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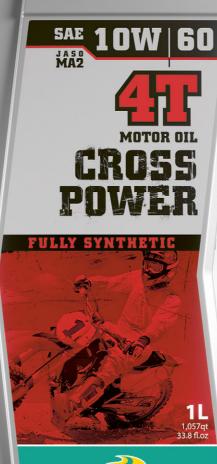
# MAGAZINE

## A NEW CHAPTER

# CELEBRATING X-CELLENCE

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### FIT FOR THE FUTURE

Dear customers, dear readers

What direction are we going in? Will everything be electrically driven in a few years' time, or will the internal combustion engine survive? How will people be getting around in the future?

Most experts agree that future challenges will be met with a mix of different technologies. Both e-mobility and internal combustion engines will play a role on the transport scene. More and more, we will be addressing CO<sub>2</sub>-neutral fuels such as hydrogen, natural gas and synthetic fuels. These alternative fuels will have a major influence on the construction of internal combustion engines and present new challenges in terms of lubricants. For lubricant users, it will thus become increasingly difficult to get to grips with the jungle of new rules and norms. At MOTOREX, we don't just see ourselves as lubricant manufacturers but as reliable partners who will help you to find your way through this jungle and advise you in all lubrication-related matters.

To exemplify this trend, on page 10 we present to you the SAE 0W-generation low-viscosity motor oils, which have been developed for the latest engine types with  $CO_2$  emission reduction in mind. These high-tech MOTOREX oils, together with other measures, will play a key role in meeting tomorrow's more stringent emission requirements. The new, future-oriented "X-bottle" which we present on page 6 is a further sign that MOTOREX is fit for the future.

Wishing you an interesting read. Yours truly

Othmar Frey Head of Technical Customer Service MOTOREX-BUCHER GROUP AG

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# NEWS



### MOTOREX.COM NOW ALSO ONLINE IN SPANISH AND CHINESE

Every day thousands of users look up information about MOTOREX, its products and services on the Swiss lubricant specialist's website. In response to growing demand from China and Spanish-speaking countries, MOTOREX has published a country-specific site for China and an international site in Spanish. In China MOTOREX is represented by products from the Industrial Line, Moto Line, and Car Line. Moto Line and Bike Line are highly popular in Spain and South America. The information presented here can be technically challenging. To make sure it's perfectly understood, MOTOREX speaks the customer's language.





motorex.com/zh-cn

motorex.com/es-es/



### SPEEDING TO A DOUBLE VICTORY

Year one of the collaboration between Emil Frey Racing and Lamborghini Squadra Corse could not have ended on a better note. The team from Safenwil took the title in the team competition and dual top driver standings at the GT Open finale in Monza, driving twin Lamborghini Huracán GT3 Evos. Albert Costa Balboa (E) and Giacomo Altoè (I) took the top of the podium in the drivers' championship, while Norbert Siedler (A) and Mikael Grenier (CAN) put the cherry on top with a second-place finish in the sister vehicle. In a total of 14 races at seven events, each of the two Lamborghinis from Safenwil was first across the finish line four times. MOTOREX is delighted, as supplier of motor oils and lubricants, to be part of this success, and can hardly wait till the fiercely contested 2020 championships begin at the end of April.



Video from the cockpit: youtu.be/zeHHWzDWsBU



Company founder Dieter Schuller (r.) with daughter Barbara Zeitlhofer and son Klemens Schuller (management board).



### SCHUMOTO TURNS 40 - QUALITY IS THE TIE THAT BINDS

When it comes to motorcycles, avid bikers demand quality. Linz-based wholesaler Schumoto has been a professional supplier of top-quality products to Austrian motorcycle dealers for 40 years. For over 30 years this has included lubricants and care products from the MOTOREX Moto Line. "MOTOREX was early in recognizing the significance of the two-wheel sector, and its products have been a key driver in its development," says company founder Dieter Schuller. "Many racing triumphs and the successful collaboration with KTM are proof." Schumoto's recipe for success is based on values that are also upheld by MOTOREX: transparency, trust, and staying close to the customer. Congratulations! schumoto.at



### EIÉMA

**CONFORMS TO JASO MB:** API SL, SJ, SH, SG ✓ OUTSTANDING COLD-START CHARACTERISTICS IDEAL FOR STOP-AND-GO TRAFFIC **BETTER PROTECTION AGAINST WEAR** ✓ OPTIMUM LUBRICANT RELIABILITY

### WORLD DEBUT AT EICMA SCOOTER 4T SAE 5W/40

The EICMA International Motorcycle Show in Milan featured a world debut: MOTOREX presented the new multirange Scooter 4T SAE 5W/40 engine oil in the innovative MOTOREX X-bottle for all scooters with four-stroke injection engines and catalytic converter where the manufacturer's recommendations do not require a full synthetic oil. This high-grade synthetic four-stroke motor oil combines good protection against wear with ideal cold-start characteristics. The lubricant meets the strict JASO-MB standard, indicating perfect engine protection under immediate load at high RPM and low engine temperature. The SAE 5W/40 formula also helps reduce fuel consumption. A worthy addition to the extensive assortment of high-grade two-stroke and four-stroke scooter engine oils from MOTOREX.



