

STATIS 1.1 ST

- **Repair Manual**



STATIS 1.1 ST Repair Manual SD-268 Rev. 3.0
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STATIS 1.1ST Repair Instructions

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STATIS 1.1ST Repair Instructions

1. Required Information

All instruments have to be sterilized before starting the repair!

Check the function and appearance of the instrument. Clean all parts, except the rotor, in a mild soapy solution in an ultrasonic bath and then check for visible damage.

Part numbers can be seen on the exploded view.

Only use replacement parts and materials from or approved by SciCan (e.g. oil) to avoid damaging the instruments and to maintain the warranty.

General rules for replacement:

- All O-rings have to be replaced when repairing the tool.
- All plastic washers have to be replaced when repairing the tool.

General rule for fastening screws:

- All screws are tightened in clockwise rotation if not mentioned otherwise.

STATIS 1.1ST Repair Instructions

2. Tools



Chuck adjustment key

PN 007.07.24



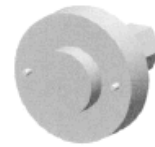
Assembly guide for shaft

PN 007.07.26



Assembly guide

PN 007.07.27



Assembly tool for sleeve

PN 3500001



Statcare

PN S500EU



Assembly aid for shaft

PN 107.07.07



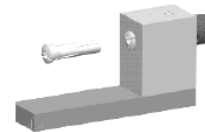
Testrack

PN 107.70.02



Loctite 495 (50ml)

920.01.12



Assembly aid for shaft

PN 107.55.01



Tool for retension force test 2,35mm

PN 107.61.02



Hammer

PN 930.02.06



Punch (1.5 mm)

PN 930.02.10



Rubber

PN 3300001



Wrench (7mm)

PN 612200.7



Loctite 222 (50ml)

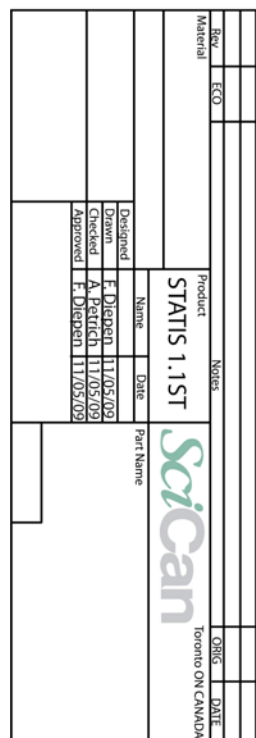
PN 920.01.23



Torque wrench (0-250 Ncm)

PN 659200.300

3. Exploded View



STATIS 1.1ST Repair Instructions

Disassembly

- 4.1. Hold instrument with rubber cloth and unscrew cap (1301311).

Remove the distance washers (shims).

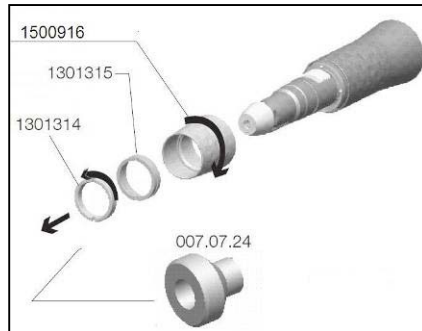


- 4.2. Use special key (007.07.24) to open locking ring (1301314), and completely remove it.

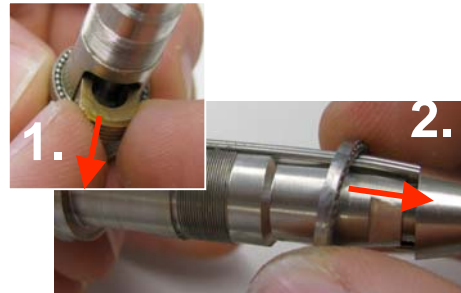


Remove the locking ring (1301315)

Unscrew cap (1500916) in clockwise rotation

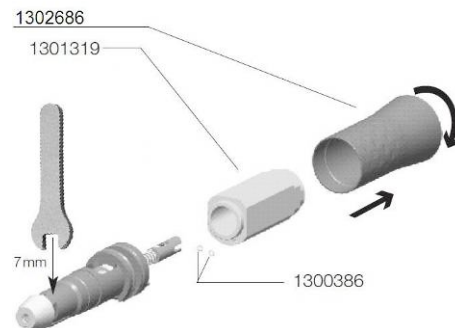


- 4.3. Pull out anchor (1301316) and ball bearings (1500274).



