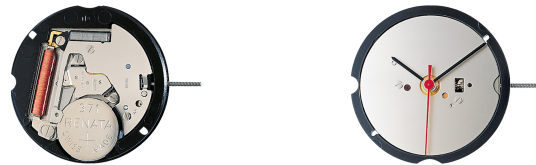


# RONDA powertech 500 and 762E, 763E

Affordable metal movements  
for reliable quality watches

*Caliber 503S – 10½'''*



## Product Specifications

Analog quartz movement

Line powertech

Caliber 503S

Size 10½'''

Version Swiss Made 1 Jewels / nickel plated  
Swiss Parts 1 Jewels / nickel plated

Standard battery life 24 months

Hand fitting height 1

## Features

- Repairable metal watch movement
- Power saving mechanism with pulled out stem: Reduction of consumption approximately 70%
- Interchangeability: All versions 10½''' with same movement height 3.00 mm and stem height 1.50 mm
- Very powerful stepping motor
- Fix motor pulse

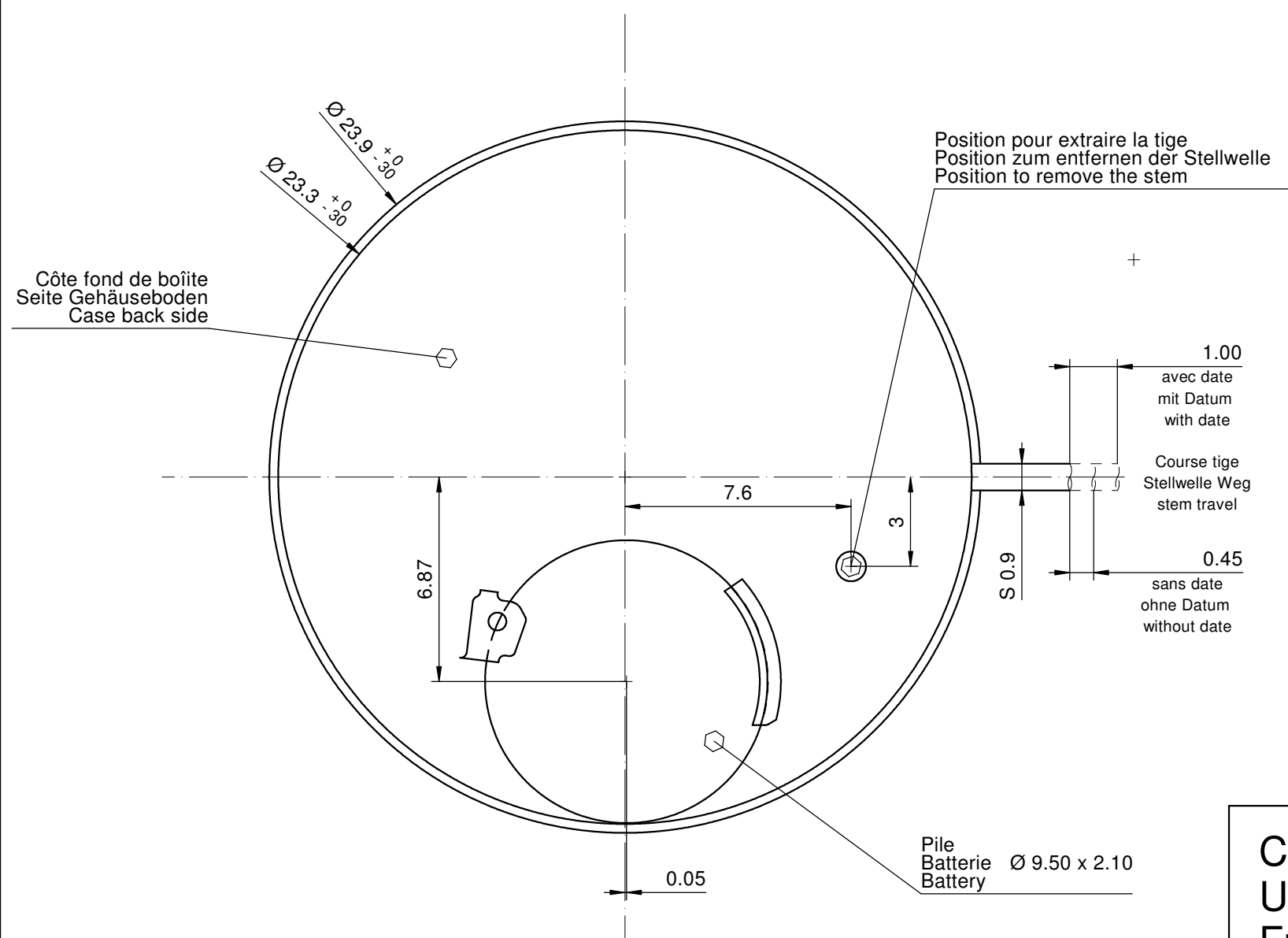
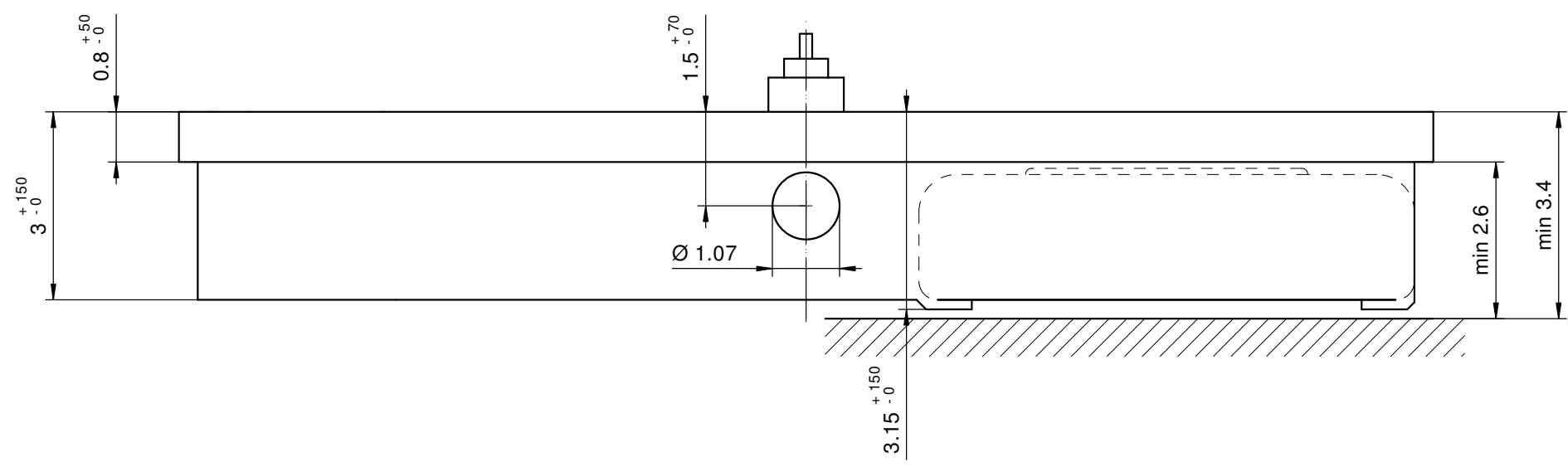
**Functions**

