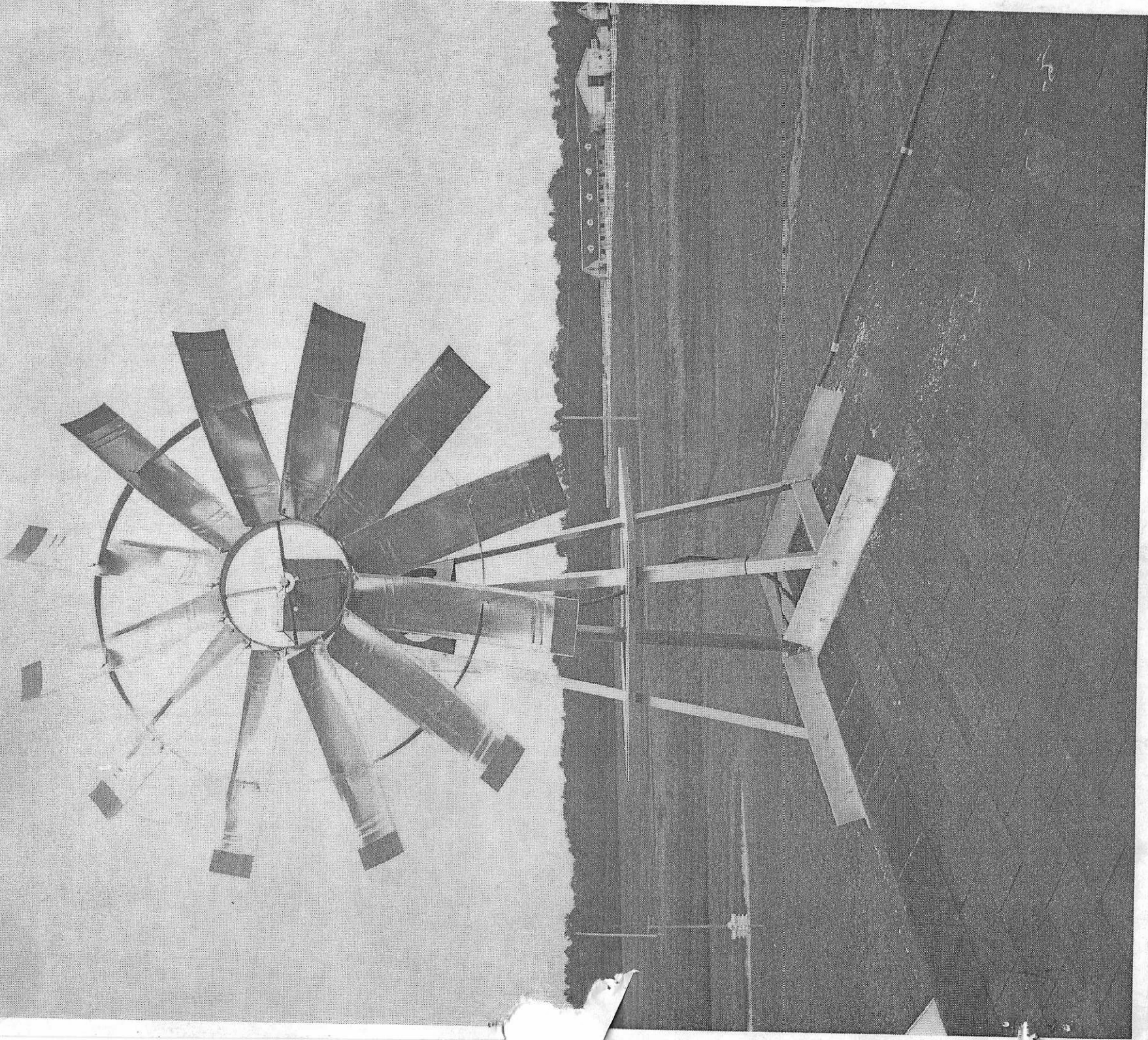
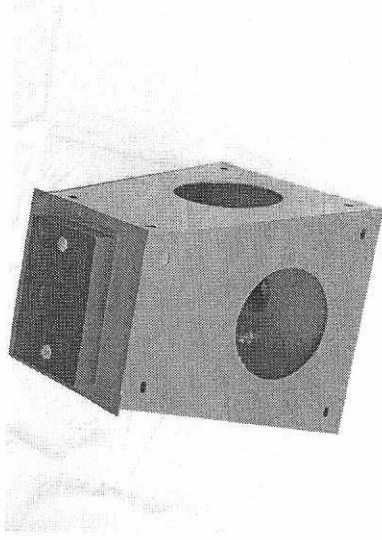


