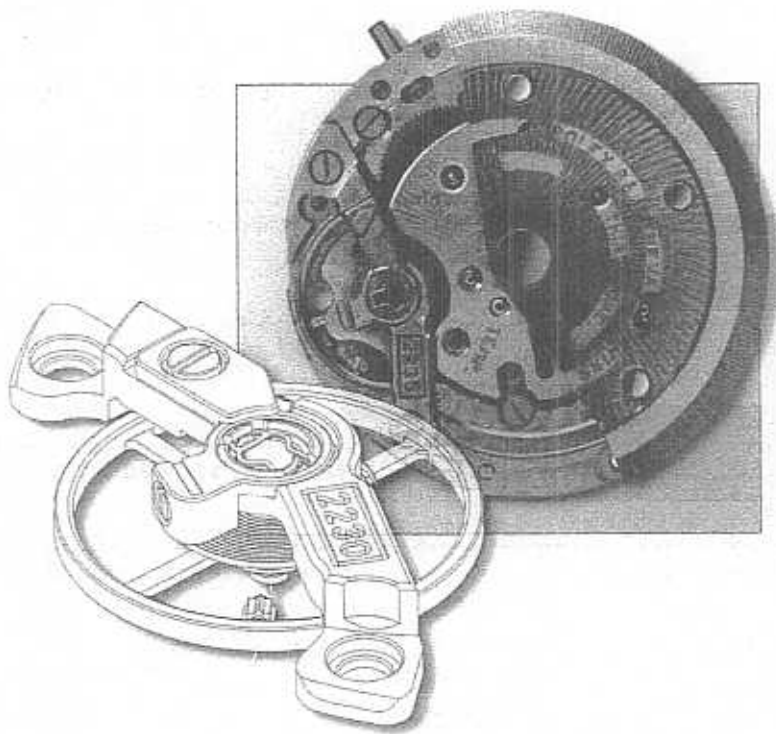
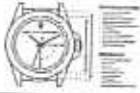


CALIBRES 2230-2235



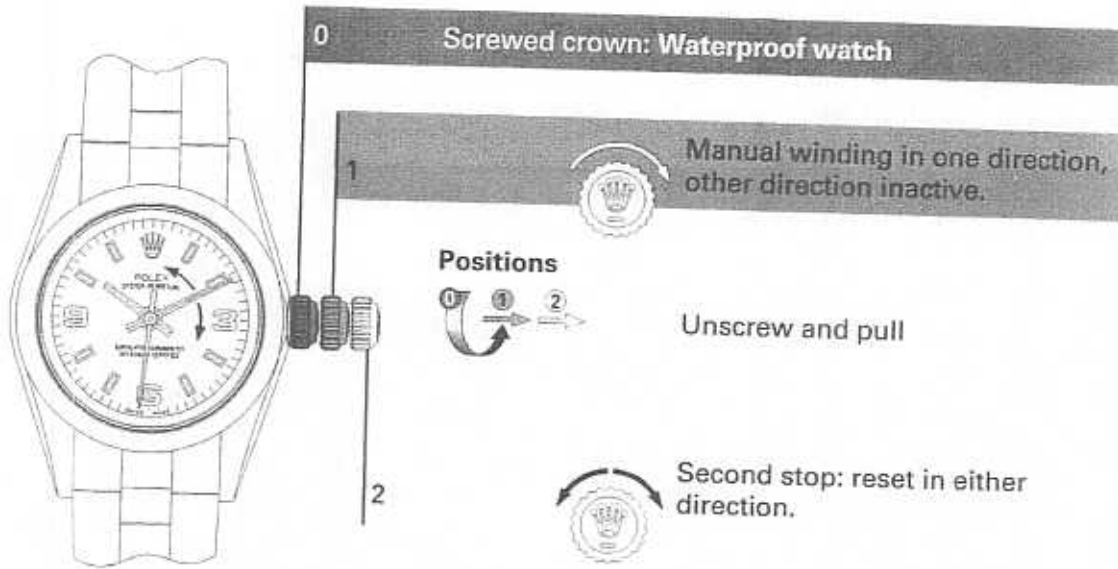
1999


ROLEX

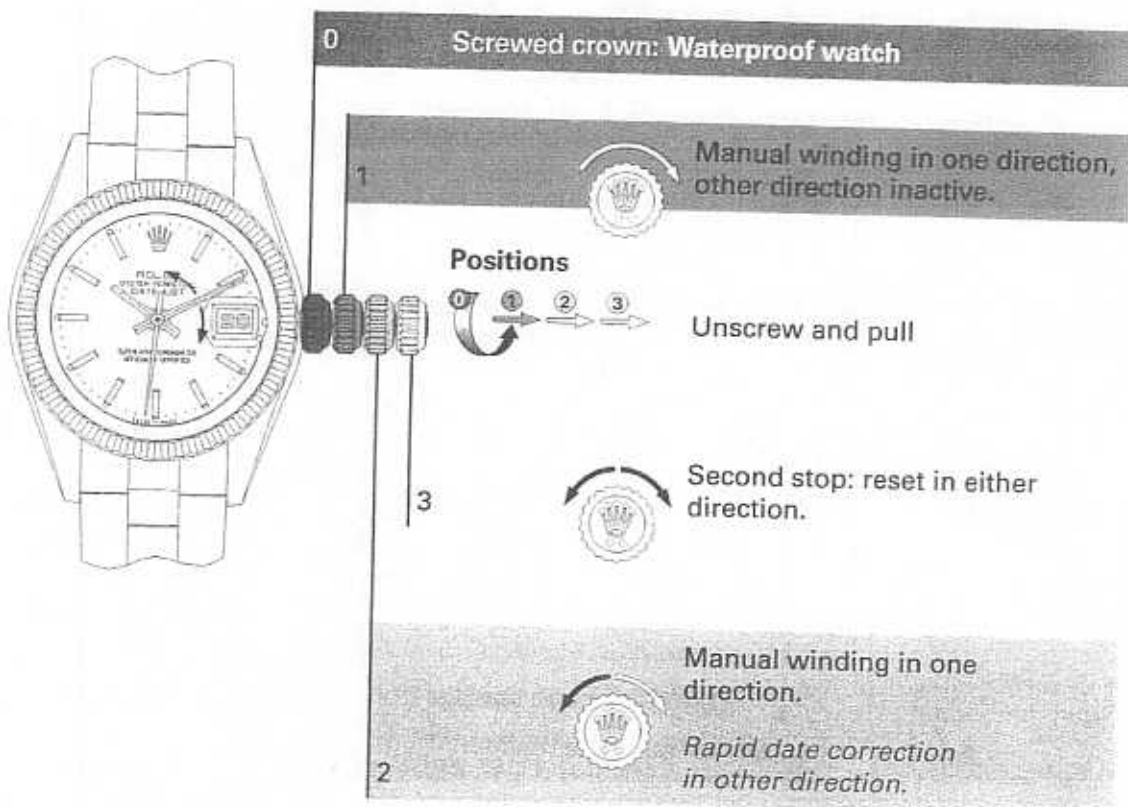


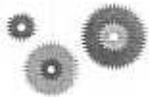
4

Calibre 2230: hour, minute, second



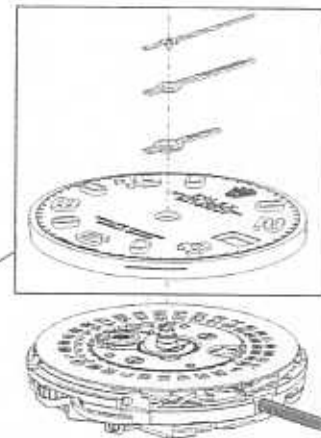
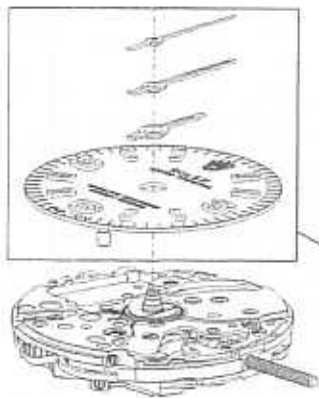
Calibre 2235: hour, minute, second, date





Cal. 2230

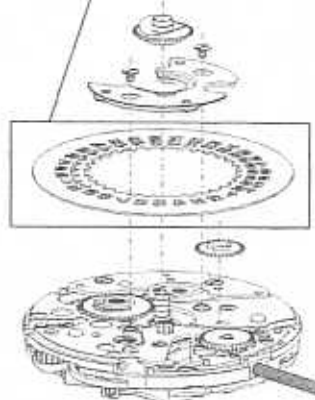
Cal. 2235



Secure the dial screws



Disassemble the platform and the date indicator **before** unwinding the mainspring, otherwise the mainspring could remain partially wound.



- Unwind the mainspring



Pre-cleaning: Before establishing a general diagnosis, always start by pre-cleaning the complete movement without dial and hands and date indicator.

While disassembling, inspect all parts and their function

Minimum/maximum end shake for the wheels					
Arbor and Barrel	Great wheel	Third wheel	Minute pinion	Second wheel	Escape wheel
0.01/0.03	0.02/0.06	0.02/0.06	0.02/0.06	0.02/0.06	0.02/0.06
Pallet fork	Balance wheel	Driving wheel for ratchet wheel	Reversing wheel (2 x)		Oscillating weight
0.01/0.04	0.02/0.03	0.02/0.06	0.01/0.04		0.01/0.03



	Cal. 2230	Cal. 2235
Dimensions in (mm)		
- Total diameter	20.00	
- Case-fitting diameter	19.70	
- Diameter of enlargement ring (enlarged oscillating weight Ø 22.20)	24.20	24.00
- Total height	5.40	5.95
Dial interchangeable with cal. 2130-35	with feet	snap-on
Hands not interchangeable with cal. 2130-35	excepting the second	
Jewelling functional jewels	31	
Barrel		
- Power reserve	about 50 hours	
- Rotation speed	1 rotation / 5 hours	
Gear-train	centre second-	
Mechanism winding stem	2 positions	3 positions
- Time-setting	second stop	
- Number of stem rotations for full winding	26	
Automatic device winds in both directions	independant module	
- Number of rotations of the oscillating weight for 1h of autonomy	18.5	
Date indicator	----	with instantaneous jump
- Rapid correction, unidirectional, possible at any time		
Oscillator Breguet hairspring-balance		
- Frequency 4Hz	shock absorbers	
- Lift angle	28800 Alt/h	
- Balance with adjustable inertia	52°	
- Endshake adjustment of the balance	2 Microstella nuts	
- Beat adjustment	micrometric screw	
	mobile stud-holder	
Escapement with solid bankings on pallet bridge	wheel with 20 teeth combined in-settings	
Precision according to NIHS 95-11, ISO 3159	Chronometer	



6



Remove: hands, dial, date indicator; **do not wash**

Unwind the mainspring



First cleaning

- the assembled basic movement and automatic module separately



Repairs are to be carried out during disassembling

While disassembling, inspect the individual parts as well as their function:



- end shake, freedom, roundness of wheels, centering and flatness of hairspring, escapement, wear and tear and oxidation.....



Change all parts which are not of standard quality



Apply minimum/maximum end shake to all wheels



Use pegwood to clean all jewels



Second cleaning

- Use ultrasound to clean all parts

- Wash the barrel separately



Use Epilame for:

pallet fork, escape wheel and reversing wheel



Preparation and assembly of the basic movement with lubrication



Demagnetization, automatic module included



Timing in 5 positions fully wound and unwound after 24h: rate, amplitude and beat.

