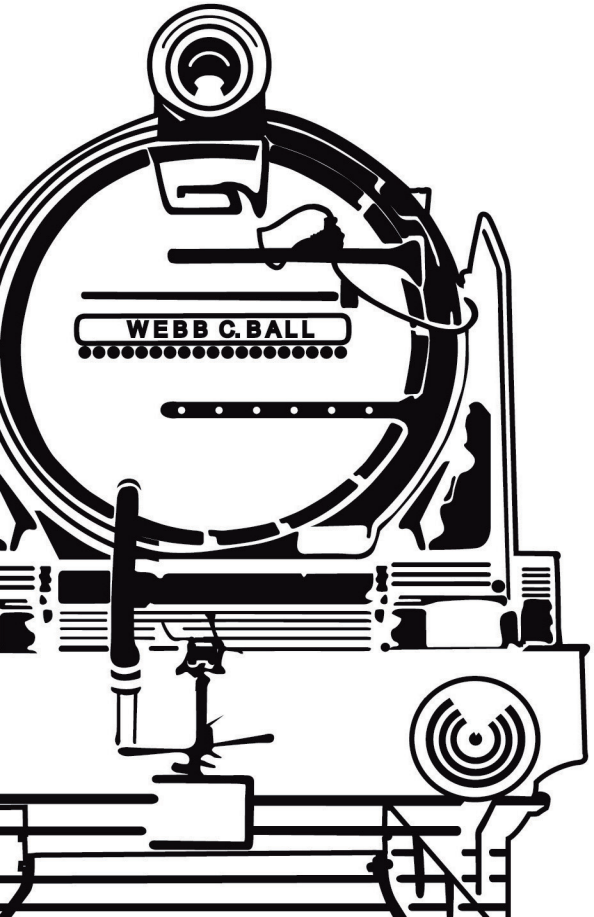


BALL

OFFICIAL STANDARD

Since 1891

Since 1891, accuracy under adverse conditions

BALL

OFFICIAL STANDARD

Since 1891

COLLECTION 2014 / 2015

Since 1891, BALL Watch Company has been producing timepieces that comply with the most stringent criteria for precision, quality and reliability. As pioneer of chronometry standards and with a rich past closely associated with the history of the American railroads, BALL Watch remains one of the most respected and well established watch brands in the United States. Today, more than ever, BALL Watch is continuing its journey and asserting its role as a key protagonist in the evolution of watchmaking history.

Living life to its fullest.

INTRODUCTION

The railroad is an American icon. Railroads helped settle America and then unified the country in a web of steel. For many people, especially prior to the development of the automobile, the locomotive's whistle echoing across hills and fields symbolized unfettered freedom of movement as well as a smaller, less-isolated world.

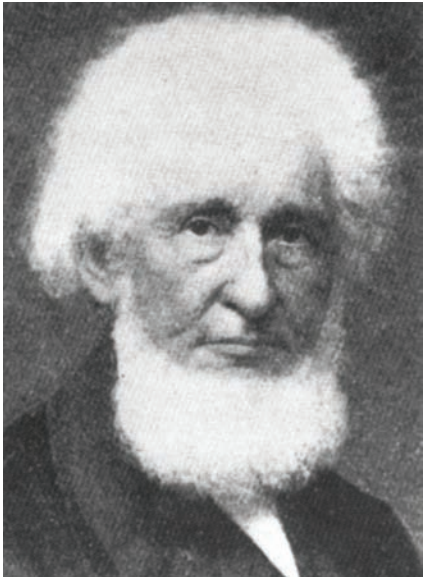

2217

THE FIRST AMERICAN RAILROADS

«Let the country but make the railways and the railways will make the country.»

The first commercial railways were laid down in Britain in the early 1820s. The potential of railways did not escape the notice of US citizens, and as early as 1825 engineer William Strickland made a study for the Pennsylvania Society for the Promotion of Internal Improvement.

When Robert Stephenson's ground-breaking Rocket captured first prize at the landmark Rainhill trials on October 26th, 1829, American observers Horatio Allen and Ross Winans composed reports that would strongly influence the design of the early United States railroads.



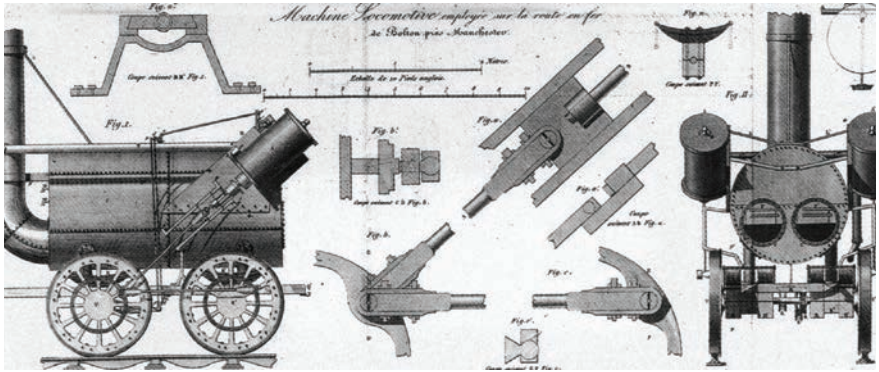
Ross Winans traveled to England to study pioneer British Railways.

The following are key dates in early US railroad history.

1827 On February 28th, the state of Maryland granted a charter to the promoters of the Baltimore & Ohio Railroad. The aim was to reach the Ohio River and funnel commerce into Baltimore. The US Army helped to survey the original route.

1830 First section of Baltimore & Ohio RR opened to Ellicott's Mills, May 24th.

First locomotive built in America delivered from West Point Foundry of New York City for Charleston & Hamburg Railroad named Best Friend of Charleston.



Robert Stephenson's locomotives, Rocket and Planet, were truly revolutionary and contained the essential elements used in the majority of steam locomotives built after 1830.

August 28th, Inventor Peter Cooper completed construction of Tom Thumb, a small experimental steam-driven locomotive, at his Canton Iron Works in Baltimore.

1831 John Bull, a four-coupled «Planet»-type from Robert Stephenson & Co, England, was a sembled and put to use by Isaac Dripps for Camden & Amboy RR. Now at the Smithsonian Institution, Washington, DC, it was tested again in 1981, making it the oldest operable steam locomotive in the world.

17 miles of Mohawk & Hudson RR opened with the second American-built locomotive, De Witt Clinton, also from West Point Foundry.

1832 Locomotive Experiment, a 4-2-0 design, supplied to the Mohawk & Hudson RR. Later renamed Brother Jonathan, it reached a claimed speed of 80 miles per hour.

1834 First American-built passenger car, «Victory», ran on two four-wheel trucks built by Imlay for Philadelphia & Columbia RR.

1835 Sixteen hours to New York City from Boston on the first combined railroad and steamboat service, later reduced to 14.

1836 The first 4-4-0 type locomotive developed and patented by Henry R. Campbell of Philadelphia, Germantown & Norristown RR, built by James Brook of Philadelphia. The eight-wheeler is regarded as the classic «American» type.

The first use of a locomotive whistle in the US is reported.

1838 By this year there were 345 locomotives in the United States.

At New York University, on January 24th, Samuel Morse successfully demonstrated his telegraph. The short show would have huge ramifications for the American railroads.

1840 There were now some 2,800 miles of railroads and 590 locomotives in the United States. Pennsylvania led with 754 miles.

1844 «What God hath wrought!» Morse's first message ran down the new telegraph line along the B&O Railroad from Washington, DC to Baltimore, MD on May 24th. Telegraph was indispensable for scheduling and operating on the American railroads.

1850 Mileage of US railways now exceeded 9,000 miles. New York led with 1,361 miles, 121 miles ahead of Pennsylvania.

1855 United States' first coal-burning locomotive, David Webster, completed trials on Illinois Central RR. There were about 6,600 locomotives in the United States and conversion from wood to coal began.

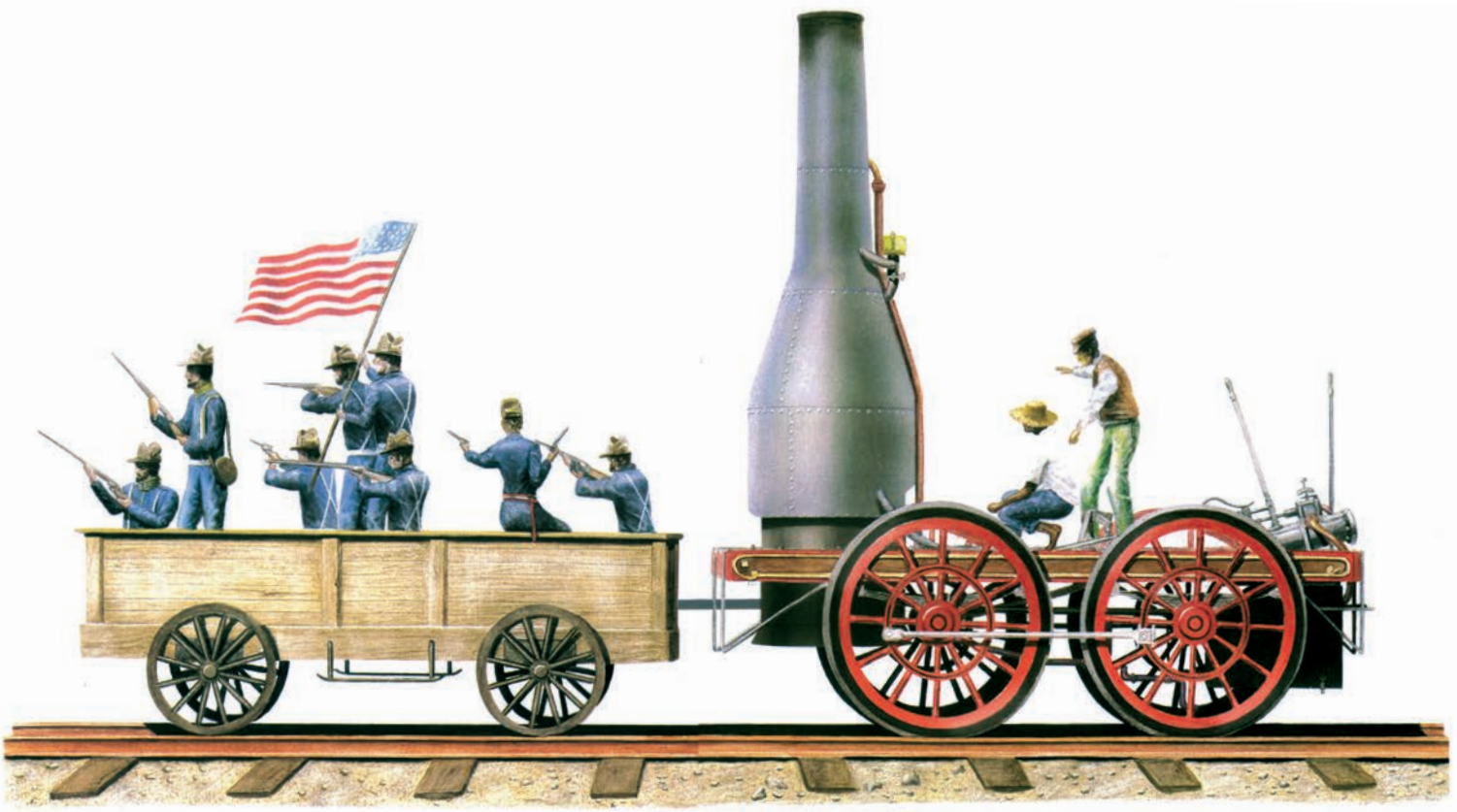
1860 30,635 miles of railroad completed in the United States; major states were Ohio with 2,946 miles, Illinois with 2,799 and Pennsylvania with 2,598.

1,000 locomotives built by Norris. By now, about 9,000 locomotives were in service in the United States.

1861 In February, Abraham Lincoln traveled by rail to his inauguration with stops at principal cities.

1862 President Lincoln signed the Pacific Railway Act on July 1st to create the railway to California. The owners of the Central Pacific Railroad, known as «The Associates» drove the Golden Spike in 1869 to complete the First Transcontinental Railroad and connect California to the East.

The Army quickly recognized the value of the new trains, and often used The Best Friend and others in military maneuvers on the South Carolina Railroad in the early 1830s.



Trains are the heartbeat of America. They have fueled this country's growth, transporting people and goods over its vast spaces. They epitomize the freedom to travel and explore, to go beyond the bounds. Their crews regard the great engines with respect, even love. They are partners. The men enjoy being in the presence of these gentle giants, thrilled to control such power, to be part of railroading.


8444

RAILROAD WATCHES & TIME SERVICE

Standard Time is the system that now governs our daily affairs. Before Standard Time was adopted, time was measured using Sun Time, or Solar Time. When the sun was on the meridian of any particular place, the time at that place was noon.

The old system was especially annoying to travelers, for each railroad and city had its own time. Clocks in towns just 100 miles apart would show 6 minutes' difference.

Under the system of Standard Time, the continent is divided into parallel zones, each of which takes the sun time of its central meridian. These central meridians differ from Greenwich longitude by exact multiples of 15°, the distance traveled by the sun in one hour. In early American railroad history, time was not the important factor in railroad schedules that it later became. When two trains were operating on the same line in opposite directions, the first train to arrive at an established meeting place simply waited until the other train came along.

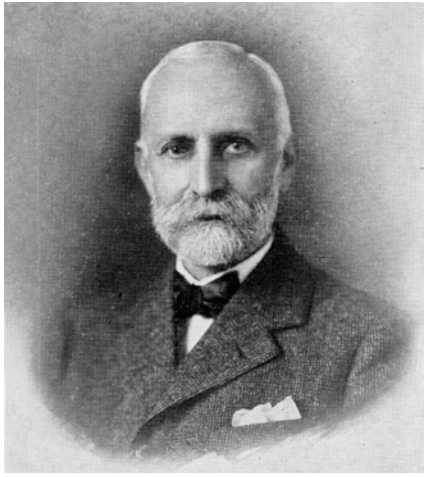
The telegraph was first used in the dispatching of trains in the 1850's. But railroads such as the Louisville & Nashville still operated their trains on Sun Time. Conductors and Engineers would simply compare their watches with the clock in the Louisville depot before departing.

Railroad time stayed much the same way until the year 1872, when a meeting of railroad Superintendents was called at St. Louis, Missouri, for the purpose of arranging summer passenger schedules. This grew successively into the «Time Table Convention», «The American Railway Association» and eventually «The Association of American Railroads». Finally, at the famous General Time Convention of October 1883, America's railroads adopted a Standard Time that was essentially the same as it is today.

This step involved the discarding of some 70 or more official railroad times. But while Standard Time simplified timing for the railroads, it was not immediately adopted by the public. It was, in fact, some 35 years later on March 19th, 1918, during World War I, that Congress passed the Standard Time Act to sanction the four-zone system established by the railroads. The Act also provided for «Daylight Saving Time» to conserve electric current and increase national efficiency. On March 31st, 1918, therefore, the latter went into effect and at 2:00 A.M. of that day all trains of the American railroads came to a full stop and watches and clocks were set ahead one hour.

This is not just an empty ritual. These veteran railroaders know that lives may depend on precise timekeeping.

WEBB C. BALL



Webster Clay Ball
(1847-1922)
Founder of BALL Watch Company

Webster Clay Ball was born in Fredericktown, Ohio, on October 6th, 1847. As a boy, he grew up on a farm and went to Township School. Upon reaching adulthood, the young Webb C. Ball worked as a jeweler's apprentice, working the first year without compensation and the second working for one dollar a week. After completing the program, he began his career by spending a number of years in sales. Most positions required travel throughout the country, and he spent valuable time as a salesman for a watchcase manufacturer, John Dueber.

While traveling, Webb began to look for a location to open a jewelry store. He finally decided to settle in Cleveland, Ohio. In March 1879, he purchased an interest in the firm of Whitcomb and Metten, where he had previously worked as a clerk. He quickly bought out Metten's interest and with his partner founded the Whitcomb and Ball Jewelry Store.

Later that year, he bought out Whitcomb to establish the Webb C. Ball Company. The store was located in an excellent location on the corner of Seneca and Superior Streets, the center of the Cleveland business district.

In the early years, Webb C. Ball was recognized as having an interest in accurate time. When Standard Time was adopted in 1883 and the service of the Naval Observatory in Washington became available, Mr. Ball was the first Cleveland jeweler to use the time signals, bringing accurate time to Cleveland. He is also credited with bringing the first chronometer to Cleveland, which was on display in his store window. For many years, as people walked past his store, they would pull out their watches and set

the time. In time, the phrase «BALL'S TIME» came to mean the absolute correct time all over Northern Ohio.

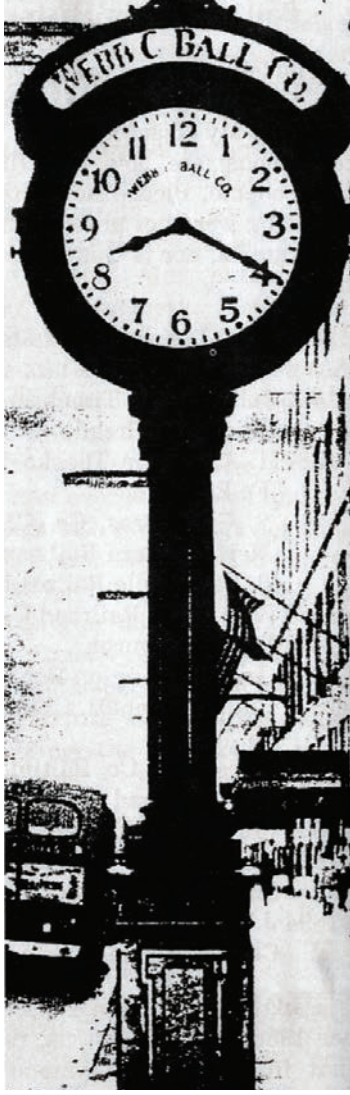
At his death, Webb C. Ball was the General Time Inspector for more than 125,000 miles of railroad in the United States, Canada and Mexico, having contributed more than any other man to establish the requirements and rate of accuracy of watches used in the railroad service.

Railroad watches are a popular specialty for collectors of American watches. That is not difficult to understand. Railroad watches are often representative of a manufacturer's best work; they are usually high-grade time, beautifully finished, accurate timekeepers.

Collector interest in the American pocket watch often includes its association with the railroad industry. A fascinating aspect of this history is the many, and sometimes spectacular, train wrecks. In the year before the Kipton, Ohio, wreck of April 18th, 1891, 6,335 people were killed and 35,362 injured on American railroads.

Brotherhood BALL & Co., Cleveland, Ohio, No. B269465, Brotherhood of Railroad Trainmen Official Standard, circa 1922. Very fine, yellow gold-filled, keyless, Railroad Brotherhood watch

BALL & Co. Cleveland, Ohio, Order of Railway Conductors, No. 307412, Series VIII, circa 1893 Very fine and exceptionally rare, 18K gold screw back and bezel, Railroad Brotherhood watch



Sidewalk clock in front of BALL's store

1891 DISASTER AT KIPTON, OHIO

The Kipton train wreck on April 18th, 1891, was spectacular. It was a head-on collision between two trains of the Lake Shore and Michigan Southern Railway Company. The importance of the Kipton wreck, what separates it from the multitude of 19th century train disasters, was the ensuing association between the Railroads involved and the watchmaker Webb C. Ball. He was on his way to achieving preeminent status in the railroad industry's timekeeping programs for the role he played in the safety of track operations after the crash.

The New York Fast Mail, No. 14, was headed toward Boston pulling three postal cars, one sleeping car and one parlor car. The Accommodation, No. 21, was headed to Chicago pulling five passenger cars and the baggage car. The Accommodation was nearly stopped at the Kipton depot, but had not yet pulled

The Kipton accident

off the tracks. The Fast Mail No. 14 was traveling at 45 mph at impact.

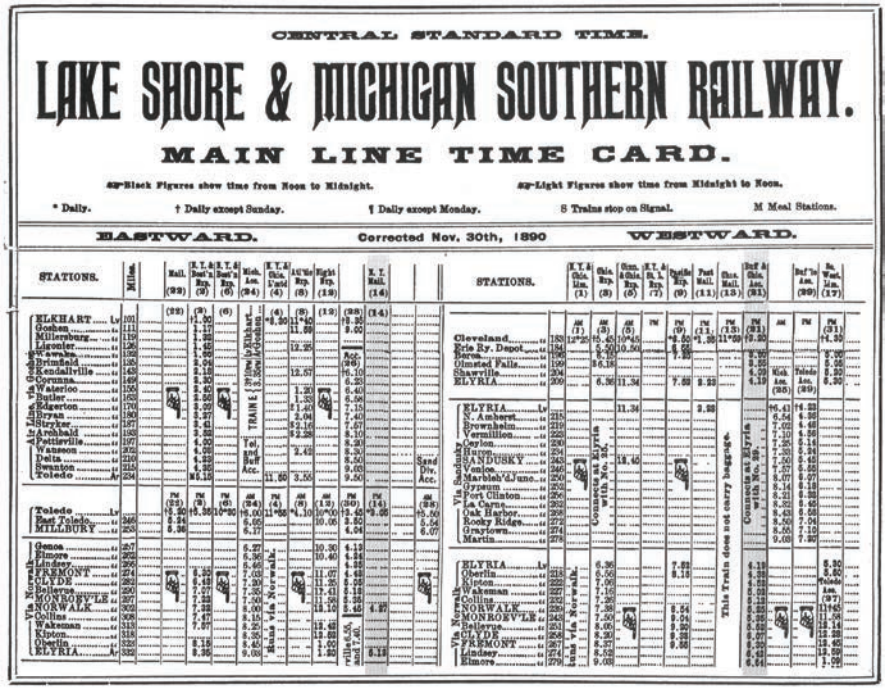
Both engineers were killed, along with six postal clerks on the No. 14. A fireman, several passengers, a messenger and several spectators were injured.

The Cleveland Plain Dealer, on April 19th, 1891, reported that *«the Freight train that stood on the sidetrack was also badly used up [damaged]. The station house was almost destroyed by flying debris.»*

State Inspector's Conclusions:

«According to Cleveland Dispatcher Malcolm's statement, and also that of the operator at Oberlin, Train No. 21 [Accommodation] was eight minutes late out of Oberlin, which would only leave it three minutes to make the run of four and six-tenths miles, and get to Kipton on time at 4:49, which would be impossible.

The Conductor and Engineer of train No. 21 must have counted on using the three minutes allowed No. 21 on the Time Table, for going on the side track to clear No. 14, or their watches must have been wrong, but if they counted upon the three minutes, it would only give them six minutes to make the run, stop for the switch and clear No. 14, which was due there at 4:52.»



CENTRAL STANDARD TIME.

LAKE SHORE & MICHIGAN SOUTHERN RAILWAY.

MAIN LINE TIME CARD.

Black Figures show time from Noon to Midnight. Light Figures show time from Midnight to Noon.

* Daily. † Daily except Sunday. ¶ Daily except Monday. S Trains stop on Signal. M Meal Stations.

EASTWARD. Corrected Nov. 30th, 1890 WESTWARD.

Lake Shore & Michigan Southern Railway main line time card showing both No. 14 and No. 21

WATCH INSPECTION SYSTEM

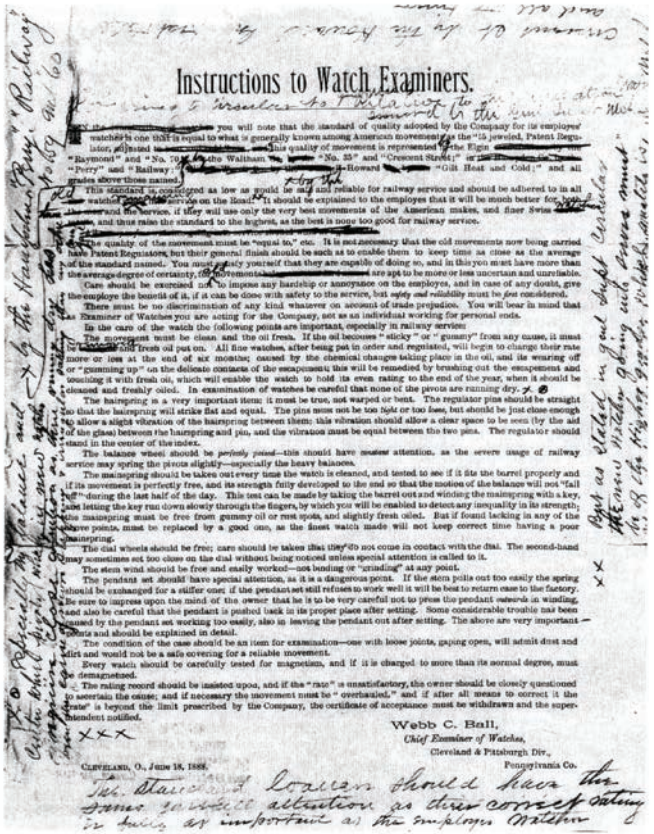
Sometime between April 20th and June 1st, 1891, Webb C. Ball was given the charge to investigate «Time and Watch» conditions throughout the Lake Shore Line and to present his recommendations to the officials. Ball's four-month investigation revealed that the railroads operated with poor methods of monitoring time. Timekeeping was extremely variable among railroad lines because each railroad established its own «Official Railroad Time» resulting in 70 or more «official» times.

He also reported that timekeeping was primarily a hit or miss situation, and that many lines depended on school bells, factory whistles, and church bells to determine time. Timepieces used varied from alarm clocks to «dollar watches» given to engineers as gifts when they purchased suits. Ball found 17 different times in Ohio alone, with each community keeping «local time» based on the position of the sun. His findings further underlined the need for Railroad Time Standardization.

In a period of approximately five months (April 20th to September 20th) Webb C. Ball had to formulate the system, including requirements and forms, and a reporting system hire and train the necessary inspectors; prepare to inspect approximately 2,300 watches; and finally be equipped to supply the replacement watches. The Circular stated very clearly that by November 1st, «No employee will be permitted to go on duty until their watch fulfills standard or they are provided with a watch of required standard.»

