



Fabrique d'ébauches
A. Schild SA, Grenchen

11 ½ 1700
11 ½ 1701
25,60 mm

Enlarged view
of movement



Lever Movement, Self-Winding, Sweep Second

Technical and practical communication for the use of the watch repairer

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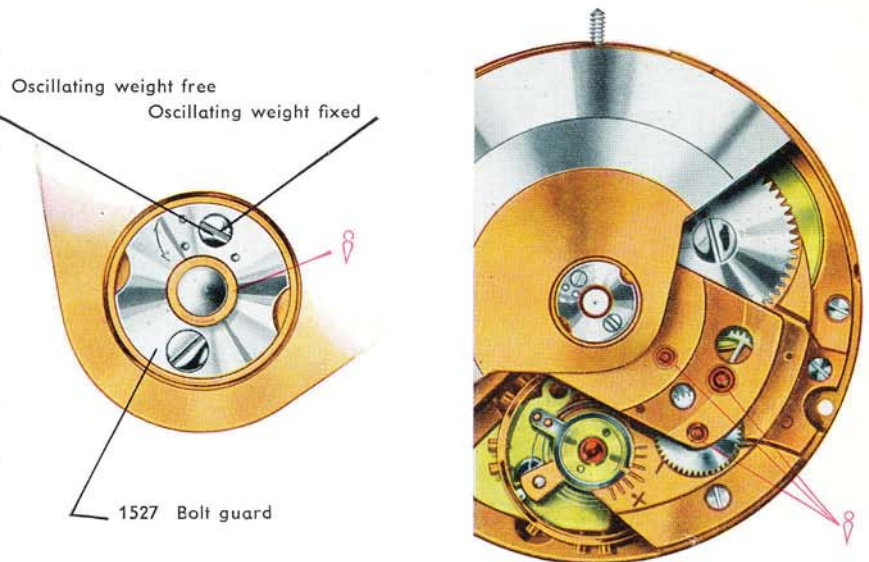
1. Characteristics

AS 1700 This caliber of standard design includes an automatic winding device which is independent of the movement and has an oscillating weight with a heavy-metal rim.

AS 1701 This caliber has the same characteristics as caliber AS 1700, plus an instantaneous date mechanism.