28

Assembly of calendar mechanism and automatic module

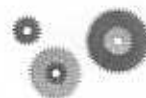


Dial + hands, casing up and fitting of automatic module



4 day check and observation

Disassembling the movement



1. Spring-clip
2. Oscillating weight
3. Screw for automatic module (2x)
4. Automatic module



5. Stem
6. Fitting screw (2x)
7. Basic movement

i See Techn. Info. N° 59

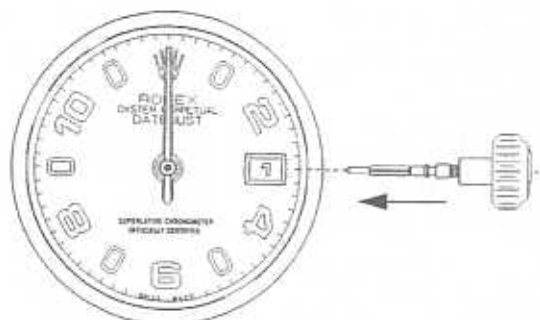
Movement-holder Ø 20.00 mm, ref. 2252



Movement-holder
Ø 24.20 mm
ref. 2254



For models with
enlargement ring

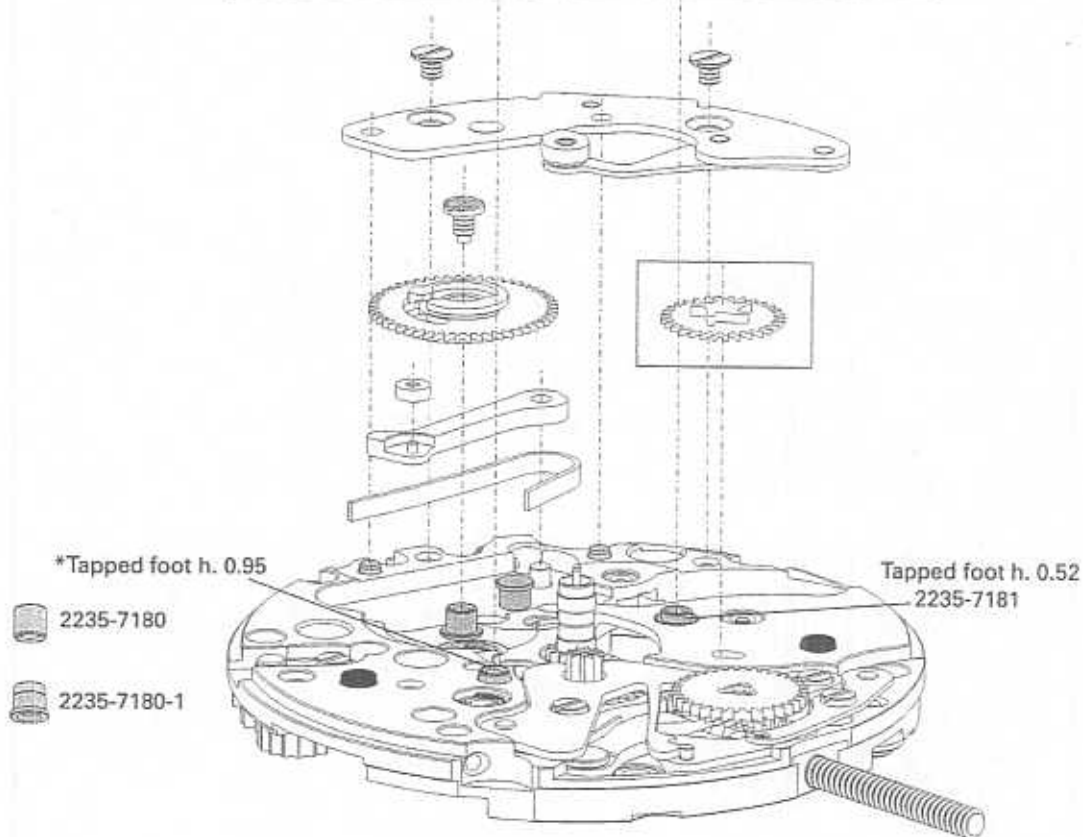
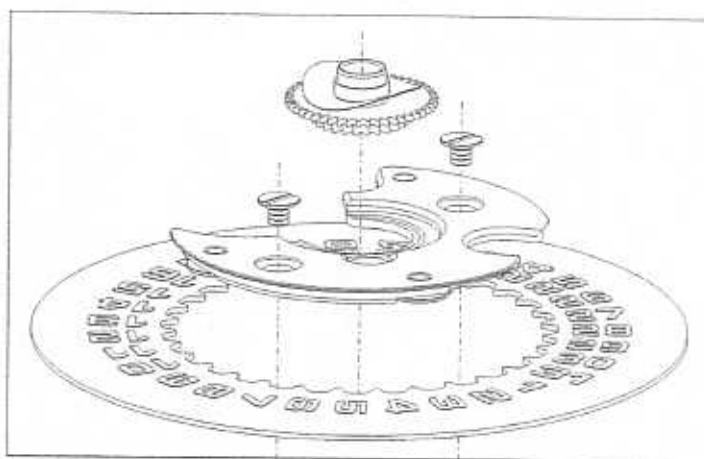


Movement-holder
Ø 24.00 mm
ref. 2256

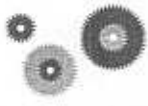


Calibre 2235
date indicator mechanism

Already disassembled, see page 8



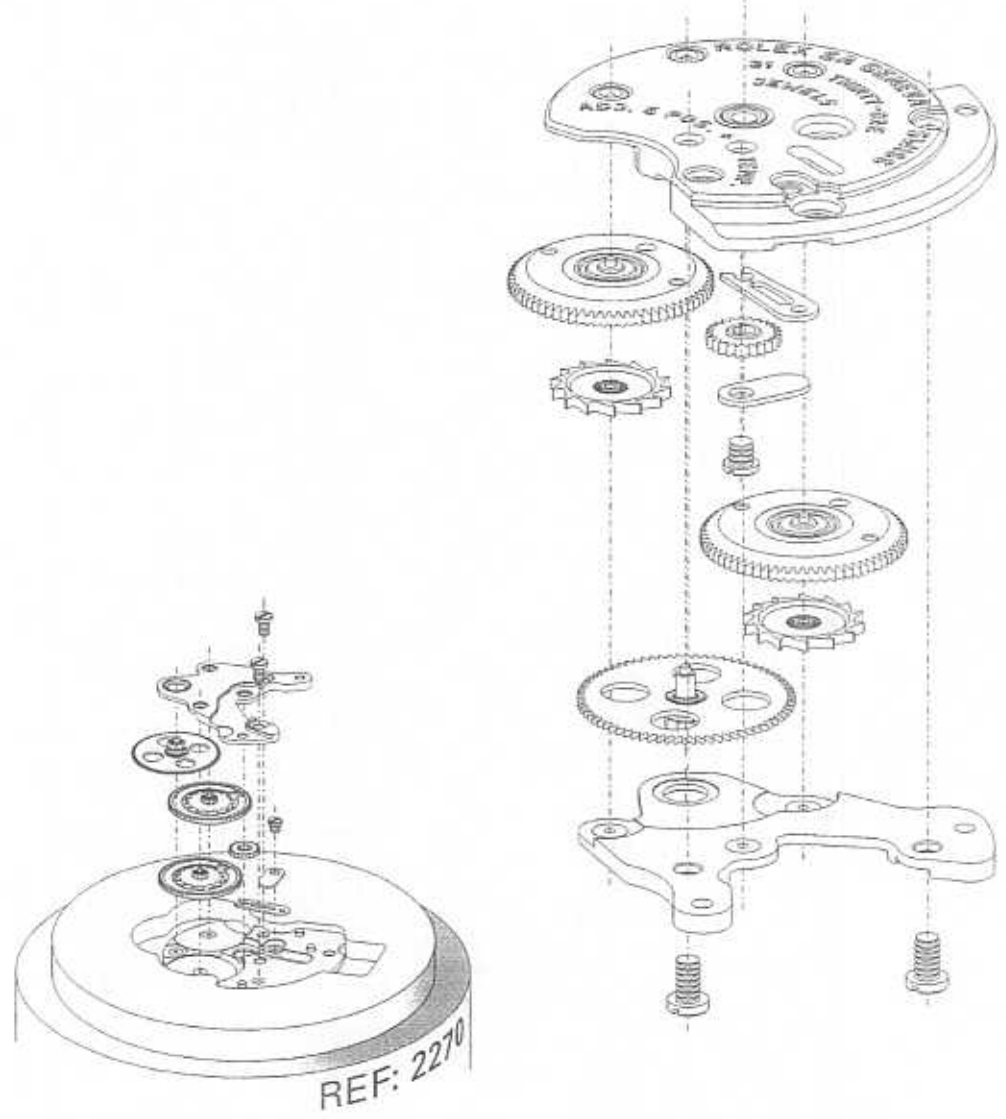
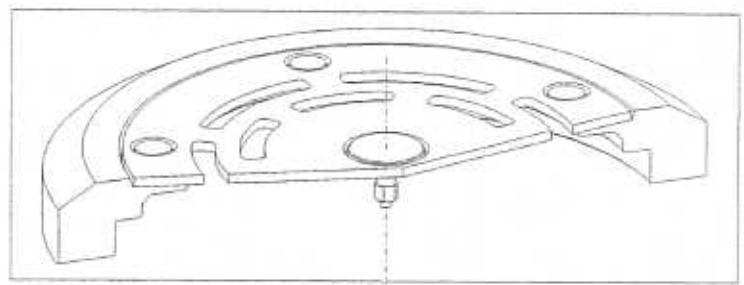
*2235-7180 tapped foot used with the first series of mainplates only.
2235-7180-1 new version of tapped foot used with modified mainplate.



0

Calibres 2230-2235: automatic module

Already removed;
see page 7



Disassembling the movement



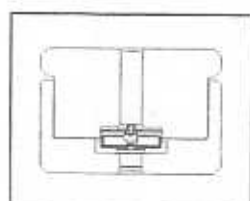
Order of disassembling

1st group

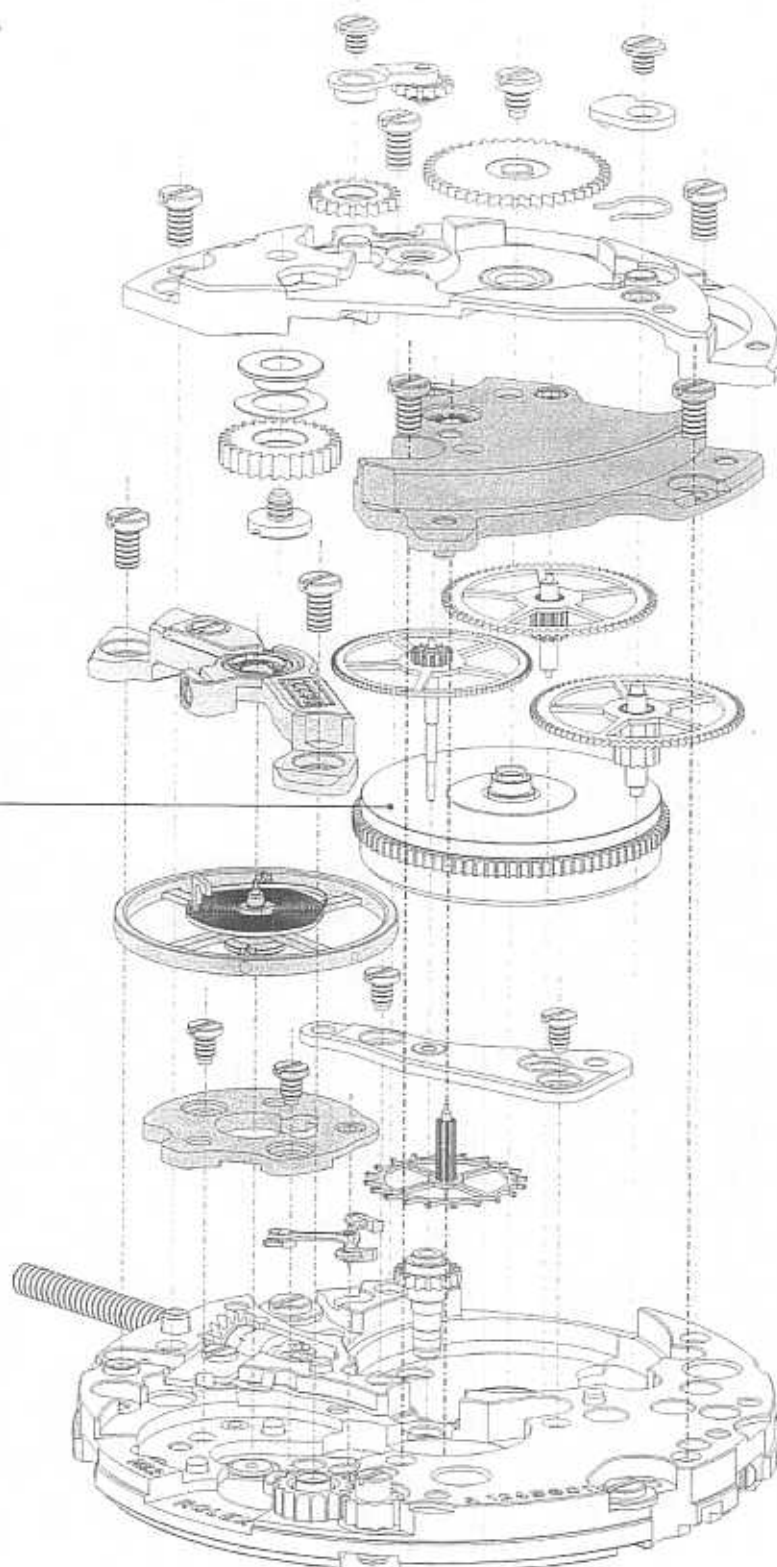
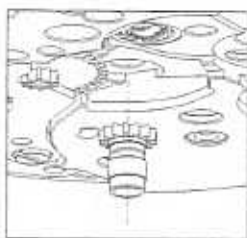
2nd group

