BOGERT AVIATION

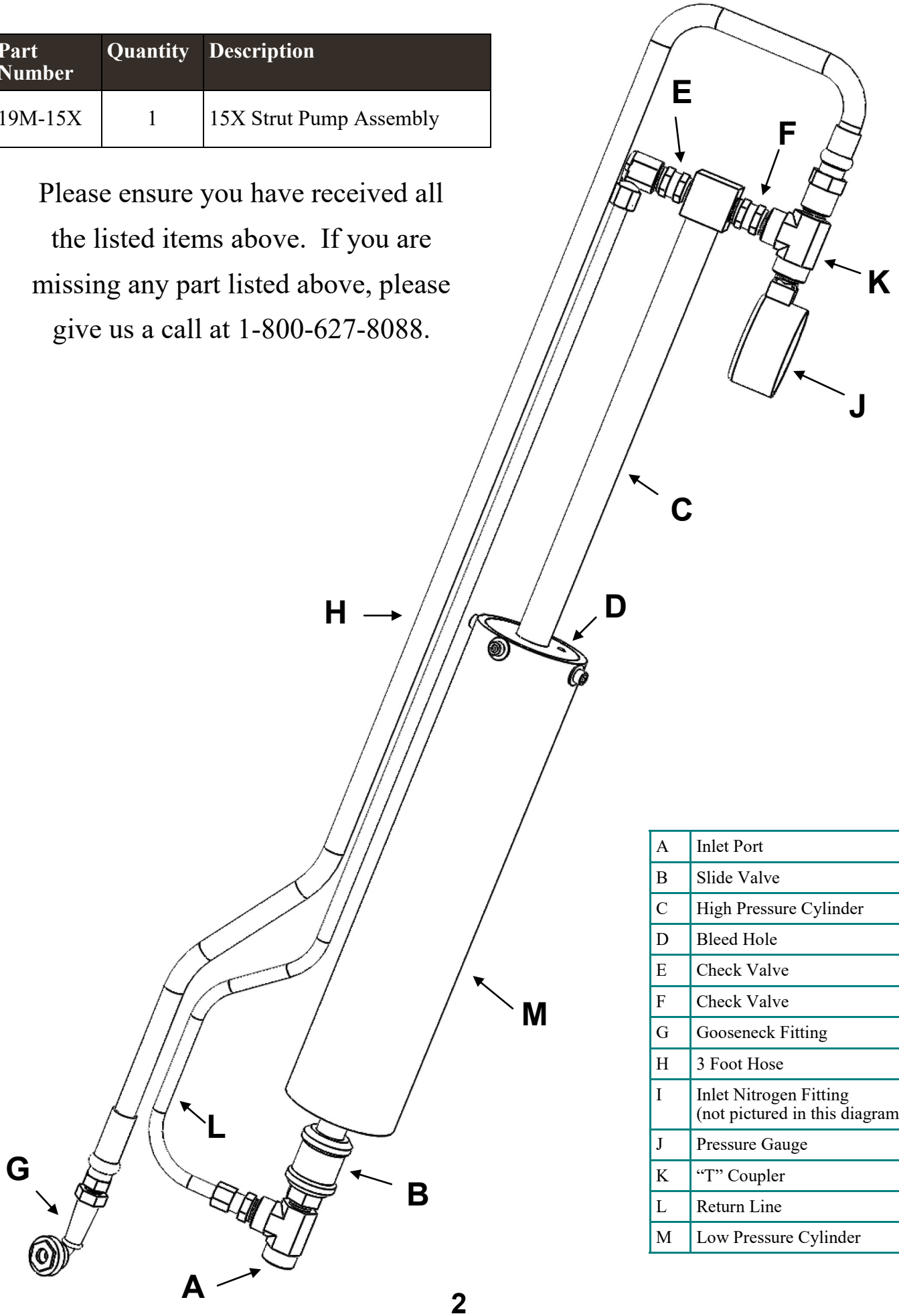
PRODUCT INSTRUCTIONS
Model Number: 19M-15X

Revised March 8, 2019

Bogert Aviation 15X Strut Pump Instruction Manual

Part Number	Quantity	Description
19M-15X	1	15X Strut Pump Assembly

Please ensure you have received all the listed items above. If you are missing any part listed above, please give us a call at 1-800-627-8088.



A	Inlet Port
B	Slide Valve
C	High Pressure Cylinder
D	Bleed Hole
E	Check Valve
F	Check Valve
G	Gooseneck Fitting
H	3 Foot Hose
I	Inlet Nitrogen Fitting (not pictured in this diagram)
J	Pressure Gauge
K	“T” Coupler
L	Return Line
M	Low Pressure Cylinder

The warnings, precautions, and instructions discussed in this manual cannot cover all possible conditions and situations that may occur. The operator must understand that common sense and caution are factors, which cannot be built into this product, but must be supplied by the operator.