- CONFORMS TO ACEA C3-04; API SL
- PROTECTS AGAINST WEAR
- **OXIDATION-RESISTANT**
- FOR SUMMER AND WINTER USE
- ✓ ALL-PURPOSE

### **SMALL ENGINE OIL SAE 5W/30**

New all-purpose synthetic MOTOREX Small Engine Oil for four-stroke engines makes the choice of lubricant easier. Perfect for small engines in snow blowers, generators, and various gardening tools. The oil's SAE 5W/30 viscosity makes it ideal for year-round use. Modern base oils in combination with low-ash additives reduce particle emissions and ensure optimum lubricant supply regardless of engine operating conditions. MOTOREX Small Engine Oil SAE 5W/30 meets the ACEA C3-04 and API SL specifications. Please note the applicable manufacturer's instructions.



- **BUILT-IN SPOUT**
- "NO-BURP" POURING
- **EMPTIES COMPLETELY**
- HIGH STABILITY
- ▶ TAMPER-PROOF SEAL
- SEE-THROUGH FILL-LEVEL STRIP
- QR CODE FOR FURTHER INFORMATION

### A NEW CHAPTER: THE MOTOREX X-BOTTLE

Launched 20 years ago, the multi-award-winning 1-liter "elephant's trunk" spout bottle was a great success – a visible testimony to the innovative spirit of MOTOREX. Following the manufacture of many millions of these bottles, the completely redesigned MOTOREX X-bottle ushers in a new chapter in packaging history. The container's shape echoes the X in the MOTOREX brand name. Its design is an expression of the cutting-edge technology and high quality of the contents.

### SUPERIOR FUNCTIONALITY

In its time the MOTOREX elephant's trunk bottle anticipated the future of oil packaging. The new X-bottle does the same, combining an expression of MOTOREX values with the latest requirements for oil containers. It is strikingly different in appearance from competing product containers: it's a real eye-catcher at the point of sale. As for function, the X-bottle does everything even better than its predecessor, whether in production and logistics, at the point of sale, or in the customer's hands.

#### **OUTSTANDING: THE X DESIGN**

The oil bottle's design immediately calls to mind the X in the MOTOREX brand name. The clear, angular design language deliberately accentuates MOTOREX's technical expertise as an experienced lubrication specialist. With over 2500 formulas and 8000 products, MOTOREX can solve practically any lubrication challenge. At the same time, the shape of the bottle also stands for MOTOREX brand values such as innovation, professionalism, and sporting performance.

### UNMISTAKABLE X-SHAPED OUTLINE

- CLEAR, TECHNOLOGY-ORIENTED DESIGN
- ERGONOMIC SHAPE
- BROAD SURFACE FOR LABELS
- **COMPACT DIMENSIONS**





The MOTOREX 'elephant's trunk' bottle was a big success for 20 years. Over the years the needs and expectations of consumers, retailers, and logistics providers have changed. Our merchandise flows have become very international, and the X-bottle is being launched in 85 countries. The X-bottle is the product of many years of experience and a variety of future expectations. It is space-saving in shipping and on retail

shelves, stands out brilliantly with its distinctive MOTOREX shape, and fits comfortably in the hand. We are pleased with the smooth start of production and the altogether positive response from customers and partners.

#### Edi Fischer

Managing Director, MOTOREX-BUCHER GROUP AG

### WHAT'S NEW CONTINUED



#### STRONG IN RETAIL AND DISTRIBUTION

Thanks to intensive collaboration with engine and vehicle manufacturers, MOTOREX products are in demand worldwide. Wherever there's a KTM dealership, for example, MOTOREX lubricants are used and sold. Quick and efficient servicing of retailers is key to global availability. The new X-bottle's sophisticated design makes it perfect for the latest market requirements. The result is not just satisfied distributors and channel partners, but ultimately happy retail customers as well – and they're the ones who matter most for our shared success.

SMALLER SHELF FOOTPRINT
25% GREATER SHELF CAPACITY
ROBUST - MADE FOR SHIPPING
IMPROVED PALLET UTILIZATION



The new X-bottle has been outstandingly well-received by our customers. A new, unique bottle has taken the place of an icon, fully meeting the needs of today's distributors, dealers, and consumers. Handling, space requirements and efficient shipping go hand in hand



with more legible labeling, the viscosity in bigger print, and interactive QR codes for further information.

