

# REPLACING PISTON ROD SELDEN HYDRAULIC VANG

## SAFETY NOTICE:

WEAR HAND, EYE AND EAR PROTECTION.

## WARNING:

NITROGEN GAS IS DANGEROUS IF RELEASED IN A CONFINED SPACE.  
WE RECOMMEND THAT IT IS RELEASED IN THE OPEN (OUTSIDE).



**DANGER OF DEATH**  
Potentially Asphyxiating  
Atmosphere

## GENERAL INFORMATION

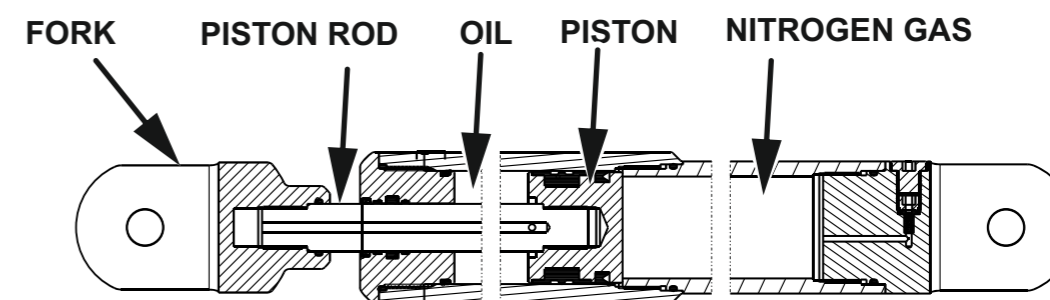
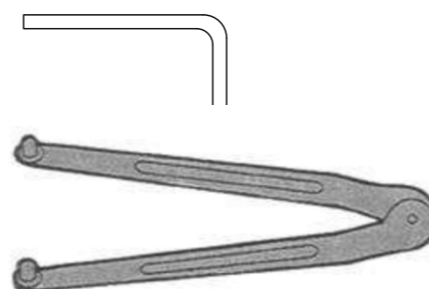
The BOOM VANG has a compartment filled with Nitrogen gas (42 bar)  
It acts on the piston to extend the vang.  
The hydraulic pressure hose connects to the fork.  
The oil pressure acts on the piston through channel in the piston rod.

## HYDRAULIC FLUID CLEANLINESS

If contaminants are found during the rebuild of the vang we recommend changing the oil of the whole hydraulic system.  
Hydraulic components, especially valves, are very sensitive to foreign particles in the fluid.

### Tools:

HEX WRENCH , 2 mm OR SMALL SCREWDRIVER (FOR RELEASING GAS)  
HEX WRENCH, 6 mm  
FACE PIN WRENCH FOR 6mm HOLES



# REPLACING PISTON ROD SELDEN HYDRAULIC VANG HV57

## DISASSEMBLY

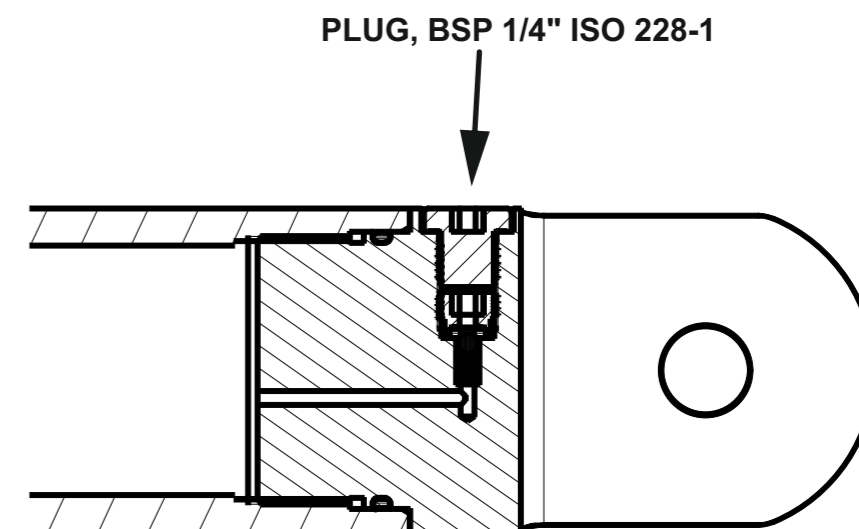
FIX THE CYLINDER TUBE IN A VISE, CAREFULLY PADDED SO THAT THE SURFACE IS NOT DAMAGED

UNSCREW AND REMOVE THE FORK. THE THREAD IS RIGHT-HAND.

THE GAS PRESSURE ACTS ON THE PISTON AS WELL AS THE END PARTS, LOADING THE THREADS. IN ORDER TO DISASSEMBLE THE VANG, THE GAS PRESSURE NEEDS TO BE REMOVED.

