ROLEX

Technical information
Information technique
Información técnica
Technische Information
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CALIBRE 3075
CALIBRE 3085

MONTRES ROLEX SA CH-1211 GENÈVE 24

CALIBRE 3075

Functions of the winding stem

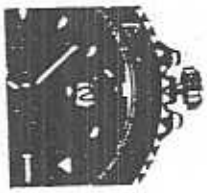
Position 1:
crown unwound

winding by hand

Position 2:
crown pulled out
to first catch

backward:
correction of date
indication
forward:
winding by hand

Position 3:
crown pulled out
to second catch



stop-second and
setting to time

Lay-out of the hands:

second hand
minute hand
24-hour hand
12-hour hand

This lay-out allows for a gain in height.

Special ROLEX tools which can be ordered from the Technical Information Department

Ref. 2003* Key for calendar-wheel nut
2004* Tool for extracting the cam stud
2019* Microstella key (new model)
2020** Support for automatic device module
2021** Movement-holder

* Same tool as for calibres 1556-1575, 3035/3055
** Same tool as for calibres 1556, 3035/3055

CONTENTS

CALIBRE 3075

CALIBRE 3085

CALIBRE 3075 — derived from calibre 3035

Automatic winding — Date indicator mechanism with rapid corrector

24-hour hand — Centre second hand — Stop-second device

Annular balance with two pairs of Microstella screws — Breguet hairspring

Shock-absorbers for balance and combined in-settings for escape wheel

— Overall diameter	28.50 mm
— Case-fitting diameter	28.10 mm
— Overall height, including automatic device module and date indicator mechanism	6.35 mm
— Number of jewels	27
— Frequency 4 Hz, i.e. vibrations per hour	28.800
— Angle of lift of the balance wheel	52°
— Box of spare parts	N° 03055

Movement seen from above with automatic device module (Fig. 1) and seen from below with date indicator mechanism (Fig. 2).

Fig. 1

Scale 1.5 : 1

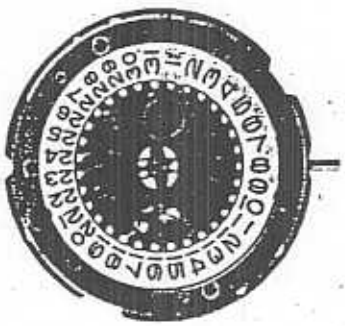


Fig. 2

CALIBRE 3075

Functions of the winding stem

Position 1:
crown unwound

winding by hand

Position 2:
crown pulled out
to first catch

backward:
correction of date
indication
forward:
winding by hand

Position 3:
crown pulled out
to second catch

stop-second and
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Lay-out of the hands:

second hand
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This lay-out allows for a gain in height.

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Ref. 2003 * Key for calendar-wheel nut
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2020 ** Support for automatic device module
2021 ** Movement-holder

* Same tool as for calibres 1556-1575, 3035/3055
** Same tool as for calibres 1556, 3035/3055

1. DISMANTLING THE DATE INDICATOR AND THE MOVEMENT *

1.1. Remove the automatic device module (No. 5151), taking out the three screws (No. 55005) of the automatic device framework (No. 5062). Take care not to lose the pinion for oscillating weight (No.5065) and the spring-clip for oscillating weight (No. 5066).
Dismantling and assembling the automatic module, see pages 13-14.

1.2. Extract the winding stem (No. 5025), take the movement out of the case, remove the hands and the dial, then refit the winding stem.

1.3. Open the bolt of the date indicator seating and remove the date indicator (No. 5099-1 respectively 5099-2).

1.4. Remove the date indicator seating (No. 5098).

1.5. Remove the hour wheel friction spring (No. 5159).

1.6. Remove the hour wheel 12 h (No. 5157).

1.7. Remove the minute wheel 12 h (No. 5154).

1.8. Remove the calendar wheel nut (No. 5093) — left-hand thread — with the ROLEX tool Ref. 2003.

1.9. Remove the date wheel (No. 5153) while disengaging slightly the cam yoke (No. 5090).

1.10. Remove the hour wheel 24 h with double toothing (No. 5158).

1.11. Remove the date jumper (No. 5095).

1.12. Remove the jewel for cam yoke (No. 95090) and the yoke for cam (No. 5090) while disengaging the spring for cam yoke (No. 5091).
The spring for cam yoke must be left in place.

1.13. Remove the cannon pinion (No. 5045).

1.14. Let down the mainspring, check the hairspring and the balance.

1.15. Loosen the stud screw, remove the balance bridge (No. 5005) and the balance (No. 5019). Tighten the stud screw again.
Do not loosen the screw (No. 55023) of the small plate for stud holder and the screw (No. 55005-1) for adjusting the height of the balance bridge.

1.16. Remove the pallet bridge (No. 5004) and the pallet fork (No. 5016).

1.17. Remove the ratchet wheel (No. 5033), the winding bridge (No. 5006), the wig-wag pinion (No. 5032), the intermediate crown wheel (No. 5031), the crown wheel (No. 5028) with the crown wheel core (No. 5029), the friction spring for crown wheel (No. 5030) and the barrel bridge (No. 5001).

1.18. Remove the barrel (No. 5008) and take it to pieces.

1.19. Check the endshakes of the wheels, remove the train wheel bridge (No. 5002) and the wheels.

1.20. Remove the minute pinion bridge (No. 5003) and the minute pinion (No. 5011).

1.21. Remove the date corrector (No. 5096) and the corrector wheel (No. 5097).

1.22. Remove the jumper for setting lever mounted (No. 5038), the minute wheel 24 h (No. 5156), the setting wheel (No. 5042), the spring for yoke (No. 5041), the yoke for sliding pinion (No. 5039), the winding stem (No. 5025), the winding pinion (No. 5026) and the sliding pinion (No. 5027).
The setting lever mounted (No. 5036), its spring (No. 5037) and the balance stop spring (No. 5022) can be left in place.

1.23. Dismantle the combined in-settings for escape wheel (No. 95015) and the shock-absorbers for balance (Nos 95019 and 95019-1).

* It is recommended that the movement should be pre-cleaned before it is dismantled. This first cleaning can be carried out with the sprung balance, the barrel and even the automatic device module left in place. This procedure enables the watchmaker to form a better judgement on the conditions of the movement parts. After a complete dismantling and the exchange of the parts that need to be replaced, a second cleaning is necessary before the movement is reassembled.

