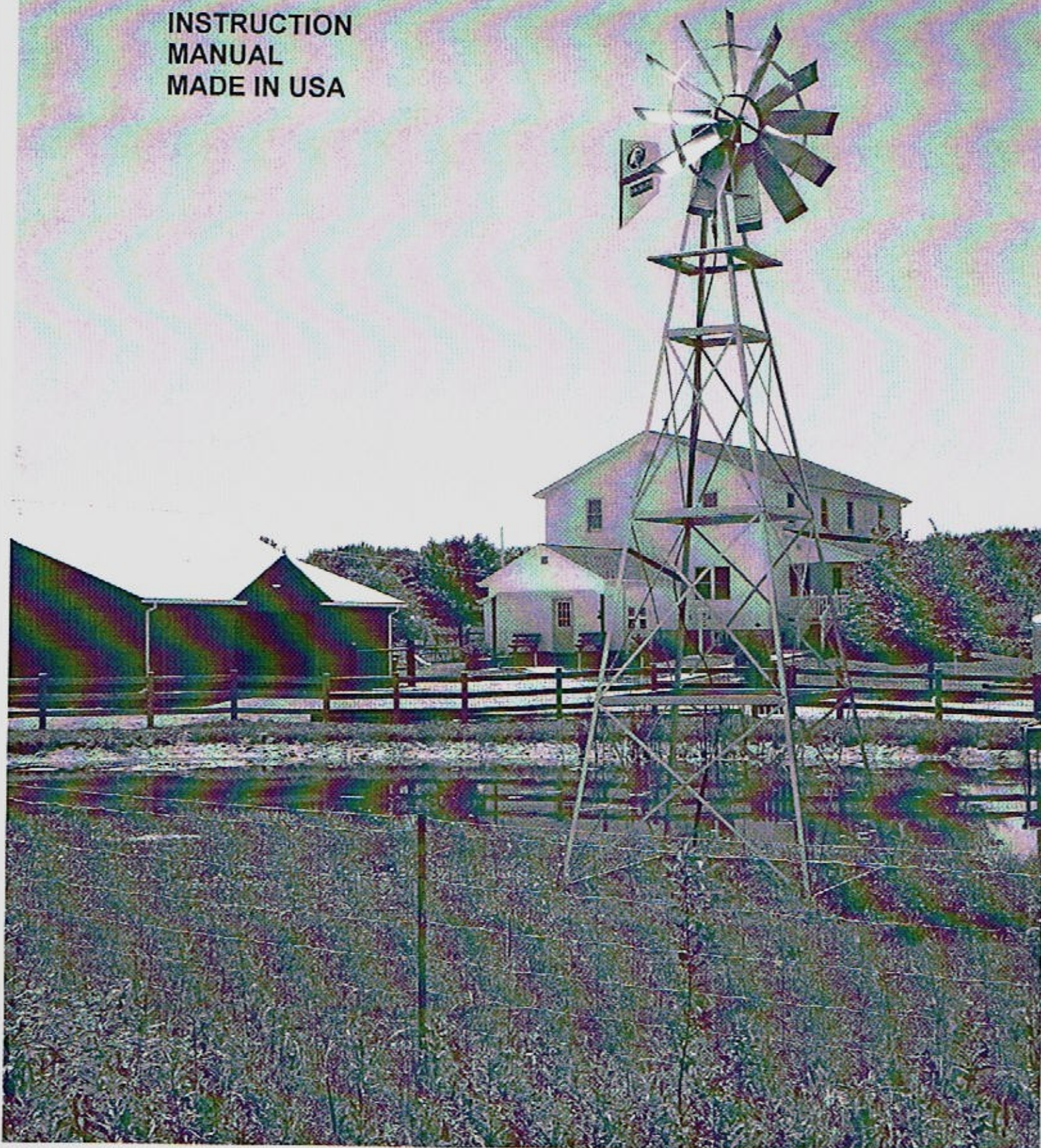
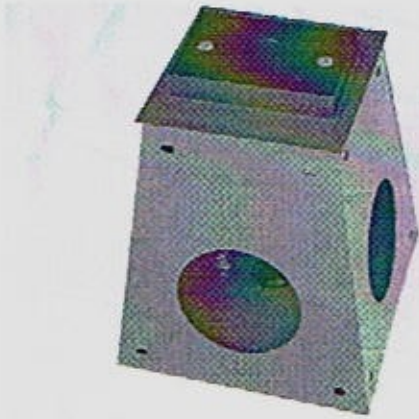


