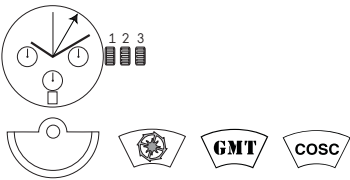
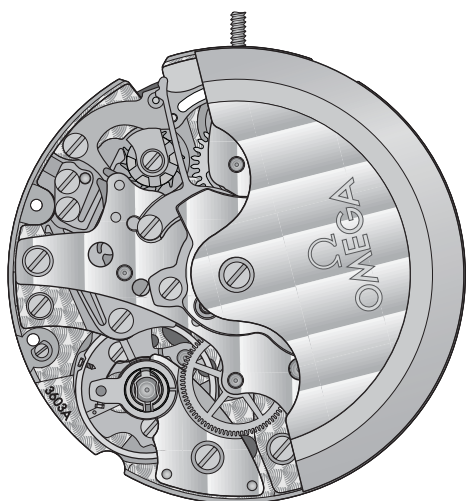
	Technical Guide		TG-19-C-063-E	A
	Made by: rendav	Date: 02.04.2009	3	

CALIBRE 3603

	Version A
<p>12''' Ø 27 mm</p>	
Height on movement	7.95 mm
Power reserve	52 h
Number of jewels	37
Frequency	4 Hz (28'800 A/h)



Automatic movement, exclusive Omega chronograph,, date, COSC-certified. Chronograph system with column-wheel. 30-min. minute counter and 12-h hour counter. Chronograph, hour and minute display in centre. Small second hand at 9 o'clock. GMT hand in the centre. Co-Axial escapement. Omega balance system without index.

	Page
Calibre 3603	1
General information for Calibre 3603	3-5
Balance bridge / Key points / Date correction	3
Tightening and untightening torques according to screw thread size / Lubricants	3
Mandatory tools / Lubricants	3
Lubrication of crow wheel and the three driving wheels for ratchet wheel	4-5
Exploded views for Calibre 3603	6-14
Dial side	6
Movement side	7
Movement side	8
Movement side	9
Dial side	10
Module side	11
Dial side	12
Movement side	13
Dial side	14
Spare parts list & illustrations for Calibre 3603	15-19
Spare parts & illustrations	15
Spare parts & illustrations	16
Spare parts & illustrations	17
Spare parts & illustrations	18
Spare parts & illustrations	19
Specific information for Calibre 3603	20-29
Assembling of date indication	20
Chronograph wheel function / Description of chronograph system	21
Escapement and Balance bridge installation	22
Chronograph setting	23
Hand setting for calibre 3603 / Checks, to carry out after hand-setting	24
Principle of GMT function	25-27
Runners for hand setting and hand setting force / Epilame coating	28
Instantaneous rate	29

General information for calibre 3603

Balance bridge

The bridges with serial numbers are not available (see CS-Info Calibre No 33). For exchange, see table :

Exchange		with serial no
Version A	Balance bridge, (réf. 7223603A1005818)	For exchanges always sent to Omega. Engravings at Omega within 4 weeks.

Key points

The three intermediate driving wheels for ratchet wheel (32.083) must be correctly lubricated with Moebius SYNT-HP-1300 Sans Colorant. Insufficient lubrication could lead to the formation of burrs or chips and hinder the correct winding of the barrel. Cleaning would not be sufficient to remove all this. (see page 4 and 5).

Due to the movement construction, there are various screw lengths. To avoid problems at assembly, group identical screws together for cleaning.

Co-axial Escapement lubrication

See Working Instruction No 40.

Date correction

Date correction should not be performed between 10 pm and 2 am.

Tightening and untightening torques according to screw thread size

Screw Ø	Tightening torque target cNm	Untightening torque mini cNm
Ø threads ≤ S 0.50 mm	1.0	0.7
Ø threads S 0.6 mm	1.4	0.8
Ø threads S 0.7 mm	1.8	0.9
Ø threads S 0.8 mm	2.2	1.1
Ø threads S 0.9 mm	2.6	1.3
Ø threads S 1.0 mm	3.0	1.6
Ø threads S 1.2 mm	3.5	2.0
Ø threads S 1.4 and >	4.0	2.5

Mandatory tools :

To fit the hands, the movement must be placed in a suitable, well-adjusted movement holder.

Hand fitting

Movement holder for hand fitting
Hand fitting tool kit

Reference

507 0001
507 0011

Movement

Mainspring winder
Timing key
Movement holder
Tool for checking the escapement functions

Reference

502 150 0009
502 200 0501
506 0001
506 0004

Lubricants

- ▷ Moebius SYNT-A-LUBE 9010 (2ml)
- ∞▷ Moebius SYNT HP-1300 SC
- ▷ Moebius 9504
- ◊▷ Moebius SYNT HP-500
- ▶ Kluber P125
- * small quantity

Reference

504 200 0001
504 5013
504 5014
504 5012
504 100 0071

Customer Service lubrication of stud for crown wheel (31.023) and the 3 intermediate driving wheels for ratchet wheel (32.083):