3rd group

4th group

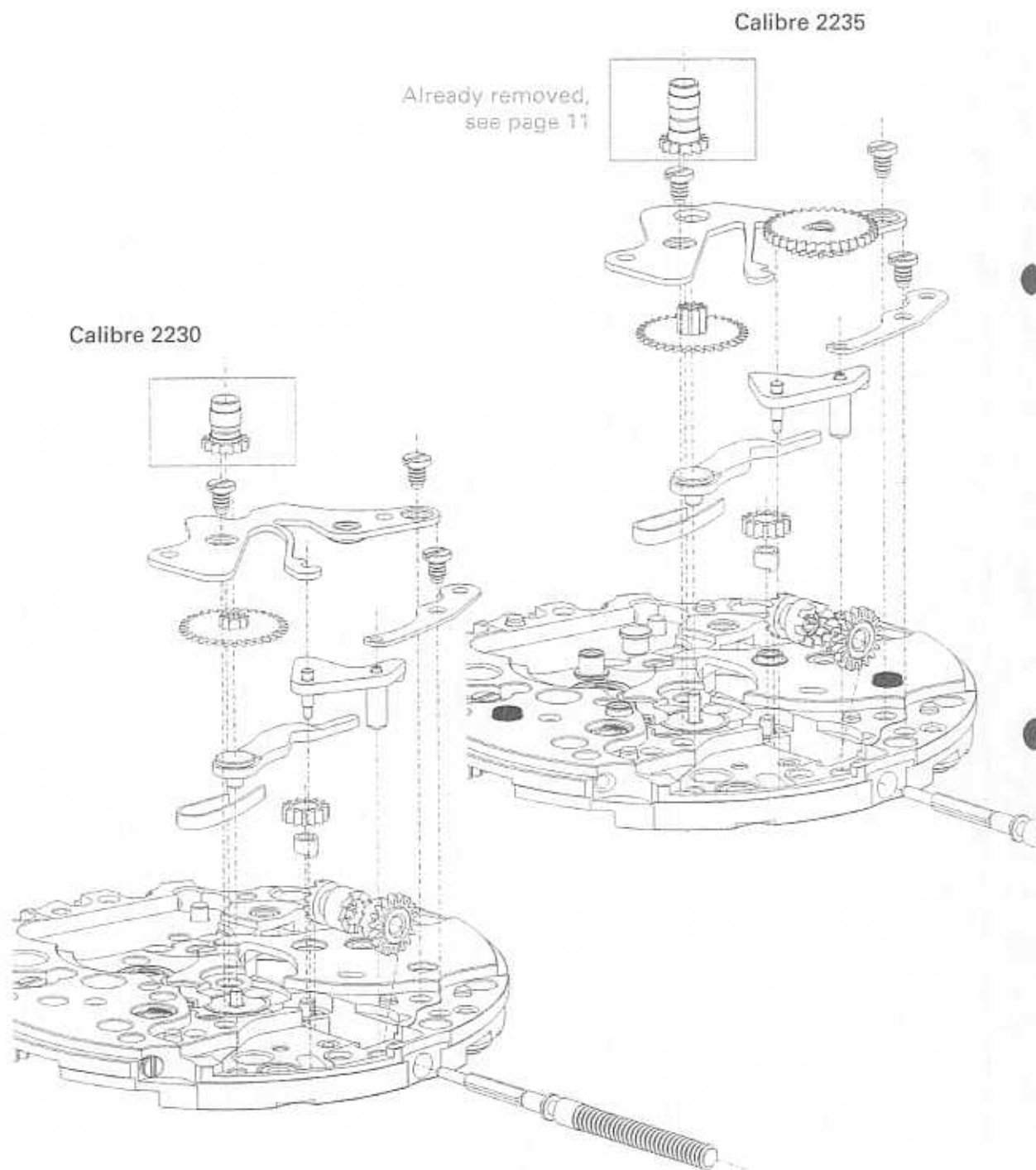


Tool ref.1451-11



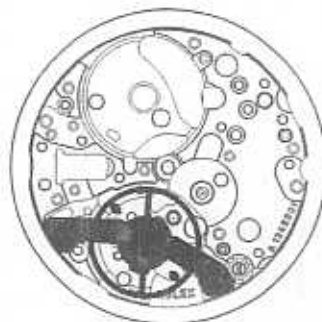


Winding / setting and date corrector mechanism





Preparation



Main plate
2230-100
2235-100

Balance with Breguet
hairspring, timed
2230-432

+

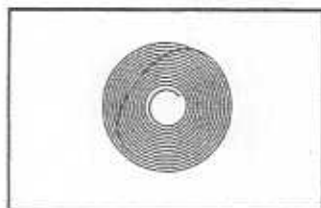
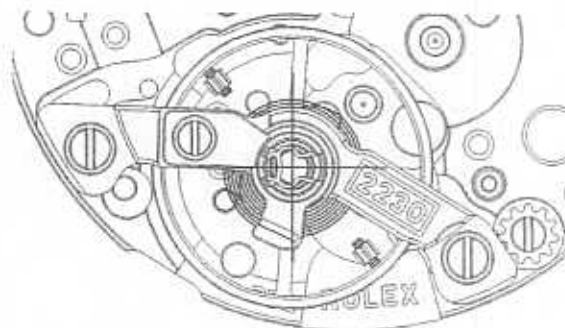
Balance bridge
2230-120
2235-120
(engraving)



Screw
2 x 2230-5110

Checking and adjusting the hairspring

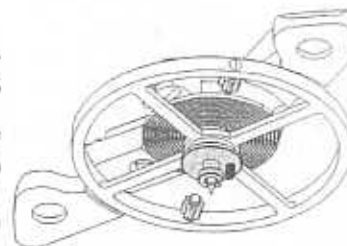
1. Centering and flatening the hairspring at the collet (on truing calipers)
2. Centering and flatening the hairspring and Breguet curve on the balance bridge



Roller
2130-425

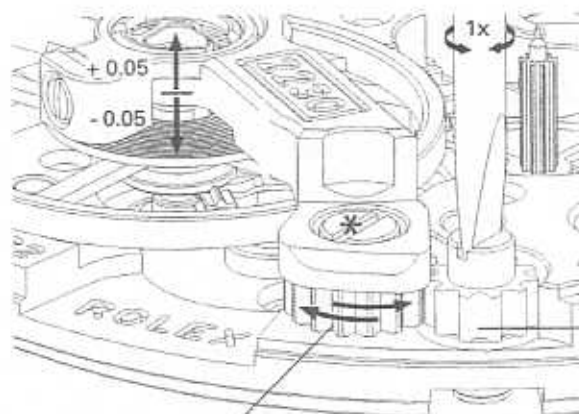
Balance staff
2230-429

i T. I. 49





Preparation



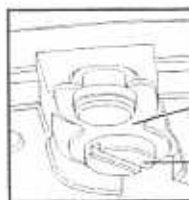
Checking and adjusting end-shake of balance wheel: 0.02 to 0.03 mm

* Unscrew before regulating
Screw tightly after regulating

± 1 rotation = ± 0.05

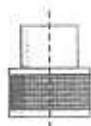
Driving pinion for height adjustment of the balance bridge 2230-475

Regulating nut for balance bridge height adjustment 2230-5120



Bridle 2230-478

Screw 2230-5115



2nd cleaning: - use ultrasound to clean all spare parts
- wash the barrel separately

Spare parts to be treated with epilame



T. I. 56

Flask applicator for FIXODROP ref. 3109

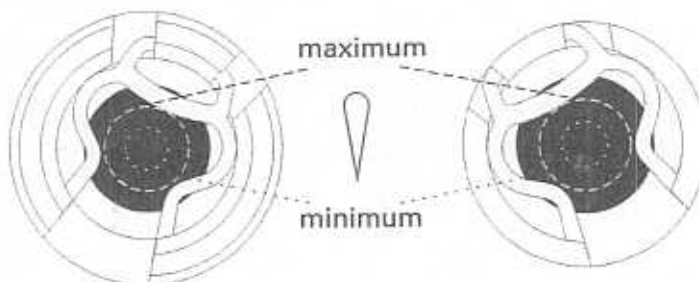
- escape wheel, 2230-410;
- pallet fork, 2230-421;
- reversing wheel, 2230-540 (2x).

Lubrication

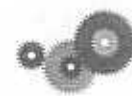
Shock-absorber for balance upper 2230-0915 lower 2130-0916

Combined in-setting for escape wheel upper/lower 2130-0913

KIF



DUOKIF



Preparation

Assembling and lubricating the barrel

Tool to close barrels: ref. 1450

Barrel with arbor
2230-310

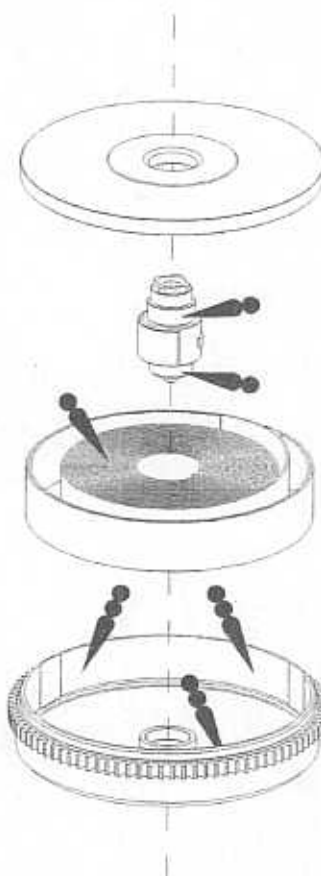
[Barrel arbor
2230-307]

Mainspring
2230-311
standard strength
2230-311-1
weak strength

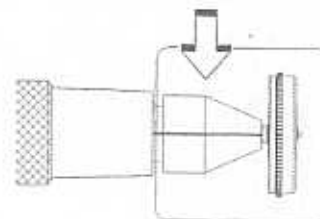
Pre-lubricated
mainspring delivered
in ring

mainspring winder
(left)
ref. 1080-12

i T. I. 40



Inspection	
- mainspring locking;	
- sliding of bridle;	
- maximum winding: <i>10 revolutions;</i>	
- arbor:	
	$\begin{array}{c} \updownarrow \\ 0.01 / 0.03 \text{ mm} \end{array}$
- minimum lateral shake of arbor.	



