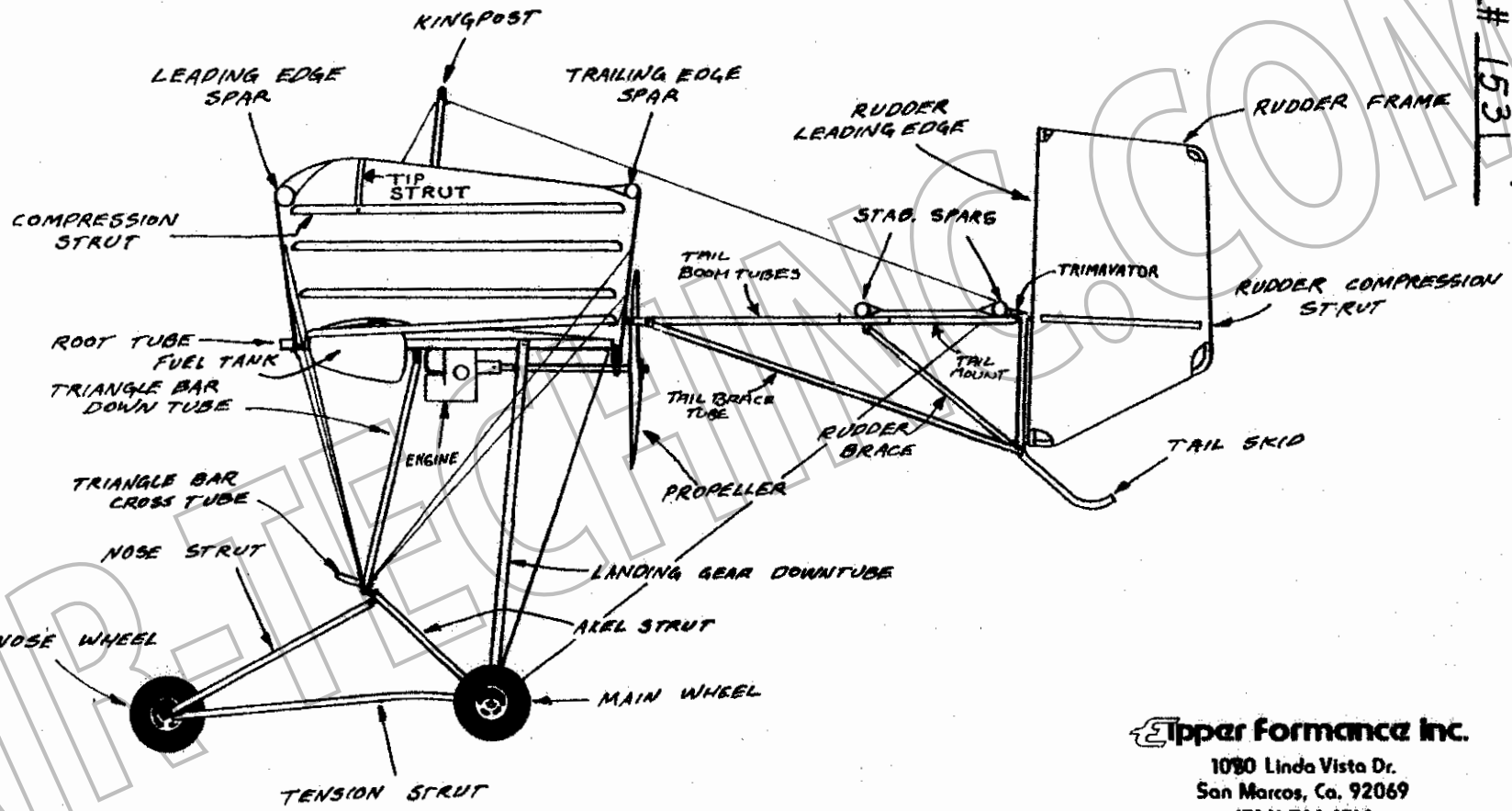
QUICKSILVER "E"

Assembly Instructions

5-25-82

MODEL QUICK SILVER E
SERIAL# 1531



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1080 Linda Vista Dr.
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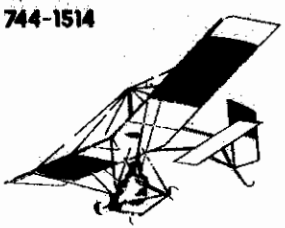


PARTS INDEX - QUICKSILVER E

CONSTRUCTION NOTES

Assembly of your Quicksilver can easily be accomplished in one week-end. All of the difficult fabrication details have been pre-finished at the factory, including drilling, anodizing, cable swaging, sewing of wing and tail surfaces etc. Work slowly and carefully and follow these assembly instructions closely. If you have any construction problems or questions, please feel free to call your local Eipper dealer or the factory for help.

Basic tools necessary for assembly include the following;

1. One pair each; 3/8", 7/16", 1/2", 5/8" and 11/16" WRENCHES.
2. Torque Wrench (optional)
3. FINE flat, and 1/2 round or "rat tail file.
4. Hacksaw.
5. Drill motor (or hand drill) and 1/8", 3/16", 1/4", and 5/16" (or "ream") DRILL BITS.
6. Pop rivet "gun".
7. Hammer.
8. Tape measure, marking pencil.
9. scissors.
10. Allen wrenches; 1/8" and 1/4".
11. "Sail maker's HOT KNIFE" or blade edged soldering iron.
12. Lubricant (3 in 1 oil or equiv.)
13. Small pointed object (pg. 9) approx. 1/16" dia. X 6" long. I.E. Coat hanger "rod" taken to point.

Self-Locking nuts can be torqued to the standard values given below with several exceptions;

Bolts that pass through tubes with no solid internal support should be tightened until the tube shows a slight distortion. Back off nut slightly. Be particularly careful when installing the coarse thread grade 8 bolts in the main wing spars.

Where wing nuts are used, be certain to lock with a safety pin, safety ring, cotter pin etc.

TORQUE VALUES

3/16" (AN-3).....10-20 inch/lbs.
1/4" (AN-4).....30-50 inch/lbs.
5/16" (AN-5).....60-80 inch lbs.

HOW TO READ "AN" BOLT DESIGNATIONS

DIA. in 1/16" (4/16"=1/4" dia.)

EXAMP. AN4-16a "a"=NON DRILLED, no letter=DRILLED

LENGTH in 1/8" (6/8"=3/4"+1st #)

LENGTH in INCHES (1=1", 2=2", etc.)

SO: 1/4" DIA, 1 3/4" LENGTH (measure from UNDER head)

NOTE: Check engine owners manual for proper torque values of engine bolts.

After installing bolts, check that the grip length is correct. Using washers as shown, at least one bolt thread should extend out of the nut. One or two washers may be added to prevent bolt from bottoming out before producing a snug fit. Eye bolts and fork bolts do not require a washer under the head.

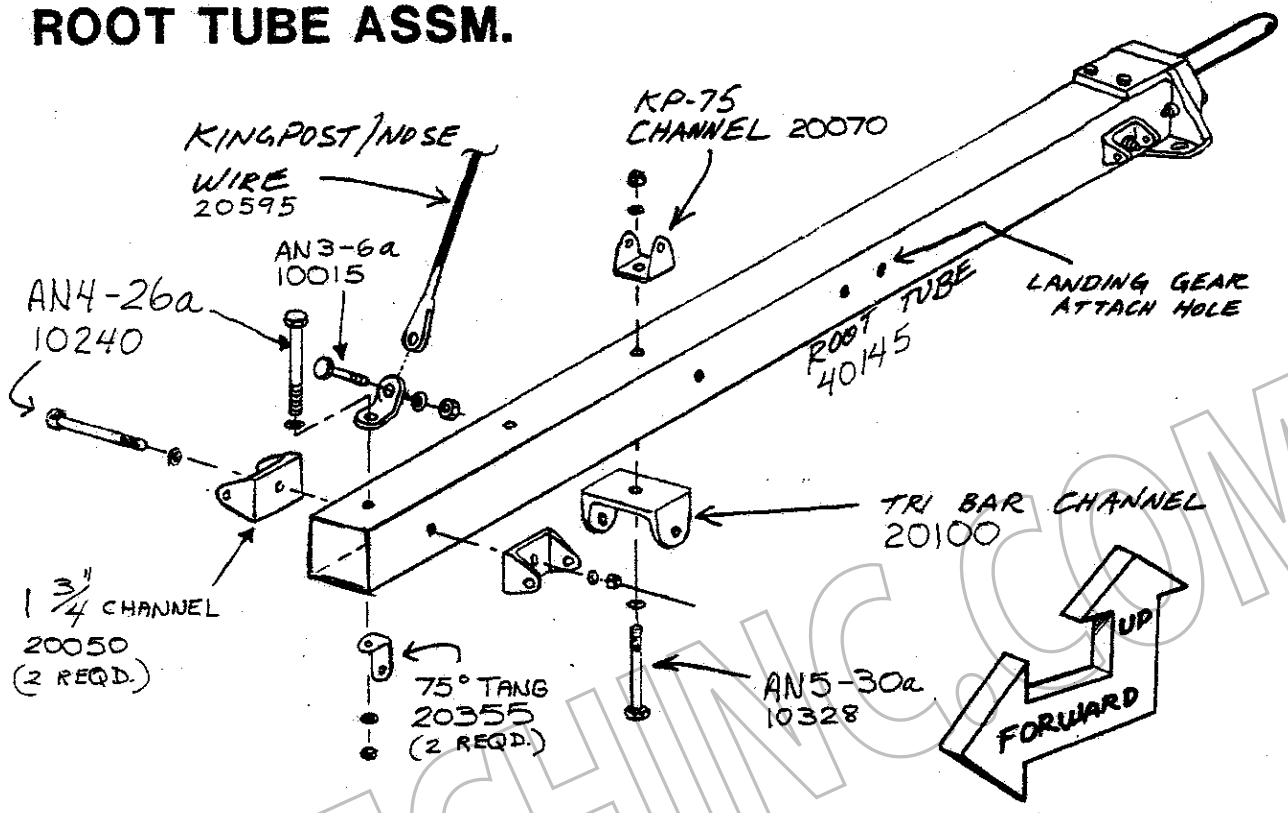
Self-locking nuts should not be removed and reinstalled more than once. Generally they become less vibration resistant with each removal.

Un-twist wires before final attachment. A twisted wire can alter the length significantly. A twisted wire will also be more prone to jamming or twisting a wire thimble during field assembly of your Quicksilver.

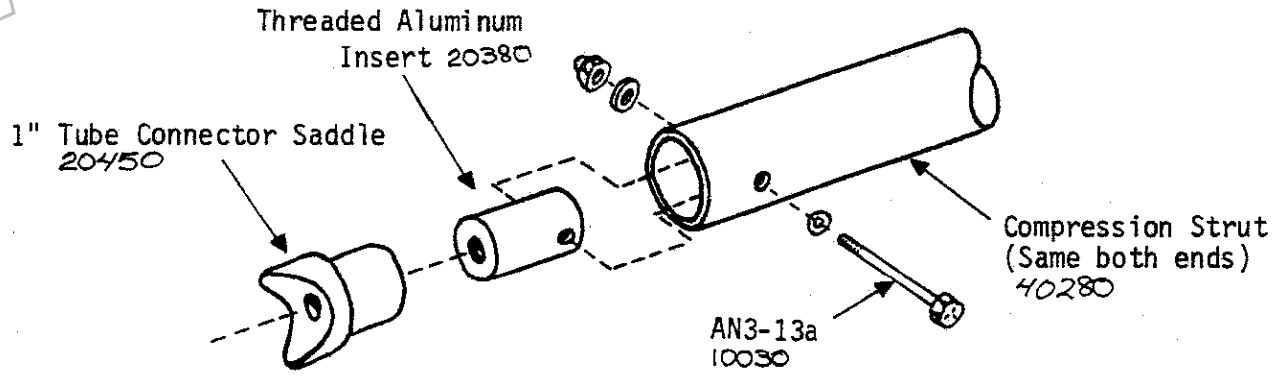
(cont. on next page)

It may be necessary to "ream" some of the tangs to get the bolts through. If necessary, secure the tang firmly with vise grips and drill out (rat tail file O.K.).

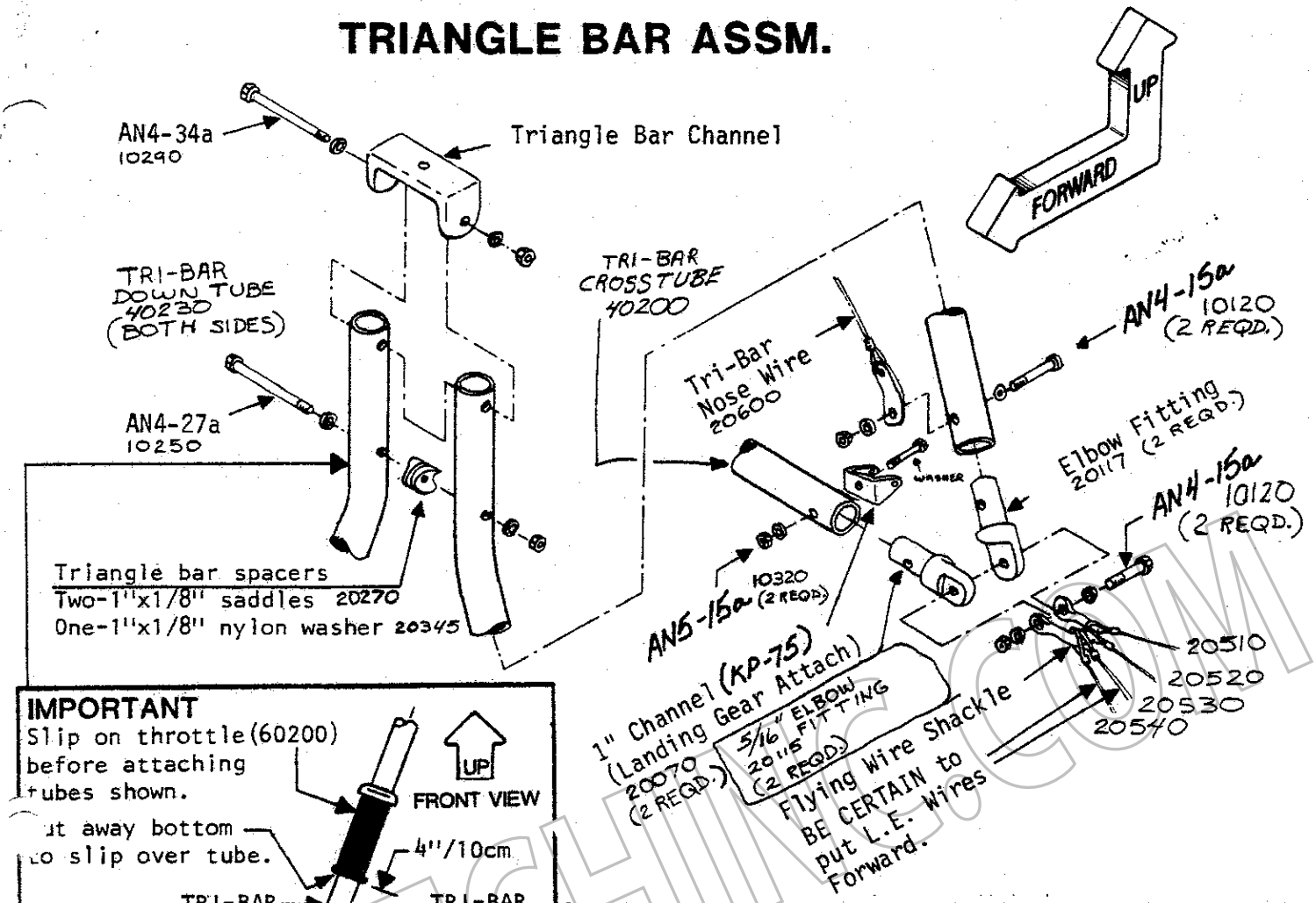
ROOT TUBE ASSM.



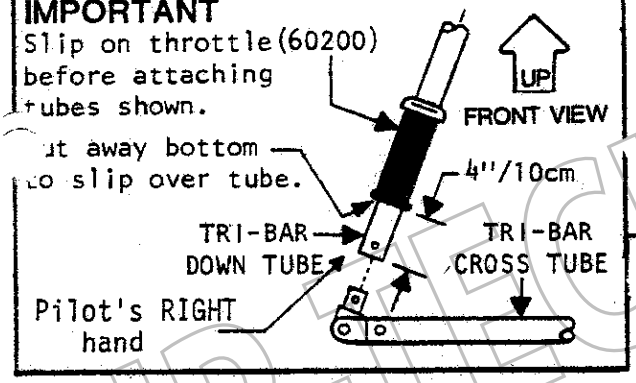
COMPRESSION STRUT ASSM.



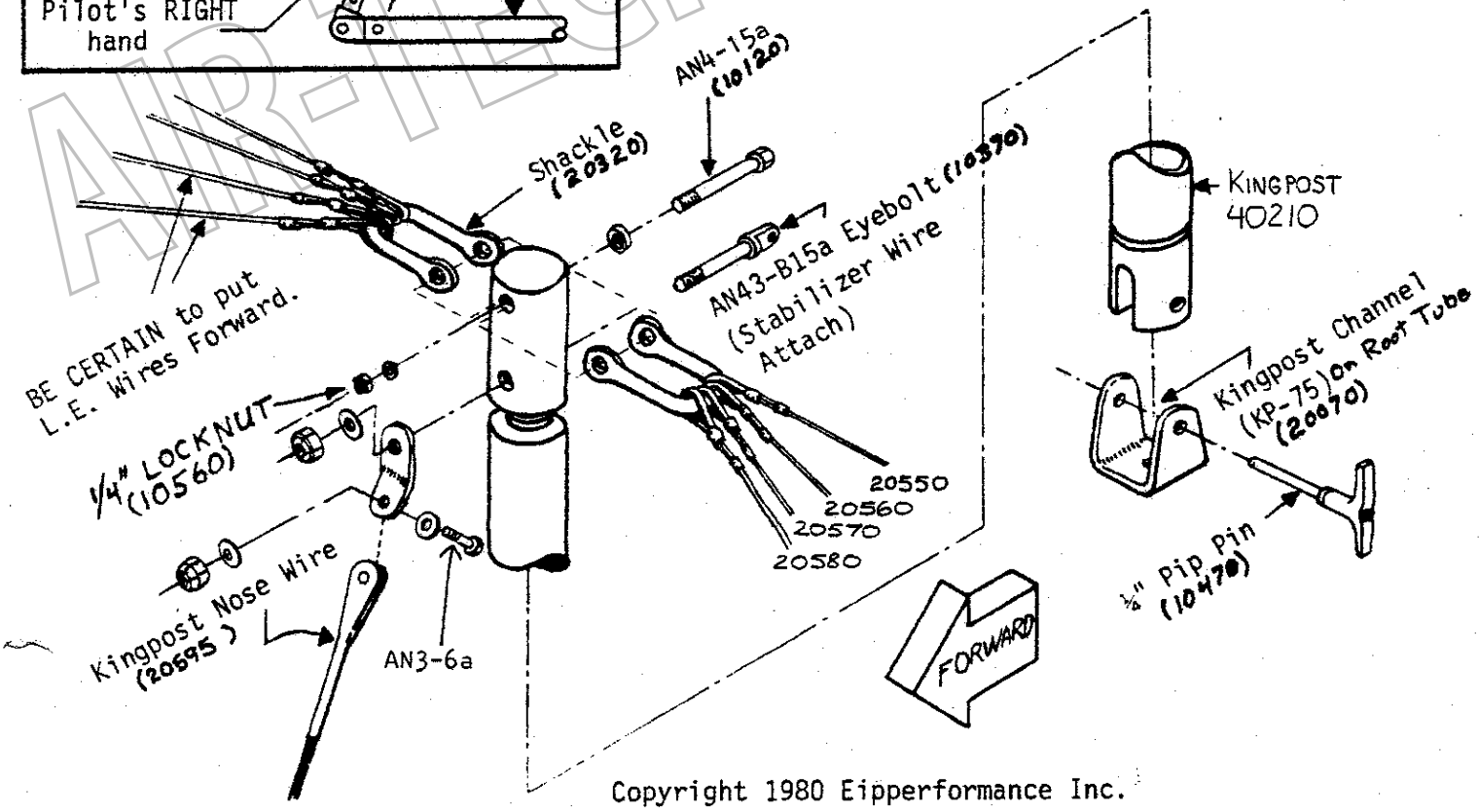
TRIANGLE BAR ASSM.