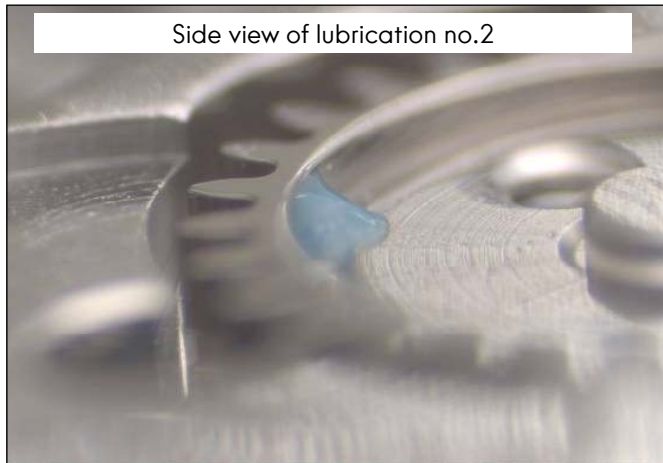
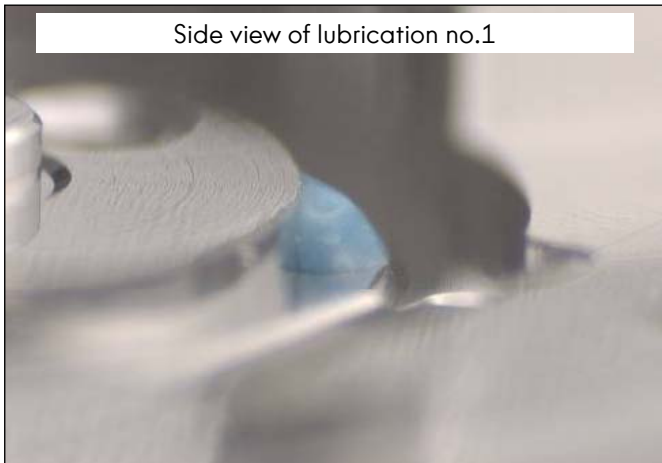
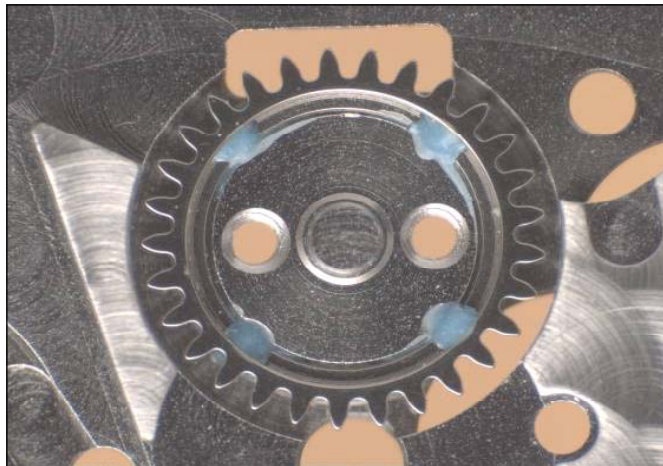
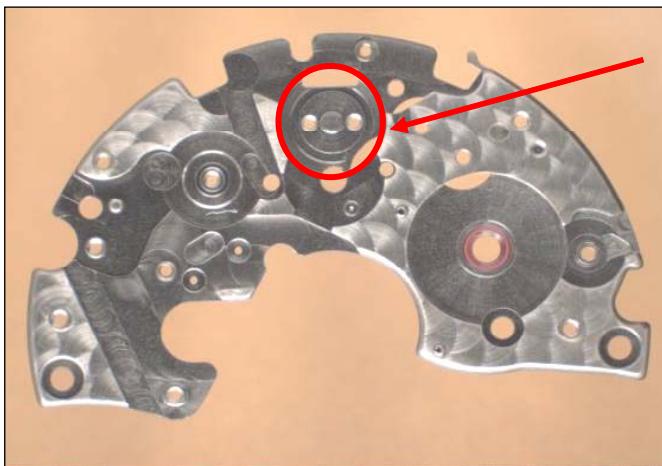
With the aim of constantly improving the performances and reliability of Omega products, the lubrication in Customer Service has been updated.

Amount of lubricant to be applied:

- On the crown wheel stud and the stud for the three ratchets intermediate driving wheels during a service.

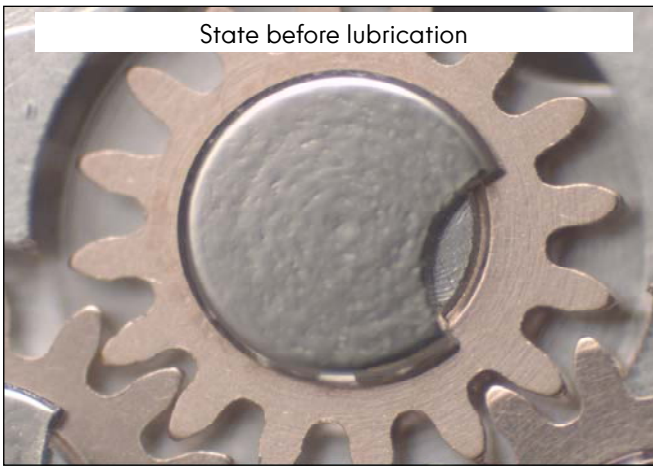
Lubrication of stud for crown wheel (Moebius 9504)

Stud for crown wheel

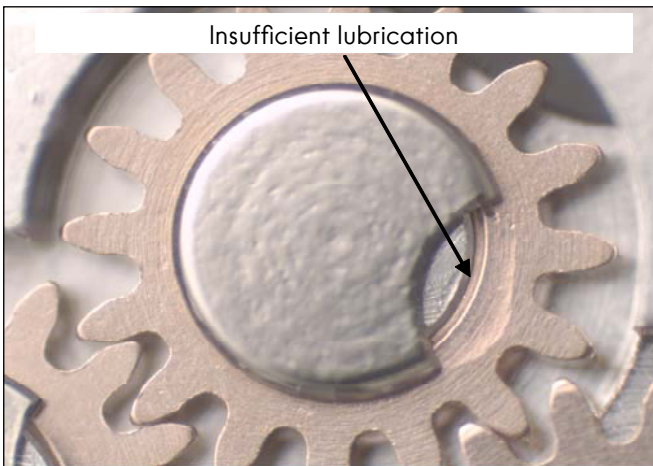




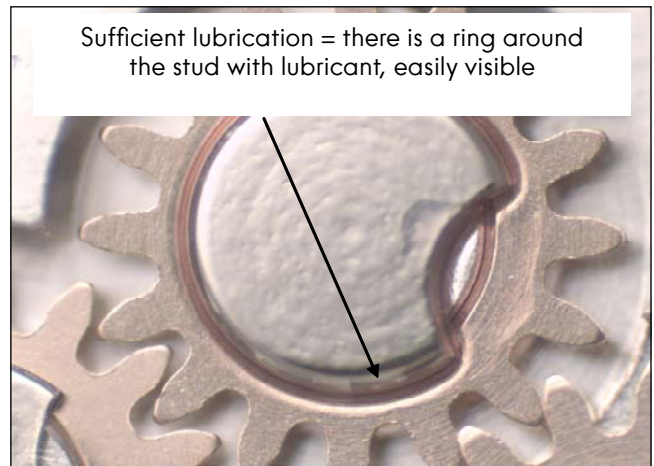
Lubrication of the 3 intermediate driving wheels for ratchet wheel (HP 1300 Sans Colorant)



