In order to improve the functional reliability of this calibre, we have made the following alterations to the movement in the course of the last few years:

- Narrowed the angle between the hairspring holder and the regulator from 85 to 45°, see page 10, fig. 10.
- Shortened the radius of the haispring from 2.30 to 2.10 – 2.17 mm.
- Narrowed the space between the regulator pins from 0.06 to 0.04 mm, tolerance ± 0.01 mm.
- Replaced the durochron pallet fork by a steel one with shorter horns and 0.01 mm narrower pallets.

CALIBRE 2030 - Basic calibre

Automatic	Shock-absorber	Centre second
Magnetic breaking of the sweep second pinion		Stop-second device
Clinergic escapement with 21 teeth wheel		Adjustable hairspring holder
Spirofin regulator with 2 adjustable ruby pins		Annular balance
Fine rating by means of Microstella key		Flat hairspring

– External diameter	20.00 mm
– Case-fitting diameter	19.70 mm
– Overall height including automatic winding device	5.40 mm
– Number of jewels	28
– Frequency 4 Hz, i.e. vibrations per hour	28'800
– Box of spare parts	No. 50

Movement seen from above, with automatic winding device (Fig. 1) and without it (Fig. 2).

Scale:
1.5 : 1

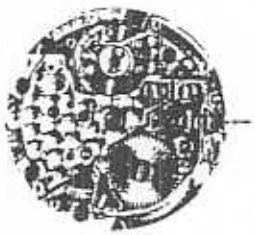


Fig. 1

Fig. 2

DISMANTLING THE MOVEMENT *

The use of non-magnetic tweezers is recommended.

1. Take out the two low-headed screws (No. 54471) and the high-headed screw (No. 54471-1), and remove the complete rotor (No. 4475).
2. Press the stud of the setting lever (No. 4448) and pull out the winding stem; push the casing clamps in their recess and take the movement out of the case. Remove the hands and the dial, then refit the winding stem.
3. Slowly let down the mainspring. If necessary, finish letting it down by giving the ratchet-wheel 1/8 of a turn with a screwdriver in order to release the wig-wag pinion. Then hold back the click and, with the screwdriver still in the slot of the screw, unwind the spring completely.
4. Check the balance and the hairspring. If it has not been done already, bend the end of the hairspring which projects beyond the hairspring holder (Fig. 3), so that its initial length can easily be found again when the movement is reassembled. Untighten the screw (No. 54435) of the hairspring holder (No. 4435). Remove the balance cock and the balance.
5. Check the endshake of the wheels and dismantle the movement.

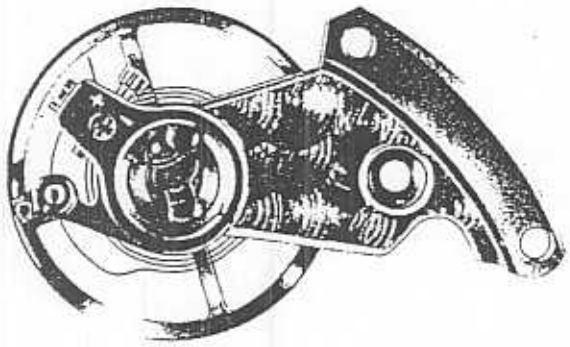


Fig. 3

6. Take the barrel (No. 4422) to pieces. Do not hesitate to change the mainspring (No. 4419 or 4420) if it is no longer in good condition.

   The stop-spring plate (No. 4459) and its screw (No. 54459) may be left in position, as well as the setting lever and its pressure spring.

* It is advisable to give the movement a preliminary washing before taking it to pieces. This first washing can be done with the sprung balance, the barrel and even the automatic winding device left in place. This procedure makes it easier for the watchmaker to judge the condition of the components of the movement. After the movement has been completely taken to pieces and the parts needing replacement have been changed, a second washing is necessary before the movement is reassembled.

Magnetic braking of the sweep-second pinion

A magnetized ring is driven onto the sweep-second pinion (No. 4427) and causes it to be attracted by the jewelled bush of pure iron which is driven into the train-wheel bridge (Fig. 4).

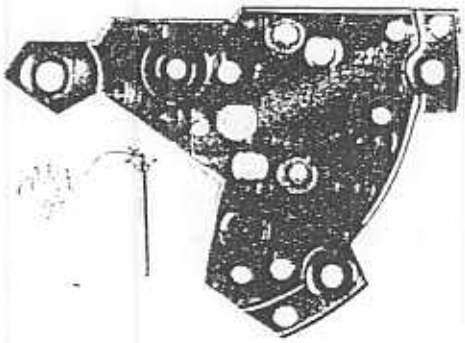


Fig. 4

In spite of the presence of this little permanent magnet, the watch can be demagnetized without any special precautions. Nevertheless, the apparatus used for checking magnetism will always indicate a slight magnetic field, but this will not affect the working of the watch.

Minute pinion

The minute pinion (No. 4423) is braked by the friction spring (No. 4428) in order to suppress the free play of the minute hand (Fig. 5).

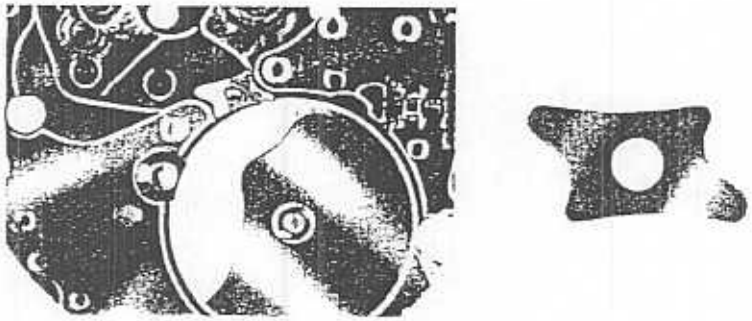


Fig. 5

Escapement

The clinergic escapement (Fig. 6), which is used for high frequencies has very slight clearances. The escapement functions must be set very accurately.

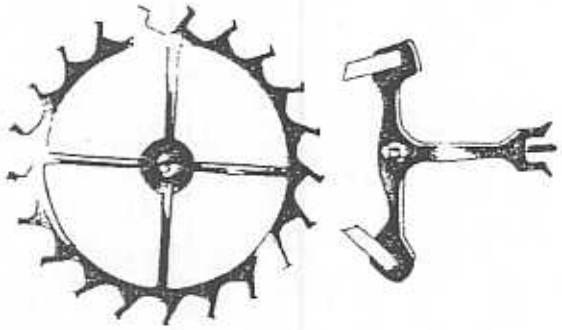


Fig. 6

A few series of watches are equipped with durochron pallet forks which, in certain conditions, may cause binding. In these cases, steel pallet forks give better results.
The two executions of pallet forks are alike in appearance; those which are made of durochron are non-magnetic, this characteristic can be used for distinguishing them.
If the pallet fork is replaced, verify the functions of the escapement and, if necessary, adjust them very carefully; the use of a binocular magnifier is strongly recommended.

Sprung balance

The balance is fitted with a Greiner collet (Fig. 7); consequently, the hairspring cannot be removed but in the factory.
For this reason, any damaged sprung balance must be replaced completely.
Sprung balances where only the pivots are damaged can be exchanged at a special price at our Spare Parts Division.