barrel arbor
holder
ref. 2152

Assembling and lubricating the crown wheel

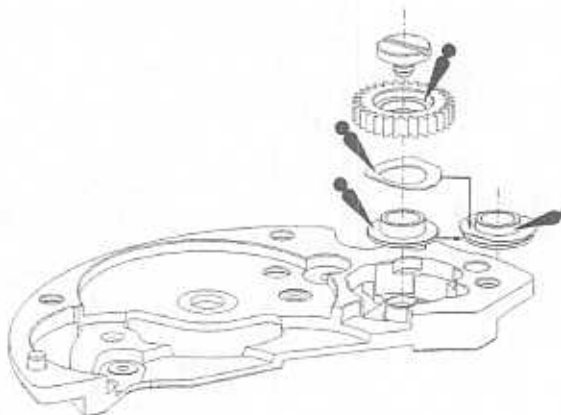
Screw
2230-5210

Crown wheel
2230-210

Crown wheel
seating
2230-209

Crown wheel
core
2230-211



Barrel bridge
2230-105





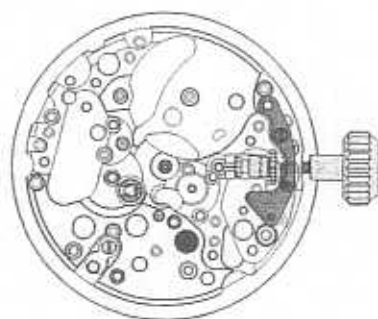
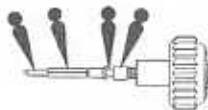
Movement-holder
Ø 20.00 mm: ref. 2252



Dial side

Sliding pinion
2230-205  9 teeth
2235-205  8 teeth
(Breguet toothing)

Winding pinion
2230-204 
2235-204 
(Breguet toothing)

Winding stem
2230-201
2230-201-1
(with banking,
for ref. 76000)



Setting lever
2230-220 
2235-220 
(contact with lever)



Spring for setting lever
2230-225

Screw
1x2230-5115

Kif (prepared)
2130-0916

Bridge side

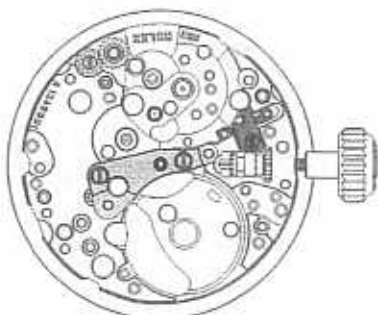


± 0.02 / 0.06

Minute pinion
(with cannon pinion)
2230-335 h. 1.84
2230-335-1 h. 1.54
2235-335 h. 2.39

Minute pinion bridge
2230-125

Screw
2x2230-5115



Spring for balance stop
2230-245

Bridge for balance stop spring
2230-246

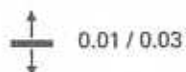
Screw
1x2230-5115

Assembling the basic movement



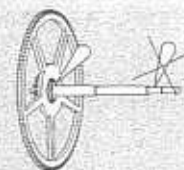
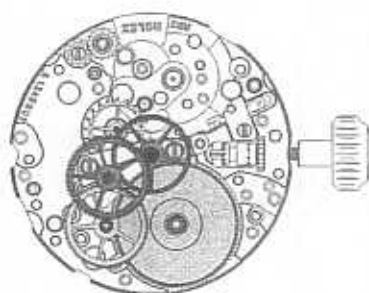
Bridge side

- 1) Assembled barrel
The cover is on
the bridge side



- 2) Great wheel
2230-330

- 3) Escape wheel
2230-410

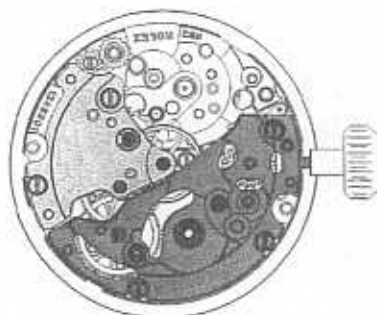


- 4) Second wheel
2230-360
2235-360
(longer axle)

- 5) Third wheel
2230-340

- Duokif
Train wheel bridge
2230-110

Screw
2x2230-5110



Barrel bridge
pre-assembled

Screw
3x2230-5110

- Spring for click
2230-301



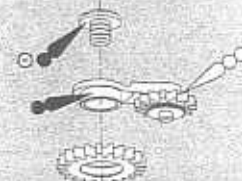
- Click
2230-300

- Screw
1x2230-5300



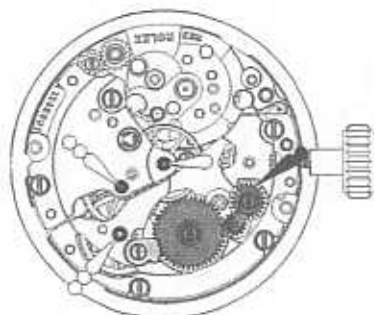
- Screw
1x2230-5300
Yoke for sliding gear
2230-217

- Intermediate crown
wheel
2230-213



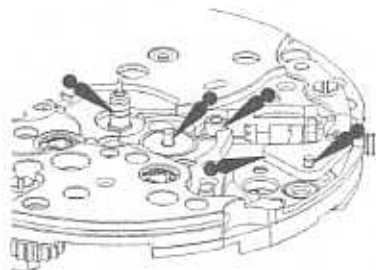
- Ratchet wheel
2230-305

- Screw
1x2230-5305





Dial side



Minute wheel stud
2230-7260

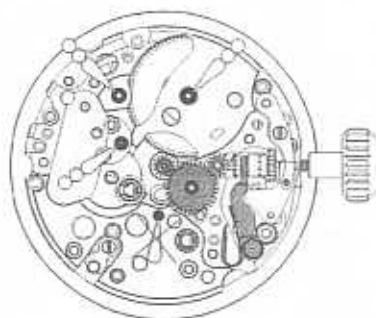
Minute wheel
2230-260
2235-260
(higher pinion)

Duokif

Cannon pinion
2230-270 ht 1.84
2230-270-1 ht 1.54
2235-270 ht 2.39

Setting wheel core
2230-249

Setting wheel
2230-250



Yoke for sliding pinion
2230-239

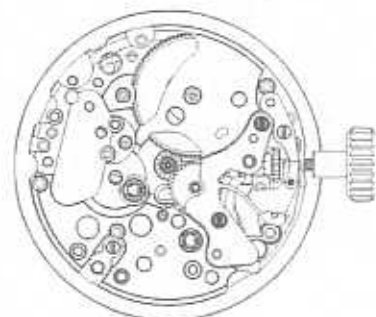


Spring for yoke
2230-241

Jumper for setting lever
2230-231
2235-231



(wheel + intermediate setting wheel corrector)



Screw
2x2230-5115

(Hour wheel)
2230-281 ht 1.07
2230-281-1 ht 0.78
2235-281 ht 1.58

Test

- Freedom of gear train;
- Mechanism functions.



Bridge side

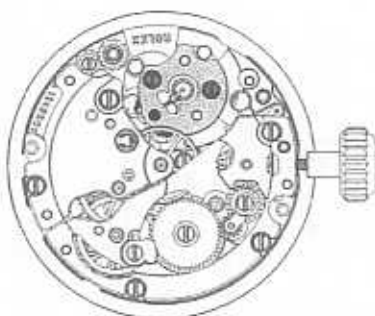


Pallet staff
2130-419

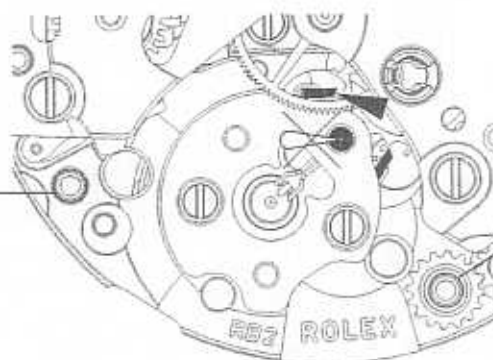
Pallet fork
2230-421



Pallet bridge
2230-115



Screw
2x2230-5115



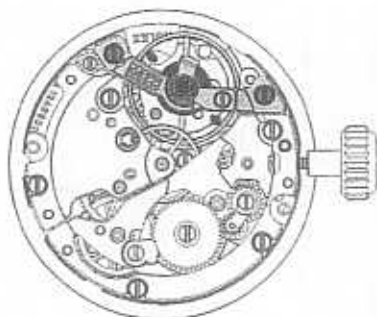
Tapped foot
2230-7120

Tapped foot
2230-7121

Balance with
Breguet hairspring
timed
2230-432



Balance
bridge
2230-120
2235-120
(engraving)



Screw
2x2230-5110



Technical characteristics:

Frequency	Lift angle	Max. winding (about 50h)	24h unwinding
28800 alternations/hour	52°	ratchet = 10 rotations winding stem = 25.5 rotations	ratchet = 5 rotations winding stem = 12.5 rotations

Test positions:

Watch (or movement) position					
Symbols	9 ↑ or 9 H	6 ↑ or 6 H	3 ↑ or 3 H	C ↑ or C H	C ↓ or C B

Regulating tolerances: see test procedure on page 29

TESTS	METHODES	TOLERANCES
Rate	1 st criteria = maximum difference in the positions -after 24h unwinding (5 ratchet rotations) -after maximum winding	maximum 15 s/d
	2 nd criteria = average of 5 positions wound to maximum	-3 / + 5 (s/d)
Amplitude	maxi winding 2 positions 	maximum 310°
	after 24h unwinding 3 positions 	minimum 190°
Beat	5 positions 	maximum 0,8 ms

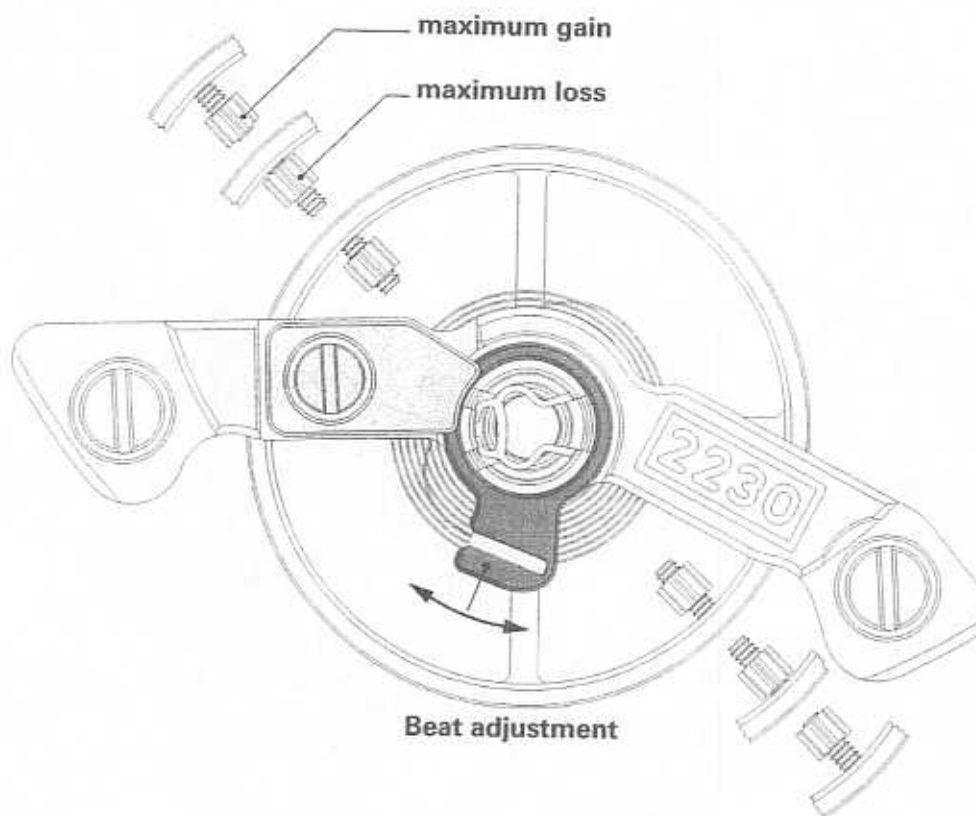
Regulating: rate, amplitude, beat



This balance wheel is equipped with a pair of gold Microstella nuts which can be adjusted to regulate the moment of inertia.

