TIME MODULE

TECHNICAL GUIDE

&

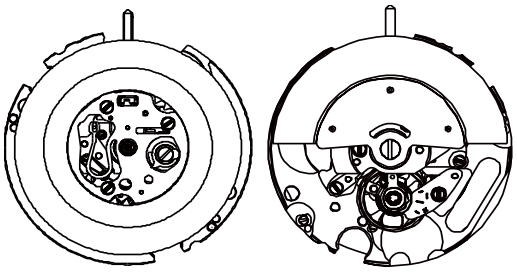
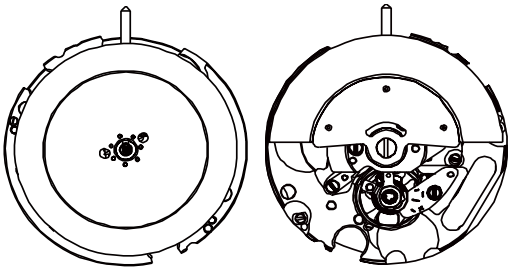
PARTS CATALOGUE

Cal.NH1 Series
(NH15A/16A)

AUTOMATIC MECHANICAL

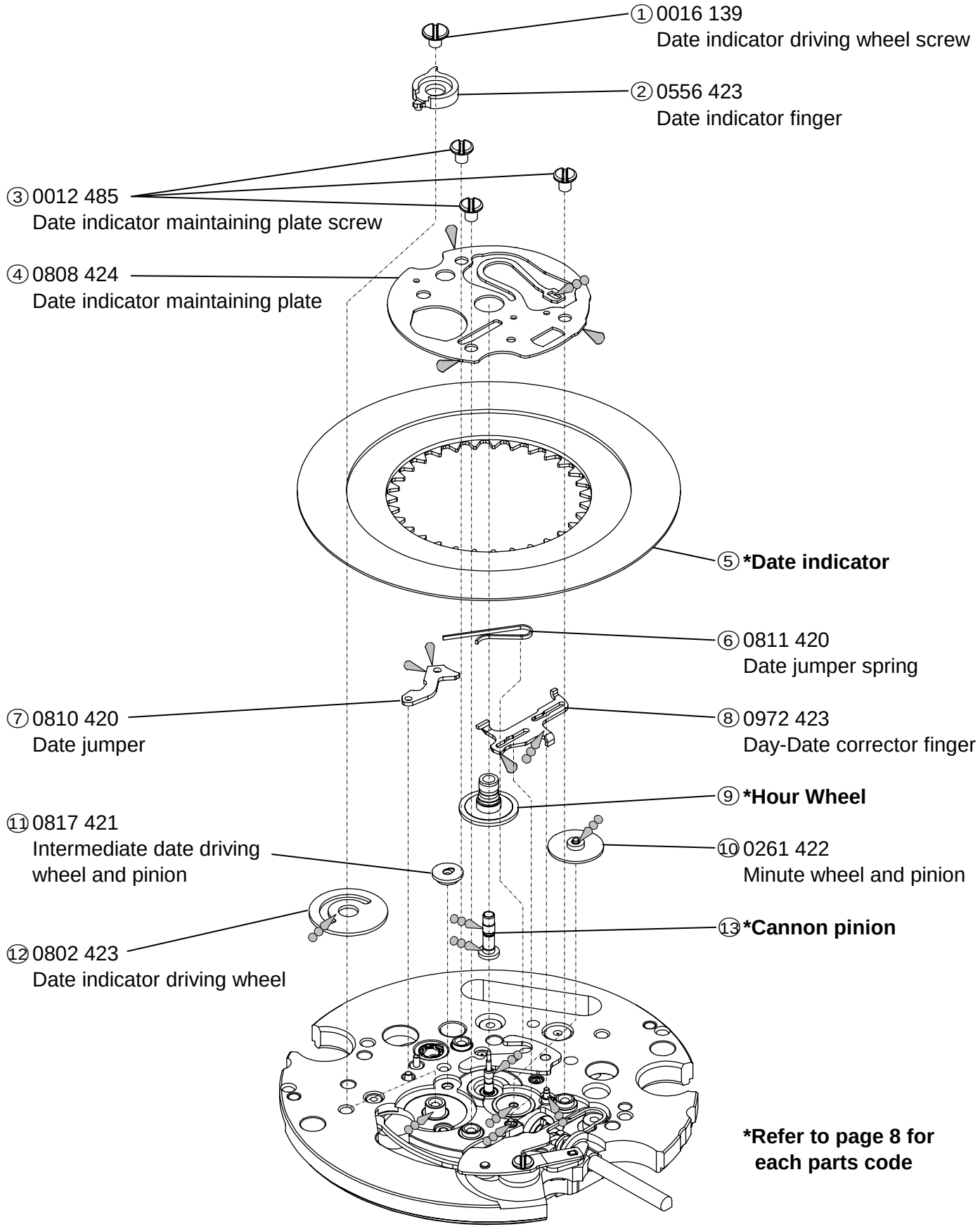
SPECIFICATION

Version-01
Cal.NH1 Series
（NH15A/16A）

Item \ Cal. No.		NH15A	NH16A
Movement			
Movement size	Outside diameter	Φ23.8mm	Φ23.8mm
	Casing diameter	Φ23.4mm	Φ23.4mm
	Total height	6.01 mm	6.01 mm
Time indication		3 Hands (Hour , Minute , Second) Date Calendar	3 Hands (Hour , Minute , Second) Day & Date Calendar
Basic function		Manual winding Automatic winding with ball bearing Quick date correction	Manual winding Automatic winding with ball bearing Quick day-date correction
Frequency		21,600 vibrations per hour	
Accuracy	Static accuracy	- 35 ~ + 55 seconds per day * Measurement should be done within 10 ~ 60 minutes after fully wound up. * All measurements are made without the calendar in function.	
	Measurement position	Direction of 3 positions. (1) Dial up (2) 9 o'clock up (3) 6 o'clock up	
	Lift angle	52 deg.	
	Measurement time	20 seconds * Equipment to be used : Witschi WATCH EXPERT	
	Posture difference	Difference is under 90 seconds within maximum value and minimum value. * Measurement should be done within 10 ~ 60 minutes after fully wound up. * Direction of 4 positions. (1) 12 o'clock up (2) 9 o'clock up (3) 6 o'clock up (4) 3 o'clock up	
