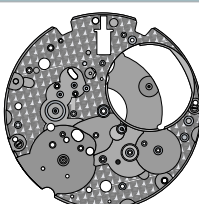
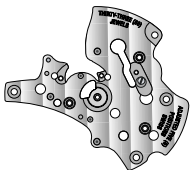

































Omega 3303,3303A Movement Parts (3)

Compiled by EmmyWatch - <https://www.emmywatch.com>

























Spare parts list for Calibre 3303

| Main plate, jewelled, rhodium-plated | Version | Reference | Chronograph bridge, rhodium-plated | Version | Reference |
|---|---------|---------------|--|---------|---------------|
|  | 3303A | 722330310020 |  | 3303A | 722330315040N |
| | 3303B | 7223303B10020 | | 3303B | 722330315040 |
| Barrel bridge, jewelled | Version | Reference | Barrel, complete | Version | Reference |
|  | 3303A | 722330310041 |  | 3303A | 722330320010 |
| | 3303B | | | 3303B | |
| Wheel train bridge, jewelled | Version | Reference | Barrel drum + barrel cover | Version | Reference |
|  | 3303A | 722330310048 |  | 3303A | 722330320040 |
| | 3303B | | | 3303B | |
| Pallet bridge, jewelled, rhodium-plated | Version | Reference | Barrel arbor | Version | Reference |
|  | 3303A | 722330310057 |  | 3303A | 722330320060 |
| | 3303B | | | 3303B | |
| Balance bridge, pre-assembled | Version | Reference | Mainspring | Version | Reference |
|  | 3303A | 722330310058 |  | 3303A | 722330320100 |
| | 3303B | 7223303B10058 | | 3303B | |
| Hammer operating limitation bridge | Version | Reference | Oscillating weight, rhodium-plated | Version | Reference |
|  | 3303A | 722330310615 |  | 3303A | 722330322019 |
| | 3303B | | | 3303B | |
| Automatic device framework, jewelled | Version | Reference | Intermediate wheel | Version | Reference |
|  | 3303A | 722330312030 |  | 3303A | 722330330012 |
| | 3303B | | | 3303B | |
| Automatic device bridge, pre-assembled | Version | Reference | Great wheel | Version | Reference |
|  | 3303A | 722330312050 |  | 3303A | 722330330014 |
| | 3303B | | | 3303B | |
| Date indicator maintaining plate | Version | Reference | Third wheel | Version | Reference |
|  | 3303A | 722330313105 |  | 3303A | 722330330025 |
| | 3303B | | | 3303B | |



