2. ASSEMBLING THE MOVEMENT

For lubrication, see lubricating chart on page 7.

2.1. Assemble and lubricate the upper and lower combined in-settings of the escape wheel. The size of the oil drop should be equal to 2/3 of the diameter of the end-stone.

2.2. Lubricate the upper and the lower pivots of the minute pinion, fit it in position with the bridge.
This pinion has a plastic bush inside the pivot shank. It should not be reamed out or damaged, lest its surface state be altered.

2.3. Lubricate the lower shoulder of the second wheel; the second-wheel pivot which works in the plastic bush must not be lubricated.

2.4. Fit the great wheel, the escape wheel, the second wheel, the third wheel and the train wheel bridge.

2.5. Lubricate the inner wall of the barrel drum with Olyt grease (ROLEX MR 1).
The mainspring has undergone special lubrication treatment, but it should be slightly greased if it has been in the baths of a cleaning machine.

2.6. Assemble the barrel, lubricate the pivoting parts of the barrel arbor.
Fit the barrel and the barrel bridge.

2.7. Fit the cannon pinion, the winding pinion, the sliding pinion, the winding stem, the setting wheel, the minute wheel 24 h after having lubricated the pivot on the plate side, the yoke for sliding pinion, the spring for yoke and the jumper for setting lever mounted.

2.8. Fit the crown-wheel friction spring with its convex side facing upwards (Fig. 3). Lubricate this spring and the stud of the intermediate crown wheel.

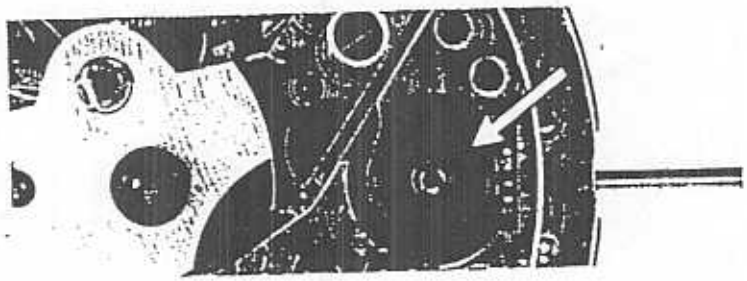
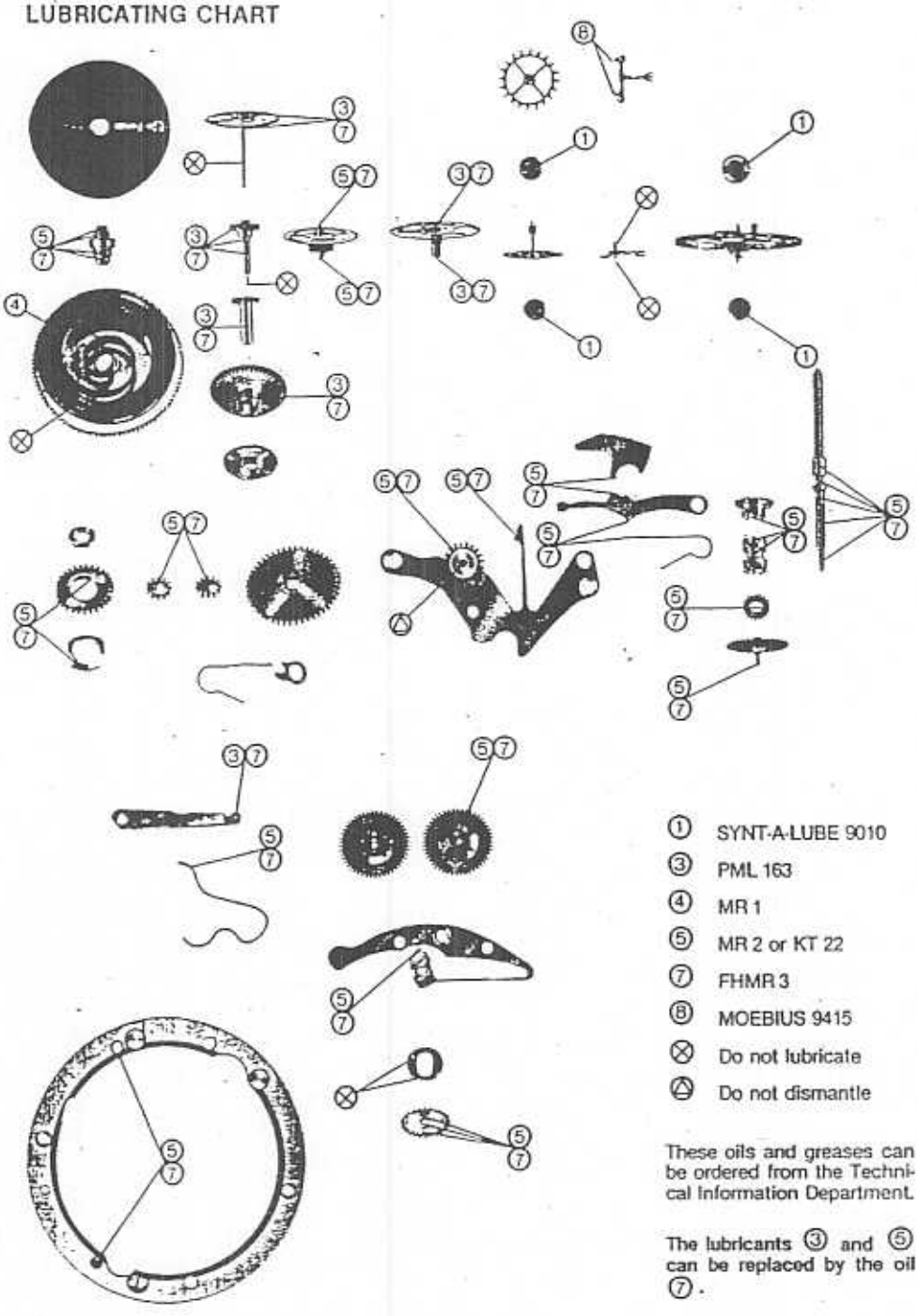


Fig. 3

2.9. Fit the crown wheel and the crown wheel core.
When the watch is being wound by hand, the tension of the friction spring should be sufficient to keep the crown wheel still during the unclicking.
If necessary increase the camber of the friction spring.