**AMERICAN EAGLE
WINDMILLS, LLC**

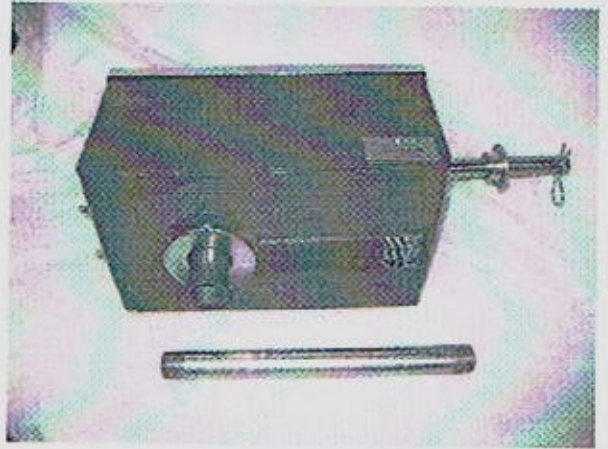
**INSTRUCTION
MANUAL
MADE IN USA**



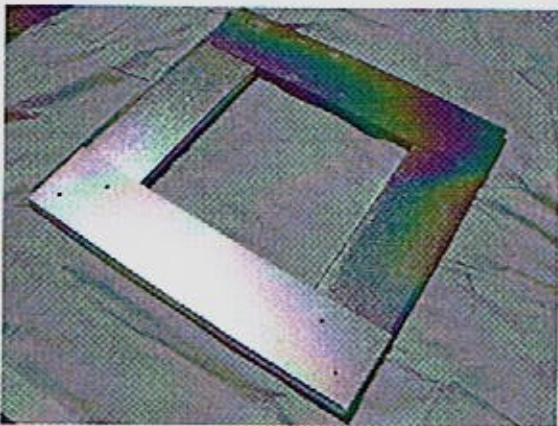
PRE-ASSEMBLED TOWER TOP



COMPRESSOR BOX & PIVOT TUBE



PLATFORM



WHEEL HUB



DOUBLE CHECK VALVE



BLADE SPACERS



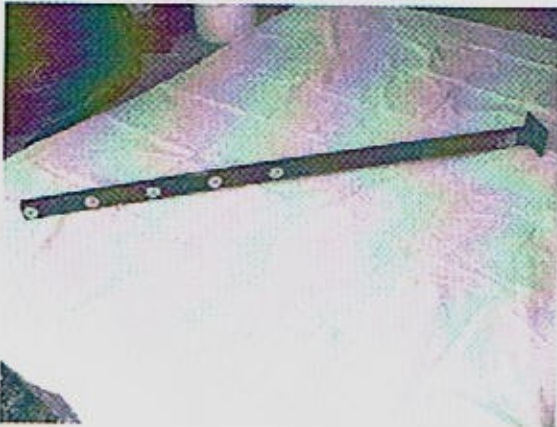
BLADES



TAIL FINS



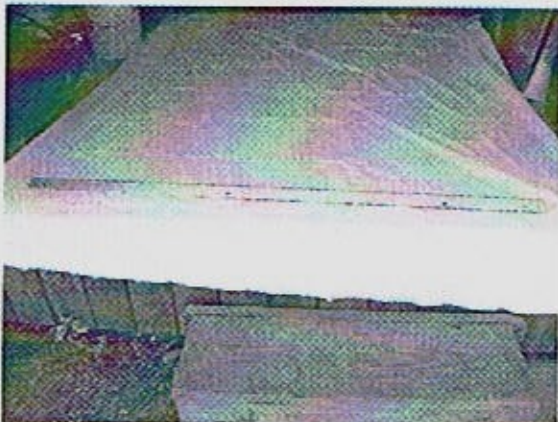
TAIL ARM



CROSS MEMBER



STARTER LEG



LEG



CROSS BRACES



TURNBUCKLE



STEEL RODS



FOOT CLAMPS



PACKAGING- TOWER

SECTION NO. 1 (0 - 8)

PACKAGING BOX, 4 - ANCHOR STAKES,
4 - C CHANNELS (20" LONG),
4 LEGS THAT HAVE THE EXTRA HOLES,
1 - TAIL ARM, 1 BAG 5 1/2-20 BOLTS, 5 - 1/2" NUTS & 5-1 1/2" WASHERS
1 BAG 32 - 1/4 X 3/4" BOLTS AND 32 -1/4" NUTS, 40 - WASHERS.

