

The Mitas brand offers a very wide range of tire types for use on harvesters and related machinery. Its offer \mathbb{N}/\mathbb{A} includes standard radial tires appropriate primarily for use as spares, but also modern CHO (Cyclic Harvesting Operation) tires, the HC3000 series and agricultural radial implement tires (IMP) for the non-driven wheels of agricultural machinery. We looked at the HC3000 tires in the last Mitas IN issue and we will focus on implement tires next time, but now we will present the Mitas CHO tire range.

the CHO tire concept pioneer



Learn more about Mitas SFT CHO tires here.

A Vredo slurry injector on Mitas 900/60R42 CHO SFT 183D (186A8) tires that enable a maximum load of 15 750 kg at 2.8 bars and 10 km/h CHO.

he main advantage of CHO tires is their special construction permitting increased loads for the cyclic weight changes during harvesting work. The load on the harvester changes more than twice during the filling and emptying of the grain container. This "load bonus" is usable at speeds of up to 10 or 15 km/h (depending on tire type), which is fully sufficient for harvesting work.

The improved sidewall design combined with unique hexacore bead technology ensures safer fit on the rims, higher deformation resistance and long tire life even with low inflation, which is of course needed to protect soil from excessive compaction. Mitas CHO tires are designed for mounting on standard rims.

Mitas offers the AC 70G CHO range suitable for harvesters and related machinery and also the SFT CHO tires combining the SFT (Super Flexion Tires) tread design and construction with CHO technology. These products feature very flexible yet firm sidewalls permitting the use of low filling pressures during cyclical loading changes.

Compared to standard tires with the same dimensions, with the same load rating SFT CHO tires have a 29% greater footprint. "The



Harvesting time frame

Reduced inflation pressure can extend the harvesting time frame even during poor weather conditions.

substantially larger contact area than with standard harvester tires guarantees gentler ground handling and soil care and extends the harvesting time frame because they also work well on wet soil thanks to the extremely low

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inflation pressure. Their compactness resulting from the narrow tire construction means they comply with legal requirements for maximum permitted vehicle width in normal road traffic and the harvester can thus travel by road without special accompaniment," says Pavel Kott, product manager for Mitas agricultural tires.

The improved load rating for the SFT CHO tires is also rather significant. While the cyclic load capacity of the 800/70R32 SFT tire inflated to 2.4 bars at a speed of 10 km/h reaches 11 040 kg, with the same dimensions, inflation



A footprint comparison for three types of harvester tires shows the significantly larger footprint of Mitas SFT CHO tires.

pressure and speed the CHO tire has a load capacity of 12 500 kg.

SFT CHO tires are among the largest tires currently produced under the Mitas brand. For illustration, the 900/60R42 SFT CHO 183D (186A8) tire has an outer diameter of 2 140 mm.

Mitas CHO tires are used today as original equipment by five of the largest European harvester and related machinery manufacturers and the brand is thus one of their important suppliers. Mitas today offers a total of 16 CHO tires for use on 32-, 38- and 42-inch rims. (JB)

New HCM tires

Mitas will be significantly expanding the available tire sizes in its HCM (High Capacity Municipal) range in 2019 too. These are universal tires designed for a wide range of machinery, primarily in municipal services. The 540/65R30 IND 161A8/156D and 650/65R42 IND 176A8/171D sizes had already been released to production by the end of 2018, while the following sizes will be launched to market this year: 340/80R18 IND 143A8/138D, 360/80R24 IND 144A8/139D and 440/80R34 IND 159A8/155D.

Interesting new products include two tires with a lower, sixty-five percent profile. These are primarily intended for high-powered tractors and offer a load capacity of 4625 kg at 40 km/h or 4000 kg at 65 km/h (front), with the rears offering 7100 kg at 40 km/h or 6150 kg at 65 km/h.

The Mitas HCM range today includes nine sizes for use on 24-, 28-, 30-, 34-, 38- and 42-inch rims. They are suitable for tractors, manipulators, handlers and loaders in the agriculture, construction and forestry industries and are rated for a maximum speed of 65 km/h.

