. However, given

Click Here To Go To Page 1

North America Report

Continued from page 5

the current macroeconomic levels, we do not expect any significant change to fiscal policy (such as interest rate increases) this year. Current conditions provide a solid outlook and reassurance for future recovery and growth.

We have mentioned a slowdown in new employment during Q4 2020, but the trend did not hold true during Q1 2021. The latest readings from March 5, 2021, showed the unemployment rate at 6.2%. While the rate improved from Q4 2020, (January 2020) at 6.7%, it is still significantly higher than pre-pandemic rating in February 2020 of 3.5%.

The number of unemployed persons currently was at 10 million in February 2021. vs. 5.7 million in February 2020. We do not expect any significant and rapid changes to the employment data in 2021; it will take another 18-24 months and a favorable economic situation to fully recover employment to the rate of 3.5%-4.5%.

Housing starts statistics experienced a slowdown in Q1 2021, which was a shift in the growth trend from Q4 2020. Housing starts in the US sank 10.3% month-over-month to an annualized rate of 1.421 million in February of 2021, which was the lowest reading in six months and well below forecasts of 1.56 million.

Housing starts reached the highest rate in 14 years in December as people moved away from the big cities due to the coronavirus pandemic. Another factor that contributed to the slowdown was rising mortgage rates, primarily driven by a rise in Treasuries. However, given the strong outlook for the economy, we expect the housing market to remain strong, which will directly help drive growth in segments like Construction, Industrial and L&G.

Across all market segments, we expect overall total OEM equipment production numbers to rebound in 2021 from 2020 losses. Cumulatively, OEM production in the US experienced a decline of 10.5% in 2020 vs. 2019. We expect growth in 2021 of 8.1% vs 2019. This estimate is higher by 0.2% than the previous estimates in Q4 2020 at 7.9%. The key driver of the growth in 2021 will be strong fiscal policy and accelerated growth in H2 2021. At the same time, the recovery and growth will vary considerably among segments.

As expected long before the pandemic, the Medium and Heavy Vehicles Segment was due for a slowdown and a reset. This segment in 2020 suffered the worst performance among all industry segments; however, it will also lead the recovery in 2021 and will post the highest growth rate at 24.5% vs significant loses in 2020. We continue to see significant improvements in this segment with sustainable demand over the next 18-24 months. Furthermore, we estimate an additional gain of 11.4% in 2022 vs 2021.

Consumer-oriented segments experienced significant market deterioration with the Passenger Car segment leading the decline at -25.1% in 2020 vs 2019. The next leading segment was Minivan/SUVs at -16.3% in 2020 vs 2019. We expect these two segments to regain ground in 2021 at 3.1% and 8.8%, respectively.

Click Here To Go To Page 1

North America Report

Continued from page 6

As economic conditions improve during the next three months, we expect a rapid increase in demand for products in most markets, starting in H2 2021.

As economic conditions improve during the next three months, we expect a rapid increase in demand for products in most markets, starting in H2 2021. At this time, we forecast year 2021 growth to be in the low single digits vs 2020 at 8.1%, and we see an 8.8% additional gain in 2022 vs 2021. Overall, for all OEM equipment sectors, we expect it will be 2023 or 2024 before the total volume units produced in North America reaches pre-pandemic levels of Q4 2019.

AGRICULTURAL. Corn and soybeans are the two most widely planted crops in the nation, accounting for 55% of principal crop acreage. Supply and demand are the main price drivers in the agricultural markets, more so than any other commodity markets. China is a major buyer of agricultural products and has been building its stockpile, helping to lift prices. China bought a record amount of corn last year, and soybean purchases are running at the highest level in USDA data going back to 1991. We expect this robust demand to continue.

As the recovery continues, we expect the Ag segment to follow other industrial and heavy equipment industries. In 2021, we project the growth of agricultural equipment and machinery in North America to be at 8.9% vs 2020. Additional growth is projected for 2022 at 11.9%. The Agricultural segment has weathered the pandemic better than other industrial sectors and is well positioned to continue its growth pattern in the next few years. The recovery will be steady, and we expect levels of production in 2022 to reach those of 2016-2017.

CONSTRUCTION EQUIPMENT. We expect the Construction machinery segment to follow strong economic recovery patterns. While housing starts have slowed down a little in Q1 2021, the market is still strong and drives the demand for new equipment. Given high levels of infrastructure spending, growth projections for the segment are favorable.

Furthermore, government is working on new legislation, and a future comprehensive Infrastructure bill is committed to support the demand in the sector by investing heavily in infrastructure and green technology. If passed we, believe this will serve as a catalyst for the electrification of equipment and machinery and will create significant opportunities in this segment, supported by the government funding and subsidies.

Our most recent overall projection on construction equipment and machinery production is positive at 8.2% in 2021 vs 2020, which is slightly higher than Q4 2020 estimates. Furthermore, we expect additional growth of 8.6% in 2022.

INDUSTRIAL. This segment typically follows the general economy, and the construction industry trends, with some minor equipment exceptions, such as forklifts. Currently, we expect an overall growth in production numbers at 8.1% in 2021 vs 2020 with additional growth of 9.9% in 2022.