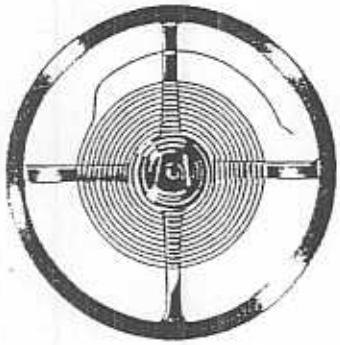
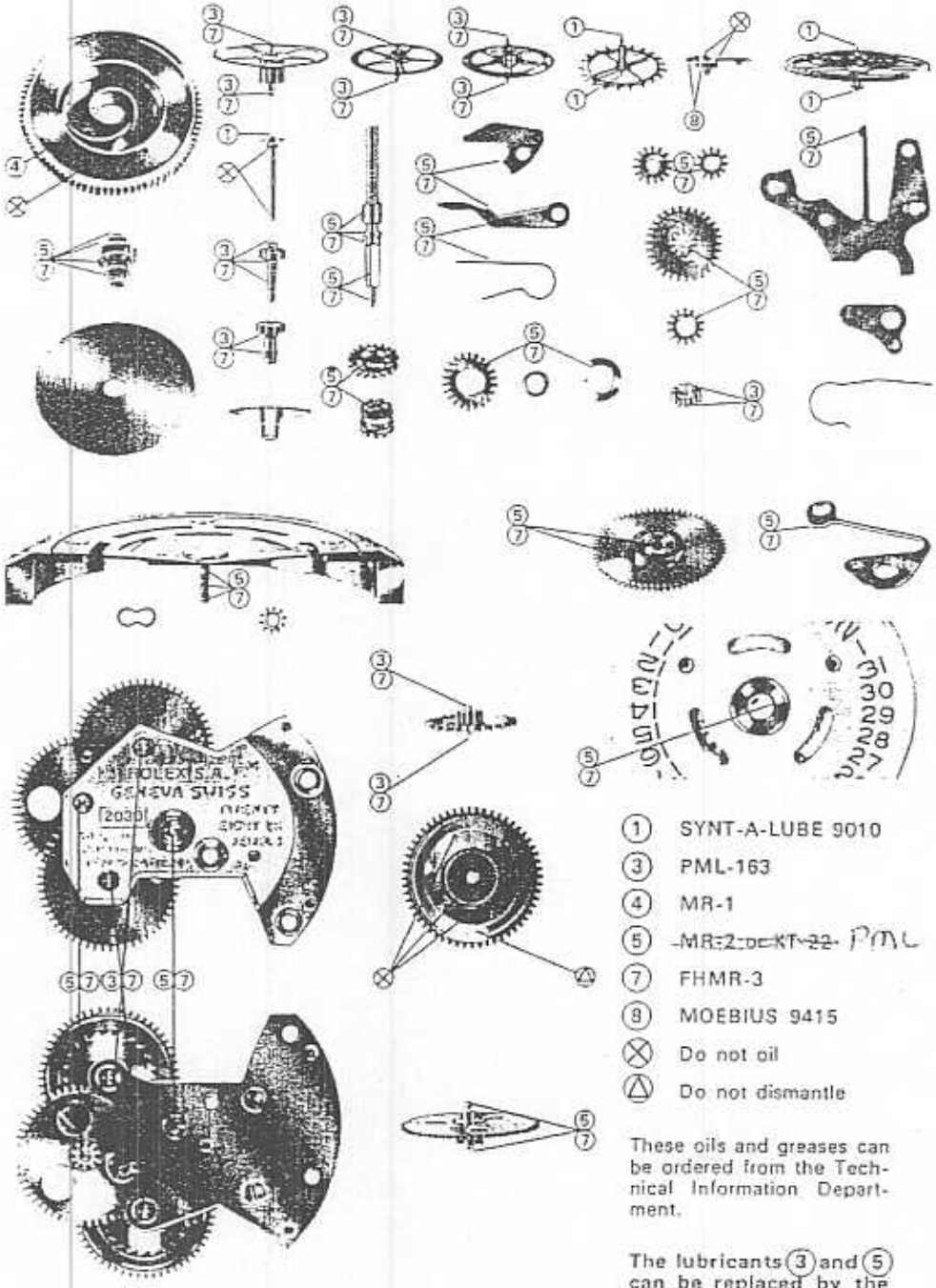


Fig. 7

The radius of the hairspring should not exceed 2.17 mm. There are however a few series of balances whose hairsprings have a radius of 2.30 mm or more. If the amplitude is great, these springs may foul the hairspring holder; the result of this is an irregular daily rate, the sprung balance has then to be changed.

OILING CHART



(1) SYNT-A-LUBE 9010
(3) PML-163
(4) MR-1
(5) ~~MR-2 or KT-22~~ PML
(7) FHMR-3
(8) MOEBIUS 9415
⊗ Do not oil
△ Do not dismantle

These oils and greases can be ordered from the Technical Information Department.

The lubricants (3) and (5) can be replaced by the oil (7).

ASSEMBLING THE MOVEMENT

If it is to give entire satisfaction, this movement must be overhauled with the greatest care; it is necessary, in particular, to see that the train, the jewels and the escapement are perfectly clean.

For lubrication, see the diagram on page 7.

1. Fit the escape-wheel endstones (Duofix): the size of the oil drop should be equal to 2/3 of the endstone diameter.

2. Fit the friction spring (No. 4428), which is located by the two edges of the central recess in the main plate. Fit the minute pinion (No. 4423) after having greased its two pivots, and then fit the minute-pinion cock (No. 4413).

3. Lubricate the escape wheel, preferably by the "Lubrifar" method.

   The escape wheels are treated with "Lubrifar" (a mixture of oil and molybdenum bisulfide) in the factory *. This lubricant is dissolved by cleaning baths; for the time being, it can be applied only with a special apparatus.

   Failing this apparatus, grease Moebius 9415 should be applied sparingly to the pallet stones.

4. Assemble the train, the last element to be fitted being the sweep-second pinion.

   Minute particles of metal attracted by the magnet may remain between the leaves of the sweep-second pinion. They must be carefully removed. This can be easily done with a cleaning paste, such as Rodico-one-touch.

5. Lubricate the wall of the barrel drum with Olyt grease (ROLEX MR-1).
   - Place the mainspring inside the barrel.
   - Grease slightly the mainspring if it has been washed in cleaning baths.
   - Oil the barrel-arbor pivots, then fit the barrel and its bridge.

6. Assemble the hand-setting mechanism.

7. Fit the crown wheel seat (No. 4442) with its convex side facing upwards (Fig. 8).
   - Oil the crown wheel seat, the stud of the intermediate pinion and the pivots of the wig-wag pinion.

*The escape wheels supplied by our Spare Parts Division are also pregreased. This pregreasing appears in the form of a blackish deposit on the tips of the teeth (impulse faces).