Spare parts list for Calibre 3303

| Second wheel | Version | Reference | Schock-absorber, lower | Version | Reference |
|---|---------|----------------|---|---------|----------------|
|  | 3303A | 722330330027** |  | 3303A | 722330332062 |
| | 3303B | | | 3303B | 7223303B70531 |
| Escape wheel | Version | Reference | In settings, upper | Version | Reference |
|  | 3303A | 722330330040 |  | 3303A | 7223303A32127 |
| | 3303B | | | 3303B | 7223313B32127 |
| Ratchet wheel | Version | Reference | In settings, lower | Version | Reference |
|  | 3303A | 722330331022 |  | 3303A | 7223303A32167 |
| | 3303B | | | 3303B | 7223313B32167 |
| Crown wheel | Version | Reference | Cap jewel, lower | Version | Reference |
|  | 3303A | 722330331023 |  | 3303A | 7223303A32262 |
| | 3303B | | | 3303B | |
| Minute wheel | Version | Reference | Cap jewel, upper | Version | Reference |
|  | 3303A | 722330331041S2 |  | 3303A | 7223303A32325 |
| | 3303B | | | 3303B | |
| Hour wheel | Version | Reference | Schock-absorber spring, top | Version | Reference |
|  | 3303A | 722330331046** |  | 3303A | 7223303A32425 |
| | 3303B | | | 3303B | |
| Cannon pinion with driving wheel | Version | Reference | Schock-absorber spring, bottom | Version | Reference |
|  | 3303A | 722330331080** |  | 3303A | 7223303A32462 |
| | 3303B | | | 3303B | |
| Motion work setting wheel | Version | Reference | Ratchet wheel driving wheel | Version | Reference |
|  | 3303A | 722330331102 |  | 3303A | 72233033203301 |
| | 3303B | | | 3303B | |
| Winding pinion | Version | Reference | Wig-wag pinion | Version | Reference |
|  | 3303A | 722330331120 |  | 3303A | 722330332104 |
| | 3303B | | | 3303B | |
| Sliding pinion | Kaliber | Reference | Stop pinion | Version | Reference |
|  | 3303A | 722330331121 |  | 3303A | 722330332105 |
| | 3303B | | | 3303B | |
| Reduction wheel | Version | Reference | Intermediate date wheel | Version | Reference |
|  | 3303A | 722330332031S2 |  | 3303A | 722330333011 |
| | 3303B | | | 3303B | |
| Schock-absorber, upper | Version | Reference | Date indicator driving wheel | Version | Reference |
|  | 3303A | 722330332025 |  | 3303A | 722330333020 |
| | 3303B | 7223313B32027 | | 3303B | |

Spare parts list for Calibre 3303

| Date corrector intermediate setting wheel 1 | Version | Reference | Yoke | Version | Reference |
|---|---------|----------------|---|---------|---------------|
|  | 3303A | 7223303A33082 |  | 3303A | 722330351050 |
| | 3303B | | | 3303B | |
| Date corrector intermediate setting wheel 2 | Version | Reference | Rocking bar | Version | Reference |
|  | 3303A | 722330333083 |  | 3303A | 722330351052 |
| | 3303B | | | 3303B | |
| Chronograph wheel | Version | Reference | Setting lever | Version | Reference |
|  | 3303A | 722330335010** |  | 3303A | 722330351083 |
| | 3303B | | | 3303B | |
| Minute-counting wheel | Version | Reference | Setting lever jumper | Version | Reference |
|  | 3303A | 722330335012** |  | 3303A | 722330351090 |
| | 3303B | | | 3303B | |
| Hour-counting wheel | Version | Reference | Click | Version | Reference |
|  | 3303A | 722330335030** |  | 3303A | 722330351120 |
| | 3303B | | | 3303B | |
| Driving wheel for counters | Version | Reference | Stop click | Version | Reference |
|  | 3303A | 722330335031 |  | 3303A | 722330352053 |
| | 3303B | | | 3303B | |
| Hour counter additional driving wheel 1 | Version | Reference | Date jumper | Version | Reference |
|  | 3303A | 722330335032 |  | 3303A | 722330353080 |
| | 3303B | | | 3303B | |
| Hour counter additional driving wheel 2 | Version | Reference | Date corrector | Version | Reference |
|  | 3303A | 722330335033 |  | 3303A | 722330353200 |
| | 3303B | | | 3303B | |
| Pallet fork | Version | Reference | Column wheel operating lever | Version | Reference |
|  | 3303A | 722330340010 |  | 3303A | 722330355040 |
| | 3303B | | | 3303B | |
| Balance complete with stud | Version | Reference | Hammer operating lever | Version | Reference |
|  | 3303A | 722330340055 |  | 3303A | 7223303A55048 |
| | 3303B | 7223303B40055 | | 3303B | |
| Stud support | Version | Reference | Clutch rocker | Version | Reference |
|  | 3303A | 722330340210 |  | 3303A | 722330355090 |
| | 3303B | | | 3303B | |
| Winding stem | Version | Reference | Clutch lever | Version | Reference |
|  | 3303A | 722330351010 |  | 3303A | 722330355100 |
| | 3303B | | | 3303B | |