	Isochronisms (24h-0h)	- 35 ~ + 35 seconds per day. * Direction of position : Dial up * Difference of static accuracy of 24 h and 0 h	
Duration time		More than 40 hours (Mainspring after fully wound up) * Posture to confirmation : Dial up	
Winding the mainspring		<< Movements >> ・Fully wound up by turning the crown minimum 55 times. << Complete Watch >> A winding machine is needed to wind up the mainspring. * Full wind up conditions (Reference information) (1) Rotary speed : 30 rpm (2) Operating time : 60 minutes	
Jewels		21 jewels	
Crown position		Counterclockwise	Clockwise
	Normal position	Free	Manual winding
	First click	Date setting	NH15A : Free NH16A : Day setting
	Second click	Time setting	Time setting

Disassembling procedures Figs. ① → ⑲ Reassembling procedures Figs. ⑲ → ①	**Type of oil** Moebius 9010 S-6	**Oil quantity mark** NORMAL QUANTITY SUFFICIENT QUANTITY

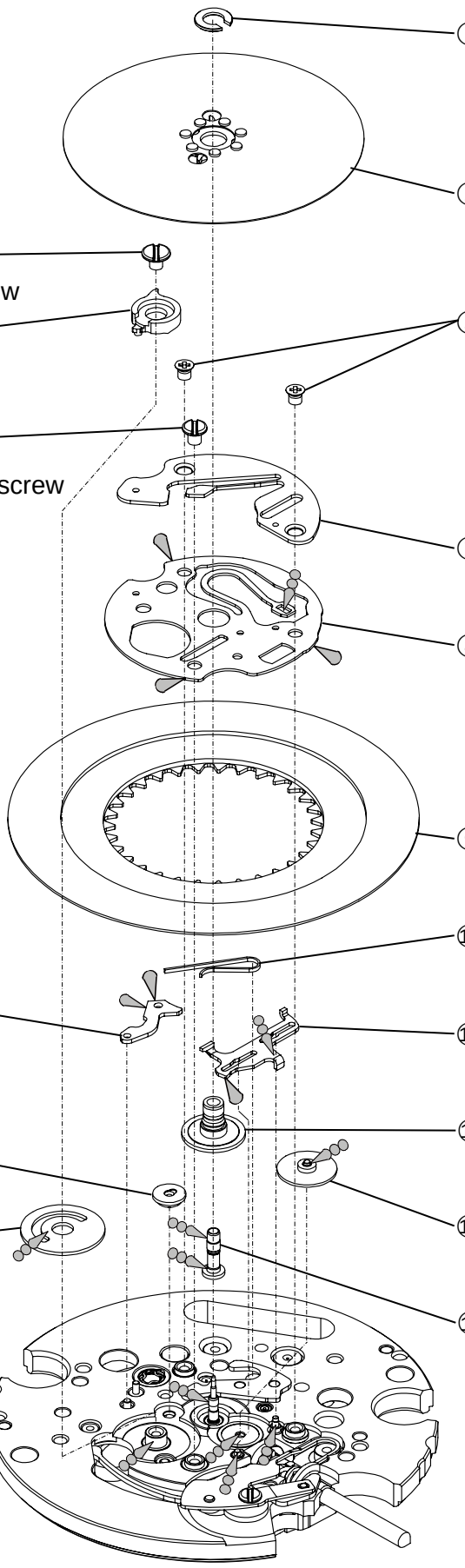
<<NH15A>>



***Refer to page 8 for each parts code**

Disassembling procedures Figs. ① → ⑲ Reassembling procedures Figs. ⑲ → ①	**Type of oil** Moebius 9010 S-6	**Oil quantity mark** NORMAL QUANTITY SUFFICIENT QUANTITY