Early evidence of Ball's system is found in his papers that spell out the requirements for watch examiners, and carry the date of June 18th, 1888, designating Ball as the Chief Examiner of Watches for The Cleveland and Pittsburgh Division of the Pennsylvania Co. These 1888 papers and his Lake Shore Line inspection system are the beginning of the vast BALL network that would eventually encompass 75% of the railroads throughout the country and cover at least 125,000 miles of railroad, also extending into Mexico and Canada.

Webb C. Ball was instrumental in establishing watch standards and an inspection system that required all watches and clocks used on the railroad to be checked by competent watchmakers. The inspection system kept records of the performance of timepieces under standard forms and uniform rules & regulations. Under his system, there were four watches on every passenger and freight train, carried by the conductor, engineer, fireman and rear brakeman.



Instructions to Watch Examiners.

Webb C. Ball,
Chief Examiner of Watches,
Cleveland & Pittsburgh Div.,
Pennsylvania Co.

CLEVELAND, O., June 18, 1888.

▲ Webb C. Ball's instructions to watch examiners showing the date of June 18th, 1888 in the lower left corner

The Lake Shore & Michigan Southern Railway Co.

GENERAL SUPERINTENDENT'S OFFICE.

TIME INSPECTION SERVICE.

CIRCULAR No. 1.

Cleveland, Ohio, September 3rd, 1891.

1. Recognizing the necessity of uniform and correct time, and of taking every precaution against possible danger and accidents, and to increase the security of life and property, this Company will require every Conductor, Engineer, Fireman and Yard Master, to have their watches inspected every six months for a certificate as to quality and condition. This inspection will commence September 20th, and close November 1st, 1891.

2. In order that this time inspection service may be properly administered, Inspectors have been appointed who are competent and reputable men, and expert watch-makers. Their names and addresses will be given in a subsequent circular. The expense of these inspections will be borne by the Company.

3. To further insure a correct and uniform understanding of the rules governing the time inspection service, the Company has appointed Mr. Webb C. Ball, of Cleveland, Chief Inspector to supervise the examinations and explain the details to employes. He will also issue the necessary instructions to the Division Inspectors and see that they are fairly administered.

4. Each person designated in this circular will be furnished by his Superintendent with an order for inspection, which he must take to the Company's Inspector; if his watch is accepted, the Inspector will issue a certificate, and forward it to the Superintendent of the Division on which the owner of the watch is employed, and will at the same time issue certificate card to the employe.

5. Orders for inspection must be presented to the Inspector on whom they are drawn, as certificates will not be accepted, if issued by any other Inspector.

6. When a watch is inspected and does not fill the required standard, it must be replaced by one which will.

7. All employes named in this circular who fail to have certificates on file with the proper Superintendent by November 1st, 1891, will not be permitted to go on duty until they are provided with a watch of the required standard.

8. Watches that have been rejected by one Inspector cannot be passed by another, except the Chief Inspector, to whom all inquiries or complaints concerning watch inspection matters will be addressed.

9. The minimum standard of excellence for old watches now in service shall be of a grade equal to what is generally known among American movements as the "Fifteen jeweled patent regulator, adjusted." While the minimum quality is fixed for safety, it should be borne in mind that the finer finished movements are more reliable for railway service, therefore, the Company will require all new watches going into service to be of the higher grades; and as twelve is the starting point for reckoning time, watches put up in open face cases must wind at figure XII.

10. Arrangements have been made with the Company's Inspectors to keep on hand a sufficient number of watches of the required standard to loan employes free of charge, during the time their watches are being inspected, cleaned or repaired.

11. It will be required of all employes while on duty to use their own certified watch, or one of the standard watches loaned to them by the Company's Inspectors.

12. Employes whose watches are subject to the inspection rule, will be required to report to the Inspector who issued their certificates once every two weeks, and oftener when convenient, to give the Inspector an opportunity to note the condition of watch, and to make record of its time in the Company's record book.

13. In order that there may be no hardship imposed upon our employes by being obliged to replace watches that do not come up to the required standard, arrangements have been made with the Company's Inspectors to furnish watches of the required standard at the minimum cost of same, and, when necessary, will allow monthly payments to be made, to be deducted from the Company's pay-roll.

14. While it is not required that employes shall purchase their watches of the Company's Inspectors, the above arrangements will make it to their interest to do so.

15. The importance of having reliable watches in train service is one in which the traveling public, the employes and the Railroad Company are mutually interested, and it is earnestly desired that every employe in any way connected with the movement of trains will give the officers a hearty support in putting the time inspection service into successful operation.

P. P. WRIGHT,
General Superintendent.

Circular No.1, issued by the Lake Shore and Michigan Southern Railway Co., appointing Webb C. Ball as Chief Inspector ▶

To provide for reliable watches, a list of approved timepieces was submitted to the men. After the watch was selected and certified, it was submitted every two weeks for comparison with standard Washington time. A variation of more than 30 seconds meant it had to be regulated; and if repairs were necessary, a standard watch equal in grade was loaned to the employee to carry.

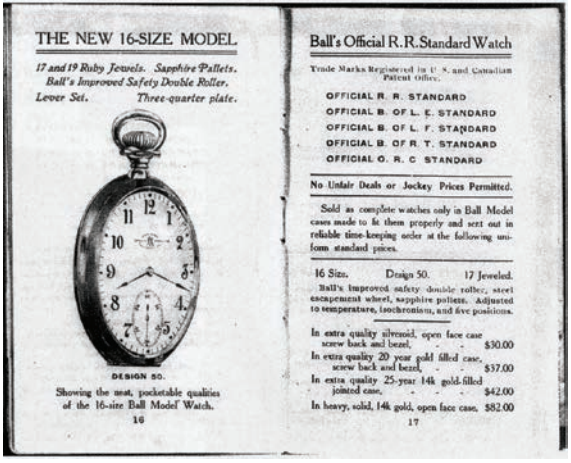
Twice a year, each watch went through a complete inspection. The general time office carefully reviewed the results of the bimonthly comparisons for any possible irregularities. Each inspector carried a standard chronometer and received standard time daily from the Washington Naval Observatory. The Time Service also regulated the train dispatcher, who gave the signal for the starting of trains. These offices were equipped with a standard clock regulated from the Washington Observatory.

In 1908, the BALL organization was inspecting about 180 railroads, with approximately 800 watches in his shop undergoing verification and conditioning. BALL employed 20 to 25 men, just to regulate and adjust approximately one to two million railroad watches.

Under Webb C. Ball's direction, this time inspection system was designed and monitored to make travel safe as far as time was concerned, for both the public and railroad employees.

THE OFFICIAL RAILROAD STANDARD WATCH

The term «Railroad Watch» is a general one, but to us at BALL Watch Company, it is a watch with required specifications approved for the safety use of all railroad brothers namely, engineers, conductors, firemen, etc. Prior to about 1893 there was no standard specification of watches for railroad service and not even any regulation in reference to their physical appearance. The first railroad watches were 18 size and the 16 size later became very popular with the railroad men. In 1893, Ball laid out the requirements that any watch in railroad service should meet the criteria showed on the next page.



THE NEW 16-SIZE MODEL

17 and 19 Ruby Jewels. Sapphire Pallets. Ball's Improved Safety Double Roller. Lever Set. Three-quarter plate.

DESIGN 50.

Showing the neat, pocketable qualities of the 16-size Ball Model Watch.

16

Ball's Official R.R. Standard Watch

Trade Marks Registered in U. S. and Canadian Patent Office.

OFFICIAL R. R. STANDARD
OFFICIAL B. OF L. E. STANDARD
OFFICIAL B. OF L. F. STANDARD
OFFICIAL B. OF R. T. STANDARD
OFFICIAL O. R. C STANDARD

No Unfair Deals or Jockey Prices Permitted.

Sold as complete watches only in Ball Model cases made to fit them properly and sent out in reliable time-keeping order at the following uniform standard prices.

16 Size. Design 50. 17 Jeweled.

Ball's improved safety double roller, steel escapement wheel, sapphire pallets. Adjusted to temperature, isochronism, and five positions.

In extra quality silveroid, open face case screw back and bezel, - - $30.00
In extra quality 20 year gold filled case, screw back and bezel, - - $37.00
In extra quality 25-year 14k gold-filled jointed case, - - - $42.00
In heavy, solid, 14k gold, open face case, $82.00

17

BALL 1905 catalogue shows the style and pricing of the 16 size ORRS pocket watch.

Railroad Brotherhood Names For Which Ball Registered Trademarks*

Abbrev.	Railroad Brotherhood
ORC	Order of Railway Conductors
B of LE	Brotherhood of Locomotive Engineers
B of LF	Brotherhood of Locomotive Firemen
B of LF&E	Brotherhood of Locomotive Firemen and Enginemen
BRT	Brotherhood of Railway Trainmen
ORT	Order of Railway Telegraphers

* *The Jewelers' Circular and Horological Review*, October 10, 1906, pg. 93, and December 19, 1906, pg. 75, and *The Railway Telegrapher*, October, 1901.

BALL registered trademarks using the names of railroad unions.

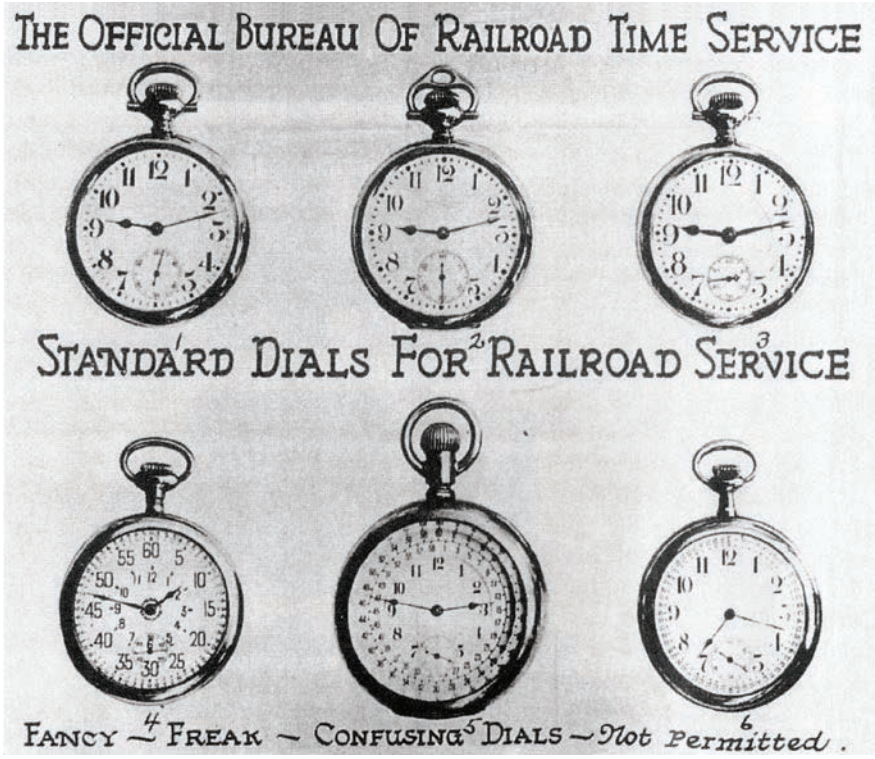
Railroad Watch Standards (1893)

- Must be 16 or 18 size
- Have a minimum of 17 jewels
- Be adjusted to five positions
- Keep time to plus or minus 30 seconds per week
- Be adjusted to temperature 40 to 95 degrees F
- Must have a double roller
- Must be lever set
- Winding stem at 12 o'clock
- Must have a plain Arabic dial with heavy hands

Webb C. Ball also specified the style of the numerals on the dial, as well as the design of the hands, resulting in the distinctive appearance of BALL dials.

In addition to several design patents for plate layout, micrometer regulator, hairspring studs, Ball held a number of trademarks registered using the names of early railroad unions or labor organizations as shown in the table on the previous page.

The BALL Watch Company must be acknowledged as the longest-lived seller of railroad-marked watches, having done so from 1891 to 1980.



Three standard dials and three «freakish» dials

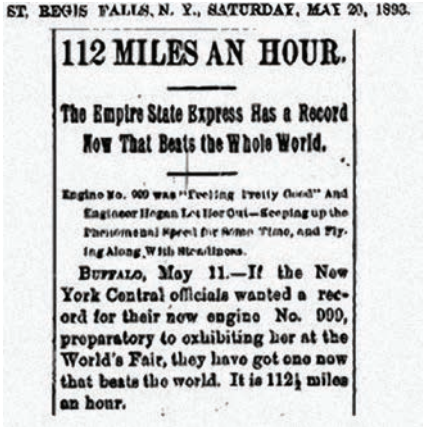
THE 999

The Vanderbilt railroads led America in the development and establishment of reliable, high-speed, long-distance scheduled railroad passenger service. Stretching from Chicago to Boston, the Vanderbilt Railroad System contained eight railroads, including the Lake Shore and Michigan Southern Railroads.

At the time of the Kipton accident, Lake Shore officials were planning a high-speed passenger service, an unprecedented eight-hour schedule between New York and Buffalo. To reach this goal, the service required specially built locomotives and of course, split-second time schedules maintained by accurate timepieces.

The special engine built to break speed records was the legendary No. 999.

In October 1891, the Vanderbilt group was working on a bolder innovation: a 25-hour schedule from Chicago to New York City. The requirement of split-second timing for this high-speed schedule motivated its officials to appoint Webb C. Ball as Chief Time Inspector. By 1902, Webb C. Ball gained control and was responsible for watch inspection on all Vanderbilt railroads east of Chicago. The Vanderbilt railroad system that developed and operated the fastest long-distance train service in the world kept its trains running on the BALL. On May 10th, 1893, under the name Empire State Express, New York Central's No. 999 pulled four cars at 112.5 miles per hour, marking the first time the 100-mph speed barrier had been exceeded by a man-made vehicle. When Henry Ford built a pair of racing cars 10 years later, one of them bore the name #999. Ball had produced a special 18-size No. 999 watch in 1895.



ST. REGIS FALLS, N. Y., SATURDAY, MAY 20, 1893.

112 MILES AN HOUR.

The Empire State Express Has a Record Now That Beats the Whole World.

Engine No. 999 was "Feeling Pretty Good" And Engineer Hogan Let Her Out—Keeping up the Phenomenal Speed for Some Time, and Flying Along With Steadiness.

BUFFALO, May 11.—If the New York Central officials wanted a record for their new engine No. 999, preparatory to exhibiting her at the World's Fair, they have got one now that beats the world. It is 112½ miles an hour.

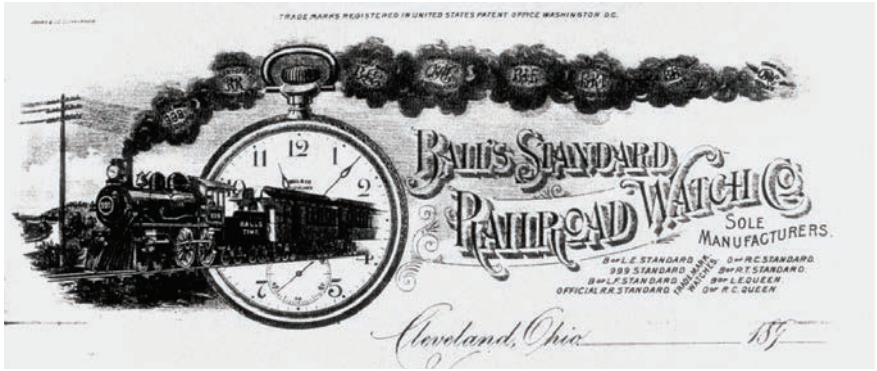
THE BALL LEGACY

Since 1891, accuracy under adverse conditions

Webb C. Ball spent a good part of his life helping to design a timepiece that fulfilled the requirements of an accurate watch, one that would withstand the rigors of the rough handling and dirt that was inherent in the railroad industry.

It is important to recognize and applaud Webb C. Ball for designing the first successful system that was accepted on a broad scale. It was his system that set the standards for the railroads; it was his system that helped to establish accuracy and uniformity in timekeeping. It was his system that resulted in railroad time and railroad watches being recognized as «STANDARD» whenever accurate timing was required.

In general, it has become accepted that when the average person asks a railroad man the time, he is assured of an accurate answer.

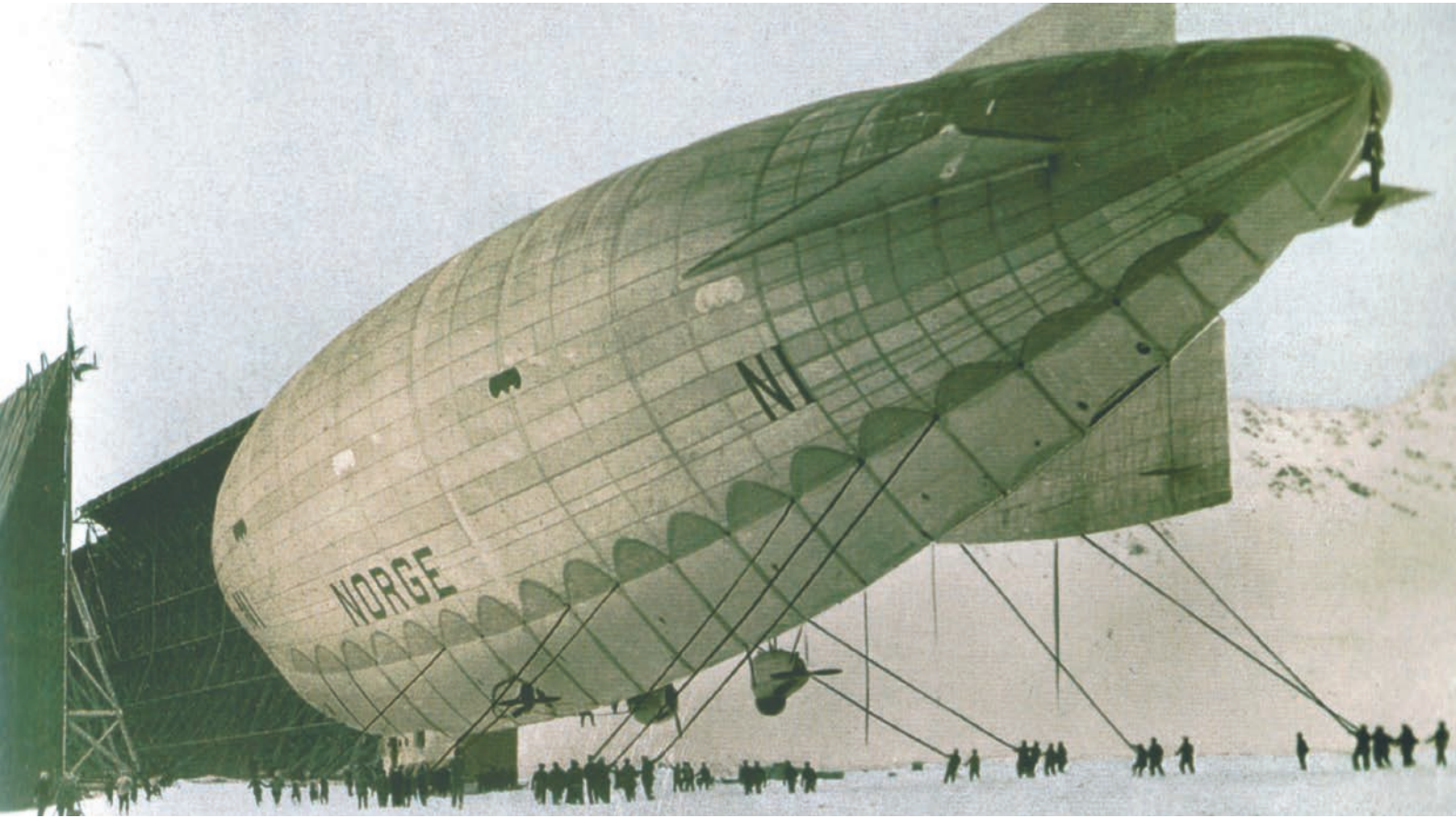


Copy of BALL's letterhead, using engine No. 999 as the symbol for BALL watches.

BALL Watch Co. advertisement in «The Locomotive Engineers Journal». In the advertisement is the «All-BALL» Watch Crew of the «American», which was the fastest train on the Pennsylvania network running from New York to St. Louis.

TECHNOLOGY

Making the simple complicated is commonplace; making the complicated simple, awesomely simple, that’s creative.

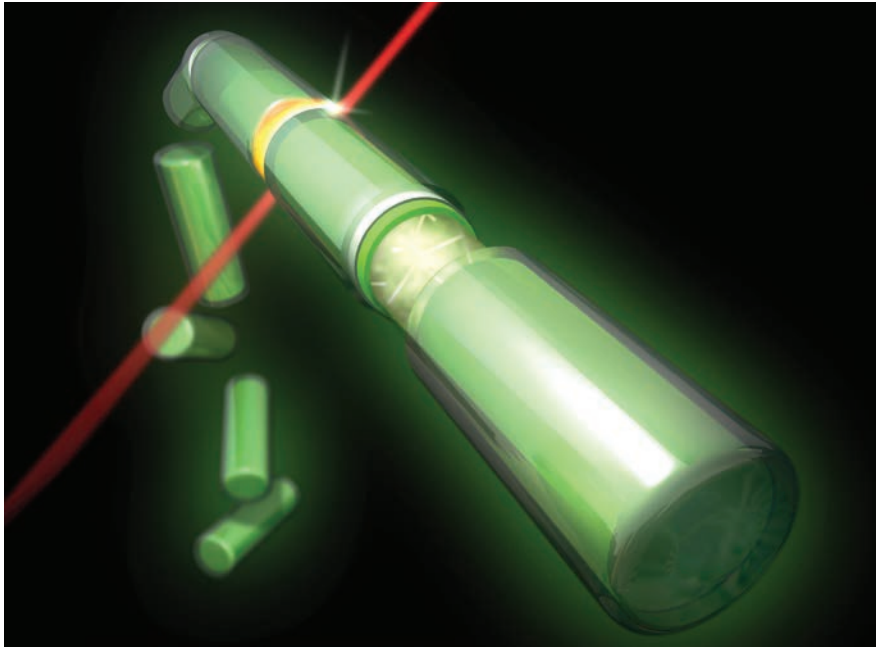


On May 12th, 1926, Norge became the first lighter-than-air craft to reach the top of the world.

Let there be light.

NIGHT READING EVOLUTION

In medieval times, residents of towns lucky enough to afford a clock and belfry could tell the time during the night with reasonable precision if they paid close attention to the chiming of the bells. In most villages, however, people had no choice but to use a sundial during the day and a graduated candle at night, an imprecise and expensive system. Today, we should expect to be able to read a watch in any environment.



The H_3 gas tubes

Self-Powered Micro Gas Tubes (H_3) are a novel light source manufactured by means of innovative Swiss laser technology. They provide superior, long-life brightness – 100 times brighter than markings using luminous paints – with a useful life easily reaching 25 years. The BALL micro gas tubes do not need recharging from the sun and do not drain batteries. However, the brightness of H_3 micro gas lights will deteriorate over the years. You can always read a BALL watch quickly and easily in any environment.

The BALL Watch advanced technology safely captures tritium gas (H_3)

in a very stable form. Pure tritium gas is sealed in a hollow mineral glass tube. The interior walls are coated with luminescent material that gives off cold light when activated by the electrons emitted by the tritium, in much the same way a television screen functions.

The small, precise, lightweight H_3 gas tubes are efficiently produced by means of a CO_2 laser. The tubes are then attached to the hands and dial in a secure manner that precludes any risk of breakage. The wearer of a complete and intact BALL watch is not exposed to any irradiation. When assessing risk over the entire life cycle of the watch, the potential irradiation proves to be far smaller than that which the wearer is inescapably exposed to from naturally occurring radiation and man-made materials.

The benefits of the micro gas tubes were not lost on the US military, who require the use of gaseous tritium light sources in the watches they procure for soldiers (MIL-W-46374F). But the civilian market also discovered the benefits of H_3 gas light watches, and demand was not limited to certain professions or sports. Every day, wearers appreciate superior night reading and have come to rely on their watches for use in all environments.


60
50
10
40
20
30
BALL
OFFICIAL STANDARD
Since 1891
SUN
28
CHRONOMETER
AUTOMATIC
T25
SWISS MADE

SLIDE CHRONOGRAPH

The Slide Chronograph offers a novel take on the most popular of watch complications The current form of the mechanical chronograph shows few changes since its inception and generally features two push-buttons, one on each side of a central crown.

BALL Watch shakes up the standard architecture of the chronograph by rejecting and combining the two push-button model in one integrated control at 9 o'clock on the case. The Slide Chronograph system includes a circular slide bar fitted around the movement. The chronograph is started and stopped with a clockwise rotation of this slide bar, which then returns automatically to its original position, while an anti-clockwise movement prompts a reset.

Developed and patented by BALL Watch, the Slide Chronograph offers an unprecedented level of control and ergonomic improvements, both essential factors in the precise and deft handling of a chronograph function. The chronograph can therefore be guided easily with one finger while still wearing the watch. The playful look of the mechanism brings novelty to the experience of using a mechanical timepiece.

SHOCK RESISTANCE

Built with the highest quality standards in mind, every BALL watch undergoes rigorous testing procedures to verify its impeccable shock resistance up to 5,000Gs. The shock resistance test is conducted according to the International Standard ISO 1413 using a pendulum impact-testing machine. The mechanism sets off a circular movement that brings the weighted pendulum to hit the watch from one meter.

The first shock is directed against the case, parallel to the plane of the watch, on the nine o'clock side. The second shock is directed against the glass, perpendicular to the plane of the watch.

With the Engineer Hydrocarbon collection, we go well beyond the above standard by testing with a tougher 1.5 meter hammer strike, raising the resistance to 7,500Gs. A third shock test against the relatively weaker three o'clock crown position of the watch tests our patented crown protection system to ensure it functions properly. Almost all Engineer Hydrocarbon watches can resist to this 7,500Gs shock resistance test without any damage. Finally, the Engineer Hydrcarbon collection uses a specially made 4mm sapphire crystal for better protection.