IMPORTANT
Slip on throttle(60200) before attaching tubes shown.
Cut away bottom to slip over tube.



KINGPOST ASSM.



Stabilizer to tail mount assm.

Sail not shown for clarity.

1. Heat cut holes in sail, install hardware for two forward holes.
2. Use box end wrench larger than bolt head to leverage bolt over holes, tap through with hammer.
3. Drawing shown upside down.

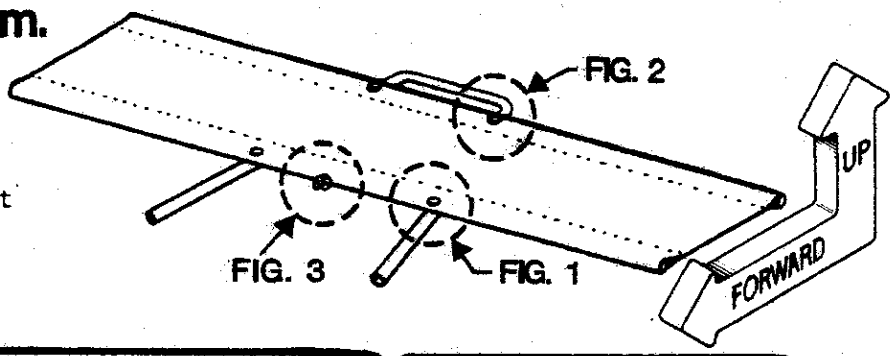
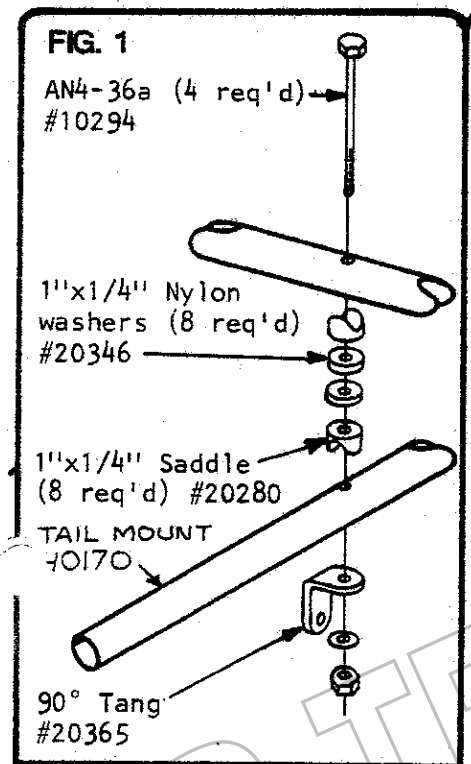


FIG. 1



Note: 2 AN4-40a and 4 - 1"x1/4" nylon washers provided if incidence adjustment is necessary.

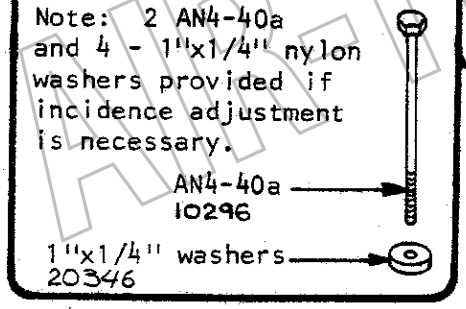


FIG. 2

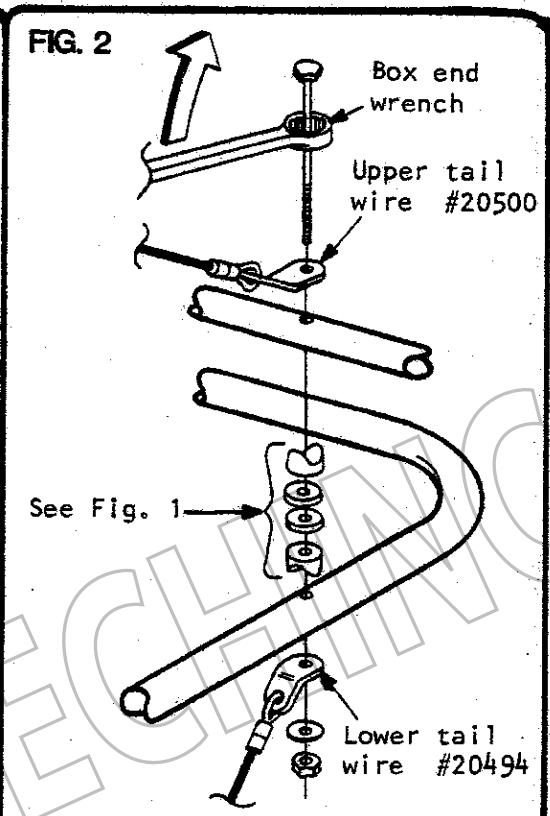
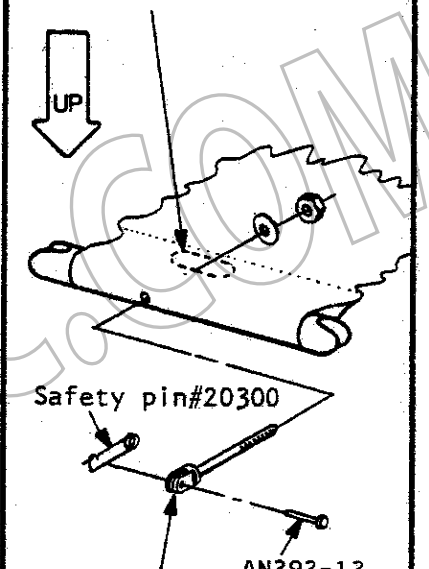
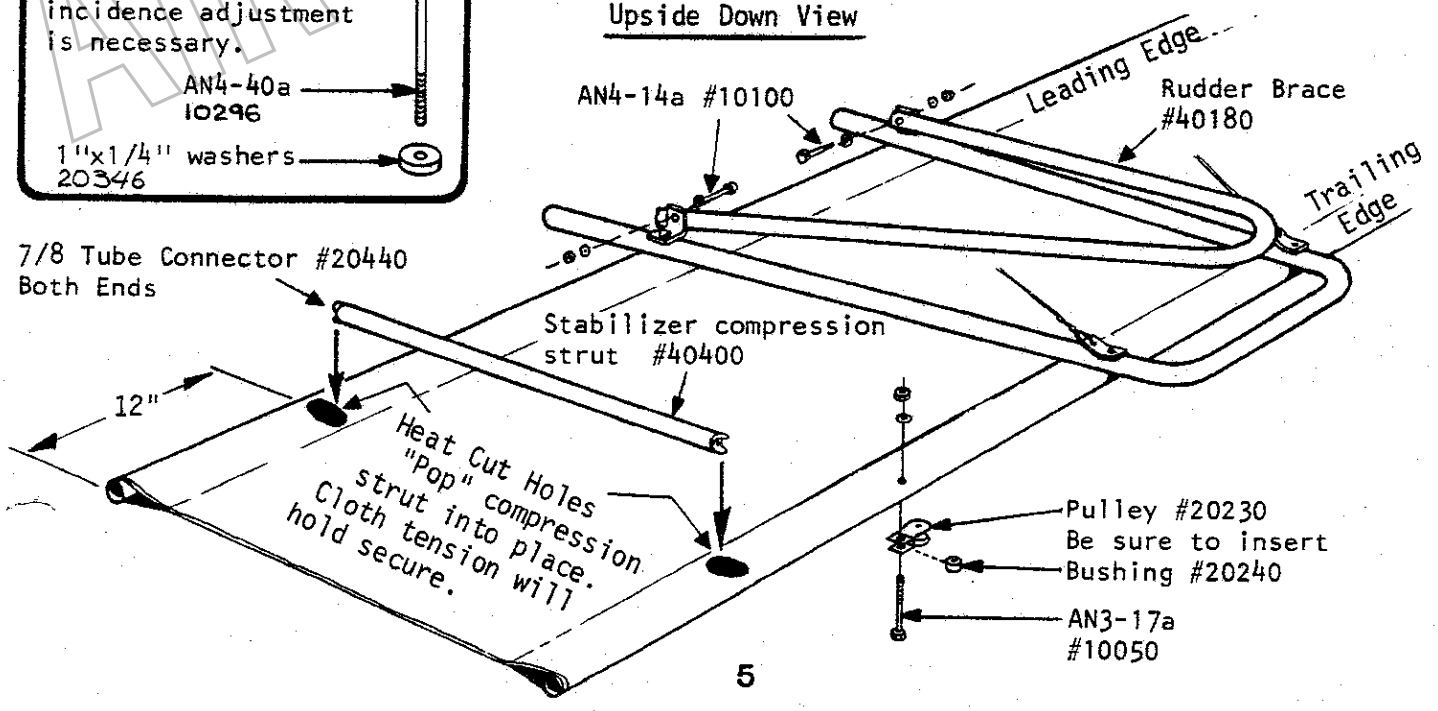


FIG. 3

Heat cut small slit in under side of stabilizer cover.

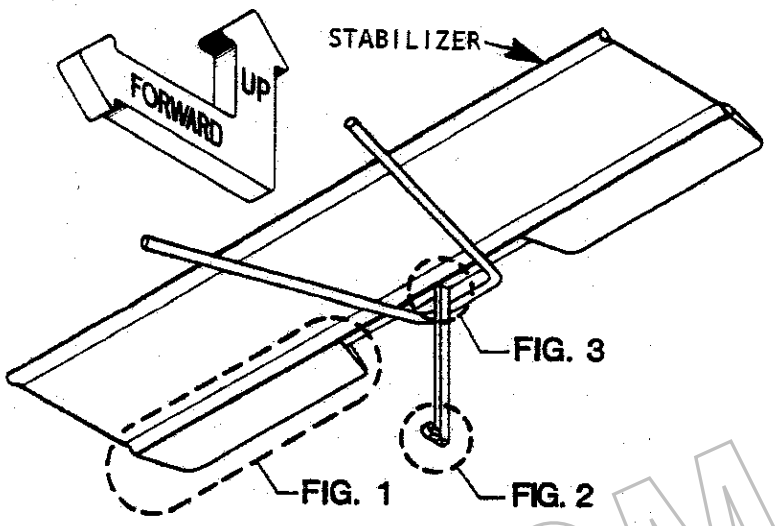


Upside Down View



Trimavator Assm.

1. "Premark" each Trimavator surface #80515 with pencil for the rivet holes required as shown in DETAIL A. Note the "minimum" distance from material edge requirement.

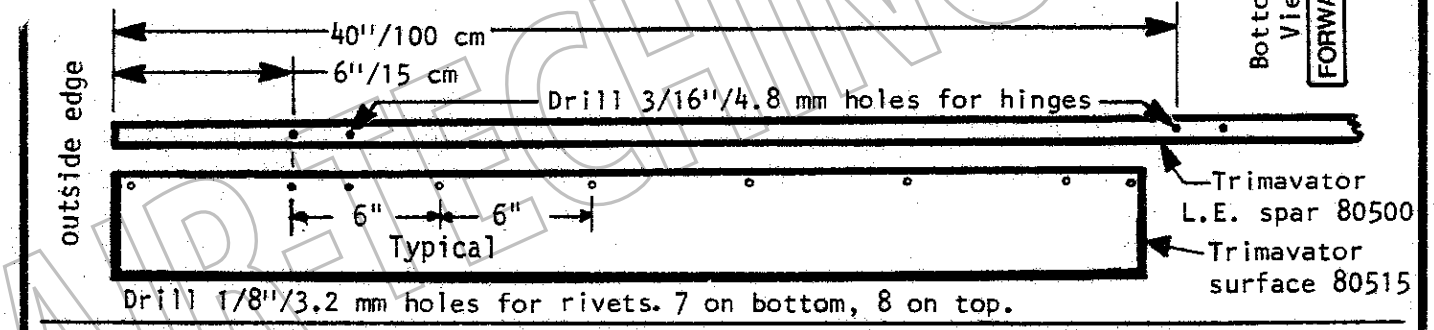


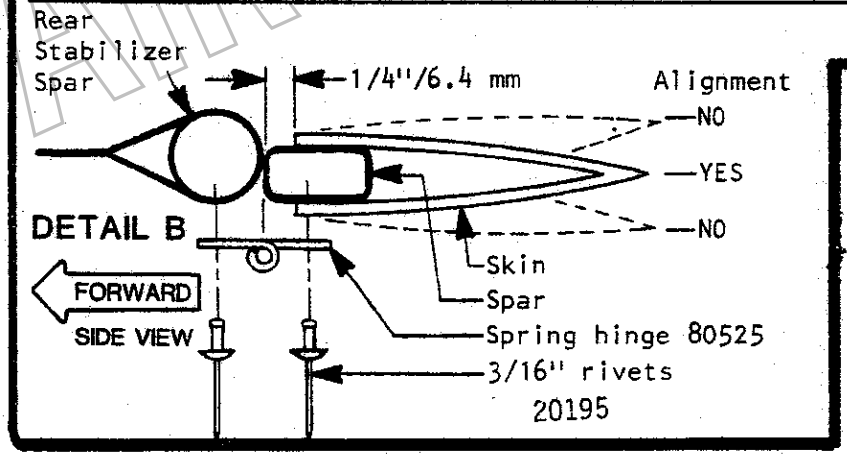
2. Fit the skin over the Trimavator L.E. tube (spar) and align leaving 1/4"/ 6.4mm exposed (see detail B). Hold or tape into position, drill and rivet one at a time the eight holes required (top side first). Use 1/8"/#20205 3.2mm drill bit and pop rivets. Start near the center and work towards both ends to avoid "gaps" in-between the spar and the "skin".

3. Turn the partially attached surface over and repeat the proceedure on the bottom side, but only drill seven holes as the outside hinge hole (3/16") subsitutes for the eighth hole.

FIG. 1 DETAIL A

Note: Outside edges of Trimavator surface to center of 1/8" holes: MINIMUM 5/16".





4. Repeat steps 1.-3. on other side Trimavator.

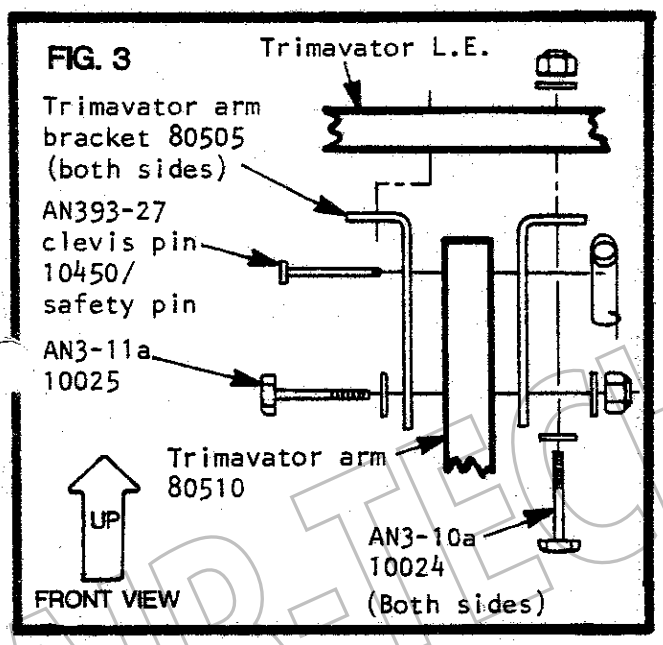
5. Measure, drill, and rivet the four hinges onto the bottom side trimavator spar tube as shown (DETAIL A&B) using 3/16"/4.8mm drill bit and pop rivets. Again, do one hole/ rivet at a time to ensure good alignment.

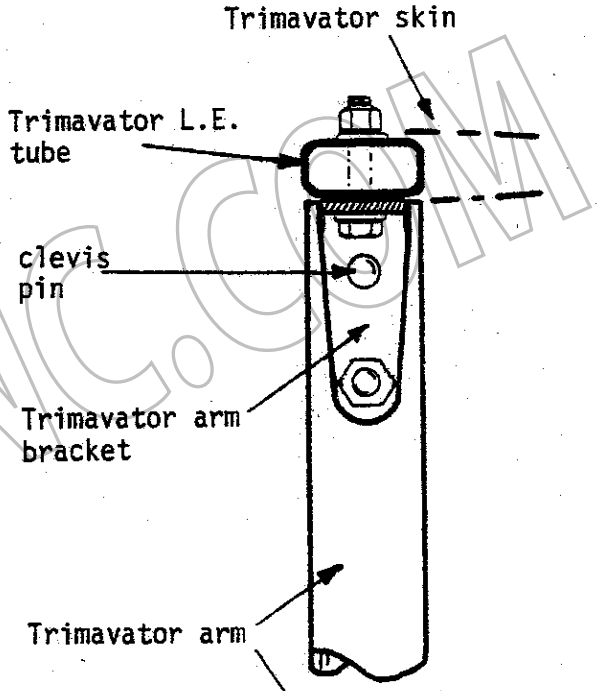
6. Align the completed assembly to the stabilizer T.E. tube (rear spar) and attach via the four hinges using 3/16"/4.8mm bit and rivets as shown in DETAIL B.

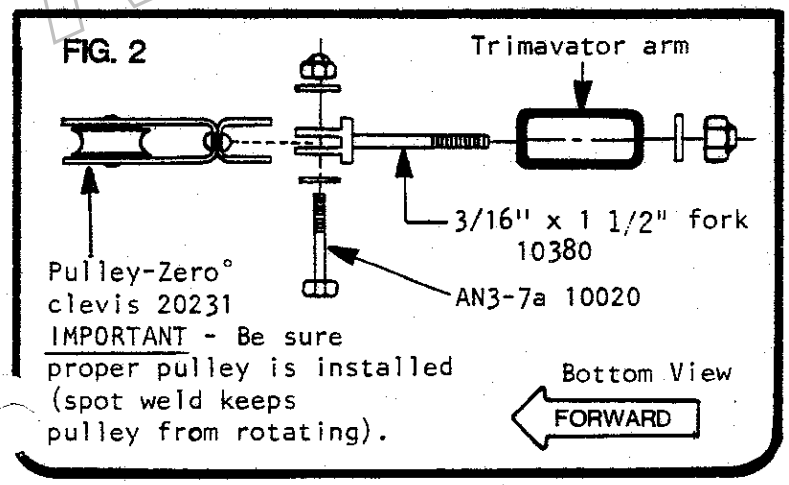
Trimavator arm assm.

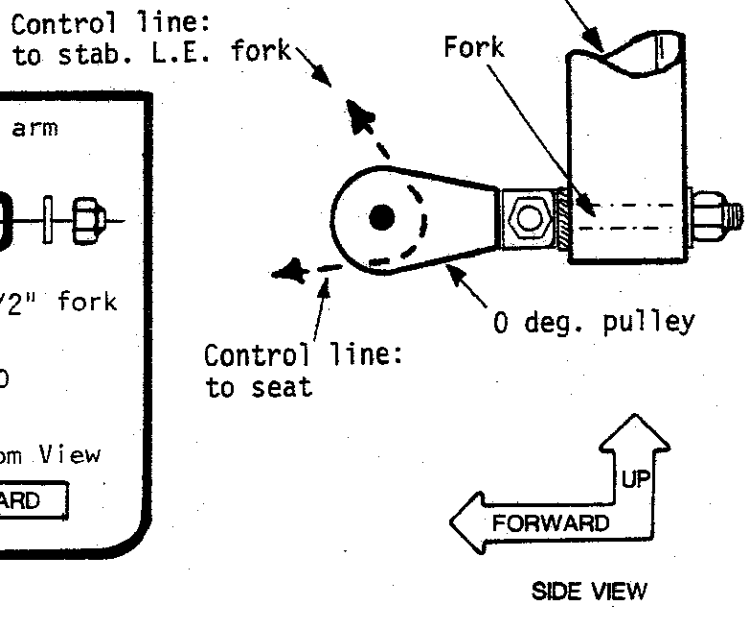
7. Sub assemble the trimavator arm tube starting with the control line pulley attach end (Fig. 2). It is important that the zero deg. pulley is in line with the arm tube as shown in the drawings.