- Option for second disc
- 3 hands

**Technical Specifications**

|                                |                    |
|--------------------------------|--------------------|
| Diameter Total                 | 23.90 mm           |
| Case fitting                   | 23.30 mm           |
| Movement height                | 3.00 mm            |
| Height over standard battery   | 3.25 mm            |
| Movement rest                  | 0.80 mm            |
| Height over stem               | 1.50 mm            |
| Length of stem travel          | 0.45 mm            |
| Stem thread                    | 0.90 mm            |
| Standard battery               | 371                |
| Standard battery life          | 24 months          |
| Battery voltage                | 1.5 V              |
| Current consumption – typical  | 2.4 µA             |
| Current consumption – maximum  | 2.65 µA            |
| Useful torque second – typical | 9 µNm              |
| Useful torque minute – typical | 450 µNm            |
| Operating temperature          | 0 - 50 °C          |
| Instantaneous rate             | -10/ +20 sec/month |
| Resistance to magnetic fields  | 18.8 Oe            |
| Resistance against shock       | NIHS 91-10         |





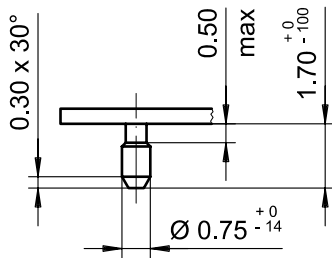
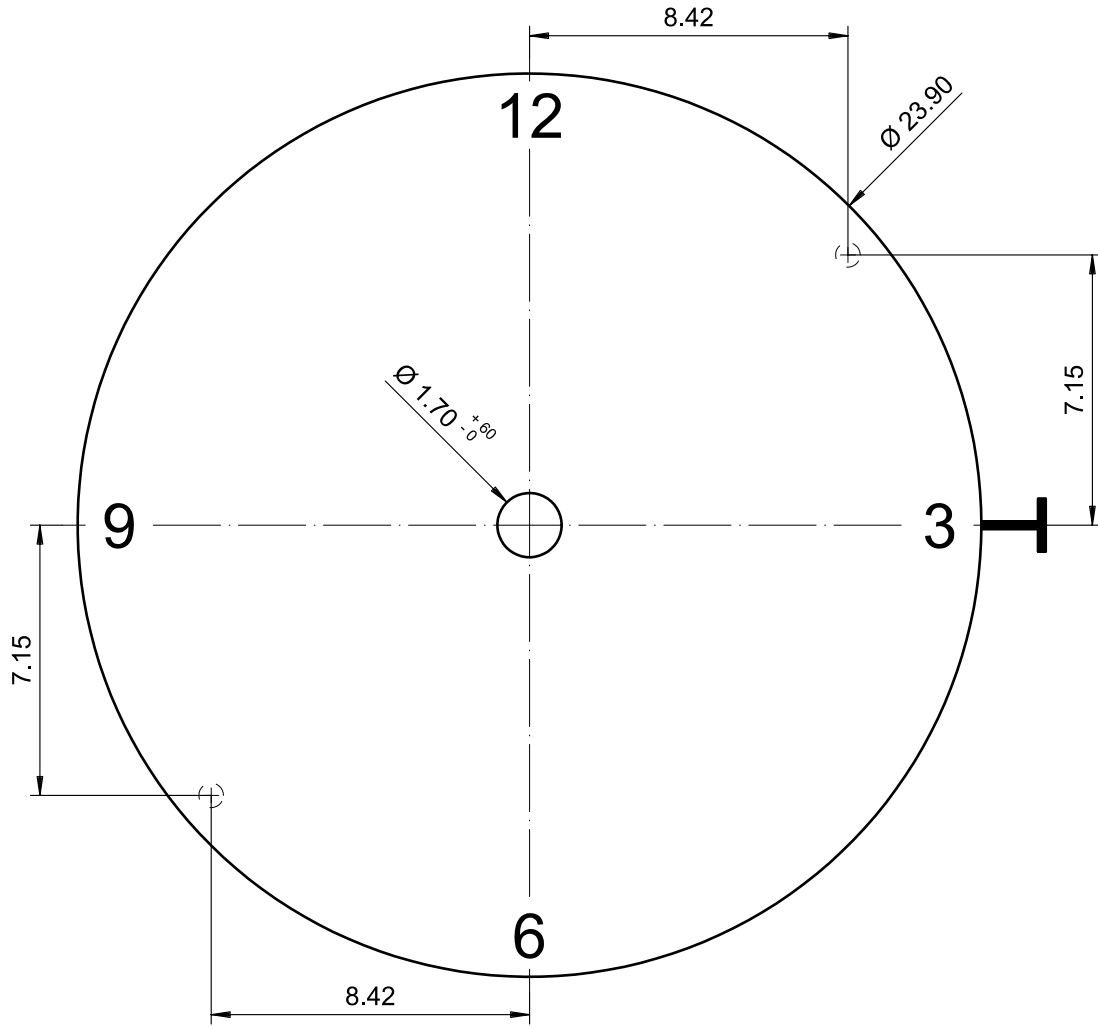
Position pour extraire la tige  
Position zum entfernen der Stellwelle  
Position to remove the stem

