

Installing the Alternator Assembly On the Aermotor Tower

Note: The following are some recommended modifications and/or additions to the tower assembly.

1. On the mast pipe base, cut a $\frac{3}{4}$ " NPT thread to allow a Liquid Tight metallic conduit fitting to be installed.
2. Install an electrical junction box on the tower just below the platform with at least one $\frac{3}{4}$ " Liquid Tight fitting.
3. Install rigid or flexible metallic electrical conduit from ground level up to the junction box.

On the Ground

1. The Alternator comes preinstalled to the mounting frame and ready to begin installation.
2. Lift the mounting frame off the ground to provide clearance for the wheel assembly installation.
3. Lubricate the wheel assembly drive shaft with bearing grease or nickel anti-seize.
4. Slide the wheel assembly shaft into the PMA drive shaft. The wheel shaft should slide fully into the PMA drive shaft and stop against the internal upset in the PMA drive shaft bore.
5. The wheel shaft should protrude from the rear of the PMA shaft exposing a ring groove and the end of the shaft. **(See separate Ring Groove Instructions)** Install the appropriate sized washer provided onto the shaft and then install the Smalley SpiraLok ring which is provided into the ring groove. This will secure the wheel assembly into the PMA.
6. Install the linear actuator motor end bracket to the mounting frame rear bracket.
7. Install the tailbone assembly to the rear mounting bracket by sliding the tailbone pivot bolt into the vertical holes in the top and bottom brackets. Then lifting the tailbone into place, install the bottom tailbone arm to the pivot bolt first and then push the upper tailbone arm on the pivot bolt on top of the upper bracket. Install the washer and nut to the tailbone pivot bolt first, then aligning the mounting hole on the lower tailbone arm with the hole at the bottom of the pivot bolt install the bolt and nut provided into the tailbone and pivot bolt holes to complete the installation of the tailbone.

8. Attach the linear actuator extension arm bracket to the tailbone bracket with the pin assembly provided. **(See separate instruction on the tailbone bracket installation)**
9. Attach the linear actuator power and control wires to the remote control box and place the control box into the mounting tray which is under the middle plate of the mounting frame.
10. Attach hoisting device to the eyebolt on top of the mounting frame and lift into place.

Installing Assembly on Tower

11. Prior to lifting the assembly, grease mast pipe shaft with bearing grease and make sure the turntable washers are installed on the mast pipe base. A grease fitting is installed on the mounting frame mast pipe to allow the mast pipe to be greased as part of routine maintenance.
12. Lift the PMA assembly above the tower and slowly lower the assembly onto the mast pipe.
13. Once seated on the mast pipe, install the slip ring assembly to the top of the mast pipe. This is completed by threading the slip ring wiring loom through the top of the mast pipe and through the center of the mast pipe base. Once the wiring loom is run through the mast pipe the slip ring cup can be threaded into the top of the mast pipe.
14. Install the appropriate electrical terminals provided to the PMA power wires, linear actuator wires and the temperature sense wires.
15. Slide the slip ring boot and bushing over the PMA power wires, linear actuator wires and the temperature sense wires. **(The small end of the slip ring boot will need to be trimmed to allow the wires to be fed through to the slip ring)**
16. Connect the PMA power wires, linear actuator power wires and the temperature sense wires to the appropriate terminals on the slip ring per the drawing provided.
17. Slide the bushing and boot on the slip ring.
18. Install the mounting frame top cover.
19. Install a ¾" Liquid Tight metallic conduit fitting into the modified mast pipe base and the tower mounted junction box.
20. Pull the PMA wiring loom through the appropriate length of ¾" metallic flexible conduit and install the conduit at both ends into the Liquid Tight fittings.

Now you are ready to complete the electrical installation