8. Sub assemble the opposite end (90 deg. mounting brackets) and attach the completed arm tube to the trimavator L.E. tube using the factory drilled holes as shown in Fig. 3. The control line pulley at the opposite end must face forwards (towards the pilot).









RUDDER ASSM.

.) Slip cover over Rudder Frame.

2.) Heat Cut holes for Rudder Compression Strut.

3.) Insert Rudder Leading Edge into pocket, holes down.

4.) "Pop" Rudder Compression Strut into place.

5.) Remove wrinkles by pulling cloth in direction of arrows.

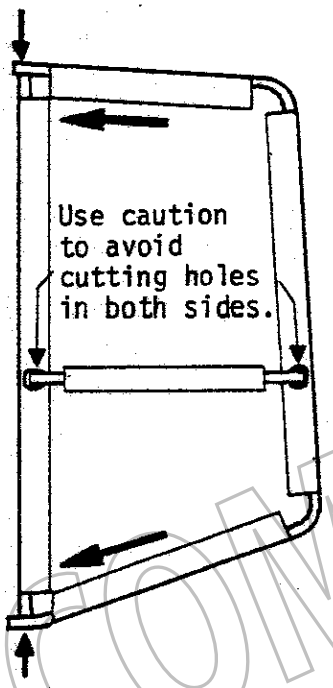
6.) Mark Rudder Frame ends for drilling.

7.) Drill ¼" Dia. holes and assemble as shown below.

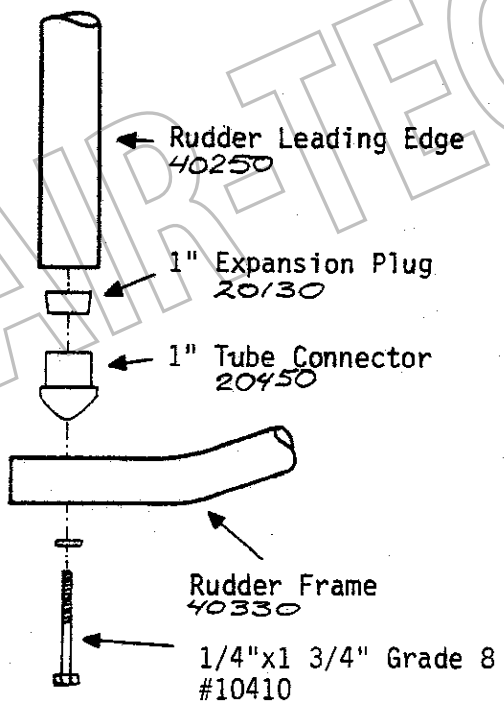
8.) Install Rudder Control Line Fork Assemblies.

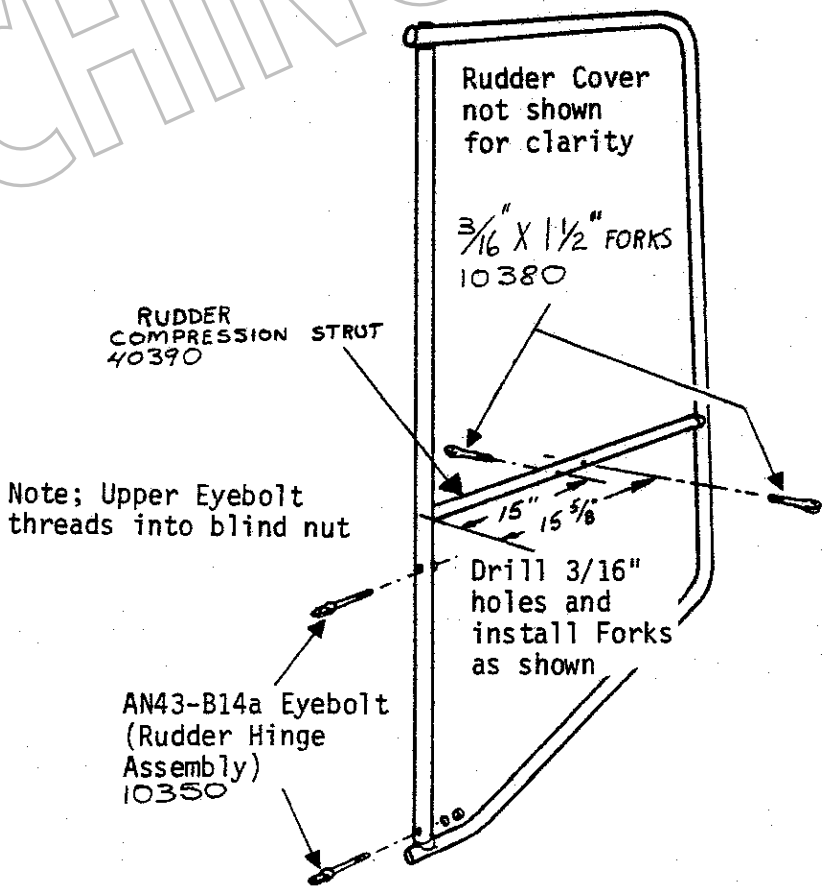
9.) Attach Eyebolt Hinge Assemblies.

Mark Ends for Drilling

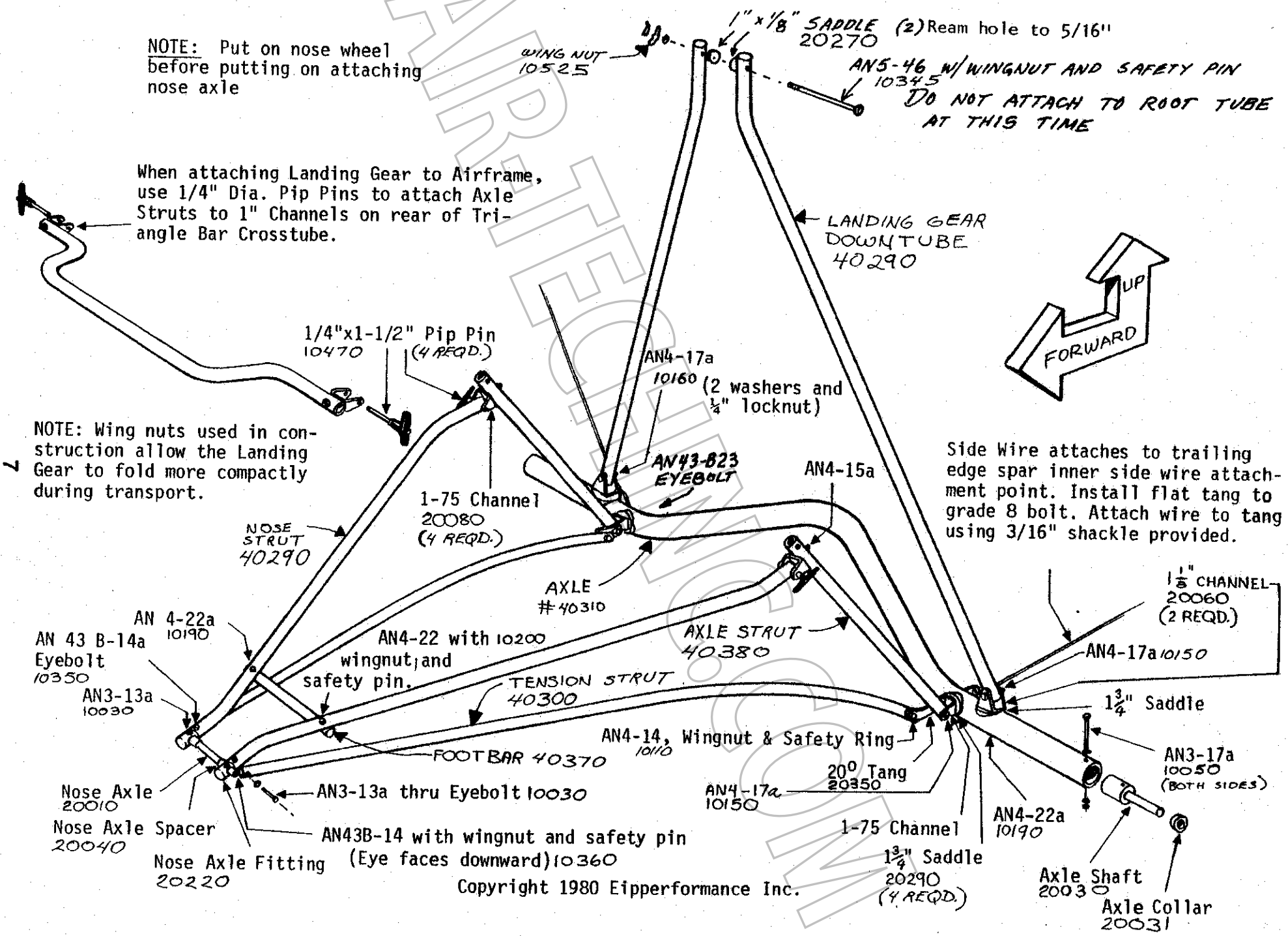


(Same Both Ends)

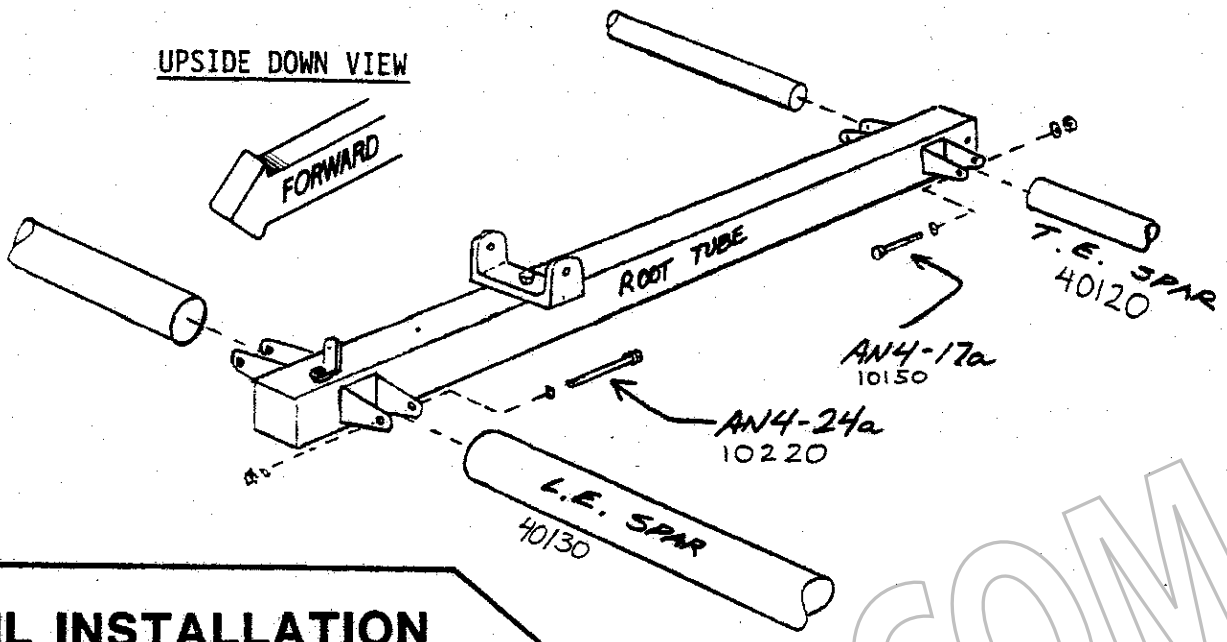




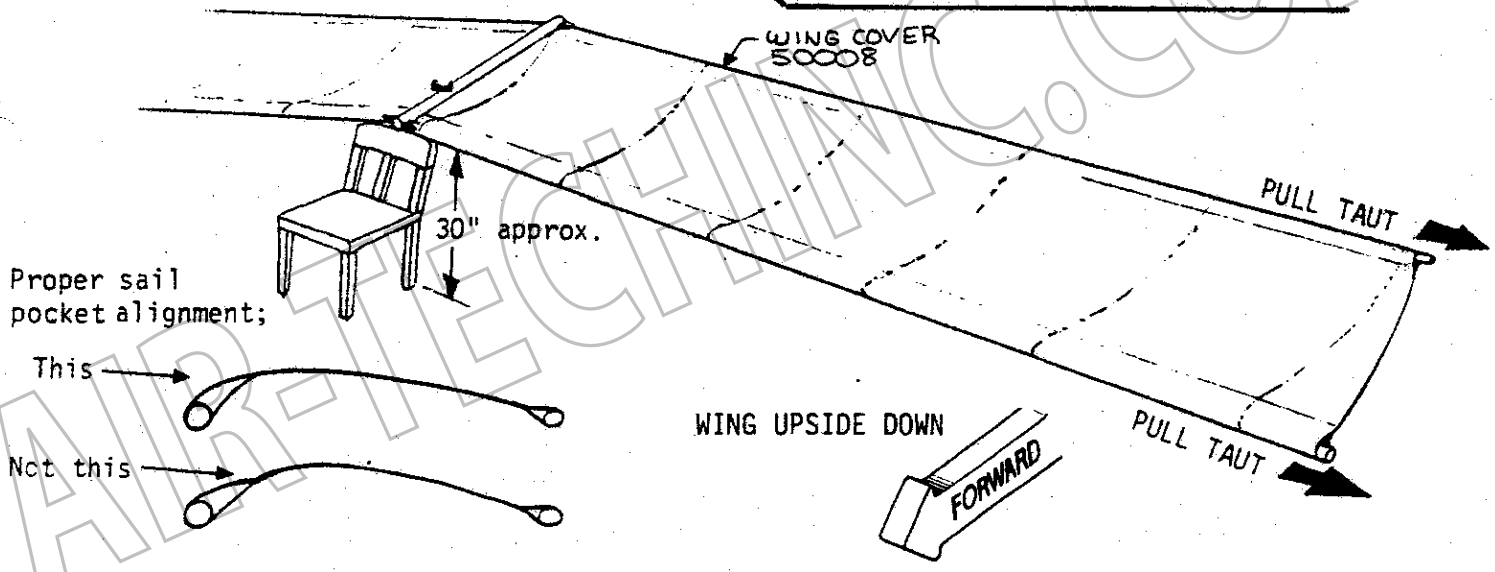
LANDING GEA ASSM.



ROOT TUBE SPAR ATTACH



SAIL INSTALLATION



1.) Lay Root/Spar Assembly UPSIDE DOWN and block up center as shown.

2.) Slide sail over spars and attach velcro center strip. Remember bottom of sail is up.

3.) Insert the two center ribs so that the pockets come off the spars at the proper angle.

4.) Now with the sail at the proper angle, pull sail pockets up flush against spar channel fittings and mark sail grommet position on spar. Drill 3/16" hole and pop rivet sail in place. (rivet #20195)

5.) Pull ends of sail out taut (30-40 Lbs pressure) keeping pocket alignment consistant with root pockets. Mark grommet position on spar, slide back sail, drill 3/16" hole and rivet sail into place.

COMPRESSION STRUT INSTALLATION

The template below will position the hole correctly in the sail.

1.) Find a small pointed object, about 1/16"x6". Now find compression strut holes by passing thumb over spars in approx. location. Once located, mark with pointed object.

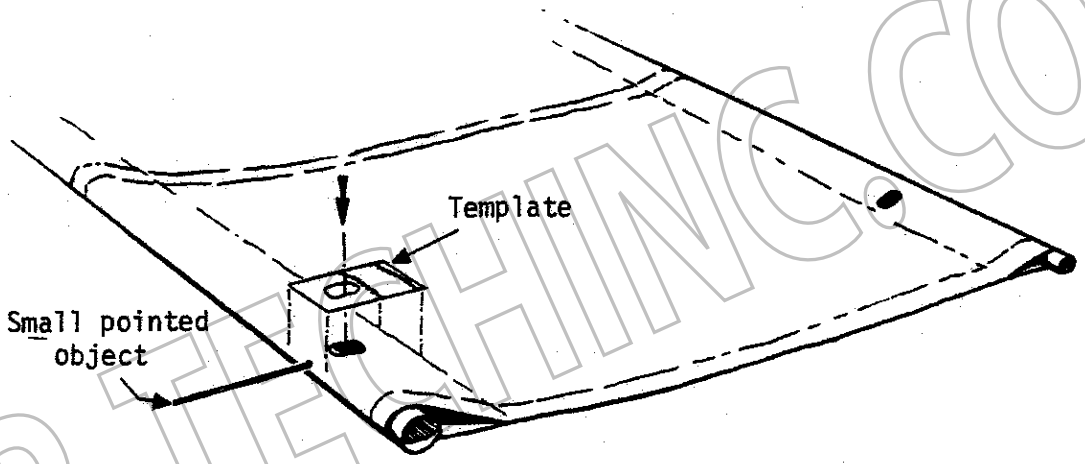
2.) Locate approx. hole position with template provided below.

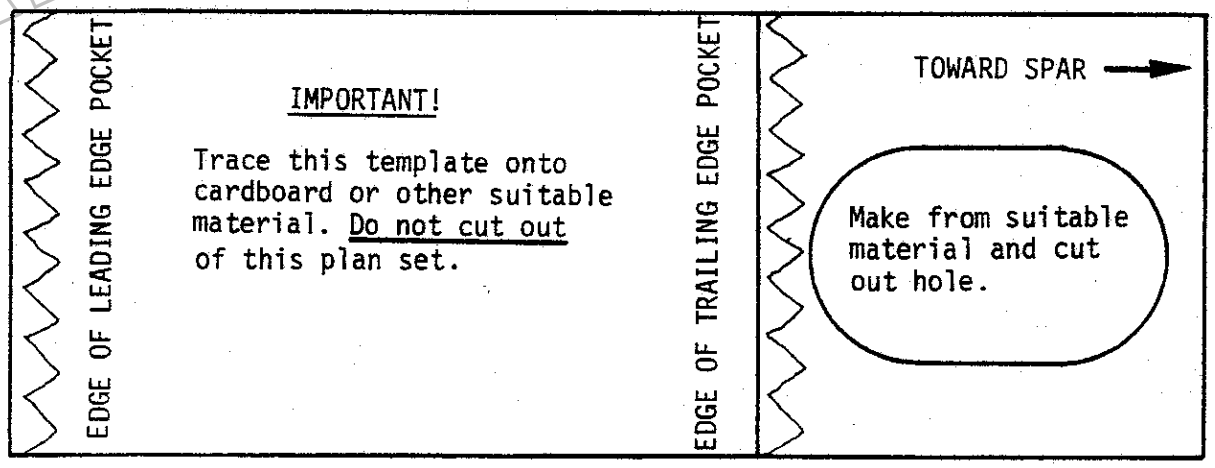
3.) Insert pointed object through spar. Cut small inspection hole and see if template is positioned directly over pointed object.

4.) Heat cut holes very carefully!

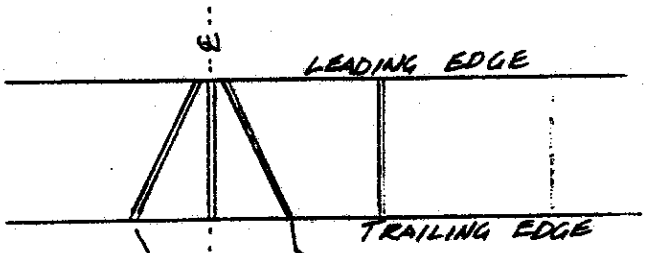
5.) Diagonal Strut holes will be slightly larger, and angled slightly.