1.00  
avec date  
mit Datum  
with date  
Course tige  
Stellwelle Weg  
stem travel  
0.45  
sans date  
ohne Datum  
without date

Sécurité entre aiguille seconde et verre : min 0.30 mm  
Sicherheit zwischen Sekundenzeiger und Glas : min 0.30 mm  
Security between second hand and glass : min 0.30 mm

Le cadran doit être maintenu en hauteur par la boîte.  
Das Zifferblatt muss in der Höhe vom Gehäuse festgehalten werden.  
The dial must be held in the height by the case.

|   |  |           |   |             |
|---|--|-----------|---|-------------|
| <b>Cage<br/>Uhrwerkgestell 10½"</b><br><b>Frame</b> |  | Issued    | 09.02.2000  | cs          |
|   |  | Modified  | 16.11.2017  | dh5221      |
|   |  | Released  | YES   |             |
|   |  | Mod. No.  | 36881   |             |
|   |  | Tolerance | ±20 µm  |             |
|   |  | Scale     | 10 : 1  | Page 1/1 A3 |
| <b>RONDA</b>  | <b>502, 503, 503S, 505,<br/>505S, 507, 509</b> |           | Sous réserve de modifications<br>Änderungen vorbehalten<br>Modifications reserved |             |
|   | No.  | 5000.284  | 07  |             |



Epaisseur du cadran selon hauteur de l'aiguillage  
 Zifferblattdicke gemäss Zeigerwerkhöhen  
 Dial thickness according to hand fitting heights

|           |
|-----------|
| Tige      |
| Stellw.   |
| Stem      |
| <b>3H</b> |

Cadran  
 Zifferblatt  
 Dial

10 1/2'''

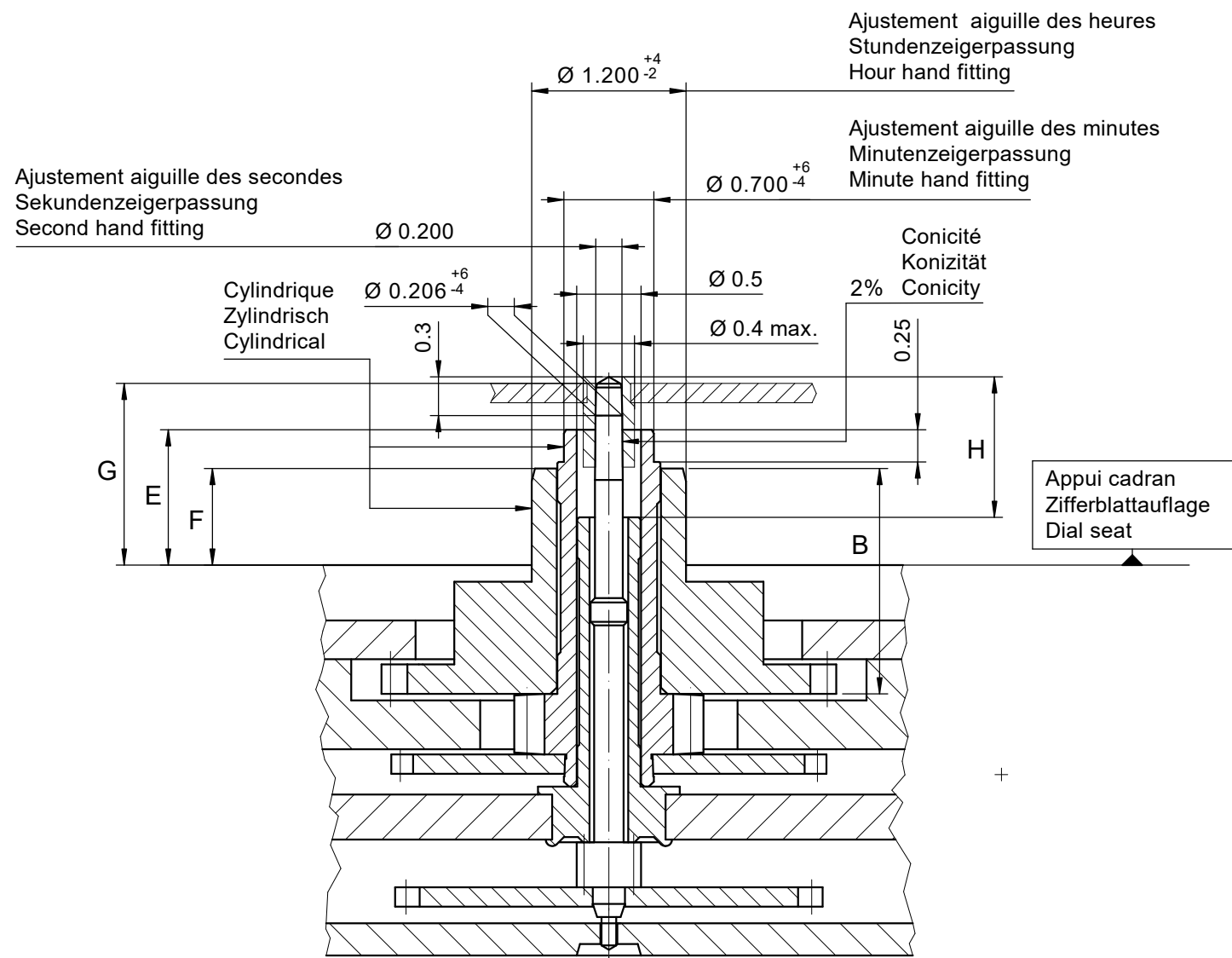
|           |                        |    |
|-----------|------------------------|----|
| Issued    | 13 Dez 2006            | cw |
| Modified  | 08.Feb.2007<br>ÄA ---- | cm |
| Released  | YES                    |    |
| Tolerance | +/- 20 µm              |    |
| Scale     | 5 : 1 (A4V)            |    |