<<NH16A>>



① 0963 420
Snap for day star with dial disk

② ***Day star with dial disk**

③ 0016 139
Date indicator driving wheel screw

④ 0556 423
Date indicator finger

⑤ 0016 705
Day jumper screw

⑥ 0012 485
Date indicator maintaining plate screw

⑦ 0873 422
Day jumper

⑧ 0808 424
Date indicator maintaining plate

⑨ ***Date indicator**

⑩ 0811 420
Date jumper spring

⑪ 0810 420
Date jumper

⑫ 0972 423
Day-Date corrector finger

⑬ ***Hour Wheel**

⑭ 0261 422
Minute wheel and pinion

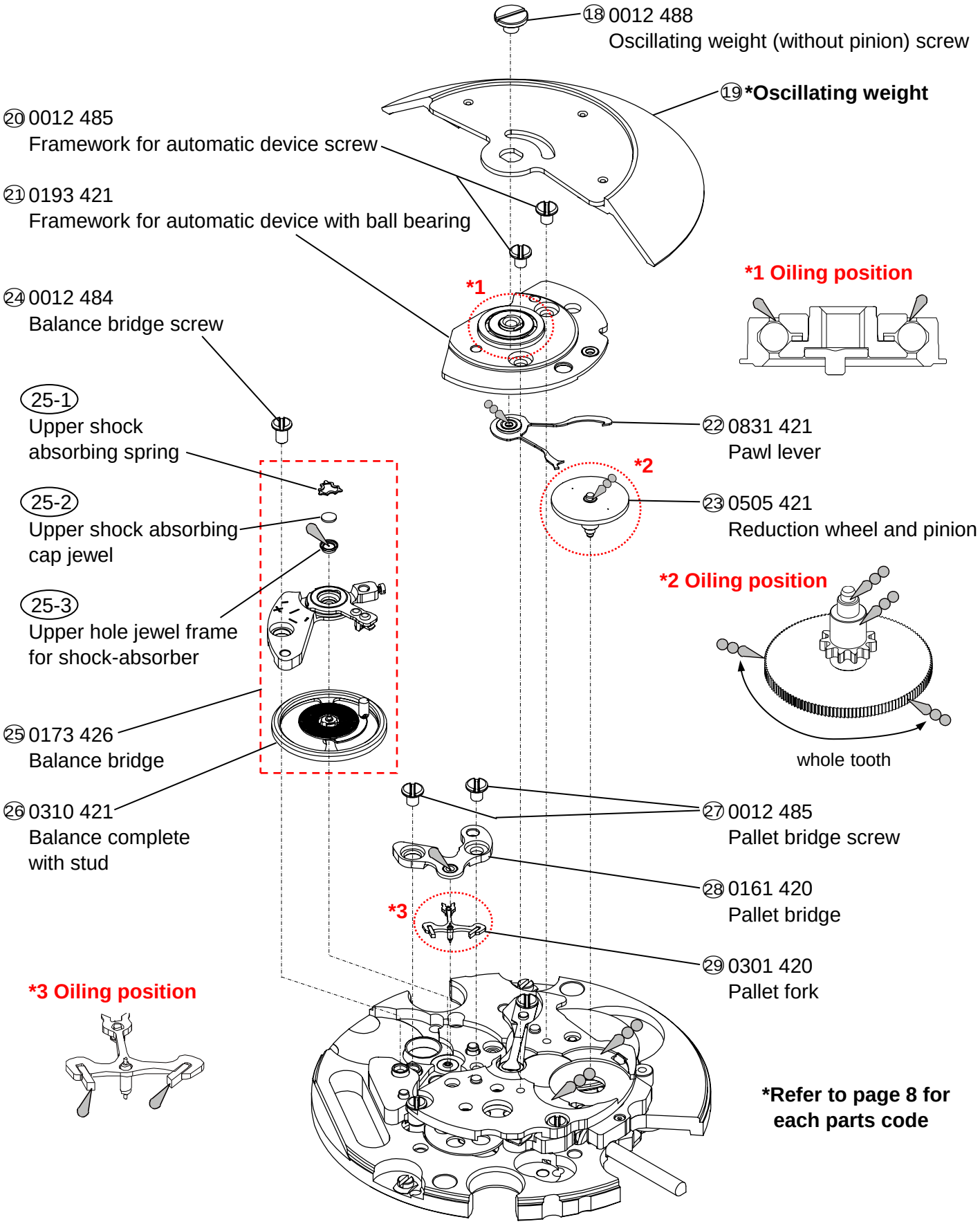
⑮ 0817 421
Intermediate date driving wheel and pinion

⑯ 0802 423
Date indicator driving wheel

⑰ ***Cannon pinion**

***Refer to page 8 for each parts code**

Disassembling procedures Figs. ① → ⑲ Reassembling procedures Figs. ⑲ → ①	**Type of oil** Moebius 9010 S-6	**Oil quantity mark** NORMAL QUANTITY SUFFICIENT QUANTITY