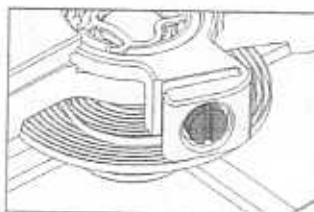


The key, ref. 2019, enables easy and precise adjustment of the rate by turning the Microstella nuts.
See technical info. "ROLEX TOOL, REF. 2019"



Bridle for
stud support
2230-451

Screw
2230-5115



Stud support
2230-450

Screw for
hairspring bridle
2230-5450

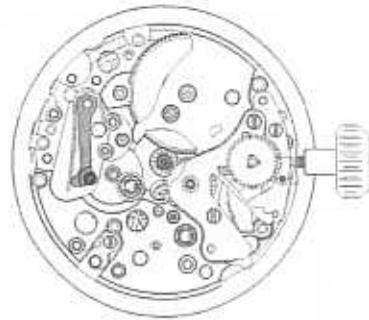
- 1 division of Microstella key on the 2 nuts = approx. 1.7 s/d
- adjustment range = approx. +/- 150 s/d



It is essential that the adjustment of the two Microstella nuts be identical, so as not to modify the balance wheel poising.

2

Movement-holder
Ø 20.00 mm, ref. 2252



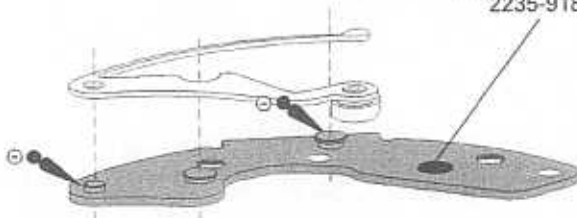
Yoke for cam
2235-633

(Spring for cam yoke)
2235-635

Jewel
2235-9633

Date jumper
2235-614

Support jewel ht. 0.25
2235-9183



Date
bridge
2235-183

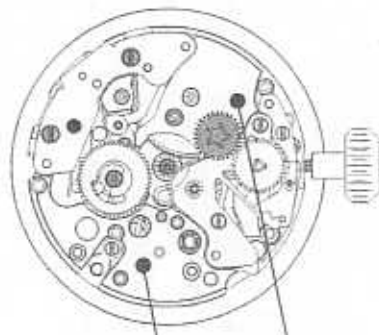
Screw
1x2235-5625



Tapped foot 2235-7625

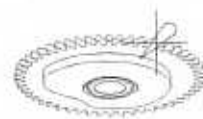
Date wheel
2235-625

Date bridge
with jumper



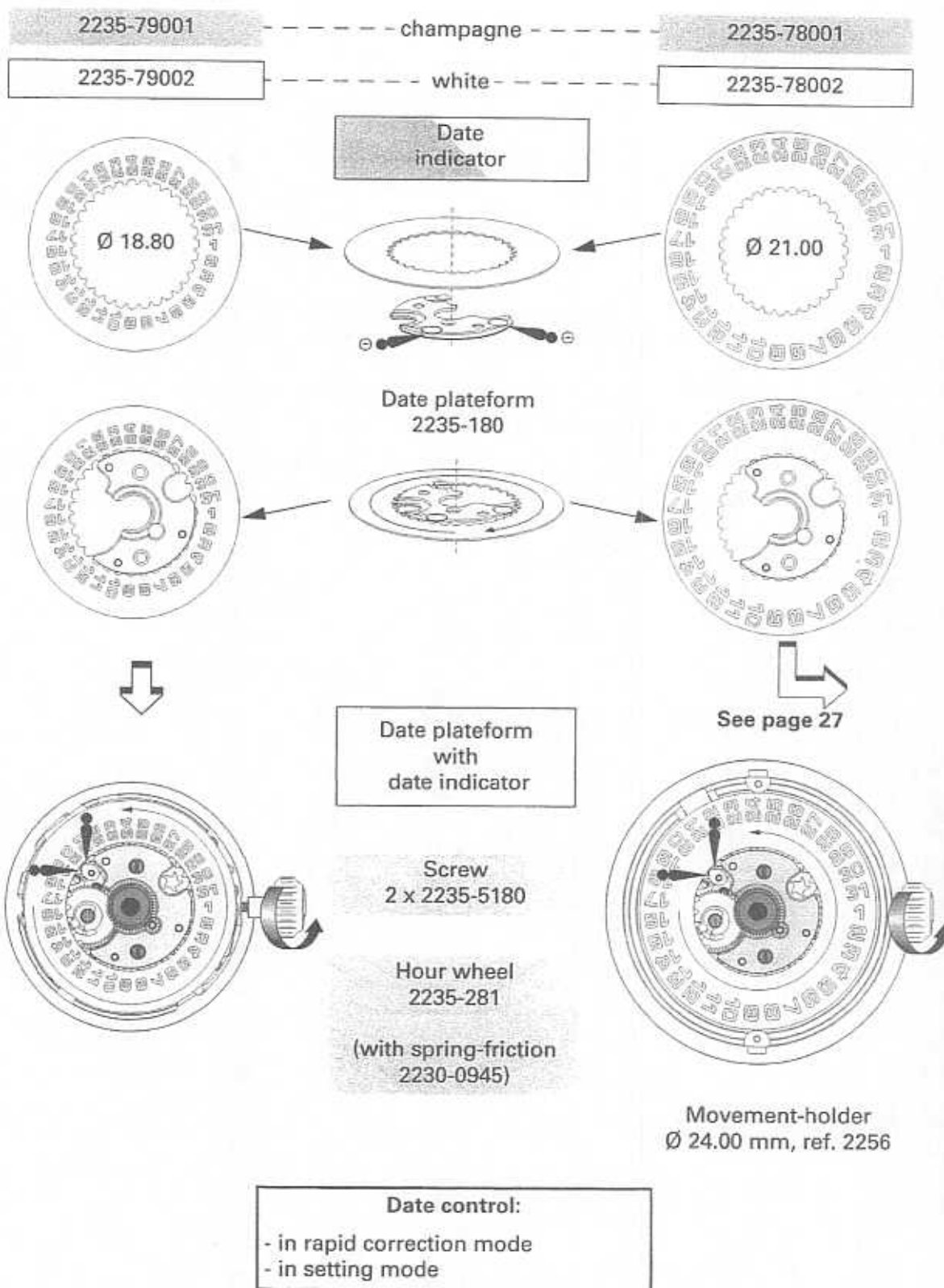
Support jewel ht. 0.50
2235-9100 (2x)

Screw
2x2235-5180



Date
corrector
2235-645



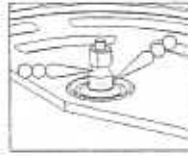




Oscillating weight



2230-570-1
Ø 19.65



Axle 2230-568

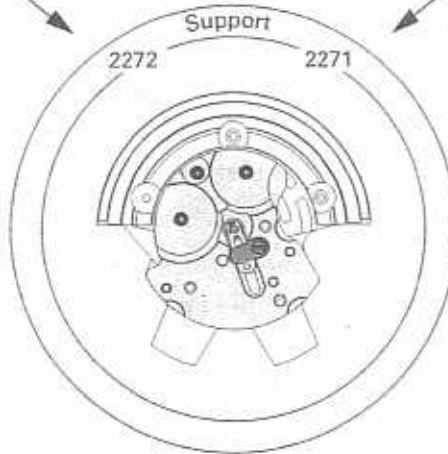
i T. I. 60



2230-570-2
Ø 22.20

Upper bridge for automatic device
2230-140

Spring-clip
2230-560-1 (0.150)
2230-560-2 (0.135)
2230-560-3 (0.165)

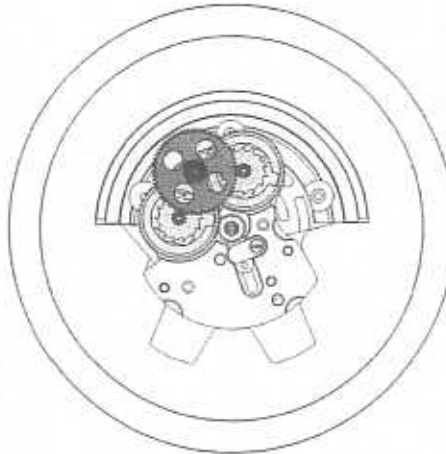


(Bridle for spring-clip)
2230-561

(Screw)
1x 2230-5561

Pinion for oscillating weight
2230-550

Reversing wheel, mounted
2x 2230-540

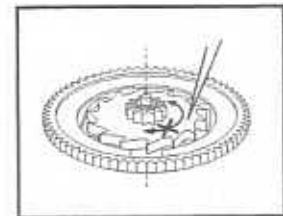


Driving wheel for ratchet wheel
2230-510



Reverser

Mobile click-holder



Before mounting on the upper bridge of the automatic device, check the freedom of the reverser and the proper functioning of the clicks, *with an oiler*.

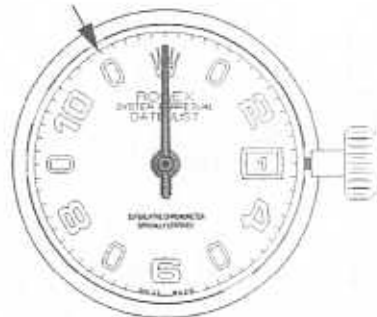


Calibre 2235

Ø 20.00 mm

Movement-holder with central support: ref. 2253

i See technical information No. 57



Tests
-endshake of hour wheel
-centering of dial

Hand-pushers
Ref. 2089

Hands:
hour
minute
second

Snap-on dial

→ Indexed at 11h by date bridge

Ø 24.00 mm

Movement-holder for fitting the enlargement ring:
ref. 2251



Mount before date indicator

Enlargement ring
2235-975
with screw
2 x 2230-5975

without enlargement ring
Screw for case
2 x 2130-5100



Casing-up bridle
2 x 137 (2135)

Screw
2 x 167 (2030)

Snap-on dial

→ Indexed at 11h by enlargement ring

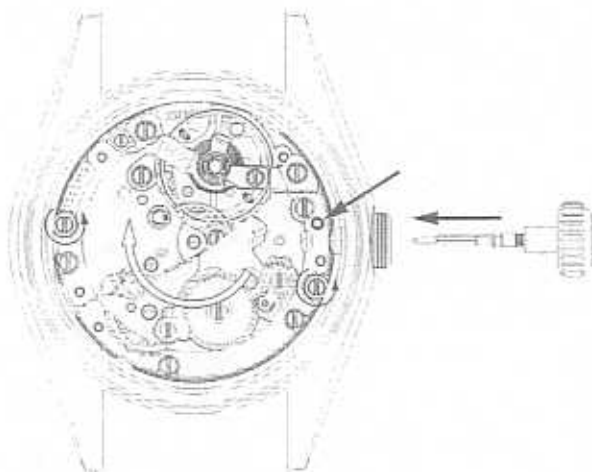
Ø 24.00 mm

Movement-holder with central support: ref. 2257

Tests
Hands: - 360° clearance and parallelism;
- synchronisation of hour/minute hands at 12h = +/- 1 min;
Date: - date jump at midnight between - 1 and + 2 min.



