

# SPARROW HAWK



## RECOMMENDED MOTORS

F80-7, G45-7, H90-7

Approximate Weight  
Length  
Diameter

14 oz.  
41 in.  
2.6 in.

## KIT CONTAINS

1.14" Motor mount tube/centering rings  
Plywood Fins  
Plastic nose cone  
Body tube  
24" Parachute with hardware  
Launch lug  
Shockcord

The Sparrow Hawk is a good kit for the beginner as well as the advanced rocketeer. The construction is quick and easy and features through-the-wall fin mounting. With larger motors this rocket may achieve extremely high altitudes.

**THIS KIT IS NOT TO BE SOLD TO ANYONE UNDER 18**



## ASSEMBLY INSTRUCTIONS

Thank you for purchasing the Sparrow Hawk model rocket kit. We hope that you will have many enjoyable hours flying your new Tiffany Hobbies rocket kit.

Please read these instructions before assembling, so that you will become familiar with how the kit is to be assembled.

Before assembling, check the kit for completeness. This kit should contain the following parts:

- (1) BT30-2.6 Body tube
- (1) MT-1.14 Motor mount tube
- (1) LL-.25 Launch lug
- (1) PNC-2.6 Nose cone
- (2) CR1-2.6-1.14 Centering rings
- (3) Plywood fins
- (1) P-24 Parachute
- (1) 9' Shock cord
- (1) Shock cord mount

NOTE: If any parts are missing or damaged, please contact us before assembling the kit.

To complete the kit you will need the following items:

- 5 minute Epoxy
- Cyanoacrylate Adhesive
- Sanding sealer
- Sharp modeling knife
- Ruler
- Sanding block
- Sandpaper (80, 220, and 400)

### ASSEMBLY

1) Round the leading and trailing edges of each fin with 80 grit sandpaper on a sanding block. Fine sand the entire fin smooth with

220 grit sandpaper.

2) Cover the fin mount tab with masking tape so that the sanding sealer won't seep onto the area to be glued. Seal the fins with sanding sealer, lightly sanding between coats. This will fill the grain of the plywood to obtain a smooth finish.

3) Epoxy the two centering rings flush with each end of the motor mount tubes, and with the shock cord mount extending away from the motor mount assembly.

4) With a sharp knife cut out the fin slots. The fin slots are marked out on the body tube.

5) You must check the fit of the motor mount before gluing. To do this, insert the motor mount into the back end of the body tube where the fin slots have been cut. If the fit is too tight, sand the centering rings until a smooth fit is obtained. Then epoxy the motor mount into the body tube so that the bottom centering ring is flush with the end of the body tube and the shock cord mount extends to the top of the body tube.

6) Epoxy the fins into the fin slots in the body tube. Make sure they are straight with the body tube. For maximum strength give the fins a good fillet coat of epoxy.

7) Cut the launch lug in half at an angle. Lightly sand the two marked areas on the body tube and the launch lug where they are to be glued together. With epoxy, glue the launch lugs directly over the two marked areas. Make sure that they are in line to each other and the body tube. Apply a good coat of epoxy as a fillet for maximum strength.

8) Lightly sand the nose cone to remove the mold line.

9) Tie one end of the shock cord to the mount on the nose cone. Apply a drop of cyanoacrylate adhesive on the knot. Tie the other end to the shock cord mount cable on the body tube. Attach the parachute to the nose cone.

10) Due to the extremely high altitudes this rocket can achieve the outside ambient pressure may be low enough to cause the rocket to separate before ejection. To solve this problem two pressure equalization holes should be drilled into the body tube. These should be placed 4" below the payload section and 180 degrees apart.

11) Check the fit of the nose cone into the body tube. If the cone is too loose, wrap tape around the cone. If the cone is too tight, sand it down to a nice smooth fit.

12) Paint the rocket in your choice of colors.

## **PREPARING FOR FLIGHT**

1) Place a generous amount of recovery wadding in the body tube. Slide the wadding down into the body tube (do not pack the wadding).

2) Fold the parachute and insert it into the body tube. Slide the nose cone into the body tube.

