

SEIKO

Calibre No.		Jewels	Style Name
5606A		23j 25j	



Cal. 5606A



Characteristics

Casing diameter : 25.60 ϕ mm
Maximum height : 4.25 mm
Vibrations per hour : 21,600
Automatic and auxiliary hand winding with sweep second
Calendar (day & date)
Instant setting device for day & date calendar
Bilingual change-over system for day of week
Second-setting device
Micro-adjustor
"Diashock" Shock Resistant Device
"Diafix" Oil Lubrication Device



112560



161560



171560



205560



213560



401560



220560



225560



231560



241560



251560



301560



310560



315560



331560



341560



345612



261560



271611



282560



283560



285560



361560



367560



381560

☆383560
☆383561
☆383562



384560



385560



387560



388560



391560



014363



014384



014365



011210



014317



015421



015411



011206



015113



354560



189560



505560



531560



848560



851560



851561



854560



802560



803560



808560



810560



812560



817610



868560



873560



963610



981560



986560



987560



989560



509560



509561



☆801560



☆870569



022150



022252



022257



022373



022454



022458



022467



022482



022484



022486



022662



022667



022673



022674



022753



022761



390560



2/1



☆884560

☆ ⇨ Please see remarks on the next page.

Catalog No.

56-06-1

Calibre No.		Jewels	Style Name
5606A		23j 25j	
PART NO.	LIST OF MATERIALS	PART NO.	LIST OF MATERIALS
112560	Barrel & train-wheel bridge	810560	Date jumper
161560	Pallet cock	812560	Setting wheel lever spring
171560	Balance cock	817610	Intermediate date wheel
189560	Transmission wheel bridge	868560	Day finger
205560	Complete barrel with arbor	☆ 870569	Day star with dial disk
213560	Barrel arbor	873560	Day jumper
220560	Large driving wheel & pinions	☆ 884560	Holding ring for dial
225560	Cannon pinion	963610	Snap for day star with dial disk
231560	Third wheel & pinion	981560	Day-date corrector wheel rocker
241560	Sweep second wheel & pinion	986560	Day-date corrector wheel rocking lever
251560	Escape wheel & pinion	987560	Day-date corrector wheel rocking lever spring
261560	Minute wheel	989560	Intermediate wheel for day correction
271611	Hour wheel	022150	Stud screw
282560	Clutch wheel	022252	Transmission wheel bridge screw
283560	Winding pinion	022257	Screw for day-date corrector wheel rocking lever spring
285560	Ratchet wheel	022373	Pallet cock screw
301560	Jewelled pallet fork & staff	022454	Screw for reverser idler bolt
310560	Balance complete with stud	022458	Screw for oscillating weight
315560	Balance staff	022467	Ratchet wheel screw
331560	Roller with jewel	022482	Screw for intermediate wheel of day correction
341560	Regulator	022484	Bridge screw
345612	Stud holder	022486	Minute wheel bridge screw
354560	Winding stem	022662	Setting lever spring screw
361560	Second-setting lever spring	022667	Second-setting lever screw
367560	Minute wheel spring	022673	Screw for day & date driving wheel
381560	Click	022674	Screw for day-date corrector wheel rocking lever
☆ 383560	Setting lever	022753	Date dial guard screw
☆ 383561		022753	Day jumper screw
☆ 383562		022761	Dial screw
384560	Yoke (Clutch lever)	011147	Upper hole jewel for large driving wheel & pinions
385560	Yoke spring (Clutch lever spring)	011147	Lower hole jewel for large driving wheel & pinions
387560	Minute wheel bridge	011323	Lower hole jewel for 3rd wheel
388560	Setting lever spring	011423	Lower hole jewel for escape wheel
390560	Setting lever axle	011503	Upper hole jewel for pallet
391560	Second-setting lever	011503	Lower hole jewel for pallet
401560	Mainspring with slipping attachment	011147	Lower hole jewel for 1st reverser idler
014363	Diashock upper frame	011151	Upper hole jewel for differential wheel
014384	Diashock lower frame	011133	Lower hole jewel for differential wheel
014365	Diashock hole jewel with frame	011159	Upper hole jewel for transmission wheel
011210	Diashock cap jewel	011159	Lower hole jewel for transmission wheel
014317	Diashock spring	023179	Tube for minute wheel bridge screw
015421	Diafix upper hole jewel with frame for 3rd wheel	023180	Tube for bridge screw (Cylinder type)
015411	Diafix upper hole jewel with frame for escape wheel	023184	Tube for bridge screw (Recessed type)
011206	Diafix cap jewel		
015113	Diafix spring		
509560	Oscillating weight with ball-bearing (for 23j)		
509561	Oscillating weight with ball-bearing (for 25j)		
505560	Transmission wheel		
531560	Differential wheel		
848560	First reverser idler		
851560	Second reverser idler (for 23j)		
851561	Second reverser idler with jewel (for 25j)		
854560	Reverser idler bolt		
☆ 801560	Date dial		
802560	Date driving wheel		
803560	Setting wheel lever complete		
808560	Date dial guard		

☆⇒ Please see remarks on the next page.
Items in light letters are not shown in photos.

Calibre No.

5606A

Jewels

**23 j
25 j**

Style Name

Remarks :**Setting lever**

There are three types of setting levers, used according to the dial diameter. Select the suitable setting lever by referring to the shapes indicated in the photos and fig. 1.

When a setting lever unsuitable for the dial diameter is used, the winding stem cannot be pulled out or the movement cannot be assembled in the case. Pay attention to this point (refer to fig. 2).

When the dial is round, the number of the setting lever differs (listed below) according to the dial diameter.

(Dial diameter) 25.5~26.5 ϕ mm ☆383561
 (") 27.5~28.5 ϕ mm ☆383560
 (") 29.5~30.5 ϕ mm ☆383562

If the number of the setting lever is unknown or when placing an order for a setting lever other those mentioned above, specify ① Cal. No. and ② the dial No.

[fig. 1]



☆383560



☆383561



☆383562

[fig. 2]

When the setting lever is too small

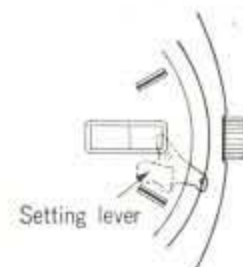
X



Setting lever is hidden under the dial and the winding stem cannot be pulled out.

When the setting lever is too large

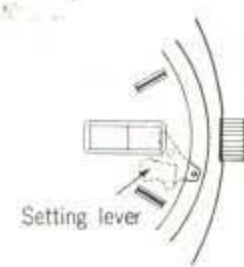
X



Blocked by the setting lever, the movement cannot be assembled in the case.

Correct

O



End of the setting lever is located between the dial and the case.

Date dial

☆801560 Used when both the crown and the date frame are located at **3 o'clock**.

If the date dial is required in any other type, specify ① Cal. No. ② the crown position ③ the date frame position and ④ the dial No.

Day star with dial disk

☆870569 (English ↔ Spanish) Used when both the crown and the day frame are located at **3 o'clock**

There are day star with dial disks which can be changed over between English and Portuguese, English and Chinese, and so on -- other than the aforementioned 870569 (English ↔ Spanish).

When ordering any of the above-mentioned day star with dial disks (870569), clearly mention the number printed on the disk. If the number is unknown, please specify ① Cal. No. ② the crown position ③ the day frame position ④ the dial No. and ⑤ the national language.

Holding ring for dial ——— Measure the total thickness and the outside diameter ———

☆884560 0.53 mm total thickness and 27.0 ϕ mm outside diameter.

If the holding ring for dial is required in any other type, specify ① Cal. No. and ② the dial No.