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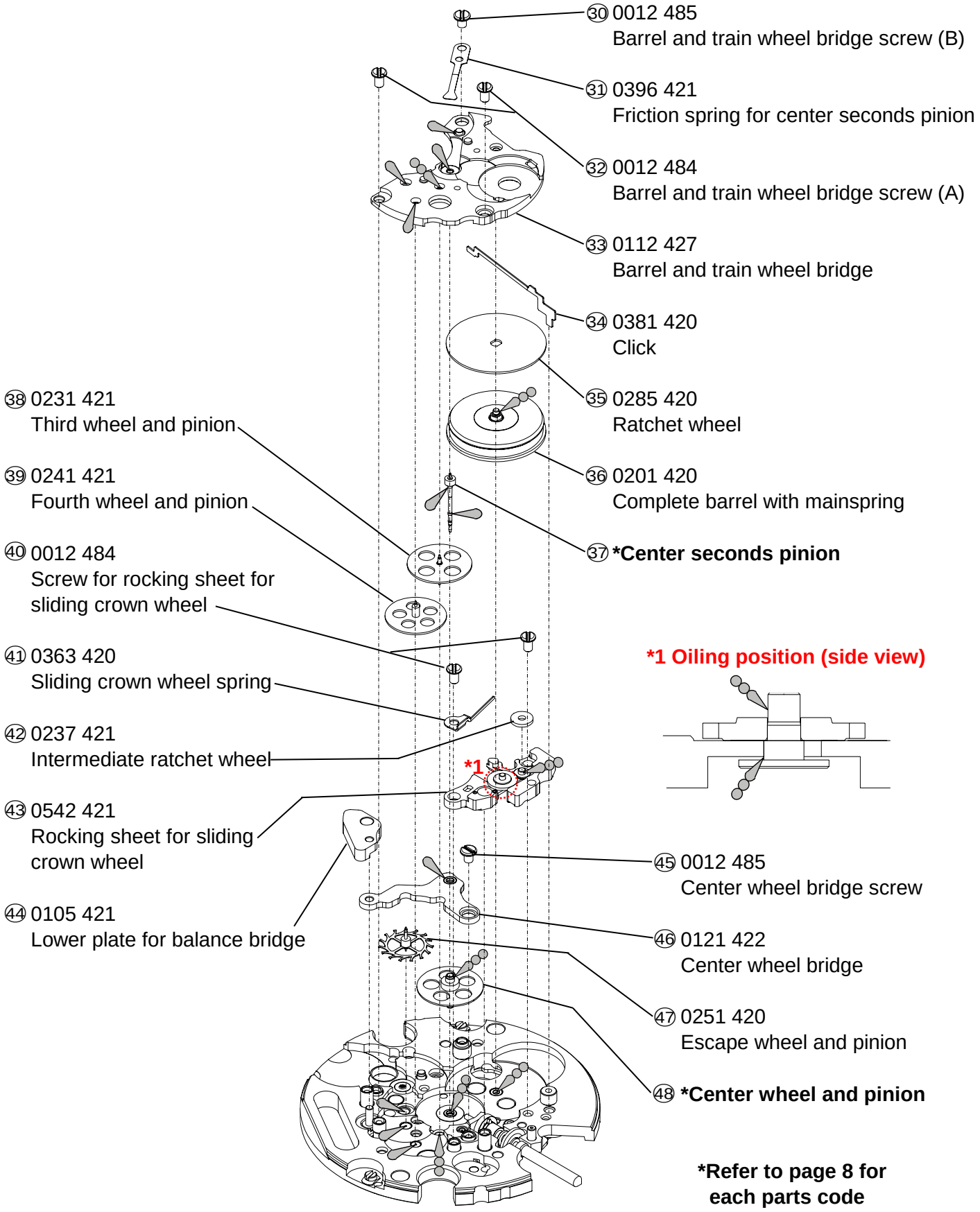

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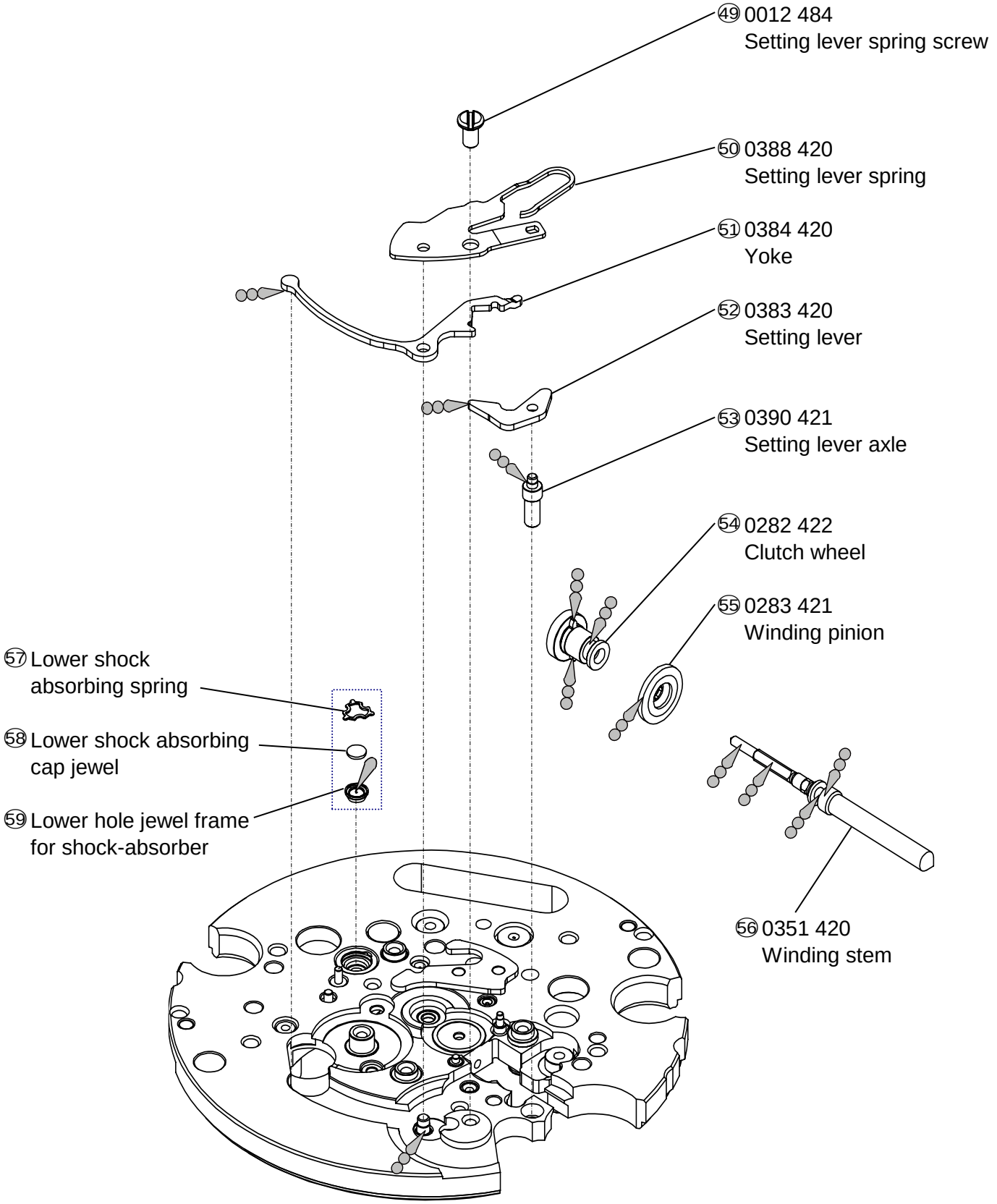
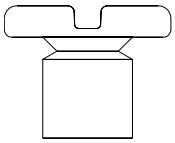
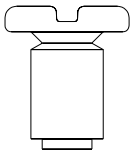
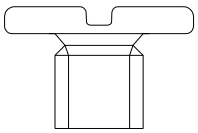
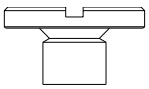
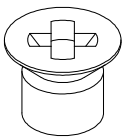
Disassembling procedures Figs. ① → ⑲ Reassembling procedures Figs. ⑲ → ①	**Type of oil** Moebius 9010 S-6	**Oil quantity mark** NORMAL QUANTITY SUFFICIENT QUANTITY



