



Ausbauanleitung

für

C O N T A X

IIa und IIIa

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A. Removal of the camera top

For eliminating disturbances in the interior of the camera, the camera top (Fig.1) has to be removed in the following way:

Remove the 3 screws 155a from winding knob 72 283a (Fig.2).

Then take off the winding knob, index ring 72 297, spring 22 451, friction disk 39 367, counter disk 45 254 with its shim disk 39 364, release button 14 057, and spring 23 575 (Fig.3).

A. Modo de desmontar la tapa de la caja

Para poder eliminar defectos en el interior de la cámara se debe quitar la tapa 38 263 (Fig.1), lo que ha de efectuarse de la manera siguiente:

Se destornillan los 3 tornillos 155a del botón de arrastre 72 283a (Fig.2).

Después se sacan el botón de arrastre, el anillo indicador 72 297, el resorte 22 451, el disco frotador 39 367, el disco contador 45 254 con el disco adicional 39 364, el botón disparador 14 057 y el resorte 23 575 (Fig.3).

A. Abnehmen des Gehäusedeckels

Um die im Camerainnern etwa auftretenden Störungen beseitigen zu können, muß der Gehäusedeckel 38 263 abgenommen werden, was folgendermaßen geschieht:

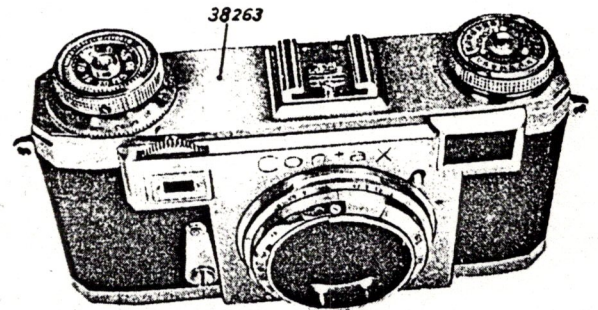


Bild 1

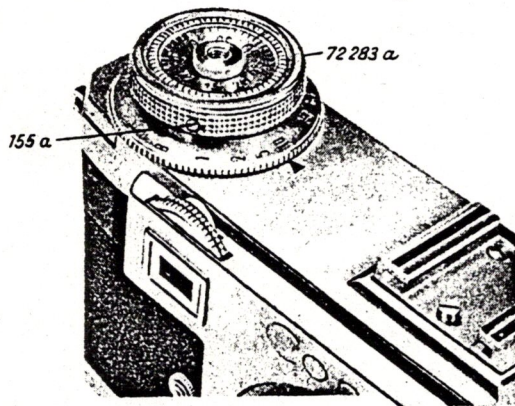


Bild 2

Am Aufzugsknopf 72 283a werden die 3 Schrauben 155a entfernt ...

... und dann der Aufzugsknopf, der Indexring 72 297, die Feder 22 451, die Friktionsscheibe 39 367, die Zähscheibe 45 254 mit ihrer Beilagscheibe 39 364, der Abdrücker 14 057 und die Feder 23 575 abgenommen.

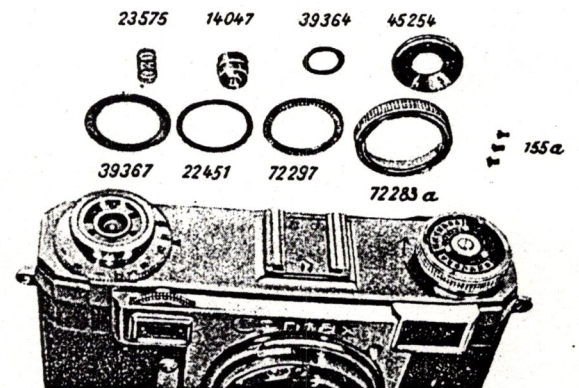


Bild 3

Remove the three countersunk screws ZIN 511/M1,4x3,2-5 S (Fig.4).

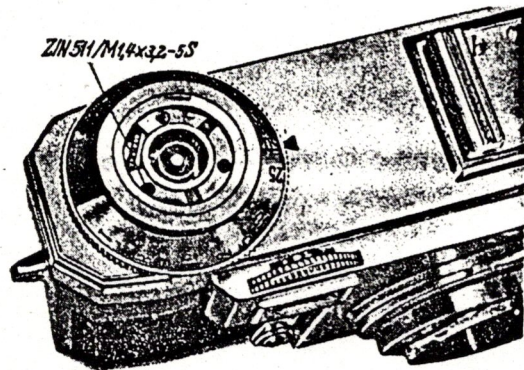
Now intermediate piece 72 345, spring 23 576, and setting ring 75 343 Tm can be taken off (Fig.5).

After removing screw 210 (Fig.6)...

Después de destornillar los tres tornillos embutidos ZIN 511/M1,4x3,2-5 S (Fig.4)...

... se pueden sacar la pieza intermediaria 72 354, el resorte 23 576 y el anillo de reglaje 75 343 Tm(Fig.5).

Se destornilla el tornillo 210 y (Fig.6)...



Nach Entfernen der
drei Senkschrauben
ZIN 511/M1,4x3,2-5 S ...

Bild 4

... können nunmehr
das Knopfzwischen-
stück 72 345, die
Feder 23 576 und
der Einstellring
75 343 Tm abgenom-
men werden.

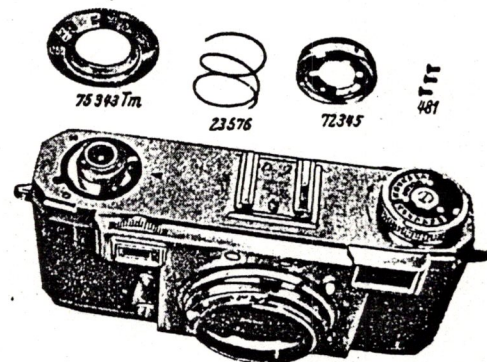
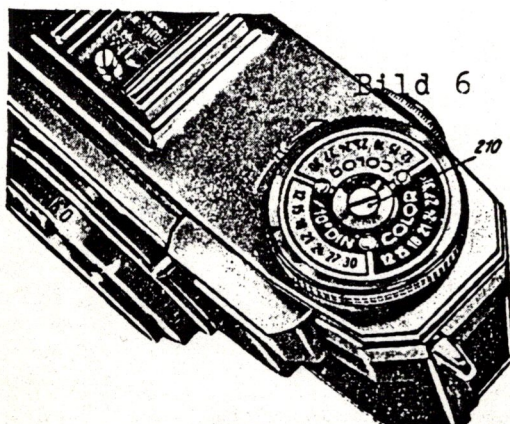


Bild 5



Nach Lösen der Schraube
210 werden ...

... take off ring 72 298a, film-type scale 75 339 T, and rewind knob 72 280 (Fig.7).

Remove five screws 1007 and take off camera top 38 263 and cover disk 39 345 (Fig.8).

... se quitan el anillo 72 298a, el disco indicador de película 75 339 T y el botón rebobinador 72 280 (Fig.7).

Después de destornillar los cinco tornillos 1007 se pueden sacar la tapa 38 263 y el disco protector 39 345 (Fig.8).

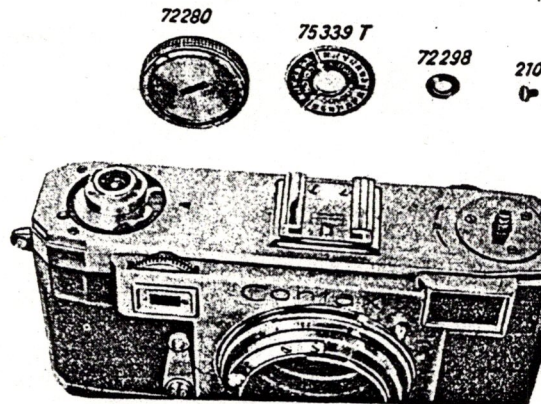


Bild 7

... der Ring 72 298 a, die Filmskala 75 339 T und der Rückspulknopf 72 280 abgenommen.

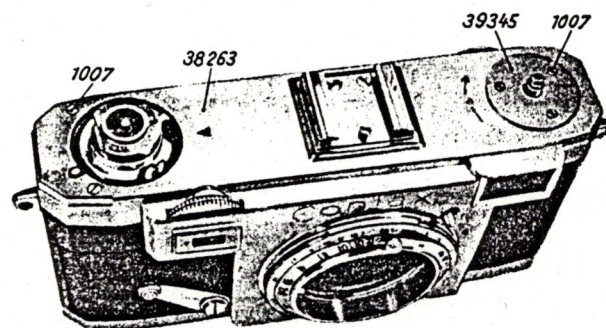


Bild 8

Der Gehäusedeckel 38 263 und die Deckscheibe 39 345 können nach Entfernen der insgesamt fünf Schrauben 1 007 abgenommen werden.

B. Laying bare and dismounting the escapement

After removal of stop screw 396 and the two countersunk screws 113a, viewfinder shoe 73 071 can be taken off. Take care of the paper strips, which serve for adjusting the viewfinder shoe! (Fig.9)!

When the four screws ZIN 511/M1,7x3,7-5 S have been removed, plate 47 277 for the viewfinder shoe can be taken off (Fig.10), so that...

... escapement 26 313 M can be taken out after removal of screws 120 (Fig.11).

B. Modo de descubrir y desmontar el dispositivo de trinquete

Habiendo destornillado el tornillo de tope 396 y los dos tornillos embutidos 113a se puede quitar el zapato de visor 73 071. Fíjese en las tiras de papel, que sirven para ajustar el zapato de visor (Fig.9).

Ahora se destornillan los cuatro tornillos ZIN 511/M1,7x3,7-5 S y se quita la plancha 47 277 para el zapato de visor (Fig.10),...

... pudiéndose ahora sacar el dispositivo de trinquete 26 313 M, después de haber destornillado los tornillos 120.

B. Freilegen und Ausbau des Hemmwerks

Nach Entfernen der Anschlag-
schraube 396 sowie der bei-
den Senkschrauben 113 a kann
der Sucherschuh 73 071 abge-
nommen werden. Zu beachten
sind dabei die zur Justie-
rung des Sucherschuhes die-
nenden Papierunterlagen!

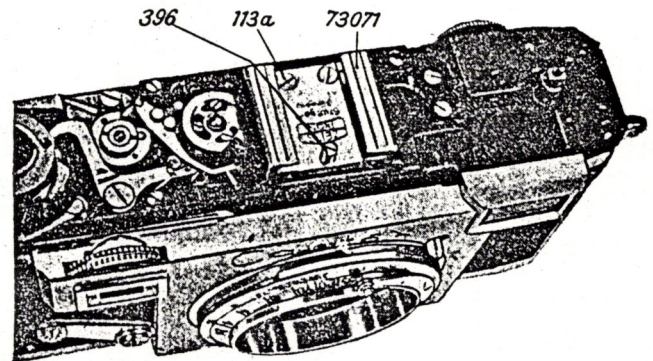


Bild 9

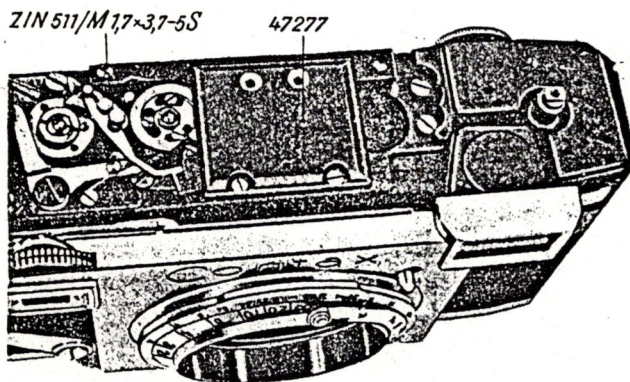


Bild 10

Nunmehr kann die Sucher-
schuhplatte 47 277 nach
Lösen der vier Schrauben
ZIN 511/M 1,7x3,7-5 S ab-
genommen werden, so daß ...

... das Hemmwerk 26 313 M
nach Entfernen der Schrau-
ben 120 herausgenommen wer-
den kann.

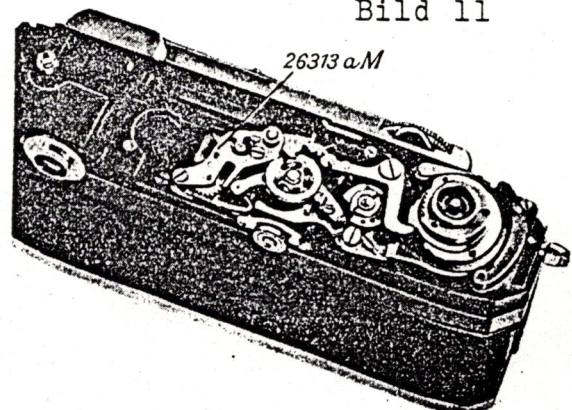


Bild 11

C. Laying bare and dismantling the rotating wedge carrier

For the operations described below it is necessary to set lens tube 78 011 T on ∞ .

Remove two screws 105 and two screws ZIN 513/M1,4x2,5-M S and take off front cover plate 20 174 T (Fig.12).

Then pull off disk 41 047 from the bearing, for the stop lever and remove 5 screws 491a from lens tube 78 011 T, and 3 screws 402 from rotating wedge carrier 47 248 M. The lens tube, stop lever, and rotating wedge carrier can be lifted off simultaneously (Fig.13).

When remounting these parts, take care that the rotating wedge carrier has to be set before on ∞ , i.e. the measuring lever must touch the cam for the rangefinder 91 036 at the infinity mark (notch) (Fig.13a).

Remove spring 23 506a for stop lever (Fig.14).

C. Modo de descubrir y desmontar el portador para el cuño giratorio

Para las operaciones siguientes se debe graduar a ∞ el tubo para objetivo 78 011 T.

Después de destornillar los dos tornillos 105 y los dos tornillos ZIN 513/M1,4x2,5-M S se quita la plancha protectora frontal 20 174 T. (Fig.12).

Después se quita el disco 41 047 del eje para la palanca de retención y se destornillan los 5 tornillos 491a del tubo para objetivo 78 011 T y tres tornillos 402 del portador 47 248 M para el cuño giratorio. Entonces se pueden quitar simultáneamente el tubo para objetivo, la palanca de retención y el portador para el cuño giratorio (Fig.13).

Al volver a montar la cámara se debe graduar antes a ∞ el portador para el cuño giratorio; es decir, la palanca de medición debe tocar la leva 91 036 para el telémetro frente a su marca de infinito (ranura) (Fig.13a).

Se quita el resorte 23 506a para la palanca de retención (Fig.14).

C. Freilegen und Ausbau des Schwenkkeilträgers

Für die nachstehenden Operationen ist es notwendig, den Objektivtubus 78 011 T auf ∞ zu stellen.

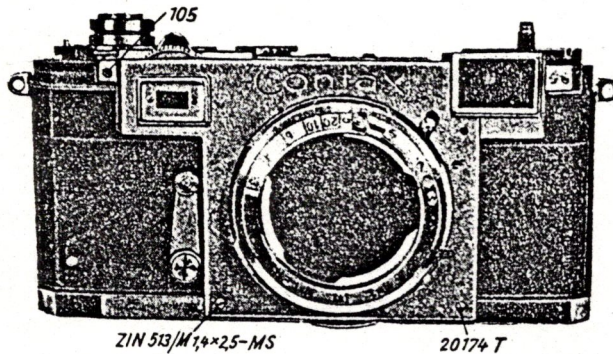


Bild 12

Darauf wird die Idealscheibe 41 047 von der Lagerung des Rasthebels abgezogen, die 5 Schrauben 491 a am Objektivtubus 78 011 T und drei Schrauben 402 am Schwenkkeilträger 47 248 M entfernt. Der Objektivtubus, Rasthebel und Schwenkkeilträger können dann gleichzeitig abgehoben werden.

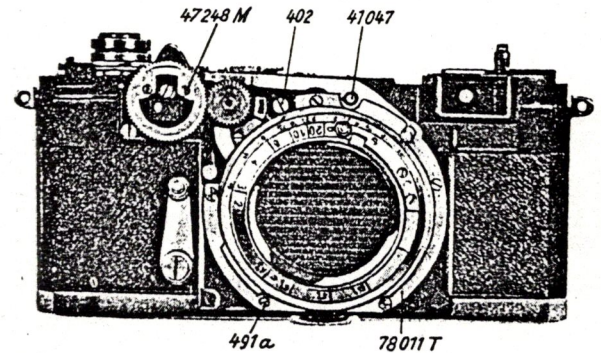


Bild 13

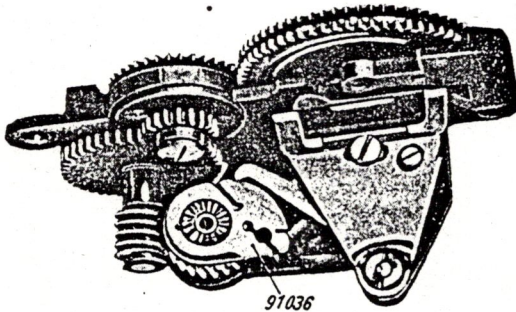
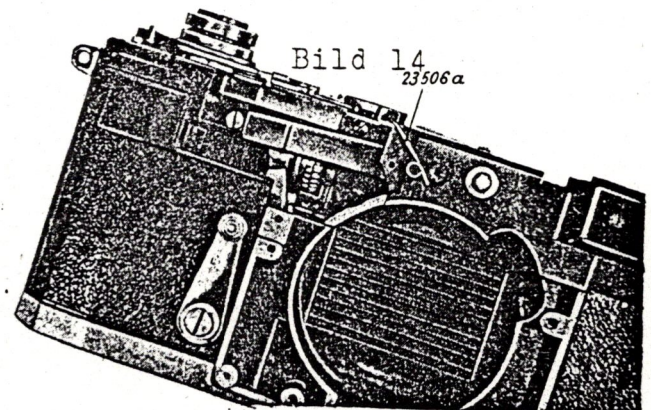


Bild 13a

Zu beachten ist beim Wiedereinbau, daß der Schwenkkeilträger zuvor auf ∞ gestellt wird, d. h. daß der Tasthebel an der Kurve zum Entfernungsmesser 91 036 bei der Unendlichmarke (Kerbe) anliegt.

Die Feder 23 506 a zum Rasthebel wird abgenommen.



D. Laying bare and dismantling the delayed action mechanism.

For building out the delayed action mechanism the camera has to be dismantled as described before.

Remove screw 1 b and take off disk 72 396 and setting lever T 85 437 cT of the delayed action mechanism (Fig.15).

Then remove countersunk screw ZIN 511/M1,7x3,7-5 S, cylinder screw ZIN 515/M1,7x5,5-5 S, and cylinder screw 476a (Fig.16) and...

take complete shutter housing with curtain frame out of the camera housing (Fig.17).

D. Modo de descubrir y desmontar el autodisparador

Para poder desmontar el autodisparador se debe efectuar el desmontaje descrito en los capítulos anteriores.

Después de haber destornillado el tornillo de unión 1 b se quitan el disco 72 396 y la palanca tensora T 85 437 cT del autodisparador (Fig.15).

Destornillados el tornillo embutido ZIN 511/M1,7x3,7-5 S, el tornillo cilíndrico ZIN 515/M1,7x5,5-5 S y el tornillo cilíndrico 476a (Fig.16)...

... se puede sacar de la cámara la caja de obturador completa con el marco para la cortinilla (Fig.17).

D. Freilegen und Ausbau des Vorlaufwerks

Zum Ausbau des Vorlaufwerks wird von dem bisher erreichten Stand der Demontage der Camera ausgegangen.

Nach Lösen der Ansatzschraube 1 b wird die Scheibe 72 396 und der Aufzugshebel T 85437 cT des Vorlaufwerks abgenommen.

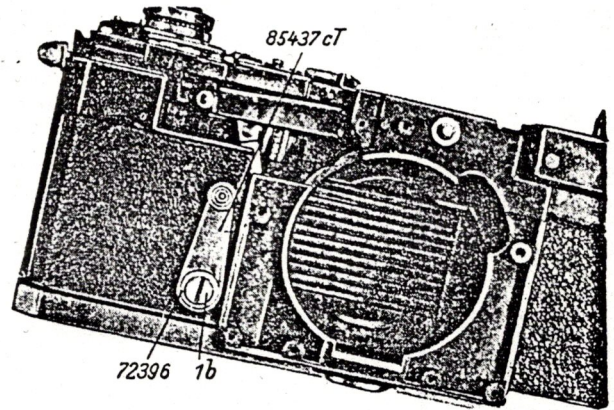


Bild 15

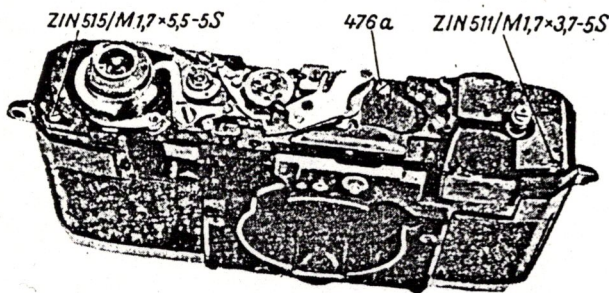


Bild 16

Nunmehr kann nach Entfernen der Senkschraube ZIN 511/M 1,7x3,7-5 S, der Zylinderschraube ZIN 515/M 1,7x5,5-5 S und der Zylinderschraube 476 a ...

... das komplette Verschlussgehäuse mit dem Rollorahmen aus dem Cameragehäuse herausgenommen werden.

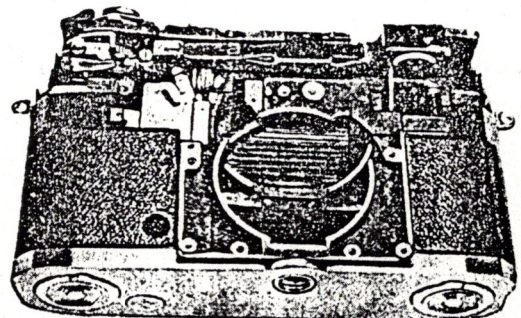


Bild 17

After removal of pinion 45 293 from bolt 66 045 and of screws 125, 76, and 476a the delayed action mechanism can be taken off (Figs 18 & 19).

The cameras of the first series were provided, in the interior of the housing, below the boring for the setting lever, with a rib, which served as a stop for the delayed action mechanism. If a new delayed action mechanism should have to be installed, 2 mm of this rib, counting from the boring, would have to be removed.

Habiendo sacado el piñon 45 293 de la clavija 66 045 (Fig.18) y ...

... destornillado los tornillos 125, 76 y 476a, se puede quitar el autodisparador (Fig.19).

Las cámaras de la primera serie tenían en el interior de la caja, debajo del agujero para la palanca tensora, una prominencia que servía de tope para el autodisparador. Al montar un autodisparador nuevo se debería quitar 2 mm de esta prominencia, contando desde el agujero.

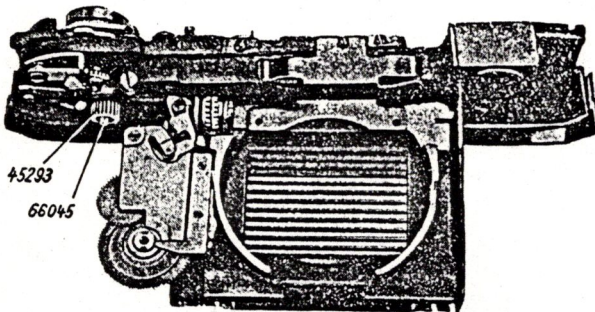


Bild 18

Nach Abziehen des Ritzels
45 293 vom Bolzen 66 045
und ...

... Lösen der Schrauben
125, 76 und 476 a kann
das Vorlaufwerk abgenom-
men werden.

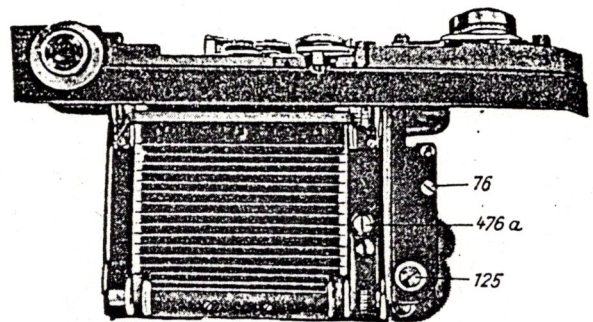


Bild 19

Bei Cameras der ersten Serie war im Gehäuseinnern unter-
halb der Bohrung für den Aufzugshebel eine Rippe als An-
schlag für das Vorlaufwerk eingegossen. Beim Einbau eines
neuen Vorlaufwerks müßten, von der Bohrung aus gerechnet,
etwa 2 mm entfernt werden.

E. Dismounting the curtain frame

Before beginning with the operations described below, the shutter has to be released.

The curtain frame, which is installed in the shutter housing, can be removed as follows:

Remove screw 406a and tightening plate 34 546 (Fig.20).

Remove the two fillister-head screws 156a and cover plate 34 541 Tm (Fig.21).

After removal of a further fillister-head screw 156a and prism spring 22 447, rangefinder prism 102 055 M can be taken out (Fig.22).

E. Modo de desmontar el marco para la cortinilla

Antes de comenzar con los trabajos siguientes se debe disparar el obturador.

El marco para la cortinilla, que está instalado en la caja de obturador, se desmonta de la manera siguiente:

Se destornilla el tornillo 406a y se quita la plancha de guarnición 34 546 (Fig.20).

Destornillados los dos tornillos de cabeza lenticular 156a se puede quitar la plancha protectora 34 541 Tm (Fig.21).

Habiendo destornillado otro tornillo de cabeza lenticular 156a y el resorte 22 447 para el prisma se puede sacar el prisma 102 055 M para el telémetro. (Fig.22).

E. Ausbau des Rollorahmens

Vor Beginn der nachstehenden Arbeiten ist der Verschuß zu entspannen.

Der im Verschußgehäuse montierte Rollorahmen kann wie folgt abgenommen werden:

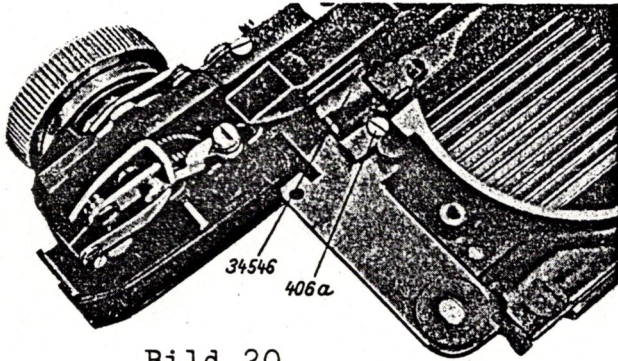


Bild 20

Die Schraube 406 a und das Dichtungsblech 34 546 werden entfernt.

Nach Lösen der beiden Linsenschrauben 156 a kann das Abdeckblech 34 541 Tm abgenommen werden.

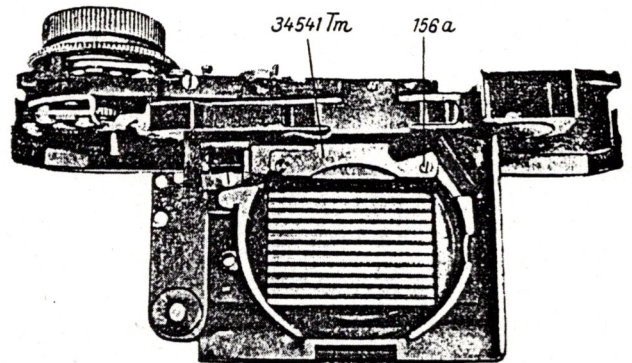


Bild 21

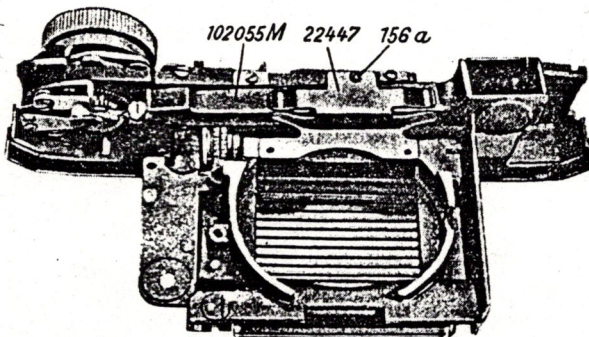


Bild 22

Nach Entfernen einer weiteren Linsenschraube 156 a und der Prismenfeder 22 447 kann das Entfernungsmesserprisma 102 055 M herausgenommen werden.