SECTION NO. 2 (8 - 13)

PACKAGING BOX, 4 LEGS,
4 - C CHANNELS (33-3/8" LONG)
4 - STRAPS (39-1/4" LONG)
4 - STRAPS (32-3/4" LONG)
8 - STRAPS (23-1/2" LONG)
1 BAG 24 - 1/4 X 3/4" BOLTS AND 24 - 1/4" NUTS
1 BAG 4 TURNBUCKLES AND 8 - WASHERS.

SECTION NO. 3 (13 - 18)

PACKAGING BOX, 4 LEGS,
4 - C CHANNELS (46-3/4" LONG)
4 - STRAPS (40-1/8" LONG)
4 - STRAPS (33-5/8" LONG)
8 - STRAPS (29-1/8" LONG)
1 BAG 24 - 1/4 X 3/4" BOLTS AND 24 - 1/4" NUTS
1 BAG 4 TURNBUCKLES AND 8 - WASHERS.

SECTION NO. 4 (18 - 23)

PACKAGING BOX, 4 LEGS
4 - C CHANNELS (60-1/4" LONG)
4 - STRAPS (43-5/8" LONG)
4 - STRAPS (37-1/8" LONG)
8 - STRAPS (34-1/4" LONG)
1 BAG 24 - 1/4 X 3/4" BOLTS AND 24 - 1/4" NUTS
1 BAG 4 TURNBUCKLES AND 8 - WASHERS

SECTION NO. 5 (23 - 28)

PACKAGING BOX, 4 LEGS
4 C CHANNELS (73-1/2" LONG)
4 - STRAPS (47-7/8" LONG)
4 - STRAPS (41-3/8" LONG)
8 - STRAPS (39-1/2" LONG)
1 BAG 24 1/2 X 3/4" BOLTS AND 24 - 1/2" NUTS
1 BAG 4 TURNBUCKLES AND 8 - WASHERS

SECTION NO. 6 (28 - 33)

PACKAGING BOX, 4 LEGS
4 C CHANNELS (87" LONG)
4 - STRAPS (52-7/8" LONG)
4 - STRAPS (46-3/8" LONG)
8 - STRAPS (45-1/8" LONG)
1 BAG 24 1/2 X 3/4" BOLTS AND 24 - 1/2" NUTS
1 BAG 4 TURNBUCKLES AND 8 - WASHERS

AMERICAN EAGLE 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.
- Be sure to have at least 6 strong people when erecting.
- Anchor properly using anchor rods in heavy soil.
- **Drill post holes and pour the steel rods in concrete in medium & soft soil.**
- Stay off the pond ice as it will be very thin and dangerous.
- **If cattle or horses are in area around windmill, put a fence around the windmill to keep them from damaging it, as this may void your warranty.**

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. Last thing to tighten on the tower is turn buckles. Tighten evenly till the X braces are taunt. **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 Turn Buckles, Tail, Tail Strut, Foot Clamps and on the Blades by putting one next to the bolt head and the other next to the nut after you put the bolt thru the hole.
- 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 bolts, washer & nut. (The washer & nut are used on the fins side of the tail arm.)
- 8) Tighten all. The tail will be attached to the compressor on site later.

TOWER ASSEMBLY

Note: Assemble on a flat surface. Some hardware may be tucked in between the C Channel.