Remarks

● **List of screws**

Parts No.	Appearance	Page	Parts Name	Q'ty
0012 485		2	③ Date indicator maintaining plate screw	3
		3	⑥	1
		4	⑳ Framework for automatic device screw	2
		4	㉗ Pallet bridge screw	2
		5	㉚ Barrel and train wheel bridge screw (B)	1
		5	㊺ Center wheel bridge screw	1
0012 484		4	㉔ Balance bridge screw	1
		5	㉜ Barrel and train wheel bridge screw (A)	2
		5	㊵ Screw for rocking sheet for sliding crown wheel	2
		6	㊾ Setting lever spring screw	1
0016 139		2	① Date indicator driving wheel screw	1
		3	③	
0012 488		4	⑱ Oscillating weight (without pinion) screw	1
0016 705		3	⑤ Day jumper screw	2

***All parts code are subject to change without notice.**

Remarks

② Day star with dial disk (Page 3)

Cal.	Parts code	Position of crown	Position of day frame	Color of letters	Color of background	Language
NH16A	0150 330	3H	3H	MON ~ FRI : Black SAT : Blue SUN : Red	White	English & Chinese

⑤ Date indicator (Page 2)

Cal.	Parts code	Position of crown	Position of date frame	Color of numbers	Color of background
NH15A	0878 426	3H	3H	Black	White

⑨ Date indicator (Page 3)

Cal.	Parts code	Position of crown	Position of date frame	Color of numbers	Color of background
NH16A	0148 121	3H	3H	Black	White

⑨ Hour Wheel (Page 2)

Cal.	Parts code
NH15A	0273 030

⑬ Hour Wheel (Page 3)

Cal.	Parts code
NH16A	0273 030

⑬ Cannon pinion (Page 2)

Cal.	Parts code
NH15A	0225 424

⑰ Cannon pinion (Page 3)

Cal.	Parts code
NH16A	0225 424

⑲ Oscillating weight (Page 4)

Cal.	Parts code	Marking
NH15A	0500 437	Japan mark
	0500 465	Malaysia mark

Cal.	Parts code	Marking
NH16A	0500 439	Japan mark
	0500 467	Malaysia mark

㊲ Center second pinion (Page 5)

Cal.	Parts code
NH15A NH16A	0245 429

㊽ Center wheel and pinion (Page 5)