State before lubrication



Insufficient lubrication



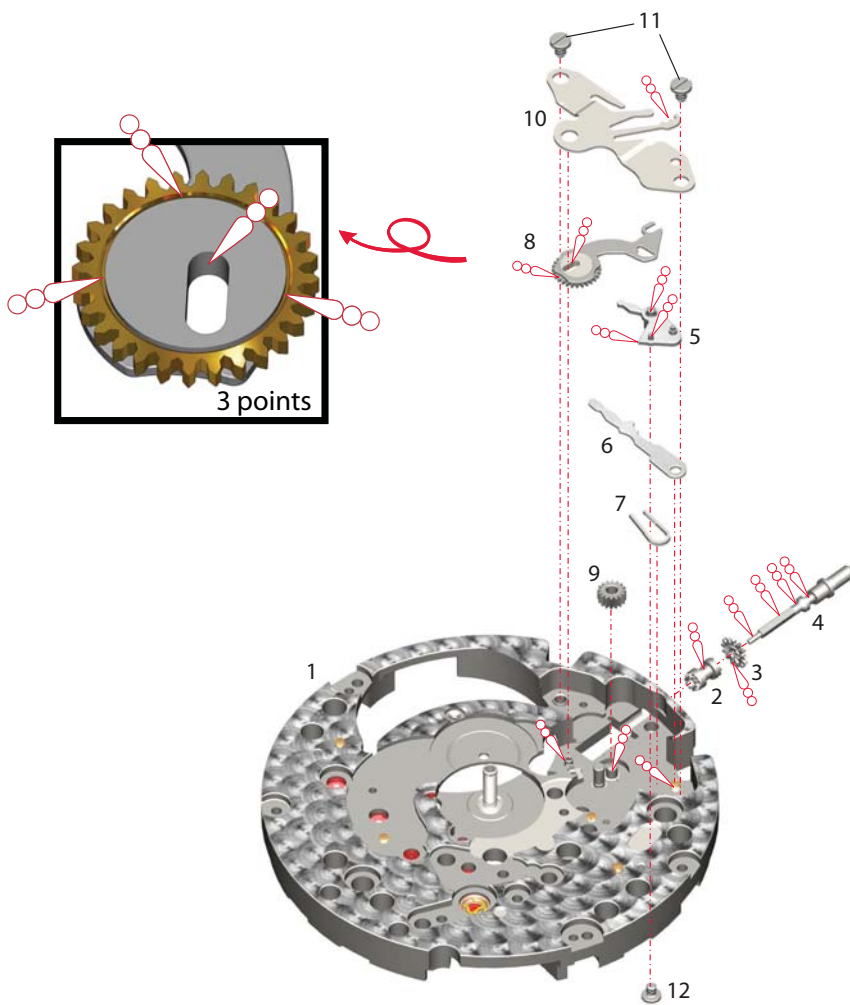
Sufficient lubrication = there is a ring around the stud with lubricant, easily visible

Exploded views - Dial side for calibre 3603

Parts listed in order of assembly

- | | |
|-----------|----------------|
| 1 = 10027 | 7 = 61100 |
| 2 = 31121 | 8 = 51052 |
| 3 = 31120 | 9 = 33082 |
| 4 = 51010 | 10 = 51090 |
| 5 = 51083 | 11 = 7035 (2x) |
| 6 = 51050 | 12 = 6407 (1x) |





