

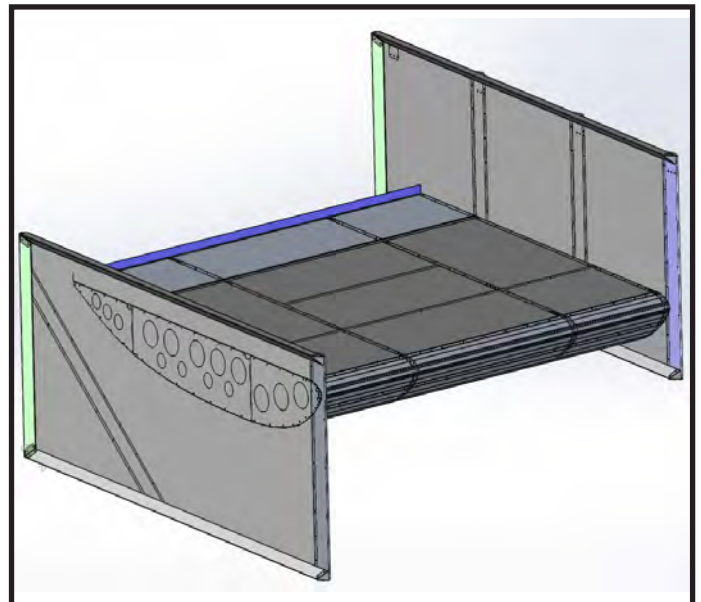


HRP TOP WING ASSEMBLY INSTRUCTIONS FOR SHK TOP WING

MOST USED SPRINTCAR WING IN THE WORLD!



Wind Tunnel Tested
Cad Designed and Engineered
Tested with Air Flow Simulations
CNC Processed for Accuracy



Please read these directions thoroughly and check for all parts before starting.

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Note: If a Specialty Side Board has been purchased, then read through the General Side Board Assembly Guides on pages 13 - 23 and assemble the specialty board similarly.

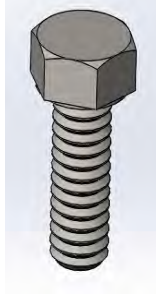
FASTENER PARTS LIST



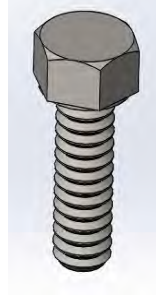
3/16" Rivets
x200



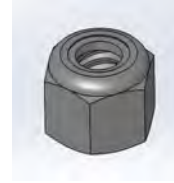
1/8" Rivets
x1000



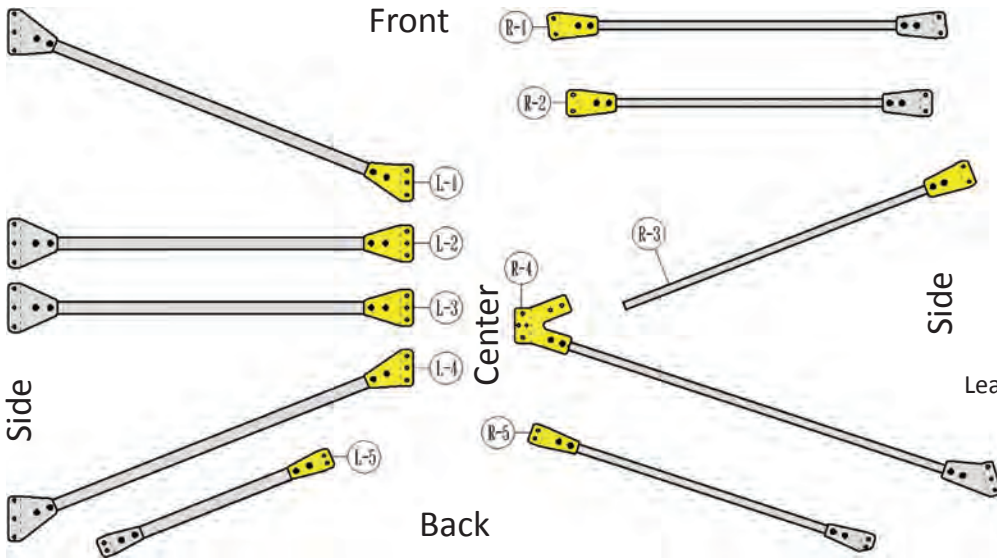
1/4-20 x5/8
Bolt x8



1/4-20 x3/4
Bolt x4



1/4-20
Bolt x12



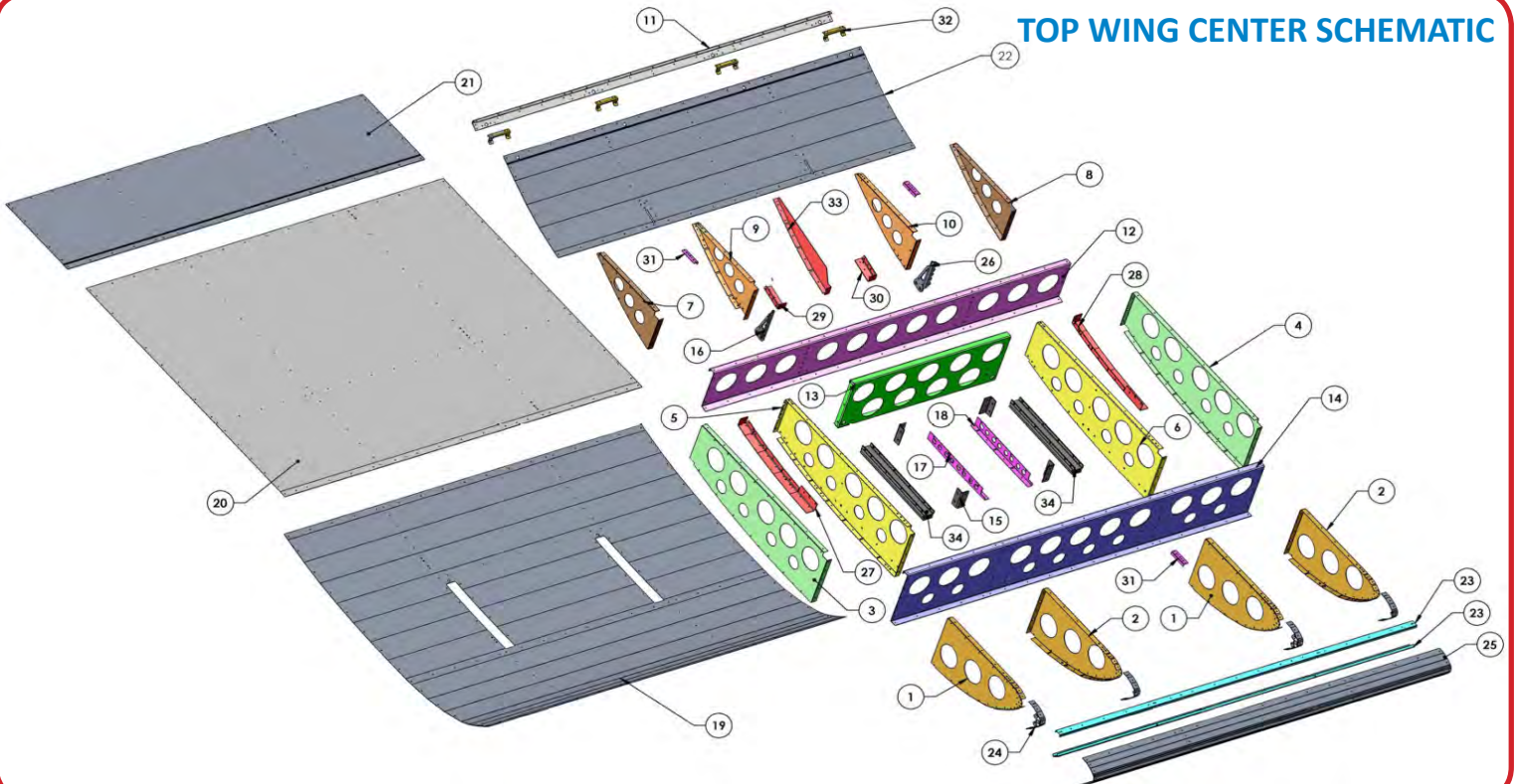
BRACE KIT SCHEMATIC



Brace #
Left or Right
Wing Style

4 L SKD
2.0
Lead of board or style
of board

Yellow end should be labeled



TOP WING CENTER SCHEMATIC

TOP WING CENTER PARTS LIST

SKU #	HRP #	PART DESCRIPTION	QUA	CHECK
1	SHK5001-RH	RH Nose Profile	2	
2	SHK5001-LH	LH Nose Profile	2	
3	SHK5002-RH	RH Outer Center Profile	1	
4	SHK5002-LH	LH Outer Center Profile	1	
5	SHK5003-RH	RH Inner Center Profile	1	
6	SHK5003-LH	LH Inner Center Profile	1	
7	SHK5004-RH	RH Outer Rear Profile	1	
8	SHK5004-LH	LH Outer Rear Profile	1	
9	SHK5005-RH	RH Inner Rear Profile	1	
10	SHK5005-LH	LH Inner Rear Profile	1	
11	SHK5006	Back Edge	1	
12	SHK5007	Rear Cross Rib	1	
13	SHK5008	Middle Rib	1	
14	SHK5009	Front Rib	1	
15	VFT5023	Runner Supports	4	
16	VFT5025-RH	RH Rear Wing Mount	1	
17	SHK5015-RH	RH Center Skin Support	1	
18	SHK5015-LH	LH Center Skin Support	1	
19	SHK5017	Bottom Skin	1	
20	SHK5018	Top Skin	1	
21	SHK5019	Top Rear Skin	1	
22	SHK5020	Bottom Rear Skin	1	
23	SHK5011	Nose Backer	2	
24	SHK5010	Nose Wrap	4	
25	SHK5012	Nose Cap	1	
26	VFT5025-LH	LH Rear Wing Mount	1	
27	SHK5022-RH	RH Center Profile Strip	1	
28	SHK5022-LH	LH Center Profile Strip	1	
29	SHK5013-RH	RH Back Brace	1	
30	SHK5013-LH	LH Back Brace	1	
31	VFT5027	Brace Stiffeners	3	
32	SHK5028	Back Edge Bracket	4	
33	SHK5029	Rear Center Profile	1	
34	VFT5016	Runner	2	

Side Board Type:

RH: _____ LH: _____

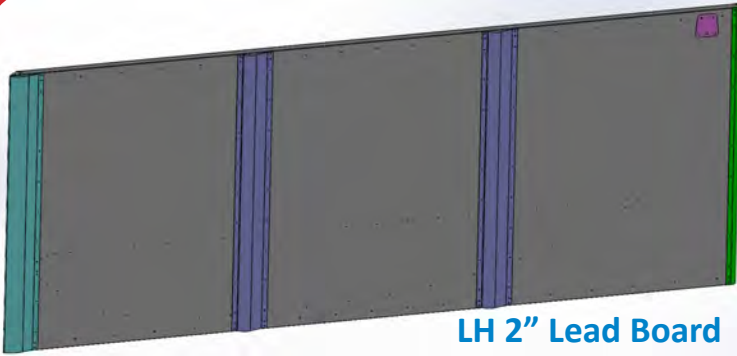
BRACE PARTS LIST

SKU #	HRP #	PART DESCRIPTION	CHECK
L-1	SHK5110	LH #1 Brace	
L-2	SHK5111	LH #2 Brace	
L-3	SHK5112	LH #3 Brace	
L-4	SHK5113	LH #4 Brace	
L-5	SHK5114	LH #5 Brace	
R-1	SHK5115	RH #1 Brace	
R-2	SHK5116	RH #2 Brace	
R-3	SHK5117	RH #3 Brace	
R-4	SHK5118	RH #4 Brace	
R-5	SHK5119	RH #5 Brace	

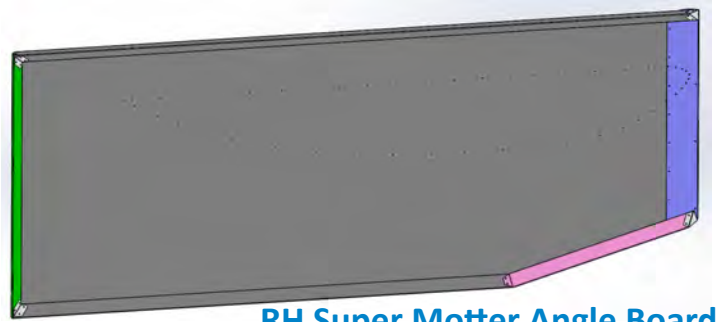
HARDWARE PARTS LIST

HRP #	PART DESCRIPTION	QUA	CHECK
AD41-43BS	1/8" Rivet	1000	
AD62-64BS	3/16" Rivet	200	
HCS 1/4-20 5/8-Z	Hex Head Bolt 1/4-20 5/8	8	
HCS 1/4-20 3/4-Z	Hex Head Bolt 1/4-20 3/4	4	
NYLOCK 25-20_Zic	Nylock Nut 1/4 x 20	12	
HRP0301	D-ZEUS Spring	4	
HRP0310	D-ZEUS Button	4	
VFT5021	Entry Plate	2	
HRP8811- A75-HD	Easy Glide Post	2	
HRP9003	8" Oval Sticker	2	
HRP9010	15" Oval Sticker	1	

COMMON SIDE BOARDS



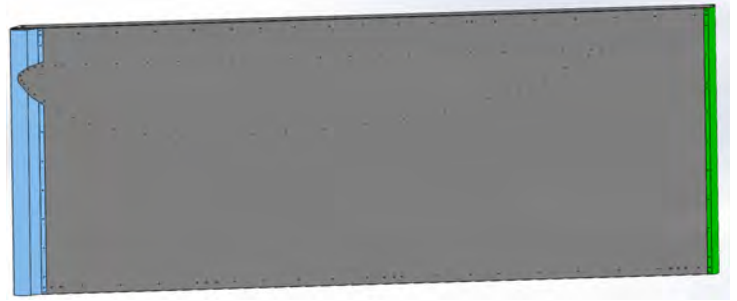
LH 2" Lead Board



RH Super Motter Angle Board



RH Super Angle Board



RH Super Board



PRE ASSEMBLY PARTS CHECK

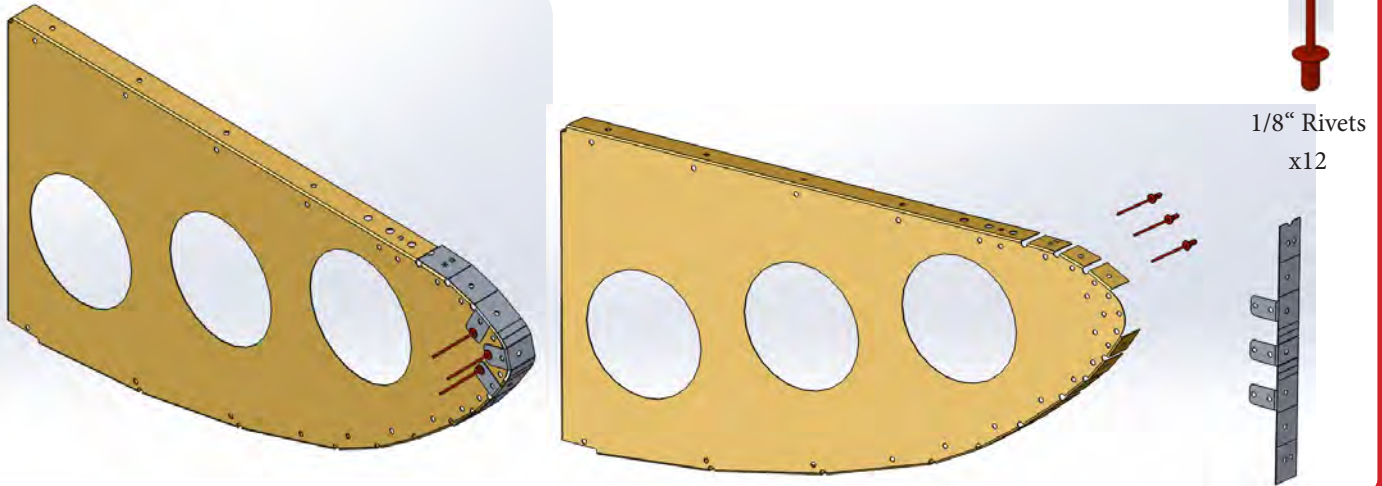
Verify that all quantities of parts are included by first checking them off of the checklist on page 4