2.10. Fit the intermediate crown wheel and the wig-wag pinion the pivots of which should be slightly lubricated.

LUBRICATING CHART



① SYNT-A-LUBE 9010
③ PML 163
④ MR 1
⑤ MR 2 or KT 22
⑦ FHMR 3
⑧ MOEBIUS 9415
⊗ Do not lubricate
△ 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.

2.11. Fit the winding bridge and the ratchet wheel.
If the barrel or the minute pinion has had to be replaced, check the backlash and the freedom of the gears.
This backlash should be limited (from 0.01 to 0.02 mm), so that the play of the minute hand does not exceed 10 seconds.
To determine the backlash, hold the minute pinion still and turn the barrel to and fro. The play that will be noted when this is done is the backlash or circumferential play. It should be checked at several points on the periphery of the barrel.

2.12. Lubricate the pivots of the wheels.

2.13. Fit the pallet and the pallet bridge.

2.14. Wind slightly the mainspring and lubricate the teeth of the escape wheel with Moebius grease 9415.
This grease is applied to the impulse plane of the teeth of the escape wheel. Deposit every 4-5 teeth an amount of grease at least equivalent to the quantity given by a medium size oiler.
This type of lubrication can momentarily cause a fall of amplitude.

2.15. Lubricate, assemble and fit the shock-absorbers for balance.
The size of the oil drop should be equal to 2/3 of the diameter of the endstone.

2.16. Assemble and fit the balance bridge and the sprung balance.
Tighten the stud screw (if the balance staff has been replaced do not omit to poise the balance wheel).

2.17. Check the balance endshake, which can be corrected by means of the regulating screw for balance bridge (Fig. 4).

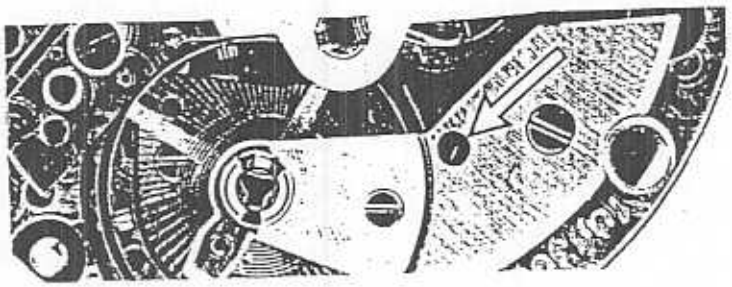


Fig. 4

To alter the endshake, proceed as follows:

- Slightly loosen the balance bridge screw (No. 55005).
- Tighten or loosen the regulating screw for balance bridge (No. 55005-1); 1/8 of a turn = about 0.01 mm.
- Tighten the balance bridge screw.

The regulating screw for balance bridge must always rest on the main plate so that it does not work loose.

2.18. Check the centring of the hairspring and its truth in the flat.
The movement must not run if the balance has not been lubricated.

3. TIMING

3.1. If necessary, adjust the beat by means of the stud holder after having loosened the screw of the stud holder plate.

3.2. Tighten the screw.

3.3. Check the rate and the amplitude of the balance on a watch-timer and an amplimeter, 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

3.4. If necessary, correct the rate by means of the timing screws with the Microstella key Ref. 2019 (Fig. 5).

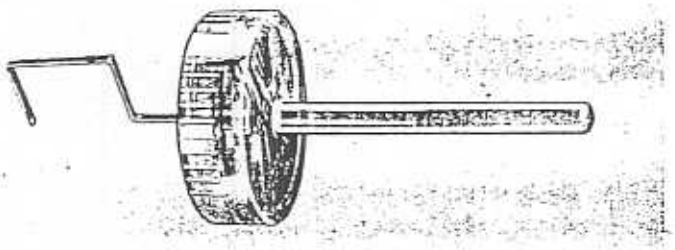


Fig. 5

It is indispensable to make an identical correction on two Microstella screws that are placed opposite each other, so that the balance is not thrown out of poise.

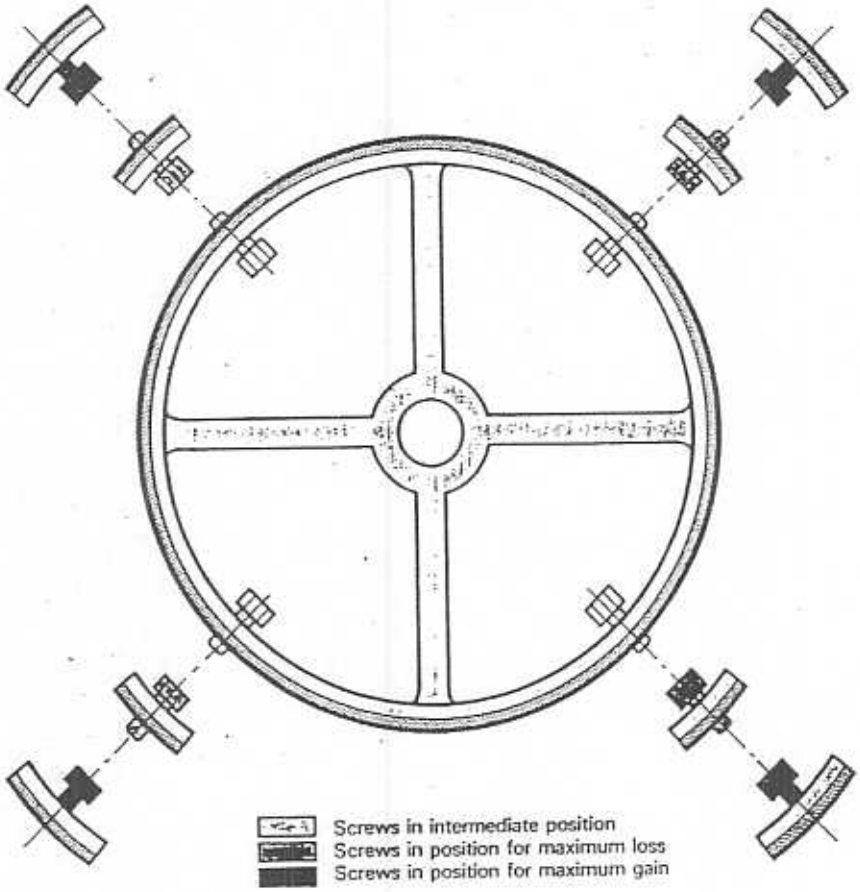
3.5. Once the watch has been cased up and the automatic device module fitted, it is necessary to make 24 hours verifications in different positions and on a wrist-movement simulator. At this stage, a correction can always be made.

