#### FX 2000 Service manual

Tools required:	Hexbit (long) 2,5mm and a sturdy handle
	Hexbit (long) 3mm
	Hexbit or Hexkey 4mm
	Polygrip/water pump plier or bent circlip plier
	14mm wrench or monkey wrench
	Broomstick in wood
	Screwdriver flat 3-4mm in width
	Screwdriver flat 6-8 in width
	Hammer
	Hexkey 2mm
Useful tools:	Vise with soft blocks
	Dentist tools.
	Loctite sealant 542 or other.

- 1. Remove optics.
- 2. Remove stock: unscrew the two screws on each side of gauge.

#### 3. Depressurising:

- Loosen pressure gauge spacer (14) and let air escape Thru the threads.
- Put the action down and let it empty itself before going further.
- When empty unscrew the whole gauge unit (14,47) You do not have to separate these two parts.

## 4. Separating the top from the bottom

- Unscrew the front screw (70) which you find in the filler hole. Make sure to use good tools that will not damage the screw. A hexbit with size 2,5mm is the best way to go. If it gives you resistance, it's really good to give the hexbit a tap with a hammer When it's positioned in the screw so tensions will let go and the screw will let go more easily.
- Now go for the rear screw (74) same procedure as above and for below.
- The third and last is (71)
- When these three screw are removed you can separate the top from the bottom.
- Pull out the airtransfer port (32) and take care of the o-ring on each end These might be left in the top and the bottom. Can most often be re-used.

# 5. Cocking and trigger removal:

- Remove the first stage trigger screw and spring (67,53) if you want to have the same Tension when you reassemble note how the screw sits before removal.
- Push pin (49) thru the tube in either direction.
- Now you can remove the complete trigger unit (A, B or C). Wipe of and add new grease to the trigger catch (15) and put to the side for later.
- Remove the cocking bolt (76,13,27).
- Now you should be able to pull the cover (3) out with housing (4) still in it.
  Pull out Hammer-housing out as well and wipe both parts clean.
  Inspect hammer-spring (55,79) thru available openings in the hammer-housing.
  Check for spring breakage in the spring ends. Replace if needed.
  Inspect the Hammerpin (21) this should have a sharp but smooth edge and if it's Worn it needs to be replaced. This is the actual point of the were the two trigger parts meets. If this is worn you will have an unstable trigger.
  When parts have past inspection you put a thin layer of grease on the outside of the hammer-housing and on the hammerpin trigger edge. Then put to the side.

# 6. Disassembling of airtube:

- First we shall take out the old seal for the gauge which normally gets stuck in the bottom of the hole. Use a flat screwdriver with approximately 4mm in width. Knock this into the plastic washer/seal (45) which will make it possible to screw the seal out. Throw the seal and replace with new.
- Important! Remove the power-adjusting screw (66) totally.
   Failure to do so might scratch the inner surface of the air-tube at a later of stage of dismantling with lifetime leakage as a result.
- Remove the three screws (75) in the main valve housing (6)
- Hold the tube firmly with one hand and nock the rear end of the tube against a solid surface with some soft fabric in-between.
   The movement should be vertically and the hit should be flat at the back end of the tube. The weight of the inner parts should be enough to make them move.
   Make sure you do not do this in an angle as you might damage the rear end.
- Pull/Push the Valve housing (6) and gauge mount (7) out and wipe them of. Remove the old o-rings without scratching the surface in the slot. Clean the slots and add new o-rings with a thin layer of grease.
- If you have problem with a leaking main valve (air comes thru the barrel) you need To take the housing apart and change valve-pin and seat.

If you do not have a vice you can use bolt (76) and put this in one of the threads of the housing, then you need to remove the cap (9) with a polygrip/water pump plier or a bent circlip plier.

Remove the spring (52) pull out valvepin (18) and push out the valveseat from the other side of the valve housing (19) with a sharp tool or make a hook of a clip and pull it out. Dentist tools are also very useful. Mount the new seat with the coned side facing out and a thin layer of grease on the o-ring.

Best way to mount it is to place it over the valvepin and use that to push the seat into place. Use a thin layer of grease on the o-ring on the pin.

Do not use force! Let the o-ring give after and slide in to place.

Mount spring and put the cap back. Put to the side and carry on with the front cap.

- Remove the three screws (75) from the front cap.
  Use a broomstick of wood to gently push/knock the front piece (8) out thru the tube. Now you need to open the front cap.
  The nut/lid (26) can sit very tight due to corrosion, to get a firm grip you can use a vise, the backside of a drill with the diameter 9mm or a big screw driver with a round shaft thru the charging hole in the front cap. Make sure the surface of the tool you choose is smooth so you will not damage the internal surface of the cap.
  The use of penetrating oil and heat can be a useful help here and also a knock with the hammer on the brass nut/lid can do good.
  Be as precise as you can as brass is soft and if you destroy the lid you have to replace the whole front unit. When removed pull out spring and valve and clean out.
- Put some grease on the valve o-ring, outer o-ring and thread of the brass nut and reassemble.
- Now it's time to clean the inside of the tube, do this with tissue or cloth and push thru the tube with the broomstick until it's totally clean.
- Check the tube for dents and scratches on the outside and replace if it looks worn or damaged, remember that there is high pressure involved and that safety comes first!

# 7. Reassemble of airtube.

- Mount the front piece back gently, careful not to damage the o-ring. Put back the screws and tighten
- Push the gauge mount (7) back into the tube with the broomstick and make sure the two threaded holes align with the holes in the tube. The side with the cut-out area of the mount should be facing out from the tube.
   Do not force the mount into the tube, push it in gently.
- Put the new seal (45) in the correct hole and mount the gauge-unit back, First you tighten as much as possible with just the force of your hands and then align the manometer with a wrench so the scale is facing in the direction of the tube. Do not tighten this with force as it easily breaks. Use of Loctite on the thread is preferable.
- Push housing (6) back into the tube making sure the holes align.
   Put the three screws back and tighten them.
   Now you can put the power adjustment screw back (66).
   You can see thru the air transfer hole how much it will block.
   Adjust so the tip of it is flush with the hole to achieve full power.
- Put back hammer housing (4) back in the cover (3) with a thin layer of grease on it.

Put a thin layer also on the cover and push the complete unit back into the tube. Put the cocking-bolt in place and tighten the screw.

• Push the rear cover in place and put the trigger unit in place and push the pin back when the holes are aligned.

Put the first stage trigger-spring in place and re-attach the adjustment screw.

## 8. Inspection of top section/barrel.

- Check the internal breech o-ring (59) for ware and replace if needed. Clean out magazine slot
- The o-ring in the magazine gets hard with age and it's a good idea to Replace them as it can affect accuracy.
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# 9. Reassembly of top and bottom.

• Put o-ring (60) back in their places and push transfer port (32) into Place in the tube.

Put the cocking bolt in the mid position fix the top to the bottom making sure Screw (74) fits into the slot of the hammer housing (4).

Reattach the screw in the magazine slot first (71) M4x12.

Then go forward with the forward one (70) M4x10, make sure you use the correct length. If it is too long it will enter the barrel-line with bad accuracy as a result.

Reattach the rear screw (74) M4x16.

### 10. Final check

- Refill with air and to a final check that everything operates as it should. If everything seems to be ok reattach stock and optics and enjoy.
- It's a good idea to clean the barrel with cleaning pellets while you are at it.

#### Your own notes:

