

VINTAGE WATCH GUIDE: A USER'S MANUAL

I. Getting to Know Your Watch — Watch “Anatomy”



II. How Your Timepiece is Powered

Is Your Watch **Manual Wind**?



A **manual-wind** watch movement.

If your watch is powered by a manual-winding movement, then it is solely powered by winding the crown of the watch in a clockwise or forward direction until resistance is felt

and the crown cannot be wound any further. Instructions will be detailed in the next section. A full wind is required before wearing and should last between 24-36 hours. Most people generally wind their watch completely each morning before putting it on their wrist.

Is Your Watch **Automatic / Self-Winding**?



*A rotor-powered **automatic** watch movement.*

A watch with an automatic or self-winding movement does not require winding but can also be wound manually if desired (instructions for how to wind an automatic watch will be detailed in the next section). These watches possess a rotor or bumper mechanism that will move and automatically wind the watch as you wear it over the course of the day. If you are sufficiently active while wearing the watch throughout the day (for at least an 8-hour period), the watch should maintain a power reserve for between 24-36 hours.

Is Your Watch **Quartz**?



*A battery powered **quartz** watch movement.*

If your watch is powered by a 'quartz' or battery powered movement, then it will continue to operate until the battery is completely drained (presuming all other internal parts and connectors are in good working order). Battery-powered watches should not be left unused for extended periods of time — a battery should be replaced or removed before they burst or leak, which can cause serious damage to the watch movement. A battery will generally last at least 2 years.

III. How to Wind a Mechanical Timepiece

A. Manual-Wind Timepieces

Place the crown (winder) between your thumb and forefinger. Turn the crown forward (clockwise) with a long stroke. The crown will spin in both directions but will only wind in one direction: clockwise (or forward). To fully wind a watch requires 15 to 25 full 360-degree turns (this will vary depending on the watch). Turn the crown clockwise until it stops abruptly and cannot be wound any further. A manual-wind timepiece should be wound until resistance is felt and the crown will no longer turn clockwise, whereas an

automatic watch can be found forever without risk of damage. Your fully wound watch will run for at least 24 hours.

If the watch is worn daily, it should be wound, fully and completely until the crown comes to a stop, each day at the same time for peak performance. It is not necessary to wind the watch if you are not wearing it that day. These watches are rugged; do not be afraid of “over winding”.

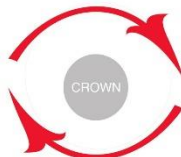
B. Automatic (Perpetual, Self-winding) Timepieces

Automatic watches have a small rotating weight inside the movement which spins around when you move your arm and winds the spring which runs the watch. If you wear an automatic watch every day for 6-10 hours and are reasonably active within that period, it will still be running when you put it on in the morning, because the movement of your arm will build up an 8-10-hour winding reserve. If you do not wear it for a day or more, it will stop.

You can start your automatic watch by winding it 5-8 complete turns manually before you put it on. Then set the time and wear it normally. An automatic timepiece can be wound indefinitely with no damage to the watch, however, 30 complete 360-degree turns should give it a full wind and any further winding would be unnecessary.



Wind Clockwise,
Until Resistance is Felt



Wind Clockwise, Until Complete Resistance is Felt. Do not fear "over winding", your watch is fully wound when it is no longer possible to turn the crown clockwise.

IV. How to Set Your Watch

Set the time by **gently** pulling out the crown and turning the crown clockwise or counterclockwise to set the hands. You can set the hands forward or backward. Many diver style watches feature a screw-down crown. With these watches you will first need to unscrew the crown, rotating it counterclockwise until it is removed from the tube threads. You will then be able to gently pull out the crown to the final notch and set the time as with any other timepiece. After setting the time, screw the crown back on by pushing the crown in toward the case while simultaneously rotating it clockwise.



This is a standard crown. At left, the crown is fully in and ready to wind. At right, the crown is out and ready to set. Date or calendar watches may have additional notches between the winding and setting positions for calibrating these functions.



This is a patented Rolex 'Oyster' screw-down crown. At left, the crown is fully threaded in and locked to the case, it will not wind or set. At right, the crown is un-threaded and pulled to the farthest notch. The hands may then be manipulated.

