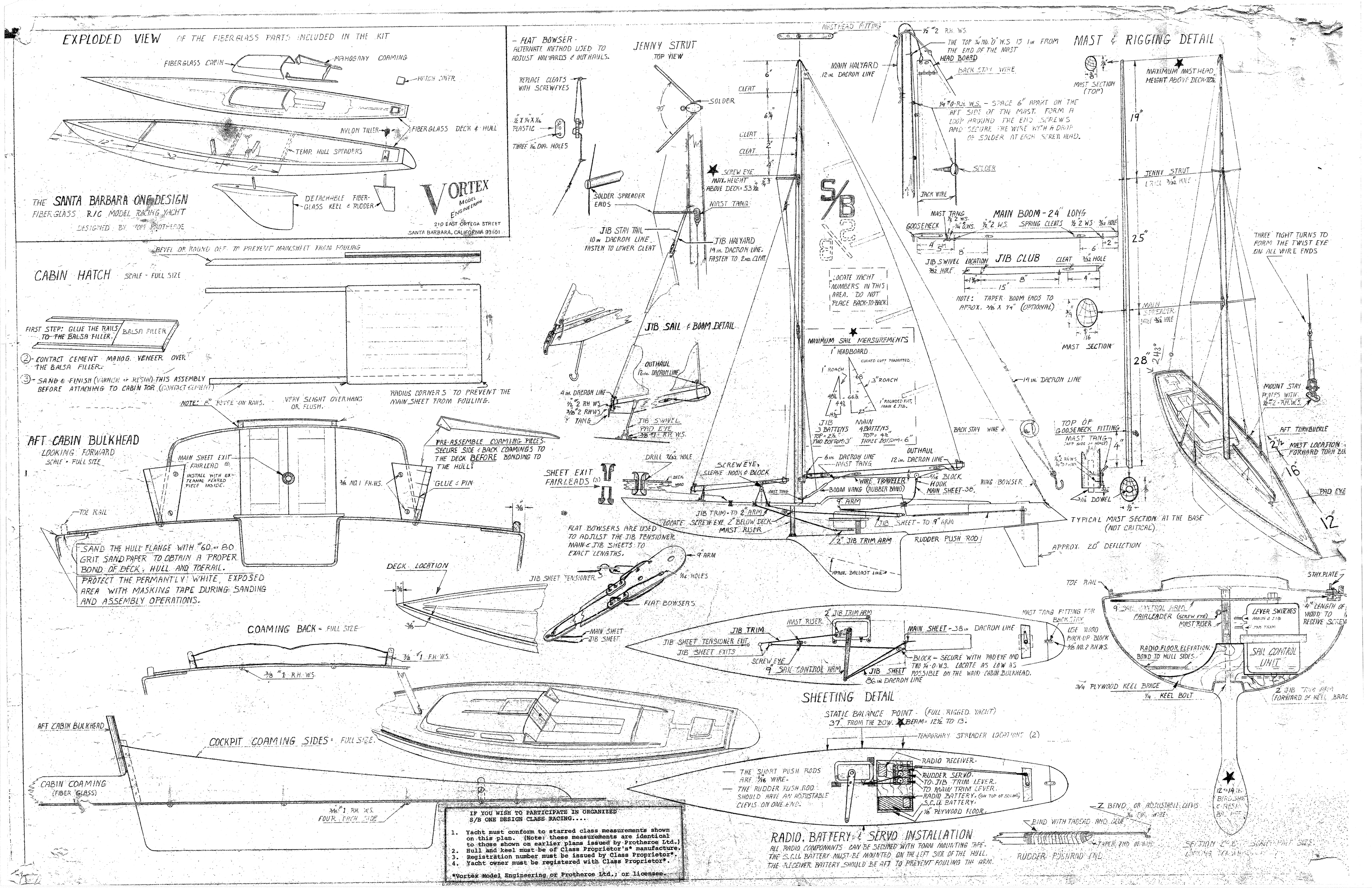
EXPLODED VIEW OF THE FIBERGLASS PARTS INCLUDED IN THE KIT
FIBERGLASS CABIN
MAHOGANY COAMING
HATCH COVER
NYLON TILLER
FIBERGLASS DECK & HULL
TEMP. HULL SPREADERS
DETACHABLE FIBERGLASS KEEL & RUDDER
THE SANTA BARBARA ONE DESIGN
FIBERGLASS R/C MODEL RACING YACHT
DESIGNED BY TOM BROTHERDE
VORTEX MODEL ENGINEERING
210 EAST ORTEGA STREET
SANTA BARBARA, CALIFORNIA 93101
CABIN HATCH SCALE - FULL SIZE
BEVEL OR ROUND OFF TO PREVENT MAINSHEET FROM FOULING
FIRST STEP: GLUE THE RAILS TO THE BALSA FILLER.