Shock resistant case construction of the «Engineer Hydrocarbon» collection

AMORTISER® PATENTED ANTI-SHOCK SYSTEM

The Amortiser® patented anti-shock system protects a mechanical movement against damages caused by external shocks. Any substantial shock can create sudden and violent oscillations of the rotor of an automatic watch that can seriously spoil the movement.

The Amortiser® system consists of a protective and anti-magnetic ring around the mechanical movement that absorbs the energy created by side shocks. Furthermore, a switch in the form of an propeller is located on the watch's case back, enabling the rotor to be locked and unlocked as desired. This mechanism prevents the energy of frontal impacts from being transmitted to the movement. When the rotor is immobilized, the watch continues to run by drawing on its power reserve. When the risk of shocks has ended, unlocking the rotor brings the automatic winding system back into action.

The Engineer Hydrocarbon Spacemaster Orbital II fitted with the Amortiser® system has been demonstrated to endure 5.2 meters free fall without any damage on the mechanical movement, making this timepiece the most robust automatic chronograph.

The Amortiser® on the caseback of the Engineer Hydrocarbon Spacemaster Orbital II

SPRINGLOCK® PATENTED ANTI-SHOCK SYSTEM

Disorient of balance-spring upon shock impact is the most common cause of watch inaccuracy. SpringLOCK®, the world's first revolutionary and BALL's patented anti-shock system, enhances watch accuracy by reducing balance-spring's shock impact by 66%.

The balance-spring is a small spring wound up in a concentric circle and attached at each end to the balance and the balance-cock respectively. In conjunction with the balance, it constitutes a watch's regulating organ, on which the degree of accuracy with which it functions depends. The system regulating the balance and the balance-spring are one of the most fragile parts of a watch mechanism, particularly in the event of a violent impact.

Exclusively developed by BALL Watch, the SpringLOCK® protects the balance-spring of the movement with a «cage» that limits the unfurling of the coils in case of any external impacts to which the watch can be subjected. It considerably diminishes the risk of a breakage of the balance-spring's link to the balance or of unexpected movements that could lead to the deforming of the shape of the balance-spring itself.

External shock impacts can cause standard mechanical movements to vary by up to more or less 60 seconds a day. The SpringLOCK® system reduces their effect by up to 66%, thus ensuring that the caliber remains accurate. Watch wearers can now freely engage in various sporting activities (e.g. golf), knowing that accurate time keeping can still be possible under external shock impacts.

ANTI-MAGNETISM

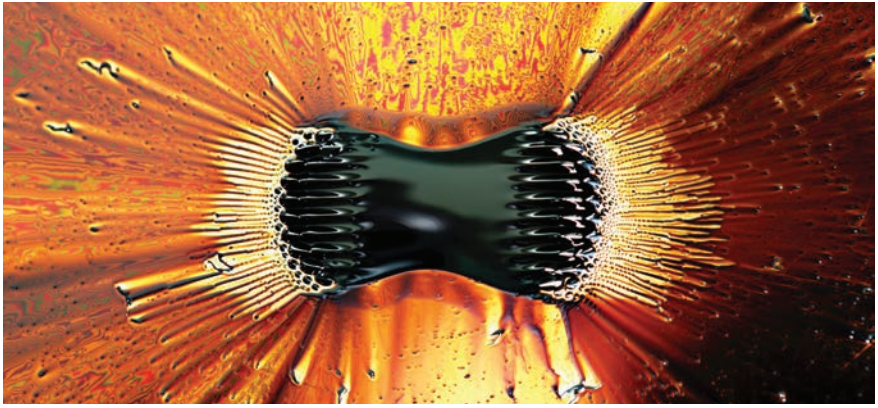
The Greeks first observed the phenomenon of magnetism around 600 B.C. The natural magnet Fe3O4, a black ferrous oxide, was discovered in the province of Magnesia in Turkey.

Natural magnets are generally too weak to disturb the accuracy of a mechanical watch. The same is not true, however, of man-made magnets. So where are we at risk to enter magnetic fields in our daily life? Near televisions, stereo systems and radios in our living room. In the countless small electric motors used throughout our households. And in locomotives. Even brief contact with these items is enough to magnetize a mechanical watch.

Most of the BALL watches boast superb anti-magnetic cases constructed with corrosion-resistant ferritic stainless steel materials. Furthermore, a soft iron inner jacket, consisting of a back plate, a ring surrounding the movement and the dial, protects the inner workings of the watch. This special alloy, reinforced by the shape of the case, prevents magnetic fields from penetrating as far as the movement and having an adverse effect on its accuracy.

What does the term «anti-magnetic» actually mean? The existing standard is defined thusly: An «anti-magnetic» mechanical watch does not stop when exposed to a magnetic field of 4,800 A/m and subsequently does not deviate by more than 30 seconds per day.

BALL watches certainly surpass this standard, particularly the Engineer Hydrocarbon series with 12,000 A/m standard protection.



Ferrous fluid reveals the magnetic field surrounding a magnet.

A-PROOF® PATENTED ANTI-MAGNETIC SYSTEM

Developed and patented by BALL Watch, the A-PROOF® device is a revolutionary approach to the protection of a mechanical movement against the influence of magnetic fields. It is based on cutting-edge developments in terms of both materials and construction.

BALL Watch carefully selected mumetal for the development of its magnetic trench box located inside the watch's case. Mumetal is an alloy of nickel, iron, copper and molybdenum with very high magnetic permeability, which enables it to attract and deviate static or low-frequency magnetic field lines.

The constant imprisonment of the movement in an anti-magnetic cage has been avoid thanks to an ingenious diaphragm mechanism that extends or retracts at will by simple circular motion of the bezel. In the fully closed position, the diaphragm locks the mumetal anti-magnetic protection cage. In the retracted position, the diaphragm therefore disappears to reveal the movement at work through a transparent case back. A genuine industrial feat, the diaphragm is machined in mumetal with a thickness of just 0.06mm. A-PROOF® protects a mechanical watch against magnetic fields up to an astonishing record intensity of 80,000A/m.

WATER RESISTANCE

Water resistance is tested by immersing the watch completely in distilled water containing a wetting agent of 1% by weight and under the prescribed atmospheric pressure for at least five minutes. To be qualified, the watch must not show any evidence of leakage.

The water resistance of BALL watches ranges by collection. The Trainmaster and Conductor series begin at 30m/100ft. The Engineer II and Fireman series are 100m/330ft. The Engineer Master II series ranges from 100m/330ft to 300m/1,000ft. And finally, the Engineer Hydrocarbon series begins at 300m/1,000ft and goes up to 3,000m/9,850ft for the DeepQUEST.

The Engineer Hydrocarbon series also boasts a special crown protection system to further ensure water resistance in rough environments.

HELIUM SYSTEM PATENTED

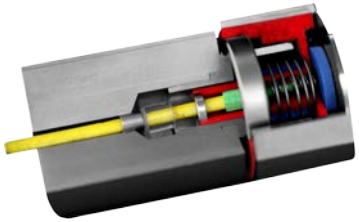


Illustration of the Helium System Patented

One of the many requirements imposed by deep-sea diving to the watchmaking instruments is the escape of helium gas. During their descent into the depths, deep-sea divers are generally placed in a diving bell where they are exposed to an air that is enriched with helium. The pressure is also gradually increased to reach the depth pressure. The watch is then penetrated by tiny helium molecules. When going back to the surface, the divers need to stay again for a determined time in the diving bell in order to be put under the pressure of standard atmospheric levels. The excess of internal pressure in the watch due to the helium molecules needs to escape. Otherwise, it could generate irreparable damages to the watch.

To avoid such situations, a helium release valve needs to allow gases to escape as the watch resurfaces from the crushing pressure of the depths. A world first in watchmaking, BALL Watch has been able to incorporate an automatic helium release valve directly into the crown. This patented BALL innovation has eradicated a potential surface liable to warp under the effects of water pressure, thereby improving the timepiece's water resistance even further. The crown itself is also fitted with the patented protection system that is used on all Engineer Hydrocarbon models. The Engineer Hydrocarbon NEDU is the first watch to be fitted with this new major technological innovation for diving watches.

Engineer Hydrocarbon NEDU

COLD TEMPERATURE ENDURANCE

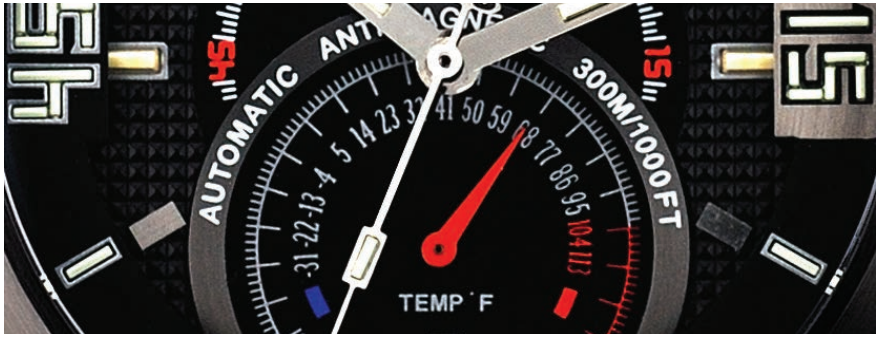
Some ultimate BALL watches can resist to the lowest temperatures.

The researchers of BALL Watch Company have engineered timepieces with special lubrication for expeditions in the North and South Poles.

Specially blended Swiss watch oils give a selection of ultimate watches with an operating temperature range from -40°C to 60°C (-40 to 140°F). This special feature allows these robust timepieces to fulfill its promise as a dependable partner for BALL Explorers in their endeavors in the world's most challenging environments. Movement oil plays a vital role in every mechanical movement. It acts as lubricant that reduces the friction between contact surfaces of the different small components within. Without the lubricant, the friction created would wear out the movement and adversely affect its accuracy.

In practice, BALL Watch engineers blend oils to modify and perfect the lubricating and thickness properties of the combined mixture. When considering how thick a lubricant to use, one must determine the thickness of that lubricant at the coldest temperature the timepiece will be subjected to. Watches worn on the wrist under normal conditions should not be lubricated with the ultra-thin lubricants necessary in extremely cold environments. By blending watch oils, our talented watchmakers can achieve perfect lubrication in all temperature ranges.

TEMPERATURE MEASUREMENT (TMT)

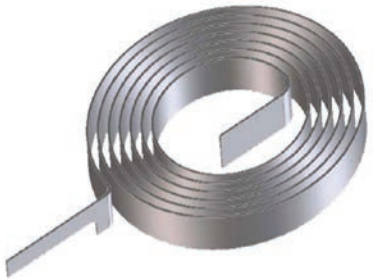


BALL TMT dial indicator

The BALL TMT movement powers the world's first mechanical thermometer from -35°C to 45°C (-31°F to 113°F) wristwatch. It uses a spiral bimetallic thermometer to measure temperature with far more accuracy than temperature modules used in past watches.

At BALL Watch Company, the most difficult technical challenge our researchers faced in the mechanical thermometer (TMT) watch project was that the height of the entire movement module must be just 5.1mm. The tight coil must fit perfectly into the workings of the automatic movement. Our master watchmakers have overcome many design obstacles such as the height of the bimetallic spring, the height and milling of the main plate and bridge.

We invented a unique system of fine regulation using a patented fine regulating screw that does not block the bimetallic blade. The role of the fine regulating screw is, on the one hand, to precisely adjust the position of the temperature indicator, and on the other hand to hold the bimetallic spiral at its extremity. After fitting a hand on the axe of the thermometer, we test the measurement and control its vibrations. Finally, we conduct rigorous shock tests to ensure shock resistance.



The heart of the BALL TMT movement: the bimettalic coil

CROWN PROTECTION SYSTEM

The patented crown protection system guarantees superior water and shock resistance, even at the most vulnerable area of the case, the crown. When watches fail, it is not usually due to a crack in the case or crystal. In fact, many watches are damaged due to water or shock damage that comes from the crown. The crown, particularly if it is not a screwed-in crown, is among the most at risk parts of a watch. For this reason, most BALL watches use screwed-in crowns.

A special crown protection system was designed for the Engineer Hydrocarbon series to guarantee its exceptional water resistance. A protective plate is placed around the crown, which ensures the crown must be screwed-in to its original secure position after time adjustment. The shock resistance test conducted on Engineer Hydrocarbon models also tests the crown protector to ensure it will prevent damage to the crown and resist water leakage as well. The crown is tested with 7,500Gs shocks to ensure its durability.

PATENTED FOLDING BUCKLE

The buckle is the starting point, the first connection a watch owner has to a new watch. The BALL Watch patented triple folding buckle with extension performs with several assets. For an extreme resistance and a long term quality, the buckle is manufactured in a unique block of stainless steel. For comfort, the balance of the clasp is perfect, the folding elements are equally divided under the buckle cover and a 22mm extension system on both sides of the bracelet allows an ergonomic fit on every type of sport equipment.

The buckle and the extension can be opened with one hand. The closure works with a mechanical lock which resists to powerful traction forces. Apart from the technology BALL Watch has made an esthetic and an anti-allergic buckle.

GMT AND WORLDTIME FUNCTIONS

In the 1840s a railway standard time for all of England, Scotland and Wales evolved, replacing several «local time» systems. Greenwich, (England) was established as the «Prime Meridian» and the Royal Observatory built there began transmitting time telegraphically in 1852. Greenwich Mean Time (GMT) subsequently became the time standard of 19th century British maritime navigation.

The Engineer Hydrocarbon Spacemaster Orbital II with second time zone display

In watchmaking, the GMT movement provides a vital function to modern-day travelers: timing two locations on one wrist. With a 24-hour second time zone that is easily changed depending on the wearer's location, BALL GMT watches are unique. To further enhance the readability, the second time zone display has incorporated our Swiss micro gas light tubes. Most of our GMT collections feature the world's only self-illuminated second time zone, not only the hour hand, but also the hour itself is traced across the dial.

The Engineer Master II Diver Worldtime with 24-hour disk

To provide watches that can operate at the same time in the four corners of the globe, BALL Watch Company introduced the world's first mechanical movement including a day and date function combined with a 24-hour time zone display. Developed specially in the BALL workshops and grafted onto a standard caliber, an additional world-time module drives a disk engraved with the names of the world's main metropolises rotating automatically in the reverse direction to the hands, so that it simultaneously indicates the time in 24 different geographic zones.

MOVEMENTS

BALL Caliber RR1101

Swiss made mechanical movement

Reference:	RR1101
Dimensions:	Ø 25.6mm, height 3.6mm
Functions:	Hours, minutes, sweep seconds and date
Winding:	Automatic
Vibrations:	28,800vph, 4Hz
Power reserve:	42 hours
Jewels:	21 or 25 (depending on the execution)

BALL Caliber RR1102

Swiss made mechanical movement

Reference:	RR1102
Dimensions:	Ø 25.6mm, height 5.05mm
Functions:	Hours, minutes, sweep seconds, day and date
Winding:	Automatic
Vibrations:	28,800vph, 4Hz
Power reserve:	38 hours
Jewels:	25 or 26 (depending on the execution)

BALL Caliber RR1103

Swiss made mechanical movement

Reference:	RR1103
Dimensions:	Ø 25.6mm, height 4.6mm
Functions:	Hours, minutes, sweep seconds and date
Winding:	Automatic
Vibrations:	28,800vph, 4Hz
Power reserve:	38 hours
Jewels:	25 or 26 (depending on the execution)

BALL Caliber RR1104

Swiss made mechanical movement

Reference:	RR1104
Dimensions:	Ø 17.2mm, height 4.8mm
Functions:	Hours, minutes, sweep seconds and date
Winding:	Automatic
Vibrations:	28,800vph, 4Hz
Power reserve:	38 hours
Jewels:	25

BALL Caliber RR1105

Swiss made mechanical movement

Reference:	RR1105
Dimensions:	Ø 25.6mm, height 4.35mm
Functions:	Hours, minutes, subsidiary seconds and date
Winding:	Automatic
Vibrations:	28,800vph, 4Hz
Power reserve:	42 hours
Jewels:	27

BALL Caliber RR1106

Swiss made mechanical movement with BALL in-house modification

Reference:	RR1106
Dimensions:	Ø 25.6mm, height 4.6mm
Functions:	Hours, minutes, sweep seconds, date and universal military time (UMT)
Winding:	Automatic
Vibrations:	28,800vph, 4Hz
Power reserve:	38 hours
Jewels:	25

BALL Caliber RR1201

Swiss made mechanical movement

Reference:	RR1201
Dimensions:	Ø 25.6mm, height 4.1mm
Functions:	Hours, minutes, sweep seconds, date and second time zone (GMT)
Winding:	Automatic
Vibrations:	28,800vph, 4Hz
Power reserve:	42 hours
Jewels:	21

BALL Caliber RR1202

Swiss made mechanical movement with BALL in-house modification

Reference:	RR1202
Dimensions:	Ø 25.6mm, height 4.1mm
Functions:	Hours, minutes, sweep seconds, date, second time zone (GMT) and universal military time (UMT)
Winding:	Automatic
Vibrations:	28,800vph, 4Hz
Power reserve:	42 hours
Jewels:	21

BALL Caliber RR1301

Swiss made mechanical movement with BALL in-house modification

Reference:	RR1301
Dimensions:	Ø 25.6mm, height 5.1mm
Functions:	Hours, minutes, sweep seconds, big date and second time zone (dual time)
Winding:	Automatic
Vibrations:	28,800vph, 4Hz
Power reserve:	42 hours
Jewels:	21

BALL Caliber RR1302

Swiss made mechanical movement

Reference:	RR1302
Dimensions:	Ø 26.2mm, height 4.95mm
Functions:	Hours, minutes, sweep seconds, date, second time zone (dual time) and power reserve
Winding:	Automatic
Vibrations:	28,800vph, 4Hz
Power reserve:	40 hours
Jewels:	28

BALL Caliber RR1401

Swiss made mechanical movement with BALL in-house modification

Reference:	RR1401
Dimensions:	Ø 30mm, height 7.5mm
Functions:	Hours, minutes, subsidiary seconds, date and chronograph with accumulated measurement up to 45 minutes
Winding:	Automatic
Vibrations:	28,800vph, 4Hz
Power reserve:	38 hours
Jewels:	49

BALL Caliber RR1402

Swiss made mechanical movement

Reference:	RR1402
Dimensions:	Ø 30mm, height 7.9mm
Functions:	Hours, minutes, subsidiary seconds, day, date and chronograph with accumulated measurement up to 12 hours
Winding:	Automatic
Vibrations:	28,800vph, 4Hz
Power reserve:	48 hours
Jewels:	25

BALL Caliber RR1403

Swiss made mechanical movement with BALL in-house modification

Reference:	RR1403
Dimensions:	Ø 30mm, height 7.9mm
Functions:	Hours, minutes, subsidiary seconds, linear triple calendar and single-button chronograph with accumulated measurement up to 30 minutes
Winding:	Automatic
Vibrations:	28,800vph, 4Hz
Power reserve:	48 hours
Jewels:	25

BALL Caliber RR1404

Swiss made mechanical movement

Reference:	RR1404
Dimensions:	Ø 30mm, height 7.9mm
Functions:	Hours, minutes, subsidiary seconds, date and chronograph with accumulated measurement up to 12 hours and second time zone (GMT)
Winding:	Automatic
Vibrations:	28,800vph, 4Hz
Power reserve:	48 hours
Jewels:	25

BALL Caliber RR1405

Swiss made mechanical movement with BALL in-house modification

Reference:	RR1405
Dimensions:	Ø 30mm, height 7.9mm
Functions:	Hours, minutes, subsidiary seconds, linear triple calendar and chronograph with accumulated measurement up to 30 minutes
Winding:	Automatic
Vibrations:	28,800vph, 4Hz
Power reserve:	48 hours
Jewels:	25

BALL Caliber RR1406

Swiss made mechanical movement

Reference:	RR1406
Dimensions:	Ø 30mm, height 7.9mm
Functions:	Hours, minutes, subsidiary seconds, triple calendar, chronograph with accumulated measurement up to 12 hours, universal military time (UMT) and moon phase
Winding:	Automatic
Vibrations:	28,800vph, 4Hz
Power reserve:	48 hours
Jewels:	25

BALL Caliber RR1407

Swiss made mechanical movement with BALL in-house modification

Reference:	RR1407
Dimensions:	Ø 30mm, height 7.9mm
Functions:	Hours, minutes, subsidiary seconds, day, date and single-button chronograph with accumulated measurement up to 60 seconds
Winding:	Automatic
Vibrations:	28,800vph, 4Hz
Power reserve:	48 hours
Jewels:	25

BALL Caliber RR1501

Swiss made mechanical movement with BALL in-house modification

Reference:	RR1501
Dimensions:	Ø 31.4mm, height 6.95mm
Functions:	Hours, minutes, sweep seconds, day, date and worldtime
Winding:	Automatic
Vibrations:	28,800vph, 4Hz
Power reserve:	38 hours
Jewels:	25

BALL Caliber RR1502

Swiss made mechanical movement with BALL in-house modification

Reference:	RR1502
Dimensions:	Ø 30mm, height 7.9mm
Functions:	Hours, minutes, subsidiary seconds, day, date, worldtime and chronograph with accumulated measurement up to 12 hours
Winding:	Automatic
Vibrations:	28,800vph, 4Hz
Power reserve:	48 hours
Jewels:	25

BALL Caliber RR1601

Swiss made mechanical movement with BALL in-house modification

Reference:	RR1601
Dimensions:	Ø 25.6mm, height 5.1mm
Functions:	Hours, minutes, sweep seconds, date and mechanical thermometer (TMT)
Winding:	Automatic
Vibrations:	28,800vph, 4Hz
Power reserve:	42 hours
Jewels:	21

BALL Caliber RR1701

Swiss made mechanical movement with BALL in-house modification

Reference:	RR1701
Dimensions:	Ø 25.6mm, height 3.6mm
Functions:	Hours, minutes, sweep seconds, big date and power reserve
Winding:	Automatic
Vibrations:	28,800vph, 4Hz
Power reserve:	42 hours
Jewels:	21

BALL Caliber RR1702

Swiss made mechanical movement

Reference:	RR1702
Dimensions:	Ø 25.6mm, height 4.85mm
Functions:	Hours, minutes, sweep seconds, date and power reserve
Winding:	Automatic
Vibrations:	28,800vph, 4Hz
Power reserve:	42 hours
Jewels:	21

BALL Caliber RR1703

Swiss made mechanical movement with BALL in-house modification

Reference:	RR1703
Dimensions:	Ø 25.6mm, height 4.85mm
Functions:	Hours, minutes, sweep seconds, date and linear power reserve
Winding:	Automatic
Vibrations:	28,800vph, 4Hz
Power reserve:	42 hours
Jewels:	21

BALL Caliber RR1801

Swiss made mechanical movement with BALL in-house modification

Reference:	RR1801
Dimensions:	Ø 25.6mm, height 5.05mm
Functions:	Hours, minutes, sweep seconds, date and moon phase
Winding:	Automatic
Vibrations:	28,800vph, 4Hz
Power reserve:	42 hours
Jewels:	25

BALL Caliber RR2101

Swiss made mechanical movement

Reference:	RR2101
Dimensions:	Ø 36.6mm, height 4.5mm
Functions:	Hours, minutes and subsidiary seconds
Winding:	Manual
Vibrations:	18,000vph, 2.5Hz
Power reserve:	46 hours
Jewels:	17

BALL Caliber RR2701

Swiss made mechanical movement

Reference:	RR2701
Dimensions:	Ø 23.3mm, height 2.5mm
Functions:	Hours, minutes, subsidiary seconds and power reserve
Winding:	Manual
Vibrations:	21,600vph, 3Hz
Power reserve:	42 hours
Jewels:	17

THE SPIRIT OF ADVENTURE

A journey of a thousand miles must begin with a single step.

Plumes of blowing snow stream from Everest's South Summit as climbers cross the steep face of Lhotse on the Society-sponsored American Mount Everest Expedition of 1963. In this view, the mountain's true summit lies hidden behind the final ridge.

The spirit of exploration cannot be confined. It goes where no man has dared to go before, to redefine the frontiers of achievement.

The depths of the ocean, the peaks of the world. The pioneer heads where his inner compass points him. He takes the road less traveled, to scale new heights of endurance and endeavor.

These elements parallel the ideals of BALL Watch Company and have been hardwired into our founding philosophy:

Since 1891, accuracy under adverse conditions

The story of the American railroads is a story of unbridled daring and adventurous exploration. BALL watches accompanied the brave men of the railroads then, just as they serve the world-class explorers of today. We continue the tradition of accuracy and innovation in our partnership with the BALL Explorers Club. At BALL Watch Company, we are proud to help modern adventurers keep time, in sub-freezing temperatures and frozen wastes, from the top of the world to the bottom of the sea.

There exists a special breed of person who thrives on risk, for whom an unconquered mountain or an unexplored ocean represents an irresistible challenge. Some are world-famous while others are known only to a tight-knit group of admiring peers, but all share certain hallmark qualities: a fierce desire to be first and best; a deep commitment to their goals; and most important of all, a kind of determination and endurance that is more spiritual than physical, a determination to find themselves.

The romantic adventurer has always had strong links with science and intellectual curiosity: the very act of trying the unknown, whether it takes the form of a stretch of unclimbed rock, a block of polar pack ice or a solo attempt to sail around the world, holds a challenge for the mind as well as the body.


NORTHERN PACIFIC
NP 2261
2261
2261

THE BALL EXPLORERS CLUB

BALL Watch extends its know-how acquired in the service of the railroad industry to serve all adventurers looking for new horizons and those looking for new personal challenges while fighting the most extreme natural elements. BALL Watch has made all the world's adventurers its ambassadors.

Those adventurers who combine exceptional personalities and a friendly simplicity are both fervent admirers of all the natural beauties and feel a visceral urge for challenge, putting their lives at stake when confronting nature's most dangerous forces. Nonetheless, in their exaltation, they know that, as simple mortals, to remain humble when facing nature's power. BALL Watch very much understands these great human qualities, also found in the early railroad pioneers who labored strenuously in their hyper-powerful locomotives.