 Moebius SYNT HP-1300 Sans Colorant

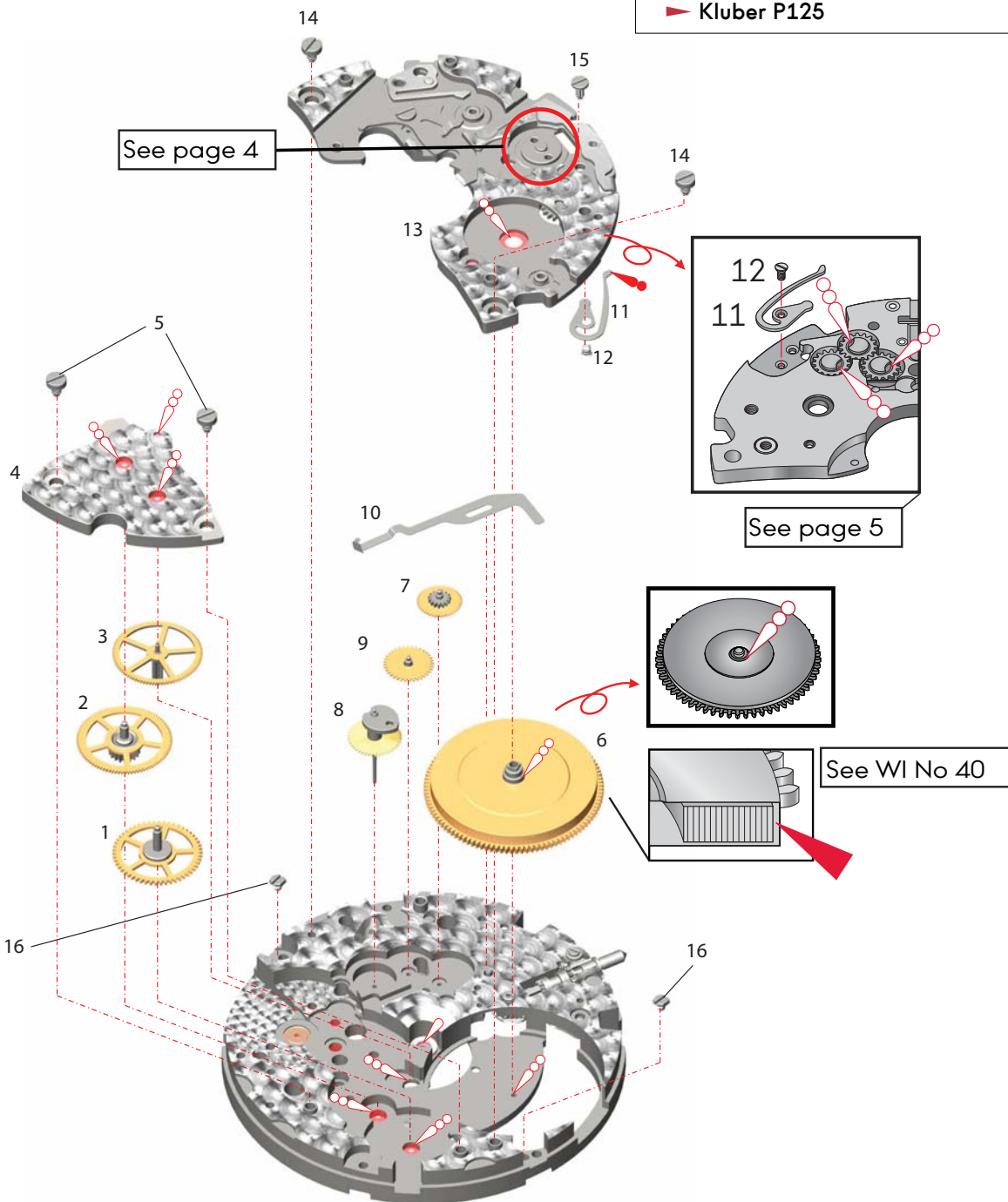


Exploded views - Movement side for calibre 3603

Parts listed in order of assembly

1 = 30012	9 = 35033
2 = 30014	10 = 56070
3 = 30025	11 = 65040
4 = 10048	12 = 6204 (1x)
5 = 7031 (2x)	13 = 10041
6 = 20015	14 = 7031 (2x)
7 = 35032	15 = 6011 (1x)
8 = 35030**	16 = 70200 (2x)




-  Moebius SYNT HP-1300 Sans Colorant
-  Moebius SYNT-A-LUBE 9010
-  Moebius 9504
-  Kluber P125



Exploded views - Movement side for calibre 3603

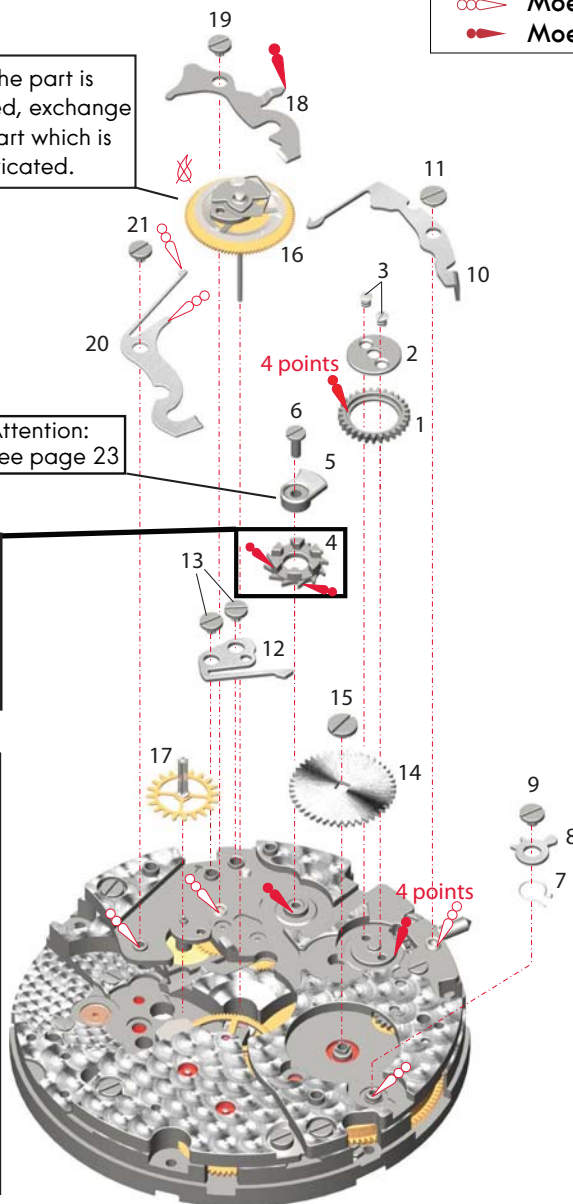
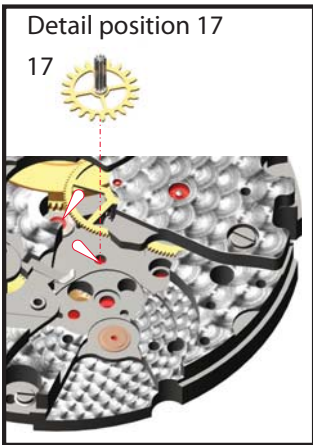
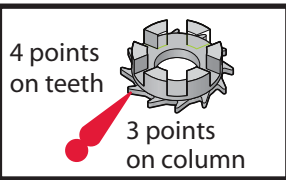
Parts listed in order of assembly

1 = 31023	12 = 55130
2 = 81136	13 = 6004 (2x)
3 = 6204 (2x)	14 = 31022
4 = 55180	15 = 6019 (1x)
5 = 10615	16 = 35010**
6 = 6034 (1x)	17 = 30039
7 = 61080	18 = 55100
8 = 51120	19 = 6004 (1x)
9 = 7008 (1x)	20 = 55090
10 = 55040	21 = 6004 (1x)
11 = 6022 (1x)	

-  Moebius SYNT-A-LUBE 9010
-  Moebius SYNT HP-1300 Sans Colorant
-  Moebius 9504

Do not clean. If the part is very dirty or rusted, exchange for, an original part which is delivered prelubricated.