1) Specifications

Casing diameter	25.60 mm
Height	4.25 mm
Vibrations per hour	21,600
Automatic winding (with auxiliary hand winding device)	
Calendar (day & date, bilingual change-over mechanism for day indication, instant day & date setting device)	
Second-setting device	

2) Features

Sufficiently maintaining energy of the balance wheel assures excellent accuracy. 5606A maintains high-grade characteristics in all phases.

3) Disassembly and Assembly

Disassemble the watch according to the procedures shown in figures(1)to(71). Assemble the watch according to the procedures shown in figures(71)to(1).

4) Lubrication

Colored symbols printed in the figures show types of oil and lubrication points.

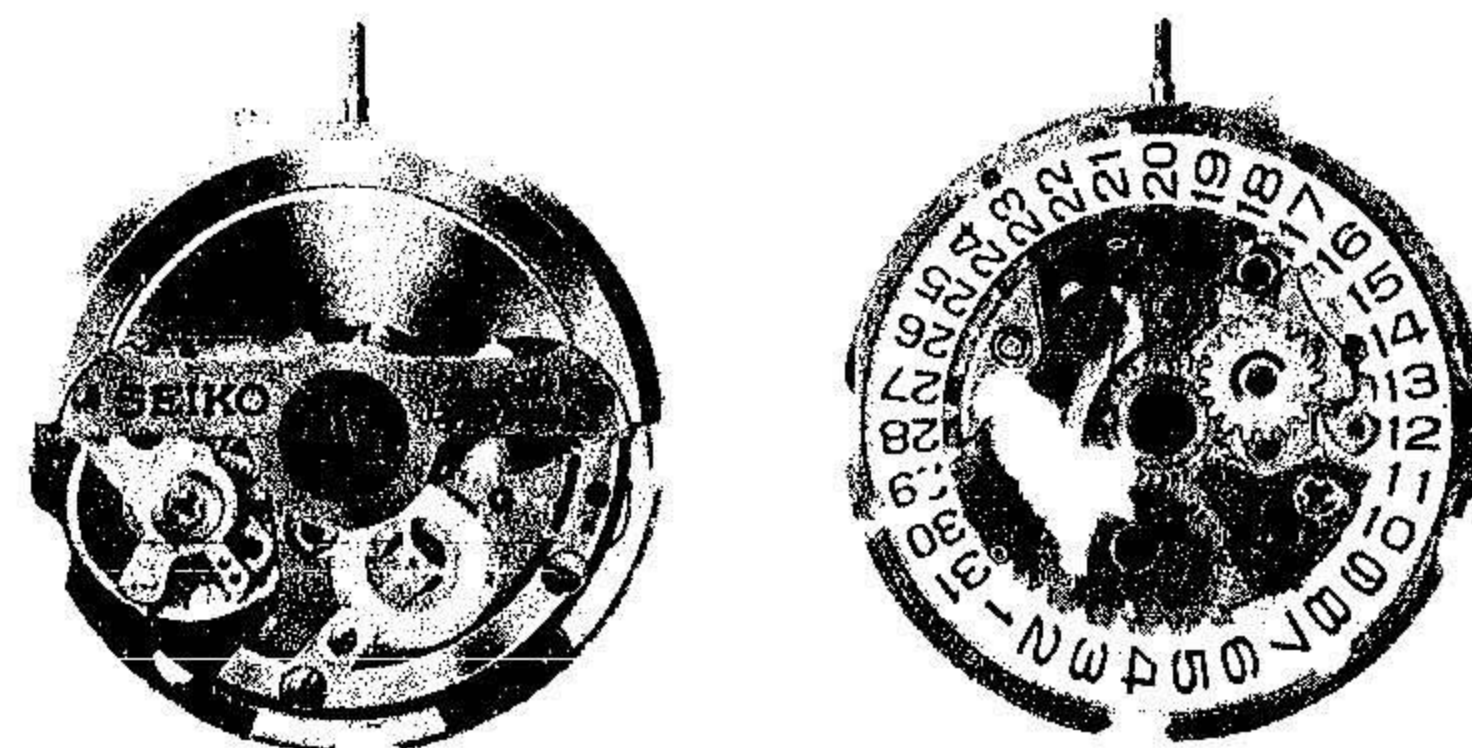
- Moebius Synt-A-Lube
- Seiko watch oil S-4

Points where oil other than the above is used are separately indicated, and should be lubricated correctly according to instructions.

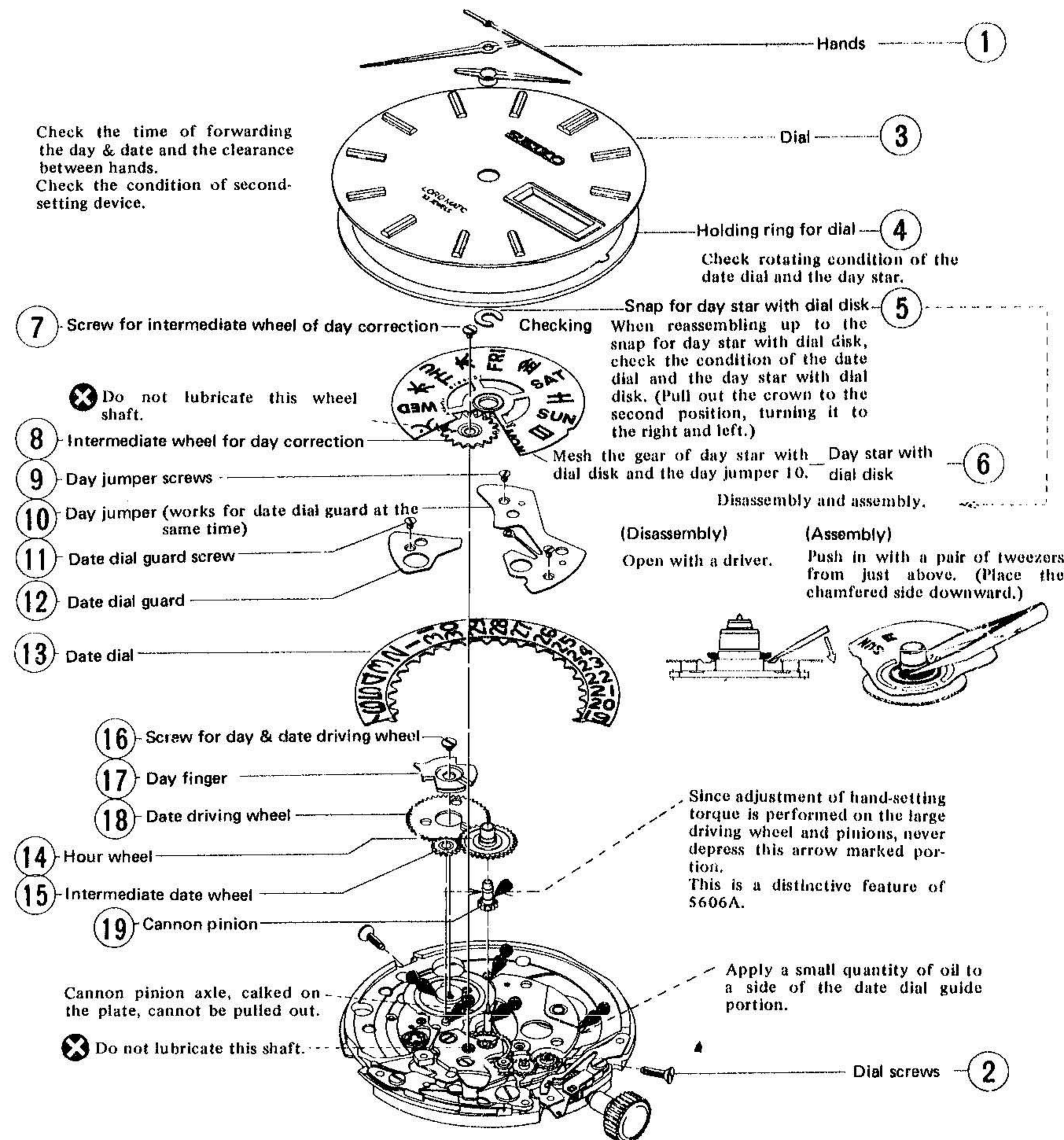
NOTE) Portions with no indications do not require lubrication.