Now angular piece 34 492 for the prism, which is still fastened to the shutter housing, is taken off, after removal of two fillister-head screws 156a (Fig.23).

Then remove the two countersunk screws 32, which serve for fixing the curtain frame to the shutter housing (Fig.24), ...

... as well as fillister-head screw 24, and countersunk screw ZIN 511/M1,7x3,7-5 S (Fig.25).

Now the curtain frame can be removed from the shutter housing. Before doing this it will be expedient to mark the position of the two bevel gears of the shutter housing (Fig.26).

Se destornillan los dos tornillos de cabeza lenticular 156a y se quita la pieza angular 34 492, que se halla todavía fijada en la caja de obturador (Fig.23).

Después se destornillan los dos tornillos embutidos 32, que sirven para unir el marco para la cortinilla a la caja de obturador (Fig.24), ...

... así como el tornillo de cabeza lenticular 24 y el tornillo embutido ZIN 511/M1,7x3,7-5 S (Fig.25).

Ahora se puede quitar el marco para la cortinilla de la caja de obturador; conviene marcar antes la posición de las dos ruedas cónicas de la caja de obturador (Fig.26).

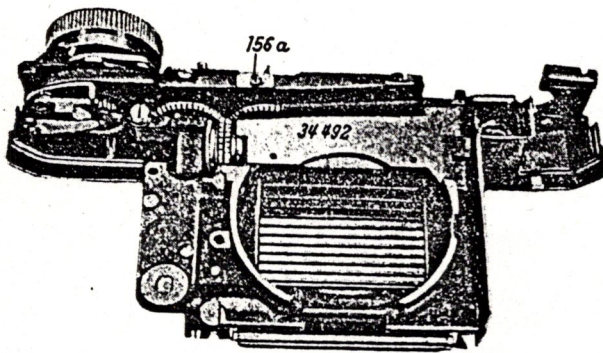


Bild 23

Das nun noch am Verschlußgehäuse befestigte Winkelstück für Frisma 34 492 wird nach Entfernen der beiden Linsenschrauben 156 a abgenommen.

Die zur Verbindung des Rollorahmens mit dem Verschlußgehäuse dienenden beiden Senkschrauben 32 ...

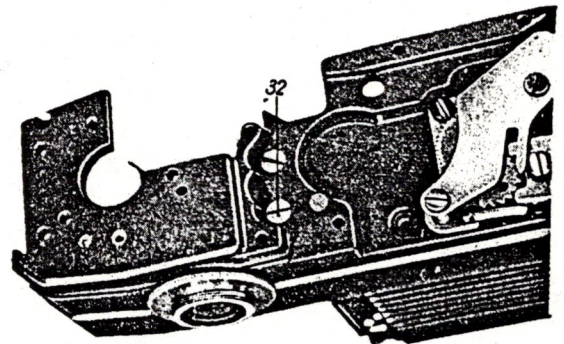


Bild 24

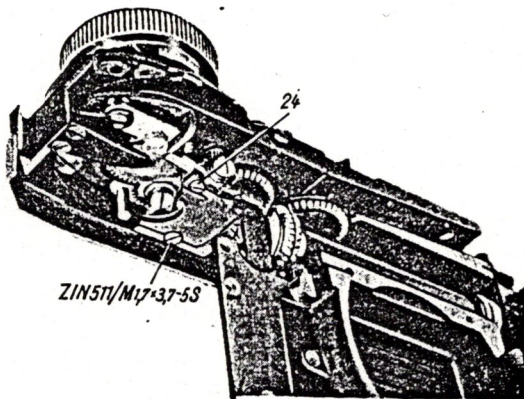


Bild 25

... sowie die Linsenschraube 24 und die Senkschraube ZIN 511/M 1,7x3,7-5 S werden nunmehr entfernt.

Jetzt kann der Rollorahmen vom Verschlußgehäuse abgenommen werden, wobei zweckmäßigerweise die Stellung der beiden Kegelräder des Verschlußgehäuses markiert wird.

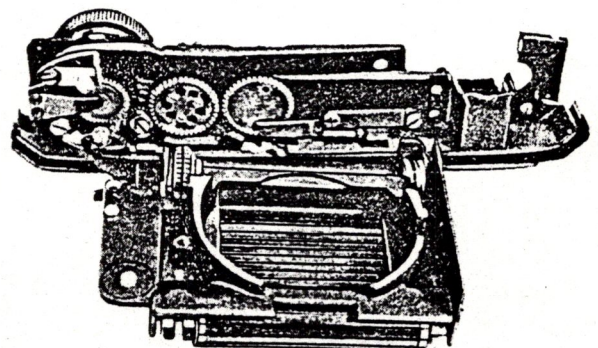


Bild 26

F. Dismounting the upper curtain roller

Remove the two threaded bushings 15 367a, taking care of the adjustment washers (Fig.27), ...

... and take out upper curtain roller with upper curtain. This roller is suitably taken out in the direction of the bevel gears (Fig.28).

G. Dismounting the curtain brake

For getting to the curtain brake on the upper curtain roller the built-out curtain roller has to be further disassembled as follows:

Remove the two countersunk fillister-head screws ZIN 513/M1, 4x2,5-M S from the sides of the two bevel gears and take off cord disk 33 219 (Fig.29) ...

F. Modo de desmontar el eje para la cortinilla superior

Después de haber destornillado los dos pernos con rosca 15 367a, fijándose en las arandelas de ajuste, se puede sacar (Fig.27) ...

... el eje para la cortinilla superior junto con la cortinilla superior. Al sacar el eje conviene moverlo en dirección de las ruedas cónicas. (Fig.28).

G. Modo de desmontar el freno para la cortinilla

Para poder llegar al freno en el eje de la cortinilla superior se debe continuar descomponiendo el eje ya desmontado de la caja, de la manera siguiente:

Se destornillan los tornillos embutidos ZIN 513/M1, 4x2,5-M S en el lado de las dos ruedas cónicas y se saca el rollo 33 219 para la cuerda (Fig.29) ...

F. Ausbau der oberen Rolloachse

Nach Entfernen der beiden Gewindebüchsen 15 367 a, wobei auf Justierunterlagen zu achten ist, ...

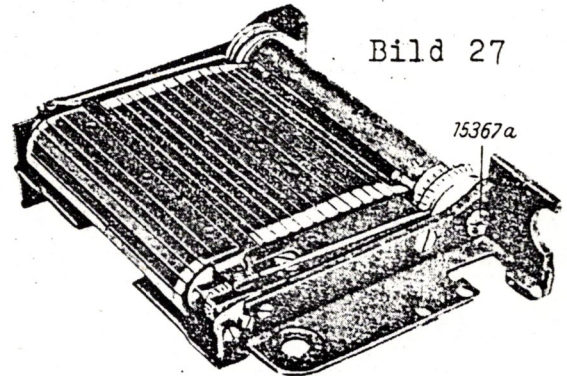


Bild 27

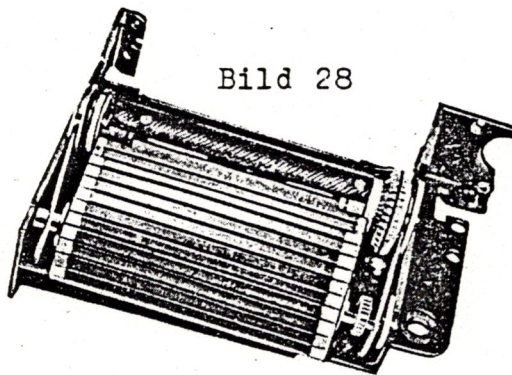


Bild 28

... kann die obere Rolloachse zusammen mit dem oberen Rollo herausgenommen werden. Zweckmäßigerweise wird diese Achse nach Richtung der Kegelhäder herausgenommen.

G. Ausbau der Rollobremse

Um an die auf der oberen Rolloachse befindliche Rollobremse zu gelangen, muß die ausgebaute Rolloachse wie folgt weiter zerlegt werden:

Auf der Seite der beiden Kegelhäder sind die Linsensenkschrauben ZIN 513/M 1,4x2,5-M S zu entfernen und die Schnurrolle 33 219 ...

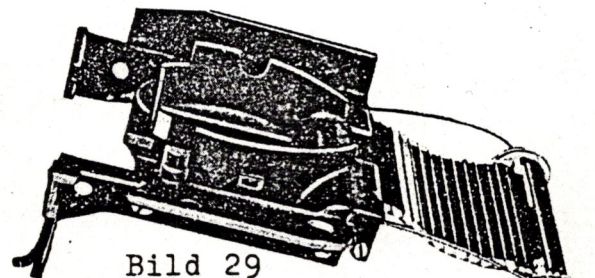


Bild 29

33219

ZIN 513/M 1,4x2,5-M S

... and cord guide disk 42 159 Tm with silken cord 120 049 fastened between the two rivets (Fig.30).

After removing 3 screws 148 on the sides of the curtain brakes, take off cord guide disk 42 161b and silken cord (Fig.31).

Remove pin 10 118b that can be seen in the hub of bevel gear 45 304 Tm (Fig.32).

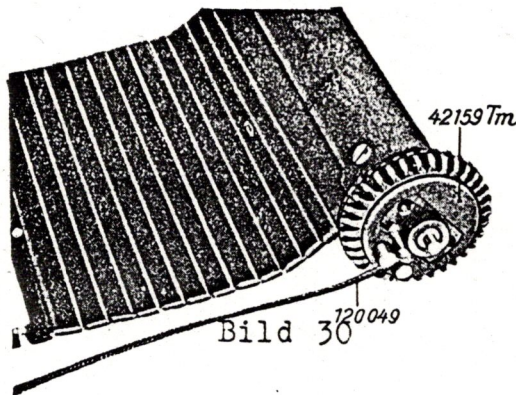
Now the bevel gear, sliding disk 42 162, and upper shaft tube 27 211 Tm connected with the upper curtain can be pulled from roller 67 048a. (Fig.33).

... así como el disco guiador 42 159 Tm para la cuerda con la cuerda de seda 120 049 enganchada entre los dos remaches (Fig.30).

Hay que destornillar los tres tornillos 148 del lado de los frenos, sacar el disco guiador 42 161b para la cuerda y descolgar la cuerda de seda. (Fig.31).

Debe sacarse el clavo 10 118b, que se ve en el cubo de la rueda cónica 45 304 Tm (Fig.32).

Entonces se pueden sacar del eje 67 048a la rueda cónica, el disco de arrastre 42 162 y el tubo 27 211 Tm del eje superior, que se halla unido a la cortinilla superior (Fig.33).



... sowie die Schnurleitscheibe 42 159 Tm mit der zwischen den beiden Nieten aufgehängten Seidenschnur 120 049 abzunehmen.

Auf der Seite der Rollobremsen ist nach Entfernen der 3 Schrauben 148 die Schnurleitscheibe 42 161 b abzunehmen und die Seidenschnur auszuhängen.

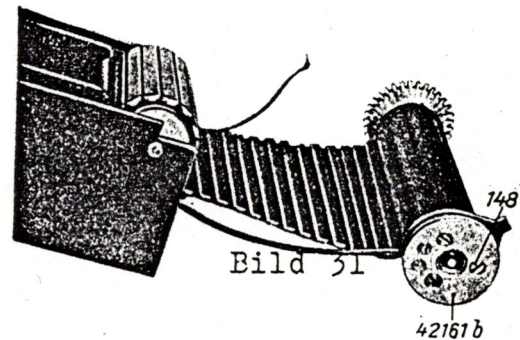
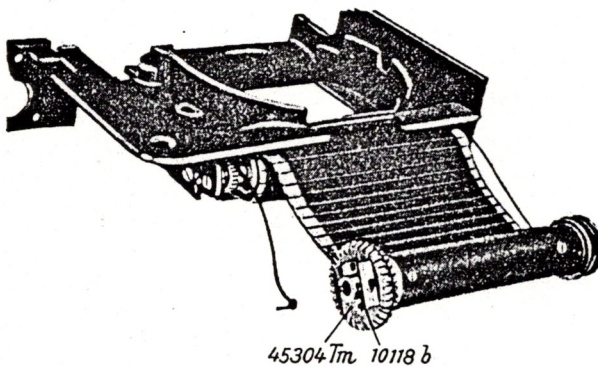
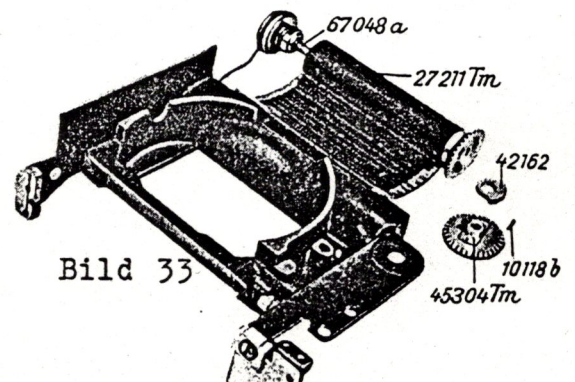


Bild 32



Der in der Nabe des Kegelrades 45 304 Tm sichtbare Stift 10 118 b ist zu entfernen.

Darauf können das Kegelrad, die Schleppscheibe 42 162 und das mit dem oberen Rollo verbundene obere Wellenrohr 27 211 Tm von der Achse 67 048 a abgezogen werden.



The curtain brake, which moves freely on the roller, can now also be removed (Fig.34).

When reassembling the camera, care should be taken that, after bevel gear 45 304 Tm has been fastened with a pin, the mounted shaft tube should have an axial play from .05 to .1 mm. If necessary, an adjustment has to be effected by inserting washers 39 363 on the roller between cord disk 33 229a and curtain brake 94 051 T.

H. Dismounting the lower curtain roller

First release the three curtain springs 23 569, 23 570, and 23 571 in the lower shaft tube (Fig.35).

Ahora se puede sacar también del eje el freno 94 051 T para la cortinilla, el que se halla libre en el eje (Fig.34).

Al volver a montar la cámara hay que cuidar de que, después de clavada la rueda cónica 45 304 Tm, el tubo montado del eje tenga un juego axial de 0,05 a 0,1 mm. En caso de ser necesario se debe ajustar la distancia entre el disco 33 229a y el freno 94 051 T para la cortinilla intercalando arandelas entre ellos.

H. Modo de desmontar el eje para la cortinilla inferior

Primero hay que aflojar los tres resortes 23 569, 23 570 y 23 571 para la cortinilla, que se hallan en el tubo del eje inferior (Fig.35).

Die lose auf der Achse
sitzende Rollobremse
94 051 T kann nun eben-
falls abgezogen werden.

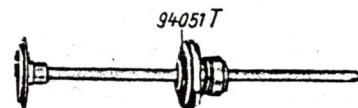
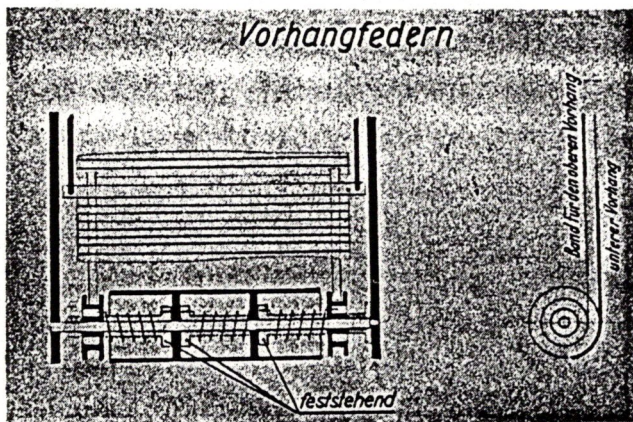


Bild 34

Beim Wiederezusammenbau ist darauf zu achten, daß das mon-
tierte Wellenrohr nach dem Verstiften des Fegelrades
45 304 Tm 0,05 bis 0,1 mm axiales Spiel aufweist. Nötigen-
falls muß eine Abstimmung durch Beilagscheiben 39 363 zwis-
schen Schnurrolle 33 229 a und Rollobremse 94 051 T auf
der Achse vorgenommen werden.

H. Ausbau der unteren Rolloachse



Zunächst sind die drei im
unteren Wellenrohr unter-
gebrachten Rollofedern
23 569, 23 570 und 23 571
zu entspannen.

Bild 35

For this purpose, remove screw 138 and take off plate spring 22 482. Now the springs can slowly be released by means of a screwdriver that is introduced into the slot of the lower curtain roller (Fig.36).

Remove screws 456 and take off flange 25 291 (Fig.37).

After removing the whole curtain roller in the direction of the arrow the roller can easily be taken out of the curtain frame (Fig.38).

A tal efecto se debe quitar el resorte de lámina 22 482, después de haber destornillado el tornillo 138. Ahora se pueden aflojar lentamente los resortes mediante un destornillador, que se introduce en la hendidura del eje de la cortinilla inferior (Fig.36).

Se destornillan los tornillos 456 y se quita la brida 25 291 (Fig.37).

Moviendo el eje para la cortinilla en dirección de la flecha se puede fácilmente sacarlo del marco para la cortinilla (Fig.38).

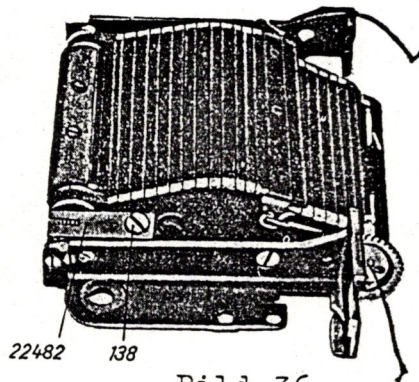


Bild 36

Dazu muß die Blattfeder 22 482 nach Entfernen der Schraube 138 abgenommen werden.

Mittels eines in den Schlitz der unteren Rolloachse gesteckten Schraubenziehers können die Federn nun langsam entspannt werden.

Bild 37

Die Schrauben 456 werden entfernt und der Flansch 25 291 abgehoben.

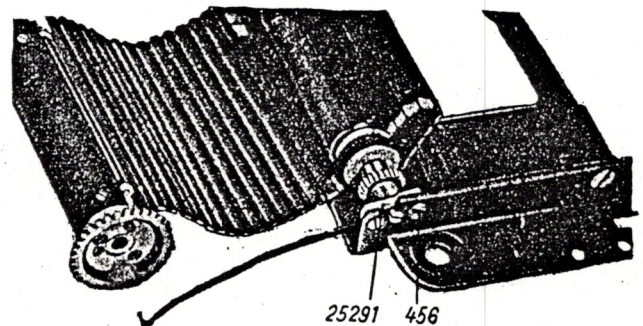
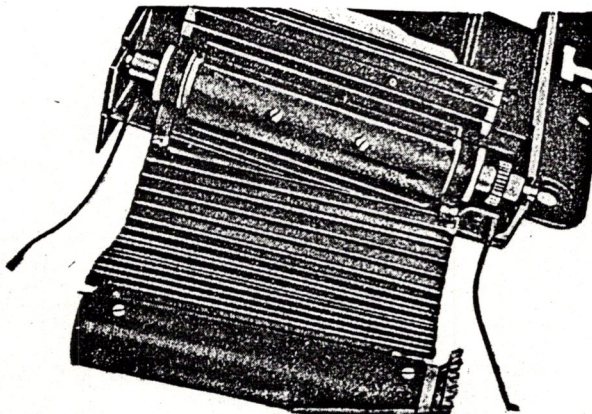


Bild 38



Die gesamte Rolloachse wird in Pfeilrichtung verschoben und kann dann leicht aus dem Rollorahmen herausgenommen werden.

When remounting the lower curtain roller, take care that springs 23 569, 23 570, and 23 571 have the proper pre-load; which for the curtain roller itself means $3/4$ turn in the direction of the arrow (Fig.39).

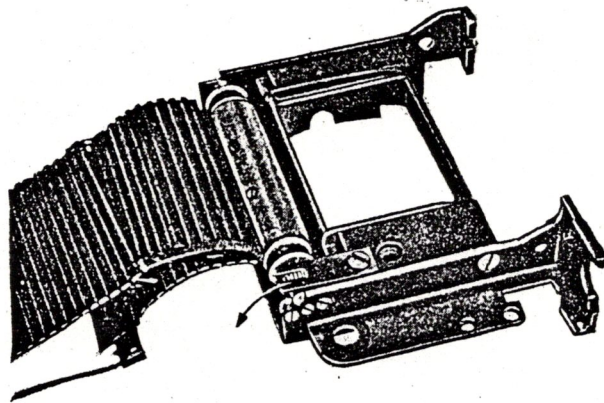
If the tapes have disengaged from the tape rollers, the springs of the rollers have to be given a pre-load when the tapes are again attached. This is done by turning the tape rollers $1\frac{2}{3}$ times in the opposite direction of the shutter movement after release.

Al volver a montar el eje para la cortinilla inferior hay que cuidar de que los resortes 23 569, 23 570 y 23 571 tengan la justa tensión inicial, a cuyo efecto se debe dar al eje tres cuartos de una vuelta en dirección de la flecha (Fig.39).

Si las cuerdas se han desprendido de sus rollos se debe, al volver a engancharlas, dar una tensión inicial a los rollos, girándolos $1\frac{2}{3}$ veces en el sentido contrario del movimiento del obturador al dispararse.

Beim Wiedereinbau der unteren Rolloachse ist auf die richtige Vorspannung der Federn 23 569, 23 570 und 23 571 zu achten. Sie beträgt für die Rolloachse selbst $3/4$ Umdrehungen, und zwar in Richtung des Pfeiles.

Bild 39



Falls die Bänder aus den Bandrollen ausgehängt worden sind, müssen die Bandrollen entsprechend beim Wiedereinhängen vorgespannt werden. Dies geschieht durch Drehen der Bandrollen entgegen der Ablafrichtung um $1 \frac{2}{3}$ Umdrehungen.

Instructions for dismounting the Contax IIIa

Remove winding knob and parts under it, as described in instructions for dismounting the Contax IIa. After removing screw 186a the extensible rewind shaft 65 373 Tm can be taken off.

On removing the three screws, index ring 72.435, the scale disk, spring support 72 433 Tm, spring disk 22 550, and setting ring 75 406 Tm can be taken off. In the case of setting knobs of a different design, which cannot be remounted without readjustment of the cam disk, the complete exposure meter housing has to be sent to the factory, which will supply for it the mounted exposure meter housing 52 303 a T.

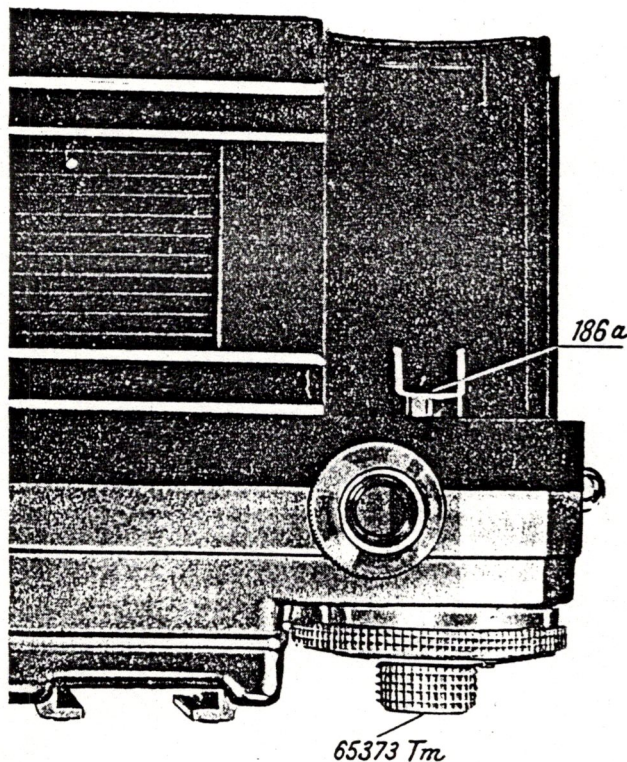
Instrucciones para desmontar la Contax IIIa

Se desmontan el botón de arrastre y las piezas debajo de él como se describe en las Instrucciones para desmontar la Contax IIa.

Destornillado el tornillo 186a se puede quitar el eje rebobinador extensible 65 373 Tm.

Habiendo destornillado los tres tornillos se pueden quitar el anillo indicador 72 435, el disco con escala, el soporte de muelle 72 433 Tm, el disco de resorte 22 550 y el anillo de reglaje 75 406 Tm. En el caso de botones de reglaje de construcción distinta, que no pueden volver a montarse sin nuevo ajuste de la leva, será indispensable enviar la caja montada 52 303a T del exposímetro a la fábrica, que suministrará por ella la caja montada 52 303a T.

Ausbauanleitung für Contax III a



Den Aufzugknopf und die darunter liegenden Teile entfernen wie in Ausbauanleitung für Contax II a beschrieben.

Nach Lösen der Schraube 186 a kann die ausziehbare Rückspulachse 65 373 Tm abgenommen werden.

Nach Lösen der 3 Schrauben können der Index-Ring 72 435, die Skalenscheibe, der Federteller 72 433 Tm, die Federscheibe 22.550 und der Einstellring 75 406 Tm abgenommen werden. Bei Einstellknöpfen, die eine andere Bauart aufweisen und nicht ohne Neujustierung der Kurve wieder montiert werden können, ist eine Einsendung des mont. Beligehäuses an das Werk unerlässlich. Zum Austausch wird dann das Beligehäuse mont. 52 303 a T geliefert.