3) Wrap 3/4" masking tape around the nozzle end of the motor so that the diameter is equal to the outside diameter of the motor tube. Friction fit the motor into the motor tube.

## **FLYING INSTRUCTIONS**

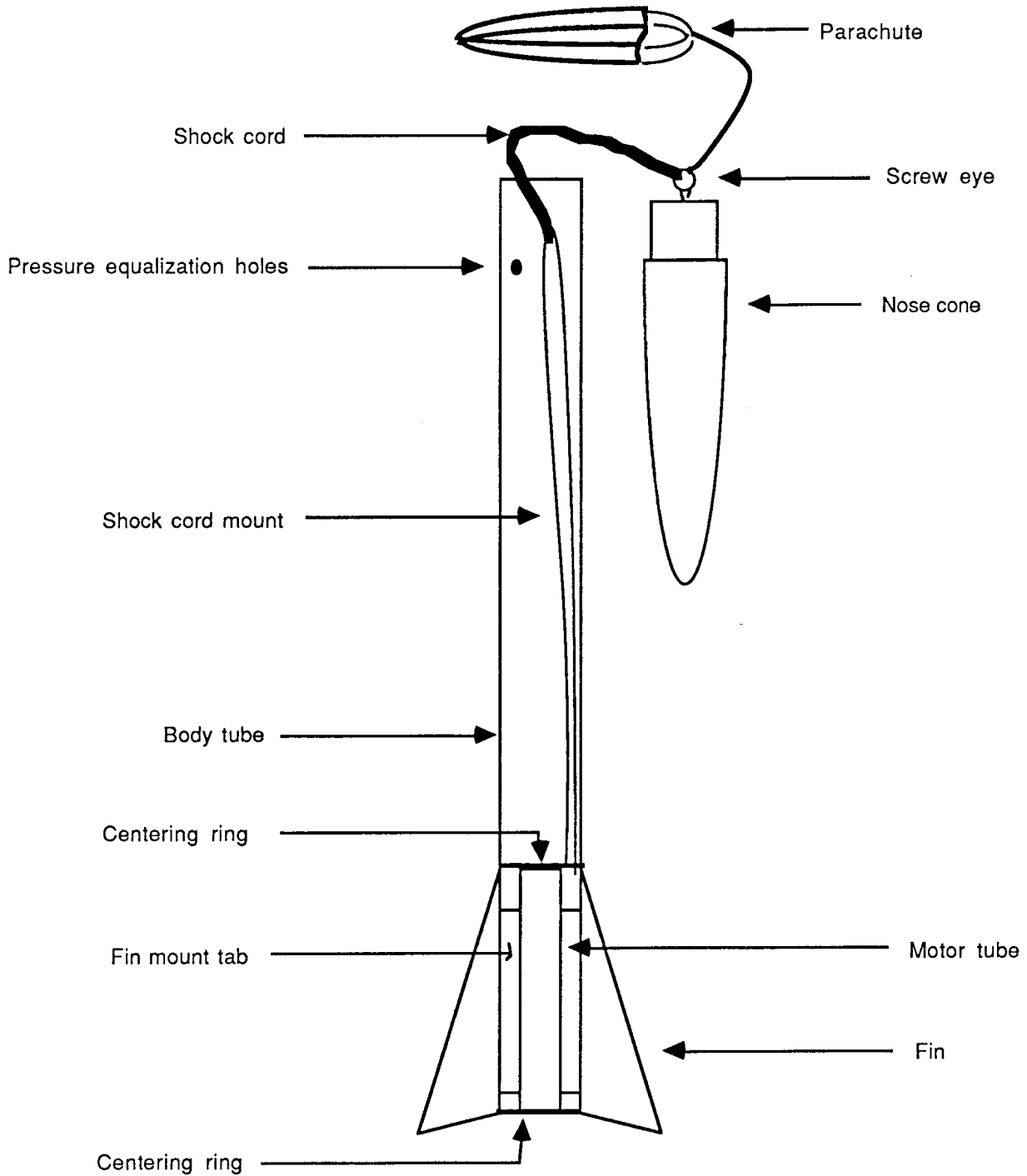
1) Always follow motor manufacturers instructions when preparing and flying this rocket.

