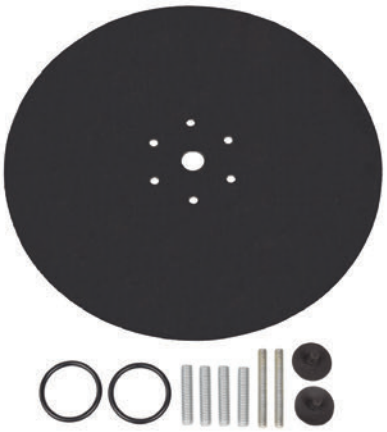
BWMRK

BECKER WINDMILLS
A Division of EasyPro Pond Products

Becker Windmill Diaphragm Repair Kit

Instructions



Parts Included

1 - Replacement diaphragm
2 - O-rings
2 - Umbrella valves
2 - Long threaded alignment studs
4 - Short threaded alignment studs

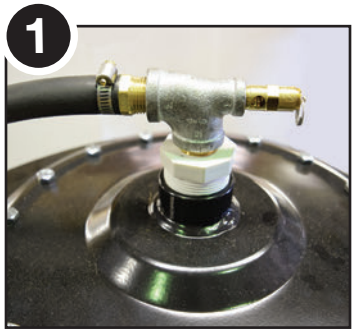
Safety

- Windmill tower is not designed to be climbed.
- Do not stand near windmill during electrical storms.
- Do not work on the windmill while the wind is blowing.
- Always tie off or otherwise secure the windmill before working on it.

Tools Required

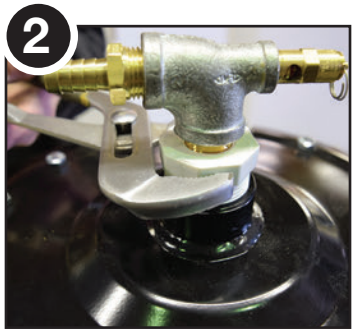
- Flat screwdriver (or nut driver/socket for hose clamp)
- Channel Lock Pliers or Adjustable Wrench
- 1/2" socket and ratchet/driver
- #3 Phillips screwdriver

1



Loosen the clamp on the heater hose on top of the compressor and remove it from the brass hose barb.

2



Remove the outlet plumbing assembly at the white bushing from the compressor top.

3

Remove the upper o-ring, the aluminum valve retainer and lower o-ring from compressor top. Be sure to note the orientation of the aluminum valve retainer as it will need to be re-installed in same way

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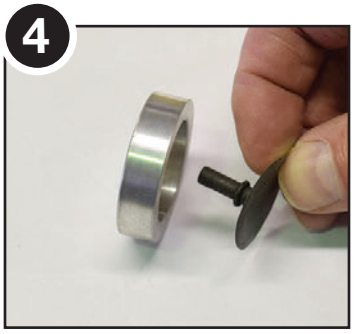

Remove the rubber umbrella valve from the aluminum valve retainer and install new umbrella valve. It may help to wet the valve stem slightly.

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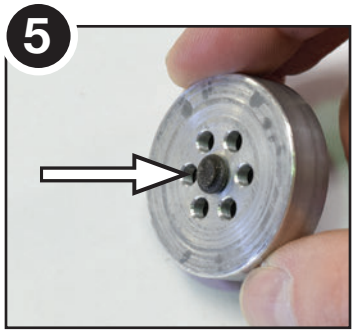

Once installed, trim the stem of the valve just below the expanded ring of the stem.

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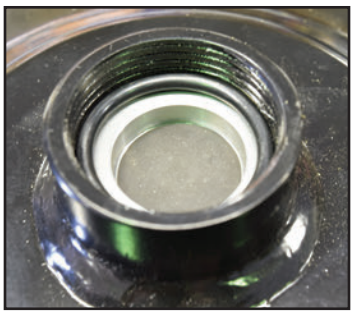

Place one o-ring into the threaded section on top of lid. Next install aluminum valve retainer and second o-ring on top of valve retainer. Be sure each item is properly seated and the valve retainer is in the correct orientation.