65373 Tm

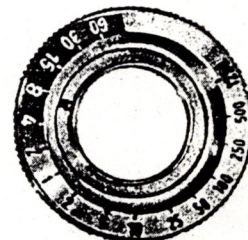
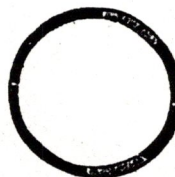
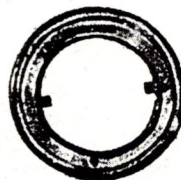
72435

75404 Tm

72433a Tm

22550

75406 Tm



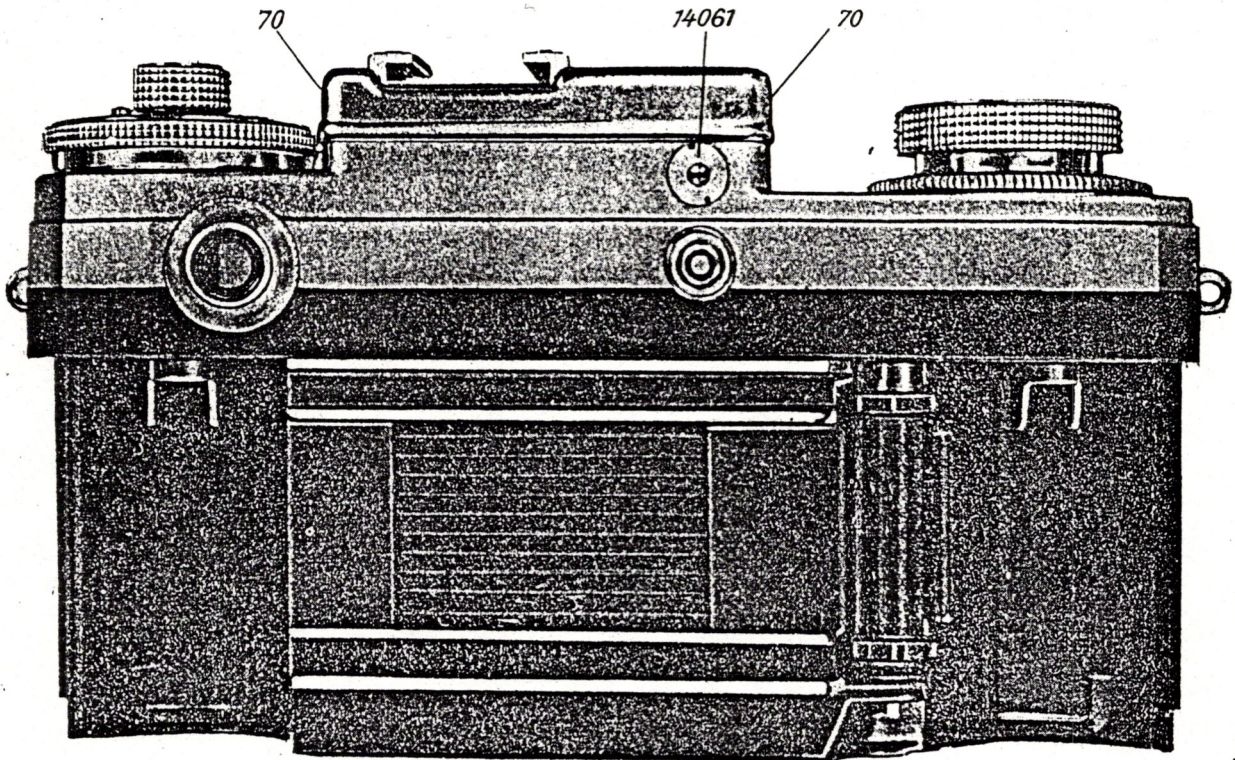
Then screw out threaded nipple 14C061 by means of key VM 92, remove 4 countersunk screws of exposure meter cover 38 209 and take off the cover.

Remove 2 screws 474a and loosen screws 497 and 155. Then pull off cell cover 38 307 Tm.

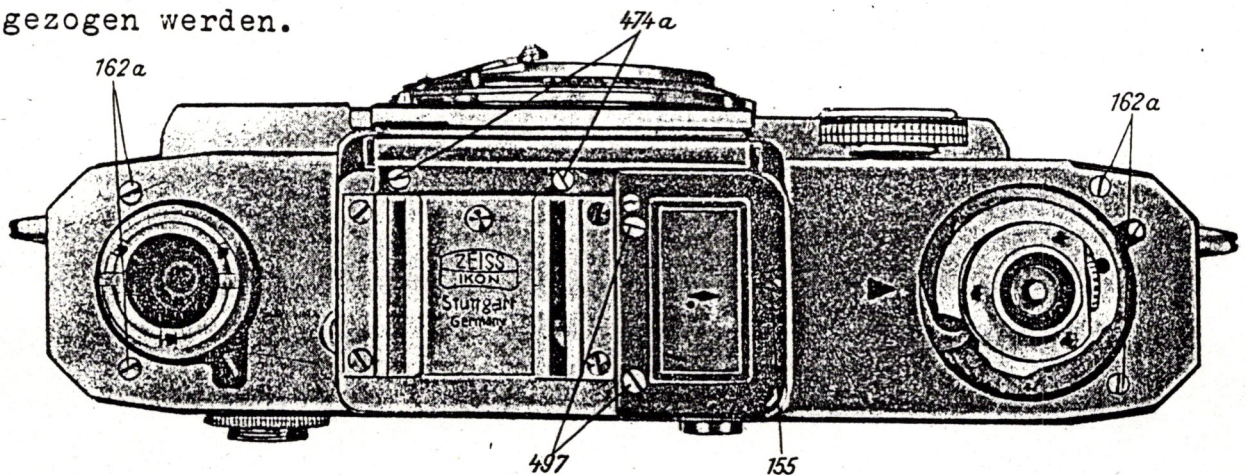
Después se destornilla el disco con rosca 14 061 mediante la llave VM 92 y se destornillan también los cuatro tornillos embutidos 70 de la tapa superior del exposímetro.

Después de destornillar los dos tornillos 474a y de aflojar los tornillos 497 y 155 se puede sacar de delante la tapa 38 307 Tm para la célula.

Hierauf mit Schlüssel VM 92 den Gewindenippel 14 061 heraus-schrauben, die 4 Senkschrauben 70 der Instrumentabschlusskappe 38 209 entfernen und diese abnehmen.



Nach Lösen der 2 Schrauben 474 a und Lockern der Schrauben 497 und 155 kann der Zellendeckel 38 307 Tm nach vorne heraus-gezogen werden.



To prevent dust from entering into the instrument, re-tighten screws 497 and 155 after removing cover. Remove 4 screws 162a and take off top 38 341. Then remove two screws 76 (take care of washers!) and screw 149. Upon unscrewing threaded bolt 66 320 the exposure meter housing can be taken off.

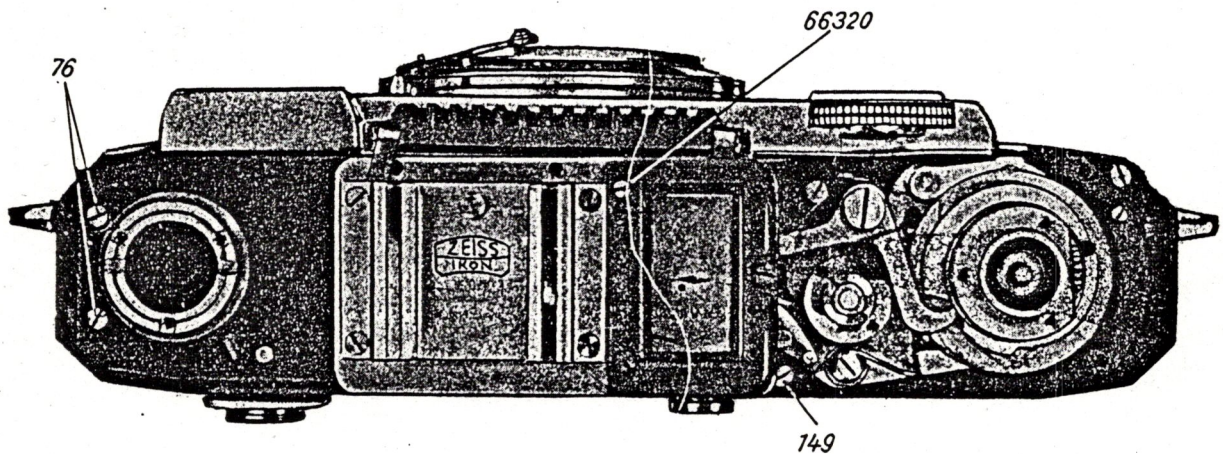
Now the front plate, escapement, delayed action mechanism, shutter housing as well as the curtain frame with the curtain rollers can be dismounted and taken off as described in the instructions for dismounting the Contax IIa.

Para evitar que el polvo entre en el instrumento se deben volver a apretar los tornillos 497 y 155, después de haberse quitado la tapa. Ahora se destornillan los 4 tornillos 162a y se quita la tapa 38 341. Después se destornillan los 2 tornillos 76 (¡Cuidado con las arandelas!) y el tornillo 149. Destornillando el perno con rosca 66 320 se puede sacar la caja del exposímetro.

Ahora se pueden desmontar y quitar la plancha protectora frontal, el dispositivo de trinquete, el autodisparador, la caja de obturador así como el marco para la cortinilla con los ejes de las cortinillas, de acuerdo con las Instrucciones para desmontar la Contax IIa.

- 2 -

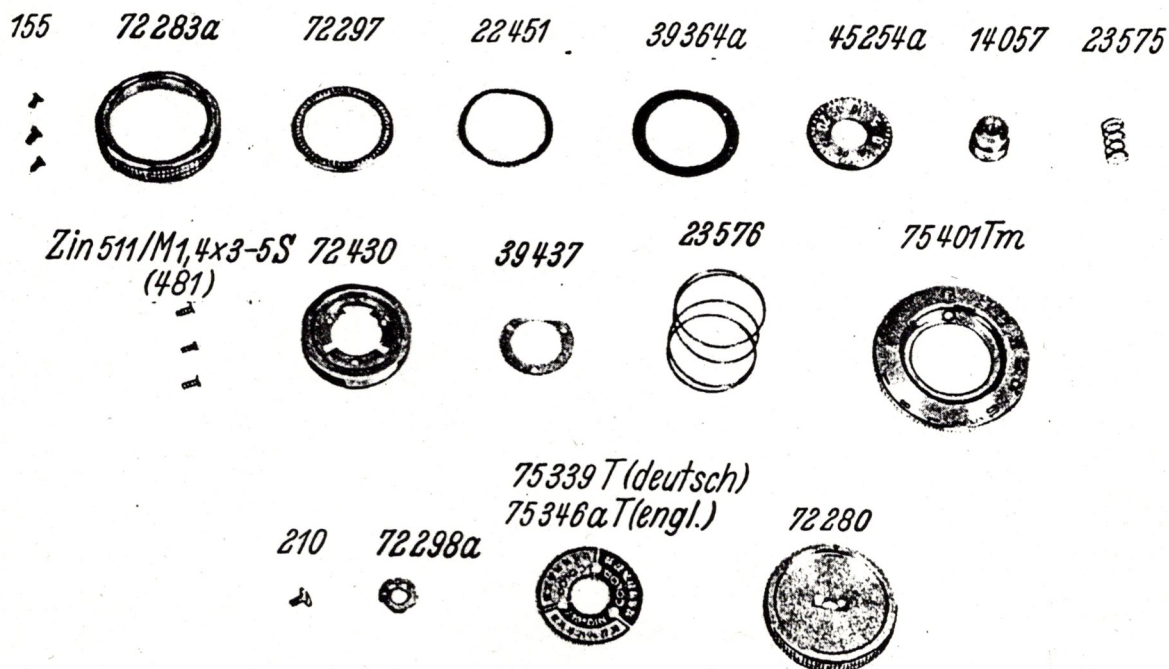
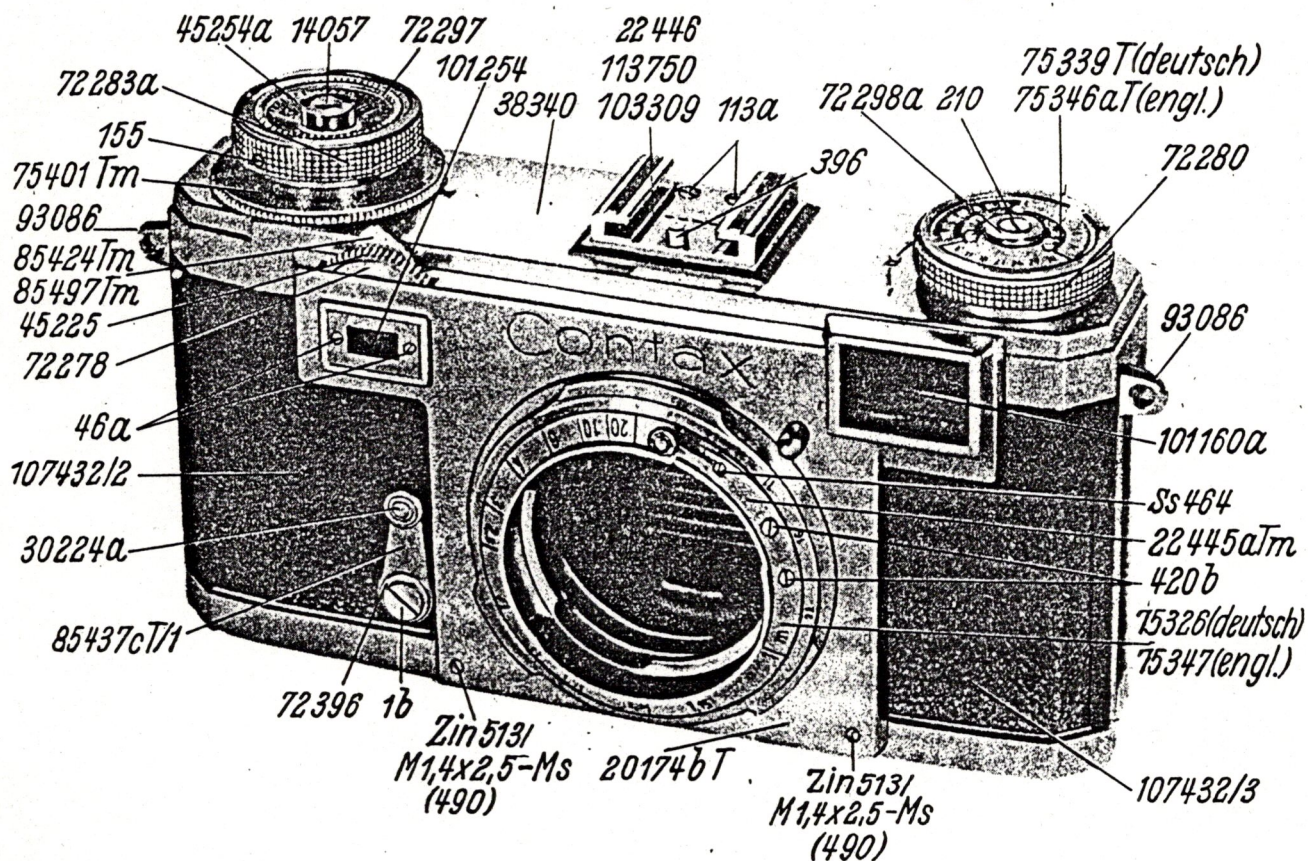
Um Eindringen von Staub zu vermeiden, die Schrauben 497 und 155 nach Entfernen des Deckels wieder anziehen. Nunmehr kann nach Entfernen der 4 Schrauben 162 a die Deckkappe 38 341 abgenommen werden. Dann die 2 Schrauben 76 (achten auf Unterscheiben!) und die Schraube 149 entfernen. Durch Losschrauben des Gewindebolzens 66 320 hebt sich das Belüftungsgewinde ab.

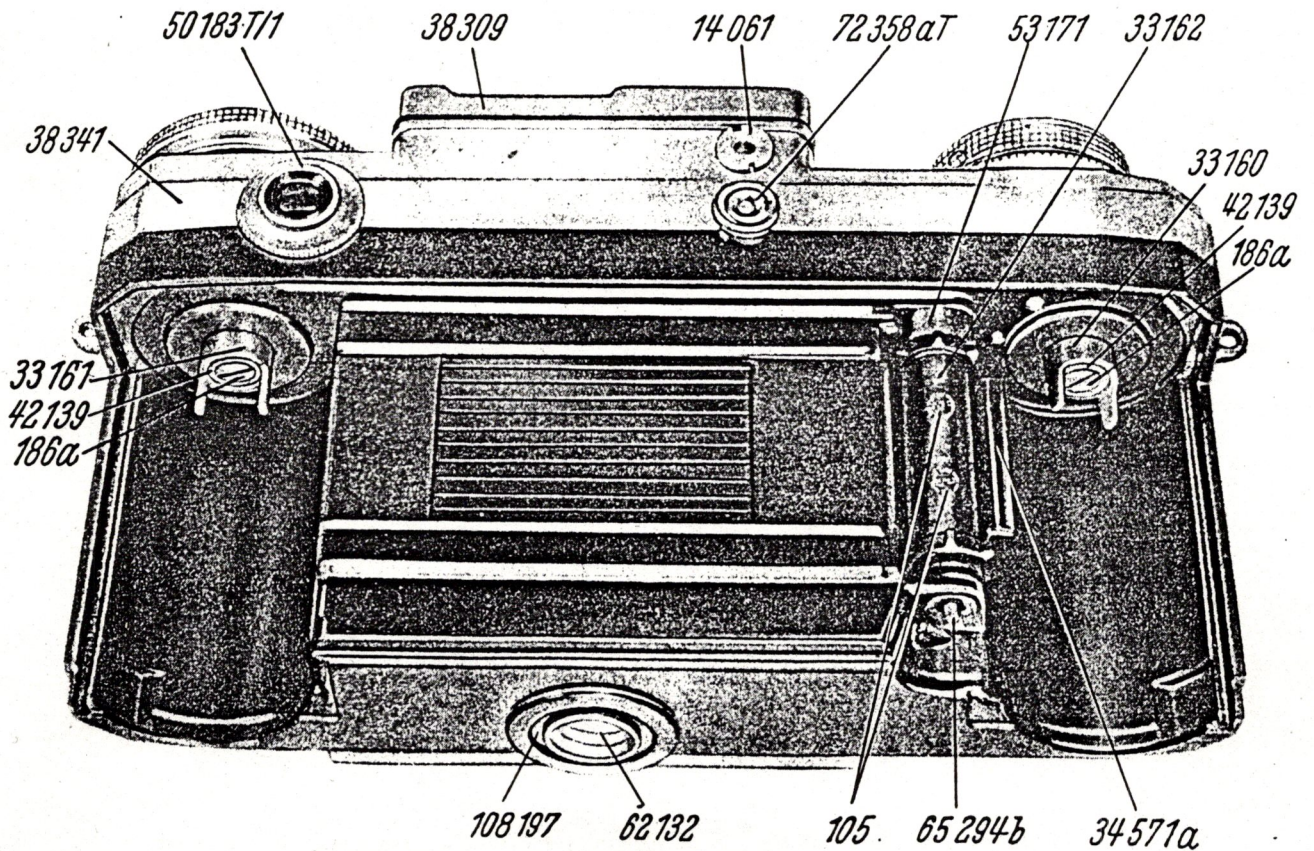
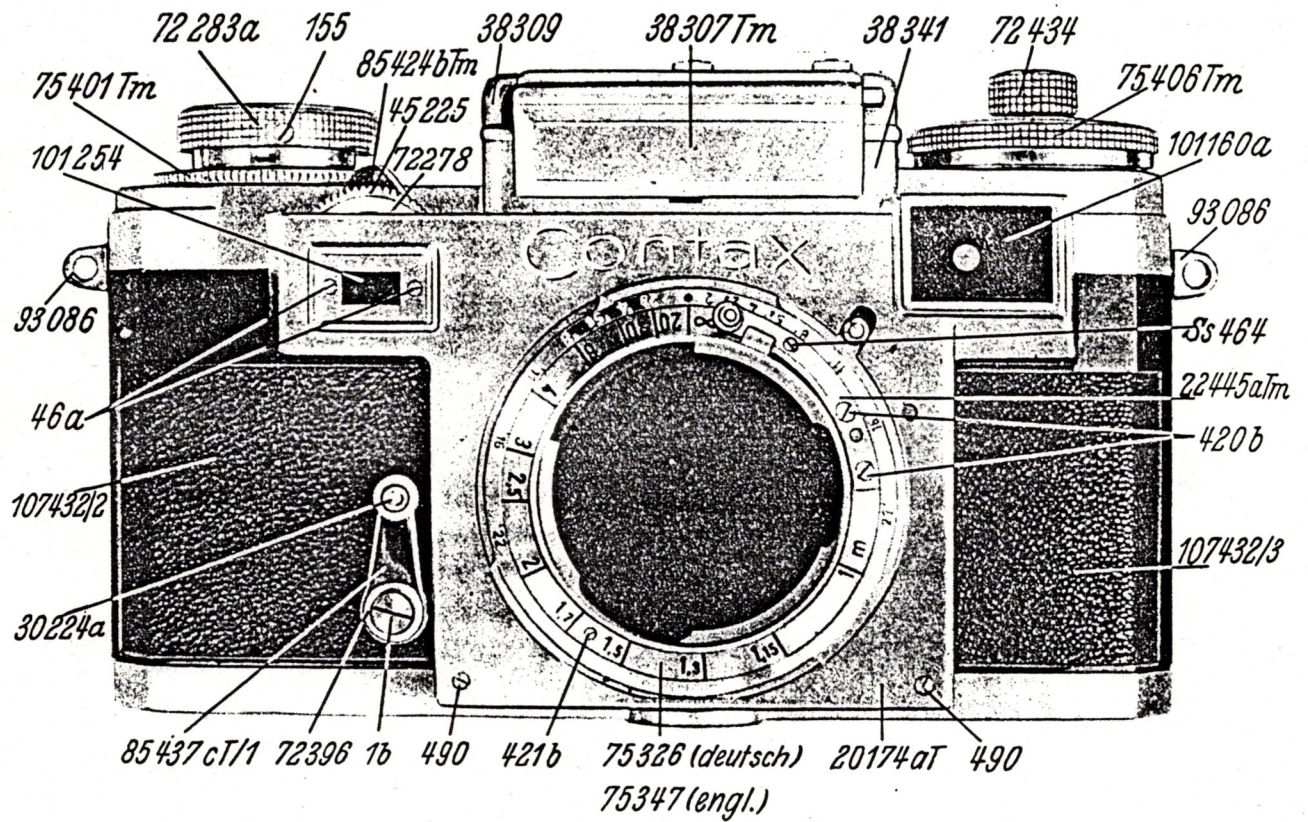


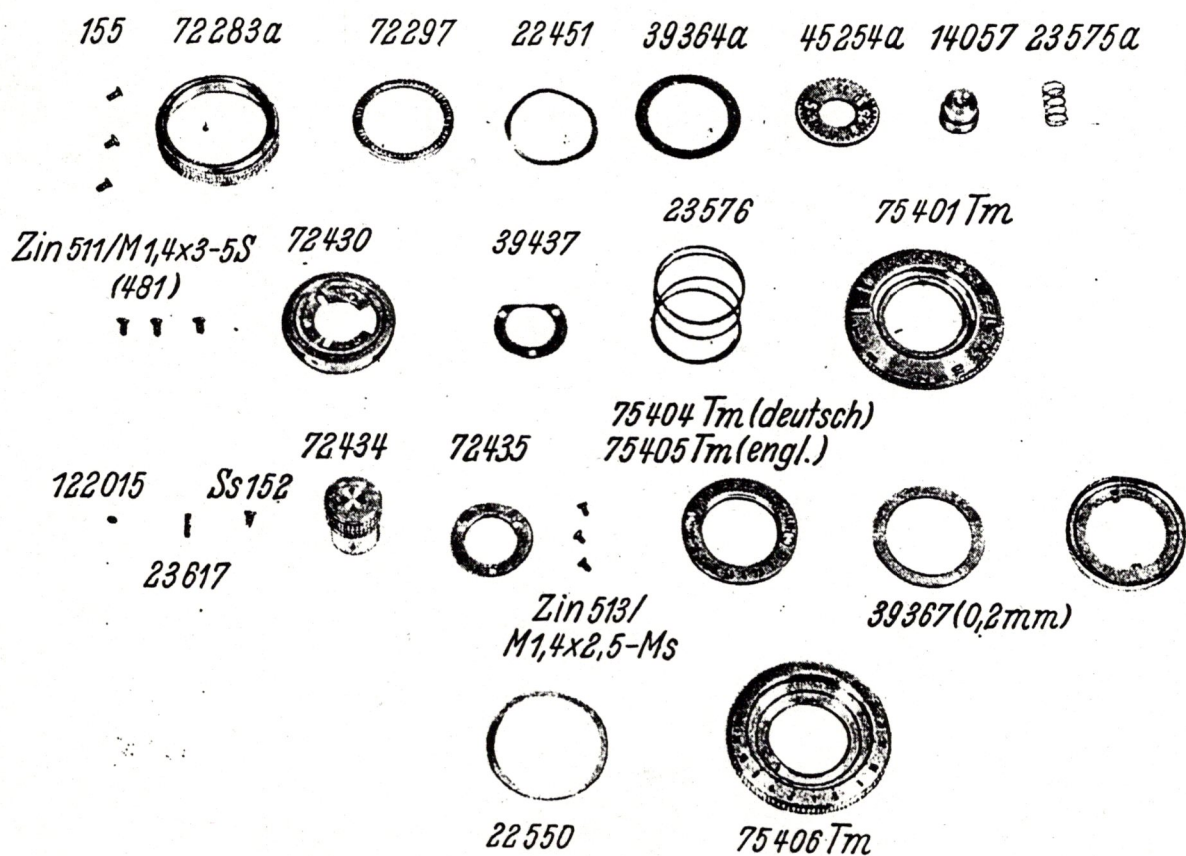
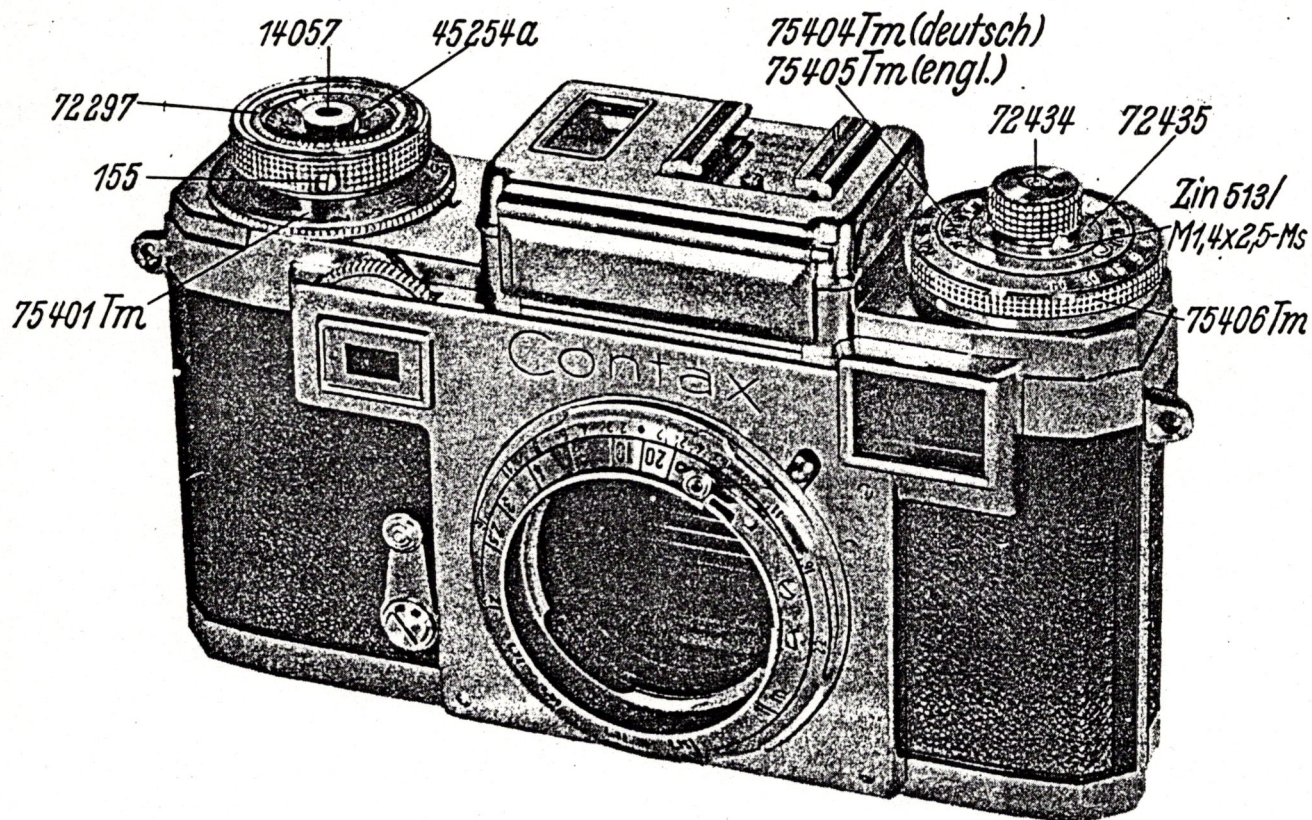
Frontdeckblech, Hemmwerk, Vorlaufwerk und Verschlussgehäuse sowie der Rollrahmen mit den Rolloachsen können nunmehr wie in Ausbauanleitung für Contax II a ausgebaut und abgenommen werden.