Oil quantity

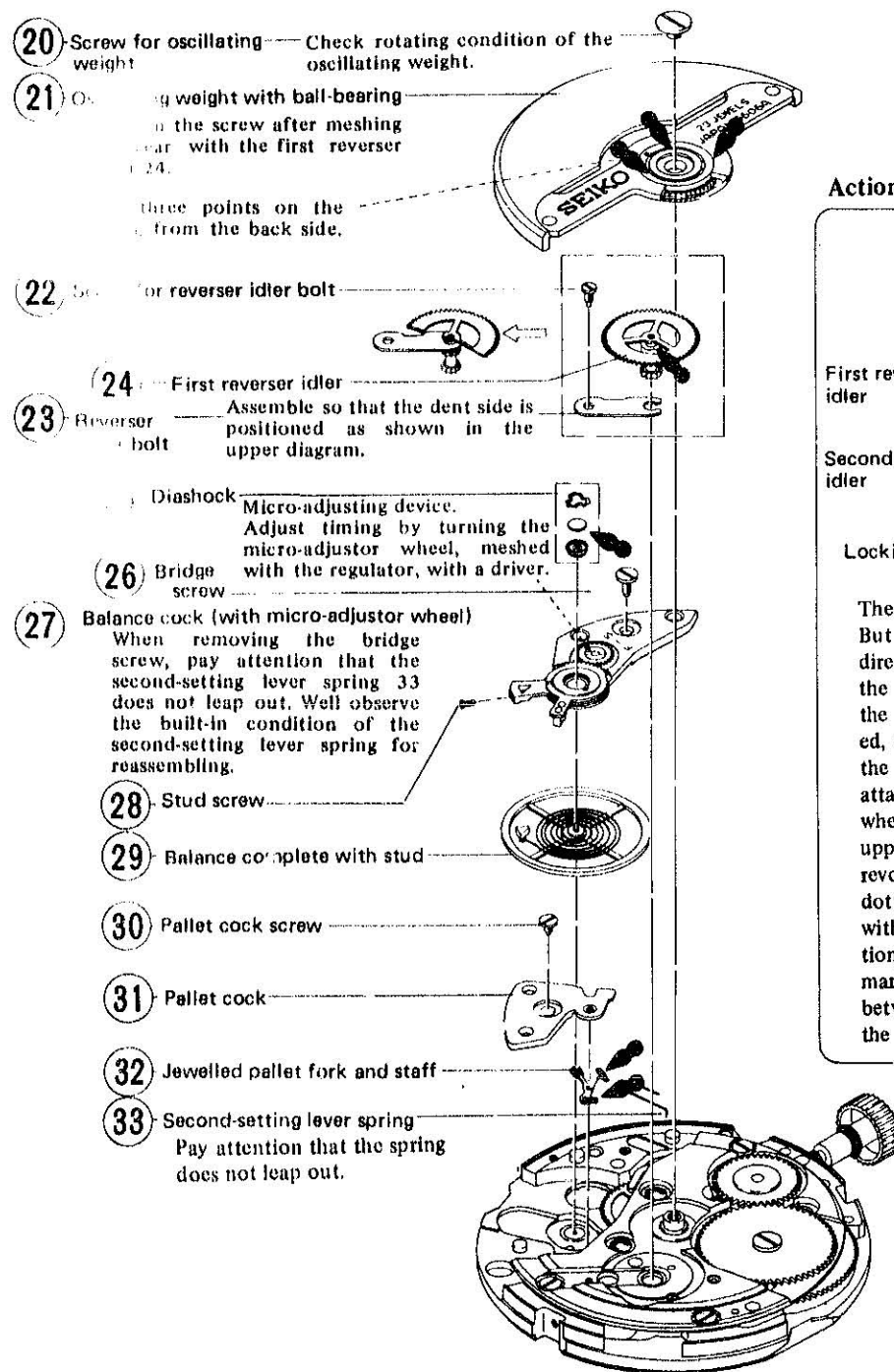
- Extremely small quantity
- ◄ Normal quantity
- ◄◄ Sufficient quantity
- ⊗ Oil must not be applied



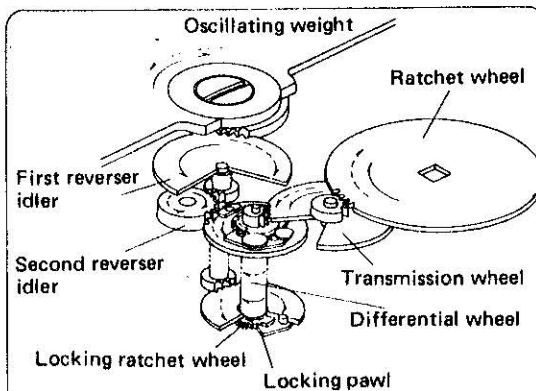
Enlarged movement



5606A Automatic winding mechanism

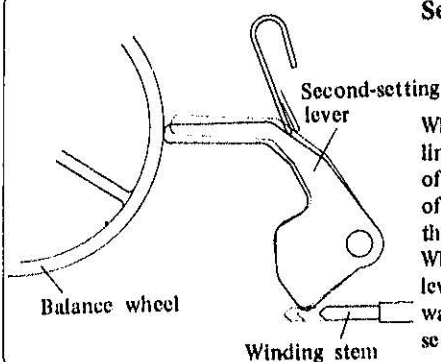


Action of automatic winding mechanism



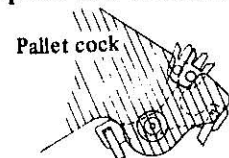
The oscillating weight rotates in either direction. But the ratchet wheel revolves in a constant direction by action of the differential wheel, and the mainspring is always wound. The gear and the pinion of the differential wheel are separated, and only when the locking pawl attached to the gear meshes with the locking ratchet wheel attached to the pinion does the differential wheel rotate with the pinion as one body. The upper gear rotates with the pinion only when revolution is in the direction shown by the dotted arrow mark, and the lower gear rotates with the pinion only — as one body — when revolution is in the direction shown by the solid arrow mark. The transmission wheel is positioned between the barrel and train-wheel bridge and the transmission wheel bridge.