The tire construction, featuring steel breakers, ensures high puncture resistance and on-road stability, while the unique cascade tread lugs design of the HCM tires provides optimal self-cleaning properties and improves off-road



A Valtra tractor on Mitas HCM tires during tough tests held beyond the polar circle.

capability in the mud and snow. The tread pattern ensures that the HCM tires provide excellent traction in all weathers.

Noise levels are important for operation on paved roads, where municipal tractors and other machinery can reach relatively high speeds, and this is another area where Mitas HCM tires excel. "The differing layout of the tread pattern blocks and their irregular distance along the tire circumference reduce noise levels compared to a regularly spaced tread pattern. The differing widths of the tread blocks in the shoulder area also improve traction in deeper terrain. The result is that in addition to low noise levels, HCM tires feature excellent self-cleaning properties and very good maneuverability," explains Pavel Kott, product manager for Mitas agricultural tires. (JB)

The latest tires presented at SIMA 2019

In February, the Mitas brand presented its latest agricultural tires at the SIMA 2019 international agribusiness show in Paris, France. These tires are examples of the latest agricultural tire technology, which ensures reliability of farming operations, provides field-work efficiency and guarantees excellent product quality during the entire life of the tire.

et's have a look at the Mitas tires presented in Paris. The 1050/50R32 178A8/178B SFT TL tire is a representative of the Super Flexion Tires (SFT) developed for the modern tractors and combine harvesters. Their flexible sidewalls deliver maximum load capacity at the lowest possible inflation pressures for better traction and optimum soil protection, even with the heaviest equipment.

Constant tire pressure at any speed - this is what Mitas VF (Very High Flexion) tires offer farmers. The VF 480/80R46 175D HC2000 TL was displayed at SIMA. The lower inflation pressure of VF tires provides excellent traction efficiency and simultaneously better ground protection. The tire on display allows a maximum load of 6900 kg (3.2 bars) with a speed rating of 65 km/h.

The Mitas 850/50R30.5 IMP 182D Agriterra 02 TL tire represents a new generation of fast and powerful agricultural tires designed for non-driven agricultural mechanisms. It is gentle to grassland thanks to its high positive tread pattern share and round shoulder, and can carry a load of 8500 kg at a maximum speed of 65 km/h and an inflation pressure of 4 bars.

The last tire on display - the 650/65R42 IND 176A8/171D HCM TL - extends the Mitas



High Capacity Municipal (HCM) tire portfolio and you can read more about these tires on this page.

Emil Houška, Mitas Marketing Manager, said: "At SIMA 2019, we are demonstrating that we are continually investing in extending the Mitas tire portfolio. This process will also continue this year and we will release dozens of new tire sizes and versions to meet farmers' demand, offering quality and reliability for modern agriculture." (JB)

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UC Milas FICIAL PARTNER

Mitas, **UCI partner**

With the signing of the agreement in December, Mitas became an official partner of the Union Cycliste Internationale (UCI) for mountain bikes for the next two years. In this role, Mitas will support the UCI Mountain Bike World Championship and the UCI Mountain Bike World Cup. It is worth mentioning that Mercedes-Benz is the main partner of both these leading cycling events.

ountain biking is becoming an ever-Mountain Dikirig is becoming more-popular sport. Last year's World Cup race series was followed on Red Bull TV by a record number of viewers, while 46 million people watched the world championship race in Lenzerheide in Switzerland on screens.

"We are delighted to be able to welcome Mitas as an official partner for the UCI mountain bike races. It is the brand of choice for very many riders and sports events, and the gualities of their racing bicycle tires are very well known. The confidence placed in us by this respected manufacturer is further proof that our main sports events are something special in the mountain biking world," said David Lappartient, UCI president. Mitas also considers this partnership very important. "The partnership with UCI supplements our current support for biking events at the highest level. This agreement means that Mitas will get even closer to mountain bike racers and the global public for this sport, which in turn will strengthen our reputation as a premium, reliable, competitive and European bike tire manufacturer," added Pavel Nosek, head of marketing for Mitas bicycle tires & tubes.