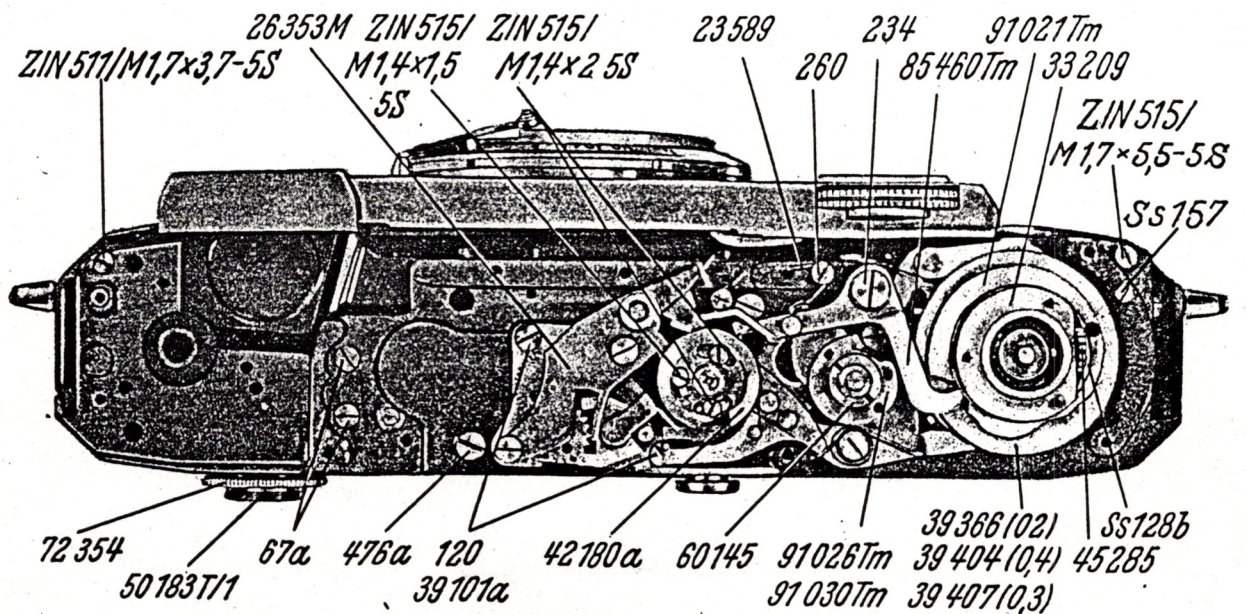
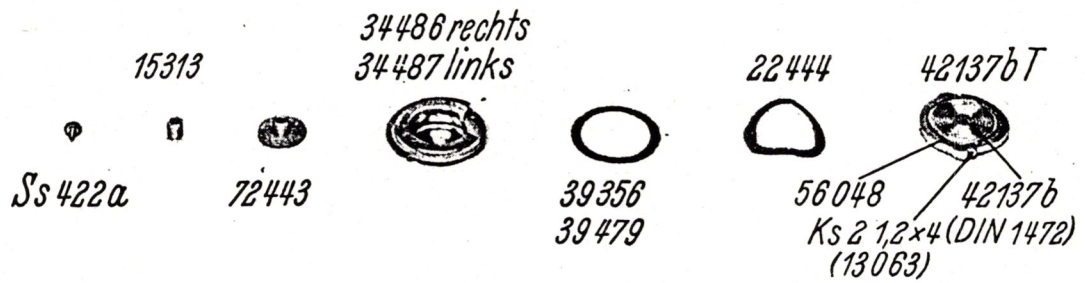
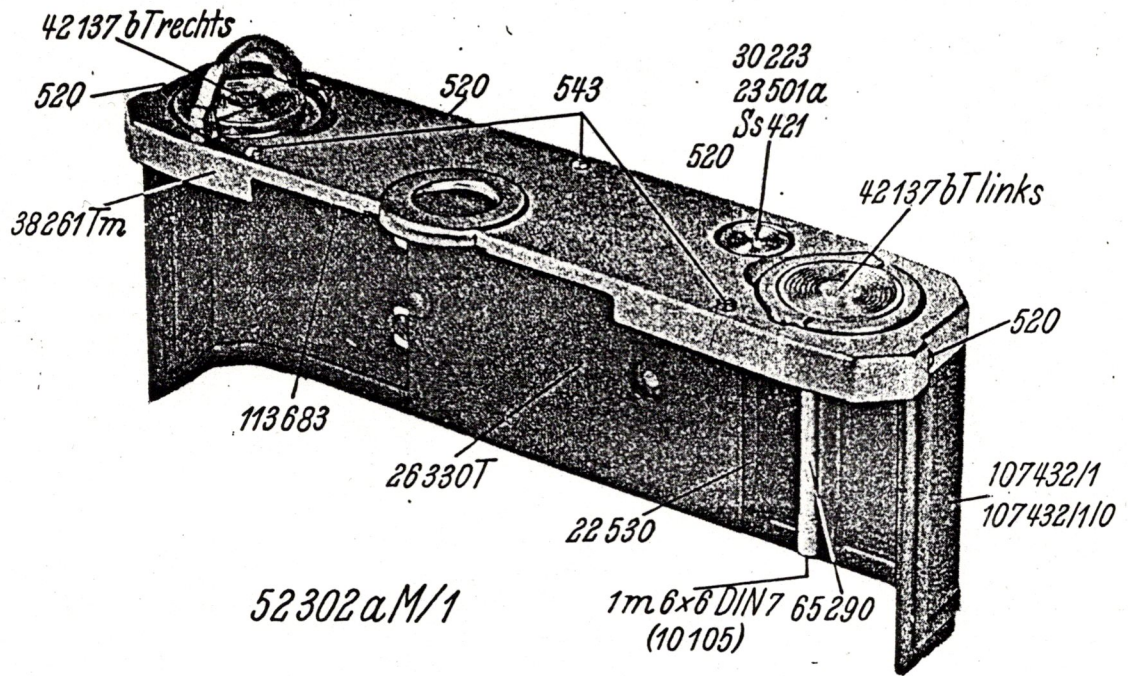
Ausgabe Sept. 1952

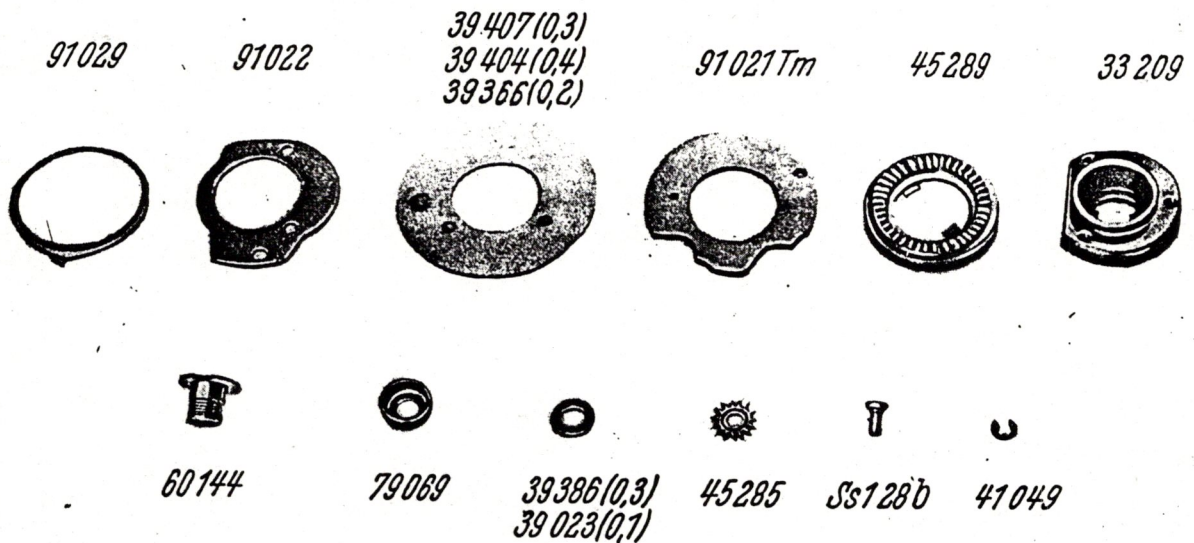
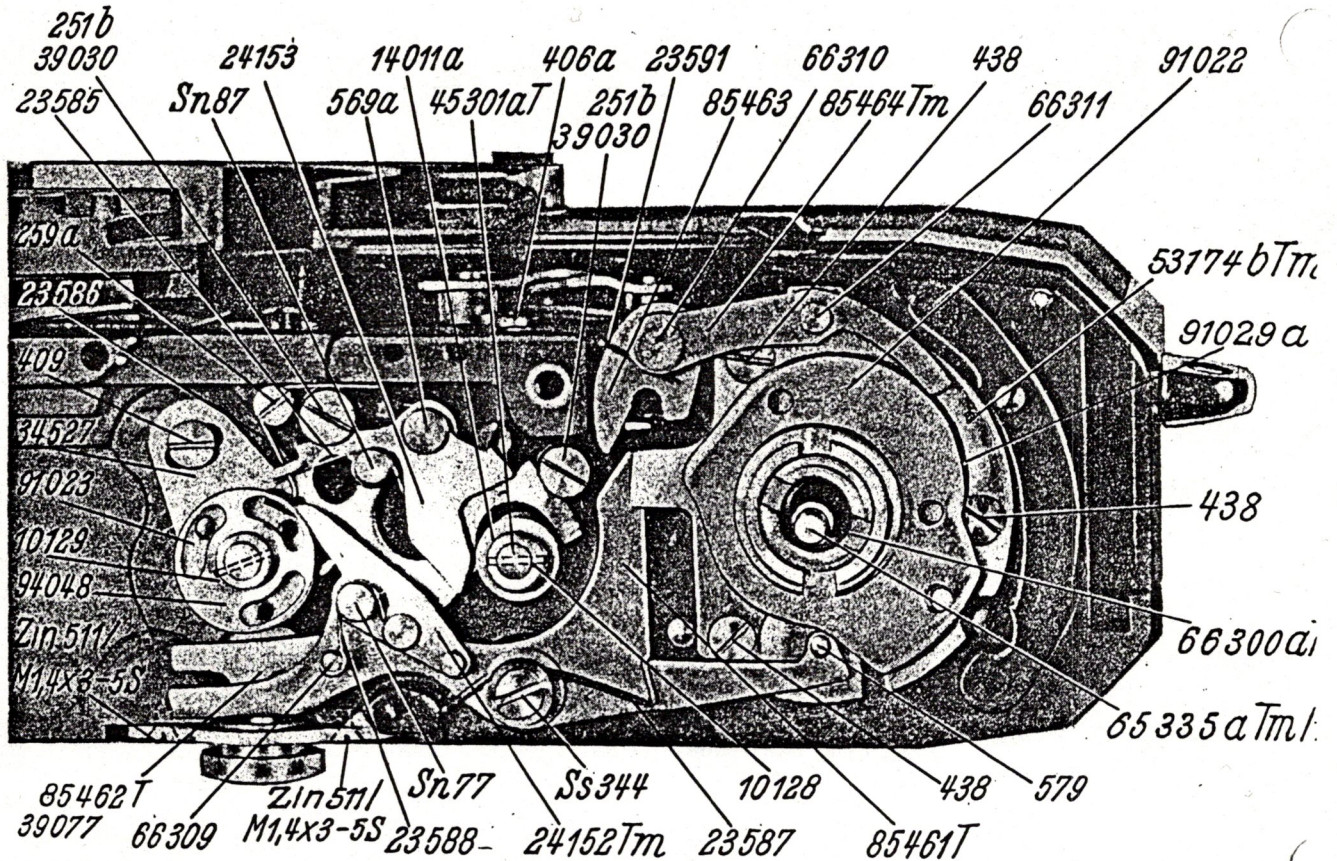
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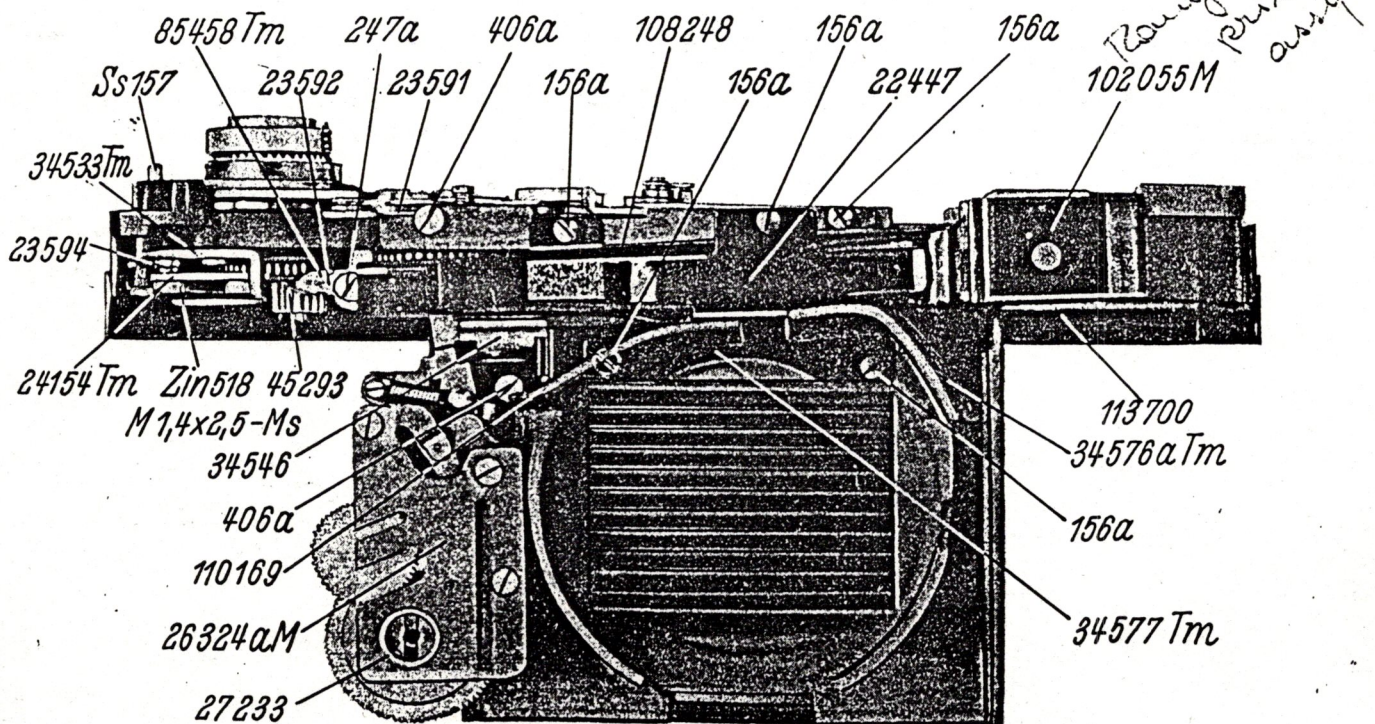
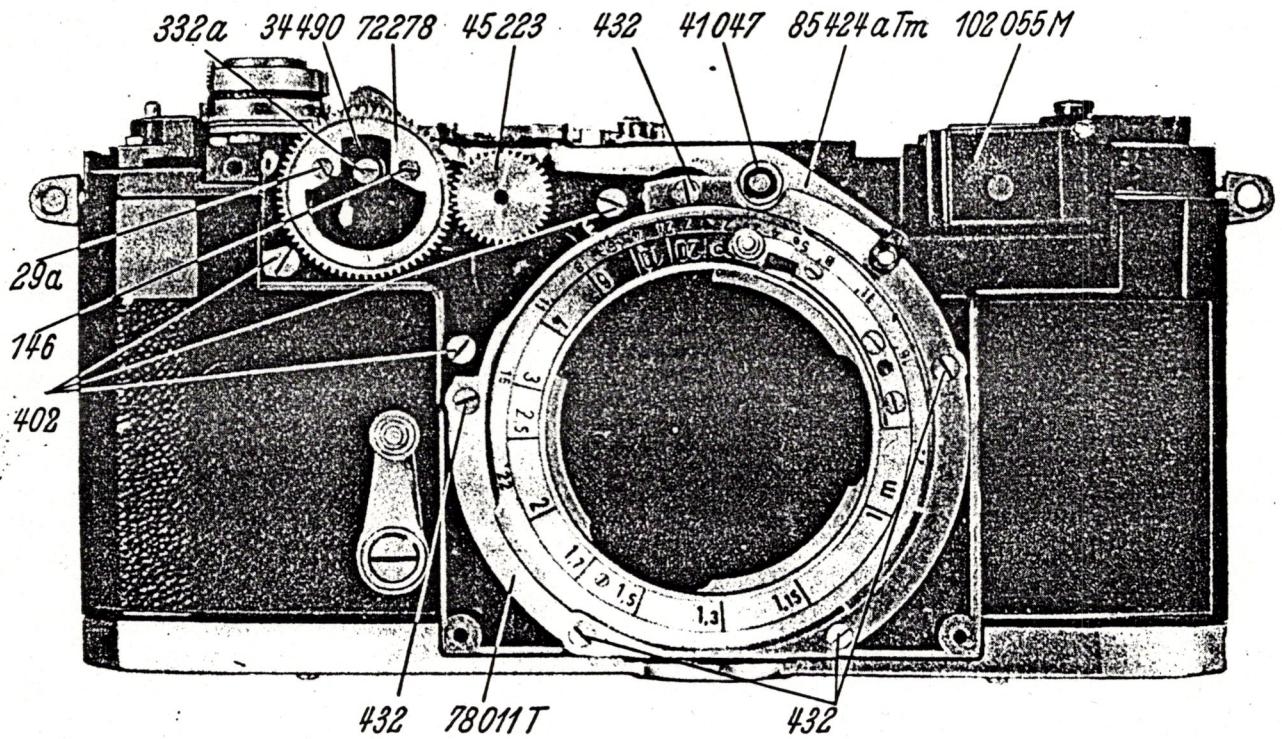


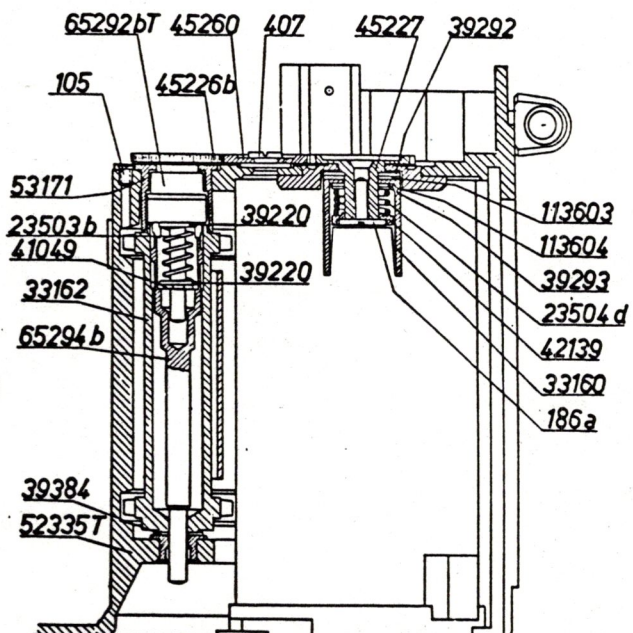
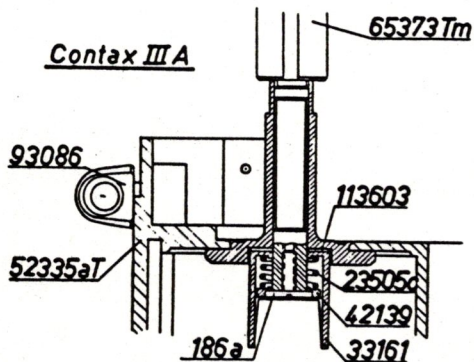
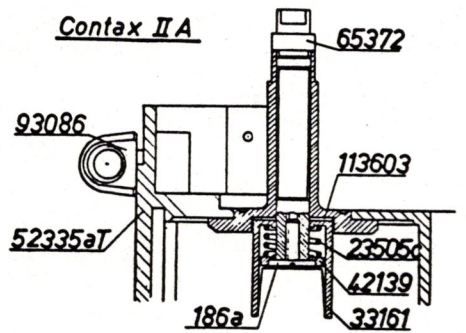
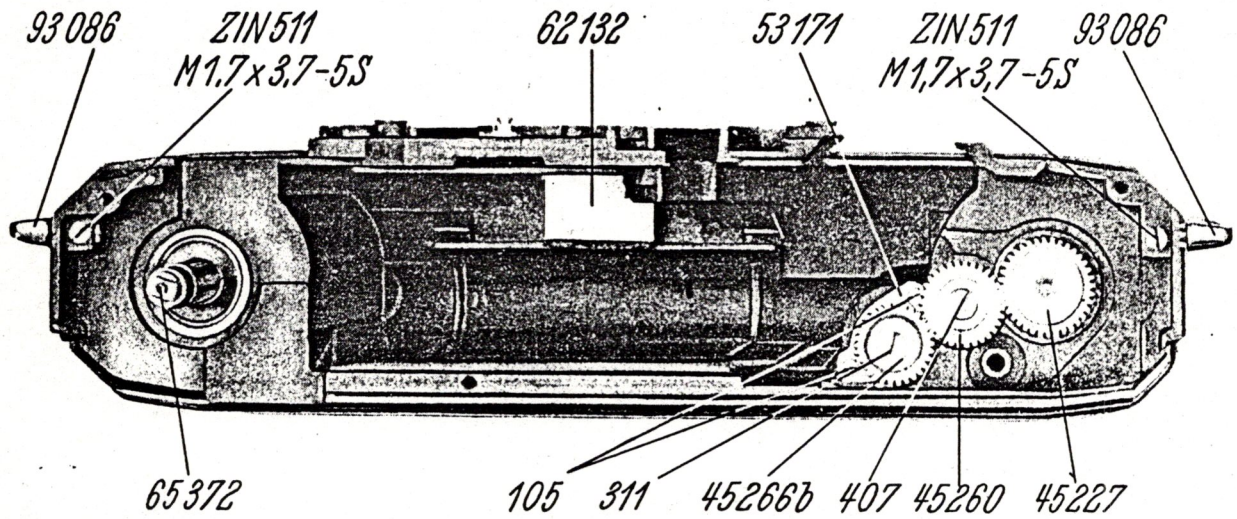


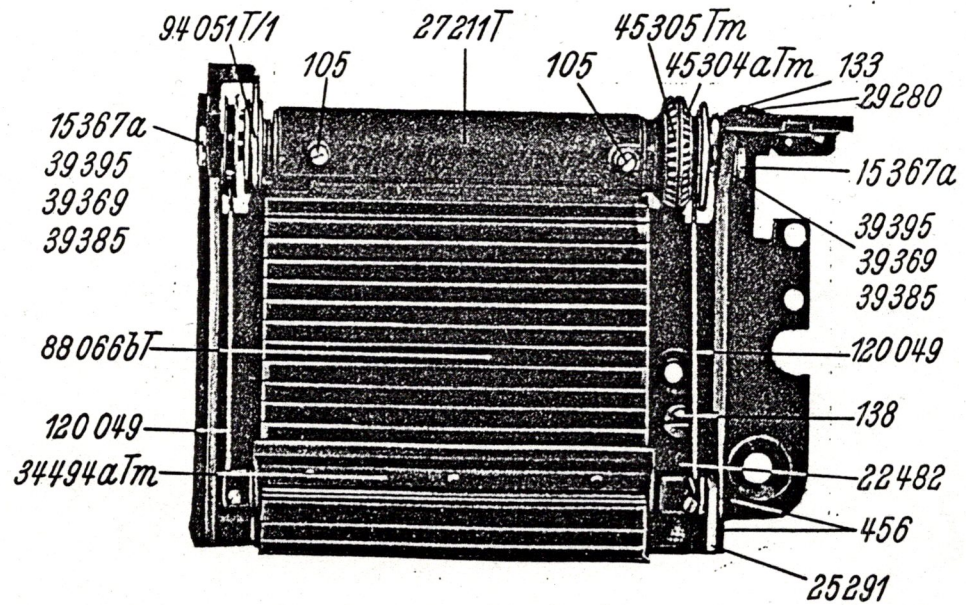
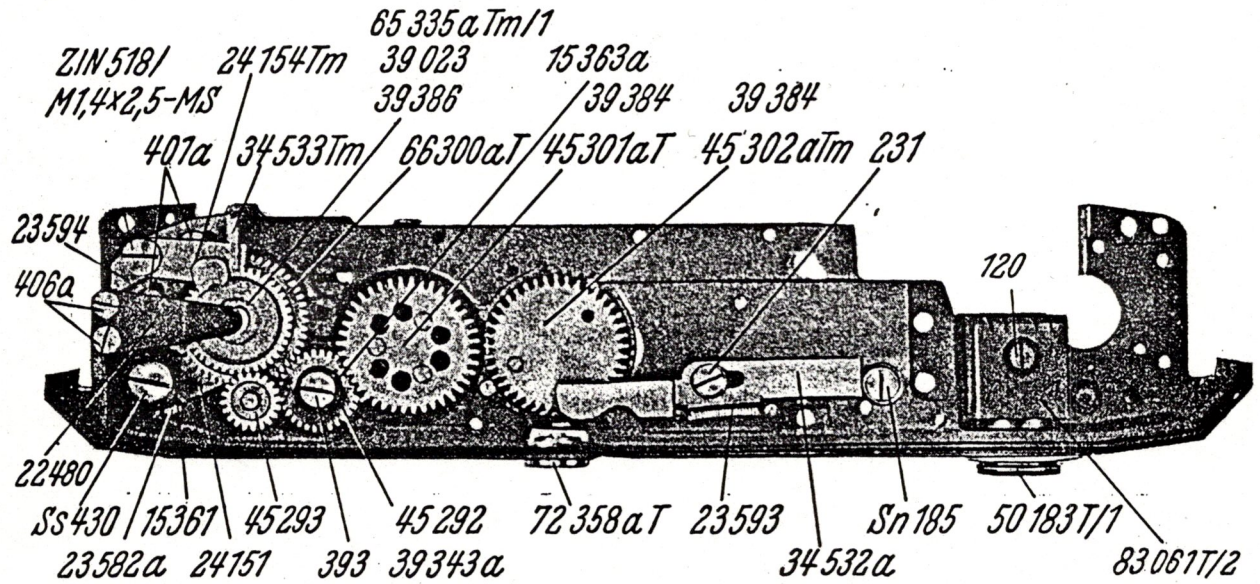