TOOLS NEEDED:

- Rivet Gun (1/8" & 3/16")
- Drill (1/8" & 3/16" Bits)
- 7/16" open Wrench
- 7/16" Socket Ratchet
- Hammer
- Pin Punch
- Large Clean Work Area

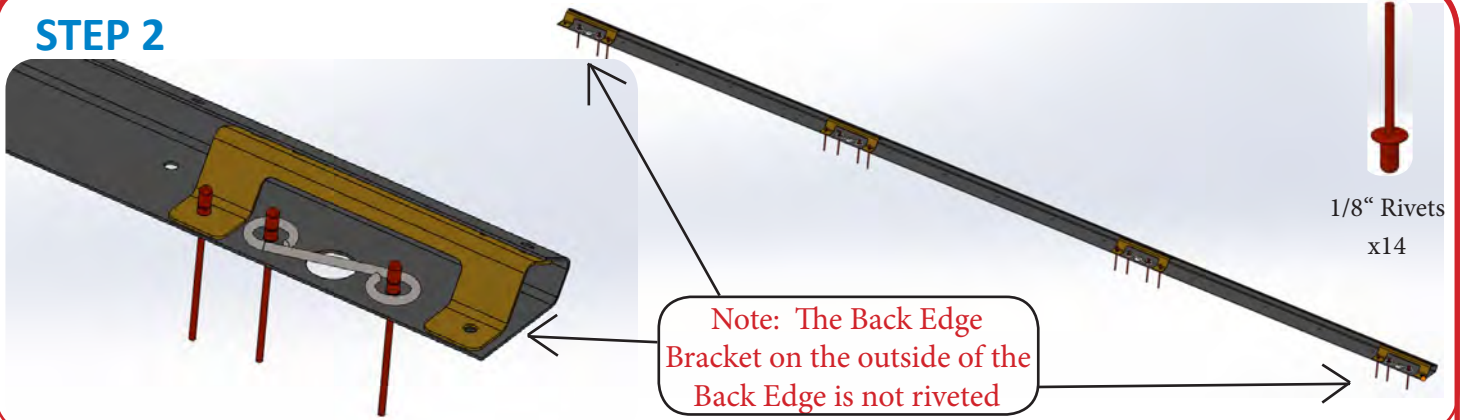
STEP 1



Rivet the Nose Wrap (24, 26) to the Nose Profile (1, 2)

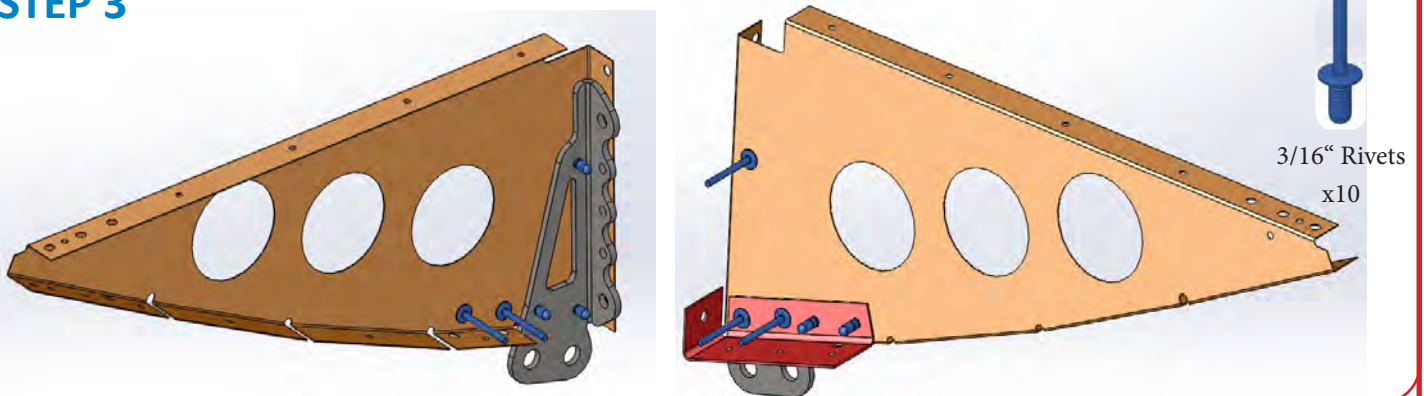
Repeat: 2x LH
2x RH

STEP 2



Rivet 4x D-ZEUS springs onto the Back Edge (11). Then rivet 4x Back Edge Bracket (32) onto the Back Edge (11)

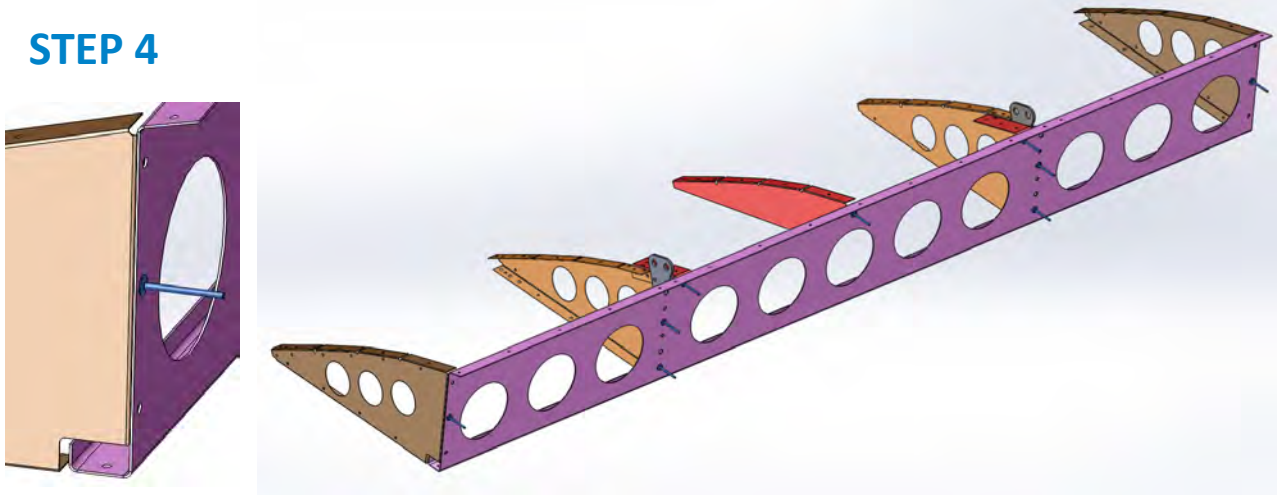
STEP 3



Rivet x2 Rear Wing Mount (16) and Back Brace (30, 29) onto the Inner Rear Profile (10, 9)

Repeat: 1x LH
1x RH

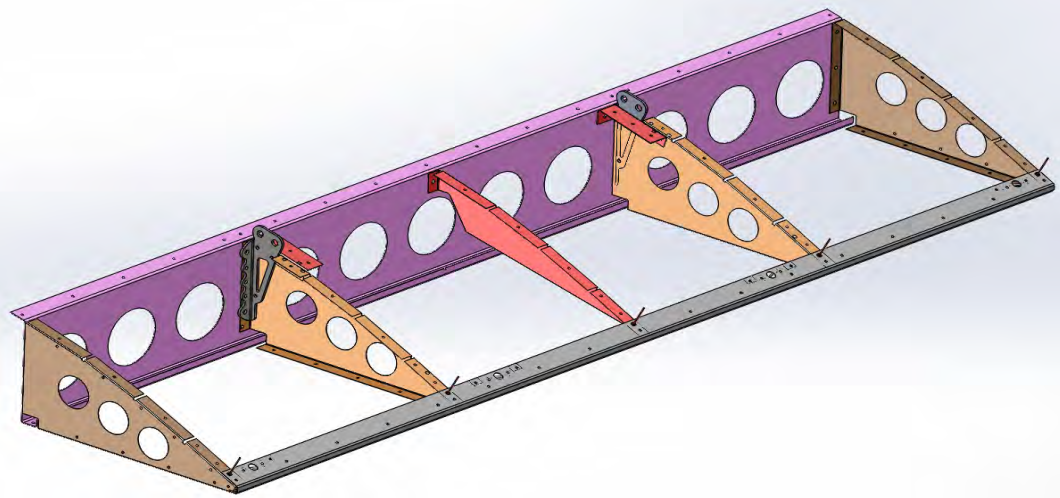
STEP 4




3/16" Rivets
x9

Attach Step 3 assemblies, Outer Rear Profiles (7, 8), and the Rear Center Profile (33) to the Rear Cross Rib (12)

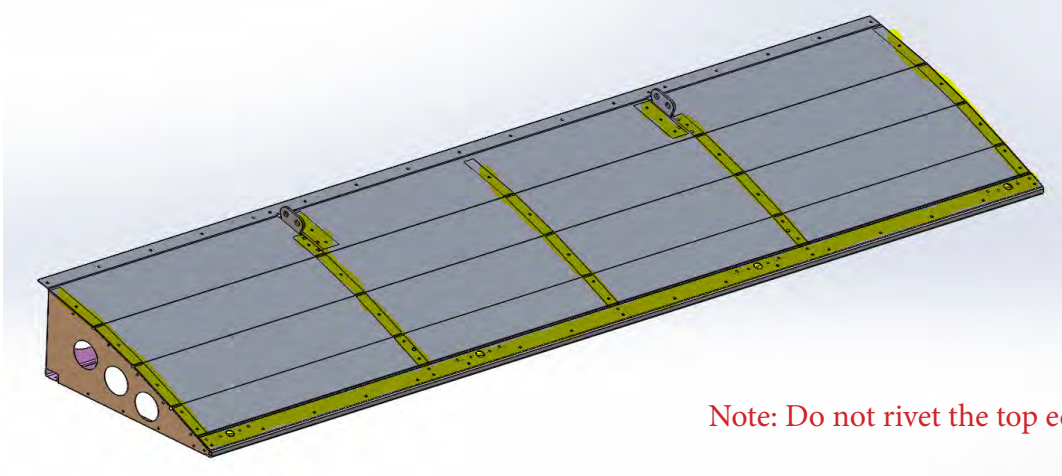
STEP 5




1/8" Rivets
x5

Attach Step 2 to Step 4

STEP 6

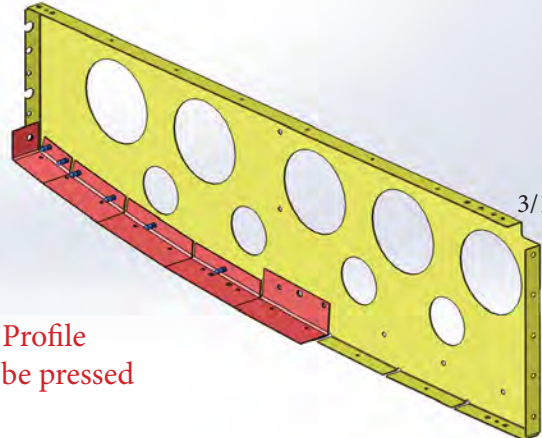
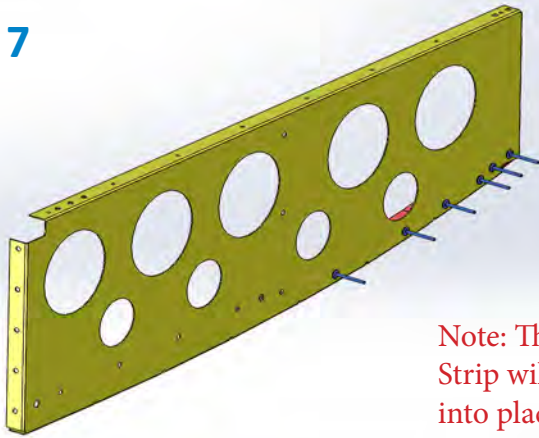



1/8" Rivets
x50

Note: Do not rivet the top edge

Attach the Bottom Rear Skin (22) onto Step 5 by riveting the 1/8" holes highlighted

STEP 7



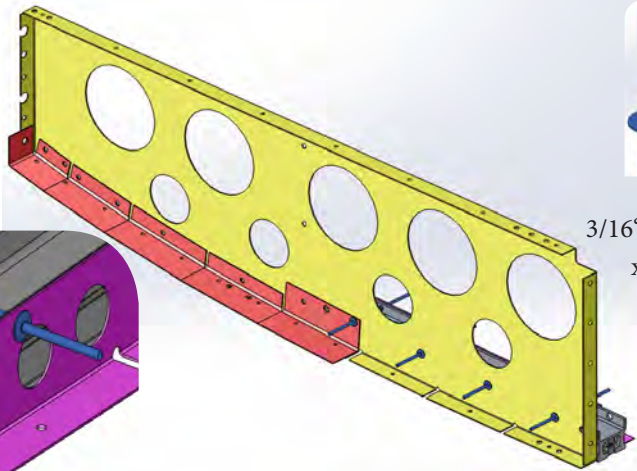
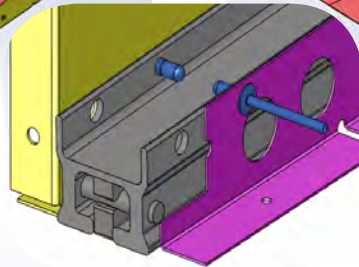
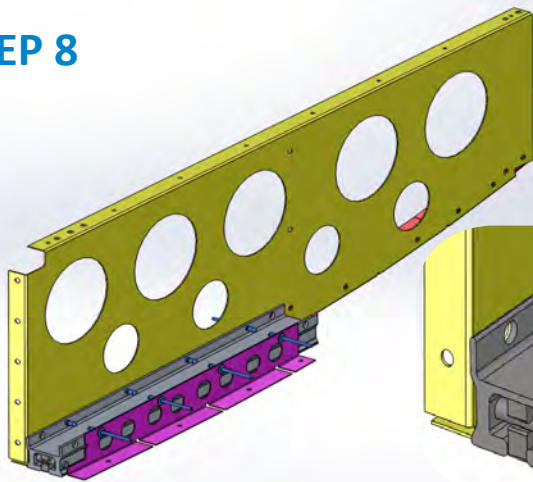
3/16" Rivets
x12

Note: The Center Profile Strip will need to be pressed into place

Rivet the Center Profile Strip (27, 28) onto the Inner Center Profile (5, 6)

