

# DESIGN PAGE

## FINLESS ROCKET

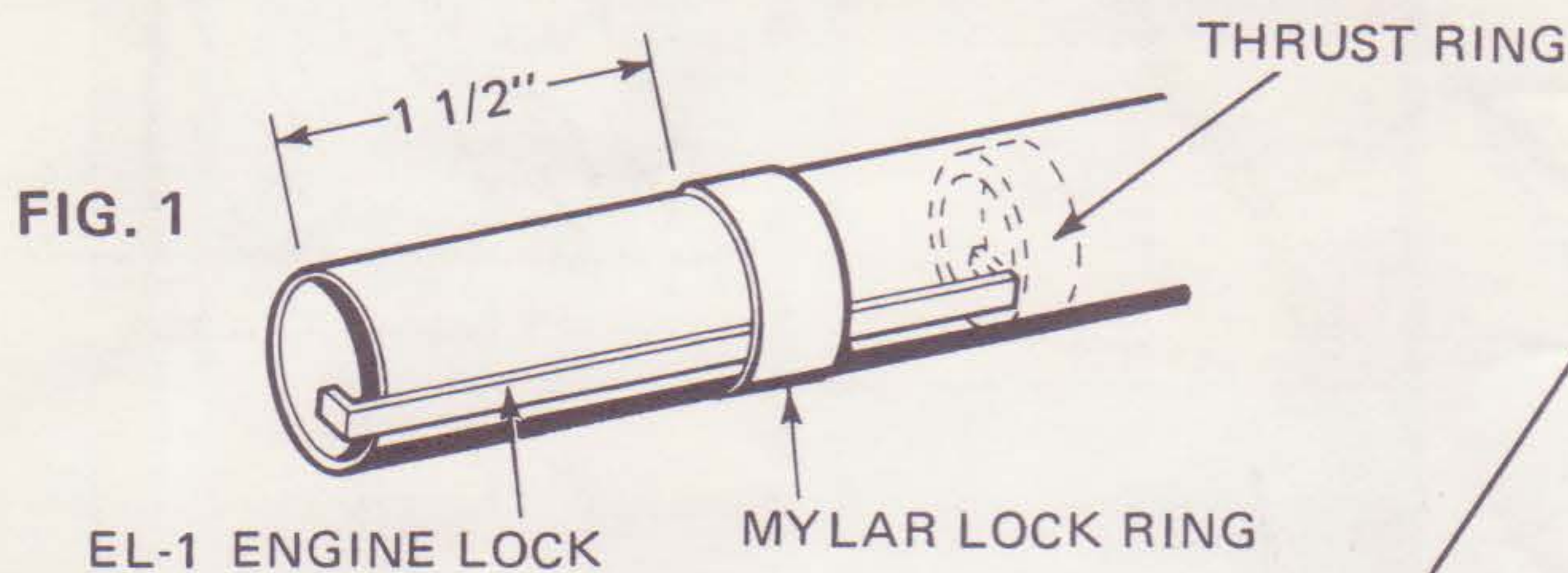
**FINLESS ROCKET:** An unusual design that is sure to draw interest on the launch pad, the finless rocket demonstrates that stability can be obtained thru use of shapes other than usual fin design. The tail fairings on Centuri's Saturn 5 work in exactly the same way, helping to give stability without the need for greatly oversized fins.