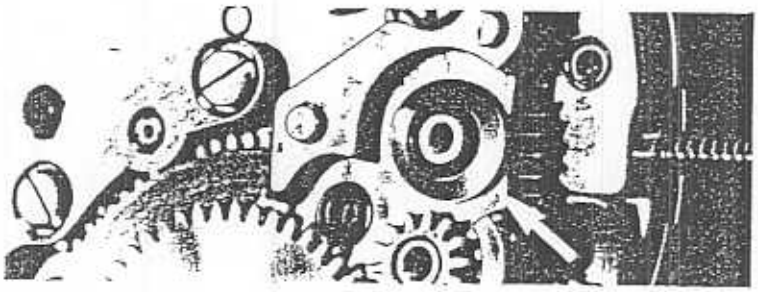


Fig. 8

8. Fit the crown wheel (No. 4441), the intermediate pinion (No. 4443), the wig-wag pinion (No. 4444) and the winding mechanism bridge (No. 4416).
   – The friction of the crown wheel should be strong enough to maintain the wig-wag pinion in the winding position when the clutch wheel (No. 4440) comes out of gear.
9. Fit the pallet fork and the pallet cock.
10. Turn the balance cock over, put the balance and insert the hairspring between the pins and into the plate of the hairspring holder (No. 4435). Push the bend of the hairspring against the hairspring holder and screw the plate tight.
11. Fit the balance cock and verify the centring of the hairspring and its truth in the flat. To correct the latter, slightly loosen the screw of the hairspring holder.
12. Oil the shock-absorbers.

    The movement must not run without oil on the balance.

TIMING

1. Centre the hairspring between the pins; it should have little side-play. The two ruby pins are adjustable (Fig. 9): to reduce the play of the hairspring, turn the pin-holder clockwise with the ROLEX tool Ref. 2031 * or with tweezers.

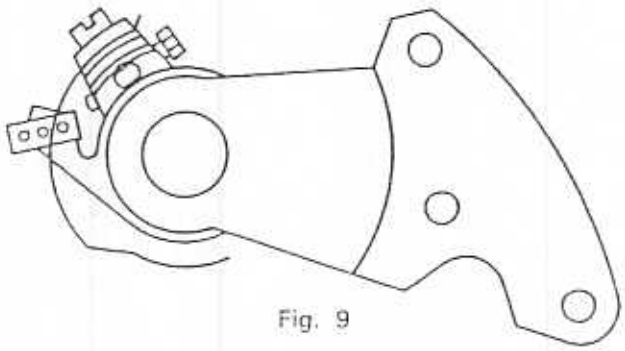


Fig. 9

* Obtainable from the Technical Information Department.

The angle between the hairspring holder and the pins must not be greater than 45° (Fig. 10).

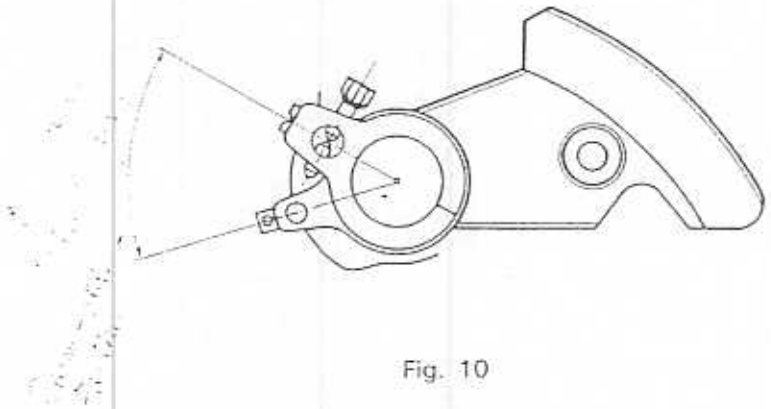


Fig. 10

2. If necessary, correct the beat by means of the adjustable hairspring holder.

3. Set the rate as close to zero as possible by means of the regulator, then finish the timing correction by turning the hairspring holder screw with the Microstella key.

4. Then check the rate and amplitude on a watch-timer and an amplitude meter, in the following positions:

   9 H vertical, crown down
   6 H vertical, crown left
   3 H vertical, crown up
   C H horizontal, dial up
   F H horizontal, dial down

5. When the watch has been cased up and the complete rotor fitted, verifications should be made over 24 hours in different positions and on a wear-simulator. At this stage, it is always possible to make a further correction if necessary.

AUTOMATIC WINDING DEVICE

Seen from above (Fig. 11)

Scale:
1.5 : 1

Fig. 11

Seen from below (Fig. 12)

Fig. 12

Checking the endshake of the reversing wheels

The endshake of the driver of the reversing wheel (No. 4479) should be very slight (0.01 mm). To check it, lift the pinion of the driver with a pair of tweezers and observe the movement of the pivots in the jewel holes. If a correction is necessary, make it by shifting the jewels in the sole (N° 4472) of the automatic winding device.

Dismantling the automatic wingding device

- Remove the gib (No. 4478) and the rotor (No. 4474).
- Take out the two screws (No. 54472) of the sole (No. 4472).
- Remove the reversing wheels and the intermediate wheel.

Assembling the automatic winding device

- Fit the bridge of the automatic winding device upon the rotor axle, which should have been greased beforehand.
- Fit the winding wheel (No. 4477).
- Fit the two reversing wheels mounted (No. 4479).
- Fit the sole (No. 4472).
- Fit the gib into the groove of the rotor axle and by lifting the rotor, make sure that it is correctly positioned.

Fitting the dial and hands

1. Fit the hour wheel and the dial.
   - Make sure the hour wheel is free.

2. Drive on the hour, minute and second hands without supporting either the pivot of the sweep second pinion or the jewelled bush (No. 6191) of the sweep second pinion.

   The movement can be supported by its rim on a movement holder for instance ROLEX Ref. 2076 * or placed flat on a plate.

CASING UP

1. Place the movement inside the case, which should have been reconditioned beforehand (polishing and brushing of the case and bracelet, water-resistance test).
   - Press the setting lever stud and insert the winding stem; screw the winding crown onto its tube in order to centre the stem.
   - Take the casing clamps (No. 4498) out of their recess and drive their screws (No. 54498) tight.
   - Some models have an enlargement ring (No. 4481) and long casing clamps (No. 4499) with screws (No. 54498).

2. Fit the automatic winding device, making sure that the gearing between the intermediate wheel and the ratchet wheel is correct, and drive the screws tight.

3. Check the rotor to make sure that it turns perfectly freely and, by moving the oscillating weight in both directions, see whether the ratchet wheel moves forward.

4. Check the rate on a watch-timer.

5. Lightly grease the thread of the case back, tighten the back and carry out the final water-resistance test.

6. Check the working of the automatic winding device on a wear-simulator.

* Obtainable from the Technical Information Department.

CALIBRE 2035 - derived from calibre 2030

Automatic	Date	Shock-absorber
Magnetic breaking of the sweep second pinion		Centre second
Clinergic escapement with 21 teeth wheel		Stop second device
Annular balance	Flat hairspring	Adjustable hairspring holder
Spirofin regulator with 2 adjustable ruby pins		Fine rating by means of Microstella key

– External diameter	20.00 mm
– Case-fitting diameter	19.70 mm
– Overall height including automatic winding device	5.90 mm
– Number of jewels	28
– Frequency 4 Hz, i.e. vibrations per hour	28'800
– Box of spare parts	No. 50

Movement seen from below, with date disc (Fig. 13) and without it (Fig. 14).

Scale: 1,5 : 1

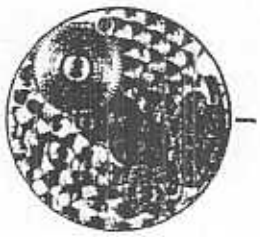


Fig. 13

Fig. 14

DISMANTLING THE CALENDAR MECHANISM

Remove the date disc (No. 4520), unscrew the date jumper (No. 4516) and take out the calendar wheel (No. 4514). Some models have an enlargement ring (No. 4522) and a larger date disc (No. 4521). Fig. 15 and Fig. 16.

