EDA # 122-83

ECR# 3-052

DOC # 833-23

IMPORTANT!

REGARDING ALL AIRCRAFT

ALL EIPPER AIRCRAFT ARE IN A STATE OF CONSTANT TEST AND MODIFICATION. THESE ON-GOING EFFORTS ARE CARRIED OUT TO FURTHER IMPROVE ALREADY PROVEN DESIGNS, ENGINEERING, TESTING AND MANUFACTURING OPERATIONS. DO NOT ASSUME, THEREFORE, THAT A PARTICULAR MODEL OF AN AIRCRAFT YOU BUILD TODAY WILL BE IDENTICAL TO THE ONE YOU BUILT YESTERDAY. THE POSSIBILITY EXISTS THAT IT WILL NOT BE THE SAME.

STATED BRIEFLY, PAY ATTENTION NOT ONLY TO THE AIRCRAFT'S ASSEMBLY INSTRUCTIONS, BUT ALSO TO THE SUPPLEMENTS (TO THE INSTRUCTIONS) SUPPLIED WITH EACH PLANE ON AN INDIVIDUAL BASIS.

Copyright ©1983, Flonar Aircraft

CONSTRUCTION NOTES

Assembly of your MX-Quicksilver can easily be accomplished in one weekend. You may wish to involve a friend to give you a helping hand on a few of the assembly procedures; such as lifting the tail section into position, alignment, or leveling some items, etc.

All the difficult fabrication details have been pre-finished at the factory including most drilling; anodizing; cable swaging; sewing of wing and the tail surfaces, etc.

Read thru this manual and familiarize yourself with the terminology, the use of assembly drawings and detail breakdown. For "AN" bolt sizes and dimensions, (use the bolt gauge on page 3)

Work slowly and carefully and follow these assembly procedures closely. Do not use substitute materials or initiate design changes. If you have any construction problems or questions do not hesitate to contact your dealer or the factory for assistance.

WHENEVER POSSIBLE, THE ASSEMBLY ILLUSTRATIONS ARE SHOWN IN THE RELATIVE POSITION THAT THE AIRPLANE WILL BE IN WHEN YOU WORK ON IT, SUCH AS NOSE DOWN, WING INVERTED OR UPRIGHT.

Basic Tools Needed

One pair each;
3/8", 7/16", 1/2"
5/8", 11/16" and
10mm open end wrenches

Torque Wrench (optional)

Fine flat, and 1/2 round
or rat tail files

Hacksaw

Electric drill (or hand drill)
with 1/8", 3/16", 1/4" and
5/16" Drill Bits

Pop Rivet Gun

Sharp knife

Hammer

Tape measure and
Marking pencil

Scissors

Allen Wrenches
1/8", and 6mm

Sail makers hot knife or
a soldering iron with a
blade edge

"C" Clamps

Lubricant (3 in 1 oil or equiv.)

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

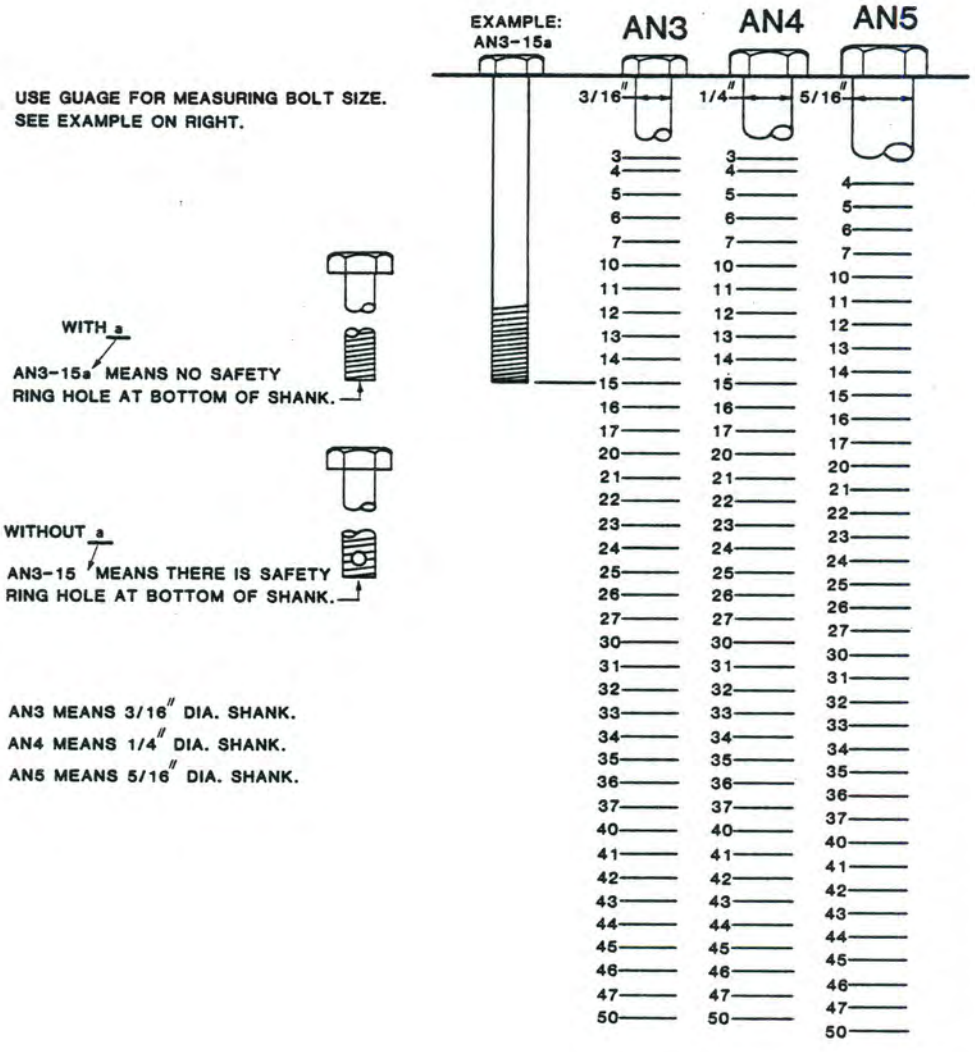
Self-locking nuts can be torqued to the standard values, with the exception of bolts that pass through tubes with no solid internal support. In this case tighten the bolt until the tube shows a slight distortion. Back off the nut 1/8 turn maximum. Be particularly careful when installing the bolt (coarse thread) in the main wing spars.

Where wing nuts are used, be sure to lock with safety "rings". Cotter keys or safety pins are not recommended.

After installing bolts, check that the "grip length" is correct. Use the correct number of washers as shown in the assembly drawings. At least one bolt thread should extend out of the nut. One or two washers may be used to prevent the bolt from bottoming out before producing a tight fit. (make sure you have used the proper bolt length). Eye bolts and fork bolts do not require a washer under the head. except where indicated.

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

THE GAUGE BELOW WILL HELP YOU DETERMINE THE DIAMETER AND THE LENGTH OF THE "AN" BOLTS

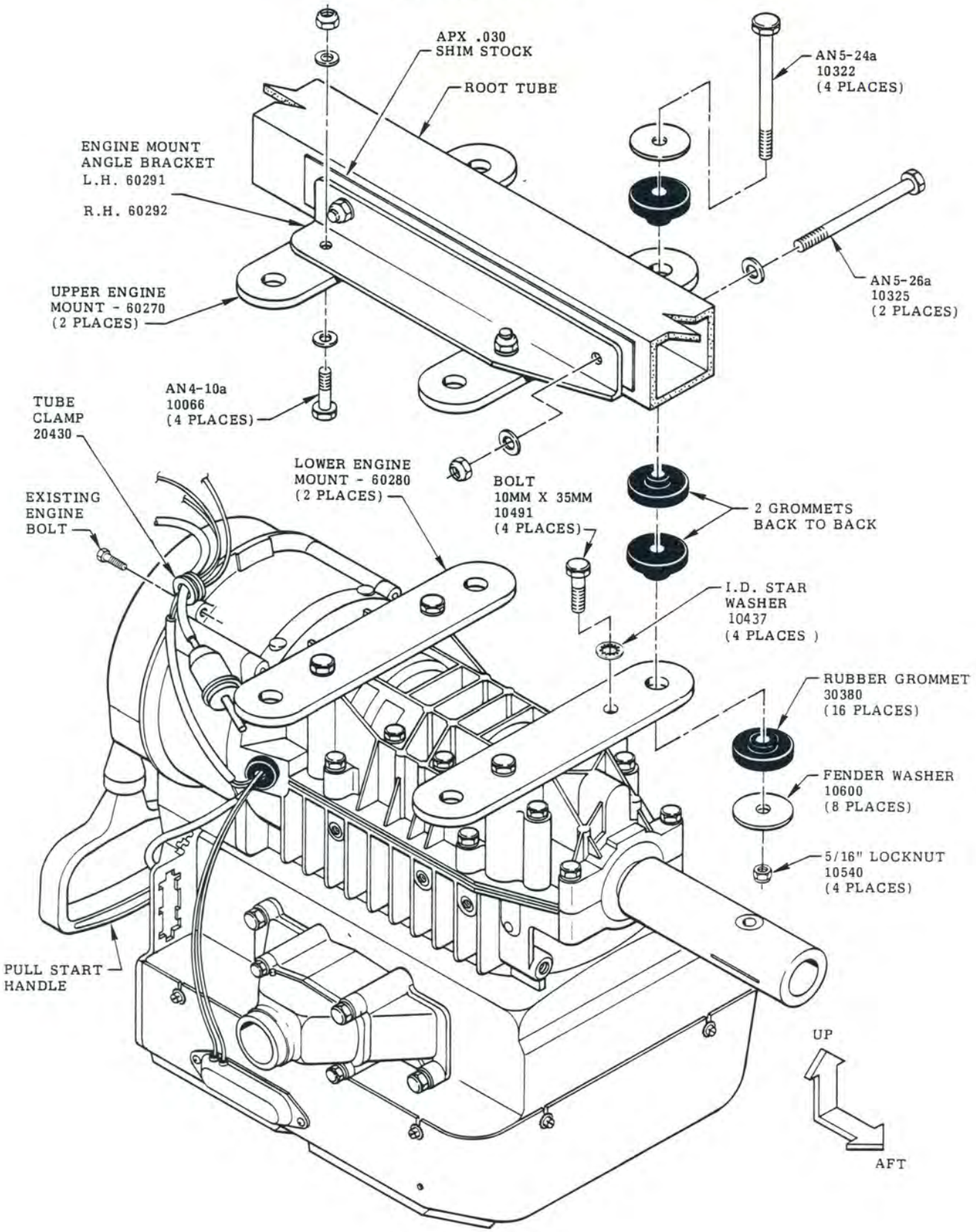


NOTICE:

The "AN" Bolts are used through-out the construction of the airplane for structural integrity.

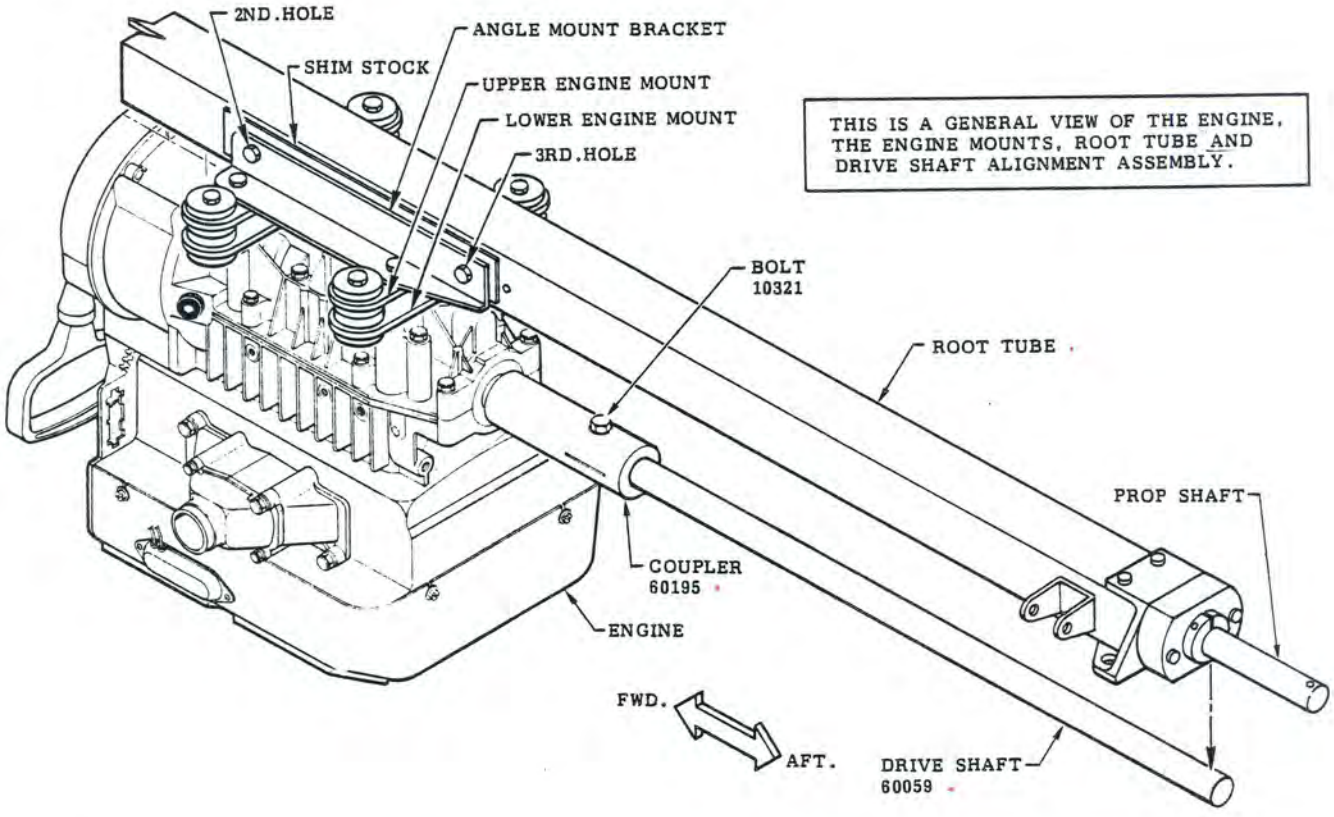
Do not use substitutes. See your dealer for replacements if necessary.

SECTION ONE



BEFORE STARTING THIS ENGINE MOUNT BUILD-UP, STUDY THE ILLUSTRATIONS AND THE INSTRUCTIONS ON THIS AND THE FOLLOWING PAGE.

INSTALL A 1" TUBE CLAMP 20430 AS SHOWN TO KEEP THE WIRING AND FUEL LINE AWAY FROM THE PULL START HANDLE. NOTE: THE ATTACH HOLE IN THE TUBE CLAMP WILL HAVE TO BE INLARGED WITH A RAT TAIL FILE TO ACCEPT THE EXISTING ENGINE BOLT.



AT THIS STAGE YOUR CONCERN WILL BE TO BUILD UP THE ENGINE WITH ITS MOUNTING HARDWARE AND THE ALIGNMENT OF THE DRIVE SHAFT WITH RELATION TO THE ROOT TUBE AND PROP SHAFT. WHEN FINISHED IT WILL BE SET ASIDE TO BE INSTALLED ON THE PLANE AT A LATER TIME.

TO MAKE THE INSTALLATION OR REMOVAL OF THIS ASSEMBLY TO THE ROOT TUBE EASIER WITHOUT FORCING OR BINDING WHEN INSTALLED LATER. FOLLOW THE PROCEDURES LISTED BELOW ALONG WITH THE ILLUSTRATIONS ON THIS AND THE PROCEEDING PAGE.

(1) THE ENGINE IS SECURED IN THE PACKING CRATE WITH 4 STUDS. REMOVE AND DISCARD THESE STUDS.

(2) START THE ASSEMLBY WITH THE TWO ANGLE MOUNT BRACKETS. USE THE 2ND AND 3RD "SIDE" HOLES FROM THE FRONT ON THE ROOT TUBE AND PROCEED AS FOLLOWS:

(a) PLACE ABOUT 6 SHEETS OF PAPER OR THIN CARDBOARD (APPROXIMATELY .030) BETWEEN THE ROOT TUBE AND THE ANGLE BRACKET (ONE SIDE ONLY). SECURE THE TWO BRACKETS TIGHTLY ON THE ROOT TUBE WITH ATTACH BOLTS 10328. NOTE: BE SURE YOU HAVE THE RIGHT AND LEFT HAND BRACKETS FACING FORWARD AND AFT. CORRECTLY.

(3) ATTACH THE TWO "UPPER" ENGINE MOUNTS (60083) TO THE ANGLE BRACKETS BUT DO NOT TIGHTEN.

(4) ATTACH THE TWO "LOWER" ENGINE MOUNTS (60082) TO THE ENGINE AS SHOWN BUT DO NOT TIGHTEN.

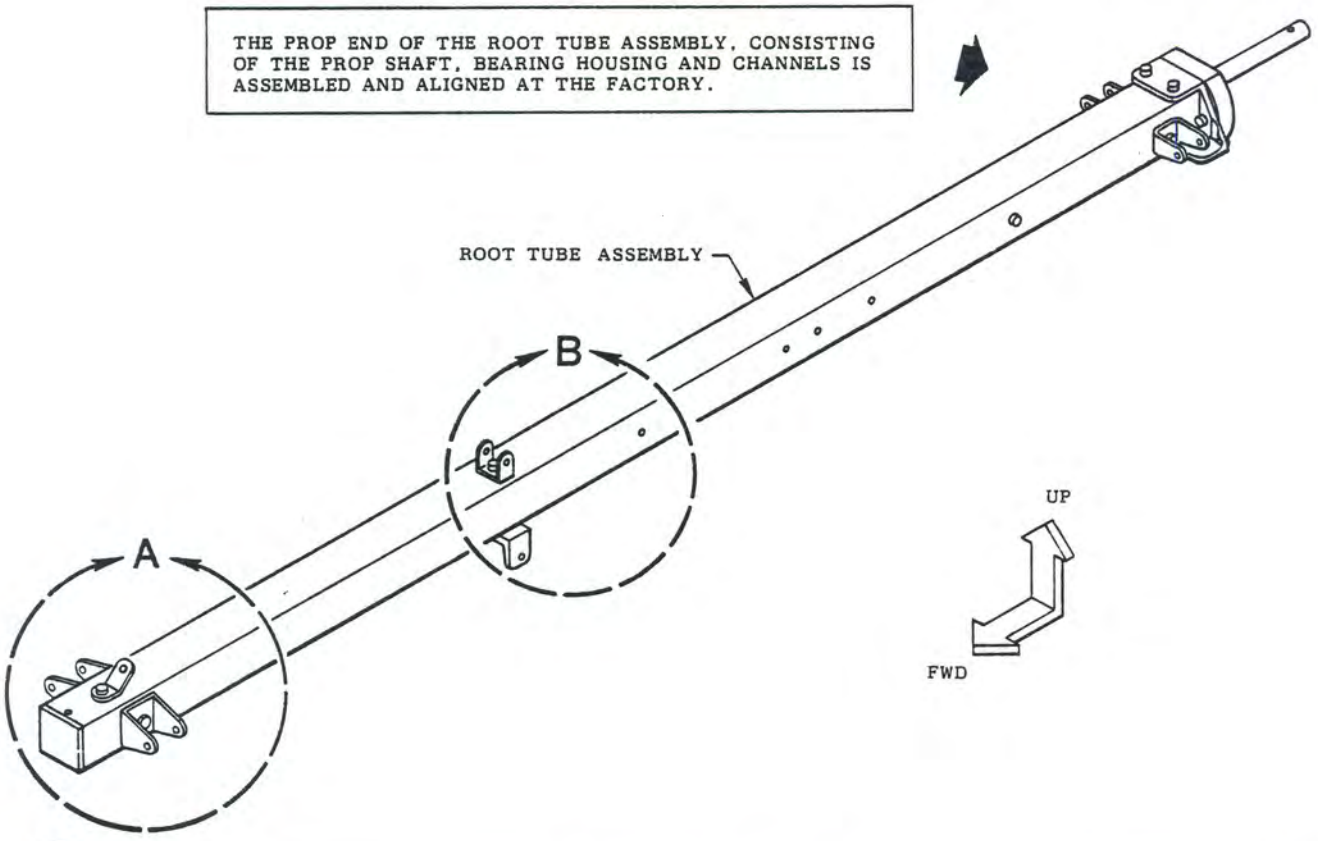
(5) NOW TIE THE UPPER AND LOWER ENGINE MOUNTS TOGETHER (4 PLACES) AS ILLUSTRATED WITH THE GROMMETS, FENDER, WASHERS, ETC., BUT DO NOT TIGHTEN AT THIS TIME.

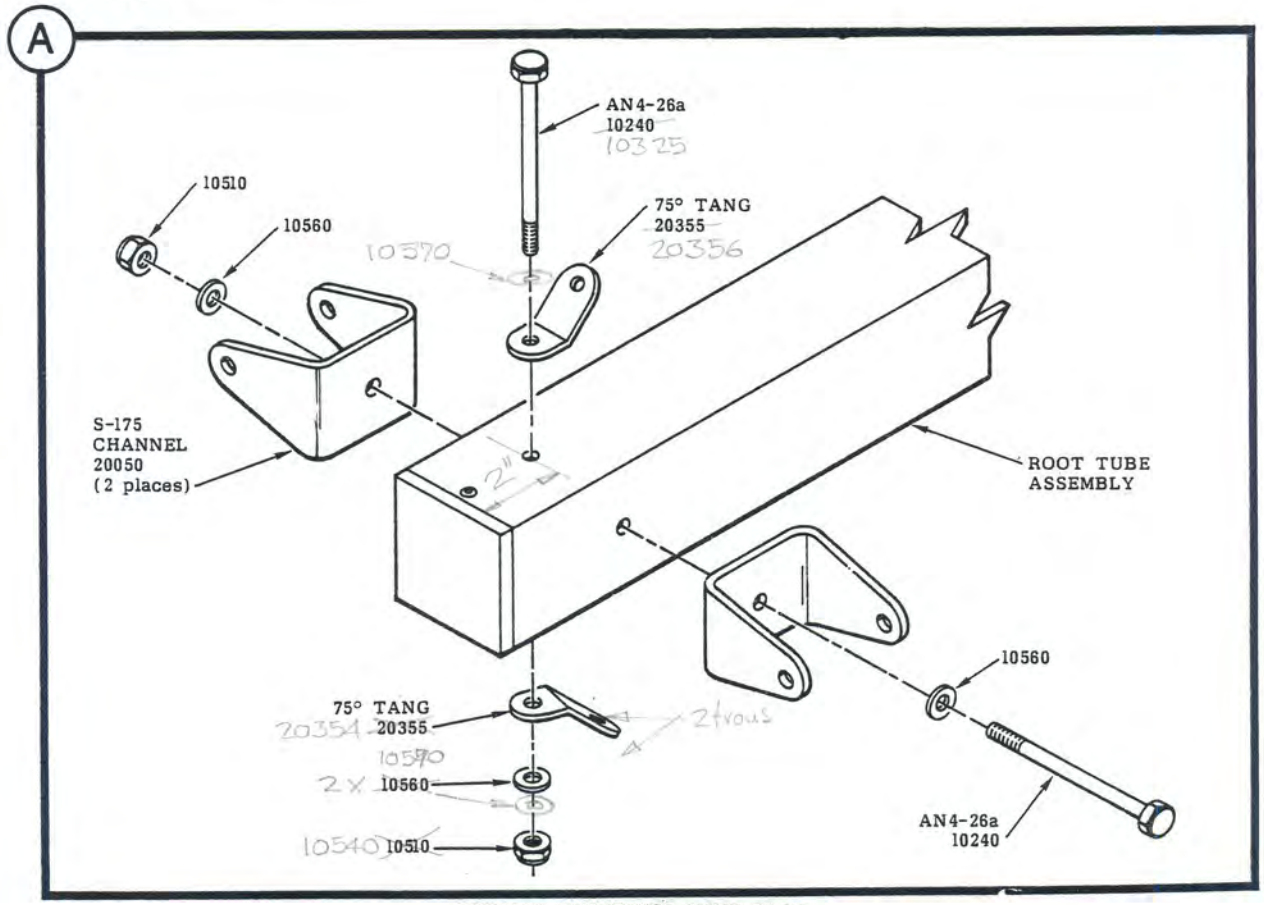
(6) INSTALL THE DRIVE SHAFT 60059 IN THE DRIVE SHAFT COUPLER 60195 (MAKE SURE YOU HAVE THE CORRECT END OF THE DRIVE SHAFT WITH THE ATTACH HOLE THAT IS 3/4" FROM THE END OF THE SHAFT) SECURE TIGHTLY IN PLACE WITH BOLT 10321 AND NUT.

(7) WITH THE TOTAL ASSEMBLY LOOSELY TIED TOGETHER, CENTER THE DRIVE SHAFT DIRECTLY UNDER THE PROP SHAFT AND TIGHTEN UP ALL ATTACH BOLTS ON THE TOTAL ASSEMBLY.
NOTE: THE RUBBER GROMMETS SHOULD BE SLIGHTLY COMPRESSED. THIS IS NORMALLY DONE WITH 1-1/2 THREADS SHOWING BELOW THE LOCKNUT ON ATTACH BOLT 10322.

(8) NOW RECHECK THE DRIVE SHAFT ALIGNMENT AND IF IT IS OK REMOVE THE ROOT TUBE AND DISCARD THE SHIM STOCK. SET THE ASSEMBLY ASIDE, IT WILL BE INSTALLED ON THE PLANE LATER.

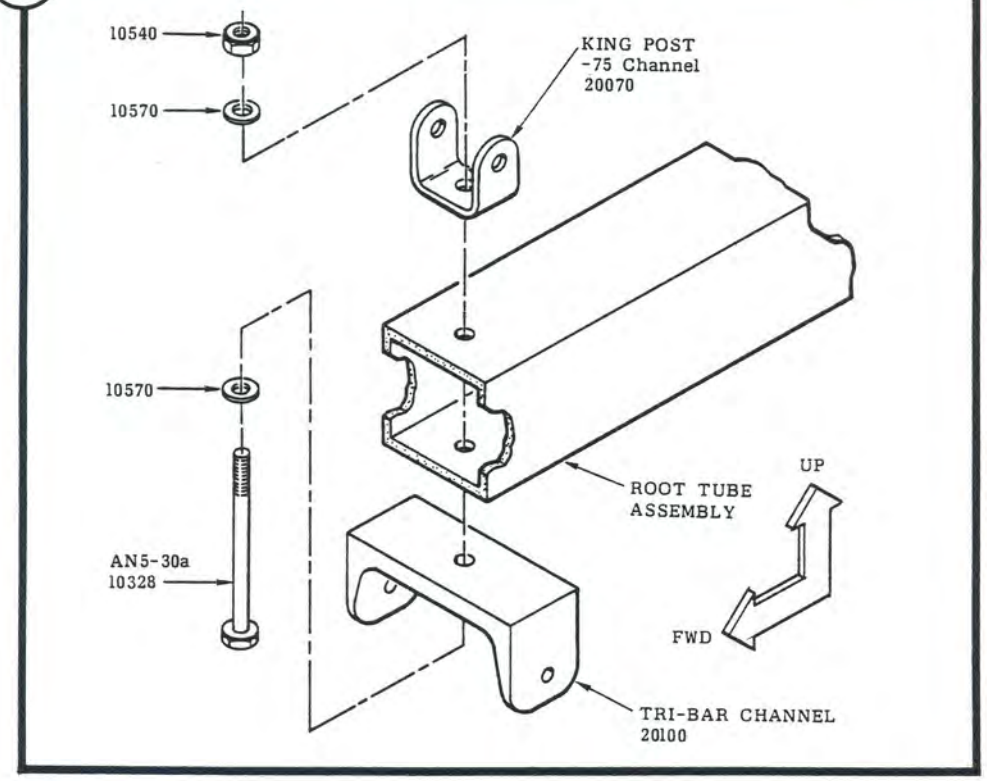
THE PROP END OF THE ROOT TUBE ASSEMBLY, CONSISTING OF THE PROP SHAFT, BEARING HOUSING AND CHANNELS IS ASSEMBLED AND ALIGNED AT THE FACTORY.