BALANCE DIAGRAM OF CALIBRES 3075 AND 3085

The balance is equipped with two pairs of Microstella timing screws. So that they can be easily distinguished, one pair has low heads and the other high heads.

ONE DIVISION OF THE MICROSTELLA KEY ON THE HIGH TYPE OF HEAD = 2 s/d
ONE DIVISION OF THE MICROSTELLA KEY ON THE LOW TYPE OF HEAD = 1 s/d

Correction range ± 150 s/d (seconds per day)



4. ASSEMBLING THE DATE INDICATOR MECHANISM AND FITTING THE DIAL AND HANDS

For lubrication, see lubricating chart on page 7.

4.1. Fit the cam yoke with the jewel facing upwards while disengaging the spring of the cam yoke.

If it is necessary to replace the cam yoke spring, proceed as follows:

- Fit the part of the spring with two bends into its bed, hold it firmly in position and grasp the other part with a pair of strong tweezers and slide it into position.

4.2. Lubricate the point of contact between the cam yoke and its spring, as well as the hole of the cam yoke jewel and the cam stud.

4.3. Lubricate the outside of the cannon pinion and fit the hour wheel 24 h with double toothing.

4.4. Sligthly disengage the cam yoke and fit the date wheel.

4.5. Screw the calendar wheel nut — left-hand thread — and check the endshake of the date wheel over a complete revolution while disengaging the cam yoke spring.
For correction of the endshake of the date wheel, see page 12.

4.6. Fit the date indicator seating and slightly lubricate the rollers of the indicator seating.

4.7. Fit the date jumper.
The arm of the jumper should be flush with the main plate.

4.8. Having lubricated the corrector wheel, fit the date corrector upon it with the two guide-marks of the corrector wheel facing upwards.

4.9. Check the freedom of the corrector.

4.10. Lubricate the intermediate setting wheel which is fixed on the setting lever jumper.

4.11. Lubricate slightly the beak of the date jumper.

4.12. Fit the date indicator, sliding it under the banking stops of the date indicator seating while disengaging the beak of the date jumper. Close the bolt of the date indicator seating.

To centre the date indicator bend slightly the arm of the date jumper in order to modify the orientation of the beak of the date jumper.

4.13. Fit the 12 h hour wheel, the hour wheel friction spring and the 12 h minute wheel (the small diameter facing the main plate).

4.14. Fit the dial and drive its two screws very tight.

4.15. Check the freedom and the endshake of the hour wheels, as well as the changing of the date.

In case of faulty jumping of the date indicator:

- Check the lubrication of the rollers of the date indicator seating and of the beak of the date jumper.
- Check the freedom of the date wheel and the finger.
- Check the tension of the date jumper (Fig. 6).

After having carried out these controls:

— If the indicator jumps too far: increase the tension of the date jumper.

— If the indicator does not jump far enough: reduce the tension of the date jumper.

Fig. 6

4.16. Fit the hands (12-hour, 24-hour, minute and second), preferably on the ROLEX movement-holder Ref. 2021, so that the date changes at midnight. Tolerance ± 1 minute.

5. CORRECTING THE ENDSHAKE OF THE DATE WHEEL CALIBRES 3075 AND 3085

The height of the cam stud (No. 5092) can be adjusted:

1. With a jewel-fitting tool for reducing the endshake.
2. With the ROLEX tool Ref. 2004 (Fig. 7) for increasing the endshake.

Knurled nut

Tool

Tip

— Screw — left-hand thread — the tip of the tool onto the cam stud.

— Screw the knurled nut until it touches the tool and then, in spite of the resistance, go on turning slowly so as to extract the stud (1/8 of a turn = about 0.03 mm).

Fig. 7

6. AUTOMATIC DEVICE MODULE CALIBRES 3075 AND 3085

Seen from above

Fig. 8

Scale
1.5 : 1

Seen from below

Fig. 9

Checking the endshake of the reversing wheels mounted (No. 5068)

The endshake of the reversing wheels should not exceed 0.03 mm. To check it, lift the driver pinion (No. 5067) 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 automatic device framework (No. 5062).

6.1. Dismantling the automatic device module (No. 5151, respectively No. 5201)

6.1.1. Remove the oscillating weight pinion (No. 5065), the spring clip (No. 5066) and the oscillating weight (No. 5063).

6.1.2. Place the automatic device framework (No. 5062) upon the ROLEX support Ref. 2020 or upon an appropriate riveting stake, unscrew the automatic device bridge (No. 5152, respectively 5202), remove the reversing wheels mounted (No. 5068) and the driving wheel for rachet wheel (No. 5069).

6.1.3. Proceed with cleaning.

6.2. Assembling the automatic device module

For lubrication, see lubricating chart on page 15.
Neither the clicks nor the toothing of the reversing wheels are lubricated.
Only the pivots of the wheels should be lubricated.

It is necessary to coat the reversing wheels with epilame to prevent the oil of the pivots from spreading.

Coating with epilame should be carried out as follows:

— Immerse the wheels in Fixodrop * epilame for at least two minutes.
— Dry under hot air (for exemple with a hair-dryer) to avoid condensation.

6.2.1. Assemble the two reversing wheels.

6.2.2. Place the framework upon the ROLEX support Ref. 2020 or upon an appropriate riveting stake.

6.2.3. Fit the driving wheel for ratchet wheel, the two reversing wheels and the bridge of the automatic device.

6.2.4. Lubricate the upper pivoting point of the oscillating weight axle, place the framework of the automatic device upon the axle and fit the spring clip.