Second-setting



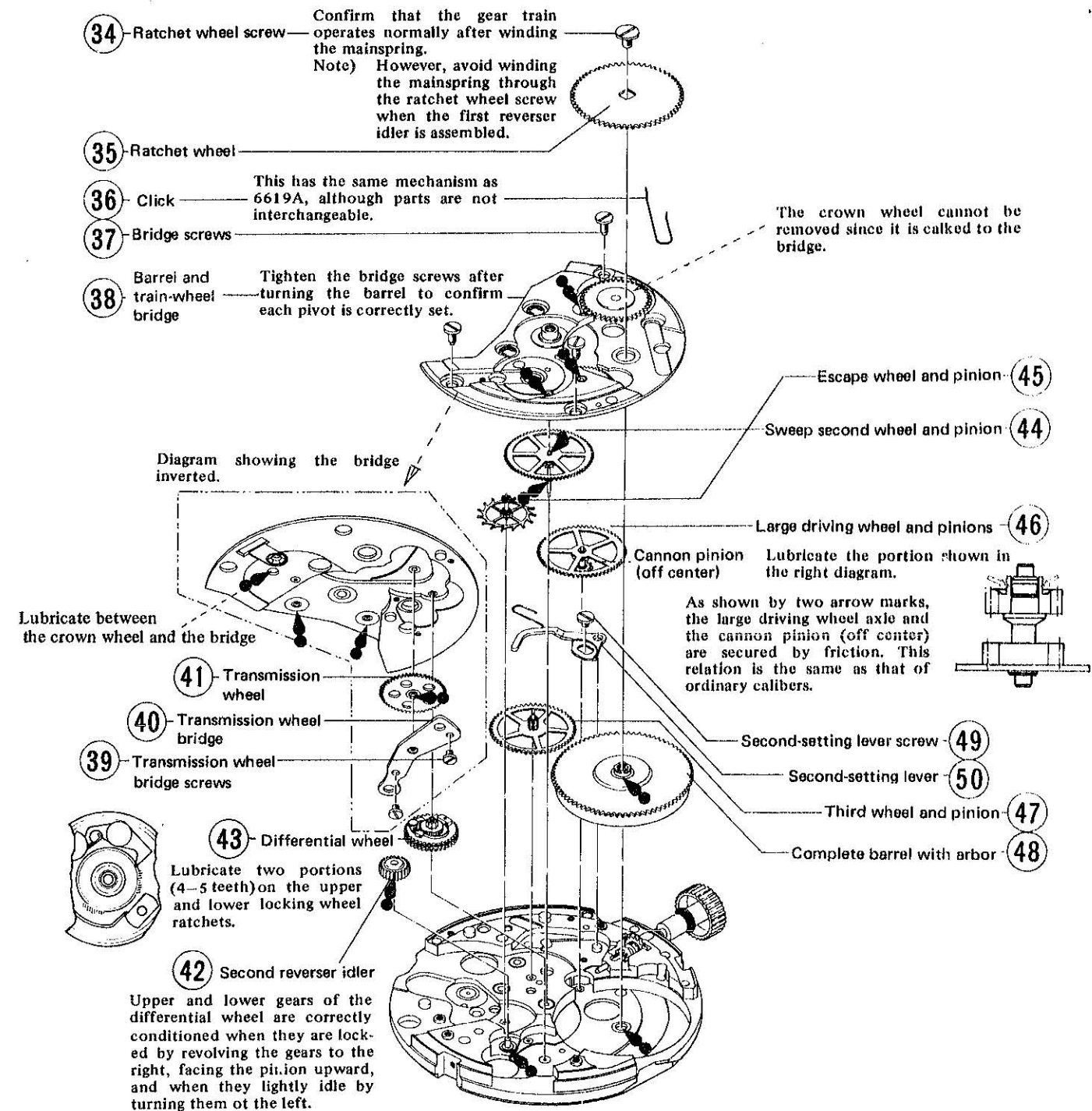
When forming a hand-setting condition by pulling out the crown to the third position, the tail of the second-setting lever departs from the tip of the winding stem and the head portion holds the balance wheel, bringing the watch to a stop. When the crown is pushed in, the second-setting lever is separated from the balance wheel and the watch starts to move. Consequently, the watch is set correctly to the second.

Jewelled pallet fork and staff



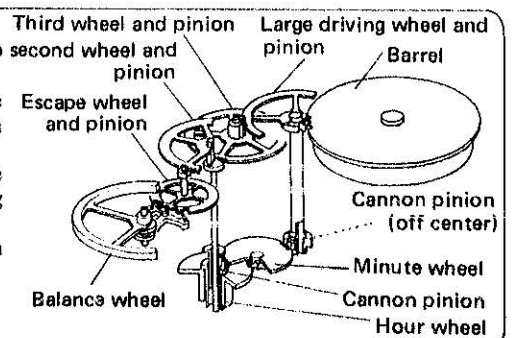
A pin which stands on the fork-shaped portion strikes a notched portion of the pallet cock, regulating the action; consequently, no banking pin is used.

5606A Train wheel

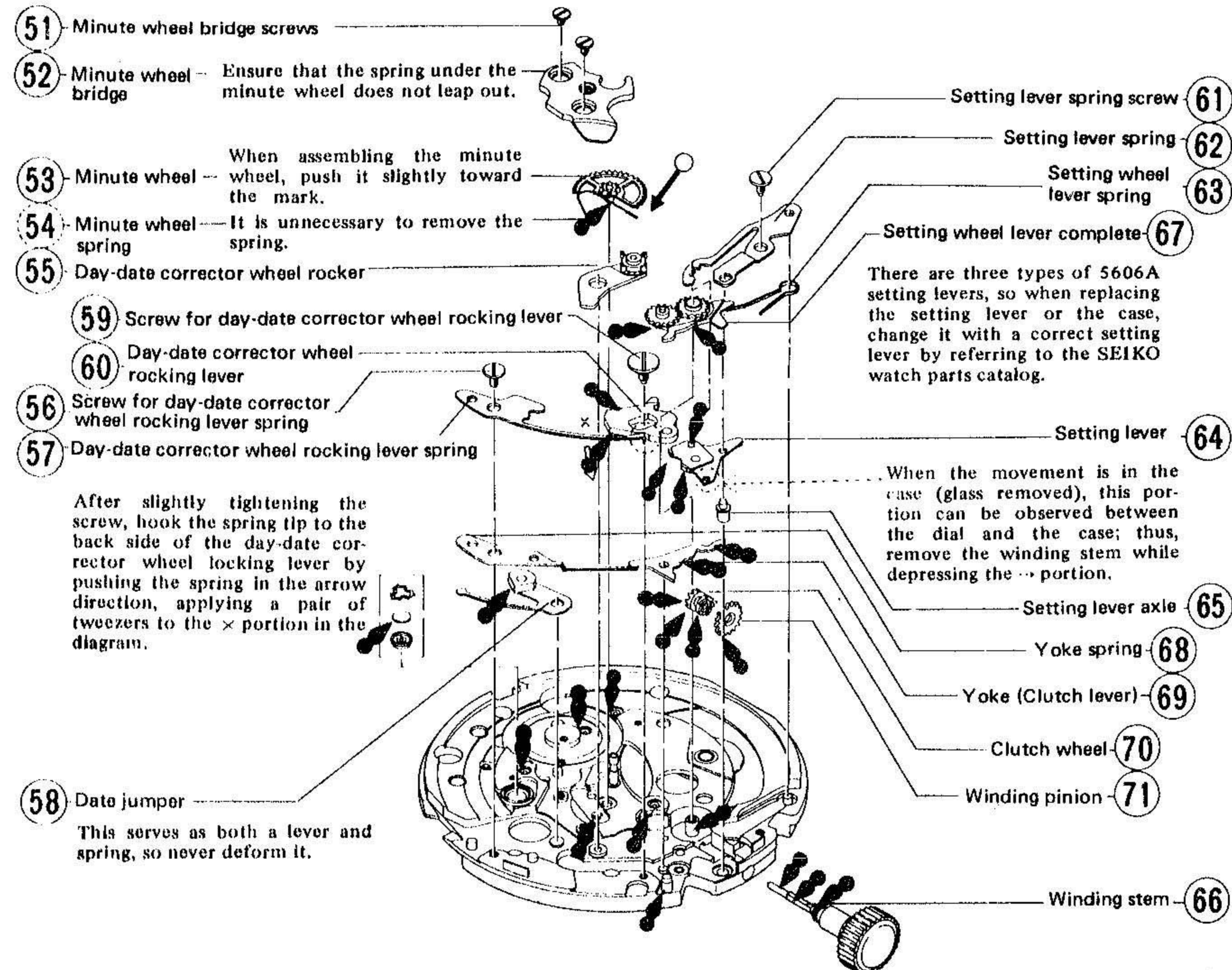


Train wheel (process of power transmission)

The large driving wheel and pinion is located off position from the center and is contacted by the minute wheel with the cannon pinion (off center) fitted to the large driving wheel and pinion. Ordinarily, the cannon pinion (off center) rotates with the large driving wheel and pinion; however, it runs idly during hand setting operation by using the crown. A cannon pinion shaft which receives the cannon pinion stands in the center of the plate.