BALSA FILLER
2 - CONTACT CEMENT MAHOG. VENEER OVER THE BALSA FILLER.
3 - SAND & FINISH (VARNISH or RESIN) THIS ASSEMBLY BEFORE ATTACHING TO CABIN TOP. (CONTACT CEMENT)
NOTE: 8" BEVEL ON RAILS.
VERY SLIGHT OVERHANG OR FLUSH.
RADIUS CORNERS TO PREVENT THE MAIN SHEET FROM FOULING.
AFT CABIN BULKHEAD
LOOKING FORWARD
SCALE - FULL SIZE
MAIN SHEET EXIT FAIRLEAD
INSTALL WITH EXTERNAL PLYWOOD PIECE INSIDE.
3/16 NO.1 F.H.W.S.
GLUE & PIN
PRE-ASSEMBLE COAMING PIECES. SECURE SIDE & BACK COAMINGS TO THE DECK BEFORE BONDING TO THE HULL.
TOE RAIL
SAND THE HULL FLANGE WITH #60 or 80 GRIT SANDPAPER TO OBTAIN A PROPER BOND OF DECK, HULL AND TOERAIL.
PROTECT THE PERMANTLY WHITE EXPOSED AREA WITH MASKING TAPE DURING SANDING AND ASSEMBLY OPERATIONS.
DECK LOCATION
3/16
COAMING BACK - FULL SIZE
3/8" 1 F.H.W.S.
3/8" 1 R.H.W.S.
AFT CABIN BULKHEAD
COCKPIT COAMING SIDES - FULL SIZE.
CABIN COAMING (FIBER GLASS)
3/16" 1 RH W.S. FOUR EACH SIDE
- FLAT BOWSER -
ALTERNATE METHOD USED TO ADJUST HALYARDS & OUTHAULS.
REPLACE CLEATS WITH SCREWEYES
1/2 X 1/4 X 1/16 PLASTIC
THREE 1/16 DIA. HOLES
SOLDER SPREADER ENDS
JENNY STRUT
TOP VIEW
SOLDER
90°
CLEAT
6"
6 3/4"
2"
4"
SCREW EYE MAX. HEIGHT ABOVE DECK = 53 1/2"
MAST TANG
JIB STAY TAIL 10 in DACRON LINE FASTEN TO LOWER CLEAT
JIB HALYARD 14 in. DACRON LINE. FASTEN TO 2nd CLEAT.
JIB SAIL & BOOM DETAIL
OUTHAUL 12 in. DACRON LINE
4 in. DACRON LINE
1/2" 2 RH WS
3/8" 2 RHWS
TANG
JIB SWIVEL PAD EYE 3/8" 1 RH W.S.
FLAT BOWSERS ARE USED TO ADJUST THE JIB TENSIONER, MAIN & JIB SHEETS TO EXACT LENGTHS.
9" ARM
1/16 HOLES
JIB SHEET TENSIONER
FLAT BOWSERS
MAIN SHEET
JIB SHEET
SHEET EXIT FAIRLEADS (3)
DRILL 7/32 HOLE
DECK
WOOD
MAST TANG
MAST HEAD FITTING
1/2" 2 RH. W.S.
THE TOP 1/4 NO. 0 W.S IS 1 in FROM THE END OF THE MAST
HEAD BOARD
MAIN HALYARD 12 in. DACRON LINE
BACK STAY WIRE
1/4" 0 R.H. W.S. - SPACE 6" APART ON THE AFT SIDE OF THE MAST. FORM A LOOP AROUND THE END SCREWS AND SECURE THE WIRE WITH A DROP OF SOLDER AT EACH SCREW HEAD.
SOLDER
JACK WIRE
S/B
LOCATE YACHT NUMBERS IN THIS AREA. DO NOT PLACE BACK-TO-BACK.
MAXIMUM SAIL MEASUREMENTS
1" HEADBOARD
CURVED LUFF PERMITTED
1" ROACH
68"
3" ROACH
40%
44 1/2"
66 1/2"
14 1/2"
23"
1" ROUNDED FOR MAIN & JIB.
JIB 3 BATTENS TOP - 2 1/2" TWO BOTTOM - 3"
MAIN 4 BATTENS TOP - 4 1/2" THREE BOTTOM - 6"
6 in. DACRON LINE
MAST TANG
SCREW EYE, SLEEVE HOOK & BLOCK
WIRE TRAVELER
BOOM VANG (RUBBER BAND)
9" ARM
JIB TRIM - TO 2" ARM
LOCATE SCREW EYE 2" BELOW DECK MAST RISER
JIB SHEET - TO 9" ARM
2" JIB TRIM ARM
RUDDER PUSH ROD
APPROX. BALLAST LINE
OUTHAUL 12 in. DACRON LINE
4 1/16 BLOCK
HOOK
MAIN SHEET - 38"
RING BOWSER
BACK STAY WIRE
14 in. DACRON LINE
MAST & RIGGING DETAIL
MAST SECTION (TOP)
MAXIMUM MAST HEAD HEIGHT ABOVE DECK - 72 1/2"
19"
JENNY STRUT 1 PLY 3/32 HOLE
25"
MAIN BOOM - 24" LONG
MAST TANG 1/2 2 WS.