BEFORE GETTING STARTED

1. Remove the protective plastic plug in the air inlet port **(A)** and replace with a suitable ¼ NPT air coupler that is compatible with your other air tools. Do not over tighten.

2. Add 3 or 4 drops of strut oil or 30 wt engine oil into the air inlet port **(A)**.

3. Remember to use clean, dry air. It is important to make sure that your air compressor has been drained of condensation recently.

WARNING: Wear safety glasses. You are dealing with high pressure air and oil. Protect yourself!

IMPORTANT NOTES

1. The pump will not cycle unless the high pressure hose is connected to the strut.

2. Connecting the inlet air source to the 15X before attaching the high pressure hose will cause air to pass through the pump and out the end of the high pressure hose.

WARNING: Hose may whip and cause harm if air is connected and hose is not secured.

3. The valve core in the strut valve will be opened with differential pressure. There is no “Pin” in high pressure strut fitting.

4. After several uses, add 3 or 4 drops of strut oil or 30 wt engine oil to the inlet port **(A)** of the pump.

TO OPERATE WITH AIR

1. Connect the high pressure hose fitting **(G)** to the aircraft strut valve and tighten by hand. Some strut valves require a locking jam nut to be loosened first. Consult the appropriate service manual.

2. Connect the strut pump inlet **(A)** to shop air or nitrogen tank with a regulated pressure of between 80psi and 150psi. The pump works best if 100psi to 150psi is applied to the inlet.

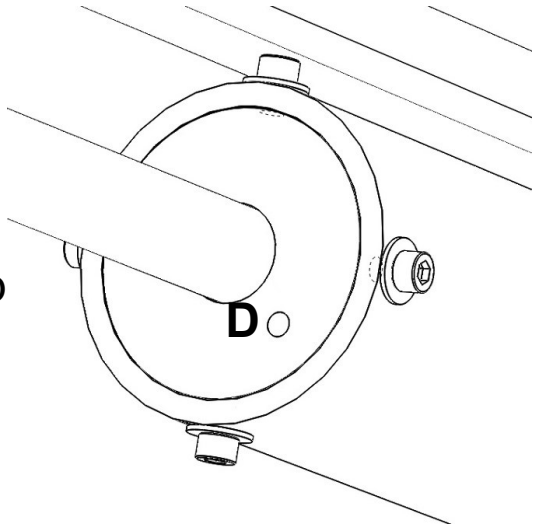
WARNING: 150psi is the maximum allowable pressure at the inlet.

3. Operate the slide valve **(B)** back and forth on the inlet end of the pump. This will cycle the internal piston back and forth until the desired pressure or strut extension is obtained. You will hear the piston come in contact with the pump body at the end of each stroke. If the pump fails to build pressure—see Step 6 and retry.

4. Disconnect the shop air hose at the inlet port **(A).** Disconnect the high pressure air hose from the strut.

5. After 4 or 5 uses, inject 3 or 4 drops of strut oil or 30 wt engine oil into the air inlet port **(A)**.

6. After extended non-use, the internal piston may become stuck if it was left in the extended position. The internal "O" rings may stick slightly because of this. It may be unstuck easily by using a blow gun and air supply. Just apply shop air to the large cylinder bleed hole **(D)**. The "cylinder sticking" can be eliminated if the piston is "Parked" in the retracted position. Simply move the slide valve **(B)** back toward the air inlet **(A)** before disconnecting the air supply



TO MODIFY FOR NITROGEN

1. Remove steel line **(C).**

2. Remove the 90° fitting **(E)** and remove sealing tape from the check valve **(F)** threads.

3. Apply 4-6 wraps of Teflon sealing tape to the clean check valve threads.

4. Install the nitrogen adapter assembly **(H)** to the check valve **(F)**.

5. Tighten to 100-120 in. lbs. aligning the tube fitting with the fitting at **(A).**

6. Insert the curved end of tube **(C)** into fitting **(A).**

7. Remove the nut & sleeve from the tube fitting on the nitrogen adapter.

8. Mark tube (C) for trimming. Measure 1/4" past the open end of the tube fitting on the nitrogen adapter. Trim the tube to this mark.

9. Remove tube (A). Slip nut and sleeve over trimmed end of tube (C). Insert tube (C) into nitrogen adapter and then into (A).