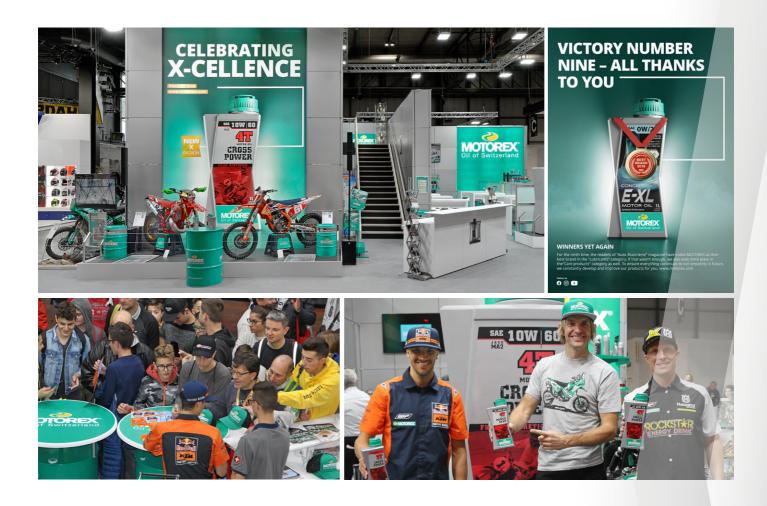
#### Ronald Kabella

Director of PowerSports, MOTOREX-BUCHER GROUP AG



### LESS IS MORE

The X-bottle also brings about changes in terms of environmental compatibility: Thanks to the latest injection molding technology, the new bottle uses less material and hence results in less waste. Moreover, it is produced from a single type of plastic (polyethylene), can be completely emptied, and is thus more easily recyclable.

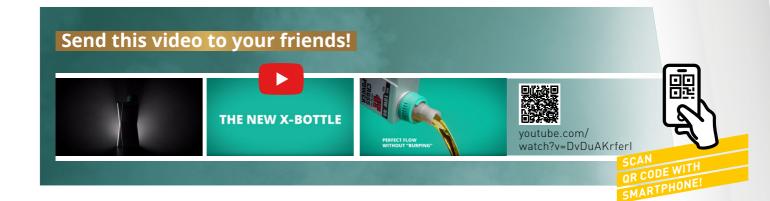


### **ACTIVE MARKETING**

To make the advantages of the new product widely available, MOTOREX is supporting the trade with a bundle of measures. This comprises information events and a wide range of communication tools, such as press packs, flyers, posters, stickers, animations, and images for the social media. At EICMA 2019 in Milan, motorcycle industry importers responded with rapturous applause to our presentation on the new X-bottle.

The future has begun – the first X-bottles will be rolled out to each market in the coming weeks.





### **MOTOR OIL**



Low-viscosity 0W multigrade motor oils from MOTOREX reduce friction loss and help make engines increasingly efficient.

### LOW-VISCOSITY MOTOR OILS EFFICIENCY SHAPES THE FUTURE

The stage has been set: Internal combustion engines must become cleaner and ever more efficient. With the new OW generation of extremely low-viscosity, low-volatility motor oils, MOTOREX offers a key contribution to improving efficiency.

Optimization of the internal combustion engine is in full gear. The main focus is on the combustion chamber. With increasing compactness, the direct fuel injection commonly associated with diesel engines is now also favored for gasoline-powered engines. In combination with hybridization, the technology can additionally reduce fuel consumption. A further trend for the past few years now has been downsizing (lower displacement, fewer cylinders) in combination with turbocharging.

#### **OBJECTIVE: LESS FRICTION**

Downsized engines with fewer moving parts are a prime example of reducing friction within the engine. On average, some 25% of total fuel energy in any combustion engine is lost to friction. The greatest friction losses occur at the broad frictional surfaces of the piston assembly. With tighter manufacturing tolerances, new bearing technologies, and innovative surface treatments, engine manufacturers are pulling out all the engineering stops. Combining these approaches with a modern additive-enhanced, low-viscosity motor oil yields a massive reduction in friction compared to SAE 10W/40 viscosity oils.

### SAE OW GENERATION



The MOTOREX Car Line 0W-generation lowviscosity motor oils have been developed

especially for the latest engine types. They form a lubricant film just 2  $\mu$ m thick, i.e. just half as thick as hitherto. The result: ever more efficient engines and reduced CO<sub>2</sub> emissions.



Protection and performance with improved friction values: multi-use and brand-specific 0W-generation motor oils from MOTOREX.

- ✓ EXCEPTIONAL FUEL ECONOMY
- ✓ MINIMAL CO₂ EMISSIONS
- $\checkmark$  better protection against wear
- $\checkmark$  AGING AND OXIDATION RESISTANT
- ✓ SUPPRESS LOW-SPEED PRE-IGNITION (LSPI)
  ✓ MEET ALL MANUFACTURERS' APPROVALS

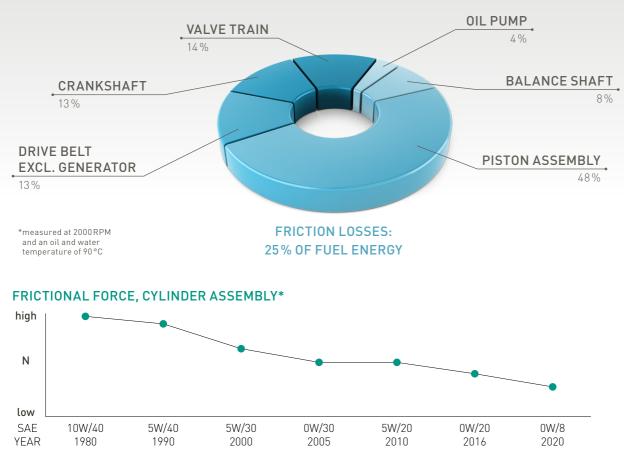
✓ FOR THE LATEST ENGINE GENERATION



### MOTOREX XERUS LH SAE 5W/30

Saving fuel is a hot topic for heavy duty diesels as well: With its XERUS LH, MOTOREX is launching a new generation of ultra-fuel-economy motor oils for commercial vehicles. Here too, the reduced hightemperature viscosity to API-FA-4 or MB 228.61 standards facilitates fuel savings and reduced  $CO_2$ emissions.