- 9) Begin with the pre-assembled tower top. Only open the tower box marked (0 - 8) & attach the 4 tower top legs. Use washers on inside & outside of Tower Starter. Tower Legs will have extra holes to accept the platform. Attach the platform after the tower is completely assembled.
- 10) Open the tower box marked (8 - 13) and assemble the cross braces by joining all 4 pieces with a bolt and nut. Always remember a set of cross braces will consist of 2 short, 1 medium and 1 long. See the dimensions on the Packaging Tower page.
- 11) Attach a turnbuckle to the medium cross brace, this will equal the length of the long brace. **TIP:** You may need to open the turnbuckles all the way to obtain the proper length.
- 12) At the same time attach the cross member (horizontal) and short end of the cross brace to the bottom hole of the tower leg. Do the same with the other short X brace to the other side. Now attach the lower cross member to the top hole of the lower horizontal member and leg.
- 13) Attach the turnbuckle using a washer. Always keep the turnbuckle at the lower right.
- 14) Repeat for all 4 sides and continue for all sections. 13 - 18 & 18 - 23 if purchased.
- 15) Attach the foot clamps to all 4 legs at the tower base.
- 16) Tighten the entire tower starting at the top working out to the base.
- 17) Tighten all turnbuckles evenly on each section until the X braces are taunt.

Note: See platform assembly directions, next page.

- 18) 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. Put the washers on both sides of the slotted holes when you fasten the platform to the tower.

ERECTING

Warning: If you have medium or soft soil it is highly recommended you pour the rods in concrete or pour a concrete pad with ample anchor bolts. Most windmills that topple are because they were not anchored properly.

- 19) Take the entire windmill (tower, wheel & compressor) to the site and elevate the tower on a saw horse. **TIP:** use a 2 X 4 or brick at each leg to keep the base from touching the ground. The windmill can be completely supported by the steel rods.
- 20) Apply all purpose grease not included (we use Super Lube) in the tower pillar blocks and on the compressor pivot tube. Also grease the large washer that slides over the pivot tube. Teflon tape the threads and screw the double check valve assembly on tightly. Attach the tail. Rest the tail on another saw horse. Apply **anti-seize** 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 on flat spot of shaft.** See attached drawing.
- 21) 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.
- 22) Zip tie the air hose to the tower leg at every section.
- 23) If you are using 2 stones and have a 2-way valve, make the connection at this time. Zip tie the 2- way valve to the tower horizontal member. Holes must be drilled at the location you choose on the horizontal member.
- 24) Always have at least 6 people to erect as this can be dangerous especially if there is not enough man power to hoist the unit. Only erect during calm wind conditions. **We strongly recommend that you use equipment to erect the 28' and 33' models.**
- 25) Have 2 people position at the base of the windmill and the other 4 walk the windmill up slowly. Have at least 2 people hold the windmill in place until all 4 leg clamps have been leveled and tightened. Use the brick or 2 X 4 to keep the base off the ground.
- 26) Using a post driver pound the 4 steel rods into the ground. Level the tower on the horizontal members. Drive the rest of the rods in with a sledge hammer most of the way. Only an inch or two of the rods should be above the foot clamps.
- 27) Tighten all the bolts with washers on both sides on all the foot clamps.

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

- 28) Trench the air hose from the tower 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.
- 29) 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.