2) Always follow all local laws and ordinances when flying.

3) F.A.A. approval may be required to fly this rocket.

T.H.O.Y.

# CUTAWAY DRAWING



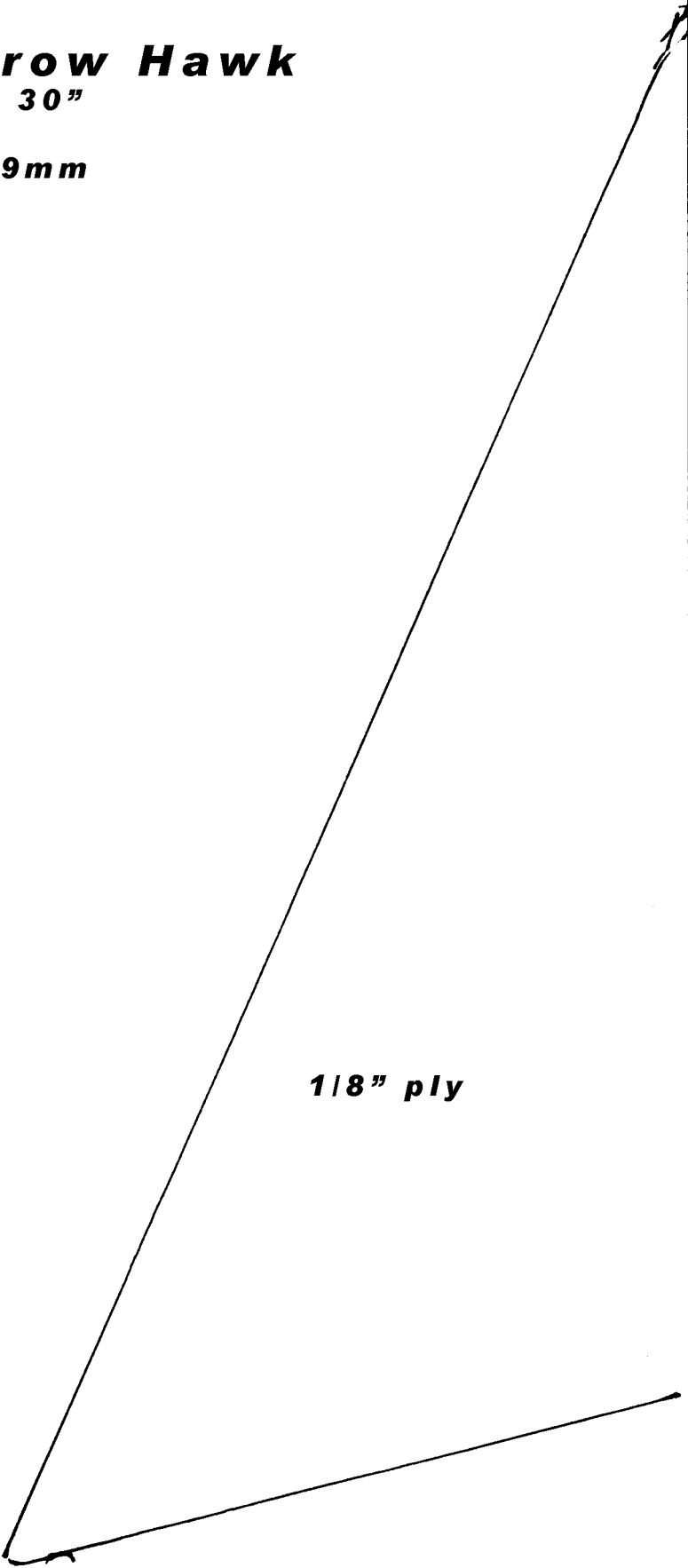
TIFFANY HOBBIES OF YPSILANTI  
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Phone (313) 487-4786

# **THOY Sparrow Hawk**

**BT = LOC 2.6" x 30"**

**NC = LOC 2.6"**

**Motor Mount - 29mm**



**1/8" ply**