Scale 1 : 1

Fig. 15

Fig. 16

ASSEMBLING THE CALENDAR MECHANISM

1. Lightly lubricate the calendar-wheel stud and fit the wheel and the date jumper.
2. The beak of the date jumper should be parallel to the main plate, and the clearance between the plate and the beak 0.25 mm.
3. Make sure that the tension of the date jumper is as indicated in Fig. 17.

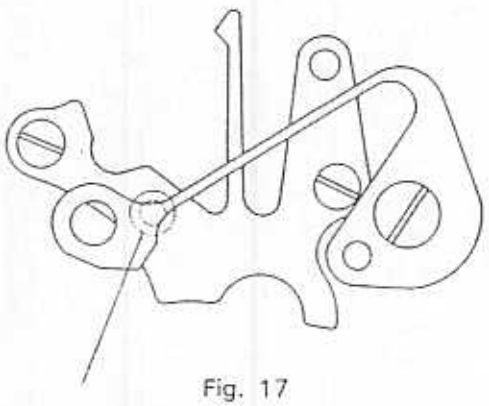


Fig. 17

4. Lubricate the beak of the jumper and fit the date disc.

   The enlargement rings with which some models are fitted are fixed to the movement with the casing clamps (No. 4498) and their screws (No. 54498).

   The casing bridles must then be fitted with the convex side facing upwards, so as to press on the enlargement ring.

5. Fit the hour wheel and the dial.

   – Check the free action and the endshake of the hour wheel, as well as the changing of the date.

6. Drive on the hands so as to ensure that the date changes at midnight.
   – Tolerance 1 + 3 min.

CASING UP

See page 12, paragraph 1, bearing in mind the following special points:

– The movement with enlargement rings (No. 4522) are held in position by case screws (No. 54522); for locking, these must be unscrewed (Fig. 18).

– Verify the changing of the date before and after the case back is screwed tight.

Scale
1:1

Fig. 18

CALIBRES 2030 - 2035

Calibre 2030, replacing calibre 1161-1166, is designed for the ROLEX LADY DATE. Its features are as follows :

Exterior diameter	20,00 mm
Total height with automatic	5,40 mm
Total height with automatic and calendar	5,90 mm
Number of jewels	28
Number of vibrations per hour (fast beat movement)	28,800

Automatic Shock protecting device	Sweep second Flat balance-spring	Stop second Screwless balance wheel with three arms
Movable stud-holder	Spirofin regulator with two ruby pins	Precise timing with regulator-screw with a Microstella head
Clinergic escapement Escape wheel with 21 teeth Solid banking	Decentred centre wheel	Magnetic braking of the sweep second pinion

Calibre 2035 : identical plus calendar

Particular points

Unwinding the mainspring

Check if the wig-wag pinion No. 4444 is well engaged with the ratchet wheel and let down the mainspring normally. Finish this unwinding by retaining the ratchet wheel No. 4445 by the screw with a screwdriver. Disengage the wig-wag pinion from the ratchet wheel toothing, turn the ratchet wheel 1/8 of a turn, then disengage the click No. 4446 and let down completely. (The crown wheel is withheld by a curved spring to avoid the disengagement of the wig-wag pinion during the manual winding).

Escapement

The Clinergic escapement used for fast beat movements shows very limited play and clearance which can only be correctly observed under a binocular magnifying glass. As the very delicate functions of this escapement have been accurately set in the factory by Rolex specialists, we strongly recommend not touching it unless a serious defect is noticed.

The balance wheel has a Greiner balance-spring collet which cannot be taken off without special tools. This means that the complete balance should be replaced if, for instance, the staff is broken. We have consequently provided for the repair of balances in the factory. In order to obtain a complete spare balance at a special rate from our Spare Parts Department, the old piece should be returned. If the balance-spring is damaged, the balance will be billed at the normal price.

Calibre 2030

ROLEX

ø 20 mm Ht. 5,40 mm Alt. 28.800

Calibre de base
Basic calibre
Calibre de base
Grundkaliber
Calibro di base

Boîte de fournitures Nº 02030

gravé sur le pont du dispositif automatique
engraved on the automatic device bridge
grabado sobre el puente del dispositivo automático
graviert auf der Brücke für Automatik
inciso sul ponte del dispositivo automatico

2030

Automatique	Seconde au centre	Amortisseur	28 pierres
Selfwinding	*Centre second*	*Shock-absorber*	*28 jewels*
Automático	Segundero central	Amortiguador	28 piedras
Automatisch	*Zentrumsekunde*	*Stossicherung*	*28 Steine*
Automatico	Secondi al centro	Ammortizzatore	28 pietre