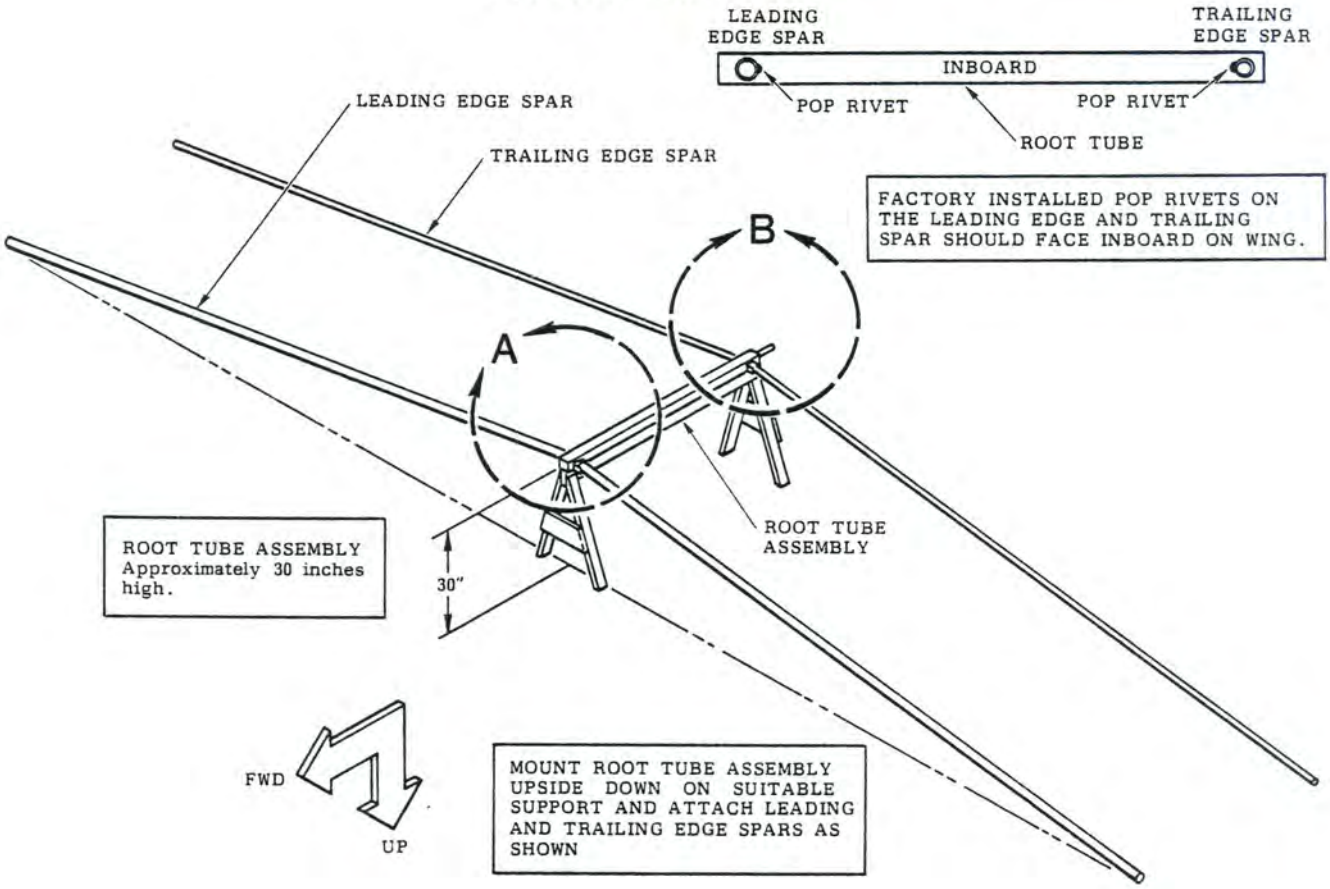


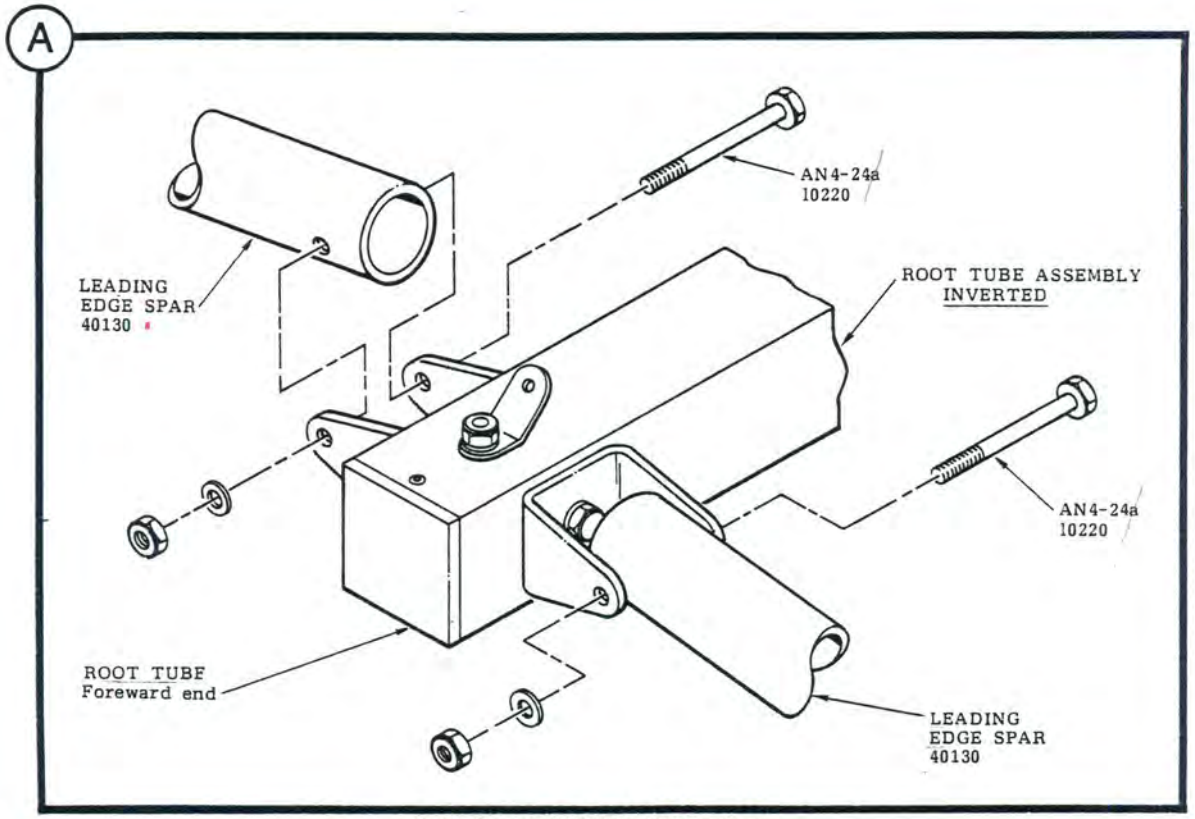


DETAILS CONTINUED NEXT PAGE

B

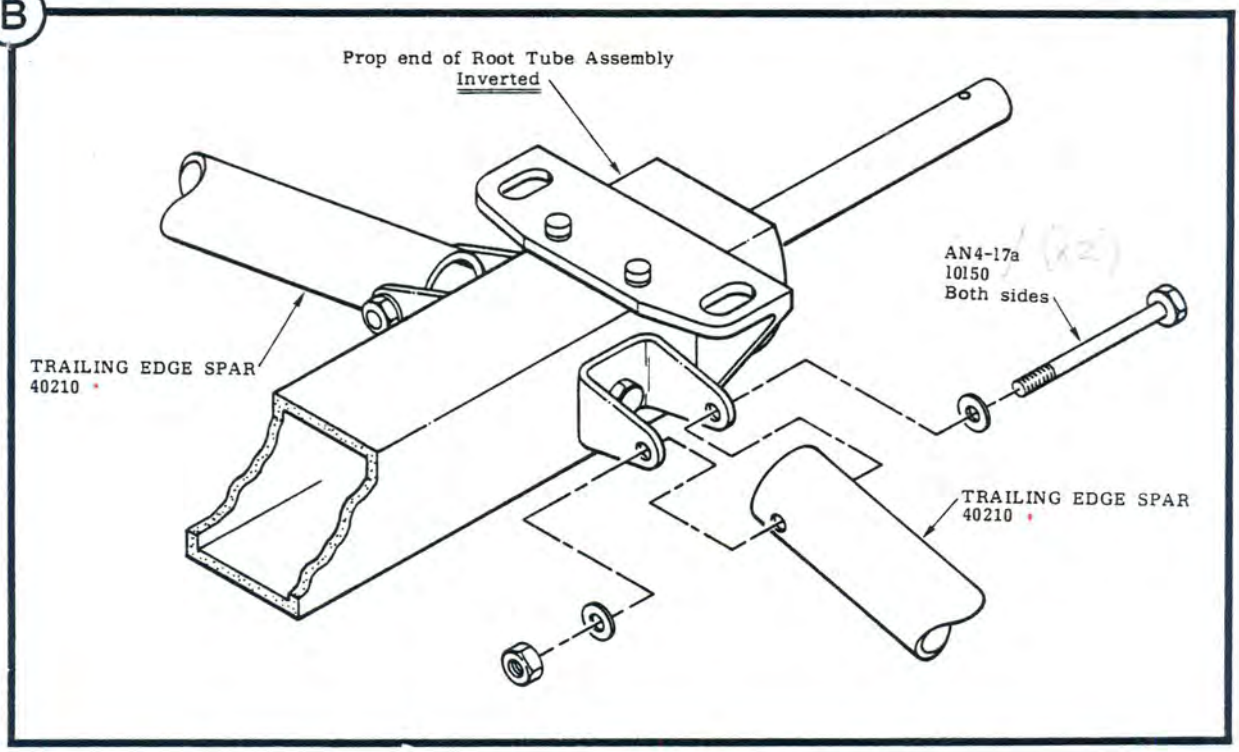

10540
10570
KING POST
-75 Channel
20070
10570
AN5-30a
10328
ROOT TUBE
ASSEMBLY
UP
FWD
TRI-BAR CHANNEL
20100

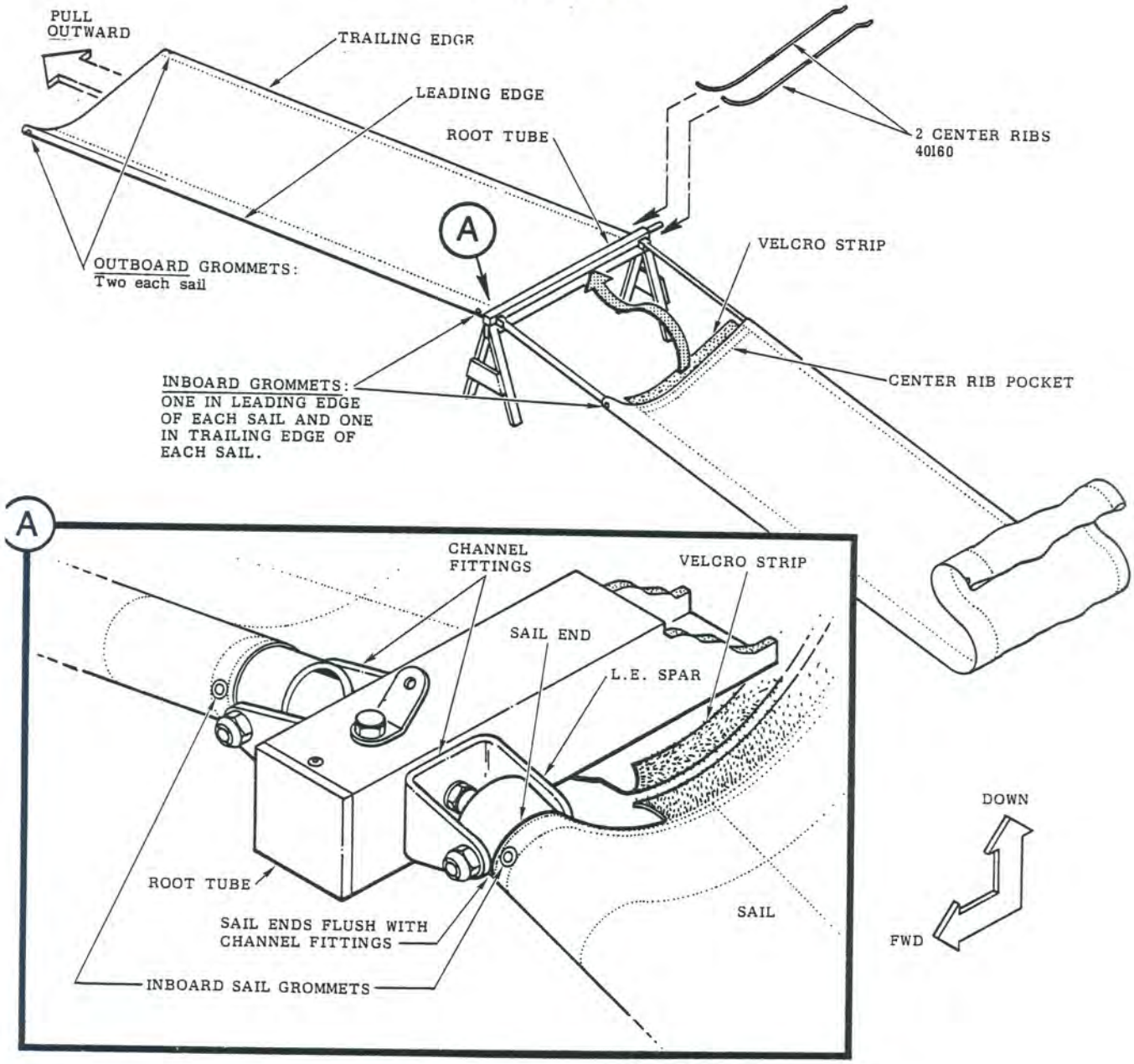




DETAILS CONTINUED NEXT PAGE

B


Prop end of Root Tube Assembly
Inverted
AN4-17a
10150
Both sides
(x2)
TRAILING EDGE SPAR
40210
TRAILING EDGE SPAR
40210





(1) WITH ROOT TUBE AND SPAR ASSEMBLY INVERTED AND SUPPORTED AS SHOWN, SLIDE SAILS OVER SPARS AND ATTACH VELCRO STRIP.

(2) INSERT THE 2 CENTER RIBS IN RIB POCKETS. (ONE RIB IN EACH SAIL).

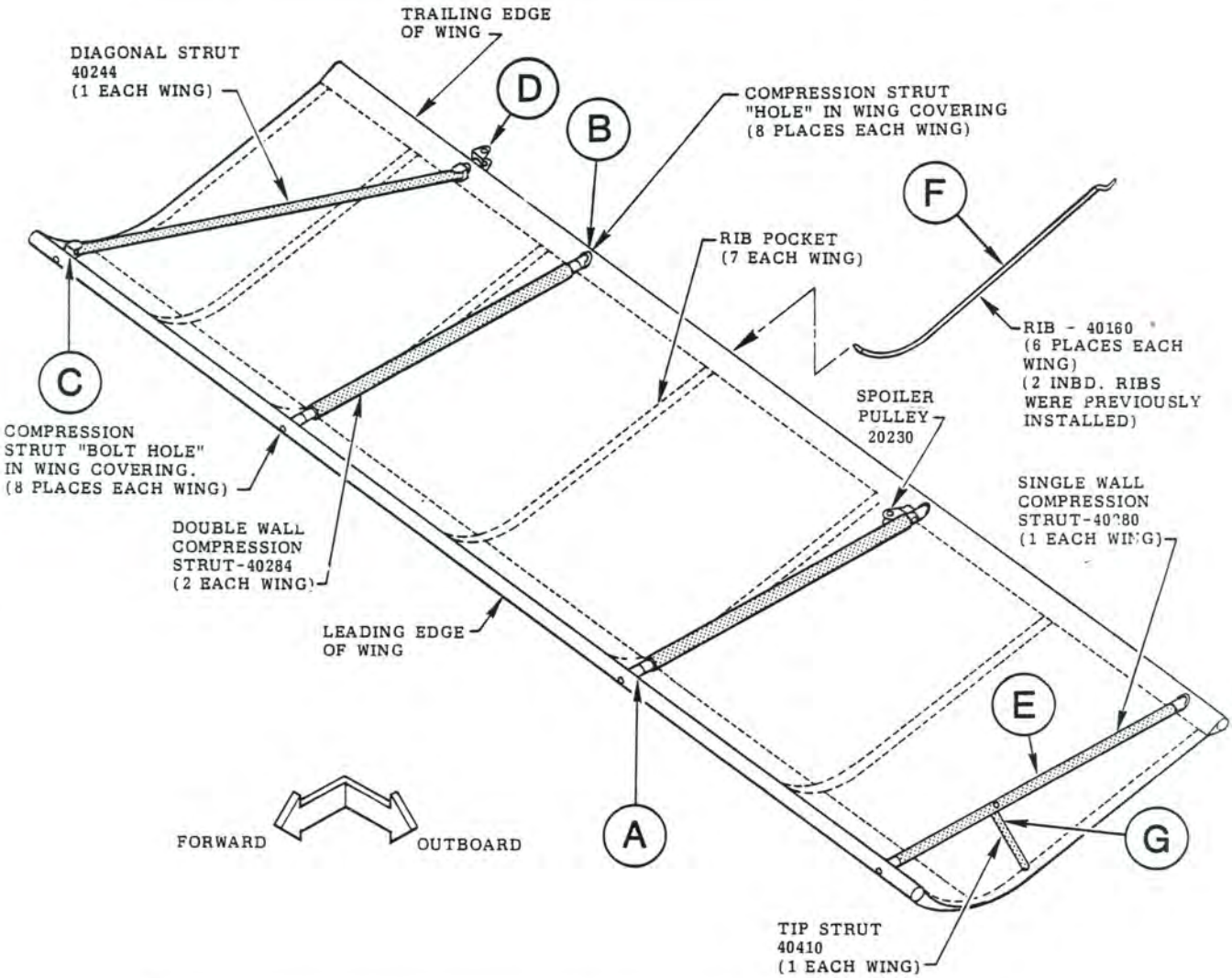
(3) PULL INBOARD SAIL ENDS (4 PLACES) UP FLUSH WITH CHANNEL FITTINGS ON ROOT TUBE. (2 CHANNEL FITTINGS ON LEADING EDGE SPARS AND 2 CHANNEL FITTINGS ON TRAILING EDGE SPARS.

(4) USING THE FACTORY INSTALLED SAIL GROMMETS, AS LOCATORS, DRILL FOUR 3/16" (4.8 mm) HOLES THRU GROMMET HOLES INTO THE INBOARD ENDS OF THE LEADING AND TRAILING EDGE SPARS. POP RIVET SAILS IN PLACE.

(5) WITH THE FOUR INBOARD RIVETS SECURED (2 EACH SAIL) PULL SAIL ENDS OUTWARD APPROXIMATELY 30-40 LBS (13.63-18.8 kg) AND MARK OUTBOARD GROMMET LOCATION. (USE PENCIL OR SHARP POINTED SCRIBER THRU GROMMET HOLES) SLIDE BACK SAILS AND DRILL 3/16" (4.8 mm) HOLES IN SPARS WHERE INDICATED: NOTE: MAKE SURE THE INBOARD AND OUTBOARD GROMMET HOLES ALIGN PARALLEL ON SPARS (SEE DIAGRAM) POP RIVET SAILS INTO PLACE.

SECTION THREE

STUDY THIS GENERAL WING ARRANGEMENT, THEN START ASSEMBLY WITH DETAIL "A". REMEMBER THE WING IS UPSIDE DOWN. DO NOT CONFUSE THE COMPRESSION STRUT "HOLES" WITH THE COMPRESSION STRUT "BOLT HOLES".

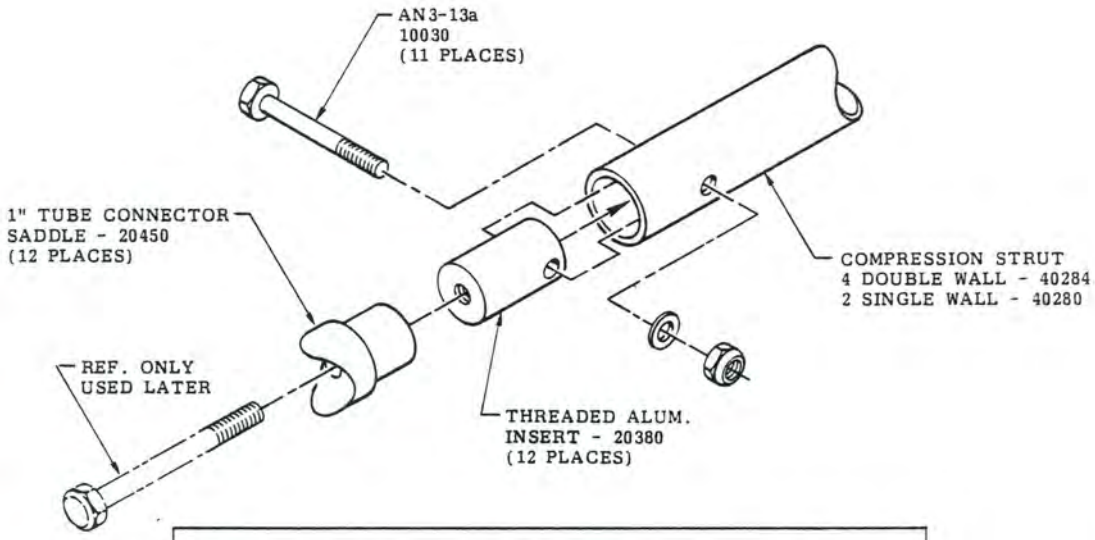


YOUR AREA OF CONCERN WITH THIS SECTION IS AS FOLLOWS:

1. ASSEMBLY OF THE COMPRESSION STRUTS. NOTE THE DIFFERENCE BETWEEN THE DOUBLE WALLED STRUTS AND THE SINGLE WALL OUTBOARD STRUT.
2. ATTACHMENT OF THE SPOILER PULLEY.
3. INSTALLATION OF RIBS.
4. CUTTING AND HEAT SEALING OF THE STRUT "HOLES" IN THE WING MATERIAL.
5. INSTALLATION OF THE STRUTS (DIAGONAL AND COMPRESSION)
6. INSTALLATION OF THE TIP STRUT
7. CUTTING AND HEAT SEALING OF THE STRUT "BOLT HOLES"

DETAILS CONTINUED NEXT PAGE

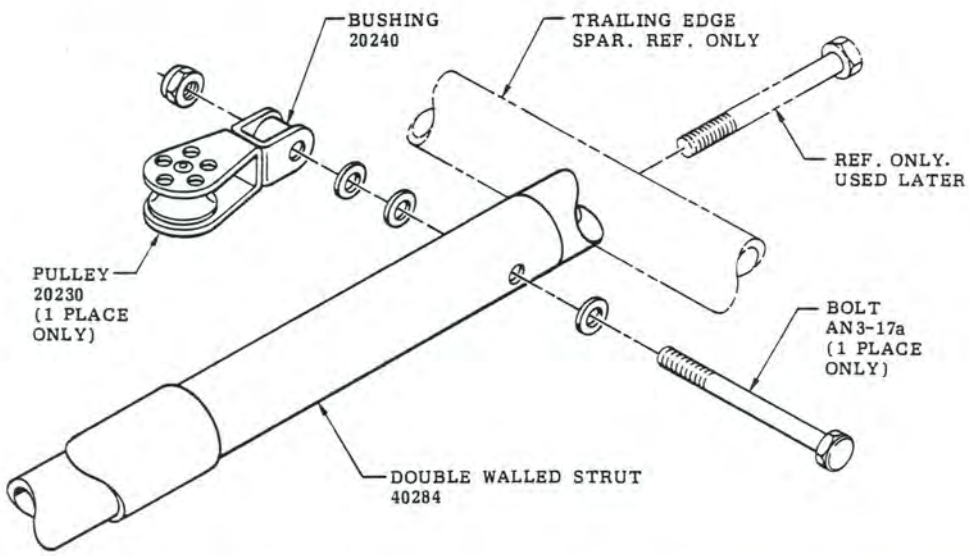
A



(1) ASSEMBLE 6 COMPRESSION STRUTS AS SHOWN (3 EACH WING) AND SET ASIDE FOR LATER INSTALLATION.

NOTE:
BOTH ENDS OF THE STRUTS HAVE THE SAME FITTINGS EXCEPT FOR ONE BOLT (AN3-17a) WHICH IS LONGER AND IS USED TO ATTACH THE PULLEY 20230 AS SHOWN BELOW.

(2) ATTACH THE PULLEY 20230 TO THE END OF ONE OF THE DOUBLE WALLED COMPRESSION STRUTS AS ILLUSTRATED.

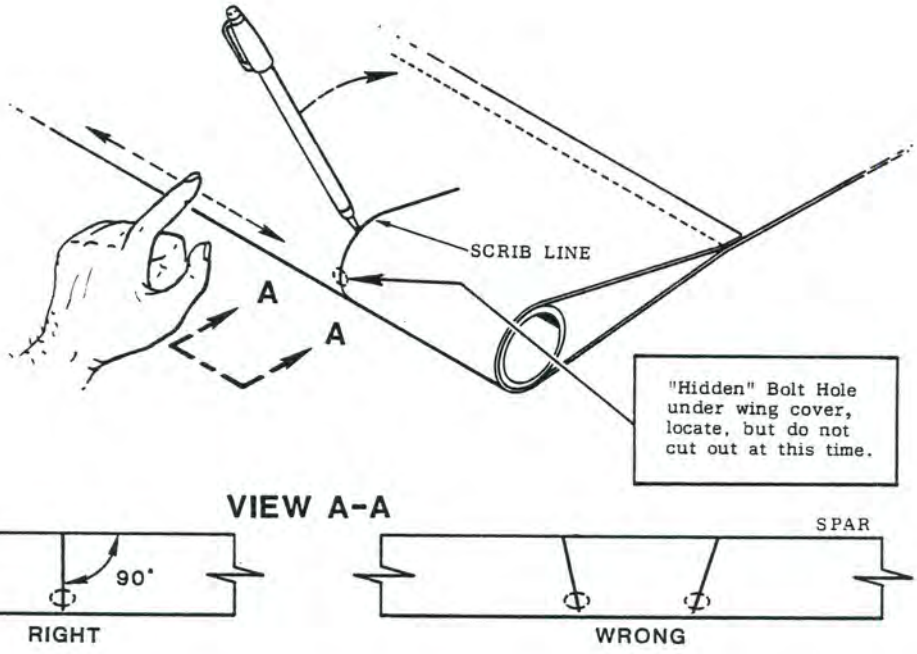


DETAILS CONTINUED

USE THE TEMPLATE PATTERN ON THE NEXT PAGE, DETAIL (B-CONTINUED), TO LOCATE THE HOLES IN THE WING COVER FOR THE DIAGONAL AND COMPRESSION STRUTS.

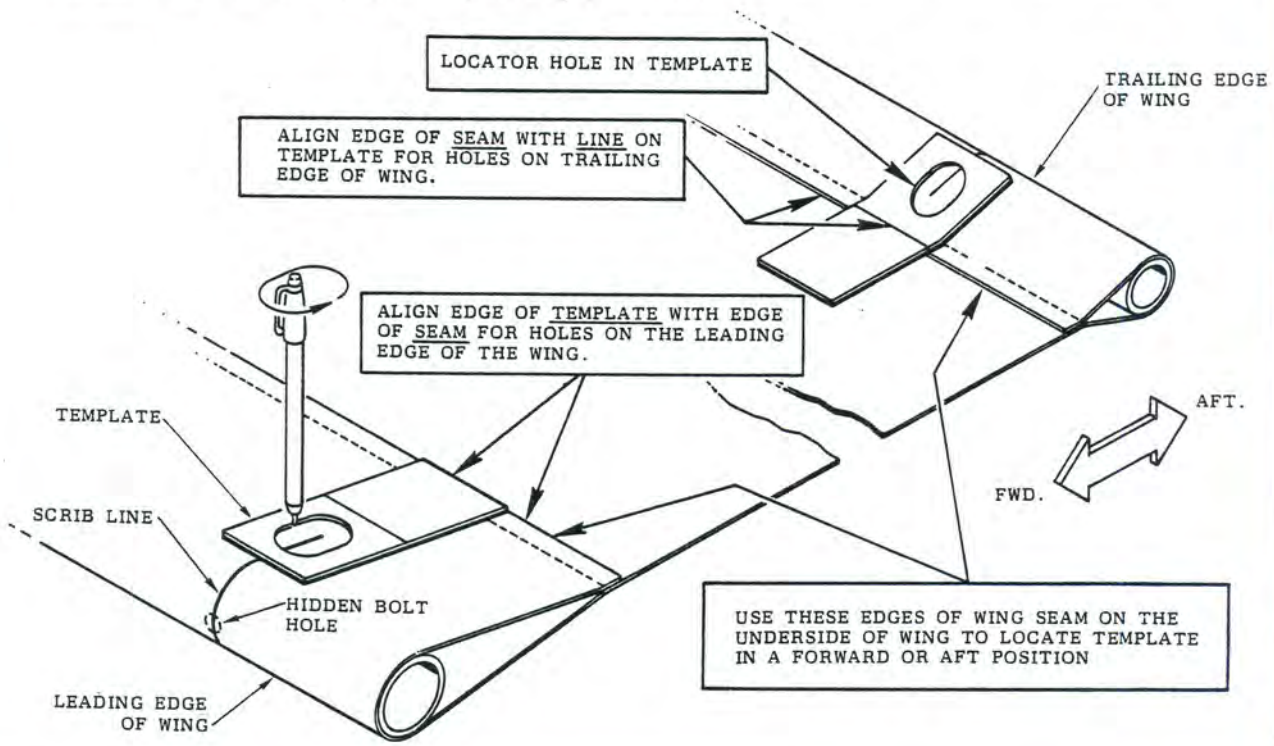
(1) LOCATE THE "HIDDEN" FACTORY PREDRILLED BOLT HOLES IN SPAR BY RUNNING FINGER OVER SPAR AS SHOWN.

