

# **KIS4 Cruiser**

**BUILDERS MANUAL**

**S/N 4052**

# **SHOP & TOOLS**

## SHOP AND TOOLS

The area where you will be working on these kit components should be properly illuminated, and relatively clean and uncluttered. Sufficient room must be provided to properly work around the larger components, a at least one large flat "table" are should be provided for for cutting and working with fiberglass. Areas where parts will be stored or temporarily placed must be kept free of oil or grease and dirt to avoid contaminating the surfaces of the parts. Some sort of expendible covering (such as paper) is recommended for protecting workspace surfaces and equipment from resin or adhesive spills or drippings.

The temperature of the workplace is important for other factors than just personal comfort. Temperatures much below 70 F will make the viscosity of many of the liquid materials difficult to work with, and too cold conditions will hamper the proper cure of resins and adhesives. Some sort of heat source is suggested if you plan on working in cold weather, and materials should be allowed to warm up before using them. In areas of high temperatures, the working times of mixed resins and adhesives will be shortened. Short working times may present problems in properly positioning components to be joined, and one must not attempt to work with materials once the curing process has started. Moving or other rework during the initial setting process will lead to dangerous weaking of structural attachments. Use "dry assembly" to verify positioning and clamping provisions before the resin or adhesive is mixed (especially during hot weather).

Although most of the joining materials used with this kit hve very little vapors or fumes, it is still good practice to provide adequate ventilation of the work area. Sthis is particularly true if finishing or painting operations are planned for this same area.

## TOOLS AND EQUIPMENT

Working with pre molded composite panels minimizes the amount of special equipment or tools required, as compared to most other types of aircraft construction. A fairly modest assemblage of hand and power tools will accomplish the tasks quite adequately.

TYPICAL HAND TOOLS (asterix means very useful but not a necessity)

screwdrivers	hammer
hack saw	hacksaw blade holder
pliers	*cleco pliers
* clecos	tin snips
scissors	utility knife
100 degree countersink	razor blades
non porous gloves	sand paper
files	measuring tape
straght edge (long metal)	level