Repeat: 1x LH
1x RH

STEP 8

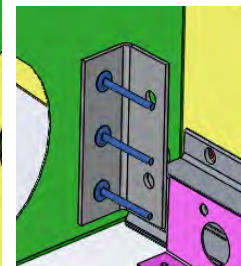
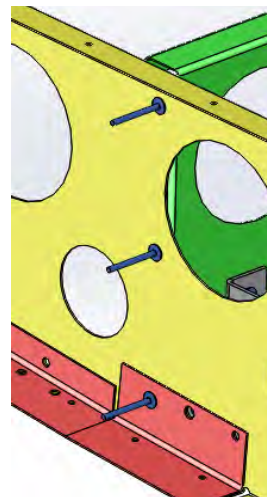
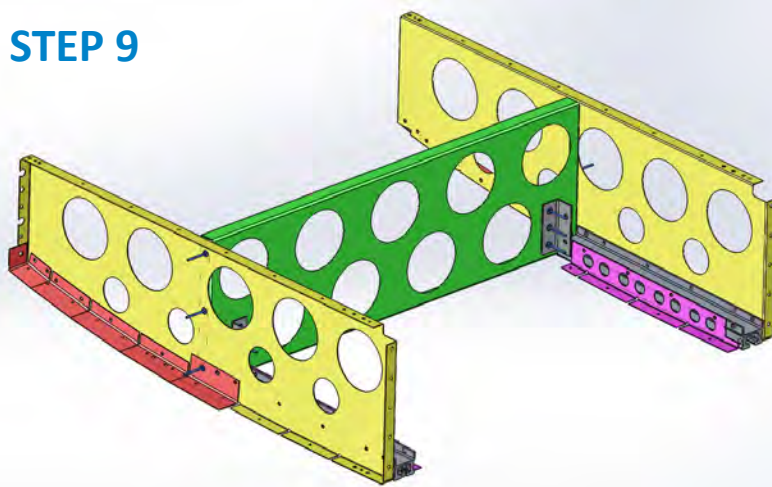


3/16" Rivets
x16

Rivet the Center Skin Support (17, 18) to the x2 Runners (34), and lastly, rivet the Runner Assembly to Step 7

Repeat: 1x LH
1x RH

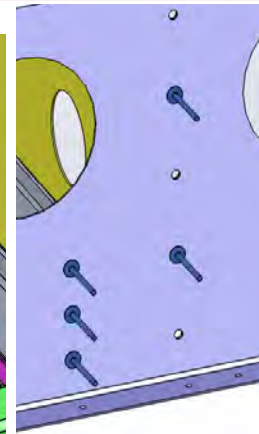
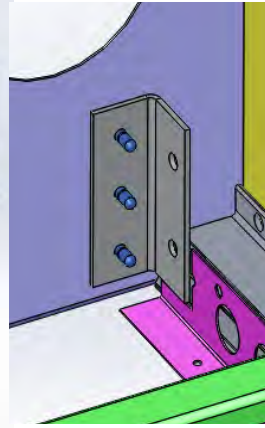
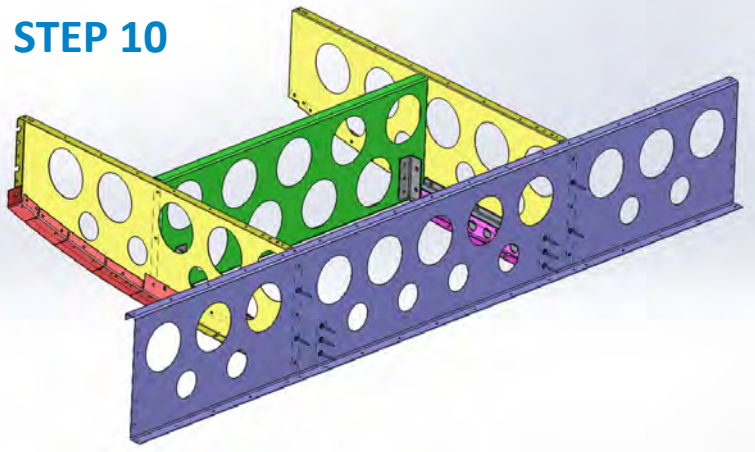
STEP 9



3/16" Rivets
x12

Rivet Step 8 to the Middle Rib (13), then rivet on x2 Runner Supports (15) to the Middle Rib (13)

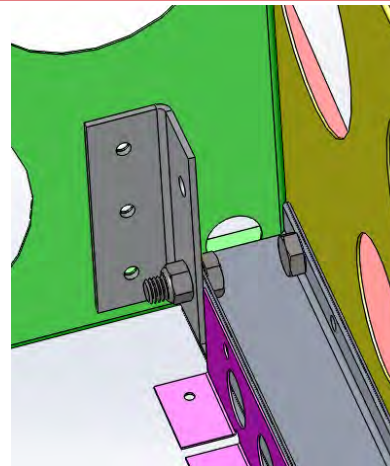
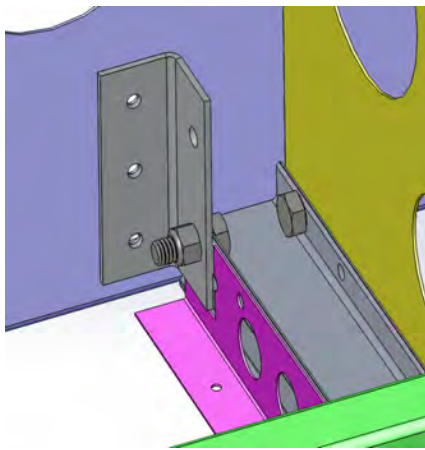
STEP 10




3/16" Rivets
x10

Rivet the Front Rib (14) to Step 9, then rivet on x2 Runner Supports (15) to the Front Rib (14)

STEP 11

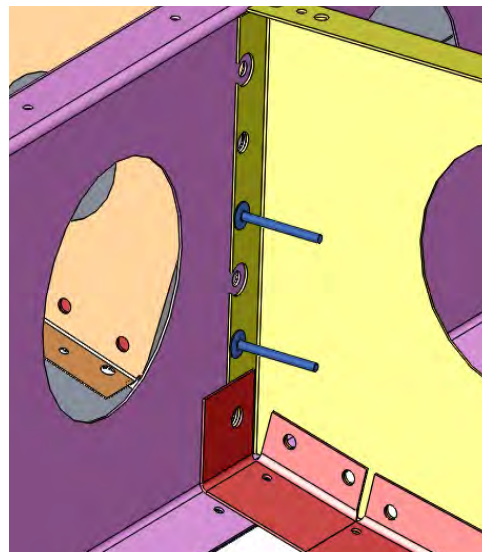
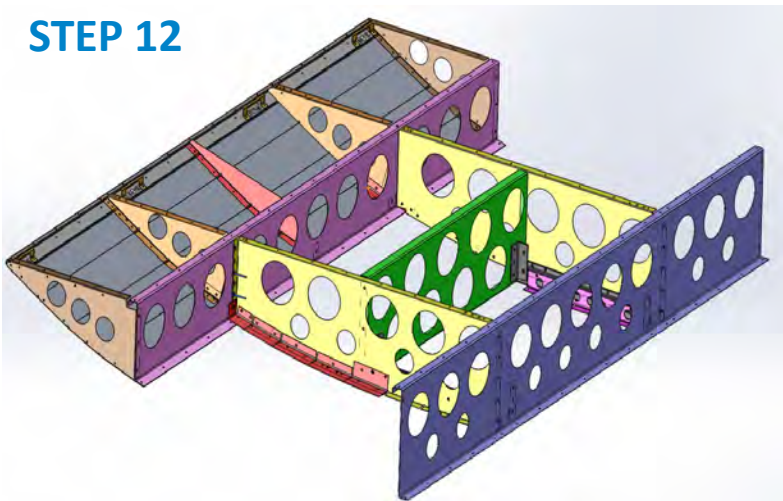



1/4-20
Lock Nut
x8


1/4-20
x5/8 Bolt
x8

Install the 1/4-20 x5/8 Bolts and Nuts to each corner of the runners

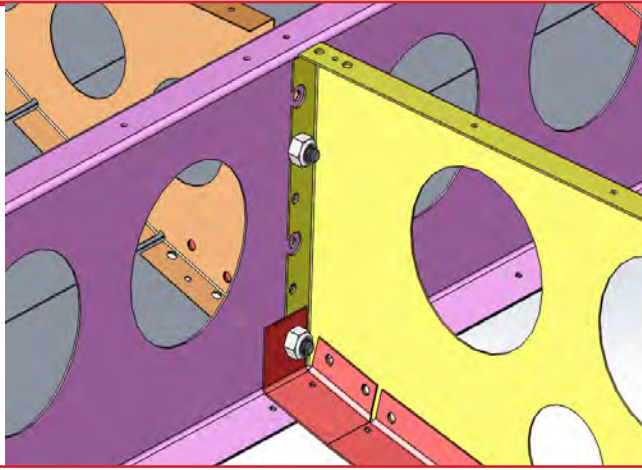
STEP 12




3/16" Rivets
x4

Rivet Step 6 to Step 11

STEP 13



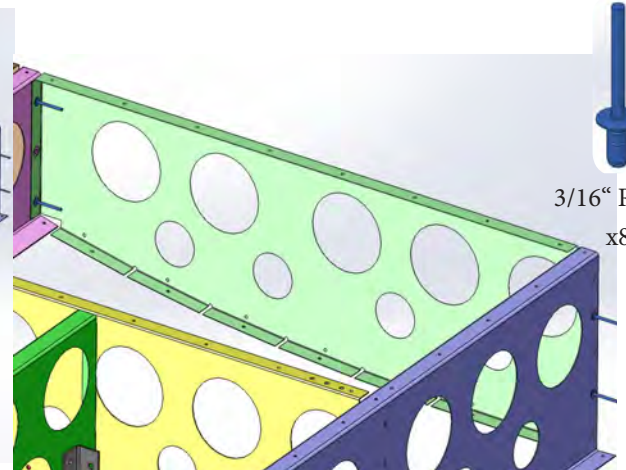
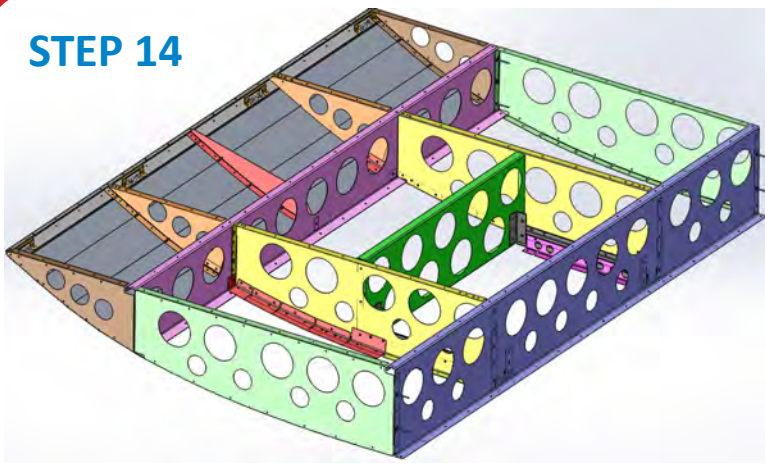
1/4-20
Lock Nut
x4



1/4-20
x3/4 Bolt
x4

Install the 1/4-20 x3/4 Bolts and Nuts to strengthen Step 12

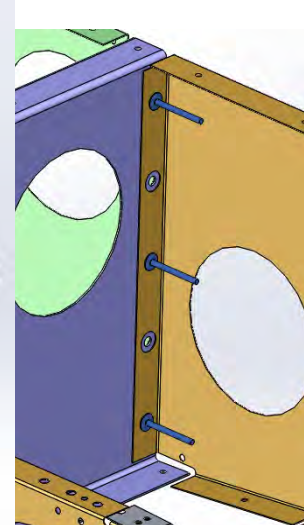
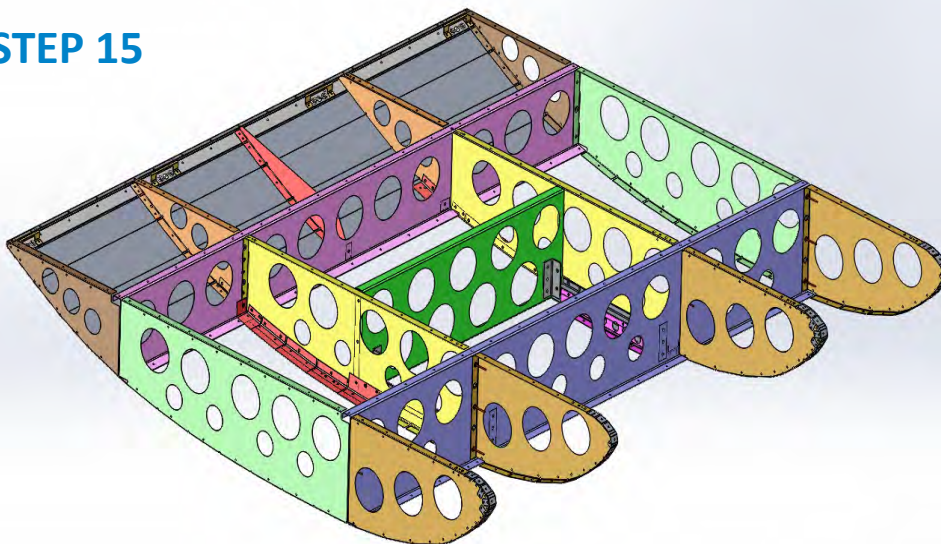
STEP 14



3/16" Rivets
x8

Rivet the Center Outer Profiles (3, 4) to Step 13

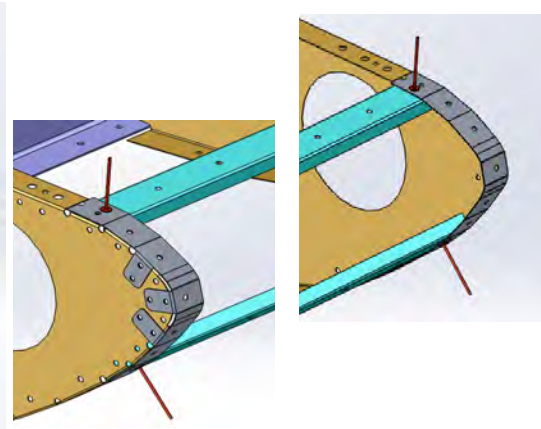
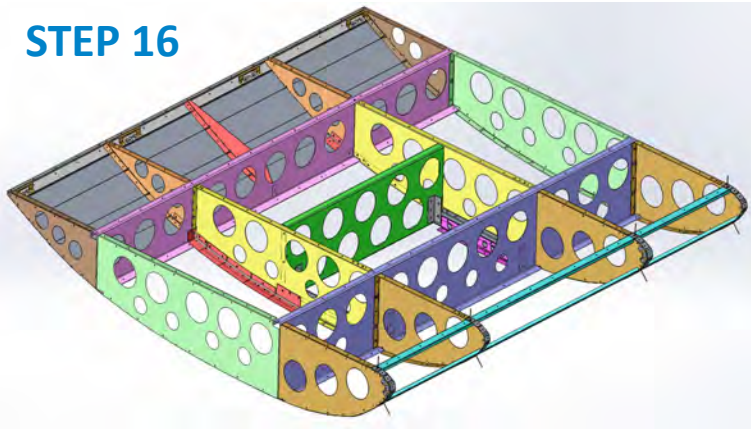
STEP 15