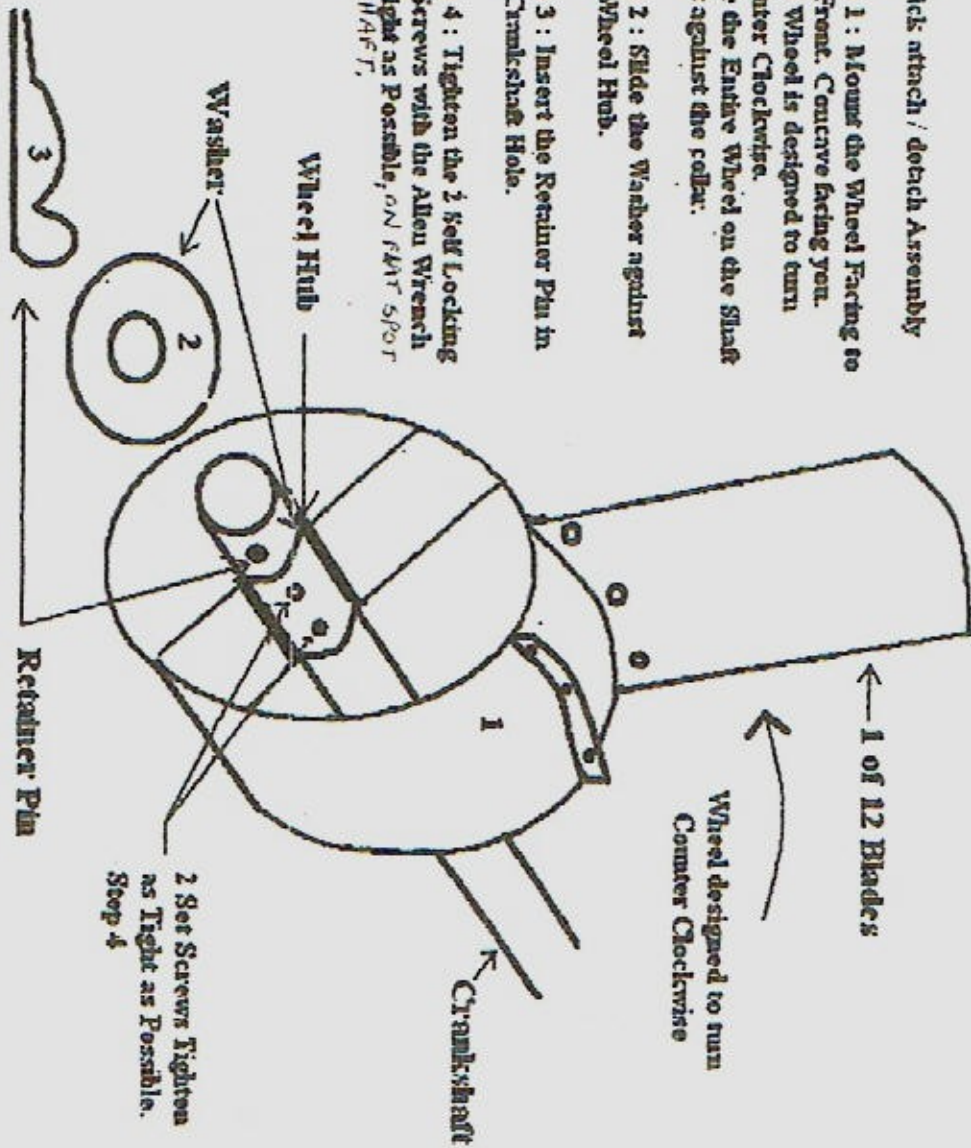
Quick attach / detach Assembly

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, ON PART SPOT OF SHAFT.



30) If using floating hose you may want to tie weights about every 8 feet (we use ½ brick with holes). Use plastic twine and tape with electric tape to prevent all 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 in side 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 without 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 hose clamp (not included). Fasten the other end of the hose to the Y-Valve.
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 ¼ 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 diffuser stone. First put stones, gravel or pieces of brick in bottom of bucket for weight. Then put in diffuser stone. Raise 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 protecting against any severe weather, fish hooks, boats, etc. Let the Air Diffuser settle at the bottom 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 is ready to go from the factory, pregreased, and **shouldn't need greased for about 5 years.** The bearings 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 1/2 squeeze of good quality multi purpose grease **after 5 years. DO NOT OVER GREASE WITH AN AIR GREASE GUN AS WITH MOST BEARINGS THE SEALS CAN BE BROKEN. IF THE SEALS ARE BROKEN FROM OVERGREASING, THIS WILL VOID YOUR WARRANTY ON THE BEARINGS.**

You American Eagle Windmill comes with a 5 year manufacturers warranty on the bellow and Joe Mescan's custom made high quality floating & sinking UV air hose.

A 4 year warranty on foot valves.

A 3 year warranty on the compressor double check valves.

A 2 year manufacturers warranty on the compressor, crankshaft, bearings, tower, wheel tail & blades.

A 1 year Joe Mescan warranty on the air stone diffuser, assembly, installation, promotional & compare DVD video.

SER NO. _____

**AMERICAN EAGLE WINDMILLS, LLC
DISTRIBUTED BY;
JOE MESCAN WINDMILL & SUPPLY
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COLUMBIA STATION, OH 44028
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