

POCLAIN MAG

#24

Step up to Hybrid
with Poclain

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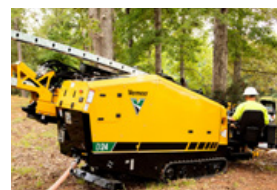
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Editorial

Géry DEPIERRE
GmbH Sales Manager



Poclain's ultimate goal is a transmission that is fit-and-forget

While many anticipated a rebound in the second half of 2025, the global economic landscape remains complex and rapidly shifting. As we approach the Agritechnica trade show in Hanover, we do so with a clear understanding of the challenges ahead. Hopes of recovery have been tempered by ongoing geopolitical tensions, environmental imperatives, and the impact of new trade regulations, including the recent rise in US tariffs.

In moments like these, Poclain's dedication to its customers becomes even more meaningful. More than ever, we are focused on demonstrating our resilience, adaptability, and long-term partnership approach.

As Poclain celebrates four decades of independence, the company is renewing its family-business heritage with the arrival of its fourth generation of presidents, represented by Stéphanie Saboly Bataille and Charles Bataille. The New Gen strategic plan has been launched this year after a large customer enquiry focusing on their objectives in relation to sustainability, resilience, value generation and competitiveness, as well as the availability of our solutions when the market picks up again.

Maintaining the objective of innovative and complete solutions, Poclain puts its expertise at the service of its customers, enabling them to grow by combining the understanding of their application with our expertise in complete transmission solutions. Poclain's ultimate goal is a transmission that is fit-and-forget, because a transmission that goes unnoticed and provides the finest driving experience allows end users to concentrate on their job and increase productivity.

With the aim of bringing innovation to the market whatever the technology - hydraulic, electro-hydraulic or full electric, Poclain continues to invest in R&D. Agritechnica gives us the opportunity to showcase our latest innovations: the HEVO Booster, which enhances actuator performance, and the e-Wheel motor, whose fully integrated components simplify electrification.

With the experience of the COVID period and today's tariff constraints, Poclain continues to demonstrate it is a global player, extending its worldwide footprint. Relying on people, Poclain is extending its network of local specialists supporting customer projects on every continent, assisted by its centers of expertise for motors, pumps, valves, e-motors and inverters.

Our customers are themselves increasingly global and we strive to anticipate their needs. We are continuously adapting our industrial charter to better serve them, extending the motor range manufactured by our plants in China and India and supplying pumps from every region - Europe, India, China and the U.S.

You will find in the following pages testimonies of Poclain's core values, and we look forward to meeting you at Agritechnica and supporting you in the challenges and transformations that lie ahead.

**Our motto, now more than ever, remains :
Hydraulics and Beyond.**

POCLAIN LEADERSHIP PASSES TO THE FOURTH GENERATION

A NEW COLLEGIAL GOVERNANCE

Poclain, a French family-owned mid-sized industrial enterprise, announces a major evolution in its governance with the arrival of Charles Bataille and Stéphanie Saboly Bataille alongside Laurent Bataille as Presidents of the Group.



"We have deep faith in the potential of our power transmission solutions and in the strength of our family model. We are determined to write, together with all company employees and stakeholders, a new chapter in Poclain's history,"

Already involved for several years on the Board of Directors, Charles Bataille (47 years old) and Stéphanie Saboly Bataille (40 years old) join Laurent Bataille to form a collegial presidency. Each of the three members will be able to represent the Group alone as President, in a spirit of continuity, complementarity, and intergenerational transmission.

"This passing of the torch is the result of a strong family desire to continue Poclain's industrial entrepreneurial adventure, ensuring its longevity and adapting it to contemporary challenges," says Laurent Bataille, President of the company for 33 years.



About Poclain

Founded in 1927, Poclain is an independent French mid-sized manufacturing company, specializing in the design, manufacturing, and marketing of hydrostatic, electrohydraulic, and electric transmissions.

Its globally recognized expertise enables it to serve highly diversified markets such as agriculture, construction, and public works.

With a global team of 2,100 employees, and 10 industrial sites and 6 Research & Development centers, Poclain operates nimbly on the international stage.

With a sales revenue of €400 million in 2024, 90% of which is generated internationally, Poclain relies on an extensive network of 17 sales subsidiaries around the world.

Each year, Poclain invests 7% of its revenue in R&D.

The Poclain Group is fully committed to a strategic development and transformation plan (New Gen 2030) designed to better meet tomorrow's challenges: increasing electrification of equipment, connectivity within hydraulic systems (IoT, data management), and reducing the environmental footprint.

From left to right
Laurent BATAILLE, Stéphanie SABOLY-BATAILLE
and Charles BATAILLE



Charles Bataille, an Arts et Métiers engineer and entrepreneur in industry, and Stéphanie Saboly-Bataille, an ESCP graduate engaged in the healthcare sector, represent a new generation both deeply rooted in family history and oriented toward the future.

Both share a clear vision: make the Group grow, strengthen its foothold in the face of today's geopolitical, technological, and environmental challenges, and deploy the strategic plan launched in April 2025.