Cal.	Parts code
NH15A NH16A	0224 429

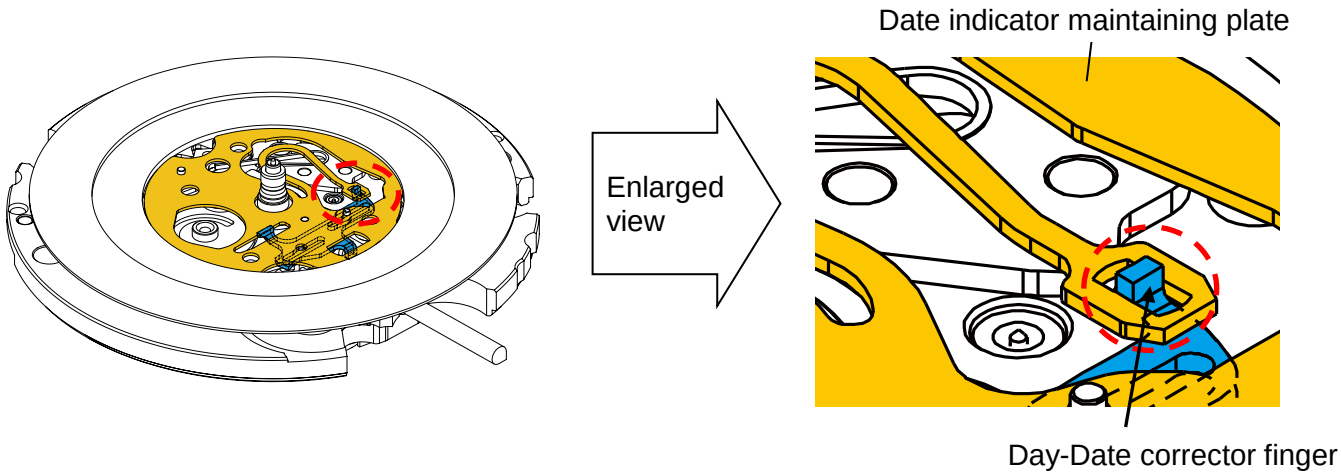
***All parts code are subject to change without notice.**

Date indicator maintaining plate

④ (NH15A : Page 2)

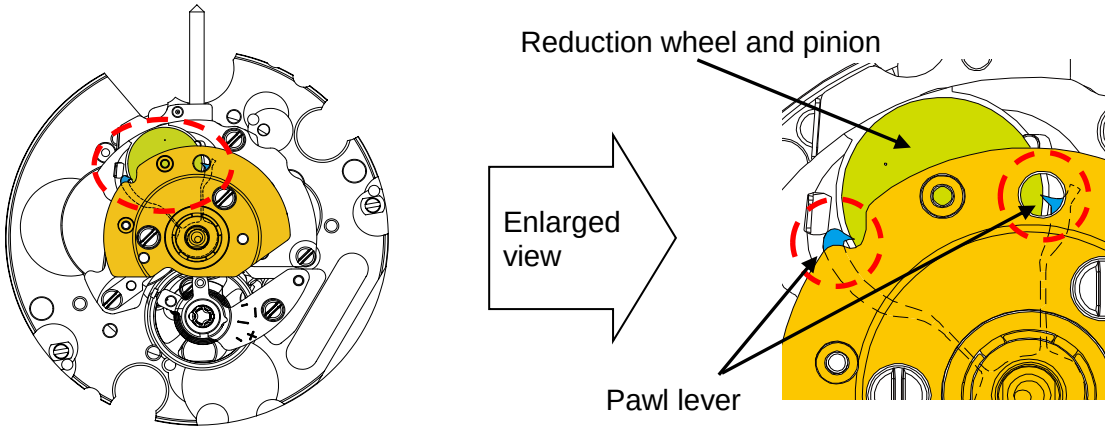
⑧ (NH16A : Page 3)

Day-Date corrector finger is set to the hole of Date indicator maintaining plate.



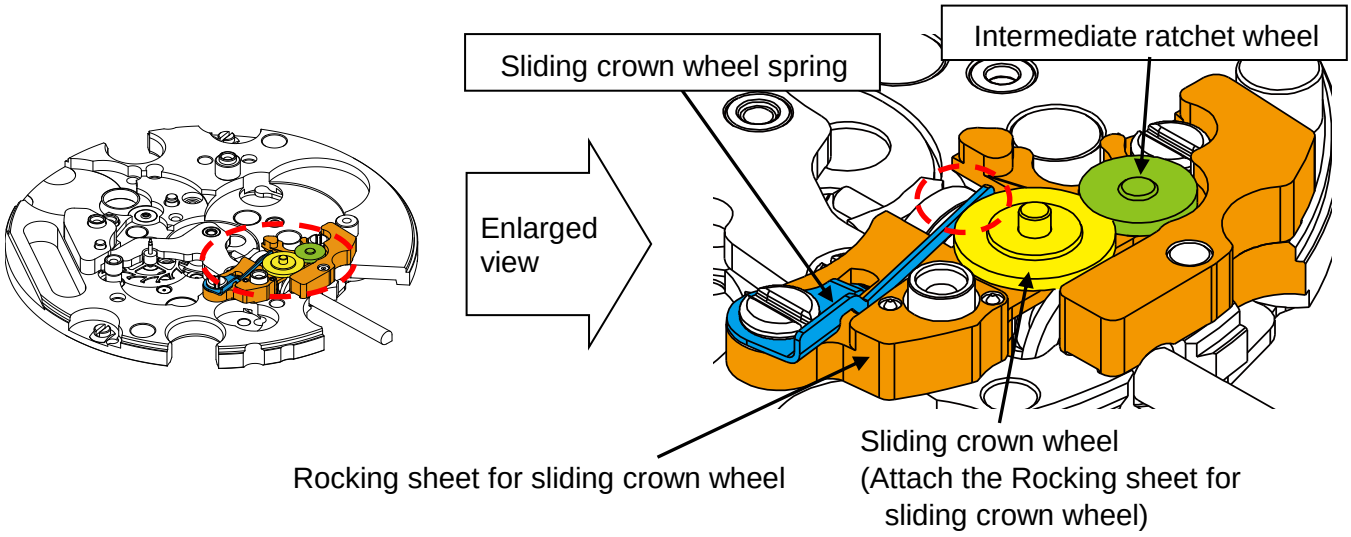
㉒ Pawl lever (Page 4)

Pawl lever has to be set to engage with the teeth of Reduction wheel and pinion.