10. Tighten the tube nut at (A) and then tighten tube nut at the nitrogen adapter.

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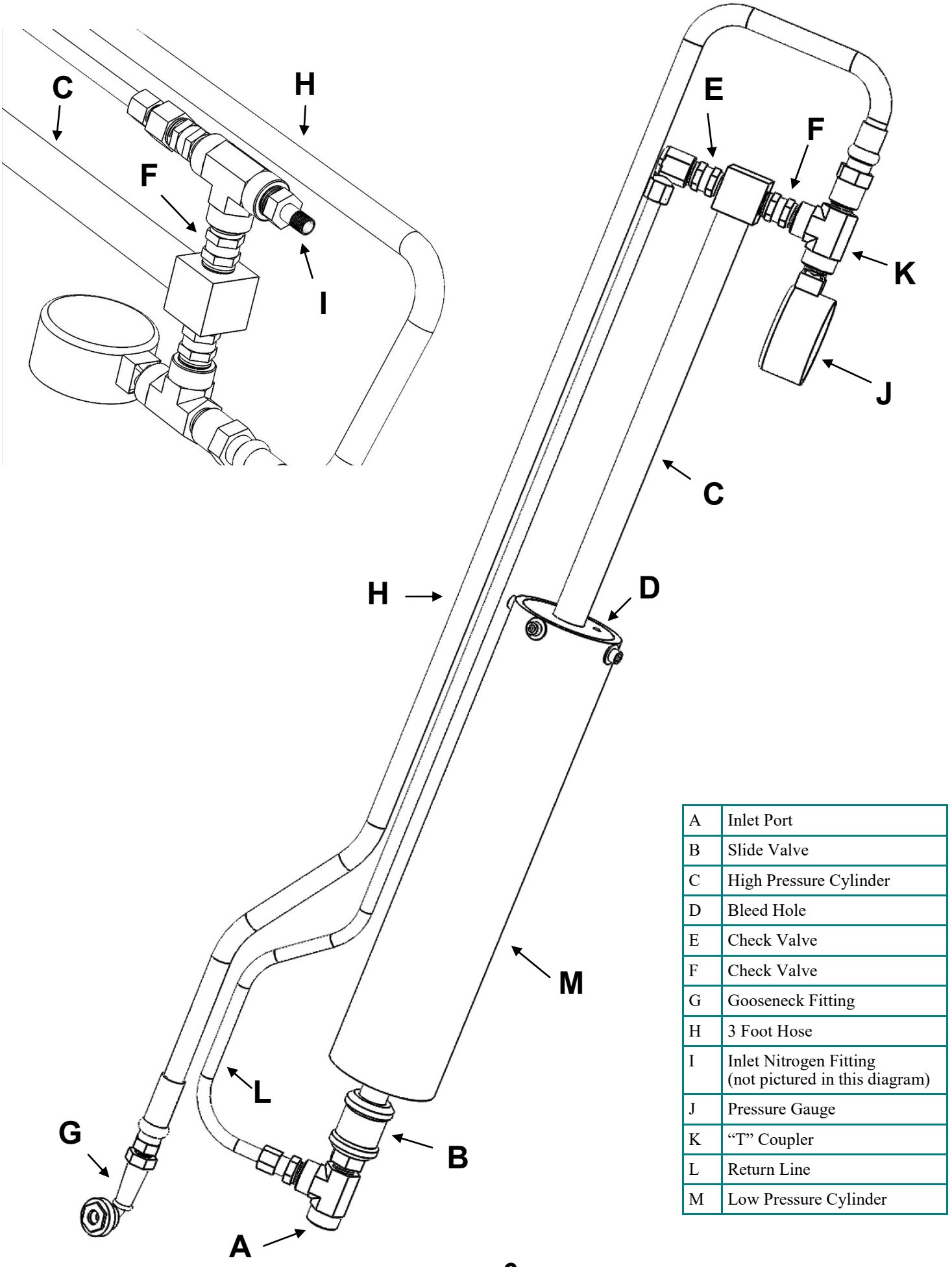

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TO OPERATE WITH AIR *AND* NITROGEN

1. Connect the high pressure hose fitting **(G)** to the aircraft strut valve and tighten by hand. Some strut valves require a locking jam nut to be loosened first. Consult the appropriate service manual.
2. Attach the nitrogen tank outlet hose to the inlet fitting on the nitrogen adapter **(I)**. Set nitrogen pressure to 100-150psi. Nitrogen pressure should be slightly higher than air pressure.
3. Attach compressed air to fitting **(A)**. (80-150psi)
4. Operate slide valve **(B)** until desired pressure or strut extension is obtained. Park slide valve in the back position.
5. Shut off nitrogen bottle. Disconnect inlet air hose. Disconnect high pressure hose from the strut.

TROUBLESHOOTING

1. No leaks can be tolerated. The Gooseneck fitting and seal need to be tight. Make sure there are no other leaks.
2. Make sure the pump is cycling back and forth when you operate the slide valve. If the piston does not cycle, refer to the Instruction 6 on Page 4.
3. If the pressure bleeds off, a check valve may be hung up with something under the valve seat. Disconnect the air and or nitrogen supply. Disconnect the Gooseneck Fitting from the strut and secure. Hook up shop air and allow air to blow through the pump for a few seconds. This should clean the check valves. Reconnect to the strut and try again.

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For more information, see our You-Tube Videos at
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Or search for Bogert Aviation.

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