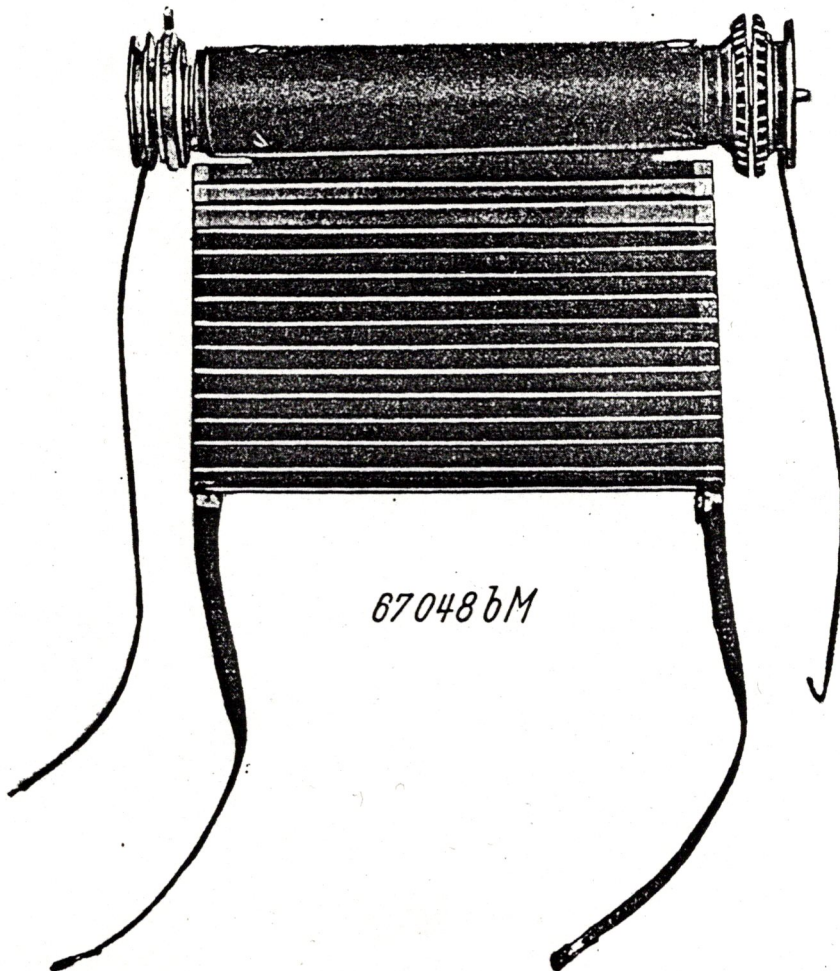
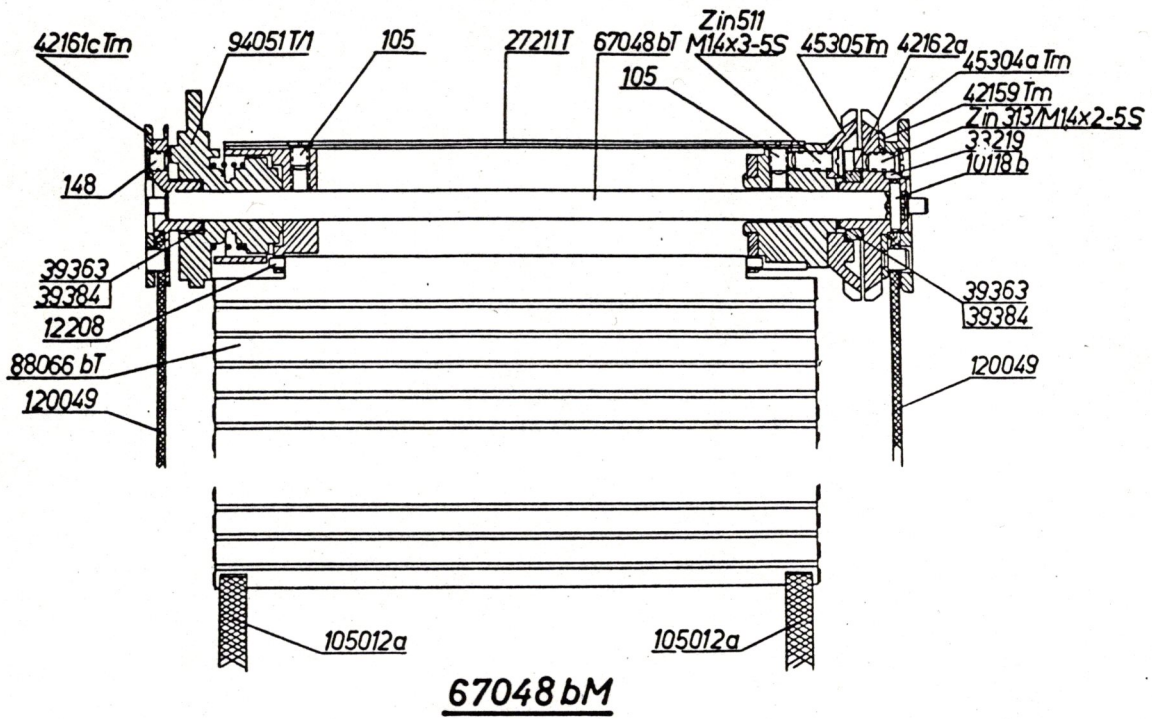


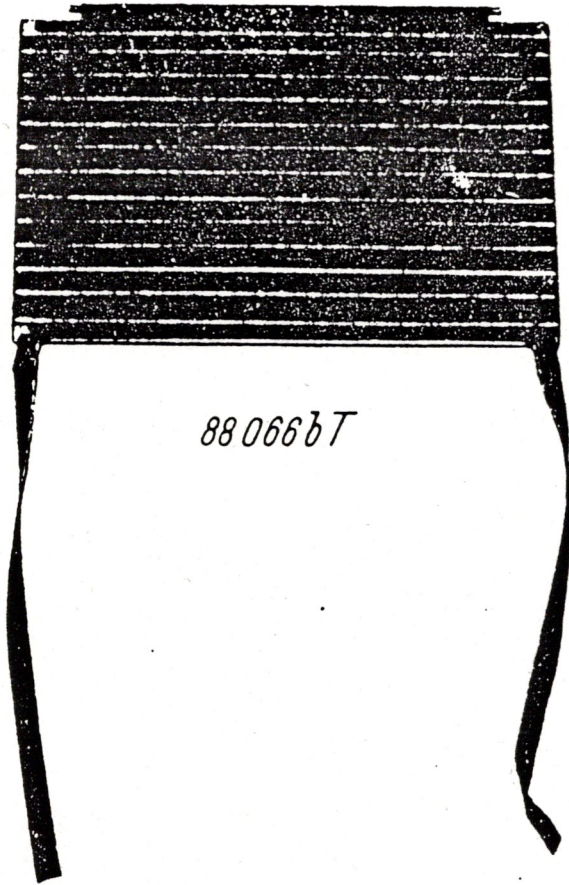




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-9-



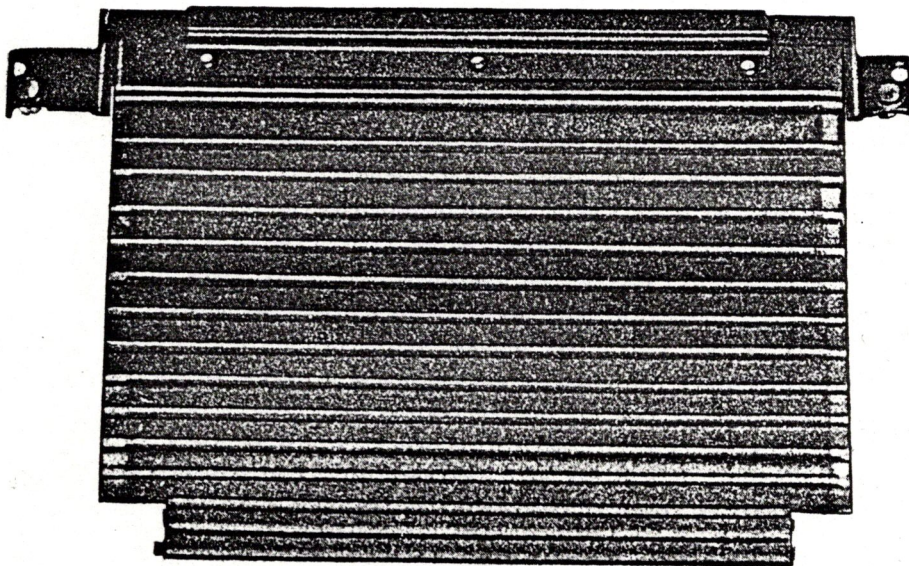
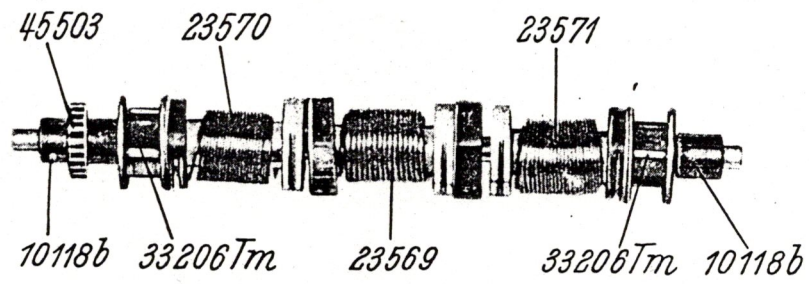


88066bT

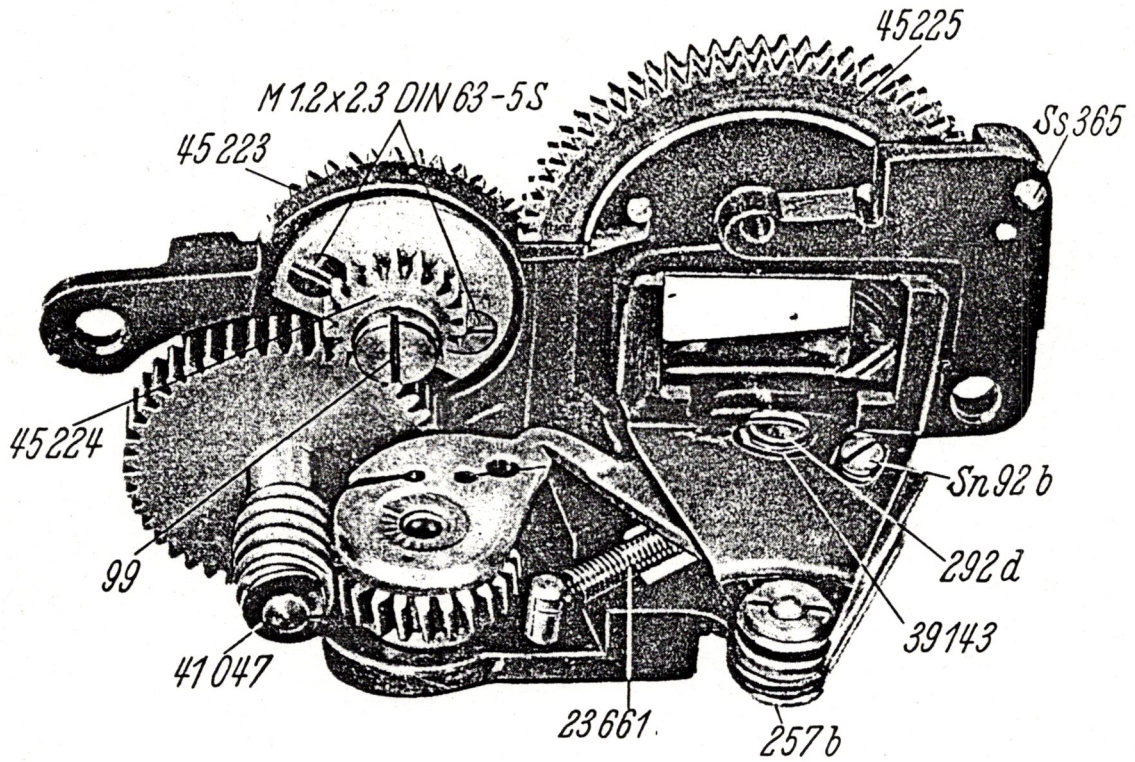


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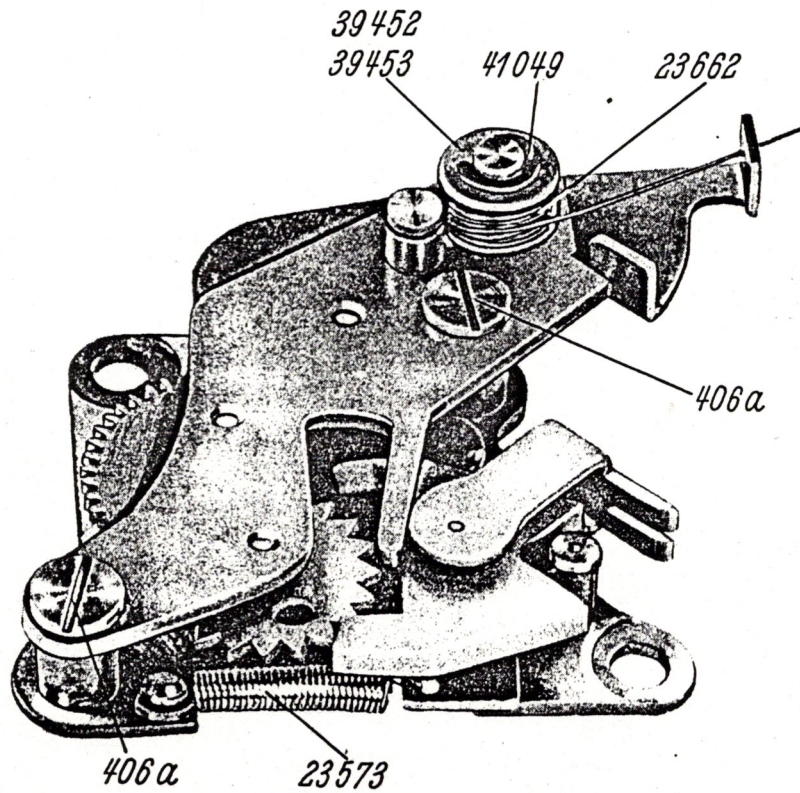
65334 α M



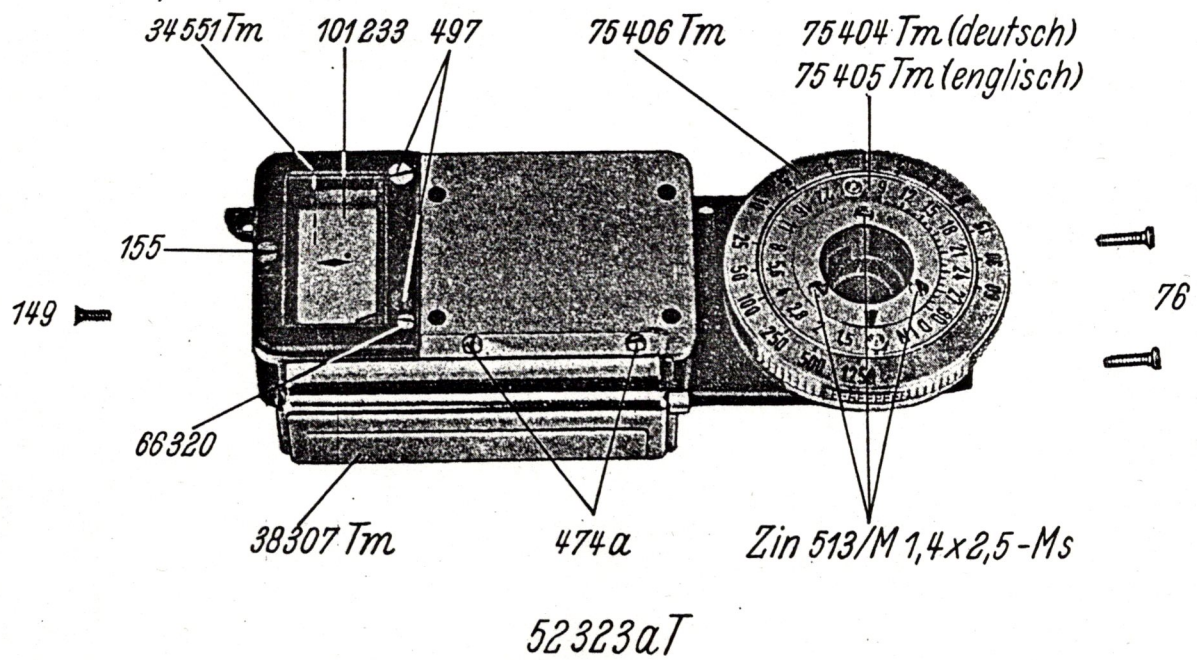
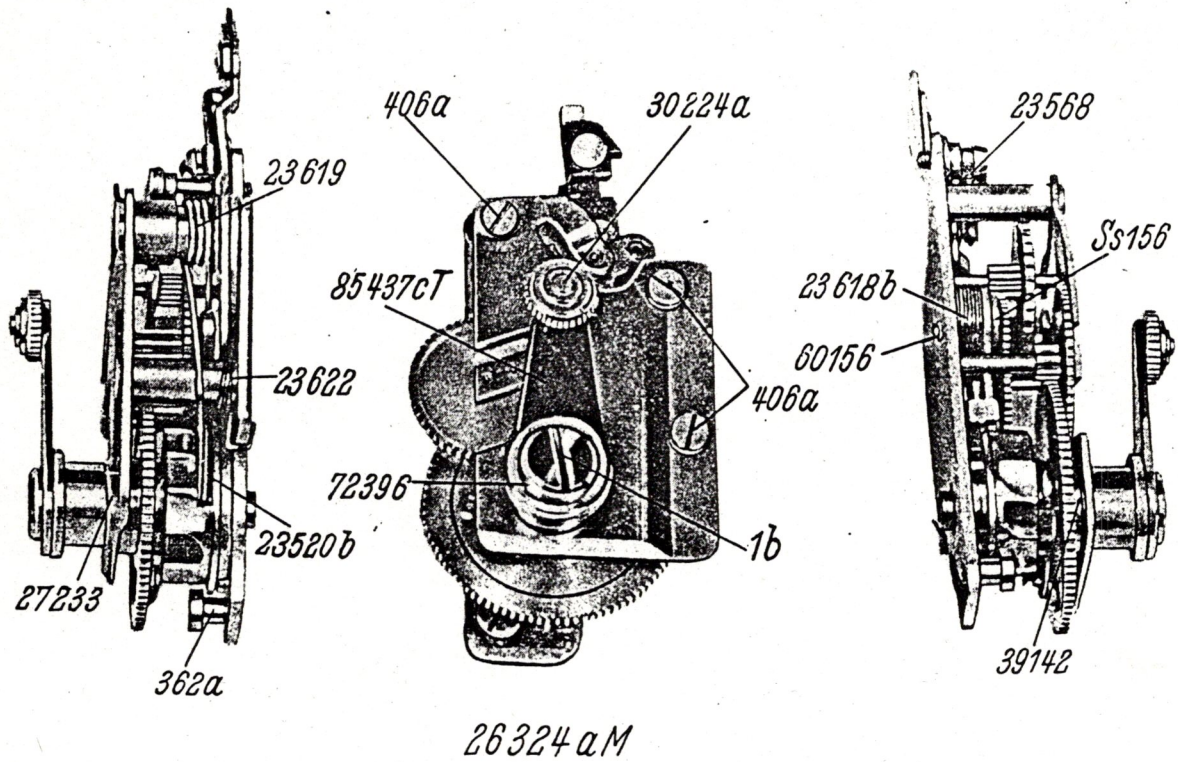
88071M



47038M



20050M



Spezial-Montage-Werkzeuge für

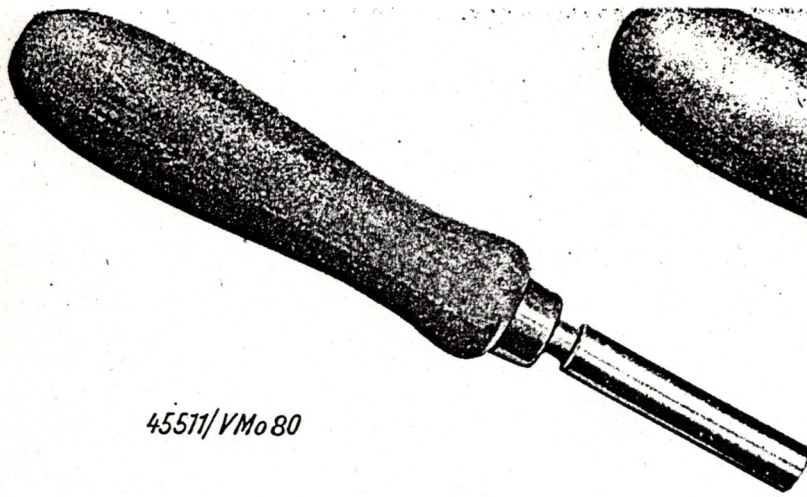
Contax II A, III A

Werkzeug-Benennung	für Camera	Bestell-Nr.
Schlüssel zum Spannen des Sperrades 45 511 (Vorlaufwerk)	Contax II A und III A	45511/VMo 80
Schlüssel für die Mutter 60144	Contax II A und III A	60144/VMo 80
Schlüssel für die Mutter 60145	Contax II A und III A	VM 55
Schlüssel für die Einblick- fassung 50183 T/1	Contax II A und III A	532/16 M/90
Schlüssel für Gewinde- nippe 14061	Contax II A	VM 92
Schlüssel für Ringmutter 74123 am Beli-Knopf	Contax III A	VM 93
Schlüssel zum Anhalten des Kupplungsstückes 33209	Contax II A und III A	VM 52
Schlüssel zum Anhalten der Steuerscheibe 91026 Tm	Contax II A und III A	91026/VMo 80
Steckschlüssel für Schraube Ss 422 a	Contax II A und III A	Ss 422a/VMo 80
Doppelschlitzschraubenzieher für Zylinderschraube Ss 421	Contax II A und III A	Ss 421/VMo 80
Einstellmaß und Auflage für Filmebene	Contax II A und III A	563/24 M/715-1
Einstellmaß und Auflage für Filmebene	Contax II A und III A	563/24 M/715-2
Einstellmaß und Auflage für Filmebene	Contax II A und III A	563/24 M/715-3
dto. in Holzkasten		
Federwaage zum Messen der Friktion 52335 a	Contax II A und III A Contax II und III	52335 AVM/70

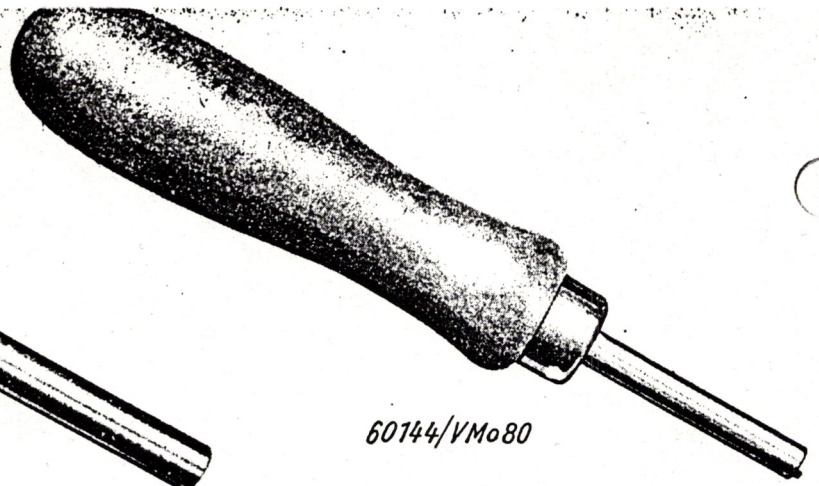
CARL ZEISS, INC.
485 FIFTH AVENUE
NEW YORK

Ausgabe Januar 1953

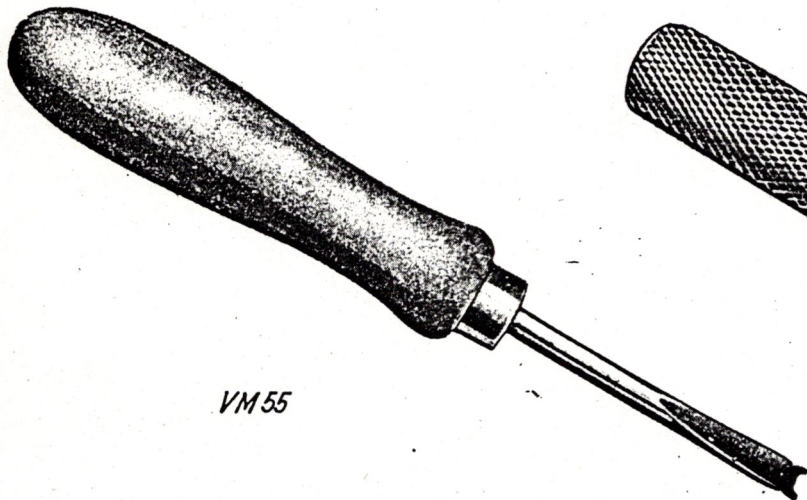
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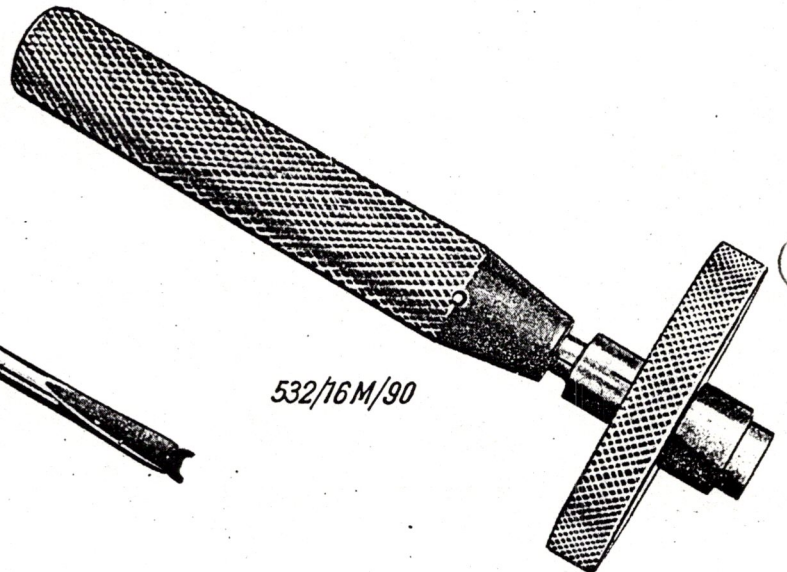
45511/VMo80



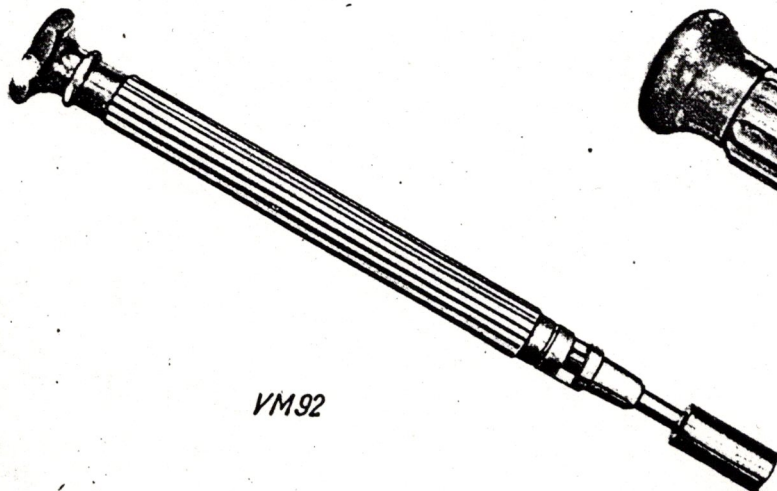
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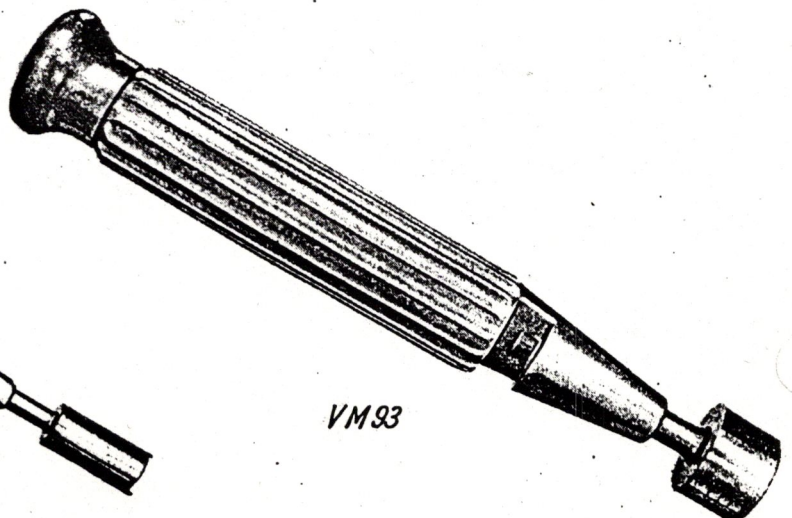
VM55