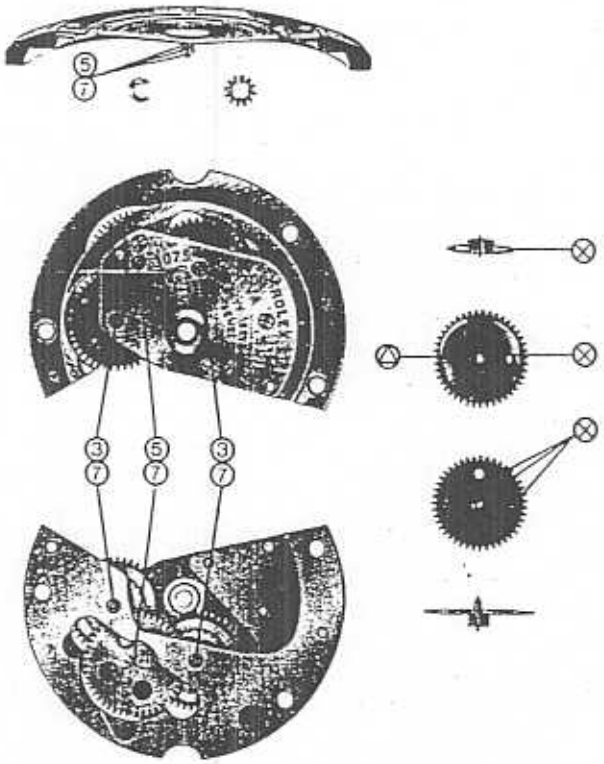
6.2.5. Lubricate the fitting of the oscillating weight pinion and the lower pivot of the axle.

6.2.6. Fit the oscillating pinion.
The drop of oil on the fitting of the oscillating weight pinion maintains the pinion on the axle when the automatic device module is placed on the movement.

6.2.7. The endshake of the oscillating weight should not exceed 0.04 mm. It can only be adjusted by means of the spring-clip; clips of three different heights are available.

* Can be ordered from the Technical Information Department.

LUBRICATING CHART



③ PML 163

⑤ MR 2 ou KT 22

⑦ FHMR 3

⊗ Do not lubricate

△ 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.

7. CASING UP AND FITTING THE AUTOMATIC WINDING DEVICE CALIBRES 3075 AND 3085

7.1. Fit the movement into the case, which should have been previously reconditioned (polishing and satin-finishing of case and bracelet, water-resistance test). Insert the winding stem and screw the crown onto the tube in order to centre the movement.

7.2. Lock the case screws (No. 55053) by unscrewing them.

7.3. Fit the automatic device module, then wind the movement a few teeth of the ratchet wheel in order to make sure that the ratchet wheel and its driving wheel are properly in gear.

7.4. Drive the screws of the automatic device module very tight.

7.5. Check the freedom of the oscillating weight.
Through an opening in the edge of the framework of the automatic device, it is possible to check the advance of the ratchet wheel by turning the oscillating weight to and fro.

7.6. Screw on and lock the case back, then carry out the final water-resistance test.

7.7. Check the changing of the date and for calibre 3085 the jump in both directions of the 12 h hand, then the working of the automatic device module by means of a wrist-movement simulator.

CALIBRE 3085 — derived from calibre 3035

Device for setting to time-zones by one hour steps of the 12-hour hand

Automatic winding | Date indicator mechanism | Semi-rapid correction of the date

24-hour hand | Centre second hand | Stop-second device

Annular balance with two pairs of Microstella screws | Breguet hairspring

Shock-absorbers for balance and combined in-settings for escape wheel

— Overall diameter	28.50 mm
— Case-fitting diameter	28.10 mm
— Overall height, including automatic device module and calendar mechanism	6.80 mm
— Number of jewels	27
— Frequency 4 Hz, i.e. vibrations per hour	28.800
— Angle of lift of the balance wheel	52°
— Box of spare parts	N° 03085

Movement seen from below with date indicator mechanism and jumping hour module (Fig. 10) and without indicator and without date plate (Fig. 11).

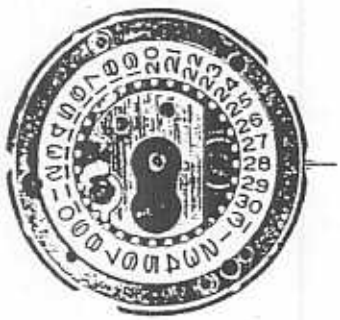


Fig. 10

Scale 1.5 : 1

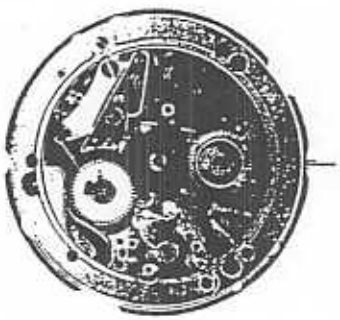


Fig. 11

CALIBRE 3085

Functions of the winding stem

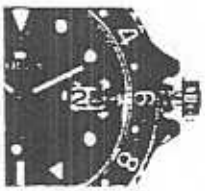
Position 1:
crown unwound

winding by hand

Position 2:
crown pulled out
to first catch

changing to zone time
by one hour steps
of the 12 h hand either
forward or backward and
correction of date forward
and backward, when
passing midnight (semi-
rapid correction)

Position 3:
crown pulled out
to second catch



stop-second and
setting to time

Lay-out of the hands:

second hand
minute hand
24-hour hand
12-hour hand

This lay-out allows for a gain in height.

8. DISMANTLING THE DATE INDICATOR AND THE MOVEMENT *

8.1. Remove the automatic device module (No. 5201), taking out the three screws (No. 55005) of the automatic device framework (No. 5062). Take care not to lose the pinion for oscillating weight (No. 5065) and the spring-clip for oscillating weight (No. 5066).
Dismantling and assembling the automatic module, see pages 13-14.

8.2. Fit the winding stem (No. 5025) in position 1 or 2 and remove it from the movement, take the movement out of the case, remove the hands and the dial, then refit the winding stem.