### **FRICTION BREAKDOWN IN A 3-CYLINDER GASOLINE ENGINE\***



\*Simplified depiction of drag in a 3-cylinder gasoline engine

Your MOTOREX sales representative will be glad to answer any questions you may have. •



### GOTTHARD ROAD TUNNEL FAN REPLACEMENT IN SECTION 64

In the longest road tunnel in the Alps, huge fans ensure that operations can continue safely by replacing over 600,000 cubic meters of air per hour. Every ten years, these MOTOREX-lubricated "lungs" have to be refurbished.



There's a draft. As there should be, because air quality in tunnels is strictly regulated. Opened in 1980, the Gotthard Road Tunnel between Göschenen and Airolo is no exception. With 11 intake and 12 exhaust fans and 178 exhaust vents, the climate in the Gotthard Tunnel can be controlled in all conditions. Normally this is done automatically using a built-in system of sensors which measure wind, visibility, carbon monoxide, traffic, air pressure, and temperature. The system is monitored and, in emergencies, controlled manually at the operations and command post in Flüelen. Emergency actions can also be carried out from the Göschenen operations center.

### **CONCEALED IN THE CEILING**

The air ducts and fans in the 16.9-kilometer tunnel are concealed, built into the ceiling. The turbine-like fans are accessible from above for regular maintenance. The space above the fans also contains the hydraulic system that adjusts the blades to control airflow and the

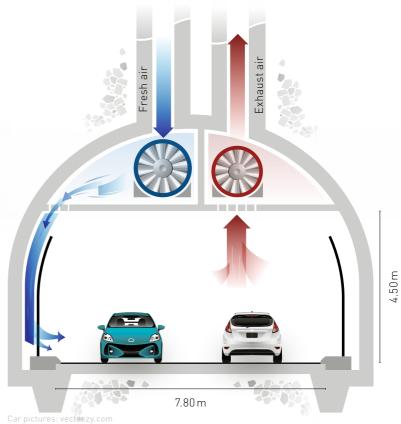




The ventilation stack sits 526 meters above fan no. 21 on the Gotthard Pass.



Every year over 6.4 million vehicles use the key transalpine traffic artery.



lubricant circulation system for the rotor bearings. The various fan models weigh anywhere from 16 to 30 tonnes. A fireproof panel built into the tunnel ceiling gives access to each fan from the roadway so it can be removed from below. The process requires a complete shutdown of the tunnel and is very costly in terms of logistics and manpower.

### 24 HOUR REPLACEMENT TURNAROUND

An overhauled, working replacement unit for each of

the five different fan types is always in stock at the Airolo maintenance center. When the time comes for a major overhaul, Michael Zgraggen (mechanical team leader at the Flüelen maintenance center) springs into action with his ten-person crew. This time a general overhaul is scheduled for the fan in tunnel section 64. The tunnel is shut down from 8:00 p.m. to 5:00 a.m. Once it's closed, a team on the roadway removes the fireproof panel from beneath the fan while mechanics above get the unit ready to remove. Space is extremely

### **REPORT** CONTINUED



Preparatory work is carried out in the maintenance shaft above before the fan is removed.

With the tunnel closed, the huge steel fire protection cover is removed.



Assisted by two trucks, the lowboy is ready to receive the load.



Once released, the fan is lowered hydraulically onto the lowboy with centimeter precision.

tight as, after four hours, the nearly 30-tonne fan is lowered from its chamber onto a specially designed lowboy trailer. Workers position the trailer with centimeter precision using lasers and hydrodynamic steering. Next a police escort accompanies the lowboy to the Flüelen maintenance center. The lowboy is driven by a three-axle tractor truck at each end; the whole rig weighs over 110 tonnes.

#### LUBRICATING THE ROTOR BEARINGS

The biggest of the fans is driven by a 2,920-kW electric motor. The rotor is surrounded by oversized tapered

roller bearings at the front of the motor. Since these bearings can only be replaced when the fan is dismantled, they are designed to last a good ten years. Extreme temperature fluctuations, high bearing pressure, and a warm, humid climate make lubrication a challenge. When the Uri cantonal construction department, responsible for tunnel maintenance, found excess wear on the bearings, it turned to MOTOREX for advice. Following a battery of analyses, the task was accomplished using multi-range MOTOREX Corex HV 100 industrial and hydraulic oil. Lubricant is supplied to the bearings from above and to the



The fans are carried to the maintenance center and back to the tunnel on a special lowboy trailer.





Once fully overhauled, a three-month process, the fan is placed in storage as a replacement unit.



