



HYDROGEN-POWERED JCB HYDROMAX SETS 406.320 MPH WORLD LAND SPEED RECORD

British engineering giant JCB has set a new world land speed record of 406.320 mph with its hydrogen-powered JCB Hydromax.

The car recorded the average speed 400.623 mph in its first run across the Bonneville Salt Flats, and 412.135 mph on its second run, giving the average of 406.320 mph - the fastest a hydrogen internal combustion car has ever travelled.

Driven by Wing Commander Andy Green OBE, the twin engined, 32-foot car completed the two runs required under FIA rules - one in each direction within an hour - comfortably beating the previous FIA-officiated hydrogen internal combustion benchmark of 185.5 mph set by the BMW H2R in 2004. The record is subject to official ratification by the Fédération Internationale de l'Automobile (FIA), the global governing body for motorsport.

In doing so, JCB Hydromax surpassed the 350.092 mph world diesel land speed record set by JCB Dieselmix - also driven by Green, on the same salt, in August 2006. Twenty years on, JCB has beaten its own benchmark with an engine that produces no CO₂ at the tailpipe.

The speed also exceeds the 303 mph hydrogen fuel cell mark - making JCB Hydromax the fastest hydrogen-powered vehicle of any kind in history.

The record - set in the Category A, Group XIV - Class 7 FIA World Flying Record Start Land Speed Record - was set using two of JCB's own production-based hydrogen digger engines, producing a combined 1,600 bhp and manufactured at the company's engine factory in Foston, Derbyshire, UK. They are the same engines now powering JCB machines and equipment rolling

off production lines in the UK as part of the company's £100 million hydrogen programme.

JCB Chairman Anthony Bamford has led JCB's hydrogen engine project and came up with the idea of a hydrogen world land speed record bid early last year. Lord Bamford said: "Twenty years ago we came to Bonneville with JCB Dieselmix and showed what British engineering could do with diesel power. Today we have done it again - this time with engines powered by hydrogen. This record was set by production-based engines, the same engines powering JCB diggers right now. That is the point of JCB Hydromax: it shows hydrogen works, and it works today at the highest level with zero emissions."

Andy Green said: "Bonneville is the spiritual home of the world land speed record, and JCB Hydromax has just written itself into that history. The car was terrific - stable, strong and fast. Setting a world land speed record with hydrogen power, twenty years after Dieselmix, is a huge privilege. This record is a huge achievement by a world class team and superb technology."

JCB Engineering Director Ryan Ballard, who is leading the project, said: "This record belongs to the engineering team which took a hydrogen digger engine and made it the fastest of its kind on earth. This has been an amazing challenge from the outset of it being set in February last year. We came here fully prepared, and the car delivered."

President of the FIA, H.E. Mohammed Ben Sulayem, said: "This is a truly historic milestone for motorsport showcasing how innovation, performance, speed, and sustainability can go hand in hand."

"Motorsport has always been a catalyst for technological

progress pushing the boundaries of what is possible. This new land speed record continues this tradition, showcasing the potential of hydrogen combustion for the future of sustainable mobility.

"For over 100 years, the FIA has proudly played a central role officiating land speed record attempts. I would like to thank our Member Club, the Automobile Competition Committee for the United States, for their support during this record attempt and offer my congratulations to Lord Bamford, Andy Green OBE, and to everyone involved in this remarkable achievement."

Wing Commander Andy Green is the fastest man on earth at 763.035 mph, the only person to break the sound barrier on land, and was the driver of JCB Dieselmix when it set the FIA world diesel land speed record of 350.092 mph at Bonneville in August 2006. That record still stands.

Last week the JCB Hydromax broke through the 368.347 mph barrier at the world's leading land speed racing event. The run was completed as part of the Southern California Timing Association's (SCTA) renowned Bonneville Speed Week, setting a new SCTA record in the Blown Gas Streamliner class (AA/BGS, 500+ cubic inches) of 368.347 mph, a major milestone in the car's development programme.

The record comes ahead of the opening of JCB's new \$500 million factory in San Antonio, Texas, which will employ 1,500 people manufacturing machines for the US market. JCB has long pushed the limits of speed and in addition to the JCB Dieselmix success, the JCB Fastrack became the world's fastest tractor at 135.191 mph in 2019, and in 2014 the JCB GT set the backhoe



loader record at 72.58 mph.

About JCB

JCB, the world's third largest construction equipment brand by volume, has 22 plants on four continents: 11 in the UK and others in India, Brazil, the USA and China. JCB is a family company, which was founded on October 23rd, 1945, by the late Joseph Cyril Bamford CBE. His son Anthony, now Lord Bamford, has been Chairman since 1975. JCB has just celebrated its 80th birthday.

In 2021, JCB unveiled its first ever prototype products powered by hydrogen: a backhoe loader and a Loadall telescopic handler. JCB's purpose-engineered zero CO₂ hydrogen engine was designed after a challenge to the company's engineers from Lord Bamford. As part of a £100 million investment, a team of 150 engineers has been working on the exciting hydrogen engine project and more than 150 JCB hydrogen combustion engines have so far been produced, with the first machines now in production.

About the FIA:

The Fédération Internationale de l'Automobile (FIA) is the governing body for world motor sport and the federation for mobility organisations globally. It is a non-profit organisation committed to driving innovation and championing safety, sustainability and equality across motor sport

and mobility.

Founded in 1904, with offices in Paris, London and Geneva, the FIA brings together 246 Member Organisations across five continents, representing millions of road users, motor sport professionals and volunteers. It develops and enforces regulations for motor sport, including seven FIA World Championships, to ensure worldwide competitions are safe and fair for all.

About FIA World Land Speed Records

FIA World Land Speed Records are motor sport distilled to its two most basic elements - distance versus time - to create the fastest recognised official speeds achieved by any wheeled vehicle on land. The Outright Land Speed Record, which currently stands at 763.035 mph (1227.985 km/h), is the most prestigious, but there are hundreds of other records in myriad classes based on factors such as engine type and capacity, weight or body shape. Record Attempts may be attempted on straightline playas, salt or tarmac courses, where they are averaged over two runs in opposing directions, or over distance or time endurance runs on closed racetracks.