"We have deep faith in the potential of our power transmission solutions and in the strength of our family model. We are

determined to write, together with all company employees and stakeholders, a new chapter in Poclain's history," affirm Charles and Stéphanie.

In a world undergoing profound transformations, this new governance embodies the ambition to build the future with boldness, commitment, and responsibility, while remaining true to the founding pillars of Poclain—people, innovation, international reach, and independence.

STEP UP TO HYBRID WITH POCLAIN

The pressure to reduce emissions and fuel consumption in Non-Road Mobile Machinery (NRMM) is stronger than ever. Stricter regulations, rising fuel costs, and increasing demand for cleaner operations are reshaping the industry. While full electric solutions hold promise, they remain limited by battery size, weight, and autonomy constraints — particularly in heavy-duty applications.

Why hybrid?

NRMM presents unique challenges. Tractors, excavators, harvesters, and other heavy-duty equipment operate for long hours in demanding environments. Providing sufficient energy storage using batteries alone often leads to impractical solutions — oversized, heavy, and expensive machines that compromise usability.

While hydrogen and full battery-electric solutions are advancing, hybrids currently offer the best compromise between performance, cost, and sustainability for heavy-duty applications. By combining the robustness of traditional internal combustion engines (ICEs) with the efficiency of electrified functions, hybrids provide a pragmatic, efficient, and scalable path forward — delivering tangible benefits in sustainability, productivity, and operating costs.

System architecture

A typical hybrid transmission for NRMM consists of:

- An internal combustion engine (ICE) driving a generator;
- A DC bus serving as the backbone for electrical power distribution;
- Electrified functions, such as traction, auxiliary systems, or embedded tools;
- Energy management ensuring optimal allocation of power and smooth shifting between ICE and electric modes.

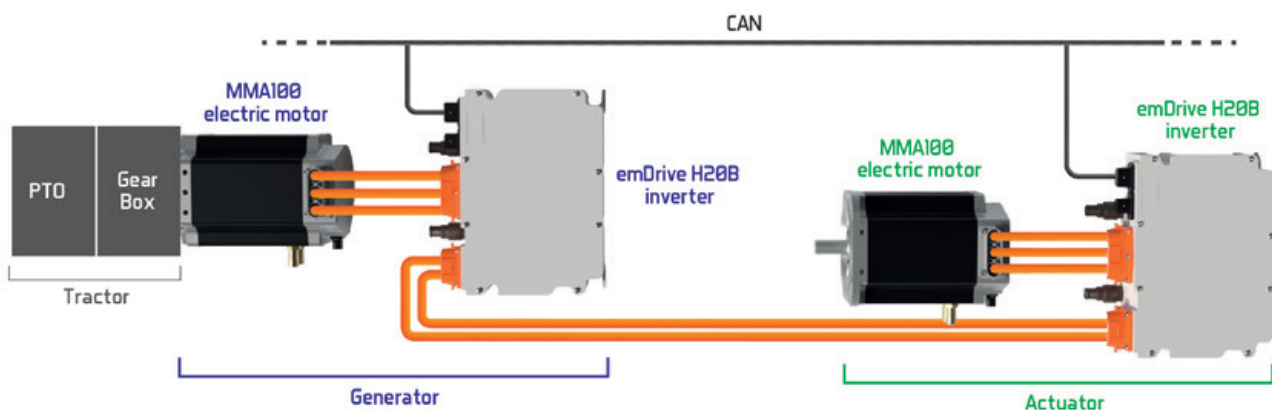
The decentralized architecture enables each actuator to draw only the power it needs, reducing energy losses compared to centralized hydraulic systems.