### PARTS LIST

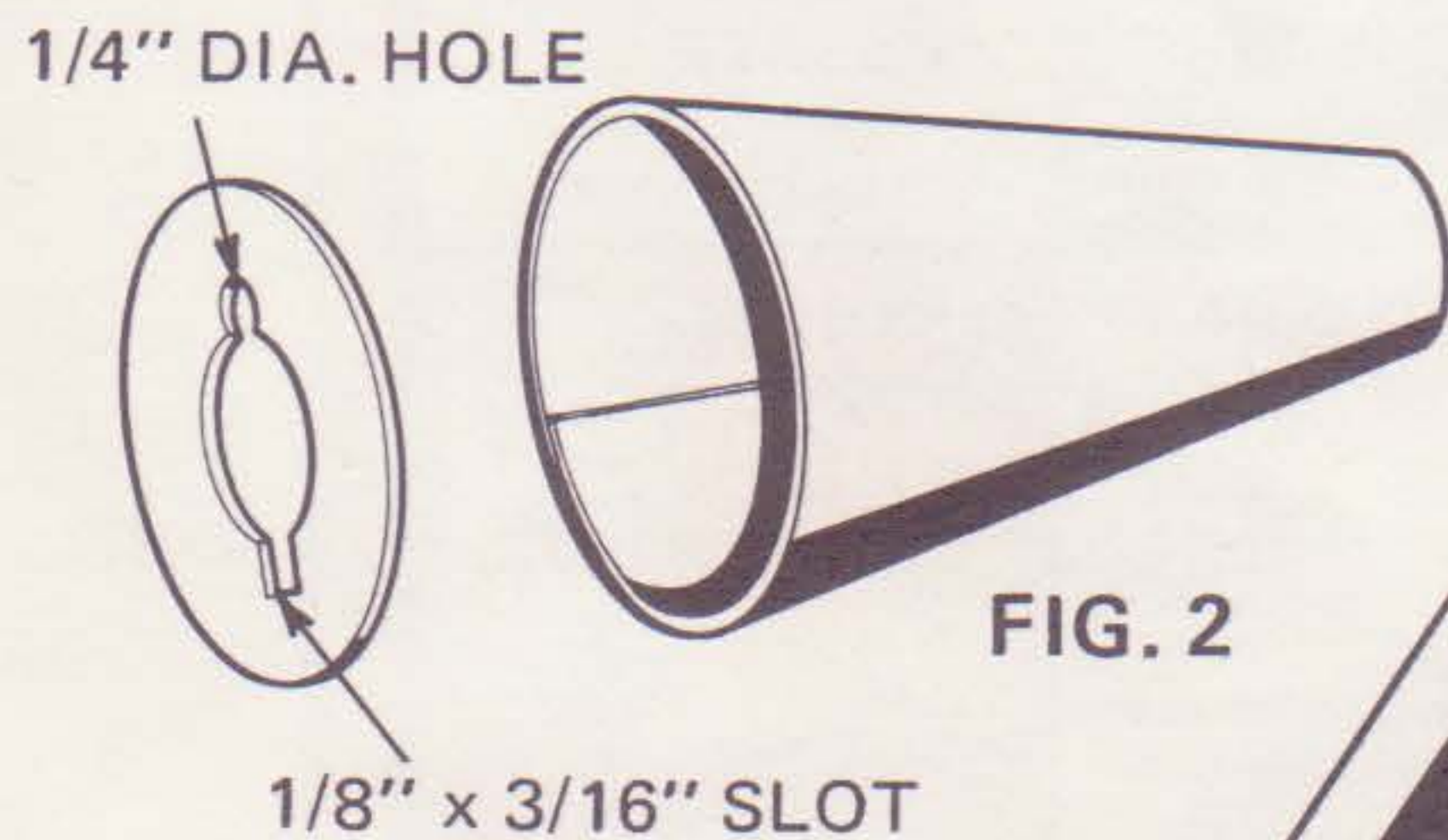
1	ST-718	Body Tube	1	SC-18	Shock Cord
1	TR-7	Thrust Ring	1	CPT-12	Parachute
1	BTC-7	Balsa Tube Coupler	1	EL-1	Engine Lock & Retainer Ring
1	BC-79	Nose Cone	1	Piece	Clay for Weight (.40 Oz.)
1	PR-7-20	Paper Reducer	1	SE-12	Screw Eye
2	LL-3	Launch Lug			

### ASSEMBLY INSTRUCTIONS

- 1 Cut the ST-718 body tube at a point 4 1/2" from one end. The short piece will become the payload compartment, while the remaining 13 1/2" segment serves as the main body. Cement the thrust ring in place 2 5/8" from one end of the main body tube. Attach the engine lock as shown in Fig. 1.



- 2 Only the paper wrapper and one die cut ring are used from the PR-7-20 package. Modify the die cut ring as shown in Fig. 2. Assemble the paper wrapper and cement to the die cut ring.