3/16" Rivets
x12

Rivet Step 1 to Step 14

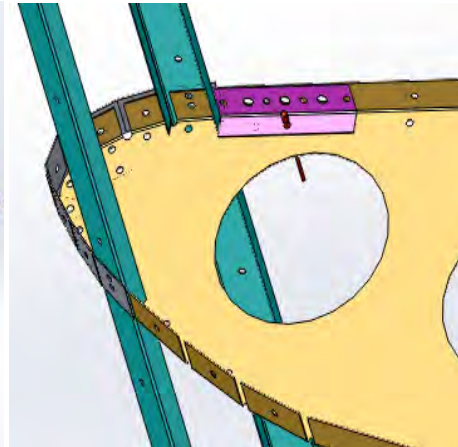
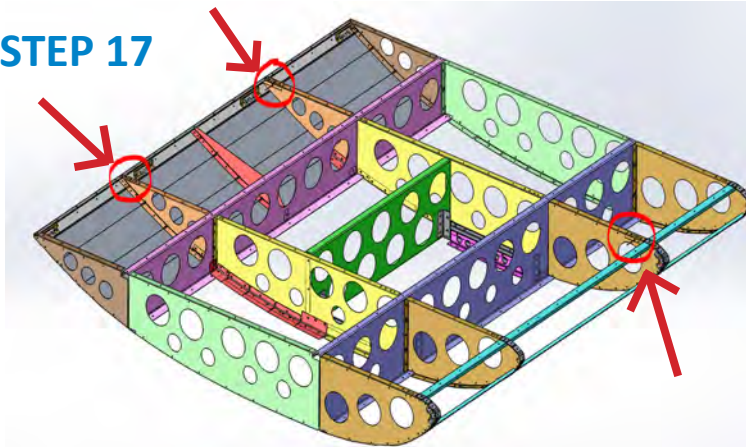
STEP 16



1/8" Rivets
x8

Rivet on x2 Nose Backers (23) to Step 15

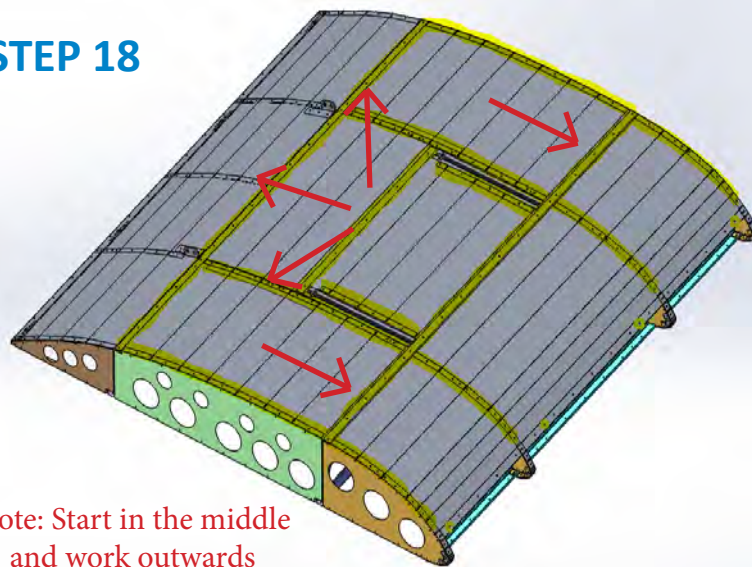
STEP 17



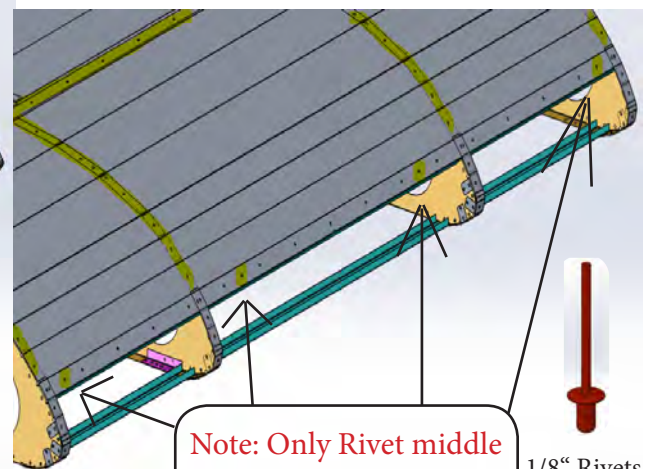
1/8" Rivets
x3

Rivet on x3 Brace Stiffeners (31) onto Step 16 on the inside of each profile at the three locations circled in red

STEP 18



Note: Start in the middle
and work outwards

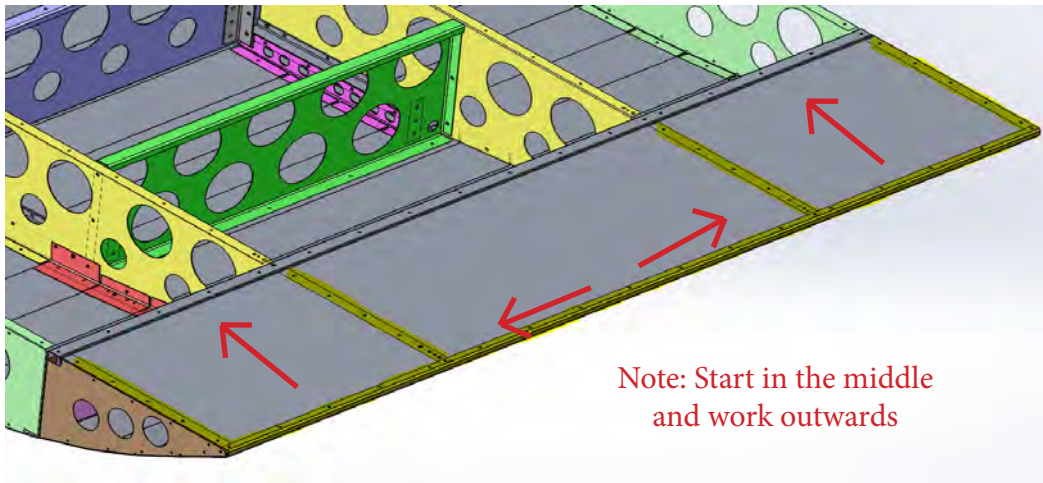


Note: Only Rivet middle
hole in the group of 3

1/8" Rivets

Attach the Bottom Skin (19) to Step 17 by riveting the 1/8" holes highlighted

STEP 19

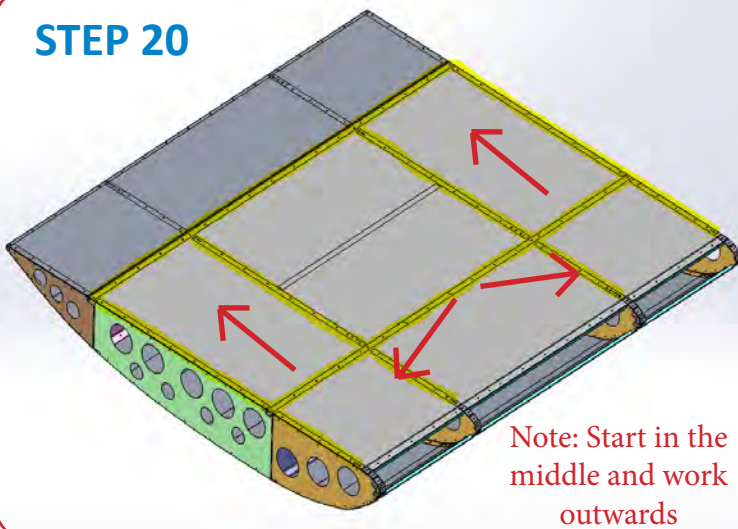


1/8" Rivets

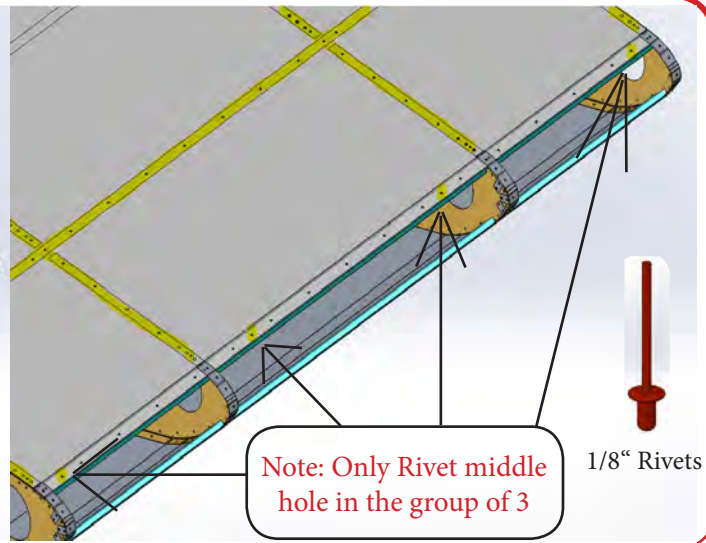
Note: Start in the middle and work outwards

Rivet the Top Rear Skin (21) to Step 18 by riveting the 1/8" holes highlighted

STEP 20



Note: Start in the middle and work outwards

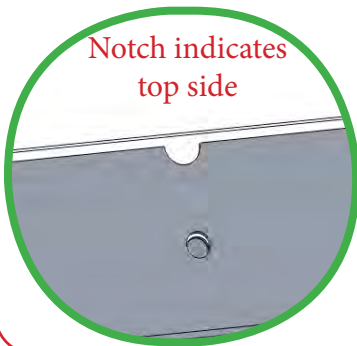


Note: Only Rivet middle hole in the group of 3

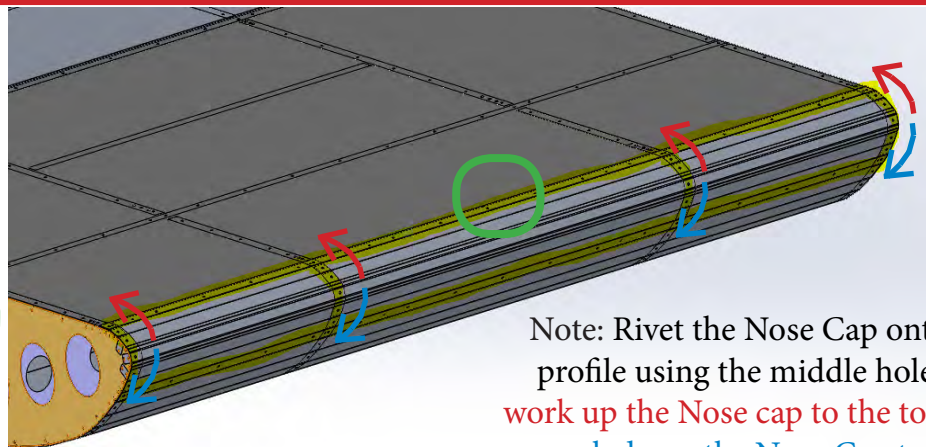
1/8" Rivets

Rivet the Top Skin (20) to Step 19 by riveting the 1/8" holes highlighted

STEP 21



Notch indicates top side

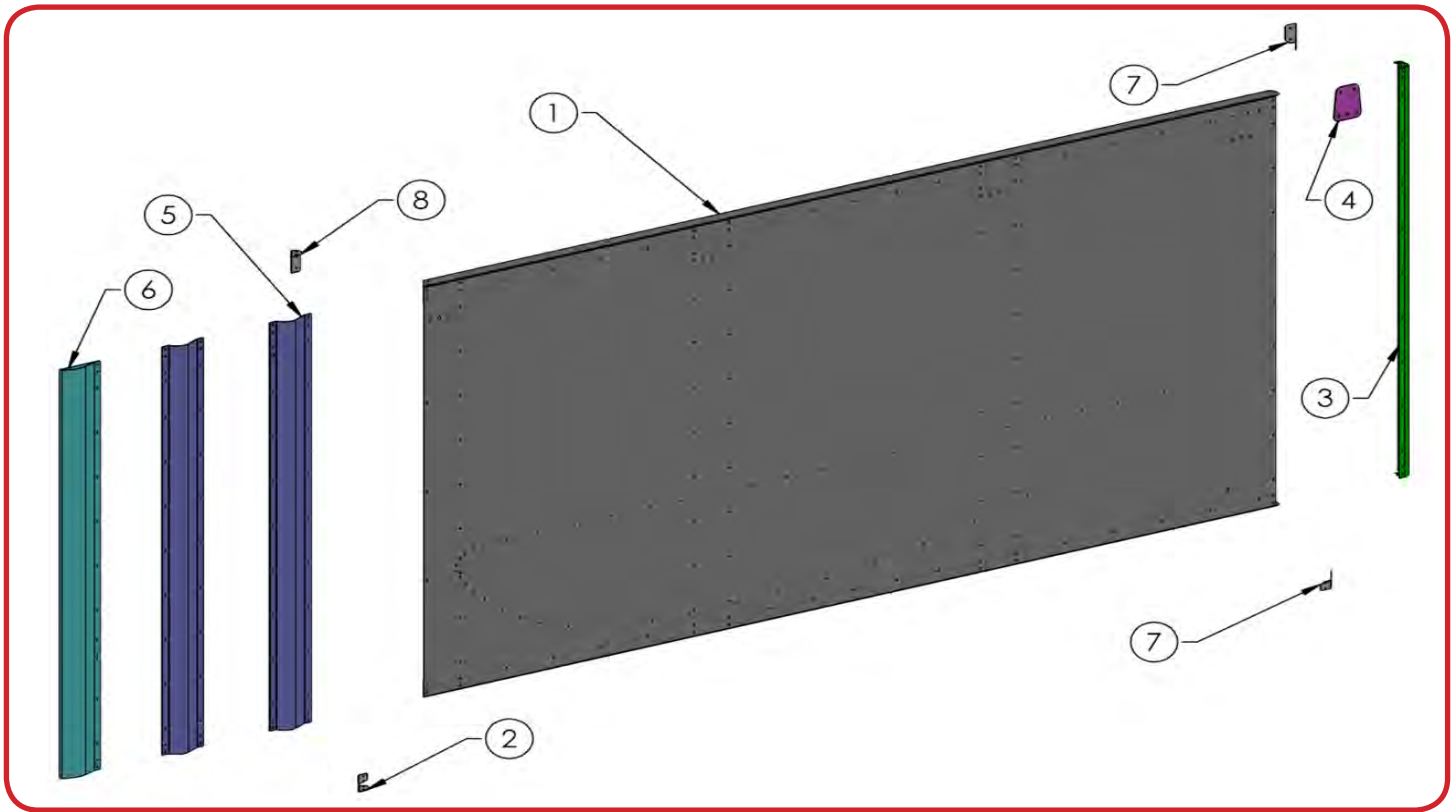


1/8" Rivets

Note: Rivet the Nose Cap onto each profile using the middle hole, then work up the Nose cap to the top. Lastly, work down the Nose Cap to finish

