



TECH FORWARD

A STORIED HISTORY INSPIRES CONTINUING
TECHNICAL INNOVATION AT BALL

For some watch lovers, Ball is best known as a venerable brand with more than 120 years of history that includes the development of the American railroad standard for timekeeping as well as many outstanding railroad-grade pocket watches—early beacons of accuracy. Others know Ball as a modern brand on the cutting edge of technologies that guarantee perfect timekeeping under adverse conditions and the maker of feature-packed watches championed by adventurers like French free diver Guillaume Néry and X Prize winner Brian Binnie. Ball is all of that and more.

BY KEITH W. STRANDBERG

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The Ball Engineer Hydrocarbon
Black, the "Black Rock," \$4,499



Ball's state-of-the-art micro gas tubes encapsulate tritium gas and phosphors in mineral glass

"The 30-plus patents we have continue the innovative tradition of Ball."

—JEFFREY HESS

STORIED PAST

It all began in April 1891 when two trains in Ohio collided head-on and it was determined that the cause of the accident was the inaccuracy of the watch used by one of the engineers. Seeking to avert future losses, the country's largest railroad companies appointed Cleveland jeweler Webster C. Ball as chief time inspector for the federal railway system. In addition to establishing regular testing of the watches used by railroad employees, Ball instituted a time standardization system. The watches he certified bore a "BALL'S Standard" logo. Today's respected COSC chronometer standards are based in part on Ball's timing tests. Along the way, he founded the Ball Watch Company to manufacture watches to his own certification standards, and as a result, reliability, precision and innovation became hallmarks of Ball watches.

Today's Ball Watch Company is committed to continuing in the tradition of its famous founder. "Ball has always been an innovator, and we will continue to strive to live up to the innovative dreams and the path that Webb C. Ball created in the late 1800s," says Jeffrey Hess, president of Ball Watch USA. "He was all about accuracy and readability in adverse conditions. The



Ball's patented, secure folding buckle design



Another view of the Black Rock, which has 35 micro gas tubes on its hands and dial

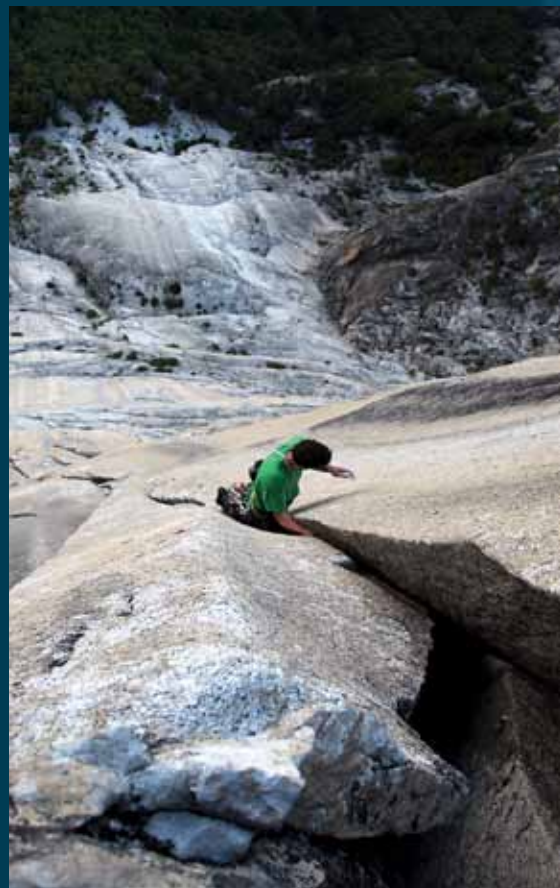
BUILDING THE BLACK ROCK

A COLLABORATION WITH FREE CLIMBER ALEX HONNOLD

TWENTY-EIGHT YEAR-OLD FREE CLIMBER ALEX HONNOLD has a reputation for being hard to track down, fiercely anti-establishment and reticent to grant interviews. The world record holder is a practitioner of solo free climbing, the most extreme discipline in sport climbing, and he'd rather spend his time on a rock face than helping to turn the wheels of commerce. But when Ball contacted him about developing a watch, he was impressed with the roster of ambassadors that make up Ball's Explorers Club, and he became one himself.

