

15. Undercarriage Glue-up:

PREPARATION:

Before starting the undercarriage glue-up get some items at hand so the glue-up once started can go fast. Getting ready is a bigger job than the glue-up.

- A gallon of tap water in a bowl
 - A cotton rag in the water
 - A disposable glue brush
 - Coping saw
 - 3/8 chisel
 - Steel hammer
 - Rubber hammer
 - Waterbase glue like Titebond III
 - Dirty Apron
1. Make 6 wedges 3/8 wide and 4 wedges about 5/8 wide (measure the leg holes on the top surface of the seat
 2. Assemble the entire undercarriage in its final position
 3. Saw off the excess length of the through 3/8 tenons leaving about 3/16 exposed.
 4. Mark around the legs at the bottom of the seat with a red pencil and around the top of the seat with a green pencil. On the top of the seat, also mark the locations (front and back) of the wedge slots perpendicular to the seat grain.
 5. Take the legs to the band saw and cut off the extra length about 1/8 beyond the GREEN line.
 6. Cut the wedge slots where marked stopping just short of the RED line.

The glue up can be accomplished in three parts with a cleanup and rest at the end of each part. The first part is gluing the stretcher/rear-legs combination to the seat, followed by a cleanup. Then one front-leg/rocker can be glued in place followed by another cleanup. Then the final front-leg/rocker can be glued in place followed by a final cleanup.

PART 1:

1. Here we go! Paint glue on the back leg glue areas. The stretcher, and the rear seat leg holes and pound them in place. I draw up the stretcher with a cushioned pipe clamp just once then remove the clamp.
2. Put the chair on its side supported near the stretcher and split the end of the stretcher with the chisel to start a 3/8 wedge. Paint some glue on the wedge and drive it home with the steel hammer. Flip and repeat for the other end of the stretcher.

3. Support the seat on the rear legs, glue and pound home the 9/19 wedges into the top of the rear legs.
4. Wring out the wet rag and cleanup the glue on the bottom of the seat and around the stretcher joints. Keep wiping and rinsing until there is no trace of glue. Half done – take a breather.

PART 2:

1. Paint glue on the front and back leg, the rocker holes, and the front seat leg hole (one side only).
2. Put the front legs into the rocker hole and then put the front leg in the seat as the back leg goes into the rocker. Before pounding things home, turn the front leg to its rotation mark, then look at the seat top and make a small rotation adjustment to get the wedge slot perpendicular to the seat grain.
3. Now pound and put in all the wedges.
4. Do one side, cleanup, breath, and repeat for the other side.
5. Change water and one last cleanup.

