Clutch bleeding

If after the replacement of the seal/gasket in the slave, or after replacing the receiver for a new, the "normal" venting / bleeding does not lead to success and you feel 10 liters / 2-3 gals pushed through DOT still see air bubbles in the vent hose below, here's a guide like this maybe it works better.
Bleeding from "below" / "downside up".

I do it the same way now allways and save the felt tons of DOT.

what you need :

- sanitary Teflon tape, white, available on a roll in the hardware store
- place 0.5 l bottle with fresh DOT 4 (or 5.1) within reach
- syringe with approx. 50 ml capacity
- Brake Cleaner
- X-slot screwdriver according to JIS for UP (the fit here all the best)
- ratchet with 8 and 10 nut & other div. tools
- small torque (4-20 Nm)

Since the whole thing is almost always associated with a certain "mess" regarding the DOT, keep the brake cleaner and a few old rags ready for immediate cleaning.

My method :

- release the hose and banjo bolt at the slave (bottom), remove the banjo bolt and empty the transmitter and the hose (drain the DOT below)
- take the bleeder nipple out of its thread, "seal" the outer thread with 3 layers of Teflon tape, turn it in again and turn it into only hand-tight.
  So sealed the thread is relatively good tight and leaves no additional air in
  - the bleader´s thread sits, when loosened , rather loosely in the slave´s thread (without Teflon tape).
  unscrew the sprocket cover, the piston of the slave should come a long way towards the front edge because of the spring in the slave, behind the piston
- with the syringe - by rotating and shaking the recipient - fill in fresh DOT up to the edge of the slave´s inner thread (you bleed it)
- hold the slave and fix the clutch hose, in its later correct position, with the banjo bolt and the two seals (new ones would be good, the old ones will do it once) and the screw (SW 12) still in this hand wear as possible
- now push the piston with both thumbs slowly in and hold it in place
- slowly because otherwise you eventually produce a fountain at the top in the donor and the DOT splashes all over the bike
- now the DOT has risen to the top of the tank and has bleeded the hose with it, because the DOT almost like a piston pushes the air upwards away (keyword: laminar flow)
- hold the indented piston firmly in the receiver with one hand / thumb, get the DOT bottle with the other hand and, when slowly releasing the piston in the slave, only hold it up to approx. middle max. add filling level, so that air can not be sucked back into the system
- press in the slave piston again and install the sprocket cover (including slave) with its 6 mm screws (10 Nm)
- tighten banjo bolt on slave (22 Nm)
- test clutch pressure buy gently pressing lever, or you get a Fountain!
- if you want pump now the entire contents of the reservoir 2 to 3 times through the system in the usual way, until finally there are no more bubbles visible.
- fill DOT up to the marking edge in the container, cover with rubber an cap on top - the two cover screws only get 3 Nm! and please a little bit of fat or even better ceramic paste - both should also wet the bevels of the countersunk heads.

by the way :

The little trick with the Teflon sealing tape I also apply to all bleeders of the brake calipers.

BUT please never! use DOT "5.0" - the silicone in there is absolutely 100% lethal for all japanese (and european) rubber hoses and gaskets / seals you have in the clutch or brake system.
okay you took steel braided brake hoses and think "5.0" is ok - but then you forget all the rubber gaskets / seals in the pumps, calippers and clutch slave !

(X) the physical explanation:

A fluid (here the DOT) works, if slow enough and inner diameter of pipe or hose is not to big, like a "piston in a pipe" and pushes all air in front and out. Result: pipe / hose gets bleeded.

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and that´s what i wrote at hayabusa.org :

if usual bleeding doesn´t work, do the bleeding the other way around - means downside up
by bleeding the clutch-slave at first

- *by opening the upper reservoir and empty it + get rid of the black mud*
- *get the DOT-bottle reachable !*
- *unscrew hose and banjo bolt at slave*
- *unscrew the slave itself (only by puting off the entire front sprocket cover)*
- *release slowly slave´s piston as far out it wants to go / the spring behind moves him but piston can´t fall out*
- *keep the slave´s inner thread vertikal up and fill carefully the slave by a syringe till there is no more air inside / perhaps the DOT flows over a very little bit - wipe that away*
- *mount now again hose and tighten its banjo bolt as tight as possible in your hand (pay big attention to hose´s later correct position)*
- *now push / press slowly the piston back into slave what makes the DOT "climb" the way up to handpump and - yeah - bleeding same time the hose (X) and filling the upper reservoir a little bit - attention - if you press the piston to hard you will have a fountain upside and the DOT all over the bike*
- *keep the cylinder tight inside slave and fill up with your other hand (DOT-bottle is, i hope, easily reachable / very near by) the upper reservoir up to its inner mark*
- *release then the slave´s piston slowly and watch by that the level up in the reservoir & refill a bit again till mark*
- *mount slave (sprocket cover - its 6 mm screws get 10 Nm) and tighten now the banjo bolt with 22 Nm*
- *mount reservoir´s lid/cap (screws only 3 Nm) and you´re finished with clutch bleeding*