Use of an induction heater ensures that the renewed bearings are properly installed.

side by injection in a closed-circuit system. It flows over the bearings into an oil sump where the lower part of the bearing is continuously lubricated and cooled. MOTOREX Corex is ideal for use in fluctuating low and high temperature conditions. Its extreme shear stability and long-lasting anti-corrosive properties make Corex HV 100 the perfect choice for the Gotthard Tunnel.

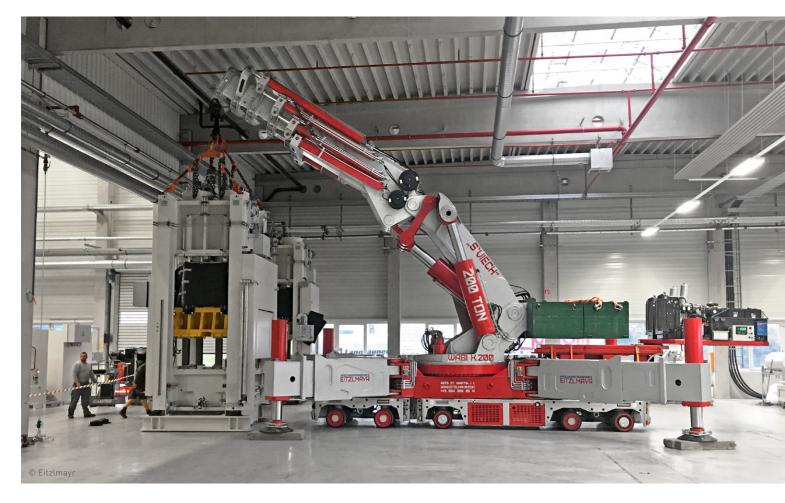
#### **OVERHAUL WITH KNOW-HOW**

By now each of the fans in the Gotthard Road Tunnel has undergone a general overhaul three times on a

rotating schedule. These overhauls are performed in accordance with manufacturer's directions at the Flüelen maintenance center. Once the fans have been dismantled and cleaned, all movable parts are measured and those subject to wear are replaced, including the bearings. Even after ten years in service with MOTOREX lubrication, they show only minimal striation. "That's reassuring," says Michael Zgraggen, the man responsible for the smooth functioning of the Gotthard Road Tunnel's mechanical systems for over 25 years. For him, the only thing that counts is absolute reliability. •



gotthardstrassentunnel.ch



### **INNOVATIVE HEAVY LOAD HANDLING**

Professional moving of multi-ton machinery is a service in high demand. Compared to previous methods, it's a service that the Eitzlmayr Sefiro, a self-propelled industrial dolly that works in tandem with a 200-tonne crane, can perform not only faster, but also more gently.

When delicate multi-ton machinery needs to be moved or relocated within a plant, it's important to keep downtime as brief as possible. Compared to familiar methods such as moving heavy loads on a crawler, Mario Eitzelmayr saw an unrealized opportunity in developing a novel, innovative machine moving concept with many advantages.

### **UNIQUE CONCEPT**

"The concept of a self-propelled industrial dolly with a heavy-duty crane is unique in Europe," explains Mario Eitzlmayr in front of the enormous machine. The system actually consists of two machines: a selfpropelled industrial dolly (the company has two) and a 200-tonne crane. Perfectly matched, the two units can be operated in stationary mode or separately. A hybrid electric/diesel power train gives both machines the ability to operate quietly and on electric power alone, sans exhaust fumes, in enclosed spaces.

#### FEATS OF HYDRAULIC STRENGTH

Designed for extreme power, the hydraulic system is the real heart of both machines. Hasieber Hydraulik GmbH was responsible for the project's hydraulic engineering. The company already knew MOTOREX from other successful hydraulic applications and consulted the lubricant specialist in evaluating the pressure fluid. After comparing key figures and requirements, the engineers tested MOTOREX Corex HV 46 hydraulic oil. In the Sefiro, the hydraulic fluid



The Sefiro and crane are delivered on two specially designed semi-trailers.





The self-propelled industrial dolly can move loads up to 175 tonnes and is steered by remote control.

Hydraulic functions must remain finely calibrated in any situation at pressures up to 400 bar.





EITZLMAYR	EITZLMAYR SEFIRO	EITZLMAYR 200-T CRANE
Tare weight	15t	65t
Load capacity	175 t	200 t
Hydraulic lift	40 cm	max. 35 m (10 t)
Steering angle	100°	100°
Dimensions	500/800 × 229 × 61/104 cm	min. 250 × 250 cm
Drive	Hybrid (electric/diesel)	Hybrid (electric/diesel)

alone transmits and controls power to the four oversized hydraulic cylinders in the lift mechanism, with a lifting capacity of 175 tonnes. In the crane's hydraulic system some 2300 liters of MOTOREX Corex HV 46 get the job done while remaining stable at all temperatures, displaying constant flow characteristics, and preventing the dreaded stick-slip effect. The result is finely calibrated, millimeter-precision work with multi-ton loads.

In even the most ambitious plans for a hydraulic-powered tour de force, MOTOREX is a key component.



eitzlmayr.com

### **HYDRAULICS**



The hydraulic fluid transmits forces of up to 30 tonnes in the thread-loosening process.