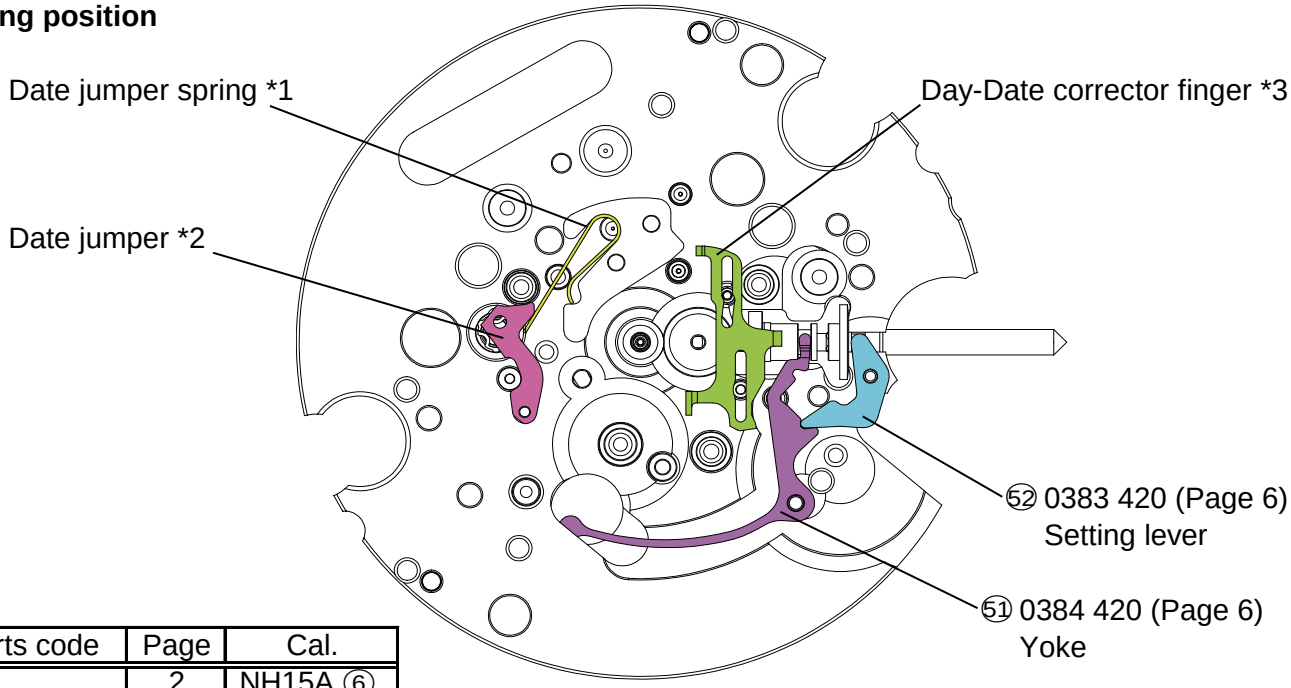


㊶ Sliding crown wheel spring (Page 5)

Please set Sliding crown wheel spring to the side of Sliding crown wheel.