6.) Insert Compression Struts but do not cut holes for grade 8 bolts until Diagonal Struts are in place and all Ribs have been installed.

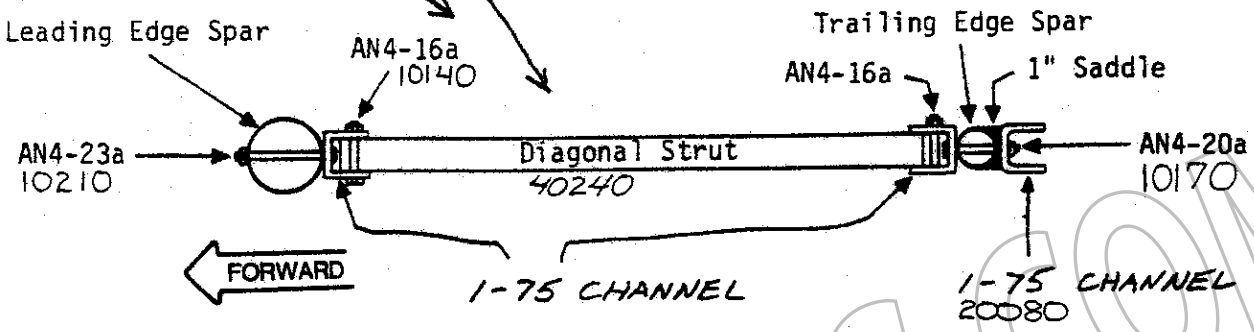




DIAGONAL STRUT ASSM.



A small hole may be cut in sail to ease installation of AN4-16a.



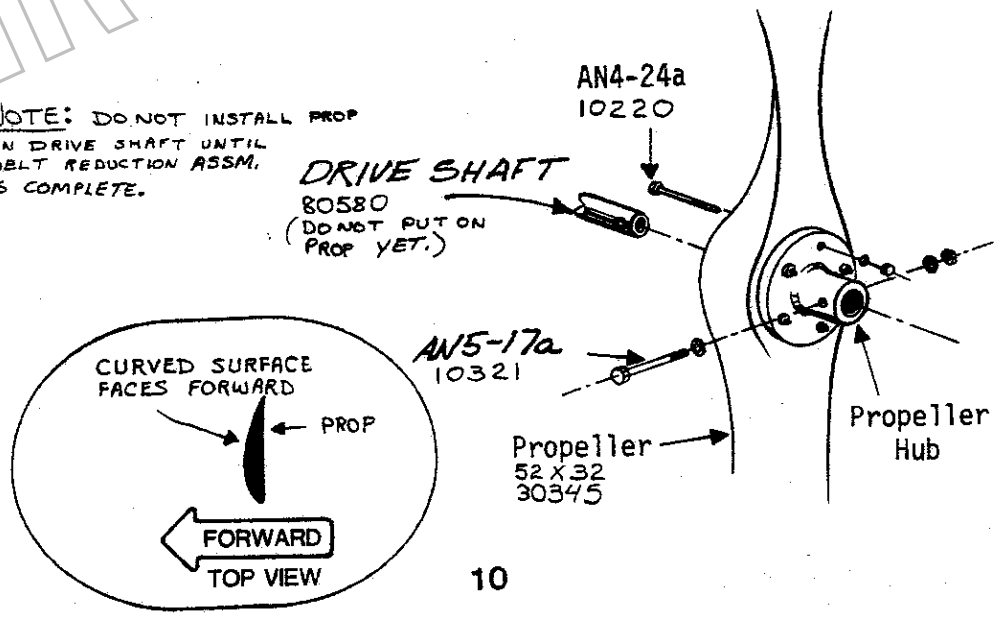
1) INSTALL ALL RIBS. NOSE OF RIB RESTS ON TOP OF LEADING EDGE. REAR OF RIB RESTS ON TOP OF TRAILING EDGE.

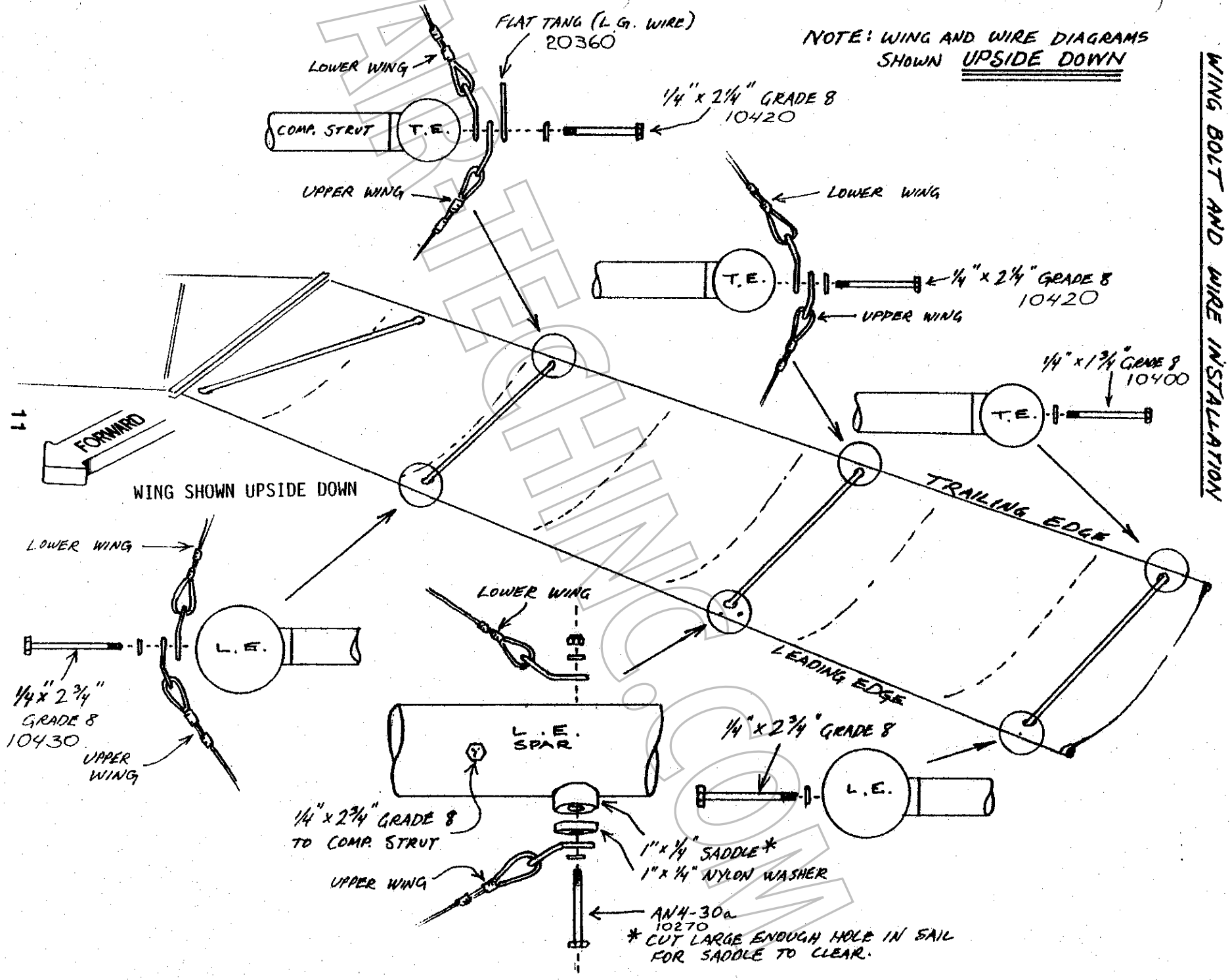
2) NOW HEAT CUT HOLES FOR COMPRESSION STRUT ATTACHMENT BOLTS.

3) INSTALL DIAGONAL STRUTS AS SHOWN ABOVE.

PROPELLER ASSM.

NOTE: DO NOT INSTALL PROP ON DRIVE SHAFT UNTIL BELT REDUCTION ASSM. IS COMPLETE.





GENERAL ASSEMBLY

1. With all upper and lower wing wires in place, tilt wings up onto their leading edges and the nose of the root tube as shown below.

2. Attach top of triangle bar assembly to tri-bar channel on root tube.

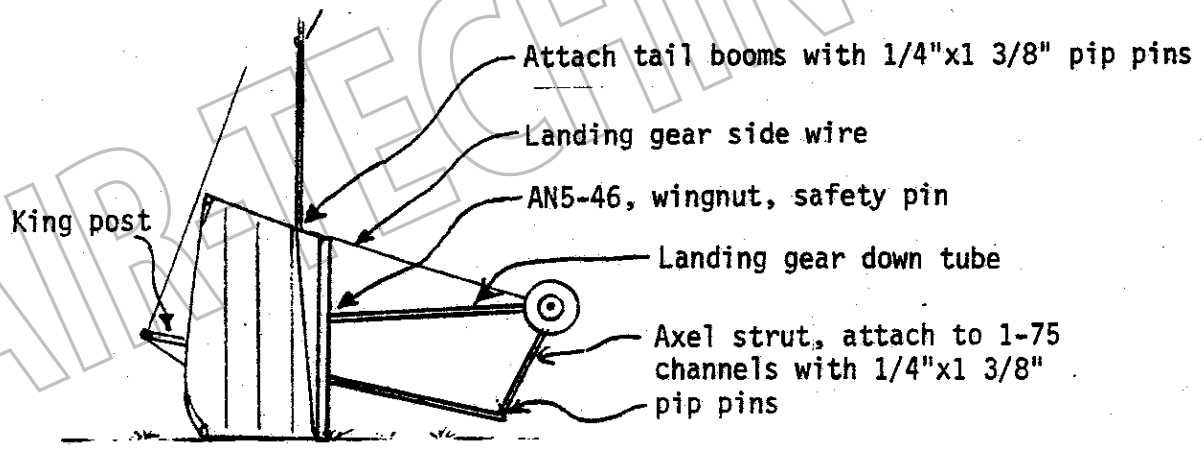
3. Attach lower flying wire shackles to tri-bar corners (see tri-bar detail).

4. Attach upper wires shackles to top of king post and then attach king post to KP-75 channel on root tube as shown on pg. 3 and 4.

5. Attach tri-bar and king post nose wires. Tri-bar nose wires attach to 75 deg. tang on root tube using 3/16" shackle assembly.

6. Attach REAR half of landing gear to root tube and tri-bar as shown below. Attach landing gear side wires to flat tang on rear spar of wing using 3/16" shackles.

7. Insert tail booms into tail mount and set on the ground near tri-bar. Attach upper and lower tail wires to their respective eye bolts on the king post and landing gear axle using 3/16" shackle assemblies.



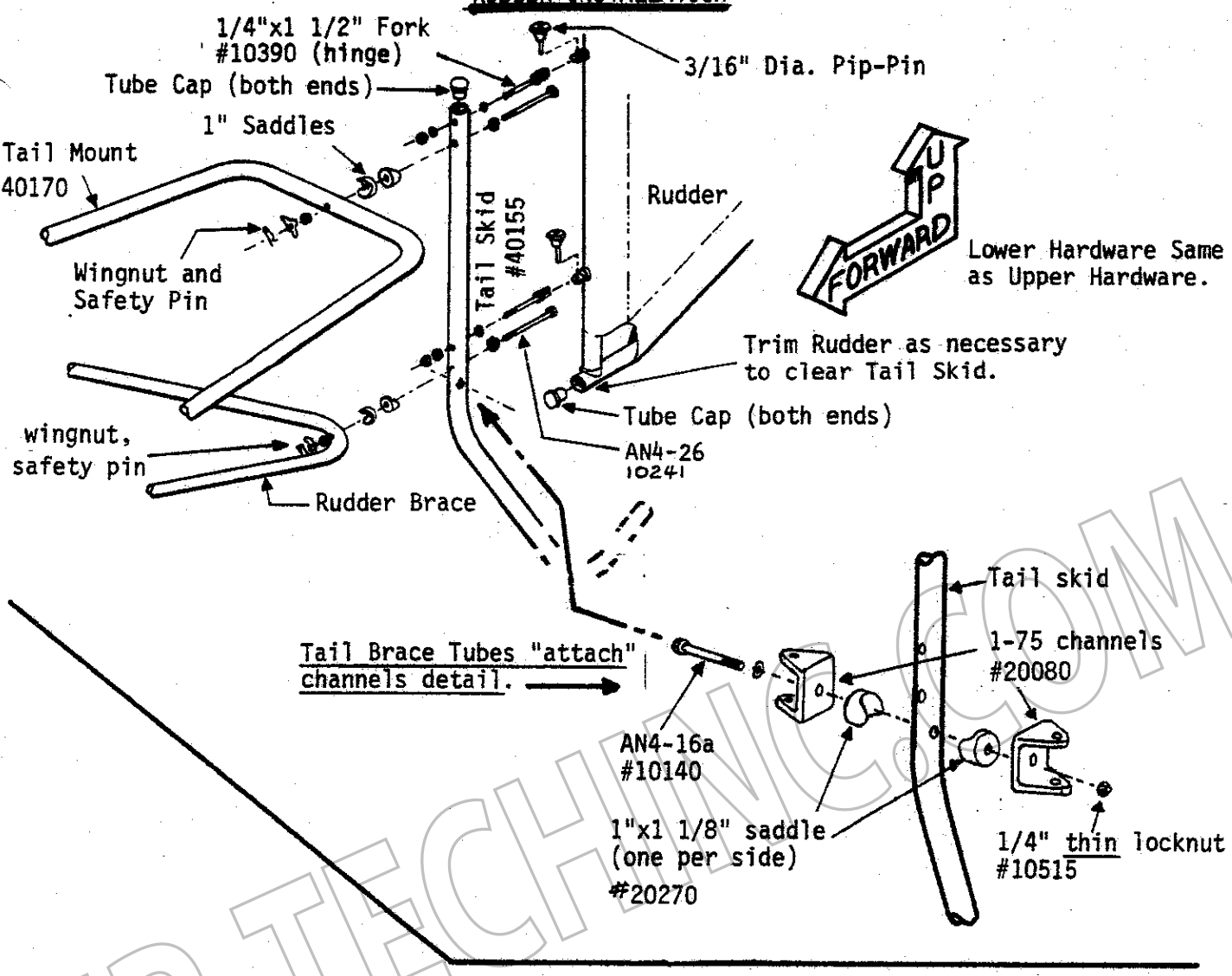
8. Hoist up stabilizer/booms and attach the tail booms to 1-75 channels at the rear of the diagonal struts (T.E. of wing). Use 1/4"x1 3/8" pip pins.

9. Twist king post up to remove slack from wires. Set Quicksilver upright on it's main wheels and tail (underside of stabilizer).

10. Attach the forward section of the landing gear.

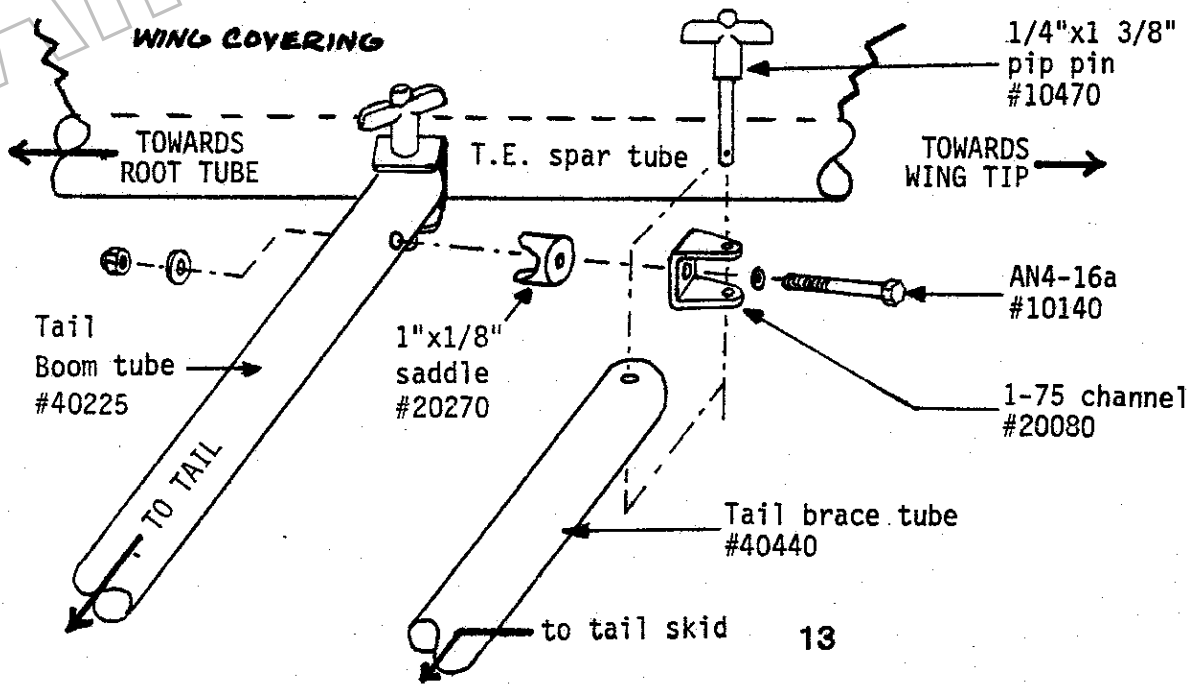
11. Continue from here as instructed.

RUDDER INSTALLATION



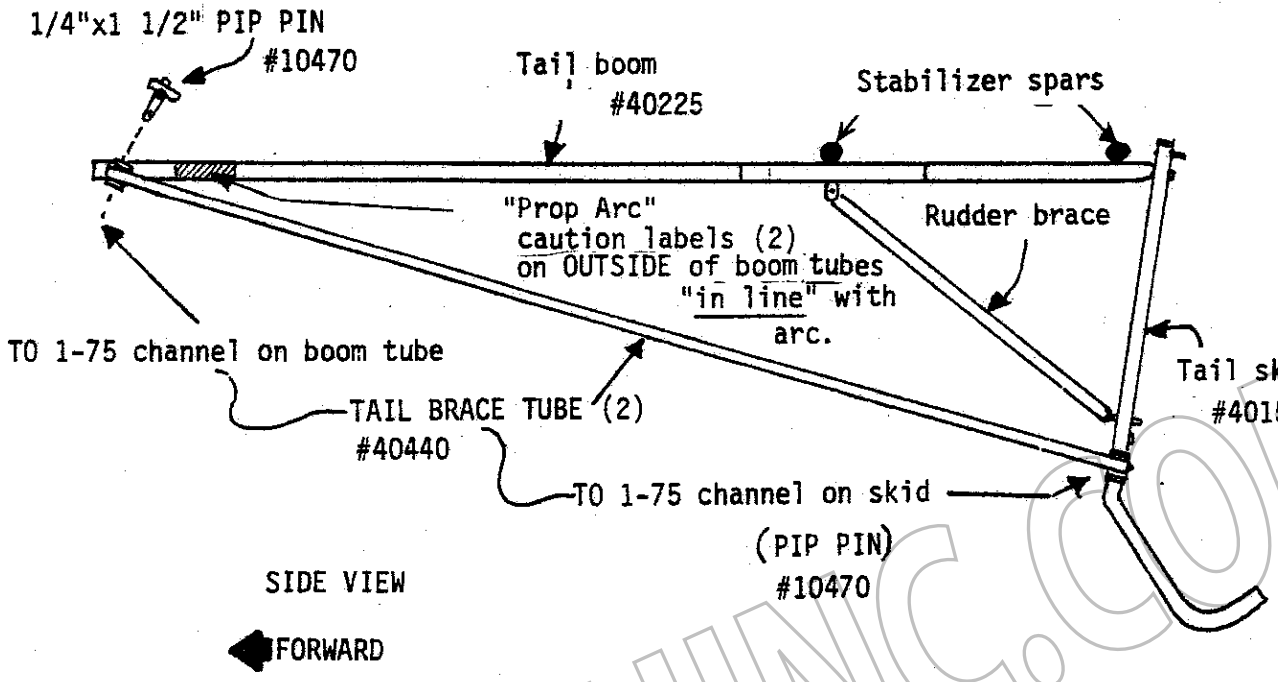
TAIL BRACE "ATTACH" CHANNELS AT BOOM TUBES

Attach one channel per boom tube as shown below. Each channel (total of 2) must face OUTWARDS (towards wing TIP).