(2) MARK THE CENTER OF THE "HIDDEN" BOLT HOLE AND SCRIB A LINE AT RIGHT ANGLE TO SPAR WITH A PENCIL. SEE VIEW "A-A" BELOW



VIEW A-A

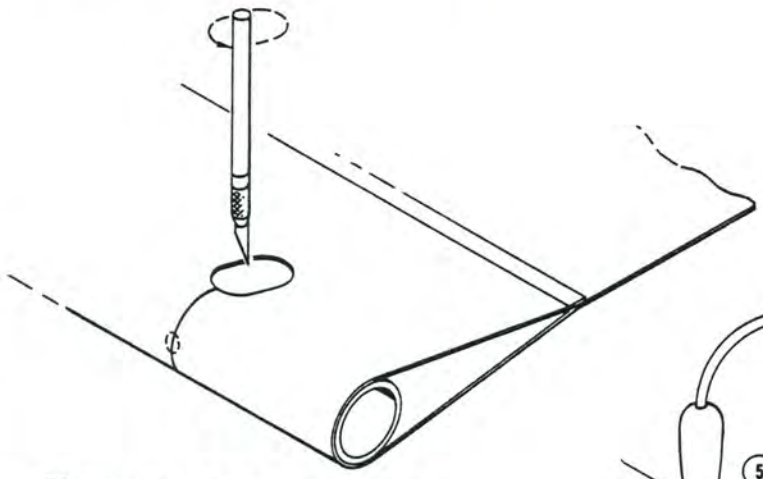
(3) CENTER THE LOCATER HOLE IN THE TEMPLATE OVER THE SCRIBED LINE. MOVE THE TEMPLATE FORWARD OR AFT AS INDICATED BELOW AND MARK LOCATION ON THE WING COVER THRU HOLE IN THE TEMPLATE WITH A PENCIL. NOTICE THAT THE USE OF THE TEMPLATE IS DIFFERENT ON THE LEADING EDGE SPAR AND THE TRAILING EDGE SPAR. REPEAT AT 8 PLACES ON EACH WING.



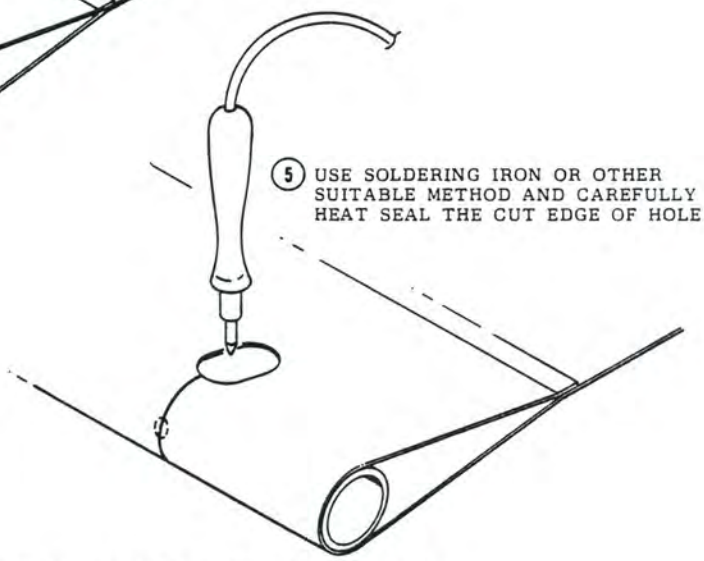
DETAILS CONTINUED NEXT PAGE

B

CONTINUED



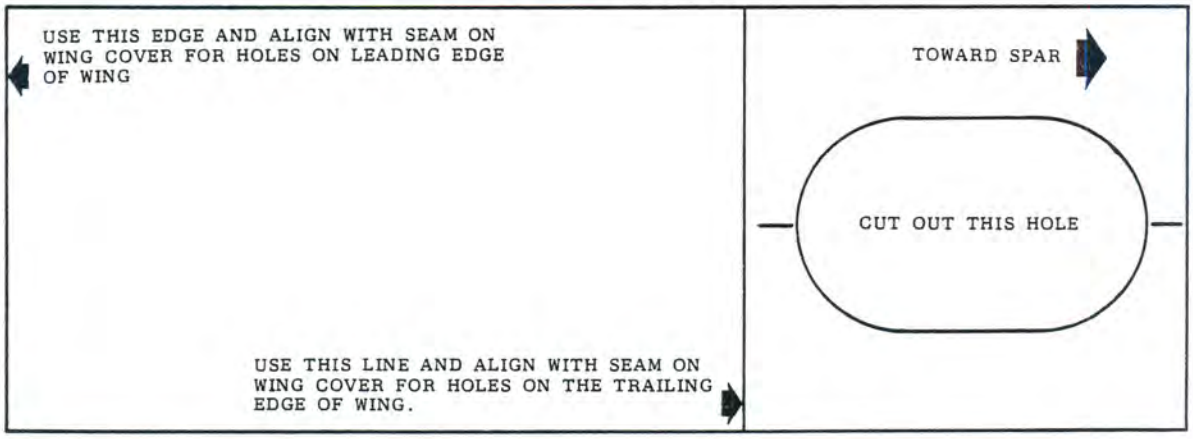
4 CUT OUT HOLE IN WING COVER



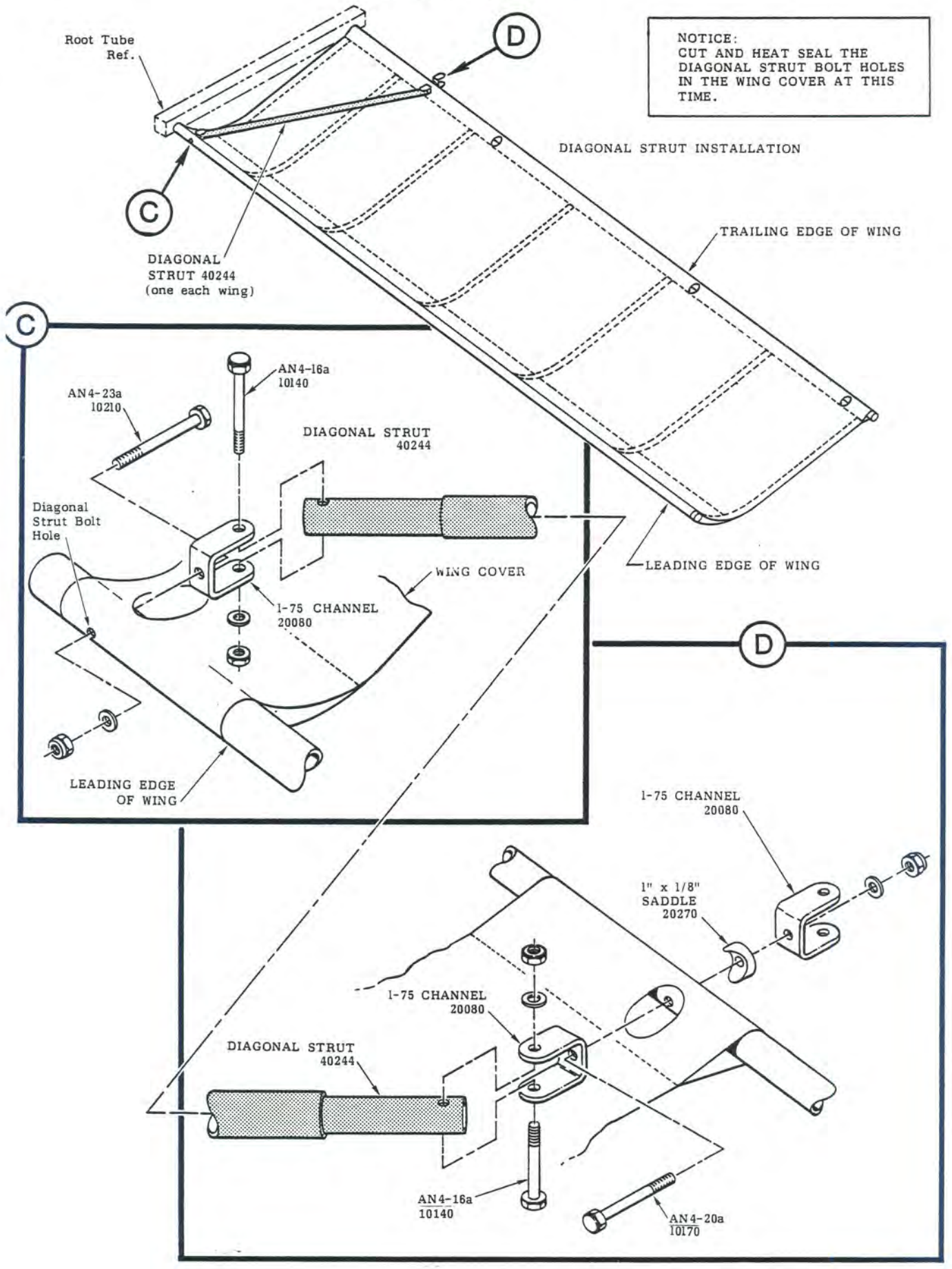
5 USE SOLDERING IRON OR OTHER SUITABLE METHOD AND CAREFULLY HEAT SEAL THE CUT EDGE OF HOLE.

REPEAT THE ABOVE OPERATIONS 8 PLACES ON EACH WING

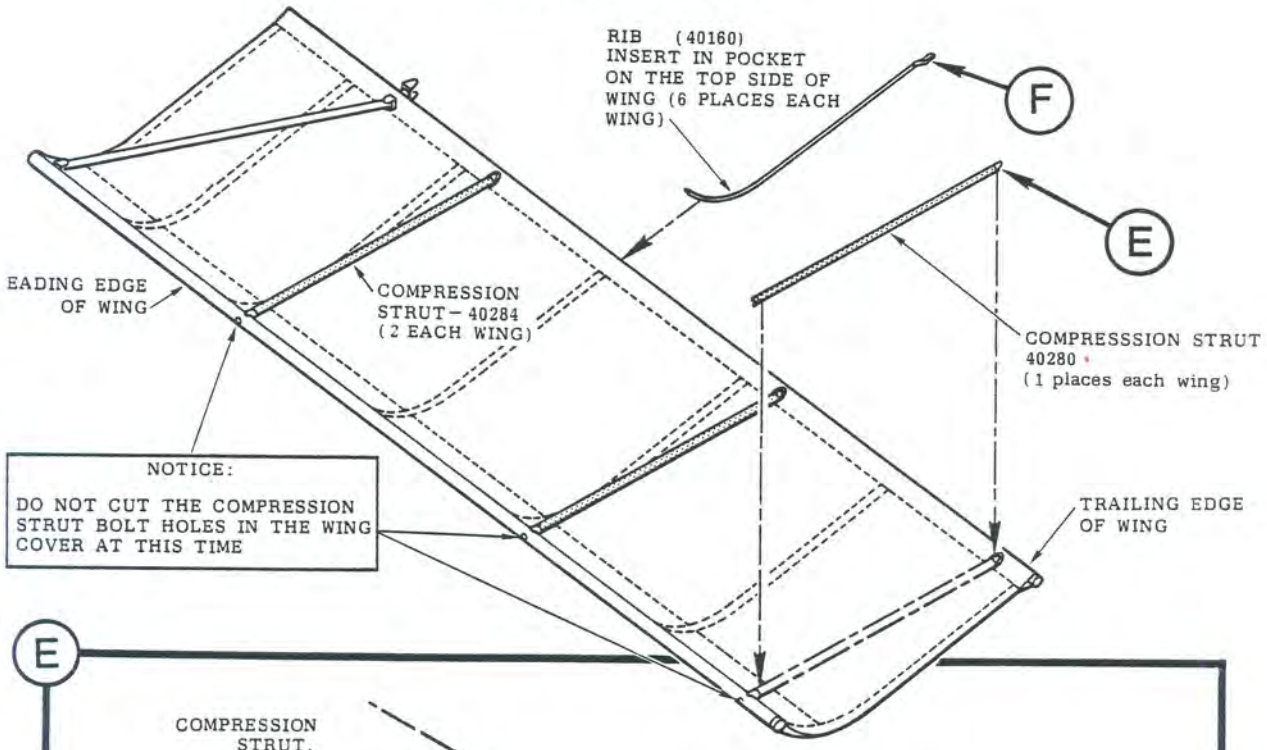
TRACE THIS TEMPLATE ON HARD THIN CARDBOARD AND CUT OUT



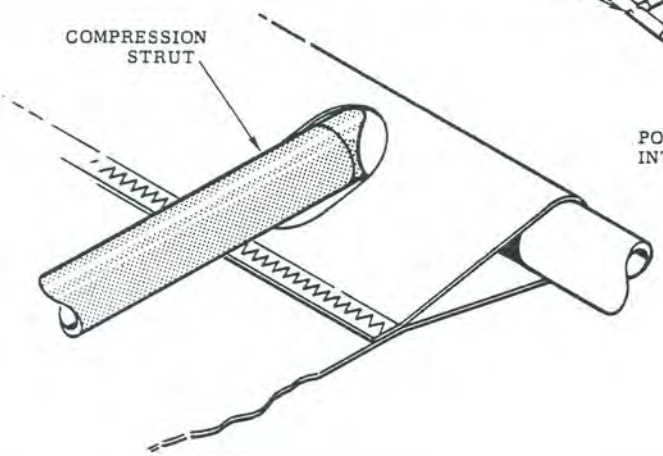
DETAILS CONTINUED NEXT PAGE



NOTICE:
CUT AND HEAT SEAL THE DIAGONAL STRUT BOLT HOLES IN THE WING COVER AT THIS TIME.



E

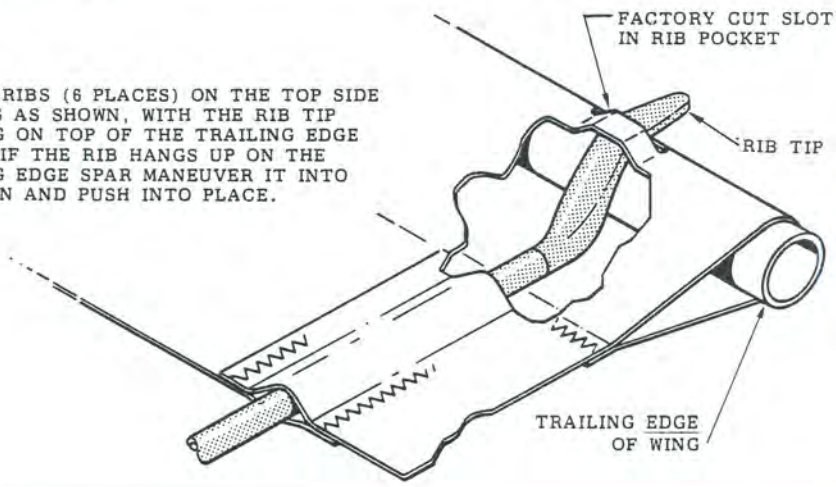


POP THE COMPRESSION STRUTS
INTO PLACE. (3 PLACES, EACH WING)

F

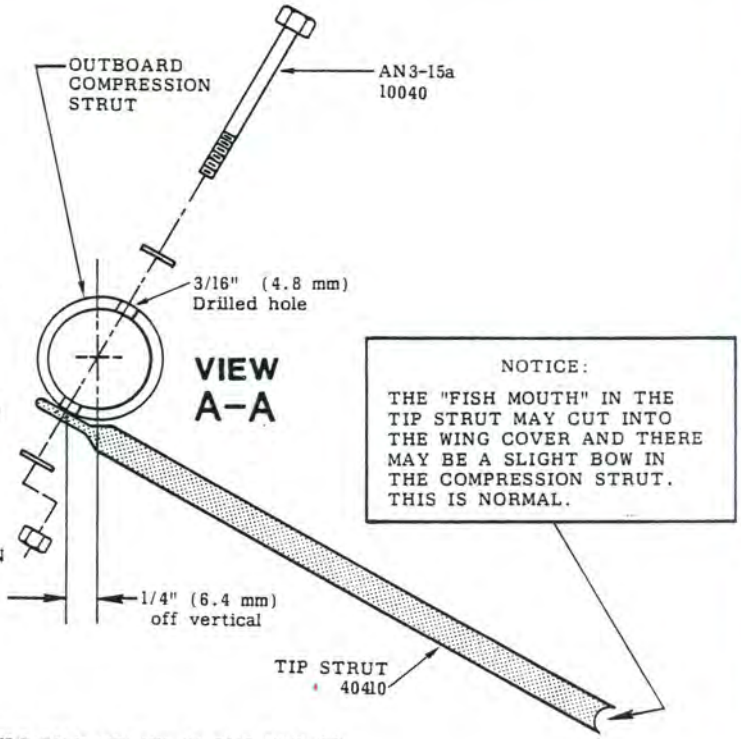
NOTICE: THIS VIEW IS INVERTED FROM THE ABOVE VIEW AND SHOWS THE
TOP SURFACE OF WING

INSERT RIBS (6 PLACES) ON THE TOP SIDE
OF WING AS SHOWN, WITH THE RIB TIP
RESTING ON TOP OF THE TRAILING EDGE
SPAR. IF THE RIB HANGS UP ON THE
LEADING EDGE SPAR MANEUVER IT INTO
POSITION AND PUSH INTO PLACE.

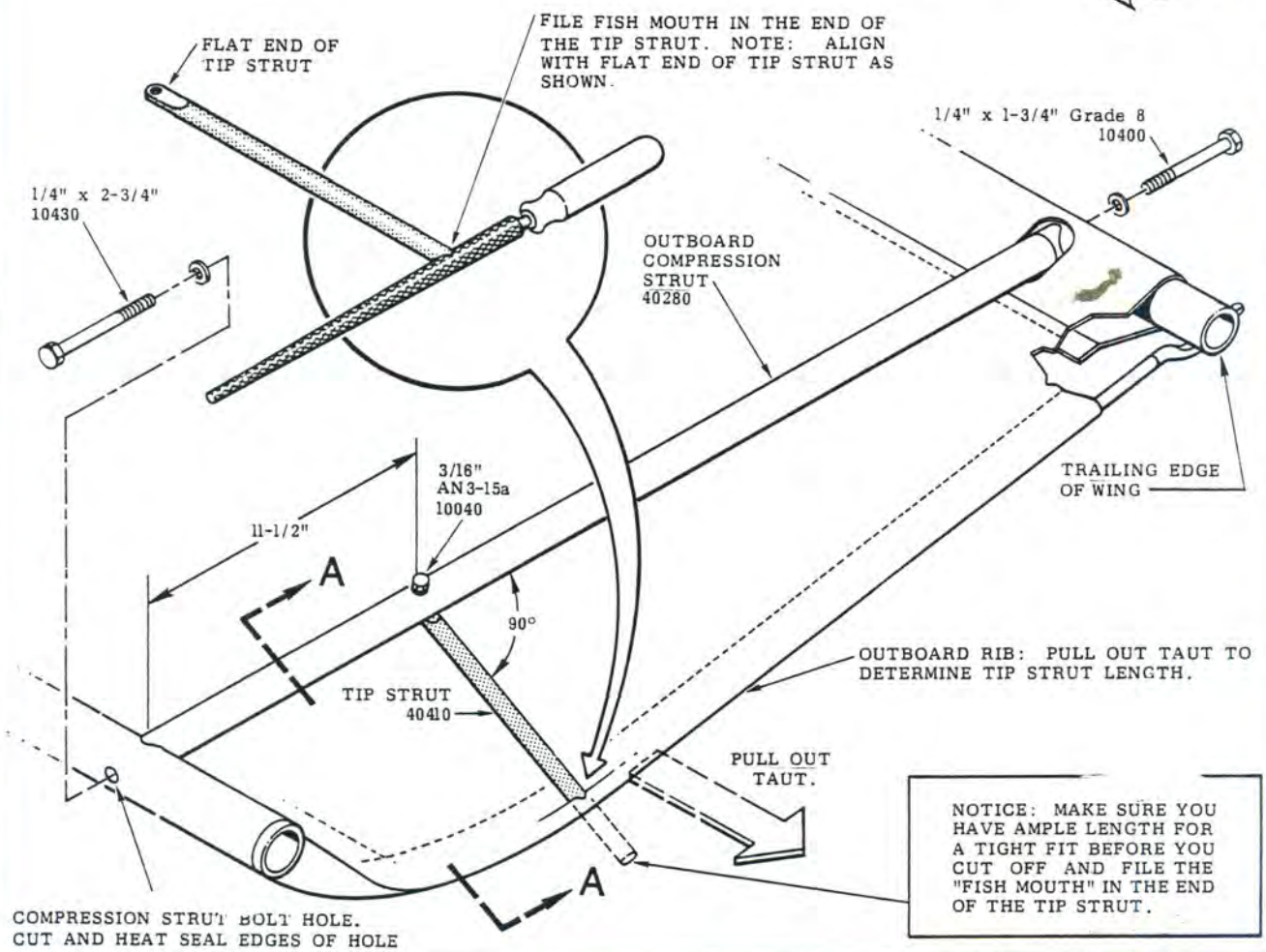


G

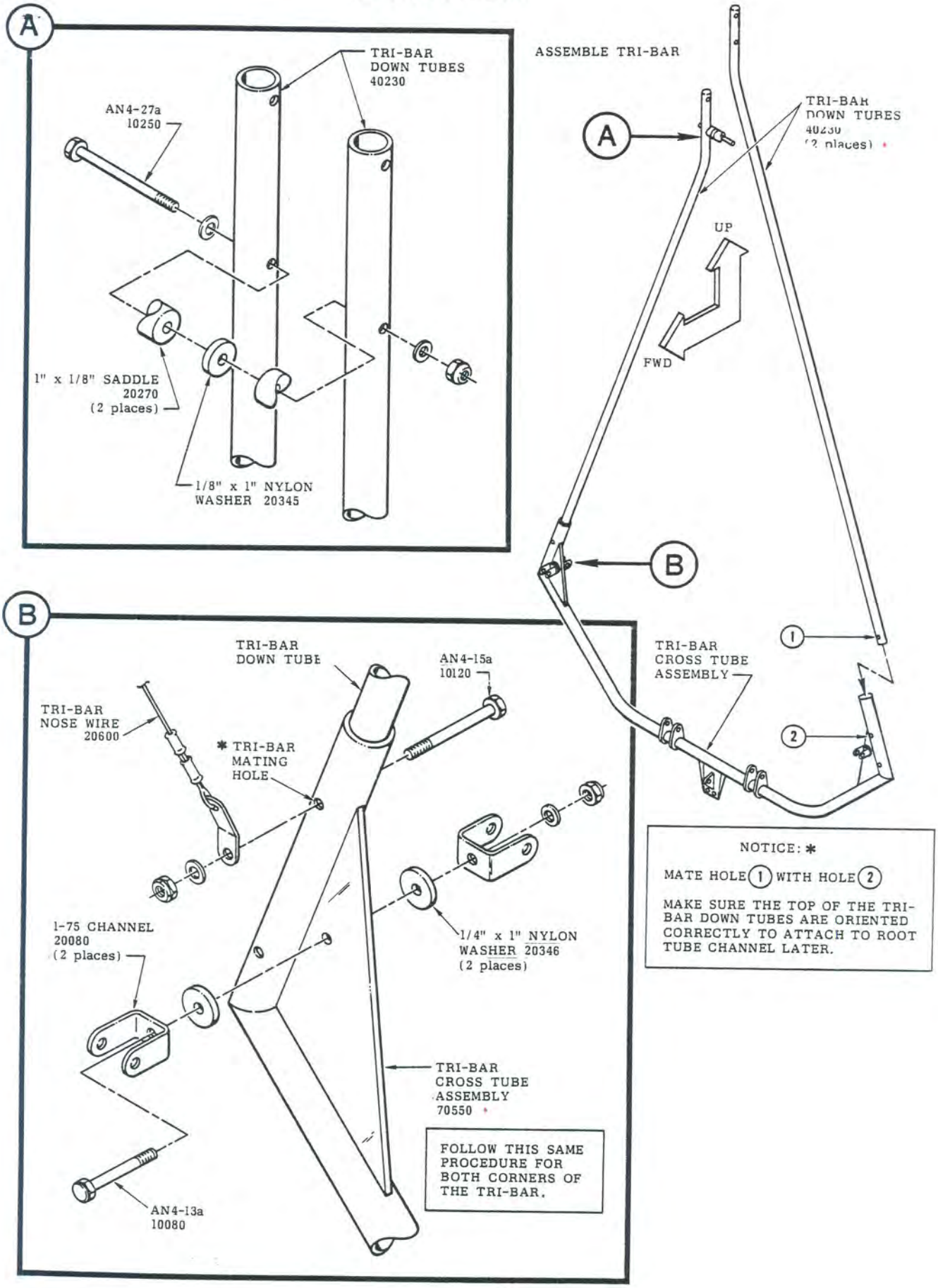
1. CUT COMPRESSION STRUT BOLT HOLES IN THE WING COVER FOR THE OUTBOARD STRUT ONLY.
2. SECURE OUTBOARD STRUT WITH BOLTS AND WASHERS AS SHOWN.
3. DRILL A 3/16" HOLE IN THE OUTBOARD COMPRESSION STRUT, 11-1/2" FROM THE FWD END AND 1/4" OFF VERTICAL AS SHOWN IN VIEW "A-A" AND DETAIL BELOW.
4. ATTACH TIP STRUT TO OUTBOARD COMPRESSION STRUT.
5. THE TIP STRUT HAS EXCESSIVE LENGTH. TO DETERMINE THE PROPER LENGTH, PULL THE OUTBD RIB OUT TAUT AS SHOWN AND MARK.
6. CUT OFF EXCESSIVE LENGTH AND USE A RAT TAIL FILE TO FORM A "FISH MOUTH" ON THE END OF THE TIP STRUT. NOTE: FILE IN THE SAME PLANE AS THE FLAT ON THE OTHER END OF THE TIP STRUT.
7. REINSTALL THE TIP STRUT ON THE COMPRESSION STRUT AND SADDLE THE "FISH MOUTH" ON THE OUTBOARD RIB AT A 90° ANGLE TO THE OUTBD. COMPRESSION STRUT AS SHOWN BELOW. (TENSION WILL HOLE IN PLACE)
8. CUT AND SEAL AND ATTACH REMAINING STRUTS.

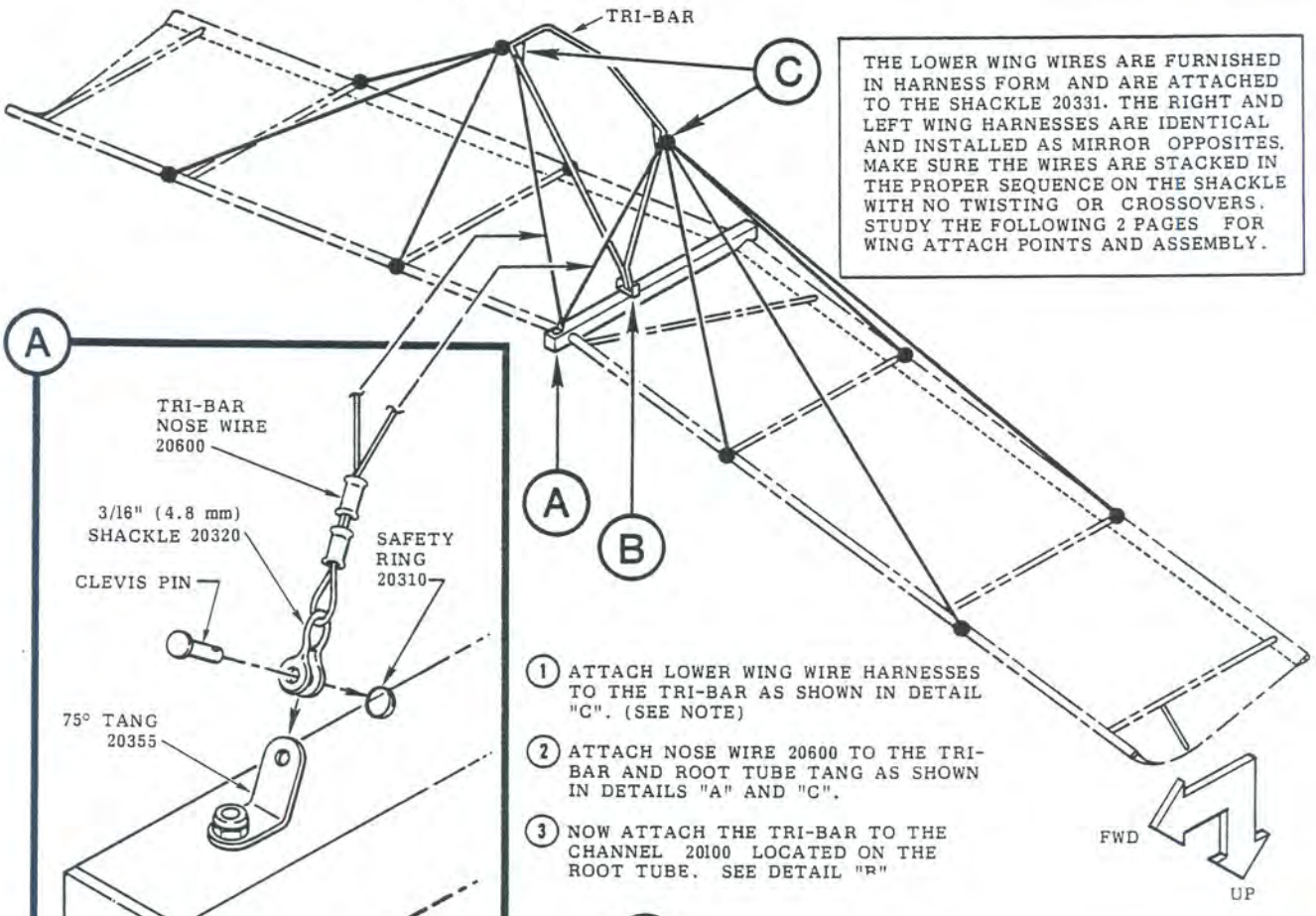


NOTICE:
THE "FISH MOUTH" IN THE TIP STRUT MAY CUT INTO THE WING COVER AND THERE MAY BE A SLIGHT BOW IN THE COMPRESSION STRUT. THIS IS NORMAL.