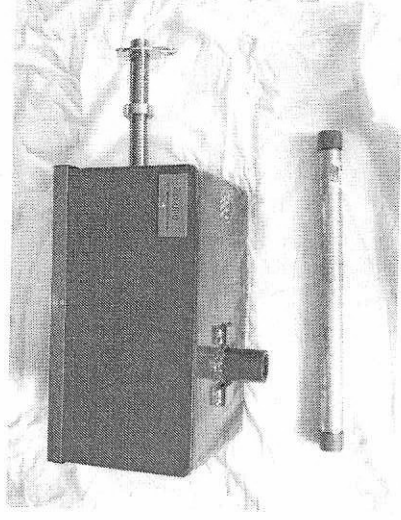
AMERICAN EAGLES
WINDMILLS, LLC
ROOF MOUNT
INSTRUCTION MANUAL
MADE IN USA



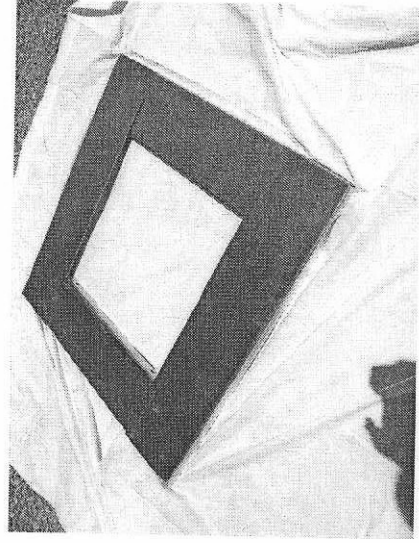
PRE-ASSEMBLED TOWER TOP



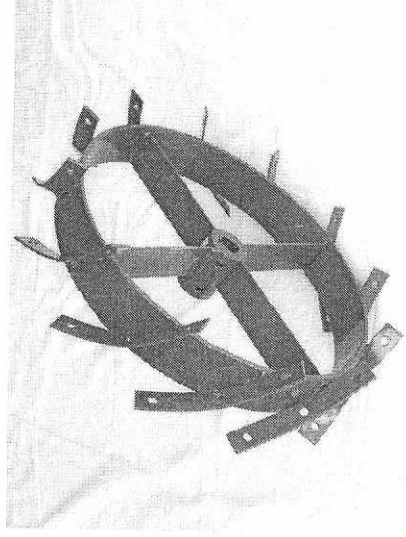
**COMPRESSOR BOX &
PIVOT TUBE**



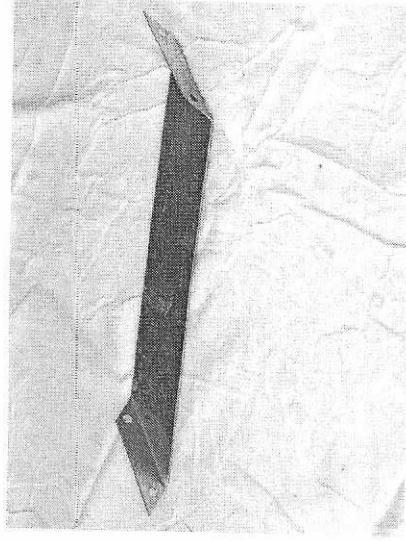
PLATFORM



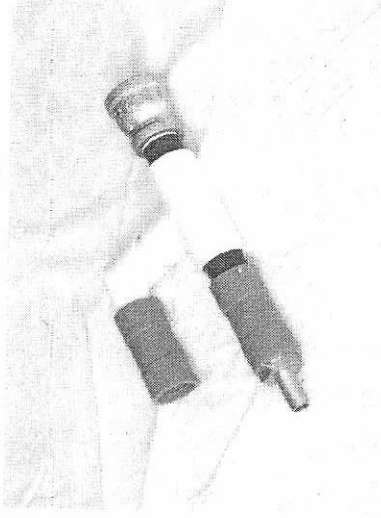
WHEEL HUB



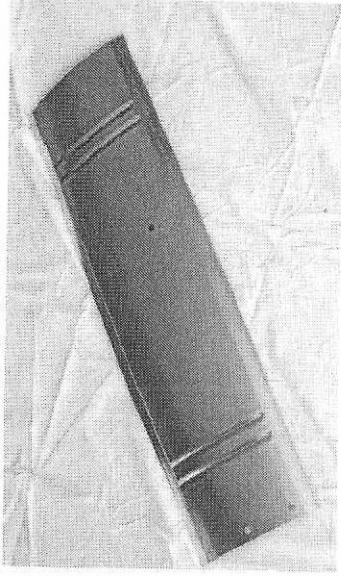
BLADE SPACERS



DOUBLE CHECK VALVE



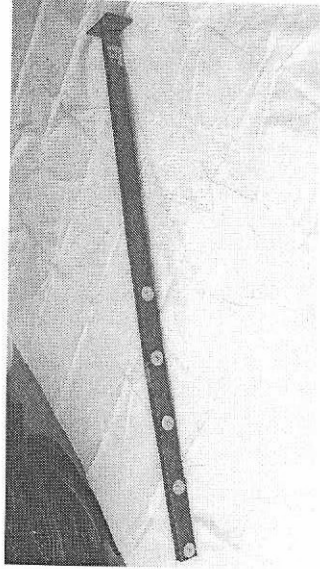
BLADES



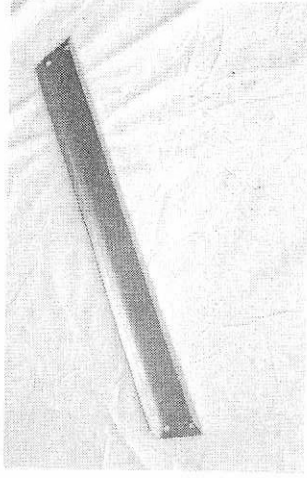
TAIL FINS



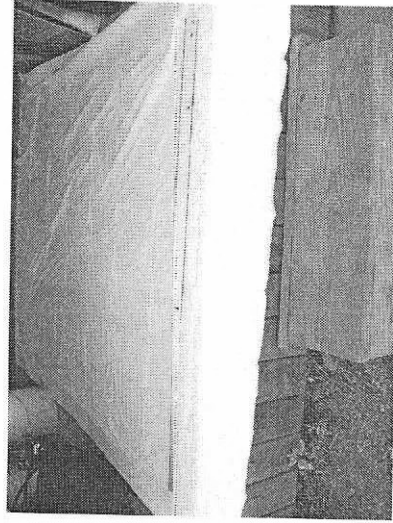
TAIL ARM



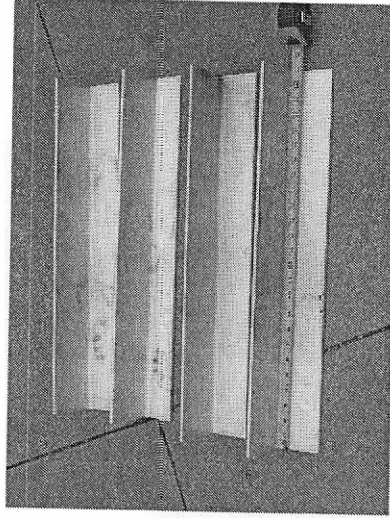
CROSS MEMBER



STARTER LEG



ROOF ADAPTOR BRACKET



AMERICAN EAGLE ROOF MOUNT ASSEMBLY & INSTRUCTION MANUAL

WARNING:

- > Always wear gloves, some parts are sharp.
- > Never attempt to work on a windmill during high winds.
- > Never climb a windmill, **Call Tech Support First**. Always use a sturdy ladder.
- > Stay away from a windmill during lightning storms.
- > Never install near electric wires.
- > Keep children away from windmills at all times.
- > Never step or stand on the platform, it is for decoration only.
- > Stay off the pond ice as it will be very thin and dangerous.

It is the owners responsibility to post the property with “**Danger Thin Ice**” signs. Before installing contact your insurance company and obtain vandal and storm coverage.

TIP: Do Not tighten any bolts & nuts until the entire wheel or tower is assembled. Tighten from the tower top to the base. A nail apron to sort bolts & nuts works great, bolts in one compartment, nuts in the other.

Do Not open all boxes at once. Only open as needed, parts look alike but are different dimensions.