V. Caring for Your Mechanical Timepiece

Dropping and/or Banging

Be mindful when wearing your vintage timepiece not to drop or bang it! When new, many of these timepieces were designed to withstand a fall of no more than three feet on a raised wood surface. Now that these timepieces are much older, their parts may be rare, costly, or not readily available to replace. Though a watch may appear completely intact after a drop or bang, damage may be much more extensive internally. Even a slight bang can cause serious damage if impact occurs at the right angle.

Water or Other Fluids

Do not expose your vintage watch to water or other fluids. Many vintage timepieces were not equipped with gaskets to prevent exposure to moisture, worse than water is exposure to steam. If water enters the mechanism of your vintage timepiece, pull out the crown as far as it will go, immediately place the watch crystal-down in a resealable bag of rice, and close the bag. Immediately take the watch for servicing.

It is also recommended to not wear excessive perfume on the same wrist you wear your watch. These oils can potentially react with the metal of your timepiece or enter it and interfere with the delicate balance of oils within your watch.

Magnetism

In the modern world, there are many “dangers” to the optimal functioning of your mechanical vintage timepiece (note: quartz watches are immune to magnetism). Most frequently, magnetism is the cause behind a watch running abnormally fast, slow, or stopping altogether. When most vintage watches were manufactured, people lived in a world with fewer sources of magnetism and electricity — no laptops (huge battery beneath the keyboard), mobile phones (large battery behind the screen), metal detectors at airports or court houses, or even purses with magnetic clasps (many purses today have magnets on the fastener, which your watch will pass by every time your hand reaches in).

When many of these vintage wristwatches were first produced, the greatest electrical / magnetic source in day-to-day life was probably a television set. After a long day at work, a person might come home at night and then place their timepiece on top of the TV set. All that direct exposure could lead to a timepiece becoming magnetized. In today's world, you might accidentally leave your watch when passing through metal detectors (ask to wear it during a body scan) and avoid putting your watch in direct and prolonged contact with batteries, electrical equipment, and magnets.

Magnetism is in most cases easily reversible, and can be tested for with a common, simple compass. When passing a wristwatch very close and slowly over a standard compass, the directional compass indicator should remain completely still. A magnetized watch will cause the indicator on a compass to move or spin. Magnetism can be quickly removed using a “Demagnetizer” which can be purchased online. In

certain rare occasions, a watch can become so magnetized that magnetism can only be removed by disassembling the watch and demagnetizing individual components.

Though magnetism is the most common cause of malfunction, there are many other possible causes or explanations, and it is important to remember we are talking about items which are mechanical: *i.e. everything can be fixed*. Remember, we didn't make these watches, ultimately, we are just attempting to make them work as well as (or better than) they worked when they were first manufactured.



(At left:) A simple and inexpensive small compass can be used to test for magnetism. Just gently pass your watch over it, keeping your watch very close to, but not touching, the compass. If the compass moves, your watch has some magnetism in it, which should ideally be removed. (At right:) A vintage demagnetizer from the 1930s. More modern examples can be purchased inexpensively online.

Long Term Storage

If you plan to store your watch for an extended period, make sure it is stored in a dry place (ideally high above ground level, as moisture tends to collect at lower levels). When keeping your watch in a safety deposit box (hopefully you've chosen one located on a higher-level), it is best to wrap the watch in paper towels and place it in a resealable plastic bag. Ideally, one should place moisture absorbing silica gel packs with the watches. Do not store a quartz watch for long periods of time with a battery inside of it, otherwise the battery may leak, corrode, and severely damage the movement.

To prolong the life of your leather watch strap, keep it dry as much as possible.

VI. Periodic Service of Your Watch

Watches, like cars, have oils which over time, dry up, coagulate, or get dirty. Certain parts of a watch, like a car's oil filter, should be replaced every so often, particularly the mainspring and the gasket rings. For the optimal functioning, a watch typically should be serviced every 5 years.

VII. Malfunction and Troubleshooting

Note: In our experience, the most common cause of a watch operating incorrectly is magnetism, followed by the failure to wind a watch for a sufficient period (automatic movements).