On the same note as in Agricultural and Construction, we expect new rebalancing of distribution of market shares and supply chains. The overall growth dynamic is closely mirroring the Construction segment. The main drivers for the segment are

Click Here To Go To Page 1

North America Report

Continued from page 7

small industrial equipment, material handling and forklift applications, where the demand remains strong. Furthermore, material handling is supported by stronger levels of freight, and we expect this trend to continue in 2021-2022.

Consumer sectors, including **LAWN AND GARDEN**, **PASSENGER CARS**, **MINIVANS AND SUVs** as well as **RECREATIONAL PRODUCTS** look very promising for the next few years. Not only have these segments entered new cyclical uptrend, but they will also benefit from favorable fiscal policy and increased demand driven by the economy re-opening.

LAWN AND GARDEN. This segment typically follows a similar pattern to other consumer products; however, given the circumstances related to lockdown, the L&G sector performed very well in 2020 (production was flat in comparison to 2019). We estimate L&G to continue strong performance, driven by healthy demand at 8.7% in 2021 vs. 2020 with additional growth of 8.5% in 2022.

The Lawn and Garden market is set to establish one of the strongest adoption rates among all segments in the introduction of battery-powered models and technologies. In addition to the consumer side, we also see this trend sparking a significant interest among commercial buyers for Lawn & Garden equipment.

During the past few quarters, we have been gathering intelligence on these electric models, and we will be completing data and releasing them to our client databases over the next few quarters. Given current market circumstances and the trend in the industry, we believe electric models will follow similar growth rates to its ICE units and will greatly gain market share at the expense of ICE-powered equipment.

PASSENGER CARS and **MINIVAN/SUVs.** Strong demand supported by low interest rates and a re-opening of the economy will help these segments regain ground in 2021. At the moment, we expect the segment to show healthy growth in 2021, mainly due to a low base in 2020.

However, given the current trend, specifically the market transitioning to SUVs, the production volumes of passenger cars may never fully come back to the levels of 2016-2017. We estimate production growth for passenger cars to be at 3.1% in 2021. Additional growth of 9.7% and 7.9% is expected in 2022 and 2023, respectively.

Over the past few years, the Minivans/SUVs segment has been enjoying growth and taking share from passenger cars. Nevertheless, the overall production has declined at 16.3% in 2020 vs 2019. We estimate the rebound in 2021 to be at 8.8% vs 2020. Steady recovery next year is estimated to continue in the following years at 9.6 and 5.7% in 2022 and 2023, respectively.

We have already started to witness introduction of EV technology across all major OEMs, and we expect this trend to significantly accelerate in the next 2-5 years. With the introduction of new and improved technologies, including fast charging, extended range, and infrastructure development, we estimate significant improvements to adoption rates of these technologies, which will increase the transition rate from ICE powered models to non-fossil fuels.

Click Here To Go To Page 1

North America Report

Continued from page 8

We believe the strong demand for recreational vehicles (motorcycles) will fall in the next few years and the industry will mainly focus on the recreational end use and purpose.

RECREATIONAL VEHICLES. Recreational Products follow similar patterns to other consumer products, but the 2020 declines were not as steep as in the passenger car segment. In 2021, the overall production for all products declined at 9.6% vs 2019. Going forward, we project 9.1% growth in 2021 vs 2020, and 7.3% in 2022 vs 2021.

We believe the strong demand for recreational vehicles (motorcycles) will fall in the next few years and the industry will mainly focus on the recreational end use and purpose. Furthermore, we expect continuous redistribution of power and balance among industry OEMs as demand for products changes with demographics. We will see new OEMs entering the market with new products, aimed at niche markets, as they hunt for increased market share. **PSR**

Powersports EV Update

By Michael Aistrup, Senior Analyst

EDITOR'S NOTE. *Power Systems Research tracks the global trend of electrification of industrial equipment. This is one of a series of reports on these trends.*

Michael Aistrup

POLARIS INDUSTRIES, Minneapolis, is planning to debut a new electric Ranger utility side-by-side in December 2021. The Ranger will be the first electric vehicle Polaris has developed through their partnership with Zero Motorcycles.

The electric Ranger is the first product in Polaris's long-term plan to accelerate its leadership in powersports electrification. Production will take place in Polaris's Huntsville, AL facility.

BOMBARDIER RECREATIONAL PRODUCTS INC. (BRP), which owns popular brands such as Can-Am, Rotax, Sea-Doo and Ski-Doo, plans to offer electric models in each of its product lines by the end of 2026. The company is investing $300 million in product development and production facilities.

"We have always said electrification was not a question of 'if' but a question of 'when,'" says José Boisjoli, President and CEO of BRP. "We are leveraging our engineering know-how and innovation capabilities to define the best strategy for developing electric-powered products".

After developing and evaluating several concepts, BRP has decided to develop its Rotax modular electric powerpack technology, which will be leveraged across all product lines. As part of its strategic plan, BRP is expanding its Rotax electric power unit development infrastructure in Gunskirchen, Austria

YAMAHA MOTOR, HONDA MOTOR, KTM AG AND PIAGGIO have signed a Letter of Intent to set up a Swappable Batteries Consortium for Motorcycles and light Electric Vehicles. Members of the Consortium believe that the availability of a standardized swappable battery system would promote the widespread use of light electric vehicles and contribute to more sustainable life cycle management of batteries used in the transport sector.