Spare parts list for Calibre 3303

| Column wheel jumper | Version | Reference | Hour wheel friction spring | Version | Reference |
|---|---------|--------------|---|---------|---------------|
|  | 3303A | 722330355130 |  | 3303A | 722330366220 |
| | 3303B | | | | |
| Minute counter jumper | Version | Reference | Crown wheel core | Version | Reference |
|  | 3303A | 722330355143 |  | 3303A | 7223303881136 |
| | 3303B | | | | |
| Chronograph column-wheel | Version | Reference | Dial fastener | Version | Reference |
|  | 3303A | 722330355180 |  | 3303A | 722330370200 |
| | 3303B | | | | |
| Chronograph and minute hammer | Version | Reference | Date indicator | Version | Reference |
|  | 3303A | 722330355240 |  | 3303A | 722330391440* |
| | 3303B | | | | |
| Hour hammer | Version | Reference | Screw for stud | Version | Reference |
|  | 3303A | 722330355248 |  | 3303A | 72233034002 |
| | 3303B | | | | |
| Eccentric screw | Version | Reference | Screw for automatic device bridge | Version | Reference |
|  | 3303A | 722330355445 |  | 3303A | 72233036003 |
| | 3303B | | | | |
| Balance stop lever | Version | Reference | Screw for hammer operating lever | Version | Reference |
|  | 3303A | 722330356070 |  | 3303A | 72226016004 |
| | 3303B | | | | |
| Click spring | Version | Reference | Screw for clutch rocker | Version | Reference |
|  | 3303A | 722330361080 |  | 3303A | 72226016004 |
| | 3303B | | | | |
| Yoke spring | Version | Reference | Screw for clutch lever | Version | Reference |
|  | 3303A | 722330361100 |  | 3303A | 72226016004 |
| | 3303B | | | | |
| Stop click spring | Version | Reference | Screw for Column wheel jumper | Version | Reference |
|  | 3303A | 722330362101 |  | 3303A | 72226016004 |
| | 3303B | | | | |
| Date jumper spring | Version | Reference | Screw for Minute counter jumper | Version | Reference |
|  | 3303A | 722330363030 |  | 3303A | 72226016004 |
| | 3303B | | | | |
| Column wheel operating lever spring | Version | Reference | Screw for barrel bridge | Version | Reference |
|  | 3303A | 722330365040 |  | 3303A | 72233036011 |
| | 3303B | | | | |
| Hammer operating lever spring | Version | Reference | Screw for Hammer operating lever spring | Version | Reference |
|  | 3303A | 722330365047 |  | 3303A | 7223612A6012 |
| | 3303B | | | | |

Spare parts list for Calibre 3303

| Screw for ratchet wheel | Version | Reference | Screw for setting lever jumper | Version | Reference |
|---|---------|-------------|--|---------|-------------|
|  | 3303A | 72233036019 |  | 3303A | 72233037035 |
| | 3303B | | | 3303B | |
| Screw for column wheel operating lever | Version | Reference | Screw for oscillating weight | Version | Reference |
|  | 3303A | 72233036022 |  | 3303A | 72233038200 |
| | 3303B | | | 3303B | |
| Screw for Hammer operating limitation bridge | Version | Reference | Screw for pallet bridge | Version | Reference |
|  | 3303A | 72233036034 |  | 3303A | 72233038204 |
| | 3303B | | | 3303B | |
| Screw for column wheel operating lever | Version | Reference |  | | |
|  | 3303A | 72233036204 | | | |
| | 3303B | | | | |
| Screw for crown boss | Version | Reference | | | |
|  | 3303A | 72233036204 | | | |
| | 3303B | | | | |
| Screw for date indicator maintaining plate | Version | Reference | | | |
|  | 3303A | 72233036210 | | | |
| | 3303B | | | | |
| Screw for Setting lever jumper | Version | Reference | | | |
|  | 3303A | 72233036407 | | | |
| | 3303B | | | | |
| Screw for click | Version | Reference | | | |
|  | 3303A | 72233037008 | | | |
| | 3303B | | | | |
| Screw for chronograph bridge | Version | Reference | | | |
|  | 3303A | 72233037031 | | | |
| | 3303B | | | | |
| Screw for balance-bridge | Version | Reference | | | |
|  | 3303A | 72233037031 | | | |
| | 3303B | | | | |
| Screw for train wheel bridge | Version | Reference | | | |
|  | 3303A | 72233037031 | | | |
| | 3303B | | | | |
| Screw for barrel bridge | Version | Reference | | | |
|  | 3303A | 72233037031 | | | |
| | 3303B | | | | |
| Screw for chronograph bridge (smaller) | Version | Reference | | | |
|  | 3303A | 72233037033 | | | |
| | 3303B | | | | |
| Screw for automatic device bridge | Version | Reference | | | |
|  | 3303A | 72233037033 | | | |
| | 3303B | | | | |