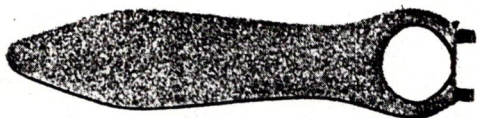
532/16M/90



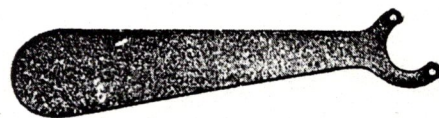
VM92



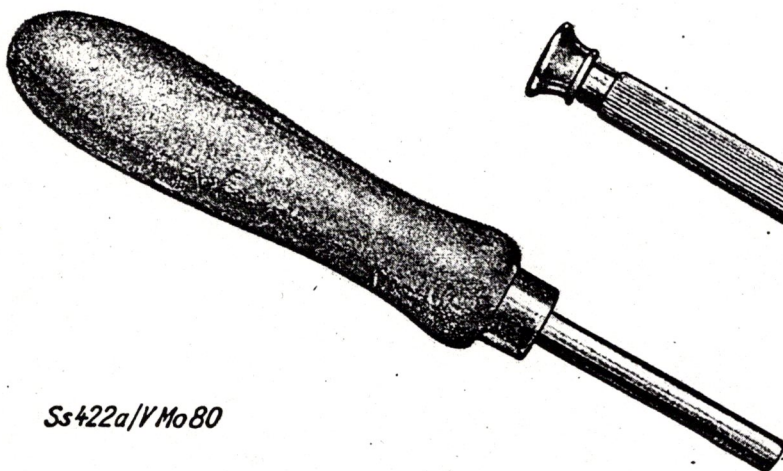
VM93



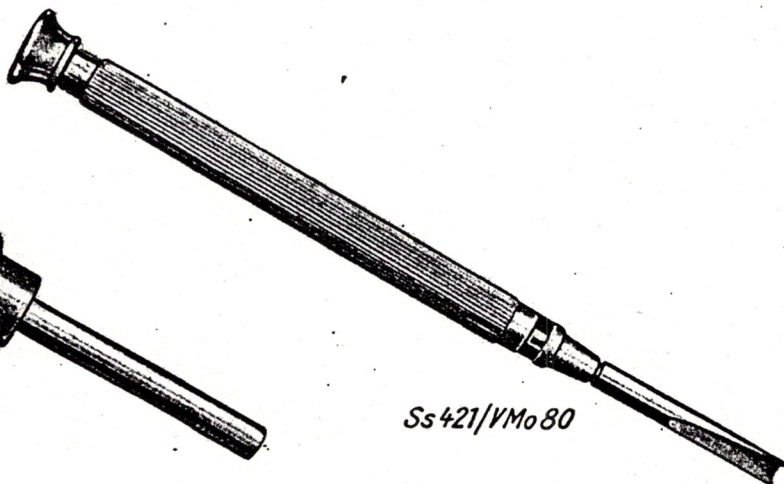
VM52



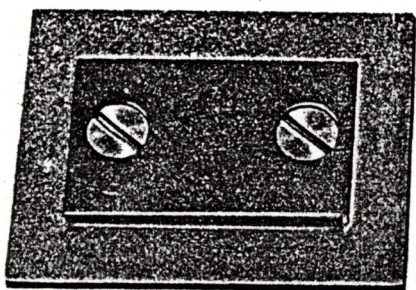
91026/VMo80



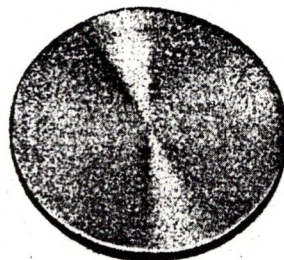
Ss422a/VMo80



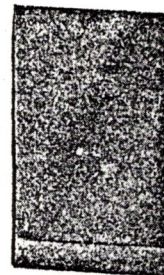
Ss421/VMo80



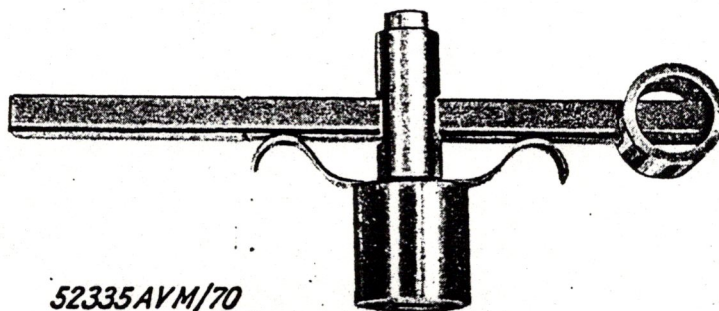
563/24 M/715-1



563/24 M/715-2



563/24 M/715-3



52335AVM/70

Contax IIa 563/24 and Contax IIIa 564/24

Supplement I July 1956

Elimination of the rebound of the lower blind of the Contax shutter
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When the shutter is released the lower blind will jerk back and because of this "rebound" a narrow strip of the image field will be covered temporarily.

This undesirable occurrence is particularly disturbing when taking colour pictures are taken and it has, therefore, been eliminated by Zeiss Ikon A.G. some time ago.

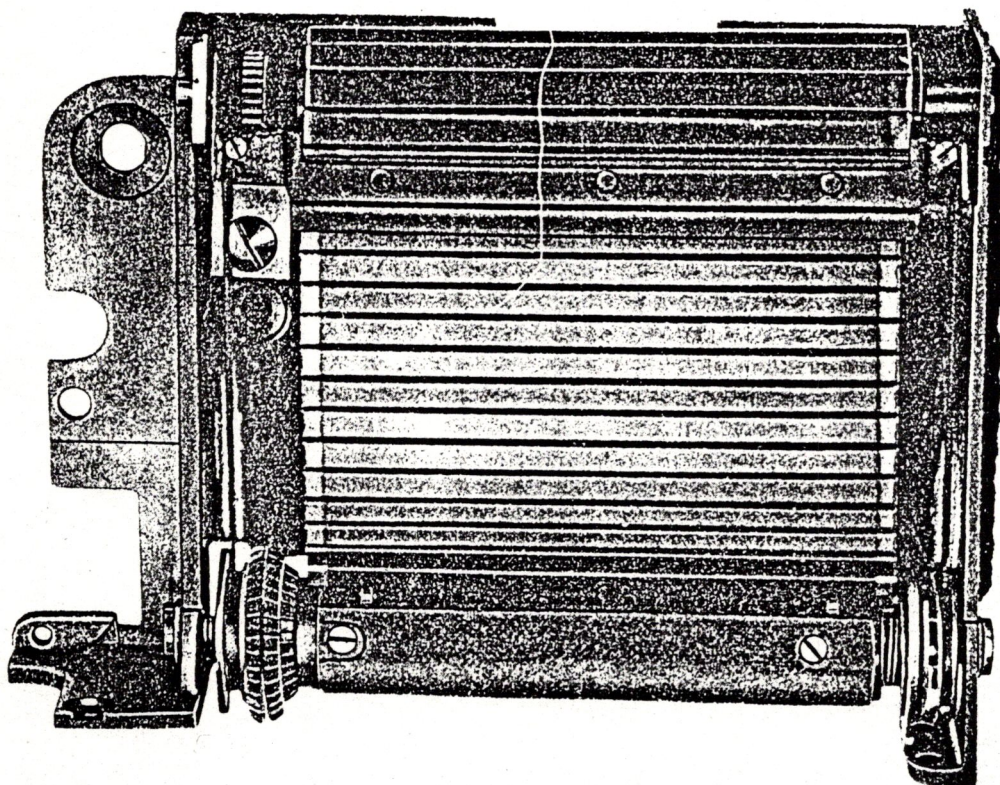
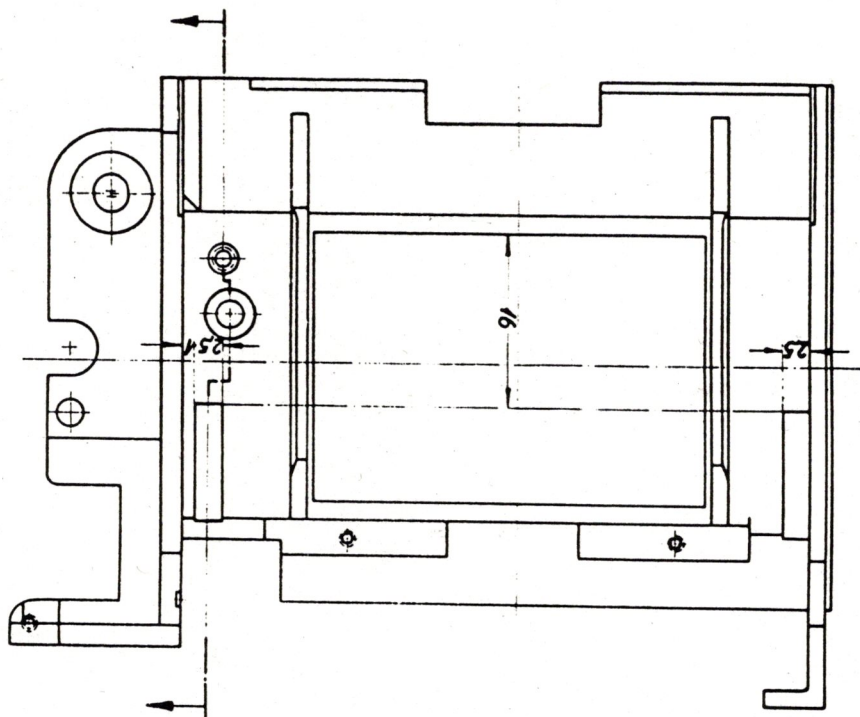
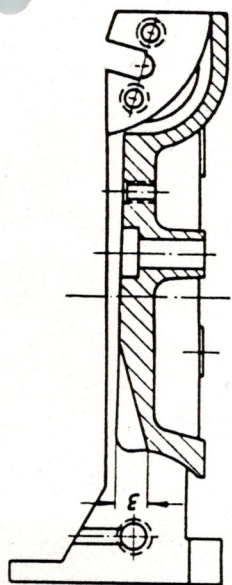
Shutters which suffer from this rebound can easily be remedied by filing two nitches into the frame of the roller blinds below the blind cords. These oblique notches should be 2.5 mm wide each and, below the cord pulley, 3mm deep. They should end at a height of appr. 16 mm. measured from the lower edge of the image.

The frame of the roller blinds should be removed from the camera. The upper axle of the blind should also be removed according to the instructions for dismantling the Contaxm paragraph " F ". When filing the notches the utmost care should be taken to prevent the filings from falling into the blinds. The felt pad should also be cleaned carefully and re-fastened with fresh adhesive.

For the sake of appearance the notches should be varinished.

The assembly and final checking should be done in the usual way.

Zeiss Ikon A.G.
Stuttgart



Supplement II

Contax IIc 563/24 and Contax III 564/24

fully synchronized

I. General notes

The synchronizing device cannot be inserted at a later date outside our factory, since the entire shutter mechanism must be exchanged. Cameras without full synchronization should, therefore, be sent to the factory.

When the synchronizing device must be repaired special care should be taken that all soldering should be done with acid-free soldering material (colophony, resin, etc.) and insulated from earth by sieving.

The adjustment of the short shutter speeds should be done in the following way with all Contax models:

- a) Tension the shutter, set the setting ring to "B", insert the control disc 91 026 Im (stop pins downwards) and set to stop (in an anti-clockwise direction), tighten by means of nut 60 145.
- b) Set the setting ring to 1250 and adjust the play of the time pawl 24 152 by means of the control disc.
- c) Set the setting ring to 1 second and the stop 34 527 of the time pawl to the central position. The time pawl should be at a tangent to the cam-plate 91 023, with a distance of 0.1 mm between them.
- d) Tension the shutter, set the setting ring to 1250: the time pawl should now engage the cam-plate by 0.3 mm. The distance between the time pawl and the cam-plate is very important: it should be 0.1 mm.
- e) Set the setting ring to 1 second, screw on the stopping disc 42 180 a. When set to 1 second the distance between the stopping disc and the segmented lever should be approx. 1 mm (note the retardation).

If the covering of rubber cloth on the corrugated tube of the roller blind has been damaged or become sticky, it should be exchanged for the leather covering. For the lower tube 27 210 Im use the covering 108 260, for the upper tube 27 211 Im covering 108 261 should be used.

II. Specification of the synchronizing device

- 1a) When electronic flash units or bulbs with a short flash duration are to be used, the release should be made via the "X" contact.

This is set automatically when the shutter speed ring is set to one of the speeds between 1/50 sec. and 1 second.

Electronic flashes are fired at 1/50 second (yellow figure), flashbulbs with a flash duration up to 1 second should be fired at speeds from 1/25 second to 1 second (black figure).

- 1b) The flashbulbs with a long flash-duration are fired with a delay to peak when shutter speeds between 1/1250 and 1/100 second are used (red figure).

- 2) The contact positions at the "X" setting described above under 1a) are as follows:

Shutter cocked (fig.3)

Contact I closed	74 149 Tm
" II open	
" III open and remains unchanged at these shutter speeds	22 581 Tm
" IV does not work when III is open	118 031 Tm with 22 580 Tm (fig.1)
" V closed	103 404

Release

The circuit will be closed, when the first blind has almost run off, by contact II 2(22 578), fig. 1. When the shutter has run off completely (fig.4) the contact I will be opened by the arrangement of slides 34 625 T.

During the tensioning of the shutter (fig.5) the return-locking pawl 24 165 Tm will open contact V. When the tensioning is completed the contacts I and V are closed one again (fig.3).

- 3) For the flashbulbs with a long flash duration described under 1b, the contact positions are as follows:

When the shutter is tensioned

Contact I is closed	
" II is closed	
" III remains unchanged and closed at these shutter speeds, no matter whether the shutter is tensioned or not (fig.2)	
" IV is open	
" V is closed.	

Release

The lower ring slide 118 631 Tm will be freed (fig.2), the contact IV will close (22 580 Tm with 25 333) and contacts V and I are closed; the latter however, will be opened by the second blind or the slide 34 625 T (fig.4) when tensioning is completed. During shutter tensioning (fig.5) contact V will be opened by the return-locking pawl 24 165 Tm as with the "X" contact setting whilst contact III will remain closed. When shutter tensioning is completed contacts I and V are closed (fig. 3).

III. Instructions for assembling the synchronizing device

All surfaces denoted "A" should be painted with Zeiss Ikon Insulating Varnish ^{*)}, (figs. 6 and 8).

The long slide 34 625 T should be adjusted and directed so that it falls in both directions by its own weight and runs as near possible to the bevel-gear wheel. Only when this has been achieved the spring 23 593 should be hooked in. The insertion of the contacts 21 577 Tm and 103 404 T can be seen in fig. 7.

The levers shown in fig. 8 should move without play as otherwise firing a flash becomes unreliable, there may also be a deviating effect on the shutter speeds. In fig. 9 the construction and insertion of the ring-slides 118 031 Tm and 118 032 Tm can be seen. These slides should run easily and without play. All surfaces should be free from grease as the slides will stick otherwise.

^{*)} On a special page at the end of these instructions advice is given for the use of Zeiss Ikon Insulating Varnish.

IV. Instructions for adjusting the synchronizing device

The return-locking pawl 24 165 should be adjusted so that it snaps-in when the shutter is tensioned but only after the release lever 85 527. Only then will the return-locking pawl take up the power of the untwisting return-locking spring and other torsional moments which may occur when the winding knob is turned the wrong way round. The lug of the release lever should snap in to a depth of at least 0.5 mm behind the cams of the winding wheel 45 574. The depth should be adjusted by lugs on the stop 34 625, not by using the ring-slide (fig. 10).

The release of the shutter should be effected directly by the release lever 85 527, that is to say, the cam of the release disc 42 203 should release the cam of the winding wheel before the ring slide starts, under all conditions (fig. 11).

When the shutter is tensioned the contact spring 22 577 should exert a pressure of 10 to 15 grams on the contact spring 25 332 of the connection flange 74 149. The rivet Sn 83 fixed to the contact spring 22 580 should not be too close to the lower ring slide; the distance should be at least 0.3 mm (fig. 12).

When the bevel-gear wheel 45 573 a has started running and slide 34 625 has slipped back, the contact on this point should remain closed under all conditions (fig. 13).

When the run of the bevel-gear wheel 45 573a has been completed, the contact spring 22 577 should have been lifted so that the air gap between the contacts is at least 0.5 mm wide (fig. 14).

When the shutter is tensioned the contact spring 22 587 should press against the rivet of the contact spring 22 588 with a pressure of 50 ± 10 grams. Between the bevel of the locking pawl 24 165 and the end of the spring 22 587 a distinct gap should be visible (fig. 15).

During the whole operation of tensioning, the contact spring 22 587 should be safely lifted from the rivet of the contact spring 22 588 by the bevel of the locking pawl 24 165.

The rivet of the contact spring 22 580 should exert a pressure of 20 ± 5 grams on the small contact flat 25 333 of the lower ring slide 118 031 Tm.

The cam of the winding wheel, after the running off of the first blind, should touch securely the contact spring 22 578. The contact so obtained must not be severed at this point when the shutter completes its run (fig. 16).

When the shutter is tensioned the rivet of the contact spring 22 580 and the small contact flat 25 333 should have a distance of at least 0.5 mm between each other. The spring 22 586 should exert a pressure of at least 40 grams on the release lever 85 527 (fig. 17).

The two ring slides, when the shutter is tensioned, should be so moved by the lug of the release disc 42 203 that the stop spring 22 590 snaps in securely behind the stop piece of the upper ring-slide (fig. 18)

At the shutter speeds from 1/100 to 1/1250 second the contact spring 22 579 should exert a pressure of 60 ± 20 grams on the rivet of the contact bridge 22 581. The left end of the switching lever 85 525 should not touch the control disc 91 021 at these shutter speeds (fig. 19).

At the shutter speeds from 1/50 second to "T" the contact spring 22 579 should be at least 5 mm from the rivet of the contact bridge 22 581, from which it is separated by the insulating flat of the switching lever 85 525 (fig. 20).

V. Instructions for testing the electrical appliance for the exposure synchronization

1. There should be no flash-over when a D.C. voltage of 1000 volts or an A.C. voltage of 700 volts is passed for the period of 1 second between the contact shell and the contact pin.
2. The insulating resistance between the contact shell and the contact pin should be at least 10 Megohms.
3. When the flash contact is closed the transition resistance should be 200 ohms at the utmost. This measurement should be made at a shutter speed of 1 second.
4. The flash contact should be open when the shutter has run off, that is to say, when the exposure has been made. This test should be made with 3 volts A.C. and an amperage of 3 amps.
5. The shutter speed group red 1/100 to 1/250 second should have a delay to the beginning of the exposure by the first blind of 17 to 20 milliseconds.
6. The shutter speeds black 1 to 1/25 second and yellows 1/50 second should not have any delay at all. The contact is made when the first blind leaves the film gate.
7. The contact should be as free from clicking as possible and remain closed at shutter speeds from 1/100 to 1/1250 second for at least the whole time of the delay. Within the range from 1 to 1/50 second the contact should remain closed until the second blind has run off.

Testing the circuit of the synchronizing device

A) Shutter tensioned (as in fig.3, but contact III open)

Shutter speed: 1/50 second ("X" contact)

Contact I closed

- II open
- III open
- IV open
- V closed

Test:

- a) from connecting plug A to contact spring 2 (component 22 578) - measuring instrument shows deflection
- b) from connecting plug A to spring 4 (component 22 580) - no deflection.

B) Return-locking pawl should be lifted (shutter tensioning), as shown in fig.5, but with the following setting:

Shutter speed: any

Contact I closed

- II open
- III closed
- IV as required
- V open

Test:

Connecting plug A to spring 2 (component 22 578) - no deflection

C) Shutter tensioned - fig.3

Shutter speed: 1/100 to 1/1250 second

Contact I closed

- II open
- III closed
- IV open
- V closed

Test:

Connecting plug A to spring 4 (component 22 580) - deflection

D) Shutter tensioned, as shown in fig. 3, but with the following setting:

Shutter speed: any

Contact I open

Contact II to V as required

Test:

Connecting plug A to spring 1 (component 22 579) - no deflection.

E) Shutter tensioned as in fig. 3 but contact III open.

Shutter speed: 1/10 second

Contact I closed

- II open
- III open
- IV open
- V closed

Test:

Connecting plug A to spring 4 (component 22 580) - no deflection.

F) Flash-over test of the insulated leads

Shutter tensioned (fig.3)

Shutter speed: 1/100 to 1/1250 second

Contact I closed

▪ II open

▪ III closed

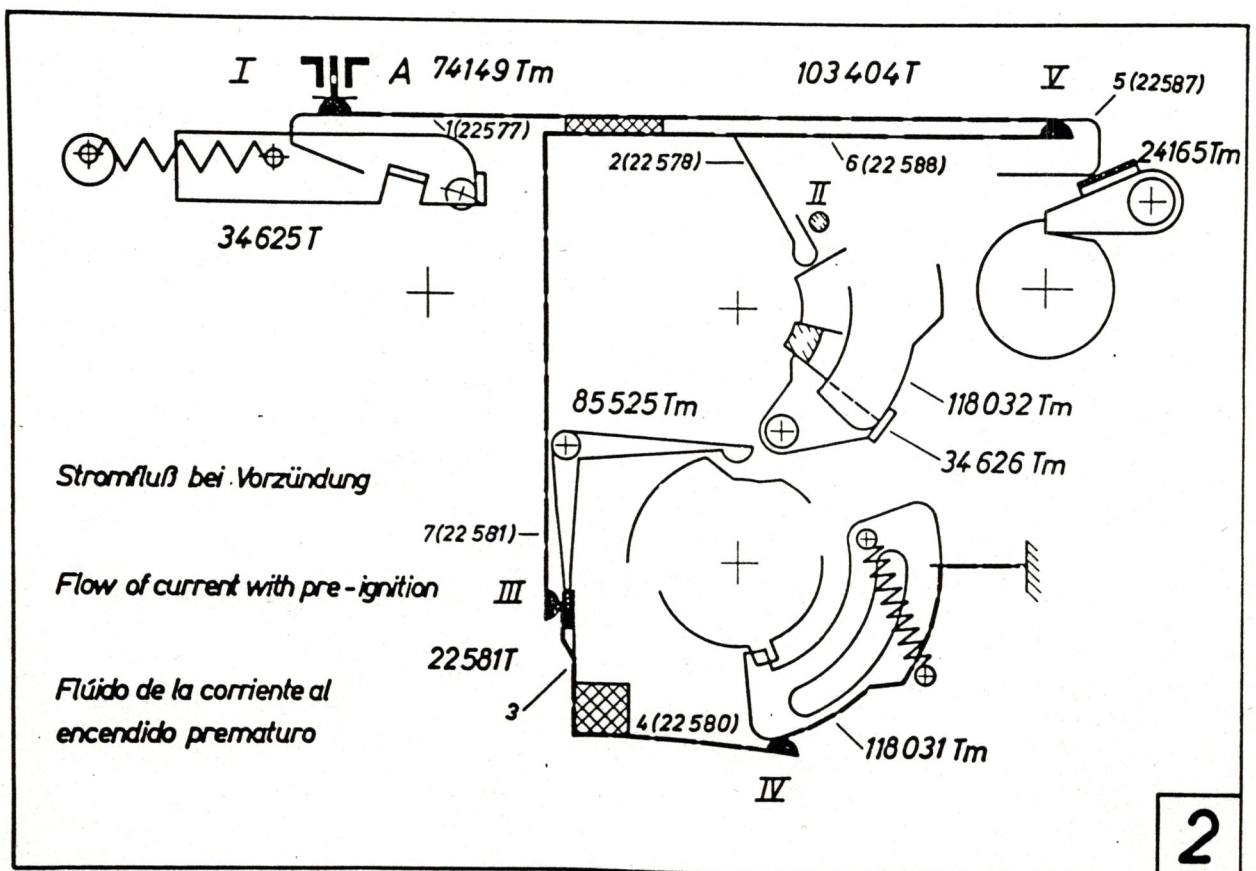
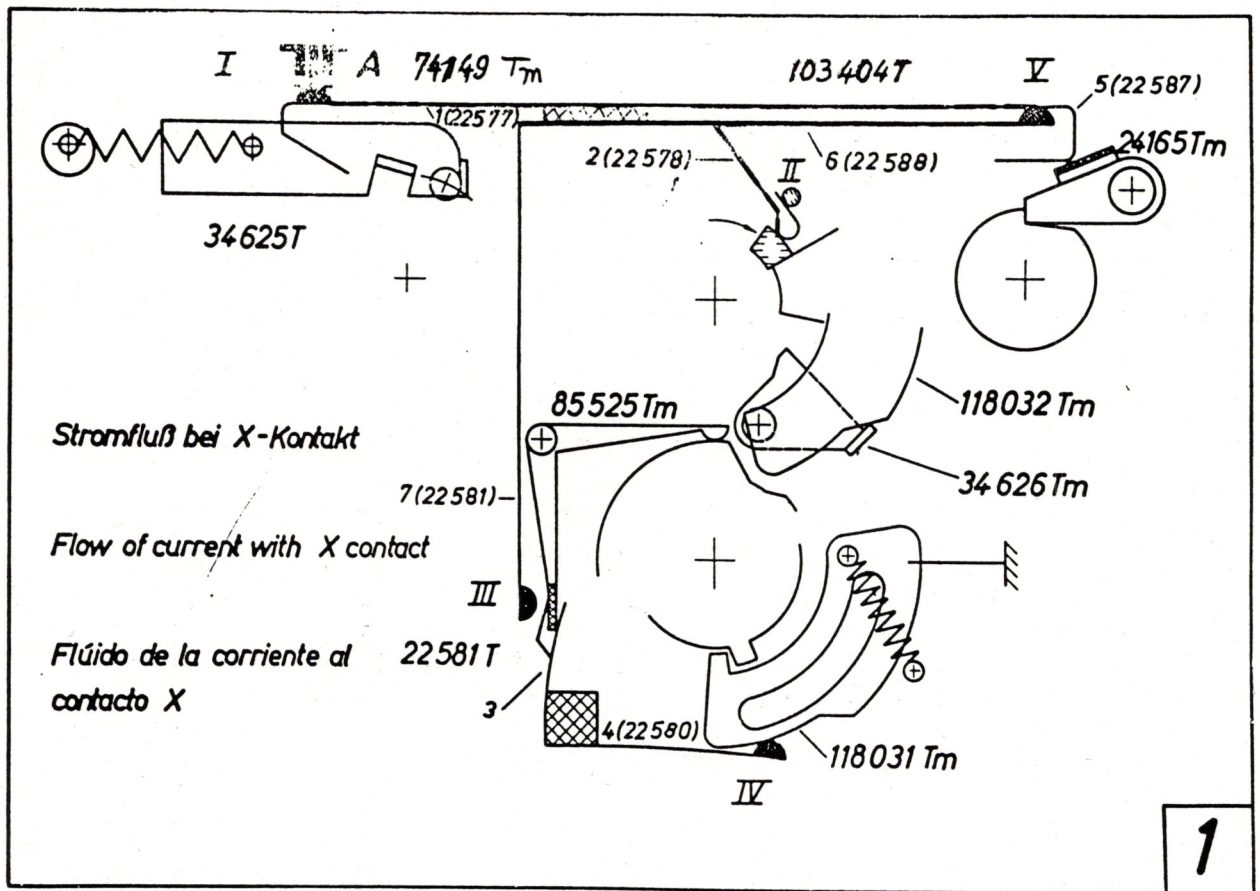
▪ IV open