- 4.4. Use a 7mm wrench (612200.7) to secure the front sleeve (1500272) behind the spray chamber and unscrew the grip sleeve (1302686) with special key (3500001).

Remove the sleeve (1301319) and O-rings (1300386).



- 4.5. Take off spray chamber (1500273).

Pull out shaft (1500272).

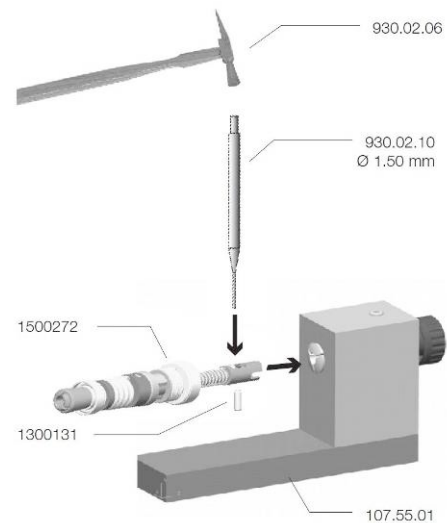


STATIS 1.1ST Repair Instructions

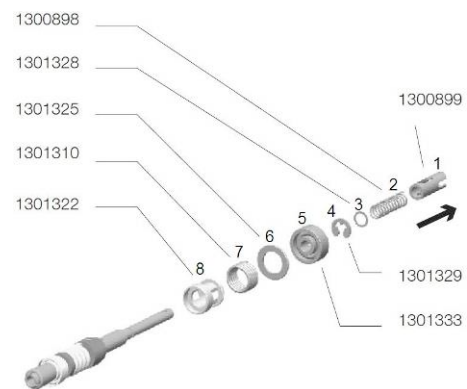
- 4.6. Insert the shaft with driven dog forward into the assembly aid (107.55.01) and secure with locking screw.

Using the hammer (930.02.06) and punch, force the bolt (1300131) out of the shaft.

Note: The dowel pin cannot be used again and needs to be replaced!



- 4.7. Disassemble the shaft as shown.



- 4.8. The leftover assembled part of the shaft has to be inserted with the driving part first into the assembly aid (107.07.07).

Note: the indicator has to face downwards to remove the bolt (1301330).

The direction of disassembly is oriented towards the indicator.

Tighten the assembly aid until the bolt is free of load.



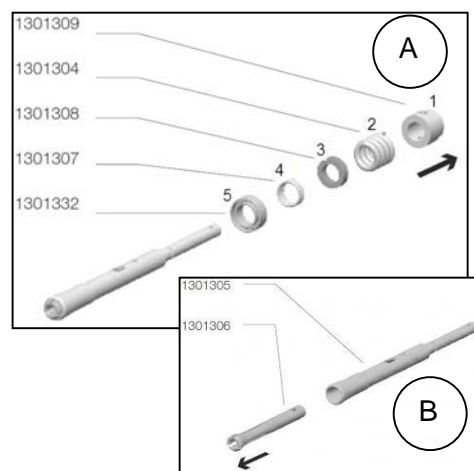
STATIS 1.1ST Repair Instructions

- 4.9. Using the hammer (930.02.06) and punch
force the bolt out as shown.



- 4.10. Open assembly aid and further disassemble
shaft as shown. (Fig.A)

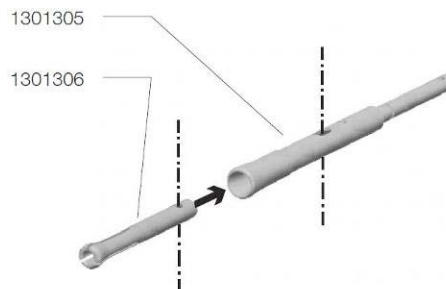
Remove chuck. (Fig. B)



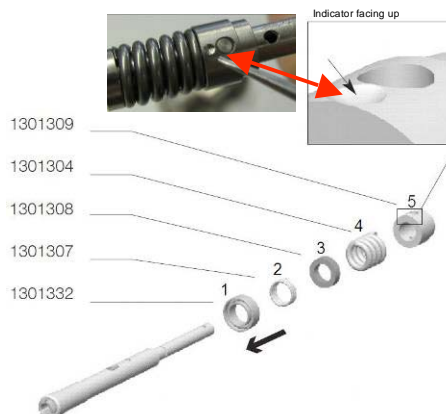
STATIS 1.1ST Repair Instructions

5. Assembly

- 5.1. Insert the chuck (1301306) into the shaft (1301305). The bores of chuck and shaft must be aligned.