1:1


4410


4411


4412


4413


4414


4415


4416

4417


4419


4420

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4422

4423


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132

2:1

167

54411

54411-1

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54414

54416

54435

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54450

54459

54471

54471-1

54472

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54500

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4494

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4497

6100

6101

6102

6103

6140

6141

6142

6143

6190

6191

95016

ROLEX

Calibre 2030

Même pièce calibre	N°	Français	English	Español	Deutsch	Italiano
	123	Bride	*Bridle*	Brida	*Bügel*	Brida
	132	Bride	*Bridle*	Brida	*Bügel*	Brida
	167	Vis de bride	*Screw for bridle*	Tornillo de brida	*Schraube für Bügel*	Vite della brida
	4410	Platine	*Main plate*	Platina	*Werkplatte*	Piastra
	4411	Pont de barillet	*Barrel bridge*	Puente de cubo	*Federhausbrücke*	Ponte del bariletto
	4412	Pont de rouage	*Train wheel bridge*	Puente de rodaje	*Räderwerkbrücke*	Ponte del ruotismo
	4413	Pont de pignon de minute	*Minute pinion bridge*	Puente del piñón de minutos	*Minutentrieb-Brücke*	Ponte del pignone dei minuti
	4414	Pont d'ancre	*Pallet bridge*	Puente de áncora	*Ankerbrücke*	Ponte dell'ancora
	4415	Pont de balancier	*Balance bridge*	Puente de volante	*Unruhbrücke*	Ponte del bilanciere
	4416	Pont de remontoir	*Winding bridge*	Puente de remontuar	*Aufzugbrücke*	Ponte del dispositivo di carica
	4417	Pilier de ponts de barillet, de rouage et de pignon de minute	*Pillar for barrel, train, and minute pinion bridges*	Pilar de puentes de cubo, de rodaje y de piñón de minutos	*Pfeiler für Federhaus-, Räderwerk- und Minutentrieb-Brücke*	Colonnina dei ponti del bariletto, del ruotismo et del pignone dei minuti
	4419	Ressort de barillet, force normale	*Mainspring, strength-standard*	Muelle real, fuerza normal	*Zugfeder, Stärke-normal*	Molla del bariletto, forza normale
	4420	Ressort de barillet, force faible	*Mainspring, strength-weak*	Muelle real, fuerza débil	*Zugfeder, Stärke-schwach*	Molla del bariletto forza debole
	4421	Arbre de barillet	*Barrel arbor*	Arbol de cubo	*Federwelle*	Albero del bariletto
	4422	Barillet avec arbre	*Barrel with arbor*	Cubo con árbol	*Federhaus mit Federwelle*	Bariletto con albero
	4423	Pignon de minute avec chaussée	*Minute pinion with cannon pinion*	Piñón de minutos con cañón de minutos	*Minutentrieb mit Minutenrohr*	Pignone dei minuti con pignone calzante
	4424	Roue de grande moyenne	*Great wheel*	Rueda grande de arrastre	*Grossbodenrad*	Ruota di grande mediana
	4425	Roue moyenne	*Third wheel*	Rueda primera	*Kleinbodenrad*	Ruota mediana
	4426	Roue de seconde	*Second wheel*	Rueda de segundos	*Sekundenrad*	Ruota dei secondi
	4427	Pignon de seconde au centre	*Centre second pinion*	Piñón de segundero central	*Zentrumsekunden-trieb*	Pignone dei secondi al centro
	4428	Ressort-friction du pignon de minute	*Minute pinion friction spring*	Muelle-fricción del piñón de minutos	*Friktionsfeder für Minutentrieb*	Molla-frizione del pignone dei minuti
	4429	Roue d'échappement	*Escape wheel*	Rueda de escape	*Hemmungsrad*	Ruota di scappamento
	4430	Ancre	*Pallet fork*	Ancora	*Anker*	Ancora
	4431	Tige d'ancre	*Pallet staff*	Tija de áncora	*Ankerwelle*	Albero d'ancora
	4432	Balancier avec spiral plat, réglé	*Balance with flat hairspring, regulated*	Volante con espiral plano, regulado	*Unruh mit Flachspirale, reguliert*	Bilanciere con spirale piana, regolato
	4433	Axe de balancier	*Balance staff*	Eje de volante	*Unruhwelle*	Albero del bilanciere
	4434	Plateau	*Roller*	Platillo	*Scheibe*	Disco
	4435	Porte-spiral	*Hairspring support*	Porta-espiral	*Spiralfederträger*	Porta-spirale
	4436	Bague de porte-spiral	*Ring for hairspring support*	Anillo de porta-espiral	*Ring für Spiral-federträger*	Anello del porta-spirale
	4437	Raquette	*Regulator*	Raqueta	*Rücker*	Racchetta
	4437-1	Clavette de raquette	*Spring-clip for regulator*	Chaveta de raqueta	*Klemmscheibe für Rücker*	Chiavetta della racchetta
	4438	Tige de remontoir	*Winding stem*	Tija de remontuar	*Aufzugwelle*	Albero di carica
	4439	Pignon de remontoir	*Winding pinion*	Piñón de remontuar	*Aufzugtrieb*	Pignone di carica

Printed in Switzerland

ROLEX

Calibre 2030

Même pièce calibre	N°	Français	English	Español	Deutsch	Italiano
	4440	Pignon coulant	*Sliding pinion*	Piñón corredizo	*Kupplungstrieb*	Pignone scorrevole
	4441	Roue de couronne	*Crown wheel*	Rueda de corona	*Kronrad*	Ruota a corona
	4442	Ressort-friction de roue de couronne	*Friction spring for crown wheel*	Muelle-fricción de rueda de corona	*Friktionsfeder für Kronrad*	Molla-frizione della ruota a corona
	4443	Roue de couronne intermédiaire	*Intermediate crown wheel*	Rueda de corona intermedia	*Zwischen-Kronrad*	Ruota a corona intermedia
	4444	Pignon baladeur	*Wig-wag pinion*	Piñón corredero	*Umstelltrieb*	Pignone ballerino
	4445	Rochet	*Ratchet wheel*	Rochete	*Sperrad*	Rocchetto
	4446	Cliquet	*Click*	Trinquete	*Klinke*	Cricco
	4447	Ressort de cliquet	*Spring for click*	Muelle de trinquete	*Feder für Klinke*	Molla del cricco
	4448	Tirette	*Setting lever*	Tirete	*Winkelhebel*	Tiretto
	4449	Ressort de tirette	*Setting lever spring*	Muelle de tirete	*Winkelhebelfeder*	Molla del tiretto
	4450	Sautoir de tirette	*Jumper for setting lever*	Muelle flexible de tirete	*Raste für Winkelhebel*	Scatto del tiretto
	4451	Bascule de pignon coulant	*Yoke for sliding pinion*	Báscula de piñón corredizo	*Hebel für Kupplungstrieb*	Bascula del pignone scorrevole
	4452	Ressort de bascule	*Spring for yoke*	Muelle de báscula	*Feder für Kupplungshebel*	Molla della bascula
	4453	Renvoi	*Setting wheel*	Rueda de transmisión	*Zeigerstellrad*	Rinvio
	4454	Renvoi intermédiaire	*Intermediate setting wheel*	Rueda de transmisión intermedia	*Zwischen-Zeigerstellrad*	Rinvio intermedio
	4455	Roue de minuterie	*Minute wheel*	Rueda de minutería	*Wechselrad*	Ruota della minuteria
	4456	Tenon de roue de minuterie	*Minute wheel stud*	Espiga de rueda de minutería	*Lagerstift für Wechselrad*	Tenone della ruota di minuteria
	4457	Chaussée	*Cannon pinion*	Cañón de minutos	*Minutenrohr*	Pignone calzante
	4458	Roue des heures	*Hour wheel*	Rueda de horas	*Stundenrad*	Ruota delle ore
	4459	Plaquette de ressort d'arrêt de balancier	*Plate for balance stop spring*	Plaqueta del muelle de tope del volante	*Plättchen für Stoppfeder der Unruh*	Placchetta a molla per fermo del bilanciere
	4460	Ressort d'arrêt de balancier	*Balance stop spring*	Muelle de tope del volante	*Stoppfeder für Unruh*	Molla per fermo del bilanciere
	4461	Noyau de roue de couronne	*Crown wheel core*	Sombrerete de rueda de corona	*Kronradkern*	Nocciolo della ruota a corona
	4465	Ressort-friction de roue des heures	*Hour wheel friction spring*	Muelle-fricción de rueda de horas	*Friktionsfeder für Stundenrad*	Molla-frizione della ruota delle ore
	4471	Pont du dispositif automatique	*Automatic device bridge*	Puente del dispositivo automático	*Brücke für Automatik*	Ponte del dispositivo automatico
	4472	Pont inférieur du dispositif automatique	*Automatic device lower bridge*	Puente inferior del dispositivo automático	*Untere Brücke für Automatik*	Ponte inferiore del dispositivo automatico
	4473	Coussinet de masse oscillante	*Bearing pad for oscillating weight*	Cojinete de masa oscilante	*Lagerfutter für Schwungmasse*	Cuscinetto della massa oscillante
	4474	Masse oscillante	*Oscillating weight*	Masa oscilante	*Schwungmasse*	Massa oscillante
	4475	Module de remontoir automatique	*Automatic device module*	Modulo de remontuar automático	*Automatik-Baugruppe*	Modulo di ricarica automatica
	4476	Axe de masse oscillante	*Axle for oscillating weight*	Eje de masa oscilante	*Welle für Schwungmasse*	Asse della massa oscillante
	4477	Pignon de masse oscillante	*Pinion for oscillating weight*	Piñón de masa oscilante	*Trieb für Schwungmasse*	Pignone della massa oscillante