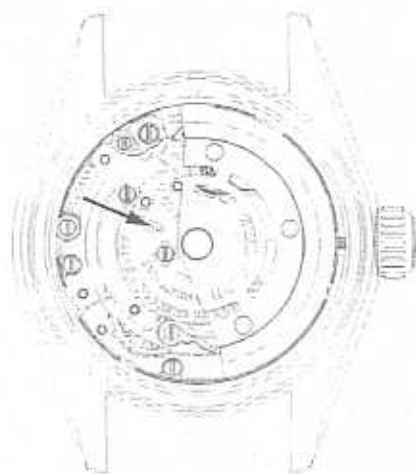
Casing-up movement-holder ref. 2250



Centering
the movement

Tightening:
screws for case
2 x 2130-5100
or
bridle screws
2 x 167 (2030)

Test the tightness
of the screws



Automatic device
module
2230-142-1
or
2230-142-2
(with enlarged
oscillating weight)

Screw
2 x 2230-5110

Tests

- position and freedom of oscillating weight:
Important: for this test, the barrel must be completely unwound.
- rotation of the ratchet wheel.

After closing and locking of caseback:

- acoustic test of automatic system, the oscillating weight must not rub against the caseback or the bridges.



Procedure

Instantaneous timing control: example

Position	Beat (ms)	Rate at 24h (s/d)	Amplitude (°)
	0.3	+4	215
	0.1	+7	220
	0.2	+2	210
	0.3	-2	↑ mini 190°
	0.3	0	

Position	Beat (ms)	Rate at 0h (s/d)	Amplitude (°)
	0.3	+8	
	0.1	-1	↑ maxi 310°
	0.2	+5	
	0.3	+3	
	0.3	+4	
	0.3	+4	

↑
maxi
0.8 ms

Maximum variation 15 s/d

1st criteria: $-2 / +8 = 10$ s/d

↑
maxi
310°

2nd criteria: +3.8 s/d
(average = $+8-1+5+3+4 = 19 : 5 = +3.8$)

Tol. -3/+5 s/d

Observation during 4 days - case back locked: example

	Date	Hour	Test position / Duration	State (s)	Difference (s)
0	12.11.99	8h30	Manual maxi winding	0	---
1	13.11.99	8h45	/ 24 h	+4	+4
2	14.11.99	8h35	Reglomat / 24 h	+3	-1
3	15.11.99	8h40	/ 24 h	+5	+2

2nd criteria: Tol. -3/+5 s/d

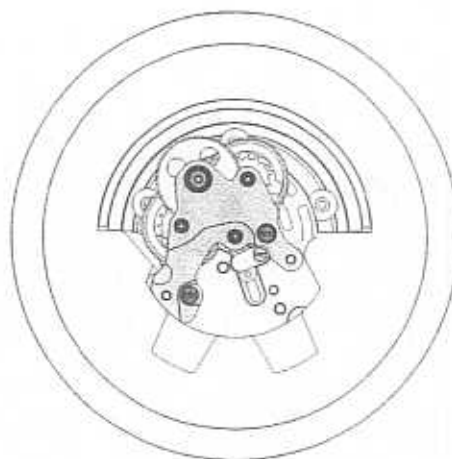
average = $(+4-1+2) : 3 = +1,7$

+ 1.7

4	16.11.99	Test for power reserve: about 50h			
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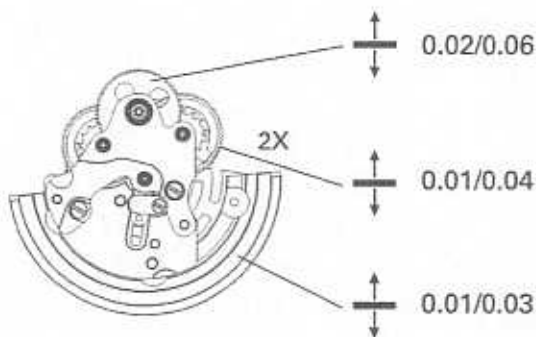
Lower bridge for automatic device
2230-135






Screw
2x 2230-5110

Checking endshake

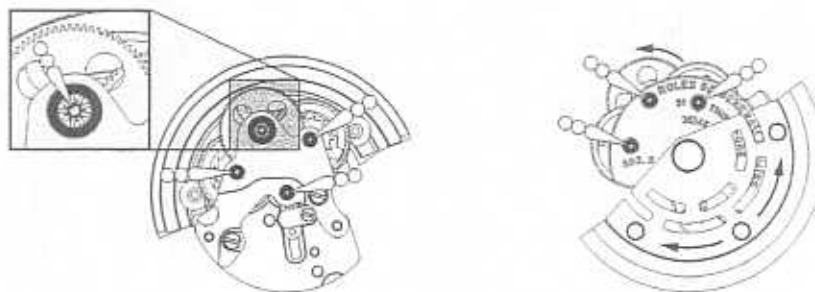
If necessary, the endshake must be adjusted during the 1st inspection when disassembling the movement!



Spring-clips of different thickness are available in order to limit the endshake of the oscillating weight:

-  thickness 0.150 ref. 2230-560-1
-  thickness 0.135 ref. 2230-560-2
-  thickness 0.165 ref. 2230-560-3

Oiling



Inspect the rotation of the driving wheel for ratchet wheel by rotating the oscillating weight in both directions.





Calibre 2230

Ø 20.00 mm

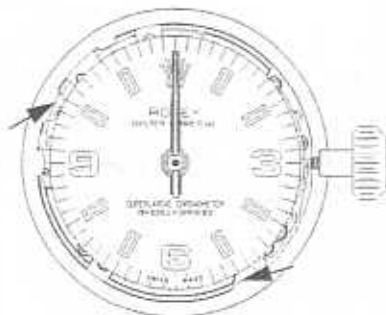
Movement-holder with central support: ref. 2253

i See technical information No. 57

Test
-endshake of hour wheel
-centering of dial



Dial with feet



Hand-pushers
Ref. 2089

Hands:
hour
minute
second

→ Screw (sides)
2 x 2230-5013

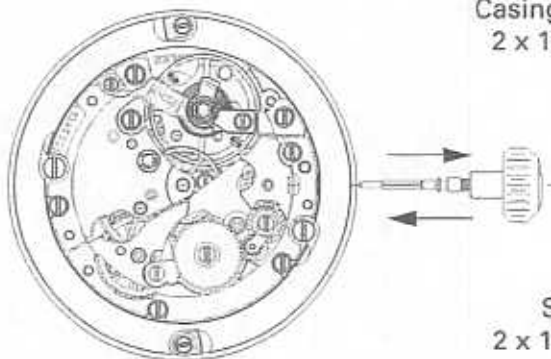
Ø 24.20 mm

Movement-holder for **fitting the enlargement ring**:
ref. 2251

Enlargement ring
2230-975
with screw
2x2230-5975

without
enlargement ring
Screw for case
2 x 2130-5100

Casing-up bridle
2 x 137 (2135)



Screw
2 x 167 (2030)

Dial with feet

Fitting of dial and hands

Ø 24.20 mm

Movement-holder with central support: ref. 2255

Tests

Hands: - 360° clearance and parallelism;
- synchronisation of hour/minute hands at 12h = +/- 1 min;



Cal. 2230		
Reference	Designation	Qty
2230-100	Main plate	1
2230-105	Barrel bridge	1
2230-110	Train wheel bridge	1
2230-115	Pallet bridge	1
2230-120	Balance bridge	1
2230-125	Minute pinion bridge	1
2230-135	Automatic device, lower bridge	1
2230-140	Automatic device, upper bridge	1
	Automatic device module	1
2230-142-1*	- with osc. weight Ø 19.65	
2230-142-2*	- with osc. weight Ø 22.20	
2230-201	Winding stem	1
2230-201-1	Winding stem with banking	
2230-204	Winding pinion	1
2230-205	Sliding pinion	1
2230-209	Crown wheel seating	1
2230-210	Crown wheel	1
2230-211	Crown wheel core	1
2230-213	Intermediate crown wheel	1
2230-217	Yoke for sliding gear	1
2230-220	Setting lever	1
2230-225	Spring for setting lever	1
2230-231	Jumper for setting lever	1
2230-239	Yoke for sliding pinion	1
2230-241	Spring for yoke	1
2230-245	Spring for balance stop	1
2230-246	Bridle for balance stop spring	1
2230-249	Setting wheel core	1
2230-250	Setting wheel	1
2230-260	Minute wheel	1
	Cannon pinion	1
2230-270	- height 1.84	
2230-270-1	- height 1.54	
	Hour wheel	1
2230-281	- height 1.07	
2230-281-1	- height 0.78	
2230-300	Click	1
2230-301	Spring for click	1
2230-305	Ratchet wheel	1
2230-307	Barrel arbor	1
2230-310	Barrel with arbor	1
	Mainspring	1
2230-311	- standard strength	
2230-311-1	- weak strength	
2230-330	Great wheel	1
2230-335	Min. pinion + cannon h. 1.84	1
2230-335-1	Min. pinion + cannon h. 1.54	

Cal. 2230 (continuation)		
Reference	Designation	Qty
2230-340	Third wheel	1
2230-360	Second wheel	1
2230-410	Escape wheel	1
2130-419	Pallet staff	1
2230-421	Pallet fork	1
2130-425	Roller	1
2230-429	Balance staff	1
2230-432	Balance with Breguet hairspring, timed	1
2230-450	Stud support	1
2230-451	Bridle for stud support	1
2230-475	Driving pinion for height adjustment balance bridge	1
2230-478	Bridle for height adj. bal. bridge	1
2230-510	Driving wheel for ratchet wheel	1
2230-540	Reversing wheel, mounted	2
2230-550	Pinion for oscillating weight	1
	Spring-clip for oscillat. weight	1
2230-560-1	- ht. 0.150	
2230-560-2	- ht. 0.135	
2230-560-3	- ht. 0.165	
2230-561	Bridle for spring-clip	1
2230-568	Axle for oscillating weight	1
	Oscillating weight	1
2230-570-1	- Ø 19.65	
2230-570-2	- Ø 22.20	
Ring, Bridle, Spring-friction, Screw		
137 (2135)	Casing-up bridle	2
167 (2030)	Casing-up bridle screw	2
2230-0945	Hour wheel friction spring	1
2230-975	Enlargement ring	1
2230-5000	Set of screws	1
2230-5013	Screw for dial	2
2130-5100	Screw for case (without enl. ring)	2
2230-5110	- balance bridge	2
	- train wheel bridge	2
Screw	- barrel bridge	3
	- automatic device bridge	2
	- automatic device module	2
2230-5115	- minute pinion bridge	2
	- bridle for balance stop spring	1
Screw	- setting lever spring	1
	- setting lever jumper	2
	- pallet bridge	2
	- bridle for stud holder	1
	- bridle for height adj. bal. bridge	1

* Available on exchange basis only

Cal. 2230 (continuation)		
Reference	Designation	Qty
Nut, Screw, Tapped foot, Stud		
2230-5120	Regulating nut for balance bridge height adjustment	1
2230-5210	Screw for crown wheel	1
2230-5300	- Screw for click	1
	- Screw for yoke for sliding gear	1
2230-5305	Screw for ratchet wheel	1
2230-5450	Screw for hairspring bridge	1
2230-5561	Screw for bridge of spring clip	1
2230-5975	Screw for enlargement ring	2
2230-7120	Tapped foot - balance bridge	1
2230-7121	Tapped foot - adjust. bal. bridge	1
2230-7260	Minute wheel stud	1
Jewel		
96041(5035)	Second wheel - upper	1
	Third wheel - upper/lower	2
2130-9330	Driv. wheel ratchet wheel - upper	1
	Reversing wheel - upper/lower	4
	Oscillating weight - lower	1
2230-9310	Barrel - upper	1
2230-9311	Barrel - lower	1
2230-9331	Great wheel - upper/lower	2
2230-9360	Second wheel - lower	1
2230-9361	Second wheel support - lower	1
2230-9421	Pallet fork-upper/lower	2
2230-9510	Driv. wheel ratchet wheel - lower	1
2230-9511	Driving ratchet wheel support	1
2230-9570	Oscillating weight - upper	1
Shock absorber and combined in-setting		
2130-0913	In-setting for escape wheel upper/lower	2
2130-0913-2	Cap jewel for escape wheel upper / lower	2
2230-0915	Shock abs. for balance - upper	1
2130-0915-1	In-setting for balance upper / lower	2
2130-0916	Shock abs. for balance - lower	1
4493 (2030)	Cap jewel shock absorber for balance - upper / lower	2
4494 (2030)	Spring for combined in-setting and shock absorber - upper / lower	4