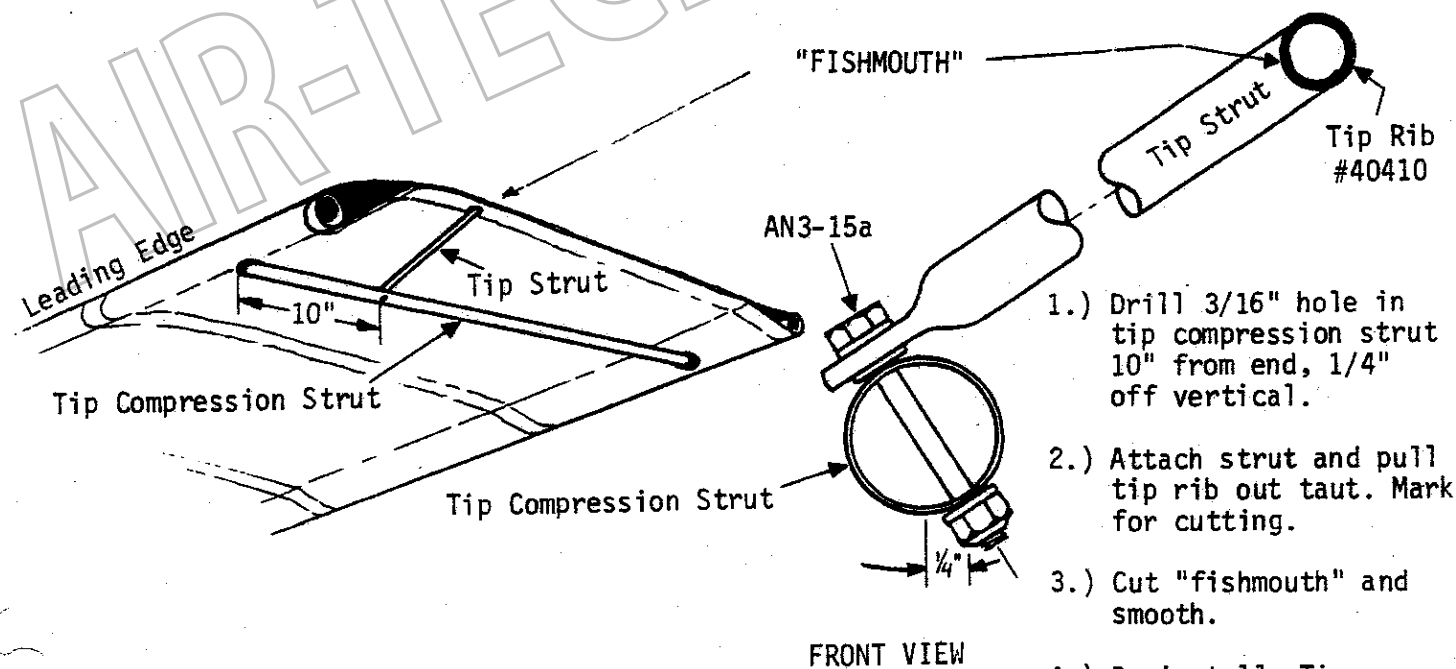


TAIL BRACE TUBES ATTACH

Attach the tail brace tubes (one each side) from the channels on the boom tubes added in the previous step to the channels on the tail skid (previous page). Use 1/4"x1 1/2" PIP PINS.



TIP STRUT INSTALLATION



1.) Drill 3/16" hole in tip compression strut 10" from end, 1/4" off vertical.

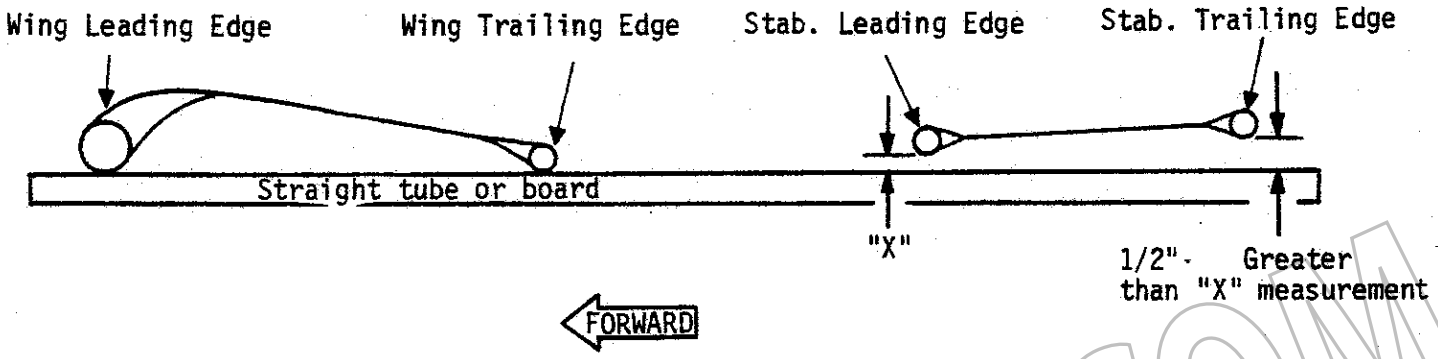
2.) Attach strut and pull tip rib out taut. Mark for cutting.

3.) Cut "fishmouth" and smooth.

4.) Re-install. Tip may cut cloth, and compression strut may show a slight bend. Normal.

STABILIZER/WING INCIDENCE

Having the proper amount of negative incidence in the horizontal stabilizer is EXTREMELY CRITICAL. An excessive amount of negative angle will limit the upper speed range and may produce a dangerous pitch-up condition. Too little angle will produce neutral or divergent pitching moments. BE CERTAIN to check this angle before attempting flight.

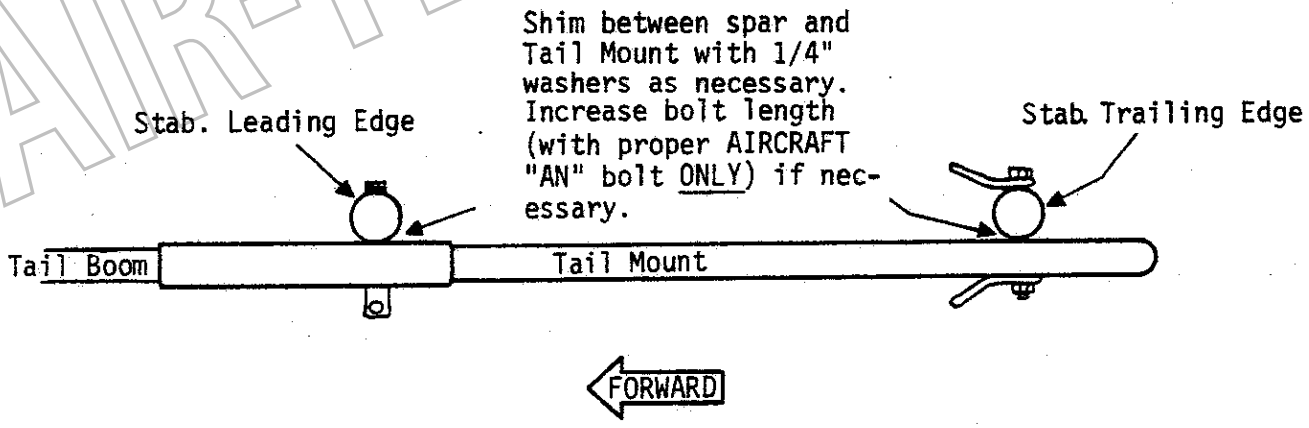


1.) Make sure Kingpost is adjusted to remove slack from wires.

2.) Place a straight rigid tube or board across bottom of wing spars near root of wing. Tube should lightly touch both wing spars and continue back under both stabilizer spars.

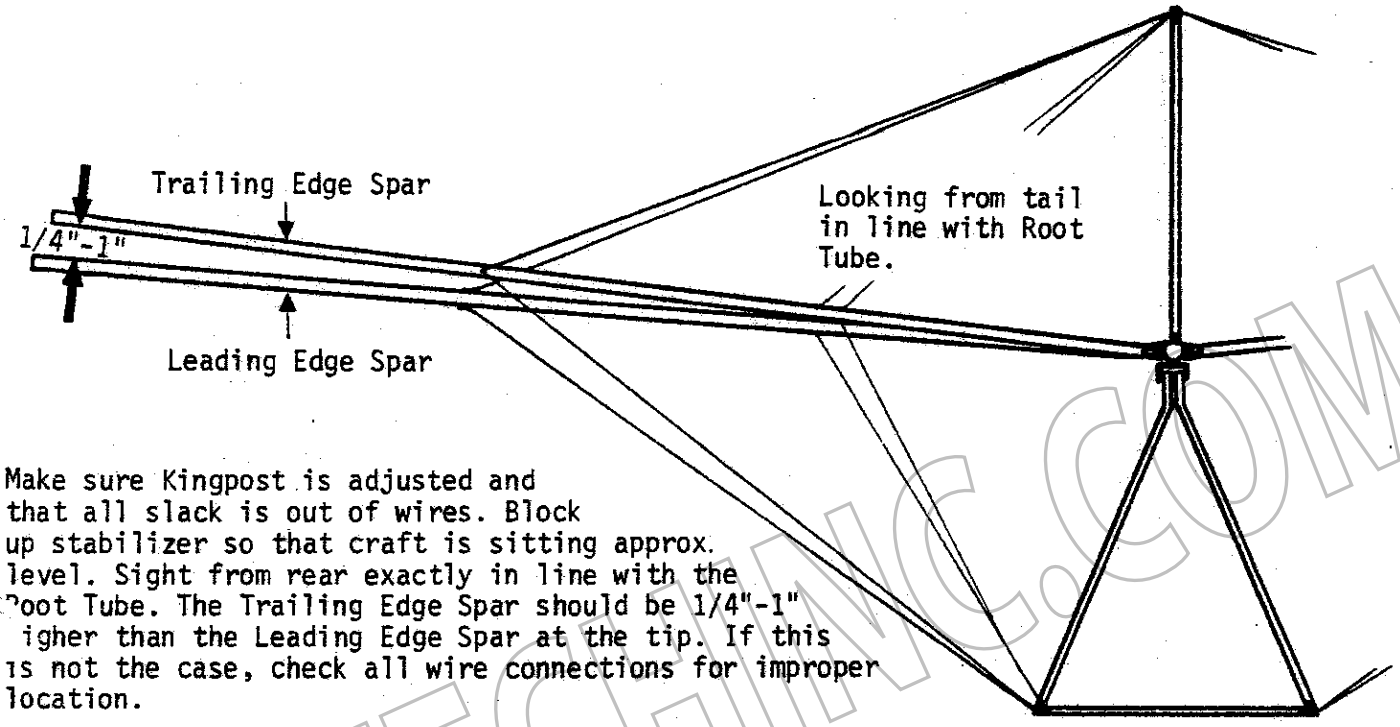
3.) Stabilizer trailing edge spar should be 1/2" higher than stab. L.E. spar.

4.) If you do not get the proper difference, it will be necessary to shim the spars with washers to achieve the proper angle. DO NOT NEGLECT THIS PROCEDURE.
SEE PAGE 5, FIG 1 FOR HARDWARE.



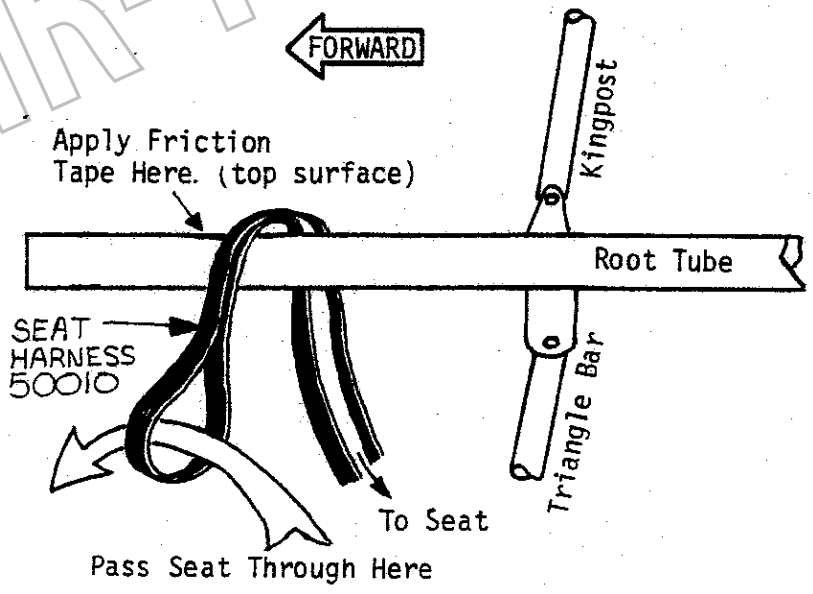
WING TWIST / WASHOUT

Correct wash out is an important factor in the stalling characteristics and low speed handling of the Quicksilver. Wash out is set at the factory through precise wire lengths. However it should be checked before flight to be certain that the angles are within factory specifications.



Make sure Kingpost is adjusted and that all slack is out of wires. Block up stabilizer so that craft is sitting approx. level. Sight from rear exactly in line with the Root Tube. The Trailing Edge Spar should be 1/4"-1" higher than the Leading Edge Spar at the tip. If this is not the case, check all wire connections for improper location.

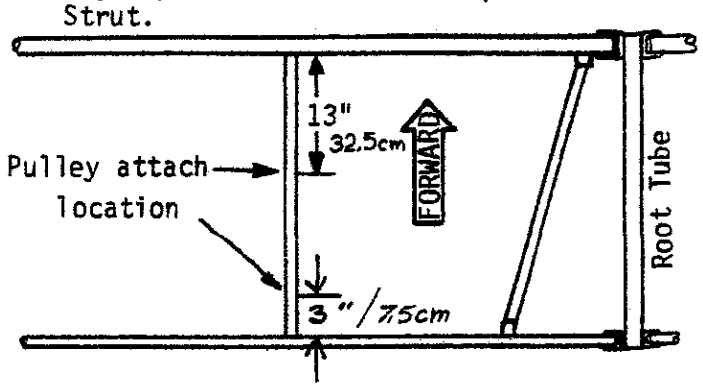
HARNESS INSTALLATION

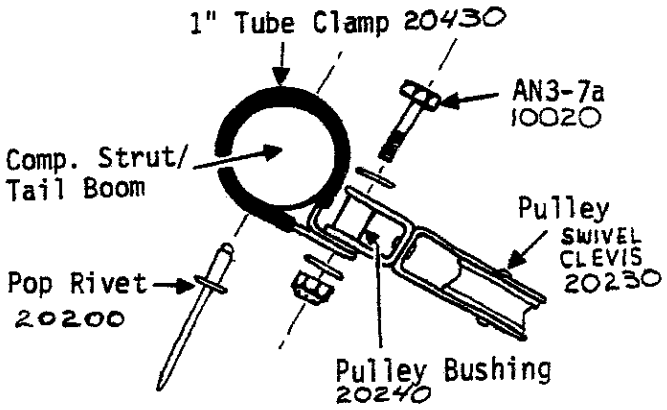


Note: Suspend harness loop forward of Fuel Tank mount hole.

CONTROL LINE SYSTEM

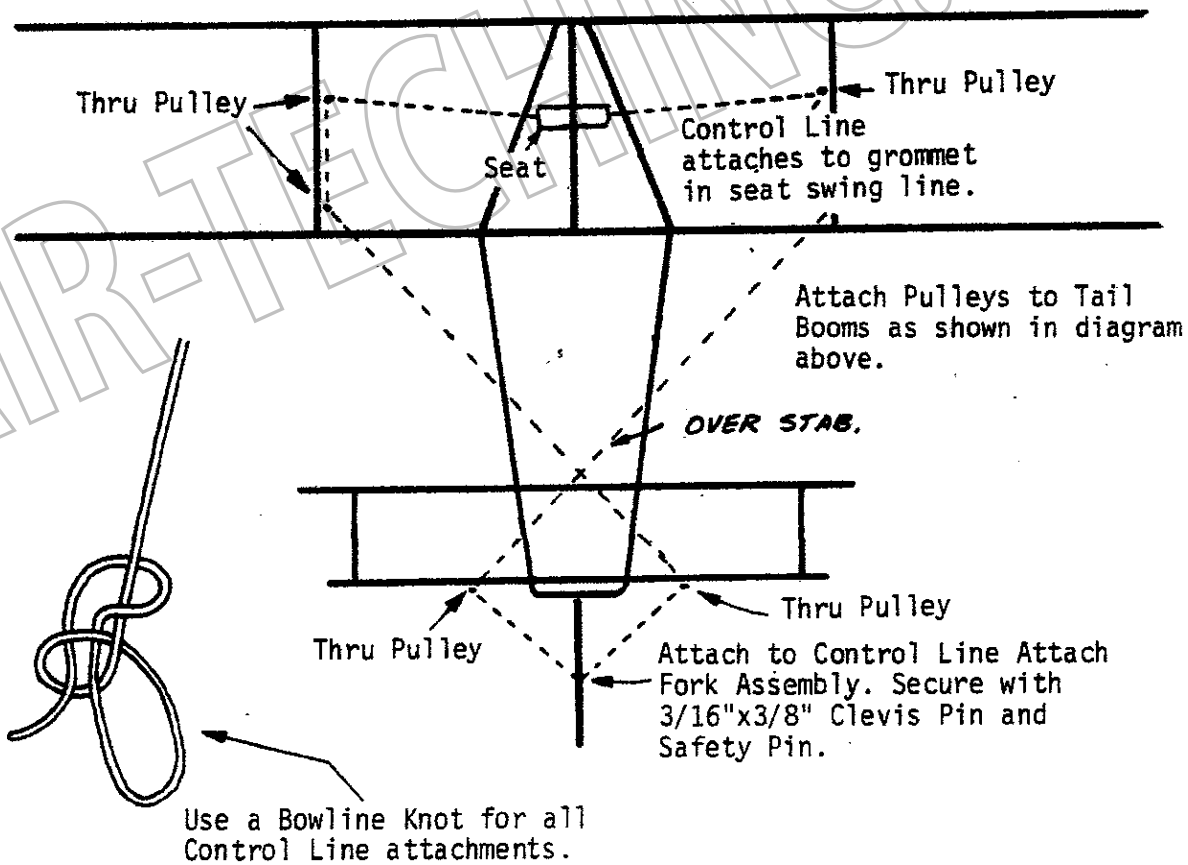
Attach pulleys 13" back from Leading Edge Spar on inner-most Compression Strut.





After determining proper Pulley angle (Sit in seat with control line thru Pulley) Secure Tube Clamp with 1/8" Pop Rivet.

Control Line Routing



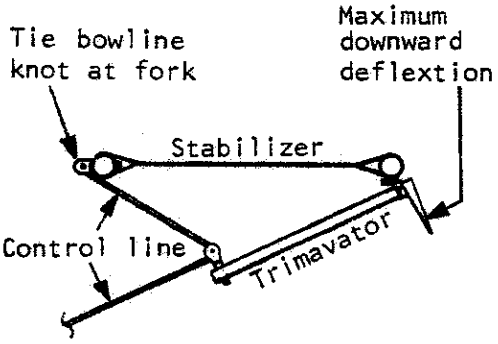
Continued

TRIMAVATOR TO SEAT ASSM.

Install hardware as shown for fig. 1 and 2.

TRIMAVATOR LINE HOOK UP

With all wheels level on ground, sit in seat and pull forward until chest rests against tri-bar crosstube. Have second person run control line through pulleys and pull line tight to give maximum deflection on Trimavator, then tie bowline knot in fork.