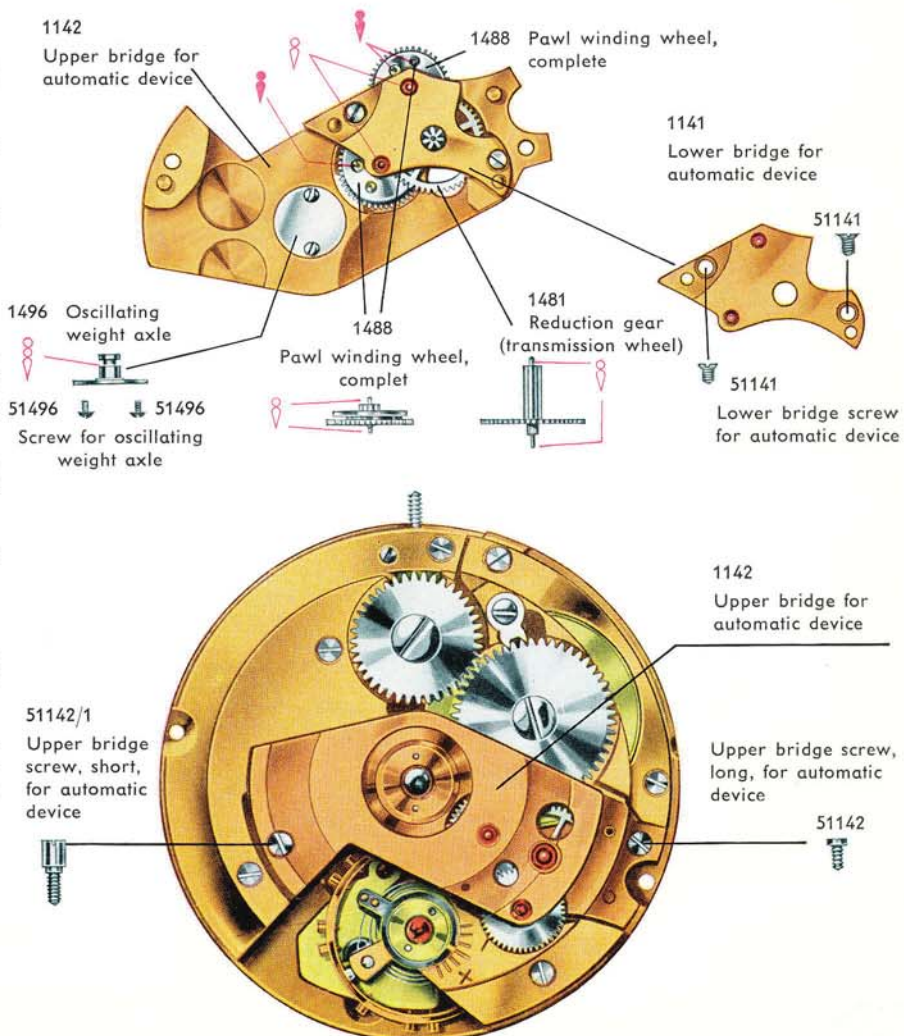
2. Disassembling the automatic device

2. 1. Remove oscillating weight 1143/1 from its axle 1496 by turning its locking bolt 1491 in direction indicated by arrow engraved on the bolt guard 1527 (there is no need to loosen locking screw of bearing wheel plate, under which bolt is located).
2. 2. Loosen both screws 51142 and 51142/1 of upper bridge of automatic device.
2. 3. Remove complete automatic device.
2. 4. Turn complete automatic device upside down on bench and loosen both screws 51141 of its lower bridge.
2. 5. Remove lower bridge 1141 of automatic device.
2. 6. Remove reduction gear 1481 and the two pawl winding wheels 1488 (there is no need to remove oscillating weight axle 1496 if it is in good condition).
2. 7. Let down mainspring if necessary.

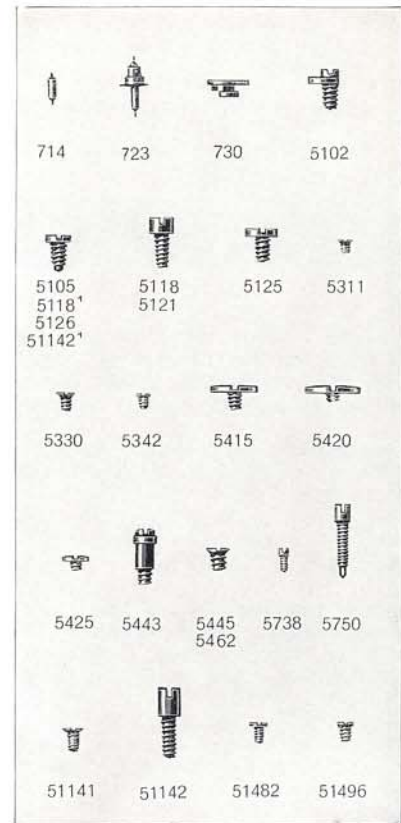
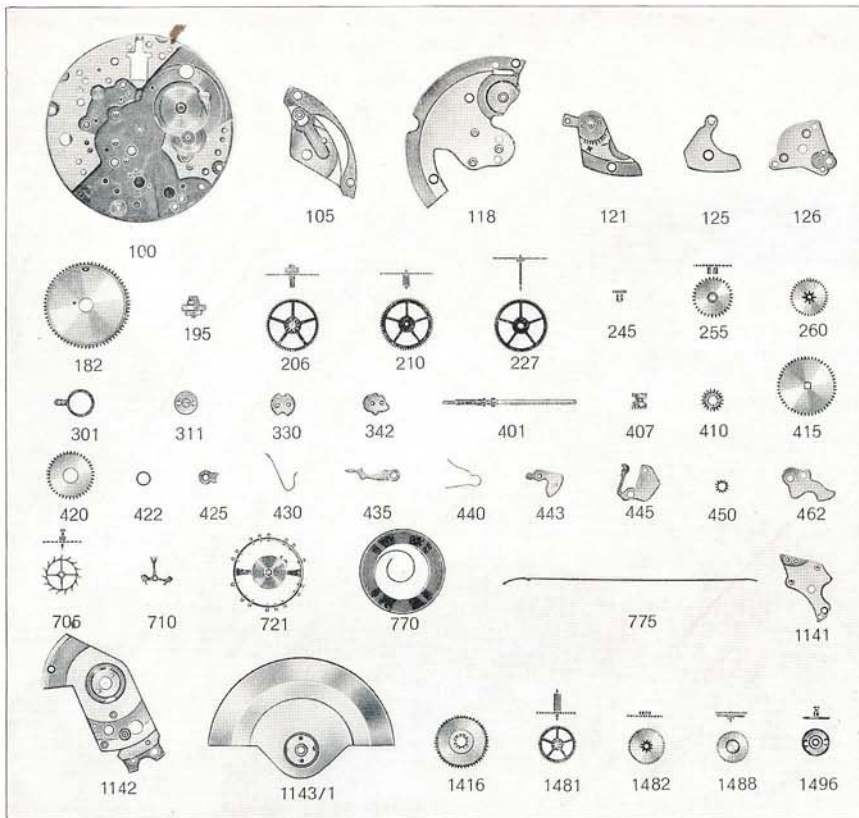