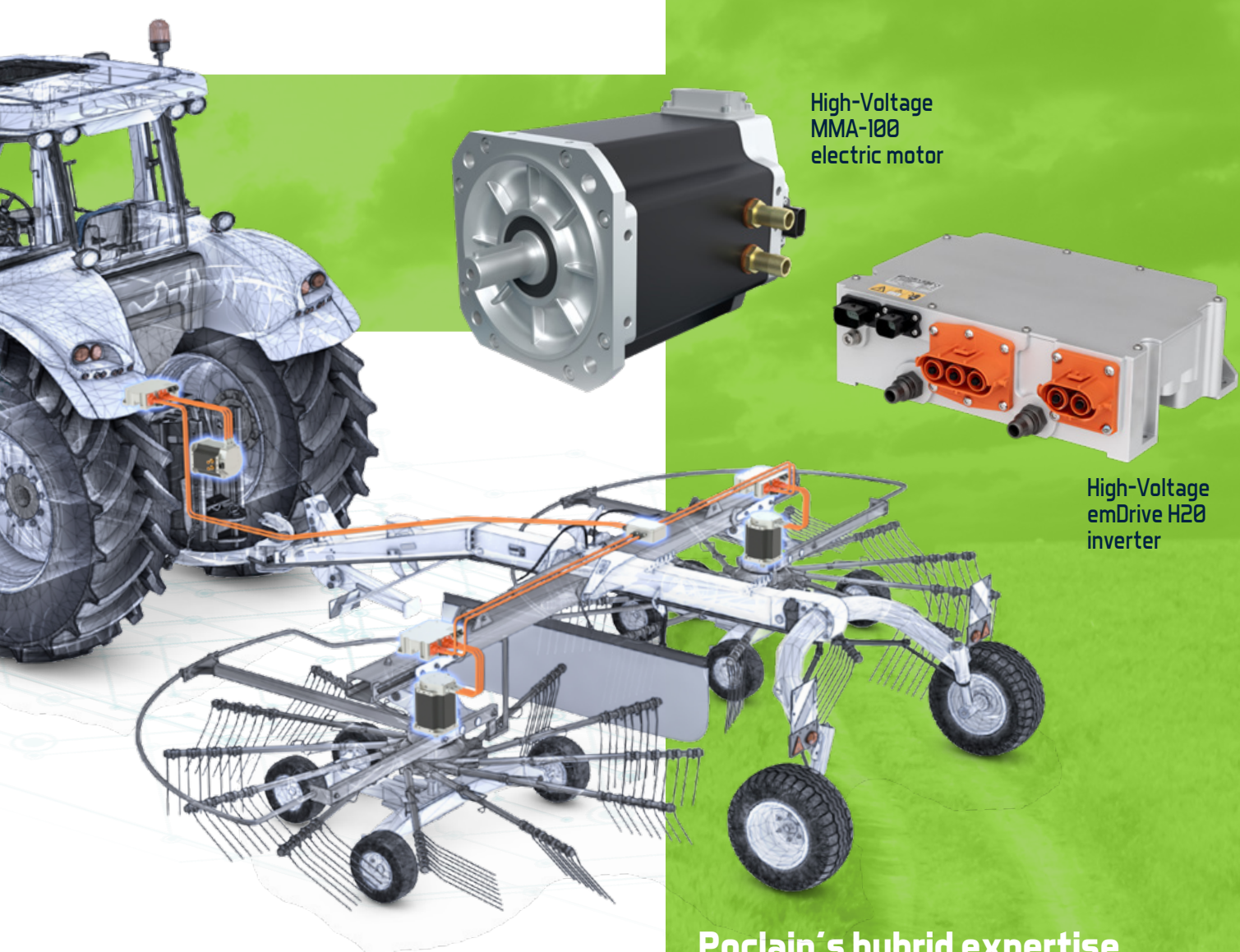
It can be enriched with a buffer Li-Ion battery system interfaced between the DC Bus inverter and the electric actuators, thus bringing further optimizations as well as additional working modes:

- Operate the ICE at its most efficient working point (RPM/torque point). At low power workload, it can even be disabled;
- Offer a zero-emission mode for indoor applications, relying purely on battery power. This opens the path to plug-in hybrid design, if an onboard charger is added.

Hybrid solutions bring operators key benefits

- **Fuel and emissions savings:** Up to 30% less diesel consumption translates into lower operating costs and reduced carbon footprint;
- **Increased productivity:** Reduced noise and vibration enable longer daily operation and higher operator comfort;
- **Simplified maintenance and reduced costs:** ICE Service intervals are extended, electric components are natively self protecting and enable faster diagnosis and servicing thanks to their connectivity.





High-Voltage
MMA-100
electric motor

High-Voltage
emDrive H20
inverter

... and strategic value for OEMs

Hybrid solutions are a strong differentiator and align OEMs with the increasingly strict environmental regulations. Their high adaptability makes them compatible with a range of voltage levels, applications, and machine sizes. They also offer a future-proof transition toward full electrification when battery technologies mature.

Conclusion

Hybrid transmissions represent a powerful transition technology for non-road mobile machinery. They reduce fuel consumption, cut emissions, improve operator experience, and simplify maintenance — all while preserving the reliability and autonomy of diesel-powered machines.



Philippe REYNOLDS
Electromobility Program
Director

Poclain's hybrid expertise

Poclain has developed a portfolio of solutions tailored for hybrid Non-Road Mobile Machinery up to 870VDC systems. They target the electrification of tractor-mounted implements and, auxiliary systems in forestry and mining equipment, as well as the hybridization of low-power drivetrains in compact construction machines.

Key advantages include:

- High efficiency architecture thanks to unique control software (excellent DC link stability and eMotor control);
- Simplified mechanical and electrical integration, even in tight spaces, thanks to highly compact inverters, e-motors and generators with adaptable interfaces;
- Simplified system integration. Communication is CAN-based (J1939, CANopen) and uses the UDS protocol for diagnostics, flashing, and preventive maintenance. It complies with off-road machinery functional safety standards such as ISO 25119, and can host customer application software in its inverters;
- Rugged components and connectors designed to meet the harsh conditions of off-road applications. The sensorless control option is also available for greater resistance to shocks and vibrations.



POCLAIN HEVO-BOOSTER INNOVATION HALVES ACTUATOR SIZE

Can hydraulic actuator performance be reimagined? Hydraulic actuators are often seen as mature components in vehicle architecture—reliable and subject to minor innovative developments. Poclain's engineering team challenged this perception by rethinking how hydraulic functions operate. The result: a new pressure amplification concept known as the HEVO-BOOSTER.