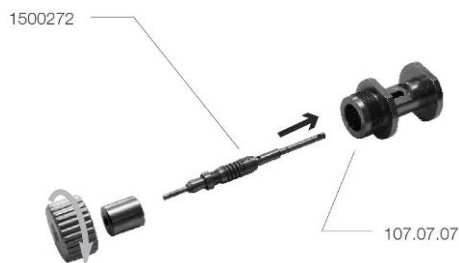


- 5.2. Assemble the shaft as shown.



- 5.3. Insert the shaft with the chuck facing the opening in the assembly aid (107.07.07).

**Note: The indicator has to face upwards!
(see also 4.2.)**



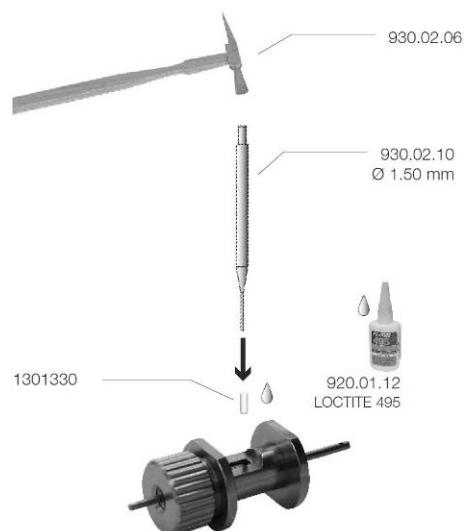
Tighten assembly aid until the vertical bores of the shaft are aligned with the guide (1301309).

STATIS 1.1ST Repair Instructions

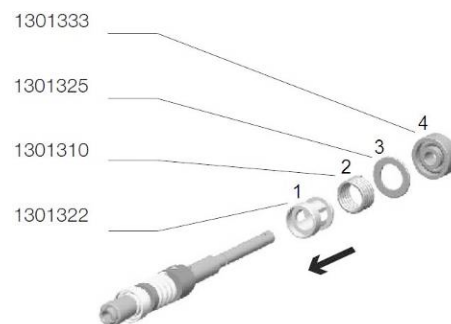
- 5.4. Using the hammer (930.02.06) and punch (930.02.10), force the bolt (1301330) into the vertical bore of the shaft.

Apply Loctite 495 to the bolt before insertion.

The bolt has to sit symmetrically in the shaft afterwards.



- 5.5. Remove shaft from the assembly aid and mount the parts on the shaft as shown.