Cal. 2235**		
Reference	Designation	Qty
Basic movement		
2235-100	Main plate	1
2235-120	Balance bridge	1
2235-204	Winding pinion	1
2235-205	Sliding pinion	1
2235-220	Setting lever	1
2235-231	Jumper for setting lever	1
2235-260	Minute wheel	1
2235-270	Cannon pinion: ht. 2.39	1
2235-281	Hour wheel: ht. 1.58	1
2235-335	Minute pinion with cannon pinion: ht. 2.39	1
2235-360	Second wheel	1
Date indicator device		
2235-180	Date platform	1
2235-183	Date bridge	1
2235-614	Date jumper	1
2235-625	Date wheel	1
2235-633	Yoke for cam	1
2235-635	Spring for cam yoke	1
2235-645	Date corrector	1
	Date indicator	1
2235-78001	-champagne: Ø 21.00	
2235-78002	-white: Ø 21.00	
2235-79001	-champagne: Ø 18.80	
2235-79002	-white: Ø 18.80	
Enlargement ring, Screw, Tapped foot		
2235-975	Enlargement ring	1
2235-5000	Set of screws	1
2235-5180	Date bridge screw	2
	Date platform screw	2
2235-5625	Screw for date wheel	1
2235-7180	Cylin. tapped foot date platform	1
2235-7180-1	Tapped foot ht. 0.95 date platform	1
2235-7181	Tapped foot ht. 0.52 date platform	1
2235-7625	Tapped foot for date wheel	1
Jewel		
2235-9100	Date indicator support ht. 0.50	2
2235-9183	Date indicator support ht. 0.25	1
2235-9633	Yoke for cam	1

Dimensions in [mm]

Upper = bridge side

Lower = dial side



** Specific Spare Parts
for calibre 2235



MONTRES ROLEX S.A.

GENEVA
SWITZERLAND

Calibre 2230

Gravé sur le pont de balancier
Engraved on the balance bridge
Grabado sobre el puente de volante
Graviert auf der Unruhbrücke
Inciso sul ponte del bilanciere

2230

Automatic
Automatic
Automático
Automatisch
Automatico

Amortisseur
Shock-absorber
Amortiguador
Stoßfänger
Ammortizzatore

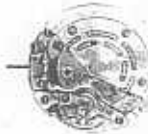
31 pierres
31 jewels
31 piedras
31 Steine
31 pietre

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

Ø 20,00mm












Ht. 5,40mm

Ah. 28.800



	Ech:	N°	Idem calibre	Français	English	Español	Deutsch	Italiano
⊙		137	2135	Bride	Bridge	Brida	Bügel	Brida
⊙	2 : 1	167	2030	Vis de bride	Screw for bridge	Tornillo de brida	Schraube für Bügel	Vite della brida
⊙	2 : 1	4493	2030	Contre-pivot de balancier-sus / sous	Cap-jewel for balance-upper / lower	Contrapivote de volante-encima / debajo	Deckstein für Unruh-oben / unten	Controperno del bilanciere-sopra / sotto
⊙	2 : 1	4494	2030	Ressort pour chaton de roue d'échappement et de balancier-sus / sous	Spring for in setting for escape wheel and balance-upper / lower	Muelle de chátón de rueda de escape y de volante-encima / debajo	Feder für Steinlutter für Hemmungsrad und Unruh-oben / unten	Molla del cassone della ruota di scappamento e del bilanciere-sopra / sotto
⊙	2 : 1	96041	5035	Pierre de: <ul style="list-style-type: none"> roue de seconde-sus roue moyenne-sus / sous 	Jewel for: <ul style="list-style-type: none"> second wheel-upper third wheel-upper / lower 	Piedra de: <ul style="list-style-type: none"> rueda de segundo-encima rueda primera-encima /debajo 	Stein für: <ul style="list-style-type: none"> Sekundenrad-oben Kleinbodenrad-oben /unten 	Pietra de: <ul style="list-style-type: none"> ruota del secondi-sopra ruota mediana-sopra /sotto
⊙	2 : 1	2130-419	2130	Tige d'ancre	Pallet staff	Tija de áncora	Ankerwelle	Albero d'ancora
⊙		2130-425	2130	Plaqueau	Roller	Piñillo	Scheibe	Disco
⊙	2 : 1	2130-5100	2130	Vis de fixation (sans cercla)	Screw for case (without ring)	Tornillo de fijación (sin aro)	Schraube für Werkbefestigung (ohne Ring)	Vite di fissaggio (senza cerchio)
⊙	2 : 1	2130-9330	2130	Pierre de: <ul style="list-style-type: none"> roue entraîneuse de rochet-sus roue d'inversion-sus /sous masse oscillante-sous 	Jewel for: <ul style="list-style-type: none"> driving wheel for ratchet wheel-upper reversing wheel-upper /lower oscillating weight-lower 	Piedra de: <ul style="list-style-type: none"> rueda de arrastre de rochete-encima rueda de inversión-encima / debajo masa oscilante-debajo 	Stein für: <ul style="list-style-type: none"> Mitnehmer für Sperrrad-oben Umkehrad-oben /unten Schwungmasse-unten 	Pietra de: <ul style="list-style-type: none"> ruota conduttrice del rocchetto-sopra ruota d'inversione-sopra /sotto massa oscillante-sotto
⊙	2 : 1	2130-0913	2130	Chaton de roue d'échappement-sus /sous	In setting for escape wheel-upper /lower	Chátón de rueda de escape-encima /debajo	Steinlutter für Hemmungsrad-oben /unten	Cassone della ruota di scappamento-sopra /sotto
⊙	2 : 1	2130-0913-2	2130	Contre-pivot de roue d'échappement-sus /sous	Cap-jewel for escape wheel-upper /lower	Contrapivote de rueda de escape-encima /debajo	Deckstein für Hemmungsrad-oben /unten	Controperno della ruota di scappamento-sopra /sotto
⊙	2 : 1	2130-0915-1	2130	Chaton de balancier-sus /sous	In setting for balance-upper /lower	Chátón de volante-encima / debajo	Steinlutter für Unruh-oben /unten	Cassone del bilanciere-sopra / sotto

Calibre 2230

	Ech:	N°	Idem calibre	Français	English	Español	Deutsch	Italiano
		2230-204		Pignon de remontoir	Winding pinion	Pifion de remontuar	Aufzugtrieb	Pignone di carica
		2230-205		Pignon coulant	Sliding pinion	Pifion corredizo	Kupplungstrib	Pignone scorrevole
		2230-209		Assise de roue de couronne	Crown wheel seating	Asiento de rueda de corona	Auflage für Kronrad	Appoggio della ruota a corona
		2230-210		Roue de couronne	Crown wheel	Rueda de corona	Kronrad	Ruota a corona
		2230-211		Noyau de roue de couronne	Crown wheel core	Sombrere de rueda de corona	Kern für Kronrad	Nocciolo della ruota a corona
		2230-213		Roue de couronne intermédiaire	Intermediate crown wheel	Rueda de corona intermedia	Zwischen-Kronrad	Ruota a corona intermedia
		2230-217		Bascule de baladeur	Yoke for sliding gear	Báscula de corredera	Wippe für Umsteller	Bascula del ballerino
		2230-220		Tirette	Setting lever	Tirete	Winkelhebel	Tiretto
		2230-225		Ressort de tirette	Spring for setting lever	Muelle de tirete	Feder für Winkelhebel	Molla del tiretto
		2230-231		Sautoir de tirette	Jumpet for setting lever	Muelle flexible de tirete	Raste für Winkelhebel	Scatto del tiretto
		2230-239		Bascule de pignon coulant	Yoke for sliding pinion	Báscula de pifion corredizo	Wippe für Kupplungstrib	Bascula del pignone scorrevole
		2230-241		Ressort de bascule	Spring for yoke	Muelle de báscula	Feder für Wippe	Molla della bascula
		2230-245		Ressort d'arrêt de balancier	Spring for balance stop	Muelle de tops del volante	Stoppleader für Uhruh	Molla per fermo del bilanciare
		2230-246		Bride de ressort d'arrêt de balancier	Bridle for balance stop spring	Brida de muelle de tops del volante	Bügel für Stoppleader der Uhruh	Brida della molla per fermo del bilanciare
		2230-249		Noyau de renvoi	Setting wheel core	Sombrere de rueda de transmisión	Kern des Zeigerstellrades	Nocciolo del rinvio
		2230-250		Renvoi	Setting wheel	Rueda de transmisión	Zeigerstellrad	Rinvio
		2230-260		Roue de minuterie	Minute wheel	Rueda de minuteria	Wechselrad	Ruota della minuteria
		2230-270		Chaussée ht. 1.84mm	Cannon pinion ht. 1.84mm	Cañon de minutos alt. 1.84mm	Minutenrühr H. 1.84mm	Pignone caizante alt. 1.84mm
		2230-270-1		Chaussée ht. 1.54mm	Cannon pinion ht. 1.54mm	Cañon de minutos alt. 1.54mm	Minutenrühr H. 1.54mm	Pignone caizante alt. 1.54mm
		2230-281		Roue des heures ht. 1.07mm	Hour wheel ht. 1.07mm	Rueda de horas alt. 1.07mm	Stundenrad H. 1.07mm	Ruota delle ore alt. 1.07mm
		2230-281-1		Roue des heures ht. 0.78mm	Hour wheel ht. 0.78mm	Rueda de horas alt. 0.78mm	Stundenrad H. 0.78mm	Ruota delle ore alt. 0.78 mm

Calibre 2230

	Ech:	N°	Idem calibre	Français	English	Español	Deutsch	Italiano
	2 : 1	2230-8310		Pierre de barillet-sus	Jewel for barrel-upper	Piedra de cubo-encima	Stein für Federwelle-oben	Pietra del bariletto-sopra
	2 : 1	2230-9311		Pierre de barillet-sous	Jewel for barrel-lower	Piedra de cubo-debajo	Stein für Federwelle-unten	Pietra del bariletto-sotto
	2 : 1	2230-9331		Pierre de grande moyenna-sus / sous	Jewel for great wheel-upper / lower	Piedra de grande de arrastre-encima /debajo	Stein für Grossbodenrad-oben / unten	Pietra di grande mediana-sopra / sotto
	2 : 1	2230-9360		Pierre de roue ds seconde-sous	Jewel for second wheel-lower	Piedra de rueda de segundos-debajo	Stein für Sekundenrad-unten	Pietra della ruota del secondi-sotto
	2 : 1	2230-9361		Pierre d'appui de roue de seconde-sous	Jewel for second wheel support-lower	Piedra d'apoyo de rueda primera-debajo	Abstützstein für Sekundenrades-unten	Pietra d'appoggio della ruota dei secondi-sotto
	2 : 1	2230-9421		Pierre d'ancre-sus /sous	Jewel for pallet fork-upper /lower	Piedra de áncora-encima / debajo	Stein für Anker-oben /unten	Pietra dell' ancora-sopra /sotto
	2 : 1	2230-8510		Pierre de roue entraîneuse de rochet-sous	Jewel for driving wheel of the ratchet wheel-lower	Piedra de rueda de arrastre de rochete-debajo	Stein des Mitnehmrerrades für Sperrrad-unten	Pietra della ruota conduttrice del rochetto-sotto
	2 : 1	2230-9511		Pierre d'appui de roue entraîneur de rochet	Jewel for driving wheel for ratchet wheel support	Piedra d'apoyo de rueda de arrastre de rocheta	Abstützstein des Mitnehmrerrades	Pietra d'appoggio della ruota conduttrice del rochetto
	2 : 1	2230-9570		Pierre de masse oscillante-sus	Jewel for oscillating weight-upper	Piedra de masa oscilante-encima	Stein für Schwungmasse-oben	Pietra della massa oscillante-sopra
	2 : 1	2230-0815		Amortisseur de balancier-sus	Shock-absorber for balance-upper	Amortiguador de volante-encima	Stoßdämpfung für Unruh-oben	Ammortizzatore del bilanciare-sopra
	2 : 1	2230-0845		Ressort-friction de roue des heures	Friction spring for hour wheel	Muelle-fricción de rueda de horas	Friktionsleder für Stundenrad	Molla-frizione della ruota delle ore