NOTICE: MAKE SURE YOU HAVE AMPLE LENGTH FOR A TIGHT FIT BEFORE YOU CUT OFF AND FILE THE "FISH MOUTH" IN THE END OF THE TIP STRUT.


A
TRI-BAR
DOWN TUBES
40230
AN4-27a
10250
1" x 1/8" SADDLE
20270
(2 places)
1/8" x 1" NYLON
WASHER 20345
ASSEMBLE TRI-BAR
TRI-BAR
DOWN TUBES
40230
(2 places)
A
UP
FWD
B
1
2
TRI-BAR
CROSS TUBE
ASSEMBLY
NOTICE: *
MATE HOLE (1) WITH HOLE (2)
MAKE SURE THE TOP OF THE TRI-BAR DOWN TUBES ARE ORIENTED CORRECTLY TO ATTACH TO ROOT TUBE CHANNEL LATER.
B
TRI-BAR
DOWN TUBE
AN4-15a
10120
TRI-BAR
NOSE WIRE
20600
* TRI-BAR
MATING
HOLE
1-75 CHANNEL
20080
(2 places)
1/4" x 1" NYLON
WASHER 20346
(2 places)
TRI-BAR
CROSS TUBE
ASSEMBLY
70550
AN4-13a
10080
FOLLOW THIS SAME PROCEDURE FOR BOTH CORNERS OF THE TRI-BAR.

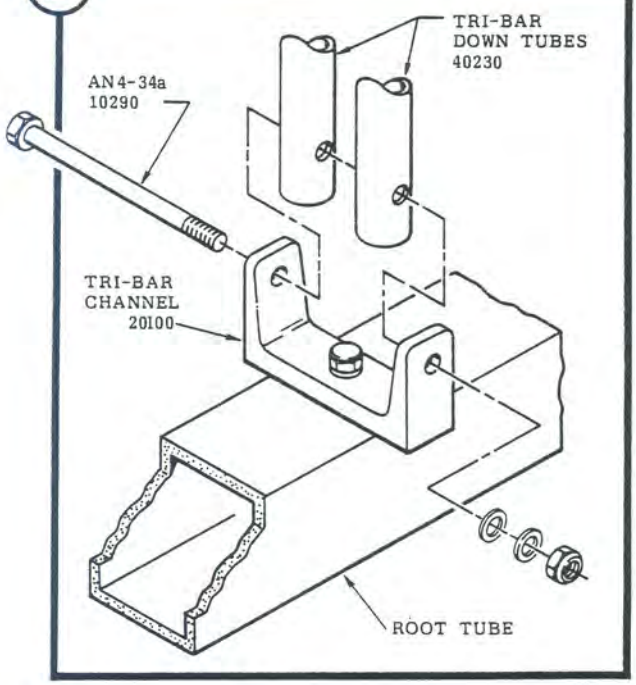


THE LOWER WING WIRES ARE FURNISHED IN HARNESS FORM AND ARE ATTACHED TO THE SHACKLE 20331. THE RIGHT AND LEFT WING HARNESSES ARE IDENTICAL AND INSTALLED AS MIRROR OPPOSITES. MAKE SURE THE WIRES ARE STACKED IN THE PROPER SEQUENCE ON THE SHACKLE WITH NO TWISTING OR CROSSOVERS. STUDY THE FOLLOWING 2 PAGES FOR WING ATTACH POINTS AND ASSEMBLY.

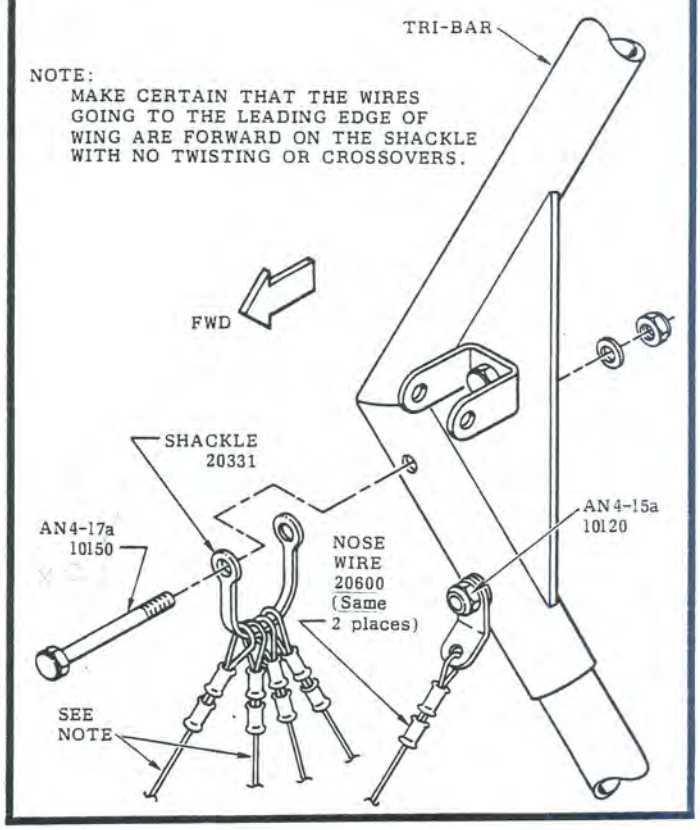
1. ATTACH LOWER WING WIRE HARNESSES TO THE TRI-BAR AS SHOWN IN DETAIL "C". (SEE NOTE)
2. ATTACH NOSE WIRE 20600 TO THE TRI-BAR AND ROOT TUBE TANG AS SHOWN IN DETAILS "A" AND "C".
3. NOW ATTACH THE TRI-BAR TO THE CHANNEL 20100 LOCATED ON THE ROOT TUBE. SEE DETAIL "B"

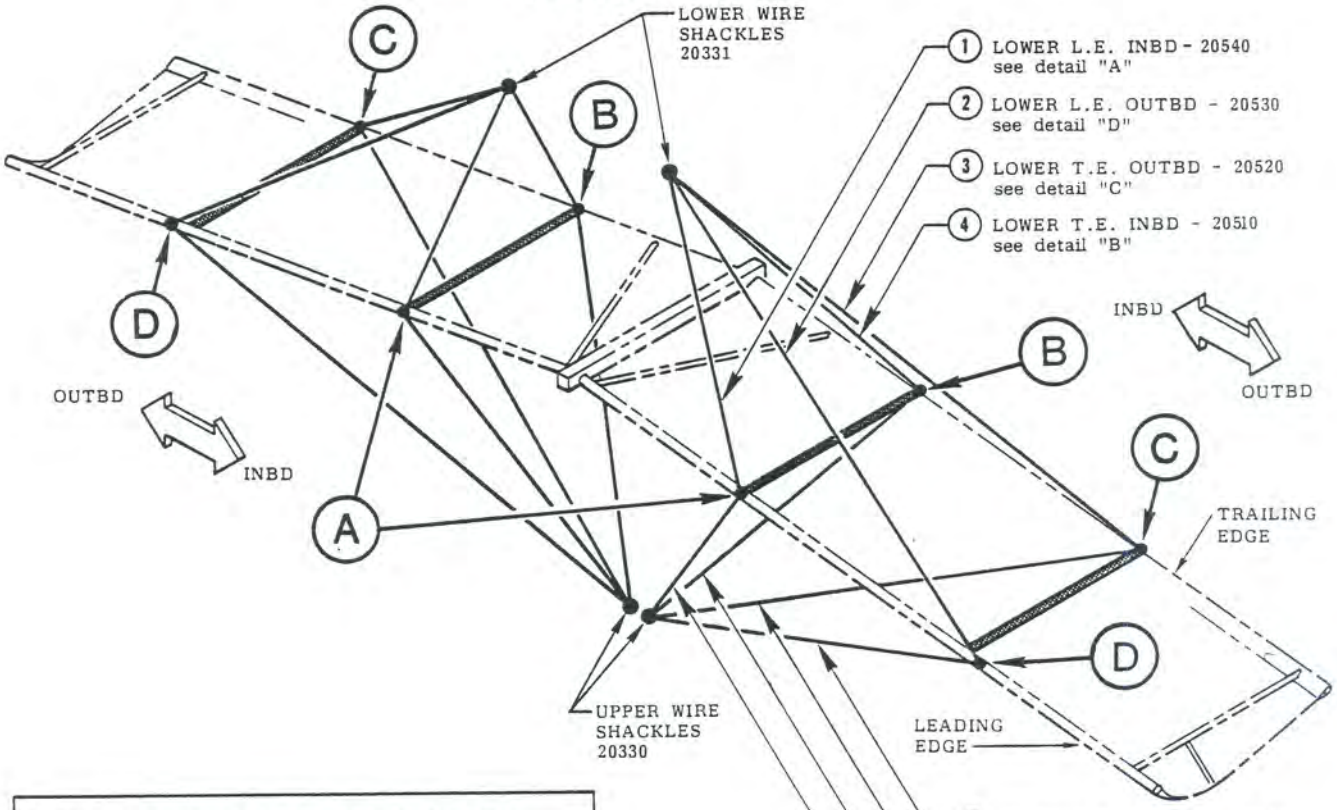
A

B



C





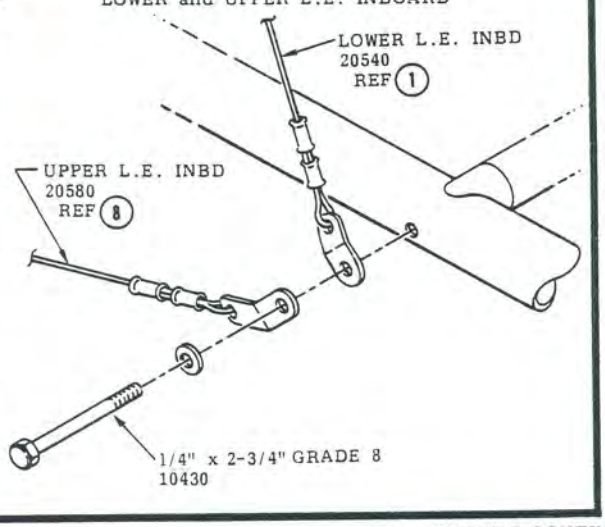
THIS ILLUSTRATION SHOWS THE ATTACHING POINTS AND HARDWARE FOR BOTH THE UPPER AND LOWER WING WIRES. STUDY IT THOROUGHLY AND BECOME FAMILIAR WITH THE TERMINOLOGY SUCH AS "UPPER LEADING EDGE INBOARD""LOWER TRAILING EDGE OUTBOARD ETC."

WIRES ARE ATTACHED AS MIRROR OPPOSITES ON BOTH SIDES OF WING.

EACH WIRE CARRIES A SLEEVE THAT INDICATES ITS PART NUMBER. DO NOT REMOVE THIS SLEEVE.

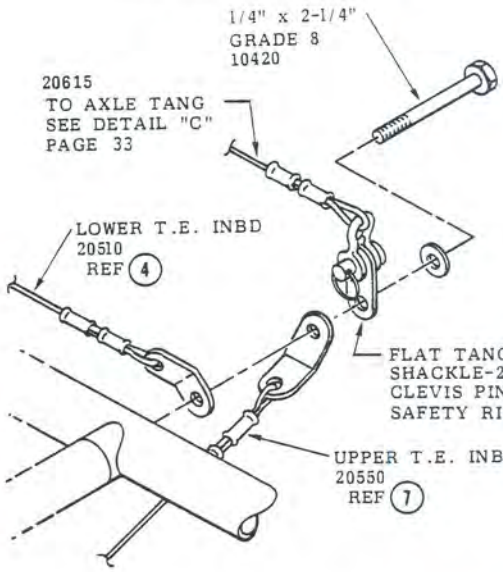
A

LOWER and UPPER L.E. INBOARD



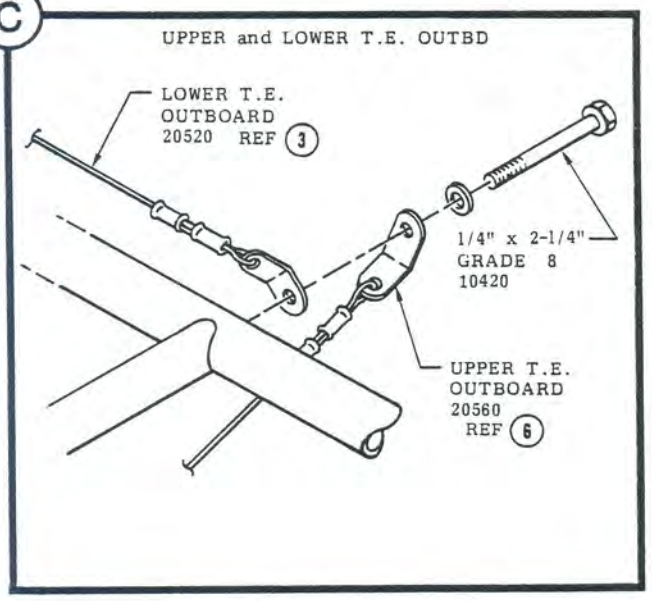
B

LOWER and UPPER T.E. INBD

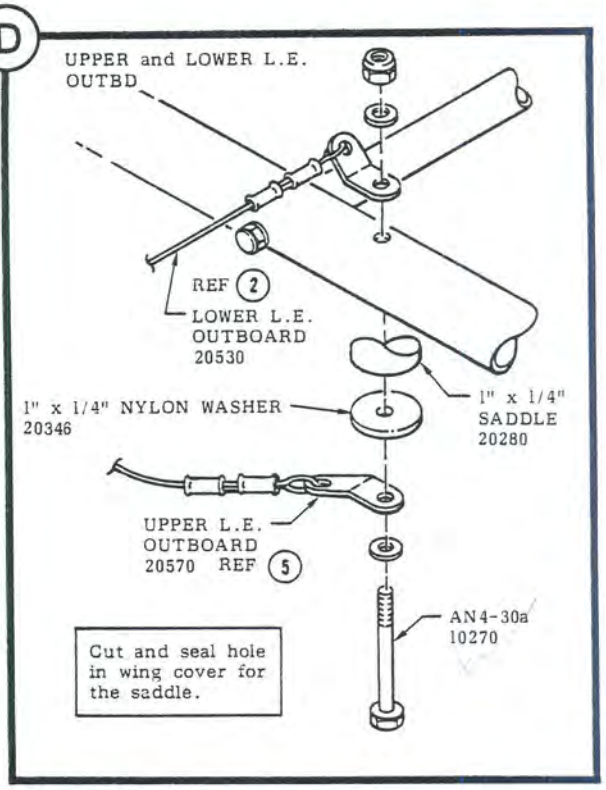


DETAILS CONTINUED NEXT PAGE

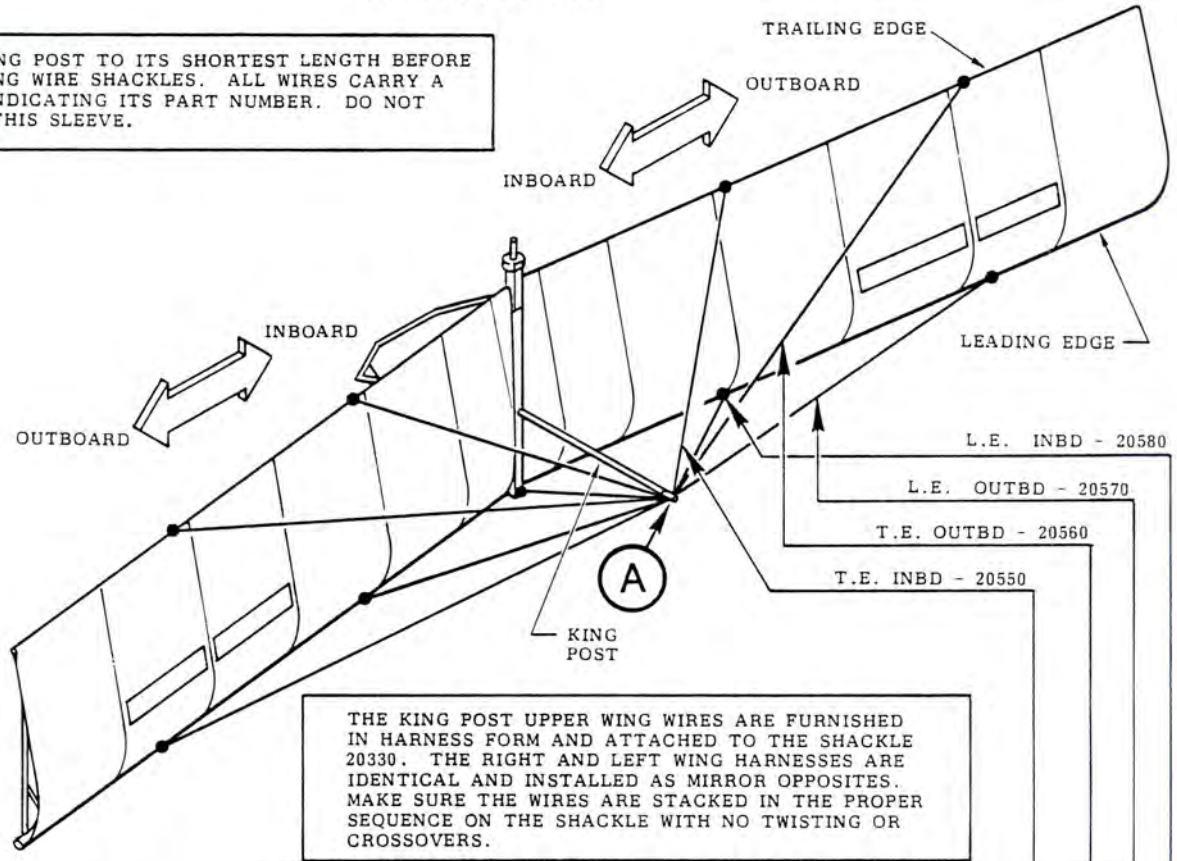
C


UPPER and LOWER T.E. OUTBD
LOWER T.E.
OUTBOARD
20520 REF 3
1/4" x 2-1/4"
GRADE 8
10420
UPPER T.E.
OUTBOARD
20560
REF 6

D

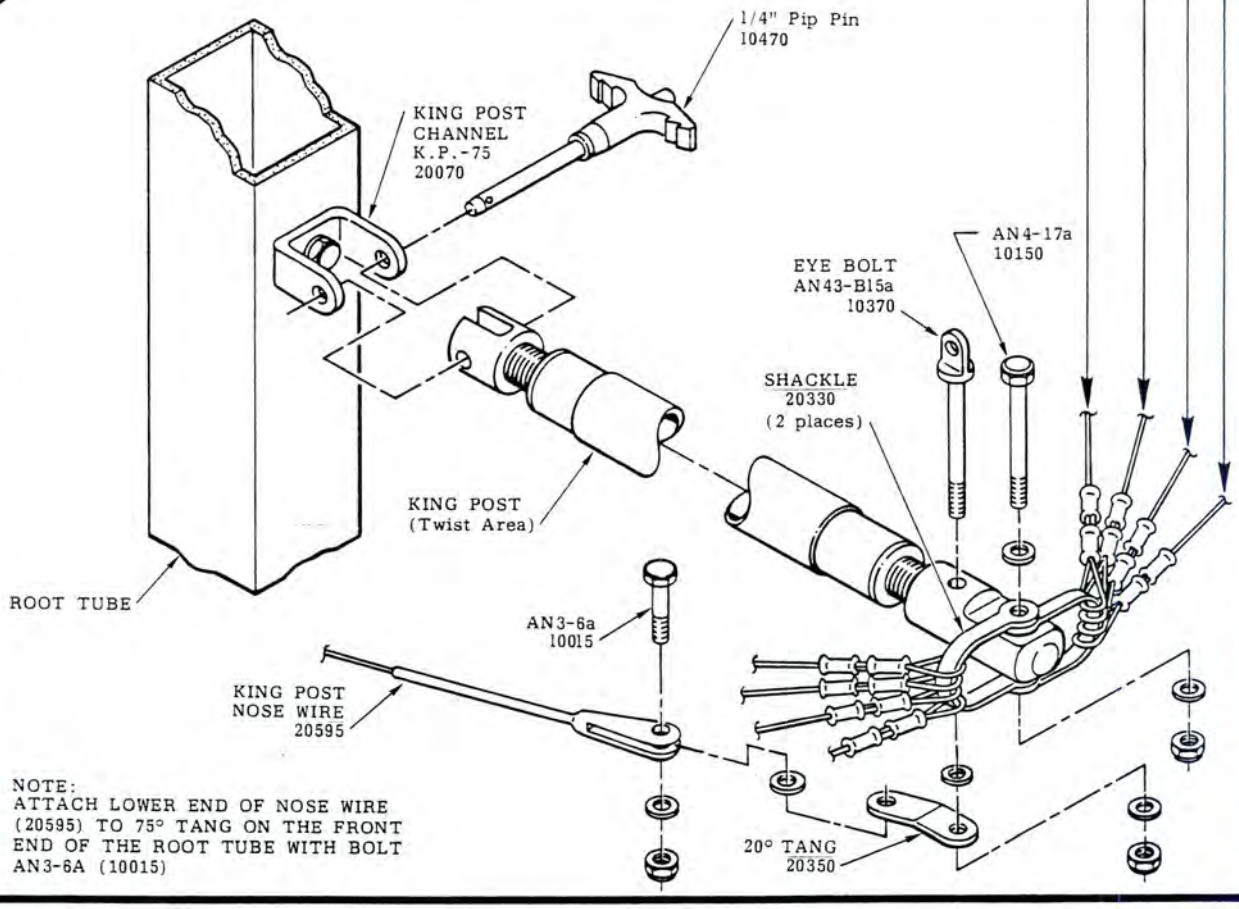

UPPER and LOWER L.E.
OUTBD
REF 2
LOWER L.E.
OUTBOARD
20530
1" x 1/4" NYLON WASHER
20346
1" x 1/4"
SADDLE
20280
UPPER L.E.
OUTBOARD
20570 REF 5
AN4-30a
10270
Cut and seal hole
in wing cover for
the saddle.

TWIST KING POST TO ITS SHORTEST LENGTH BEFORE ATTACHING WIRE SHACKLES. ALL WIRES CARRY A SLEEVE INDICATING ITS PART NUMBER. DO NOT REMOVE THIS SLEEVE.



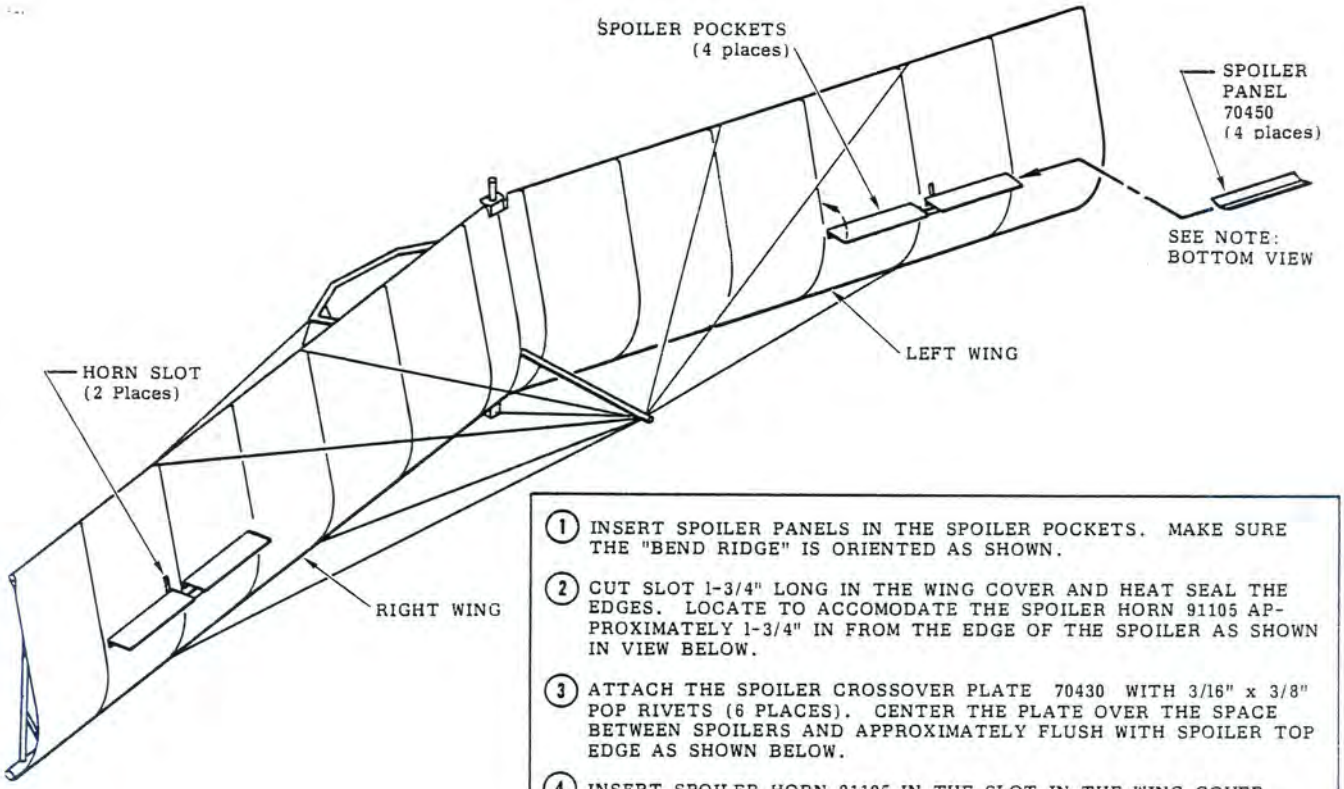
THE KING POST UPPER WING WIRES ARE FURNISHED IN HARNESS FORM AND ATTACHED TO THE SHACKLE 20330. THE RIGHT AND LEFT WING HARNESSES ARE IDENTICAL AND INSTALLED AS MIRROR OPPOSITES. MAKE SURE THE WIRES ARE STACKED IN THE PROPER SEQUENCE ON THE SHACKLE WITH NO TWISTING OR CROSSOVERS.

A



NOTE:
ATTACH LOWER END OF NOSE WIRE (20595) TO 75° TANG ON THE FRONT END OF THE ROOT TUBE WITH BOLT AN3-6A (10015)

DETAILS CONTINUED NEXT PAGE

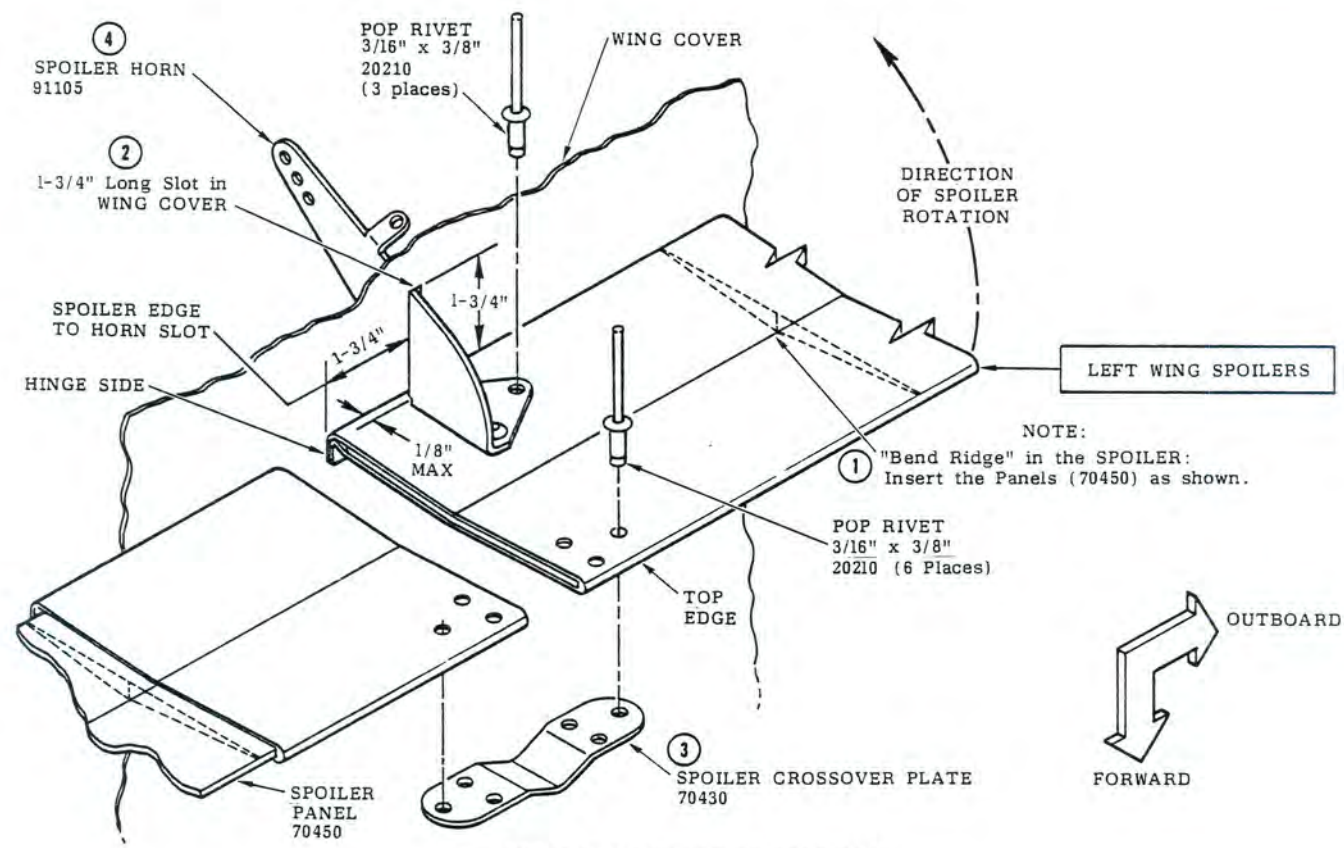


(1) INSERT SPOILER PANELS IN THE SPOILER POCKETS. MAKE SURE THE "BEND RIDGE" IS ORIENTED AS SHOWN.