Fig. 1.0a

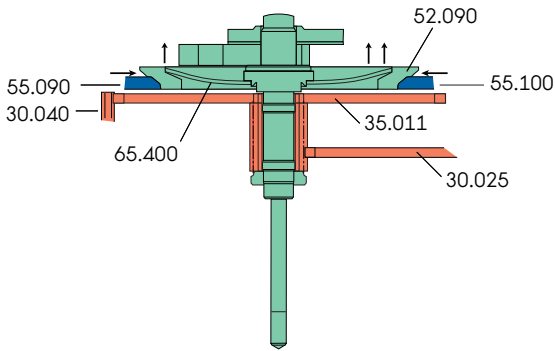
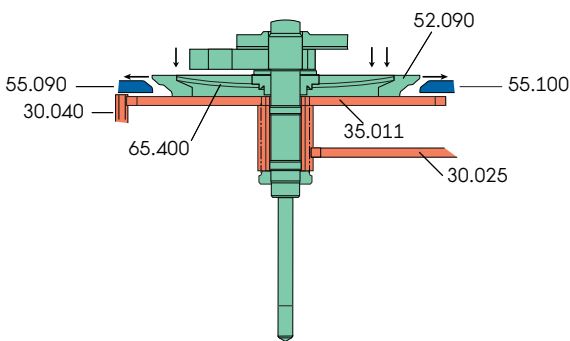


Fig. 1.0b



1.0 Chronograph wheel function

Chronograph wheel 35.010*

Chronograph wheel 35.010* is equipped with a coupling system by which the chronograph can be coupled with and uncoupled from the movement's gear-train.

Do not clean

Chronograph wheel (35.010*):

The chronograph wheel can only be lubricated during the manufacturing process. Cleaning damages the lubrication and could leave cleaning solution residue at the chronograph wheel, which interferes with operating and timing.

Chronograph stoppage position

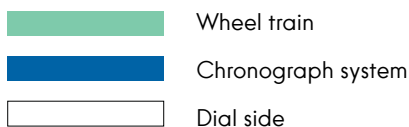
In chronograph stoppage position, clutch disc 52.090 is raised following clamping by clutch rocker 55.090 and clutch lever 55.100, thus avoiding contact with chronograph pinion 35.011 which is constantly coupled with the movement's gear-train.