Same power, less fluid in motion

The HEVO-BOOSTER can be deployed across various applications with one core idea: same power, less fluid in motion. Positioned upstream of the actuator, it supplies an intermittent boost in pressure when the actuator needs it, relieving the pump from working at extra high pressure. The actuator can be downsized and will work with less flow and at a higher average pressure when no peak torque is needed, while the HEVO BOOSTER generates no drag in idle mode.

Based on the proven cam lobe technology, the HEVO-BOOSTER is a stand-alone component that enables to downsize the circuit components up to 50%, simplify the hydraulic architecture, and lower energy consumption. The HEVO-BOOSTER reflects Poclain's commitment to pushing the boundaries of conventional hydraulic design. It's a technological building block that invites OEMs and system designers to rethink how and when the peak performance is delivered.



Mini excavator equipped with a HEVO-BOOSTER to boost the pressure of the motors in the tracks

ERO AHEAD IN WINE HARVESTING WITH POCLAIN-DRIVEN 8000 GRAPELINER



Ruth WEIRICH
Marketing and PR Manager

A family-run business with 250 employees, the German-based ERO company with a subsidiary in France has been providing winegrowers with an extensive range of machinery including pruners, defoliators, trimmers and grape harvesters. When they designed their first harvester in the eighties, they went straight to Poclain for their ground drive – a failsafe guarantee aligned with their quality requirements. We talk to Ruth Weirich, Marketing and PR Manager, about their harvesters and collaborating with Poclain.

“We have a strong connection with the wine grower community” says Ruth Weirich. “My uncle, a visionary inventor and winegrower, played a key role in shaping our machines. That tradition of co-design with growers is still the foundation of how we work.”

Early adopters of the Poclain camlobe technology

ERO was the first to apply Poclain’s technology to grape harvesters. They trusted the quality and dependability of the motors would enable winegrowers to get the harvest done in the narrow time window when grapes are perfectly ripe. They also valued the motors’ compactness, with an envelope that fits perfectly inside the wheel hub, leaving the grapevine intact. Since then, the partnership has strengthened. Over the years, Poclain’s engineering support has enabled refinements in transmission performance, reaching road speeds up to 40 km/h and 35% gradeability. Their enhancements include motor flushing through the brake shaft and an electronic control unit (ECU) to protect the Tier V engine from overspeeding.

Grapelinier 8000 - 40 kph and 35% gradeability

ERO’s latest release, the Grapelinier 8000, is equipped with MS11 motors at the front and TwinLock MSE18 motors at the rear. With its tier V four-cylinder engine, it is the most efficient and sustainable model yet and can work the entire day without refuelling. Integrating Poclain’s CT200 ECU, it provides cruise control for consistent harvesting and engine protection. Its 40 kph travel speed increases productivity.



MS18 motor



CT200 ECU

In a time when winegrowers face mounting challenges - climate change, decline in consumption, rising costs, ERO remains true to its values. “Our goal is to help growers harvest more efficiently and sustainably,” says Weirich. “That’s why our partnership with technology leaders like Poclain is so important. It enables us to keep pushing the limits of performance and reliability”.

AGRIO ENTERS THE SELF-PROPELLED SPRAYER MARKET WITH POCLAIN-EQUIPPED MACHINES

Ivan OLŠAN
Agrio Chairman

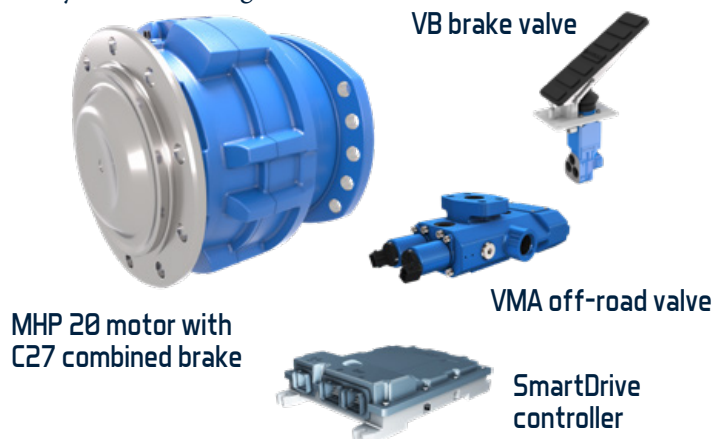


Based in Křemže, Czech Republic, Agrio has built a strong reputation for first-class quality and service, backed by a team of 90 dedicated employees. Its range of sprayers is sold across the Czech Republic, Germany, Poland, Hungary, Slovakia, Romania, and the Baltic countries.

Agrio has expanded its product lineup with the introduction of self-propelled sprayers - a strategic move driven by customer demand. Users of Agrio's popular trailed models requested high-clearance machines for crops such as sunflower and corn. The result: two new self-propelled models, the Gekon (3,000–5,000 liters) and the Dino (7,000 liters), both equipped with a Poclain transmission system.

Why Poclain?