RONDA

503, 503S, 702, 703

Sous réserve de modifications  
 Aenderungen vorbehalten  
 Modifications reserved

No. 5010.359 05



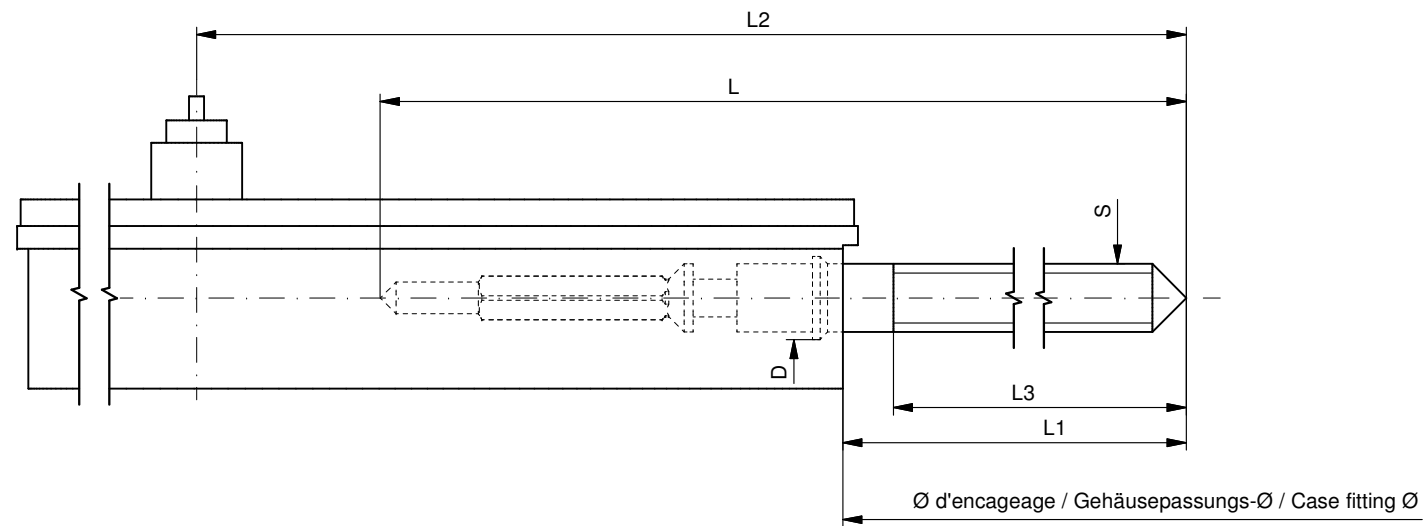
Heures / minutes / secondes  
 Stunden / Minuten / Sekunden  
 Hours / minutes / seconds

| Aiguillage no<br>Zeigerwerkhöhe Nr.<br>Hand fitting height No | Dépassement<br>Höhe über Zifferblattauflage<br>Height over dial seat |  |   | Longueur<br>Länge<br>Length |      | Epaisseur max. (peinture comprise)<br>Max. thickness (inkl. Farbe)<br>Max. thickness (paint included) |   |  |                              |
|---|--|--|---|-----------------------------|------|---|---|--|------------------------------|
|   | Pignon des secondes<br>Sekundentrieb<br>Second pinion                | Chaussée<br>Minutenrohr<br>Cannon-pinion | Roue des heures<br>Stundenrad<br>Hour wheel | H                           | B    | Cadran<br>Zifferblatt<br>Dial   |   |  | Aiguilles<br>Zeiger<br>Hands |
|   |  |  |   |                             |      | Sous l'aiguille des secondes<br>Unter Sekundenzeiger<br>Under second hand                             | Sous l'aiguille des minutes<br>Unter Minutenzeiger<br>Under minute hand | Sous l'aiguille des heures<br>Unter Stundenzeiger<br>Under hour hand |                              |
|   | G  | E  | F   | H                           | B    |   |   |  |                              |
| 1   | 1.46   | 1.05                                     | 0.75  | 1.09                        | 1.75 | 0.95  | 0.65  | 0.40   | 0.15                         |
| 2   | 1.81   | 1.40                                     | 1.10  | 1.44                        | 2.10 | 1.30  | 1.00  | 0.75   | 0.15                         |
| 6   | 2.31   | 1.98                                     | 1.58  | 1.19                        | 2.58 | 1.80  | 1.55  | 0.40   | 0.15                         |