Attention:
See page 23

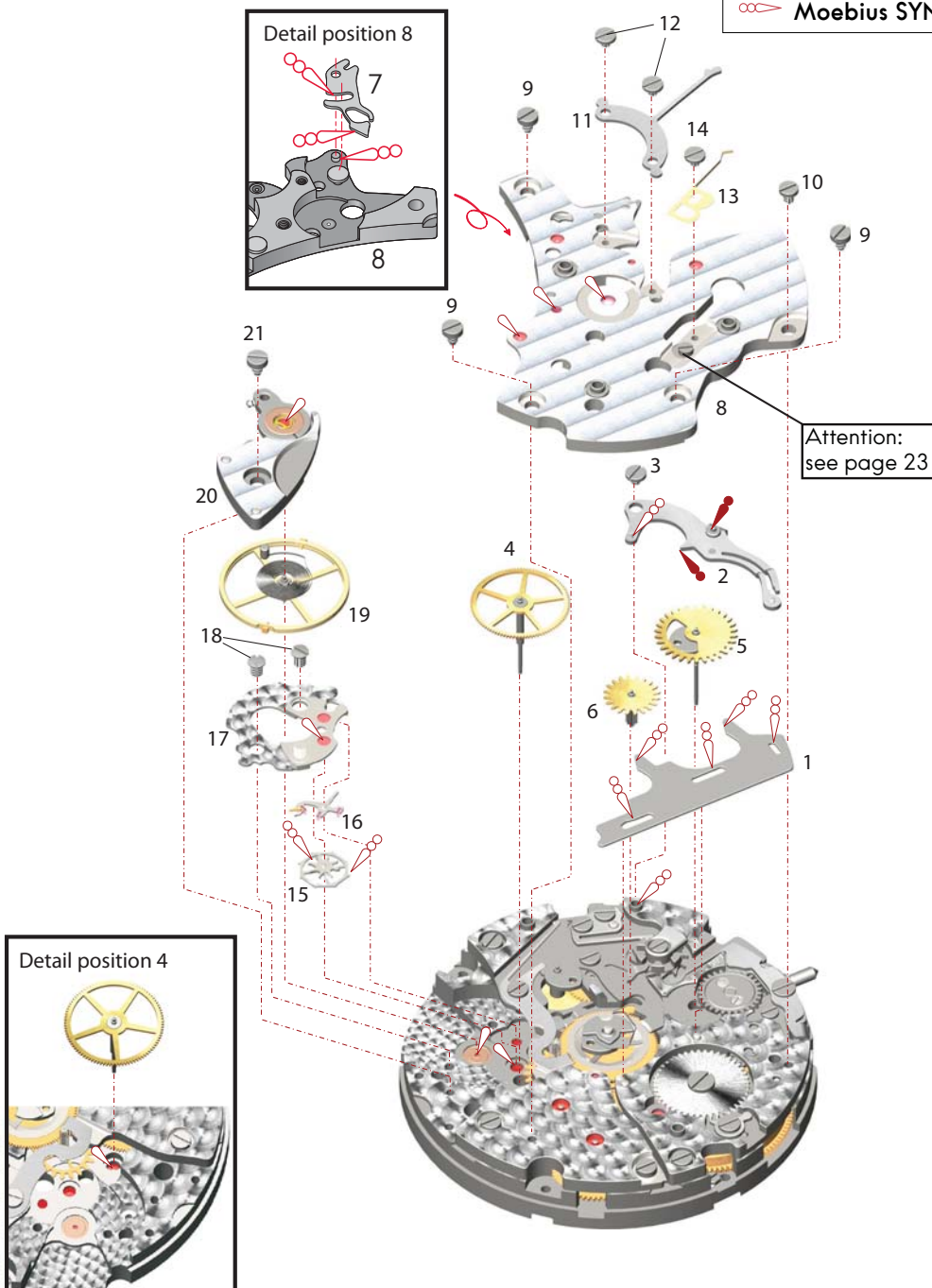


Exploded views - Movement side for calibre 3603

Parts listed in order of assembly

1 = 55240	12 = 6012 (2x)
2 = 55048	13 = 55143
3 = 6004 (1x)	14 = 6004 (1x)
4 = 30027**	15 = 30037
5 = 35012**	16 = 40015
6 = 35031	17 = 10056
7 = 55248	18 = 8204 (2x)
8 = 15040	19 = 40059
9 = 7031 (3x)	20 = 10058
10 = 7033 (1x)	21 = 7031 (1x)
11 = 65047	

-  Moebius SYNT-A-LUBE 9010
-  Moebius 9504
-  Moebius SYNT HP-1300 Sans Colorant

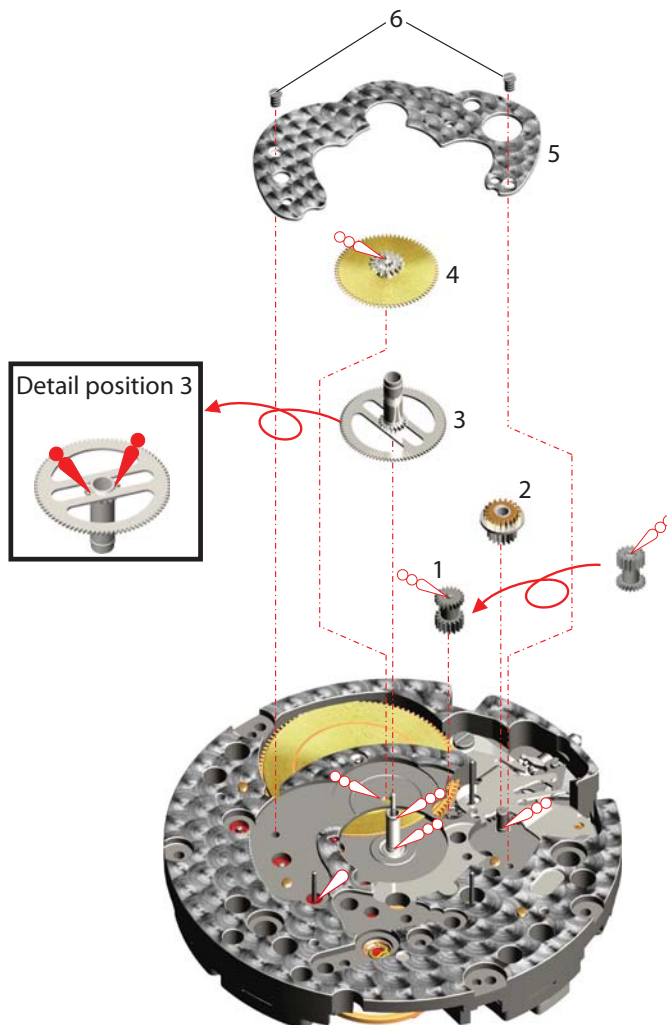


Exploded views - Dial side for calibre 3603

Parts listed in order of assembly

1 = 31102	4 = 31042
2 = 36031	5 = 10062
3 = 31080**	6 = 6205 (2x)

