



GP-2000 Main and Pilot Valve Lapping Procedure

Warning: This bulletin should be used by experienced personnel as a guide to the installation and maintenance of the Armstrong GP-2000 Pressure Reducing Valve. Selection or installation of equipment should always be accompanied by competent technical assistance. We encourage you to contact Armstrong or your local representative if further information is required.

Lapping Procedure for GP-2000 Pilot Valve

Step 1

Remove the GP-2000 pilot spring housing (3), adjusting spring (24), and pilot diaphragms (23).

Step 2

Remove the pilot valve seat capsule (18), which includes the pilot spring plate (20), pilot valve spring (19) and pilot valve (17). Leave the capsule assembled.

Step 3

Now you are ready to lap the pilot valve. Push out the pilot stem and valve, which is one piece, by compressing the pilot spring plate (20) inward or down. Apply a thin layer of lapping compound on the area of the valve where the pilot valve (17) meets the seat. (Use 1000 grit lapping compound). Place the pilot valve against the

seat and by hand, rotate the valve back and forth against the seat, using a flat head screwdriver. Be sure to push the valve down firmly against the seat while rotating the valve back and forth. After approximately five minutes of rotating the valve back and forth a new clean surface will be created.

Step 4

Reassemble the pilot valve seat capsule (18) and install back into the pilot body (2). Finish the re-assembly with the items mentioned in Step 1 in reverse order. Test the valve to make sure there are no leaks. (Refer to the troubleshooting section from the I.O.M. Bulletin No. AY-712-B for the GP-2000).

Lapping Procedure for GP-2000 Main Valve

Step 1

Remove the complete pilot valve from the main valve (if an integral mount pilot). For 2 inch valves and up, also remove the adapter plate. Otherwise, for a valve with a remote mount pilot you only need to remove the main valve cover.

Step 2

Remove the main valve spring (13), retainer (11), and screen (15). **Note:** *There is not a screen on valves with remote mount pilots.*

Step 3

Now you are ready to lap the main valve. Remove the main valve (6) off from the main spindle (9). On larger valves 2-1/2 - 4 inch the stem is attached to the valve and will come out as one piece. Apply a thin layer of lapping compound around the radius edge of the main valve (6) where the valve and valve seat (7) meet. Place the

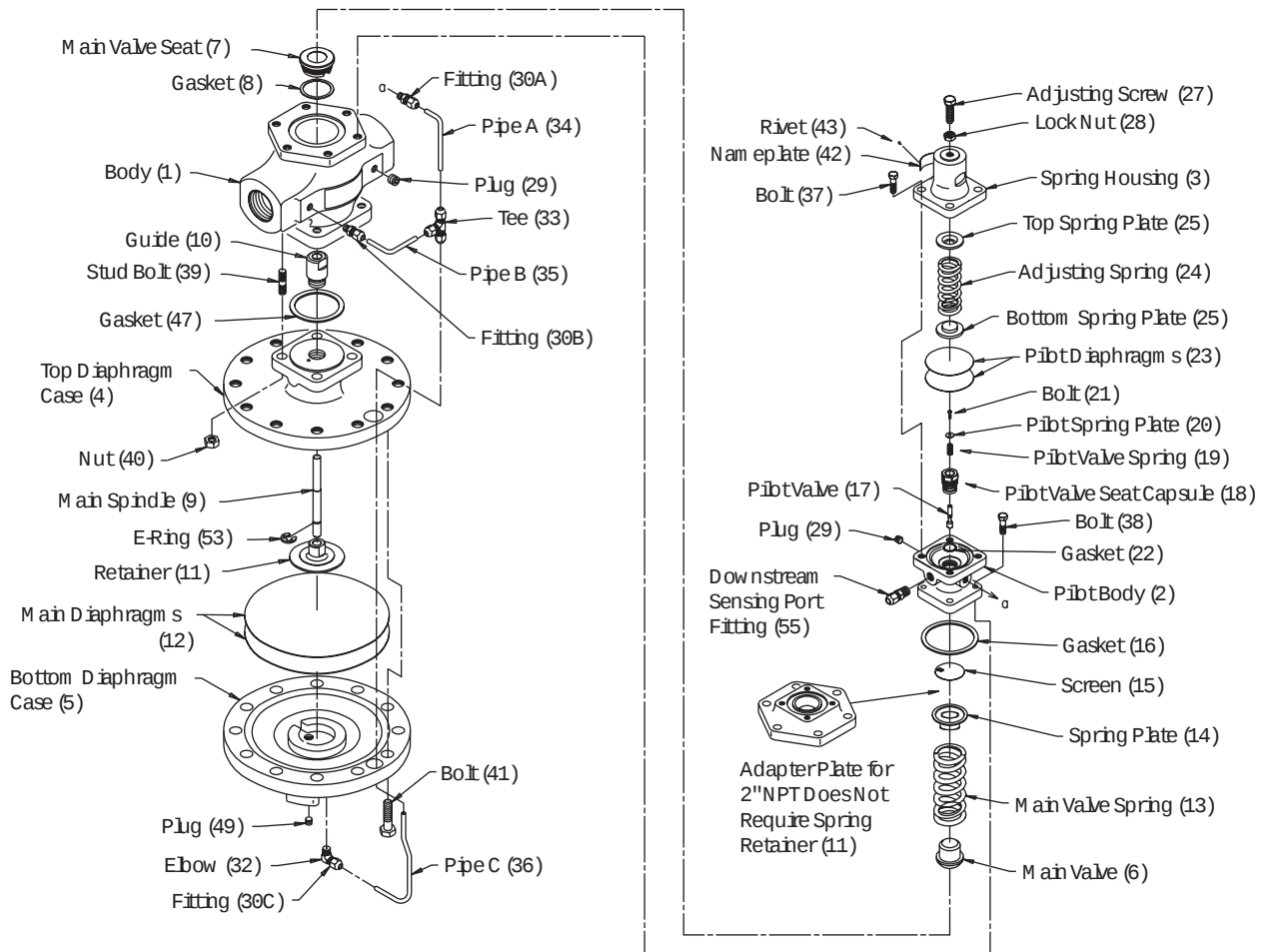
main valve (6) onto the main valve seat (7) and by hand rotate the valve back and forth against the seat. Be sure to push the main valve firmly against the seat while rotating back and forth. For a new valve and seat it will take approximately 40 minutes to create a new clean surface. (This is due to the hardness of the stellite trim used. A diamond based 1000 grit lapping compound is recommended).

Use this same method to relap used valves and seats. This will take about 1 to 5 minutes to create a new clean surface. Stubborn build-up may take longer. Lighter build-up will take less time. You will know you are done when you can see a clean, shiny ring all the way around the plug seating surface. Clean off excess compound before reassembling.

Step 4

Reassemble and test the valve for leaks. (Refer to the troubleshooting section from the I.O.M. Bulletin No. AY-712 for the GP-2000).

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