3. Assembling the automatic device

3. 1. Apply fine oil to the pawls, through the two small holes provided in disks of pawl winding wheels.
3. 2. Fit both pawl winding wheels and reduction gear on to upper bridge of automatic device.
3. 3. Fit and screw on lower bridge of automatic device after making sure that pivots of pawl winding wheels are in position in their jewel holes.
3. 4. Check endshake of pawl winding wheels.
3. 5. Oil pivoting points of pawl winding wheels and reduction gear, and apply a drop of oil to lower pivot of reduction gear before fitting automatic winding device in position.
3. 6. Fit complete automatic device on to plate and make sure reduction gear meshes normally with driving gear of ratchet wheel.
3. 7. Screw on automatic device and check endshake of reduction gear.
3. 8. Oil oscillating weight axle.
3. 9. Fit oscillating weight on to its axle, and turn bolt in direction indicated by arrow, into "weight locked" position (see fig.).
3. 10. Check endshake of oscillating weight and make sure it swings freely. Also make sure that winding by means of oscillating weight is proceeding normally.



Parts for basic caliber 1700



No. LIST OF MATERIAL

100	Plate
105	Barrel bridge
118	Combined bridge
121	Balance cock for flat hairspring
125	Pallet cock
126	Center wheel cock
182	Barrel and cover
195	Barrel arbor
206	Center wheel
210	Third wheel
227	Sweep second wheel
245	Cannon pinion
255	Hour wheel
260	Minute wheel
301	Regulator for flat hairspring
311	Upper cap jewel with end-piece, for balance
330	Lower cap jewel with end-piece, for balance
342	Bearing plate, jewelled, for sweep second wheel
401	Winding stem
407	Clutch wheel
410	Winding pinion
415	Ratchet wheel
420	Crown wheel
422	Crown wheel ring
425	Click
430	Click spring
435	Yoke
440	Yoke spring
443	Setting lever
445	Setting lever spring
450	Setting wheel
462	Minute work cock
705	Escape wheel and pinion with straight pivots
710	Jewelled pallet fork and staff
714	Pallet staff
721	Balance with flat hairspring, regulated
723	Balance staff, pivoted

No. LIST OF MATERIAL

730	Roller
770	Mainspring
775	Brake spring
1141	Lower bridge for automatic device
1142	Upper bridge for automatic device
1143/1	Oscillating weight, mounted
1416	Lower ratchet wheel
1481	Reduction gear
1482	Driving gear for ratchet wheel
1488	Pawl winding wheel, complete (with pinion)
1496	Oscillating weight axle
5102	Case screw
5105	Barrel bridge screw
5118	Combined bridge screw, long
5118'	Combined bridge screw, short
5121	Balance cock screw
5125	Pallet cock screw
5126	Center wheel cock screw
5311	Upper end-piece screw, for balance
5330	Lower end-piece screw, for balance
5342	Bearing plate screw, for sweep second wheel
5415	Ratchet wheel screw
5420	Crown wheel screw
5425	Click screw
5443	Setting lever screw
5445	Screw for setting lever spring
5462	Screw for minute work cock
5738	Hairspring stud screw
5750	Dial screw
51141	Lower bridge screw for automatic device
51142	Upper bridge screw, long, for automatic device
51142'	Upper bridge screw, short, for automatic device
51482	Screw for driving gear of ratchet wheel
51496	Screw for oscillating weight axle