|                       | Aig. des secondes<br>Sekundenzeiger<br>Second hand | Aig. des minutes<br>Minutenzeiger<br>Minute hand | Aig. des heures<br>Stundenzeiger<br>Hour hand | Lors de la pose d'aiguilles, le mouvement doit être soutenu.<br>Beim Zeigersetzen muss das Werk abgestützt werden.<br>The movement needs to be supported for hand setting. |
|-----------------------|--|--|---|--|
| mg max.               | 85   | 700  | 700   | Masse / Masse / Weight *   |
| µNm max.              | 0.08   | 0.70   | 0.70  | Balourd / Unwucht / Unbalance *  |
| gmm <sup>2</sup> max. | 1.0  | -  | -   | Inertie / Massenträgheit / Inertia *   |
| N max.                | 30   | 40   | 40  | Force de chassage / Aufpresskraft / Force  |

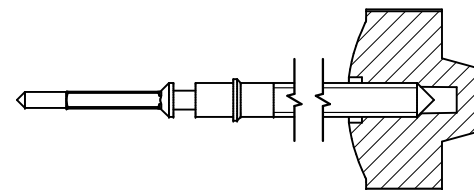
|  |  |            |             |
|--|--|------------|-------------|
| <b>Aiguillages</b><br><b>Zeigerwerkhöhen</b><br><b>Hand fitting heights</b><br><span style="font-size: 1.5em; margin-left: 100px;">10½", 11½"</span> | Issued   | 25.01.2022 | jk5228      |
|  | Modified   | 26.01.2022 | jk5228      |
|  | Released   | YES        |             |
|  | Mod. No.   | 44909      |             |
|  | Tolerance  | µm         |             |
|  | Scale  | 20 : 1     | Page 1/1 A3 |
| <b>RONDA</b> 503S, 505S, 513S, 515S  | Sous réserve de modifications<br>Aenderungen vorbehalten<br>Modifications reserved |            |             |
|  | No.  | 3316.200   | 00          |

\* En cas de données différentes, veuillez contacter le service après-vente \* Bei abweichenden Werten, bitte technischen Kundendienst anfragen \* In case of different values, please contact the customer service



Tige de travail (intégrée dans le mouvement)  
 Arbeitstellwelle (im Werk eingebaut)  
 Working stem (implemented in the movement)

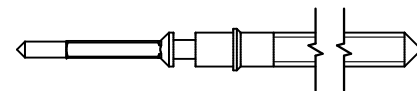
| No. d'article<br>Artikelnummer<br>Part number | L     | L1    | L2    | L3    | S    | D    |
|---|-------|-------|-------|-------|------|------|
| 3000.164.CO                                   | 20.50 | 11.09 | 22.74 | 11.83 | 0.90 | 1.05 |



|  |                        |
|--|------------------------|
| Couleur de la couronne<br>Kronenfarbe<br>Crown color | brun<br>braun<br>brown |
| Code   | UN 8052                |

Tige (normale) / Stellwelle (normal) / Stem (normal)

| No. d'article<br>Artikelnummer<br>Part number | L     | L1    | L2    | L3    | S    | D    |
|---|-------|-------|-------|-------|------|------|
| 3000.164                                      | 20.50 | 11.09 | 22.74 | 11.83 | 0.90 | 1.05 |
| 3000.171                                      | 32.50 | 24.34 | 34.74 | 23.83 | 0.90 | 1.05 |



Couronne normale  
 Normale Krone  
 Normal crown

Boîte / Gehäuse / Case

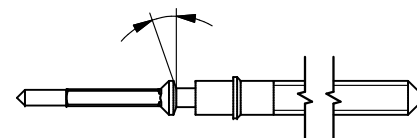
0.02 - 0.10

Couronne vissée  
 Geschraubte Krone  
 Screwed crown

|  |      |
|--|------|
| Force ⇐ min.<br>Kraft ⇐ min.<br>Force ⇐ min. | 10 N |
| Force ⇐ max.<br>Kraft ⇐ max.<br>Force ⇐ max. | 15 N |

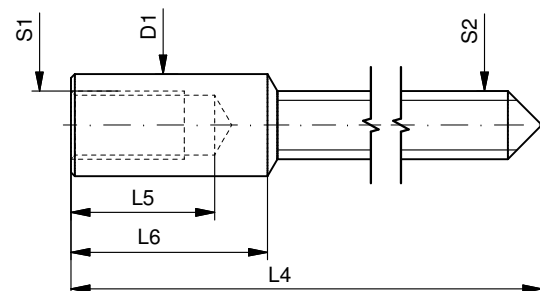
Tige (à arracher)  
 Stellwelle (Ausreissversion)  
 Stem (extractable version)

| No. d'article<br>Artikelnummer<br>Part number | L     | L1    | L2    | L3    | S    | D    |
|---|-------|-------|-------|-------|------|------|
| 3000.163                                      | 20.50 | 12.34 | 22.74 | 11.83 | 0.90 | 1.05 |
| 3000.196                                      | 32.50 | 24.34 | 34.74 | 23.83 | 0.90 | 1.05 |

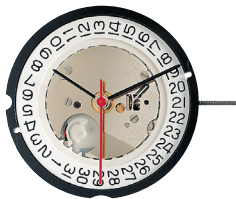


Rallonge de tige / Stellwelle Verlängerung / Stem extension

| No. d'article<br>Artikelnummer<br>Part number | L4    | L5<br>(min) | L6   | S1   | S2   | D1   |
|---|-------|-------------|------|------|------|------|
| 3000.040                                      | 12.00 | 1.90        | 2.60 | 0.90 | 0.90 | 1.35 |