Rivet the Nose Cap (25) to Step 20 by riveting the 1/8" holes highlighted

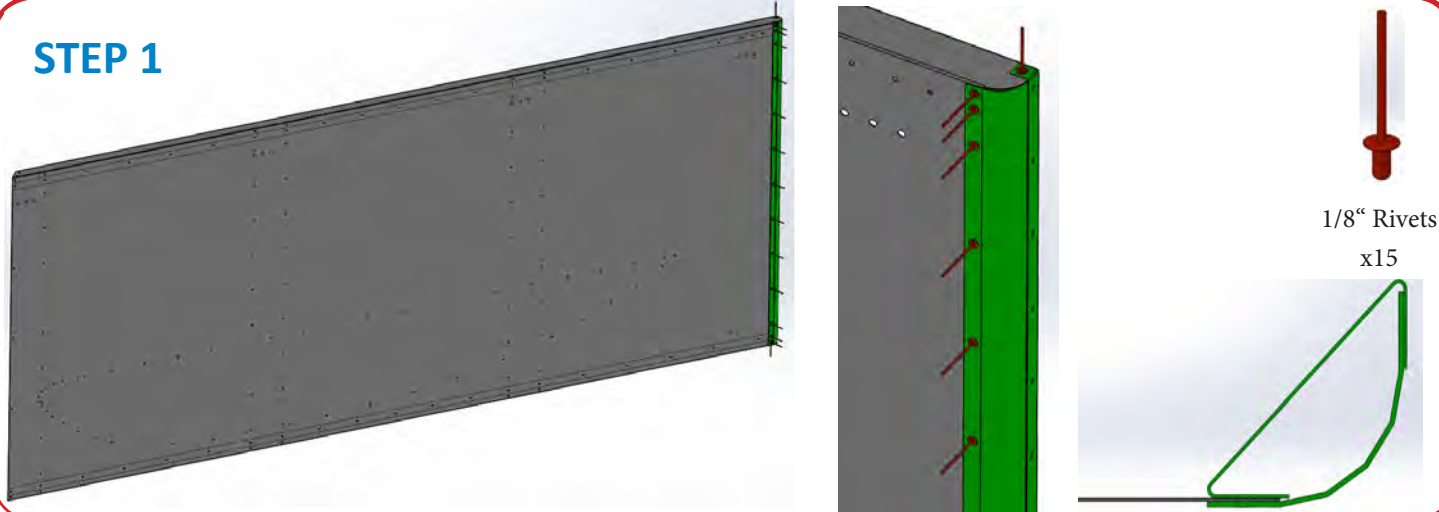
LH 2" Lead Board Schematic and Checklist



LH 2" LEAD BOARD PARTS LIST

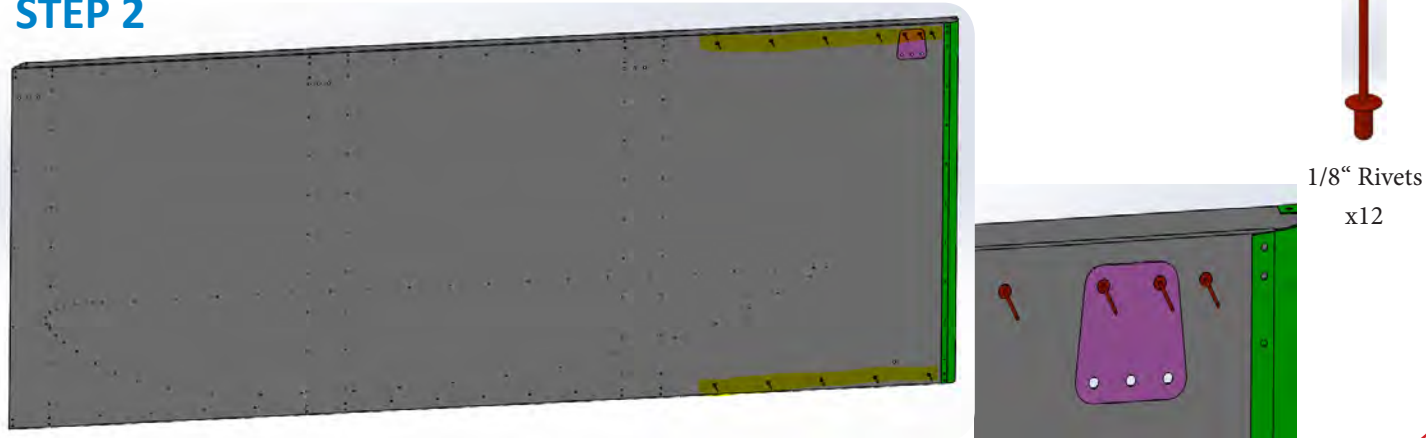
SKU #	HRP #	PART DESCRIPTION	QUA	CHECK
1	SHK5083-200	Side Board	1	
2	VFT5097	Front Bottom Cap	1	
3	SHK5085	Back Edge	1	
4	VFT5085	Brace Stiffener	1	
5	SHK5081	Upright	2	
6	SHK5082-200	Front Edge	1	
7	VFT5095	Back Stiffener	2	
8	VFT5096	Front Top Cap	1	

STEP 1



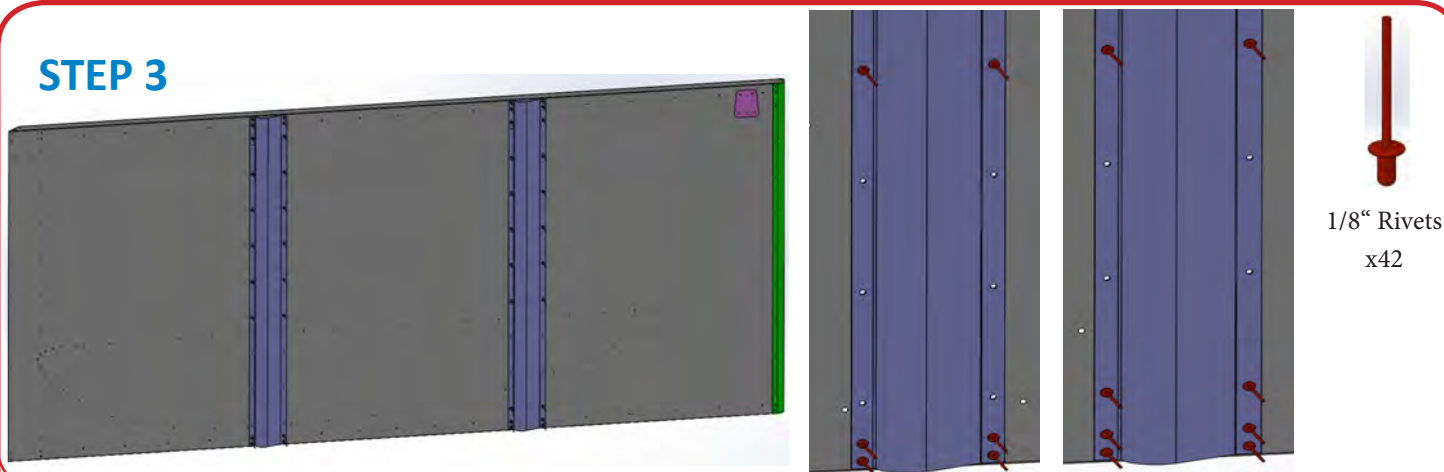
Rivet the Back Edge (3) to the Side Board (1)

STEP 2



Rivet the Brace Stiffener (4) to Step 1 and then rivet the bottom and top edges of the back half of Step 1 by riveting the 1/8" holes highlighted

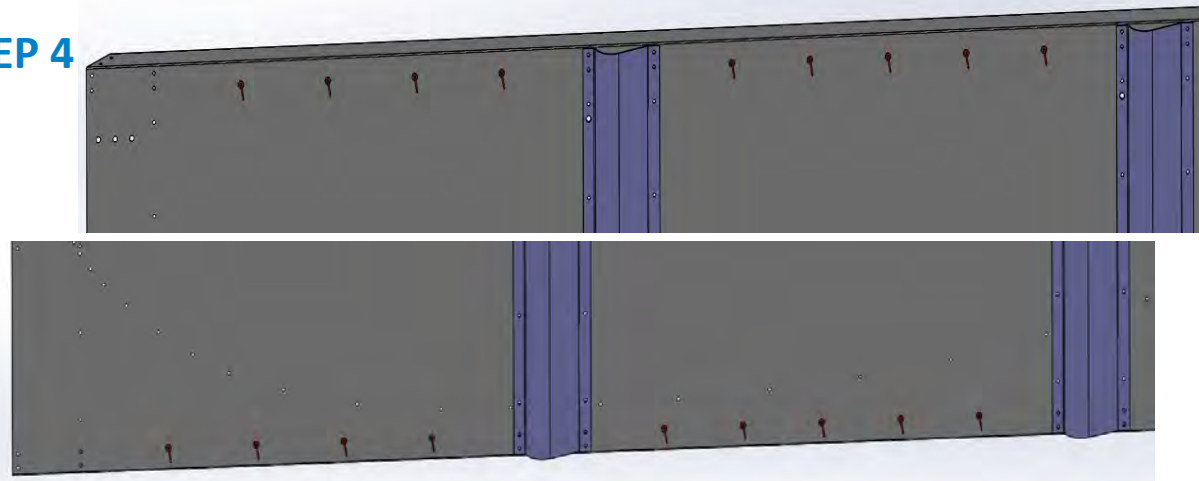
STEP 3



Rivet the x2 Upright (5) to Step 2

Note: There are no rivets on the Cross Brackets where the wing profile is

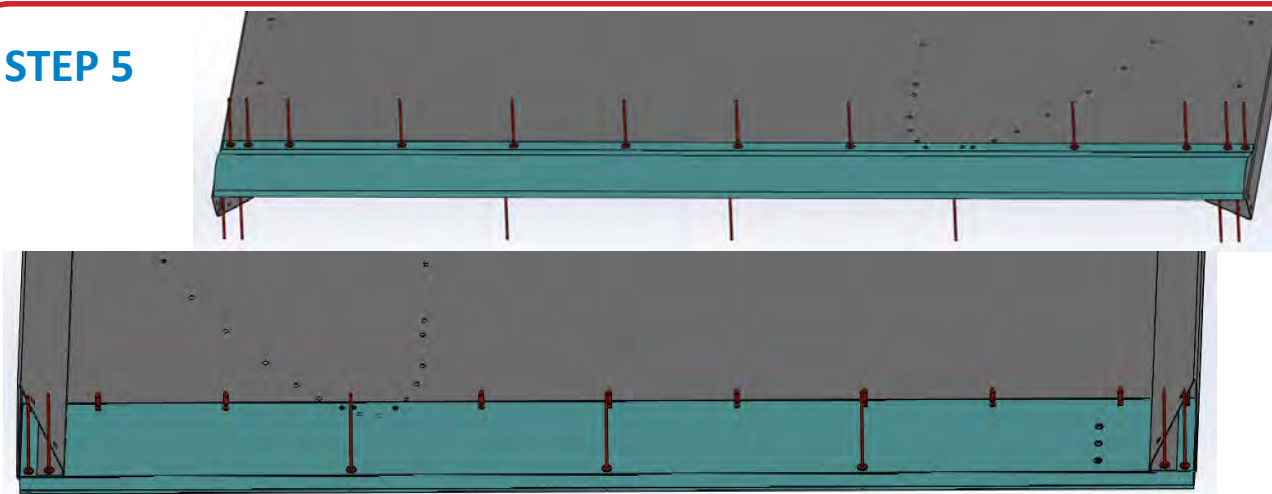
STEP 4



1/8" Rivets
x18

Rivet the rest of the bottom and top edges of Step 3 leaving the holes in the front where the Front Edge (6) is attached

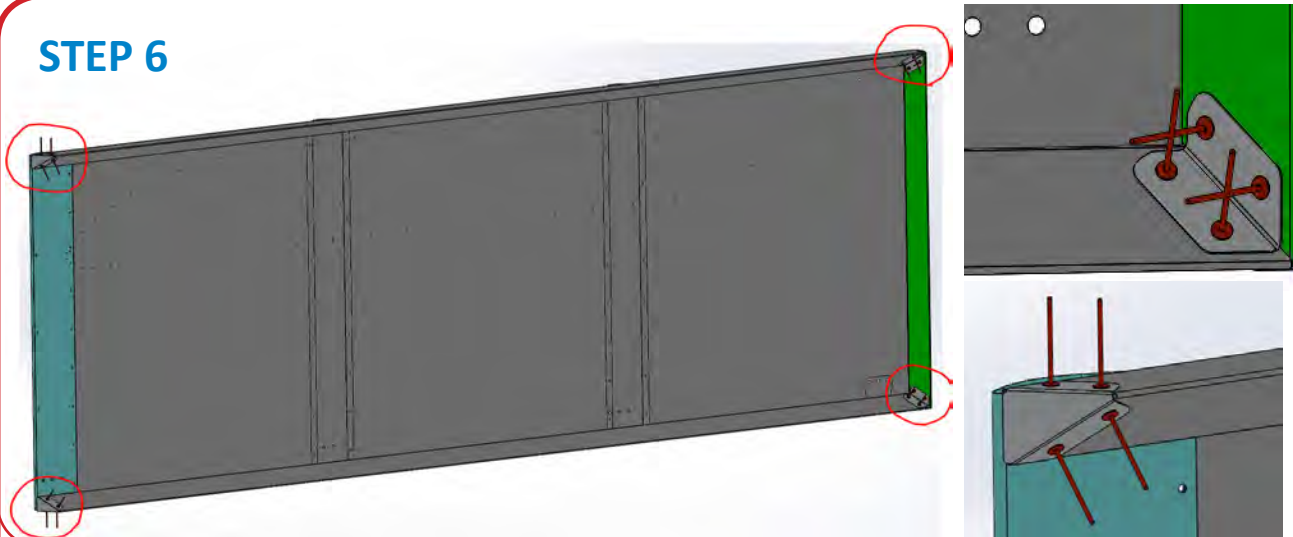
STEP 5



1/8" Rivets
x19

Rivet on the Front Edge (6) to Step 4

STEP 6

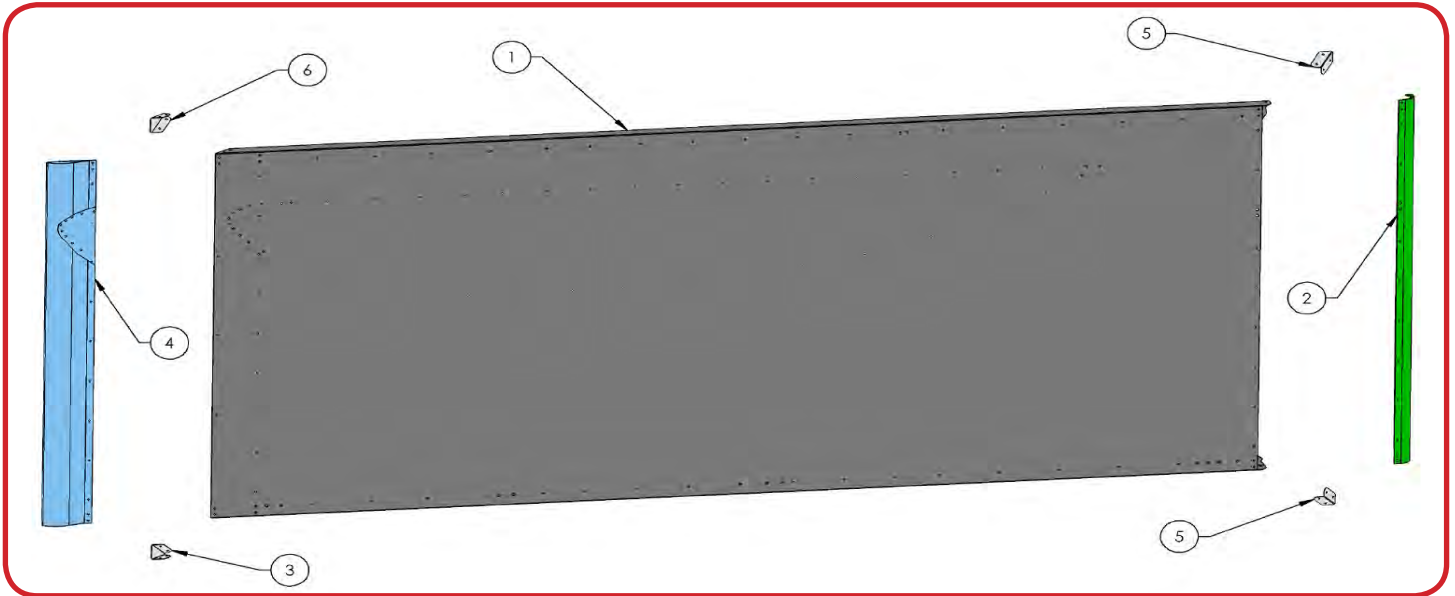


1/8" Rivets
x16

Rivet the x2 Back Stiffener (7) to Step 5 and then rivet the Front Bottom Cap (2) and Front Top Cap (8) to Step 5