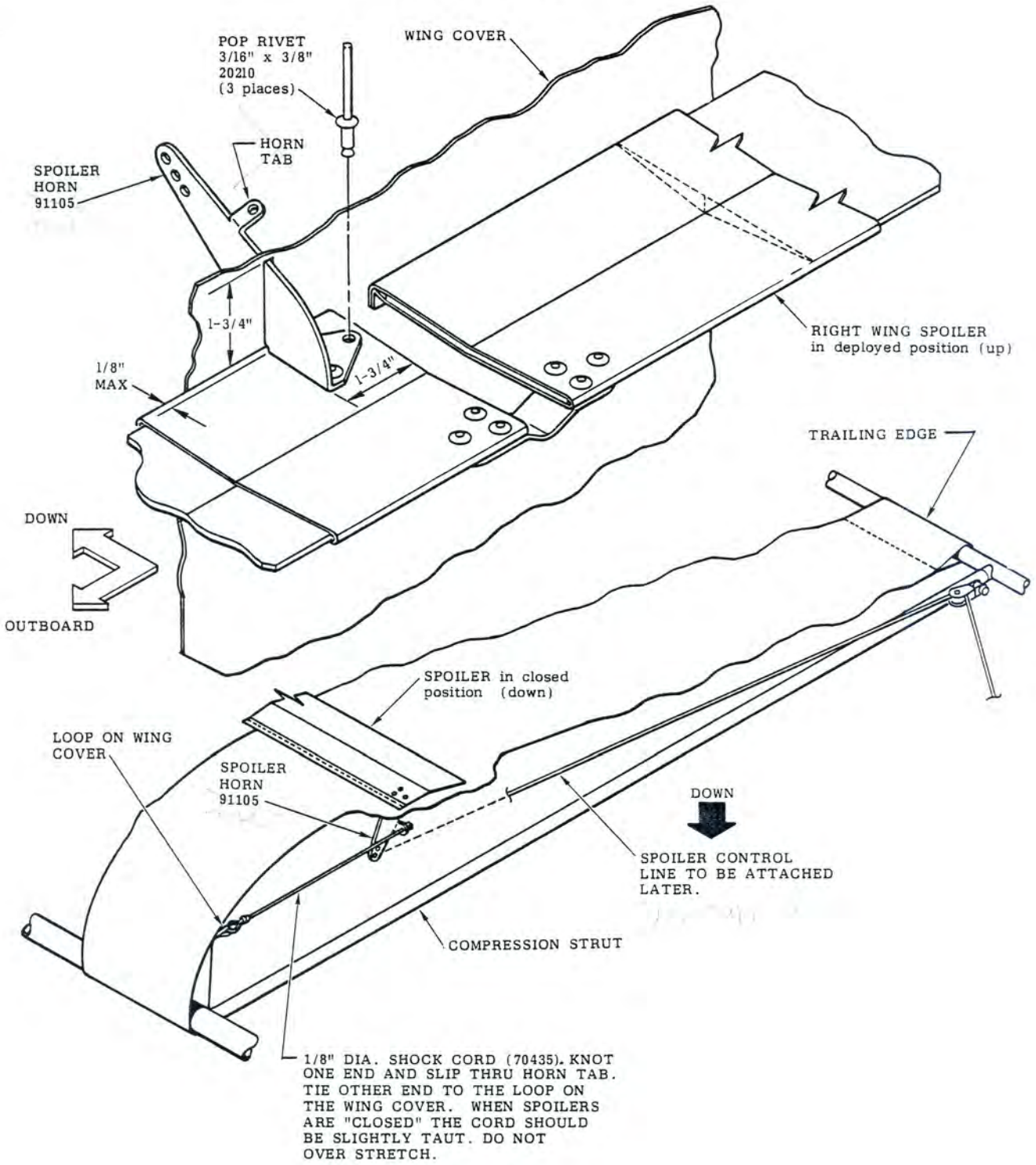
(2) CUT SLOT 1-3/4" LONG IN THE WING COVER AND HEAT SEAL THE EDGES. LOCATE TO ACCOMODATE THE SPOILER HORN 91105 APPROXIMATELY 1-3/4" IN FROM THE EDGE OF THE SPOILER AS SHOWN IN VIEW BELOW.

(3) ATTACH THE SPOILER CROSSOVER PLATE 70430 WITH 3/16" x 3/8" POP RIVETS (6 PLACES). CENTER THE PLATE OVER THE SPACE BETWEEN SPOILERS AND APPROXIMATELY FLUSH WITH SPOILER TOP EDGE AS SHOWN BELOW.

(4) INSERT SPOILER HORN 91105 IN THE SLOT IN THE WING COVER AND LOCATE ON THE SPOILER AS PER DEMENSIONS SHOWN. POP RIVET TO SPOILER (3 PLACES). SEE NEXT PAGE FOR HORN INSTALLATION ON RIGHT WING SPOILERS.

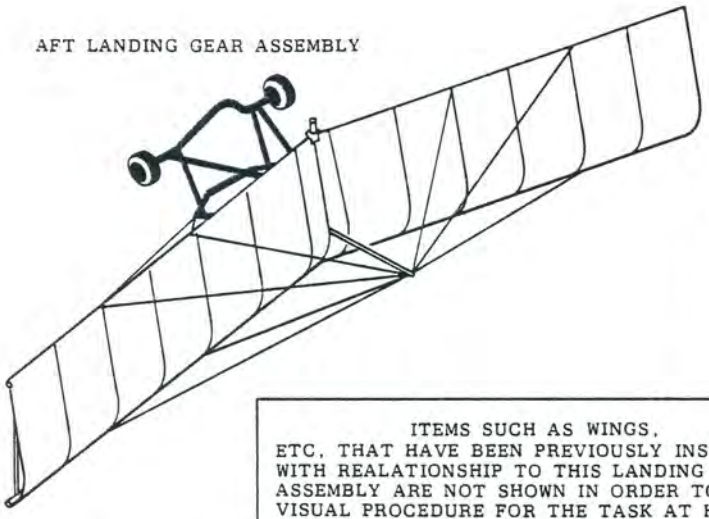


DETAILS CONTINUED ON NEXT PAGE



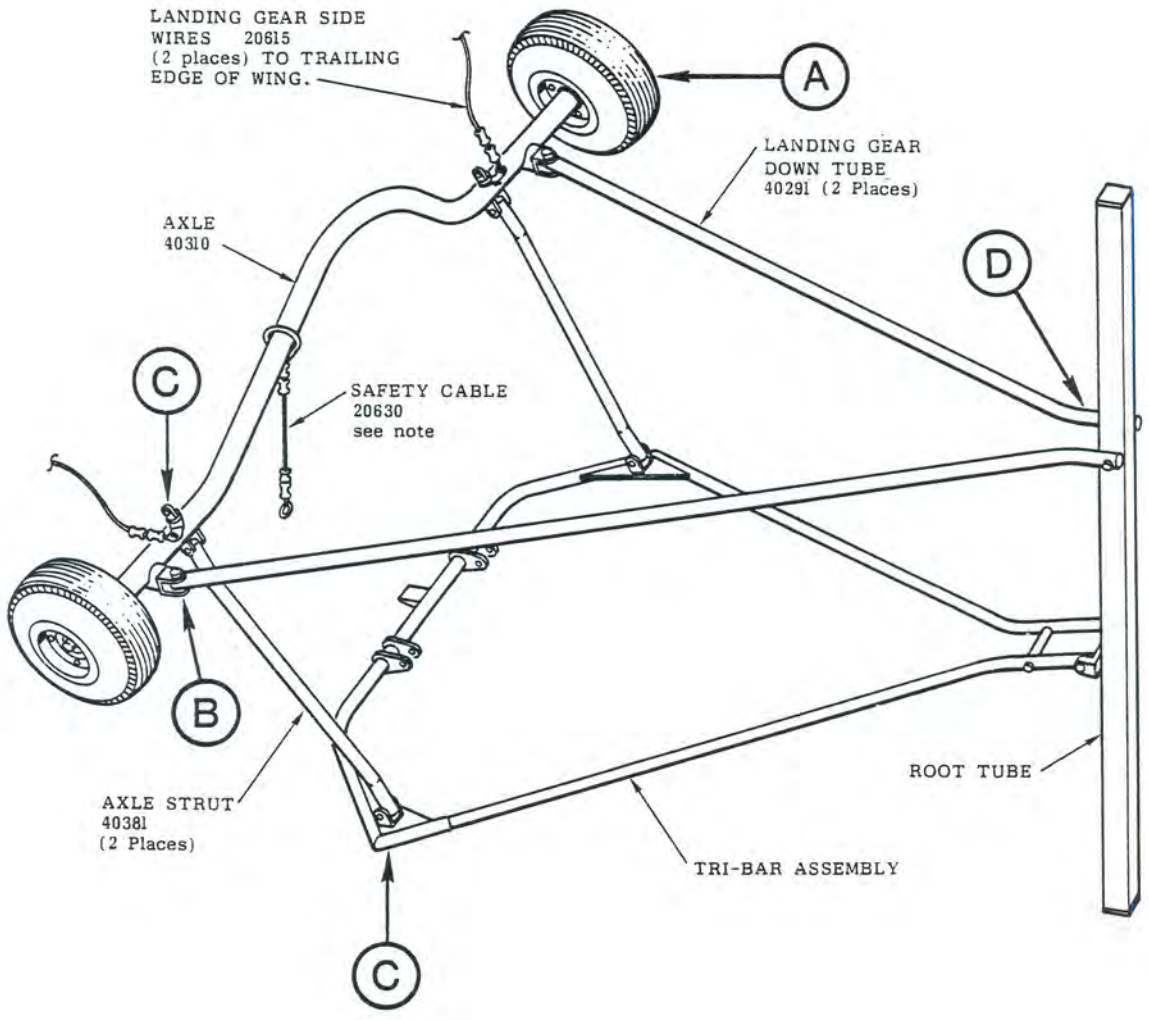
ASSEMBLE RIGHT WING SPOILERS THE SAME AS THE LEFT WING SPOILERS EXCEPT FOR THE SPOILER HORN (91105). THE ATTACHING RIVET HOLE LOCATION WILL BE DIFFERENT AS NOTED DUE TO THE HORNS NOT BEING BENT IN RIGHT AND LEFT HAND PAIRS.
NOTE: WHEN ATTACHING HORN AND CROSSOVER PLATES IT IS ADVISABLE TO DRILL AND RIVET ONE HOLE AND ALIGN UNITS BEFORE INSTALLING THE REMAINING RIVETS.

AFT LANDING GEAR ASSEMBLY

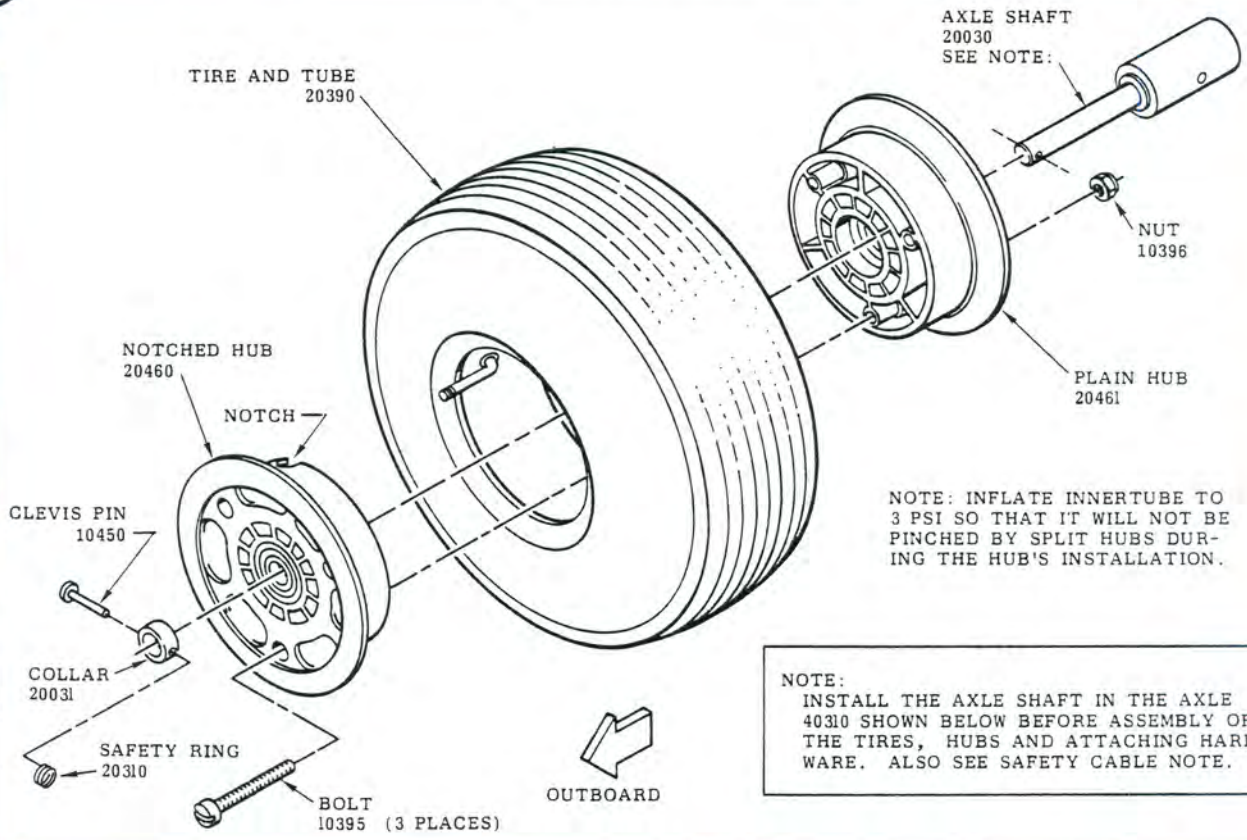


NOTE:
SLIP THE SAFETY CABLE 20630 ON THE AXLE 40310 BEFORE STARTING ANY OF THE OTHER ASSEMBLIES

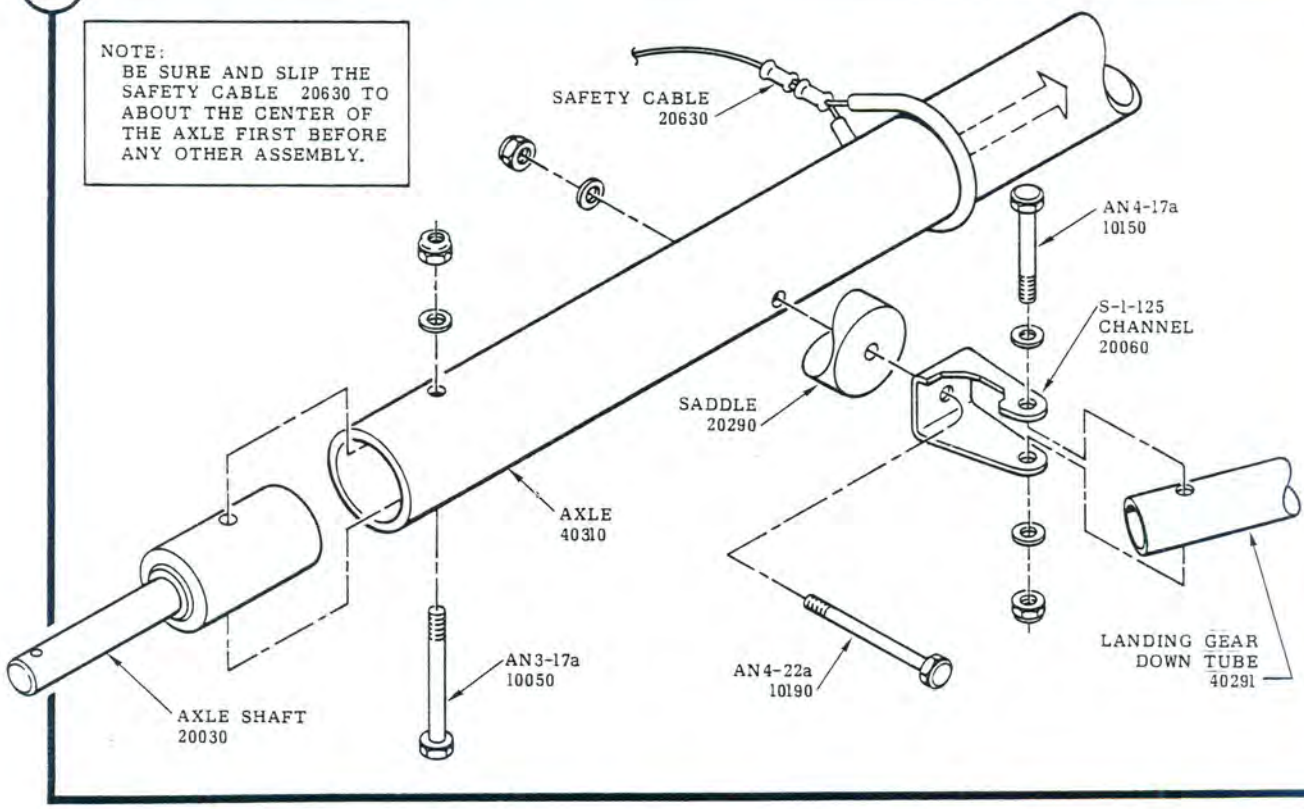
ITEMS SUCH AS WINGS, ETC. THAT HAVE BEEN PREVIOUSLY INSTALLED WITH REALATIONSHIP TO THIS LANDING GEAR ASSEMBLY ARE NOT SHOWN IN ORDER TO SIMPLIFY VISUAL PROCEDURE FOR THE TASK AT HAND.



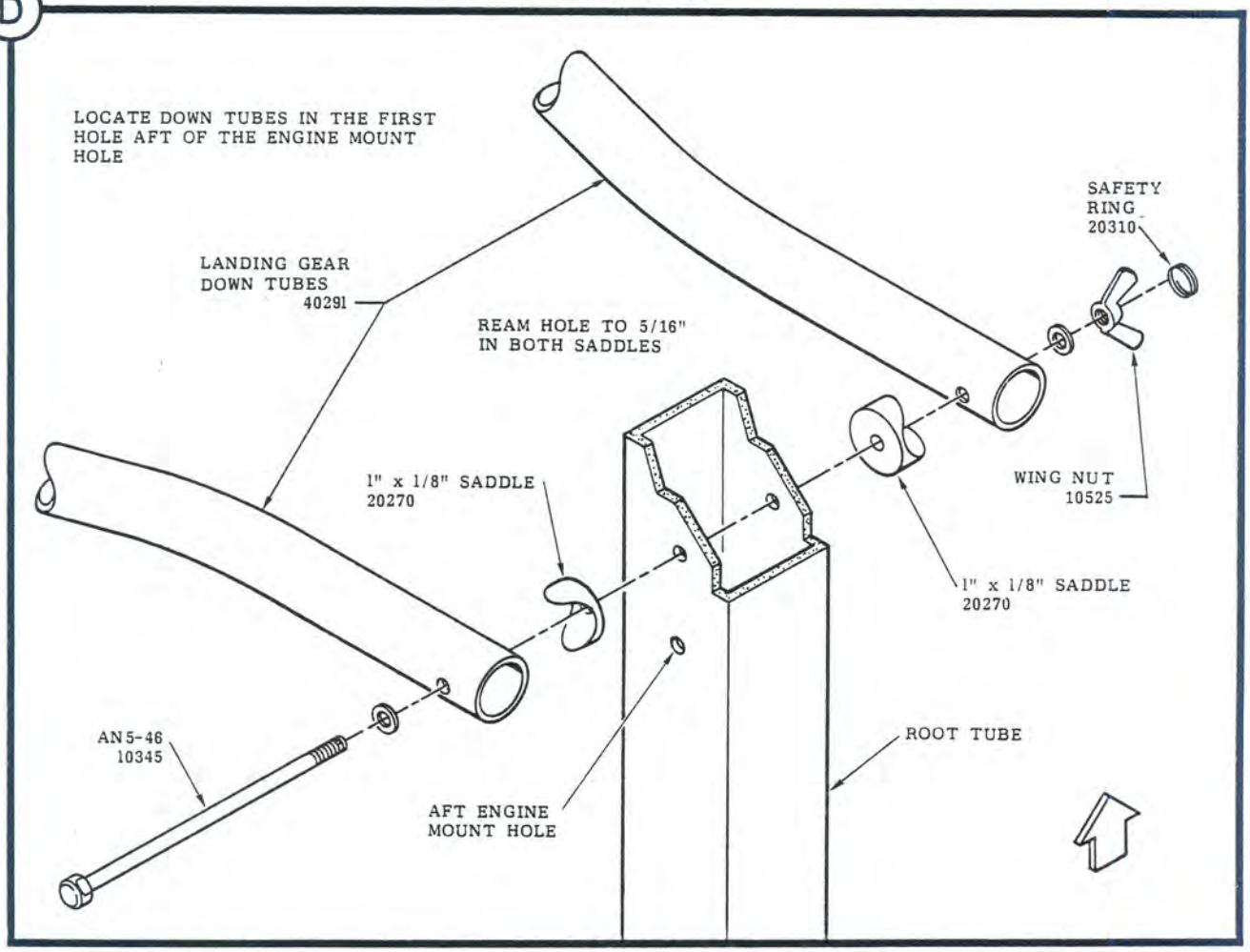
A


AXLE SHAFT
20030
SEE NOTE:
TIRE AND TUBE
20390
NUT
10396
NOTCHED HUB
20460
NOTCH
PLAIN HUB
20461
CLEVIS PIN
10450
COLLAR
20031
SAFETY RING
20310
BOLT
10395 (3 PLACES)
OUTBOARD
NOTE: INFLATE INNERTUBE TO 3 PSI SO THAT IT WILL NOT BE PINCHED BY SPLIT HUBS DURING THE HUB'S INSTALLATION.
NOTE:
INSTALL THE AXLE SHAFT IN THE AXLE 40310 SHOWN BELOW BEFORE ASSEMBLY OF THE TIRES, HUBS AND ATTACHING HARDWARE. ALSO SEE SAFETY CABLE NOTE.

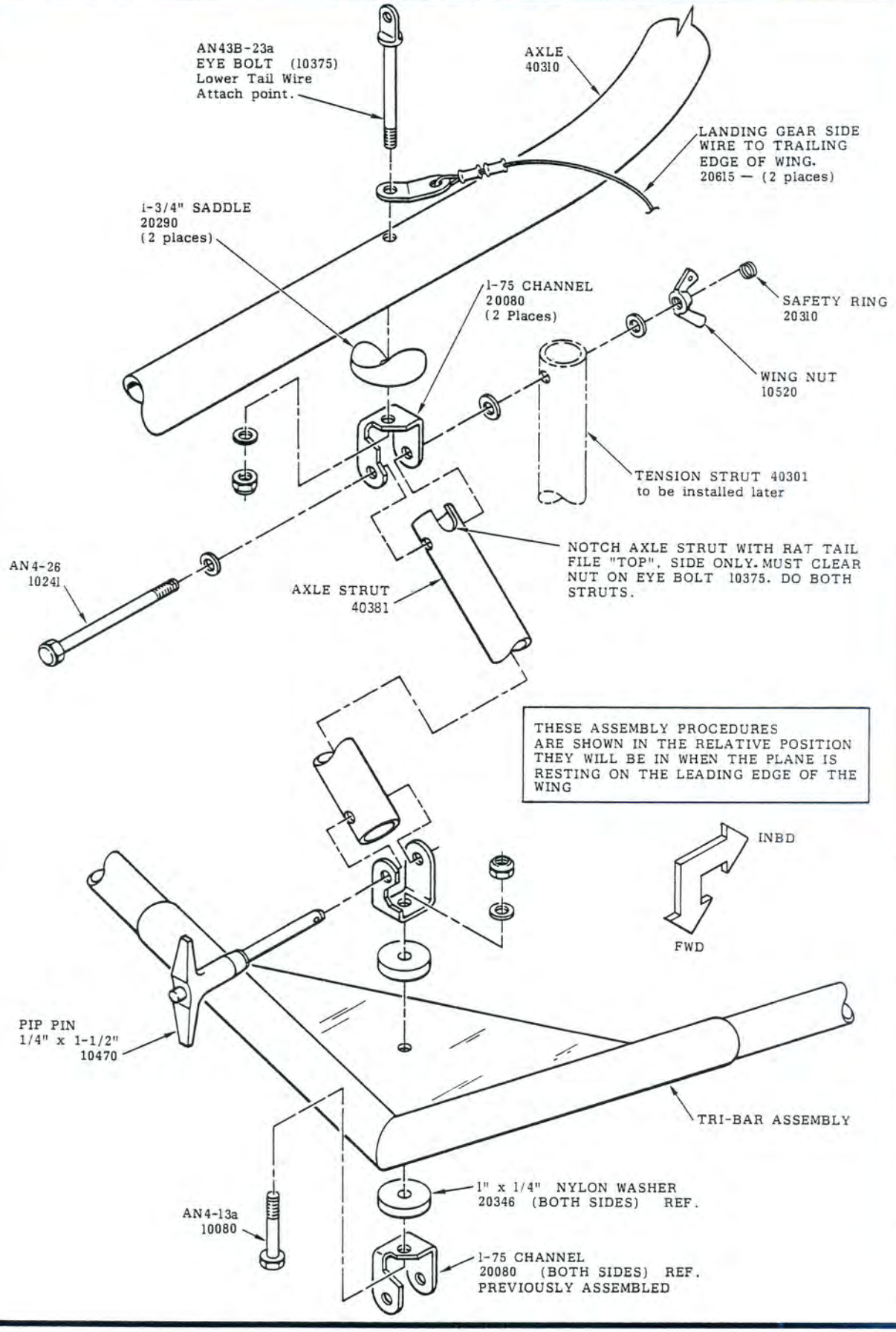
B

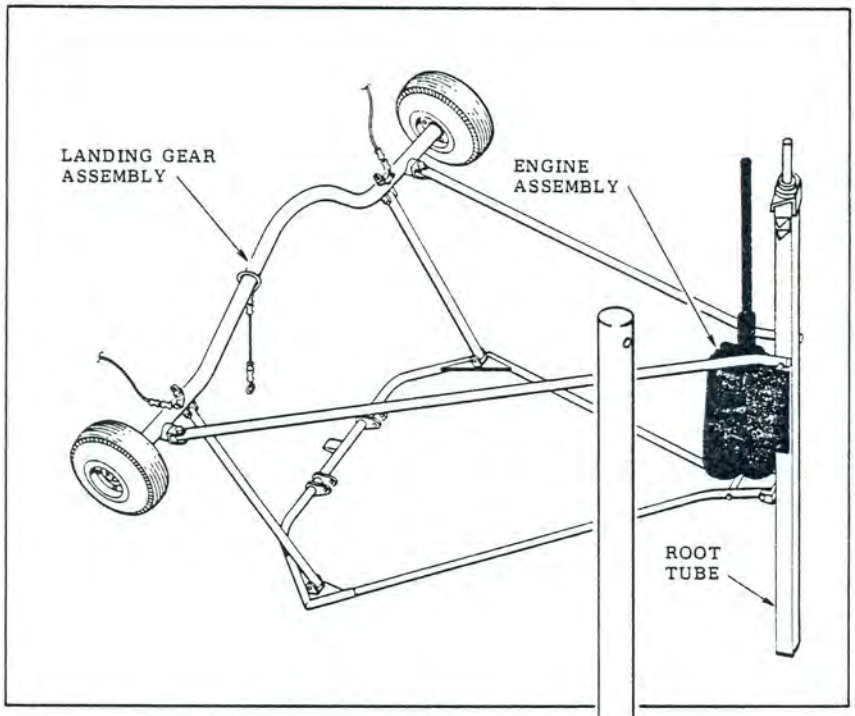

NOTE:
BE SURE AND SLIP THE SAFETY CABLE 20630 TO ABOUT THE CENTER OF THE AXLE FIRST BEFORE ANY OTHER ASSEMBLY.
SAFETY CABLE
20630
AN4-17a
10150
S-1-125
CHANNEL
20060
SADDLE
20290
AXLE
40310
AN3-17a
10050
AN4-22a
10190
LANDING GEAR
DOWN TUBE
40291
AXLE SHAFT
20030