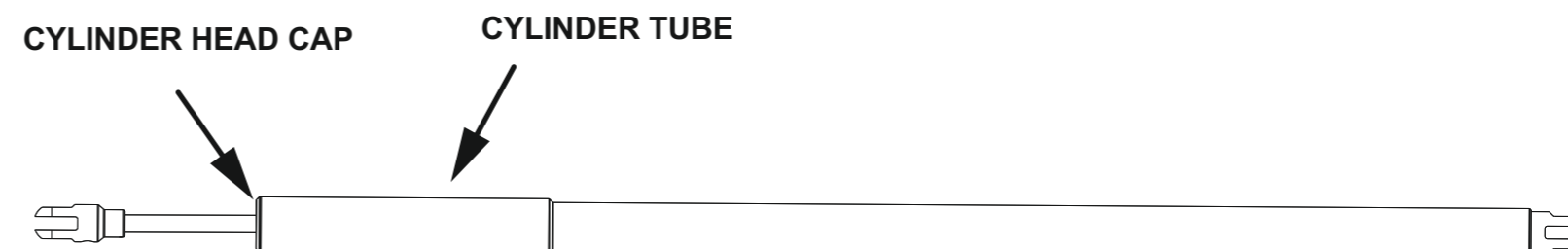
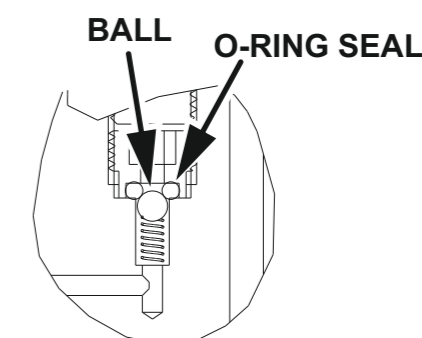
## RELEASING THE NITROGEN GAS PRESSURE

- 1) REMOVE THE PLUG WITH A HEX KEY 6 mm.
- 2) PUSH THE BALL DOWNWARDS WITH A THIN DEVICE SUCH AS A SMALL SCREWDRIVER OR A 2 mm HEX KEY.  
-BE CAREFUL NOT TO DAMAGE THE O-RING SEAL
- 3) IT TAKES ABOUT ONE MINUTE TO GET THE GAS OUT.



## REMOVING THE CYLINDER HEAD CAP AND PISTON ROD

- 1) DOUBLE CHECK THAT THE GAS PRESSURE IS ZERO
- 2) USE THE FACE PIN WRENCH TO UNSCREW THE CYLINDER HEAD CAP.  
ALL THREADS ARE RIGHT-HAND.
- 3) PUT RAGS UNDERNEATH TO COLLECT OIL
- 4) WHEN THE CYLINDER HEAD CAP IS UNSCREWED,  
THE ROD / HEAD CAP / PISTON CAN BE PULLED OUT OF THE CYLINDER.
- 5) PUT TAPE ON THE THREADS OF THE PISTON ROD FOR PROTECTION
- 6) PULL THE CYLINDER HEAD CAP OFF THE PISTON ROD
- 7) THE PISTON IS FIXED TO THE ROD WITH ADHESIVE.



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## ASSEMBLY

1) FIX THE CYLINDER TUBE IN A VISE, CAREFULLY PADDED SO THAT THE SURFACE IS NOT DAMAGED

2) PUT TAPE ON THE THREADS TO PROTECT THE SEALS DURING ASSEMBLY

3) LUBE THE SEALS IN THE CYLINDER HEAD CAP WITH WHITE LITHIUM GREASE, OR A SPECIALTY LUBRICANT FOR HYDRAULIC SEALS. THE SEALS ARE NBR RUBBER / POLYURETHANE.

4) CAREFULLY PUSH THE HEAD CAP ONTO THE PISTON ROD UNTIL THE SEALS ARE PAST THE THREADS

5) LUBE THE PISTON SEALS .

6) INSPECT THE CYLINDER FOR DAMAGE OR BURRS

7) CAREFULLY PUSH THE PISTON INTO THE CYLINDER

8) SCREW THE HEAD CAP INTO THE CYLINDER

9) TIGHTEN THE HEAD CAP WITH THE FACE PIN WRENCH

10) CHECK THE O-RING SEAL AND SCREW THE FORK ONTO THE PISTON ROD.

11) CHECK THE DIRECTION OF THE FORK COMPARED TO THE REST OF THE VANG.  
IT CAN BE ADJUSTED BY ROTATING THE FORK CLOCKWISE UNTIL IT ALIGNS.