WHEEL ASSEMBLY

- 1) First, to apply the stickers, wipe the blade tips with a cleaning solution (we use Windex) and apply the stickers to both sides. The tail can be done at this time also.
- 2) The same size bolts & nuts will be used to fasten most of this unit. Washers are only used on the Tail, Tail Strut, and on both sides of the Blades.
- 3) Place the wheel hub on a table, we use the roll of air hose or a 5 gallon pail as a platform. Attach the blade loosely so the blade sets inside the concave of the wheel support (They should rest in the cradle on the smooth side **NOT** the welded side) fasten loosely with 3 bolts & nuts. Also use washers on both sides of the blades where they attach to the wheel hub. Repeat all 12 blades.
- 4) Fasten all 12 outer ring supports loosely with bolts & nuts.
- 5) **TIP:** Tighten on a flat surface so the wheel is face down, tighten all the blades and the outer rings. ~~This will make~~ for a smooth operating wheel assembly.

TAIL ASSEMBLY

- 6) Assemble the 2 piece tail fins.
- 7) Attach the Tail Arm to the tail fins with the washer.
- 8) Tighten all. The tail will be attached to the compressor on site later.

TOWER ASSEMBLY

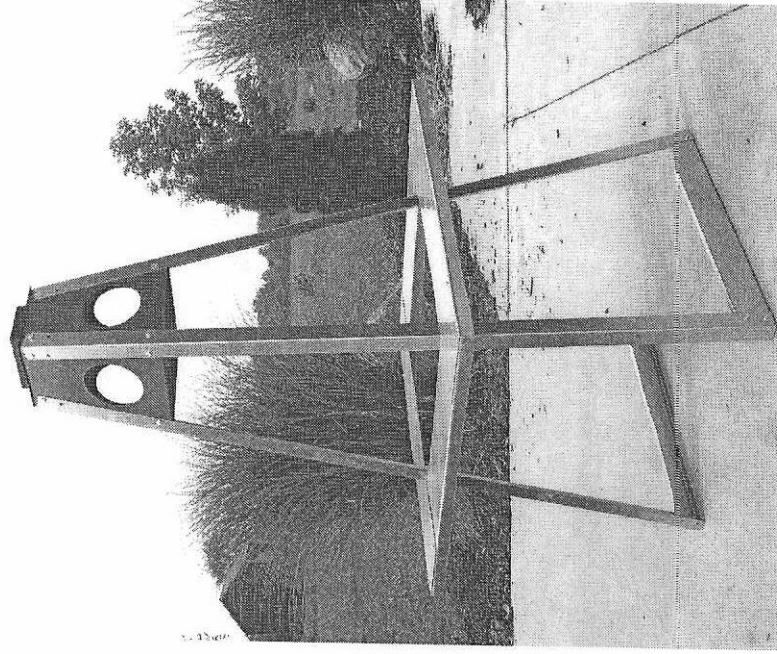
Note: Assemble on a flat surface.

- 9) Begin with the pre-assembled tower top (in the compressor box) Only open the tower box marked (0 - 8) & attach the 4 tower top legs (will have extra holes to accept the platform) attach the platform after the tower is completely assembled.
- 10) Attach cross members on bottom of 2 sides only. That way windmill can straddle peak.
- 11) Attach the platform and tighten.

TIP: It's a good idea to have someone else double check all bolts and nuts are tightened properly.

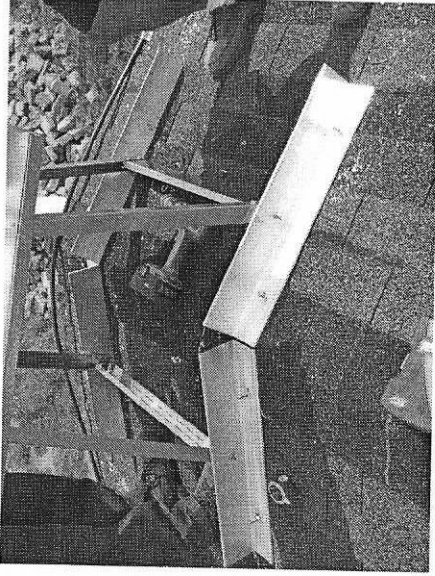
PLATFORM ASSEMBLY

Place the 2 sides with the 2 holes on the bottom inside edge facing each other. Place the 2 others on top of these and bolt together. Attach to tower after the tower is assembled.