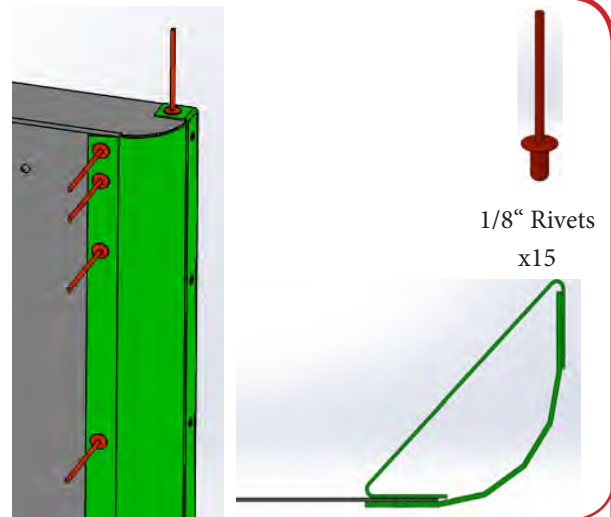
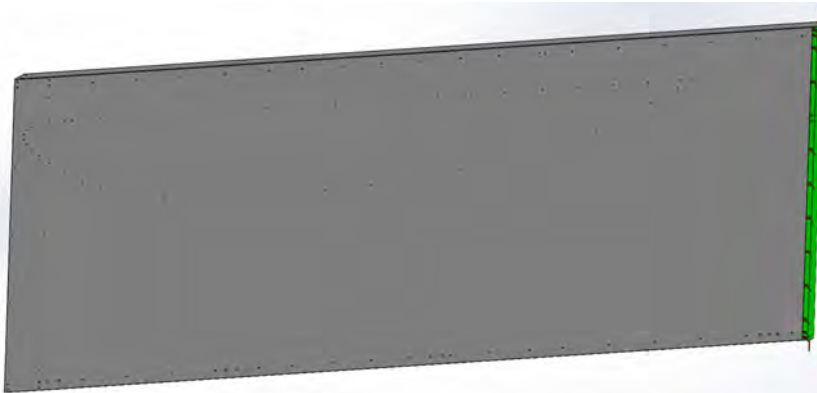
Note: Empty out any shavings from drilled rivets before attaching the Cap's

RH Super Board Schematic and Checklist



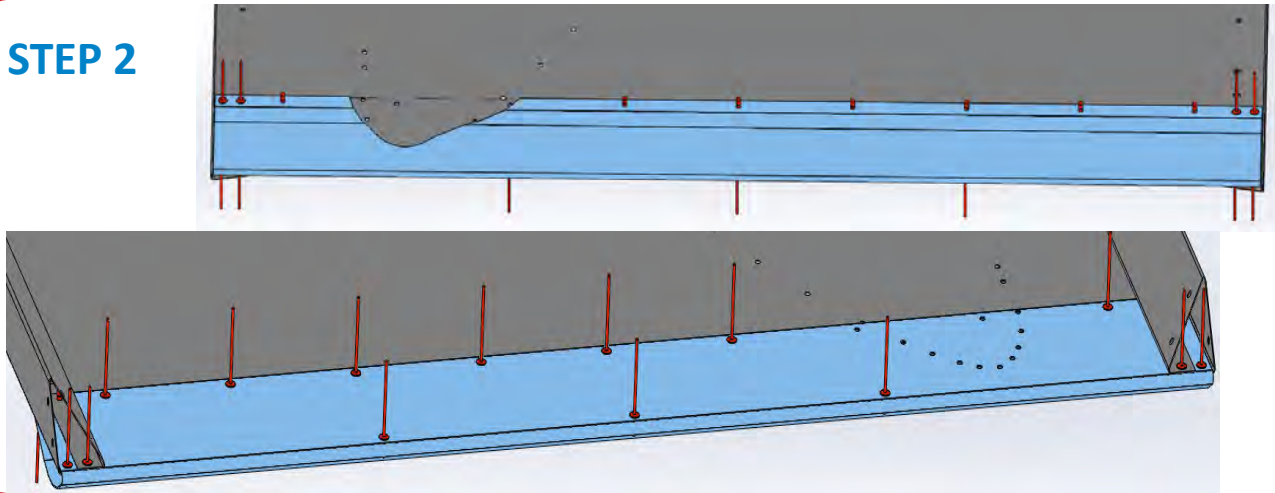
RH SUPER BOARD PARTS LIST				
SKU #	HRP #	PART DESCRIPTION	QUA	CHECK
1	SHK5090-S050	Side Board	1	
2	SHK5086	Back Edge	1	
3	VFT5097	Front Bottom Cap	1	
4	SHK5089-S050	Front Edge	1	
5	VFT5095	Back Stiffener	2	
6	SHK5082-200	Front Edge	1	
7	VFT5096	Front Top Cap	1	

STEP 1



Rivet the Back Edge (2) to the Side Board (1)

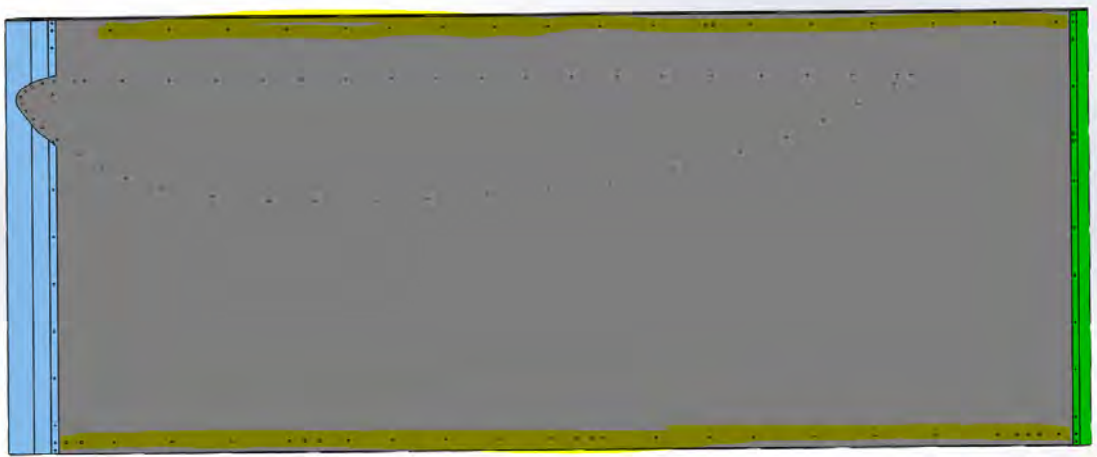
STEP 2



1/8" Rivets
x17

Rivet on the Front Edge (4) to Step 1

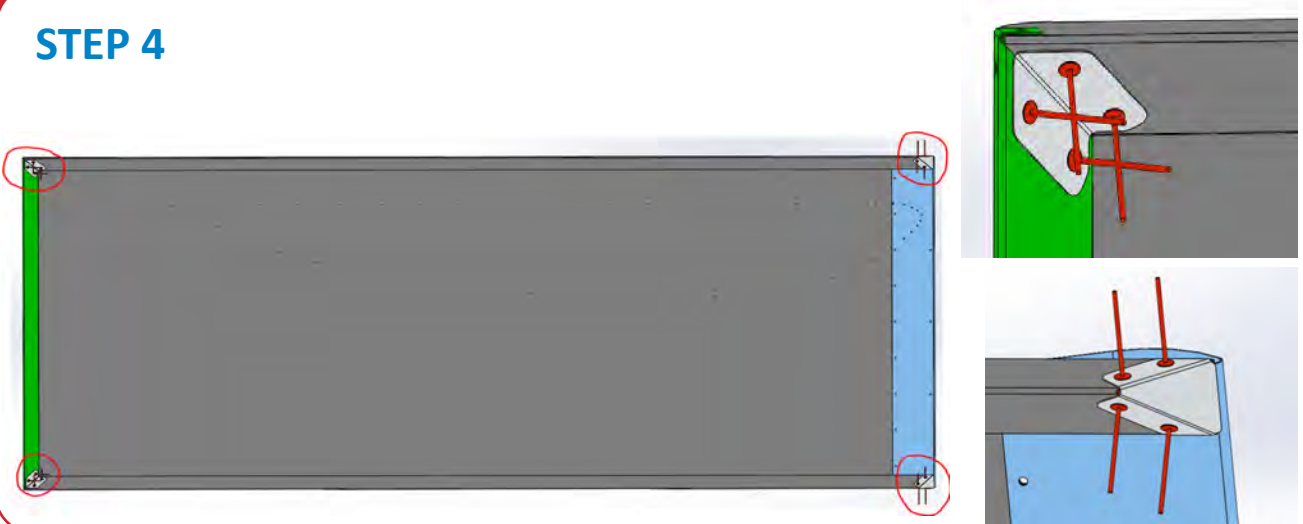
STEP 3



1/8" Rivets

Rivet the 1/8" holes highlighted

STEP 4

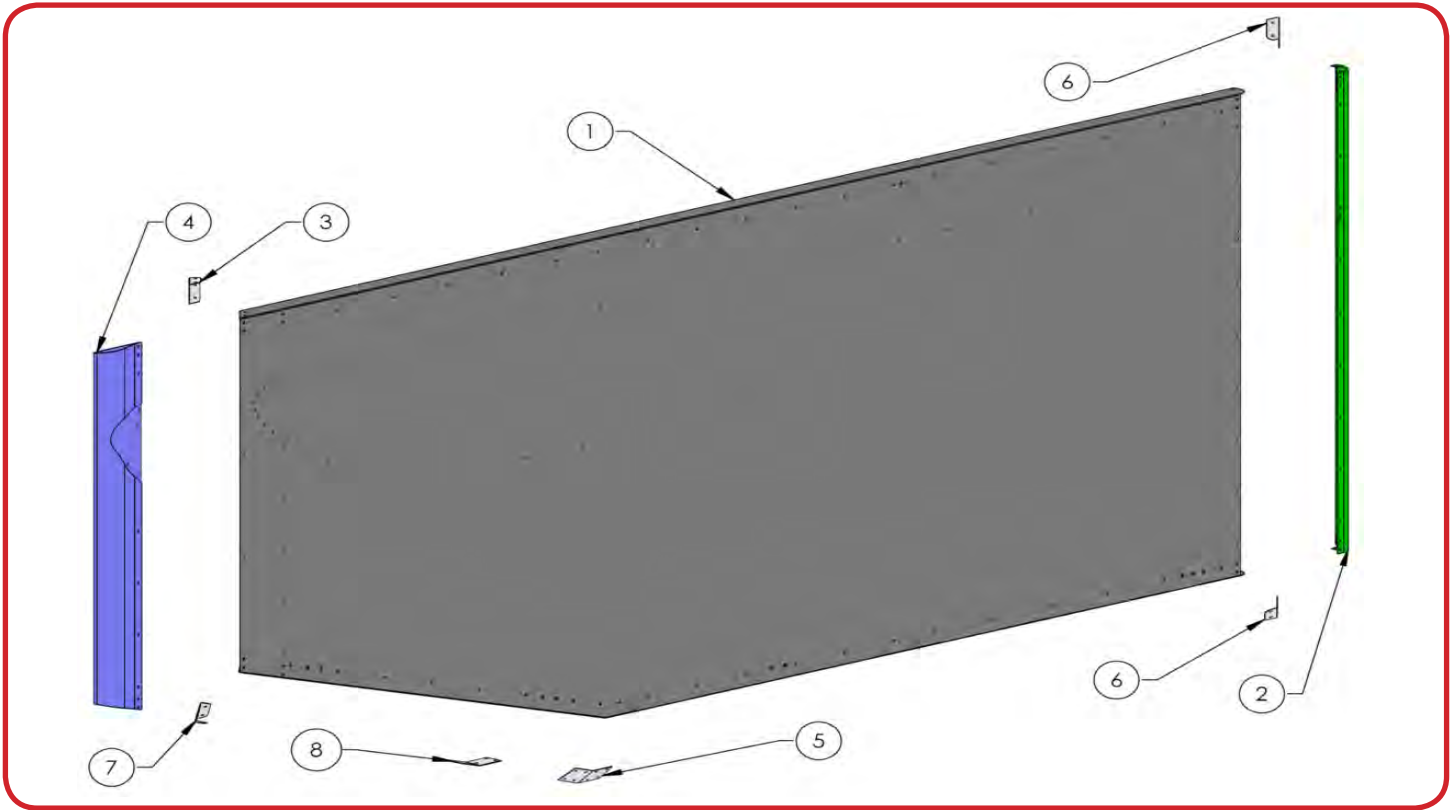


1/8" Rivets
x16

Rivet the x2 Back Stiffener (5) to Step 3 and then rivet the Front Bottom Cap (3) and Front Top Cap (6) to Step 3

