

Step by Step Assembly Instructions

SF15000 NMFB

Body Assembly

Body, PN 20673 Seat, PN 20275 Seat "O" Ring, Seat BU Ring, Seat Retainer, P/N 20528
Snap Ring, P/N 71002969 Base Cap, PN 20282 Base Cap "O" Ring, Base Cap BU Ring,
M8 X 1.25 X 12 Lock Bolt, M8 X 1.25 X 10 Lock Bolt, Lock Plate, P/N 20677 Handle Top, P/N 20693
M8 X10 SHSS Cup, P/N 71002102 AE Adapter (2 ea.), P/N 20531 "O" Ring for AE Adapter, (2 ea.)



STEP 1

Install "O" Ring and BU Ring on 20275 Seat.

ORIENTATION : "O" Ring closest to Small Hole



STEP 2

Install Seat in Body.

ORIENTATION : Small Hole faces OUT.

NOTE : Be sure Seat Cavity in Body is clean and free of obstruction for proper Seat placement.



STEP 3

Install 20528 Seat Retainer over Seat.

ORIENTATION : Recess in Retainer faces Seat.

Step by Step Assembly Instructions



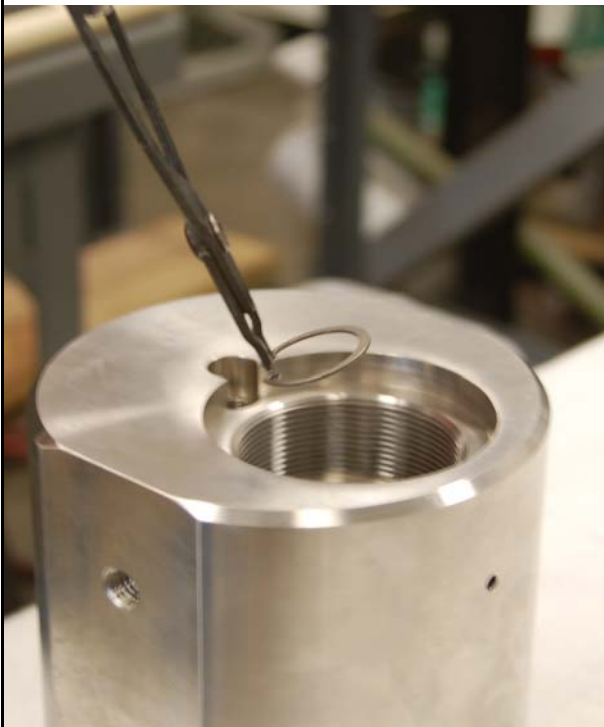
Seat Retainer properly installed



STEP 4

Install 71002969 Snap Ring to secure 20528 Seat Retainer.

NOTE : When properly positioned, Retainer will be movable under the Snap Ring.



Long Handle Snap Ring Pliers will be needed to install the Snap Ring

Step by Step Assembly Instructions



Snap Ring is properly installed.

Piston Assembly

Piston P/N 20613 Pin Holder, P/N 20639 Pin, P/N 20638 Springs (11 ea.), P/N 71002075 Spacer, P/N 20689 Cup Seal, P/N 71001867, Cup Seal Retainer, P/N 20228 Spiral Ring, P/N 71001945



20613 Piston



STEP 5

Install 71001867 Cup Seal on 20613 Piston

ORIENTATION : Flat of Seal to Piston - Wire Ring Facing Out

Step by Step Assembly Instructions



Step 6

Install 20288 Retainer over 71001867 Cup Seal

ORIENTATION : Recessed area of Retainer faces to Cup Seal



20288 Retainer installed properly.



Step 7

Install 71001945 Spiral Ring in 20613 Piston groove next to 20288 Retainer.

Step by Step Assembly Instructions



Step 8

Install 71002075 Pin Spring in 20613 Piston



STEP 9

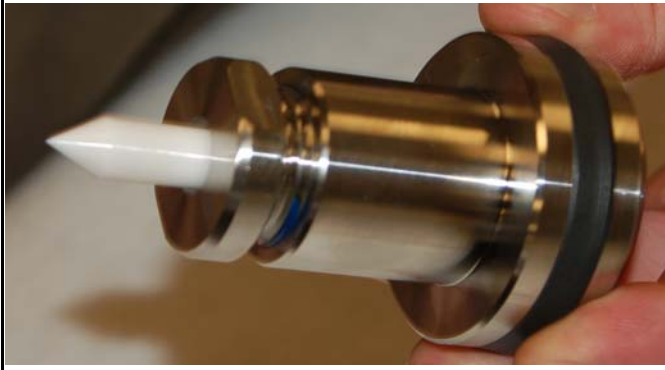
Place Pin, P/N 20638 in Pin Holder, P/N 20639