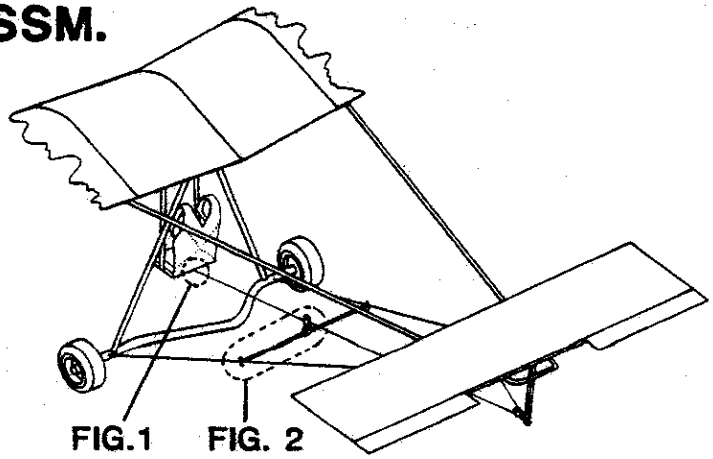


FIG.1 FIG. 2

FIG. 2

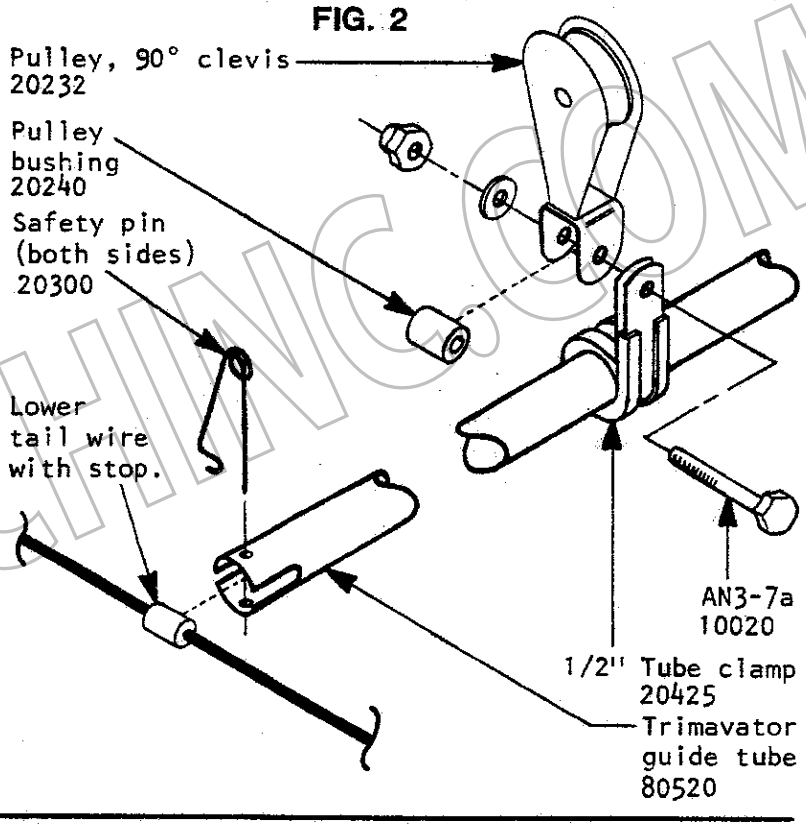
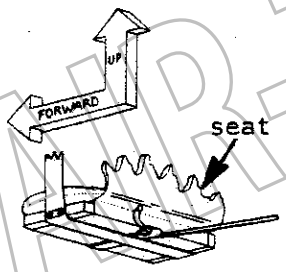
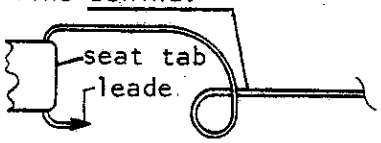


FIG. 1

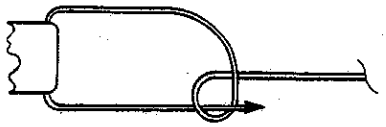


Tying a Bowline knot

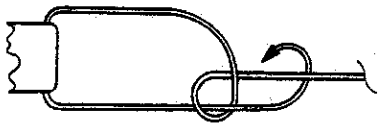
1 Allow enough leader to finish Step #4. Slip rope through seat tab and make loop with aft line behind.



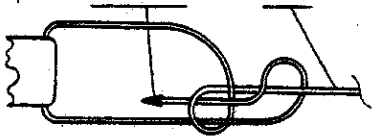
2 Put leader through loop as shown.



3 Take leader around back, up, and over again.



4 Bring leader back through loop and pull leader and aft line to tighten.

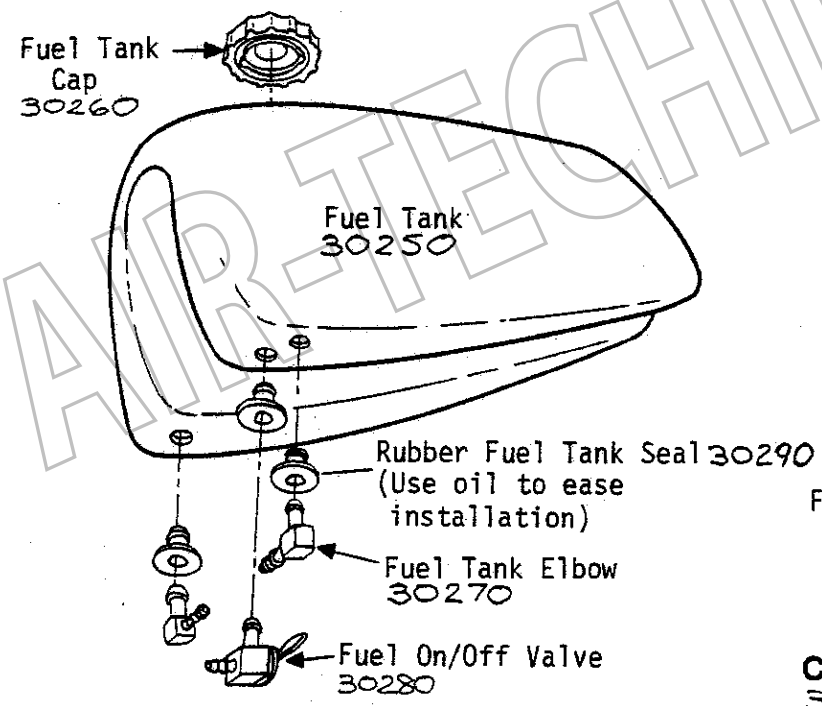


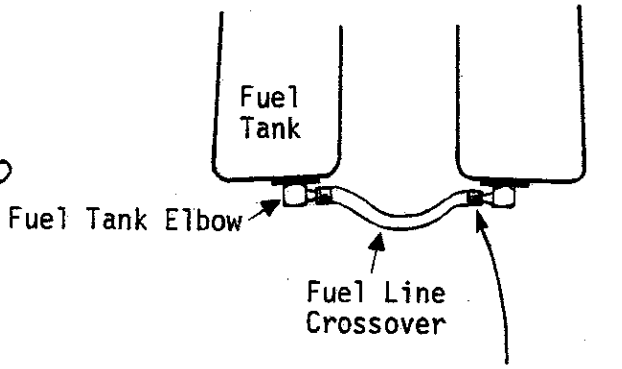
CONTROL LINE SYSTEM- continued

ADJUSTMENT OF CONTROL LINES

With Landing Gear installed and Control Line properly routed, Pilot should sit in seat harness. Pilots arms go outside seat swing lines and under Control Lines. Adjust Control Line knots so that Rudder is absolutely straight with Pilot sitting directly in the center of Triangle Bar. There should be no slack in lines, but be careful not to get too much tension, or friction can create control problems. Once proper adjustment is achieved, heat cut unnecessary ends of bowline knots and cinch up tight. Knots do not have to be untied for transport, and should not require further adjustment.

FUEL TANK ASSEMBLY

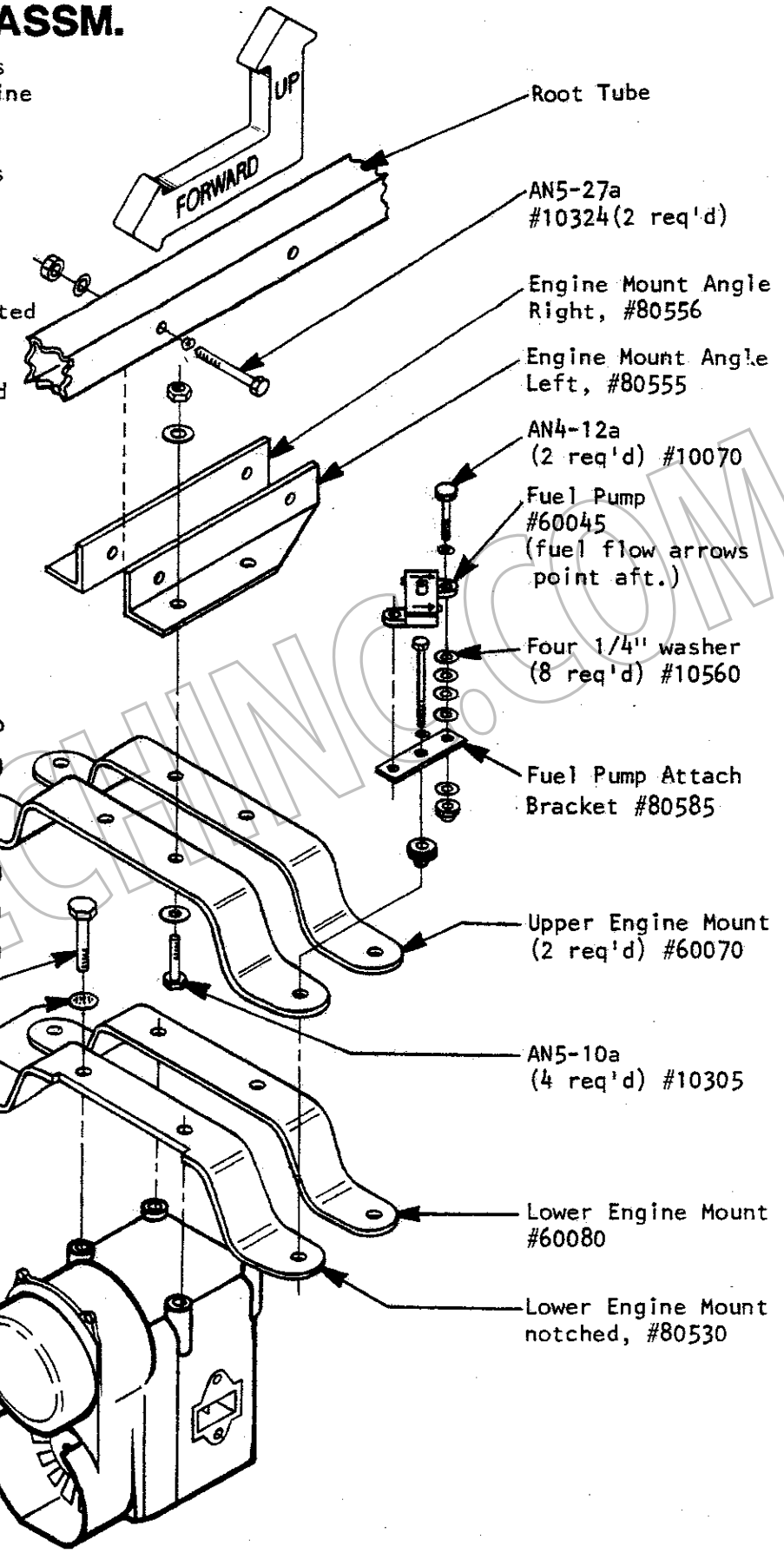




CLAMP ONE FUEL LINE CONNECTION
30230

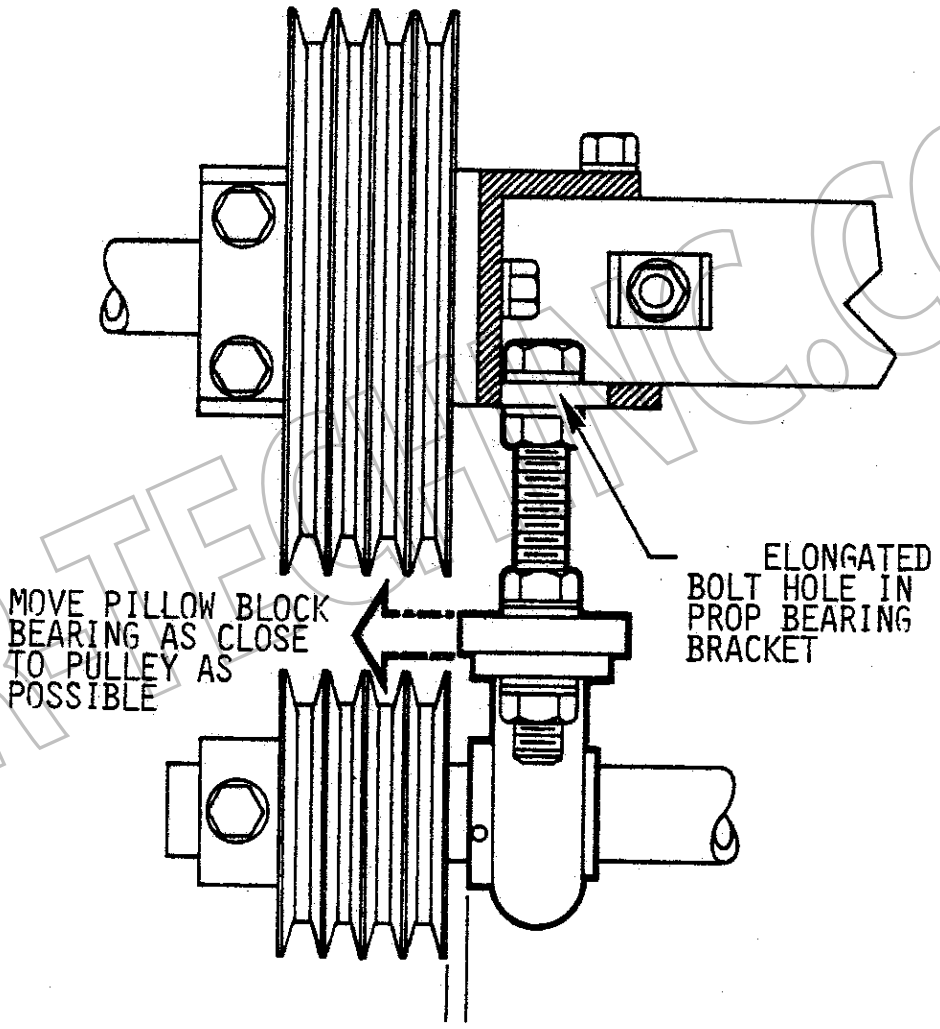
ENGINE TO PLANE ASSM.

1. Install engine mount angles (80555/80556) to upper engine mounts (60070).
2. Install lower engine mounts (80530/60080) to engine.
3. Install the two completed assemblies together with AN5-31a (4 req'd) and related hardware.
4. Take completed assembly and install to root tube.



BELT REDUCTION ASSM.

Refer to the drawing below prior to following the more detailed instructions on the following page.



BELT REDUCTION ASSM.

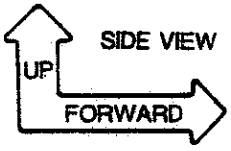
1) Apply loctite between drive shaft and pillow block bearing. Loctite bearing set screws and tighten firmly.

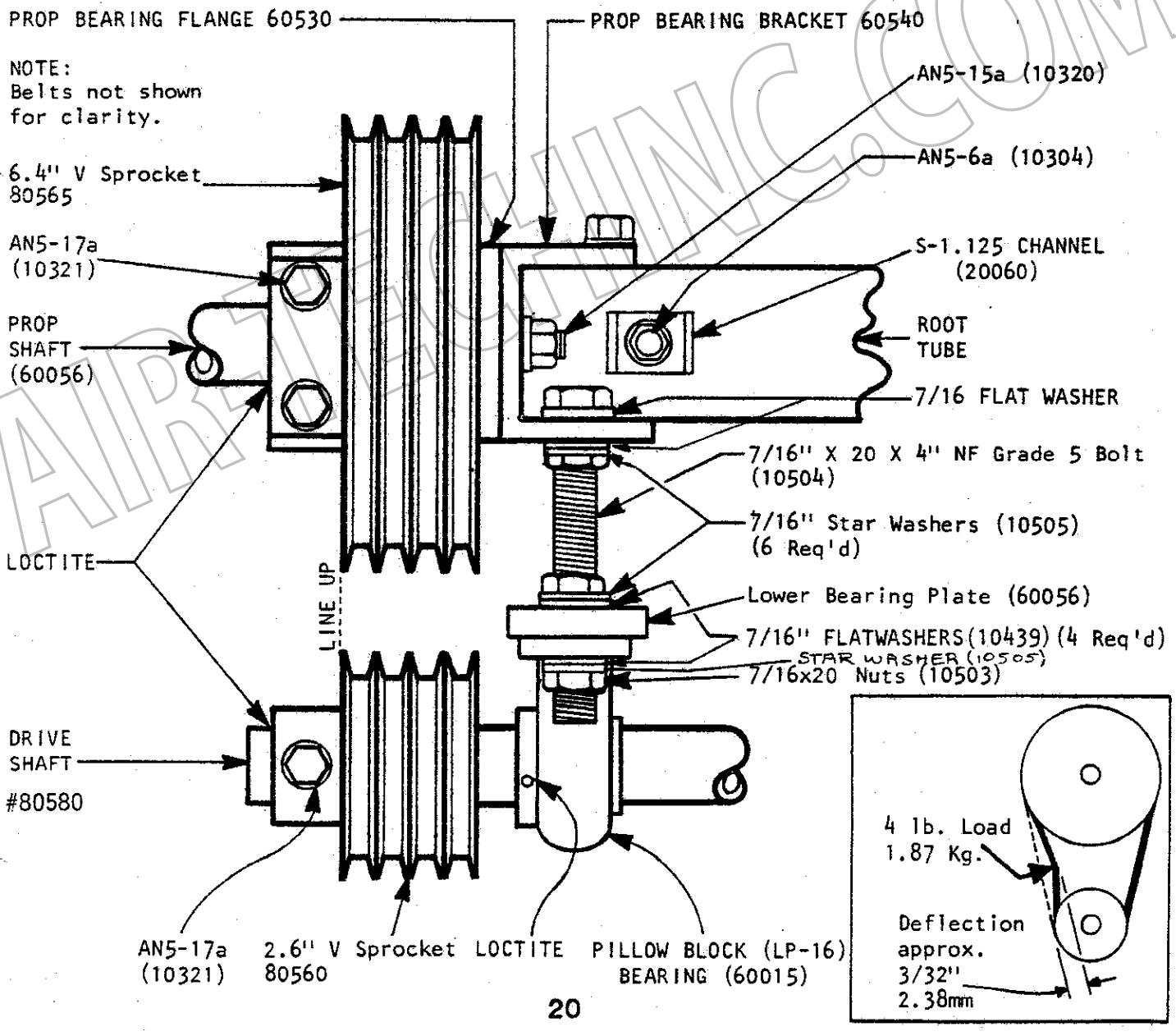
2) Apply loctite between lower sprocket bore and drive shaft and torque AN5-17a bolt to 140 in. - lbs.

3) Apply loctite between upper sprocket bore and prop shaft. Align the two sprockets fore and aft and torque the AN5-17a bolts to 140 in. - lbs.

4) Install the belts and tension as shown in the box at lower right. Mark the belts in sequence 1-2-3-4 and always re-install in same order.