After evaluating several transmission solutions, Agrio chose Poclain for its proven gradeability and off-road performance. "We were particularly impressed by the off-road valves, which enable optimal traction in demanding conditions, as well as the integration of the brake directly into the hydraulic motor body" says Ivan Olšan, Agrio Chairman.



Seamless collaboration from the start

Agrio brought Poclain into the project from the outset to ensure optimal driving comfort and performance. The Dino and Gekon models are built on a common transmission setup:

- Four MHP hydraulic motors, sizes 20 and 27, with a C27 combined brake;
- VMA off-road valves;
- VB integrated braking system;
- Two ECUs: one for traction control and one for drive-spray synchronization.

Faced with the challenge of designing their first self-propelled sprayer, Agrio welcomed Poclain's expertise in off-highway machinery to finetune the controllers' parameters. The result is a machine that changes gears automatically, shifts seamlessly between work and travel mode, and brakes dynamically using Poclain's Boost Braking technology.

Proven in the Field

The Dino has been tested by farmers for the past two years and the reviews are excellent. Operators praise the machine's stability, power, and smooth handling, especially on slopes and cruising at 50 kph on the road.

With the success of its self-propelled models, Agrio is now eyeing the development of a larger tank, aligning with the growing trend toward larger-scale farming. Thanks to its partnership with Poclain, Agrio is now firmly positioned as a serious contender in the self-propelled sprayer segment.

JACTO AND POCLAIN PAVE THE WAY FOR COFFEE HARVESTING IN BRAZIL

Paulo BUENO
Jacto Business Manager



With a culture steeped in innovation, Brazil-based Jacto made history in 1979 by introducing the world's first mechanical coffee harvester, the K 3. Forty-five years later Jacto remains the leading brand in coffee harvesting machines in Latin America. Their two machines, the K 3000 and the K 3500, sport a Poclain transmission, the result of a strong collaboration rooted in technical excellence.

Jacto's founder, Mr. Shunji Nishimura, experienced firsthand the hardships of coffee harvesting while working in the plantations, spurring him to invent the first self-propelled coffee harvester. The company's current machines carry forward his spirit of innovation, integrating advanced features such as lateral slope correction and telemetry to ensure optimal yield and agile maneuvering in the most challenging terrain.

A Legacy of Ingenuity

The three-wheeled K 3000 is driven by three MSE08 motors in a TwinLock™ circuit to provide permanent antiskid, as well as a PM30 pump. Designed for larger-scale plantations, the larger four-wheeled K 3500 machine sports two MSE11 with TwinLock™ and two MS08 motors on the front.

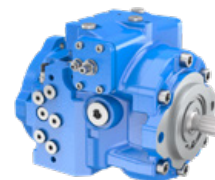
Poclain's TwinLock™ permanent hydraulic traction control system is a key feature of the Jacto machines, enabling operation on slopes of up to 30%, common in regions like southern Minas Gerais and the interior of São Paulo.

In addition to TwinLock™, the transmission integrates a VDP valve to adjust the flow between left and right to ease turning and prevent damage to the ground.

MS08 wheel motor



PM30 pump



VDP
steering valve



Jacto and Poclain partners in leading-edge technology

"Collaborating with Poclain has been essential in overcoming the technical challenges related to mobility and traction on uneven terrain" says Paulo Bueno, Jacto Business Manager. Together, Jacto and Poclain have engineered solutions that meet the actual needs of Brazilian coffee farms, with superior performance and lower environmental impact.

The coffee mechanization market is constantly evolving, with new demands such as mechanizing the harvest of the various types of conilon coffee bean. The partnership with Poclain will be strategic in continuing to innovate and deliver solutions that keep Brazil at the forefront of global coffee production.



Jagoda's Oskar 4WD
berry harvester

AWARD-WINNING JAGODA BERRY HARVESTER FRUIT OF COLLABORATION WITH POCLAIN

The global berry industry was valued at around 26 bn USD in 2024 and continues to grow, fueled by longer shelf life and growing consumer demand for superfoods. Berry picking is labor-intensive, with dozens of pickers per hectare. Replacing it with a mechanical harvester can be challenging, as the machines tend to bruise the fruit and harm the plant. It is a challenge that Poland-based Jagoda JPS has brilliantly tackled with the Poclain-powered Oskar 4WD.

Jagoda's Oskar 4WD berry harvester is the result of decades of research with the Polish Institute of Horticulture. Its unique V-shaped picking system, capable of harvesting currants, aronia berries, haskap berries, autumn raspberries and gooseberries among others, has earned three awards, including one from the Polish Ministry of Agriculture.

A complete transmission for optimal performance

Jagoda JPS worked together with their hydraulic transmission partner, Iventec, to develop a dependable system aligned with their high-quality harvesting system. Iventec designed a turnkey solution featuring:

- 2 MSE08 motors at the rear,
- 2 MSE02 motors at the front,
- 1 PM30 pump,
- 1 four-way flow divider for traction control,
- 1 SmartDrive controller.