D

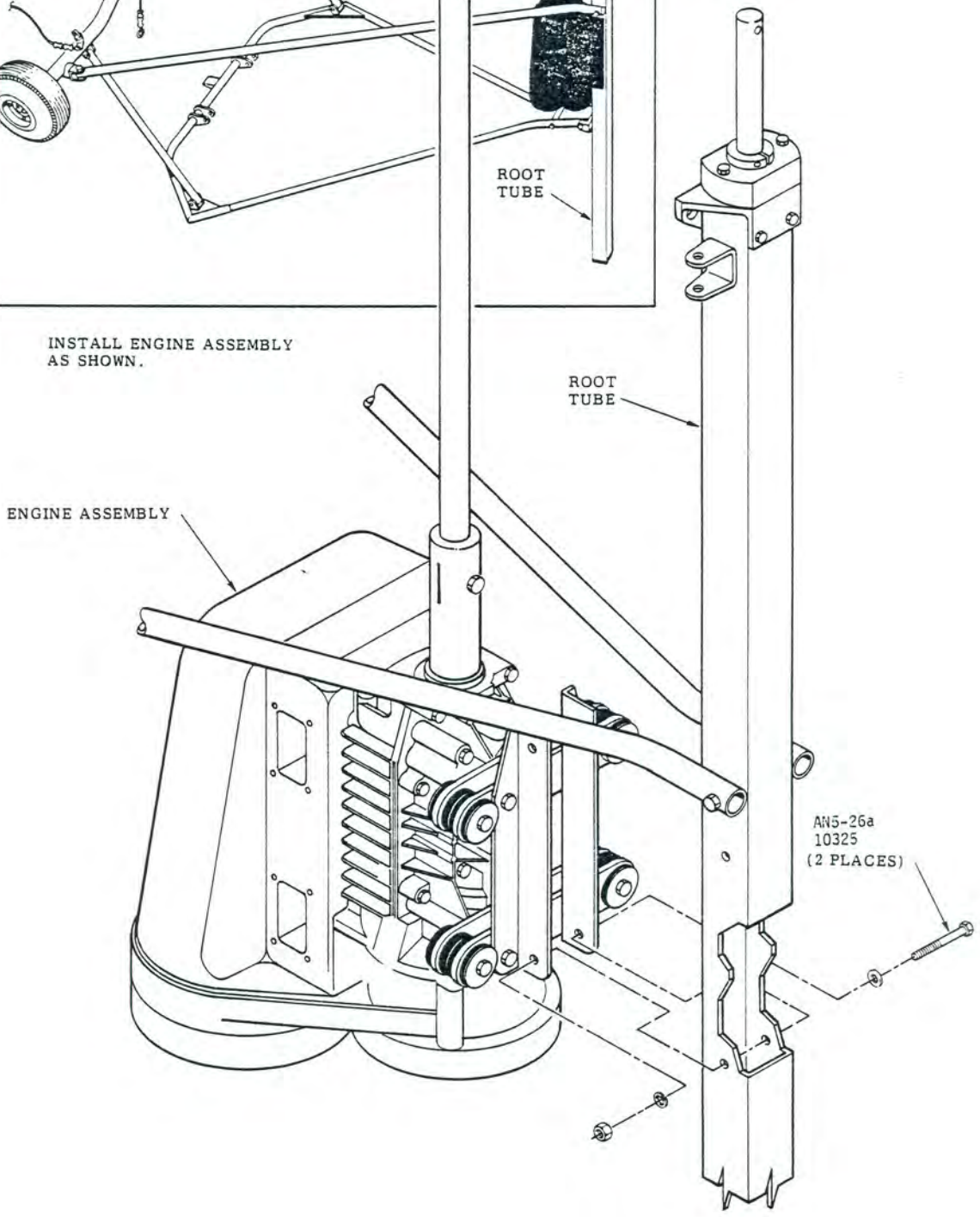

LOCATE DOWN TUBES IN THE FIRST HOLE AFT OF THE ENGINE MOUNT HOLE
LANDING GEAR DOWN TUBES 40291
REAM HOLE TO 5/16" IN BOTH SADDLES
SAFETY RING 20310
WING NUT 10525
1" x 1/8" SADDLE 20270
1" x 1/8" SADDLE 20270
AN5-46 10345
AFT ENGINE MOUNT HOLE
ROOT TUBE

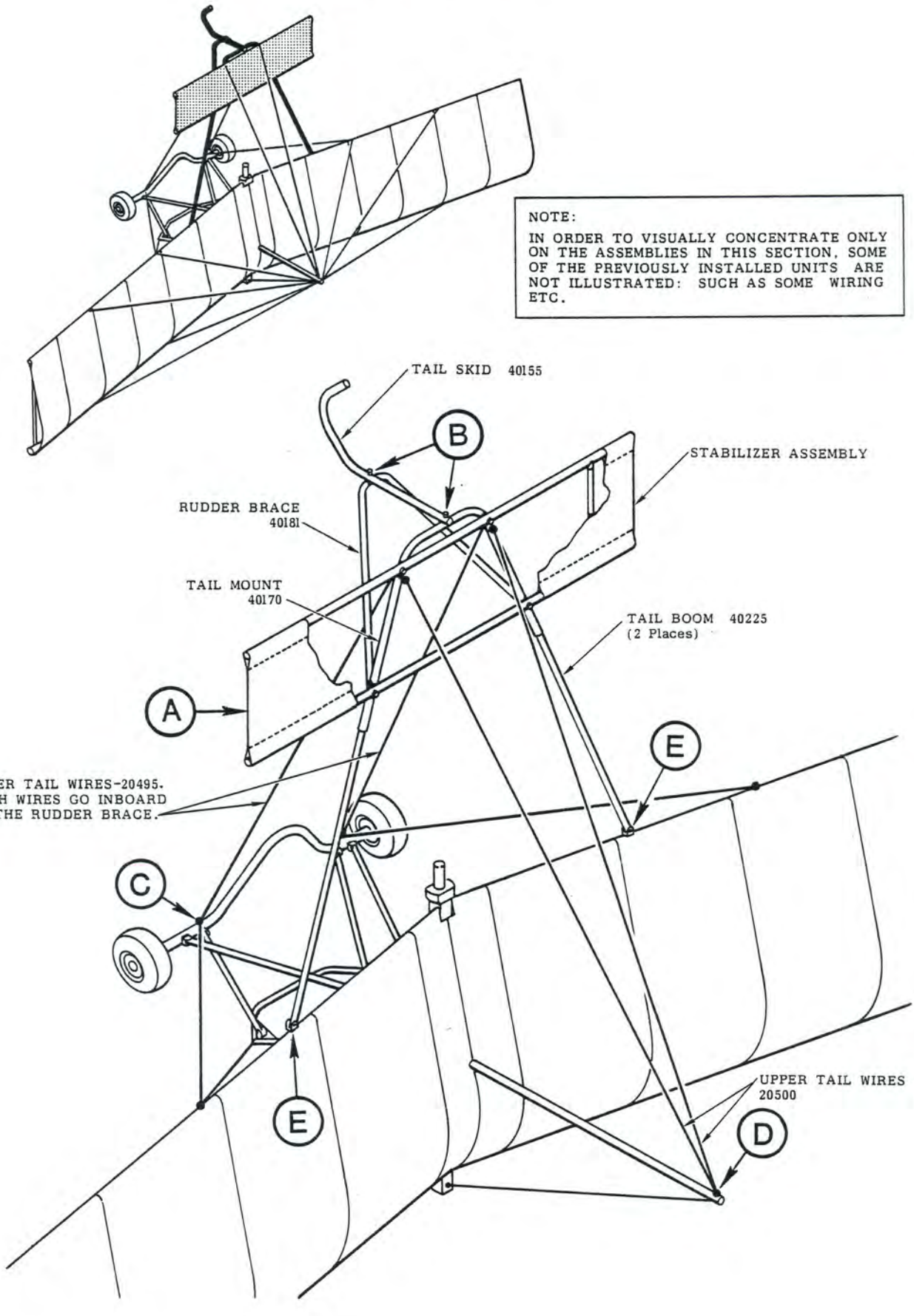
C


AN43B-23a
EYE BOLT (10375)
Lower Tail Wire
Attach point.
AXLE
40310
LANDING GEAR SIDE
WIRE TO TRAILING
EDGE OF WING.
20615 — (2 places)
1-3/4" SADDLE
20290
(2 places)
1-75 CHANNEL
20080
(2 Places)
SAFETY RING
20310
WING NUT
10520
TENSION STRUT 40301
to be installed later
AN4-26
10241
AXLE STRUT
40381
NOTCH AXLE STRUT WITH RAT TAIL
FILE "TOP", SIDE ONLY. MUST CLEAR
NUT ON EYE BOLT 10375. DO BOTH
STRUTS.
THESE ASSEMBLY PROCEDURES
ARE SHOWN IN THE RELATIVE POSITION
THEY WILL BE IN WHEN THE PLANE IS
RESTING ON THE LEADING EDGE OF THE
WING
INBD
FWD
PIP PIN
1/4" x 1-1/2"
10470
TRI-BAR ASSEMBLY
1" x 1/4" NYLON WASHER
20346 (BOTH SIDES) REF.
AN4-13a
10080
1-75 CHANNEL
20080 (BOTH SIDES) REF.
PREVIOUSLY ASSEMBLED

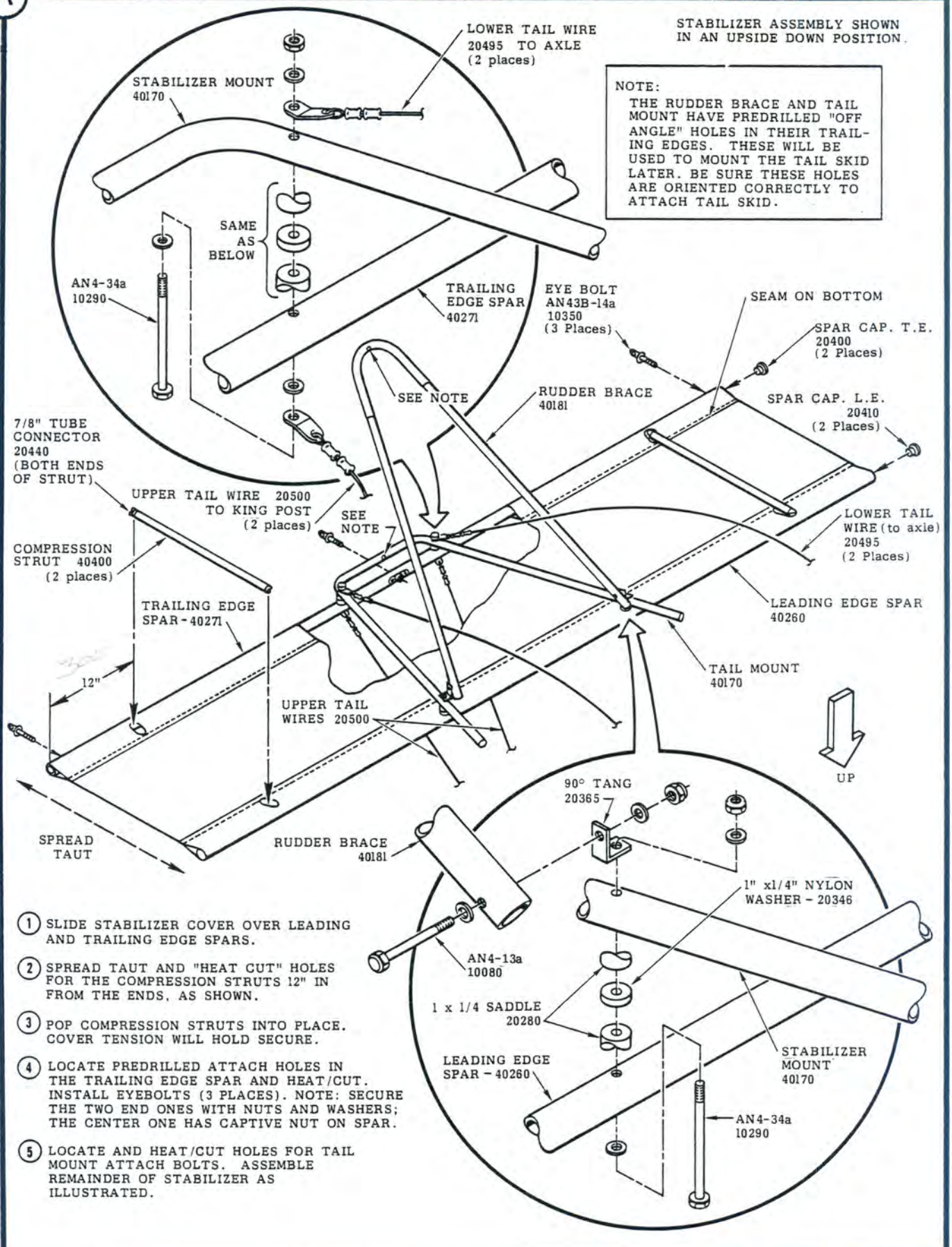


INSTALL ENGINE ASSEMBLY
AS SHOWN.



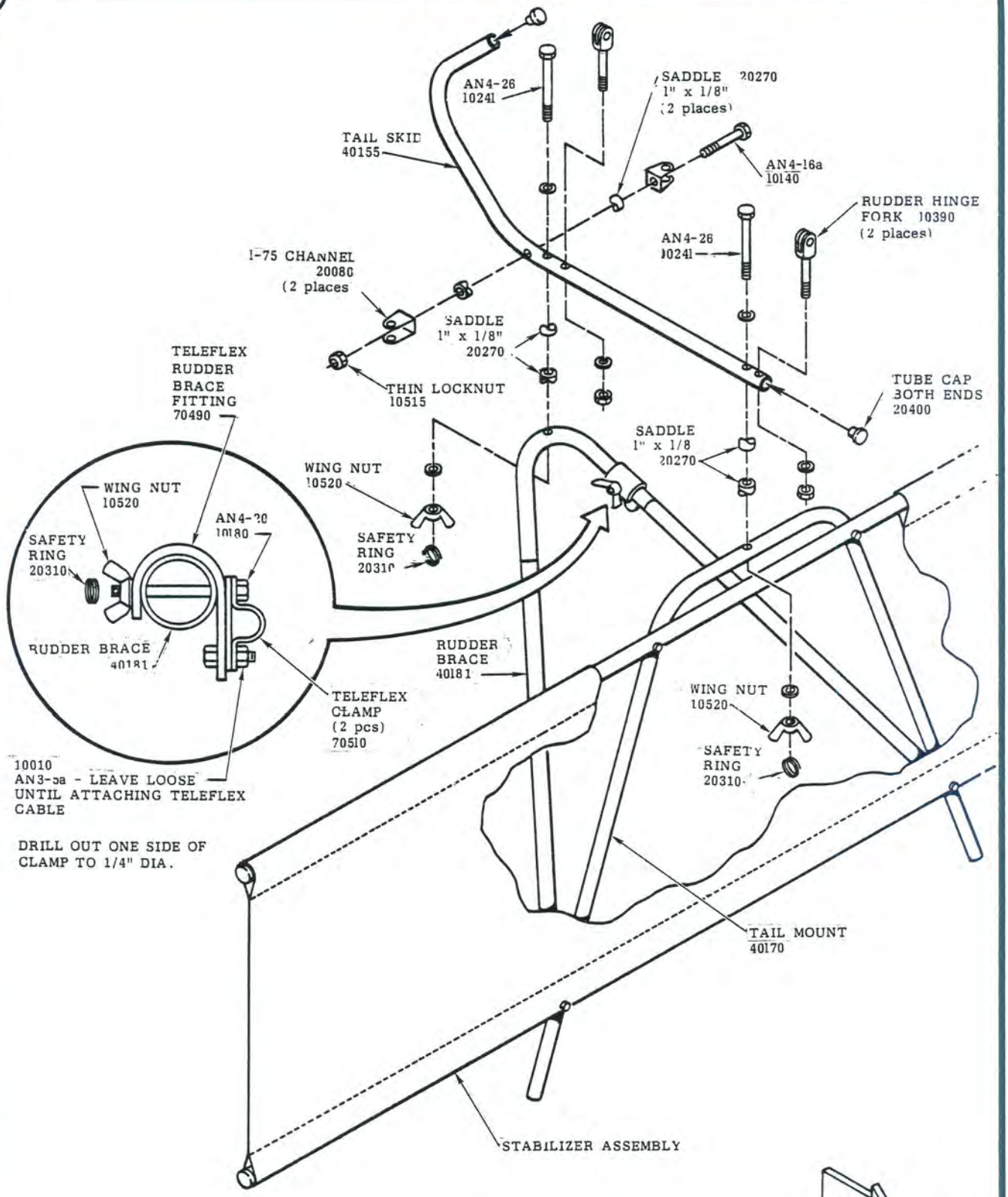

NOTE:
IN ORDER TO VISUALLY CONCENTRATE ONLY ON THE ASSEMBLIES IN THIS SECTION, SOME OF THE PREVIOUSLY INSTALLED UNITS ARE NOT ILLUSTRATED: SUCH AS SOME WIRING ETC.
TAIL SKID 40155
B
STABILIZER ASSEMBLY
RUDDER BRACE 40181
TAIL MOUNT 40170
TAIL BOOM 40225 (2 Places)
A
E
LOWER TAIL WIRES-20495. BOTH WIRES GO INBOARD OF THE RUDDER BRACE.
C
E
UPPER TAIL WIRES 20500
D

A



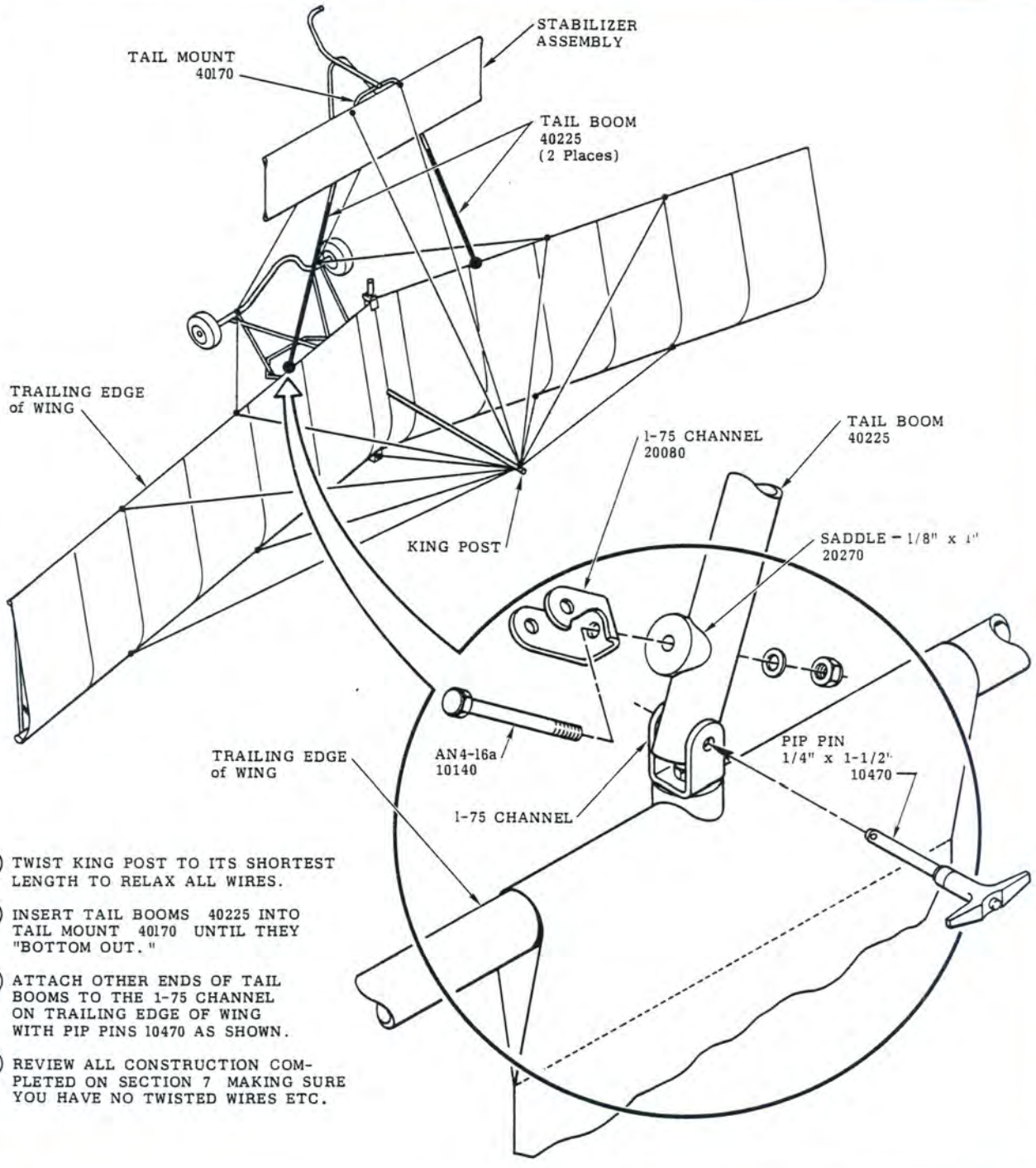
1. SLIDE STABILIZER COVER OVER LEADING AND TRAILING EDGE SPARS.
2. SPREAD TAUT AND "HEAT CUT" HOLES FOR THE COMPRESSION STRUTS 12" IN FROM THE ENDS, AS SHOWN.
3. POP COMPRESSION STRUTS INTO PLACE. COVER TENSION WILL HOLD SECURE.
4. LOCATE PREDRILLED ATTACH HOLES IN THE TRAILING EDGE SPAR AND HEAT/CUT. INSTALL EYEBOLTS (3 PLACES). NOTE: SECURE THE TWO END ONES WITH NUTS AND WASHERS; THE CENTER ONE HAS CAPTIVE NUT ON SPAR.
5. LOCATE AND HEAT/CUT HOLES FOR TAIL MOUNT ATTACH BOLTS. ASSEMBLE REMAINDER OF STABILIZER AS ILLUSTRATED.

B



KING POST WIRES AND THE LOWER TAIL WIRES PREVIOUSLY INSTALLED ARE NOT SHOWN TO SIMPLIFY THIS ILLUSTRATION.

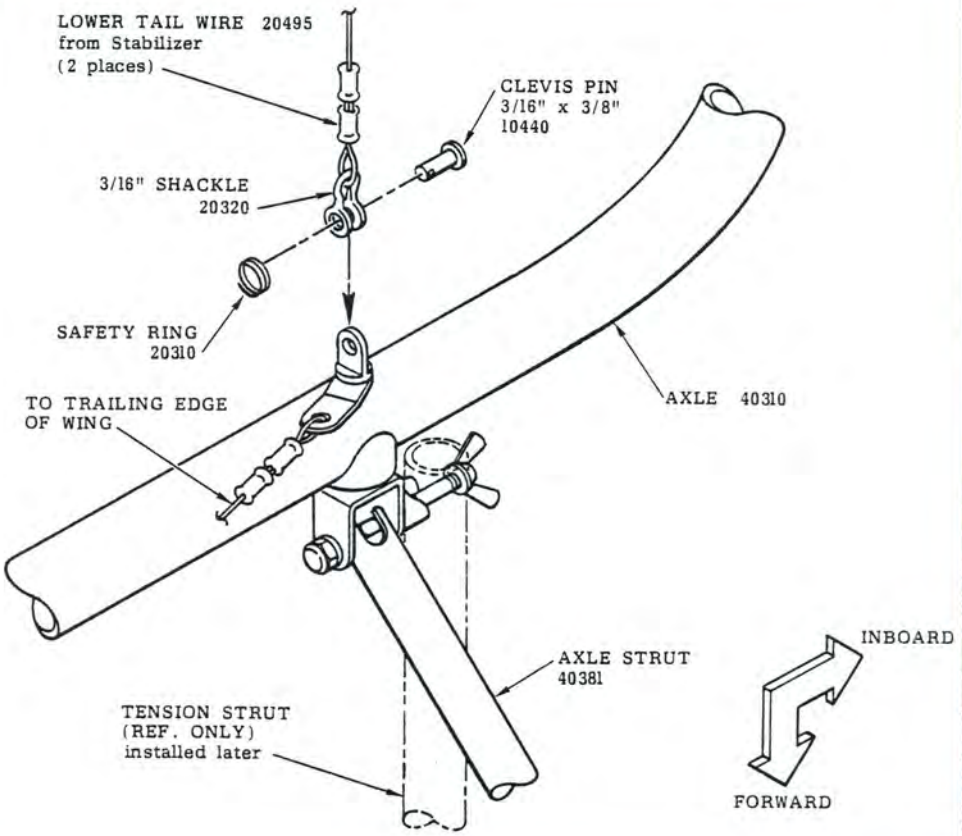
E



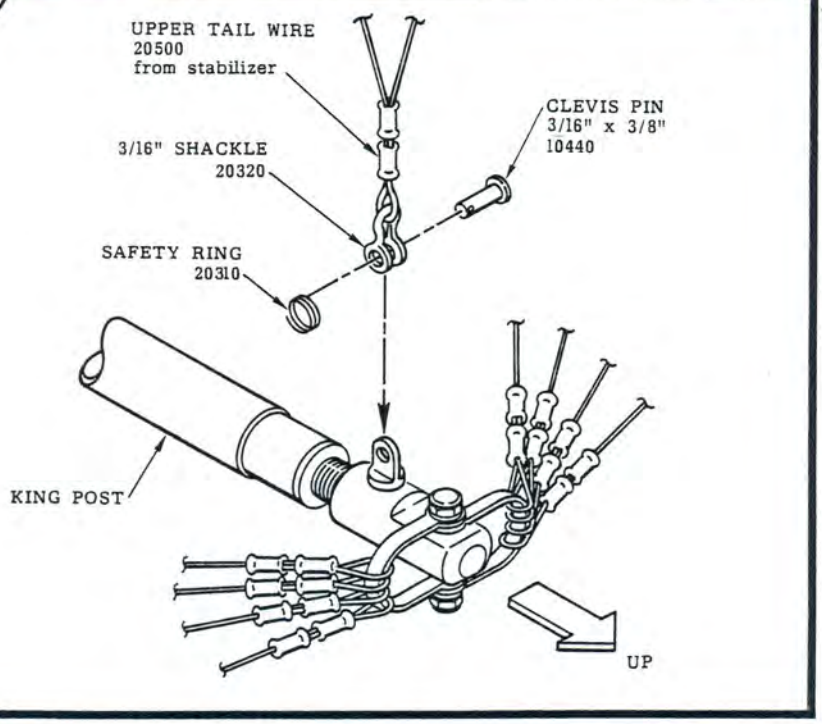
1. TWIST KING POST TO ITS SHORTEST LENGTH TO RELAX ALL WIRES.
2. INSERT TAIL BOOMS 40225 INTO TAIL MOUNT 40170 UNTIL THEY "BOTTOM OUT."
3. ATTACH OTHER ENDS OF TAIL BOOMS TO THE 1-75 CHANNEL ON TRAILING EDGE OF WING WITH PIP PINS 10470 AS SHOWN.
4. REVIEW ALL CONSTRUCTION COMPLETED ON SECTION 7 MAKING SURE YOU HAVE NO TWISTED WIRES ETC.