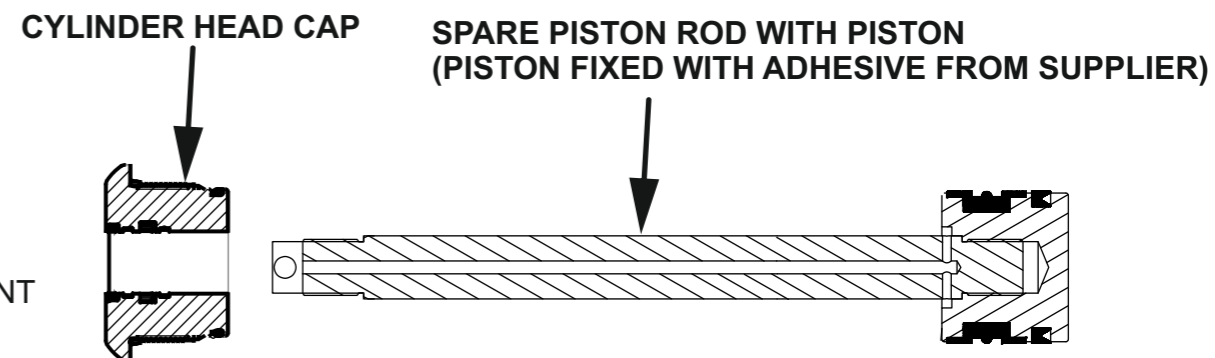
12) CHECK THAT THE GAS VALVE INSERT IS TIGHT WITH A 6mm HEX WRENCH

12) CONNECT WITH A BSP 1/4" ISO 228-1 ADAPTER AND FILL THE VANG WITH NITROGEN GAS TO A PRESSURE OF 43 Bar.

13 TO DOUBLE CHECK THAT THE GAS PRESSURE IS CORRECT AFTER FILLING :

-CONNECT THE HYDRAULIC HOSE AND PUMP UNTIL IT STARTS CONTRACTING.

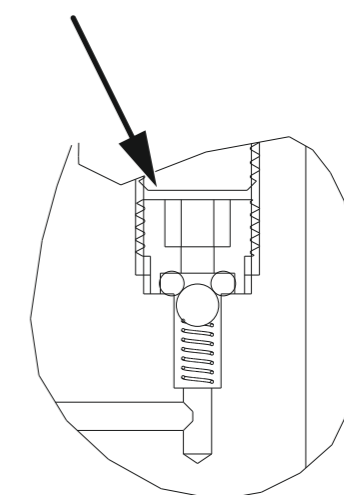
-FOR A GAS PRESSURE OF 43 BAR, OIL PRESSURE OF ABOUT 50 BAR WILL START TO MOVE THE PISTON INWARDS.



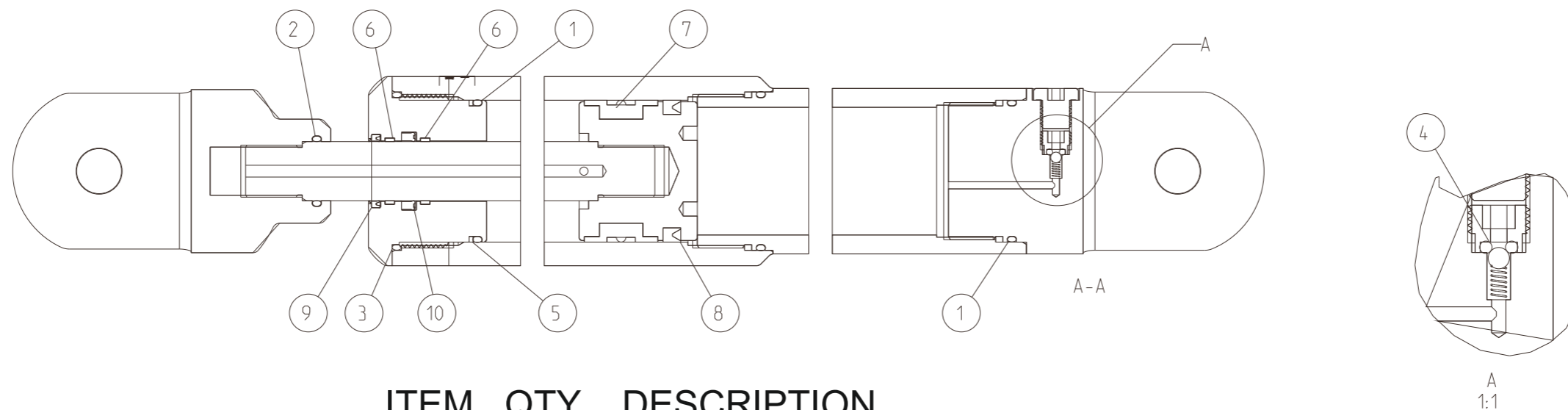
ADJUST ALIGNMENT OF FORK / PISTON BEFORE FILLING WITH GAS



VALVE INSERT



# REPLACING PISTON ROD SELDEN HYDRAULIC VANG HV57



ITEM	QTY	DESCRIPTION
10	1	ROD SEAL
9	1	ROD WIPER
8	1	PISTON GAS SEAL
7	1	PISTON SEAL
6	2	ROD GUIDE RING
5	1	BACK-UP RING
4	1	O-RING
3	2	O-RING
2	1	O-RING
1	2	O-RING