The BALL Explorers Club brings together extreme sportsmen and adventurers, exceptional scientists and researchers as well as some great actors of the civil society. It was launched in 2004 with Richard Limeburner, Oceanographer & Deep Sea Recovery Expert, as founding member. In 2006, four new members were added to the impressive achievements of the BALL Explorers Club. NASA Astronaut Owen Garriott is one of nine men to have lived on the Skylab space station. John «Mad Cow» Hembel and Guillaume Néry have claimed records in their breathtaking sports of speed skiing and free diving, respectively. Dr. Christopher Hillman braves the elements to serve as the sole doctor to nomadic communities high in the Himalayas.

Recent members Joshua Wurman and Brian Binnie explore the natural world in two very different ways. Wurman follows storms across the Great Plains to discover the cause of tornados, while Binnie flies high above to test pioneering new spaceships. Dr. Geoff Tabin is acting as a modern medical explorer, helping to cure the world's blind as co-founder of the Himalayan Cataract Project. Edurne Pasaban, first woman mountaineer to conquer all 14 «eight-thousanders meters» peaks, joined the BALL Explorers Club in 2012 together with Alex Honnold, world record holder in free solo climbing.

Richard Limeburner

Owen Garriott

John Hembel

Guillaume Néry

Dr. Christopher Hillman

Joshua Wurman

Brian Binnie

Dr. Geoff Tabin

Edurne Pasaban

Alex Honnold

The 10 intrepid members of the BALL Explorers Club

BRIAN BINNIE
Spacecraft altitude record holder (367,442 feet in space)

« Accuracy is everything when you're rocketed into history, and made the space tourism dream a reality. »
Brian Binnie

Brian Binnie was born in 1953 in Indiana (USA). He spent his childhood in Scotland before returning to the United States in 1967. After completing prestigious studies at Brown and Princeton universities, he served in the US Navy as a pilot for 20 years. During this time, he acquired exceptional experience onboard 67 different aircrafts and logged more than 5,000 hours of flight time.

On October 4th, 2004, Brian Binnie piloted the private rocket SpaceShipOne to an altitude of 69.6 miles, winning the USD 10 million Ansari X Prize and opening a new era in space flight. The Ansari X Prize promoted commercial space travel with a competition to travel twice within two weeks to the edge of space, at least 62 miles or 100 kilometers above Earth's surface, and back. The successful SpaceShipOne, the first privately constructed manned spacecraft, was built by Mojave Aerospace Ventures, a joint venture between Microsoft Paul Allen and Scaled Composites, the aviation company of famed aircraft designer Burt Rutan. Brian Binnie thus fulfilled his childhood dream, and became the second person to win the title of astronaut onboard a non-governmental aircraft. All humans seek freedom and Brian Binnie has found it in the immensity of space where earth is a panorama separated from the black sky by a thin blue ribbon. This freedom was for him an opportunity to be part of an exceptional project enabling civilians to enter weightlessness.

Making the space tourism dream a reality

SpaceShipOne achieved a number of important «firsts»: first privately-funded spacecraft to exceed Mach 3,

Brian Binnie inside cabin of SpaceShipOne

first privately-funded manned spacecraft to exceed 62mi/100km altitude, and first privately-funded reusable manned spacecraft. Following the success of SpaceShipOne, Scaled Composites is building a larger, more powerful passenger-carrying space plane capable of reaching 120 km. Named Scaled Composites SpaceShipTwo, it is currently under development by Scaled Composites and Sir Richard Branson's Virgin Group. The SpaceShipOne team has made the space tourism dream a reality.

BALL Watch is proud to support the greatest human performances. Brian Binnie and the brand share the same values: a thirst for adventure and exploration, technology, precision and reliability. This common commitment to constantly reaching higher makes this partnership self-evident.

Brian Binnie on SpaceShipOne


GALACTIC
SpaceShipOne
SCALED COMPOSITIES
SpaceShipOne
N328KF

GUILLAUME NÉRY
World record breaker in free diving

« Accuracy is everything when you're braving the deep waters to become a world champion. »

Guillaume Néry

Guillaume Néry was born on 11th July 1982 in Nice, on the shores of the Mediterranean. As a child, he went diving every summer with his flippers and mask and discovered the splendors of the underwater world. He discovered free diving at the age of 14.

In addition to exploring a little-known environment, diving has given Guillaume a means of discovering himself and his true nature. Using only his monoflipper, he glides down to the depths of this precious element. « I believe this is the purest and most beautiful way of moving through the water. The ripples allow close, intense contact with the sea. There is nothing artificial, just me and the water ».

In 2002, he became the youngest world record-holder in the history of constant weight free diving by diving to a depth of -87 meters / -285 feet using only his flippers. This was the start of a great adventure. Guillaume then beat the world record three times, became world team champion in 2008 and individual world champion in Greece in 2011 with a dive of -117 meters / -383 feet. In 2012, Guillaume beat the French record with -123 meters / -403 feet and exceeded this in 2013 by diving to -124 meters / -406 feet and later that year to -125 meters / -410 feet.

During these extraordinary dives, Guillaume relies solely on his own strength to power himself to the bottom and back. The young human dolphin has been training on a daily basis, practicing yoga, meditation and tai-chi in order to achieve optimal control of his body and breath during the challenge. Guillaume has specialized in constant weight free diving

and has succeeded in developing his pulmonary capacity up to eight liters using a regular training schedule, twice the capacity of the average person. Guillaume has also reached a time of 7 minutes and 42 seconds in static apnea.

But it was with his film «Free Fall», which he made with his partner Julie Gautier in 2010 that the career of this Nice-born athlete took on a new direction. The short movie, which Julie filmed while free diving, shows Guillaume walking on the sea bed close to an underwater chasm, the Dean's Blue Hole (Bahamas), the deepest blue hole in the world. Suddenly he jumps into the void and embarks on a vertiginous fall into the abyss. Guillaume wanted to express the power of the elements of water, earth and air and the feelings of freedom, harmony and exploration inherent in free diving.

Since then, the couple has taken on new film projects, including «Narcose» in 2013, which was inspired by Guillaume's experiences and hallucinations during his descents to the depths. The film alternates the real and the imaginary and allows audiences to share mind-blowing sensations which take them beyond the depths. For Guillaume, free diving is much more than just a sport which combines aestheticism and performance; it is a form of art, his *art de vivre*.

A diving watch is the only personal object a lover of the aquatic world such as Guillaume Néry wears while exploring the sea bed. In joining forces with Guillaume Néry in 2006, BALL Watch Company found one of the best ways of promoting the values which lie behind the brand's philosophy : a youthful outlook, purity, enthusiasm, determination, reliability, precision, strength and performance. All these qualities can be found in BALL watches, from their creation to their crafting – robust models with a functional beauty, capable of exceptional performance, allowing them to tackle the most extreme conditions with ease. At BALL Watch Company, we are proud to support Guillaume Néry in his daring attempts to push the limits of human achievements.


BALL

EDURNE PASABAN

First woman mountaineer to conquer all 14 «eight-thousanders meters» peaks

«Accuracy is everything when you attempt to scale all the highest peaks of the Himalyas»

Edurne Pasaban

Edurne Pasaban was born in Tolosa (Gipuzkoa / Spain) on 1st August 1973. Besides being the first woman to complete the ascent of the 14 «eight-thousanders» on earth (mountains over 8,000 meters high), she has a degree in Industrial Engineering from the University of the Basque Country, a Masters in Human Resources Management from ESADE Business School and is Associate Professor at the Instituto de Empresa.

As a result of her dedication and hard work she has received numerous awards, including the Gold Medal for Sporting Merit and the Queen Sofia Prize for Best Sportsperson of the Year in 2011. Her extraordinary capacity to surpass herself has earned her the admiration of fans around the world, lifting her to the rank of international icon.

A natural talent for moving in the mountain, an interest shared by those around her and her growing enthusiasm led Edurne to look for peaks beyond the Basque Country and Pyrenees. In 2001, she joined her first expedition to Everest (8,848 meters). It was a unique opportunity in her life: climbing a peak of more than eight thousand meters is an experience that few mountaineers can afford. At that moment, Edurne, aged 28, was completely unknown in the small world of mountaineering. However, when she got home she had the successful ascent in her pocket and an addiction to the Himalayas in her veins. She would have to go back.

In 2003, Edurne linked the peaks of Lhotse (8,516 meters) and the two Gasherbrums (8,035 meters and 8,068 meters). The challenge of the 14 «eight-thousanders» was starting

to take shape. In 2004, Edurne reached the summit of the K2 (8,611 meters). The expedition was a success, but the mountaineer paid a very heavy price. The intense cold weather on the day of the summit's assault, the complication of the last sections and the time spent fixing ropes and opening the route ahead of all the other expeditions on the mountain, used every last drop of her energy. Exhausted and with frostbitten feet, the descent became a fight for survival. The adventure ended in her long and very painful recovery in hospital, and two toes being amputated.

In 2007, Edurne found herself again, recovered her lost motivation and faced her greatest challenge : to climb the 14 « eight-thousanders » and, if possible, to be the first woman to do so. After climbing Dhaulagiri (8,167 meters), Manaslu (8,156 meters) and Kangchenjunga (8,586 meters), where Edurne experienced one of the « most difficult moments of her life », the mountaineer from Tolosa reached Shishapangma (8,027 meters). There, on 17th May 2010, thanks to her determination, she became the first woman in history to climb the 14 peaks of over eight-thousand meters on the planet.

Nominated « 2011 Adventurer of the Year » by the National Geographic and first woman to join the BALL Explorers Club, Edurne Pasaban represents BALL Watch on the international scene and works on a new generation of timepieces. BALL Watch Company and Edurne Pasaban share the same values of commitment to the pursuit of excellence, tenacity and faultless generosity.


GRIFONE
LAGUN ARO
PRO TREK
gipuzkoa
GRIFONE
GORE-TEX

ALEX HONNOLD
World record holder in free solo climbing

«Accuracy is everything when you climb the most gigantic rock walls only by your own.»

Alex Honnold

With numerous climbing records to his name, Alex Honnold is one of the most intrepid and skillful climbers in the world. He is considered a true living legend of free solo climbing. Alexander J. Honnold was born on 17th August 1985 in Sacramento, California (USA). He started climbing when he was 11, initially indoors on climbing walls, and then outdoors on the natural rock walls in his home area.

Constantly climbing higher and attacking increasingly difficult ascents, he gradually switched to the most extreme discipline in sport rock climbing: free solo climbing. This practice is derived from free climbing in which the climber foregoes all ropes, harnesses and protective gear, relying solely on foot and handholds when climbing. Leaving no room for error, this sport is the domain of a handful of the most seasoned and talented climbers.

At the age of 18, Alex Honnold dropped out of University of California Berkeley, where he was an engineering student, to devote all his time to climbing. It is in Yosemite National Park in California, world renowned for its spectacular granite domes, that Alex Honnold has attained his finest achievements. Here, he managed a total climb of more than 2,130 meters / 7,000 feet in less than 24 hours, more than 90% free solo, including the Park's three highest rock walls: *Mount Watkins, El Capitan* and *Half Dome*. His many records also include the gigantic *Astroman* and *Rostrum* walls in Yosemite Park.

Alex Honnold combines exceptional dexterity and the unparalleled physical condition needed for such a

performance with an absolute precision of movement. This constant quest for precision is one of the common denominators between Alex Honnold and watchmaking. In the same way that BALL Watch developed the first chronometer standards at the end of the 19th century, Alex Honnold has alone established new standards in sport climbing. Through his climbing feats, he has attracted considerable media attention and acquired fame that goes far beyond the world of rock climbing.

Nonetheless, Alex Honnold is simply focused on enjoying the great outdoors, traveling in his van and climbing whenever the mood takes him. «I enjoy my life very much. It's simple» Alex has often said. He considers the purity of his sport discipline as an absolute addiction. «I like the simplicity of soloing» he says. «You've got no gear, no partner. You never climb better than when you free-solo.» He also finds that the sport fits his psychological makeup. «If I have any gift, it's a mental one.» Extremely modest and with a real ability to drive himself to constantly improve his performance, Alex Honnold is pushing back the boundaries of adventure with each of his climbs.

DR. GEOFF TABIN
Co-founder of the Himalayan Cataract Project

«Accuracy is everything when you're curing the world's blind.»

Dr. Geoff Tabin

Dr. Geoff Tabin is a modern medical explorer as co-founder of the Himalayan Cataract Project. He is Professor of Ophthalmology and Visual Sciences and Director of the Division of International Ophthalmology at the University of Utah in Salt Lake City (USA). Dr. Geoff Tabin spends a considerable part of the year working abroad, both in Nepal and throughout the Himalayas, as well as in Africa.

Geoff Tabin graduated from Yale University and then earned an Master of Arts in Philosophy at Oxford University on a Marshall Scholarship. From there, he took his interest in moral philosophy and health care delivery to Harvard Medical School where he earned his MD degree (Doctor of Medicine) in 1985.

One of Geoff Tabin's greatest passions, mountain climbing, directed him to his professional career. As a medical student, he completed the first ascent of the final unclimbed face of Mt. Everest. Geoff Tabin has climbed the Seven Summits and is the fourth person in the world to reach the tallest peak on each of the seven continents. After summiting Mt. Everest, he came across a Dutch team performing cataract surgery on a woman who had been needlessly blind for three years. It was then he understood his life calling. And as a doctor, he has given himself the mission to cure the blind.

After completing an ophthalmology residency at Brown University and a fellowship in corneal surgery in Melbourne (Australia), Dr. Geoff Tabin returned to Nepal to work with Dr. Sanduk Ruit. Dr. Tabin adopted Ruit's methods for delivering high quality cataract surgery at a very low

cost and began teaching other Nepali ophthalmologists while running the eye hospital in Biratnagar, Nepal's second largest city. In 1995, Dr. Tabin established the Himalayan Cataract Project with his colleague Dr. Sanduk Ruit. The two doctors have since perfected an affordable and innovative eye surgery procedure that can cure preventable blindness within hours. Their Human Cataract Project works to train over 200 medical professionals around the globe and deliver care to the neediest populations on Earth.

Throughout the developing world, four out of five of the 150 million people who are functionally blind don't need to be. Most have easily curable conditions like cataract disease. What they don't have is access to quality medical care. In low-income, isolated areas, standard medicine simply does not work as it is too expensive and too complex.

The Himalayan Cataract Project aims to deliver medical care based on six principles: Humanitarian, High Quality, Innovation, Direct Impact, Affordability and Replication. Every year the foundation screens more than 20,000 patients, and performs between 12,000 and 15,000 surgeries.

On an eight-day expedition to Ethiopia covered by National Geographic in 2009, Dr. Tabin and his team completed over 900 surgeries in just eight days. It is difficult, tiring work and the conditions in their makeshift hospital in the dusty village were nowhere near the comfort of modern hospitals. Yet Dr. Tabin remains upbeat: «I'm not doing cutting-edge first ascents anymore, but I am pushing medicine somewhere new.»

TIME INSTRUMENT COLLECTION

To work the railroad, to tame those gigantic machines, took strength, intelligence and guts, Railroad Engineers, Firemen, Trainmasters and Conductors became our national heroes. They were at the forefront of progress and their hard work was evident in their hands, their sweat-stained clothes and their faces.


2070

ENGINEER HYDROCARBON

The «Engineer Hydrocarbon» collection is the ultimate personification of the BALL's identity. It is its iconic hero! This series exudes unrivalled character that transforms its wearer into an unmistakable hero. It goes where he goes, cleaved to his wrist, leaving all others in its wake! Its ergonomic design means the wearer can forget about it and just focus all his attention on his current mission.

The high performance advanced by locomotive engineers inspired the creation of BALL's most sophisticated and rugged watch collection. In the new millennium, BALL Watch salutes its heritage with a series that takes the professional watch to a bold new level which is no less than a revolution in contemporary watchmaking. The «Engineer Hydrocarbon» is truly the Ultimate Explorer's Watch destined to find itself on the wrists of the adventurers of the modern world.

This collection boasts unrivalled resistance features. The case is tested for shock resistance to 7,500Gs, including the relatively weaker crown position where the patented crown protection system ensures shock resistance and 300m / 1,000ft water resistance even in the event of a blow to the crown. The lubrication system of some of the ultimate timepieces

of this collection was engineered to function in all temperatures, from -40°C to 60°C (-40°F to 140°F). Anti-magnetic resistance reaches 12,000A/m, by utilizing a shaped soft iron inner jacket.

The pioneer innovations of this collection include the patented folding buckle and extension system for bracelets, the patented crown protection system, the exclusive Amortiser® system for a revolutionary anti-shock protection to the movement, a pure ceramic bezel coated with powerful luminous paint or a patented helium release valve incorporated into the crown. As for all BALL watches, the micro gas tubes light up the «Engineer Hydrocarbon» timepieces in the darkest of conditions.

Recent years have seen exceptional models honoring the world's top explorers and unveiling new major technological achievements like the «Engineer Hydrocarbon Spacemaster» that celebrates the Space conquest of Brian Binnie, the «Engineer Hydrocarbon DeepQUEST» with its record water-resistance of 3,000 meters / 9,850 feet or the «Engineer Hydrocarbon Ceramic XV» with its merge of breakthrough power, aesthetic elegance and innovation in materials.

Engineer Hydrocarbon Spacemaster Orbital II
The favorite watch of BALL Explorer Brian Binnie

Brian Binnie was one of the first civil astronauts to enter space on board a private spacecraft and paved the way for the development of space tourism. A result of his long partnership with BALL Watch Company, the **Engineer Hydrocarbon Spacemaster Orbital II** is more evidence of the BALL's strong attachment to space exploration.

This timepiece extends the BALL's line of highly advanced automatic chronographs. Designed and patented exclusively by BALL engineers, the Amortiser® anti-shock system protects the mechanical caliber against damages caused by external shocks. The Engineer Hydrocarbon Spacemaster Orbital II fitted with the Amortiser® system has been demonstrated to endure 5.2 meters free fall without any damage on the mechanical movement, making this timepiece the most robust automatic chronograph.

BALL Watch Company is proud to accompany Brian Binnie in his journey towards the infinity of space that rely on sophisticated instruments in an environment subject to the most adverse conditions.


SpaceShipOne
A Paul G. Allen Project
N328KF
BRIAN BINNIE
SCALED
COMPOSITES
BALL
OFFICIAL STANDARD
Flight Test

Engineer Hydrocarbon Black
The favorite watch of BALL Explorer Alex Honnold

Alex Honnold is one of the most talented rock climbers of his generation and is considered a living legend of free solo climbing.

BALL Watch Company reinvented its own watchmaking codes with the **Engineer Hydrocarbon Black**, a «all black» watch with striking design and unusual strength of character. It is the first model in the iconic BALL collection to use a DLC (Diamond-Like Carbon) coating which offers exceptional scratch resistance and increased durability. The titanium case gives the watch surprising lightness which is a big plus for a timepiece designed to follow Alex Honnold on his breathtaking climbs where success depends on a perfect balance between each of the accompanying elements.

The bezel is made of black ceramic benefiting from BALL's pioneering process of adding luminous paint to this material. The Engineer Hydrocarbon Black is also equipped with the SpringLOCK® patented system that reduces the impact of external shocks up to 66% thus safeguarding the accuracy of the caliber.

Alex Honnold and the Engineer Hydrocarbon Black each embody in their own ways the values of determination, love of a challenge, precision, strength, excellence and humility that characterize BALL Watch.

Engineer Hydrocarbon Ceramic Midsize
The favorite watch of BALL Explorer Edurne Pasaban

Over the nine years it took her to scale the 14 peaks more than 8,000 meters high, Edurne Pasaban applied her qualities of tenacity, the will to surpass herself and strength essential to conquering unknown horizons in the most extreme conditions and which are all values that can be attributed to the «Engineer Hydrocarbon» collection.

With an intermediate diameter of 36mm, the **Engineer Hydrocarbon Ceramic Midsize** is a balanced model that suits today's explorers. The streamlined and refined style of its dial makes it a sporty and elegant watch that would not be out-of-place even in formal situations. A subtle allusion to the colors of the alpine world, the dial is available in «slate black» or «ice white». The pure ceramic rotating bezel matches the color of each dial.

Benefiting from BALL's pioneer ceramic processing technology, the numerals and the graduation on the bezel are coated with powerful luminous paint. Ceramic also provides the bezel with exceptional resistance to corrosion, scratches and ultraviolet rays. The patented crown protection system is the final touch providing the wearer of this timepiece with improved safety in managing time and complete freedom of action.

Engineer Hydrocarbon NEDU

The world's first diving watch with a helium release valve incorporated into the crown

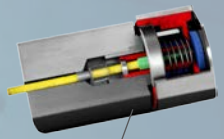
The «Navy Experimental Diving Unit (NEDU)» is the unit of the United States Navy responsible for rolling out operational diving and decompression rules for the United States Armed Forces. It assesses the systems and procedures involved in surviving hyperbaric and diving environments. Applying the same principle of «Safety First» adopted from its very beginnings by BALL Watch for its timekeepers, the NEDU's experiments have developed new procedures and new equipments to increase diving safety.

BALL Watch has quite naturally dedicated to the NEDU its powerful and characterful underwater operable diving chronograph whose all aspects have been designed for use by professional divers for whom each second may be of crucial importance. The unidirectional rotating bezel with ergonomic contours ensures precise handling even when wearing diving gloves. Designed in chromed pure black ceramic, the bezel is exceptionally resistant to corrosion, scratches and ultraviolet rays. A pioneer in ceramic processing, BALL Watch uses its innovative application process for powerful luminous paint on the ceramic bezel indications.

A fundamental characteristic of any diving watch, the water resistance of the Engineer Hydrocarbon NEDU is guaranteed to a depth of 600 meters / 2,000 feet thanks to the rugged construction of its case whose back is stamped with a diver motif echoing NEDU's official emblem. A world first in watchmaking, **the automatic helium release valve has been directly incorporated into the crown**. This patented innovation has eradicated a potential surface liable to warp under the effects of water pressure, thereby improving the chronograph's water resistance even further.

To remain visible even in the darkness of the depths, the dial's indexes and hands are naturally fitted with luminous micro tubes of H_3 gas. The iconic signature of all BALL timepieces has been further improved by attaching the dial micro tubes to metal appliques. This patented process enhances the effect of the micro tubes while also improving the diffusion of the light generated by the tritium gas. BALL Watch has even managed to incorporate cylindrical micro tubes directly into the push buttons of the chronograph.

A truly robust chronograph, the Engineer Hydrocarbon NEDU confirms again the undeniable place of BALL Watch among diving-watch designers.