"The Ball people and I talked through the feature set I would want in a climbing watch," he explains. "It should be light, the strap should be unobtrusive, it should be visible, day or night, and the case has to be highly scratch-resistant." Together Ball and Honnold came up with the Engineer Hydrocarbon Black—the Black Rock—which now accompanies him on climbs. He says, "Time is important when I'm working to set a record. I don't wear the Black Rock on my wrist when I'm climbing, it's too easy to get it caught, which can be dangerous, but I attach it to my harness so I can keep track of the time."

Still, the native Californian enjoys losing track of time, especially during solo climbs. He says, "That's the whole point—you should be so into what you are doing that time doesn't matter."



Honnold at work

micro gas tubes we use today continue the readability story, and the 30-plus patents we hold continue the innovative tradition of Ball."

THE TECH STORY

Ball puts readability at the top of its list of important watch features, which is why all of Ball's watches use micro gas tubes to illuminate the hands and dial markers of its watches and make them perfectly readable at night. The active ingredients inside these glass tubes are tritium gas and phosphors, and their interaction produces luminescence. Unlike Super-LumiNova and other photo-luminescent coatings, these gas lights do not have to be charged by exposure to light in order to work; they glow continuously for about 25 years. The number of tubes applied to a watch varies from model to model, and the rugged watches that Ball designs for explorers and adventurers use the greatest number.

There are lots of watches that look tough and then there are watches that actually are tough, and Ball belongs squarely in the latter category. Ball watches are designed to withstand shocks, immersion in deep water, changes in temperature, magnetic fields and more. The innovative technologies that make all of this possible include many patented systems, such as the Ball SpringLOCK anti-shock system, a small energy-absorbing cage that reduces the impact of external shocks by 66 percent and protects the balance spring from being dislodged, which is a common cause of watch inaccuracy. There's also Ball's Amortisér shock-resistance system, which temporarily locks down the winding rotor in an automatic movement and protects the entire movement from both lateral and frontal shocks.

In addition, Ball has developed an innovative, patented crown protection system that safeguards a watch's water resistance while protecting the crown from shocks. Ball's extreme diving watches, such as the 3,000-meter Engineer Hydrocarbon DeepQUEST use automatic helium release valves that equalize pressure in situations encountered by professional divers. And Ball's engineers have developed special cold-weather lubricants, to make sure that the watches perform even in the most unforgiving environments.

SCALING NEW HEIGHTS

A recent introduction from Ball is the Engineer Hydrocarbon Black, also known as the Black Rock. "I like that the Black Rock is a natural progression from our signature watch, the Engineer Hydrocarbon," Hess says. "It's a tool watch with the patented Ball crown protector. This watch is a little slimmer than earlier Engineer Hydrocarbon models, yet it incorporates many of our technological innovations."

Ball's range includes elegant dress watches, rugged watches meant for polar exploration, and everything in between.

The Black Rock is the watch of world record-holding free climber Alex Honnold, and it is designed to meet the challenges faced by this adventurer. The amazingly light 42-mm case is titanium with a Diamond-Like Carbon finish for scratch resistance and durability. Highly readable, the black dial is highlighted by green micro gas tubes on the hour markers and yellow ones on the hands. And, for the first time, Ball has used luminous paint, which it applies to the watch's black ceramic bezel, as a strategy for further aiding visibility in low-light conditions.

The Black Rock uses Ball's patented crown protector and its SpringLOCK device. It is protected against magnetic fields and is water-resistant to 300 meters. The movement, an ETA 2892-A2, is COSC-certified for precision. The watch comes on a rugged and durable rubber strap. All in all, the Black Rock is a professional explorer's trusty tool, as well as a great looking watch. ballwatch.com



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Two views of Ball's patented crown protection device

