

BU-3087

MAINTENANCE INSTRUCTIONS FOR 30UV41V NEEDLE VALVES

TABLE OF CONTENTS

| <u>SECTION</u> | <u>TITLE</u>       | <u>PAGE NUMBER</u> |
|----------------|--------------------|--------------------|
| 1.0            | Reference          | 2                  |
| 2.0            | Purpose            | 2                  |
| 3.0            | Scope              | 2                  |
| 4.0            | Instructions       | 2-4                |
| 5.0            | Record of Revision | 5                  |

BU-3087

1.0 REFERENCE

1.1 Applicable Assembly Drawing B-1685, Latest revision

1.2 Stem Assembly Drawing B-1564, latest revision

2.0 PURPOSE

2.1 To establish maintenance instructions for 30UV41V needle valves.

3.0 SCOPE

3.1 This maintenance instruction (BU-3087) is to be used for all 30UV41V needle valves.

4.0 INSTRUCTIONS

CAUTION: Vent all pressure from system before removing valve for maintenance.

4.1 Disassembly

4.1.1 To remove valve from system, loosen gland (item 11) by turning counterclockwise until gland threads are completely disengaged from the body (item 1). This will allow the valve assembly to be removed from the system.

4.1.2 Place valve assembly in vise equipped with "soft jaws" and tighten vise.

4.1.3 Turn valve handle (item 9) counterclockwise until the valve stem is in the full open position.

4.1.4 Insert standard 3/16" hex wrench into the hex socket set screw (item 10) located inside the valve handle (item 9) and turn counterclockwise until set screw is loosened.

4.1.5 Remove valve handle from stem assembly.

4.1.6 Insert standard flat-blade screw driver into the slotted Phillips head machine screw (item 8). Turn screw driver until machine screw is loosened. Remove screw and locking device (item 7) from body.

4.1.7 Place an appropriate open-ended wrench on the flats of the packing gland (item 3). Turn open-ended wrench counterclockwise until packing gland threads are disengaged from the valve body.

4.1.8 Grasp the stem assembly (item 2) and packing gland with your fingers and carefully remove both items from the valve body.

4.1.8.1 Remove the packing gland from the stem assembly by turning counterclockwise until the threads are disengaged.

NOTE: When stem assembly is removed from body and disengaged from packing gland the packing (item 5), bottom washer (item 6) and top packing washer (item 4) will be attached to the stem assembly.

## 4.2 ASSEMBLY

4.2.1 The assembly technician shall, as a minimum, check all repair kit components for the following:

4.2.1.1 Cleanliness

4.2.1.2 Nicks, dents and/or scratches

CAUTION: All damaged components are to be replaced.

4.2.2 The assembly technician shall lubricate all components of the stem assembly (subassembly) with an approved lubricant as follows:

4.2.2.1 Bottom washer (item 6) shall be lightly lubricated on the outside diameter.

4.2.2.2 Referencing the stem assembly drawing, the stem sleeve (item 2) of the stem assembly shall be lightly lubricated on the external threads.

4.2.2.3 Packing gland (item 3) shall be lightly lubricated on the first three internal threads.

4.2.3 Grasp the lubricated stem assembly (sub-assembly) with your fingers and insert the sub-assembly into the packing gland (item 3). Rotate the packing gland clockwise until the internal threads are engaged.

4.2.3.1 Rotate the packing gland clockwise until the internal threads of the packing gland "bottom out."

4.2.4 Carefully align the stem assembly (sub-assembly) with the opening in the valve body (item 1) and rotate the packing gland (item 3) until the external threads are engaged.

4.2.5 Place an appropriate open-ended wrench on the flats of the packing gland. Turn the open-ended wrench clockwise until the packing gland is tight in the body.

CAUTION: When aligning, engaging, turning and tightening the aforementioned threads, the packing (item 5), the bottom washer (item 6) and the top packing washer (item 4), are to be aligned before the packing gland is tightened.

- 4.2.6 Using a torque wrench, torque the packing gland to the value specified on the applicable assembly drawing.
- 4.2.7 Reattach the locking device (item 7) and the fillister head machine screw (item 8) to the valve body and tighten.
- 4.2.8 Reattach the handle (item 9) and hex soc set scr (item 10) to the stem sleeve of the stem assembly.

CAUTION: Align the handle with the machined flat on the stem sleeve before tightening.

- 4.2.8.1 Insert standard 3/16" hex wrench into the hex soc set scr (item 10) and tighten the screw.
- 4.2.9 Turn handle clockwise to close valve. Loosen vise and remove refurbished valve assembly.

General Note

Butech Pressure Systems recommends that refurbished valves be pressure tested before being returned to service.

RECORD OF REVISIONS

| REV NO | DESCRIPTION OF CHANGES | DATE   | BY | APPR |
|--------|------------------------|--------|----|------|
| 0      | Original document      | 9/4/98 |    |      |