Helium System Patented

ENGINEER HYDROCARBON

Airborne

DM2076C-S1CAJ-BK

Rubber strap included

MOVEMENT
Automatic caliber BALL RR1102-CSL
Chronometer certified COSC
SpringLOCK® patented anti-shock system

FUNCTIONS
31 micro gas tubes on hour, minute, second hands and dial for night reading capability
Shock resistant to 5,000Gs | Anti-magnetic to 4,800A/m
Water resistant to 120m/390ft
Hours, minutes, sweep seconds, day and date

CASE
Stainless steel | Ø 42mm, height 13.85mm
Top ceramic luminous unidirectional rotating bezel
Anti-reflective sapphire crystal
Patented crown protection system

BAND
Tapered stainless steel bracelet with patented folding buckle & extension system and rubber strap with standard buckle in a special box set

DIAL
Black

Black

DM2176A-P1CAJ-BK

MOVEMENT
Automatic caliber BALL RR1101-CSL
Chronometer certified COSC
SpringLOCK® patented anti-shock system

FUNCTIONS
35 micro gas tubes on hour, minute, second hands and dial for night reading capability
Shock resistant to 5,000Gs
Anti-magnetic to 4,800A/m
Water resistant to 300m/1,000ft
Hours, minutes, sweep seconds and magnified date

CASE
Titanium with DLC coating
Ø 42mm, height 13.25mm
Top ceramic luminous unidirectional rotating bezel
5.3mm anti-reflective sapphire crystal
Patented crown protection system

BAND
Rubber strap with standard buckle

DIAL
Black

ENGINEER HYDROCARBON

Ceramic XV

DM2136A-SCJ-BK

DM2136A-PCJ-BK

MOVEMENT
Automatic caliber BALL RR1101-C
Chronometer certified COSC

FUNCTIONS
31 micro gas tubes on hour, minute, second hands and dial for night reading capability
Shock resistant to 5,000Gs
Anti-magnetic to 4,800A/m
Water resistant to 300m/1,000ft
Hours, minutes, sweep seconds and date

CASE
Stainless steel
Ø 42mm, height 13.25mm
Top ceramic luminous unidirectional rotating bezel
5.3mm anti-reflective sapphire crystal
Patented crown protection system

BAND
Tapered stainless steel bracelet with patented folding buckle & extension system or rubber strap with standard buckle

DIAL
Black

Ceramic Midsize

DL2016B-SCAJ-WH

DL2016B-SCAJ-BK

MOVEMENT
Automatic caliber BALL RR1101-C
Chronometer certified COSC

FUNCTIONS
18 micro gas tubes on hour and minute hands and dial for night reading capability
Shock resistant to 5,000Gs
Anti-magnetic to 4,800A/m
Water resistant to 200m/650ft
Hours, minutes, sweep seconds and date

CASE
Stainless steel
Ø 36mm, height 13.1mm
Top ceramic luminous unidirectional rotating bezel
Anti-reflective convex sapphire crystal
Patented crown protection system

BAND
Tapered stainless steel bracelet with folding buckle

DIAL
Slate black or ice white

ENGINEER HYDROCARBON

NEDU

DC3026A-SC-BK

DC3026A-PC-BE

MOVEMENT
Automatic caliber BALL RR1402-C | Chronometer certified COSC

FUNCTIONS
21 micro gas tubes on hour, minute, second hands, dial and pushers for night reading capability
Underwater operable chronograph with accumulated measurement up to 12 hours
Helium System Patented | Shock resistant to 7,500Gs
Anti-magnetic to 4,800A/m | Water resistant to 600m/2,000ft
Hours, minutes, subsidiary seconds, day and date

CASE
Titanium | Ø 42mm, height 17.3mm
Top ceramic luminous unidirectional rotating bezel
3.7mm anti-reflective sapphire crystal
Patented crown protection system

BAND
Tapered titanium and stainless steel bracelet with patented folding buckle & extension system or rubber strap with standard buckle

DIAL
Black or blue

DeepQUEST

DM3000A-PCJ-SL

DM3000A-SCJ-BK

MOVEMENT

Automatic caliber BALL RR1101-C
Chronometer certified COSC

FUNCTIONS

3 micro gas tubes on hour, minute, second hands and
12 patented rectangular micro gas tubes on dial
for night reading capability | Automatic helium release valve
Shock resistant to 7,500Gs | Anti-magnetic to 4,800A/m
Water resistant to 3,000m/9,850ft
Hours, minutes, sweep seconds and date

CASE

Titanium single block case | Ø 43mm, height 16mm
SafetyDIVE® luminous unidirectional rotating bezel with
patented setting system
5.3mm anti-reflective sapphire crystal | Screwed-in crown

BAND

Tapered titanium and stainless steel bracelet
with patented folding buckle & extension system or
rubber strap with standard buckle

DIAL

Black or silver

ENGINEER HYDROCARBON

Spacemaster

DM2036A-SCAJ-BK

DM2036A-PCAJ-WH

MOVEMENT
Automatic caliber BALL RR1102-C
Chronometer certified COSC

FUNCTIONS
29 micro gas tubes on hour, minute, second hands and dial for night reading capability
Shock resistant to 7,500Gs
Anti-magnetic to 12,000A/m
Water resistant to 333m/1,100ft
Hours, minutes, sweep seconds, day and date

CASE
Stainless steel
Ø 41.5mm, height 16.1mm
Luminous unidirectional rotating bezel
4mm anti-reflective sapphire crystal
Patented crown protection system

BAND
Tapered stainless steel bracelet with patented folding buckle & extension system or rubber strap with standard buckle

DIAL
Black or white

Spacemaster Glow

DM2036A-PCA-BE

DM2036A-SCA-BK

MOVEMENT
Automatic caliber BALL RR1102-C
Chronometer certified COSC

FUNCTIONS
80 micro gas tubes on hour, minute, second hands and dial for night reading capability
Shock resistant to 7,500Gs
Anti-magnetic to 12,000A/m
Water resistant to 333m/1,100ft
Hours, minutes, sweep seconds, day and date

CASE
Stainless steel
Ø 41.5mm, height 16.1mm
Luminous unidirectional rotating bezel
4mm anti-reflective sapphire crystal
Patented crown protection system

BAND
Tapered stainless steel bracelet with patented folding buckle & extension system or rubber strap with standard buckle

DIAL
Black or blue

ENGINEER HYDROCARBON

Spacemaster Binnie

Limited Edition of 1,000 pieces

DM2036A-S4CAJ-BK

Rubber strap included

MOVEMENT

Automatic caliber BALL RR1102-C
Chronometer certified COSC

FUNCTIONS

29 micro gas tubes on hour, minute, second hands and dial for night reading capability
Shock resistant to 7,500Gs
Anti-magnetic to 12,000A/m
Water resistant to 333m/1,100ft
Hours, minutes, sweep seconds, day and date

CASE

Stainless steel | Ø 41.5mm, height 16.1mm
Luminous unidirectional rotating bezel
4mm anti-reflective sapphire crystal
Patented crown protection system

BAND

Tapered stainless steel bracelet with patented folding buckle & extension system and rubber strap with standard buckle in a special box set

DIAL

Black

Spacemaster Captain Poindexter

Limited Edition of 1,000 pieces

DM2036A-S5CA-BE

DM2036A-S5CA-BK

MOVEMENT
Automatic caliber BALL RR1102-C
Chronometer certified COSC

FUNCTIONS
80 micro gas tubes on hour, minute, second hands and dial for night reading capability
Shock resistant to 7,500Gs
Anti-magnetic to 12,000A/m
Water resistant to 333m/1,100ft
Hours, minutes, sweep seconds, day and date

CASE
Stainless steel | Ø 41.5mm, height 16.1mm
Luminous unidirectional rotating bezel
4mm anti-reflective sapphire crystal
Patented crown protection system

BAND
Tapered stainless steel bracelet with patented folding buckle & extension system and rubber strap with standard buckle in a special box set

DIAL
Black or blue

ENGINEER HYDROCARBON

Spacemaster Orbital II

DC3036C-SA-BK

MOVEMENT
Automatic caliber BALL RR1404
Cold temperature endurance to -40°

FUNCTIONS
39 micro gas tubes on hour, minute, second hands, dial and pushers for night reading capability
Chronograph with accumulated measurement up to 12 hours
Luminous second time zone indication
Shock resistant to 7,500Gs | Anti-magnetic to 4,800A/m
Water resistant to 100m/330ft
Hours, minutes, subsidiary seconds and magnified date

CASE
Titanium | Ø 45mm, height 18.3mm
Luminous bidirectional rotating bezel | Anti-reflective sapphire crystal | Patented crown protection system
Amortiser® patented anti-shock system

BAND
Tapered titanium and stainless steel bracelet with patented folding buckle & extension system

DIAL
Black

ENGINEER HYDROCARBON

Hunley

Limited Edition of 1,864 pieces

PM2096B-S1J-BK

MOVEMENT
Automatic caliber BALL RR1201

FUNCTIONS
30 micro gas tubes on hour, minute and second hands and dial for night reading capability
Power reserve indication
Shock resistant to 7,500Gs
Anti-magnetic to 4,800A/m
Water resistant to 200m/650ft
Hours, minutes, sweep seconds and date

CASE
Stainless steel | Ø 42mm, height 17.3mm
Top ceramic luminous unidirectional rotating bezel
Anti-reflective sapphire crystal
Patented crown protection system
Amortiser® patented anti-shock system

BAND
Tapered stainless steel bracelet with patented folding buckle & extension system

DIAL
Black

ENGINEER MASTER II

The engineer's primary duty was to drive the train. They were also responsible for interpreting train orders and signals as well as railroad rules and regulations. They inspected the locomotives before a run to verify fuel, sand, water and other supplies. They also synchronized time with the conductor. The «Engineer Master II» series salutes these fine men with a variety of nononsense watches which are robust as well as aesthetically functional and deliver remarkable performance.

This collection includes especially a wide range of diving timepieces that comply with the many requirements imposed by deep-sea diving. It incorporates superb innovations such as the «Engineer Master II Diver» that features an internal rotating bezel used to count down dive time using an extremely precise notch system, the «Engineer Master II Slide Chronograph», a revolutionary patented chronograph that combines slide bar mechanism with remarkable ergonomics, or the «Engineer Master II Diver Worldtime», an elegant solution for the busy travelers.

With the «Engineer Master II» collection, BALL Watch has confirmed its undeniable place among diving-watch designers. The «Engineer Master II» watches can be worn by the most audacious divers and sportsmen safe in the knowledge of its robustness even in the most adverse conditions.

Engineer Master II Diver Worldtime
The favorite watch of BALL Explorer Guillaume Néry

BALL Watch Company is supporting its ambassador Guillaume Néry both in his chosen field of endeavor, free-diving, and in his activities outside the water.

Inspired by his epic adventures, the **Engineer Master II Diver Worldtime** is the world's first timepiece to be equipped with a movement that combines worldtime and day/date functions. To accompany Guillaume Néry on his global travels, BALL Watch Company has developed and manufactured a special module that adds a worldtime function to the movement. The three central hands display the local time, while a 24-hour disk rotating automatically in the opposite direction simultaneously indicates the time in 24 different time zones.

The Engineer Master II Diver Worldtime has also a bidirectional multi-city rotating bezel with diving graduation that is actuated by a screwed-in crown at 2 o'clock. Thanks to a notched mechanism mounted on bearings, the crown can be adjusted with extreme precision. This is all the more important in that the automatic movement continues to operate while the time zone is being changed. The caseback engraving of Guillaume Néry's portrait is testimony to the extreme level of detail incorporated into this timepiece, right down to its purest aesthetic form.

Engineer Master II Slide Chronograph
A revolutionary patented chronograph that combines new slide bar mechanism with remarkable ergonomics

The **Engineer Master II Slide Chronograph** is the BALL latest approach to the most popular of watch complications. The chronograph is certainly the complication best known to the general public, not least because of its simplicity of use and its many applications in daily life. The current form of the mechanical chronograph shows few changes since its inception and generally features two push-buttons, one on each side of a central crown.

The Engineer Master II Slide Chronograph shakes up the standard architecture of the chronograph by rejecting the two push-button model and combining the start, stop and zero reset mechanisms in one integrated control at 9 o'clock on the case. Developed and patented by BALL Watch, the «Slide Chronograph» system includes a circular slide bar fitted around the movement. The chronograph is started and stopped with a clockwise rotation of this slide bar, which then returns automatically to its original position, while an anti-clockwise movement prompts a reset. The result of this revolutionary mechanism is an unprecedented level of control and ergonomic improvements. The chronograph can then be guided easily with one finger while still wearing the watch. The playful look

of the mechanism brings novelty to the experience of using a mechanical timepiece.

The Engineer Master II Slide Chronograph's striking design is unequivocally sporty in character. Its impressive 47.6 mm stainless steel case allows maximum opening for the black dial. A tachymetric scale is silkscreen printed onto the sloping flange and can be used to determine the speed of a moving object over a pre-defined distance. The sporty look of the case is further enhanced by the chiseled bezel. A series of grooves encircling the dial endow the timepiece with additional structure and depth. These grooves are elegantly set with the H_3 gas micro-tubes that provide extraordinary luminescent properties. BALL Watch has even achieved the significant feat of incorporating a cylindrical micro-tube into the chronograph's slide bar.

The Engineer Master II Slide Chronograph is yet another demonstration of the avant-garde role BALL Watch plays in watchmaking when it comes to technical developments aimed at making practical and useful innovations to contemporary timepieces.

ENGINEER MASTER II

Aviator

NM1080C-L3-BK

NM1080C-N5J-GY

MOVEMENT
Automatic caliber BALL RR1102

FUNCTIONS
15 double-sized micro gas tubes on hour, minute, second hands and dial for night reading capability
Shock resistant to 5,000Gs
Anti-magnetic to 4,800A/m
Water resistant to 100m/330ft
Hours, minutes, sweep seconds, day and date

CASE
Stainless steel
Ø 46mm, height 13.3mm
Anti-reflective convex sapphire crystal
Screwed-in crown

BAND
Stainless steel bracelet with folding buckle or calf leather strap with standard buckle or canvas strap with standard buckle

DIAL
Black or grey with regular size micro gas tubes

Aviator Dual Time

MOVEMENT
Automatic caliber BALL RR1301

FUNCTIONS
75 micro gas tubes on hour, minute, second hands and dial for night reading capability
Second time zone indication
Shock resistant to 5,000Gs
Anti-magnetic to 4,800A/m
Water resistant to 100m/330ft
Hours, minutes, sweep seconds and magnified date

CASE
Stainless steel
Ø 44mm, height 13.3mm
Anti-reflective convex sapphire crystal
Screwed-in crown

BAND
Stainless steel bracelet with folding buckle or calf leather strap with standard buckle

DIAL
Black

ENGINEER MASTER II

Aviator GMT

GM1086C-LJ-BK

GM1086C-SJ-WH

MOVEMENT
Automatic caliber BALL RR1201

FUNCTIONS
16 double-sized micro gas tubes on hour, minute, second hands and dial for night reading capability
Luminous second time zone indication
Shock resistant to 5,000Gs
Anti-magnetic to 4,800A/m
Water resistant to 100m/330ft
Hours, minutes, sweep seconds and date

CASE
Stainless steel
Ø 44mm, height 12.8mm
Anti-reflective convex sapphire crystal
Screwed-in crown

BAND
Stainless steel bracelet with folding buckle or calf leather strap with standard buckle

DIAL
Black, brown or white

Pilot GMT

GM3090C-SAJ-BK

GM3090C-LLAJ-BK

MOVEMENT
Automatic caliber BALL RR1201

FUNCTIONS
28 micro gas tubes on hour, minute, second hands and dial for night reading capability
Second time zone indication
Shock resistant to 5,000Gs
Water resistant to 100m/330ft
Hours, minutes, sweep seconds and magnified date

CASE
Stainless steel
Aluminium top luminous bidirectional rotating bezel
Ø 43.5mm, height 11.9mm
Anti-reflective sapphire crystal
Screwed-in crown

BAND
Stainless steel bracelet with folding buckle or crocodile leather strap with standard buckle

DIAL
Black

ENGINEER MASTER II
Slide Chronograph

CM3888D-S1J-BK

CM3888D-P1J-BK

MOVEMENT
Automatic caliber BALL RR1402

FUNCTIONS
15 micro gas tubes on hour and minute hands, slide bar and dial for night reading capability
Patented slide chronograph with accumulated measurement up to 12 hours
Tachymeter
Shock resistant to 5,000Gs | Anti-magnetic to 4,800A/m
Water resistant to 50m/160ft
Hours, minutes, subsidiary seconds, day and date

CASE
Stainless steel
Ø 47.6mm, height 15.5mm
Anti-reflective sapphire crystal
Screwed-in crown

BAND
Stainless steel bracelet with folding buckle or rubber strap with standard buckle

DIAL
Black

Diver

DM2020A-PA-BKWH

DM2020A-SA-BKGR

MOVEMENT
Automatic caliber BALL RR1102

FUNCTIONS
42 micro gas tubes on hour, minute, second hands and dial for night reading capability
Luminous unidirectional rotating inner bezel
Shock resistant to 5,000Gs
Anti-magnetic to 4,800A/m
Water resistant to 300m/1,000ft
Hours, minutes, sweep seconds, day and date

CASE
Stainless steel
Ø 42mm, height 13.3mm
Anti-reflective convex sapphire crystal
Screwed-in crown

BAND
Stainless steel bracelet with folding buckle or rubber strap with standard buckle

DIAL
Black with green or white index and inner bezel

ENGINEER MASTER II
Diver GMT

DG1020A-PAJ-BKGO

DG1020A-PAJ-BKSL

MOVEMENT
Automatic caliber BALL RR1201

FUNCTIONS
53 micro gas tubes on hour, minute, second hands and dial for night reading capability
Second time zone indication
Luminous unidirectional rotating inner bezel
Shock resistant to 5,000Gs
Anti-magnetic to 4,800A/m
Water resistant to 300m/1,000ft
Hours, minutes, sweep seconds and date

CASE
Stainless steel with DLC coating
Ø 42mm, height 14.3mm
Anti-reflective convex sapphire crystal
Screwed-in crown

BAND
Rubber strap with standard or folding buckle

DIAL
Black with gold or silver index and inner bezel

Diver Worldtime

DG2022A-PA-WH

DG2022A-SA-BK

MOVEMENT
Automatic caliber BALL RR1501

FUNCTIONS
55 micro gas tubes on hour, minute, second hands and dial for night reading capability
Luminous bidirectional rotating inner bezel
Worldtime display
Shock resistant to 5,000Gs
Anti-magnetic to 4,800A/m
Water resistant to 300m/1,000ft
Hours, minutes, sweep seconds, day and date

CASE
Stainless steel
Ø 45mm, height 15.4mm
Anti-reflective sapphire crystal
Screwed-in crowns

BAND
Stainless steel bracelet with folding buckle or rubber strap with standard buckle

DIAL
Black or white

ENGINEER MASTER II

DLC

NM2020C-PA-BKYE

NM2020C-LFA-BKBE

MOVEMENT
Automatic caliber BALL RR1102

FUNCTIONS
51 micro gas tubes on hour, minute, second hands and dial for night reading capability
Shock resistant to 5,000Gs
Anti-magnetic to 4,800A/m
Water resistant to 100m/330ft
Hours, minutes, sweep seconds, day and date

CASE
Stainless steel with DLC coating
Ø 41mm, height 13mm
Anti-reflective sapphire crystal
Screwed-in crown

BAND
Rubber strap with standard or folding buckle or calf leather strap with folding buckle

DIAL
Black with blue or yellow second indexes

ENGINEER II

The sport-elegant «Engineer II» collection includes timepieces that express an authentic strength of character and are capable of exceptional performance. They are equipped with unparalleled technical capabilities that enable them to confront the most adverse conditions with complete peace of mind for the wearer. Their classic design and their natural elegance personify the most remarkable technical exploits in a completely understated manner. They integrate the common denominators of all BALL watches: spirit of adventure, love of challenge, endurance and no-nonsense aesthetics.

The «Engineer II» watches honor the old railroad heroes that were these locomotive mechanics of the past. The locomotive engineer was a real hero in olden days who took care of its engine with passion. He was the one who decided of the color of its engines, polished the coppers and proudly dolled it up. He was also allowed to alter the sound of the whistle by placing wooden stops in it to create a unique and distinct sound. This had a side benefit for the engineer. His wife or landlady would learn to recognize that distinct sound and she knew he would be home soon, so she would have dinner waiting for him when he arrived.

Engineer II Magneto S
announcing A-PROOF®, a revolutionary anti-magnetic system for unparalleled protection

As part of the constant quest of BALL Watch Company to innovate and to build on the extraordinary technical prowess of its mechanical watches, the **Engineer II Magneto S** is equipped with the revolutionary A-PROOF® anti-magnetic device.

The accuracy of a mechanical watch is easily affected by the magnetic fields and the briefest of contacts with an artificial magnet may be enough to magnetize an automatic movement and cause the complete stoppage of the mechanism. Developed and patented by BALL Watch, the A-PROOF® device is a completely new approach to the protection of a mechanical movement. BALL Watch carefully selected mumetal for the development of its anti-magnetic protection device. Mumetal is an alloy of nickel, iron, copper and molybdenum with very high magnetic permeability, which enables it to attract and deviate static or low-frequency magnetic field lines. The inner casing made of Mumetal protects a mechanical watch against magnetic fields up to an astonishing record intensity of 80,000A/m.

BALL Watch Company engineers sought to bypass the constant imprisonment of the movement in an anti-magnetic cage

by developing an ingenious diaphragm mechanism that extends or retracts at will by simple circular motion of the bezel. In the fully closed position, the diaphragm locks the mumetal anti-magnetic protection cage. In the retracted position, the diaphragm therefore disappears to reveal the movement at work through the transparent case back of the Engineer II Magneto S. A genuine industrial feat, the diaphragm is machined in mumetal with a thickness of just 0.06 mm.

The Engineer II Magneto S is also equipped with BALL's patented SpringLOCK® anti-shock system. This timepiece boasts a powerful and striking look from the first glance, with a case in stainless steel and a robust 42 mm diameter, with a thickness of 12.5 mm. The subtle and understated black dial boasts a finely silk-screened graduation. The bezel is perfectly chiseled so as to enable easy manipulation when activating the diaphragm of the A-PROOF® device.

As the first BALL timepiece fitted with the revolutionary A-PROOF® device, the Engineer II Magneto S paves the way for a new generation of mechanical watches capable of facing the most adverse conditions.

ENGINEER II
Magneto S

NM3022C-NCJ-BK

MOVEMENT
Automatic caliber BALL RR1103-CSL
Chronometer certified COSC
SpringLOCK® patented anti-shock system

FUNCTIONS
15 micro gas tubes on hour, minute, second hands and dial for night reading capability
Shock resistant to 5,000Gs
A-PROOF® patented anti-magnetic system to 80,000A/m
Water resistant to 100m/330ft
Hours, minutes, sweep seconds and date

CASE
Stainless steel | Ø 42mm, height 12.9mm
Rotating bezel controlling the A-PROOF® diaphragm mechanism
Anti-reflective sapphire crystal
Sapphire crystal case back
Screwed-in crown

BAND
Cordura fabrics strap with standard buckle

DIAL
Black

NM2026C-S6-SL

NM2026C-S6-BK

MOVEMENT
Automatic caliber BALL RR1103

FUNCTIONS
14 micro gas tubes on hour, minute, second hands and dial for night reading capability
Shock resistant to 5,000Gs
Anti-magnetic to 4,800A/m
Water resistant to 100m/330ft
Hours, minutes, sweep seconds and magnified date

CASE
Stainless steel
Ø 40mm, height 13.15mm
Anti-reflective sapphire crystal
Screwed-in crown

BAND
Stainless steel bracelet with folding buckle

DIAL
Black, blue, grey or silver

ENGINEER II
Pioneer

NM2026C-L4CAJ-BK

NM2026C-S4CAJ-SL

MOVEMENT
Automatic caliber BALL RR1103-C
Chronometer certified COSC

FUNCTIONS
28 micro gas tubes on hour, minute, second hands and dial for night reading capability
Shock resistant to 5,000Gs
Anti-magnetic to 4,800A/m
Water resistant to 100m/330ft
Hours, minutes, sweep seconds and magnified date

CASE
Stainless steel
Ø 40mm, height 12.15mm
Anti-reflective sapphire crystal
Screwed-in crown

BAND
Stainless steel bracelet with folding buckle or nubuck leather strap with standard buckle

DIAL
Black enamel or silver

Arabic Chronometer

NM2026C-L2CAJ-WH

NM2026C-S2CA-BK

MOVEMENT
Automatic caliber BALL RR1102-C
Chronometer certified COSC

FUNCTIONS
31 micro gas tubes on hour, minute, second hands and dial for night reading capability
Shock resistant to 5,000Gs
Anti-magnetic to 4,800A/m
Water resistant to 100m/330ft
Hours, minutes, sweep seconds, day and date

CASE
Stainless steel
Ø 40mm, height 13.15mm
Anti-reflective sapphire crystal
Screwed-in crown

BAND
Stainless steel bracelet with folding buckle or crocodile leather strap with standard or folding buckle

DIAL
Black or white

ENGINEER II

Chronometer Red Label

NM2026C-LCJ-BK

NM2026C-SCJ-GY

MOVEMENT
Automatic caliber BALL RR1102-C
Chronometer certified COSC

FUNCTIONS
15 micro gas tubes on hour, minute, second hands and dial for night reading capability
Shock resistant to 5,000Gs
Anti-magnetic to 4,800A/m
Water resistant to 100m/330ft
Hours, minutes, sweep seconds, day and date

CASE
Stainless steel
Ø 40mm, height 13.15mm
Anti-reflective sapphire crystal
Screwed-in crown

BAND
Stainless steel bracelet with folding buckle or crocodile leather strap with standard buckle

DIAL
Black, grey or white

Chronometer Red Label (43mm)

NM2028C-SCJ-GY

NM2028C-LCJ-BK

MOVEMENT
Automatic caliber BALL RR1102-C
Chronometer certified COSC

FUNCTIONS
15 micro gas tubes on hour, minute, second hands and dial for night reading capability
Shock resistant to 5,000Gs
Anti-magnetic to 4,800A/m
Water resistant to 100m/330ft
Hours, minutes, sweep seconds, day and date

CASE
Stainless steel
Ø 43mm, height 13.15mm
Anti-reflective sapphire crystal
Screwed-in crown

BAND
Stainless steel bracelet with folding buckle or crocodile leather strap with standard or folding buckle

DIAL
Black, grey or white

ENGINEER II

Chronometer Red Label GMT

GM2026C-LCJ-BK

GM2026C-SCJ-WH

MOVEMENT
Automatic caliber BALL RR1201-C
Chronometer certified COSC

FUNCTIONS
15 micro gas tubes on hour, minute, second hands and dial for night reading capability
Second time zone indication
Shock resistant to 5,000Gs
Anti-magnetic to 4,800A/m
Water resistant to 100m/330ft
Hours, minutes, sweep seconds and date

CASE
Stainless steel
Ø 40mm, height 12.2mm
Anti-reflective sapphire crystal
Screwed-in crown

BAND
Stainless steel bracelet with folding buckle or crocodile leather strap with standard buckle

DIAL
Black or white

Arabic (40mm)

NM1020C-L4-WH

NM1020C-S4-BK

MOVEMENT
Automatic caliber BALL RR1103

FUNCTIONS
27 micro gas tubes on hour, minute, second hands and dial for night reading capability
Shock resistant to 5,000Gs
Anti-magnetic to 4,800A/m
Water resistant to 100m/330ft
Hours, minutes, sweep seconds and magnified date

CASE
Stainless steel
Ø 40mm, height 13.8mm
Anti-reflective convex sapphire crystal
Screwed-in crown

BAND
Stainless steel bracelet with folding buckle or calf leather strap with standard or folding buckle

DIAL
Black or white

ENGINEER II

Arabic Ladies

NL1026C-SA-BK

NL1026C-SA-WH

MOVEMENT
Automatic caliber BALL RR1104

FUNCTIONS
32 micro gas tubes on hour, minute, second hands and dial for night reading capability
Shock resistant to 5,000Gs
Water resistant to 100m/330ft
Hours, minutes, sweep seconds and magnified date

CASE
Stainless steel
Ø 31mm, height 10.7mm
Anti-reflective convex sapphire crystal
Screwed-in crown

BAND
Stainless steel bracelet with folding buckle

DIAL
Black or white

Ohio (40mm)

NM2026C-L5J-WH

NM2026C-S5J-BK

MOVEMENT
Automatic caliber BALL RR1102

FUNCTIONS
15 micro gas tubes on hour, minute, second hands and dial for night reading capability
Shock resistant to 5,000Gs
Anti-magnetic to 4,800A/m
Water resistant to 100m/330ft
Hours, minutes, sweep seconds, day and date

CASE
Stainless steel
Ø 40mm, height 13.8mm
Anti-reflective sapphire crystal
Screwed-in crown

BAND
Stainless steel bracelet with folding buckle or crocodile leather strap with standard or folding buckle

DIAL
Black or white

ENGINEER II
Ohio Moon Phase

NM2082C-SJ-BK

NM2082C-LLJ-SL

MOVEMENT
Automatic caliber BALL RR1801

FUNCTIONS
15 micro gas tubes on hour, minute, second hands and dial for night reading capability
Moon Phase indication
Shock resistant to 5,000Gs
Anti-magnetic to 4,800A/m
Water resistant to 100m/330ft
Hours, minutes, sweep seconds and date

CASE
Stainless steel
Ø 40mm, height 13.2mm
Anti-reflective sapphire crystal
Screwed-in crown

BAND
Stainless steel bracelet with folding buckle or
calf leather strap with standard or folding buckle or
crocodile leather strap with standard or folding buckle

DIAL
Black, blue or silver

Ohio Ladies

NL1026C-SJ-SL

NL1026C-SJ-BK

MOVEMENT
Automatic caliber BALL RR1104

FUNCTIONS
15 micro gas tubes on hour, minute, second hands and dial for night reading capability
Shock resistant to 5,000Gs
Water resistant to 100m/330ft
Hours, minutes, sweep seconds and magnified date

CASE
Stainless steel
Ø 31mm, height 10.7mm
Anti-reflective convex sapphire crystal
Screwed-in crown

BAND
Stainless steel bracelet with folding buckle

DIAL
Black or silver

TRAINMASTER

Born in the 19th century at the start of the epic era of the American railroads, BALL watches are synonymous with precision, quality and reliability. As early as 1891, the founder of the company that bears his name, Webster Clay Ball instigated the first railroad chronometric standards that were later used as the reference for Swiss chronometric certification that is still in use to this day.

