

Technical Specs

Model: Rolex Oyster Perpetual Milgauss.

Movement: Chronometer-certified automatic Cal. 3131.

Functions: Hours, minutes, seconds.

Special feature: Resistant to a magnetic field of 1000 gauss.

Case: Stainless steel 40 mm, with green sapphire crystal.

Price: £3,380



Modern Classics:

Rolex Milgauss



Basel, 2007: Rolex relaunch the Milgauss. After the collective utterances die down - repeatedly, one heard shouts of 'Cool!' and 'Check out the green glass!' and 'They fitted a lightning bolt hand in orange!' - one or two observers also ask, 'Why?'

Ken Kessler



Of all the watches in the Rolex c.v., the Milgauss is one of the least remembered - deservedly. It is the wristwatch equivalent of a power drill or a soldering iron. It has no pizzazz attached to it, no celebrity owners, no racetrack connections, no military chic. It was designed to be utterly and irredeemably functional. It's not even 'cool-looking' in the manner of a GMT.

But its obscurity has worked in its favour, such that it now ranks near the top of the Rolex A-list for sheer desirability. And it's all due to rarity. Unless, that is, you spend an inordinate amount of time around magnets.

The version for 2007 ostensibly marked the official 50th anniversary of the model, launched in a standard Oyster case as the Ref. 1019. The Milgauss, however, first appeared in 1954 as 'Ref. 6541', looking for all the world like a normal, early Submariner, with black dial and rotating bezel. The only external differences between the 6541 and a regular Submariner were metal arrowhead indices at 3/6/9 o'clock, a pair of dauphine-shaped hands and the name on the dial. Early models could be found with a honeycomb-finish dial, but this soon disappeared along with the Milgauss' straight seconds-hands, which would eventually be replaced by the 'lightning bolt', the model's signature detail.

Arriving six years after the design many recognise to be the first truly successful anti-magnetic watch, IWC's manual-wind military issue Mk 11, the automatic Milgauss was developed for workers in industries where constant exposure to magnetism would wreak havoc with other, supposedly 'anti-magnetic' timekeepers. Engineers, technicians and scientists, staff in power stations or even loudspeaker manufacturers were the target clients. The name itself promised resistance to 1000 gauss, a measurement of magnetic induction.

One of the features of the IWC Mk. 11 was a soft-metal Faraday cage¹ protecting the movement. Within Rolex's Oyster case, the 6451 also featured a Faraday cage, plus the replacement of certain parts of the movement, including the pallets and the roller on the balance, with components made of anti-magnetic alloys. The watch easily achieved its target of imperviousness to 1000 gauss, well in excess of the amount of magnetism that would stop a normal watch, and it was found to remain accurate to more than five times its stated specification. As with its diving watches, Rolex had over-engineered another serious working tool; fitness for the task was never an issue.

If anything, the problem was that its task was too specific. However many people there may be working in close proximity

¹A Faraday cage uses a conducting material that prevents the entry or escape of an electromagnetic field. The enclosure is named after the physicist Michael Faraday, who built one in 1836.



Left: Rolex Milgauss ref. 1019. Relaunched in 2007 with a 40 mm Oyster case, Faraday cage and the chronometer-certified Cal. 3131 movement. There is a white and a black dial version, the black dial featuring a green tinted sapphire. Both have the lightning bolt seconds hand and "ROLEX ROLEX ROLEX" around the face of the chapter ring. £3,380. Right: Rolex manufacture in Plan-Les-Quates.

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to powerful magnets, the figures weren't sufficient to render the Milgauss anything more than 'special interest' models of inherently limited appeal. Even so, Rolex supported the model into the late 1980s, though it was by then only available through special order.

In true Rolex fashion, minor variations appeared over the years, small tweaks that would later drive enthusiasts crazy. One can easily identify a dozen or more details, which create the sort of frenzy that has made the Milgauss the current *watch du jour* amongst cognoscenti. High up the scale is a particular, early 6541 produced *without* a Faraday cage, its protection maintained by what one expert suggests might possibly be a soft-metal dial. Estimates vary, but as few as between 60-80 of these were made, with honeycomb dial, straight seconds-hand and red triangle at the zero point on the bezel.

Besides freak editions such as the above, the primary models are the assorted 6541s and the 1019s. For the former, variations include plain vs. honeycomb dials, three types of seconds-hands (straight, straight with red arrow tip, lightning bolt) and countless dial discrepancies such as the position of the name from above

the 6 o'clock site to the later placing below the Rolex name, later editions with a bezel unique to the Milgauss, marked '1' to '5' rather than '1' to '50' like a Submariner, red or white triangles on the bezel, *ad nauseum*.

More conventional-looking, the 1019s were available with black or silvered dials, all with 'Milgauss' written in red below the Rolex Oyster Perpetual legend. Other 1019 detail changes include the hour and minute hand materials and the graduations in the scales on the chapter ring, while every Milgauss regardless of the version, including the 6541, would have been supplied with the then-current Oyster bracelet. Depending on its age, a Milgauss might have a riveted bracelet, one made of folded steel links or, ultimately, one with solid links.