Click Here To Go To Page 1

North America Report

Continued from page 9

By extending the range, shortening the charging time, and lowering vehicle and infrastructure costs, the manufacturers will try to answer customers main concerns regarding the future of electromobility. The aim of the Consortium will be to define the standardized technical specifications of the swappable battery system for vehicles belonging to the L-category, mopeds, motorcycles, tricycles, and quadricycles. By working closely with interested stakeholders and national, European, and international standardization bodies, the founding members of the Consortium will be involved in the creation of international technical standards.

NATIONAL MARINE MANUFACTURERS ASSOCIATIONS (NMMA). The most recent statistics from the NMMA report a 13-year high for boat and watercraft sales in 2020. Data indicated that sales of new powerboats in the U.S. increased last year by an estimated 12% compared to 2019, with more than 310,000 new powerboats sold.

"2020 was an extraordinary year for new powerboat sales as more Americans took to the water to escape pandemic stress and enjoy the outdoors safely," said Frank Hugelmeyer, NMMA president. "For the first time in more than a decade, we saw an increase in first-time boat buyers, who helped spur growth of versatile, smaller boats — less than 26 feet — that are often towed to local waterways and provide a variety of boating experiences, from fishing to watersports."

In PWC sales alone, 2020 sales are estimated to be up 8% to 82,000 units. In terms of who's buying PWC, customers range across everything from first-time buyers to long term veterans and from all different ages. Several dealers have seen a much larger influx of first-time buyers over the last year and into 2021. They have also seen demand across all segments of the PWC industry, from recreational through performance.

LANDMASTER, the Indiana based UTV manufacturer, has announced its new lithium-powered side-by-side called Landmaster EV, which should be available in showrooms May 2021. The Landmaster EV starts at $10,999, with the extended-range version priced at $12,299. The model is built on the same chassis as their flagship product the L7. According to Landmaster, "the new EV will provide consumers with an electric side-by-side that is longer that is longer-lasting, maintenance-free, heavy duty and fun for the whole family".

HARLEY-DAVIDSON has announced its 2021-2025 strategic plan. The key Highlights:

- Target increased profitability and low double-digit EPS growth through 2025
- Invest in core segments of Touring, large Cruiser and Trike
- Expand into Adventure Touring and within the Cruiser segment
- Launch *Harley-Davidson Certified™*, a pre-owned motorcycle program
- Strengthen commitment to electric with the creation of a dedicated division focused exclusively on electric motorcycles
- Boost Harley-Davidson as a global lifestyle brand through reinvigoration of parts, accessories and riding gear and global expansion of financial services
- Extend employee ownership to all employees by offering an equity grant to approximately 4,500 employees. **PSR**

Click Here To Go To Page 1

DATAPOINT: *NA Skid Steer Loaders*

95,100

With 36% of total units produced, Bobcat leads in production of Skid Steer Loaders in North America.

By Carol Turner, Senior Analyst, Global Operations

95,100 units is the estimate by Power Systems Research of the number of Skid Steer Loaders to be produced in North America (Canada and the U.S.) in 2021.

This information comes from industry interviews and from two proprietary databases maintained by Power Systems Research: **EnginLink™** , which provides information on engines, and **OE Link™**, a database of equipment manufacturers.

Market Share: With 36% of total units produced, Bobcat leads in production of Skid Steer Loaders in North America. In second and third positions are Case New Holland and Deere with 21% and 15%, respectively.

Exports: Collectively, up to 25% worldwide

Trends: In 2020, production of skid steer loaders in North America decreased 18% to 87,400 units from 106,500 units in 2019. Production is expected to recover about 9% in 2021 to 95,100 units. The decline in 2020 was caused mostly by COVID-19-related factors plus the new equipment saturation in the market and a slight drop in construction related activities.

The gain in 2021 is attributed to the need for new construction equipment and the overall stabilization of the economy, especially regarding the construction industry. As the construction industry continues to recover, construction will continue to be a key driver in overall industry growth.

Some softness in sales comes from the American agriculture industry that is sluggish as it continues to battle low commodity prices. The Agriculture Segment accounts for 29% of all Skid Steer usage in the market today. Expect production of Skid Steer Loaders in NA to increase up to 7% over the next 3-5 years. **PSR**

Europe Report

By Natasa Mulahalilovic, Marine Pleasure Boat Analyst Europe - Europe

MAN Marine Engines Certified To Operate Globally

MAN Energy Solutions, one of the leading marine engine manufacturers in the range between 730 and 2000 hp (5370 to 1397 kW), says that all of its engines now comply to the globally required major current emissions standards.

All engine models from i8-730 to V12-2000 are certified with the US EPA Tier III, the EU IMO Tier II and RCD 2013/53/EC. The current China Marine Recreational

Click Here To Go To Page 1

Europe Report

Continued from page 11

Stage I standard has been upgraded to the Stage II based on the US Tier III standard requirements.

Natasa Mulahalilovic

MAN marine engines available in 12.4 to 24.2 liters displacements now meet the latest Chinese legislation norms. The limited value of the nitrogen oxide (NOx) emission of 5.8 g/kWh and 0.12 g/kWh of a particulate matter is fully met and satisfies at the same time the limits imposed by the US and European standards. The new China Marine Recreational Tier III will become effective July 1, 2022.