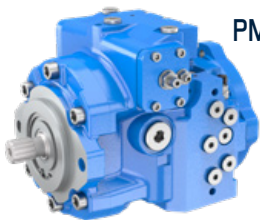
M502 wheel motor



M508 wheel motor



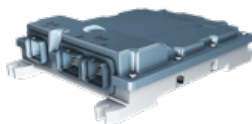
PM30 pump



Flow divider



SmartDrive controller



"Poclain's technology convinced us they were the right match for our application" says Basel Seraya, Jagoda's owner. "Together with Iventec they designed a solution that matched our requirements perfectly; they provided a high level of service, and the transmission is easy to operate and service in the field".



Basel SERAYA
Jagoda's Owner

Clockwork precision for berry preservation

The transmission provides exceptional harvesting precision and operator comfort: seamless transition between work and road modes, super fine (0.1 kph) speed control depending on the crop specifications, and cab stability in all ground conditions. The smooth and precise ride limits the crop loss and reduces fatigue.

As Jagoda JPS continues to innovate with the development of a three-wheeled berry harvester, Basel Seraya and his team are capitalizing on their previous model to enhance harvesting performance and berry quality. Integrating Iventec and Poclain to the project is a given, as Basel Seraya values long term partnerships and mutualizing design efforts.



Iventec, a resourceful Poclain ambassador for Poland

One of Poclain's assets is their tight-knit dealer network, which they nurture through close collaboration and regular training. Szymon Nadolski, Head of Iventec, has been working with Poclain for 13 years and champions the brand which tops their suppliers in terms of sales turnover. Szymon is passionate about hydraulics. With his team of seven collaborators, they act as a system integrator that designs and supplies mobile hydraulic systems, hydrostatic drives and control systems for Jagoda berry harvesters, as well as apple harvesters, self-propelled sprayers and manure sprayers, and more. They also design and produce customized hydraulic valve blocks, schematics, and carry out hydraulic system simulation for prototype machines.

As for education, they work with universities, providing them with hydraulic and pneumatic test stands. Their cutting-edge expertise brings them to work with OEMs in Poland, the Czech Republic, Germany and other countries in Eastern Europe.

Like many other distributors around the world, Iventec's drive and passion for hydraulics are key in championing Poclain's technology in niche markets.

KOMATSU AND POCLAIN: A THOUGHTFUL STEP TOWARD SUSTAINABLE FORESTRY

In an era where sustainability is no longer a choice but a shared responsibility, Komatsu Forest together with Poclain are taking a meaningful stride forward. At the Komatsu Days event in June 2025, the company unveiled its new remanufacturing program for Poclain motors—an initiative designed to reduce the environmental impact.

Circular Thinking for a Linear Challenge

Forestry machines endure relentless use—day in, day out, year-round. Wear is inevitable, but waste doesn't have to be. Komatsu Forest's reman offer allows MS08 motors used in C124 and C144 harvesting heads to be replaced with remanufactured units, breathing new life into components that would otherwise be discarded.

In partnership with Poclain, the motors undergo a five-step process:

- Disassembly and analysis
- Deep cleaning
- Replacement of seals and worn components
- Reassembly
- A fresh coat of paint

The result? A motor restored to full operational condition, with renewed reliability that meets the high standards for performance.



Reliability Meets Responsibility

By integrating remanufactured motors into regular maintenance schedules, Komatsu Forest helps customers maintain high machine uptime while actively contributing to reduced environmental impact. The reman motors not only deliver consistent performance—they also lower emissions, aligning with the principles of circular economy and responsible resource use.

The MS08 remanufacturing program is a natural extension of Komatsu Forest's long-term sustainability efforts to reduce environmental impact, and it aligns well with the operations of the company's carbon-neutral factory in Umeå.



Henrik TJÄRNSTRÖM
Komatsu's Product Manager
Parts & Reman
Customer Service Business



Ralf POHLAND
Komatsu's General
Manager Parts Logistics

POCLAIN-DRIVEN TERRI 3 FORESTRY MACHINE HITS THE MARK



Terri 3 forestry machine driven by eight MS08 wheel motors



MS08 wheel motor

As sustainability concerns rise, Europe's forestry sector faces heightened scrutiny. Blocking imports from sanctioned regions, regulating harvest volumes, and harvesting without disrupting the forest's ecosystem are among its biggest challenges. In this context, Terri's lightweight Terri 3 forestry machine is the perfect tool. Driven by eight MS08 wheel motors, it meets the market's need for non-disruptive, light footprint tree harvesting.

A nimble machine fit for sustainable forestry

Headquartered in Älmhult, Southern Sweden, Terri has successfully carved out a share of the tree harvesting market alongside industry global leaders. Much of its growth stems from the unique design of the Terri 3: weighing between 6 and 8.5 tons, roughly half the weight of its competitors, it satisfies the contractor's preference for selective cutting while preserving the topsoil. This is especially critical as warmer winters leave the forest floor softer and more vulnerable to damage.



Arne ISAKSSON
Terri Director of Sales and Marketing

Poclain's supply bolsters the success of the Terri 3

Integrating components with an impeccable brand image is another of the machine's assets. *"The brand value of Poclain's motors reassures our buyers – they know that the technology is rugged and maintenance-free"* says Arne Isaksson, Terri's Director of Sales and Marketing. To date, roughly 1,200 Poclain motors have been at work, with only minimal failures reported.