STEP 10

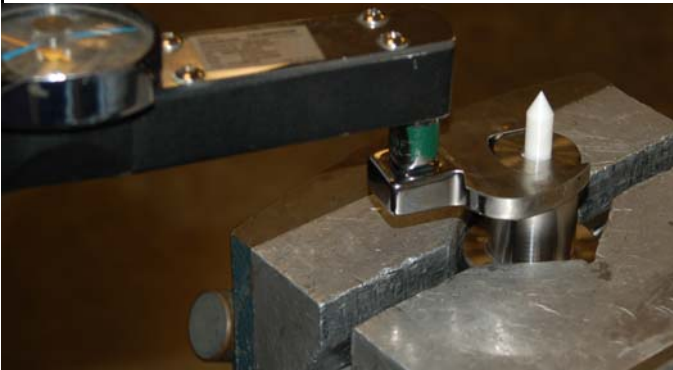
Apply Blue Loctite to 20639 Pin Holder

Step by Step Assembly Instructions



STEP 11

Place 20639 Pin Holder in 20613 Piston



STEP 12

Place Piston Assembly in Aluminum Jaw Vice and Tighten Pin Holder.

Torque to 15 Ft/Lbs

1 1/8" Crows Foot Wrench



STEP 13

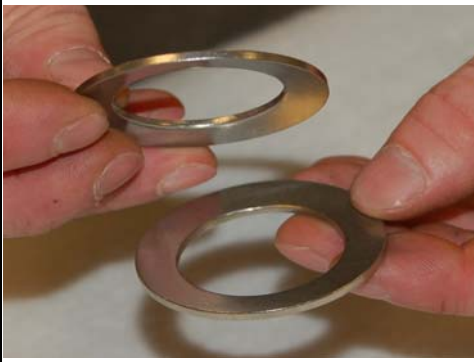
Place 20689 Spacer in Body.

Both Sides have same bevel



20689 Spacer properly placed in Body.

Step by Step Assembly Instructions



Belleville Springs. 11 ea. 71001964

ORIENTATION : Each Spring opposes the next one.



Belleville Springs properly stacked



STEP 14

Place 11 ea., Springs, P/N 71001964 in Body.

Step by Step Assembly Instructions



STEP 15

Apply Parker Lube to Cup Seal



STEP 16

Place Piston Assy. in Body.

ORIENTATION : Cup Seal faces out



Piston Assy. Properly installed in Body.

Step by Step Assembly Instructions



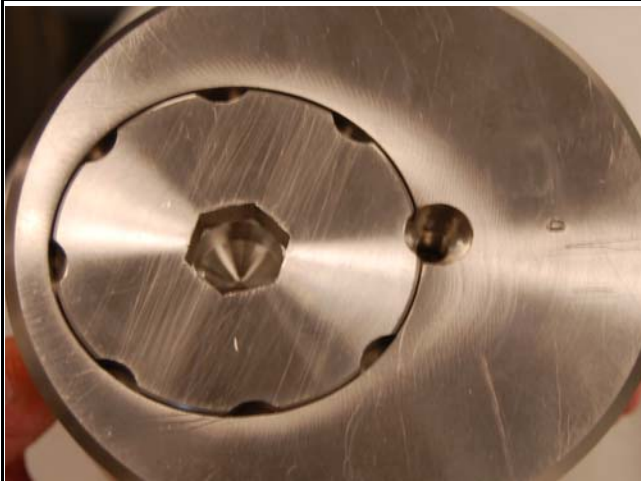
STEP 17

Place "O" Ring and BU Ring on Base Cap, P/N 20282.

ORIENTATION : BU Ring is closest to Base Cap threads.

STEP 18

Apply SynLube to Base Cap threads before installing.



STEP 19

Install Base Cap in Body and tighten firmly.

Position notch in Base Cap for Lock Bolt alignment.



STEP 20

Install M8 X 1.25 X 12 to Lock Base Cap.

Step by Step Assembly Instructions

Needle Stem Assembly

Needle, PN 20674, "O" Rings (2 ea.), BU Rings (2 ea.)

STEP 21

Install "O" Rings and BU Rings on Needle Stem.

ORIENTATION : "O" Rings closest to point of Needle in both locations.



Trim Assembly

Trim, P/N 20617, "O" Ring (1 ea.), BU Ring (1 ea.) "O" Ring (1 ea.), BU Ring (1 ea.)