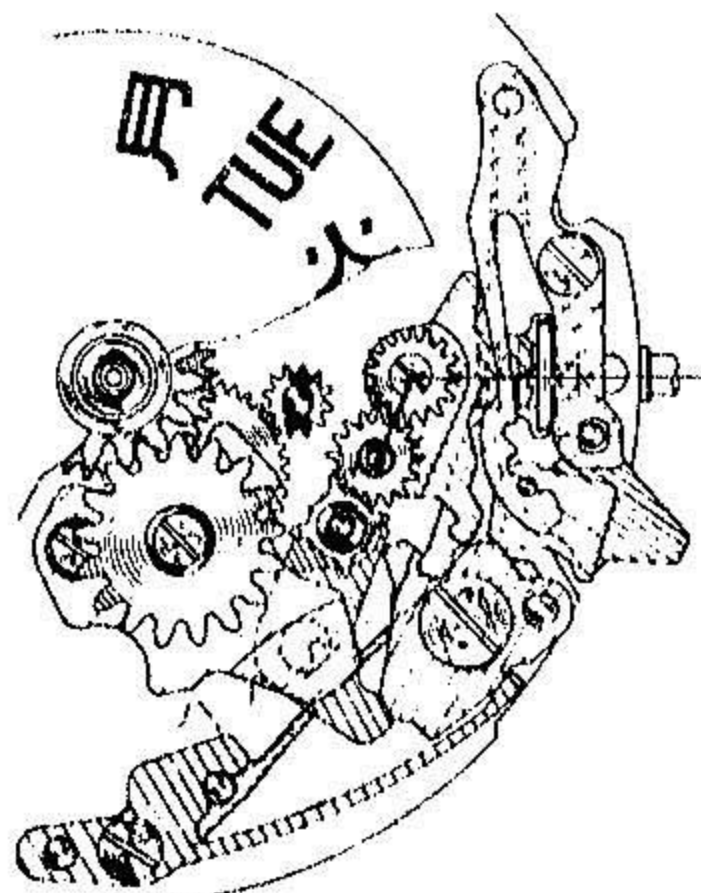


5606A Setting mechanism



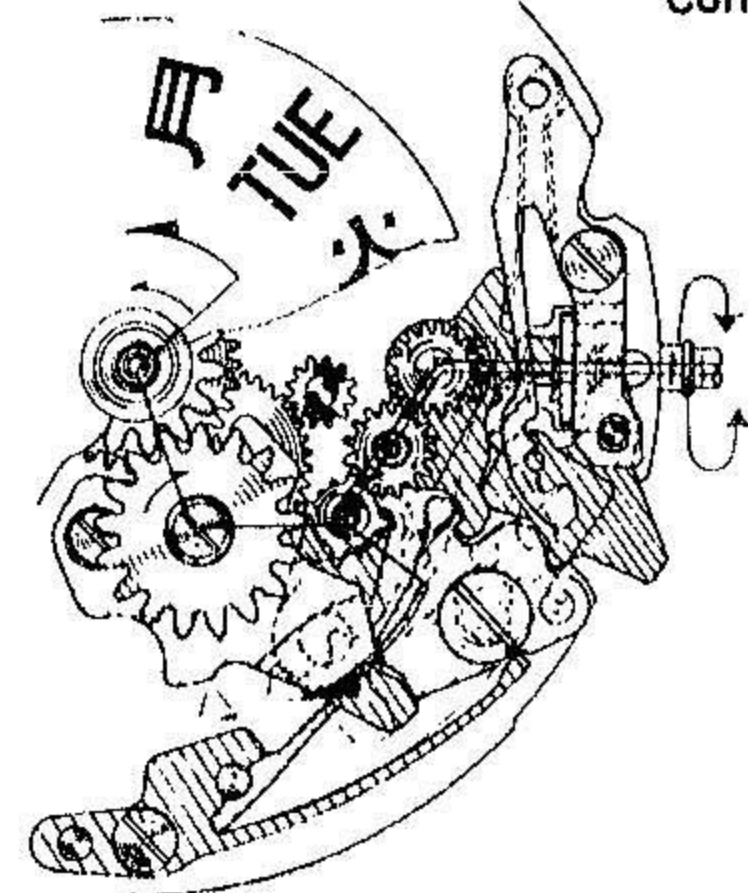
Ordinary position of crown (Mainspring winding)

The winding pinion and the clutch wheel are meshed and the mainspring is wound when the crown is turned in this position.



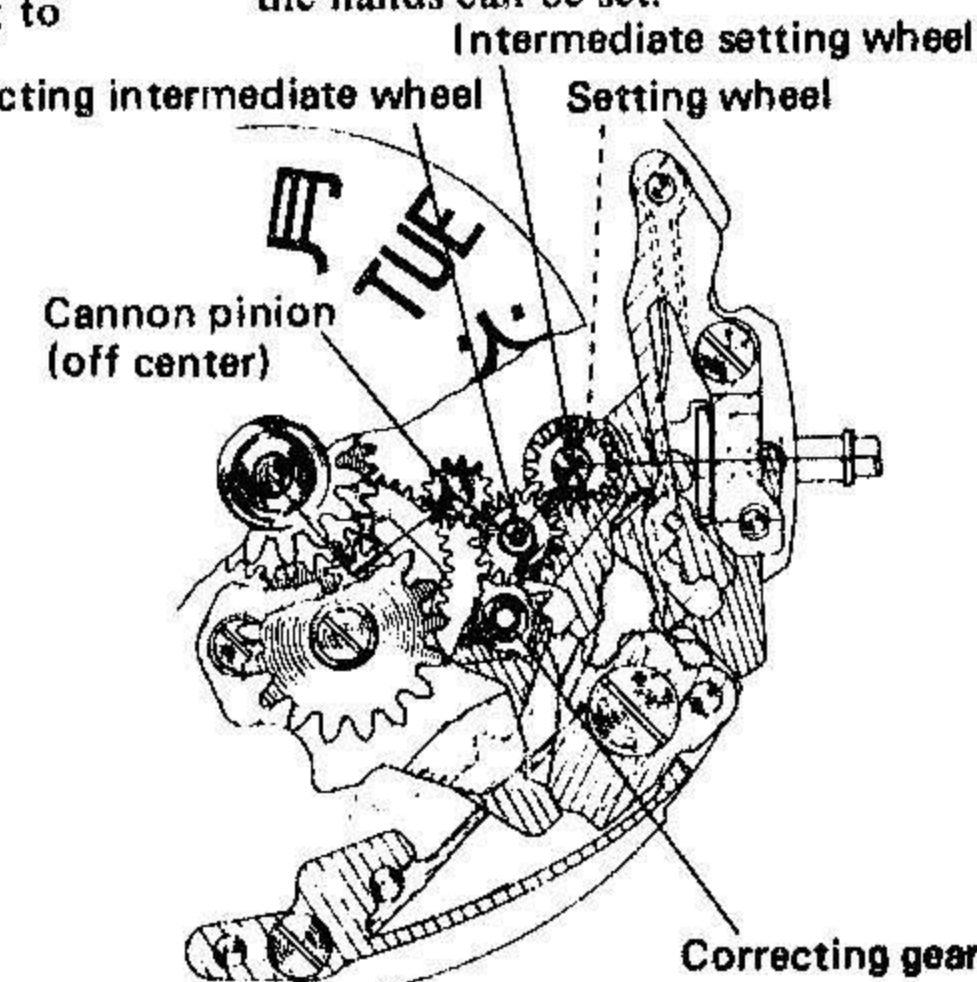
Second position of crown (Setting the day and date)

The clutch wheel and the setting wheel (located under the intermediate setting wheel and rotated with the intermediate setting wheel) are meshed. When the crown is turned to the right in this position, the day star with dial disk is shifted. And when turned to the left, the date dial is shifted. (The date correcting gear meshes with the date dial or the intermediate wheel for day correction according to the direction the crown is turned).

