24"

1/16" SHEET TIP BRACES

1/4" SQ. LEADING EDGE

22" TO OUTSIDE RIB

1/8" PLY SHADED AREA

OUTSIDE TIP

BALANCE RANGE

OFFSET BODY AS SHOWN

1/16" SHEET

3" BELLCRANK

1/8" SHEET BRACES UNDER MOUNT

1/8" SHEET BRACE TOP AND BOTTOM

1/16" VERTICAL SHEET

3/16" SQ. SPARS

SOLID LEADOUTS

TUBING

STAGGER LINES TO PREVENT BINDING

ALL RIBS ARE 1/16" SHEET

1/16" X 1/4" CAPSTRIPS

1/16" SHEET FALSE RIBS OMITTED ON SIDE VIEW

"J" BOLTS

2"

1/16" X 1/4" CAPSTRIPS

3/4"

1-3/4"

1/8" SHEET

13 12 11 10 9 8 7 6 5 4 3 2 1 1 2 3 4 5 6 7

1/16" SHEET

1/16" SHEET

SCRAP

3/8"

1/8" SQ.

1/4" SHEET

1-7/8"

MEDIUM 1/4" SHEET

MINIMUM CLOTH HINGES - (FULL SPAN RECOMMENDED)

VECO HORNS CUT OFF

1/8" PLYWOOD

F-1

F-2

F-3T

BEND TO FRONT HERE

COWLING CONSTRUCTION

MAKE TWO - 1/8" DIA. WIRE

WING GEARS

F-3B

F4B

F-4T

F-5B

F-5T

1/8" SHEET 8 REQ.

1/16" PLY

PANTS MOUNT FROM TIN CAN

19-1/2"

3"

HARD 1/4" SHEET

3"

1/8" I.D. DIA. BUSHINGS

BRACE 1/4" SHEET

DECKING OMITTED

F-1 F-2 F-3 F-4 F-5

BALSA BLOCK

SHADED AREA - 1/16" PLY

VECO "P-51" CANOPY

1/8" X 1/4" PLANKING

CUT ON THE LINES REMOVE FOR ASSEMBLY CEMENT IN POSITION

CUT OUT FOR CLEARANCE

TYPICAL BOOM CROSS-SECTION

1/16" PLY

PUSHROD

RIGHT BOOM

2" NEEDLE NOSE SPINNER

LARGE VECO HORN WITH BRASS BUSHINGS MADE FROM TUBING

3/8" SHEET - TOP AND BOTTOM

22-1/4"

1/8" SHEET

4-1/4"

13/16"

3/8" X 1/2" HARDWOOD

TANK

1/4" SQ.

1/8" PLY

7

3/32" DIA. PUSHRODS

1/16" PLY BRACES

1/8" SHEET

BUSHING BRACE

1/8" SIDES

BICYCLE SPOKE

AIR EXHAUST - BOTH SIDES

AIR INTAKE

1/16" PLY

CUT OUT FOR ENGINE EXHAUST AS NECESSARY

TWO PIECES 1/2" SHEET

VECO - 1-7/8" DIA. SPONGE RUBBER

TWO PIECES - 1/8" SHEET

MAKE THREE FROM TIN CAN STOCK. SOLDER TO EACH GEAR AND CEMENT TO WHEEL PANTS

HOLLOW

PERFECT WHEEL - 1-7/8" DIA.

NOTE: LANDING GEAR SHOWN IS FOR SMOOTH SURFACE. FOR GRASS, LENGTHEN GEAR 1" AND OMIT WHEEL PANTS

1" 2" 3"