4. Disassembling the barrel bridge

- 4.1. Loosen ratchet wheel screw 5415 and remove ratchet wheel 415.
- 4.2. Loosen barrel bridge screws 5105.
- 4.3. Remove barrel bridge 105.

4.4. Take out barrel 180/2.

- 4.5. Loosen screw 51482 of driving gear of ratchet wheel; remove driving gear 1482 and lower ratchet wheel 1416.

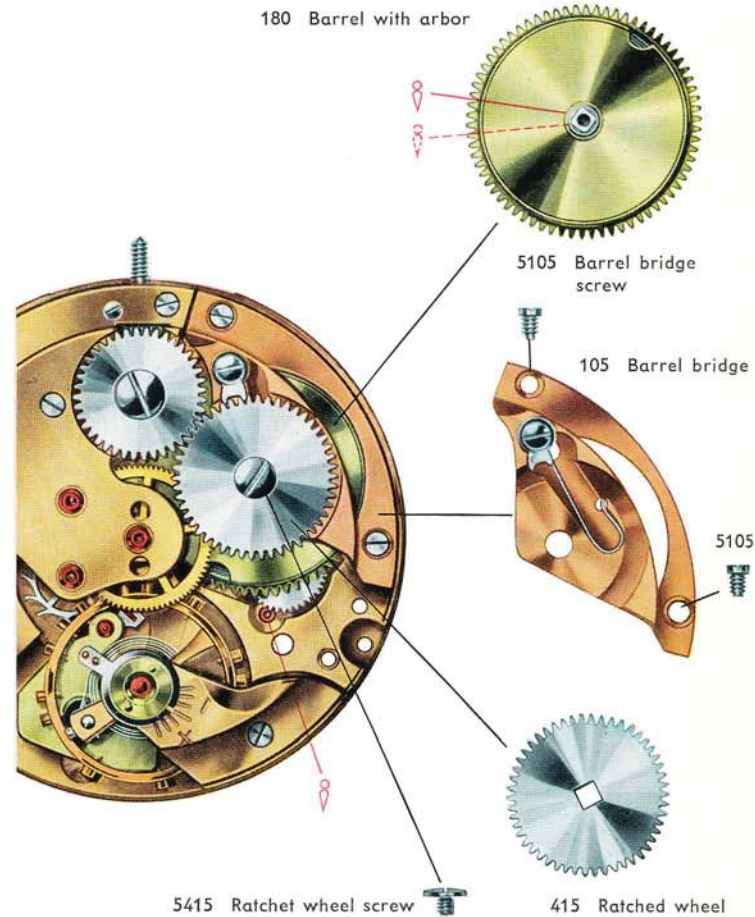
5. Checking the barrel

Important: When the mainspring and its brake spring are functioning normally, it is unnecessary to take them out of the barrel. The brake spring should slip only after 6 turns of wind, which corresponds to a power reserve of about 40 hours.

If damage has occurred to the mainspring or brake spring, they should be replaced by high-grade springs of the following dimensions.