Yachts fitted with MAN marine propulsion engines can be sold and can operate on waters in all geographical situations.

Based on qualifications to meet the latest emission regulations, MAN Energy Solutions has just signed a three-year contract with Ferretti Group. Engines from 730 to 2000 hp will be fitted to the yachts branded Riva, Itama, Pershing, Wally, Ferretti and Custom Line in length from 17 to 37 meters.

MAN Energy Solutions and Ferretti Group have been working together for more than 30 years.

In addition to Ferretti Yachts, MAN also has renewed its contract recently with Azimut-Benetti for the next five years. The leading superyacht manufacturer in the world, Azimut-Benetti purchases all engine models, from i8-800 to V12-1900, to power yachts in the length from 25 to 37 meters.

This is the fifth consecutive renewal of the original contract between the yacht and engine manufacturers. **PSR**

Sources: *Volvo Penta Press Releases, IBI News, Boating, Trade Only Today*

Brazil/South America Report

By Fabio Ferraresi, Director Business Development South America

Fabio Ferraresi

MWM Launches Family of NG Engines

MWM Engines and Power Gen, part of the Navistar group, has announced the launch of a new line of Acteon Engines powered by Natural Gas. The engine family has been developed in Brazil and features 4 cylinders and 6 cylinders with 4.8L and 7.2L displacement.

Source: *Automotive Business* **Read The Article**

PSR Analysis: With this move, MWM meets Power Gen customers demand or NG powered Gen Sets and increases portfolio to attend OEMs aiming to launch NG

Click Here To Go To Page 1

South America Report

Continued from page 12

As the Argentinian government sees a shortage of industrial products and related price escalation, it identifies reduced OEM production as the main cause of these shortages.

powered vehicles and equipment without investment in Engines Development. As NG becomes a competitive and cleaner fuel alternative for Brazil, MWM put the bets on the right place to attend better the customers demand.

Argentina Forces OEMs and Supply Chain To Produce at Full Capacity

In an effort to reduce the domestic economic impact of the pandemic, the Argentinian government has published an order that makes all industry with annual revenue above US$ 41 Million to produce at full capacity. If not, they will be fined.

Source: *Automotive Business* **Read The Article**

PSR Analysis: As the Argentinian government sees a shortage of industrial products and related price escalation, it identifies reduced OEM production as the main cause of these shortages. However, it underestimates the effects of supply chain constraints and even labor constraints caused by the pandemic.

We do not believe the decree will result in higher production, and we believe the order will be reviewed in a short time. Meanwhile, this is an issue companies will have to deal with, including the over planning it should result.

Brazil OEMs Forecast CE Sales Growth of 20% in 2021

Volvo CE and Case Construction are aligned to affirm CE sales in Brazil will grow 20% in 2021 despite of the effects of the pandemic. With 18% growth of sales in Q1 2021 over the same quarter of 2020, CE executives are optimistic about full year sales.

Source: *M&T* **Read The Article**

PSR Analysis: First quarter of 2020 was a strong sales quarter over 2019 because the pandemic impact was not present until March 16, 2020.

This makes the result of Q1 2021 18% above Q1 2020 really strong and makes executives optimistic about FY 2021 results. In addition to that, the foundation of the segment is robust, with the construction industry activity growing because of strong housing demand, infrastructure bids being restarted and mining growing significantly. **PSR**

Click Here To Go To Page 1

Far East: Japan Report

By Akihiro Komuro, Research Analyst, Far East and Southeast Asia

Four Japanese motorcycle manufacturers, Honda, Yamaha, Suzuki and Kawasaki, said they have agreed to share the same battery specifications for electric motorcycles.

Japanese OEMs Agree on Battery Specs for Electric Motorcycles

Akihiro Komuro

Four Japanese motorcycle manufacturers, Honda, Yamaha, Suzuki and Kawasaki, said they have agreed to share the same battery specifications for electric motorcycles. By sharing the same removable replacement battery, they will increase convenience. The battery charger to be developed in the future will also be standardized.

For small scooters, it is difficult to increase the size of the battery to extend the cruising range due to the small size of the vehicle, and thus the frequency of recharging is high. The detachable battery type will be more convenient, as it can be exchanged for a fully charged battery at the battery exchange station.

Source: The Nikkei (The original article was partially revised by the author.)

PSR Analysis: In April 2019, the four companies set up a consortium to discuss battery commonality; agreeing to commonality is an achievement. This was the minimum necessary point to reach in order to prevent confusion caused by conflicting specifications, such as whether to use VHS or Beta. In addition, there had never been a case in the past where four companies had worked together to accomplish something, and in this sense, it was probably significant.

Standards have been agreed upon for battery structure, characteristics, protection circuits, communication protocols for charging, and stations that will serve as exchange infrastructure. However, the size, weight, capacity, and shape of the batteries are outside the scope of the cooperative area and will be handled by each company, in other words, a competitive area.

The agreement is related to replaceable batteries (and replacement stations) for first-class mopeds (under 50cc) and second-class motorcycles (under 125cc). As for the electrification of medium and large motorcycles, all four companies will continue to develop technologies and products as before.