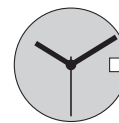
|                            |  |   |           |             |        |  |
|----------------------------|--|---|-----------|-------------|--------|--|
| Tige<br>Stellwelle<br>Stem | (dimensions / forces)<br>(Dimensionen / Kräfte)<br>(dimensions / forces) |   | Issued    | 05 Jul 2012 | ds5212 |  |
|                            | RONDA  | 502, 503, 503S, 505, 505S,<br>505.24H, 505.24D, 507, 509                          | Modified  | 17 Mär 2017 | mg5224 |  |
|                            |  |   | Released  | ÄA 34582    |        |  |
|                            |  |   | Tolerance | ---         |        |  |
|                            |  |   | Scale     | 10:1 (A3)   |        |  |
|                            |  | Sous réserve de modifications<br>Änderungen vorbehalten<br>Modifications reserved |           |             |        |  |
| No.                        | 5030.001   |   |           | 01          |        |  |



10 1/2<sup>mm</sup>



503S



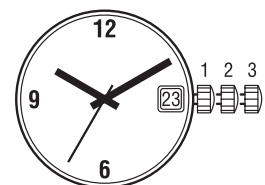
505S

**Funktionen**

**Fonctions**

**Functions**

| Kaliber<br>Calibre<br>Caliber | Stellwellenpos.<br>Pos. de tige<br>Stem position | Funktionen<br>Fonctions<br>Functions  |
|-------------------------------|--|---|
| 503S                          | 1  | Normale Position / Position normale / Running position<br>Zeiger stellen, Sekunden-Stopp mit Unterbruch der Motorimpulse  |
|                               | 2  | Mise à l'heure, stop-seconde avec interruption des impulsions moteur<br>Hand setting, stop-second with interruption of motor pulses   |
| 505S                          | 1  | Normale Position / Position normale / Running position  |
|                               | 2  | Datumskorrektur / Correction de la date / Date correction   |
|                               | 3  | Zeiger stellen, Sekunden-Stopp mit Unterbruch der Motorimpulse<br>Mise à l'heure, stop-seconde avec interruption des impulsions moteur<br>Hand setting, stop-second with interruption of motor pulses |



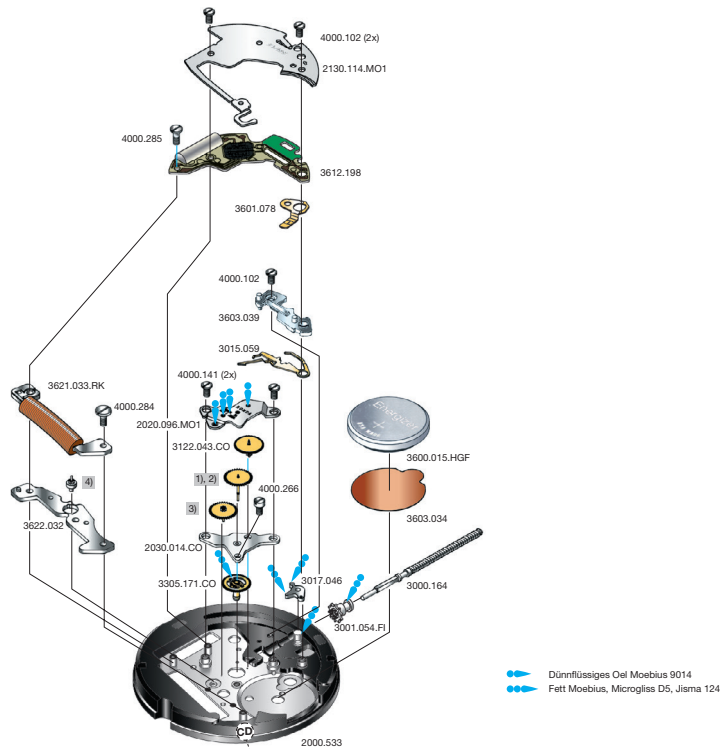
**Batterie**

**Pile**

**Battery**

| Kaliber<br>Calibre<br>Caliber | Batterie<br>Pile<br>Battery | Spannung<br>Voltage<br>Tension | Artikelnummer RONDA<br>Numero d'article RONDA<br>Part number RONDA |
|-------------------------------|-----------------------------|--------------------------------|--|
| 503S, 505S                    | 371 / SR920SW               | 1.55 V                         | 3600.015.HGF   |

10 1/2''' 503S, 505S



Code: Beispiel CD / exemple CD / exemple CD

| Cal. 503S    | Werkseite / Côté mouvement / Movement side |                |                    |
|--------------|--|----------------|--------------------|
| Plan No.     | Bestandteile                               | Fournitures    | Spare Parts        |
| 2000.533     | Werkplatte                                 | Platine        | Main plate         |
| 2020.096.MO1 | Räderwerkbrücke                            | Pont rouage    | Train w. bridge    |
| 2030.014.CO  | Zentrumbrücke                              | Pont centre    | Centre bridge      |
| 2130.114.MO1 | Modul-Abdeckp.                             | Couvre module  | Module cover pl.   |
| 3000.164     | Stellwelle                                 | Tige           | Stem               |
| 3001.054.FI  | Kupplungstrieb                             | Pignon coulant | Sliding pinion     |
| 3015.059     | Kuppl.-triebhebel                          | Bascule        | Yoke               |
| 3017.046     | Winkelhebel                                | Tirette        | Setting lever      |
| 3122.043.CO  | Kleinbodenrad                              | Roue moyenne   | Third wheel        |
| 1)           | Sekundenrad                                | Roue secondes  | Second-wheel       |
| 3)           | Zwischenrad                                | Roue interméd. | Intermed. wheel    |
| 3305.171.CO  | Minutenrohr                                | Chaussée       | Cannon pinion      |
| 3600.015.HGF | Batterie                                   | Pile           | Battery            |
| 3601.078     | Batterie-Kontakt                           | Bride contact  | Battery contact    |
| 3603.034     | Batterie-Isolation                         | Isolateur pile | Battery insulation |
| 3603.039     | Deckplatte/ Ste.                           | Couvre mécan.  | Setting lev. cover |
| 3612.199     | Modul                                      | Module         | Module             |
| 3621.036.RK  | Spule                                      | Bobine         | Coil               |
| 3622.032     | Stator                                     | Stator         | Stator             |
| 4)           | Rotor                                      | Rotor          | Rotor              |
| 4000.102     | Schraube                                   | Vis            | Screw              |
| 4000.141     | Schraube                                   | Vis            | Screw              |
| 4000.266     | Schraube                                   | Vis            | Screw              |
| 4000.284     | Schraube                                   | Vis            | Screw              |
| 4000.285     | Schraube                                   | Vis            | Screw              |