ROLEX

Calibre 2030

Même pièce calibre	N°	Français	English	Español	Deutsch	Italiano
	4478	Clavette de masse oscillante	*Spring-clip for oscillating weight*	Chaveta de masa oscilante	*Klemmscheibe für Schwungmasse*	Chiavetta della massa oscillante
	4479	Roue d'inversion montée	*Reversing wheel, mounted*	Rueda de inversión, ajustada	*Umkehrrad, montiert*	Ruota d'inversione, montata
	4480	Roue entraîneuse de rochet	*Driving wheel for ratchet wheel*	Rueda de arrastre de rochete	*Mitnehmerrad für Sperrad*	Ruota conduttrice del rocchetto
	4481	Cercle d'agrandissement	*Enlargement ring*	Aro de agrandar	*Vergrösserungsring*	Cerchio di ingrandimento
	4490	Amortisseur de balancier, dessus	*Shock-absorber for balance, upper*	Amortiguador de volante, encima	*Stoßsicherung für Unruh, oben*	Ammortizzatore del bilanciere, sopra
	4491	Amortisseur de balancier, dessous	*Shock-absorber for balance, lower*	Amortiguador de volante, debajo	*Stoßsicherung für Unruh, unten*	Ammortizzatore del bilanciere, sotto
	4492	Chaton, dessus et dessous	*In-setting, upper and lower*	Chatón, encima y debajo	*Steinfutter, oben und unten*	Castone, sopra e sotto
	4493	Contre-pivot, dessus et dessous	*Cap jewel, upper and lower*	Contrapivote, encima y debajo	*Deckstein, oben und unten*	Controperno, sopra e sotto
	4494	Ressort, dessus et dessous	*Spring, upper and lower*	Muelle, encima y debajo	*Feder, oben und unten*	Molla, sopra e sotto
	4495	Chaton combiné de roue d'échappement, dessus et dessous	*Combined in-setting for escape wheel, upper and lower*	Chatón combinado de rueda de escape, encima y debajo	*Kombiniertes Steinfutter, für Hemmungsrad, oben und unten*	Castone combinato della ruota di scappamento, sopra e sotto
	4497	Ressort, dessus et dessous	*Spring, upper and lower*	Muelle, encima y debajo	*Feder, oben und unten*	Molla, sopra e sotto
	6100	Pierre de roue de centre, dessus	*Jewel for centre wheel, upper*	Piedra de rueda de centro, encima	*Stein für Minutenrad, oben*	Pietra della ruota di centro, sopra
	6101	Pierre de roue de centre, dessous	*Jewel for centre wheel, lower*	Piedra de rueda de centro, debajo	*Stein für Minutenrad, unten*	Pietra della ruota di centro, sotto
	6102	Pierre de roues moyenne et de seconde, dessus	*Jewel for third and second wheels, upper*	Piedra de ruedas primera y de segundos, encima	*Stein für Kleinboden- und Sekundenrad, oben*	Pietra delle ruote mediana e dei secondi, sopra
	6103	Pierre de roues moyenne et de seconde, dessous	*Jewel for third and second wheels, lower*	Piedra de ruedas primera y de segundos, debajo	*Stein für Kleinboden- und Sekundenrad, unten*	Pietra delle ruote mediana e dei secondi, sotto
	6140	Pierre de masse oscillante, dessous	*Jewel for oscillating weight, lower*	Piedra de masa oscilante, debajo	*Stein für Schwungmasse, unten*	Pietra della massa oscillante, sotto
	6141	Pierre de roue d'inversion, dessus	*Jewel for reversing wheel, upper*	Piedra de rueda de inversión, encima	*Stein für Umkehrrad, oben*	Pietra della ruota d'inversione, sopra
	6142	Pierre de roue d'inversion, dessous	*Jewel for reversing wheel, lower*	Piedra de rueda de inversión, debajo	*Stein für Umkehrrad, unten*	Pietra della ruota d'inversione, sotto
	6143	Pierre de roue entraîneuse de rochet, dessus et dessous	*Jewel for driving wheel for ratchet wheel, upper and lower*	Piedra de rueda de arrastre de rochete, encima y debajo	*Stein für Mitnehmerrad für Sperrad, oben und unten*	Pietra della ruota conduttrice del rocchetto, sopra e sotto
	6190	Bouchon de barillet, dessus	*Bush for barrel, upper*	Aro de metal de cubo, encima	*Lagerbuchse für Federhaus, oben*	Boccola del bariletto, sopra
	6191	Bouchon du pignon de seconde au centre	*Bush for centre second pinion*	Aro del piñón de segundero central	*Buchse für Zentrumsekundentrieb*	Boccola del pignone dei secondi al centro
	54411	Vis de ponts: de barillet et rouage, tête basse	*Screw for barrel and train wheel bridges, low head*	Tornillo de puentes: de cubo y rodaje, cabeza baja	*Schraube für Federhaus- und Räderwerk, niedriger Kopf*	Vite dei ponti: del bariletto e ruotismo, testa bassa

Printed in Switzerland

ROLEX

Calibre 2030

Même pièce calibre	N°	Français	English	Español	Deutsch	Italiano
	54411-1	Vis de ponts: de balancier, de barillet et rouage, tête haute	*Screw for: balance, barrel and train wheel bridges, high head*	Tornillo de puentes: de volante, de cubo y de rodaje, cabeza alta	*Schraube für: Unruh-, Federhaus- und Räderwerk-Brücke, hoher Kopf*	Vite dei ponti: del bilanciere, del bariletto e del ruotismo, testa alta
	54413	Vis de pont de pignon de minute	*Screw for minute pinion bridge*	Tornillo de puente del piñón de minutos	*Schraube für Minutentrieb-Brücke*	Vite del ponte del pignone dei minuti
	54414	Vis de pont d'ancre	*Screw for pallet bridge*	Tornillo de puente de áncora	*Schraube für Ankerbrücke*	Vite del ponte dell'ancora
	54416	Vis de pont de remontoir	*Screw for winding bridge*	Tornillo de puente de remontuar	*Schraube für Aufzugbrücke*	Vite del ponte del dispositivo di carica
	54435	Vis de porte-spiral	*Screw for hairspring support*	Tornillo de porta-espiral	*Schraube für Spiralfederträger*	Vite del porta-spirale
	54445	Vis de rochet	*Screw for ratchet wheel*	Tornillo de rochete	*Schraube für Sperrad*	Vite del rocchetto
	54446	Vis de cliquet	*Screw for click*	Tornillo de trinquete	*Schraube für Klinke*	Vite del cricco
	54449	Vis de ressort de tirette	*Screw for setting lever spring*	Tornillo de muelle de tirete	*Schraube für Winkelhebelfeder*	Vite della molla del tiretto
	54450	Vis de sautoir de tirette	*Screw for setting lever jumper*	Tornillo de muelle flexible de tirete	*Schraube für Winkelhebelraste*	Vite dello scatto del tiretto
	54459	Vis de plaquette de ressort d'arrêt de balancier	*Screw for plate for balance stop spring*	Tornillo de plaqueta del muelle de tope del volante	*Schraube für Plättchen für Stoppfeder der Unruh*	Vite della placchetta a molla per fermo del bilanciere
	54471	Vis de pont du dispositif automatique, tête basse	*Screw for automatic device bridge, low head*	Tornillo de puente del dispositivo automático, cabeza baja	*Schraube für Brücke für Automatik, niedriger Kopf*	Vite del ponte del dispositivo automatico, testa bassa
	54471-1	Vis de pont du dispositif automatique, tête haute	*Screw for automatic device bridge, high head*	Tornillo de puente del dispositivo automático, cabeza alta	*Schraube für Brücke für Automatik, hoher Kopf*	Vite del ponte del dispositivo automatico, testa alta
	54472	Vis de pont inférieur du dispositif automatique	*Screw for automatic device lower bridge*	Tornillo de puente inferior del dispositivo automático	*Schraube für untere Brücke für Automatik*	Vite del ponte inferiore del dispositivo automatico
	54499	Vis de cadran	*Screw for dial*	Tornillo de esfera	*Schraube für Zifferblatt*	Vite del quadrante
	54500	Jeu de vis	*Set of screws*	Juego de tornillos	*Schrauben-Satz*	Gioco di viti
3035	**95016**	Pierre d'ancre, dessus et dessous	*Jewel for pallet fork, upper and lower*	Piedra de áncora, encima y debajo	*Stein für Anker, oben und unten*	Pietra d'ancora, sopra e sotto