Chronograph operating position

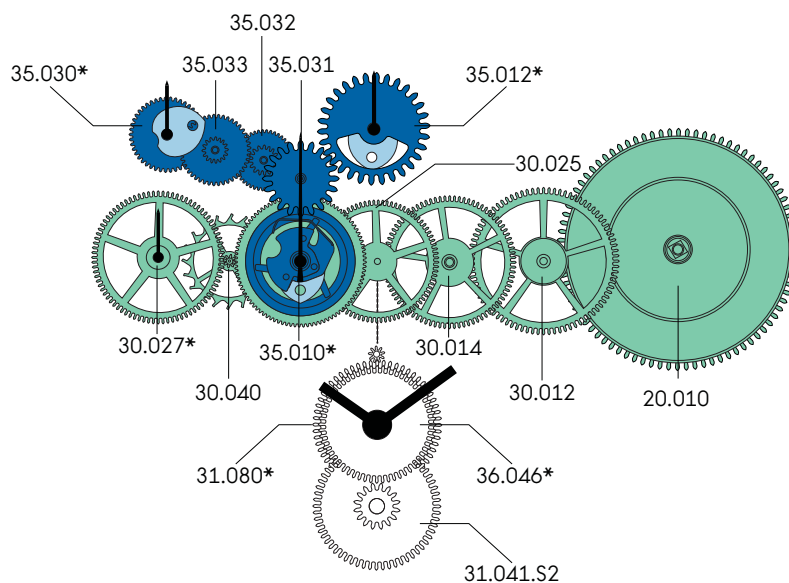
In chronograph operating position, clutch disc 52.090 is released simultaneously by clutch rocker 55.090 and clutch lever 55.100. Pushed by chronograph wheel friction spring 65.400, it comes to rest on chronograph pinion 35.011 which will drive it in its travel.

EMMY WATCH
VINTAGE RESTORATIONS

Fig. 1.1

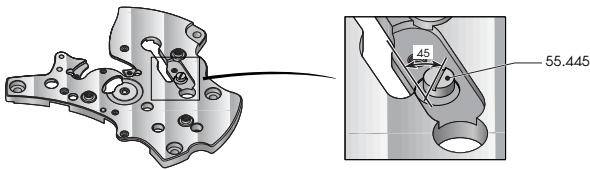


1.1 Description of chronograph system



2.0 Chronograph setting

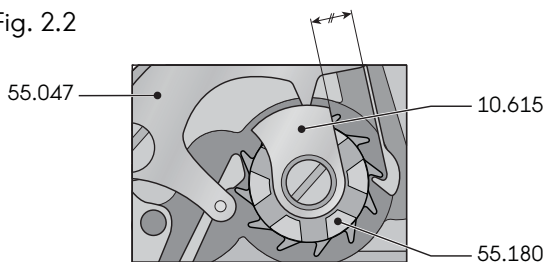
Fig. 2.1



2.1 Check on the eccentric screw for the counter jumper(55.445)

The eccentric screw (55.445) of the counter jumper (55.143) must be positioned as in the drawing. The slot of the eccentric screw (55.445) must form an angle of 45° in relation to the recess in the bridge. An additional correction is subsequently possible when the chronograph is being set. Do not forget to place the hour hammer (55.248) under the bridge and lubricate it.

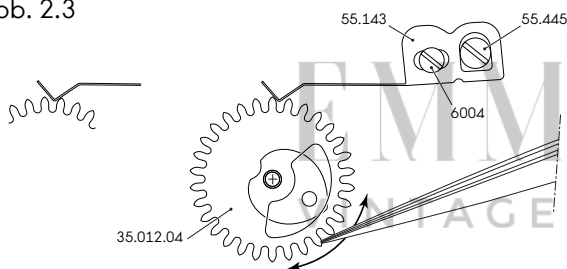
Fig. 2.2



2.2 Hammer-lever banking bridge (10.615)

The hammer-lever banking bridge (10.615) prevents the hammer operating lever (55.047) from moving into an unsuitable position. It should be positioned above the hammer operating lever (55.047) and its straight flank should be parallel to the hammer operating lever spring (65.047).

Abb. 2.3



2.3 Check on position of minute counter (35.012*)

Place the chronograph in reset position. Using a plastic or brass point, move the minute counter (35.012*) slightly to the left and right. It is important that the minute counter should return correctly to its original position. With the eccentric screw (55.445), the position of the counter jumper (55.143) can be corrected.