ERECTING

- 12) Take the completed windmill up to the roof in sections, the tower, compressor, wheel hub and tail. You will assemble it on the roof.
- 13) Place the tower where you want it. If you can access your attic, we recommend you reinforce the roof where the adaptor brackets attach to the roof. We include carriage bolts for this. If you cannot access your attic area, there are other ways to attach the roof adaptor brackets.
- 14) Drill holes through the roof and adaptor brackets and put the carriage bolts through from the inside out. Secure with a nut.
- 15) Attach the tower to the roof adaptor brackets, making sure the tower is level.
NOTE: American Eagle Windmills cannot be held responsible for windmills not securely fastened to the roof.



- 16) Apply all purpose grease not included (we use Super Lube) in the tower pillar blocks and on the compressor pivot tube. Slide the compressor pivot tube into the tower pillar blocks all the way. Teflon tape the threads and screw the double check valve assembly on as tight as you can by hand only. Attach the tail. Apply grease in the wheel hub and on the compressor crankshaft. Slide the wheel on the shaft and install the 1" washer and hitch pin. Tighten the **2 allen screws** as tight as possible. See attached drawing.
- 17) Put a dab of grease on the hose barb and attach the air hose to the compressor. **DO NOT** clamp as the hose barb must rotate inside the hose to prevent kinking. Rotate the hose so it turns freely on the barb. *This will not leak yet allows the top to turn 360 degrees without kinking. A gentle curve in the hose from the barb to the tower will allow for ease in rotation.*
- 18) Zip tie the air hose to the tower leg.
- 19) Use a good sealant to seal around the roof adaptor brackets and the bolts.

TIP: When trenching from the structure to the water, we like to use 2" conduit or PVC pipe so if you ever need to replace the air hose you will not need to re-trench.