8.3. Remove the hour wheel 12 h (No. 5223) with the friction spring for hour wheel (No. 5226).

8.4. Open the bolt of the date indicator seating and remove the date indicator (No. 5235-2).

8.5. Remove the date jumper (No. 5230).

8.6. Remove the spring of the date jumper (No. 5231).

8.7. Remove the date indicator seating (No. 5234).

8.8. Remove the minute wheel 12 h (No. 5220) fixed on the date plate.

8.9. Remove the date plate (No. 5203).

8.10. Remove the jumping hour device (No. 5245).
Dismantling and assembling the jumping hour device, see page 20, § 9.

8.11. Remove the calendar wheel nut (No. 5093) — left-hand thread — with the ROLEX tool ref. 2003.

8.12. Remove the date wheel (No. 5229) while disengaging slightly the cam yoke (No. 5090).

8.13. Remove the jewel for cam yoke (No. 95090) and the cam yoke (No. 5090) by disengaging the spring for cam yoke (No. 5232).
The spring for cam yoke must be left in place.

8.14. Remove the correcting wheel (No. 5219).

8.15. Remove the cannon pinion (No. 5221).

8.16. Follow instructions page 5, § 1.14.-1.20.

8.17. Put the winding stem (No. 5025) in position 2 or 3, hold it firmly with the fingers and unscrew the screw (No. 2130-5236) holding the correcting setting wheel (No. 5218) and the intermediate setting wheel (No. 5216) fitted to the yoke for intermediate setting wheel (No. 5217). Remove the correcting setting wheel.

8.18. Remove the jumper for setting lever mounted (No. 5210), the spring for yoke (No. 5212), the yoke for intermediate setting wheel (No. 5217), the intermediate setting wheel (No. 5216), the yoke for sliding pinion (No. 5211), the setting wheel (No. 5213), the 24 h minute wheel (No. 5214), the winding stem (No. 5025), the winding pinion (No. 5206) and the sliding pinion (No. 5207).
The setting lever (No. 5208), its spring (No. 5209) and the balance stop spring (No. 5022) can be left in place.

8.19. Dismantle the combined in-settings for escape wheel (No. 95015) and the shock-absorbers for balance (No. 95019 and 95019-1).

* It is recommended that the movement should be pre-cleaned before it is dismantled. This first cleaning can be carried out with the sprung balance, the barrel and even the automatic device module left in place. This procedure enables the watchmaker to form a better judgement on the conditions of the movement parts. After a complete dismantling and the exchange of the parts that need to be replaced, a second cleaning is necessary before the movement is reassembled.

9. DISASSEMBLING AND ASSEMBLING THE JUMPING HOUR MODULE

The jumping hour module can be put not disassembled (Fig. 12) in the baths of the cleaning machine. If cleanliness obtained is satisfactory, the jumping hour module needs not to be disassembled.
The jumping hour module must be lubricated after cleaning, see § 9.3. and lubricating chart on page 21.

Fig. 12

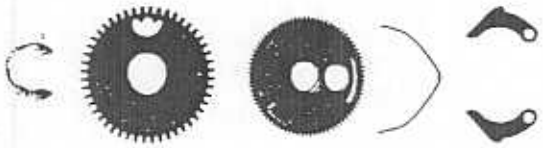


Fig. 13

9.1. Disassembling

The jumping hour module can be disassembled without difficulties (Fig. 13).
Nevertheless take care not to let the spring for jumping hour clicks get lost.
To avoid this carry out process 9.1.2. i.e. in a benzine cup, even filled with benzine.

9.1.1. Remove the spring-clip for jumping hour module (No. 5244).
9.1.2. Part the 24 h hour wheel (No. 5240) from the jumping hour wheel mounted (No. 5241) with a sharp-pointed tool. Remove the spring for jumping hour clicks (No. 5243) and the two jumping hour clicks (No. 5242).
9.1.3. Clean these parts.

9.2. Assembling

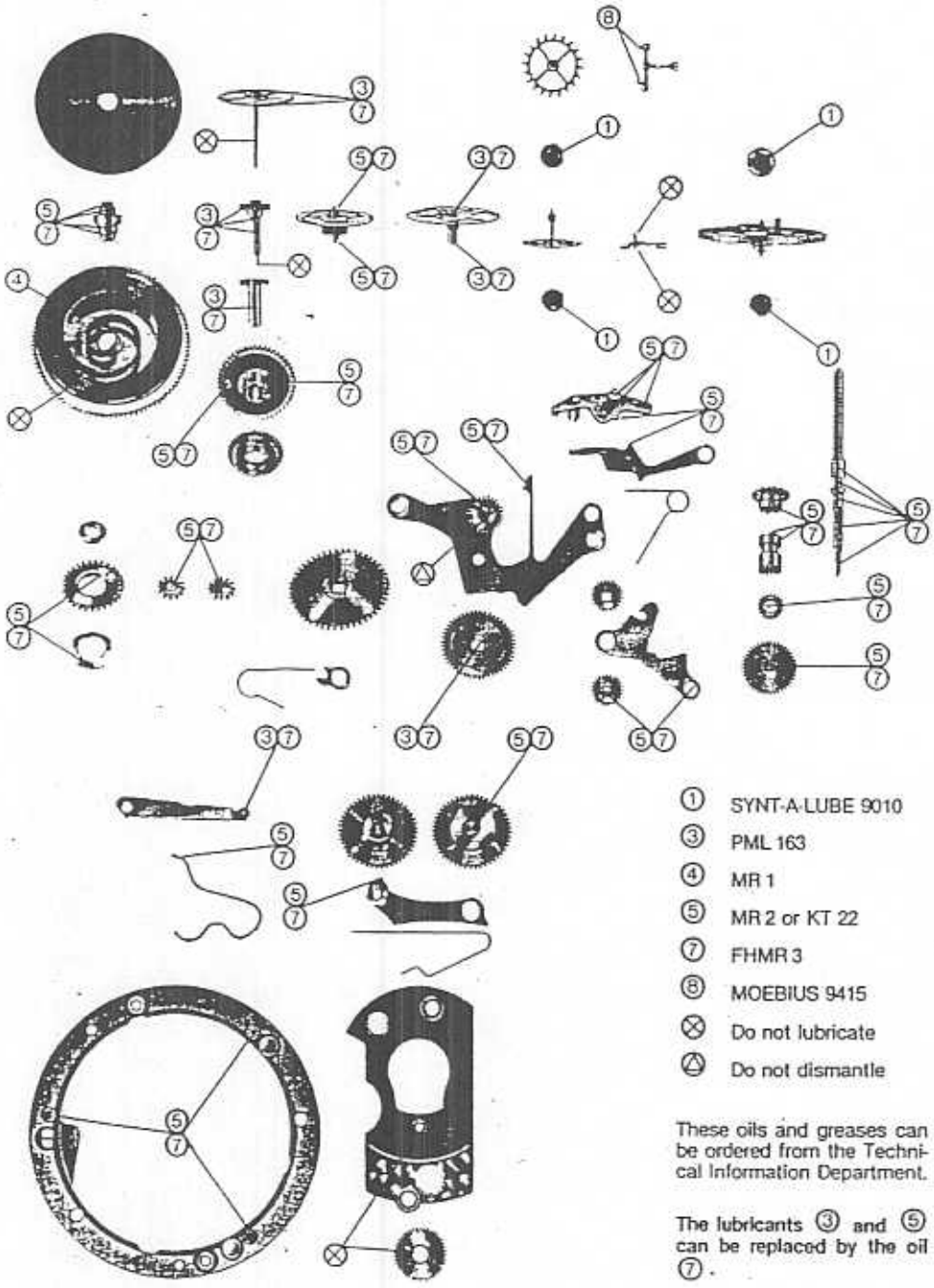
9.2.1. Fit the jumping hour clicks home inside the circular banking of the 24 h hour wheel.
9.2.2. Fit the spring for jumping hour clicks first introducing the bent part, keep it firmly in its home and introduce one end of the spring then the other.
9.2.3. Place the jumping hour wheel mounted on the 24 h hour wheel.
9.2.4. Introduce a sharp-pointed tool (i.e.oiler) between the jumping hour wheel mounted and the 24 h hour wheel to engage the two jumping hour clicks in the inner toothing of the jumping hour wheel mounted.
9.2.5. Fit the spring-clip for jumping hour module.