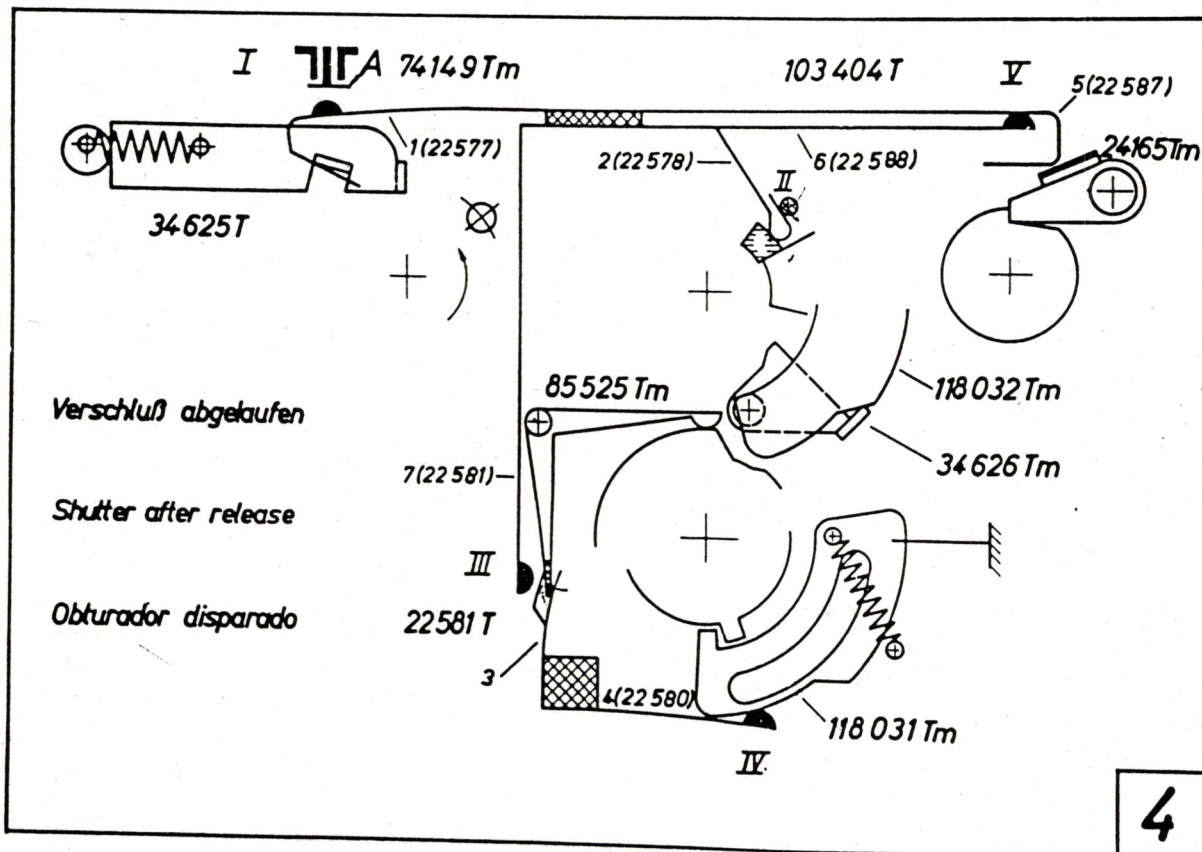
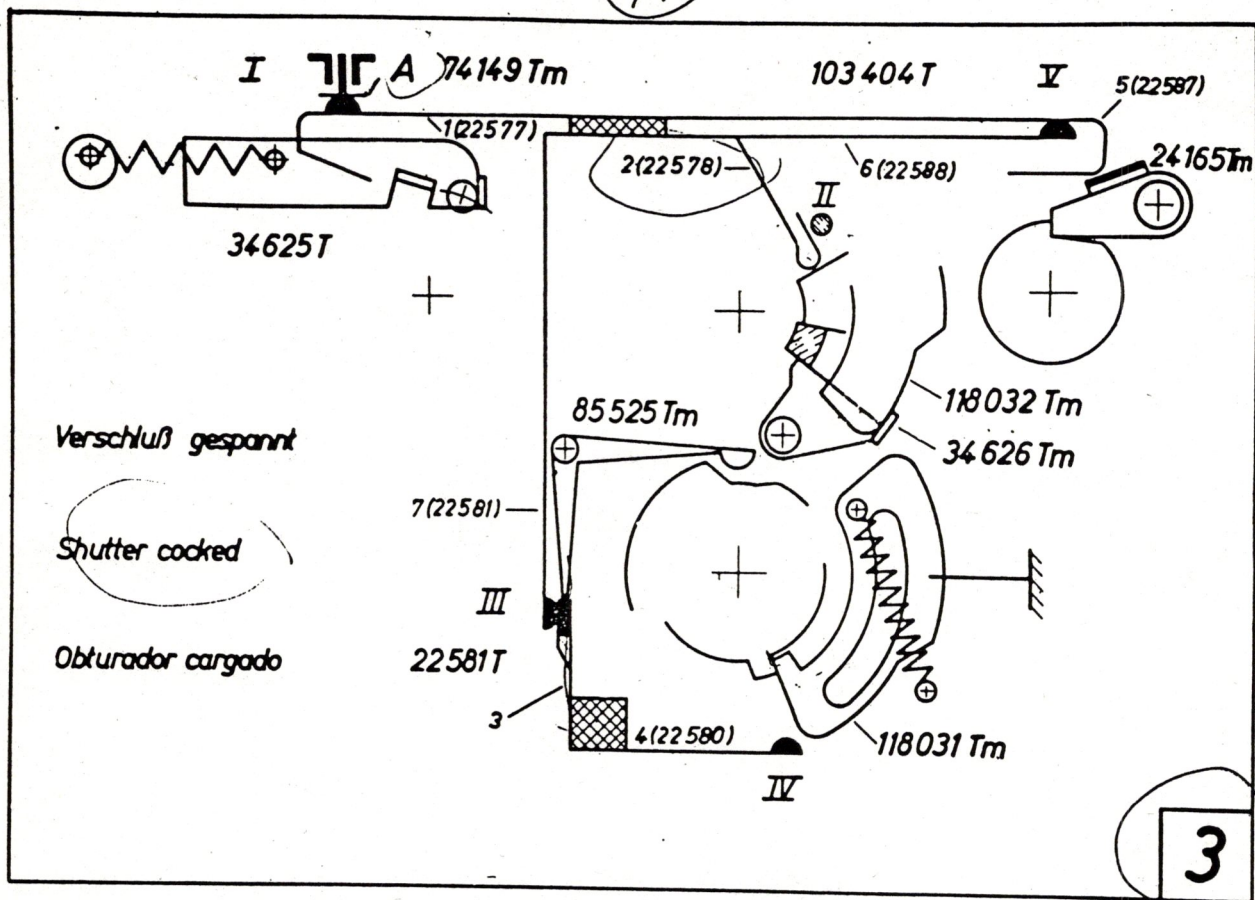
▪ V closed

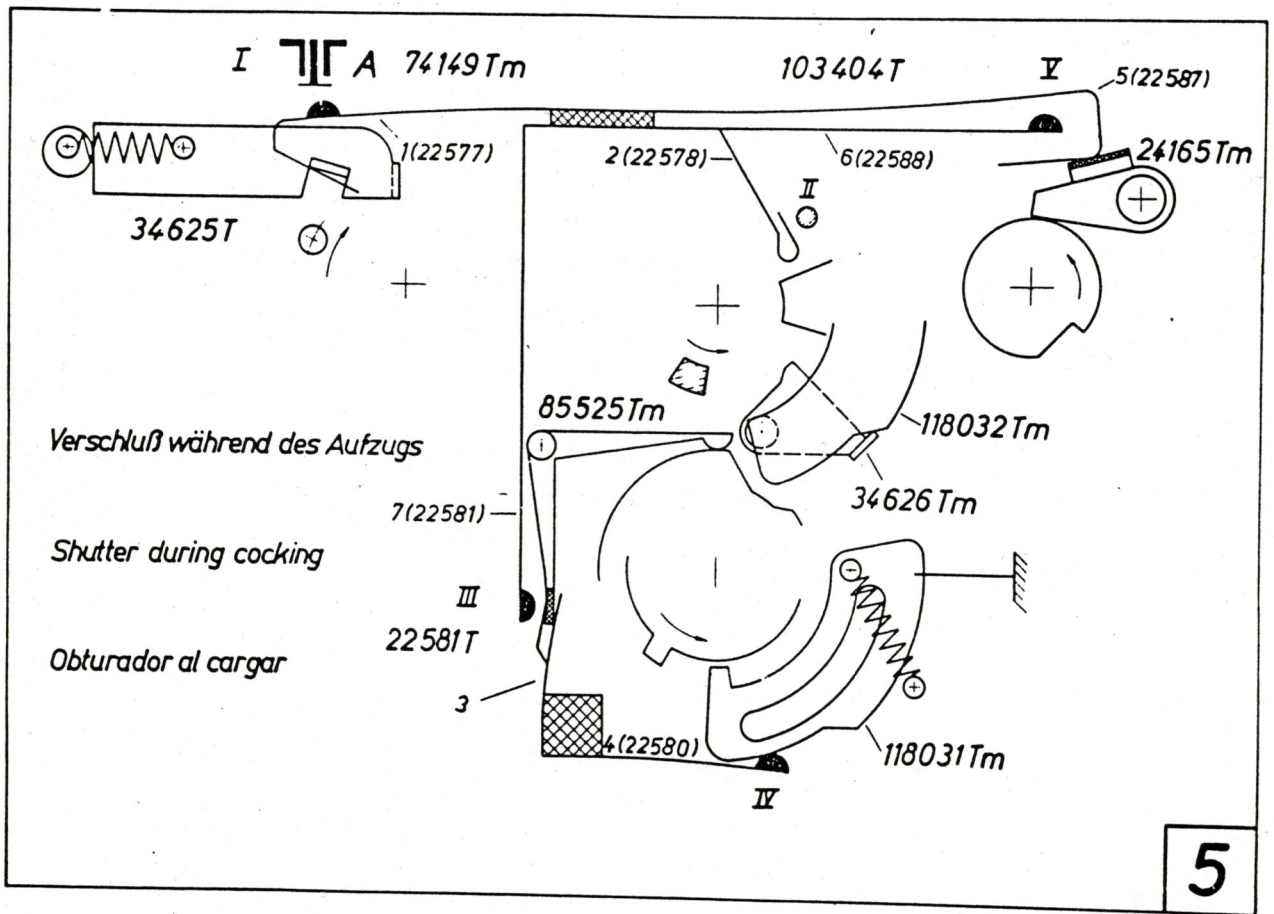
Test:

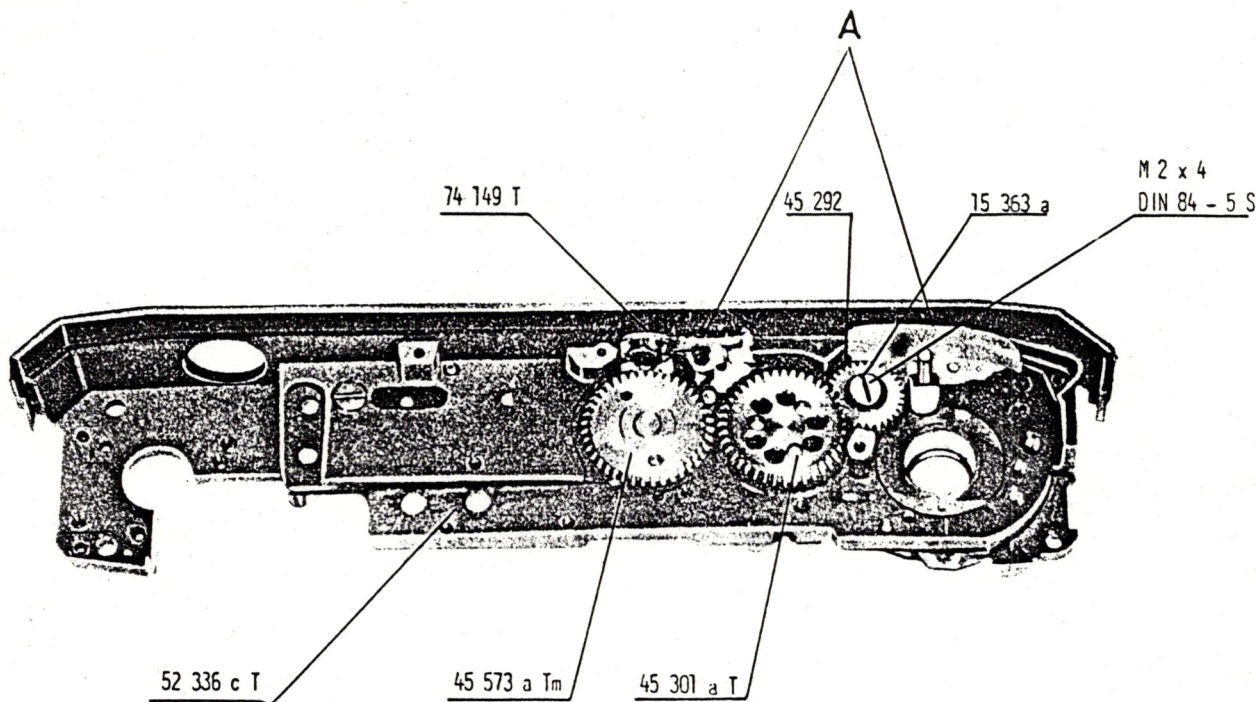
Test with an appliance for measuring insulation (1000 volts).

Pointer should deflect over the whole range.

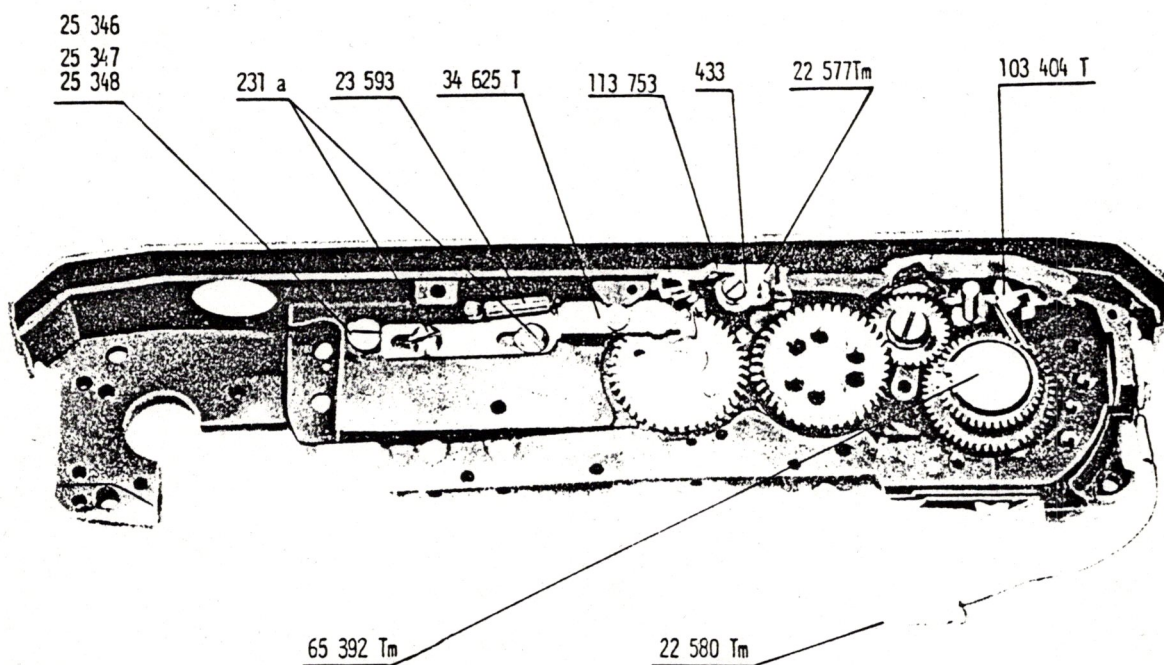




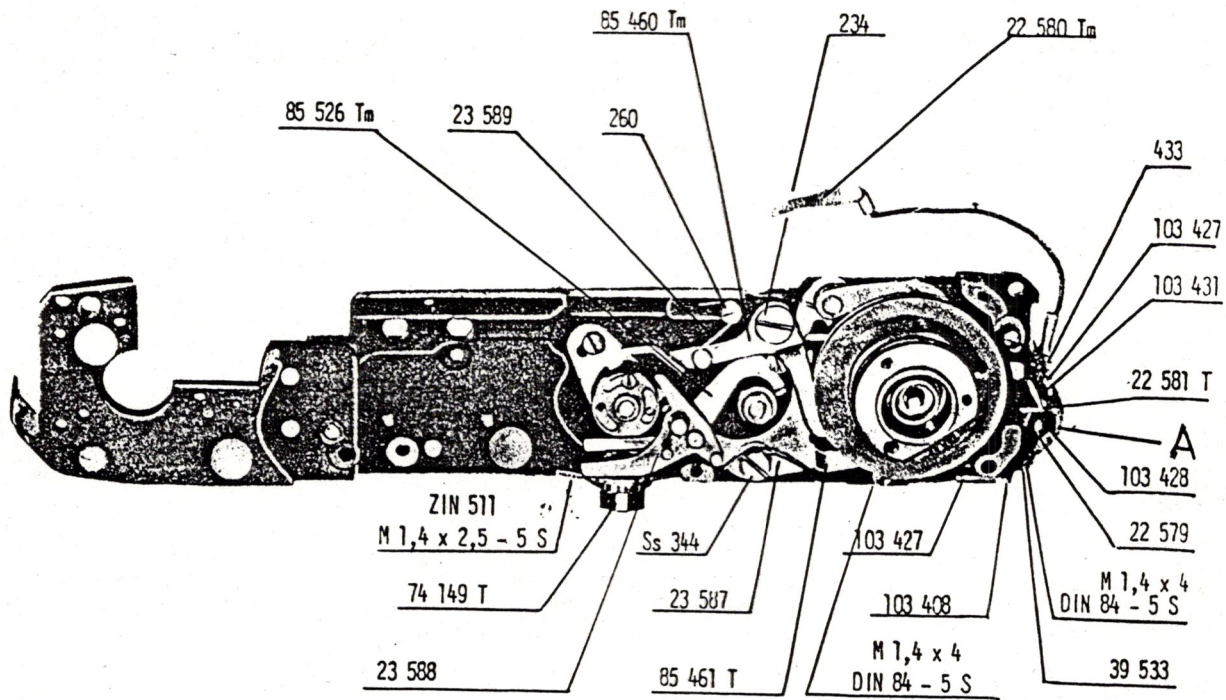




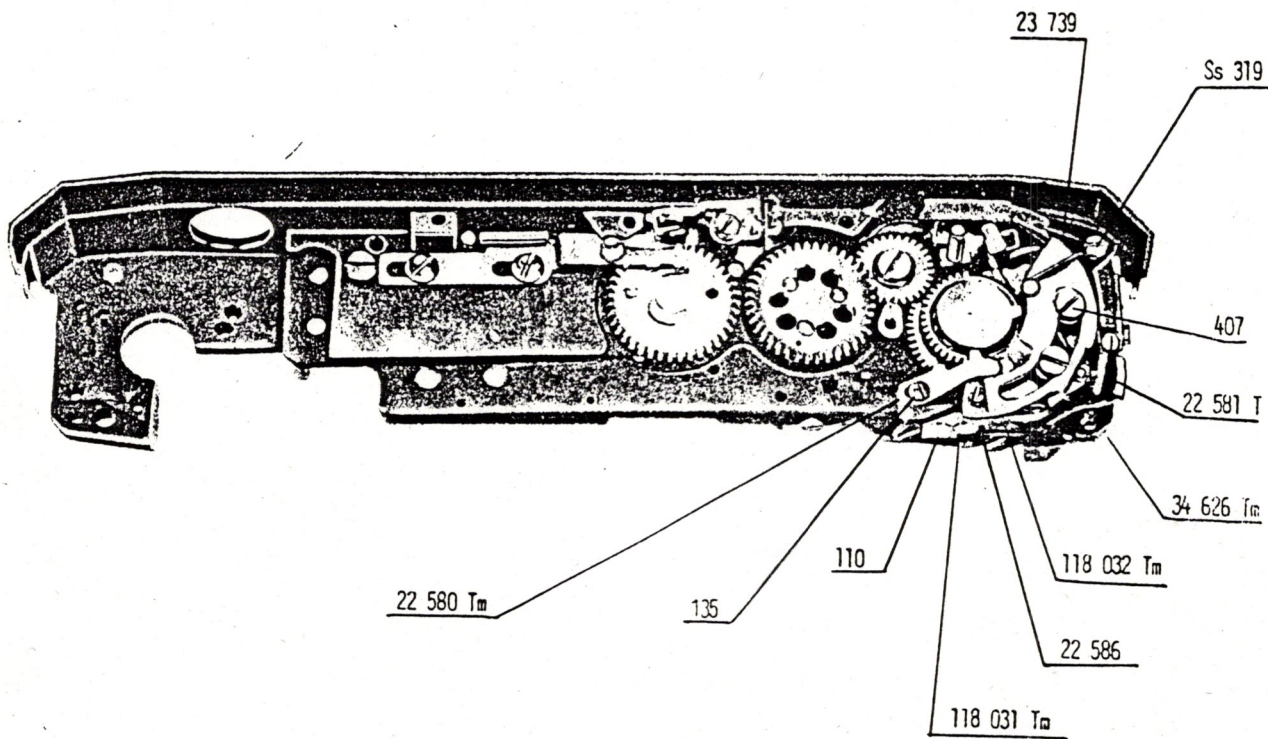
111. 6



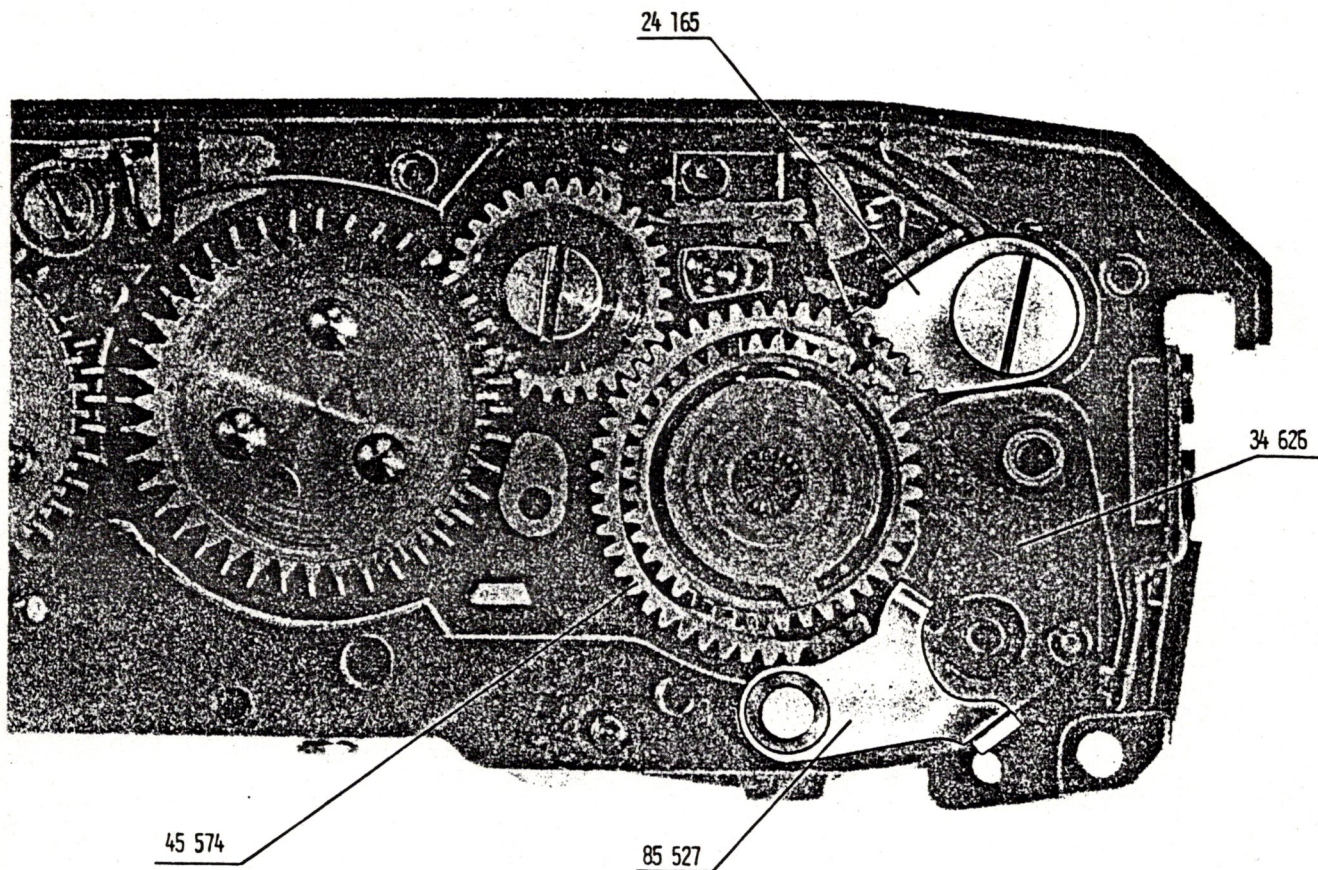
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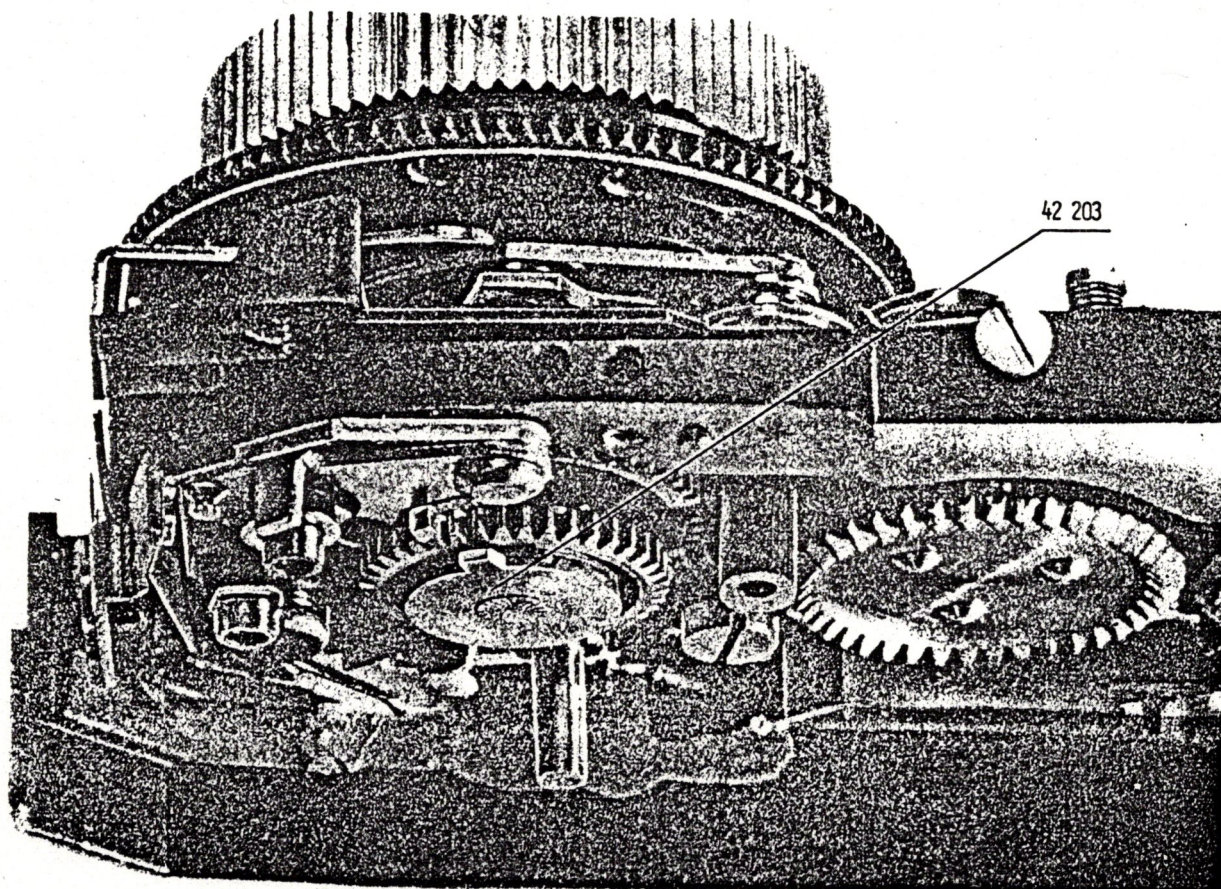
Ил. 8