**Abweichungen / Divergences / Deviations**

| Cal. 505S | Werkseite / Côté mouvement / Movement side |             |             |
|-----------|--|-------------|-------------|
| Plan No.  | Bestandteile                               | Fournitures | Spare Parts |
| 3015.060  | Kuppl.-triebhebel                          | Bascule     | Yoke        |

| Cal. 503S, 505S |   |   |
|-----------------|---|---|
|                 | Bis Dezember 2015<br>Jusqu' en Decembre 2015<br>Untill December 2015                              | Ab Januar 2016<br>A partir de Janvier 2016<br>From January 2016   |
| Code            | 2. Buchstabe ... <b>D</b><br>Second letter ... <b>D</b><br>2 <sup>ème</sup> chiffre: ... <b>D</b> | 2. Buchstabe: ab <b>E</b><br>Second letter: from <b>E</b><br>2 <sup>ème</sup> chiffre: à partir de <b>E</b> |
| 1)              | 3136.090.CO   | 3136.194.CO   |
| 3)              | 3147.019.CO   | 3147.092.CO   |
| 4)              | 3715.089.RK   | 3715.144.RK   |

Die obigen 3 Teile bilden jeweils eine Gruppe. Deshalb sind die 3 Teile jeder Gruppe nicht einzeln gegeneinander austauschbar.

Les 3 fournitures ci-dessous forment un groupe individuel. C'est pourquoi les 3 fournitures de chaque groupe ne sont pas interchangeables.

The 3 parts mentioned above are forming an individual group. Therefore the 3 parts of each group are not interchangeable.



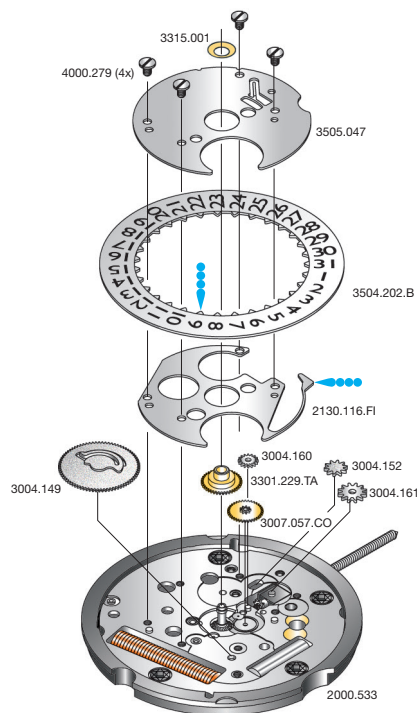
# Werkaufbau

# Assemblage

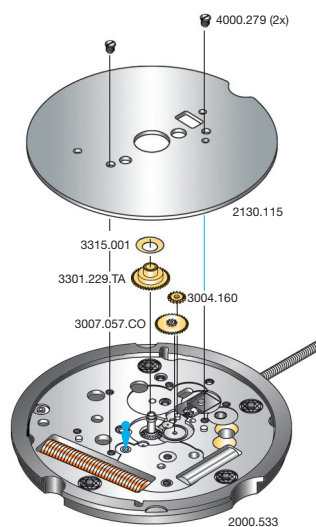
# Assembling

10 1/2''' 505S

10 1/2''' 503S



●●●●● Fett Moebius, Microgliss 1 4



● Düninflüssiges Oel Moebius 9014

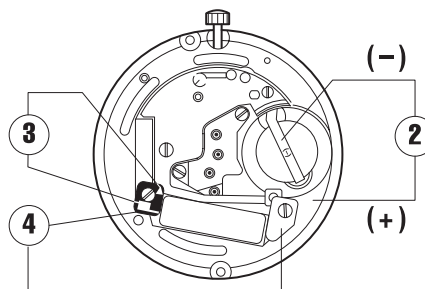
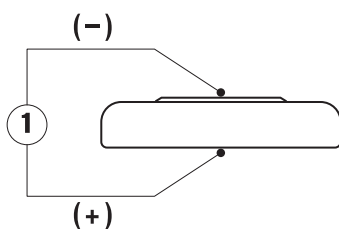
| Cal. 505S Zifferblattseite / Côté cadran / Dial side |                              |                     |                             |
|--|------------------------------|---------------------|-----------------------------|
| Plan No.   | Bestandteile                 | Fournitures         | Spare Parts                 |
| 2130.116.FI  | Kalenderplatte               | Plaque calendrier   | Date ind. plate             |
| 3004.149   | Datummitn.-rad               | Renvoi entraîin.    | Ind. driving wheel          |
| 3004.152   | Umkehrad                     | Baladeur            | Sliding gear                |
| 3004.160   | Zeigerstellrad               | Renvoi minuterie    | Setting wheel               |
| 3004.161   | Verbindungsrad-Kupplungtrieb | Renvoi pig. coulant | Sliding pinon setting wheel |
| 3007.057.CO  | Wechselrad                   | Minuterie           | Minute wheel                |
| 3301.229.TA  | Stundenrad                   | Canon               | Hour wheel                  |
| 3315.001   | Spreizfeder                  | Clinquant           | Washer                      |
| 3504.202.B   | Datumanzeiger                | Bague               | Date indicator              |
| 3505.047   | Kal.-Abdeckplatte            | Couvercle calend.   | Date ind. cover             |
| 4000.279   | Schraube                     | Vis                 | Screw                       |