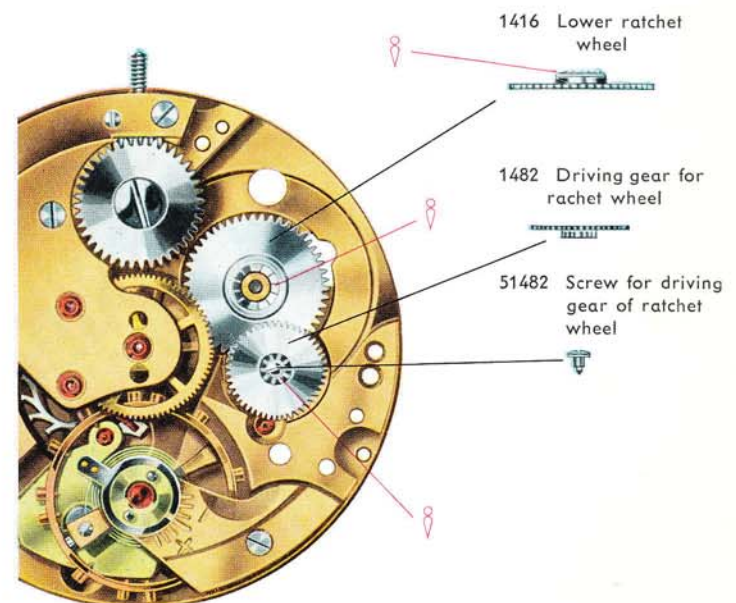
Mainspring	H. 1.18 - 1.20 mm	T. 0.105 mm	L. 335 mm
Brake spring	H. 1.15 mm	T. 0.17 mm	L. 34 mm

Lightly grease inside wall of barrel drum over its entire circumference. Grease mainspring and fit it into barrel by means of a suitable mainspring-winder (if fitted by hand or with any other tool, the spring would be damaged and would lose its propriety). Then oil barrel arbor at its pivoting points and fit it in position, making sure that eye of mainspring is correctly shaped. Fit on lid to close barrel and check endshake of barrel arbor, as well as number of turns of wind as far as slipping limit of brake spring. Slipping should be smooth and even, without jerks or jars.

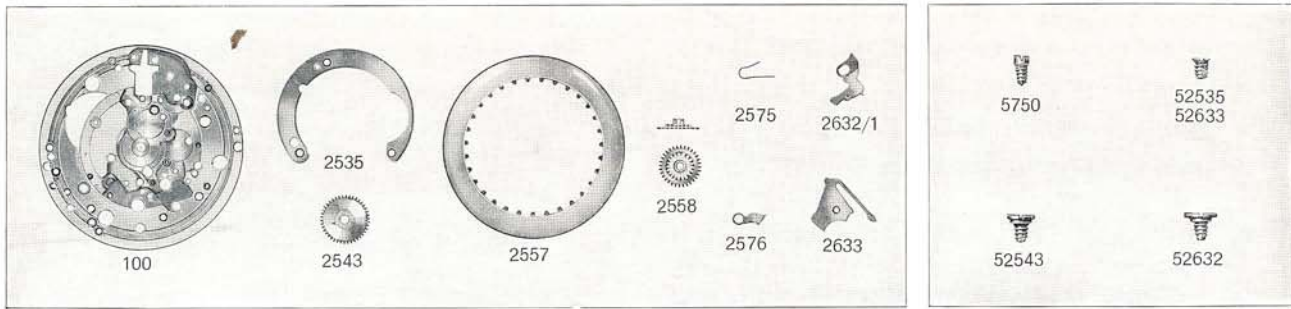


6. Assembling the barrel bridge

- 6.1. Fit lower ratchet wheel on to its post; oil its pivoting point and bead of plate.
- 6.2. Oil Breguet tothing sufficiently, so that oil flows inside pinion to lubricate maintaining spring of Breguet pinion.
- 6.3. Fit driving gear of ratchet wheel on to its post (pinion facing plate), lubricate its pivoting point and tighten its screw.
- 6.4. Check endshake of these two wheels, making sure they turn freely on their posts.
- 6.5. Fit barrel in position.
- 6.6. Fit into place the barrel bridge and screw it tight.
- 6.7. Check endshake of barrel arbor.
- 6.8. Oil pivoting points of barrel arbor in bridge and plate.
- 6.9. Fit ratchet wheel and screw it tight.
- 6.10. Check hand winding function.



