Build check   date**:** [_____]   Number#**:** [_____]

☐ Analyse O2 tank: %O2: [_____]   bar: [_____]

☐ Analyse Dil tank: %O2: [_____]   %He: [_____]   bar: [_____]

☐ Install both tanks on the unit; check fixings correctly installed

☐ Connect regulators to tank valves

☐ Turn on Petrel and Nerd. Batteries OK? Petrel V: [_____]   Nerd V: [_____]

☐ Cell milliVolts in air:

  c1: [____] c2: [____] c3: [____] c4: [____] c5: [____]

☐ Petrel SP = 0.7

☐ Fire solenoid 3x; external battery voltage > 6.5V   v: [_____]

☐ Petrel SP 0.19

☐ Check oxygen sensor life: youngest sensor is < 7 months old? If not add/replace sensor and mark date

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☐ Check remaining scrubber time: [_____]   If needed refill with fresh sorb

☐ Install moisture absorber in inhale lung, UNDER non-collapse tube

☐ Correctly install sensor grid and solenoid grid (ADV at 9 o'clock); check cable routing

☐ Install scrubbers, RMS arrows pointing up; "TOP" marker on exhale scrubber

☐ Check scrubber O-rings; clean sealing surfaces; grease if needed

☐ Close cover, screw hand tight

☐ Check breathing loop hoses; perform stereo check (non-return valves); check bite-piece, O-rings breathing loop, clean sealing surfaces, grease if needed

☐ Install breathing loop on rebreather

☐ Wrap Nerd cable 3-4 times clockwise around loop (under)

☐ Attach hose protectors if used

Closed check

date: [_____]

☐ Open O2; add O2 manually; pressure bar: [_____]

☐ Turn on Petrel and Nerd. Batteries OK (>1.25V/3.30V)?

Petrel V: [_____]   Nerd V: [_____]

☐ Change Shearwater controller to set-point high; check solenoid fires 3x?

☐ External battery voltage > 6.5V   v: [_____]

☐ Change Shearwater controller set-point to 0.19

☐ Full O2 flush: 3 X / DSV in mouth / close DSV / re-open gap

☐ Shearwater Petrel calibrate OK ?

☐ Shearwater Nerd calibrate OK ?

☐ Close O2 / pressure drops OK (orifice)?   Depressurise O2 line

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☐ Open Dil; suck ADV; close loop

☐ Add Dil manually; pressure bar: [_____]

☐ Overpressure test; OPV releases pressure?

☐ Inflate wing to max; check dumps

☐ Flush dil : PPO2 0.21 – 0.22 ?

☐ Close dil: pressure stays?

☐ Negative test (start)

☐ Analyse content of bailout tank(s):

Tank1:   %O2: [_____]   %He: [_____]   bar: [_____]

Tank2:   %O2: [_____]   %He: [_____]   bar: [_____]

☐ Check Petrel & Nerd: gasses correctly programmed in CC/OC

☐ Check bailout(s) regulators, hoses correctly assembled?

☐ Open bail-out(s): pressure? breathe, pressure remains?

☐ Close bail-out(s); check mushroom valve regulator by inhaling

☐ Check sufficient scrubber time for the next dive?   time/new: [_____]

☐ Negative test ok? Turn off Shearwaters

☐ Check suit inflate cylinder assembled & attached? Pressure bar: [_____]

☐ Check umbilical lights connected to battery; suit heater cable connected; batteries charged?

☐ Check harness, crotch strap, gag strap, lights....   weight: [_____]