● Moebius 9504
○ Moebius SYNT HP-1300 Sans Colorant

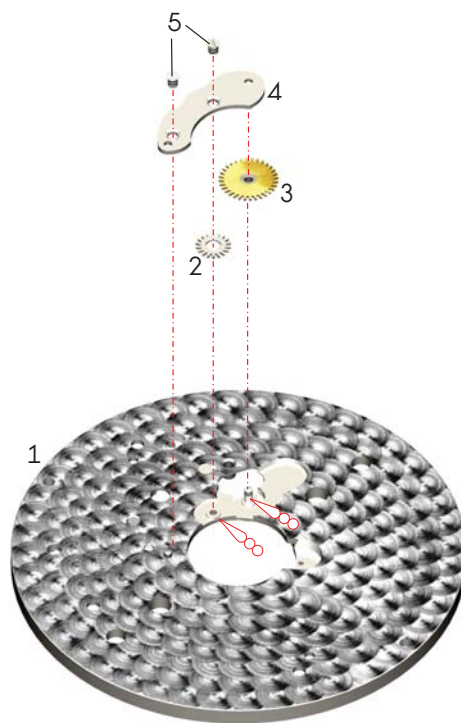


Exploded views - Module side for calibre 3603

Parts listed in order of assembly

1 = 13020	4 = 13040
2 = 31100	5 = 6205 (2x)
3 = 33011	

 Moebius SYNT HP-1300 Sans Colorant

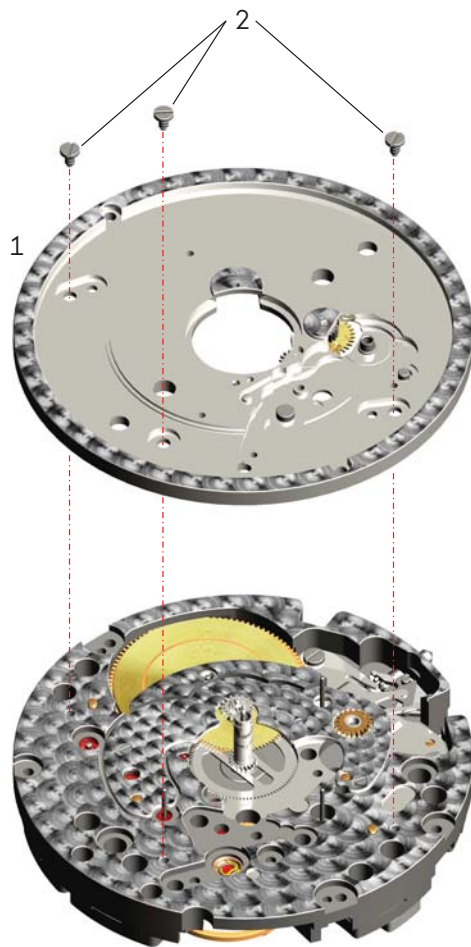


Exploded views - Dial side for calibre 3603

Parts listed in order of assembly

1 = 13020




2 = 6030 (3x)

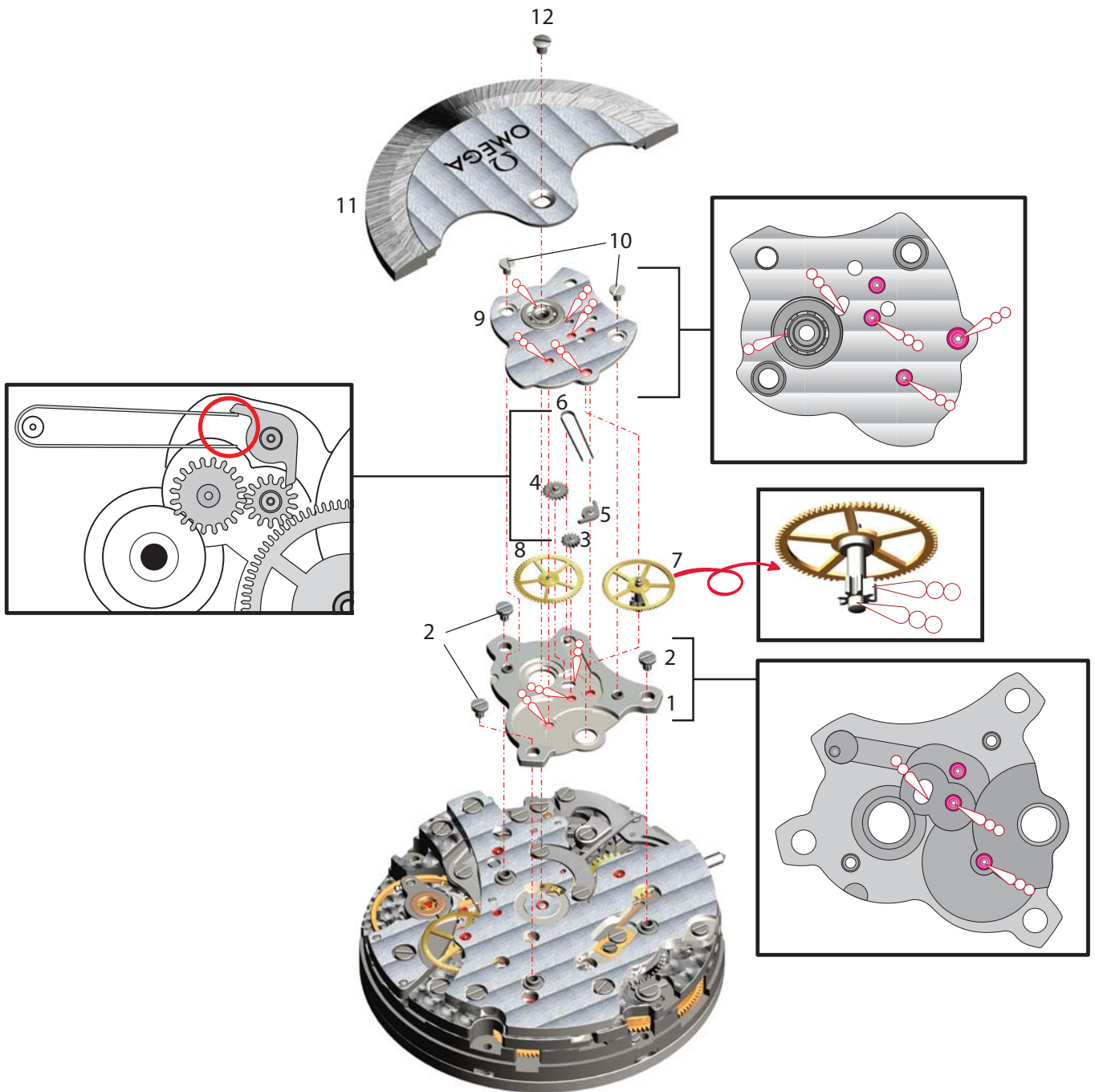


Exploded views - Movement side for calibre 3603

Parts listed in order of assembly

- | | |
|---------------|-----------------|
| 1 = 12030 | 7 = 3203301 |
| 2 = 7033 (3x) | 8 = 32031S2 |
| 3 = 32105 | 9 = 12050 |
| 4 = 32104 | 10 = 6033 (2x) |
| 5 = 52053 | 11 = 22019 |
| 6 = 62101 | 12 = 8200B (1x) |


