

Press release

16 November 2016

MINI reveals new MINI John Cooper Works Rally – the latest MINI Motorsport giant in the world of cross-country rally.

MINI premieres the next big thing in MINI Motorsport's distinguished history, the all new MINI John Cooper Works Rally. First competitive foray for the new star is the 2017 Dakar Rally.

Munich. Today MINI is pleased to announce the start of a new chapter in its long, illustrious motorsport history with the introduction of its latest in a long line of cross-country rally car greats: the MINI John Cooper Works Rally. Now there is a new MINI champion in the making...

MINI John Cooper Works Rally: racing ahead into the future

The introduction of the all-new MINI John Cooper Works Rally underlines MINI Motorsport's long-term commitment to its involvement in motorsport especially in the arena of rally-raid and the FIA World Cup, the legendary Dakar Rally and the latest long-distance endurance challenge of the Silk Way Rally.

The 2017 MINI John Cooper Works Rally is an exciting new development from MINI and X-raid and destined to repeat race success achieved so far. Based on the all-new MINI Countryman, its sporting dynamics readily provided a platform for the new MINI John Cooper Works Rally and its role as a specialist cross-country rally car.

To produce a car able to successfully tackle and survive the rigours of cross-country rally is a challenge in itself. However, the MINI John Cooper Works Rally has been designed and constructed to achieve and exceed the same level of success as the previous car thanks to an exacting development programme.

The MINI John Cooper Works Rally will also be subject to constant development via motorsport partner X-raid in order for the new MINI John Cooper Works Rally to become as victorious and iconic in the cross-country rally world as its predecessor. At the same time, technical feedback gained from its racing development programme can, of course, be used to further aid reliability and performance programmes in all aspects of MINI production cars.

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MINI John Cooper Works Rally: more is better

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MINI John Cooper Works Rally is a new racing car and the result of an extensive development through racing experience of the existing MINI ALL4 Racing. Based on the new MINI Countryman; the car has been adapted to suit the necessary safety requirements and the current race regulations as laid out by motorsport's governing body Fédération Internationale de l'Automobile (FIA).

During the MINI John Cooper Works Rally design, development and build processes, many key areas came under scrutiny and have been extensively reworked when compared to the former cross-country rally car. The following key areas have been priority subjects to deliver a totally new formidable racing package.

- Aerodynamics
- Thermal management
- Weight distribution
- Lower center of gravity
- Modified chassis frame design
- New engine mapping

The above areas were subject to many hours of design and simulation tests to ensure the MINI John Cooper Works Rally delivers improved performance with lower fuel consumption. The changes also delivered a very positive outcome on the drivability of the car from gains made in stability, traction and agility. When faced with all manner of terrain and driving conditions – from rain to snow to arid dry conditions, from soft sand to deep wet mud, from 3,000 metre above sea level mountain tracks to valley river beds – improvement in chassis and engine detail is hugely beneficial.

Exterior:

The exterior of the MINI John Cooper Works Rally replicates MINI Countryman and, therefore, MINI typical handling agility for racing use. It is also one of the areas of the car that has received special attention from X-raid technicians. Many hours spent in the BMW Group Wind Tunnel with in house motor sports specialists have resulted in aerodynamic detailing to considerably reduce drag.

Because the overall dimensions of the MINI John Cooper Works Rally are the same (1:1) to the former rally car, and that engine performance and overall car weight is, as in previous years, determined by FIA regulations, the improved aerodynamics of MINI John Cooper Works Rally are important for improved top speed on flat, open trail sections and the required stability at speed. Reduced fuel consumption and better subsystem cooling is also experienced with the improved aerodynamics.

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Composite bodywork e.g. carbon fibre and Kevlar is used for the MINI John Cooper Works Rally outer shell, while a honeycomb mix of the same materials is used for an underside tier. The use of such materials is threefold: 1) strength and durability – ideal for additional safety protection of the two-man crew 2) reduced weight with greater strength, and 3) panels are easily removed or replaced during servicing periods or if damaged.

The underside tier now houses all three of the allotted three spare tyre // wheel combinations and two hydraulic jacks operated from within the cabin. Previously only two spare wheels were carried in the underside. By moving the third from the boot space to underneath, a lower CG was obtained along with a change in weight distribution to improve stability and associated driving dynamics.