Poclain's direct drive configuration also provides unmatched stability, as the motors housed in the wheel hub anchor the machine to the ground and allow for 70 cm of ground clearance. They enable the Terri 3 machine to work on steep inclines and uneven terrain despite the machine's narrow build.

Looking ahead, Terri intends to refine the design of the Terri 3 further, enhancing its intelligence to adapt dynamically to the ground conditions and increasing the vehicle's fuel efficiency. They value Poclain's support as they hone in on optimizing fuel consumption, as well as when it comes to expanding their sales territory, as Poclain's global presence guarantees consistent technical support worldwide.

REDESIGNED KV-6/2-16 DIVERTER VALVE ENHANCES THE PERFORMANCE OF VERMEER DIRECTIONAL DRILLS



When OEMs undertake machine redesign to enhance its performance, directional valves are seldom top of mind. Vermeer took a different approach when they designed their new generation D range of directional drills. They partnered with Poclain Hydraulics to work on the project and set three primary objectives: increase efficiency, reduce weight and integrate additional safety features.

Cast body valve makeover for an optimal efficiency-to-weight ratio

Poclain Hydraulics' diverter valves (known also as selector valves) enable to direct the flow to either the drilling tools or the tracks to move the machine to another location. Branded KV-6/2 size 16 (flow range up to 300 l/min, 79.25 GPM), they were originally machined from a block. The new lighter version now has a cast housing, which reduces its weight by 55%.

With Poclain Hydraulics' extensive expertise in high torque hydraulics, the design of the cast body is optimal inside and out, providing a pressure drop of less than 0,5 bar (7.3 PSI) at a flow of 114 l/min (30 GPM). Despite its optimized lightweight structure, it can bear a maximum pressure of 500 bar (7,250 PSI) depending on the load cycle.

Introducing Poclain's KV-6/2-25 valves

Featuring high flow and low pressure drop, the new KV-6/2-25 series diverts the flow between the tools and the ground drive. It targets single-pump mobile applications such as horizontal directional drills, vertical drilling machines, crushers, recycling shredders, and road-rail excavators.

They are designed for hydraulic control and are available with a different port types, position monitoring, and an override option.



KV-6/2-25
diverter valve

Locked-in shift position

Vermeer also requested that the valve remain 100% shifted in work and transit modes to prevent the machine from moving when the drill is in operation. The new KV-6/2-25 integrates a detent mechanism that holds the valve spool in position without a pilot signal. For extra assurance, the valve includes a spool position sensor that is connected to the on-board controller to ensure that the driving and drilling functions cannot operate at the same time.

Designed with the OEM's drilling needs in mind, the new KV-6/2-25 diverter valve is lighter, more efficient and helps build reliable machines. It is ideal for applications requiring a high performance-over-weight ratio at a competitive price.



Mr. PARTHIBAN
Managing Director at
Bull Machines Pvt Ltd.



ANNUAL
SUPPLIER MEET
2025

AWARDS &
RECOGNITION

In 2015, Bull turned to Poclain, a staple brand for skid steer propulsion, to drive their AV490 model.

POCLAIN RECEIVES SUPPLIER EXCELLENCE AWARD FROM BULL PVT LTD.



Headquartered in Southern India, Bull Machines Pvt. Ltd., part of the AV Group, is a leading name in the construction equipment industry. In just 25 years, Bull has become the fastest-growing backhoe loader manufacturer in the world, holding the second position in the Indian market and fifth position globally. With a focus on innovation, quality, and customer-centricity, Bull continues to strengthen its market presence and drive excellence.

In 2015, Bull turned to Poclain, a staple brand for skid steer propulsion, to drive their AV490 model. Since then, both companies have grown in parallel, driven by a shared commitment to innovation, quality, and customer satisfaction. In recognition of this strong and enduring partnership, Poclain was presented with Bull's prestigious Supplier Excellence Award in 2025.

Fit-and-forget technology

"We chose Poclain technology because it is truly fit-and-forget," says Mr. Dhanasekaran, Head of Supply Chain Management at Bull Machines Pvt Ltd. Today, over 2,000 Bull skid steers are operating across India, Middle East, Africa, South and Central America - without a single reported incident.

Poclain's contribution to Bull's journey began in the earliest stages of the skid steer's development. Their team not only supplied components but also shared valuable application expertise to ensure optimal performance.

"With the Supplier Excellence Award, we are recognizing how Poclain educated our team, worked alongside us, and solved critical challenges during the machine's development", adds Mr. Dhanasekaran.

Responsive and scalable production

Beyond engineering collaboration, Poclain's manufacturing agility has been a game-changer. When Bull secured a major order for skid steers in 2024 - driving a 50% surge in orders - Poclain responded rapidly, scaling production without compromising quality or delivery timelines.

For Bull, Poclain is more than a supplier—it's a strategic, long-term partner that helps them anticipate and meet evolving market demands, including compliance with global regulatory standards such as the Euro V engine directive.