GOOSENECK
1/4 2 WS.
1/2" 2 W.S.
SPRING CLEATS
1/2 2 WS
3/32 HOLE
4
5 1/2
8
6
2
JIB SWIVEL LOCATION 3/32 HOLE
JIB CLUB
CLEAT
3/32 HOLE
3/4
8"
4"
15"
NOTE: TAPER BOOM ENDS TO APPROX. 3/16 X 1/4" (OPTIONAL)
MAST SECTION
28"
2 1/3"
MAIN SPREADER 1 PLY 3/32 HOLE
THREE TIGHT TURNS TO FORM THE TWIST EYE ON ALL WIRE ENDS
MOUNT STAY PLATES WITH 1/2 2 - R.H.W.S.
AFT TURNBUCKLE
2 1/2"
MAST LOCATION FORWARD TORN BU
16"
PAD EYE
12"
TOP OF GOOSENECK FITTING
MAST TANG (AFT SIDE OF MAST)
4"
1/2 RH W.S.
1/2 RH W.S.
3/16 DOWEL
1/2
TYPICAL MAST SECTION AT THE BASE (NOT CRITICAL)
APPROX. 20° DEFLECTION
TOE RAIL
STAY PLATE
9" SAIL CONTROL ARM
FAIRLEADER (SCREW EYE)
MAST RISER
LEVER SWITCHES MAIN & JIB
JIB TRIM
4" LENGTH OF WOOD TO RECEIVE SCREW
RADIO FLOOR ELEVATION. BOND TO HULL SIDES.
SAIL CONTROL UNIT
3/4 PLYWOOD KEEL BRACE
1/4 KEEL BOLT
2 JIB TRIM ARM (FORWARD OF KEEL BRACE)
12 to 14 lb. BIRD SHOT & RESIN BALLAST
2" JIB TRIM ARM
MAST RISER
JIB TRIM
JIB SHEET TENSIONER EXIT
JIB SHEET EXITS
SCREW EYE
9" SAIL CONTROL ARM
JIB SHEET 86 in. DACRON LINE
MAIN SHEET - 38 in DACRON LINE
BLOCK - SECURE WITH PADEYE AND TWO 1/4 - 0 W.S. LOCATE AS LOW AS POSSIBLE ON THE WOOD CABIN BULKHEAD.
MAST TANG FITTING FOR BACK STAY
USE WOOD BACK UP BLOCK
3/16 NO. 2 RH W.S.
SHEETING DETAIL
STATIC BALANCE POINT - (FULL RIGGED YACHT) 37" FROM THE BOW. BEAM = 12 1/2 TO 13.
TEMPORARY SPREADER LOCATIONS (2)
THE SHORT PUSH RODS ARE 1/16 WIRE.
THE RUDDER PUSH ROD SHOULD HAVE AN ADJUSTABLE CLEVIS ON ONE END.
RADIO RECEIVER.
RUDDER SERVO.
TO JIB TRIM LEVER.
TO MAIN TRIM LEVER.
RADIO BATTERY. (ON TOP OF SCALE)
S.C.U. BATTERY.
1/16 PLYWOOD FLOOR.
RADIO, BATTERY & SERVO INSTALLATION
ALL RADIO COMPONANTS CAN BE SECURED WITH FOAM MOUNTING TAPE.
THE S.C.U. BATTERY MUST BE MOUNTED ON THE LEFT SIDE OF THE HULL.
THE RECEIVER BATTERY SHOULD BE AFT TO PREVENT FOULING THE ARM.
Z BEND OR ADJUSTABLE CLEVIS 1/16 STL. WIRE
BIND WITH THREAD AND GLUE
TAPER END DOWN
RUDDER PUSHROD END
IF YOU WISH TO PARTICIPATE IN ORGANIZED S/B ONE DESIGN CLASS RACING....
1. Yacht must conform to starred class measurements shown on this plan. (Note: these measurements are identical to those shown on earlier plans issued by Protheroe Ltd.)
2. Hull and keel must be of Class Proprietor's* manufacture.
3. Registration number must be issued by Class Proprietor*.
4. Yacht owner must be registered with Class Proprietor*.
*Vortex Model Engineering or Protheroe Ltd.; or licensee.