

MAXI COBRA CUSTOM MODIFICATIONS

Scaled up version from Estes K-10 (Loosely 1.35X)

Cluster operation: Engine options - B4-4, B6-4, B6-6, C6-5, C6-7
Preferred Engines: B6-4, C6-5

Parts List

- (3) 18mm engine mounts - 2 ¾"
- (3) engine hooks
- (3) hold down plates - stiff paper 15mm x 30mm
- (3) engine blocks, 5/20 HD rings
- (1) 20/60 cardboard ring
- (1) 3 ¼" BT-60 stuffer tube for engine mounts (3 ½" maybe better)
- (1) stage coupler for BT-60
- (1) 7" BT-60 stuffer tube extension
- (3) 60/70 cardboard rings HD 1/8" thick
- (1) 18" BT-70 outer body tube
- (4) fins, 1/8" balsa
- (8) fin braces, (2" x ¼") x 1/8" thick
- (1) 60/70 balsa transition
- (1) large screw eye
- (1) 8" BT-60 tube for upper stage
- (1) PNC-60 nose - 6 ½" long
- Clay for nose - 1 ½" of stick
- (2) launch lugs, 2" x 3/16"
- (1) 24" shock cord for lower stage with ring
- (1) 16" shock cord with clip and ring for upper stage
- (1) shock cord mount for lower stage

First Stage Instructions

- Glue 3 engine tubes together in triangle.
- Glue engine blocks in one end.
- Install engine hooks ¼" from rear.
- Glue hold down plate on each tube flush with rear of hook.
- Glue assembly to 20/60 ring with epoxy.
- Glue assembly into 3 ¼" stuffer tube with ¼" engine tube past rear
- Fill interstitial areas between engine mount tubes with epoxy up to rear of engine clip hold down plates
- Glue stage coupler into front of engine mount stuffer tube with wood glue.
- Coat all interior surfaces of coupler and stuffer with epoxy.
- Glue stuffer extension onto coupler with epoxy.
- Make (3) 60/70 rings out of thick cardboard.
- Glue 60/70 rings onto stuffer tube ¼" from each end and at stuffer tube's joint.

MAXI COBRA CUSTOM MODIFICATIONS

First Stage Instructions (con't)

- Epoxy stuffer tube assembly into main tube with tubes flush.
- Protect inside of stuffer tube, coat with CA glue.
- Mark BT-70 tube for four fins and launch lugs.
- Cut (4) fins at ~1.35X pattern from K-10 plan.
- Glue on fins and braces with wood glue.
- Glue on launch lugs with wood glue.
- Tie 24" shock cord to ring at one end.
- Assemble shock cord mount with other end and install ~2" rearward of front end of main body tube.

Second Stage Instructions

- Glue 1 ½" of a clay stick into nosecone with CA glue.
- Install screw eye into balsa 60/70 transition with epoxy.
- Glue in nose cone into front of BT-60 tube with epoxy.
- Glue transition into rear of BT-60 tube with epoxy.
- Assemble 16" shock cord with ring at one end and clip at the other.

Finishing Instructions

- Apply sanding sealer to balsa surfaces and sand smooth.
- Apply white primer to all surfaces.
- Paint rocket as follows:

Nosecone	bright sun yellow
Upper stage	emerald green
Lower stage	bright sun yellow
Fins	emerald green