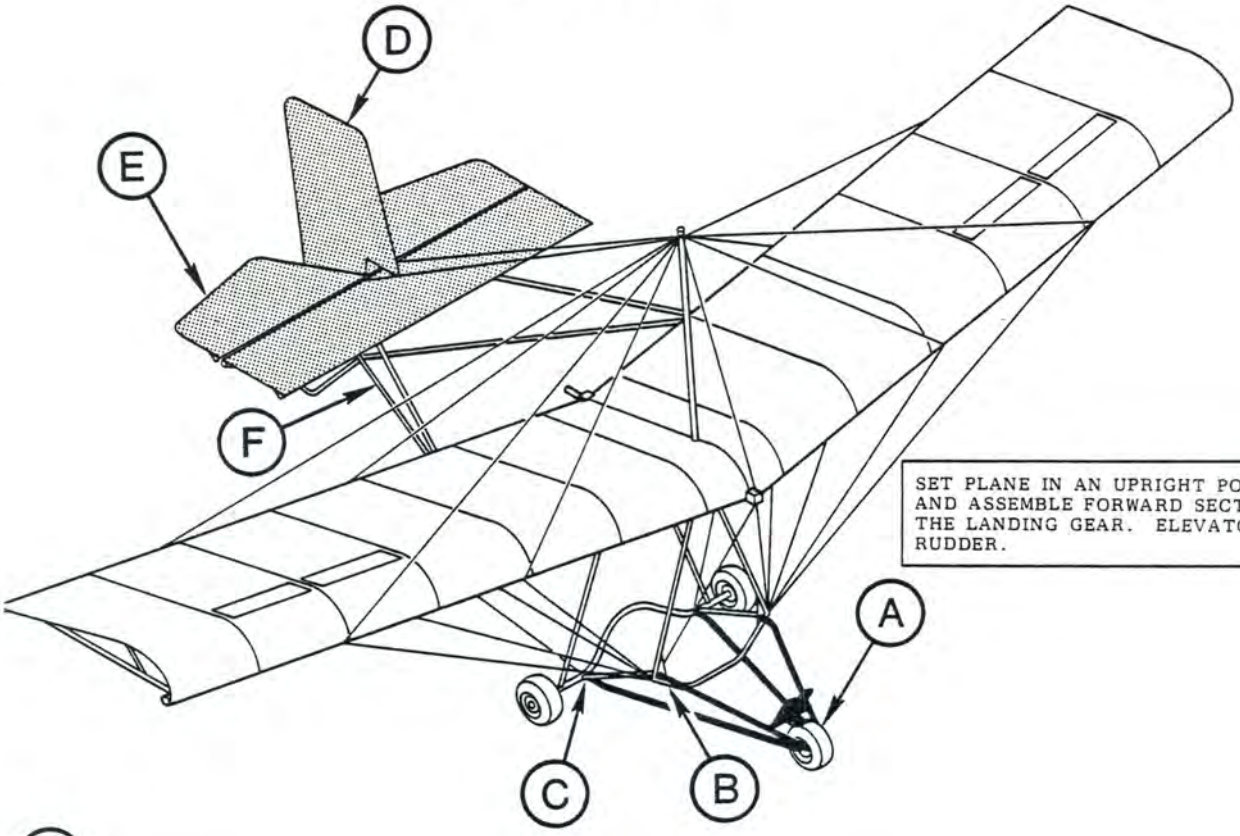
AT THIS STAGE OF ASSEMBLY YOU MAY NEED A FRIEND TO GIVE YOU A HELPING HAND TO LIFT, LOCATE AND ATTACH THE STABILIZER ASSEMBLY AND TAIL BOOMS TO THE TRAILING EDGE OF WING.

C


LOWER TAIL WIRE 20495
from Stabilizer
(2 places)
CLEVIS PIN
3/16" x 3/8"
10440
3/16" SHACKLE
20320
SAFETY RING
20310
TO TRAILING EDGE
OF WING
AXLE 40310
AXLE STRUT
40381
TENSION STRUT
(REF. ONLY)
installed later
INBOARD
FORWARD

D

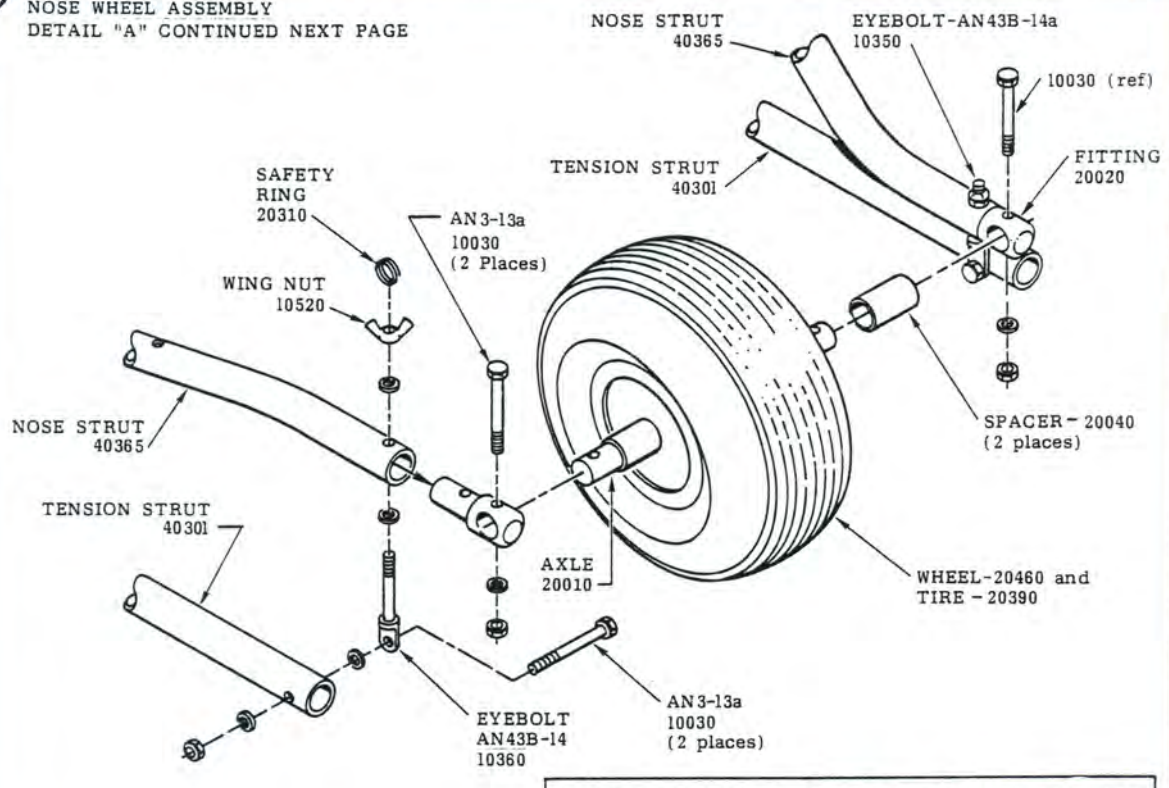

UPPER TAIL WIRE
20500
from stabilizer
CLEVIS PIN
3/16" x 3/8"
10440
3/16" SHACKLE
20320
SAFETY RING
20310
KING POST
UP



SET PLANE IN AN UPRIGHT POSITION AND ASSEMBLE FORWARD SECTION OF THE LANDING GEAR. ELEVATOR AND RUDDER.

A

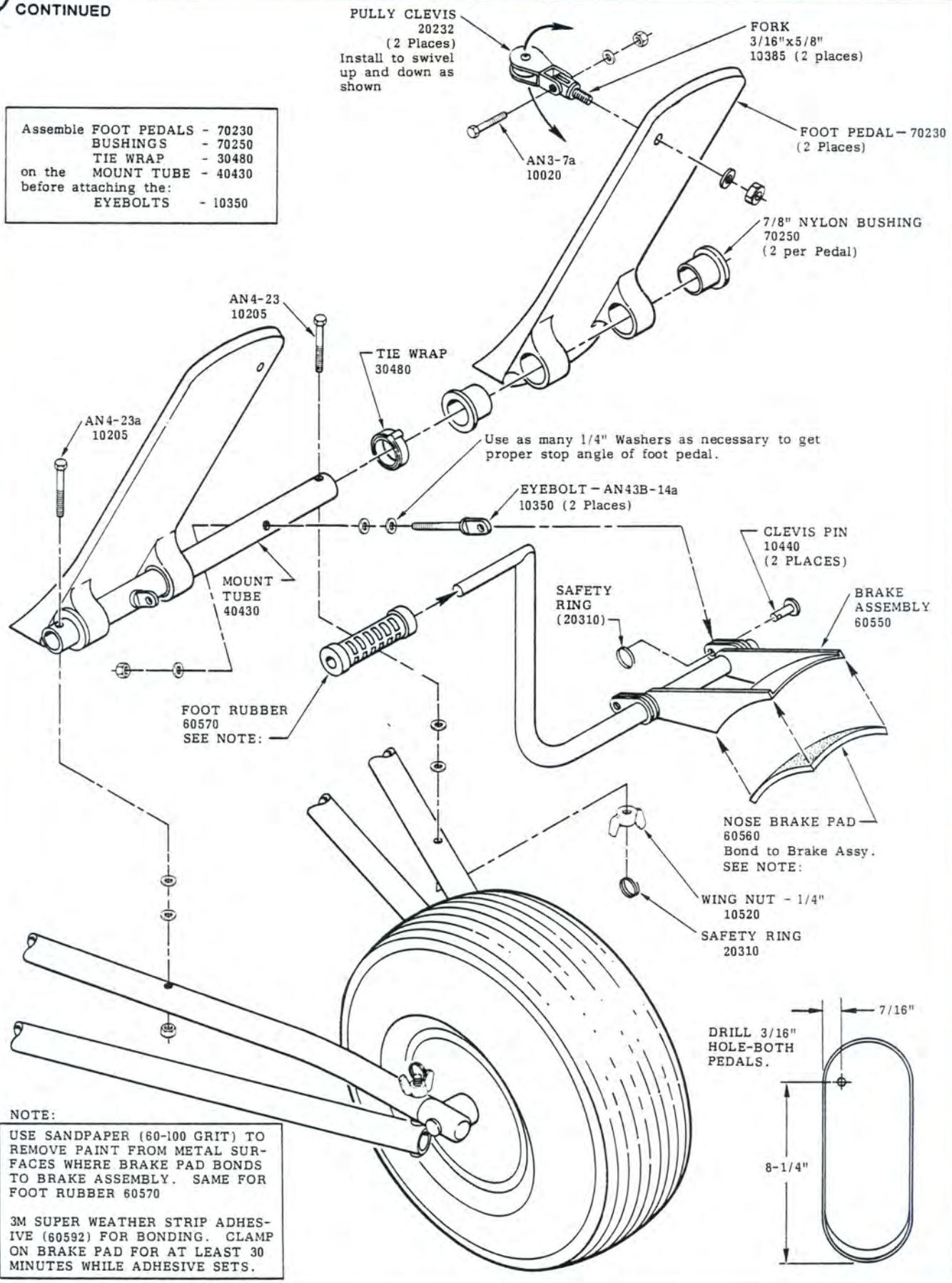
NOSE WHEEL ASSEMBLY
DETAIL "A" CONTINUED NEXT PAGE



NOTICE THE DIFFERENCE IN THE EYBOLTS. USE 10360 WITH WING NUT AND SAFETY RING, ON ONE SIDE ONLY. (FOR TRANSPORTATION BREAKDOWN)

A

CONTINUED

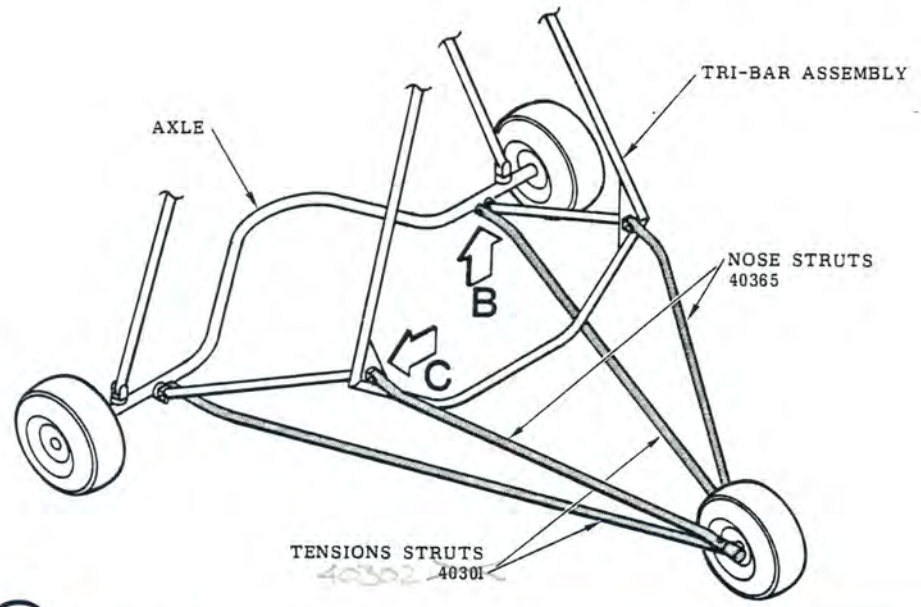


Assemble FOOT PEDALS - 70230
BUSHINGS - 70250
TIE WRAP - 30480
on the MOUNT TUBE - 40430
before attaching the:
EYEBOLTS - 10350

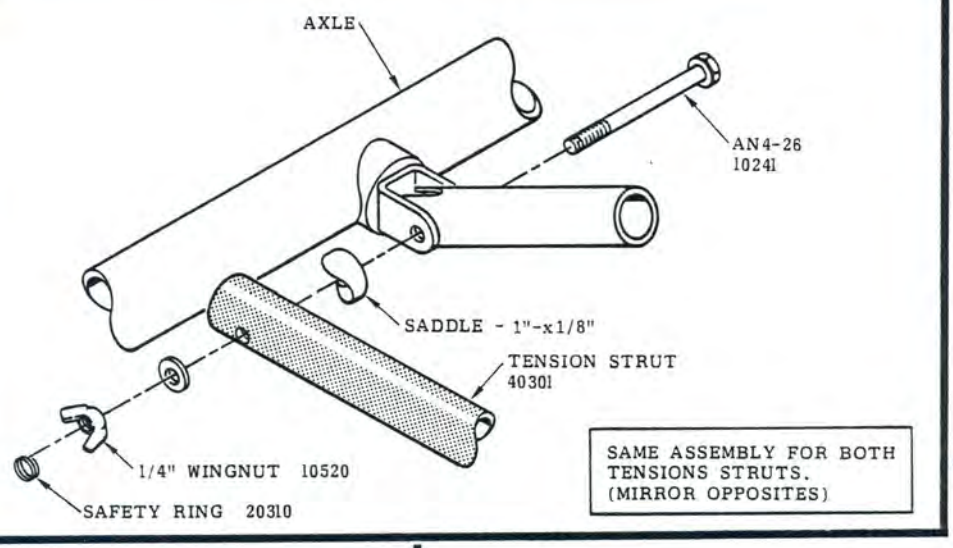
NOTE:

USE SANDPAPER (60-100 GRIT) TO REMOVE PAINT FROM METAL SURFACES WHERE BRAKE PAD BONDS TO BRAKE ASSEMBLY. SAME FOR FOOT RUBBER 60570

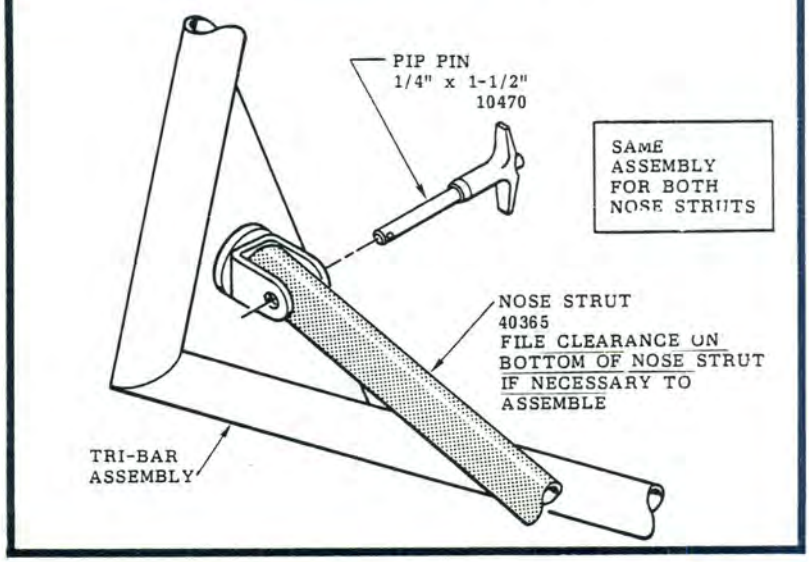
3M SUPER WEATHER STRIP ADHESIVE (60592) FOR BONDING. CLAMP ON BRAKE PAD FOR AT LEAST 30 MINUTES WHILE ADHESIVE SETS.

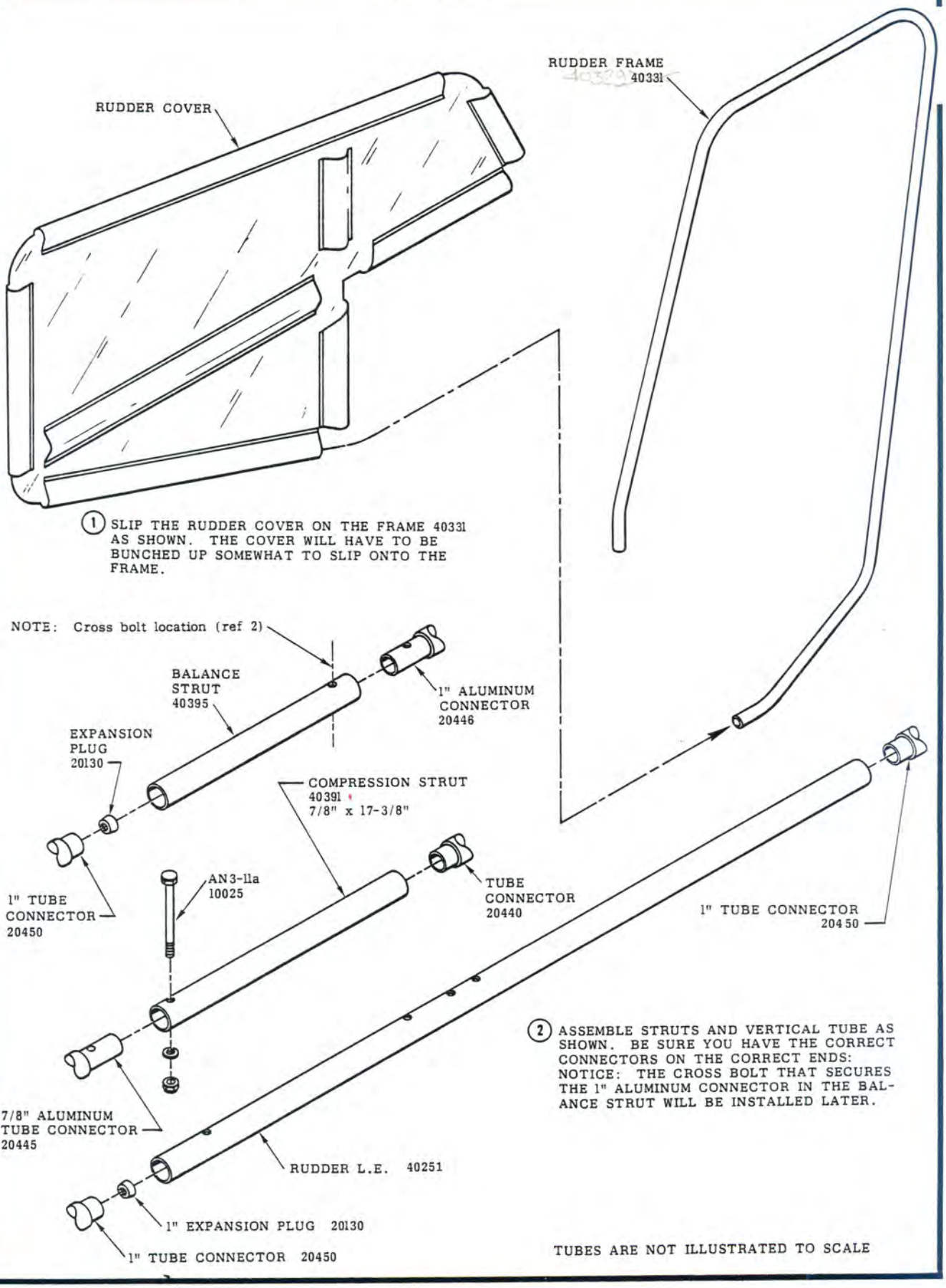

TRI-BAR ASSEMBLY
AXLE
NOSE STRUTS
40365
B
C
TENSIONS STRUTS
40301

B


AXLE
AN4-26
10241
SADDLE - 1"-x1/8"
TENSION STRUT
40301
1/4" WINGNUT 10520
SAFETY RING 20310
SAME ASSEMBLY FOR BOTH TENSIONS STRUTS. (MIRROR OPPOSITES)

C


PIP PIN
1/4" x 1-1/2"
10470
SAME ASSEMBLY FOR BOTH NOSE STRUTS
NOSE STRUT
40365
FILE CLEARANCE ON BOTTOM OF NOSE STRUT IF NECESSARY TO ASSEMBLE
TRI-BAR ASSEMBLY


D
RUDDER COVER
RUDDER FRAME
40331
1 SLIP THE RUDDER COVER ON THE FRAME 40331 AS SHOWN. THE COVER WILL HAVE TO BE BUNCHED UP SOMEWHAT TO SLIP ONTO THE FRAME.
NOTE: Cross bolt location (ref 2)
BALANCE STRUT 40395
1" ALUMINUM CONNECTOR 20446
EXPANSION PLUG 20130
COMPRESSION STRUT 40391 7/8" x 17-3/8"
1" TUBE CONNECTOR 20450
AN3-11a 10025
TUBE CONNECTOR 20440
1" TUBE CONNECTOR 20450
2 ASSEMBLE STRUTS AND VERTICAL TUBE AS SHOWN. BE SURE YOU HAVE THE CORRECT CONNECTORS ON THE CORRECT ENDS: NOTICE: THE CROSS BOLT THAT SECURES THE 1" ALUMINUM CONNECTOR IN THE BALANCE STRUT WILL BE INSTALLED LATER.
7/8" ALUMINUM TUBE CONNECTOR 20445
RUDDER L.E. 40251
1" EXPANSION PLUG 20130
1" TUBE CONNECTOR 20450
TUBES ARE NOT ILLUSTRATED TO SCALE

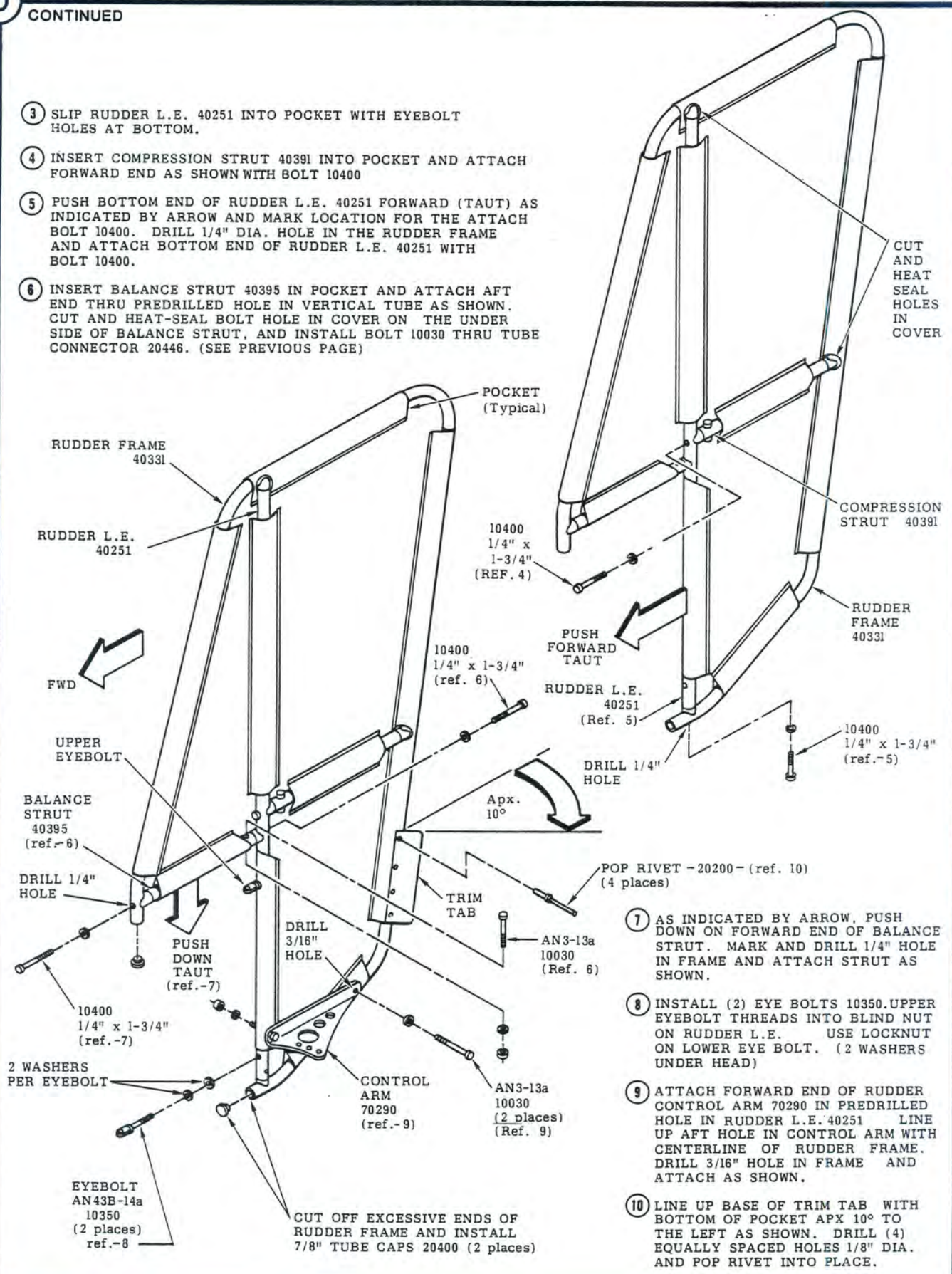
D CONTINUED

(3) SLIP RUDDER L.E. 40251 INTO POCKET WITH EYEBOLT HOLES AT BOTTOM.

(4) INSERT COMPRESSION STRUT 40391 INTO POCKET AND ATTACH FORWARD END AS SHOWN WITH BOLT 10400

(5) PUSH BOTTOM END OF RUDDER L.E. 40251 FORWARD (TAUT) AS INDICATED BY ARROW AND MARK LOCATION FOR THE ATTACH BOLT 10400. DRILL 1/4" DIA. HOLE IN THE RUDDER FRAME AND ATTACH BOTTOM END OF RUDDER L.E. 40251 WITH BOLT 10400.

(6) INSERT BALANCE STRUT 40395 IN POCKET AND ATTACH AFT END THRU PREDRILLED HOLE IN VERTICAL TUBE AS SHOWN. CUT AND HEAT-SEAL BOLT HOLE IN COVER ON THE UNDER SIDE OF BALANCE STRUT, AND INSTALL BOLT 10030 THRU TUBE CONNECTOR 20446. (SEE PREVIOUS PAGE)

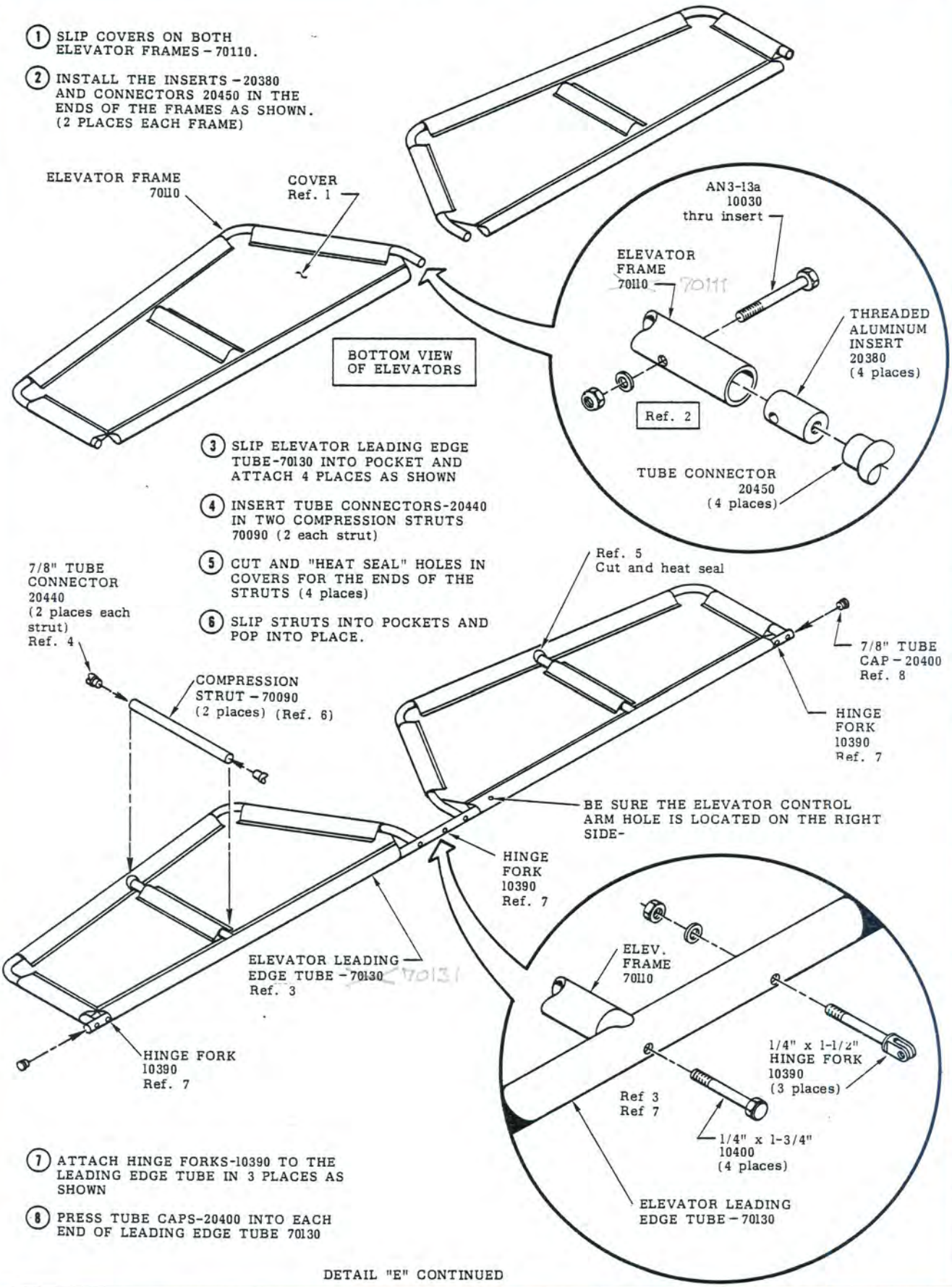


(7) AS INDICATED BY ARROW, PUSH DOWN ON FORWARD END OF BALANCE STRUT. MARK AND DRILL 1/4" HOLE IN FRAME AND ATTACH STRUT AS SHOWN.