In my opinion, it has taken two years to build this consensus, which is far too long. Taiwan's Gogoro, KIMCO's Ionex, and others have already released many EV bikes, and recharging stations have become widespread, especially in urban areas, and the bikes are already functioning as a part of our daily lives. As international competition intensifies, there will be more and more cases where the traditional Japanese sense of speed will not be able to cope. **PSR**

Click Here To Go To Page 1

Far East Report

Continued from page 14

極東 > 日本レポート:

小室 明大 – 極東及び東南アジア リサーチアナリスト

二輪4社、電動バイクのバッテリー仕様共通化

ホンダ、ヤマハ発、スズキ、川崎重工業の国内二輪メーカー4社は3月26日、電動バイクのバッテリー仕様を共通化することに合意したと発表した。着脱式の交換バッテリーを共通化することで利便性を高める。今後整備していく充電器も標準化する。小型スクーターでは、車体が小さいため航続距離を延ばすためのバッテリーの大型化が難しく、充電の頻度が高い。着脱式ならバッテリー交換所で充電済みのものと交換しながら走れるため、利便性も高まる。。

出典: 日経（一部筆者により元記事内容を改編しました）

PSR 分析: 2019年4月に4社は協議体を設置してバッテリーの共通化について議論してきた、その結果共通化に合意したことはひとつの成果だ。VHSなのかベータなのか、というような仕様乱立による混乱を防ぐという意味でもこれは最低限必要な到達点だった。また、4社が合同で何かを成し遂げるというのは過去に例が無く、その意味でも有意義だったのかもしれない。

バッテリーの構造、特性、保護回路、充電に関する通信プロトコル、さらに交換インフラとなるステーションに関する規格が合意されている。ただし、大きさ、重量、容量、形状などは協調領域の範囲外となり各社ごとの対応、つまり競争領域となる。

今回の合意は、二輪のうち原付一種・二種向けの交換式バッテリー（と交換ステーション）に関する部分だ。中型・大型バイクの電動化については、4社ともにこれまでどおり技術開発・商品開発を続ける。

正直な感想を言えば、この合意形成には2年かかっており、これはあまりにも時間がかかりすぎている。台湾のGogoroやKIMCOのIonexなどはすでに多くのEVバイクをリリース、充電ステーションも都市部中心に普及し、すでに生活の足として機能している。国際的な競争が激化する中で、従来の日本式のスピード感では対応できないケースが増えていくだろう。**PSR**

Far East: South Korea Report

By Akihiro Komuro, Research Analyst, Far East and Southeast Asia

Hyundai Group Seals Doosan Infracore Deal

Media outlets in Korea are reporting that Hyundai Heavy Industries is to acquire a 34.97% share in Doosan Infracore from Doosan Heavy Industries & Construction for €630 million (Korean Won 850 billion). Doosan Infracore is the heavy construction division of the Seoul-headquartered Doosan Group.

The transaction does not include Doosan Bobcat, which accounted for 57% of Infracore's 2019 revenues. The deal will mean that Hyundai will own Hyundai

Click Here To Go To Page 1

Far East Report

Continued from page 15

Construction Equipment as well as the Doosan Infracore construction equipment business. Regulatory authorities in South Korea and other countries including China must approve the acquisition; plans call for completion of the acquisition by the third quarter of 2021.

Source: International Construction.com

PSR Analysis: This appears to be a strategy by Hyundai Heavy Industries to gain economies of scale by bringing Hyundai Construction Machinery and Doosan Infracore into the fold, and to expand its market share, especially in the Chinese market.

Hyundai Heavy Industries has positioned the construction machinery division as its core business, the third pillar after shipbuilding and plants. Demand for construction machinery is strong in China, India, and Southeast Asia, and the company is hastening its overseas expansion by expanding its scale through acquisitions in the same industry. Chinese companies such as XCMG and Sany are growing rapidly, supported by domestic demand. Hyundai Heavy Industries seems to have decided that deepening its cultivation of the Chinese market through the acquisition of Doosan's business is essential for its survival.

On the other hand, Doosan Heavy Industries has been in the red for six consecutive fiscal years through 2019, as its mainstay heavy electric machinery division has been underperforming due to the government's policy of freezing nuclear power plants. While receiving support from government-affiliated financial institutions, the company has been selling off its non-core businesses in order to rebuild its business. So far, the company has sold off businesses including construction companies, real estate, and hydraulic equipment. Once this sale is completed, the company is expected to be able to achieve a certain degree of financial improvement. **PSR**

極東 > 韓国レポート:

現代グループが斗山インフラコア買収を進める

韓国のメディアは、現代重工業が斗山インフラコアの34.97%の株式を斗山重工業から8500億ウォン（6億3000万ユーロ）で取得すると報じている。斗山インフラコアは、斗山グループの重建設部門。この取引には、インフラコアの2019年の収益の57%を占めるDoosan Bobcatは含まれていない。この契約は、現代が現代建設機械と斗山インフラコア建設機械事業を所有することを意味する。規制当局が買収承認後、2021年の第3四半期までに買収を完了する予定。

出典: International Construction.com（一部筆者により元記事内容を改編しました）

PSR 分析: これは現代重工業が現代建設機械と斗山インフラコアを参加に収めることでスケールメリットを得て、中国市場を筆頭にシェア拡大を狙う戦略に見える。

Click Here To Go To Page 1

Far East Report

Continued from page 16

現代重工は造船とプラントに次ぐ第3の柱として建機部門を中核事業に据えている。中国やインド、東南アジアでの建機の需要は堅調で、同業買収によって規模を拡大し海外展開を急いでいる。徐工や三一重工といった中国勢は国内需要に支えられて急成長しており、現代重工は斗山の事業買収で中国市場を深耕することが、生き残りに欠かせないと判断したようだ。