- 4 Cement the balsa tube coupler into the 4 1/2" long payload tube (1/2" of coupler should extend from the tube). Thread the screw eye into the base of the coupler.

- 5 Using the slit tube method, attach the shock cord to the main body. Tie the free end of the shock cord to the payload section screw eye. Assemble the parachute and tie the ends of the shroud lines to the screw eye.

- 6 Push a .40 oz. of clay into the payload tube. Sand and fillercoat the nose cone and rocket into place.

- 7 Paint and decal the rocket to fit your own taste. The rather interesting paint pattern illustrated above was used on one of the prototype flown by Centuri's R & D people.

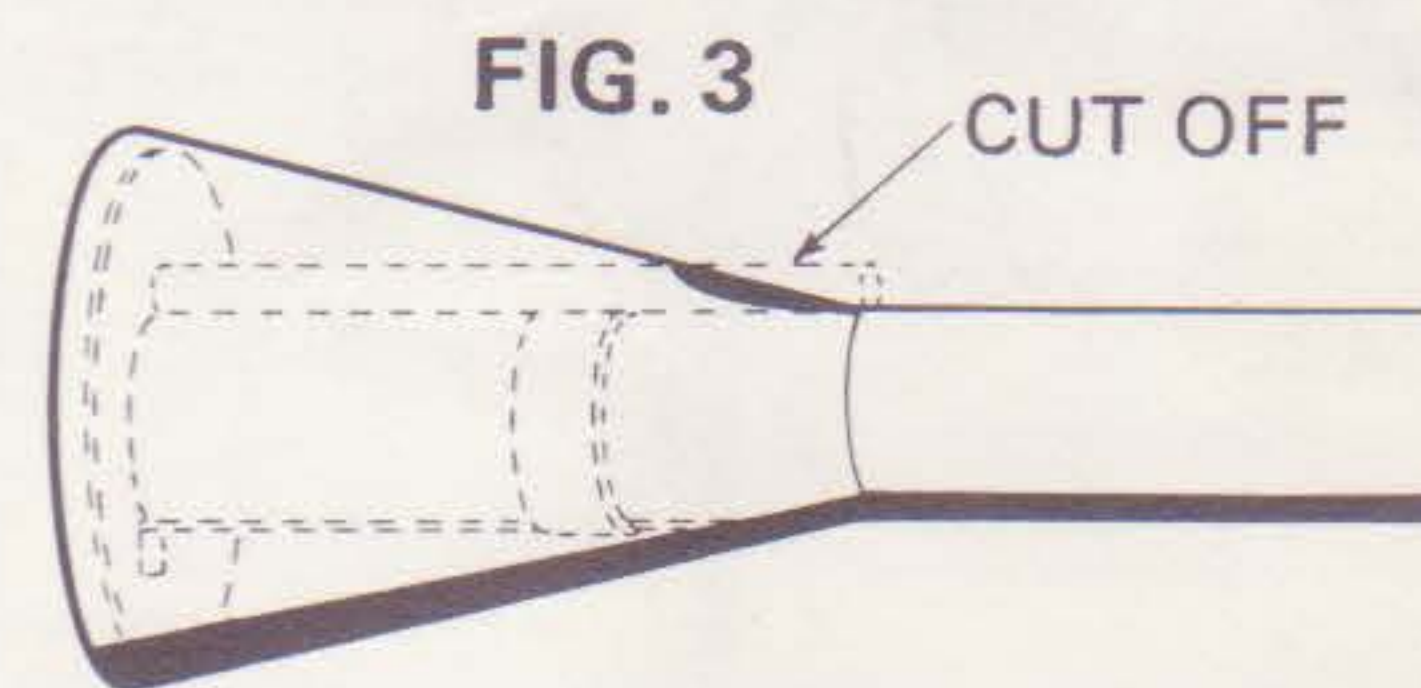
Fly the finless rocket with the following engines:

A8-3

A5-2

B4-2

Slip the paper wrapper down over the top of the body tube and cement in place at the base of the rocket. Cut a slot into the top of the paper wrapper for clearance of the launch lug. See Fig. 3. Cement the launch lug in place and trim the top to match the angle of the wrapper. Cement a second launch lug in place approximately 4" above the lower one.



LAUNCH LUGS