| Cal. 503S Zifferblattseite / Côté cadran / Dial side |                  |                  |                  |
|--|------------------|------------------|------------------|
| Plan No.   | Bestandteile     | Fournitures      | Spare Parts      |
| 2130.115   | Zeigerwerkplatte | Plaque maintien  | Maintening plate |
| 3004.160   | Zeigerstellrad   | Renvoi minuterie | Setting wheel    |
| 3007.057.CO  | Wechselrad       | Minuterie        | Minute wheel     |
| 3301.229.TA  | Stundenrad       | Canon            | Hour wheel       |
| 3315.001   | Spreizfeder      | Clinquant        | Washer           |
| 4000.279   | Schraube         | Vis              | Screw            |

## Elektr. Messungen

## Contrôles électriques

## Electrical checking



| Kaliber<br>Calibre<br>Caliber | Pos.<br>Pos.<br>Pos. | Einheit<br>Unité<br>Unit              | Messwerte<br>Valeurs mesurées<br>Measured values | Kontrolle<br>Contrôle<br>Check  | Bemerkungen<br>Remarques<br>Remarks   |
|-------------------------------|----------------------|---------------------------------------|--|---|---|
| 503S, 505S                    | 1                    | V                                     | 1,55   | Batterie-Spannung<br>Tension de la pile<br>Battery voltage  | Batterie herausnehmen und messen<br>Enlever et mesurer la pile<br>Remove battery for measuring                              |
| 503S, 505S                    | 2                    | µA                                    | 1,10–1,85<br>2,20–2,65                           | Stromaufnahme<br>Consom. de courant<br>Power consumption  | Ohne Batterie, mit externer Speisung<br>Sans pile, avec alimentation externe<br>Without battery, with external power supply |
| 503S, 505S                    | 2                    | V                                     | ≤ 1,30   | Funktionskontrolle bei Minimalspannung<br>Contrôle de fonctionnement à tension minimale<br>Check with lowest possible voltage | Ohne Batterie, mit externer Speisung<br>Sans pile, avec alimentation externe<br>Without battery, with external power supply |
| 503S, 505S                    | 3                    | KΩ                                    | 1,90–2,10<br>2,35–2,55                           | Spulenwiderstand<br>Résistance de la bobine<br>Resistance of the coil   | Ohne Batterie<br>Sans pile<br>Without battery   |
| 503S, 505S                    | 4                    | KΩ                                    | ∞  | Spulenisolation<br>Isolation de la bobine<br>Coil insulation  | Ohne Batterie<br>Sans pile<br>Without battery   |
| 503S, 505S                    |                      | Sek./Monat<br>sec./mois<br>sec./month | - 10/+ 20  | Induktivsonde 60 Sek.<br>Senseur inductif 60 sec.<br>Inductive sensor 60 sec.   | Mit Batterie<br>Avec pile<br>With battery   |

## Einschalen / Werkzeuge

## Emboîtage / outils

## Casing / tools

Nr. H 50x.1A



Nr. H 50x.1T



| SWISS MADE & SWISS PARTS |  |
|--------------------------|--|
| Schraube<br>Vis<br>Screw |  |

### Zeigersetzen

Maximale Aufpresskraft:

- Stunden und Minutenzeiger: max. 40N
- Sekundenzeiger: max. 30N

Beim Zeigersetzen muss das Werk abgestützt werden.

### Poser les aiguilles

Force de chassage maximale:

- Aiguilles des heure et des minutes: max. 40N
- Aiguille des secondes: max. 30N

Lors de la pose d'aiguilles, le mouvement doit être soutenu.

### Hand setting

Maximal force:

- Hour and minute hands: max. 40N
- Second hand: max. 30N

The movement needs to be supported for hand setting.

|  |   |
|--|---|
| <b>Kal. 503S Stellwelle entfernen</b><br>Beim Entfernen der Stellwelle muss sich die Stellwelle in <b>Position 1</b> (gedrückt) befinden, bevor auf den Winkelhebel gedrückt wird. | <b>Kal. 505S Stellwelle entfernen</b><br>Beim Entfernen der Stellwelle muss sich die Stellwelle in <b>Position 2</b> befinden, bevor auf den Winkelhebel gedrückt wird. |
| <b>Kal. 503S Enlever la tige</b><br>En enlevant la tige, la tige doit se trouver en <b>position 1</b> (poussée), avant de pousser sur la tirette.                                  | <b>Kal. 505S Enlever la tige</b><br>En enlevant la tige, la tige doit se trouver en <b>position 2</b> , avant de pousser sur la tirette.                                |
| <b>Kal. 503S Stem removal</b><br>For removal of the stem, the stem must be in <b>position 1</b> (pressed in) prior to apply pressure to the setting lever.                         | <b>Kal. 505S Stem removal</b><br>For removal of the stem, the stem must be in <b>position 2</b> prior to apply pressure to the setting lever.                           |