一方、斗山重工は政府の原発凍結政策などで主力の重電部門が振るわず、2019年まで6期連続の最終赤字が続いていた。政府系金融機関から支援を受けつつ、経営再建に向けて非中核事業の売却を進めてきており、これまで建設会社や不動産、油圧機器などの事業売却を行ってきた。今回の売却が完了すれば、財務改善に一定のメドがつく見通しだ。**PSR**

SouthEast Asia: Malaysia Report

By Akihiro Komuro, Research Analyst, Far East and Southeast Asia

China-led Proton Is Revitalized

Sales of Malaysia's national carmaker Proton are booming, with its market share in the country reaching 27.3 % in February, hot on the heels of another national carmaker, Produa's 38.8 %. This is not a single month irregularity; for the full year 2020, the rate is 20.5%. For the full year 2020, the share is 20.5%, almost doubling in just two years from a record low of 10.8% in 2018. This is the first time in seven years that the market share has recovered to the 20% level.

The turning point of the turnaround offensive was a capital/business alliance with a Chinese manufacturer: in September 2017, the company accepted a 49.9% stake from Geely Automobile's parent company and began importing the right-hand drive version of the X70 SUV, which it produces and sells in China, at the end of 2018. As soon as this became a hit, the company switched to domestic assembly in Malaysia at the end of 2019, and introduced an additional small SUV, the X50, in September 2020.

Even in Malaysia, where small passenger cars are the main seller, SUVs have become increasingly popular in recent years. Japanese cars have been strong in this field, but Proton took full advantage of the mass production effect of Geely and the preferential excise tax treatment given to national cars and attacked the market with a price that was about 40% lower.

At a time of great change in the automobile industry, there was no possibility for Proton to survive in the future without the backing of foreign capital. In the past, Malaysia had a policy called Look East, which was to learn from the collectivism and work ethic of Japan and Korea. Now, this look east ended up in China instead of Japan and Korea. The resulting loss of market share for Japanese cars is a clear reflection of the changing industrial power structure in Asia.

Geely is not only targeting the market of Malaysia, which has a population of 32 million and 600,000 vehicles per year. The company has invested its own financial,

Click Here To Go To Page 1

Southeast Asia Report

Continued from page 17

Malaysia was one of the first countries in Southeast Asia to tackle domestically produced automobiles, and its enthusiasm for its own brand is strong.

development, and marketing resources to position Proton as an export base for the Southeast Asian market. However, it is not clear whether Malaysia, a country with high labor costs that will soon join the ranks of developed countries, is suitable for this task.

If the Malaysian-Chinese alliance is able to change the market map in the region, where Japanese cars hold 80% of the market share, led by Thailand and Indonesia, it will certainly change the balance of power in the Asian automobile industry.

Source: ***The Nikkei*** (The original article was partially revised by the author.)

PSR Analysis: Malaysia was one of the first countries in Southeast Asia to tackle domestically produced automobiles, and its enthusiasm for its own brand is strong. Since its establishment in 1985, Proton has had relationships with many OEMs in other countries, including Mitsubishi, VW, and GM, and is now coming back to life through its partnership with Geely. Proton's renewed success as a pioneer in Southeast Asia, a region with a strong love for its own country, will give courage not only to Proton but also to many other Southeast Asian brands, notably Vietnam's VINFAST. It will be of great interest to see how Proton will deepen its cooperation with Geely in the future, as it has a wealth of experience in working with other OEMs.

Although short-term ups and downs due to external factors such as COVID and trade friction between the U.S. and China are inevitable in the future, the four-wheel market in Malaysia will expand in the long run. Compared to Thailand and Indonesia, which already have a mature automotive industry, Malaysia still has a lot of room to grow and develop. Domestic demand is large and the desire to purchase cars is strong, with Japanese cars currently holding a fairly high share of the market. The drastically changing market environment means that even if a brand does not have a large market share at the moment, it will have a chance to gain a large share in a few years.

China's expansion into Southeast Asia is controversial even in the region. Looking at the past history of the region, both pro-China and anti-China sentiments have swirled strongly in Malaysia.

However, it is also true that Southeast Asia is still in need of assistance from other countries, both public and private. In order for automobile brands to survive the fierce market competition in Southeast Asia, there will be a growing tendency to seek collaboration with brands from other countries. Proton's current situation is a good example of this. **PSR**

東南アジア > マレーシアレポート:

小室 明大 – 極東及び東南アジア リサーチアナリスト

中国主導のプロトン再生

マレーシアの国民車メーカー、プロトンの販売が絶好調だ。2月の同国内での市場シェアは27.3%に達し、もう一つの国民車メーカーであるプロドゥアの38.8%

Click Here To Go To Page 1

Southeast Asia Report

Continued from page 18

を猛追する。単月の不規則現象ではない。2020年通年は20.5%。過去最低を記録した18年の10.8%を底に、わずか2年でほぼ倍増した。シェアの2割台回復は7年ぶりのことだ。