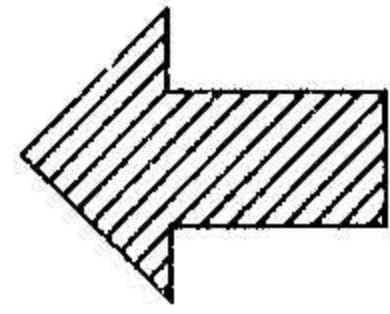


Third position of crown (Setting time)

When the setting wheel lever complete is pushed by the setting lever, the correcting intermediate wheel and the cannon pinion are meshed. When the crown is turned in this position, the hands can be set.



5606A CHECKING ON WATCH STOPPING, AND REPAIRING AND ADJUSTING



Regarding repairing and adjusting of Cal. 5606A, we already mentioned them in the SEIKO TECHNICAL GUIDE. However, on these pages, items to be checked on watch stopping, and repairing and adjusting for each item, are compactly arranged to facilitate further comprehension.

1. Items to be confirmed before beginning repair work

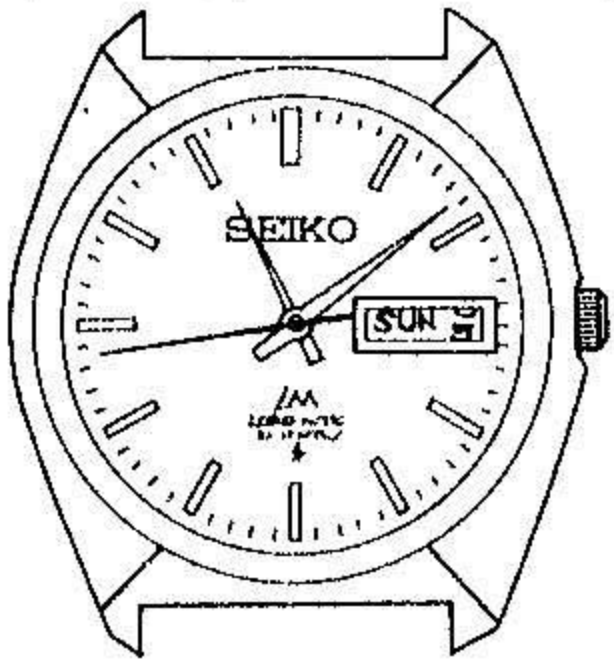
* Checking the number of remaining windings of the mainspring.

2. When only the second hand is in motion, and the hour and minute hands stop, during calender shifting.

3. When the watch (balance) stops completely.

5606A CHECKING ON WATCH STOPPING,
AND REPAIRING AND ADJUSTING

(Example of stopped calendar shifting)



1 Confirm the Following Items Before
Beginning Repair Work.

- A. Check *the number of remaining windings of the mainspring of the watch, in which calendar shifting stops in a condition as shown in the above diagram.
- B. In this case, when the number of remaining windings of the mainspring is.....
Under 1 winding..... Adopt Procedure 2
More than 1 winding..... Adopt Procedure 3

Confirm the following points for the actually moving watch which is claimed to have stopped during the night.

- A. Wind the ratchet wheel 1.5 revolutions after complete release of the mainspring.
- B. Set the hands to 10:30 (p.m.), then leave the watch as it is.
- C. As shown in the above diagram, if the watch comes to a halt during calendar shifting, confirm the following items, then adopt Procedure 2 or 3.

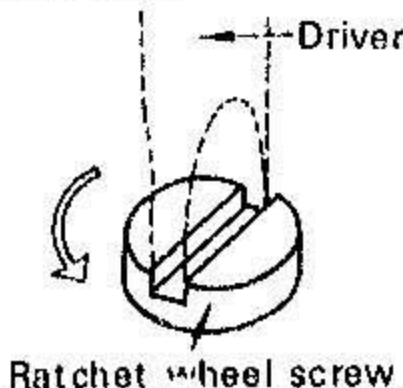
When the hour and minute hands stop and only the second hand is moving..... Adopt Procedure 2
When the balance stops.... Adopt Procedure 3

*Checking the number of remain-
ing windings of the mainspring

1. Pull out the crown to the first or second click.
2. Remove the automatic winding section (oscillating weight section).
3. Firmly hold the ratchet wheel screw with a driver and release the click by using a pair of tweezers.
4. In this condition, gradually turn the ratchet wheel screw counterclockwise until the main-spring force is exhausted (releasing the main-spring).
5. This revolving number of the ratchet wheel screw corresponds with the number of remaining windings of the mainspring.

(Note)

It is convenient to count the number of remaining windings of the main-spring by confirming the direction of the groove of the ratchet wheel screw.



Ratchet wheel screw

(When the number of remaining windings of the mainspring is under 1 winding.)

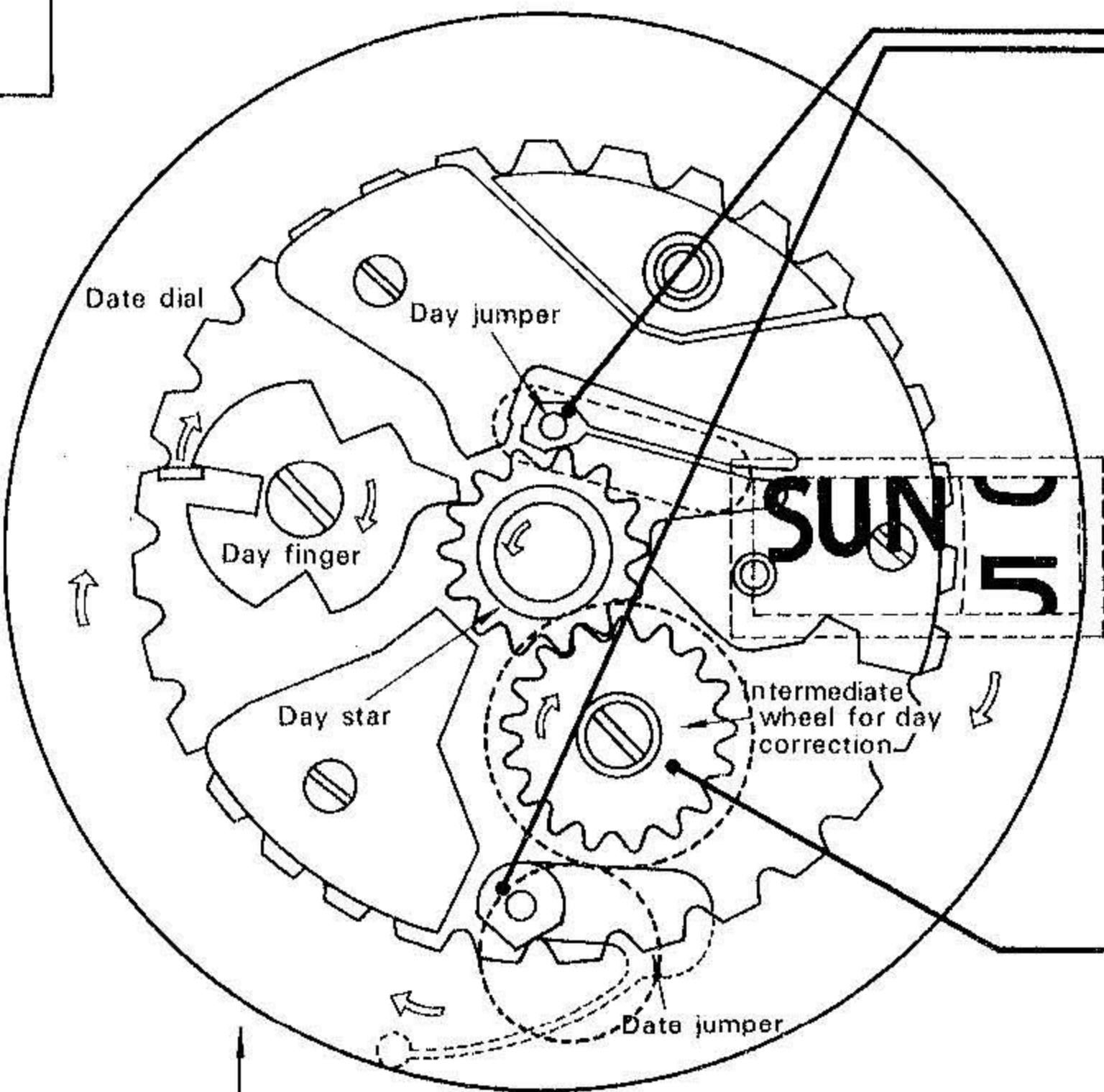
2 When only the Second Hand is in Motion
and the Hour Hand and Minute Hand stop
During Calendar Shifting.