9.3. Lubricating

See lubricating chart on page 21.
Lubrication is done after the module has been put in place on the movement.
Proceed as follows:

9.3.1. Pull the winding stem in position 2.
9.3.2. Bring the opening in the jewel of the jumping hour wheel mounted over one click by turning the winding stem and lubricate the beak of the jumping hour click through the opening in the jewel, then proceed the same way to lubricate the second jumping hour click.
9.3.3. Check the functioning forward and backward of the jumping hour module.

LUBRICATING CHART



① SYNT-A-LUBE 9010
③ PML 163
④ MR 1
⑤ MR 2 or KT 22
⑦ FHMR 3
⑧ MOEBIUS 9415
⊗ Do not lubricate
△ 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.

10. ASSEMBLING THE MOVEMENT

For lubrication, see lubricating chart on page 21.

10.1. Follow instructions page 6, § 2.1.-2.6.

10.2. Fit the cannon pinion, the winding pinion, the sliding pinion, the winding stem, the setting wheel, the minute wheel, the yoke for sliding pinion, the yoke for intermediate setting wheel with the setting wheel lubricated and simply put in place, the spring for yoke, the spring for setting lever then fit the winding stem in position 2 or 3, hold it firmly with the fingers, fit and screw the correcting setting wheel, fit the correcting wheel.

10.3. Follow instructions pages 6 and 8, § 2.8.-2.18.

11. TIMING AND BALANCE DIAGRAM

See pages 9-10.

12. ASSEMBLING THE DATE INDICATOR MECHANISM AND FITTING THE DIAL AND HANDS

For the lubrication, see lubricating chart on page 21.

12.1. Fit the cam yoke with the jewel facing upwards by disengaging the spring of the cam yoke.
If it is necessary to replace the cam yoke spring, proceed as follows:

— Fit the part of the spring with two bends into its bed, hold it firmly in position and grasp the other part with a pair of strong tweezers and slide it into position.

12.2. Lubricate the point of contact between the cam yoke and its spring as well as the hole of the cam yoke jewel and the cam stud.

12.3. Disengage slightly the cam yoke and fit the date wheel.

12.4. Screw the calendar wheel nut — left-hand thread — and check the endshake of the date wheel over a complete revolution while disengaging the cam yoke spring. For correction of the endshake of the date wheel, see page 12.

12.5. Lubricate the outside of the cannon pinion, fit the jumping hour module and lubricate it, see page 20, § 9.3.2. Fit the date plate and the 12 h minute wheel.

12.6. Fit the date indicator seating and slightly lubricate the rollers of the indicator seating.

12.7. Fit the spring for the date jumper.

12.8. Fit the date jumper being careful to introduce properly the screw in the hole of the date jumper.

12.9. Lubricate slightly the beak of the date jumper eccentric.

12.10. Fit the date indicator, sliding it under the banking stops of the date indicator seating while disengaging the date jumper. Close the bolt of the date indicator seating.
The eccentric makes it possible to adjust the centring of the date indicator in the dial window (Fig. 14).

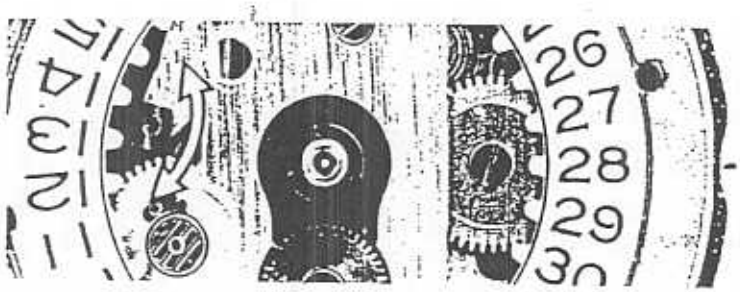


Fig. 14

12.11. Fit the 12 h hour wheel with its friction spring.

12.12. Fit the dial and drive its two screws very tight.

12.13. Check the freedom and the endshake of the jumping hour module and the hour wheel, as well as the changing of the date.

If the date indicator does not jump far enough:

- Remove the dial.
- Check the freedom of the date indicator, the date wheel and the finger.
- Check the lubrication of the rollers of the date indicator seating.
- Check and eventually increase slightly the tension of the date jumper spring.

Tension of the date jumper spring (Fig. 15).

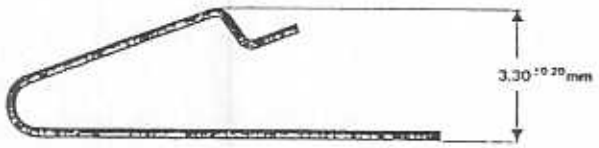


Fig. 15

Though a double jump of the date indicator cannot occur in this calibre the tension of the date jumper spring must not be too strong, not to impede the normal working of the jumping hour module.