OLEX

Calibre 2235

Gravé sur le pont de balancier
Engraved on the balance bridge
Grabado sobre el puente de volante
Graviert auf der Unruhbrücke
Inciso sul ponte del bilanciere

2235

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

2230

Automatic
Automatic
Automático
Automatisch
Automatico

Calendrier (instantané)
Calendar (instantaneous)
Calendario (instantáneo)
Kalender (augenblicklich)
Calendario (istantaneo)

Seconde au centre
Centre second
Segundo central
Zentrumsekunde
Secondi al centro

Amortisseur
Shock-absorber
Amortiguador
Stoßdämpfer
Ammortizzatore












31 pierres
31 jewels
31 piedras
31 Steine
31 pietre

Ø 20,00mm
Ht. 5,95mm
Ab. 28,800












Ech:	N°	Idem calibre	Français	English	Español	Deutsch	Italiano
	2235-100		Platine	Main plate	Platina	Werkplatte	Plastr
	2235-120		Pont de balancier	Balance bridge	Puente de volante	Unruhbrücke	Ponte del bilanciere
	2235-180		Planche de quantième	Date plateform	Placa de fecha	Datumplatte	Tavola del datario
	2235-183		Pont de quantième	Date bridge	Puente de fecha	Datumbrücke	Ponte del datario
	2235-204		Pignon de remontoir	Winding pinion	Pifion de remonter	Aufzugtrieb	Pignone di carica
	2235-205		Pignon coulant	Sliding pinion	Pifion corredizo	Kupplungstrieb	Pignone scorrevole
	2235-220		Tirrite	Setting lever	Trette	Winkelhebel	Tiretto
	2235-231		Savoir de tirette	Jumper for setting lever	Muelle flexible de tirete	Flaste für Winkelhebel	Scatto del tiretto
	2235-260		Roue de minuterie	Minute wheel	Rueda de minutería	Wechselrad	Ruota della minuteria

Calibre 2235

	Ech:	N°	Idem calibre	Français	English	Español	Deutsch	Italiano
	2 : 1	2235-7180	(1)	Pied taraudé de planche de quantième, cylindrique	Tapped foot for date plateform, cylindrical	Pie tarrajado de placa de fecha, cilíndrico	Gewindebuchse für Datumplatte, zylindrisch	Piedino filettato della tavola del datario, cilindrico
	2 : 1	2235-7180-1	(1)	Pied taraudé de planche de quantième, H. 0.95mm	Tapped foot for date plateform, H. 0.95mm	Pie tarrajado de placa de fecha, alt. 0.95mm	Gewindebuchse für Datumplatte, H. 0.95mm	Piedino filettato della tavola del datario, alt. 0.95mm
	2 : 1	2235-7181		Pied taraudé de planche de quantième, H. 0.52mm	Tapped foot for date plateform, H. 0.52mm	Pie tarrajado de placa de fecha, alt. 0.52mm	Gewindebuchse für Datumplatte, H. 0.52mm	Piedino filettato della tavola del datario, alt. 0.52mm
	2 : 1	2235-7625		Pied taraudé de roue de quantième	Tapped foot for date wheel	Pie tarrajado de rueda de fecha	Gewindebuchse für Datumrad	Piedino filettato della ruota del datario
	2 : 1	2235-9100		Pierre d'appui de l'indicateur de quantième H. 0.50mm	Jewel for date indicator support H. 0.50mm	Piedra d'apoyo de indicador de fecha alt. 0.50mm	Absatzstein für Datumanzeiger H. 0.50mm	Pietra d'appoggio dell'indicatore della data alt. 0.50mm
	2 : 1	2235-9183		Pierre d'appui de l'indicateur de quantième H. 0.25mm	Jewel for date indicator support H. 0.25mm	Piedra d'apoyo de indicador de fecha alt. 0.25mm	Absatzstein für Datumanzeiger H. 0.25mm	Pietra d'appoggio dell'indicatore della data alt. 0.25mm
	2 : 1	2235-9633		Pierre de bascule de came	Jewel for yoke for cam	Piedra de báscula de leva	Stein für Nockenwippe	Pietra della bascula della camma
		2235-78001		Indicateur de quantième, champagne Ø 21.00mm	Date indicator, champagne Ø 21.00mm	Indicador de fecha, champañá Ø 21.00mm	Datumanzeiger, champagne Ø 21.00mm	Indicatore della data, champagne Ø 21.00mm
		2235-78002		Indicateur de quantième, blanc Ø 21.00mm	Date indicator, white Ø 21.00mm	Indicador de fecha, blanco Ø 21.00mm	Datumanzeiger, weiss, Ø 21.00mm	Indicatore della data, bianco Ø 21.00mm
		2235-79001		Indicateur de quantième, champagne Ø 18.80mm	Date indicator, champagne Ø 18.80mm	Indicador de fecha, champañá Ø 18.80mm	Datumanzeiger, champagne Ø 18.80mm	Indicatore della data, champagne Ø 18.80mm
		2235-79002		Indicateur de quantième, blanc Ø 18.80mm	Date indicator, white Ø 18.80mm	Indicador de fecha, blanco Ø 18.80mm	Datumanzeiger, weiss, Ø 18.80mm	Indicatore della data, bianco Ø 18.80mm
			(1)	Voir information technique n° 55 See technical information n° 55 Ver información técnica n° 55 Selbe technische Information n° 55 Vede informazione tecnica n° 55				

Calibre 2235

	Ech:	N°	Idem calibre	Français	English	Español	Deutsch	Italiano
	2 : 1	2235-7180	(1)	Pied taraudé de planche de quantième, cylindrique	Tapped foot for date platform, cylindrical	Pie ferrajado de placa de fecha, cilíndrico	Gewindebuchse für Datumpfanne, zylindrisch	Piedino filettato della tavola del datario, cilindrico
	2 : 1	2235-7180-1	(1)	Pied taraudé de planche de quantième, ht. 0,95mm	Tapped foot for date platform, ht. 0,95mm	Pie ferrajado de placa de fecha, alt. 0,95mm	Gewindebuchse für Datumpfanne, H. 0,95mm	Piedino filettato della tavola del datario, alt. 0,95mm
	2 : 1	2235-7181		Pied taraudé de planche de quantième, ht. 0,52mm	Tapped foot for date platform, ht. 0,52mm	Pie ferrajado de placa de fecha, alt. 0,52mm	Gewindebuchse für Datumpfanne, H. 0,52mm	Piedino filettato della tavola del datario, alt. 0,52mm
	2 : 1	2235-7625		Pied taraudé de roue de quantième	Tapped foot for date wheel	Pie ferrajado de rueda de fecha	Gewindebuchse für Datumrad	Piedino filettato della ruota del datario
	2 : 1	2235-9100		Pierre d'appui de l'indicateur de quantième ht. 0,50mm	Jewel for date indicator support ht. 0,50mm	Piedra d'apoyo de indicador de fecha alt. 0,50mm	Abstützstein für Datumanzeiger H. 0,50mm	Pietra d'appoggio del l'indicatore della data alt. 0,50mm
	2 : 1	2235-9183		Pierre d'appui de l'indicateur de quantième ht. 0,25mm	Jewel for date indicator support ht. 0,25mm	Piedra d'apoyo de indicador de fecha alt. 0,25mm	Abstützstein für Datumanzeiger H. 0,25mm	Pietra d'appoggio del l'indicatore della data alt. 0,25mm
	2 : 1	2235-9633		Pierre de bascule de came	Jewel for yoke for cam	Piedra de báscula de leva	Stein für Nockenwippe	Pietra della bascula della camma
		2235-78001		Indicateur de quantième, champagne Ø 21,00mm	Date indicator, champagne Ø 21,00mm	Indicador de fecha, champagne Ø 21,00mm	Datumanzeiger, champagne Ø 21,00mm	Indicatore della data, champagne Ø 21,00mm
		2235-78002		Indicateur de quantième, blanc Ø 21,00mm	Date indicator, white Ø 21,00mm	Indicador de fecha, blanco Ø 21,00mm	Datumanzeiger, weiss, Ø 21,00mm	Indicatore della data, bianco Ø 21,00mm
		2235-79001		Indicateur de quantième, champagne Ø 18,80mm	Date indicator, champagne Ø 18,80mm	Indicador de fecha, champagne Ø 18,80mm	Datumanzeiger, champagne Ø 18,80mm	Indicatore della data, champagne Ø 18,80mm
		2235-79002		Indicateur de quantième, blanc Ø 18,80mm	Date indicator, white Ø 18,80mm	Indicador de fecha, blanco Ø 18,80mm	Datumanzeiger, weiss Ø 18,80mm	Indicatore della data, bianco Ø 18,80mm
			(1)	Voir information technique n° 55 See technical information n° 55 Ver información técnica n° 55 Siehe technische Information n° 55 Vedi informazioni tecniche n° 55				



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Our technical information exists in the following languages:

Français

English

Español

Deutsch

Italiano

日本語

Please use the summary of the technical manuals **A** and **B** to order by fax any missing technical information (at fax number mentioned below).

This technical information is intended for watchmakers who are responsible for the maintenance of the quality of our watches.



Only use original spare-parts which must be ordered from the Spare Parts Department.



Any modification made to a Rolex watch by adding or substituting components and parts that are not original, automatically cancels the guarantee.



The maintenance of our watches is reserved for qualified watchmakers who have been trained by Rolex.

We ensure regular basic and special courses on our products both here in our professional training center in Geneva and other parts of the world.



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5/1
2/1

The basic drawings are at scale 2/1

The enlargements are at scale 5/1 or 10/1



Indicates that additional information exists in our Technical Information Service.

Support
ref. 2272

Recommended speed
See technical information N° 59

- 1) Mounted barrel
- 2) Great wheel
2230-330
- 3) Escape wheel
2230-410

1) 2) 3) 4)..... correct order of assembly!
 Spare part: - designation
 - reference in basic calibre 2230
 - *reference in calibre 2235*
 - () shows the difference between variant 2235 and the basic calibre 2230.

(Spring for came yoke)
2235-635

(.....) indicate that disassembling, assembling or any other operation is optional.

Date bridge
with jumper

Pre-assembled components.



Part, driven or riveted, available as a spare part.

0.02/0.06

Inspection of end-play with minimum and maximum value indication (in mm).

s/d

Seconds per day.
Unity of instantaneous or daily rate.

Test
- Freedom of gear train
- Functions...

Instructions concerning tests: in green



Important recommendations.



Lubricants and epilame

i See technical information No. 56



Epilame, surface treatment to avoid oil from spreading:
pallet, escape wheel, automatic reversing wheel.



Oil for fast moving wheels with low pressure in jeweled bearings:
second and escape wheel, balance.



Oil for slow moving wheels with high pressure in jeweled bearings:
barrel arbor, first and second wheel, automatic....



Grease for impulse-faces of pallets and escape wheel for high frequency calibres, 28800 Alt/h.



Grease for mechanical friction system:
cannon pinion, winding and setting mechanism, calendar mechanism, mainspring....



Grease for barrel-drum:
sliding surface of mainspring bridle.



⊙ Added to lubrication symbol means that you must lubricate sparingly.

Example



Do not lubricate.