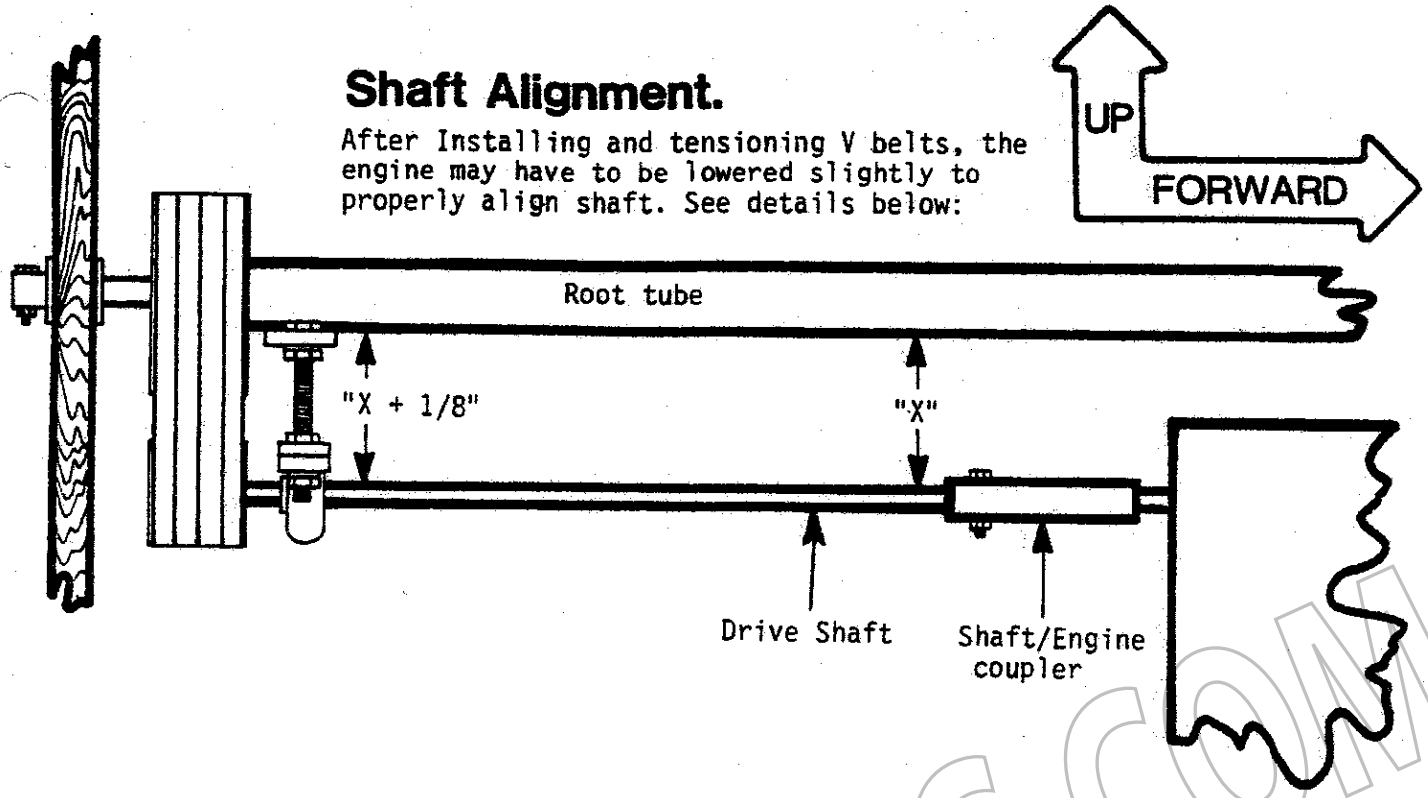
5) The belts may need to be re-tensioned several times during the first few hours of operation until fully broken in.

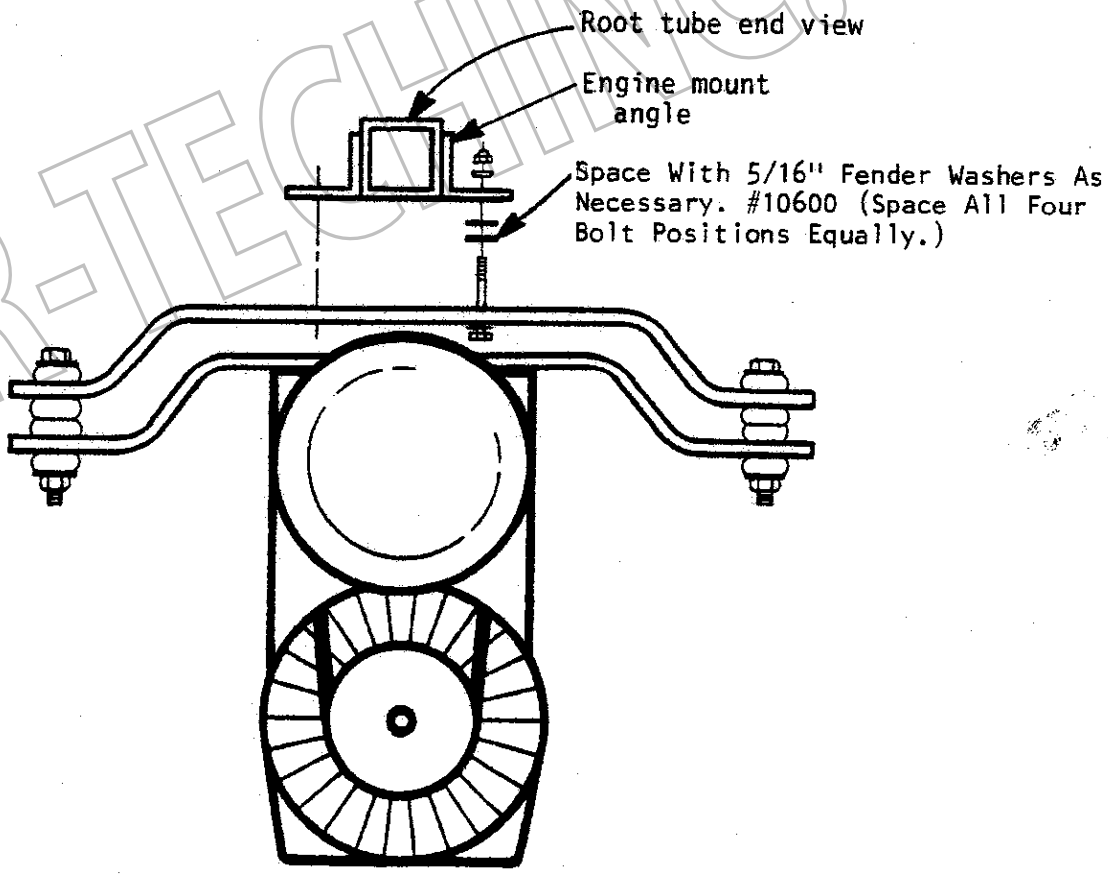




Shaft Alignment.

After Installing and tensioning V belts, the engine may have to be lowered slightly to properly align shaft. See details below:





FRONT VIEW

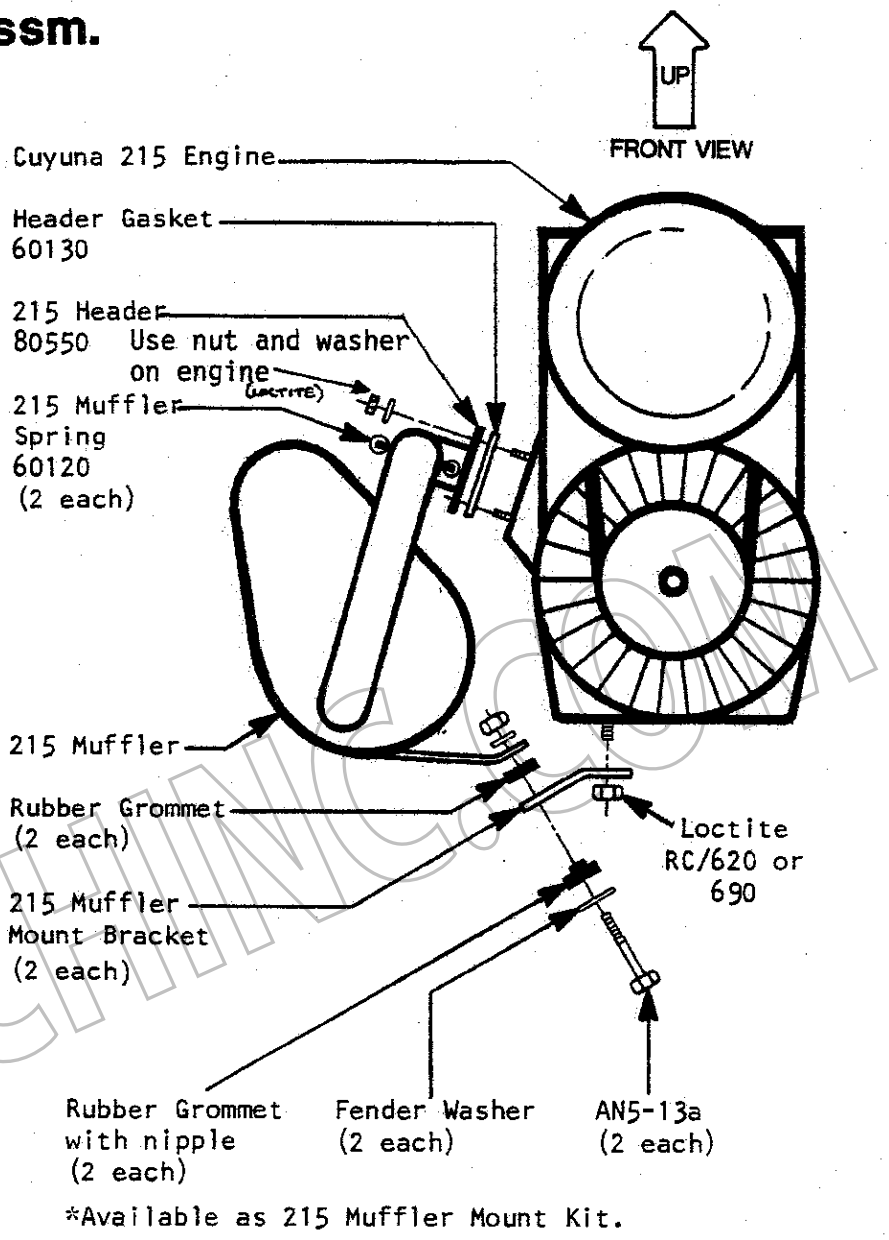
Carburetor/Muffler Assm.

MUFFLER

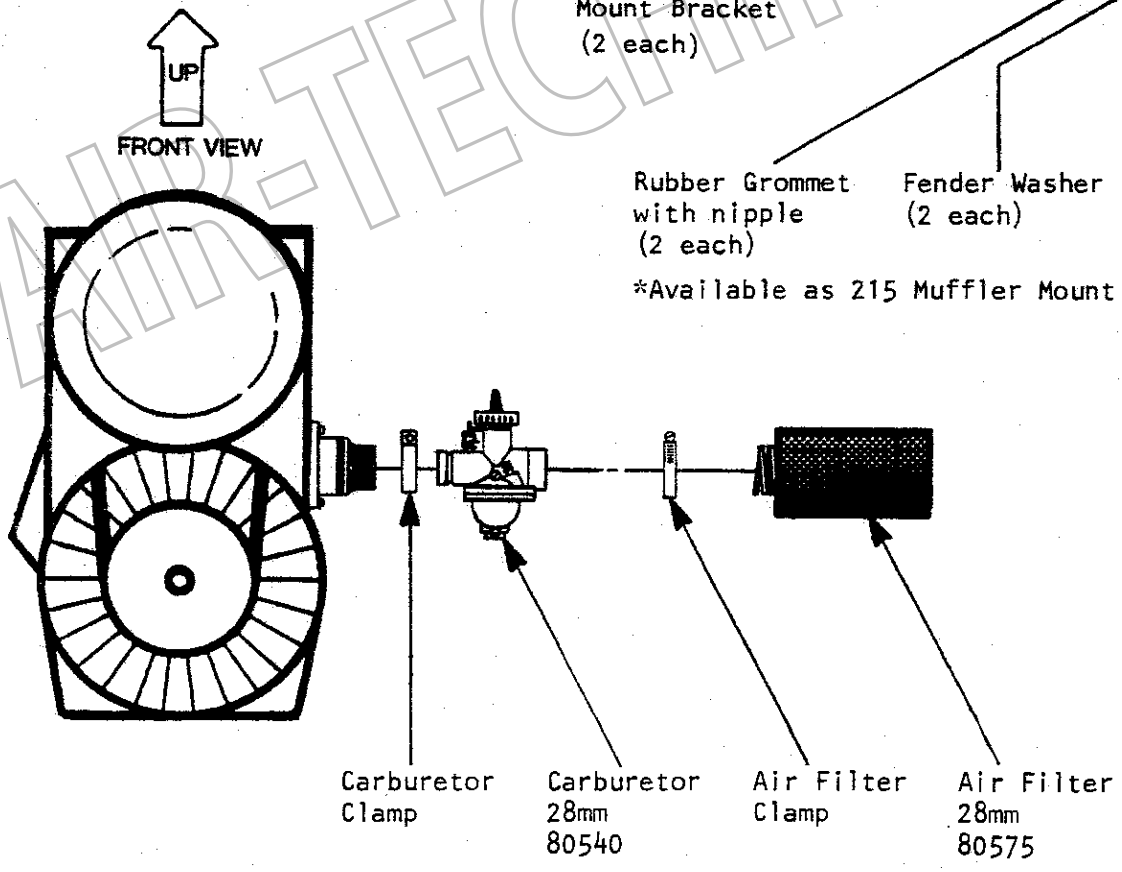
1. Install header gasket and 215 header to engine and tighten.
2. Install 215 muffler mount brackets to two right engine head bolts. (Put liberal amt. of locktite on nuts.) DO NOT TIGHTEN ANY HARDWARE YET.
3. Slip 215 muffler over header and put on muffler springs (2 each) IMPORTANT SAFETY WIRE SPRINGS TO SPRING BRACKET.
4. Install AN5-13a and related hardware. Tighten complete assembly so at least 1 1/2 threads show beyond nuts.

CARBURETOR

Install hardware as shown. Be sure spring on air filter is securely on carburetor.

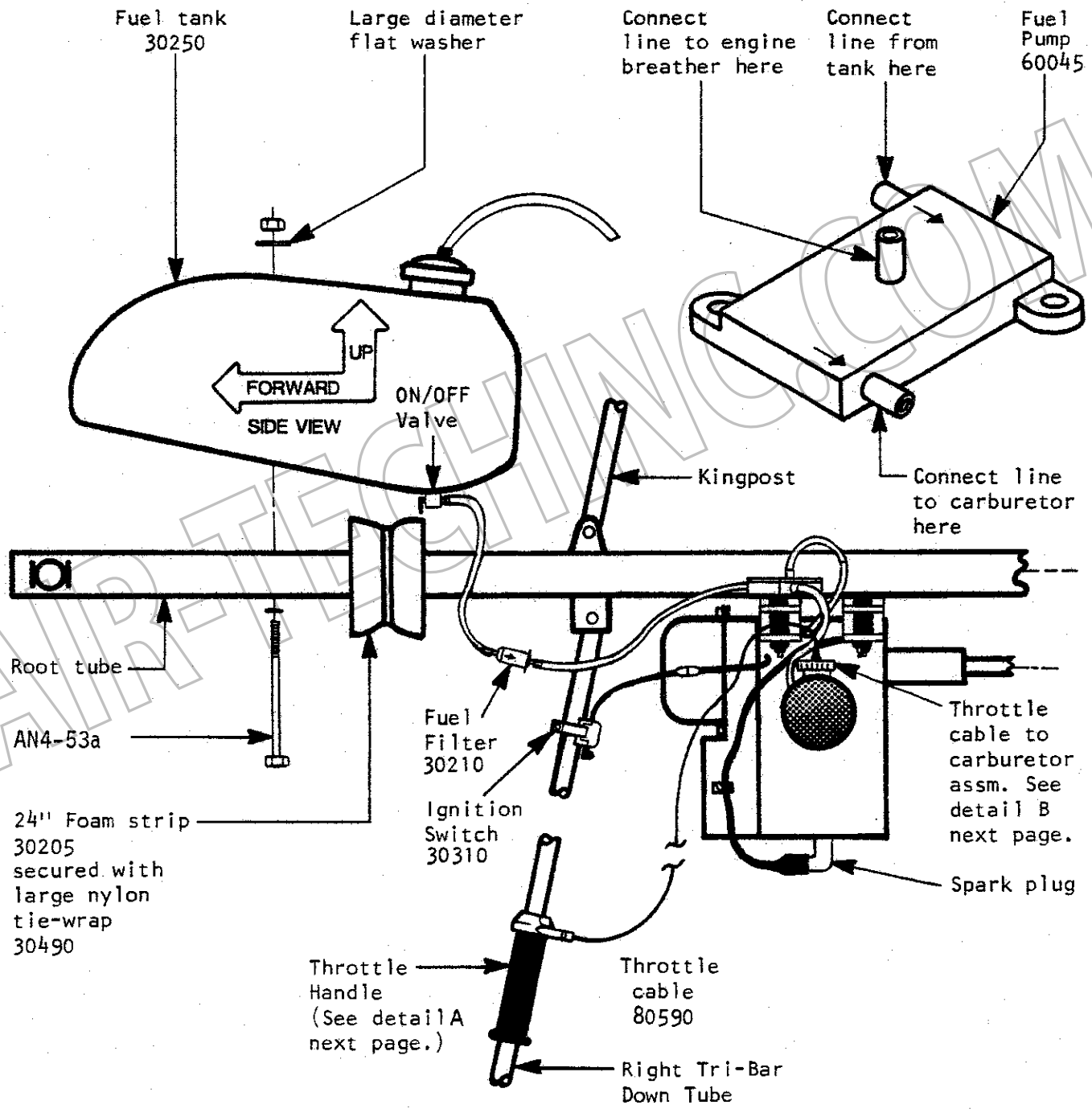


*Available as 215 Muffler Mount Kit.



ENGINE SYSTEM DETAILS

Assemble all hardware as shown. Connect cross over fuel line after tank is on root tube. Connect fuel line to ON/OFF valve and all other points as shown. Be sure to use clamps to connect all fuel lines. Use nylon tie-wraps to secure fuel lines, throttle cable, etc.,.