Printed in Switzerl

Calibre 2030

ROLEX

Ø 20 mm Ht. 5,83 mm Alt. 28.800

Dérivé du calibre
Based on calibre
Derivado del calibre
Abgeleitet vom Kaliber
Derivato dal calibro
2030

Boîte de fournitures Nº 02030

gravé sur le pont du dispositif automatique
engraved on the automatic device bridge
grabado sobre el puente del dispositivo automático
graviert auf der Brücke für Automatik
inciso sul ponte del dispositivo automatico
2030

Automatique	Calendrier (traînant)	Seconde au centre	Amortisseur	28 pierres
Selfwinding	*Calendar (progressive)*	*Centre Second*	*Shock-absorber*	*28 jewels*
Automático	Calendario (progresivo)	Segundero central	Amortiguador	28 piedras
Automatisch	*Kalender (progressiv)*	*Zentrumsekunde*	*Stossicherung*	*28 Steine*
Automatico	Calendario (progressivo)	Secondi al centro	Ammortizzatore	28 pietre

1:1


4510


4511


4512


4513


4514


4516

4517


4518


4519


Ø 18 mm
4520-1


Ø 18 mm
4520-2


Ø 21,50 mm
4521-1


Ø 21,50 mm
4521-2


4522

2:1


171


54502


54516

ROLEX

Calibre 2035

Même pièce calibre	N°	Français	English	Español	Deutsch	Italiano
	171	Vis de cercle d'agrandissement	*Screw for enlargement ring*	Tornillo de aro de agrandar	*Schraube für Vergrösserungsring*	Vite del cerchio di ingrandimento
	4510	Platine	*Main plate*	Platina	*Werkplatte*	Piastra
	4511	Pignon de minute avec chaussée	*Minute pinion with cannon pinion*	Piñón de minutos con cañón de minutos	*Minutentrieb mit Minutenrohr*	Pignone dei minuti con pignone calzante
	4512	Chaussée	*Cannon pinion*	Cañón de minutos	*Minutenrohr*	Pignone calzante
	4513	Roue des heures	*Hour wheel*	Rueda de horas	*Stundenrad*	Ruota delle ore
	4514	Roue de quantième	*Date wheel*	Rueda de fecha	*Datumrad*	Ruota del datario
	4515	Tenon de roue de quantième	*Date wheel stud*	Espiga de rueda de fecha	*Lagerstift für Datumrad*	Tenone della ruota del datario
	4516	Sautoir de quantième	*Date jumper*	Muelle flexible de fecha	*Datumraste*	Scatta-data
	4517	Pied de sautoir de quantième	*Foot for date jumper*	Pie de muelle flexible de fecha	*Fuss für Datumraste*	Piedino della scatta-data
	4518	Pilier de sautoir de quantième	*Pillar for date jumper*	Pilar de muelle flexible de fecha	*Pfeiler für Datumraste*	Pila della scatta-data
	4519	Etoile de quantième	*Date star*	Estrella de fecha	*Datumstern*	Stella del datario
	4520-1	Indicateur de quantième, champagne	*Date indicator, champagne*	Indicador de fecha, champaña	*Datumanzeiger, champagne*	Indicatore della data, champagne
	4520-2	Indicateur de quantième, argenté	*Date indicator, silvered*	Indicador de fecha, plateado	*Datumanzeiger, versilbert*	Indicatore della data, argentato
	4521-1	Indicateur de quantième, champagne	*Date indicator, champagne*	Indicador de fecha, champaña	*Datumanzeiger, champagne*	Indicatore della data, champagne
	4521-2	Indicateur de quantième, argenté	*Date indicator, silvered*	Indicador de fecha, plateado	*Datumanzeiger, versilbert*	Indicatore della data, argentato
	4522	Cercle d'agrandissement	*Enlargement ring*	Aro de agrandar	*Vergrösserungsring*	Cerchio di ingrandimento
	54502	Jeu de vis	*Set of screws*	Juego de tornillos	*Schraubensatz*	Gioco di viti
	54516	Vis de sautoir de quantième	*Screw for date jumper*	Tornillo de muelle flexible de fecha	*Schraube für Datumraste*	Vite dello scatta-data

Printed in Switzerland

Braking of the sweep second pinion No. 4427

To avoid the disadvantages of the friction spring, the calibre 2030-35 is equipped with magnetic braking of the sweep second pinion. To this effect a magnetic ring is driven onto the sweep second staff of the pinion No. 4427. This staff is attracted by the jewelled bush No. 6191 made of soft iron driven into the train wheel bridge. In spite of the presence of this small permanent magnet, no special precautions are needed to demagnetise the watch on a special apparatus for this purpose. On the other hand, you will always notice a slight magnetisation with an apparatus to detect magnetism. However, this magnetic field has no influence at all on the time-keeping of the watch. The use of non-magnetic tweezers is recommended.

Attention : Even after a good cleaning, small metal chips attracted by the magnet may remain at the bottom of the pinion. Be careful to remove them with the cleaning paste "Rodico one touch".

Spirofin regulator

The regulator carries two orientable ruby pins which allow the adjustment of the hairspring between the pins. The beat of the hairspring must be adjusted before the watch is regulated, by turning the pin-holder with tweezers (clockwise to narrow the gap). Use the regulator to approach the timing as close to zero as possible and the Microstella screw for the final adjustment. The Microstella key is the same as for calibre 1570-75.

Fitting the hands

Fit the hour, minute and second hands without supporting the pivot of the sweep second pinion. The movement may be supported by the casing diameter on the movement-holder or put flat on a plate.

ROLEX

Technical information
Information technique
Información técnica
Technische Information
Informazione tecnica

MARCH 1987

TECHNICAL SUPPLEMENT

RECENT TECHNICAL MODIFICATIONS BROUGT TO CALIBRES 2130/2135 AND 3035 NOT BEING MENTIONED IN THE RESPECTIVE TECHNICAL INFORMATION BULLETIN

COMMUNICATIONS

RECOMMENDATION

TOOLS

REMARKS

MONTRES ROLEX SA CH-1211 GENÈVE 24

TECHNICAL MODIFICATIONS

CALIBRES 2130/2135

Hairspring support No. 2130-453

The hairspring support has been modified so as to give an inclination to the bridle.

The object is: to prevent a coil from getting hooked between the hairspring support and the bridle.