Quartz

Quartz watches should work flawlessly with a fresh battery for an average of 2 years until the battery needs to be replaced. If the quartz watch is malfunctioning, it could be a circuit issue — either the problem will be serious, and parts will need to be replaced, or it may just be that the circuits need to be cleaned and its internal parts re-oiled. In either case, the best way to troubleshoot the watch is to have a new battery installed and to wait for the issue to recur. If a battery dies within 1-2 months, it is indicative of a circuitry issue.

Adjustment

Please remember that your vintage watch is mechanical and will not be as accurate as a modern quartz wristwatch. Small errors in accuracy can occur by the positioning of your watch, even when it is not being worn (I.E. a watch set upside-down or on its side will run differently than when it is left dial-up).

If your watch is inaccurate to the point of inconvenience (greater than +/- 30 seconds per/day, I.E. the specifications of a chronometer), the watch may need servicing, or it may need to be adjusted professionally.

My Automatic Wristwatch is Not Holding a Power Reserve

If you are wearing an automatic wind wristwatch for eight to ten hours and moving normally (I.E. you are not inactive or at rest), the watch should keep time when removed in the evening and still be running and accurate when put on again the next morning. If the watch is not keeping time and is not accurate there may be a power reserve issue which should be addressed by our watchmaker. Sometimes it can be wise to give an automatic timepiece a little “jump start” by winding it manually eight to ten times before wearing it, especially if you haven’t worn the watch for many days.

My Watch is Stopped or Not Running

Make certain your watch is fully wound until it cannot be wound further. Try passing it over a compass to determine if it has been affected by magnetism. If you reset your watch and it runs for a while but then stops repeatedly at specific times, many issues are possible, and the watch may need servicing.

My Watch is Running Fast

Generally, this issue is caused by magnetism or that the hairspring may have jumped from its correct position due to a bang or drop, though any number of issues could be the cause.

My Watch is Running Slow

Generally, this issue is caused by magnetism. The watch may have a broken balance wheel due to a bang or drop, though any number of issues could be the cause.

My Manual-Wind Watch Winds Forever Without Coming to a Stop

Unlike an automatic-wind timepiece, when wound, the crown of a manual-wind timepiece should eventually come to a stop and not allow any further winding. If your manual-wind timepiece can be wound “forever”, without ever coming to a stop, this is almost always indicative of a broken mainspring. Mainsprings are a “wear-item” in a watch and should be replaced periodically. Even a new mainspring can sometimes be faulty.

My Watch Cannot Be Wound

If your watch cannot physically be wound, or feels abnormal when wound, any number of issues could be the cause, but most likely, your vintage wristwatch was excessively exposed to the elements or was banged. Rust or dirt are typical causes. Alternatively, the oils in the watch may be completely dry or dirty.

My Watch Hand Broke or Fell Off

When a watch is dropped, banged, or receives impact at the correct angle, the hands of a timepiece can break or fall off. A watchmaker should be able to fix this issue relatively quickly, and in a worst-case scenario, new correct replacement hands can usually be obtained for the watch. Because this is generally an indication of impact, there may be further complications or damage to the mechanism of a watch, and it should be inspected. Be very careful not to excessively shake a watch in this condition, as the loose hands could scratch the dial of your timepiece.

Broken or Scratched Crystal

Pressure cracks almost always occur within a very short period following installation, but the clear majority of cracks occur due to impact and may appear beneath the bezel of a timepiece where they are not visible. A cracked crystal should be immediately replaced to prevent moisture and to insure the integrity of the watch. Natural “crazing” often occurs on an old crystal and should not be an issue — it is best thought of as the crystal’s natural “patina”. Light scratches on a plastic or acrylic crystal can be very easily buffed out via a polishing machine, but deep scratches may be permanent and require replacement of the crystal.

REMEMBER: *These are vintage mechanical timepieces, and everything mechanical can be fixed — it is simply a matter of time, energy, and sourcing the correct parts. A watch should be cared for and looked after, but most importantly, all vintage watches are made to be worn and enjoyed. Do not panic if you are experiencing issues with your vintage wristwatch. The key is to find an experienced watchmaker you can trust and be able to leave your vintage watch for servicing or a complete overhaul. Assuming the watch does not require any parts to be replaced, it typically costs \$75-95 to service a manual wind watch and \$125-\$145 to service an automatic watch. Servicing a chronograph watch can typically cost upwards of \$200-\$250.*

GLOSSARY & TERMS

I. Guide to Vintage Timepiece Case Shapes

There are truly limitless specific variations of watch case shapes, but here are the most typical types.

