

# NQUEC COMPRESSOR QUICK REFERENCE GUIDE

1. Ensure all cylinders have a current test stamp, o-rings are sound, and valves are clean and dry.
2. Position compressor on flat stable ground with intake upwind and exhaust downwind; safety-critical!
3. Check compressor oil level as per *Bauer Compressor Operating Manual – Page 84*.
4. Check motor oil level as per *Subaru Engine Operating Manual - Page 5*.
5. Check motor fuel level as per *Subaru Engine Operating Manual - Page 5*, (a full fuel tank fills 8 cylinders).
6. Assemble each section of intake telescope (plastic tubing) and fit to compressor suction filter.
7. Fully release system pressure by opening all (3) condensate drain cocks and both filling valves.
8. Close all drain cocks and one filling valve, but leave the other filling valve open.
9. Turn motor stop switch <ON>, open fuel cock, close choke, and set throttle to around  $\frac{1}{3}$  speed.
10. Pull starter cord, and gradually open choke as motor begins to run.
11. Close filling valve, and gradually raise throttle to full speed.
12. Check final pressure safety valve functions correctly by opening at 225 Bar (as per gauge).
13. Drain condensate by opening each drain cock for at-least 5 seconds.
14. Carefully open both filling valves (in a safe direction) to purge compressor for 2 minutes, then close valves.
15. Connect filling yokes to cylinders.
16. Open one filling valve counter-clockwise (CCW), then open its cylinder valve (CCW).
17. Open the other filling valve, then open its cylinder valve.
18. Monitor gauges and drain condensate every 15 minutes.
19. Fill cylinders until gauge needles reach black pen marks.
20. Close one cylinder valve clockwise (CW), then close its filling valve (CW) until line pressure is vented.
21. Close the other cylinder valve, then close its filling valve until line pressure is vented.
22. Disconnect filling yokes from cylinders.
23. Repeat steps 15 to 22 until all cylinders are full.
24. Lower throttle to around  $\frac{1}{3}$  speed, and partially open one filling valve to reduce system pressure.
25. Run compressor for a further 1 to 2 minutes.
26. Close filling valve and turn motor stop switch <OFF>.
27. Drain condensate and close motor fuel cock.
28. Open and close one filling valve as needed to depressurize system to around 80 Bar.
29. Ensure drain cocks and filling valves are closed, and filling connectors are protected from contaminants.

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- Where possible, fill in shade, and during the cooler parts of the day. Don't commence if rain is expected.
  - Spring tension helps keep the condensate drain cocks closed. Avoid over-tightening, (use light finger pressure only).
  - Take note of where the drain cocks are pointing. If needed, muffle the expelled moisture with a cloth.
  - Valves should always be opened and closed slowly. To open; turn CCW until the thread finishes, then CW half a turn.
  - When filling cylinders in pairs; fully disconnect both full cylinders before connecting the next empty cylinders, to prevent a freshly filled cylinder from equalizing into an empty cylinder.
  - Replacement o-rings can be found in the Club's Save-a-Dive kit.
  - Allow the compressor to cool before re-fueling, and before fitting a weather cover (plastic sheet or tarp).
  - Retaining some system pressure prevents ambient air/moisture from entering the compressor.
  - The B-timer (hour meter) will count compressor operating hours and calculate filter saturation. Therefore; manually recording operating time is only necessary if the B-timer fails during a dive trip.
  - Any questions or concerns; refer to the *Bauer Compressor Operating Manual*, and/or the NQUEC Equipment Officer.