反転攻勢の転換点は中国メーカーとの資本・業務提携だった。17年9月に吉利汽車の親会社から49.9%の出資を受け入れると、中国で生産・販売するSUVの右ハンドル版「X70」を18年末に輸入開始。これがヒットするや、19年末にマレーシアでの国内組み立てに切り替え、20年9月には小型のSUV「X50」を追加投入した。

小型乗用車が売れ筋のマレーシアでも、近年はSUV人気が高まる。日本車が強い分野だったが、吉利本体と合わせた量産効果や、国民車に与えられる物品税優遇をフルに生かし、プロトンは4割程度安い価格で攻め込んだ。

（中略）

自動車業界の大変革期にあって、プロトンが外資の後ろ盾なしに将来も存続できる可能性はなかった。そのとき、活路を見いだすルックイーストの視線が、かつての日韓ではなく中国に行き着き、結果として日本車のシェアを切り崩している現実が、アジアの産業勢力図の変化を如実に映し出している。

秋波に応えた吉利は、人口3200万人、年60万台のマレーシアの成熟市場だけを狙っているのではない。自らの資金力や開発力、マーケティング力をつぎ込み、プロトンを東南アジア市場への輸出拠点と位置づける。だが、まもなく先進国入りする人件費高のマレーシアが、その任に適しているかはわからない。「マレーシア+中国」の企業連合が、タイ、インドネシアを筆頭に日本車がシェア8割を握る域内の市場地図に変化を引き起こすことができたとき、アジアの自動車産業のパワーバランスが決定的に変わるのだけは確かだ。

出典: 日経（一部筆者により元記事内容を改編しました）

PSR 分析: マレーシアは東南アジアの中でも、最も早く国産自動車に取り組んだ国であり、自国ブランドへの熱意は強い。1985年の創立以来、三菱をはじめVWやGMなど、多くの他国OEMとの関係を経て、現在はGeelyとのパートナーシップを得て、息を吹き返しつつある。自国愛が強い東南アジアで、先駆者であるプロトンが再び成功することは、プロトンのみならずベトナムのVINFASTを筆頭に、多くの東南アジアブランドに勇気を与えるだろう。他のOEMとの協業について、成功・失敗両面で豊富な経験を持っているプロトンが、今後Geelyとどのように協力関係を深めていくのかは重大な関心事だ。

COVIDや米中貿易摩擦などの外的要因から来る短期的なアップダウンは今後も避けられないが、長期的にはマレーシアの四輪市場は拡大していく。すでに充分に成熟した自動車産業を持つタイやインドネシアと比較すると、マレーシアはまだ多くの余地があり、これから発展する段階にある。内需は大きく、購入意欲も旺盛で、現在は日本車がかなり高いシェアを占めている。激変する市場環境は、現時点で大きなシェアを持たないブランドであっても数年後に大きな

Click Here To Go To Page 1

Southeast Asia Report

Continued from page 19

シェアを獲得するチャンスがあるということでもある。

中国の東南アジア進出については現地でも賛否両論がある。過去の歴史を見ると、マレーシアにおいては親中・反中それぞれの感情が強く渦を巻いている。だが、東南アジアもまだまだ官民ともに他国の援助を必要としていることも事実だ。東南アジアで自動車ブランドが激しい市場競争を勝ち抜くためには、他国ブランドとの協業を今後も模索していく傾向が強まるだろう。プロトンの現在はその好例と言える。**PSR**

India Report

By Aditya Kondejkar, Research Analyst – South Asia Operations.

Government Announces Scrappage Policy

Aditya Kondejkar

The central government in mid-April announced its long-awaited vehicle scrappage policy. Under the new policy, in case of failure to get a fitness certificate, commercial vehicles will be de-registered after 15 years. Private vehicles will be de-registered after 20 years if found unfit or in case of a failure to renew registration certificates. **Read The Article**

There are approximately 50 lakh vehicles in India that are older than 20 years, approximately 35 lakh vehicles older than 15 years, and approximately 15 lakh older than 15 years without renewed fitness certificate.

As per a draft notification released by the government, customers of new vehicles could get concession on road tax rates of up to 25%. Apart from the rad tax discount, 5% discount on purchasing new vehicles, scrap value at 4-6% of the ex-showroom price of new vehicle, and waiver of the registration fee for new vehicle purchased on scrapped vehicles are proposed.

We believe offering a discount of 5% on scrapping older vehicles seems like a loss-making business for OEMs and other stakeholders, and then it might be settled on approximately 1-2% discount. Since auto OEMs have already invested a lot and faced significant losses during levies relating to insurance, safety norms like ABS and BSVI transition.

Moreover, it is more likely that OEMs will pass on this extra cost to end customers. As the industry is already reeling under a load of soaring commodity prices, especially steel and rubber. Hence, we are certain that the vehicle prices will go up just before the implementation of the scrappage policy on April 1, 2022.