Mitas is currently most visible in crosscountry (XCO) Olympic disciplines. It supplies tires for KROSS Racing Team riders, which include for example double Olympic medalist and UCI 2010 World Champion Maja Włoszczowska. Since 2015. Mitas has been the official supplier of tires for the Absa Cape Epic team stage race on the UCI calendar. Since 2017, it has also been the main sponsor for the Mitas 4 Islands Croatian stage race. Last but not least, Mitas is also active in charity projects, supporting the "Bikes for Africa" program established in 2014 to supply bike tires to (JB) developing countries.



Mitas - more than just agricultural, construction and material handling tires. A range of aircraft tires are also manufactured under this brand. Aircraft tires were first produced in Zlín in the 1930s, and today's Mitas directly follows on from these first aircraft tires in the then Czechoslovakia.

Into the air on Mitas tires

hree basic aircraft tire types are produced today under the Mitas brand. These are a tire with a grooved guiding pattern (labelled R - ribbed), which provides aircraft stability and wet grip, the TC (twin contact) design intended for steerable nose wheels, and the MX (mixed) type, which is a combination of the two preceding ones. "Our range includes over twenty sizes of aircraft tires for use on civilian and military aircraft. We produce tires for both original equipment and replacement purposes. We supply aircraft manufacturers with original equipment in the Czech Republic," says Antonín Bogar, Aircraft Tires Business Development Manager. Aircraft tires for military use are subject to strict rules and considered standard military material.

The latest innovations are additional types of tire with increased load ratings for the new generation of Czech aircraft: the L410 NG (civilian application) and the L39 NG (an advanced aircraft for training military pilots). "We are also cooperating with the manufacturer Aircraft Industries on the development of a completely new type of tire suitable for soft soils in Siberia and the far east of Russia," adds Antonín Bogar. Significant quantities of tires for ultralight aircraft, which is

related to the rising popularity of these machines on both the Czech market and in Europe, are however also sold under the Mitas brand.

The manufacture of aircraft tires is by its very nature very specific. The accuracy of work and compliance with



The grooved guiding pattern used on Mitas aircraft tires gives the aircraft stability and wet grip.

working procedures are both of fundamental importance, while there are also very strict requirements in terms of the quality of the raw materials and semi-finished products used and, of course, also the final product itself. Regular checks of the physical/



l earn more about the Mitas aircraft tires here.

mechanical characteristics of the manufactured tires and their testing in certified testing centres are also a matter of course. This is because high demands are placed on tires for aircraft undercarriage they must withstand, for example, the immediate acceleration when the aircraft touches down, which can happen at speeds of around 300 km/h.

All new tires for commercial aviation are homologated according to the rules of the EASA (European Aviation Safety Agency) whose guarantor for the Czech Republic is the Civil Aviation Authority. The manufacture and development of aircraft tires, including the location of their manufacture, are subject to regulation by the Civil Aviation Authority. Any manufacturing change must be reported and production may only be recommenced after an audit by the authority.

"The manufacture of aircraft tires, their development, homologation, certification and sale are all highly complex and a part of the Two Wheels & Specialty Tires Business Unit of Trelleborg Wheel Systems," Antonín Bogar concludes. (JB)

products | sport

Mitas launches TOURING FORCE tires

Mitas launched the brand-new TOURING FORCE sport touring tires at the EICMA exhibition in November 2018. The new tires will be available for sale in March 2019 and additional sizes will be progressively added throughout 2019.

// Ve are proud to extend our radial range with // Ve are proud to extend our radial range with In recent years we have gained valuable experience and knowledge from the in-house development of the SPORT FORCE+ and TERRA FORCE-R radial tires. These high-performing products laid the foundations for our entry into the very demanding sport touring segment," said Ksenija Bitenc, director of Mitas motorcycle tires and tubes.