ROUND



OVAL / ELLIPTICAL



SQUARE



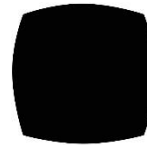
RECTANGLE



TRIANGLE



TONNEAU / BARREL



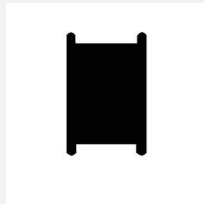
CUSHION / TELEVISION



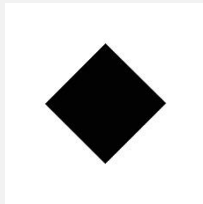
OCTAGON



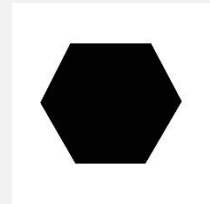
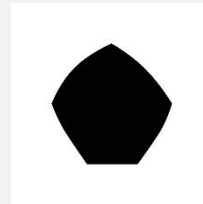
"TANK"



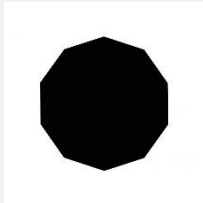
DIAMOND / LOZENGE



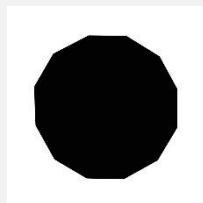
PENTAGON / HEXAGON



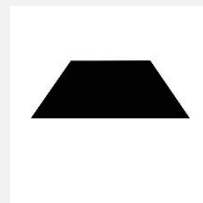
DECAGON



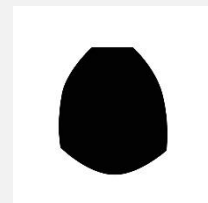
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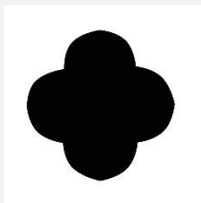
TRAPEZOID



PEAR



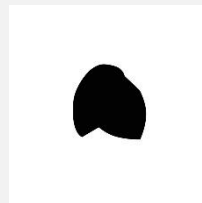
FOUR LEAF CLOVER



HORSESHOE



ASYMMETRIC



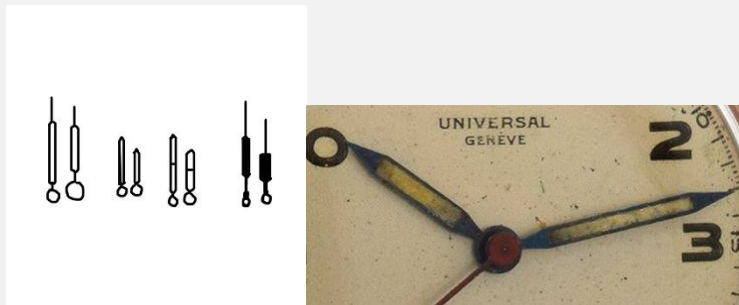
II. Comprehensive Guide to Vintage Watch Hand Styles

As with case shapes, there are limitless variations in hand styles, but the clear majority will fall under one of the following categories:

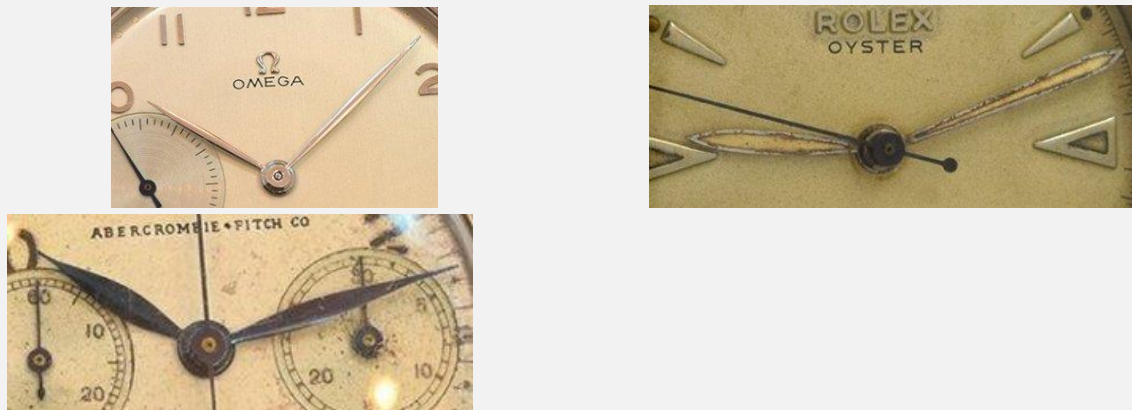
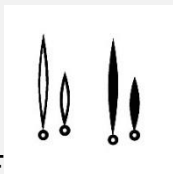
ALPHA / LANCE



