1. Mark the dummy engine casing (part #EC-2) 2-1/2" from one end. Spread a 1/4" wide band of glue around the inside of the body tube (part #ST-205) about 2-1/2" in from one end. Insert the engine block (part #EB-20A) into this end. Push the engine block into place with the dummy casing until the mark on the casing is even with the end of the body tube. Remove the dummy casing at once.

2. Cut out the body tube marking guide and wrap it around the body tube at the same end as the engine block. Mark the tube at each of the arrow points. Remove the guide and draw a straight line passing over each matching front and rear mark. Draw the launch lug line so it reaches approximately 5" from the end of the tube.

3. Cut out the fin pattern and trace three outlines onto the balsa fin stock sheet exactly as shown. Cut out the fins carefully with a sharp knife and sand the edges as illustrated.

4. Run a line of glue along the root edge of each fin. As you apply the glue to each fin, set it on the edge of the tab or other support, as shown. Let the glue on all three fins thicken for half a minute. Stick one of the fins onto the rear of the body tube so it is centered over one of the positioning lines. Make sure that it projects straight out from the body tube. Let the glue set for a moment and then attach the next two fins in the same manner. Support the rocket in a vertical position while the glue dries.

5. Glue the launch lug to the body tube on the launch lug line so the rear of the lug is even with the front of the fins. Sight along the tube to check the alignment of the lug so it runs exactly parallel to the body tube.

6. Cut out the shock cord mount from the pattern sheet and pre-fold it on the dotted line. Apply glue to section 1 and lay the shock cord end into the glue. Fold this first section over. Spread glue over the back of the first section and the exposed part of section 2. Lay the shock cord as shown and fold over again. Clamp the unit together with your fingers until the glue sets.

7. Apply glue to the inside of the body tube at the front (the end opposite the fins) over an area about 1" to 1-3/4" from the end. The glued area should be the same size as the shock cord mount. Press the mount into the glue and hold it until the glue sets.

8. When the first glue on the fins and launching lug has become hard, apply a line of glue (fillet) to each of the fin-body joints and to the launching lug as shown. These fillets should be smooth and bubble-free. Support the rocket horizontally while glue is drying.

9. Insert the screw eye (part #SE-2) into the base of the nose cone (part #BNC-20AM). Remove the screw eye and squirt a small amount of glue into the hole. Replace the screw eye.

10. After the glue on the rocket has dried enough so it can be safely handled, tie the free end of the shock cord to the screw eye. Cut a 50" length of streamer material (part #SM-2C). Then, lay the middle of the shock cord across the middle of the streamer and secure it with the tape disk (part #TD-1).

11. Before finishing, let all the glue on the outside of the rocket dry so that it is hard and clear. Cover all balsa surfaces with a coat of sanding sealer. Let it dry completely and sand lightly with extra fine sandpaper. Apply a second coat, let dry, sand again, apply a third coat and repeat the process until the pores in the balsa are filled and the surface looks and feels quite smooth. Give the rocket a clean base coat of gloss white paint or dope. When dry, sand lightly. Repeat if the finish appears unsatisfactory. Then follow with the colors or colors of your choice.

12. Cut out the selected decals from the decal sheet (part #KD-45). To transfer, dip the decal in lukewarm water for about 30 seconds or until it slides easily on the backing paper. Slide the decal off the paper onto the desired surface and blot dry carefully. Allow the decals to dry for about 24 hours.
LEADING EDGE

GRAIN

ROOT EDGE

SHOCK CORD MOUNT
SEC. 3
SEC. 2
SEC. 1

ASTRON STINGER
PATTERN SHEET SP-53

ESTES
A SUBSIDIARY OF DAMON