

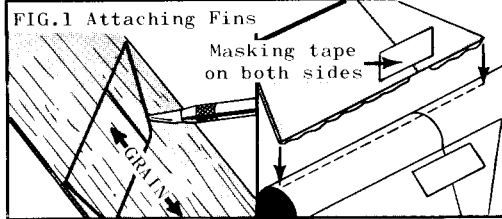
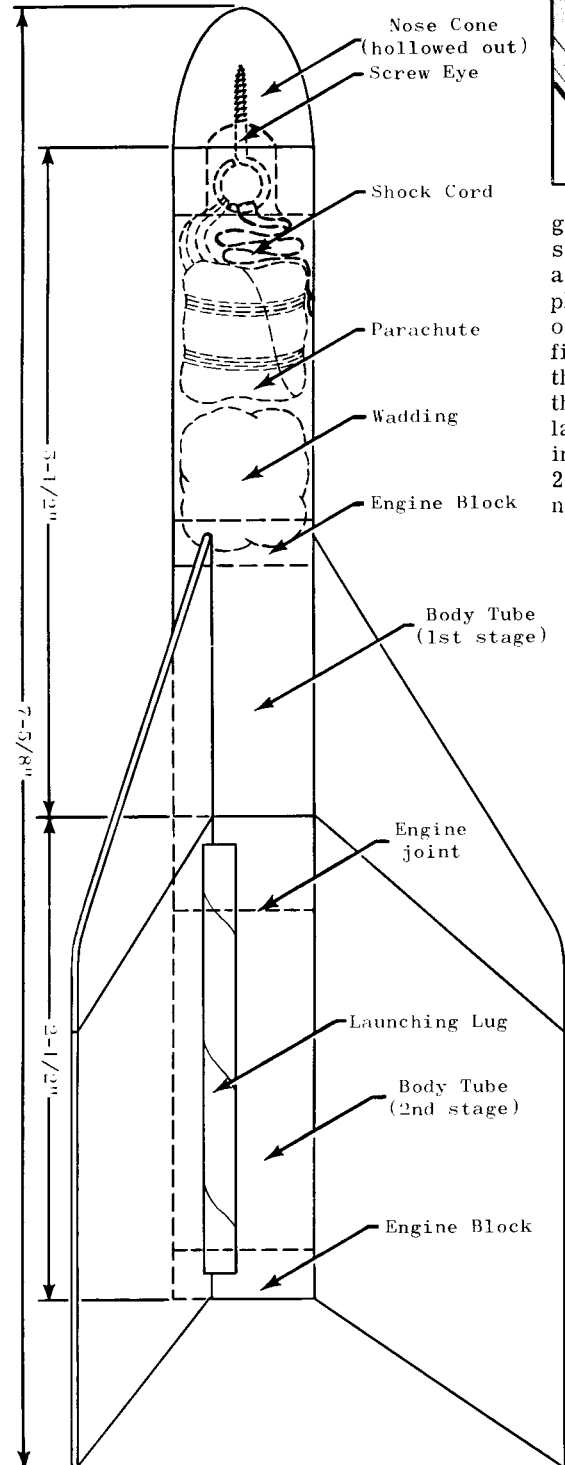
Estes Industries Rocket Plan No. 18

MMSV-II

2-Stage Altitude Rocket

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Apply glue to the last 1/4" of the inside of the 2-1/2" long lower stage body tube. Slide the engine block into the tube until the end of the block is even with the end of the tube. Let the glue dry. Wrap a layer of cellophane tape tightly around the joint of two Series III engines and slide them into the lower stage. Using your little finger or a brush, smear glue around the inside of the 3-1/2" long upper stage body tube to cover an area 1/4" long 1-1/4" from the end of the body tube. Insert an engine block into the body tube and use the taped engines and the lower stage body to slide the block into position. Remove the engines immediately.



Tape the upper and lower stage fins together. Insert the taped engines into the two stages. They will hold the body tubes together and insure proper positioning of the fins. Apply glue to the fins except for an area 1/4" on either side of the stage joint and attach the fins to the rocket. Separate the stages after the glue has dried and run a glue fillet along the fin-body joints on each stage. Glue the launching lug in place as shown on the drawing. Attach the shock cord as shown in Fig. 2. Follow procedures described in Technical Report TR-2 for launching.

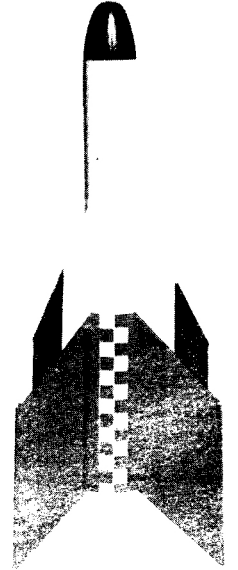
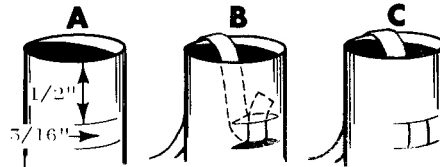


FIG. 2 Shock Cord Installation



- Cut two slits 5/16" apart in the forward end of the upper stage body tube.
- Press in the section between the slits and thread the shock cord through the opening.
- Push the caved-in portion outward and seal with glue.

Recommended Engines

Upper Stage
1/4A. 8-4S
1/2A. 8-4S

Lower Stage
1/4A. 8-0S
1/2A. 8-0S
(Use 1/4A engines for first flights.)

PARTS LIST

- 1 Nose Cone #BNC-20A
- 1 Screw Eye #SE-1
- 1 Shock Cord #SC-1
- 1 Parachute #PK-12
- 1 Body Tube #BT-20J
- 1 Body Tube #BT-20G
- 2 Engine Blocks #EB-20A
- 1 Launching Lug #LL-1B
- Balsa Fin Stock #BFS-20