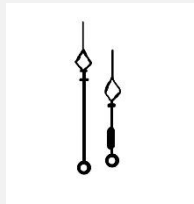
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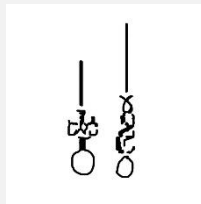
LEAF



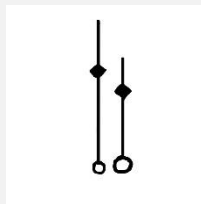
CATHEDRAL (or “Steeple”)



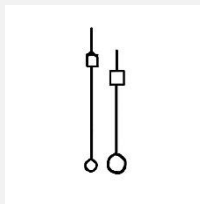
LOUIS XV



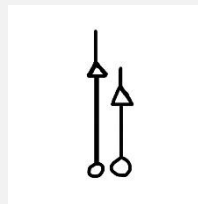
DIAMOND



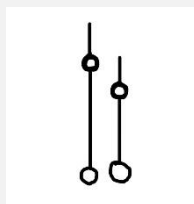
CUBE



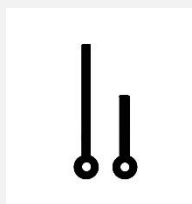
PYRAMID



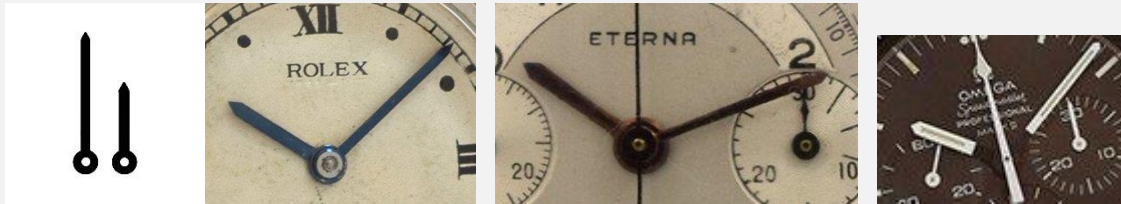
BREGUET



BATON



BATON, POINTED



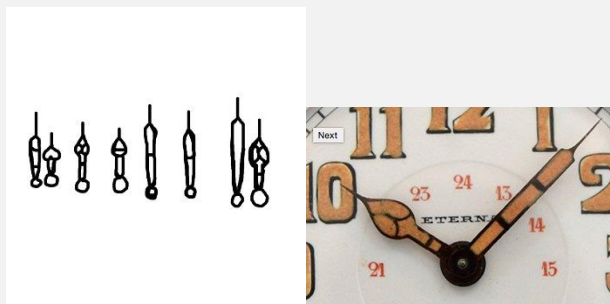
CARTIER-STYLE "SWORD"



SPADE



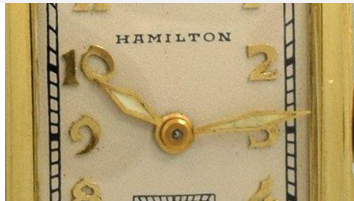
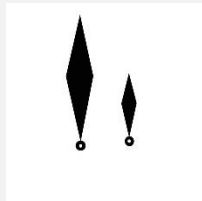
SKELETAL, SPADE (Sometimes also called "Cathedral")