This writer has seen his fair share of 1019s, none with a lightning bolt hand that hasn't been added after the fact, but purism be damned! That is one bit of customising that enhances the watch. Clearly, Rolex was inspired to fit it to the reissue. To add to the torment, I recall seeing in a Japanese magazine dedicated solely to Rolex, a photo of a 1019 with lightning bolt hand *and* Submariner-style dial. A factory one-off? Maybe. Its



Rolex Milgauss ref. 6541, 1956. Rolex's antimagnetic watch first appeared in 1954 with a magnetic imperviousness to 1000 gauss.

provenance? Unsure. Its desirability? So far off the chart that its owner probably needs to wear it in the company of bodyguards.

During the Milgauss' lifetime, the movements changed from calibre 1065M and 1066M found in the 6541s, to the 1080M and 1580M used in the 1019. At least that's fairly straightforward. It's so easy to sound like a heartbreakingly sad anorak when it comes to discussing the Milgauss. But we're not talking mere train-spotting here: as with early editions of *Batman* comics, a complete set of Ian Fleming first editions or a low-number Beatles' *White Album*, discovering one could chop a serious chunk out of your mortgage, or place an Audi R8 in your drive.

As more than a few pundits observed, Rolex no doubt noticed that original Milgausses were fetching absurd amounts of money at auction. Like other Rolex oddities unworthy of this bizarre fetishistic response from collectors, the Milgauss had been

'discovered' first by Italian *tifosi*. And whatever they covet, the rest of the Rolex-collecting world soon desires in equal measure. True to form, as with Comex-badged Sea-Dwellers, the grotesque, large orange-arrow-handed Explorer 2 (a.k.a. the Steve McQueen) and the equally hideous 'Paul Newman' Daytona chronograph, the watch's main appeal was its rarity rather than intrinsic brilliance. After all, a Milgauss was nothing more than an anti-magnetic Oyster.

Costing more than its equivalent 'normal' Rolex, the Milgauss was not a smash hit when launched in 1954, so it *is* rare. This is reflected in prices that cut like a knife for seasoned watch vendors who can recall them at under £1,000. This year alone, Antiquorum sold a handful of Ref 1019s for between US \$28,000-\$54,000 (£14,000-£27,000) while a Ref 6541 shocked market observers by reaching a gut-wrenching \$190,400 (£80,200). In specialist shops, you can add another 20-25 percent.

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IWC INGENIEUR

Ref IW322701 Automatic

£4,100



Although the original Ingenieur arrived in 1955, in the wake of the Milgauss, it is in many ways a superior watch if resistance to magnetism is your reason for choosing one: the world record for anti-magnetism in a watch is held by a specially-designed Ingenieur. With its roots in the Mk. 11 and conceived from the ground up to be anti-magnetic, it was not an adaptation of an existing model, but a clean-sheet design incorporating a soft-iron inner case and dial. Ref IW322701 is the current heir to the crown, a 42.5 mm diameter masterpiece that most closely resembles the design and spirit of the mid-1970s Gerald Genta re-design. This model uses IWC's delicious Pellaton automatic winding system, which offers a 44-hour power reserve, and there's a date display at the 3 o'clock position with crown activated rapid calendar advance. In keeping with its serious mien, the Ingenieur has a central hacking seconds hand and protection against magnetic fields of up to 80,000 A/m - equal to 10,000 gauss. Ignore any Ingenieur with a glass back, such as the new Vintage series replica. That kinda defeats the object, eh?

BALL ENGINEER CLASSIC II

Ref NM1016C-S-BK

£570



With railways hardly figuring in the list of today's halo industries, the revived Ball Watch Company had to look beyond its train conductor origins to wider engineer appeal. The myriad models feature such high-tech niceties as gas-filled tubes for luminosity, a proprietary crown protection system, rugged cases, a minimum of 300 m water resistance for all models and - especially pertinent to this article - strong anti-magnetic properties thanks to a soft-metal jacket made from a special alloy, consisting of the back plate and a ring surrounding the movement and dial. In keeping with the nature of the Milgauss and the IWC Ingenieur, the Ball Watch of choice would be the Engineer II Classic, with highly legible black dial and stainless steel bracelet. While its specification promises imperviousness to magnetism of only 4,800A/m, it still exceeds what the watch industry deems allowable to label a regular watch 'antimagnetic' by a huge margin. Self-winding, with day and date, it's a bit of a bargain, too.



Left: Rolex Milgauss ref. 1019, 1966. Right: Rolex Milgauss ref. 1019, 1970s.

It's some consolation, then, that now you can buy the brand-new Milgauss at 'normal' stainless-steel Rolex prices. And it's an absolute honey, with the orange seconds-hand and a choice between clear and green-tinted glass (the latter making it a standout amongst regular Datejusts and DayDates). Steel-cased, with white or black dial, the revived Milgauss is a return to the less-blingy days of Rolex design, bereft as it is of dots encircled with white gold, or Arabic numerals with gilded bordering.

Its familiar 40 mm Oyster case is augmented by a two-part Faraday cage made of ferromagnetic alloys, while anti-magnetic parts in the chronometer-certified Cal. 3131 dedicated to the

Milgauss include its Parachrom hairspring and escape wheel made from a paramagnetic material. Chunky, masculine, rugged: it's like an Air-King for grown-ups.

If you're hankering after a pre-1990 Milgauss, the main route to acquisition is now strictly via auction or specialist. I haven't seen one for under £12,000 for some years, which delights two friends who bought them when they were current (both work, coincidentally, in the audio industry). But bear this in mind: the new Milgauss - the standard edition, not even the green-glass Anniversary model - already changes hands for 50 percent above retail. So it looks like this Milgauss differs from its granddaddy in one key area: it's a smash hit.