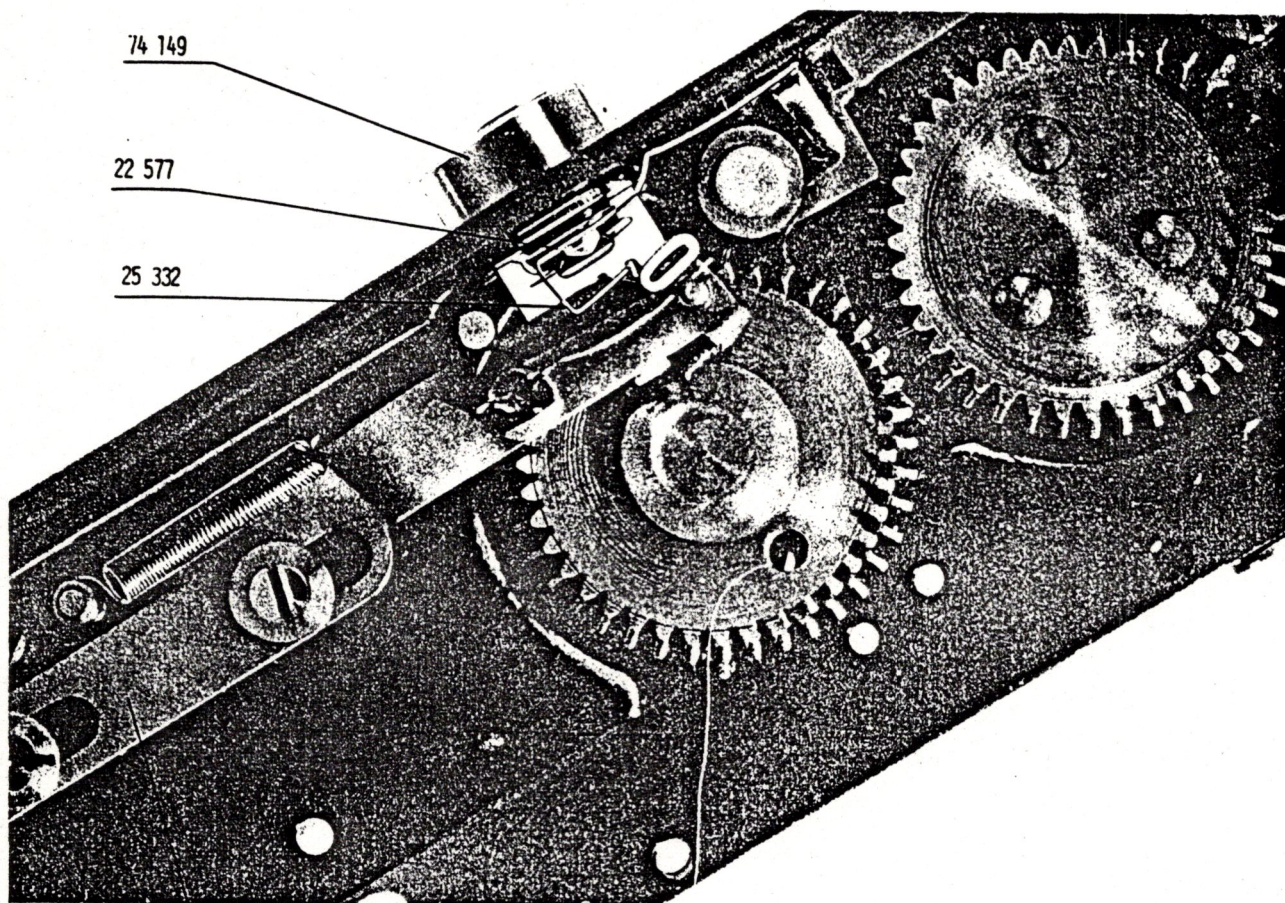
Ил. 9



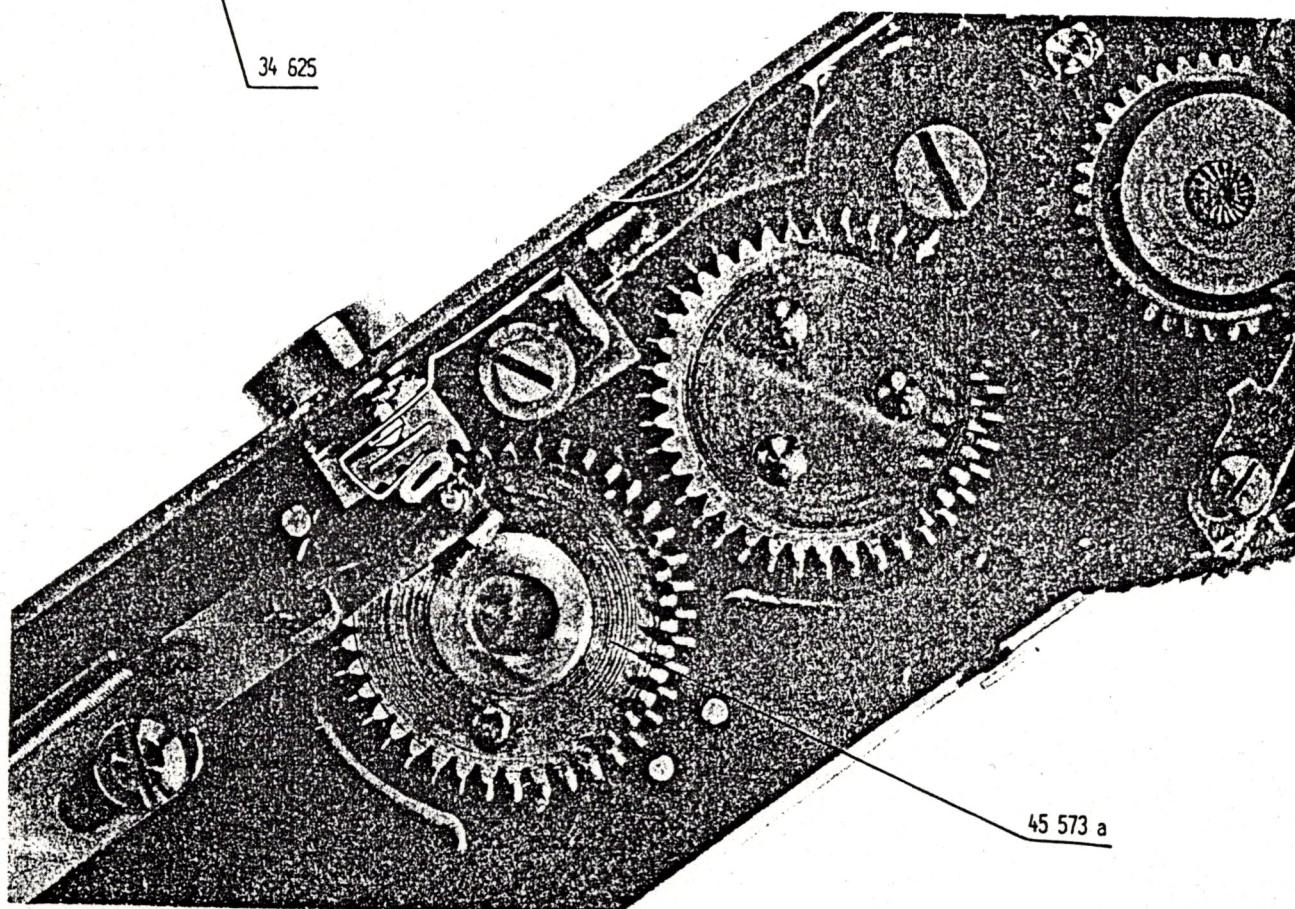
Ill. 10



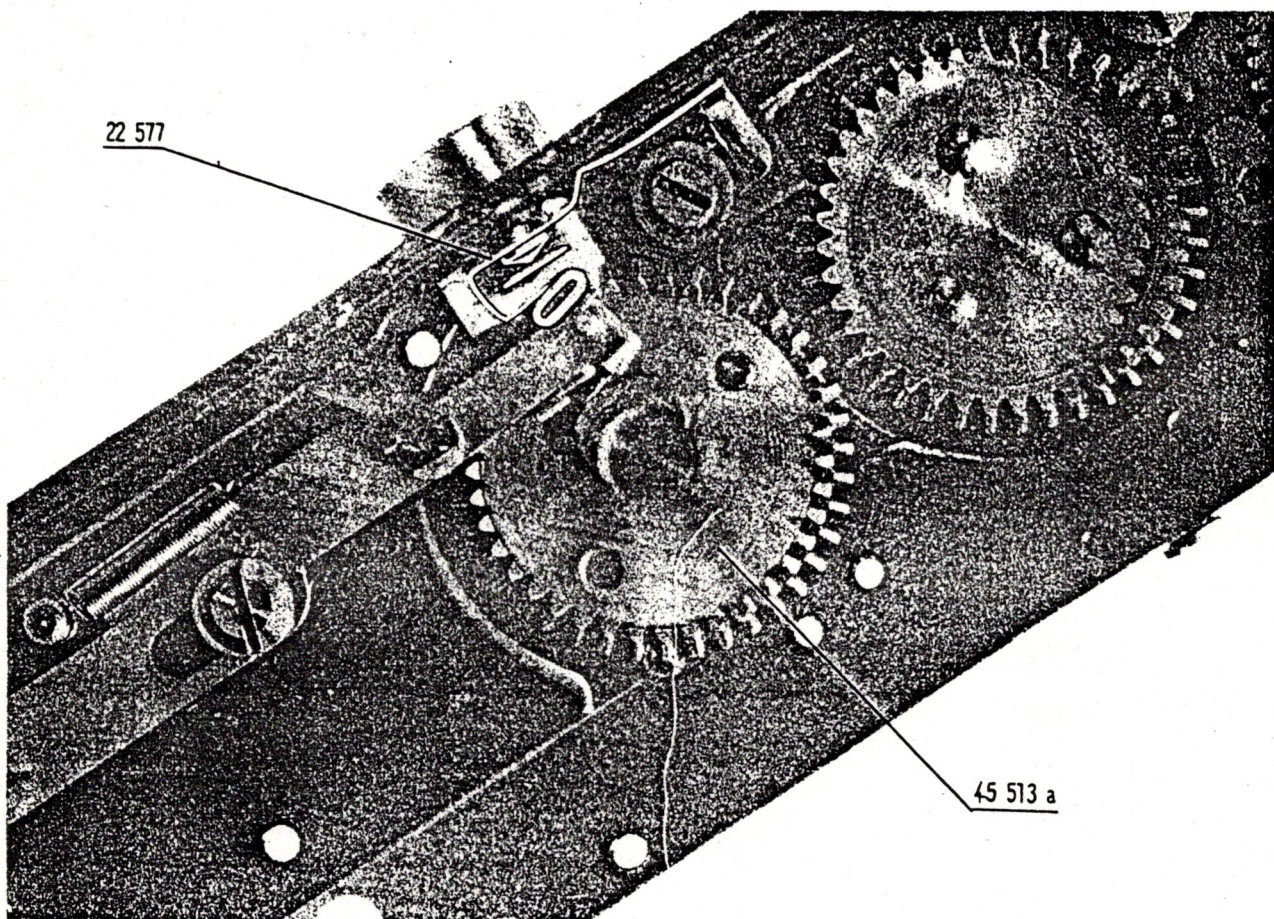
Ill. 11



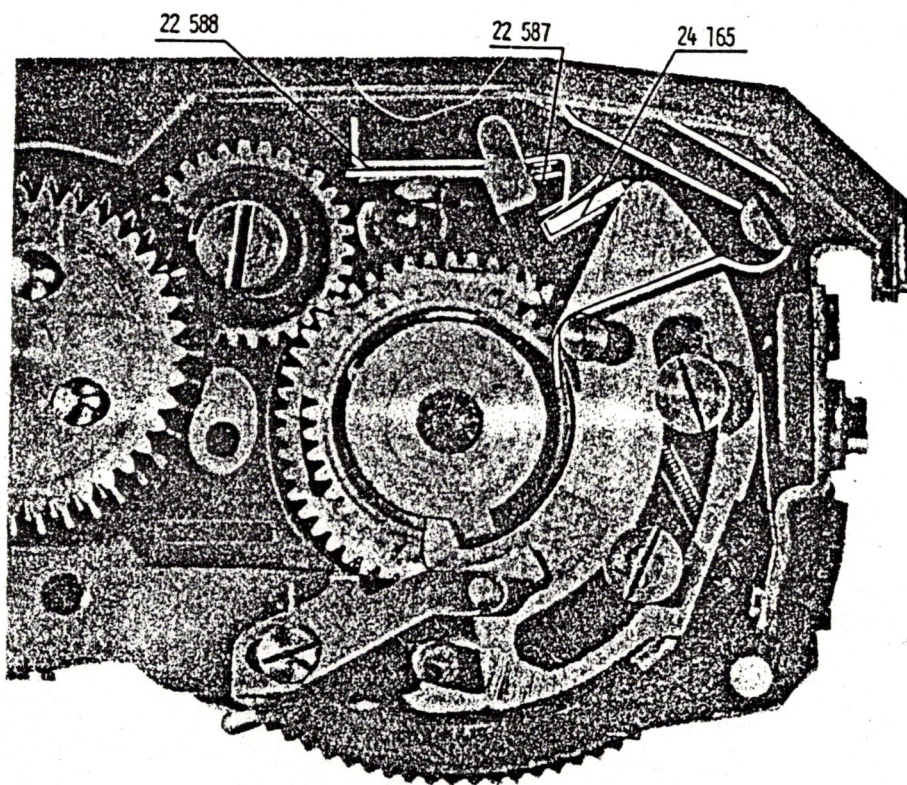
Ill. 12



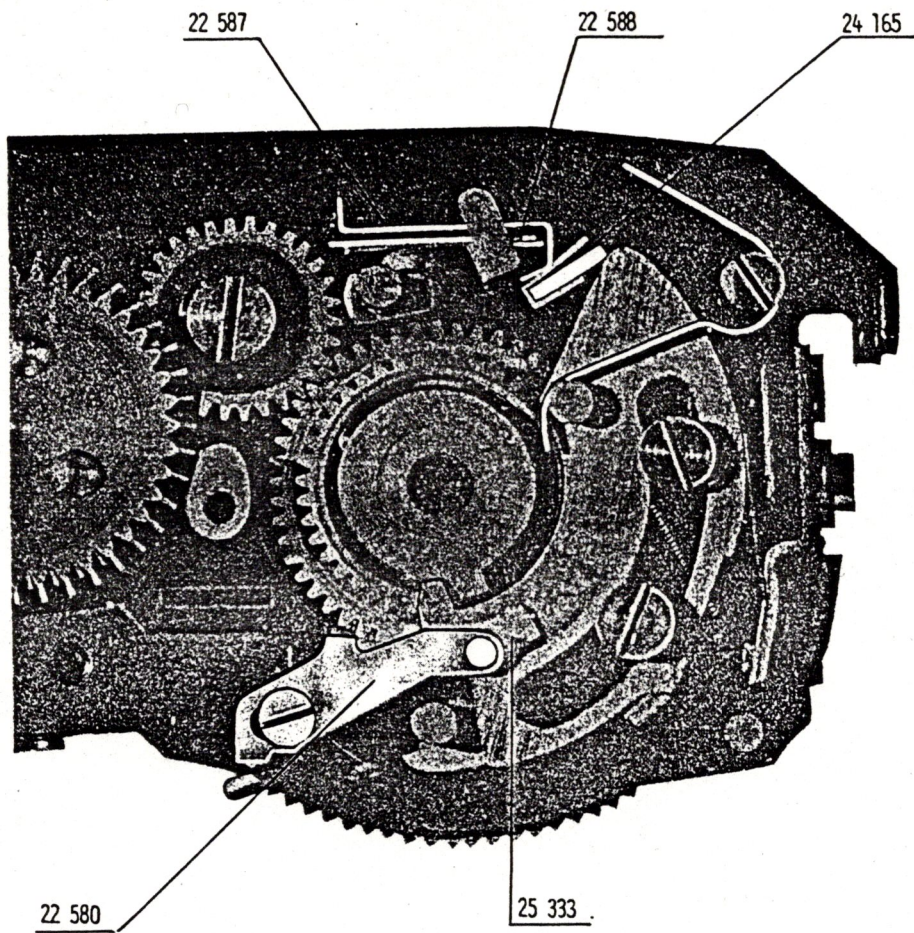
Ill. 13



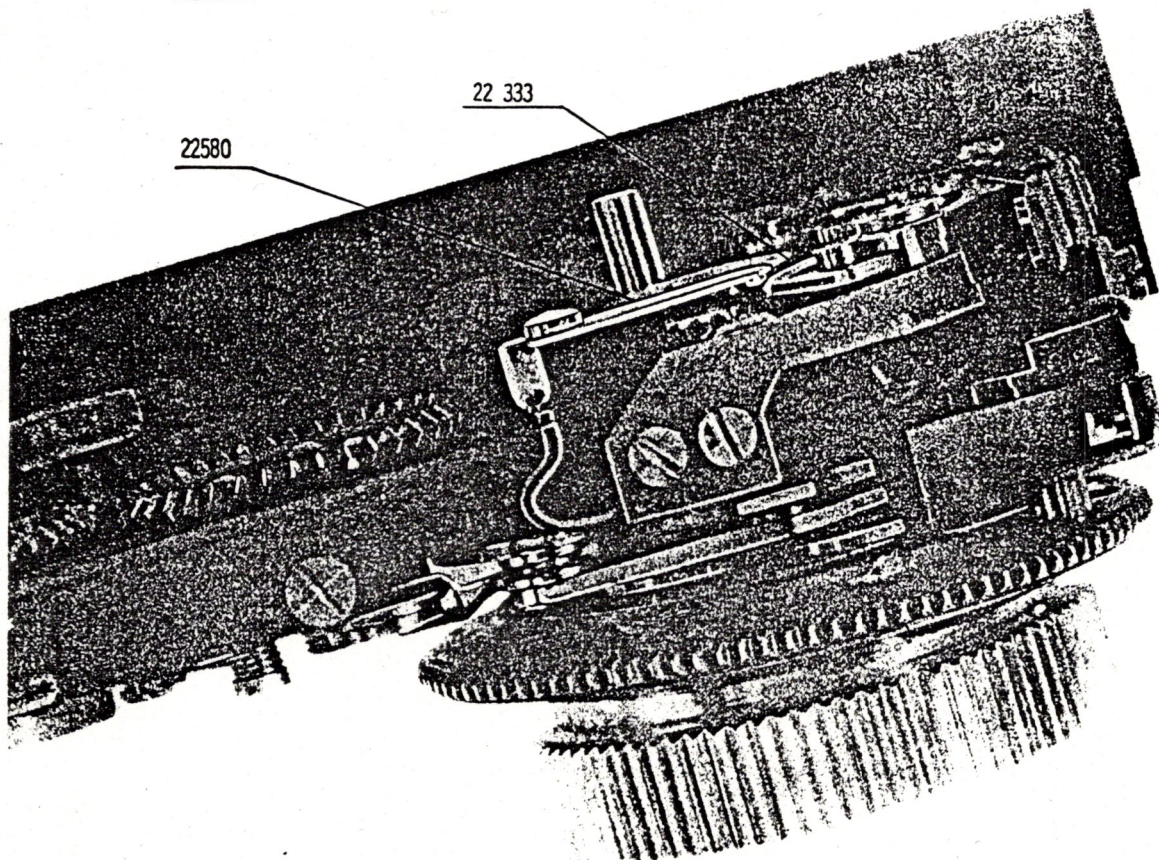
Ill. 14



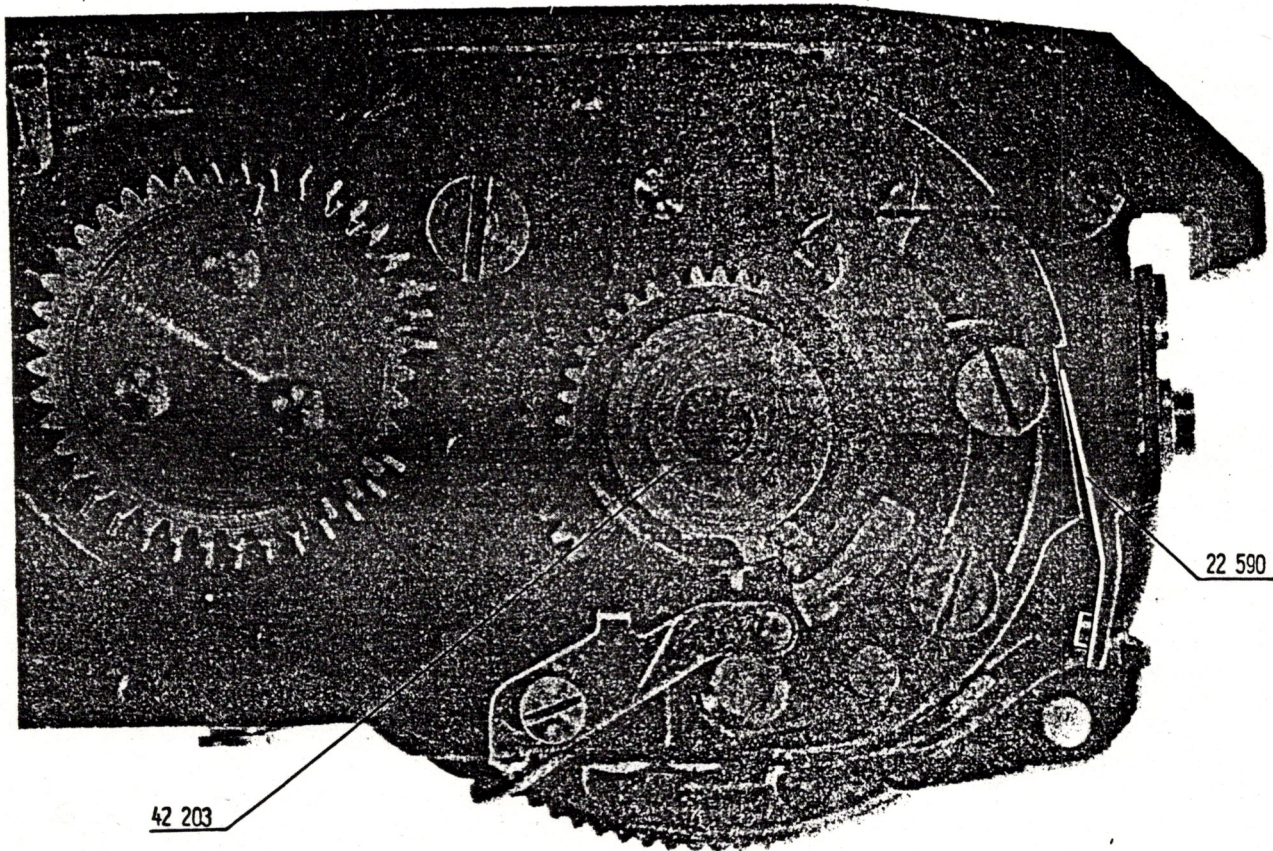
Ill. 15



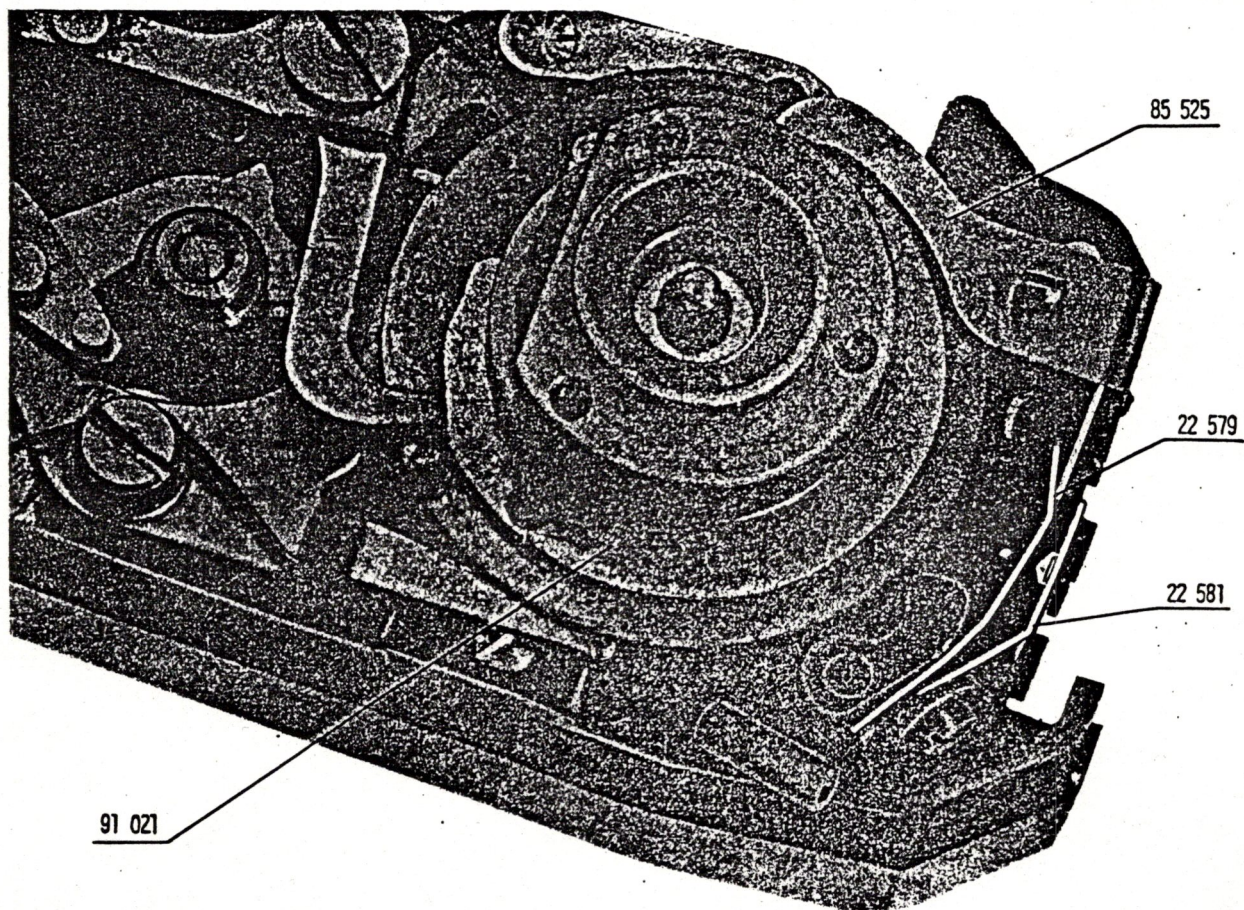
Ill. 16



Ill. 17



Ill. 18



Ill. 19

