## **ASSEMBLY INSTRUCTIONS**

- 1. Assemble the three Hopper Sections around the Main Shaft using 5/16" bolts with the three Hangar Hooks and the nuts on the outside of the hopper. Use the short 1/4" bolts in the small top and bottom holes of the overlapped sections with the nuts on the outside of the hopper. During assembly, engage all nuts finger-tight, and then tighten last.
- 2. When assembling the bottom cone, first note that each Conical Section has a long straight edge with it's corner bent up and a shorter straight edge. Now fit the groove of the Drylon Bearing into the cut-out of the apex of one of the Conical Sections. Place the other Section into the bearing groove such that the shorter edge of each section overlaps the longer edge of the other section, being careful not to damage the bearing. Place punches in the top holes of the overlapped sections to hold the bearing in place while bolting the lower small holes using short 1/4" bolts with the nuts on the inside of the cons. Check to make sure that the short edge laps on top of the long one when viewed from outside the oval cone!
- 3. With long 1/4" bolts, loosely attach the bent ends of the Spiral vanes to the top holes, replacing the punches. Fasten the straight ends of the vanes on the insides of the opposite bent up corner of the assembly, with the nuts on the outside.
- 4. Install the red V-shaped Bearing Bracket on the inside of the bottom cone; squaeze in the sides of the cone slightly to an oval shape to facilitate alignment of the pairs of 5/16 holes in the conical section's overlapped edges with the bracket. Use 5/16" bolts with the nuis on the inside. Do not bend the Bearing Bracket. Now attach the vane hold-down clips to the cone sections through the holes provided.
- 5. Remove the thread protector from the Main Shaft and insert the threaded end through the Drylon Bearing and into the threaded Bearing Housing, tighten securely.
- Tighten all boits securely and check for freedom of rotation of the bottom cone. No lubrication is required.

