



Required for every participant:

- (1) Long Reach or standard length hex bit socket 3/8 drive - 4mm
- (1) Long Reach or standard length hex bit socket 3/8 drive - 6mm
- (1) Long Reach or standard length hex bit socket 3/8 drive - 7mm
- (1) L shaped or T-Handle 7mm hex key
- (1) 3/8 Drive Ratchet
- (1) 19mm Deep Wall Socket 3/8 inch drive
- (1) O-ring pick with a hooked or curved pointed end (brass is suggested, but the very thin set of SS picks from Scuba tools # 10-125-400 will also work) if buying just the bare minimum scuba tools picks I suggest these.
Soft Brass Set #10-102-100 or (1) Double hook # 10-102-400 and (1) Straight Sharp #10-105-400

- (2) Adjustable Crescent Wrenches that have jaws that will open to at least 1 inch wide.
- (1) Torque Wrench that has a working range of 40in lbs to 200in lbs minimum. (The better the wrench, the more accurate your torque, but the click it ones will suffice) each person must have a torque wrench.
One recommendation: CDI 3002LDIN 0-350 inch lbs.

- (2) Hook Spanners 1.5 in diameter with 1.56 spanner pin (Scuba tools # 20-405-200 and #20-420-160)
My suggestion is to buy one complete set of spanners (<http://www.scubatools.com/p-539-hook-spanner-set-3-thru-6-includes-4-interchangeable-pins-with-dia-of-125-140-160-240.aspx>), one complete set of pins, then one extra spanner wrench and pin, this will allow the techs to work on other models later on in their diving lives.)

- (1) Intermediate Pressure gauge that has a working pressure of 0-250 psi minimum with the scale no greater than 10 psi increments. This gauge should be able to be connected inline of the regulator ip hose or to a standard inflator. A Scuba Tools example would be # 20-165-135 (<http://www.scubatools.com/p-506-pro-technician-ip-gauge-assembly-only.aspx>) with the appropriate spin on adapter, or 20-165-112 with the spin on adapter. I know many online retailers also sell cheap IP gauges like this or some may even choose to make one. Again spending a little more to get a quality gauge will be better in the long run. The one in class was an IP gauge with a Magnehelic: ST #26-360-303.

- (1) - <http://www.scubatools.com/p-597-dual-pro-stand-0-3-magnehelic-ip-gauge-four-spinon-adapters.aspx> or ST #26-360-355 - <http://www.scubatools.com/p-598-dual-pro-stand-5-0-5-magnehelic-ip-gauge-four-spinon-adapters.aspx>.

- (1) First Stage Service Handle with a fitting that can be screwed into the HP Port of the first Stage (Scuba Tools # 20-115-100 or 20-114-100 are suggested)

- (1) Small amount of Christo or Tribo Lube, about 1/4 ounce, preferably in a syringe dispenser. (Scuba Tools monoject is ideal #15-708-111)

- 1) Magnifying Glass (lighted is ideal)

Cleaning Solutions

the types of cleaners we discussed as appropriate for regulator repair.

Cole Palmer solution - http://www.coleparmer.com/Product/Free_Sample_Micro_90_Solution/EW-99999-14

Blue Gold- Scuba Tools Sells

Micro 90- Cole Palmer 1 Liter bottle or 8 oz free sample bottle will work for one cleaning (link above is to free sample.)

Simple Green- Crystals

GMC Ultrasonic - Global Manufacturing Corp.

White Vinegar - Distilled

Dawn Dish Soap

I don't like the Lawrence Factor Wash even though it was mentioned on the test, to corrosive.

Pipette brushes:

<http://www.justmanbrush.com/catalog/index.asp?ScreenOption=NewCatalog&SelectCatalog=2>

I use the pipette brushes; scroll halfway down the page, with the expanding tip. I have found #710272 and 710280 to be the most useful.

Adjustable wrenches: <http://www.skywaytools.com/products/205-V8-HT150B-6-Inch-Thin-Jaw-Adjustable-Bent-Nose-Wrench/?bc=no>

For the Heinrich vise, you need both the receiver jaws and the v-jaws that scuba tools sells. I have been told you can buy the vise online for about \$20-40 less but to my knowledge the aluminum receiver and v-jaws you need for regulator repair come from scuba tools only.

vise: Heinrich® Grip Master Vise that features a cam operated clamping device

<http://www.scubatools.com/p-423-grip-master-vise.aspx>

Receiver Jaw Set (2) SKU:13-100-500

"V" Jaw Set (2) SKU:13-100-500 (13-120-200)

(1) Inline Adjuster (Scuba Tools 20-500-200 is suggested)

(1) Ultrasonic Cleaner

Sources: ScubaTools.com, Mann OverBoard, Home Depot, Amigos Dive Center, CCDS, Harbor Freight Tools