## **NAVTEC Series 850 Vangs**

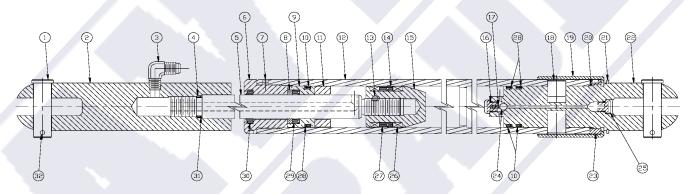
#### **DEPRESSURIZING**

# WARNING: USE EXTREME CAUTION. THE VANG IS SHIPPED CHARGED WITH AT LEAST 600 psi PRESSURE.

At no time should anyone be in line with the Clevis end of the Vang. Treat as you would a gun barrel.

- 1. Place the Vang in a vise with the Rod end tilting down.
- 2. Slowly unscrew the Port Plug in the Clevis Jaw (25). If you hear gas escaping, stop until hissing stops. Then continue until Port Plug is fully removed.
- 3. Remove the 1/4-20 screw from the Discharge Tool body. Discharge Tool part #A851-TD-A.
- 4. Screw Discharge Body into the Port.
- 5. Insert 3/32" Rod into the Discharge Tube.
- 6. Screw the 1/4-20 screw into the Body until it causes the Check Valve (17) to unseat and Vang completely discharges.
- 7. Leave the Depressurization Tool engaged while disassembling the Vang.

## **DRAWING 85A**



THIS ASSEMBLY DRAWING IS APPLICABLE TO SERIES 85 VANG SIZES -6 THROUGH -12.

### **PRESSURIZING**

Pressurize the Vang or increase the pressure as follows:

- 1. Determine the desired Vang return force reading the required gas pressure from Table B. The maximum gas pressure is 1000 psi.
- 2. Remove the Port Plug from between the Clevis Jaws (already removed if the Vang has been shortened). See #2 under Depressurizing Instructions.
- 3. BE sure the Vang is fully extended. (If not, it will extend suddenly when pressurized.)
- 4. Screw the Charging Tool (Part # A851-TC-Axx) into the Port and connect the charging systems.
- 5. Crack the Valve on the nitrogen cylinder to allow nitrogen to fill the Vang slowly. Close the nitrogen Valve when the desire pressure is reached. (Argon, which is readily available in welding shops, is also acceptable.) Do not use oxygen.
- 6. Keeping the Piston Rod end down, detach the hose from the charging Tube, slowly at first, then quickly, until depressurization of the hose is complete. Pressure is maintained by a Check valve, but there may be a small amount of leakage until the Port Plug is in place.
- 7. Remove the Charging Tool and reinsert the Port Plug. Charge is now complete.
- 8. Check for leaks.

#### TABLE B - GAS PRESSURE REQUIRED FOR VARIOUS VANG RETURN FORCES

#### Cylinder

#### **Theoretical Return Force Desired (lbs)**

Size	Area (in)	300 lbs	500 lbs	1000 lbs	2000 lbs	3000 lbs	4000 lbs
-6	.785	382	637	1273*	N.A.	N.A.	N.A.
-10	1.352	222	370	740	1079*	N.A.	N.A.
-12	1.827	164	274	547	1094*	N.A.	N.A.
-17	2.474	121	202	404	808	1213*	N.A.
-22	3.221	93	155	310	621	931	1242*
-30	4.065	72	123	246	492	738	948
-40	7.211	42	138	138	277	416	554

<sup>\*</sup> Pressures over 1000psi shown for interpolation purposes only. Navtec does not recommend pressures exceeding 1000 psi