Note: Empty out any shavings from drilled rivets before attaching the Cap's

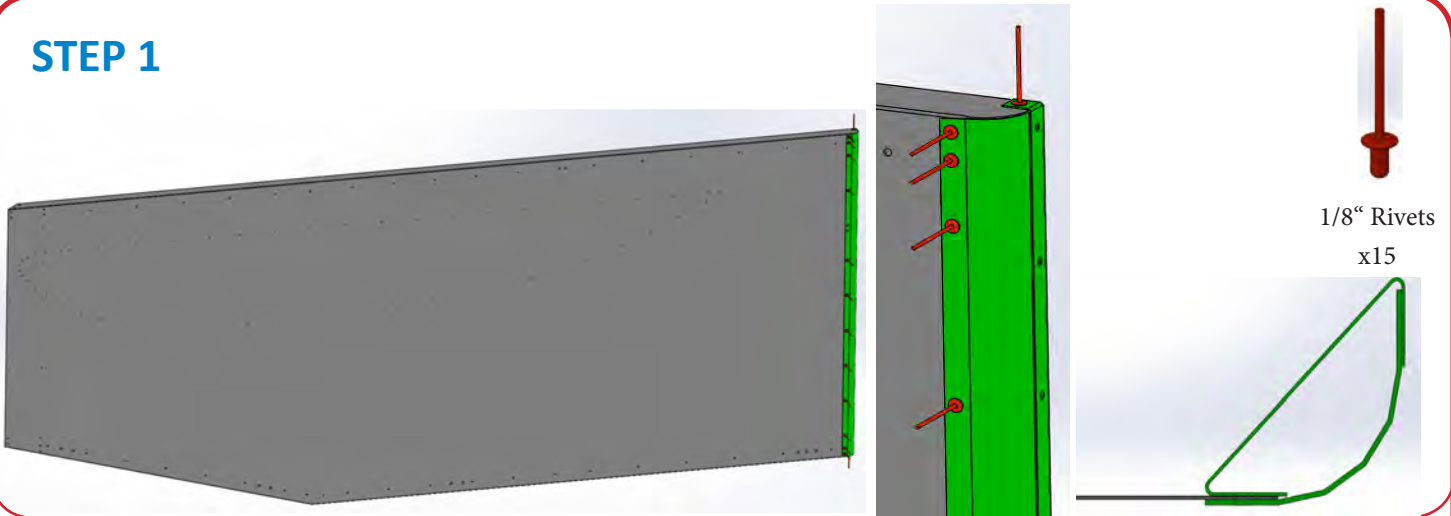
RH Super Angle Board Schematic and Checklist



RH SUPER ANGLE BOARD PARTS LIST

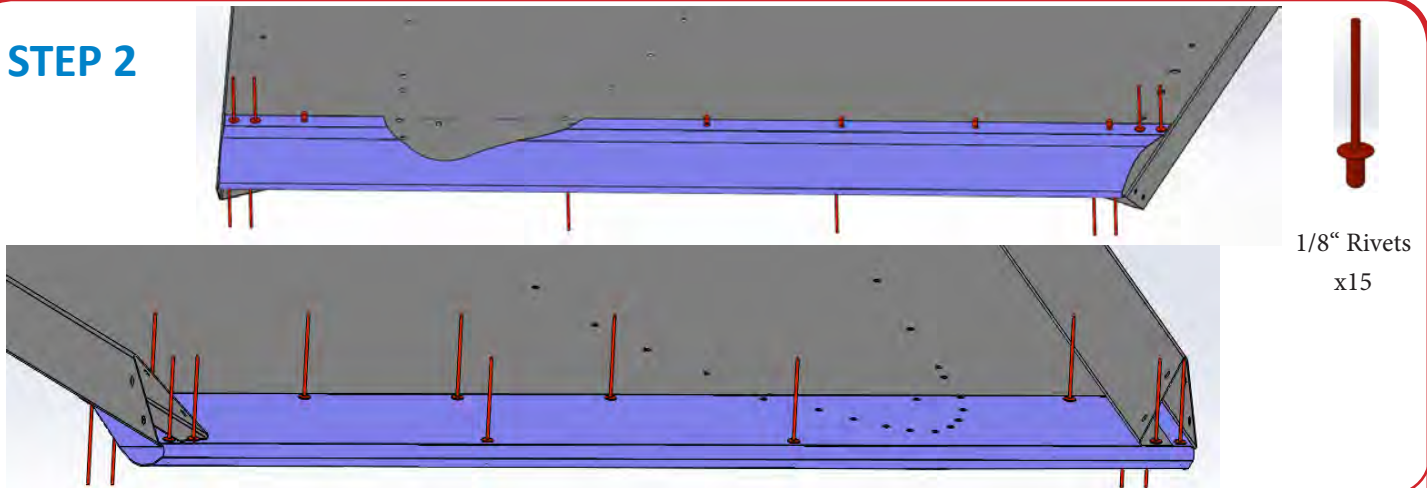
SKU #	HRP #	PART DESCRIPTION	QUA	CHECK
1	SHK5090-S050-ANG	Side Board	1	<input type="checkbox"/>
2	SHK5086-S	Back Edge	1	<input type="checkbox"/>
3	VFT5096	Front Top Cap	1	<input type="checkbox"/>
4	SHK5089-SANG	Front Edge	1	<input type="checkbox"/>
5	AF03350V	Inner Angle Stiffener	1	<input type="checkbox"/>
6	VFT5095	Back Stiffener	2	<input type="checkbox"/>
7	VFT5097	Front Bottom Cap	1	<input type="checkbox"/>
8	AF03349V	Outer Angle Stiffener	1	<input type="checkbox"/>

STEP 1



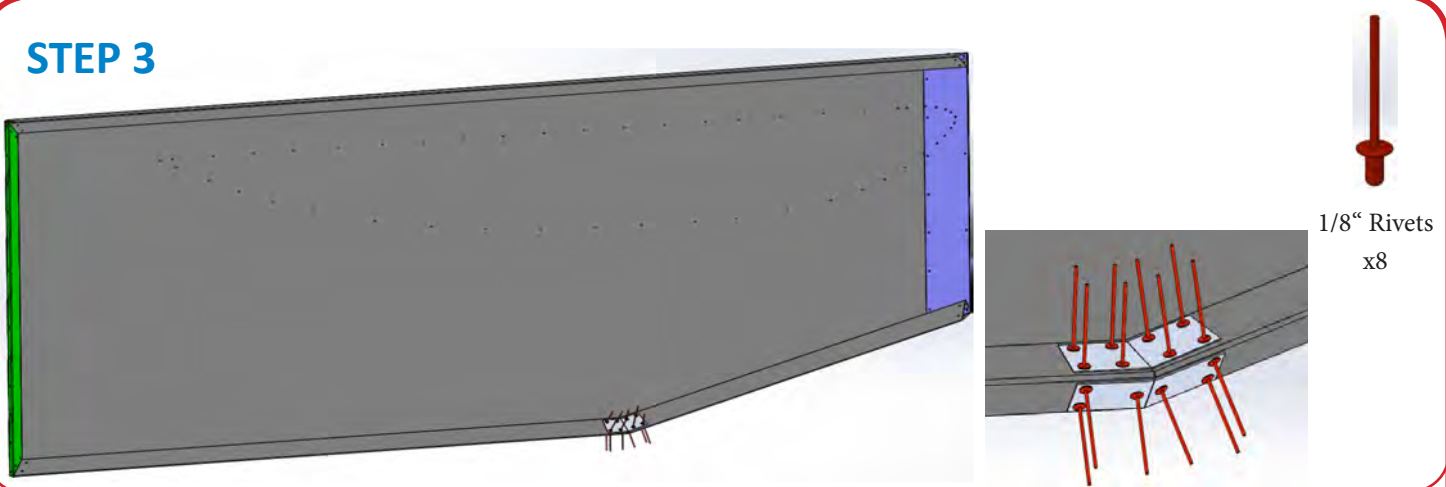
Rivet the Back Edge (2) to the Side Board (1)

STEP 2



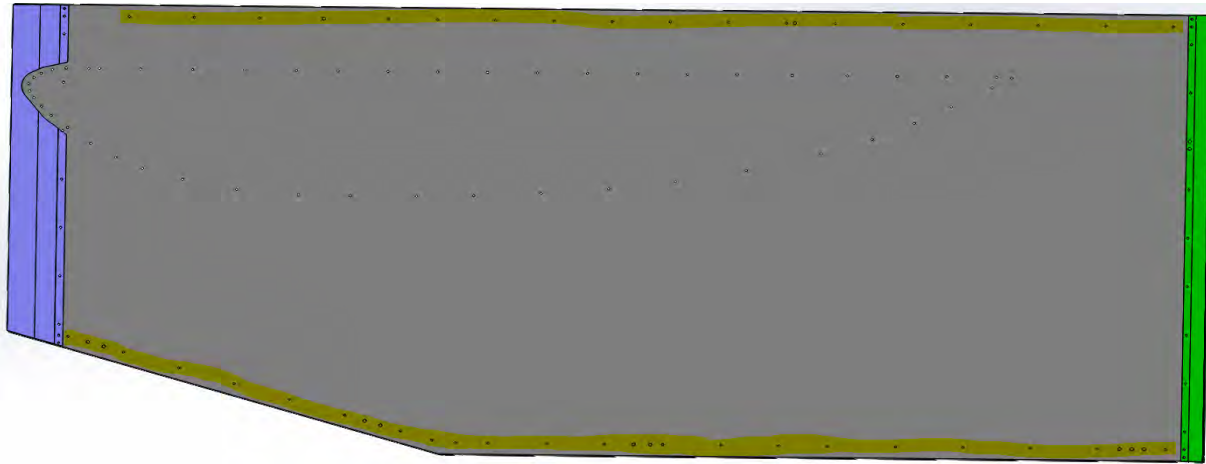
Rivet on the Front Edge (4) to Step 1

STEP 3



Rivet the Inner Angle Stiffener (5) and Outer Angle Stiffener (8) to Step 2

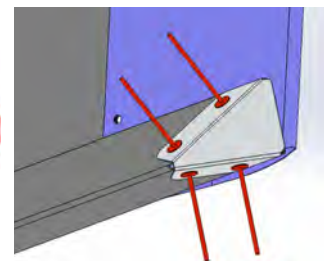
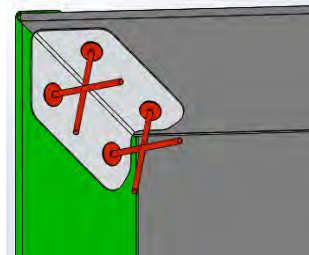
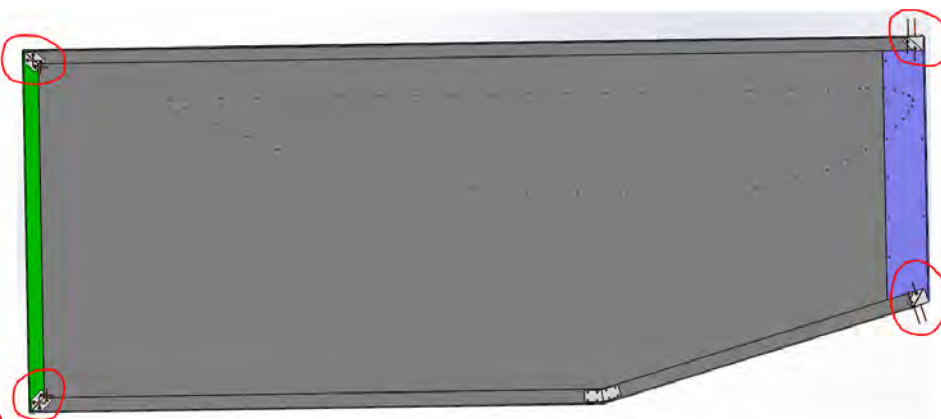
STEP 4



1/8" Rivets

Rivet the 1/8" holes highlighted

STEP 5

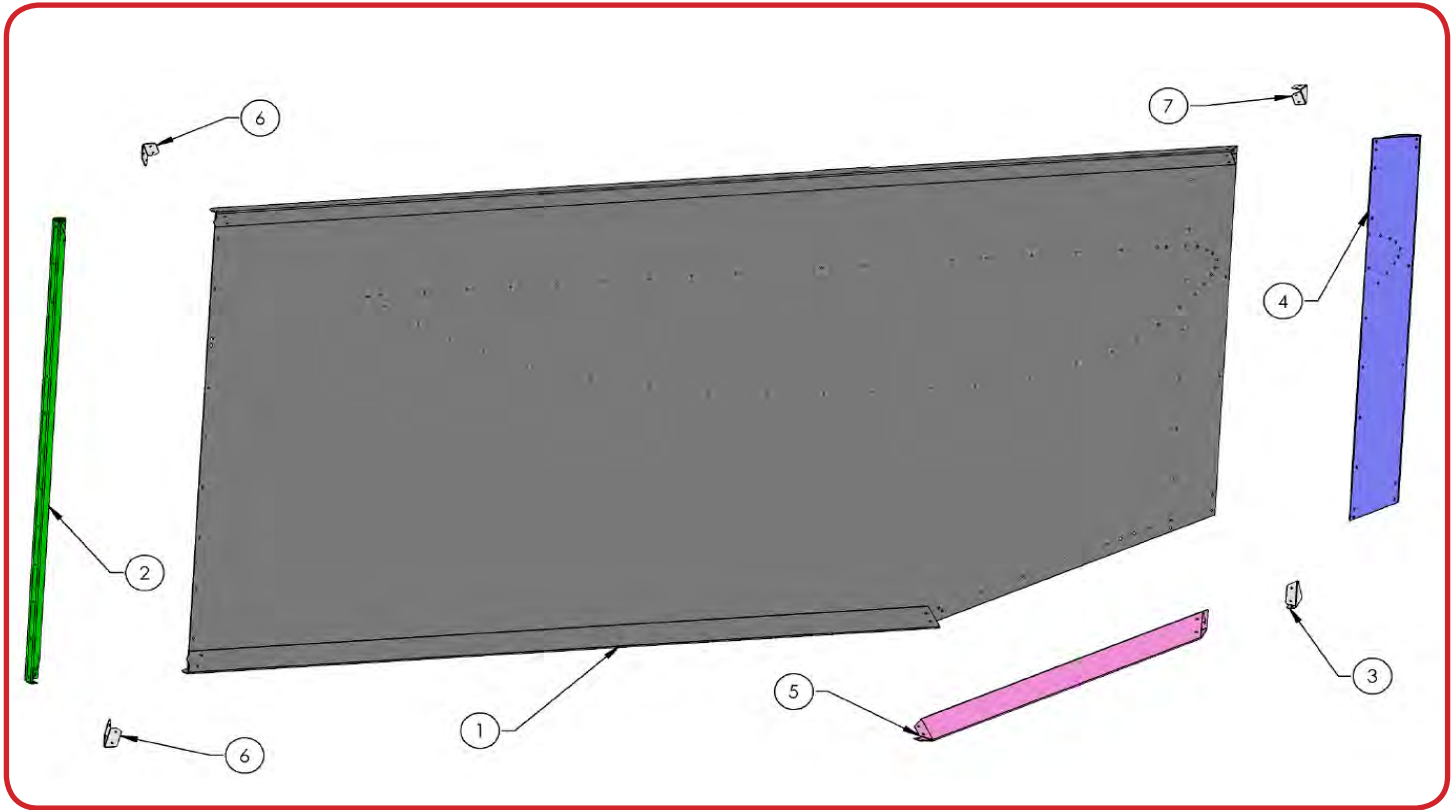


1/8" Rivets
x16

Rivet the x2 Back Stiffener (6) to Step 4 and then rivet the Front Bottom Cap (7) and Front Top Cap (3) to Step 4