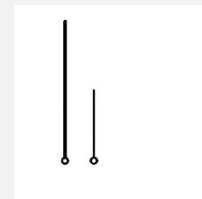
"MODERN"-STYLE



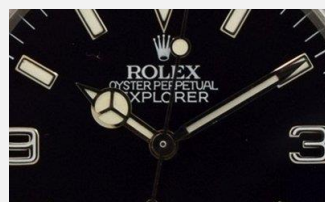
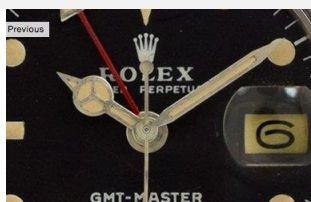
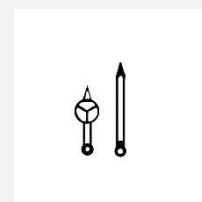
SWORD



STICK (Rounded or Pointed)



MERCEDES ROLEX



III. Vintage Watch Definitions, Terminology, and Explanations

What is the difference between sapphire and plastic/acrylic crystals?

Sapphire crystals are typically found on newer watches (for Rolex, post-c.1987) and feature greater scratch resistance than plastic/acrylic crystals. These can be identified because they are typically flatter and flusher with the case than the more bulbous or curved plastic crystals. Additionally, some people can tell the difference by feel: a sapphire or glass crystal will be cold to the touch, whereas a plastic/acrylic crystal is typically closer to room temperature. Though more scratch resistant, there are several drawbacks to sapphire crystals: 1) When a sapphire crystal is scratched, the scratch cannot be buffed out, and the crystal must be replaced. 2) If dropped, a sapphire crystal is more prone to shattering than a plastic crystal, which will more typically just crack. If a crystal shatters, shards can scratch a dial, or potentially enter a movement and cause havoc in the gears.

Most wristwatches produced before the 1990's will have a plastic or acrylic crystal, although some will have glass, which is like sapphire, though without its scratch resistant properties. In any case, some people prefer the vintage aesthetics of a more curved, plastic crystal, to the flatter sapphire material.

How do I remove scratches from plastic/acrylic crystals?

Unlike a sapphire crystal, a plastic/acrylic crystal can be polished many times before it needs to be replaced. You can quickly polish a plastic/acrylic crystal with a polishing machine or a polishing compound. Use can use a wet 2000 Grid sand paper and apply circular motions to the plastic/acrylic crystal until deep and light scratches are sanded out. Afterwards buff it with a polishing paste and a polishing cloth.

How do I remove scratches from the case of my watch?

To remove scratches from the case of a watch, it must be polished, which will typically remove metal. A hand detail/polish with a cloth will typically remove less metal than a polishing machine, but because some metal will always be removed, it is typically advisable to wait if possible before polishing your wristwatch.

What is a 'movement'?

A movement is the mechanical workings of a watch, excluding the case and dial. Typically, in the case of vintage wrist and pocket watches, the movement will not be visible.

What is a complication?

A complication is an additional function, added to a wristwatch, beyond the standard keeping of hours, minutes, and seconds. Some examples of complications include a calendar function, a chronograph function, or a moon phase complication.

What is a chronometer?

A chronometer is defined by the non-profit Swiss foundation Contrôle Officiel Suisse des Chronomètres (COSC) as “a high-precision watch capable of displaying the seconds and housing a movement that has been tested over several days, in different positions and at different temperatures, by an official neutral body (COSC).” To the average consumer, the most important thing this means is that when tested, a mechanical wristwatch was accurate to within $-4/+6$ seconds per day.

What is a chronograph?

A chronograph is a wristwatch with an additional complication which allows for the timing of events. This is typically accomplished with several “pushers”, or buttons on the

case which start, stop, or reset the timing mechanism. Time is typically recorded through a center-sweep seconds hand and one or more sub dials. Typically, these watches were only meant to time events of short duration and leaving them running can cause unnecessary wear to the mechanism.

What is a Perpetual Calendar?

A perpetual calendar complication is a very advanced version of the typical date window display on a standard wristwatch. These watches account even for leap years.

What is a Triple Date?

A watch with a triple date complication tracks the date (numeral), day of the week (Monday-Sunday), and the month of the year. Unlike a perpetual calendar, these watches will need to be manually adjusted at the end of every month with fewer than 31 days.

What is a Moon phase?

A moon phase is a watch with an additional complication which displays and records the daily phases of the moon as it waxes and wanes over the period of its monthly cycle.