The «Trainmaster» collection celebrates the railroad masters who supervised the smooth operation of the networks. They handled many aspects of the various railroads including the implementation of company policies, supervision of the trains, depots and employees, management of test

runs and safety programs, cost management, and accident investigations, to name just these activities. The models in this collection naturally echo the first watches signed «BALL's Standard» that ensured train safety thanks to their precision and reliability. In the absolute respect for the values of precision, reliability and tradition of the BALL heritage, the «Trainmaster» timepieces are a brilliant reinterpretation of the timeless attributes of elegance, lightness and simplicity that personify this classic BALL collection.

Trainmaster One Hundred Twenty

A sublime timepiece to celebrate 120 years of accuracy under adverse conditions

In 2011, BALL Watch was proud to celebrate its 120th anniversary that allows it to be synonymous with accurate timekeeping since 1891. For more than a century, BALL watches have been recognised as meeting the highest standards of precision, reliability and the strength to withstand the most adverse conditions. The criteria of these standards were ultimately used as the basis for the standards established by the Swiss Society of Chronometry (COSC) for the publication of its own certification criteria in 1973. With a rich past closely associated with the history of the American railroads, BALL Watch remains one of the most respected and well established watch brands in the United States.

At the dawn of the 21st century, BALL Watch has placed the legitimacy of its watchmaking expertise at the service of all explorers, sportspeople and great actors of the civil society involved in pushing the boundaries of knowledge and taking up the great challenges of our time, in the same way that the American railroads had constantly pushed further west in their conquest of the New World. After having celebrated 120 years of providing explorers with timepieces that allow them to read the time under the most adverse conditions, whether by day or by night, BALL Watch

Company is now more than ever committed to raising awareness of important role played by the great inventor and entrepreneur Webster Clay Ball and bringing the tradition of watchmaking into the spotlight.

On its last momentous anniversary, BALL Watch Company was proud to release a new timepiece that embodies the spirit of Webster Clay Ball and the tradition of 120 years of watchmaking.

The **Trainmaster One Hundred Twenty** truly reflects Ball's heart and soul. The slightly domed dial, finished with a radiant sunray pattern, catches light from every angle and is available in grey or silver version. Its simplicity sets a perfect platform to display the contrasting gold indexes. The hour markers are accented by the addition of H_3 technology using self-powered micro gas tubes that make the time exceptionally easy to read, day or night. Under its anti-reflective convex sapphire crystal, the dial features also a date window at the three o'clock. The elegant 18K rose gold case includes an exhibition back that reveals a fully decorated automatic caliber BALL RR1101. Finishing off this stunning timepiece is a crocodile leather strap with standard buckle.

TRAINMASTER

Worldtime

GM2020D-LCJ-BK

GM2020D-SCJ-WH

MOVEMENT
Automatic caliber BALL RR1501-C
Chronometer certified COSC

FUNCTIONS
14 micro gas tubes on hour, minute, second hands and dial for night reading capability
Worldtime display
Shock resistant to 5'000Gs
Anti-magnetic to 4,800A/m
Water resistant to 50m/160ft
Hours, minutes, sweep seconds, day and date

CASE
Stainless steel | Ø 41mm, height 12.5mm
Anti-reflective sapphire crystal
Sapphire crystal case back
Screwed-in crown

BAND
Stainless steel bracelet with folding buckle or crocodile leather strap with standard or folding buckle

DIAL
Black or white

Worldtime Chronograph

CM2052D-SJ-SL

CM2052D-LJ-BK

MOVEMENT
Automatic caliber BALL RR1502

FUNCTIONS
15 micro gas tubes on hour, minute, second hands and dial for night reading capability
Chronograph with accumulated measurement up to 12 hours
Worldtime display
Shock resistant to 5,000Gs
Water resistant to 50m/160ft
Hours, minutes, subsidiary seconds, day and date

CASE
Stainless steel
Ø 42mm, height 13.7mm
Anti-reflective sapphire crystal
Sapphire crystal case back
Screwed-in crown

BAND
Stainless steel bracelet with folding buckle or crocodile leather strap with standard buckle

DIAL
Black or silver

TRAINMASTER

One Hundred Twenty

NM2888D-PG-LJ-GYGO

NM2888D-PG-LJ-SLGO

MOVEMENT
Automatic caliber BALL RR1101

FUNCTIONS
14 micro gas tubes on hour and minute hands and dial for night reading capability
Shock resistant to 5,000Gs
Water resistant to 50m/160ft
Hours, minutes, sweep seconds and date

CASE
18k/750 rose gold
Ø 39.5mm, height 10.5mm
Anti-reflective convex sapphire crystal
Convex sapphire crystal case back

BAND
Crocodile leather strap with standard buckle

DIAL
Grey or silver with rose gold index

Legend

NM3080D-SJ-BK

NM3080D-LJ-SL

MOVEMENT
Automatic caliber BALL RR1103

FUNCTIONS
6 micro gas tubes on hour and minute hands and dial for night reading capability
Shock resistant to 5,000Gs
Water resistant to 30m/100ft
Hours, minutes, sweep seconds and date

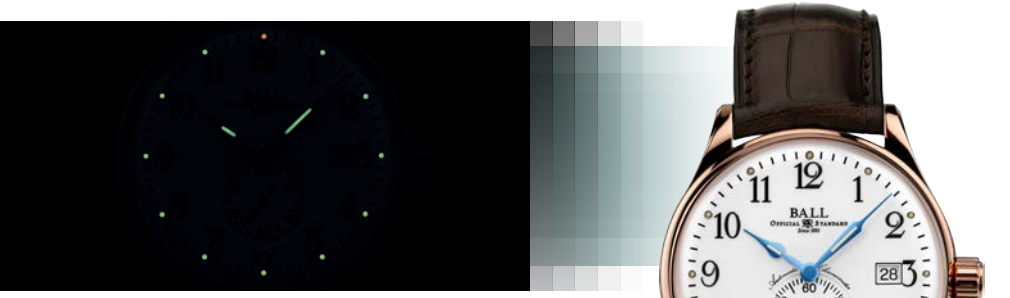
CASE
Stainless steel
Ø 40mm, height 11.45mm
Anti-reflective sapphire crystal
Sapphire crystal case back

BAND
Stainless steel bracelet with folding buckle or crocodile leather strap with standard buckle

DIAL
Black, grey or silver

TRAINMASTER

Standard Time



NM3888D-PG-LCJ-WH

MOVEMENT
Automatic caliber BALL RR1105-C
Chronometer certified COSC

FUNCTIONS
14 micro gas tubes on hour and minute hands and dial for night reading capability
Shock resistant to 5,000Gs
Water resistant to 30m/100ft
Hours, minutes, subsidiary seconds and date

CASE
18k/750 rose gold
Ø 39.5mm, height 10.5mm
Anti-reflective convex sapphire crystal
Convex sapphire crystal case back
18k/750 rose gold crown

BAND
Crocodile leather strap with standard buckle

DIAL
White enamel

Kelvin

Limited Edition of 600 pieces

NT3888D-PG-LLCJ-SLC

NT3888D-PG-LLCJ-GYC

MOVEMENT

Automatic caliber BALL RR1601-C
Chronometer certified COSC

FUNCTIONS

14 micro gas tubes on hour and minute hands and dial for night reading capability
Patented mechanical thermometric indication (range: from -35°C to 45°C/-31°F to 113°F)
Shock resistant to 5,000Gs
Water resistant to 30m/100ft
Hours, minutes, sweep seconds and date

CASE

18k/750 rose gold | Ø 39.5mm, height 10.5mm
Anti-reflective convex sapphire crystal
Convex sapphire crystal case back with silkscreen printed temperature conversion between the Kelvin and Celsius/Fahrenheit scales

BAND

Crocodile leather strap with 18k/750 rose gold standard buckle

DIAL

Grey or silver with Celsius or Fahrenheit scale

TRAINMASTER

Eternity

NM2080D-LJ-BK

NM2080D-SJ-SL

MOVEMENT
Automatic caliber BALL RR1102

FUNCTIONS
14 micro gas tubes on hour and minute hands and dial for night reading capability
Shock resistant to 5,000Gs
Water resistant to 30m/100ft
Hours, minutes, sweep seconds, day and date

CASE
Stainless steel
Ø 39.5mm, height 11.8mm
Anti-reflective sapphire crystal
Sapphire crystal case back
Screwed-in crown

BAND
Stainless steel bracelet with folding buckle or crocodile leather strap with standard buckle

DIAL
Black, blue or silver

Eternity Ladies

NL2080D-SJ-SL

NL2080D-LJ-BK

MOVEMENT
Automatic caliber BALL RR1104

FUNCTIONS
14 micro gas tubes on hour, minute, second hands and dial for night reading capability
Shock resistant to 5,000Gs
Water resistant to 30m/100ft
Hours, minutes, sweep seconds and date

CASE
Stainless steel
Ø 30.2mm, height 10.35mm
Anti-reflective sapphire crystal
Sapphire crystal case back
Screwed-in crown

BAND
Stainless steel bracelet with folding buckle or crocodile leather strap with standard buckle

DIAL
Black, blue or silver

TRAINMASTER

Cannonball

CM1052D-S1J-BK

CM1052D-L3J-WH

MOVEMENT
Automatic caliber BALL RR1401

FUNCTIONS
14 micro gas tubes on hour and minute hands and dial
for night reading capability
Chronograph with accumulated measurement up to 45 minutes
Shock resistant to 5,000Gs | Water resistant to 50m/160ft
Hours, minutes, subsidiary seconds and date

CASE
Stainless steel | Ø 43mm, height 14.8mm
Anti-reflective convex sapphire crystal
Sapphire crystal case back
Screwed-in crown

BAND
Stainless steel bracelet with folding buckle or
crocodile leather strap with standard or folding buckle

DIAL
Black, grey or white enamel

VARIANT
Automatic caliber BALL RR1401-SL with SpringLOCK®
patented anti-shock system

Pulsemeter II

CM3038C-LJ-SL

CM3038C-SJ-BK

MOVEMENT
Automatic caliber BALL RR1402

FUNCTIONS
18 micro gas tubes on hour, minute, second hands and dial for night reading capability
Chronograph with accumulated measurement up to 12 hours
Pulsemeter graduated to 15 pulsations
Shock resistant to 5,000Gs
Water resistant to 100m/330ft
Hours, minutes, subsidiary seconds, day and date

CASE
Stainless steel
Ø 42mm, height 15.65mm
Anti-reflective sapphire crystal
Sapphire crystal case back

BAND
Stainless steel bracelet with folding buckle or
crocodile leather strap with standard or folding buckle

DIAL
Black, grey or silver

TRAINMASTER

Roman

NM1058D-S4J-WH

NM1058D-L4J-GY

MOVEMENT
Automatic caliber BALL RR1102

FUNCTIONS
15 micro gas tubes on hour, minute, second hands and dial for night reading capability
Shock resistant to 5,000Gs
Water resistant to 50m/160ft
Hours, minutes, sweep seconds, day and date

CASE
Stainless steel
Ø 41mm, height 12.55mm
Anti-reflective sapphire crystal
Sapphire crystal case back
Screwed-in crown

BAND
Stainless steel bracelet with folding buckle or crocodile leather strap with standard or folding buckle

DIAL
Grey or white

Power Reserve

NM1056D-S1J-WH

NM1056D-L1J-WH

MOVEMENT
Automatic caliber BALL RR1702

FUNCTIONS
15 micro gas tubes on hour, minute, second hands and dial for night reading capability
Power reserve indication
Shock resistant to 5,000Gs
Water resistant to 50m/160ft
Hours, minutes, sweep seconds and date

CASE
Stainless steel
Ø 41mm, height 12.6mm
Anti-reflective convex sapphire crystal
Sapphire crystal case back
Screwed-in crown

BAND
Stainless steel bracelet with folding buckle or crocodile leather strap with standard or folding buckle

DIAL
White enamel

TRAINMASTER

Cleveland Express

NM1058D-LCJ-SL

NM1058D-SCJ-SLRG

MOVEMENT
Automatic caliber BALL RR1102-C
Chronometer certified COSC

FUNCTIONS
15 micro gas tubes on hour, minute, second hands and dial for night reading capability
Shock resistant to 5,000Gs
Anti-magnetic to 4,800A/m
Water resistant to 50m/160ft
Hours, minutes, sweep seconds, day and date

CASE
Stainless steel
Ø 41mm, height 12.5mm
Anti-reflective convex sapphire crystal
Sapphire crystal case back
Screwed-in crown

BAND
Stainless steel bracelet with folding buckle or crocodile leather strap with standard or folding buckle

DIAL
Blue or silver satin

Cleveland Express Power Reserve

PM1058D-LJ-SL

PM1058D-SJ-BK

MOVEMENT
Automatic caliber BALL RR1701

FUNCTIONS
15 micro gas tubes on hour, minute, second hands and dial for night reading capability
Power reserve indication
Shock resistant to 5,000Gs
Water resistant to 50m/160ft
Hours, minutes, sweep seconds and date

CASE
Stainless steel
Ø 43mm, height 12.8mm
Anti-reflective convex sapphire crystal
Sapphire crystal case back
Screwed-in crown

BAND
Stainless steel bracelet with folding buckle or crocodile leather strap with standard or folding buckle

DIAL
Black or silver

TRAINMASTER

Cleveland Express Dual Time

GM1020D-SCJ-BK

GM1020D-LCJ-SL

MOVEMENT
Automatic caliber BALL RR1202-C
Chronometer certified COSC

FUNCTIONS
16 micro gas tubes on hour, minute, second hands and dial for night reading capability
Luminous second time zone indication
Universal Military Time (UMT) indication
Shock resistant to 5,000Gs
Anti-magnetic to 4,800A/m
Water resistant to 50m/160ft
Hours, minutes, sweep seconds and date

CASE
Stainless steel | Ø 41mm, height 12.5mm
Anti-reflective convex sapphire crystal
Sapphire crystal case back | Screwed-in crown

BAND
Stainless steel bracelet with folding buckle or crocodile leather strap with standard buckle

DIAL
Black or silver

NM1058D-L3J-BK

NM1058D-S3J-WH

MOVEMENT
Automatic caliber BALL RR1102

FUNCTIONS
15 micro gas tubes on hour, minute, second hands and dial for night reading capability
Shock resistant to 5,000Gs
Water resistant to 50m/160ft
Hours, minutes, sweep seconds, day and date

CASE
Stainless steel
Ø 41mm, height 12.5mm
Anti-reflective convex sapphire crystal
Sapphire crystal case back
Screwed-in crown

BAND
Stainless steel bracelet with folding buckle or calf leather strap with standard buckle or crocodile leather strap with folding buckle

DIAL
Black or white

CONDUCTOR

The «Conductor» collection truly represents the heritage of the company founded in 1891 by Webster Clay Ball and initially linked to the history of the American railroads. This collection is the most authentic and most faithful to the origins of BALL Watch. It pays homage to the train conductors of the golden age of rail, the railroad counterparts of ships' captains.

At the time, the train conductor played a crucial role in providing an exact measurement of time to ensure the trains ran to schedule. They also collected fares when folks boarded the train where there was no ticket agent. In so doing, they actively contributed to improving rail safety and held the ultimate dignity.

BALL Watch has combined in this collection the vintage lines of its first watches with the aesthetic codes and technical performances of contemporary watchmaking. The retro characteristics of the «Conductor» timepieces are found instinctively in the tonneau-shape. Indeed, the first wristwatch designed BALL Watch in the 1920s was already based on a tonneau form. The anti-reflective sapphire crystal is also the result of a technical feat in order to create its convex form. The transparent caseback, also fitted with a curved sapphire crystal, sits perfectly on the wrist. All these elements combined immediately imbue the «Conductor» collection with its strong identity.

CONDUCTOR

Vanderbilt Chronograph

CM2068D-LJ-BK

CM2068D-LJ-GY

MOVEMENT
Automatic caliber BALL RR1401

FUNCTIONS
14 micro gas tubes on hour and minute hands and dial
for night reading capability
Chronograph with accumulated measurement up to 45 minutes
Shock resistant to 5,000Gs
Water resistant to 50m/160ft
Hours, minutes, subsidiary seconds and date

CASE
Stainless steel
38.5 x 51mm, height 16.8mm
TV screen anti-reflective sapphire crystal
Curved sapphire crystal case back
Screwed-in crown

BAND
Crocodile leather strap with standard buckle

DIAL
Black or grey

Transcendent

NM2068D-LAJ-WH

NM2068D-SAJ-BK

MOVEMENT
Automatic caliber BALL RR1101

FUNCTIONS
30 micro gas tubes on hour and minute hands and dial for night reading capability
Shock resistant to 5,000Gs
Water resistant to 50m/160ft
Hours, minutes, sweep seconds and date

CASE
Stainless steel
37.5 x 47.5mm, height 10.4mm
TV screen anti-reflective sapphire crystal
Curved sapphire crystal case back
Screwed-in crown

BAND
Stainless steel bracelet with folding buckle or crocodile leather strap with standard buckle

DIAL
Black or white

CONDUCTOR

Transcendent Pearl

NL1068D-S3AJ-PK

NL1068D-L3AJ-WH

MOVEMENT
Automatic caliber BALL RR1104

FUNCTIONS
23 micro gas tubes on hour and minute hands and dial for night reading capability
Shock resistant to 5,000Gs
Water resistant to 50m/160ft
Hours, minutes, sweep seconds and date

CASE
Stainless steel
28.5 x 38mm, height 11.8mm
TV screen anti-reflective sapphire crystal
Curved sapphire crystal case back
Screwed-in crown

BAND
Stainless steel bracelet with folding buckle or crocodile leather strap with standard buckle

DIAL
Pink or white

Transcendent Pearl Diamond

NL1068D-L3J-GY

NL1068D-S3J-PK

MOVEMENT
Automatic caliber BALL RR1104

FUNCTIONS
6 micro gas tubes on hour and minute hands and dial for night reading capability
Shock resistant to 5,000Gs
Water resistant to 50m/160ft
Hours, minutes, sweep seconds and date

CASE
Stainless steel
28.5 x 38mm, height 11.8mm
TV screen anti-reflective sapphire crystal
Curved sapphire crystal case back
Screwed-in crown

BAND
Stainless steel bracelet with folding buckle or crocodile leather strap with standard buckle

DIAL
Pink or white Mother-of-pearl or grey with eight diamonds

CONDUCTOR

Transcendent Diamond

NL1068D-DIA-S3AJ-PK

NL1068D-DIA-L3AJ-BK

MOVEMENT
Automatic caliber BALL RR1104

FUNCTIONS
23 micro gas tubes on hour and minute hands and dial for night reading capability
Shock resistant to 5,000Gs
Water resistant to 50m/160ft
Hours, minutes, sweep seconds and date

CASE
Stainless steel with 78 diamonds
28.5 x 38mm, height 11.8mm
TV screen anti-reflective sapphire crystal
Curved sapphire crystal case back
Screwed-in crown

BAND
Stainless steel bracelet with folding buckle or crocodile leather strap with standard buckle

DIAL
Pink or white Mother-of-pearl or black


511
443
SOUTHERN

FIREMAN

The «Fireman» collection is a modern combat timepiece that embodies the railroad practicality. Robust models with simple design, these watches celebrate the hard workers of yesteryear : the locomotive firemen.

The fireman's main job was to shovel coal into the firebox of the engine. Early engines burned from 40 to 200 pounds of coal per mile, depending on the quality of the coal and on the engineer. Another job of the fireman was to keep the cylinders on the drive wheels oiled while the train was underway.

The fireman was the heart of the locomotive, the person who kept the whole machine moving. Without his efforts loading coal into the hungry machine and maintaining the many mechanical parts of the train «en route», railroad transport would have been impossible. It was rough, dirty work and it often, as in the case of Kipton, put the fireman in the face of danger.

Since their inception, railroads have been an integral part of modern warfare, often deciding the success or failure of entire campaigns. The first American railroad was chartered in 1827, and army maneuvers using trains were underway by the 1830s. Now, the men of the railroads were in even more extreme danger. Route scheduling was increasingly important when a train could literally be smashed off the tracks if it was in the wrong place at the wrong time. And firemen, working directly in front of the firebox, were at the most risk. It should not come as a surprise, therefore, that railroading, military service and, by extension, watchmaking share many similarities: the same adverse conditions that pose the greatest challenges to people as well as the same quest for precision and nononsense timepieces with few frills but lots of rugged functionalities.

Fireman Storm Chaser Pro
The favorite watch of BALL Explorer Joshua Wurman

Dr. Joshua Wurman is president of the Center for Severe Weather Research (CSWR) and is behind the development of cutting-edge techniques for locating and analyzing tornadoes and hurricanes. The **Fireman Storm Chaser Pro** is the latest chronographs designed by BALL Watch under the impetus of its partnership with Dr. Joshua Wurman and is a genuine professional tool that takes the extreme demands of storm chasers in its stride.

The stainless steel case has an ideal 42 mm diameter and a bezel fitted with a matte black anodized aluminum ring. The aluminum heightens the contrast between the bezel and the case, guaranteeing excellent readability of the telemetric scale. Working in conjunction with the chronograph, the telemeter allows to easily determine the approximate distance of phenomena that can be seen and heard, like lightning and thunder.

The black, grey or white dial has been kept deliberately free of superfluous detail to enhance its perfect readability. Subdials at 6 and 12 o'clock are exquisitely worked with grooves that create a contrast with the rest of the dial. The discerning use of bright orange impart a powerfully contemporary edge and a strongly sporty touch to this outstanding chronograph.


DOW3
OPPLER ON WHEELS

FIREMAN

Storm Chaser Pro

CM3090C-L1J-BK

CM3090C-S1J-WH

MOVEMENT
Automatic caliber BALL RR1402

FUNCTIONS
15 micro gas tubes on hour, minute, second hands and dial for night reading capability
Chronograph with accumulated measurement up to 12 hours
Telemeter
Shock resistant to 5,000Gs
Water resistant to 100m/330ft
Hours, minutes, subsidiary seconds, day and date

CASE
Stainless steel | Ø 42mm, height 15.65mm
Aluminium top bezel
Anti-reflective convex sapphire crystal
Sapphire crystal case back
Screwed-in crown

BAND
Stainless steel bracelet with folding buckle or calf leather strap with standard or folding buckle

DIAL
Black, grey or white

Storm Chaser DLC

Limited Edition of 1,000 pieces

CM2192C-P1J-SL

CM2192C-P1J-BK

MOVEMENT
Automatic caliber BALL RR1402

FUNCTIONS
18 micro gas tubes on hour, minute, second hands and dial for night reading capability
Chronograph with accumulated measurement up to 12 hours
Tachymeter
Telemeter
Shock resistant to 5,000Gs
Water resistant to 100m/330ft
Hours, minutes, subsidiary seconds, day and date

CASE
Stainless steel with DLC coating
Ø 43mm, height 15.8mm
Anti-reflective convex sapphire crystal
Screwed-in crowns

BAND
Rubber strap with standard buckle

DIAL
Black or silver

FIREMAN

Storm Chaser DLC Glow

Limited Edition of 1,999 pieces

CM2192C-P2-BK

CM2192C-P2-SL

MOVEMENT
Automatic caliber BALL RR1402

FUNCTIONS
66 micro gas tubes on hour, minute, second hands and dial for night reading capability
Chronograph with accumulated measurement up to 12 hours
Tachymeter
Telemeter
Shock resistant to 5,000Gs
Water resistant to 100m/330ft
Hours, minutes, subsidiary seconds, day and date

CASE
Stainless steel with DLC coating
Ø 43mm, height 15.8mm
Anti-reflective convex sapphire crystal
Screwed-in crowns

BAND
Rubber strap with standard buckle

DIAL
Black or silver

Night Train DLC

NM2092C-P-BK

MOVEMENT
Automatic caliber BALL RR1103

FUNCTIONS
75 micro gas tubes on hour, minute, second hands and dial for night reading capability
Shock resistant to 5,000Gs
Water resistant to 100m/330ft
Hours, minutes, sweep seconds and date

CASE
Stainless steel with DLC coating
Ø 45mm, height 11.65mm
Anti-reflective sapphire crystal
Screwed-in crown

BAND
Rubber strap with standard buckle

DIAL
Black

FIREMAN

Victory

NM2098C-S3J-BK

NM2098C-P3J-SL

MOVEMENT
Automatic caliber BALL RR1103

FUNCTIONS
14 micro gas tubes on hour and minute hands and dial for night reading capability
Shock resistant to 5,000Gs
Water resistant to 100m/330ft
Hours, minutes, sweep seconds and date

CASE
Stainless steel
Ø 40mm, height 11.6mm
Anti-reflective sapphire crystal
Screwed-in crown

BAND
Stainless steel bracelet with folding buckle or rubber strap with standard buckle

DIAL
Black or silver

Victory Ladies

NL2098C-L3J-SL

NL2098C-S3J-BK

MOVEMENT
Automatic caliber BALL RR1104

FUNCTIONS
14 micro gas tubes on hour and minute hands and dial for night reading capability
Shock resistant to 5,000Gs
Water resistant to 50m/160ft
Hours, minutes, sweep seconds and date

CASE
Stainless steel
Ø 31mm, height 10.4mm
Anti-reflective sapphire crystal
Screwed-in crown

BAND
Stainless steel bracelet with folding buckle or calf leather strap with standard buckle

DIAL
Black or silver

FIREMAN

Racer

NM2088C-P2J-BKRD

NM2088C-S2J-WHBE

MOVEMENT
Automatic caliber BALL RR1103

FUNCTIONS
15 micro gas tubes on hour, minute, second hands and dial for night reading capability
Shock resistant to 5,000Gs
Water resistant to 100m/330ft
Hours, minutes, sweep seconds and magnified date

CASE
Stainless steel
Ø 40mm, height 11.4mm
Anti-reflective convex sapphire crystal
Screwed-in crown

BAND
Stainless steel bracelet with folding buckle or rubber strap with standard buckle

DIAL
Black or white with red, white or blue index

Racer DLC

NM3098C-L1J-GYOR

NM3098C-P1J-BK

MOVEMENT
Automatic caliber BALL RR1103

FUNCTIONS
15 micro gas tubes on hour, minute, second hands and dial for night reading capability
Shock resistant to 5,000Gs
Water resistant to 100m/330ft
Hours, minutes, sweep seconds and date

CASE
Stainless steel with DLC coating
Ø 43mm, height 11.35mm
Anti-reflective sapphire crystal
Screwed-in crown

BAND
Rubber strap or calf leather strap with standard buckle

DIAL
Black or grey with orange index

FIREMAN

Racer Classic

NM2288C-SJ-GY

NM2288C-LJ-SL

MOVEMENT
Automatic caliber BALL RR1103

FUNCTIONS
15 micro gas tubes on hour, minute and second hands and dial for night reading capability
Shock resistant to 5,000Gs
Water resistant to 100m/330ft
Hours, minutes, sweep seconds and date

CASE
Stainless steel
Ø 42mm, height 11.5mm
Anti-reflective sapphire crystal
Screwed-in crown

BAND
Stainless steel bracelet with folding buckle or crocodile leather strap with standard buckle

DIAL
Grey or silver


900

OFFICIAL RAILROAD WATCH

The most adverse conditions can give rise to the greatest achievements. The history of BALL watches is inseparable from that of the railroad pioneers. Appointed as «Chief Time Inspector» by the main American railroad companies at the end of the 19th century, Webb C. Ball had the responsibility of establishing strict chronometric precision standards for all watches used by railroad employees. He took to creating a time standardization system based on extremely strict criteria of accuracy and reliability. In order to maintain the accuracy of the railroad network, he also created the «BALL Time Service». Employing more than 1,800 inspectors and over 75% of the railroads in America, it allowed to regularly check the timepieces of all rail employees.