"J" BOLT LOCATION

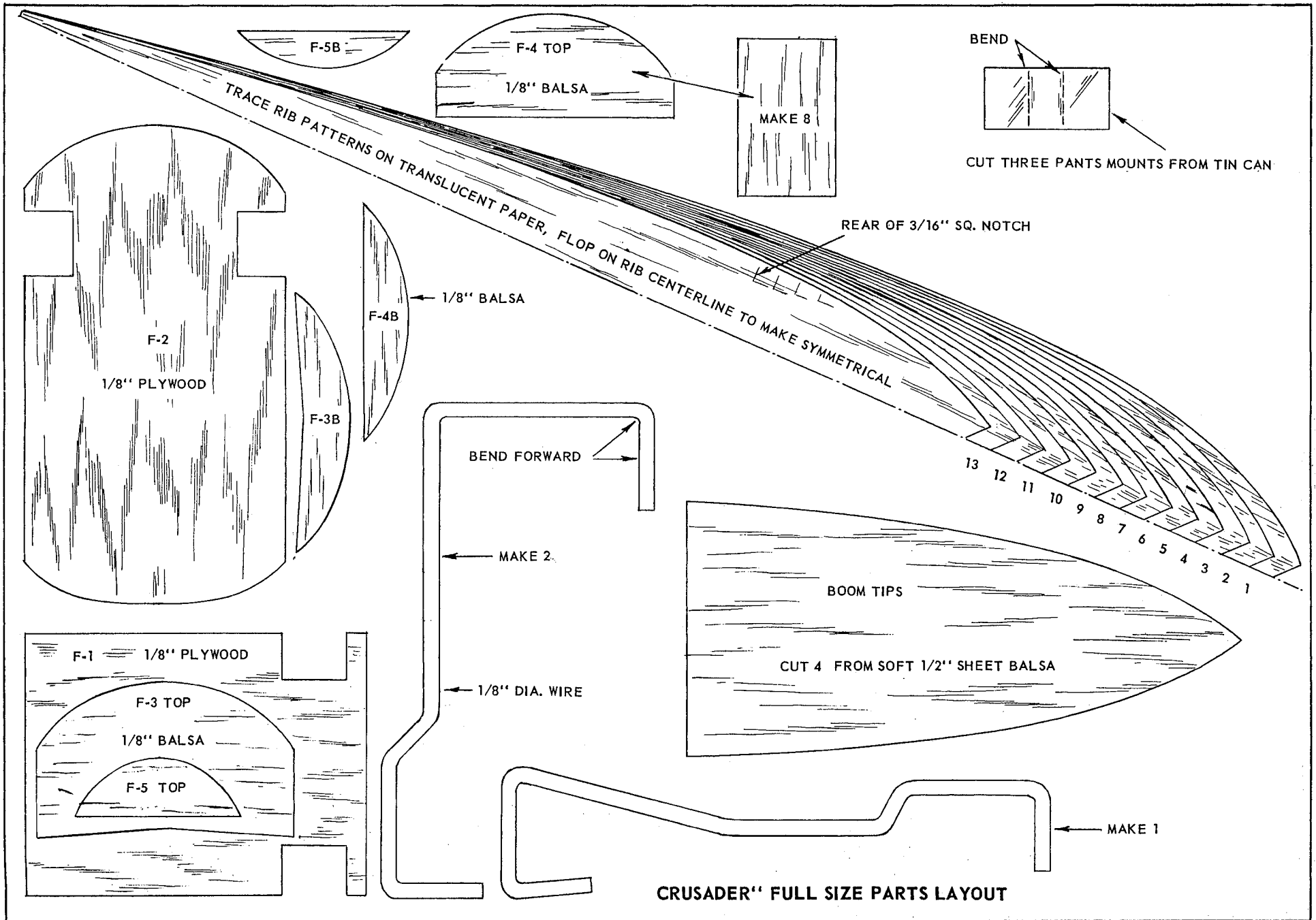
MAIN LANDING GEAR - 1/8" DIA. WIRE

"CRUSADER" - SPAN 52"
LENGTH - 41-3/4"
AREA - APPROX. 570 SQ. "
WEIGHT - 40 TO 50 OZ.