### BORING EQUIPMENT SEPARATING THREADED PARTS HYDRAULICALLY

Boring, hammering, and drilling systems are exposed to extreme stresses in harsh conditions. Loosening threaded connectors on bore heads and bore head assemblies can take considerable force. Hydraulic breakout benches are a must. Getab AB gets the job done with ease using equipment developed in-house – and with a helping hand from MOTOREX Ecosynt HEES.

Skellefteå . • Stockholm • Malmö "There's got to be a better way," thought Fredrik Furuhäll and Ulf Stjernholm when they found themselves repairing a breakout workbench for the first time. Founded in 2014 on the rather remote Swedish island of Gotland, the company counts versatility as a key strength. Together with vehicle and machinery repairs, Getab AB also offers metal and machine construction with a special focus on hydraulics.

#### **BY CUSTOMER REQUEST**

Hammer drills and tunnel boring machines are widely used in the cement industry and limestone quarrying on Gotland. At the request of a customer unhappy with his breakout bench, Getab AB developed and built a bench with improvements in many of its functions. Bore head assemblies are made up of multiple elements screwed together. A bore head is screwed onto the assembly's tip. During boring, the hammer drill uses hydraulic power to strike the drill tip while simultaneously rotating it in the thread direction. As a result, the elements are continually screwed tighter to keep them from falling off in the borehole.

### LOOSENING PARTS AT UP TO 30T

The extremely tightly screwed parts are separated using a hydraulic-powered breakout bench. The assembly



At the press of a button, even badly seized drill heads can be released.



Fredrik Furuhäll (left) and Ulf Stjernholm choose the best solution – in lubricants too.



Patented: Tapered parts can be clamped in the adjustable V-cradle without slipping.

FACTS AND FI	GURES
0	0.1

Company	Getab AB
Headquarters	Visby, island of Gotland, Sweden
Established	2014
Employees	8
2018 sales	SEK 6.5 million
Website	www.getabmaskin.se

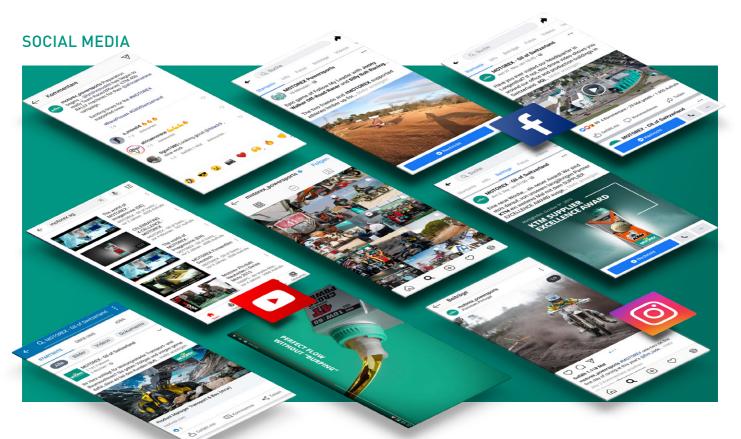


is placed in the V-shaped cradle and clamping chains are applied. Depending on the model, these chains deploy a gripping force ranging from 15 to 30 tonnes. The unique adjustable rear V-cradle makes it possible to secure and break out even tapered pieces with a diameter of up to 30 inches. Patented Getab breakout benches are designed for use on construction sites, eliminating time-consuming trips to the shop and back.

#### WITH ECOSYNT HEES

For outdoor use, Sweden requires hydraulic fluids to be readily biodegradable in accordance with

OECD 301 B and Swedish Standard SS 15 54 34. Getab AB wanted a hydraulic fluid that not only meets these standards, but also provides an ideal combination of performance, cost, and environmental safety. The fully saturated premium esters in MOTOREX Ecosynt HEES SP 46 exceed these requirements while providing yet another key benefit: outstanding long-term stability (five times longer test life in CMT and TOST). In service, Getab breakout benches with MOTOREX fluid work not just better but also longer. And that's just what Fredrik Furuhäll and Ulf Stjernholm had in mind. •



### **CONNECTING WITH THE AUDIENCE**

Compiling and presenting up-to-date information on social networks has become a must for companies today. Engaging in these channels is part of MOTOREX's strategy to enhance the familiarity and emotional appeal of the brand.

> Whether on Facebook, Instagram, or YouTube, the MOTOREX fan community is getting bigger all the time. To get information about current events related to the company and its products to the audience quickly and in a consumer-friendly fashion, MOTOREX also involves its distribution and racing partners.

#### **PARTNERSHIP IS KEY**

Fans and followers want to be entertained and inspired. That's why marketing planning always includes generating social media content - and why it's an element in every company partnership. The MOTOREX importers in Thailand, Australia, Spain and the United States are particularly active and contribute significantly to our shared efforts to build familiarity and image.