It was Webb C. Ball's system that led to accuracy and uniformity in timekeeping and established RailRoad Time and Official RailRoad Watches as the standard for precision, quality and reliability. It is a vision that BALL Watch Company remains faithful to. For legions of men and women today whose split-second decisions keep the world ticking, it is a shared commitment.

Inspired by its original railways timepieces, the «Official RailRoad Watches» is a selection of unique mechanical timekeepers that celebrate some of the most emblematic examples of the railroad history. These models are a brilliant reinterpretation of the timeless attributes of elegance, lightness and simplicity that personify the early BALL watches. It is upheld in Webb C. Ball's original details, such as the watch dial that faithfully follows his design guidelines for the Official RailRoad Watches. Every detail, from the shape of the hands to the style of the numerals, was laid down by the founder in his quest for accuracy in timekeeping.

GCT

Limited Edition of 999 pieces

GM2086C-S2-BK

GM2086C-L2-BK

MOVEMENT
Automatic caliber BALL RR1301

FUNCTIONS
15 micro gas tubes on hour, minute, second hands and dial for night reading capability
Second time zone indication
Shock resistant to 5,000Gs
Anti-magnetic to 4,800A/m
Water resistant to 100m/330ft
Hours, minutes, sweep seconds and date

CASE
Stainless steel
Ø 44mm, height 13.3mm
Anti-reflective convex sapphire crystal
Screwed-in crown

BAND
Stainless steel bracelet with folding buckle or calf leather strap with standard buckle

DIAL
Black

Union Pacific Big Boy

Limited Edition of 999 pieces

NM1080C-L2-BK

NM1080C-S2-BK

MOVEMENT
Automatic caliber BALL RR1102

FUNCTIONS
15 double-sized micro gas tubes on hour, minute, second hands and dial for night reading capability
Shock resistant to 5,000Gs
Anti-magnetic to 4,800A/m
Water resistant to 100m/330ft
Hours, minutes, sweep seconds, day and date

CASE
Stainless steel
Ø 46mm, height 13.3mm
Anti-reflective convex sapphire crystal
Screwed-in crown

BAND
Stainless steel bracelet with folding buckle or calf leather strap with standard buckle

DIAL
Black

Flying Scotsman

Limited Edition of 149 pieces

NM2198D-PG-LCJ-WH

MOVEMENT
Automatic caliber BALL RR1105-C
Chronometer certified COSC

FUNCTIONS
14 micro gas tubes on hour and minute hands and dial for night reading capability
Shock resistant to 5,000Gs
Anti-magnetic to 4,800A/m
Water resistant to 30m/100ft
Hours, minutes, subsidiary seconds and date

CASE
18k/750 rose gold
Ø 42mm, height 10.9mm
Anti-reflective sapphire crystal
Sapphire crystal case back

BAND
Crocodile leather strap with rose gold buckle

DIAL
White enamel

FIREMAN

BNSF-Santa Fe

NM3098C-L3J-BKGR

MOVEMENT
Automatic caliber BALL RR1103

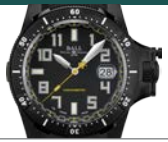
FUNCTIONS
15 micro gas tubes on hour, minute, second hands and dial for night reading capability
Shock resistant to 5,000Gs
Water resistant to 100m/330ft
Hours, minutes, sweep seconds and date

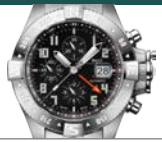
CASE
Stainless steel with DLC coating
Ø 43mm, height 11.55mm
Anti-reflective sapphire crystal
Screwed-in crown

BAND
Calf leather strap with standard buckle

DIAL
Black with green index

COLLECTION SUMMARY

		ENGINEER HYDROCARBON						
								
Model	Name	Airborne	Black	Ceramic XV	Ceramic Midsize	NEDU	DeepQUEST	Spacemaster
	Reference	DM2076C	DM2176A	DM2136A	DL2016B	DC3026A	DM3000A	DM2036A-CAJ
	Catalogue page	96	97	98	99	100	101	102
	Limited edition	–	–	–	–	–	–	–
Movement	Caliber	BALL RR1102-CSL	BALL RR1101-CSL	BALL RR1101-C	BALL RR1101-C	BALL RR1402-C	BALL RR1101-C	BALL RR1102-C
	Winding	Automatic	Automatic	Automatic	Automatic	Automatic	Automatic	Automatic
	Chronometer	✓	✓	✓	✓	✓	✓	✓
	SpringLOCK®	✓	✓	–	–	–	–	–
	Cold endurance	–	–	–	–	–	–	–
Functions	Micro gas tubes	31	35	31	18	21	15	29
	Basic indications	Hours, minutes, sweep seconds Day and date	Hours, minutes, sweep seconds Magnified date	Hours, minutes, sweep seconds Date	Hours, minutes, sweep seconds Date	Hours, minutes, subsidiary seconds Day and date	Hours, minutes, sweep seconds Date	Hours, minutes, sweep seconds Day and date
	Chronograph	–	–	–	–	✓	–	–
	TMT	–	–	–	–	–	–	–
	UMT	–	–	–	–	–	–	–
	Second time zone	–	–	–	–	–	–	–
	Worldtime	–	–	–	–	–	–	–
	Moon Phase	–	–	–	–	–	–	–
	Power reserve	–	–	–	–	–	–	–
	Shock resistant	5,000Gs	5,000Gs	5,000Gs	5,000Gs	7,500Gs	7,500Gs	7,500Gs
	Anti-magnetic	4,800A/m	4,800A/m	4,800A/m	4,800A/m	4,800A/m	4,800A/m	12,000A/m
	Water resistant	120m/390ft	300m/1,000ft	300m/1,000ft	200m/650ft	600m/2,000ft	3,000m/9,850ft	333m/1,000ft
	Helium release valve	–	–	–	–	✓	✓	–
	Amortiser®	–	–	–	–	–	–	–
	A-PROOF®	–	–	–	–	–	–	–
Case	Material	Stainless steel	Titanium & DLC	Stainless steel	Stainless steel	Titanium	Titanium	Stainless steel
	Diameter/size	42mm	42mm	42mm	36mm	42mm	43mm	41.5mm
	Height	13.85mm	13.25mm	13.25mm	13.1mm	17.3mm	16mm	16.1mm
	Bezel	Luminous ceramic Unidirectional rotating	Luminous ceramic Unidirectional rotating	Luminous ceramic Unidirectional rotating	Luminous ceramic Unidirectional rotating	Luminous ceramic Unidirectional rotating	SafetyDIVE®/Luminous Unidirectional rotating	Luminous Unidirectional rotating
	Sapphire case back	–	–	–	–	–	–	–
	Crown protection	✓	✓	✓	✓	✓	–	✓
	Screwed-in crown(s)	✓	✓	✓	✓	✓	✓	✓
Band	Material	Stainless steel bracelet & rubber strap	Rubber strap	Stainless steel bracelet Rubber strap	Stainless steel bracelet	Titanium and stainless steel bracelet Rubber strap	Titanium and stainless steel bracelet Rubber strap	Stainless steel bracelet Rubber strap
Dial	Color	Black	Black	Black	Slate black Ice white	Black Blue	Black Silver	Black White

ENGINEER HYDROCARBON					ENGINEER MASTER II		
							
Spacemaster Glow DM2036A-CA 103 –	Spacemaster Binnie DM2036A-4CAJ 104 1,000 pieces	Spacemaster Cpt Poindexter DM2036A-5CA 105 1,000 pieces	Spacemaster Orbital II DC3036C 106 –	Hunley PM2096B 107 1,864 pieces	Aviator NM1080C-3/-5 114 –	Aviator Dual Time GM2086C-1 115 –	Aviator GMT GM1086C 116 –
BALL RR1102-C Automatic ✓ – –	BALL RR1102-C Automatic ✓ – –	BALL RR1102-C Automatic ✓ – –	BALL RR1404 Automatic – – ✓	BALL RR1201 Automatic – – –	BALL RR1102 Automatic – – –	BALL RR1301 Automatic – – –	BALL RR1201 Automatic – – –
80 Hours, minutes, sweep seconds Day and date – – – – – – – 7,500Gs 12,000A/m 333m/1,000ft – – –	29 Hours, minutes, sweep seconds Day and date – – – – – – – 7,500Gs 12,000A/m 333m/1,100ft – – –	80 Hours, minutes, sweep seconds Day and date – – – – – – – 7,500Gs 12,000A/m 333m/1,100ft – – –	39 Hours, minutes, subsidiary seconds Magnified date ✓ ✓ – – ✓ – – 7,500Gs 4,800A/m 100m/330ft – ✓ –	30 Hours, minutes, sweep seconds Date – – – – – – ✓ 7,500Gs 4,800A/m 200m/650ft – ✓ –	15 Hours, minutes, sweep seconds Day and date – – – – – – – 5,000Gs 4,800A/m 100m/330ft – – –	75 Hours, minutes, sweep seconds Magnified date – – – ✓ – – – 5,000Gs 4,800A/m 100m/330ft – – –	16 Hours, minutes, sweep seconds Date – – – ✓ – – – 5,000Gs 4,800A/m 100m/330ft – – –
Stainless steel 41.5mm 16.1mm Luminous Unidirectional rotating – ✓ ✓	Stainless steel 41.5mm 16.1mm Luminous Unidirectional rotating – ✓ ✓	Stainless steel 41.5mm 16.1mm Luminous Unidirectional rotating – ✓ ✓	Titanium 45mm 18.3mm Luminous Bidirectional rotating – ✓ ✓	Stainless steel 42mm 17.3mm Luminous ceramic Unidirectional rotating – ✓ ✓	Stainless steel 46mm 13.3mm – – ✓	Stainless steel 44mm 13.3mm – – ✓	Stainless steel 44mm 12.8mm – – ✓
Stainless steel bracelet Rubber strap	Stainless steel bracelet & rubber strap	Stainless steel bracelet & rubber strap	Titanium and stainless steel bracelet	Stainless steel bracelet	Stainless steel bracelet Calf leather strap Canvas strap	Stainless steel bracelet Calf leather strap	Stainless steel bracelet Calf leather strap
Black Blue	Black	Black Blue	Black	Black	Black Grey	Black	Black Brown White

		ENGINEER MASTER II						ENGINEER II
								
Model	Name	Pilot GMT	Slide Chronograph	Diver	Diver GMT	Diver Worldtime	DLC	Magneto S
	Reference	GM3090C	CM3888D	DM2020A	DG1020A	DG2022A	NM2020C	NM3022C
	Catalogue page	117	118	119	120	121	122	128
	Limited edition	–	–	–	–	–	–	–
Movement	Caliber	BALL RR1201	BALL RR1402	BALL RR1102	BALL RR1201	BALL RR1501	BALL RR1102	BALL RR1103-CSL
	Winding	Automatic	Automatic	Automatic	Automatic	Automatic	Automatic	Automatic
	Chronometer	–	–	–	–	–	–	✓
	SpringLOCK®	–	–	–	–	–	–	✓
	Cold endurance	–	–	–	–	–	–	–
Functions	Micro gas tubes	28	15	42	53	55	51	15
	Basic indications	Hours, minutes, sweep seconds Magnified date	Hours, minutes, subsidiary seconds Day and date	Hours, minutes, sweep seconds Day and date	Hours, minutes, sweep seconds Date	Hours, minutes, sweep seconds Day and date	Hours, minutes, sweep seconds Day and date	Hours, minutes, sweep seconds Date
	Chronograph	–	✓	–	–	–	–	–
	TMT	–	–	–	–	–	–	–
	UMT	–	–	–	–	–	–	–
	Second time zone	✓	–	–	✓	–	–	–
	Worldtime	–	–	–	–	✓	–	–
	Moon Phase	–	–	–	–	–	–	–
	Power reserve	–	–	–	–	–	–	–
	Shock resistant	5,000Gs	5,000Gs	5,000Gs	5,000Gs	5,000Gs	5,000Gs	5,000Gs
	Anti-magnetic	4,800A/m	4,800A/m	4,800A/m	4,800A/m	4,800A/m	4,800A/m	80,000A/m
	Water resistant	100m/330ft	50m/160ft	300m/1,000ft	300m/1,000ft	300m/1,000ft	100m/330ft	100m/330ft
	Helium release valve	–	–	–	–	–	–	–
	Amortiser®	–	–	–	–	–	–	–
	A-PROOF®	–	–	–	–	–	–	✓
Case	Material	Stainless steel	Stainless steel	Stainless steel	Stainless steel & DLC	Stainless steel	Stainless steel & DLC	Stainless steel
	Diameter/size	43.5mm	47.6mm	42mm	42mm	45mm	41mm	42mm
	Height	11.9mm	15.5mm	13.3mm	14.3mm	15.4mm	13mm	12.9mm
	Bezel	Luminous aluminium Bidirectional rotating		Luminous Unidirectional rotating	Luminous Unidirectional rotating	Luminous Bidirectional rotating		A-PROOF® rotating system
	Sapphire case back	–	–	–	–	–	–	✓
	Crown protection	–	–	–	–	–	–	–
	Screwed-in crown(s)	✓	✓	✓	✓	✓	✓	✓
Band	Material	Stainless steel bracelet Crocodile leather strap	Stainless steel bracelet Rubber strap	Stainless steel bracelet Rubber strap	Rubber strap	Stainless steel bracelet Rubber strap	Rubber strap Calf leather strap	Cordura fabrics
Dial	Color	Black	Black	Black	Black	Black White	Black	Black

ENGINEER II

							
Marvelight NM2026C-S6 129 –	Pioneer NM2026C-4CAJ 130 –	Arabic Chronometer NM2026C-2CA 131 –	Chronometer Red Label NM2026C-CJ 132 –	Chronometer Red Label (43mm) NM2028C 133 –	Chronometer Red Label GMT GM2026C 134 –	Arabic (40mm) NM1020C 135 –	Arabic Ladies NL1026C-A 136 –
BALL RR1103 Automatic – – –	BALL RR1103-C Automatic ✓ – –	BALL RR1102-C Automatic ✓ – –	BALL RR1102-C Automatic ✓ – –	BALL RR1102-C Automatic ✓ – –	BALL RR1201-C Automatic ✓ – –	BALL RR1103 Automatic – – –	BALL RR1104 Automatic – – –
14 Hours, minutes, sweep seconds Magnified date – – – – – – – 5,000Gs 4,8000A/m 100m/330ft – – –	28 Hours, minutes, sweep seconds Magnified date – – – – – – – 5,000Gs 4,8000A/m 100m/330ft – – –	31 Hours, minutes, sweep seconds Day and date – – – – – – – 5,000Gs 4,800A/m 100m/330ft – – –	15 Hours, minutes, sweep seconds Day and date – – – – – – – 5,000Gs 4,800A/m 100m/330ft – – –	15 Hours, minutes, sweep seconds Day and date – – – – – – – 5,000Gs 4,8000A/m 100m/330ft – – –	15 Hours, minutes, sweep seconds Date – – – ✓ – – – 5,000Gs 4,800A/m 100m/330ft – – –	27 Hours, minutes, sweep seconds Magnified date – – – – – – – 5,000Gs 4,800A/m 100m/330ft – – –	32 Hours, minutes, sweep seconds Magnified date – – – – – – – 5,000Gs – 100m/330ft – – –
Stainless steel 40mm 13.15mm – – ✓	Stainless steel 40mm 12.15mm – – ✓	Stainless steel 40mm 13.15mm – – ✓	Stainless steel 40mm 13.15mm – – ✓	Stainless steel 43mm 13.15mm – – ✓	Stainless steel 40mm 12.2mm – – ✓	Stainless steel 40mm 13.8mm – – ✓	Stainless steel 31mm 10.7mm – – ✓
Stainless steel	Stainless steel bracelet Nubuck leather strap	Stainless steel bracelet Crocodile leather strap	Stainless steel bracelet Crocodile leather strap	Stainless steel bracelet Crocodile leather strap	Stainless steel bracelet Crocodile leather strap	Stainless steel bracelet Calf leather strap	Stainless steel bracelet
Black, Blue Grey, Silver	Black enamel Silver	Black White	Black Grey White	Black Grey White	Black White	Black White	Black White

		ENGINEER II			TRAINMASTER			
								
Model	Name	Ohio (40mm)	Ohio Moon Phase	Ohio Ladies	Worldtime	Worldtime Chronograph	One Hundred Twenty	Legend
	Reference	NM2026C-5J	NM2082C	NL1026C-J	GM2020D	CM2052D	NM2888D	NM3080D
	Catalogue page	137	138	139	144	145	146	147
	Limited edition	–	–	–	–	–	–	–
Movement	Caliber	BALL RR1102	BALL RR1801	BALL RR1104	BALL RR1501-C	BALL RR1502	BALL RR1101	BALL RR1103
	Winding	Automatic	Automatic	Automatic	Automatic	Automatic	Automatic	Automatic
	Chronometer	–	–	–	✓	–	–	–
	SpringLOCK®	–	–	–	–	–	–	–
	Cold endurance	–	–	–	–	–	–	–
Functions	Micro gas tubes	15	15	15	14	15	14	6
	Basic indications	Hours, minutes, sweep seconds Day and date	Hours, minutes, sweep seconds Date	Hours, minutes, sweep seconds Magnified date	Hours, minutes, sweep seconds Day and date	Hours, minutes, subsidiary seconds Day and date	Hours, minutes, sweep seconds Date	Hours, minutes, sweep seconds Date
	Chronograph	–	–	–	–	✓	–	–
	TMT	–	–	–	–	–	–	–
	UMT	–	–	–	–	–	–	–
	Second time zone	–	–	–	–	–	–	–
	Worldtime	–	–	–	✓	✓	–	–
	Moon Phase	–	✓	–	–	–	–	–
	Power reserve	–	–	–	–	–	–	–
	Shock resistant	5,000Gs	5,000Gs	5,000Gs	5,000Gs	5,000Gs	5,000Gs	5,000Gs
	Anti-magnetic	4,800A/m	4,8000A/m	4,800A/m	4,8000A/m	–	–	–
	Water resistant	100m/330ft	100m/330ft	100m/330ft	50m/160ft	50m/160ft	50m/160ft	30m/100ft
	Helium release valve	–	–	–	–	–	–	–
	Amortiser®	–	–	–	–	–	–	–
	A-PROOF®	–	–	–	–	–	–	–
Case	Material	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Rose gold	Stainless steel
	Diameter/size	40mm	40mm	31mm	41mm	42mm	39.5mm	40mm
	Height	13.8mm	13.2mm	10.7mm	12.5mm	13.7mm	10.5mm	11.45mm
	Bezel							
	Sapphire case back	–	–	–	✓	✓	✓	✓
	Crown protection	–	–	–	–	–	–	–
	Screwed-in crown(s)	✓	✓	✓	✓	✓	–	✓
Band	Material	Stainless steel bracelet Crocodile leather strap	Stainless steel bracelet Crocodile leather strap	Stainless steel bracelet	Stainless steel bracelet Crocodile leather strap	Stainless steel bracelet Crocodile leather strap	Crocodile leather strap	Stainless steel bracelet Crocodile leather strap
Dial	Color	Black White	Black Blue Silver	Black Silver	Black White	Black Silver	Grey Silver	Black Grey Silver

TRAINMASTER

							
Standard Time NM3888D 148 –	Kelvin NT3888D 149 600 pieces	Eternity NM2080D 150 –	Eternity Ladies NL2080D 151 –	Cannonball CM1052D 152 –	Pulsemeter II CM3038C 153 –	Roman NM1058D-4J 154 –	Power Reserve NM1056D 155 –
BALL RR1105-C Automatic ✓ – –	BALL RR1601-C Automatic ✓ – –	BALL RR1102 Automatic – – –	BALL RR1104 Automatic – – –	BALL RR1401 Automatic – ✓ (CM1052D-2/-3) –	BALL RR1402 Automatic – – –	BALL RR1102 Automatic – – –	BALL RR1702 Automatic – – –
14 Hours, minutes, subsidiary seconds Date – – – – – – – 5,000Gs – 30m/100ft – – –	14 Hours, minutes, sweep seconds Date – ✓ – – – – – 5,000Gs – 30m/100ft – – –	14 Hours, minutes, sweep seconds Day and date – – – – – – – 5,000Gs – 30m/100ft – – –	14 Hours, minutes, sweep seconds Date – – – – – – – 5,000Gs – 30m/100ft – – –	14 Hours, minutes, subsidiary seconds Date ✓ – – – – – – 5,000Gs – 50m/160ft – – –	18 Hours, minutes, subsidiary seconds Day and date ✓ – – – – – – 5,000Gs – 100m/330ft – – –	15 Hours, minutes, sweep seconds, Day and date – – – – – – – 5,000Gs – 50m/160ft – – –	15 Hours, minutes, sweep seconds Date – – – – – – ✓ 5,000Gs – 50m/160ft – – –
Rose gold 39.5mm 10.5mm ✓ – –	Rose gold 39.5mm 10.5mm ✓ – –	Stainless steel 39.5mm 11.8mm ✓ – ✓	Stainless steel 30.2mm 10.35mm ✓ – ✓	Stainless steel 43mm 14.8mm ✓ – ✓	Stainless steel 42mm 15.65mm Pulsemeter ✓ – –	Stainless steel 41mm 12.55mm ✓ – ✓	Stainless steel 41mm 12.6mm ✓ – ✓
Crocodile leather strap	Crocodile leather strap	Stainless steel bracelet Crocodile leather strap	Stainless steel bracelet Crocodile leather strap	Stainless steel bracelet Crocodile leather strap	Stainless steel bracelet Crocodile leather strap	Stainless steel bracelet Crocodile leather strap	Stainless steel bracelet Crocodile leather strap
White enamel	Grey or silver Celsius or Fahrenheit scale	Black Blue Silver	Black Blue Silver	Black Grey White enamel	Black Grey Silver	Grey White	White enamel