The winnability of the scrappage policy depends on the auto OEMs and other stakeholders. As we require an ample number of Automated Fitness Centres and scrapyards to create a proper environment for scrapping the vehicle. The

Click Here To Go To Page 1

India Report

Continued from page 20

fitness centres will keep records of the fitness of vehicles, the criteria of which includes braking test, emission test, and checking of safety components as per the regulations. The government aims for ~700 fitness centres. (Target of one in each district)

Apart from the fitness centers, many modern and compliant scrapyards would be required across the country to carry out this enormous task. Identifying locations and obtaining green clearances for these scrapyards will be another challenging task. **PSR**

Russia Report

By Maxim Sakov, Market Consultant, Russia

KAMAZ Net Profit Exceeds US$ 20 Million

Maxim Sakov

KAMAZ has reported a net profit of (more than US$ 20 million (1545 million Rubles) for 2020. KAMAZ reported revenue for 2020 of US$ 2.47 billion (185.8 billion Rubles), an increase of more than 16% over 2019. This growth is based on domestic truck sales, the introduction of the K5 range, and an increase in bus and electric bus sales.

Despite the COVID pandemic, in 2020 KAMAZ secured positions in the market and has claimed the status of leading Russian heavy vehicles supplier. The company claims a leader position in the 14+ ton truck market in Russia with a share of 47.5%, up 3.3% over 2019.

Read The Article

PSR Analysis: Of course, State support measures are a big part of this success. Still, domestic truck and bus production has demonstrated good survival potential even in a major pandemic.

Sales of Russian GAZ Trucks Started in Australia

Local dealers have received all-terrain trucks Sadko Next built especially for the local market with altered steering wheel and pedals and with different optics.

The AAV company from Brisbane has become a distributor of GAZ. The model has been introduced in local market under the name GAZ Track Master 4x4.

Tech specs of the Australian version of the truck are identical to its Russian version. It has 4.4 liter turbo-diesel of 150hp. It works with 5-step manual transmission and a transfer case, operated from the head panel. Basic options included cruise-control, air conditioner, multi-media system, snorkel and electric winch. Vehicle can move 2500 kg of cargo.

Click Here To Go To Page 1

Russia Report

Continued from page 21

Uralmash plant (a subsidiary of UZTM-Kartex) has signed its largest deal in the last 30 years. UZTM-Kartex and Coal India Ltd Binay Dayal have signed a contract totaling US$ 322 million for walking excavators, according to the company.

The cost of a truck is 90,000 Australian dollars, 40% more than in Russia. According to the local distributor, closest competitor price starts at AUD 120 000.

Read The Article

PSR Analysis: The all-terrain vehicles market is not so big, but it can be used to open a door for other models. Sadko Next has recently introduced by GAZ Group. The vehicle has a good reputation because of a general quality and a moderate cost of ownership.

Uralmash Plant Sets Deal of US$ 322 Million with India

Uralmash plant (a subsidiary of UZTM-Kartex) has signed its largest deal in the last 30 years. UZTM-Kartex and Coal India Ltd Binay Dayal have signed a contract totaling US$ 322 million for walking excavators, according to the company.

Under the contract, the Uralmash plant will deliver five electric-powered walking excavators of increased power – ESH24.95 and will perform assembly of the equipment on the customer's site. The OEM also will service machines for 11 years.

Read The Article

PSR Analysis: ESH24.95 is an electric powered excavator with 24 cubic meter bucket and 95-meter jib. UZTM Kartex also makes diesel machines. Recently it has launched excavator with Cummins QSK-91 engine.

Rosatom Eyes Battery Production for Electric Cars in 2025

Rosatom subsidiary – OOO Renera – has purchased Enertech International, a South Korean company.

According to the signed agreement, Li-Ion accumulator batteries and related power systems will be produced in Russia. It's expected that production will be started in 2025, and in 2030 the plant capacity will be increased to minimum 2 GWt*hr

The batteries will be installed in trucks, buses and special machines.

Read The Article

PSR Analysis: It's important to notice that there are no passenger car batteries among the planned production. So, electric passenger cars are still not considered as having significant market potential in Russia. **PSR**

Click Here To Go To Page 1

Meeting Your Information Needs

Power Systems Research (PSR) has been providing world class business and market intelligence on power equipment to industry leaders for more than 40 years. A comprehensive range of database products and strategic analysis services is available to meet your planning needs. For more information, visit us at **www.powersys.com**.

- **EnginLink™** – Engine Production-Forecast Data
- **CV Link™** – Commercial Vehicle Production-Forecast Data
- **OE Link™** – Original Equipment Production-Forecast Data
- **OE Link-Sales™** – Original Equipment Sales-Forecast Data
- **PartsLink™** – Engine and Original Equipment Population Data
- **MarineLink™** – Boat Production and Engine Installation Data
- **MarketTRACKER™** – Several individual quarterly syndicated surveys
- **PowerTRACKER™NA** – North American gen-set syndicated survey
- **Call Center** - In-house calling capability for custom surveys
- **Market Studies** – Conducted more than 3,100 proprietary studies
- **Component Modules** – Special component packages with databases

PSR is the leading source of global production, forecast, and population data for equipment and vehicles powered by IC engines and electric and hybrid powertrains. PSR has been tracking the production of on-highway and off-road vehicles and equipment since 1976. We use this data to develop targeted **forecasts** by industry segment and region. Our team of experienced analysts works with OEMs, engine and component manufacturers, dealers, fleet managers and industry experts to compile detailed and focused data that has become an industry standard. PSR analysts combine our data with industry intelligence to create unique, spot-on **solutions** to our clients' needs.

