

## Installation Instructions for the OWS Windmill Tower Hinges

OWS Windmill Tower Hinges allow you to lay the windmill down for repairs or regular maintenance. Some customers may also choose to lay their windmills down if they are in a Hurricane zone along the coast and expect extremely high winds. Once your windmill has been assembled, you can install the windmill tower hinges.

- 1) Lay the tower down on it's side in the location where it will be installed.
- 2) Insert the hinge bolt into the two piece pivot hinge. Do not completely tighten the upper hinge bolt yet. (See Figure 1).
- 3) Place each ground stake rod in line with the stake clamps on the bottom of the tower that are going to accept the tower hinges and pound the ground stake rod into pre – dug post holes 10” - 12” in diameter 3' deep leaving 4-5 inches of the ground stake rod above the ground.
- 4) Slide the hinge plate onto the ground stake rod and install the two lower clamp bolts. **Note: You will have to use a hacksaw and cut the top 1 ½” to 2” off of the ground stake rod for mounting.**
- 5) Stand the windmill up and insert the hinge post into the bottom of the stake clamp bracket and install the 6 bolts with nuts on each. Be sure to level the base of the windmill using wood blocks or bricks **NOTE: It's easier to do this if you do not have the windmill head on.**
- 6) Tighten the 6 stake clamp bolts securely onto the hinge post.
- 7) Fill the pre – dug post holes with concrete to secure the ground stakes with the hinges.
- 8) Lower windmill tower down onto a sawhorse and install the head. After the concrete has set raise the entire windmill tower up using the hinge system. **Note: It is recommended that you have a minimum of three people erecting the tower.**
- 9) Place the third ground stake into the remaining stake clamp and pre – dug post hole and fill with concrete.
- 10) Install the 6 bolts on the last ground stake rod. Do not tighten yet.
- 11) Level the windmill using a level. You can adjust the height of each leg by raising or lowering the hinge plates or in the case of the third leg (the stake clamp bracket).
- 12) Once level, **securely tighten** all bolts including the upper hinge bolts on each hinge plate. All bolts should be very tight to prevent the windmill from raising up in high winds.
- 13) **IMPORTANT RECOMMENDATION:** Drill a hole thru the stake clamp bracket and hinge post and install another bolt and nut as a preventative measure to prevent the windmill from raising up on the hinge post. (These bolts are not included. Suggested size 1/4” X 1-1/2” or 5/16” X 1-1/2”)

### Pictures

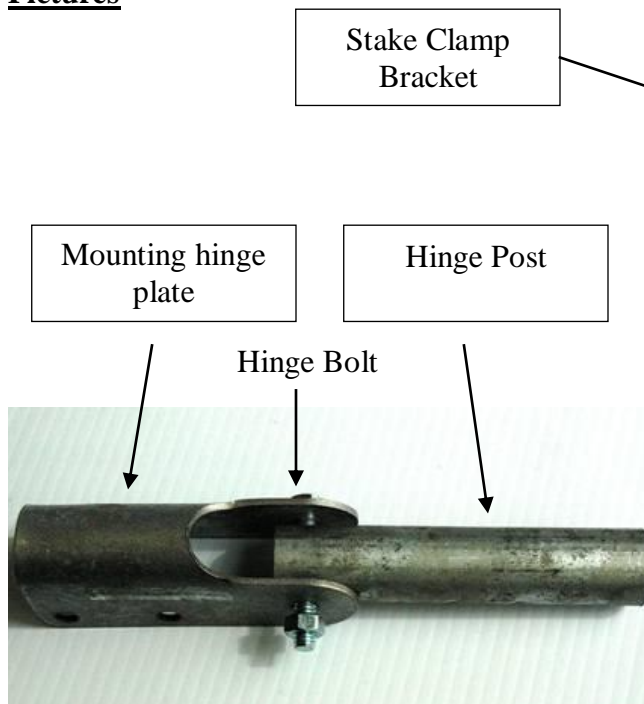


Figure 1 (Hinge Assembly)

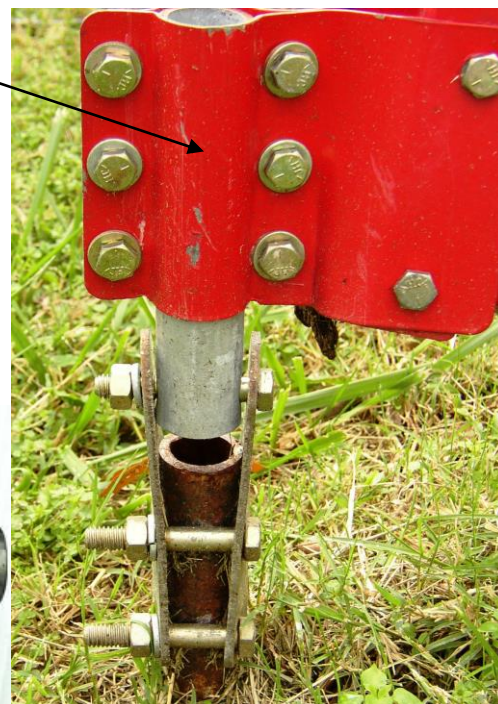


Figure 2 (Final Assembly)