Part which are particular to the calendar mechanism



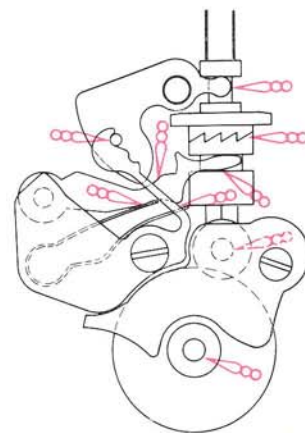
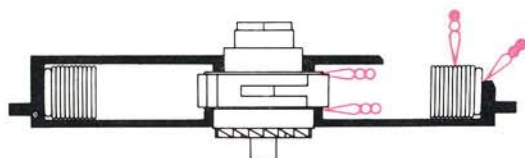
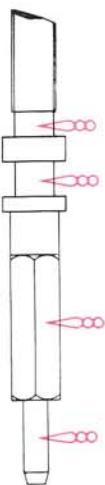
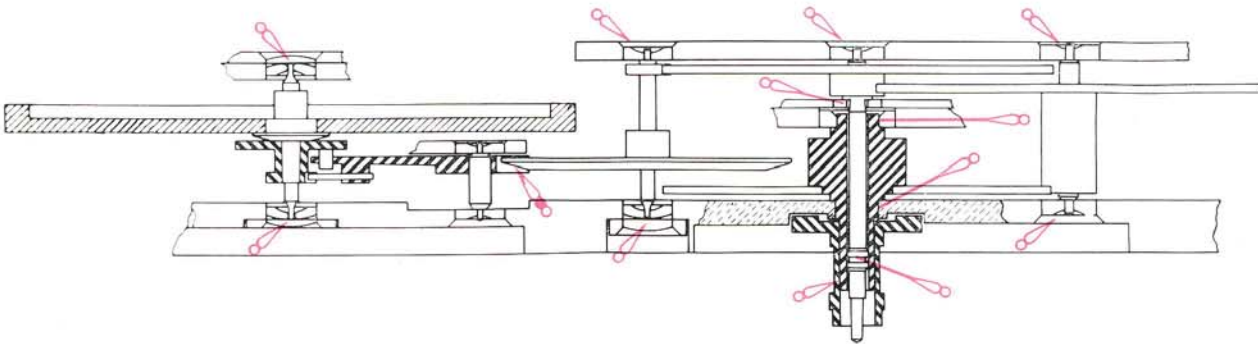
No. LIST OF MATERIAL





100	Plate
2535	Date indicator guard
2543	Intermediate date wheel
2557	Date indicator
2558	Double-toothed hour wheel
2575	Date jumper spring
2576	Date jumper
2632/1	Unlocking yoke for date indicator, mounted






No. LIST OF MATERIAL

2633	Unlocking yoke spring for date indicator
5750	Dial screw
52535	Screw for date indicator guard
52543	Intermediate date wheel screw
52632	Unlocking yoke screw
52633	Unlocking yoke spring screw