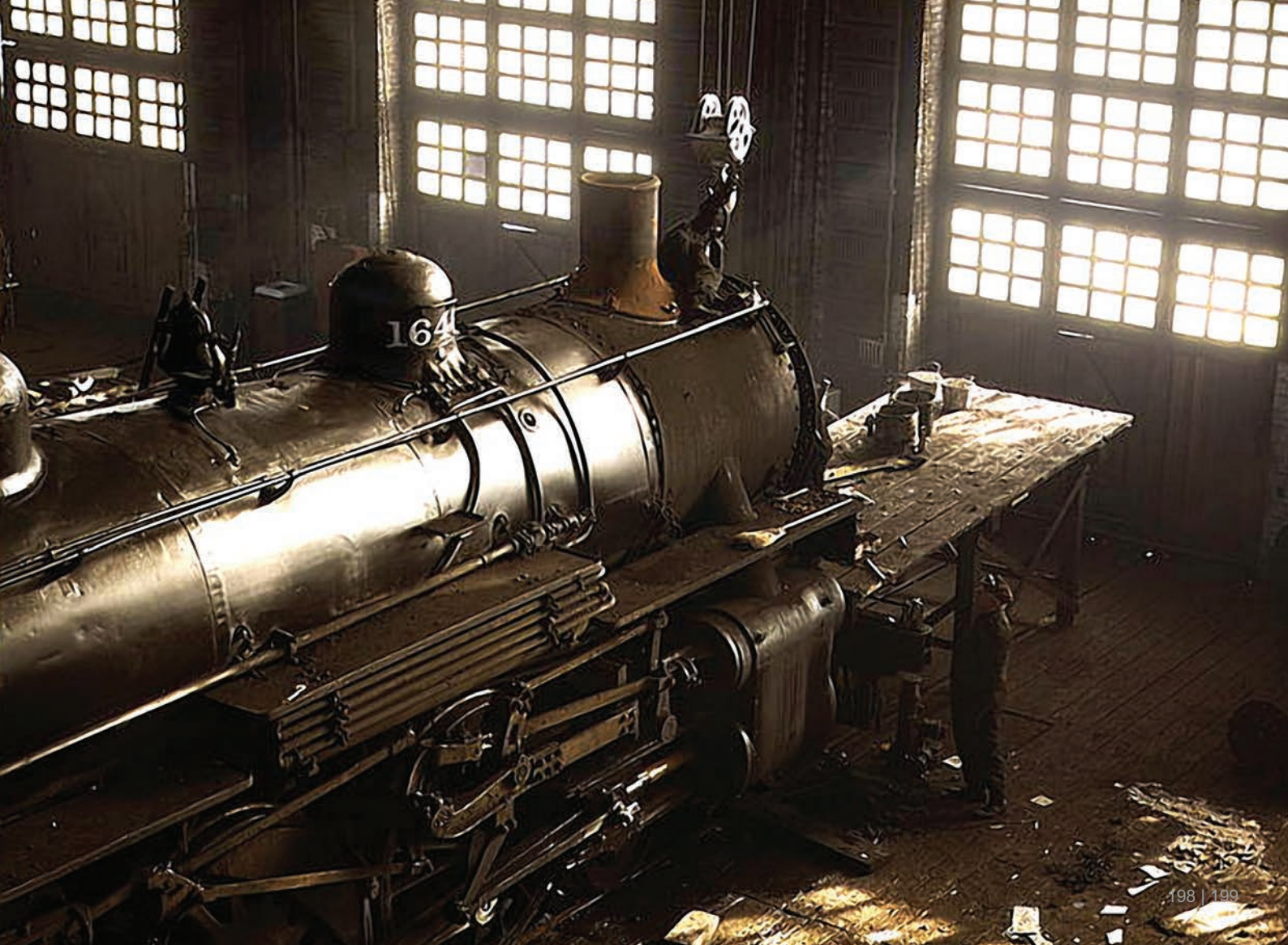
		TRAINMASTER				CONDUCTOR		
								
Model	Name	Cleveland Express	Cleveland Express Power Reserve	Cleveland Express Dual Time	60 Seconds	Vanderbilt Chronograph	Transcendent	Transcendent Pearl
	Reference	NM1058D-CJ	PM1058D	GM1020D-CJ	NM1058D-3J	CM2068D	NM2068D	NL1068D-3AJ
	Catalogue page	156	157	158	159	162	163	164
	Limited edition	–	–	–	–	–	–	–
Movement	Caliber	BALL RR1102-C	BALL RR1701	BALL RR1202-C	BALL RR1102	BALL RR1401	BALL RR1101	BALL RR1104
	Winding	Automatic	Automatic	Automatic	Automatic	Automatic	Automatic	Automatic
	Chronometer	✓	–	✓	–	–	–	–
	SpringLOCK®	–	–	–	–	–	–	–
	Cold endurance	–	–	–	–	–	–	–
Functions	Micro gas tubes	15	15	16	15	14	30	23
	Basic indications	Hours, minutes, sweep seconds Day and date	Hours, minutes, sweep seconds Date	Hours, minutes, sweep seconds Date	Hours, minutes, sweep seconds Day and date	Hours, minutes, subsidiary seconds Date	Hours, minutes, sweep seconds Date	Hours, minutes, sweep seconds Date
	Chronograph	–	–	–	–	✓	–	–
	TMT	–	–	–	–	–	–	–
	UMT	–	–	✓	–	–	–	–
	Second time zone	–	–	✓	–	–	–	–
	Worldtime	–	–	–	–	–	–	–
	Moon Phase	–	–	–	–	–	–	–
	Power reserve	–	✓	–	–	–	–	–
	Shock resistant	5,000Gs	5,000Gs	5,000Gs	5,000Gs	5,000Gs	5,000Gs	5,000Gs
	Anti-magnetic	4,8000A/m	–	4,800A/m	–	–	–	–
	Water resistant	50m/160ft	50m/160ft	50m/160ft	50m/160ft	50m/160ft	50m/160ft	50m/160ft
	Helium release valve	–	–	–	–	–	–	–
	Amortiser®	–	–	–	–	–	–	–
	A-PROOF®	–	–	–	–	–	–	–
Case	Material	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel
	Diameter/size	41mm	43mm	41mm	41mm	38.5 x 51mm	37.5 x 47.5mm	28.5 x 38mm
	Height	12.5mm	12.8mm	12.5mm	12.5mm	16.8mm	10.4mm	11.8mm
	Bezel							
	Sapphire case back	✓	✓	✓	✓	✓	✓	✓
	Crown protection	–	–	–	–	–	–	–
	Screwed-in crown(s)	✓	✓	✓	✓	✓	✓	✓
Band	Material	Stainless steel bracelet Crocodile leather strap	Stainless steel bracelet Crocodile leather strap	Stainless steel bracelet Crocodile leather strap	Stainless steel bracelet Calf leather strap Crocodile leather strap	Crocodile leather strap	Stainless steel bracelet Crocodile leather strap	Stainless steel bracelet Crocodile leather strap
Dial	Color	Blue Silver satin	Black Silver	Black Silver	Black White	Black Grey	Black White	Pink White

CONDUCTOR		FIREMAN					
							
Transcendent Pearl Diamond NL1068D-3J 165 –	Transcendent Diamond NL1068D-DIA-3AJ 166 –	Storm Chaser Pro CM3090C-1J 172 –	Storm Chaser DLC CM2192C-1J 173 1,000 pieces	Storm Chaser DLC Glow CM2192C-2 174 1,999 pieces	Night Train DLC NM2092C 175 –	Victory NM2098C 176 –	Victory Ladies NL2098C 177 –
BALL RR1104 Automatic – – –	BALL RR1104 Automatic – – –	BALL RR1402 Automatic – – –	BALL RR1402 Automatic – – –	BALL RR1402 Automatic – – –	BALL RR1103 Automatic – – –	BALL RR1103 Automatic – – –	BALL RR1104 Automatic – – –
6 Hours, minutes, sweep seconds Date – – – – – – – 5,000Gs – 50m/160ft – – –	23 Hours, minutes, sweep seconds Date – – – – – – – 5,000Gs – 50m/160ft – – –	15 Hours, minutes, subsidiary seconds Day and date ✓ – – – – – – 5,000Gs – 100m/330ft – – –	18 Hours, minutes, subsidiary seconds Day and date ✓ – – – – – – 5,000Gs – 100m/330ft – – –	66 Hours, minutes, subsidiary seconds Day and date ✓ – – – – – – 5,000Gs – 100m/330ft – – –	75 Hours, minutes, sweep seconds Date – – – – – – – 5,000Gs – 100m/330ft – – –	14 Hours, minutes, sweep seconds Date – – – – – – – 5,000Gs – 100m/330ft – – –	14 Hours, minutes, sweep seconds Date – – – – – – – 5,000Gs – 50m/160ft – – –
Stainless steel 28.5 x 38mm 11.8mm ✓ – ✓	Stainless steel with 78 diamonds 28.5 x 38mm 11.8mm ✓ – ✓	Stainless steel 42mm 15.65mm Aluminium Telemeter ✓ – ✓	Stainless steel & DLC 43mm 15.8mm Tachymeter Telemeter – – ✓	Stainless steel & DLC 43mm 15.8mm Tachymeter Telemeter – – ✓	Stainless steel & DLC 45mm 11.65mm – – ✓	Stainless steel 40mm 11.6mm – – ✓	Stainless steel 31mm 10.4mm – – ✓
Stainless steel bracelet Crocodile leather strap	Stainless steel bracelet Crocodile leather strap	Stainless steel bracelet Calf leather strap	Rubber strap	Rubber strap	Rubber strap	Stainless steel Rubber strap	Stainless steel Calf leather strap
Pink MOP with 8 diamonds White MOP with 8 diamonds Grey with 8 diamonds	Pink MOP White MOP Black	Black Grey White	Black Silver	Black Silver	Black	Black Silver	Black Silver

		FIREMAN			OFFICIAL RAILROAD WATCH			
								
Model	Name	Racer	Racer DLC	Racer Classic	GCT	Union Pacific Big Boy	Flying Scotsman	BNSF-Santa Fe
	Reference	NM2088C-2J	NM3098C-1J	NM2288C	GM2086C-2	NM1080C-2	NM2198D	NM3098C-3J
	Catalogue page	178	179	180	184	185	186	187
	Limited edition	–	–	–	999 pieces	999 pieces	149 pieces	–
Movement	Caliber	BALL RR1103	BALL RR1103	BALL RR1103	BALL RR1301	BALL RR1102	BALL RR1105-C	BALL RR1103
	Winding	Automatic	Automatic	Automatic	Automatic	Automatic	Automatic	Automatic
	Chronometer	–	–	–	–	–	✓	–
	SpringLOCK®	–	–	–	–	–	–	–
	Cold endurance	–	–	–	–	–	–	–
Functions	Micro gas tubes	15	15	15	15	15	14	15
	Basic indications	Hours, minutes, sweep seconds Magnified date	Hours, minutes, sweep seconds Date	Hours, minutes, sweep seconds Date	Hours, minutes, sweep seconds Date	Hours, minutes, sweep seconds Day and date	Hours, minutes, subsidiary seconds Date	Hours, minutes, sweep seconds Date
	Chronograph	–	–	–	–	–	–	–
	TMT	–	–	–	–	–	–	–
	UMT	–	–	–	–	–	–	–
	Second time zone	–	–	–	✓	–	–	–
	Worldtime	–	–	–	–	–	–	–
	Moon Phase	–	–	–	–	–	–	–
	Power reserve	–	–	–	–	–	–	–
	Shock resistant	5,000Gs	5,000Gs	5,000Gs	5,000Gs	5,000Gs	5,000Gs	5,000Gs
	Anti-magnetic	–	–	–	4,800A/m	4,800A/m	4,8000A/m	–
	Water resistant	100m/330ft	100m/330ft	100m/330ft	100m/330ft	100m/330ft	30m/100ft	100m/330ft
	Helium release valve	–	–	–	–	–	–	–
	Amortiser®	–	–	–	–	–	–	–
	A-PROOF®	–	–	–	–	–	–	–
Case	Material	Stainless steel	Stainless steel & DLC	Stainless steel	Stainless steel	Stainless steel	Rose gold	Stainless steel & DLC
	Diameter/size	40mm	43mm	42mm	44mm	46mm	42mm	43mm
	Height	11.4mm	11.35mm	11.5mm	13.3mm	13.3mm	10.9mm	11.55mm
	Bezel							
	Sapphire case back	–	–	–	–	–	✓	–
	Crown protection	–	–	–	–	–	–	–
	Screwed-in crown(s)	✓	✓	✓	✓	✓	–	✓
Band	Material	Stainless steel Rubber strap	Rubber strap Calf leather strap	Stainless steel bracelet Crocodile leather strap	Stainless steel bracelet Calf leather strap	Stainless steel bracelet Calf leather strap	Crocodile leather strap	Calf leather strap
Dial	Color	Black White	Black Grey with orange index	Grey Silver	Black	Black	White enamel	Black

CHRONOLOGY

The chronology of BALL Watch reveals the rich history of the company founded by Webb C. Ball and vividly illustrates its impact on America and the watchmaking. Today, more than ever, BALL Watch is continuing its journey and asserting its role as a key protagonist in the evolution of watchmaking history.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1879 Webb C. Ball Jewelry Store was established.

1883 Webb C. Ball was the first Cleveland jeweler to use time signals sent from the Naval Observatory in Washington, D.C. bringing accurate time to Cleveland.

1888 Webb C. Ball was appointed Chief Examiner of Watches for Cleveland & Pittsburgh Division.

1890 Webb C. Ball was appointed Time Inspector for the Cincinnati Railroad.

1891 On July 18th, Webb C. Ball was appointed Chief Time Inspector for Lake Shore & Michigan Southern Railway in the aftermath of the Kipton Disaster.

In October the BALL store was transformed into a corporation, Webb C. Ball Co., Inc.

1893 No.999 was a specially built engine of the New York Central and Hudson River Railroad's Empire State Express. On May 10th, No. 999 set a speed record of 112.5 miles per hour, marking the first time the 100mph barrier had been exceeded by a man-made vehicle. Webb C. Ball was instrumental in the timing service of this historic event and the number 999 was synonymous with high-speed railroading.

1894 The BALL Watch Company was formed to distribute watches.


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THE WEBB C. BALL WATCH COMPANY

INCORPORATED UNDER THE LAWS OF THE STATE OF OHIO

AUTHORIZED CAPITAL $300,000—PAR VALUE OF SHARES $100 EACH

*This Certifies that*_____

*is the owner of*_____*fully paid and non-assessable shares of the Capital Stock of The Webb C. Ball Watch Company, transferable only upon the books of the Company by the owner in person or by duly authorized Attorney upon surrender of this Certificate properly endorsed.*

*Witness the signatures of its authorized officers, and its Corporate Seal, at Cleveland, Ohio, this*_____

*day of*_____, 19____.

Secretary

President

First Share Certificate (No. 000000) of the Webb C. Ball Watch Company

1895 A special 18-size BALL grade no.999 watch was made to commemorate high-speed railroading.

1896 Patent records for 1896 to 1908 showed that Webb C. Ball held patents for plate design, micrometer regulator, hairspring studs and a number of trademarks.

1897 In September, the American Exchange National Bank was established and opened its doors with $250,000 stock. Webb C. Ball was one of the founders and a charter stockholder.

The BALL Standard Railroad Watch Co., Inc was incorporated in November to manufacture and distribute railroad watches.

BALL 17 jewel, 18 size, gold-plated hunting case pocket watch, circa 1898
White enamel dial with bold Roman numerals and sunk subsidiary seconds

Headquarters of the Webb C. Ball Watch Company in Cleveland (Ohio)

Vintage BALL advertisement

1900 Webb C. Ball established railroad watch standards and conducted time inspections for over 54 railroad companies. He approved 37 different watches for railroad use.

1902 Webb C. Ball was responsible for watch inspection on Vanderbilt railroads east of Chicago. The railroad system that developed and then operated the fastest trans-divisional, long-distance train service in the world kept its trains running on the BALL.

Noris, Aloster, BALL Co., Chicago was formed in the same year to wholesale jewelry.

1907 On February 10th, the Cleveland Plain Dealer published the Brotherhood minutes appointing BALL as an honorary member.

1910 Six BALL balance wheel demonstrators were made to demonstrate their spring tempered balance wheel.

Semi-Annual Examination of Watches.

L. S. & M. S. RAILWAY COMPANY.

INSPECTOR'S REPORT No. 1.

SUMMARY.

Watches passed inspection and in Service—Total 2344.

		Total.
Watches, accepted, first inspection	1891	
Watches, rejected, first inspection	453	2344
Watches, old in service	771	
Watches, new in service	1573	2344
Watches in service:		
Howard	135	
Hampden	1097	
Waltham	474	
Columbus	145	
Illinois	47	
Rockford	65	
Elgin	300	
Swiss	57	
Seth Thomas	13	
Miscellaneous	11	2344
Watches, stem wind, in service	2232	
Watches, key wind, in service	112	2344
Watches, hunting cased, in service	833	
Watches, open face cased, in service	1511	2344
Watches, open face, pendant at 12	1443	
Watches, open face, pendant at 3	68	
Watches, hunting	833	2344
Watches, gold cased, in service	472	
Watches, gold filled cased, in service	1049	
Watches, silver cased, in service	369	
Watches, nickel cased, in service	454	2344

Conductors	795
Engineers	776
Firemen	668
Yard Masters	105
Total	2344

Webb C. Ball,
Chief Inspector.

Cleveland, O., April 30th, 1892.

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Watch Inspection report from the Lake Shore Railroad, dated 1892

1913 The BALL «Twentieth Century Model» case was introduced with BALL's patented «Safety Bow» a feature that would last for over forty years and made BALL watches some of the most recognizable in the railroad watch industry.

1915 Webb C. Ball reduced railroad-approved watches to 19 watches, in 18 and 16 sizes.

1921 Webb C. Ball's efforts were honored by the Horological Institute of America in Washington on October 20th.

1960 The first Swiss pocket watch to achieve fairly wide acceptance on US railroads was a 16 size by the BALL Company with 21-jewel and lever-set movement made by the Record Watch Co.

1962 The first «BALL Skindiver» timepiece is designed in response to the growing popularity of deep-sea diving in the United States.

BALL Skindiver watch of 1962

«Moon Glow» patented luminous calendar

1970 Southern Pacific published the 19-page Time Service Manual in which rules pertaining to time service are listed. The only acceptable railroad-grade pocket watches on the Southern Pacific are those of American manufacture, and the Swiss-made BALL model 435C. The S.P. also approved the BALL Trainmaster automatic wristwatch.

1978 BALL introduced its Trainmaster automatic winding wristwatch using Swiss movements.

1980 BALL Watch Co. was acknowledged as the longest-lived seller of railroad-marked watches, having done so from 1895 to 1980.

2001 BALL pioneered the world's first micro gas light mechanical watch by launching its Engineer watch series.

2002 BALL Watch Co. invented the luminous calendar and filed its «Moon Glow» design patent (serial number: 10-307,069) with US Trademark and Patent Office.

Jim Whittaker
Former BALL ambassador and founding member
of the BALL Explorers Club

Engineer Hydrocarbon series

Trainmaster Louisville & Indiana RR

BALL Inspector I model, the first to incorporate Moon Glow, is launched. The Engineer II Moon Glow soon followed.

2003 BALL updated its vintage Trainmaster model, introducing the BALL Signature Design, Arabic numerals constructed of micro gas tubes for superb night reading.

2004 Jim Whittaker, the first American to climb Mount Everest, and Richard Limeburner, Oceanographer of Woods Hole Oceanographic Institution, joined the BALL Explorers Club as founding members.

BALL updated its vintage Conductor model, the only tonneau-shape watch under the BALL name.

The Engineer Hydrocarbon series is launched.

2005 The Fireman series is launched as a tribute to the armed forces.

BALL teamed up with the Louisville & Indiana Railroad to produce a limited edition Trainmaster with enamel dial, honoring the century-old relationship between BALL and American railroading.

BALL Explorer Richard Limeburner wore his Engineer Hydrocarbon during his search for the US Navy's first

submarine, USS Alligator. BALL celebrated his search with the limited edition Engineer Hydrocarbon Alligator.

2006 Astronaut Owen Garriott, scientist-astronaut of Skylab II, joined the BALL Explorers Club. The Fireman Ionosphere is launched with specifications from Garriott himself.

John «Mad Cow» Hembel, the former American Speed Skiing Champion, joined the BALL Explorers Club. The Engineer Hydrocarbon Titanium honors his speed record.

BALL introduced the first luminous horizontal Power Reserve, the Trainmaster Power Glow.

BALL celebrated 115 years of history with the Trainmaster Heritage, a gold limited edition Chronometer and the first Brotherhood watch in decades.

Guillaume Néry, World Champion Free Diver, joined the BALL Explorers Club. In September, he wore his Engineer Master II Diver on a World Record dive to -109m.

Engineer Hydrocarbon Alligator

Trainmaster Heritage

Dr. Christopher Hillman, nomadic doctor of the Himalayas, joined the BALL Explorers Club. He also launched BALL's second doctor's watch, the Trainmaster Pulsemeter Pro.

2007 BALL launched three new models in the Engineer Master II Diver case, including the limited edition Diver TMT, to commemorate Guillaume's 2006 record.

Materials research yielded a new Diamond-like Carbon (DLC) coating that extends the life and durability of the Engineer Master II Diver TMT and the Fireman Night Train.

Engineers announced several new BALL calibers: the RR1801 Moon Phase,

the RR1106 and RR1202 calibers with BALL UMT and date warning window, and the RR1403 Single-button Chronograph with Linear Triple Calendar.

The Trainmaster collection moved in a classic direction, with key new additions like the Cleveland Express and Cannonball that clearly draw on Railroad heritage.

BALL released the second watch with Owen Garriott, the limited edition Fireman Skylab chronograph.

2008 Joshua Wurman, tornado expert and scientist, joined the BALL Explorers Club. The Fireman Storm Chaser chronograph is launched in his honor.

BALL released the Trainmaster Racer, the first model to use the RR1405 caliber chronograph with linear triple calendar.

The Trainmaster Secometer, a reproduction of a vintage BALL design, is launched with a complementary pocketwatch.

The limited edition Trainmaster Doctors' Chronograph with RR1403 caliber is released in pink gold, yellow gold or platinum.

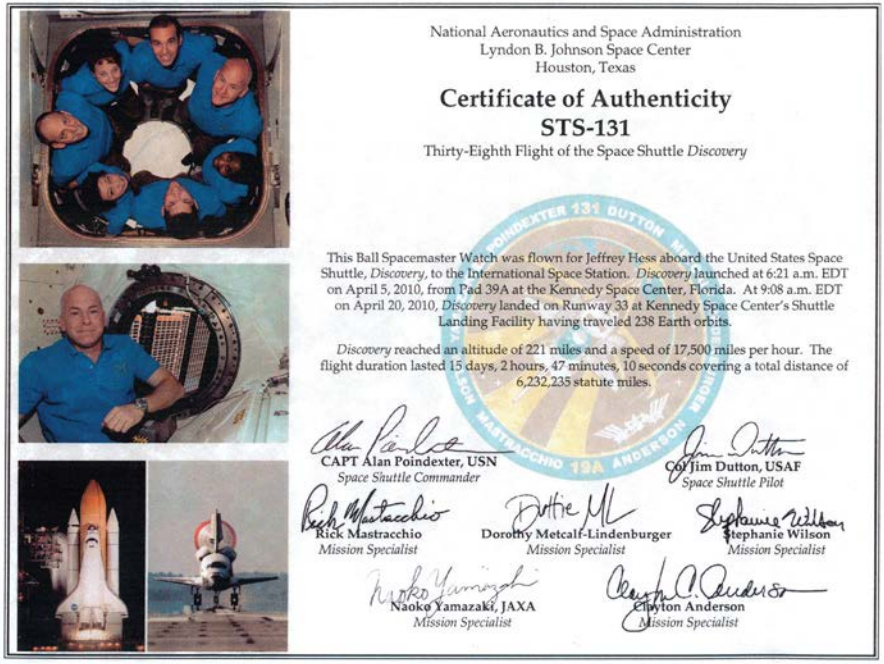
2009 The Engineer Master II Aviator Dual Time brought a modern look to pilots' watches.

The Engineer II collection is revamped with new interpretations

Diamond-like Carbon (DLC) coating

Fireman Skylab

Trainmaster Secometer's complementary pocketwatch



National Aeronautics and Space Administration
Lyndon B. Johnson Space Center
Houston, Texas

Certificate of Authenticity
STS-131
Thirty-Eighth Flight of the Space Shuttle *Discovery*

This Ball Spacemaster Watch was flown for Jeffrey Hess aboard the United States Space Shuttle, *Discovery*, to the International Space Station. *Discovery* launched at 6:21 a.m. EDT on April 5, 2010, from Pad 39A at the Kennedy Space Center, Florida. At 9:08 a.m. EDT on April 20, 2010, *Discovery* landed on Runway 33 at Kennedy Space Center's Shuttle Landing Facility having traveled 238 Earth orbits.

Discovery reached an altitude of 221 miles and a speed of 17,500 miles per hour. The flight duration lasted 15 days, 2 hours, 47 minutes, 10 seconds covering a total distance of 6,232,235 statute miles.

CAPT Alan Poindexter, USN
Space Shuttle Commander

Col Jim Dutton, USAF
Space Shuttle Pilot

Rick Mastracchio
Mission Specialist

Dorothy Metcalf-Lindenburger
Mission Specialist

Stephanie Wilson
Mission Specialist

Naoko Yamazaki, JAXA
Mission Specialist

Clayton Anderson
Mission Specialist

NASA Certificate of Authenticity attesting the presence of the Engineer Hydrocarbon Spacemaster aboard the United States Space Shuttle.

of classic models: The Engineer II Arabic & Ohio.

Long-anticipated update of the Fireman collection sees five new dial combinations.

Civilian Astronaut Brian Binnie, test pilot of the successful Space-ShipOne, joined the BALL Explorers Club. The Engineer Hydrocarbon Spacemaster is launched in his honor. BALL announced a new relationship with the Baltimore and Ohio Railroad and introduced the Fireman First Mile.

2010 BALL Watch launched the limited edition Engineer Hydro-carbon Spacemaster Orbital with its revolutionary Amortiser® anti-shock

Engineer Hydrocarbon Spacemaster Orbital

Engineer Hydrocarbon DeepQUEST

system and the Engineer Master II Diver Worldtime with the first worldtime movement with day/date function.

The Engineer Hydrocarbon Spacemaster is worn and tested in Space by Captain Alan Poindexter aboard the US Space Shuttle Discovery during it strip to the International Space Station.

Dr. Geoff Tabin, co-founder of the Himalayan Cataract Project, joined the BALL Explorers Club.

2011 BALL Watch Company celebrated its 120th anniversary and unveiled new astonishing timepieces during Baselworld, the World Watch and Jewellery Show.

The Engineer Hydrocarbon Ceramic XV, a timepiece of breakthrough innovation, showed the continuous developments in materials, functions and design of BALL watches. First worldwide, the graduation and the digits of its extremely hard pure ceramic unidirectional bezel have all a powerful luminescent paint treatment emitting a blue glow.

The Engineer Hydrocarbon series welcomed also a concentrate of watchmaking technology with the DeepQUEST, an exceptional diving timepiece water resistant certified to 3,000m / 9,850ft. This exceptional water resistance was made possible in particular by machining the entire case out of a single block of titanium onto which the bezel is directly screwed.

2012 The BALL Explorers Club welcomes in its very closed circle

Engineer Hydrocarbon Airborne

Edurne Pasaban, exceptional woman mountaineer, and Alex Honnold, world record holder in free solo climbing.

As a tribute to the great contribution of the US Navy Experimental Diving Unit (NEDU) in the improvement of diving safety, BALL Watch revealed the Engineer Hydrocarbon NEDU, the world's first diving watch with a helium release valve incorporated into the crown.

2013 The Engineer Hydrocarbon Airborne introduces the SpringLOCK®, a revolutionary patented balance-spring shock-protection system.

2014 As part of its constant quest to technical innovation, BALL Watch Company reveals its A-PROOF® anti-magnetic device and its patented Slide Chronograph system.

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