In this case, inspect the watch according to CHECKING PROCEDURES 4, 5, and 8.

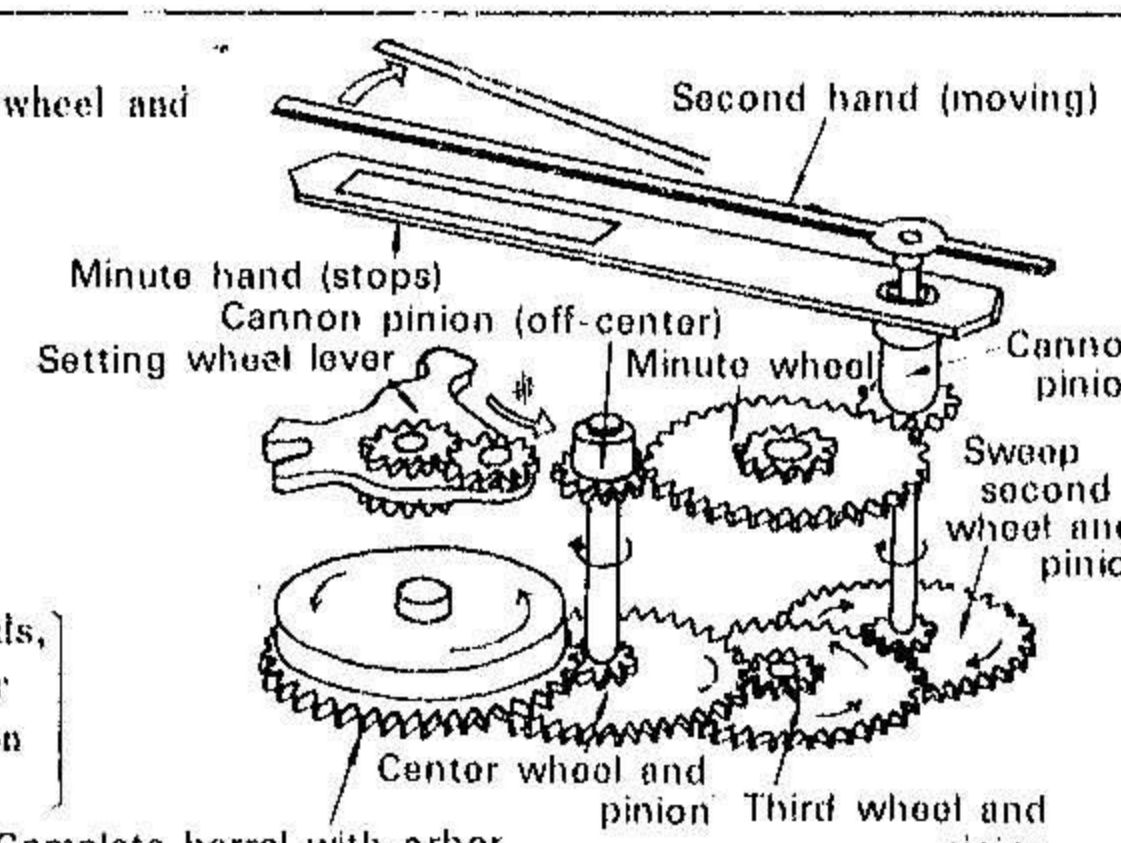
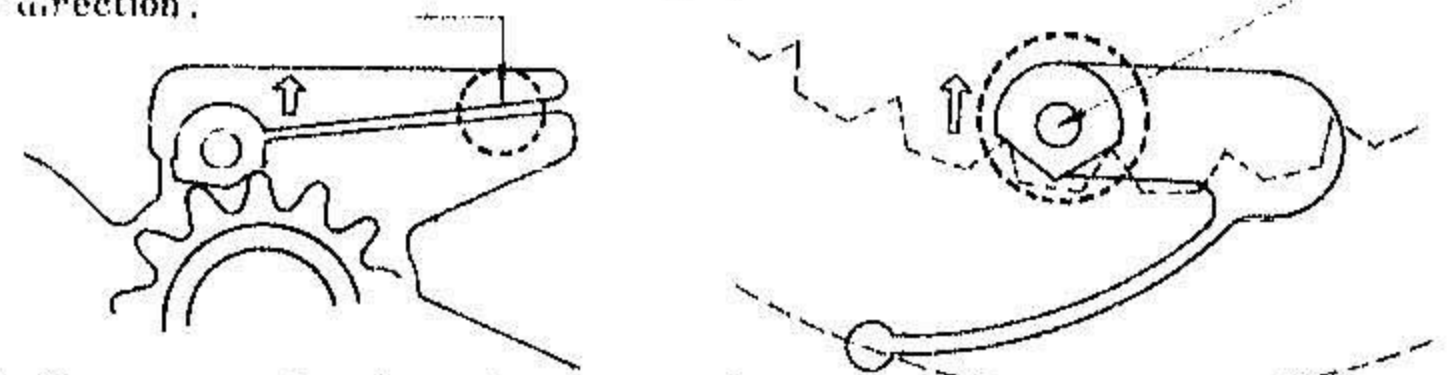
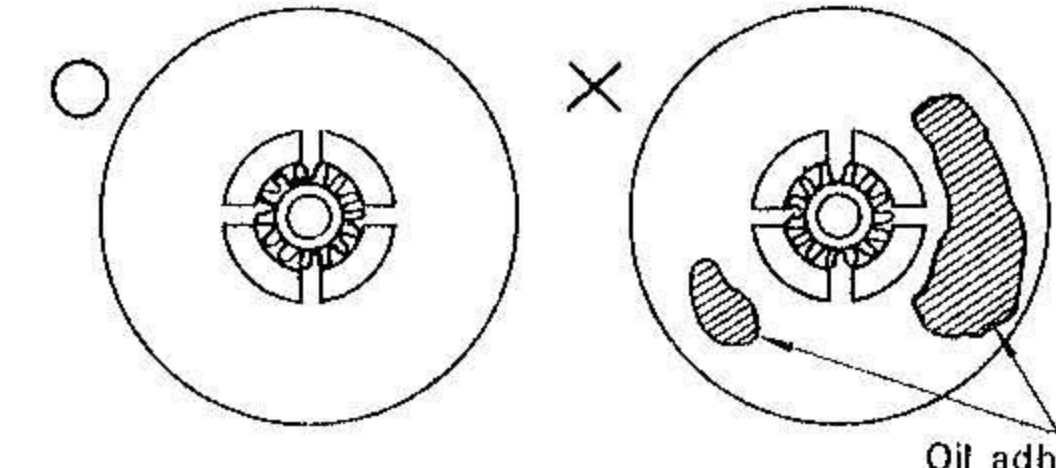
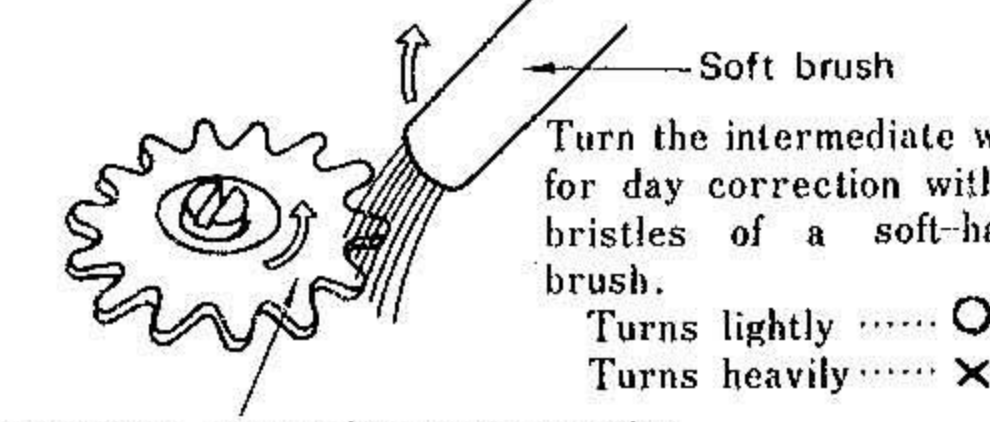
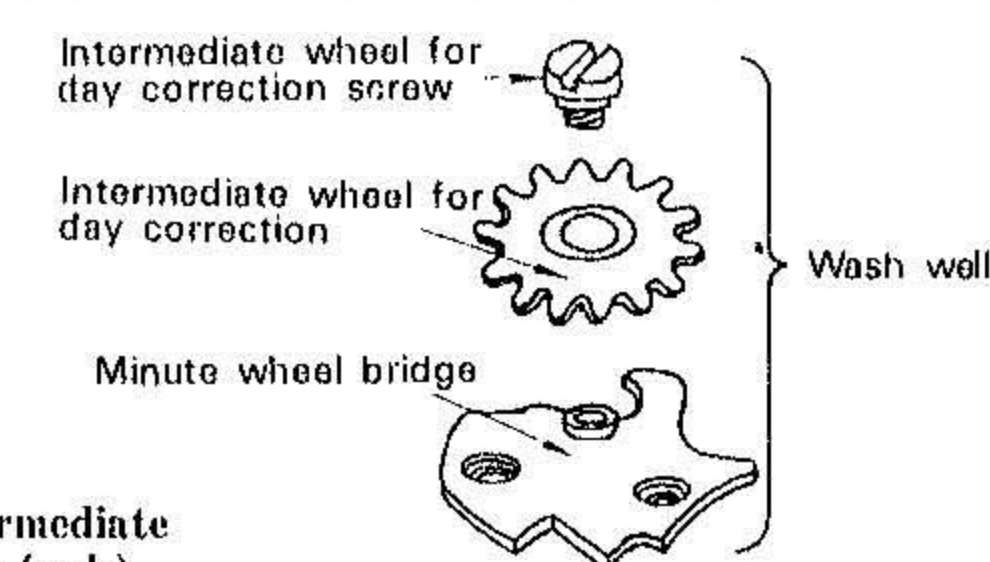
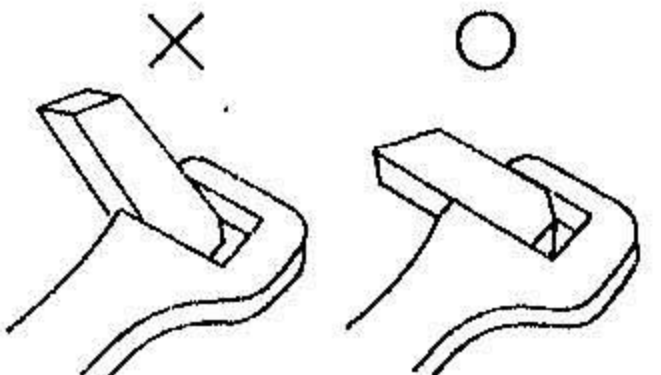
(When the number of remaining windings of the mainspring is more than 1 winding.)