Unlike traditional advertising, the sights and sounds in social media offer direct glimpses and convey authentic stories. The more directly the fan community is

involved in what's happening, the greater the value generated and the more active the community's participation. To accommodate various interests, each channel carries content in the most appropriate languages. The focus is on different types of content:

- racing news from around the globe
- stories and activities of brand ambassadors
- user videos that provide value for consumers
- introduction of new products and their everyday use
- celebrations of success stories
- announcements of and reports from appearances at trade shows and events
- general news and the MOTOREX brand

### SIGNIFICANT REACH

MOTOREX produced and published 760 items on social media channels in 2019. The total length of all videos produced was nearly three hours. These efforts resulted in some 200,000 interactions with customers and fans.





facebook.com/ **MOTOREXPowersports** 





instagram.com/

motorex\_powersports





instagram.com/

motorex\_bike/



youtube.com/ MOTOREXOil

subscribe, and facebook.com/ MOTOREXOil

Check them out now,

join the conversation!



### **DUAL LUBRICATION WORKS BETTER**

*The new MOTOREX PTFE Grease Spray 2002 combines the benefits of a grease spray and a solid PTFE lubricant. The result is effective, long-lasting, reliable lubrication.* 

New high-performance MOTOREX PTFE Grease Spray 2002 is the perfect choice for lubrication points exposed to dust, water, or vibrations under extreme loads and severe conditions.

### **DUAL EFFECT**

MOTOREX PTFE Grease Spray 2002 forms a securely adhering, water-resistant lubricant film in no time. The penetrating synthetic grease suffuses quickly while also carrying PTFE solid lubricant flakes to the lubrication point. The flakes have excellent damping and dry-running characteristics. Even if the lubricant grease film becomes exhausted due to delayed servicing or other factors, the PTFE particles remain at the lubrication point. The material's excellent adhesion properties and fulling resistance also completely eliminate undesirable stickslip behavior.

### EXTREMELY VERSATILE

MOTOREX sprays are liquid tools in a can. They have an extremely wide range of uses and get the job done with a simple press of the spray nozzle. MOTOREX PTFE Grease Spray 2002 is ideal for the highly stressed lubrication points found in vehicles and machinery in all kinds of applications. MOTOREX PTFE Grease Spray 2002 is also effective in eliminating annoying creaking, cracking, and squeaking noises.

For more information about the new spray in the 500-ml can, just ask your MOTOREX sales representative. •



- ✓ VERY GOOD ADHESION
- ✓ PREVENTS STICK-SLIP BEHAVIOR
- ✓ GOOD SHEAR STABILITY AND HIGH PRESSURE RESISTANT

### ✓ HIGHLY WATER-RESISTANT

- ✓ PROTECTS AGAINST WEAR AND CORROSION
- EASY DISPENSING THANKS TO WHITE COLOR



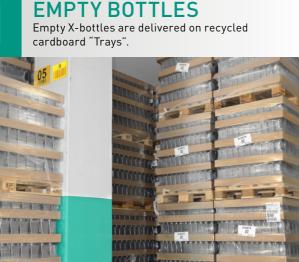
## READY FOR THE X-BOTTLE

Introducing a new container also means modifying production equipment. To bridge the transitional phase, inventories of products in spout bottles were increased to use up supplies of empties and labels. With the enthusiastic efforts of the team at the small filling line and the help of external specialists, the first X-bottles left the plant in just 21 days. It still took a few special shifts to get everything running smoothly in a "one-second rhythm".



LABELING The labeling machine attaches labels with superhuman precision.







Bottles are carried to the filling line





NTT I

By mid-October 2019 the time had come. Having filled many millions of spout bottles (known in German as Rüsselflaschen – or "elephant's trunk bottles"), the filling line was switched off. The final such bottle was sent on its way with a small celebration. For 20 years the design had been a regular part of the work day at MOTOREX and had a visible impact on the market.







ALIGNMENT The bottles are aligned in the same direction before being automatically filled.





FILLING Automatic, drip-free, precise filling – one every 14 seconds.





### SUCCESS THROUGH COLLABORATION

The pressure on automotive industry suppliers is high. Quality, price, and fast delivery are crucial. With the world's biggest automotive market, China is in fourth place among supplier countries. Collaboration with MOTOREX is helping a supplier for leading Chinese automakers to optimize production processes and differentiate itself through top quality.



Practically all premium carmakers from all over the world have components for the vehicles manufactured in China. A joint venture between Sunil Dyfas Corporation of Korea and SFS Intec Holding AG of Switzerland offers one example of how these criteria can be met efficiently. Both companies make full use of their know-how by sharing what they've learned at their jointly-owned plant in Tianjin, China. To meet ambitious targets at the new plant, MOTOREX, a longtime technology partner of SFS Intec, was engaged to manage lubrication in China.

### QUALITY IN AUTOMATION

In mass production, workpieces are often produced on automated production lines with a uniform control system and strict cycle times. To prevent negative impacts on quality, every factor in the process has to be perfect. Together with the production systems, tools, and workforce, the machining fluids used are a key element in the efficient production of high-precision components.

### MEASURABLE SUCCESSES

Thanks to closer cooperation between management at Sunil SFS Intec (Tianjin) and MOTOREX, it was pos-



"Top quality opens new markets for Sunil SFS Intec as supplier," explains Deputy General Manager Shuguo Ye (r.) and Deputy Production Manager Wende Chu.