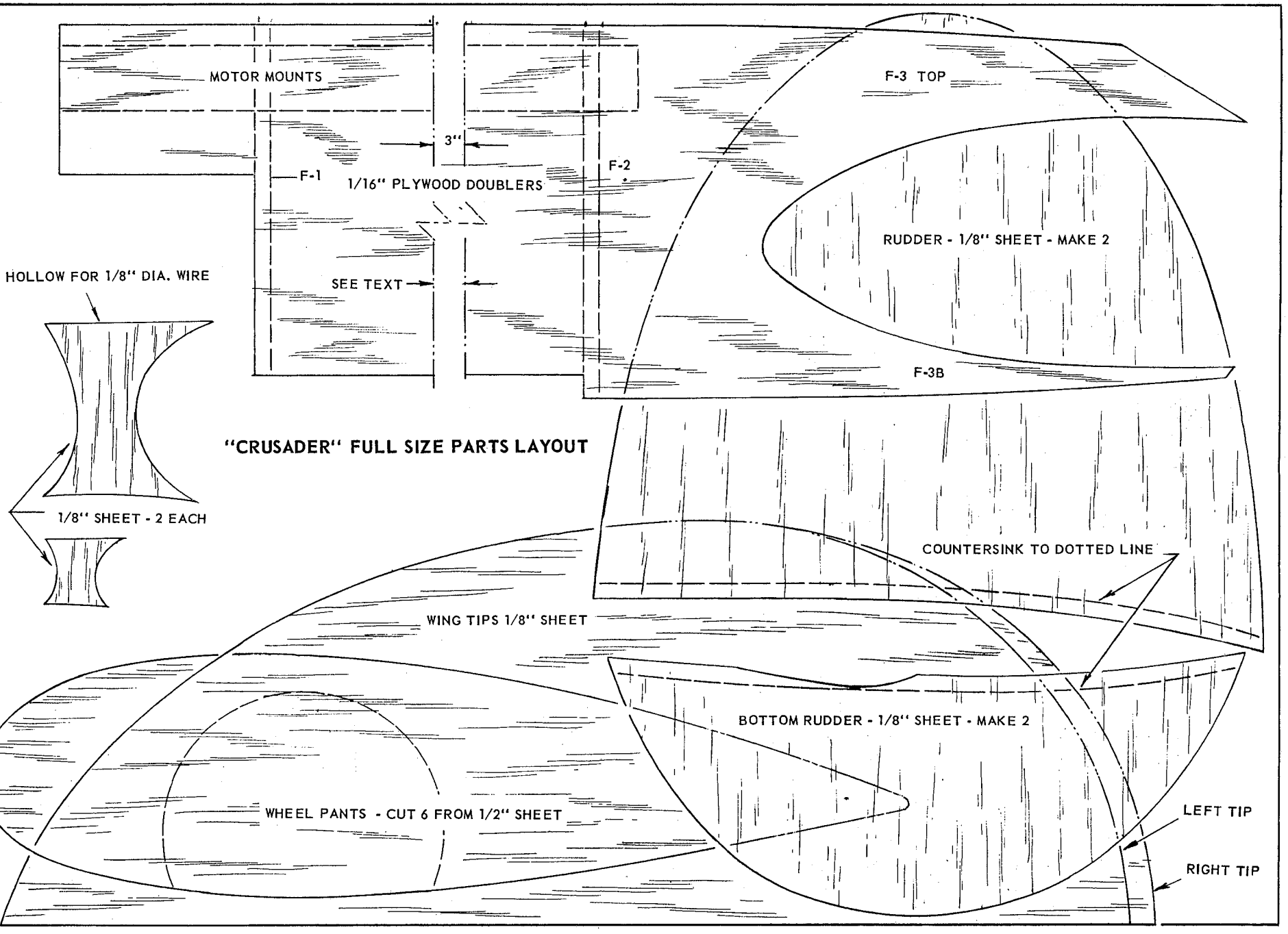
CARVE AND HOLLOW TWO PIECES 1/2" SHEET

D.J.M.

DESIGNED BY: CHARLES A. MACKEY



CRUSADER" FULL SIZE PARTS LAYOUT


MOTOR MOUNTS
3"
F-1
1/16" PLYWOOD DOUBLERS
F-2
F-3 TOP
RUDDER - 1/8" SHEET - MAKE 2
F-3B
HOLLOW FOR 1/8" DIA. WIRE
SEE TEXT
1/8" SHEET - 2 EACH
"CRUSADER" FULL SIZE PARTS LAYOUT
COUNTERSINK TO DOTTED LINE
WING TIPS 1/8" SHEET
BOTTOM RUDDER - 1/8" SHEET - MAKE 2
WHEEL PANTS - CUT 6 FROM 1/2" SHEET
LEFT TIP
RIGHT TIP