10. Lubrication

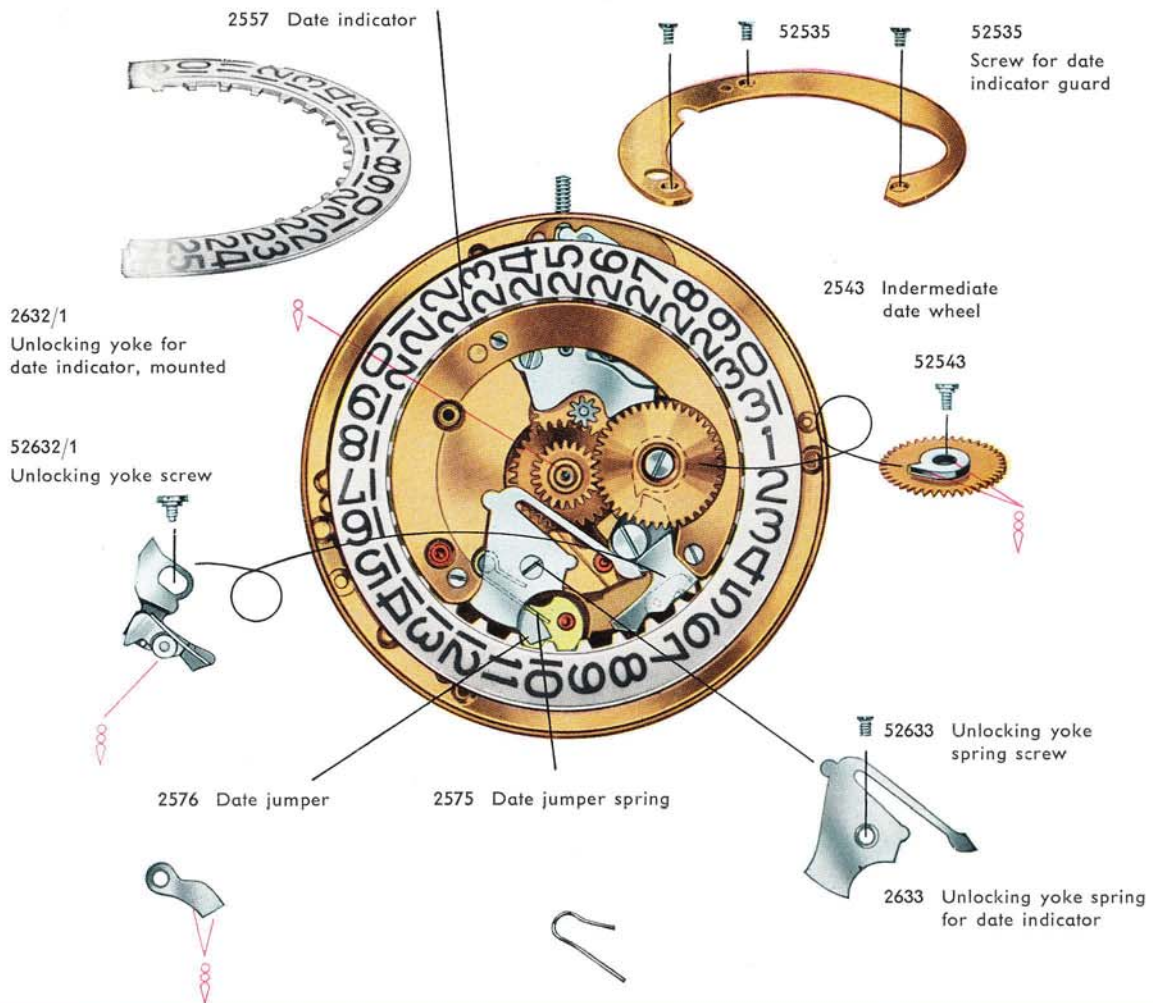


-  Fine oil
-  Thick oil or grease
-  Oiled by us
-  Fine oil underneath the part

-  Thick oil or grease underneath the part
-  Special oil for pallet stone
-  Special oil for mainspring
-  Special grease for brakespring
-  Very fluid oil

7. Disassembling the date mechanism

7. 1. Unscrew and remove date indicator guard 2535.
7. 2. Remove date indicator 2557.
7. 3. Unscrew and remove intermediate date wheel 2543.
7. 4. Unscrew and remove unlocking yoke spring 2633.
7. 5. Remove date jumper spring 2575 and date jumper 2576.
7. 6. Unscrew and remove mounted unlocking yoke 2632/1.
7. 7. Remove double-toothing hour wheel 2558 and cannon pinion 245.



8. Assembling the date mechanism

8. 1. Oil center wheel arbor and fit cannon pinion.
8. 2. Fit double-toothing hour wheel and check for free running.
8. 3. Fit date indicator into its recess.
8. 4. Fit and screw on date indicator guard.
8. 5. With a piece of pegwood, check date indicator disk for free running.
8. 6. Fit and screw on unlocking yoke, taking care to oil pivoting point of unlocking beak, then check for free action.
8. 7. Fit and screw on intermediate date wheel, check its endshake, and oil its pivoting point and the end of the beak working with unlocking yoke.
8. 8. Fit date jumper and its spring, taking care to oil working faces of date jumper and its part which works with date jumper spring.
8. 9. Fit and screw on unlocking yoke spring; grease it where it works with unlocking yoke.
8. 10. Check mechanism for proper functioning.

9. Checking the movement after casing up

9. 1. After casing up the movement, make sure the oscillating weight is functioning normally and does not touch the back of the case.
9. 2. Turn winding crown and check date indicator for normal jumping.