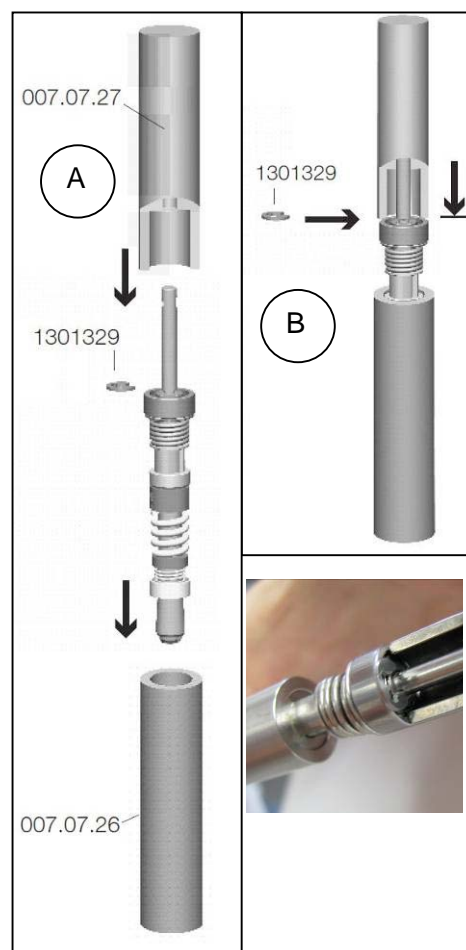


STATIS 1.1ST Repair Instructions

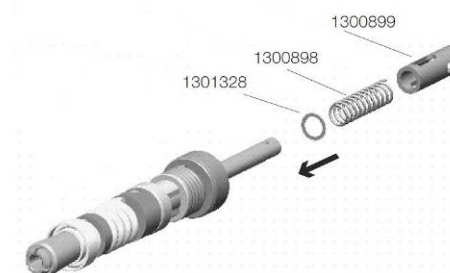
- 5.6. Insert the shaft into the guide (Fig. A) and put the compression piece on top.

Compress the spring by forcing down the compression piece till the washer can be inserted (Fig. B).

Note: The sharp edge of the washer has to face away from the bearings!



- 5.7. Assembly parts on the shaft as shown.



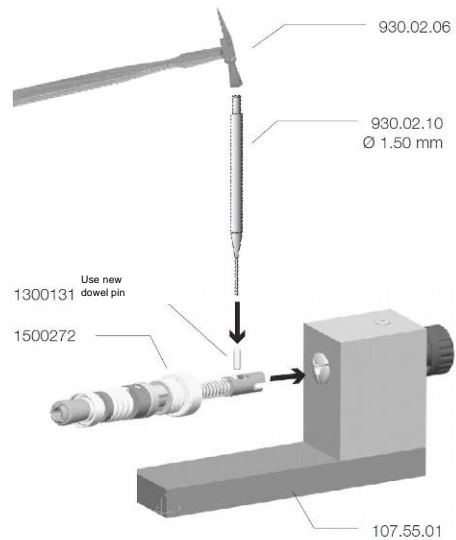
STATIS 1.1ST Repair Instructions

- 5.8. Insert the shaft with the drive side forward into the assembly aid (107.55.01) and secure with the binding screw.

Take a new dowel pin (1300131) and insert it into the shaft using a hammer (930.02.06) and punch (930.02.10).

The dowel pin must sit symmetrically in the shaft afterwards.

Note: The dowel pin cannot be reused!



- 5.9. Insert spray pipes and push on spray chamber.

Insert shaft into guiding sleeve.



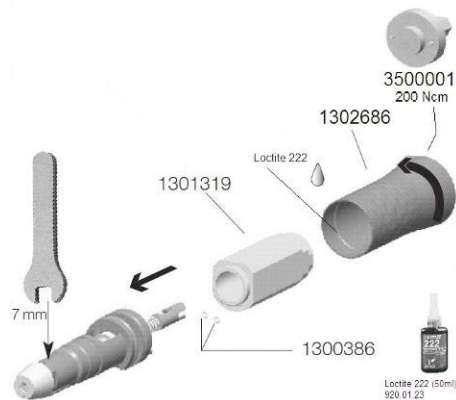
- 5.10. Apply O-rings (1300386) onto the spray pipes.

Slide on the coupling sleeve such that spray pipes fit into the respective bores.

Hold the guiding sleeve behind the spray chamber with a 7mm wrench. Apply Loctite 222 to the internal thread of the grip sleeve.

Use key (3500001) and torque key (3300015) to screw on grip sleeve.

Fastening torque: 200 Ncm



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- 5.11. Slide on the bearings (1500274) with the open side facing up over the guiding sleeve.

Insert anchor from the side opposite to the spray pipe.

Be careful that the shaft is properly aligned with the guiding sleeve (s.Fig. A).



- 5.12.

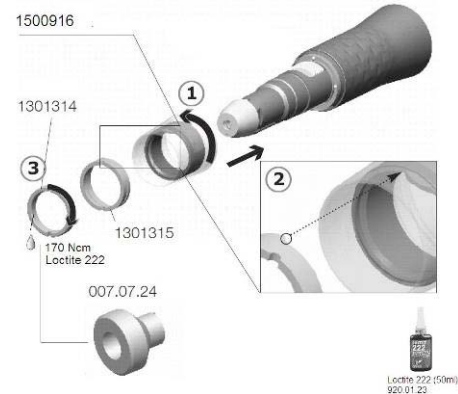
1. Use the sleeve (1500916) to screw until the chuck is opened (counter clockwise). Insert a Ø2.35mm bolt into the chuck and close the chuck again.