With the advent of the new MINI John Cooper Works Rally, new colourways and styling cues are being introduced in keeping with the sporting stance of the John Cooper Works road car range. It will feature the exclusive MINI John Cooper Works body colour Rebel Green with the exclusive MINI John Cooper Works contrast roof colour Chili Red as well as new designed Sport stripes. Further MINI body colours for the X-raid competitor cars are Chili Red, White Silver and Light White. The exterior design has been developed in close collaboration with the MINI Design team. Thus, the original rugged and vertical exterior design of the new MINI Countryman was transferred to the competition cars, such as bumpers, grille, bonnet, side and tail geometries, lights, roof rails and side scuttles. A new style of racing alloy wheel is also to feature at key times during events and is derived from the John Cooper Works accessory wheel collection.

The original design of the all-new MINI Countryman was transferred into MINI John Cooper Works Rally by emphasizing the main features. The design team were designing to ‘form follows function’, by purposeful changing the original. The expressive fender flares are stressing the crease-lines which are very characteristic on the new MINI Countryman. The body itself is a lot wider on the fenders, which is helping to integrate an air-outlet in front of the doors.

The expressive hood was lowered for a better visibility for the drivers, by enhancing the landscaping of fenders and power dome, and the rugged looking John Cooper Works ALL4 Exterior Optic Pack was adapted to fit the car. The side covers for the underside tier housing the spare wheels are new “Rocker panels” and form a new design icon of the MINI John Cooper Works Rally.

An expressive air inlet is integrated in the roof geometry, framed by the original roof racks. The rear is showing the MINI typically cascading, a self-confident stance and an interpretation of the All4 Pack.

Chassis and chassis components:

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To ensure the safety of the crew and in accordance with regulations, the chassis frame of the MINI John Cooper Works Rally is replaced with a specialist frame constructed from tubular steel to aerospace standards. Designed specifically for the demands of cross-country racing, the frame is constructed to exacting standards by CP Autosport.

While the main chassis carries the covering bodywork and provide the skeleton for driveline components it is the job of a front subframe to support the engine. MINI Motorsport partner X-raid devised this subframe to be removable. Such is the design of the chassis and the new subframe; complete engine removal, if required, can be completed in just over one hour.

Suspension is provided by specialists Reiger Racing Suspension. Each axle rides on four fully adjustable suspension units (two per wheel) providing the permissible 250mm wheel travel. Six-piston calipers all-round act on 320mm vented steel discs. To ensure consistent braking performance while under the stress of racing conditions for hours on end in high ambient temperatures, the rear brake calipers are air and water-cooled.

Engine and gearbox:

Exemplary engine performance in terms of response, power // torque delivery and ultimate reliability is provided by a BMW Group TwinPower Turbo Six-Cylinder Diesel engine. Designed with endurance competition in mind, the 2993 cc dry sump engine produces 340hp @ 3250 rpm, and torque of approx. 800 Nm @ 1850 rpm with the regulatory 38mm air restrictor in place.

The use of the BMW Group Twin Power Turbo Technology is an obvious choice for the MINI John Cooper Works Rally within the BMW Group engines' family. The powerful and torque-laden engine is race proven unit that has captured MINI many major victories. Delivering peak performance at low rpm contributes to its renown reliability and is ideal for all terrain conditions from uphill, rocky trails to wide open WRC-like stone covered tracks. Its tractability is also an advantage on desert sands. Low fuel consumption of a race-tuned diesel engine is also an important consideration.

Improved fuel consumption also comes with the use of new engine management mapping. Many hours of testing has realised even greater potential in racing conditions especially at altitude.

The 2017 Dakar Rally will take in Bolivian mountain sections approx. 3,000 metres above sea level. Reduced oxygen content at such heights not only dramatically affects the way a body and mind works, but also the way an engine breathes and can

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severely hamper engine performance. To fully realise engine performance at all times, the new engine mapping ensures the retention of the MINI John Cooper Works Rally's drivability and performance.

The MINI John Cooper Works Rally retains the highly regarded ALL4 racing driveline to place it within the 4x4 racing category that has seen MINI Motorsport dominate cross-country rally competition in recent years.

The driveline features an AP Racing clutch combined with a six-speed SADEV sequential gearbox. Lockable, oil-cooled Xtrac front and rear diffs with a central SADEV unit to deliver maximum engine performance at all times regardless of the terrain and racing conditions.

Also helping to stir the blood of MINI Motorsport and MINI John Cooper Works fans will be the exhaust tone of the MINI John Cooper Works Rally. The Akrapovič exhaust is a new design with rear outlet.

Interior

The cabin interior has been renewed. A carbon fibre dashboard area consists of three sections: driver, central and co-driver info units displaying essential info. The driver has selected gear display and LED readout for RPM and gear ratio shift alert. Speed, oil pressure, fluid temperatures and electronic functions are displayed on the central dashboard to enable both crew members to view. All navigational systems are located on the co-driver's dashboard.