Fig. 2.4 - Drawing 1

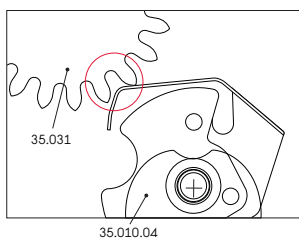
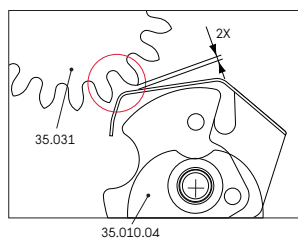


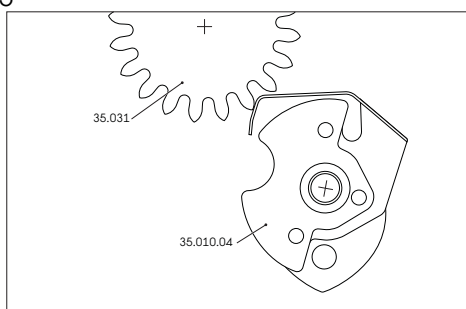
Fig. 2.4 - Drawing 2



2.4 Check on location of chronograph finger in reset position

Check the location of the chronograph finger in reset position. To ensure good synchronisation between the second counter and the minute counter, the chronograph finger should be between the position of «slight contact against the tooth» (see drawing 1) and a maximum distance of twice the thickness of the finger blade (see drawing 2).

Fig. 2.5



2.5 Chronograph finger operating safety

Put the chronograph in START position. Check that the minute counter jump is operating correctly by checking the penetration of the chronograph finger.

2.6 Checking the minute jump


In the START position, drive the chronograph hand with a brass or plastic point until the minute jumps. The difference in relation to the position of the chronograph's seconds hand in the zero setting position has a tolerance of 2/5 second. Check the function of the counter jumper (55.143) on the hand.

3.0 Runners for hand setting and hand setting force

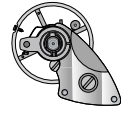







| Description | Movement holder for hand setting | No. of runners for hand setting | Minimum force (N) | Maximum force (N) | Support (jewel) |
|----------------------------------|----------------------------------|---------------------------------|-------------------|-------------------|-----------------|
| Hour hand | 507 0001 | 6 | 10 | 50 | No |
| Minute hand | | 2 | 10 | 50 | No |
| Chrono second hand in the centre | | 1 | 40 | 60 | Yes |
| Second hand (small) | | 1 | 10 | 40 | Yes |
| Hour counter hand | | 1 | 25 | 50 | Yes |
| Minute counter hand | | 1 | 25 | 50 | Yes |

4.0 Epilame coating

4.1 Partial epilame coating

| Description | Reference | |
|----------------|-----------|---|
| Pallet fork ** | 40010 |  |

4.2 Components that should not be epilam-trearede after cleaning

| Description | Reference | |
|----------------------------------|----------------|---|
| Balance fitted on balance bridge | 40055 + 10058° |  |
| In setting, upper * | 32127 |  |
| In setting, lower * | 32167 |  |
| Pallet bridge | 10057 |  |
| Barrel**** | 20010 |  |
| Slipping mainspring | 20100 |  |
| Hour-counting wheel | 35030* |  |
| Chronograph wheel *** | 35010* |  |

* Do not treat the shock-absorber settings with epilam; the cap jewels should however be treated.

** Pallet fork: Steep only the two gathering pallets in epilame.

*** Do not clean the chronograph wheel.

**** Do not treat the complete barrel with epilam, only the drum, cover and arbour separately.

For additional information see Working Instructions No 27.

5.0 Instantaneous rate

5.1 Check of the instantaneous rate

Demagnetise the movement before the checks according to Working Instruction 34.

The rate can be checked with a Witschi Watch Expert or a similar apparatus capable of acoustic measurements. The lift angle has to be set to 51 degrees.