STEP 22

Install "O" Rings and BU Rings on Trim.

ORIENTATION : "O" Rings closest to small diameter of Trim in both locations.

Stem Retainer Nut Assembly

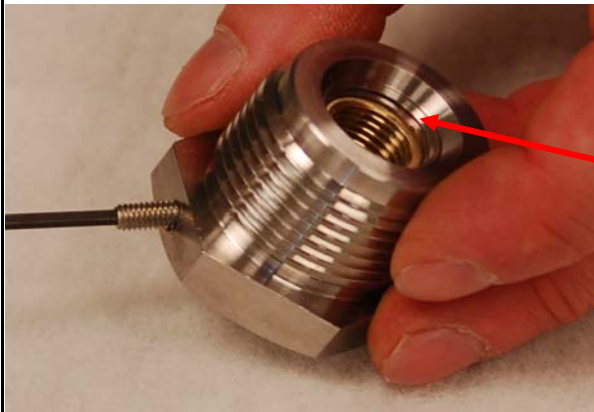
Nut, P/N 20675, Brass Bushing, P/N 20681, SHSS Cup, M4 X 8, P/N 71002100

Step by Step Assembly Instructions



STEP 23

Apply Red Loctite to Brass Bushing P/N 20681



STEP 24

Install Brass Bushing in Retainer Nut

NOTE : Bushing must be Flush with or Below chamfer in Retainer Nut.

STEP 25

Install M4 X 8 SHSS Cup in Retainer Nut

STEP 26

Install Needle Stem in Retainer Nut
Turn Stem into Nut until it Stops.

Apply Parker Lube to "O" Rings.



Step by Step Assembly Instructions



STEP 27

Apply Parker Lube to Trim "O" Rings



STEP 28

Install Trim in Body

Step by Step Assembly Instructions

STEP 29

Apply SynLube to Retainer Nut threads

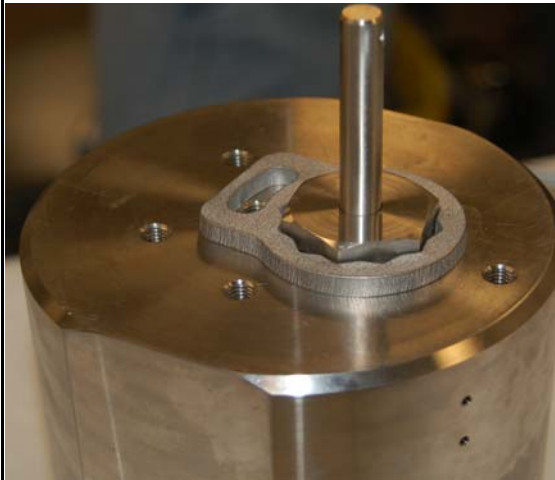


STEP 30

Install Needle and Retainer Nut in Body and tighten Retainer Nut firmly.

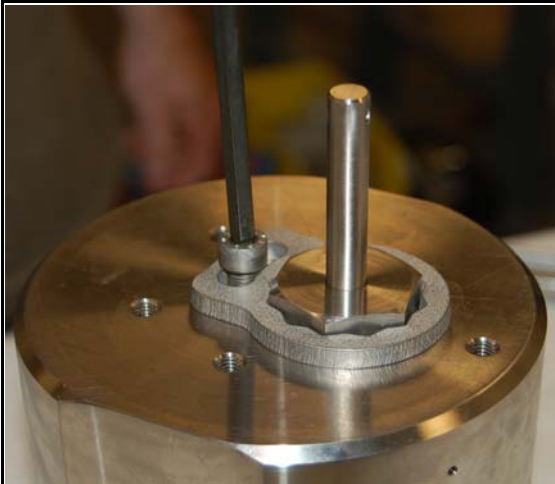


Step by Step Assembly Instructions



STEP 31

Install 20677 Lock Plate over Retainer Nut



STEP 32

Install M8 X 1.25 X 10 in Body to secure Lock Plate.

Step by Step Assembly Instructions

STEP 33

Find the machined flat on the Stem



STEP 34

Install Handle Top on Needle Stem and secure with M8 X 10 SHSS Cup.

Set Screw must contact machine flat on Stem.



Step by Step Assembly Instructions



STEP 35

Install "O" Rings on AE Adapters.



STEP 36

Apply Synlube to AE Adapter threads and Parker Lube to "O" Rings.



STEP 37

Install AE Adapter (2 ea.) in Body.

Torque to 120 Ft Lbs.

1 3/4" Crows Foot Wrench

ASSEMBLY COMPLETED - READY for TESTING