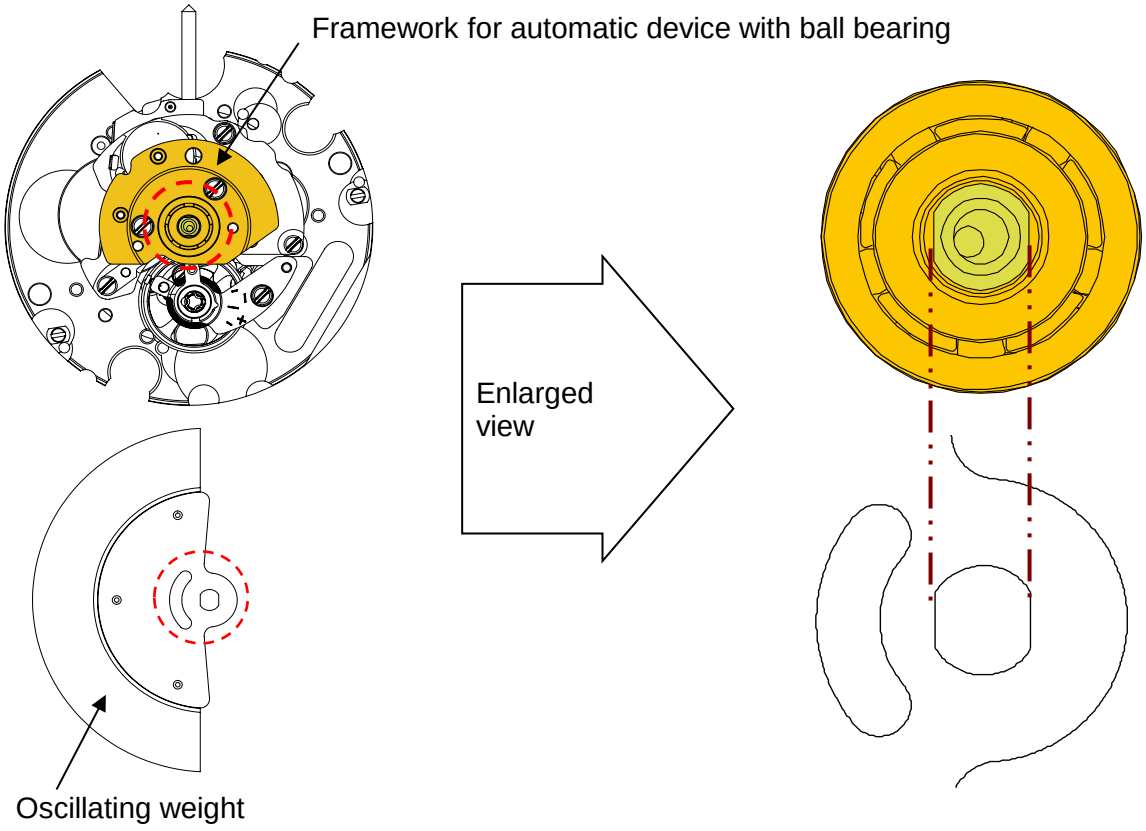
1.Setting position



Parts code		Page	Cal.
*1	0811 420	2	NH15A ⑥
		3	NH16A ⑩
*2	0810 420	2	NH15A ⑦
		3	NH16A ⑪
*3	0972 423	2	NH15A ⑧
		3	NH16A ⑫

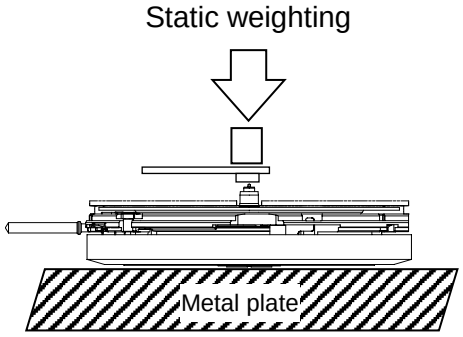
2.Setting position of oscillating weight

・Before assembling oscillating weight.
Please set Oscillating weight according to the straight part of Framework for automatic device.



3.How to install hands

Place the movement directly on a flat metal plate or something similar to install the hands.
We recommend the use of movement holder to install hands.
For hands attachment, please use a special equipment.
When the movement receives a strong shock, it may be damaged.

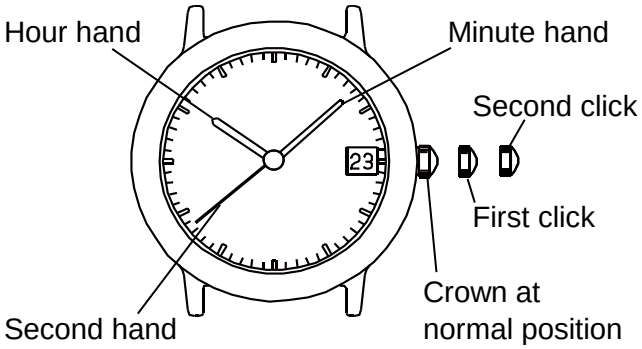


4.Accuracy measurement condition

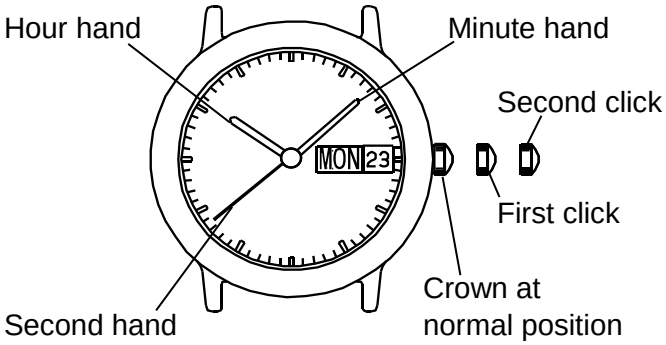
Static Accuracy : - 35 ~ + 55 seconds per day
Measurement Conditions

1) Measurement should be done within 10 ~ 60 minutes after fully wound up.
2) Lift angle : 52 deg
3) Measurement position : (1) Dial up (2) 9 o'clock up (3) 6 o'clock up
4) Minimum measurement Time : 20 seconds
5) Stabilizing Time :
   Leave the watch for at least 20 seconds to stabilize after you change its measurement position.

[NH15A]



[NH16A]



1.Time setting

1) Pull out the crown to the second click position.
2) Turn the crown to set hour and minute hands.
   (Check that AM/PM is set correctly.)
3) Push the crown back into the normal position.

2.Date setting

1) Pull out the crown to the first click position.
2) Turn the crown to left for date setting.
   * Do not set the calendar between 10:00 P.M. and 1:00 A.M.
     If the setting of the calendar is made during this period, the date will not change to the next date.
   Please set the calendar after changing the time other than the above period.
3) Turn the crown to right for day setting. (Cal.NH16A only)
4) Push the crown back into the normal position.

3.To wind up the mainspring

a) Manual winding (Rotate the crown clockwise at normal position)
   Fully wound up by turning the crown minimum 55 times.

b) To wind up with winding machine.
   Full wind up conditions (Reference information)
   - Rotary speed : 30 rpm
   - Operating time : 60 minutes