12.14. Fit the hands (12-hour, 24-hour, minute and second), preferably on the ROLEX movement-holder Ref. 2021, so that the date changes at midnight. Tolerance ± 1 minute.

12.15. Check the forward and backward jump of the 12 h hand.

The jump of the 12 h hand must be quite straight in both directions.
Check specially the backward jump from midnight to 21 hour.

If the jump is not straight:

- Check the endshake of the 12 h hand.
- Remove the hands and the dial.
- Check the freedom of the date indicator, of the mobiles of the date indicator mechanism and of the setting to time.
- Check the lubrication of the rollers of the date indicator seating.
- Check the tension of the date jumper spring (fig. 15).
- Check the functioning of the jumping hour module.

If the jump backward from midnight to 21 hour is still not straight:

- Change the spring for jumping hour clicks, see page 20, § 9.

12.16. Follow instructions § 12.12.

13. CORRECTING THE ENDSHAKE OF THE DATE WHEEL CALIBRES 3075 AND 3085

See page 12.

14. AUTOMATIC DEVICE MODULE CALIBRES 3075 AND 3085 AND LUBRICATING CHART

See pages 13-15.

15. CASING UP AND FITTING THE AUTOMATIC WINDING DEVICE CALIBRES 3075 AND 3085

See page 16.

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.

CALIBRES 2130/2135

Jumper for setting lever No. 2130-230
The arm of the setting lever is bent by 0.15 mm downwards.

The object is: to prevent the arm of the jumper for setting lever from passing over the pin of the setting lever.

Setting lever No. 2135-220
The pin of the setting lever is 0.10 mm longer and is now protruding by 0.35 instead of 0.25 mm.

The object is: to prevent the arm of the jumper for setting lever from slipping over the pin of the setting lever.

Sliding pinion No. 2130-205
The length of the teeth has been increased by 0.04 mm and the total length of the sliding pinion is now 1.66 mm.

The object is: to prevent the wear and the breaking of the teeth especially in the 2130 calibre.

Yoke for sliding pinion No. 2130-240
The thickness of the part of the yoke for sliding pinion in contact with the sliding pinion has been increased from 0.30 mm to 0.35 mm.

The object is: to prevent the sliding pinion to leave the yoke for sliding pinion when the winding stem is removed.

Screw for crown wheel No. 2130-5210
The thickness of the head of the screw has been brought from 0.31 mm to 0.34 mm.

The object is: to prevent the sliding pinion to leave the yoke for sliding pinion when the winding stem has been removed.

Unlocking yoke cam No. 2135-630
A new shape has been chosen, the recess following the point of drop is accentuated.

The object is: to ensure a sharp stop of the date indicator after the release of the yoke for cam.

Screw for case No. 2130-5100
The shape of the screw has been changed, a flat seat replaces the bevelled seat.

The object is: to prevent the leaning of the screws for case which in a bent position impede the screwing of the back of the cases group ref. 68000.

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.

ROLEX

Technical information
Information technique
Información técnica
Technische Information
Informazione tecnica

OCTOBER 1985

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ROLEX

Ø 28,50 mm Ht. 6,35 mm Alt. 28.800

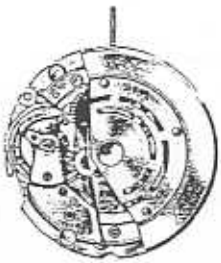
Boîte de fournitures Nº 03075

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

3035

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

3075



Automatique	Calendrier (instantané)	Seconde au centre	Amortisseur	27 pierres
Automatic	*Calendar (instantaneous)*	*Centre-second*	*Shock-absorber*	*27 jewels*
Automático	Calendario (instantáneo)	Segundero central	Amortiguador	27 piedras
Automatisch	*Kalender (augenblicklich)*	*Zentrumsekunde*	*Stossicherung*	*27 Steine*
Automatico	Calendario (istantaneo)	Secondi al centro	Ammortizzatore	27 pietre

1:1

5150

5151

5152

5153

5154

5155

5156

5157

5158

5159

2:1

95156

ROLEX

Calibre 3075

Même pièce calibre	N°	Français	English	Español	Deutsch	Italiano
	5150	Platine	*Main plate*	Platina	*Werkplatte*	Piastra
	5151	Module de remontoir automatique	*Automatic device module*	Módulo de remontuar automático	*Automatik-Baugruppe*	Modulo di ricarica automatica
	5152	Pont du dispositif automatique	*Automatic device bridge*	Puente del dispositivo automático	*Brücke für Automatik*	Ponte del dispositivo automatico
	5153	Roue de quantième	*Date wheel*	Rueda de fecha	*Datumrad*	Ruota del datario
	5154	Roue de minuterie, 12 h.	*Minute wheel, 12 h.*	Rueda de minutería, 12 h.	*Wechselrad, 12 h.*	Ruota della minuteria, 12 h.
	5155	Tenon de roue de minuterie 12 h.	*Minute wheel stud 12 h.*	Espiga de rueda de minutería 12 h.	*Lagerstift für Wechselrad 12 h.*	Tenone della ruota di minuteria 12 h.
	5156	Roue de minuterie, 24 h.	*Minute wheel, 24 h.*	Rueda de minutería, 24 h.	*Wechselrad, 24 h.*	Ruota della minuteria, 24 h.
	5157	Roue des heures, 12 h.	*Hour wheel, 12 h.*	Rueda de horas, 12 h.	*Stundenrad, 12 h.*	Ruota delle ore, 12 h.
	5158	Roue des heures avec double denture, 24 h.	*Hour wheel, with double toothing, 24 h.*	Rueda de horas con doble endentado, 24 h.	*Stundenrad mit Doppelverzahnung, 24 h.*	Ruota delle ore con doppia dentatura, 24 h.
	5159	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
	95156	Bouchon de roue de minuterie, 24 h.	*Bush for minute wheel, 24 h.*	Aro de metal de rueda de minutería, 24 h.	*Lagerbuchse für Wechselrad, 24 h.*	Boccola della ruota della minuteria, 24 h.