The tread design, developed using virtual 3D technology, ends before the tire shoulder and ensures maximum contact patch at extreme lean angles. The placement, direction and depth of the grooves provide outstanding riding characteristics under different road and weather conditions.

With the new Multi Compound Tread Technology (MCTT), the central part of the TOURING FORCE tire tread provides increased mileage while the shoulder parts ensure excellent grip at extreme lean angles. Special compounds have been developed to guarantee the best riding performance and perfect wear balance. The combination of tread design and MCTT results in maximum wet and dry road grip. The high silica content and special additives not only ensure optimum grip at low temperatures and on wet surfaces, but also reduce component migration from the rubber to the tire's surface during use, thereby ensuring constant riding characteristics throughout the tire's service life.

designed for sport

touring motorcycles.

Mitas TOURING FORCE is designed to perform well on different types of sports touring motorcycles and is a good choice for riders who take longer trips with passengers and luggage, as well as for those who prefer more sporty and dynamic rides alone. (JB)

Wade Young took gold at Roof of Africa

2018 closed with a great achievement for Mitas motorcycle tires: South African rider Wade Young won the Roof of Africa, the iconic hard enduro race that took place in Lesotho in December. This was Mitas-sponsored rider Wade Young's fourth Roof of Africa victory, while another Mitas rider, Travis Teasdale, finished in a great second place.

The 2018 edition of the Motul Roof of Africa has once again proven itself the ultimate adventure. For these tough terrain conditions, the Mitas-sponsored riders chose C-19 Super Light (front) and EF-07 Super



Soft (rear) tires. The C-19 Super Light (marked with a green stripe) was designed to provide excellent grip on rocky terrain and has a lighter carcass (one textile ply less) and softer compound than the standard C-19 tire marked with a yellow stripe. The EF-07 Super Soft tire combines the enduro tread with an ultra-sticky soft compound for extreme conditions. This tire is best suited for extreme rocky, stony, wet and muddy terrains.

"We are pleased that Mitas-sponsored riders Wade Young and Travis Teasdale finished first and second, thereby further reinforcing Mitas' great reputation for superior grip and endurance. We are very pleased that our cooperation with the sponsored riders and teams has resulted in top achievements over the years," said Luka Mežan, racing and sponsoring manager for Mitas motorcycle tires and tubes. (JB)

Mitas motorcycle, bicycle and aircraft tires are part of the Two Wheels & Specialty Tires Business Unit of Trelleborg Wheel Systems.

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Download the latest issue of Mitas IN here.

inShort

Mitas supports the Cape Epic

Mitas has extended its partnership with the world's most prestigious mountain bike stage race, the South African ABSA Cape Epic. In March, Mitas will once again take the role of official tire supplier, meaning that riders will have leading tubeless Mitas tires with their proven TEXTRA sidewall protection technology available at each water point and at the race village. The partnership with the Cape Epic has been extended to 2021. The great white hope for Mitas in this year's Cape Epic will be its main supported team - KROSS Racing Team - which will enter the 2019 season in a new configuration with Ariane Lüthi, Maja Włoszczowska, Ondřej Cink and Sergio Mantecon. All the riders will race on Mitas tires this year. Ondřej Fojtík and his Portuguese co-rider José António Carvalho da Silva will be seeking to defend last year's victory in the Masters category.



OFFICIAL TYRE SUPPLIER



Upcoming new bike products

Mitas bicycle tires are planning a series of new products for the coming season. Road cycling fans are sure to be delighted by a completely new 25-622 (700x25C) road tire, which will be the first Mitas tubeless ready (i.e. Tubeless Supra) road tire and be launched to market with a completely new tread design. Mitas will also offer tubeless ready e-MTB tires of 29- and 27.5-inch sizes and in the "plus" widths of 2.6 to 2.8 inches. "We are also working on a facelift for the pivotal V96 Scylla tread, which after ten years on the market deserves a new but just as functional appearance," says Pavel Nosek, head of marketing at MITAS Bicycle Tires & Tubes. The plan is also to change the design of the labels on the sidewalls of the Elite category mountain bike tires.