What is a Tourbillion?

A tourbillion was initially developed for pocket watches to balance out the effects of gravity. It involves placing the escape wheel, escape lever, and balance wheel in a cage which rotates as part of the escapement process. Under these circumstances, the escapement of the watch movement never spends a significant amount of time in any one position.

What is a repeater?

A repeater is a watch which chimes when activated, typically by sliding a lever or pushing a button. There are several varieties of repeater, named by the smallest unit of time which their chimes indicate: quarter (of an hour), half-quarter (of an hour), five-minute, or minute.

What does gold-fill mean?

If a watch is “gold-filled”, it means that gold was heated and applied to the case of the watch via a soldering process. This technique predates electroplating, and results in a thicker layer of gold than most other plating methods. It is not typically used with watches today.

What is electroplating?

Electroplating is a method of applying metal to the exterior of a watch via electric currents to evenly cohere a metal coating to a surface. It is a thinner coating than via gold-filled.

What metals are watch cases made of?

Some common case metal types: Chrome, Base Metal, Gold / Rose Gold / White Gold / Yellow Gold, Nickel, Platinum, Stainless Steel, Silver / Sterling Silver, Titanium

What does the “K” in “14K” mean?

Because pure gold (24K) is extremely soft, it is mixed with other metals to increase hardness, durability, and resistance to everyday wear. It is therefore made in various “karats” (K), which are proportions of gold. In wristwatches, these are typically 9K, 14K, or 18K gold.

What is a hack feature?

A hack feature is one which stops the running seconds hand of a watch so that, when setting it, you will be able to precisely sync your wristwatch to another timekeeping device.

What are jewels in a mechanical watch? Are more jewels better?

Watch jewels are simply bearings, which are used to decrease friction and wear in the movement of a watch. Though “jewels” were originally created by a process of piercing precious gems, since the early 1900s, most jewels are synthetically-created rubies or sapphires, which have very little inherent value.

A higher jewel count does not necessarily make one watch better than another. Typically, most modern mechanical wristwatches will have at least 17 jewels, but more or fewer jewel counts are not uncommon. A watch with a higher jewel count will usually have more complications and more working parts. A higher jewel count watch may in general be more accurate (although probably not terribly noticeably), but it is also like a sports car: because there is more going on internally, it should generally be serviced more often.

What is a watch winder and do I need one?

Watch winders were created to mimic the movement of your wrist, by gradually rotating an automatic wristwatch in a stationary position, to keep it fully wound. If an automatic wristwatch is on a watch winder, its power reserve will not run down, and it will not have to be reset. A quartz or manual-wind movement will not benefit from a watch winder.

Use of watch winders is not recommended unless they rotate your watch FULLY 360-degrees. The reason for this is that there is oil in a watch, and if your watch winder only spins in one or two directions, the movement will not be evenly lubricated, and certain

parts of the watch will wear faster than others. It is recommended that you wear your automatic timepiece through normal wrist-wear or by manually winding between wearing.

What is shock resistance? Do older watches have it?

In mechanical watches, shock resistance technology was not common until the 1950s. When dropping an older timepiece, it was not uncommon for the balance staff, which holds the balance wheel, to break. Originally, most vintage watches were built to withstand an approximately three-foot fall on a raised wooden surface. Now that these timepieces are much older, their parts may be rare, costly, or not readily available to replace. Though a watch may appear completely intact after a drop or bang, damage may be much more extensive internally. Even a slight bang can cause serious damage if impact occurs at the right angle. Shock resistance technologies, which typically hold the balance wheel via spring suspension, have only gotten better with time.

What does the term "triple signed" mean?

When a vintage watch is advertised as "Triple Signed", it describes a watch that has been "signed" in three distinct locations (i.e., stamped with the name or trademark of its manufacturer) on its movement, case, and dial.

"Double signed" or "single signed" refers to a watch that is signed only on the case and movement, or dial, movement, or case alone. During the first half of the 20th Century, it was not uncommon for watch manufacturers to import encased watch dials and movements into the United States and case them in American "contract" cases to avoid high tariffs on gold and platinum watch cases made in Switzerland. Although watches with unsigned cases may be original, they typically are not as desirable as factory-cased and factory case signed watches.