Note: Empty out any shavings from drilled rivets before attaching the Cap's

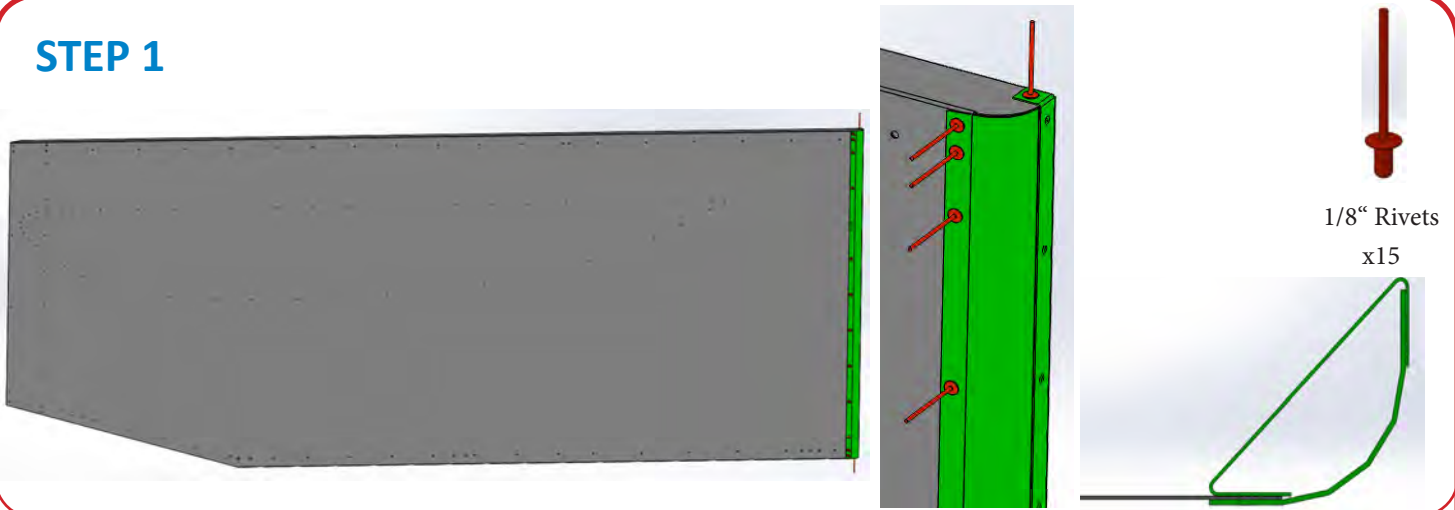
RH Super Motter Angle Board Schematic and Checklist



RH SUPER MOTTER ANGLE BOARD PARTS LIST

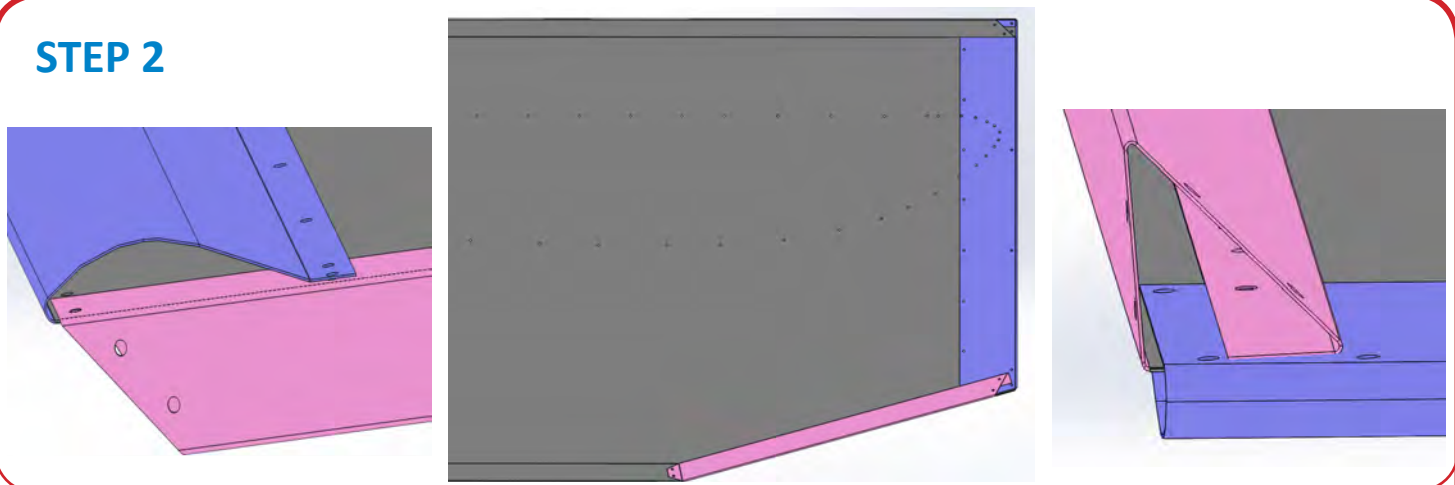
SKU #	HRP #	PART DESCRIPTION	QUA	CHECK
1	SHK5090-S050-ANG	Side Board	1	
2	SHK5086-S	Back Edge	1	
3	VFT5096	Front Top Cap	1	
4	SHK5089-SANG	Front Edge	1	
5	SHK5099	Angle Stiffener	1	
6	VFT5095	Back Stiffener	2	
7	VFT5097	Front Bottom Cap	1	

STEP 1



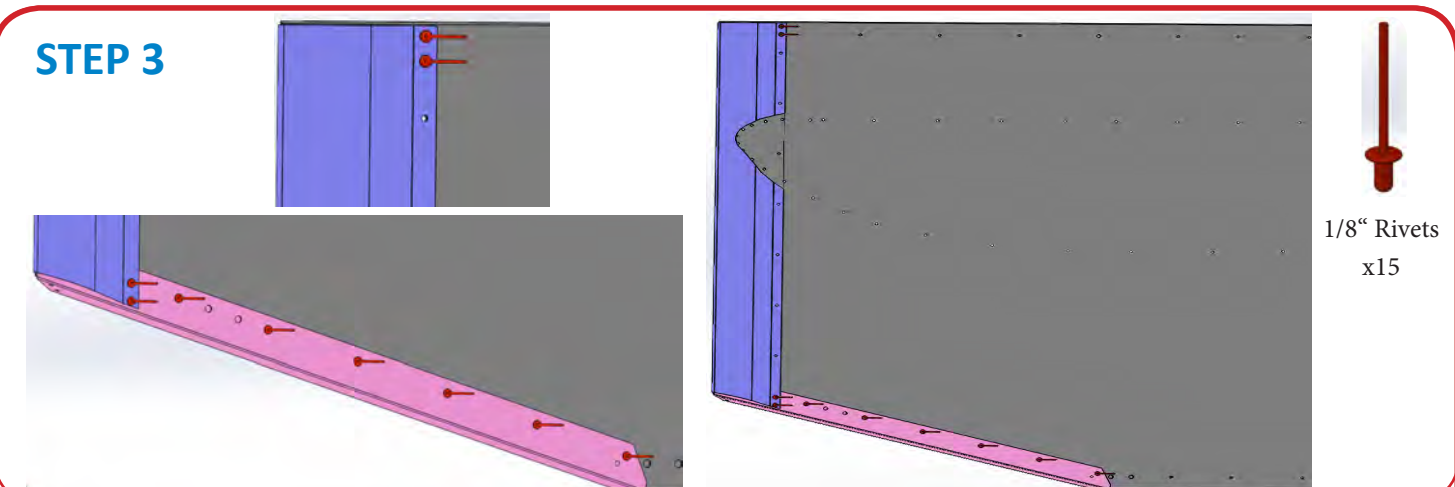
Rivet the Back Edge (2) to the Side Board (1)

STEP 2



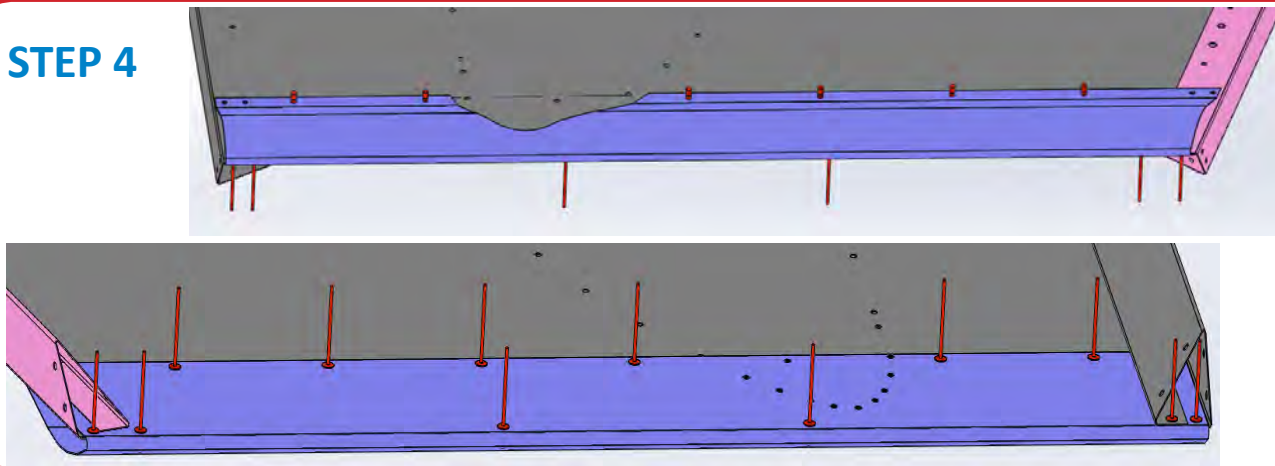
Dry fit the Angle Stiffener (5) and Front Edge (4) onto Step 1

STEP 3



Rivet the Angle Stiffener (5) and the top and bottom two holes on the Front Edge (4)

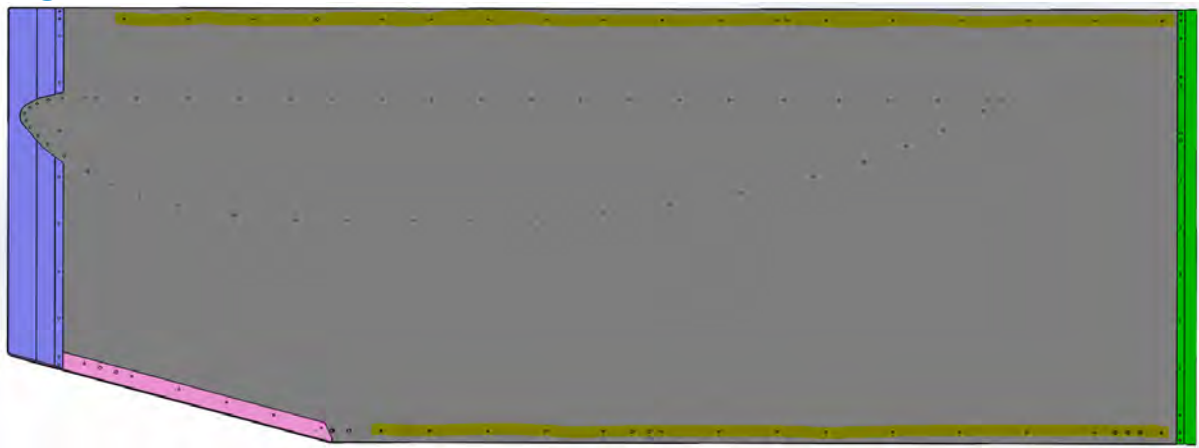
STEP 4



1/8" Rivets
x15

Finish riveting on the Front Edge (4) from Step 3

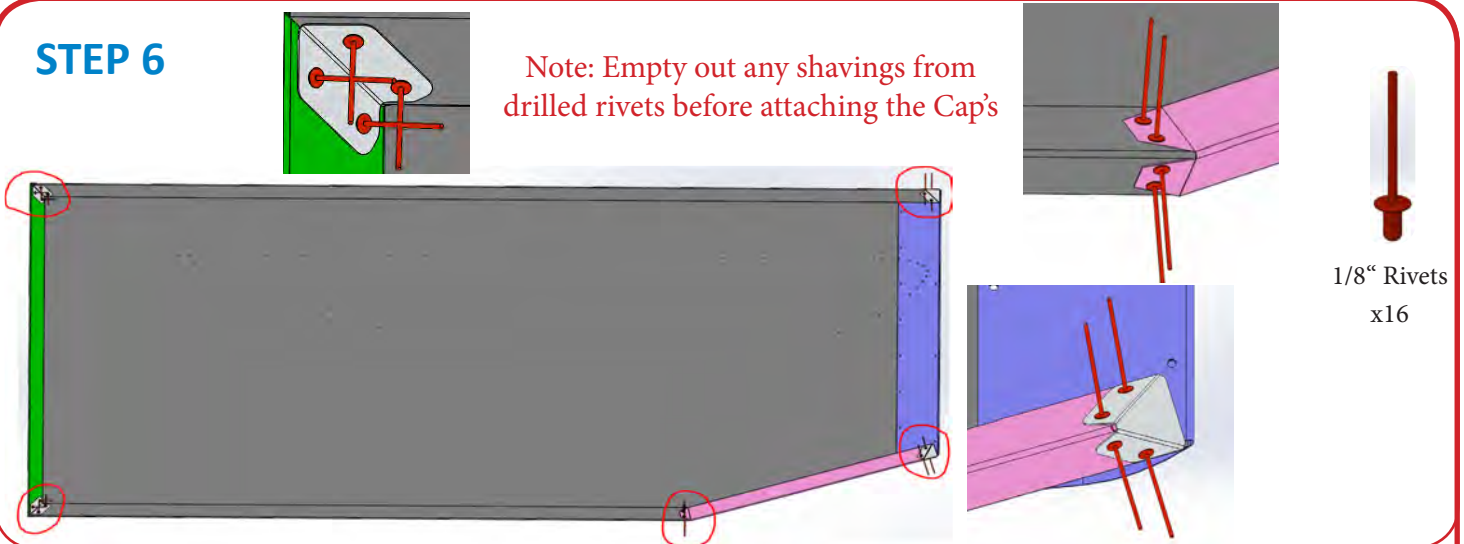
STEP 5



1/8" Rivets

Rivet the 1/8" holes highlighted

STEP 6



Note: Empty out any shavings from drilled rivets before attaching the Cap's

1/8" Rivets
x16

Rivet the x2 Back Stiffener (6) to Step 4 and then rivet the Front Bottom Cap (7) and Front Top Cap (3) to Step 4, lastly, rivet the holes connecting the Angle Stiffener (5) to the Side Board (1)

WEEKLY MAINTENANCE SHEET

GREASE

- Torque Ball
- Torsion Bars
- King Pins
- Rear Torsion Arm Bolts
- Front Torsion Arms
- Birdcage Bearings (4 Races)
- Swivel Coupler (6-8 Races)

CLEAN

- Air Filter
- Crankcase Breather
- Nozzles
- Fuel Filter
- Rear Axle Splines

GENERAL

- Adjust Valves
- Inspect Spark Plugs
- Reinstall Ing. Box & Tac
- Cut Open & Inspect Oil Filter
- Change Oil (4 Races)
- Check Water Level
- Oil, Assemble & Install Air Filter
- Square Rear End (4 Races or Contact)
- Install Correct Shocks
- Install Correct Bars
- Check Stop Bolts For Wear
- Check Fuel In Tank (10 gallons)
- Complete Bolt Check
- Install Correct Gear
- Check Gear Oil Level
- Check Brake Fluid Level
- Check Brake Pads & Rotors
- Install Seat Cushions
- Fill Fuel Jugs

TRAILER

- Clean Out Trailer
- Paper Towels
- WD-40
- Glass Cleaner
- Tear Offs
- Safety Gear
- Brake Cleaner
- Gas Can
- Kerosene

NOTES

INFO

Date _____
Finish _____
Track _____
Car _____
Engine _____
Rear End _____



Hepfner Racing Products
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Hartford, WI 53027
(262) 457-5015