CALIBRE 3035

Date wheel mounted No. 5094

The width of the finger has been increased from 0,375 to 0,550 mm.

The object is: to control better the date indicator when jumping.

COMMUNICATIONS

Strengthening of the security of the bracelet screws, the Oyster tubes and the winding stems

When links fixed with screws have to be added or removed, it is recommended to use Loctite 259* to strengthen the tightness of the screws.
The hold tube/case middle part and stem/crown can also be strenghtened with Loctite 270*.
Loctite is deposited with parsimony on the screw thread.

Replacement of Oyster tubes

When replacing a tube it is necessary to fit the type of tube which corresponds to the recess done in the case middle part for the seat of the tube. The Oyster catalogue R.20, edition April 1987, gives for every case reference the number of the corresponding tube.

Gold cases

Under adverse conditions, a discolouration due to a chemical reaction between the silver washer and the gold case can take place around the tube. It is then necessary to remove the silver washer. With a tube No. 24-5330, respectively No. 24-6010 use a gold washer No. 29-05318, respectively No. 29-06028. Polishing removes discolouration.

* Can be ordered from the Technical Information Department.

Dials and hands calibres 2035 and 2135

The dials cal. 2035 cannot be fixed on the movements cal. 2135, however the contrary is possible since the dials cal. 2135 have millings for the two bolts of the date indicator seating.

The hands of cal. 2035 and 2135 are not interchangeable.

However when a dial has to be changed one must pay attention to the particularity of the movement i.e. fit a dial that, as the old one, either bears the mention « Superlative Chronometer Officially Certified », either not. Do not omit to mention this point when ordering a dial as far as Rolesor or steel watches are concerned.

RECOMMENDATION

Lubrication

We recommend to use our new range of lubricants. The technical information bulletin No. 23, the up to date issue of cal. 3035/3055, includes the new lubricating charts.

Here is the list of our lubricants and summarily their use:

Oil Synt-A-Lube 9010 Ref. 2900	balance and escape wheel pivots.
Grease MR 1 Ref. 2904	inner wall of automatic watches barrel.
Grease Moebius 9415 Ref. 2911	impulse plane of the teeth of the escape wheel and of the pallet-stones; peremptory use for the 28.800 V/h, optional use for the 19.800 and 21.600 V/h watches.
Oil FHMR 3 Ref. 2912	other wheels and pinions.
Grease MR 4 Ref. 2913	friction of cannon pinion, mechanisms.
Oil Moebius 941 Ref. 2901	impulse plane of the pallet-stones of the 19.800 and 21.600 V/h watches if Moebius grease 9415 has not been used.
Grease Fomblin Ref. 2916	belongs now to the range of our lubricants, is not used for the movement and replaces grease 55 M Ref. 2908, silicone Ref. 2909 and tallow Ref. 2910.

TOOLS

Two punches Ref. 2092 and 2102 are necessary to rivet the combined in-setting No. 95063 of the automatic device bridge cal. 3035-85. The riveting is done with the punch with prongs Ref. 2102; the flat punch Ref. 2092 is used to flatten the rivet so as to keep a sufficient clearance between the automatic device bridge and the oscillating weight. A special stake Ref. 2112 is available, it has a recess in its centre for the combined in-setting of the automatic device bridge.

A special tool Ref. 2106 is available. It is a tip, notched on one end, to make easier the fitting of the spring for cam yoke of the cal. 1555, 1556, 1575, 3035, 3055, 3075, 3085, 5035 and 5055. This tip goes on a screwdriver of a diameter of 3.00 mm.

To facilitate the screwing and especially the unscrewing of the screws of the bracelets links, there are sockets that can be fitted on the handle for taps Ref. 2039 and designed to receive screwdriver blades. Sockets for blades of a diameter of 0.90, 1.20, 1.40 and 1.70 mm are available.

IMPORTANT REMARKS RELATING TO THE VACUUM APPARATUS REF. 1000

The functioning of this apparatus is often misunderstood and in particular the indications of the manometer. Consequently we think useful to give the explanations hereafter.

The dial of the manometer has graduations in cm Hg (Hg = mercury) and the hand shows the lowering of pressure brought about the transparent container. This method which works by lowering the pressure, is an excellent way of detecting leaks because it subjects the case to severe strain caused by high pressure inside the case.

Unfortunately no strict physical concordance can be given for a watch which is plunged into water and therefore subjected to high external pressure. However the practical tests we have carried out have proved that a watch will be perfectly waterresistant in normal conditions of immersion in water (swimming, diving, etc) if the hand of the manometer shows 60 cm Hg.

ROLEX

Technical information
Information technique
Información técnica
Technische Information
Informazione tecnica

OCTOBER 1985

TECHNICAL SUPPLEMENT

RECENT TECHNICAL MODIFICATIONS BROUGHT TO CALIBRES 2130/2135, 3035/3055/3075/3085 AND 5055 NOT BEING MENTIONED IN THE RESPECTIVE TECHNICAL INFORMATION BULLETIN

COMMUNICATIONS

RECOMMENDATION

REMINDER

MONTRES ROLEX SA CH-1211 GENÈVE 24

COMMUNICATIONS

ROLEX apparatus and tools

A list of ROLEX apparatus and tools especially designed for the After-Sale Service can be obtained from the Technical Information Department.

Lubrication of the escapement

We use the Moebius 9415 grease to lubricate the impulse planes of the teeth of the escape wheel of the 28'800 vibrations per hour calibres. It is applied as described in our Technical Information bulletin No 20 "Calibers 3075/3085" on page 8, §2.14.

RECOMMENDATION

Cleaning of the cleaning machines jars and benzine cups

We recommend « TEX-Spezial », a soapy performing detergent, for the cleaning of jars and benzine cups.
Proceed weekly to this cleaning which eliminates the deposit that facilitates the spreading of oils and counteracts the effect of epilame.

Proceed as follows:
- Pour « TEX-Spezial » into the container to be cleaned to a proportion of 5% of the content and fill up with water at 50°C (122°F).
- Let work for 2-3 hours.
- Rinse several times with warm water.
  The distilled water must spread out on the walls of the container, the forming of drops means that the cleaning has turned out badly.
- Rinse the last time with distilled water.
- Let dry in the open air (if one cannot wait, dry with warm air or alcohol, do not use cloth nor compressed air).

« TEX-Spezial » can be ordered from the Technical Information Department.

REMINDER

Lubrication of the reversing wheels mounted of all the calibres with automatic winding device

The reversing wheels mounted must be coated with epilame according to our instructions. Only the pivots must be lubricated.
Refer to our sheet: "Lubrication of reversing wheels". This sheet is available from the Technical Information Department.

CALIBRE 3035

Yoke for cam No. 5090
The yoke for cam is milled on the case side near the pivoting hole.

The object is: to prevent the working of the yoke for cam to be limited by the cases group ref. 15000.

CALIBRES 3035-3085

Spring-clip for oscillating weight No. 5066 (5066-1, 5066-2, 5066-3)
A new shape has been chosen, the spring-clip is now of a claw type.

The object is: to prevent the spring-clip for oscillating weight to leave its bed.

CALIBRES 3055 AND 5055

Assembled star wheels No. 5131
The day finger of the assembled star wheels has a polished ridge instead of a flat surface entirely polished.

The object is: to ensure a good stability and bring to a minimum the friction of the day finger of the assembled star wheels against the dial.