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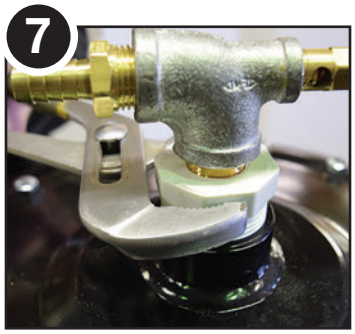

Reinstall the outlet plumbing assembly to compressor top. Be sure not to cross thread or over tighten.

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Remove compressor lid by removing the 16 bolts on the top of the lid with 1/2" socket wrench or driver. You will now have access to larger aluminum valve retainer and diaphragm.

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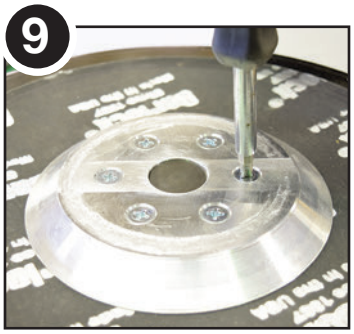

Remove the six screws from aluminum valve retainer with #3 Phillips head screwdriver.

10

Remove the old rubber umbrella valve and install new one. It is not necessary to cut off the stem this time.

11

Remove the old diaphragm. Install long threaded studs in push plate as shown to help align diaphragm and aluminum valve retainer. They are temporary items and will be removed for final reassembly.

12

Place new diaphragm and reinstall aluminum valve retainer over alignment studs. Start four screws to maintain alignment and remove threaded studs for last two screws.

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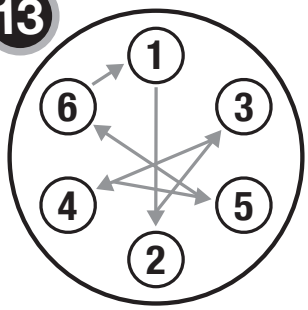

It is best to tighten these screws in a pattern to ensure all are equally tight. Be sure not to strip out threads or heads of screws.

14

Place four short threaded alignment studs in holes in compressor top. Place one each at front, back, left and right. If thinking like the face of a clock, it would be at 12, 6, 3 and 9 o'clock positions. Place lid back on compressor top making sure the hose barb for the heater hose is in the correct position. Do not tighten down yet.

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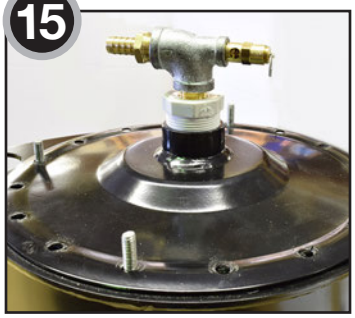

Carefully rotate the compressor shaft so that the piston is at the top of its stroke. The compressor lid should rest or easily contact the top of the can. If it is held up you may have an alignment issue and you should contact your Becker Windmill Dealer or EasyPro Pond Products for assistance.

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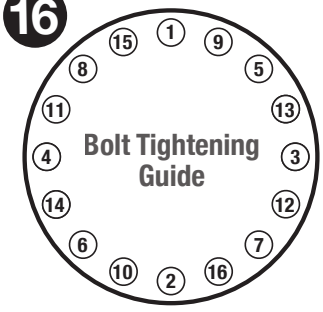

If the lid rests on the top of the can you can now replace the 16 bolts. Be sure to remove the alignment studs for the final 4 bolts. Tighten the bolts in a pattern to ensure all are equally tight. Do not over tighten as this can bend the lid.

17

To check if there is pressure being created, turn the compressor shaft while holding your thumb on the end of the brass hose barb. If you have pressure, reconnect the heater hose and put compressor back into service on the windmill.