Now reopen the chuck to a point where the bolt can be moved in and out with small amount of resistance.

2. Position the locking ring (130315) such that the concave shoulder lies on the shoulder of the sleeve (1500916) (as shown).

3. Use special key (007.07.24) to fasten the locking ring clockwise with about 170 Ncm.

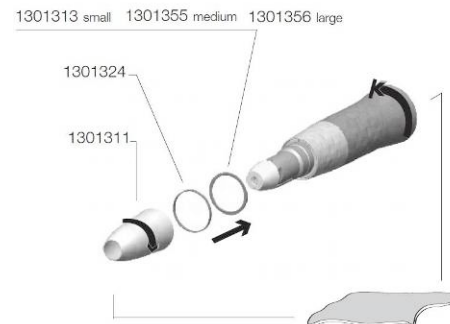
Note: Apply Loctite 222 to the thread of the locking ring.



- 5.13. Slide on the spacers onto the guiding sleeve (first the silver on then the blue ring).

Screw on the cap (1301314) onto the guiding sleeve..

Use rubber cloth (3300001) if necessary.



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6. Testing Instructions

Test dimension	Tool	Name of Tool, Limits, Pass/Fail-criteria
Clean and Oil the tool before testing	Statcare S500E/ Alternativ Statmatic	
Test of retension force	107.61.02	Green mark : i.O. Red mark: n.i.O.
Hold tool on bur shaft and spin the instrument		Free rotation of tool
Increase the speed in small steps	107.70.02	Testing Rack for functional tests
Measurement of current consumption	107.70.02	Max. 0,4A
Idle - tests	Check speed with revolution counter Braun Moviport C118	15min @ 30 kprm 5min @ 40 kprm
Vibration and Noise	Subjective evaluation of the person conducting the tests	
Heat emission		
Quality of light		
Vibration and Noise		
Heat emission		

STATIS 1.1ST Repair Instructions

7. Parts List

Handpiece	Part Number	Part Name
STATIS 1.1ST	1301314	NUT PM 1132
STATIS 1.1ST	1301315	POSITION RING PM 1132
STATIS 1.1ST	1301305	SHAFT
STATIS 1.1ST	1301306	CHUCK PM 1123
STATIS 1.1ST	1301307	SPRING PM 1123
STATIS 1.1ST	1301308	DISTANCE WASHER
STATIS 1.1ST	1301309	SLEEVE PM 1123
STATIS 1.1ST	1301310	SPRING PM 1123
STATIS 1.1ST	1301311	FRONT COVER PM 1132
STATIS 1.1ST	1301312	BODY PM 1132
STATIS 1.1ST	1301316	SCREW SEGMENT PM 1123
STATIS 1.1ST	1301319	MOTOR HOLDER PM 1132
STATIS 1.1ST	1301322	GUIDING SLEEVE PM 1132
STATIS 1.1ST	1301356	AJUSTING RING PM 1132 L
STATIS 1.1ST	1301355	AJUSTING RING PM 1132 M
STATIS 1.1ST	1301313	AJUSTING RING PM 1132 S
STATIS 1.1ST	1301325	WASHER PM 1132
STATIS 1.1ST	1302043	COMPRESSION-SPRING
STATIS 1.1ST	1300898	AJUSTING RING
STATIS 1.1ST	1300899	DRIVE SHAFT
STATIS 1.1ST	1302752	IDENTIFICATION RING BLUE
STATIS 1.1ST	1500916	CLAMPING SLEEVE SCICAN
STATIS 1.1ST	1500272	AXLE ASSEMBLY PM 1123
STATIS 1.1ST	1500273	NOZZLE WITH TUBES
STATIS 1.1ST	1500274	SOCKET PM 1123
STATIS 1.1ST	1301328	WASHER PS 3x4.5x0.12
STATIS 1.1ST	1301329	CIRCLIP FOR SHAFT DIA. 2.3
STATIS 1.1ST	1300131	ELASTIC PIN
STATIS 1.1ST	1301332	BALL-BEARING PM 1132/1123
STATIS 1.1ST	1301333	BALL-BEARING CA 7132+PM 1132
STATIS 1.1ST	1302686	BACK COVER SCICAN
STATIS 1.1ST	1301314	NUT PM 1132