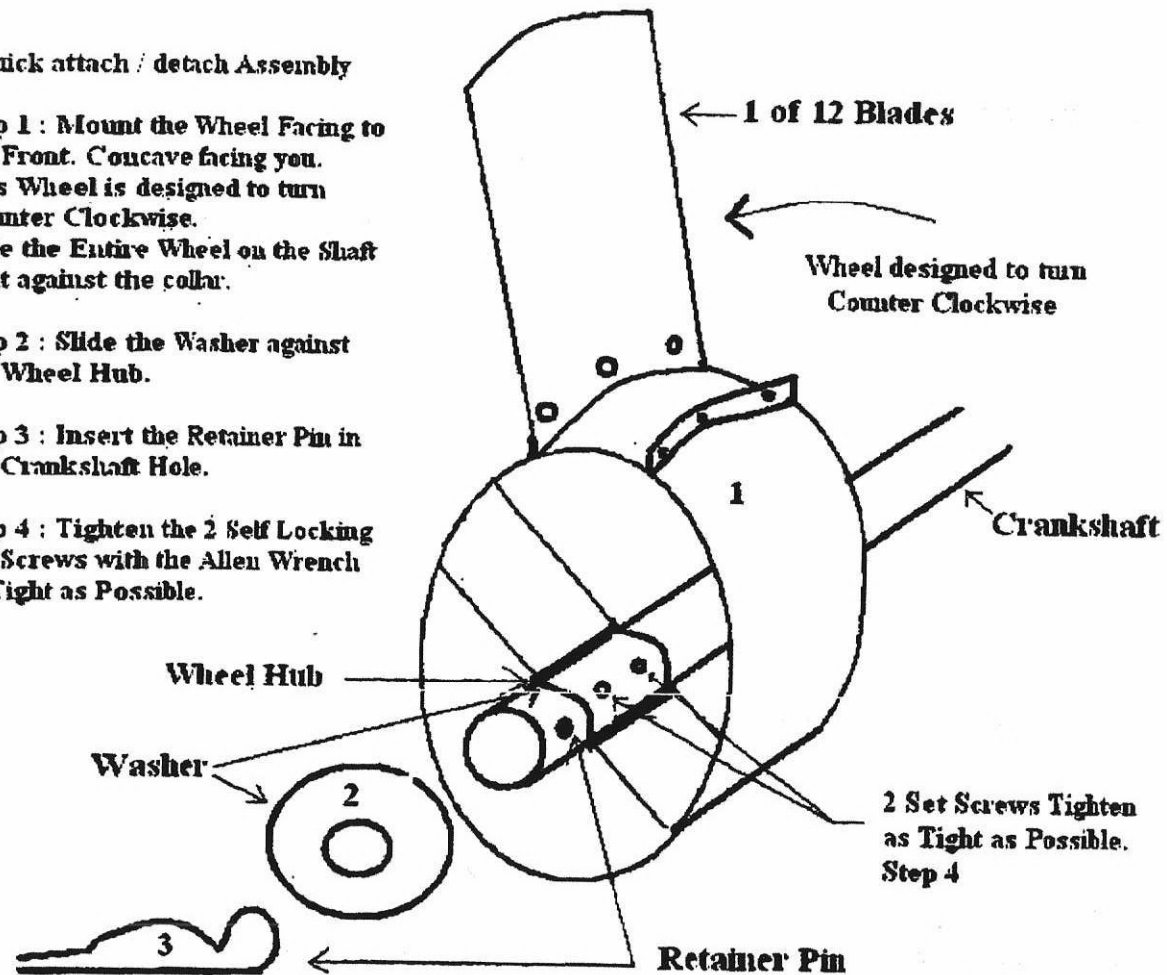
Quick attach / detach Assembly

Step 1 : Mount the Wheel Facing to the Front. Concave facing you. This Wheel is designed to turn Counter Clockwise. Slide the Entire Wheel on the Shaft tight against the collar.

Step 2 : Slide the Washer against the Wheel Hub.

Step 3 : Insert the Retainer Pin in the Crankshaft Hole.

Step 4 : Tighten the 2 Self Locking Set Screws with the Allen Wrench as Tight as Possible.



- 20) Trench the air hose from the structure to the water at least 3 to 5 inches deep. Make certain the air hose will go toward the pond on a downhill slope with **NO** dips, valleys or kinks.
- 21) If using self sinking hose, simply attach the air stone diffuser using the enclosed hose clamp. **TIP:** We like to attach a plastic rot proof twine with a bobber so the diffuser can be easily retrieved in the future.
- 22) If using floating hose you may want to tie weights about every 8 feet (we use ½ inch brick with holes). Use plastic twine and tape with electrical tape to prevent the brick from sliding. This makes a neat job and at the same time keeps the hose anchored at the bottom to eliminate any chance of condensation build up and possible icing and also will keep the hose out of the way of fish hooks, etc. **TIP:** If you have muskrats or beaver in the area, it is a good idea to install the air hose inside electricians flexible metal conduit to discourage the critters from chewing the hose.

INSTALLING AIR HOSE AND STONE

- 1) Here is how to get the air hose and stone to the deepest part of your pond with the use of a boat or even getting your feet wet. Lay the air hose along the bank of the pond as close to the water line as possible. Make sure there are **NO KINKS** as backpressure can ruin the diaphragm.
- 2) Thread the Air Stone Diffuser onto the Foot Connector (the white fitting) hand tight only. Do not use excess force or tools.
- 3) Fasten the Air Stone Diffuser to the end of the Air Hose and use the hose clamp included.
- 4) Every 8' to 10' tightly tie a ½ brick (with holes) to the air hose, where the hose will be submerged in the water. Use a good quality heavy-duty plastic twine so it will not decay. We use Plastic Baling Twine. Disregard this if you purchased self sinking hose or plan to thread the floating hose in ¾ inch metal electrical conduit. (Good muskrat or beaver chew proof guard. Can be bought at any Home Depot or Lowes, etc).
- 5) We recommend using a plastic 5 gal. bucket (not included) to hold the diffuser stone. First put stones, gravel, or pieces of brick in bottom of bucket for weight. Then put in the diffuser stone. Raise the bucket handle and tape the air hose to it. This keeps the bucket handle up...easier to locate in the future. Tie a plastic twine long enough to reach the opposite side of the pond to the handle of the bucket.
- 6) Walk to the opposite side of the pond and slowly pull the Air Diffuser to the deepest area of your pond. This will carry your Air Hose to the bottom of the pond making a neat job and protect against any severe weather, fish hooks, boats, etc. Let the Air Diffuser settle at the deepest part of the pond and tie the twine off at the shore or if you have a boat, cut the twine off about 2 feet longer than the pond water level when full and attach a fishing bobber for future easy access to the diffuser.

MAINTENANCE

Your American Eagle windmill is ready to go from the factory, pregreased and shouldn't need greased for about 3 years. The bearing are all enclosed inside the weather proof compressor and **NOT** exposed to the weather. Each bearing has a grease zerk fitting and should only be greased lightly with ½ squeeze of good quality multi grease. **DO NOT** over grease with an air grease gun as with most bearing the seals can be broken.

SER NO. _____

JOE MESCAN WINDMILL
(440) 236-3278
www.pondaeration.com