3 When the Balance Completely stops

In this case, inspect the watch according to CHECKING PROCEDURES 5 - 8.



This diagram indicates a stopping condition of calendar shifting.
(A diagram in which the dial and the day star with dial disk are removed).

Checking procedure	Checking details	Repairing and checking methods
4	(The cause was due to loosened caulking of the cannon pinion (off-center) attached to the large driving wheel and pinion). (Refer to the diagram on the right)	Replace the large driving wheel and pinions with a new one. (Note) Never caulk the cannon pinion. [* When setting the hands, the setting wheel lever meshes with the cannon pinion (off-center).] 
5	(The cause is due to too strong spring characteristic of the day jumper and date jumper, therefore correct them as shown in the diagram on the right).	Hold this portion with a pair of tweezers, and slightly bend it in the arrow direction.  (Note) After correcting these jumpers, perform day and date correction gradually and gently, check whether or not they gear correctly with the day star with dial disk or the date dial.
6	Check whether or not oil is adhered to the back side of the day star with dial disk. 	When oil is adhered (X)..... 1. Wipe off oil adhered to the back side of the day star with dial disk. (Or wash it quickly with benzine.) Never use trichloroethylene, Fuji clean, S-clean, etc. 2. Wipe off oil adhered to the surface of the plate, date dial guard, etc. (Note) Apply a small quantity of oil to the lower portion of the barrel arbor, and the lower pivot of the center wheel.
7	Check on revolving condition of the intermediate wheel for day correction.  Turn the intermediate wheel for day correction with the bristles of a soft-haired brush. Turns lightly O Turns heavily X	When the intermediate wheel for day correction does not revolve smoothly (X)..... Wash the parts which are in the diagram on the right. (Use ultrasonic cleaner as far as possible.) (Note) Never lubricate the intermediate wheel for day correction (axle). 
8	Always check the escapement portion even when no malfunction is found in Procedures 4 through 7. 1. Are adjusting and lubricating conditions of the escapement portion proper? 2. Are shake, clearance and wobble in wheels, day star and etc. proper? 3. Is there any invasion of chips, dust, shag, and so on into the movement?	1. If there is any malfunction, repair and adjust the escapement. 2. Normalize conditions of the pallet jewels and their oil maintaining condition. 

General Checking Procedures After Repairing

Fully wind up the mainspring (the mainspring is fully wound by turning the ratchet wheel more than seven times from its entirely released condition). Set the hands to 3 o'clock (p.m.) and leave the watch as it is. The watch is in excellent condition if it does not stop at the second calendar shifting (33 hours after starting).