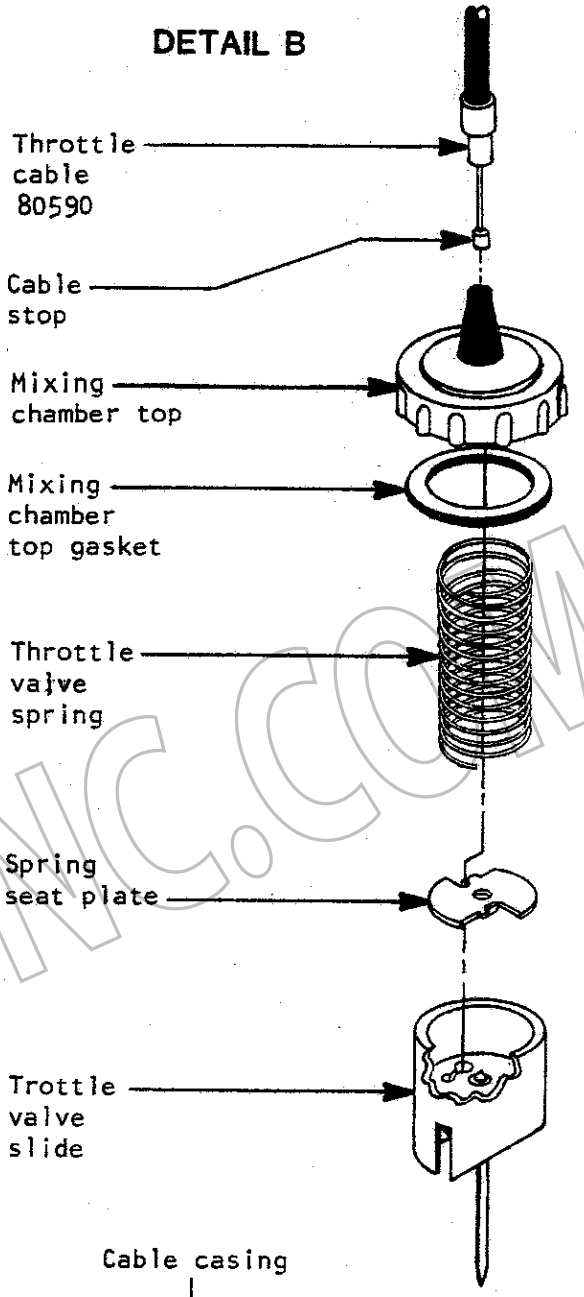


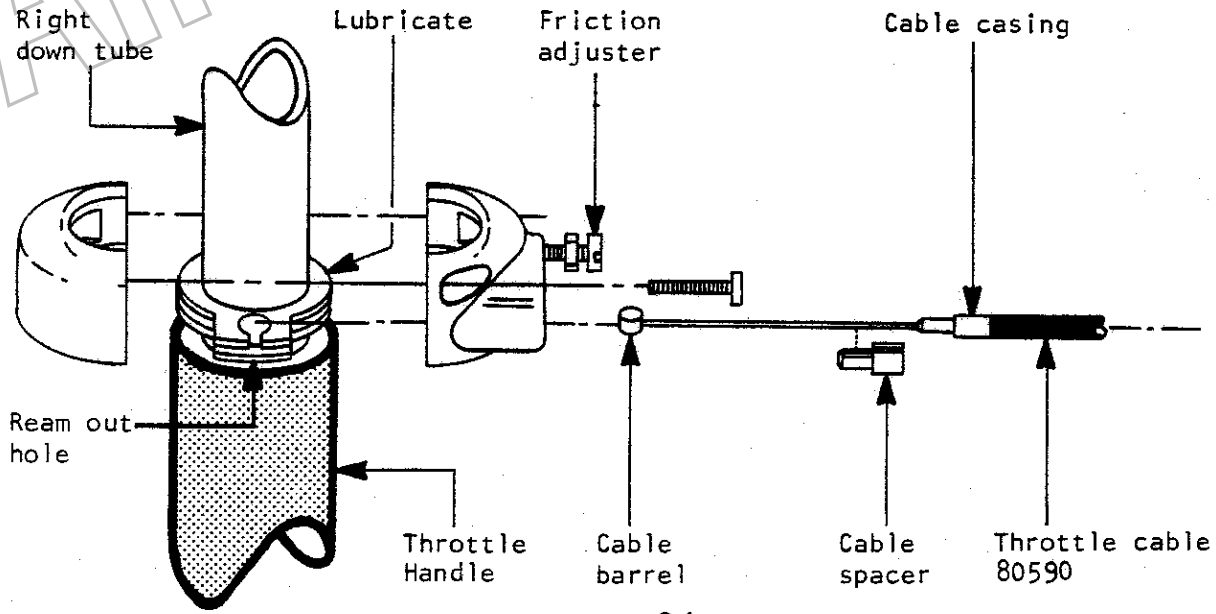
DETAIL A

Ream out cable barrel hole with 1/4"/6.4 mm drill bit. Lubricate cable channel and assm. all hardware as shown. Crimp larger end of cable spacer over cable casing.

DETAIL B

Unscrew mixing chamber top from carburetor. (Be careful not to let spring pop out). Pass cable stop through parts as shown and set in place in smaller hole. Tab on spring seat plate fits into slot so cable will not come out. Assm. mixing chamber hardware.





APPENDIX A

LANDING GEAR WHEELS: When assembling the two piece wheels, one half is plain, the other half has a notch to allow the valve stem to protrude. Do not use two notched wheel halves together.

TUBE CAPS: Be sure to install the tube caps provided with the kit. Install after all construction is complete. The tubes receiving caps include;

Main wing spar tips- secure in place with an 1/8" pop rivet.

Stabilizer spars- secure in place with an 1/8" pop rivet.

Root Tube

Rudder frame

Rudder brace

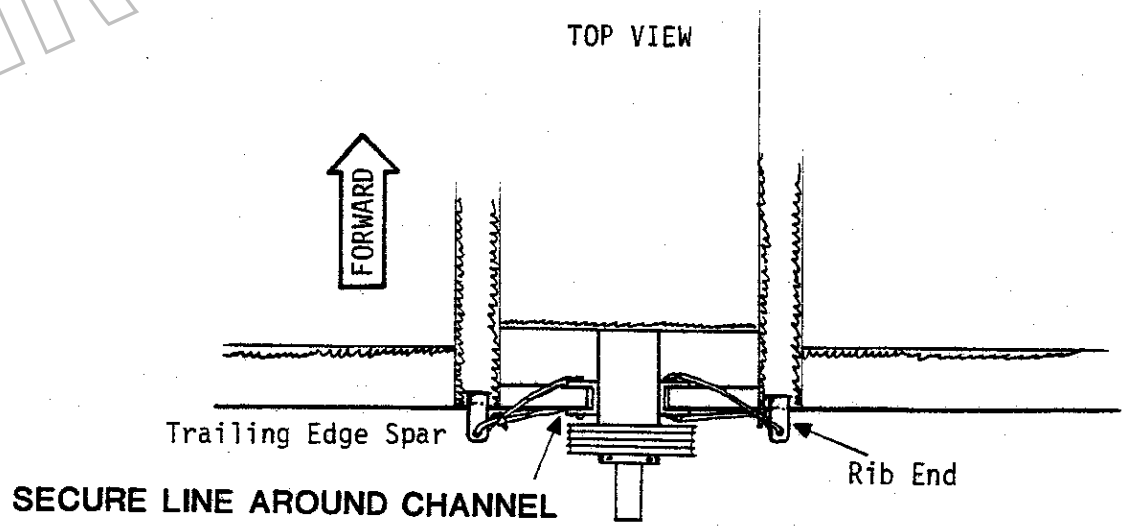
Tail skid- secure lower cap with an 1/8" pop rivet.

Prop guard and prop guard strut.

Tension struts

Foot bar

ROOT RIBS: Before flight, secure the two root ribs using extra control line as shown in the diagram below. If not secured, vibration may back ribs out towards the propeller.



[illegible] - FILE QUERY
[illegible]) TABEAD

DATE: [illegible]
TIME: [illegible]

[illegible] FILE NAME : S.PACKING.LIST.A
MASTER FILE NAME : PACKING.LIST

Rec #	Part number	Description	Quantity	F/G Category
123		Assembly Instructions	1	QE
1	10015	AN3-6a	2	QE
2	10020	AN3-7a	7	QE
3	10024	AN3-10a	2	QE
4	10025	AN3-11a	1	QE
5	10030	AN3-13a	12	QE
124	10030	AN3-13a	4	QE
6	10040	AN3-15a	2	QE
7	10050	AN3-17a	2	QE
125	10050	AN3-17a	2	QE
210	10070	AN4-12A	2	QE
8	10100	AN4-14a	2	QE
126	10110	AN4-14	2	QE
9	10120	AN4-15a	5	QE
127	10120	AN4-15a	2	QE
10	10140	AN4-16a	7	QE
11	10150	AN4-17a	2	QE
128	10150	AN4-17a	4	QE
12	10170	AN4-20a	2	QE
13	10180	AN4-20	1	QE
129	10190	AN4-22a	3	QE
130	10200	AN4-22	1	QE
14	10210	AN4-23a	2	QE
15	10220	AN4-24a	2	QE
211	10220	AN4-24A	6	QE
17	10240	AN4-26a	2	QE
16	10241	AN4-26	2	QE
18	10250	AN4-27a	1	QE
19	10270	AN4-30a	2	QE
20	10280	AN4-31a	1	QE
21	10290	AN4-34a	1	QE
22	10294	AN4-36a	4	QE
23	10296	AN4-40a	2	QE
212	10300	AN4-51a	1	QE
213	10305	AN5-10A	4	QE
24	10320	AN5-15a	2	QE
214	10321	AN5-17a	5	QE
215	10324	AN5-27a	2	QE
25	10328	AN5-30a	1	QE
216	10341	AN5-31a	4	QE
131	10345	AN5-46	1	QE
26	10350	AN43B-14a	2	QE
132	10350	AN43B-14a	1	QE
133	10360	AN43B-14	1	QE
27	10370	AN43B-15a	1	QE
134	10375	AN43B-23a	2	QE
28	10380	3/16 x 1 1/2 Fork	4	QE
29	10390	1/4 x 1-1/2 Fork	2	QE
163	10395	WHEEL HDW BOLTS	9	QE

DOCUMENT CONTROL

TYPE Packing List Page 1 of 5
PRODUCT Quicksilver E
REVISION # DATE 6-1-82
BEG. SER. No. 1531
END. SER. No.

APPROVAL

ENG. DC. DATE 6-1-82
MFG [illegible] DATE 6-1-82
SALES FAO. DATE 6-1-82

Rec #	Part number	Description	Quantity	For Assembly
164	10396	WHEEL HUB NUTS	9	QE
32	10400	1/4 x 1 3/4 gr 8 bolt	2	QE
534	10410	1/4 x 2 gr 8 bolt	2	QE
33	10420	1/4 x 2 1/4 grde 8 blt	4	QE
34	10430	1/4 x 2 3/4 grde 8 bolt	6	QE
217	10435	7/16x14x1 1/4 gr 8 bolt	4	QE
226	10437	7/16 lockwasher	6	QE
225	10439	7/16 washer	8	QE
42	10440	3/16 x 3/8 clevis pin	8	QE
153	10440	3/16 X 3/8 clevis pin	2	QE
43	10450	3/16 x 3/4 clevis pin	1	QE
154	10450	3/16 X 3/4 clevis pin	2	QE
31	10460	3/16 Pip Pin	2	QE
30	10470	1/4 dia. Pip Pin	7	QE
144	10470	1/4 dia. Pip Pin	4	QE
36	10500	3/16 locknut	33	QE
136	10500	3/16 Lock Nut	6	QE
224	10503	7/16 jam nut	6	QE
218	10504	7/16 x 4 belt adj bolt	2	QE
39	10510	1/4 lock nut	37	QE
139	10510	1/4 Lock Nut	13	QE
220	10510	1/4 locknut	9	QE
743	10515	1/4" THIN Locknut	1	QE
38	10520	1/4 wing nut	4	QE
138	10520	1/4 Wing Nut	5	QE
141	10525	5/16 Wing Nut	1	QE
41	10540	5/16 lock nut	3	QE
222	10540	5/16 locknut	15	QE
35	10550	3/16 washer	50	QE
135	10550	3/16 Washer	12	QE
37	10560	1/4 washer	88	QE
137	10560	1/4 Washer	36	QE
219	10560	1/4 washer	18	QE
40	10570	5/16 washer	6	QE
140	10570	5/16 Washer	2	QE
165	10570	5/16 Washer	9	QE
221	10570	5/16 washer	26	QE
223	10600	5/16 fender washer	16	QE
158	20010	NOSE AXLE	1	QE
159	20020	NOSE AXLE FITTING	2	QE
156	20030	AXLE SHAFT	2	QE
157	20031	AXLE COLLAR	2	QE
160	20040	NOSE AXLE SPACER	2	QE
67	20050	S-1.75 LE Spar Channel	2	QE
146	20060	S1.125 T.E. SPAR CHANNEL	2	QE
68	20070	KP-75 Channel	3	QE
69	20080	1-75 Channel	10	QE
145	20080	1-75 Channel	4	QE
70	20100	Tri Bar Channel	1	QE
72	20112	66 ft. control line	1	QE
52	20115	5/16 Elbow Fitting	2	QE
51	20117	1/4 Elbow Fitting	2	QE
62	20130	1" Expansion Plug	2	QE
71	20190	8" strip non-skid tape	1	QE
59	20195	AAP-64 3/16" Pop Rivet	32	QE
57	20200	AAP-44 1/8 Pop Rivet	10	QE

DOCUMENT CONTROL

TYPE Packing List Page 2 of 5

PRODUCT Quicksilver E

REVISION # 1 DATE 6-1-82

BEC S.O. No. 1531

ENG. SER. No. _____

APPROVAL

ENG. DC. DATE 6-1-82

MFG. HHB DATE 6-1-82

SALES FAO. DATE 6-1-82

Rec #	Part number	Description	Quantity	F/P Category
98	...95	AAL-42 1/8" Pop Rivet	30	QE
47	20230	Pulley	6	QE
48	20231	Pulley,zero degree Clevis	1	QE
49	20232	Pulley, 90 degree Clevis	1	QE
50	20240	Pulley Bushing	7	QE
73	20270	1 x 1/8 Saddle	12	QE
148	20279	1" x 1/8" saddle	2	QE
74	20280	1 x 1/4 Saddle	10	QE
147	20290	1-3/4" SADDLE	4	QE
44	20300	Safety Pin	15	QE
142	20300	Safety Pin	6	QE
143	20310	Safety Ring	4	QE
66	20320	3/16 Shackle	4	QE
152	20320	3/16 SHACKLE	2	QE
109	20330	1/4"x1" Shackle	2	QE
114	20330	1/4"x1" Shackle	2	QE
75	20345	1 x 1/8 Nylon Washer	1	QE
227	20345	1 x 1/8 nylon washer	1	QE
76	20346	1 x 1/4 Nylon Washer	14	QE
54	20350	20 Degree Tang	1	QE
151	20350	20 DEGREE TANG	2	QE
55	20355	75 Degree Tang	2	QE
150	20360	FLAT TANG	2	QE
56	20365	90 Degree Tang	2	QE
53	20380	Threaded Aluminum Insert	12	QE
162	20390	TIRE & TUBE	3	QE
63	20400	7/8 Tube Cap	6	QE
155	20400	7/8 tube cap	6	QE
64	20410	1" Tube Cap	9	QE
65	20420	1 5/8 Tube Cap	2	QE
45	20425	1/2 Tube Clamp	1	QE
46	20430	1" Tube Clamp	4	QE
60	20440	7/8 Tube Connector	6	QE
80	20447	Nico Sleeve Gauge	1	QE
61	20450	1" Tube Connector	14	QE
161	20460	WHEEL (IPC) NOTCHED HUB	3	QE
535	20461	Wheel-Ipc un-notched hub	3	QE
116	20494	Lower Tail Wire	2	QE
115	20500	Upper Tail Wire Assembly	1	QE
110	20510	Lower T.E. Inboard	2	QE
111	20520	Lower T.E. Outboard	2	QE
112	20530	Lower L.E. Outboard	2	QE
113	20540	Lower L.E. Inboard	2	QE
105	20550	Upper T.E. Inboard	2	QE
106	20560	Upper T.E. Outboard	2	QE
107	20570	Upper L.E. Outboard	2	QE
108	20580	Upper L.E. Inboard	2	QE
118	20595	Kingpost nose wire	1	QE
117	20600	Triangle Bar Nose Wire	1	QE
149	20610	LANDING GEAR SIDE WIRE	2	QE
196	30205	2ft. 4" strip foam	1	QE
189	30210	FUEL FILTER	1	QE
188	30220	54" Fuel Line	1	QE
194	30230	FUEL LINE CLAMP	10	QE
208	30250	FUEL TANK	1	QE
193	30260	FUEL TANK CAP	1	QE

DOCUMENT CONTROL

TYPE Packing List Pages

PRODUCT Quicksilver E

REVISION #1 DATE 6-1-82

BEG. SER. No. _____

END. SER. No. _____

APROVAL

ENG. D.C. DATE 6-1-82

MFG. [illegible] DATE 6-1-82

QC [illegible] DATE 6-1-82

Rec #	Part number	Description	Quantity	Factory
191	30270	FUEL TANK ELBOW	2	QE
190	30280	FUEL ON/OFF VALVE	1	QE
192	30290	FUEL TANK SEAL	3	QE
207	30345	52 X 32 PROP	1	QE
195	30380	RUBBER SHOCK GROMMET	20	QE
198	30480	SMALL TIE WRAP	6	QE
197	30490	LARGE TIE WRAP	3	QE
83	40120	TE Main Spar	2	QE
82	40130	LE Main Spar	2	QE
91	40145	Reduction Root Tube	1	QE
97	40155	Tail Skid	1	QE
101	40160	Rib	14	QE
94	40170	Tail Mount	1	QE
95	40180	Rudder Brace	1	QE
89	40200	Triangle Bar Crosstube	1	QE
90	40210	Kingpost (Complete)	1	QE
93	40225	Tail Boom	2	QE
88	40230	Triangle Bar Downtube	2	QE
87	40240	Diagonal Strut	2	QE
92	40250	Rudder Leading Edge	1	QE
84	40261	LE Stabilizer Spar	1	QE
85	40270	TE Stabilizer Spar	1	QE
86	40280	Compression Strut	6	QE
166	40290	LANDING GEAR DOWNTUBE-DO	2	QE
169	40300	TENSION STRUT	2	QE
170	40310	AXLE	1	QE
96	40330	Rudder Frame	1	QE
167	40360	NOSE STRUT	2	QE
171	40370	FOOT BAR	1	QE
168	40380	AXLE STRUT	2	QE
100	40390	Rudder Comp Strut	1	QE
99	40400	Stabilizer Comp Strut	2	QE
98	40410	Tip Strut Blank	2	QE
742	40440	Tail Brace Tube	2	QE
121	50006	Rudder Surface	1	QE
120	50007	Stabilizer Surface	1	QE
119	50008	Wing Surface	1	QE
122	50010	1982 W/S Harness	1	QE
180	60016	RAK-1 Pellow Blk Bearing	1	QE
746	60033	Belt Tensioner	1	QE
199	60036	3V250 Drive Belt Set	1	QE
200	60045	FUEL PUMP	1	QE
202	60065	LOWER BEARING PLATE	1	QE
183	60070	UPPER ENGINE STRAP	2	QE
184	60080	LOWER ENGINE STRAP	1	QE
182	60130	HEADER GASKET CUYUNA	1	QE
173	60170	PROP HUB SET	1	QE
177	60200	THROTTLE	1	QE
228	60591	Tube Loctite 290	1	QE
102	80500	Trimvator L.E.	1	QE
78	80505	Trimvator Arm Bracket	2	QE
103	80510	Trimvator Arm	1	QE
79	80515	Trimvator Surface	2	QE
104	80520	Trimvator Guide Tube	1	QE
77	80525	Aluminum Spring Hinge	4	QE
185	80530	ENGINE MOUNTLOWER NOTCHED	1	QE

DOCUMENT CONTROL

TYPE Packing List Page 4 of 5

PRODUCT Quicksilver E

REVISION #1 DATE 6-1-82

BEG. SER N.

END. SER. N.

APPROVAL

ENG. D.C. DATE 6-1-82

MFG. [illegible] DATE 6-1-82

SALES PAO DATE 6-1-82

Rec #	Part number	Description	Quantity	F	Category
172	80535	CUYUNA ENGINE 215 ASSM	1		OE
174	80540	CARBURETOR, 28 MM	1		OE
175	80545	CARBURETOR MTM BLOCK,28MM	1		OE
181	80550	HEADER PIPE	1		OE
206	80551	215 MUFFLER HARDWARE SET	1		OE
186	80555	ENGINE MOUNT ANGLE, LEFT	1		OE
187	80556	ENGINE MOUNT ANGLE, RIGHT	1		OE
203	80560	2.6" V SPROCKET	1		OE
204	80565	6.4" V SPROCKET	1		OE
205	80570	215 MUFFLER	1		OE
176	80575	AIR FILTER,28MM	1		OE
209	80580	DRIVE SHAFT 215	1		OE
201	80585	FUEL PUMP ATTACH BRACKET	1		OE
178	80590	215 CUYUNA THROTTLE CABLE	1		OE
81	90430	Airspeed Indicator w/brkt	1		OE

232 records selected

DOCUMENT CONTROL

TYPE Packing List Passicos

PRODUCT Quicksilver E

REVISION #1 DATE 6-1-82

BEG. SER. No. _____

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APPROVAL

ENG. D.C. DATE 6-1-82

MFG. [illegible] DATE 6-1-82

SALES FAO. DATE 6-1-82