In Tianjin, CNC machining centers and production processes "made in Switzerland" help get the job done.



High-quality parts, some destined to be installed in premium European cars are produced here.

sible to make application-specific recommendations for the appropriate cutting fluid on site. Following several successful test series with MOTOREX Ortho NF-X, a consistent high quality level was achieved in figures for unit times, dimensional conformance and surface quality. Since many of the parts manufactured here are critical for safety, one hundred percent defectfree production is essential. MOTOREX met the process fluid management requirements set out by deputy production manager Wende Chu using high-performance products such as MOTOREX **Ortho NF-X** cutting oil. The gentle, chlorine-free formula's numerous benefits are persuasive:

- suitable for all applications
- good flushing and heat dissipation characteristics
- high concentration of active ingredients yields long service life
- improves tool change intervals
- consistent high product quality
- low volatility and very hypoallergenic
- readily recyclable

#### **PROFESSIONAL DEDICATION**

For production at Sunil SFS Intec, it was possible to integrate processing centers and production processes from Switzerland at the Tianjin facility. MOTOREX provided technical support for their rollout before, during, and after the start of operations. Besides the cutting oil mentioned above, Corex HLP hydraulic fluid and Supergliss slideway oil also found application. An initial production line designed exclusively for non-ferrous metal parts is currently being taken into service with the exceptionally economical MO-TOREX Ortho SX cutting oil. "Providing advice and services such as oil analyses that deliver valuable information are part of what MOTOREX has to offer and demonstrate the Swiss company's professional dedication," Wende Chu tells MOTOREX Magazine with conviction. "Precisely this is the key to success in our collaboration." •



www.sunilsfsintec.com/ en/index.asp

### IT'S ALL ABOUT MOUNTAIN BIKES



Over 28,500 spectators made the pilgrimage to Lenzerheide in 2019 for the UCI Mountain Bike World Cup at Rothorn. The event offered an unmistakable mix of action, drama, emotion, and excitement with the short-track race Friday, downhill competitions on Saturday and the main cross-country races on Sunday – all it takes to get the hearts of mountain bike fans beating faster. MOTOREX was a conspicuous presence in the arena with its popular bike wash station and as lubrication sponsor of the event. Fans wanting to make the trip to Lenzerheide again this year, remember: the UCI World Cup will be held on August 14-16, 2020.



Watch the 2019 video youtube.com/watch?v=EwZ1RNQx8Bs

### **DID YOU KNOW THIS MOTOREX TV SPOT?**



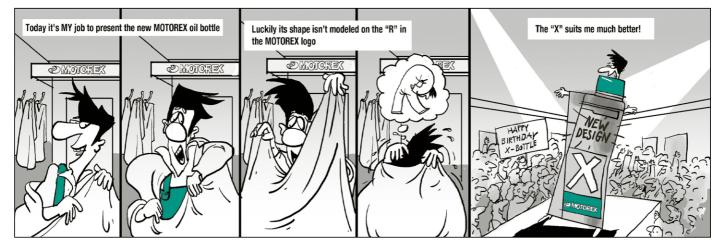


Watch the video youtu.be/tZ2RYL0kcxw



Vehicle and commercial lubricant wholesaler OOO Welle Ltd., Moscow operates eight wholesale branches throughout Russia and is represented at over 2000 retail outlets. The distributor's efforts to familiarize the public with MOTOREX as quality producer in the fiercely contested Russian lubricant market include TV commercials. The brief spot says, "MOTOREX, Oil of Switzerland now available in Kaluga!"

### OTTOREX



### OVERALL KIDS ET YOUNG

A,

BE

Overall with shirt collar and 2 divisible zippers, sleeves adjustable, Waist adjustable with elastic. Diverse pockets offer optimal storage space (2 side pockets in front, 1 leg pocket left), Cordura® knee reinforcement and press stud holder for length adjustment. With reflective print and reflective application for more visibility.

N° d'article **Kids: 92** 452001, **104** 452003, **116** 452004, **128** 452005, **140** 452006, **Young: 152** 452007, **164** 452008, **170** 452009

### DUNGAREES KIDS ET YOUNG

une

Dungarees with elastic straps. Waist adjustable with elastic and additional side elastic. A variety of pockets offer optimum storage space (bib pocket, 2 side pockets in front, 1 leg pocket left). Cordura® knee reinforcement and press stud holder for length adjustment. With reflective print and reflective application for more visibility.

Article no **Kids: 92** 452010, **104** 452011, **116** 452012, **128** 452013, **140** 452014, **Young: 152** 452015, **164** 452016, **170** 452018



## VICTORY NUMBER NINE – ALL THANKS TO YOU



### WINNERS YET AGAIN

For the ninth time, the readers of "Auto-Illustrierte" magazine have voted MOTOREX as their best brand in the "Lubricants" category. If that wasn't enough, we also took third place in the "Care products" category as well. To ensure everything continues to run smoothly in future, we constantly develop and improve our products for you. www.motorex.com