-  Moebius SYNT HP-500
-  Moebius SYNT HP-1300 Sans Colorant
-  Moebius SYNT HP-1300 Sans Colorant

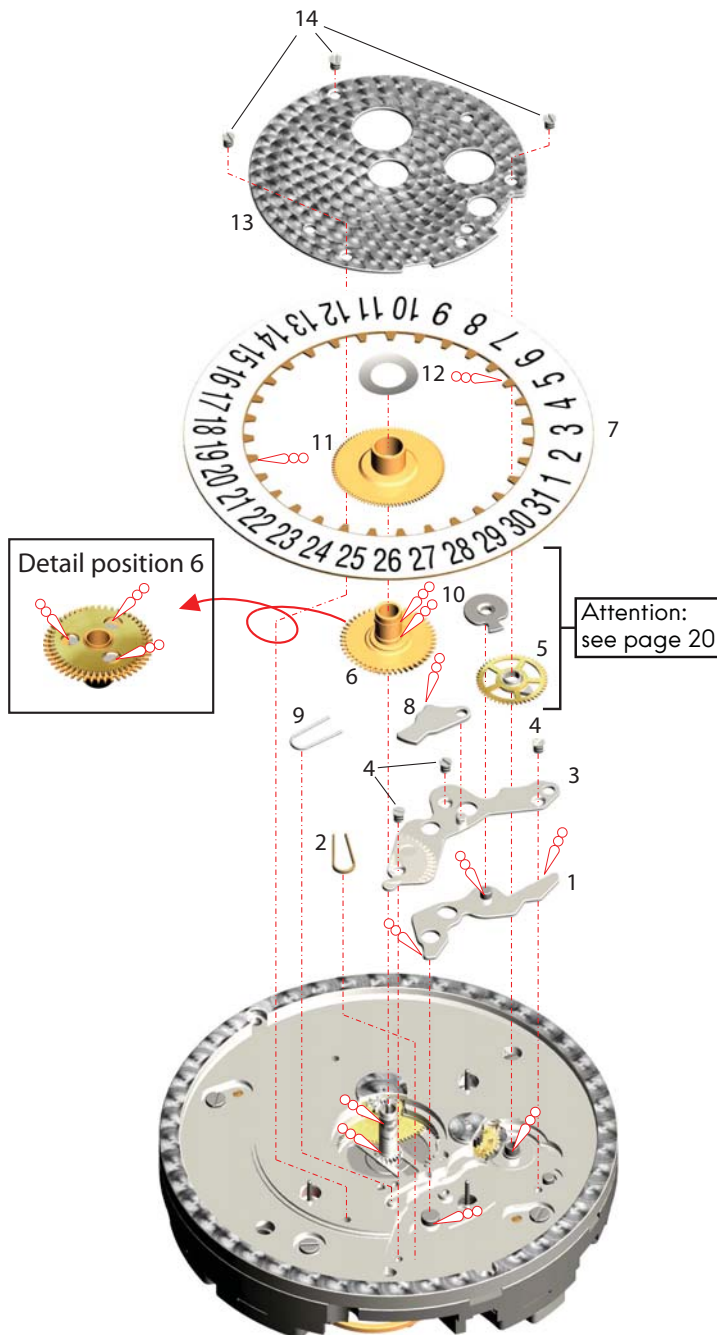


Exploded views - Dial side for calibre 3603

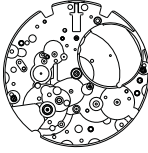
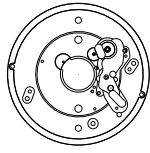
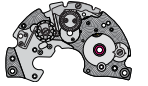


















Parts listed in order of assembly

1 = 53040	8 = 53080
2 = 61100	9 = 63030
3 = 13100	10 = 33020
4 = 6205 (3x)	11 = 31047**
5 = 33029	12 = 65108
6 = 36035**	13 = 10210
7 = 91440***	14 = 6205 (3x)





























 Moebius SYNT HP-1300 Sans Colorant































Spare parts list for calibre 3603

Main plate, jewelled,	Version	Reference	Calendar plate	Version	Reference
	3603A	7223603A10027		3603A	7223603A13020
Barrel bridge, pre-assembled	Version	Reference	Intermediate date wheel bridge	Version	Reference
	3603A	722330310041		3603A	7223603A13040
Wheel train bridge, jewelled	Version	Reference	Date jumper maintaining plate	Version	Reference
	3603A	722330310048		3603A	7223603A13100
Pallet bridge, Co-Axial	Version	Reference	Chronograph bridge, rhodium-plated	Version	Reference
	3603A	7223313A10056		3603A	7223603A15040
Balance bridge with number, pre-assembled	Version	Reference	Barrel, complete	Version	Reference
	3603A	7223603A1005818		3603A	7223313A20015
Minute train bridge	Version	Reference	Barrel drum + barrel cover	Version	Reference
	3603A	7223603A10062		3603A	722330320040
Mechanism cover	Version	Reference	Barrel arbor	Version	Reference
	3603A	7223603A10210		3603A	722330320060
Hammer operating limitation bridge	Version	Reference	Slipping mainspring	Version	Reference
 	3603A	722330310615		3603A	7223313A20100
Automatic device framework, jewelled	Version	Reference	Oscillating weight, rhodium-plated	Version	Reference
	3603A	722330312030		3603A	722331322019
Automatic device bridge, pre-assembled	Version	Reference	Intermediate wheel	Version	Reference
	3603A	722330312050		3603A	722330330012

