The timing of the movement has to be according to the Omega timing specification list.

Please consult Working Instructions 5 and 28 for instructions and tolerances.

Fig. 5.2

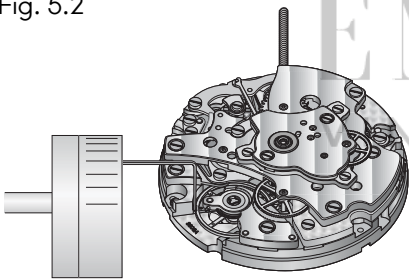
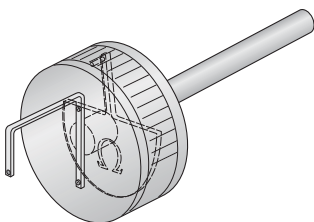
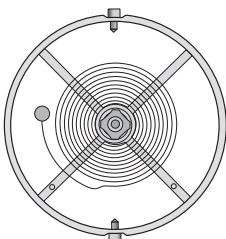


Fig. 5.3



REF. 502 200 0501

Fig. 5.4



5.2 Rate adjustment

A special timing key tool has been developed to adjust the rate even when the movement is cased in (see Fig. 5.3). The rate can be corrected according to the table below by turning the two balance screws a complete turn. A scale is found on the outside of the tool. A division corresponds to a rate correction of 1 second. (according to the table below). One screw is located between two arms on the balance which are specially marked by points (see Fig. 5.4) for easy identification of each screw during the correction process.

Balance

The annular balance has two adjusting micro-screws. A slow rate deviation is corrected by tightening the micro-screws (towards the centre of the balance), which reduces its moment of inertia and makes it run faster. A fast rate deviation is corrected by loosening the micro-screws (away from the centre of the balance). This increases its moment of inertia and makes it run slower.

Important:

The rate is always corrected using both adjustment screws to prevent an unbalance of the balance.

| Versions A & B identical |
|--|
| One correction revolution = 57 seconds |
| One graduation = 1 second |



Modifications of Technical Guide versions for Calibre 3303

| Technical Guide versions | | | |
|--------------------------|------------|-----------|------------------------|
| First version: | 15.02.2006 | Version A | Made by: Pelrom |
| Second version: | 01.04.2006 | Version B | |
| Third version: | 05.02.2007 | Version C | |
| Fourth version: | 03.04.2007 | Version D | |
| Last version: | 11.08.2008 | Version E | Rendav |

| Modifications of Technical Guide version B | |
|--|--|
| Old version (A) | New version (B) |
| Tool for checking escapement functions Ref. 506 0002 / Page 4 | Tool for checking escapement functions Ref. 506 0004 / Page 4 |
| Titel Exploded view: Movement side Page 6 | Titel Exploded view: Dial side Page 6 |
| | Additional drawing of barrel reversed / Page 7 |
| | Additional lubricant point on column wheel on exploded view / Page 8 |
| Screw for column wheel Ref. 72233036033 / Page 15 | Screw for column wheel Ref. 72233036034 / Page 15 |

| Modifications of Technical Guide version C | |
|--|--|
| Old version (B) | New version (C) |
| Page 4: Tool for checking escapement function | |
| Page 9: 1 = 61080 2 = 51120 3 = 7008 (1x) 4 = 31022 (1x) 5 = 6019 (1x) 6 = 31023 | Page 9: 1 = 12030 2 = 7033 3 = 3203301 4 = 32031S2 5 = 32105 6 = 32104 |

| Modifications of Technical Guide version D | |
|--|--|
| Old version (C) | New version (D) |
| Page 3: New version screw since week 07/2002. | Page 3: New version screw since week 35/2004. |

| Modifications of Technical Guide version E | |
|--|---|
| Old version (D) | New version (E) |
| | Update of exploded views Update of the lubrication points Diverse Information |