MINI John Cooper Works Rally: the race continues

Ongoing test and development work is paramount to racing success. The new MINI John Cooper Works Rally is presently undergoing final testing ahead of the 2017 Dakar Rally – the ultimate in long distance cross-country endurance rallies – and will be the focus of X-raid staff and MINI engineers throughout its lifetime.

Talking about the new MINI John Cooper Works Rally, Sebastian Mackensen, Senior Vice President MINI, said:

“MINI and X-raid is a legendary partnership. Together we have shaped today's rich sporting heritage of this famous British brand with the four victories in a row at the Dakar and of the FIA Cross Country World Cup from 2012 to 2015 and we wish to continue in the same direction and prove the authentic racing competence of John Cooper Works. With the realisation of the new MINI John Cooper Works Rally, MINI is perfectly placed to extend its sporting achievements.”

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“Introducing the famed MINI John Cooper Works sub-brand within the exciting arenas of rally raid, cross-country rally and the endurance challenges of the Dakar Rally and Silk Way Rally seals MINI’s commitment to this spectacular and compelling motorsport. This racing spirit will always be a part of MINI’s genes and products.

“The competitive debut of the MINI John Cooper Works Rally at the 2017 Dakar Rally is a tough debut indeed. The Dakar Rally is the epitome of long-distance rally, where the competitive stress placed on man and machine is like no other but perfectly represents the sporting spirit of MINI Motorsport and the John Cooper Works sub-brand.”

X-raid is motorsport partner to MINI and pivotal to its modern day racing success by providing the necessary race support. Sven Quandt, CEO, X-raid said at the reveal of the new MINI John Cooper Works Rally:

“The all-new MINI John Cooper Works Rally is obviously great; is completely different to the predecessor model we built upon and developed; it’s a car based on thorough development as well in the wind tunnel. We have achieved better aerodynamics from this and, along with other new features; we have improved performance from this car.

“One of the advantages of wind tunnel development is a higher top speed and better acceleration from 140 km/h upwards – these were crucial areas for improvement. The centre of gravity has gone down substantially – we placed about 50 kilos downwards by some 50 centimetres in the centre of the car, which helps the handling and makes the car much more comfortable over all types of terrain, and aids the handling on a rally track with lots of corners. In all: a comprehensive new and exciting package.”

MINI John Cooper Works Rally: technical specifications

- Engine: BMW Group TwinPower Turbo Six-Cylinder Diesel
- Output: 340 bhp / 3250 rpm
- Torque (approx.): 800 Nm / 1850 rpm
- Capacity: 2993 cc
- Air restrictor: 38 mm diameter
- Top speed (approx.): 184 km/h
- Transmission: six-speed sequential gearbox

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- Braking: 4 x six-piston calipers – air-cooled front, air / water-cooled rear. Discs: 320 x 32 mm
- Length / width / height: 4350 / 1999 / 2000 mm
- Wheel base: 2900 mm
- Track width: 1736 mm
- Weight: 1952,5 kg
- Fuel tank capacity (approx): 385 litres
- Chassis: tubular steel with composite bodywork
- Tyres: BF Goodrich 245/80R 16

MINI, heritage in Motorsport

In the 1960s, tuner and race car producer John Cooper became a household name with his powerful, sporting Mini Cooper S. In short, John Cooper transformed the great British small-car into a sporting legend with success in many international and national rally series. The brand Mini subsequently became synonymous with rally-sport.

The rich heritage of race-proven MINI performance lives on with today's MINI John Cooper Works range of MINI cars. When the first new genre of British-manufactured MINI Cooper cars appeared in 2001, it was obvious the relaunched brand had inherited motorsport traits from its famous namesake. Together with engine tuning, component upgrades and exquisite styling cues available with the MINI John Cooper Works range, MINI and motorsport are a polished combination that will continue to shine as MINI Motorsport

Despite very short development time, MINI Motorsport with the MINI ALL4 Racing – derived from the 2012 John Cooper Works Countryman – achieved incredible racing success in the world of cross-country rally. The toughest challenge of this motorsport discipline is, without doubt, the race-of-all-races – the annual, long-distance rally-raid that is known as the Dakar Rally.

Such was the brilliance and ultimately the superiority of this racing car, in the experienced hands of rally specialists X-raid and driven by passionate racing crews of the MINI ALL4 Racing family, these cars went on to win “The Dakar” over four consecutive years: 2012, 2013, 2014 and 2015. In 2016, MINI repeated the status of winner of the four-wheel drive ranking.

Competing within the FIA Cross Country Rally World Cup, MINI again demonstrated how success breeds success. Following the first World Cup win in 2012, this success was repeated over the next three years (2013-2015) much to the dismay of the competition.

MINI MOTORSPORT COMMUNICATIONS



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