Spare parts list for calibre 3603

Great wheel	Version	Reference	Reduction wheel	Version	Reference
	3603A	722330330014		3603A	722330332031S2
Third wheel	Version	Reference	Shock-absorber, upper	Version	Reference
	3603A	722330330025		3603A	7223313B32027
Seconds wheel	Version	Reference	Shock-absorber, lower	Version	Reference
	3603A	7223603A30027**		3603A	7223313B32068
Intermediate escape wheel	Version	Reference	In-setting, upper	Version	Reference
	3603A	7223313B30039		3603A	7223313B32127
Co-Axial wheel	Version	Reference	In-setting, lower	Version	Reference
	3603A	7222500C30040		3603A	7223313B32167
Ratchet wheel	Version	Reference	Cap jewel, lower	Version	Reference
	3603A	722330331022		3603A	7223303A32262
Crown wheel	Version	Reference	Cap jewel, upper	Version	Reference
	3603A	722330331023		3603A	7223303A32325
Minute wheel	Version	Reference	Shock-absorber spring, upper	Version	Reference
	3603A	7223603A31042		3603A	7223303A32425
Hour wheel 24 H	Version	Reference	Shock-absorber spring, lower	Version	Reference
	3603A	7223603A31047**		3603A	7223303A32462
Cannon pinion with driving wheel	Version	Reference	Ratchet wheel driving wheel	Version	Reference
	3603A	7223603A31080**		3603A	72233033203301
Setting wheel for time-zone	Version	Reference	Wig-wag pinion	Version	Reference
	3603A	7223603A31100		3603A	722330332104
Motion work setting wheel	Version	Reference	Stop pinion	Version	Reference
	3603A	722330331102		3603A	722330332105
Winding pinion	Version	Reference	Intermediate date wheel	Version	Reference
	3603A	722330331120		3603A	7223603A33011
Sliding pinion	Version	Reference	Date indicator driving wheel	Version	Reference
	3603A	722330331121		3603A	7223603A33020















Spare parts list for calibre 3603

Driving wheel for date unlocking yoke	Version	Reference	Yoke	Version	Reference
	3603A	7223603A33029		3603A	722330351050
Date corrector intermediate setting wheel 1	Version	Reference	Rocking bar	Version	Reference
	3603A	7223303A33082		3603A	7223603A51052
Chronograph wheel	Version	Reference	Setting lever	Version	Reference
	3603A	7223603A35010**		3603A	722330351083
Minute-counting wheel	Version	Reference	Setting lever jumper	Version	Reference
	3603A	7223603A35012**		3603A	722330351090
Hour-counting wheel	Version	Reference	Click	Version	Reference
	3603A	7223603A35030**		3603A	722330351120
Driving wheel for counters	Version	Reference	Stop click	Version	Reference
	3603A	722330335031		3603A	722330352053
Hour counter additional driving wheel 1	Version	Reference	Date unlocking yoke	Version	Reference
	3603A	722330335032		3603A	7223603A53040
Hour counter additional driving wheel 2	Version	Reference	Date jumper	Version	Reference
	3603A	722330335033		3603A	7223603A53080
Intermediate corrector wheel time-zone	Version	Reference	Column wheel operating lever	Version	Reference
	3603A	7223603A36031		3603A	722330355040
Hour wheel with time-zone	Version	Reference	Hammer operating lever	Version	Reference
	3603A	7223603A36035**		3603A	7223303A55048
Pallet fork	Version	Reference	Clutch rocker	Version	Reference
	3603A	7222500C40010		3603A	722330355090
Balance complete with stud	Version	Reference	Clutch lever	Version	Reference
	3603A	7223313B40055		3603A	722330355100
Stud support	Version	Reference	Column wheel jumper	Version	Reference
	3603A	722330340210		3603A	722330355130
Winding stem	Version	Reference	Minute counter jumper	Version	Reference
	3603A	722330351010		3603A	722330355143

Spare parts list for calibre 3603

Chronograph column wheel	Version	Reference	Screw for stud	Version	Reference
	3603A	722330355180		3603A	72233034002
Chronograph and minute hammer	Version	Reference	Screw for automatic device bridge	Version	Reference
	3603A	722330355240		3603A	72233036003
Hour hammer	Version	Reference	Screw for Minute counter jumper	Version	Reference
	3603A	722330355248		3603A	72226016004
Eccentric screw	Version	Reference	Screw for hammer operating lever	Version	Reference
	3603A	722330355445		3603A	72226016004
Balance stop lever	Version	Reference	Screw for clutch rocker	Version	Reference
	3603A	722330356070		3603A	72226016004
Click spring	Version	Reference	Screw for clutch lever	Version	Reference
	3603A	722330361080		3603A	72226016004
Yoke spring	Version	Reference	Screw for Column wheel jumper	Version	Reference
	3603A	722330361100		3603A	72226016004
Spring for date unlocking yoke	Version	Reference	Screw for barrel bridge	Version	Reference
	3603A	7223603A61100		3603A	72233036011
Stop click spring	Version	Reference	Screw for Hammer operating lever spring	Version	Reference
	3603A	722330362101		3603A	7223612A6012
Date jumper spring	Version	Reference	Screw for ratchet wheel	Version	Reference
	3603A	7223603A63030		3603A	72233036019
Column wheel operating lever spring	Version	Reference	Screw for column wheel operating lever	Version	Reference
	3603A	722330365040		3603A	72233036022
Hammer operating lever spring	Version	Reference	Screw for calender plate	Version	Reference
	3603A	722330365047		3603A	7223603A6030
Hour wheel 24 H friction spring	Version	Reference	Screw for Hammer operating limitation bridge	Version	Reference
	3603A	7223603A65108		3603A	72233036034
Crown wheel core	Version	Reference	Screw for column wheel operating lever	Version	Reference
	3603A	722330381136		3603A	72233036204
Date indicator	Version	Reference	Screw for crown wheel core	Version	Reference
	3603A	722330391440*** 7223603A9144***		3603A	72233036204
Dial fastener	Version	Reference	Screw for minute train bridge	Version	Reference
	3603A	722330370200		3603A	72226016205

Spare parts list for calibre 3603

Screw for intermediate date wheel bridge	Version	Reference
	3603A	72226016205
Screw for date jumper maintaining plate	Version	Reference
	3603A	72226016205
Screw Mechanism cover	Version	Reference
	3603A	72226016205
Screw for setting lever	Version	Reference
	3603A	72233036407
Screw for click	Version	Reference
	3603A	72233037008
Screw for chronograph bridge	Version	Reference
	3603A	72233037031
Screw for balance bridge	Version	Reference
	3603A	72233037031
Screw for train wheel bridge	Version	Reference
	3603A	72233037031
Screw for barrel bridge	Version	Reference
	3603A	72233037031
Screw for chronograph bridge (smaller)	Version	Reference
	3603A	72233037033
Screw for automatic device	Version	Reference
	3603A	72233037033
Screw for setting lever jumper	Version	Reference
	3603A	72233037035
Screw for oscillating weight blue	Version	Reference
	3603A	72233138200B
Screw for pallet fork bridge	Version	Reference
	3603A	72233038204