With a presence in 65 countries, Bull Machines is committed to expanding its global footprint in the coming years. As they continue to innovate and grow, they look forward to Poclain's ongoing support in delivering world-class technology, engineering expertise, and agile supply chain solutions—ensuring their customers worldwide experience the very best in performance and reliability.

POCLAIN AND TMS: EXCEPTIONAL VEHICLES AT WORK IN THE LYON-TURIN TUNNEL



The TMS multi-service vehicles, equipped by Poclain, play a crucial role in the Lyon-Turin tunnel project (TELT). With cutting-edge engines and valves, these vehicles ensure safe logistics operations under extreme conditions.

The Lyon-Turin cross-border tunnel is located in the Alps, under Mont Cenis. It will provide a rail line for freight and passengers between France and Italy. It will be the second longest rail tunnel in the world after the Saint-Gothard tunnel in Switzerland.

The multi-service vehicles (MSVs) produced by Techni-Métal Systèmes (TMS) play a crucial role in the construction of the 57.5 km tunnel. Specially designed for the Lyon-Turin project, they access all the galleries and tunnels, as well as climb slopes up to 12%. Their main mission is to transport the concrete segments that will form the tunnel walls, as well as the concrete mixers, which represents nearly 146 tons of load. To ensure that logistics operations run smoothly and safely, Poclain and TMS engineers worked together to meet this unique technical challenge.

The TMS MSVs measure close to 40 meters long for a payload of 146 tons

The MSV vehicles come with a set of technological challenges. The first one is the payload capacity. To move a maximum weight of close to 146 tons, each vehicle consists of three trailers. The entire unit is equipped with 24 wheels, of which 18 are motorized by Poclain MHP 20 wheel motors. The hydraulic motors offer the power and efficiency required to move these 40-meter-long vehicles. Three VDF H25 freewheeling valves are installed on the vehicles, allowing six motors to be disengaged to improve the MSV's grip when climbing empty or loaded. This feature optimizes the performance of the MSVs by reducing the number of active motors from 18 to 12 when moving on level ground, thus increasing its speed. The MSVs are equipped with a 585 kW (785 HP) diesel engine and three 280 cc (17 cu.in) / 420 bar (6000 PSI) pumps. They also have two cabs for better maneuverability and safety. In addition to providing equipment for the tunnel boring machine, they transport concrete mixers.



MHP20 wheel motor
with C27 brake



VDF H25
freewheeling valve

Exceptional Braking Capacity

These unique MSVs also offer outstanding gradeability. Indeed, to reach the heart of the Lyon-Turin tunnel construction site, the vehicles must go up and down slopes up to 12%.

"A 12% slope in a tunnel is quite uncommon. It was a first time for Poclair and TMS. Descending it at 8 kph is even more exceptional," says Laurent Camin, Poclair Sales Engineer.

This configuration requires exceptional braking capacity. Therefore, in addition to the 18 wheels equipped with MHP 20 motors integrating parking brakes and dynamic brakes, 6 additional wheels are equipped with Poclair C27 combined brakes to provide enhanced braking. To activate the vehicle's dynamic braking, two VB3-020 service brake valves and two relay valves regulate the system pressure and provide more responsive braking. The system is complemented by an exhaust brake, a hydraulic retarder, and an inductive brake that behave like engine brakes on the slopes.



Kevin VILLION
Hydraulic Manager and
Hydraulic Coordinator, TMS

Techni-Métal Systèmes: Specialist in Special Vehicles

Founded in 1996 in Aubenas, France, and part of the German group Herrenknecht, Techni-Métal Systèmes specializes in engineering and manufacturing special vehicles, particularly for tunnelling activities, meeting the specific needs of construction sites. TMS generates more than 90% of its revenue internationally and has participated in a number of large construction sites in France, the U.K., Japan, Australia, and the U.S.

TMS Chooses Poclair for its Technical Support

This is not the first time Poclair has supported Techni-Métal Systèmes on such a significant project. In 2016, Poclair equipped TMS's underground vehicles deployed on the Grand Paris 15 South Express Line construction site.

"We work with Poclair because we know they can support us on all the technical aspects and that the sales team is there to help us. The relationship we have with Poclair is essential for our projects and the future of TMS." Says Kevin Villion, Hydraulic Manager and Hydraulic Coordinator, TMS.

Given the unique working conditions of the MSVs, field testing was impossible. It was replaced by thorough simulation testing on Poclair's test benches. A critical issue was braking when the machine is loaded. The results were conclusive: even if the vehicle loses its entire braking system, Poclair's brakes will ensure that the vehicle drives down the slope safely. Technical support has been a huge advantage in this collaboration to ensure the vehicle meets safety standards, even under extreme conditions.

« We requested a study from Poclair on two MHP 20 motors to determine how many braking cycles they could withstand in the event of a failure of the main braking system. Poclair placed the motors on their test bench and simulated 350 cycles on a slope. At the end of the test, Poclair's discs showed no signs of wear, although their performance decreased during the cycle due to the increased temperature during the braking phases » Kevin Villion says.

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