(8) INSTALL (2) EYE BOLTS 10350. UPPER EYEBOLT THREADS INTO BLIND NUT ON RUDDER L.E. USE LOCKNUT ON LOWER EYE BOLT. (2 WASHERS UNDER HEAD)

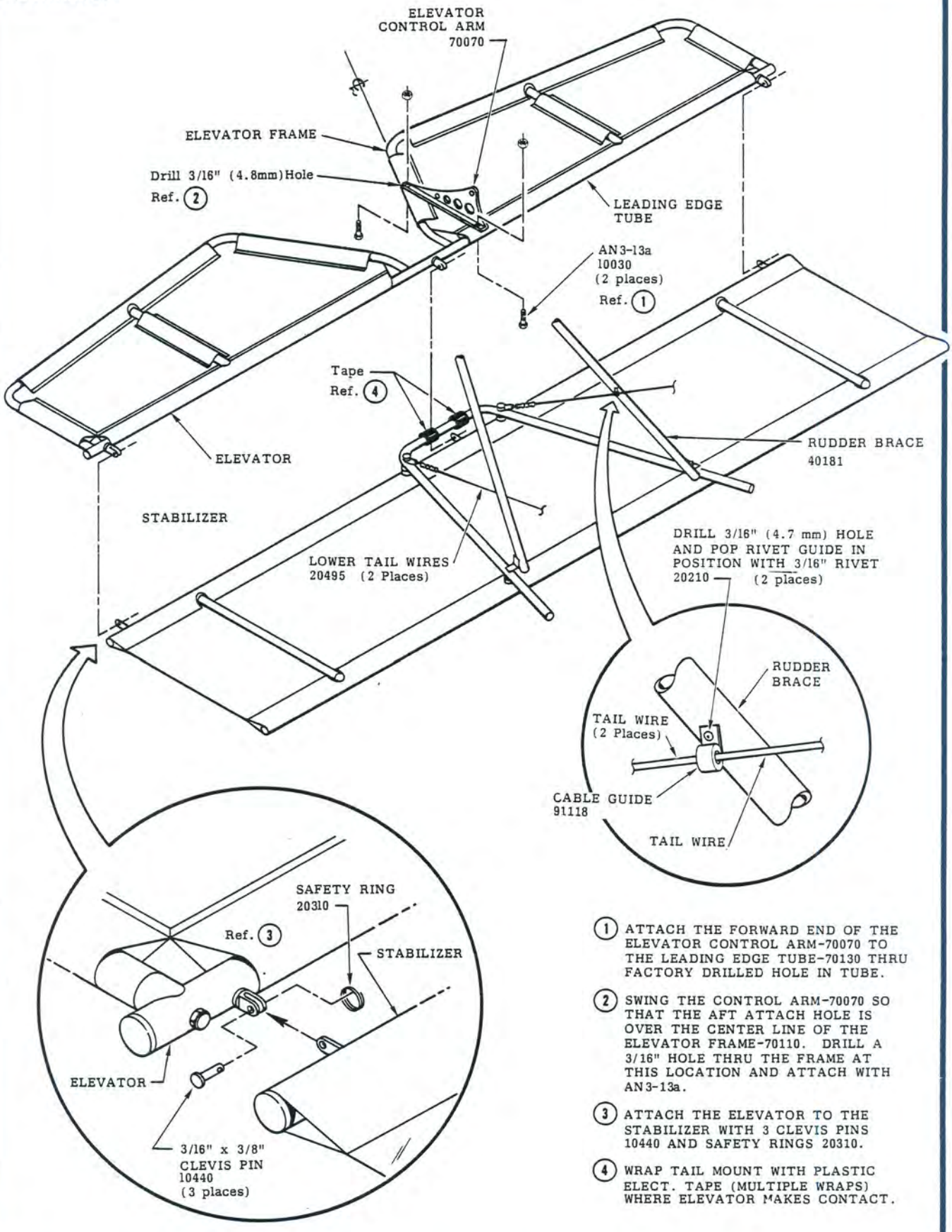
(9) ATTACH FORWARD END OF RUDDER CONTROL ARM 70290 IN PREDRILLED HOLE IN RUDDER L.E. 40251 LINE UP AFT HOLE IN CONTROL ARM WITH CENTERLINE OF RUDDER FRAME. DRILL 3/16" HOLE IN FRAME AND ATTACH AS SHOWN.

(10) LINE UP BASE OF TRIM TAB WITH BOTTOM OF POCKET APX 10° TO THE LEFT AS SHOWN. DRILL (4) EQUALLY SPACED HOLES 1/8" DIA. AND POP RIVET INTO PLACE.



DETAIL "E" CONTINUED

E CONTINUED



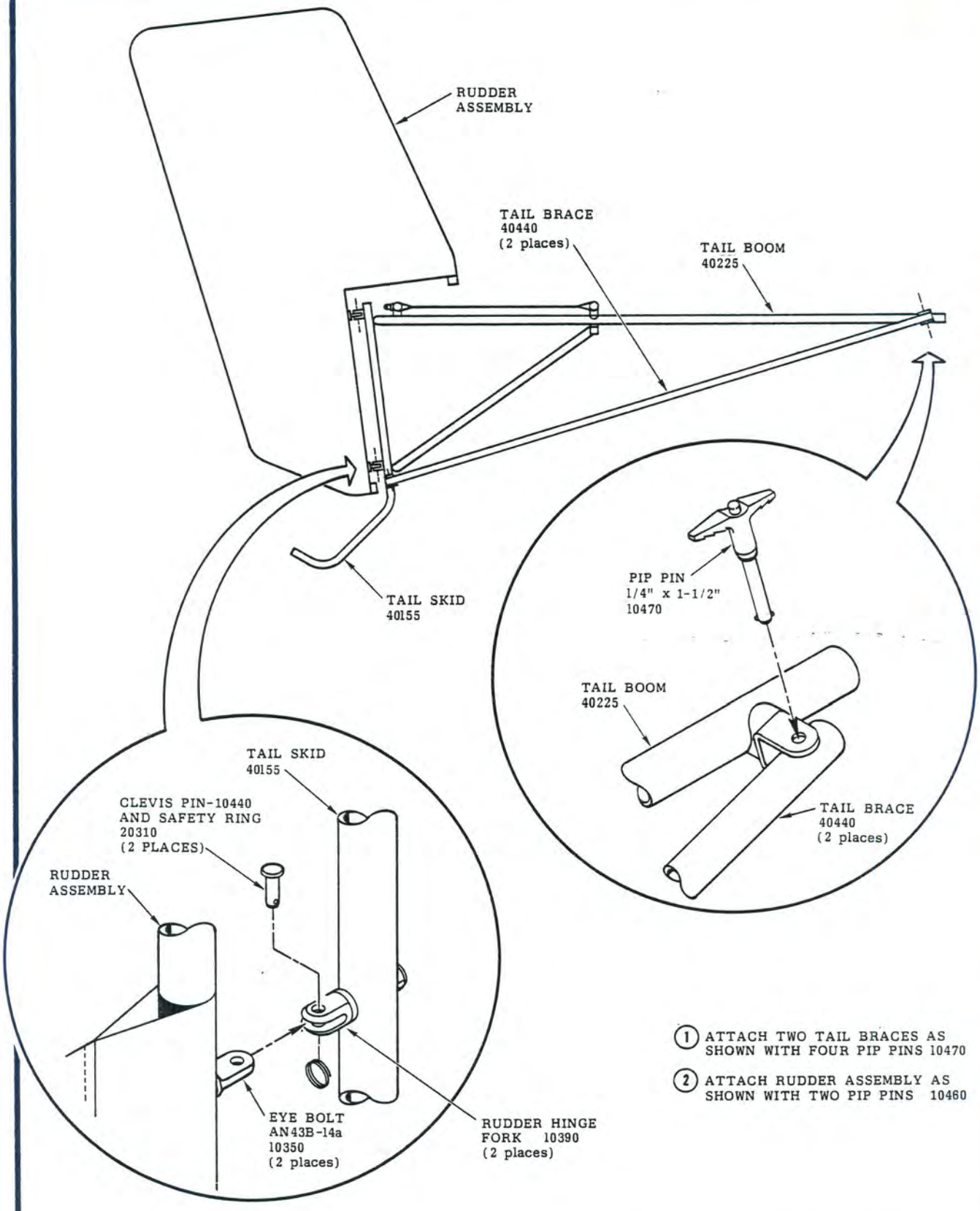
(1) ATTACH THE FORWARD END OF THE ELEVATOR CONTROL ARM-70070 TO THE LEADING EDGE TUBE-70130 THRU FACTORY DRILLED HOLE IN TUBE.

(2) SWING THE CONTROL ARM-70070 SO THAT THE AFT ATTACH HOLE IS OVER THE CENTER LINE OF THE ELEVATOR FRAME-70110. DRILL A 3/16" HOLE THRU THE FRAME AT THIS LOCATION AND ATTACH WITH AN3-13a.

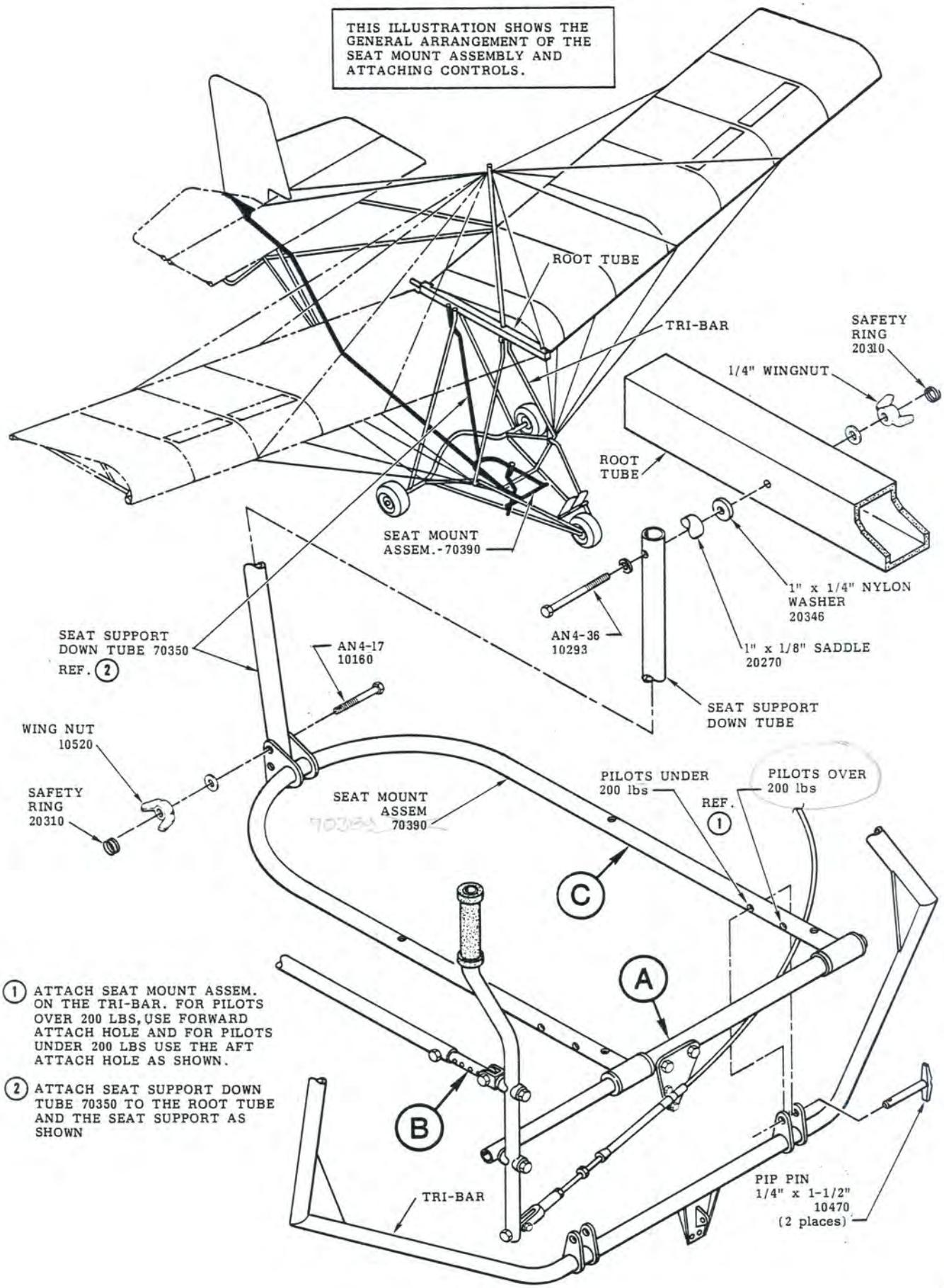
(3) ATTACH THE ELEVATOR TO THE STABILIZER WITH 3 CLEVIS PINS 10440 AND SAFETY RINGS 20310.

(4) WRAP TAIL MOUNT WITH PLASTIC ELECT. TAPE (MULTIPLE WRAPS) WHERE ELEVATOR MAKES CONTACT.

F



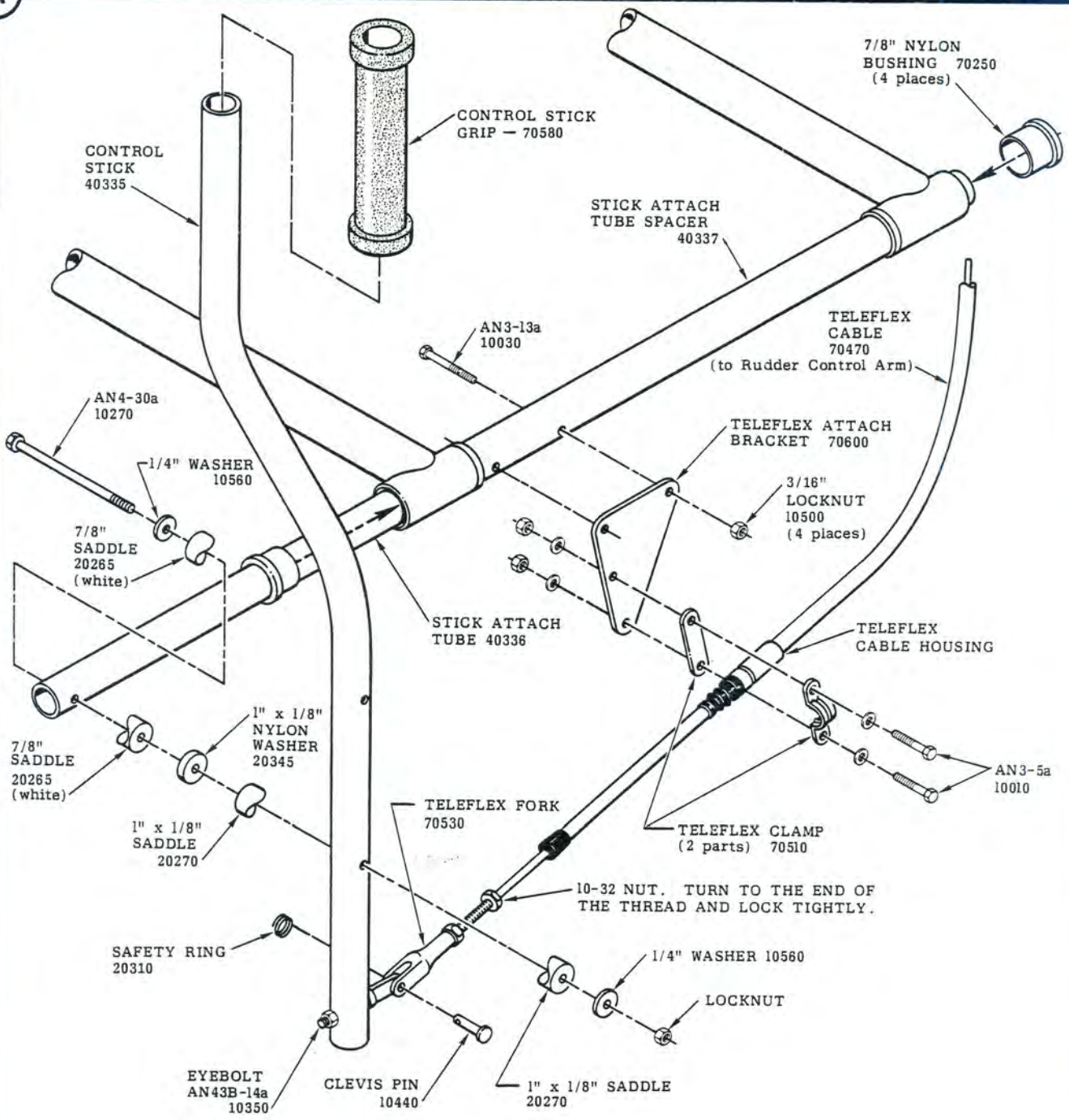
1. ATTACH TWO TAIL BRACES AS SHOWN WITH FOUR PIP PINS 10470
2. ATTACH RUDDER ASSEMBLY AS SHOWN WITH TWO PIP PINS 10460



(1) ATTACH SEAT MOUNT ASSEM. ON THE TRI-BAR. FOR PILOTS OVER 200 LBS, USE FORWARD ATTACH HOLE AND FOR PILOTS UNDER 200 LBS USE THE AFT ATTACH HOLE AS SHOWN.

(2) ATTACH SEAT SUPPORT DOWN TUBE 70350 TO THE ROOT TUBE AND THE SEAT SUPPORT AS SHOWN

(A)



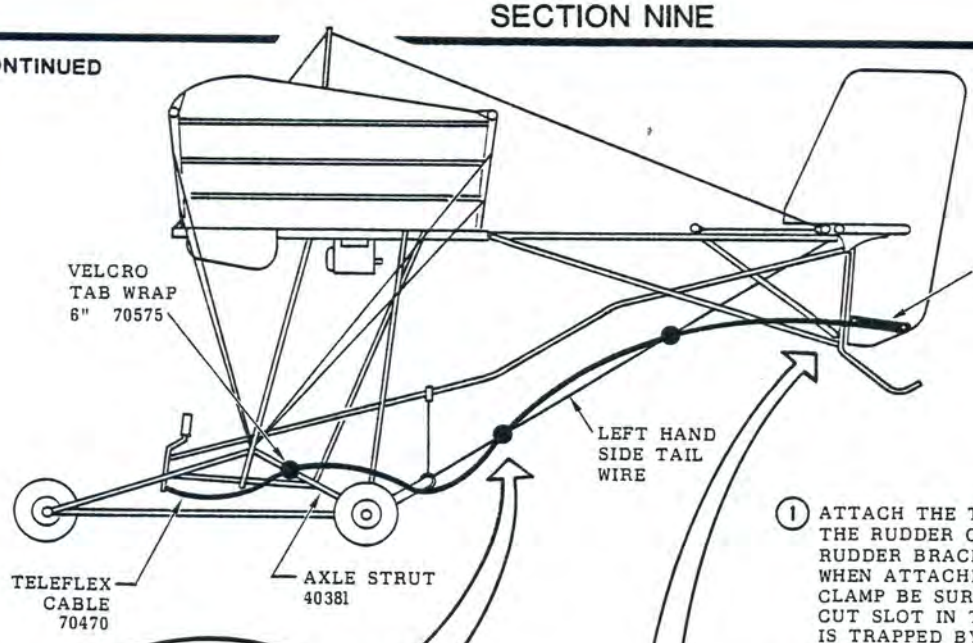
(1) INSTALL THE STICK ATTACH TUBE 40336, NYLON BUSHINGS 70250 AND THE STICK ATTACH TUBE SPACER 40337. APPLY DRY LUBE SO THAT THE TUBE TURNS FREELY IN THE BUSHINGS. GLUE THE TWO END BUSHINGS IN PLACE, THE TWO INSIDE BUSHINGS ARE LOCKED IN PLACE BY THE SPACER 40337.

(2) BE SURE THAT THE TAB IN THE TELEFLEX CLAMP 70510 SEATS IN THE UNDERCUT GROOVE IN THE TELEFLEX CABLE HOUSING

DETAIL "A" CONTINUED NEXT PAGE

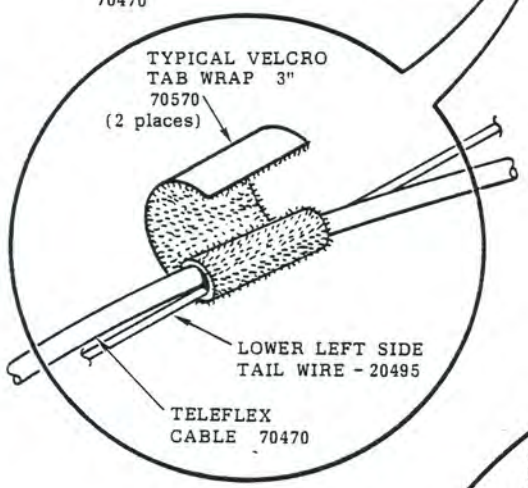
A

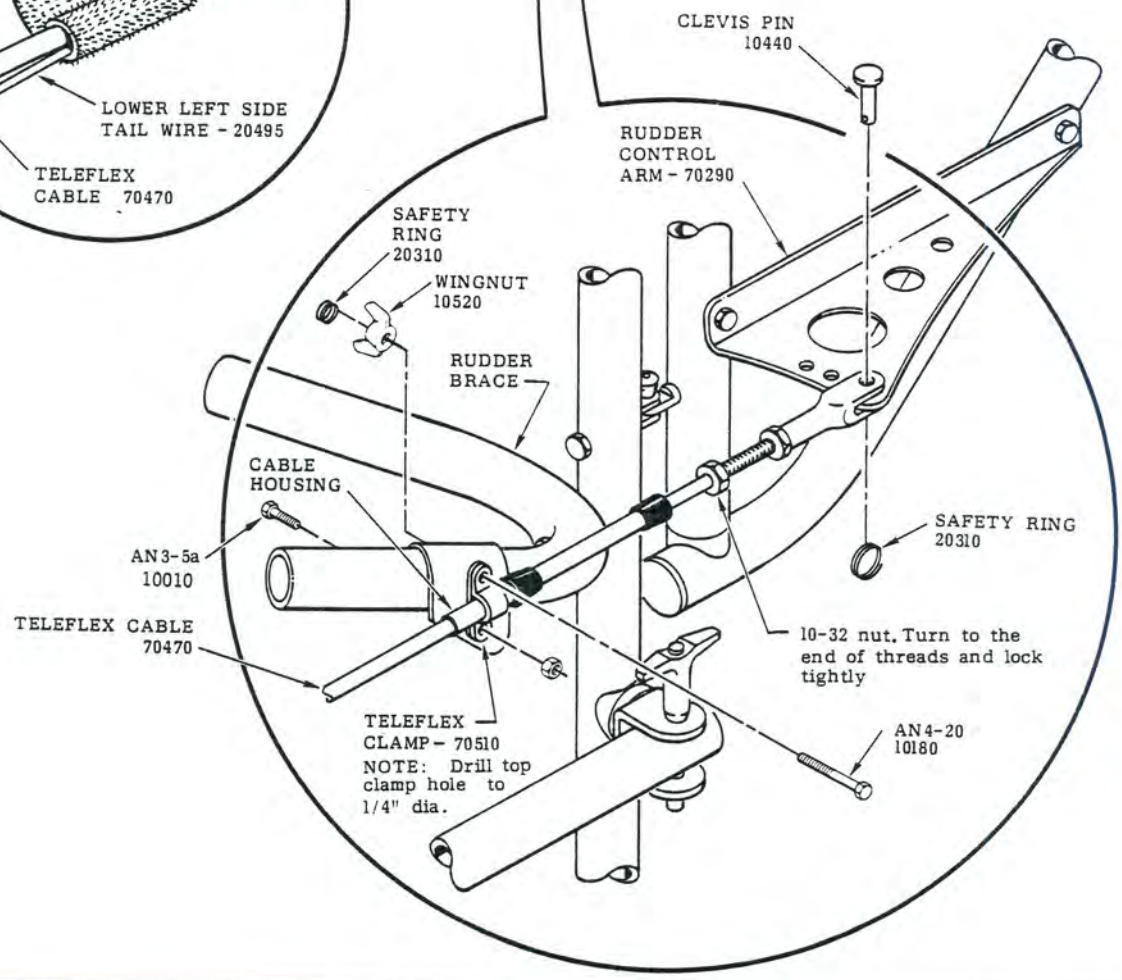
CONTINUED



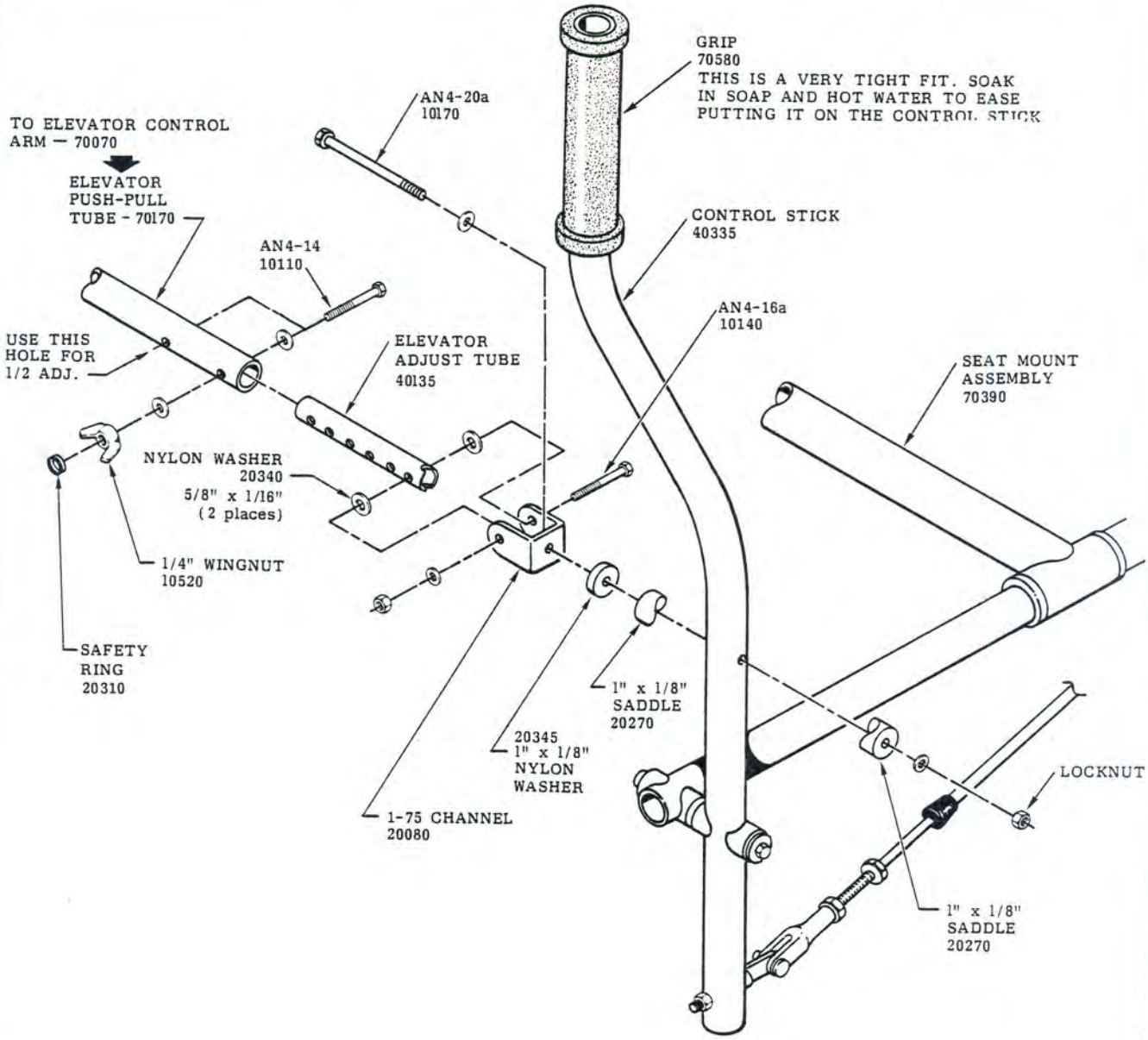
1. ATTACH THE TELEFLEX CABLE TO THE RUDDER CONTROL ARM AND THE RUDDER BRACE AS SHOWN BELOW. WHEN ATTACHING THE TELEFLEX CLAMP BE SURE THAT THE UNDER-CUT SLOT IN THE CABLE HOUSING IS TRAPPED BY THE TAB IN THE CLAMP.

2. SECURE THE TELEFLEX CABLE WITH VELCRO WRAP ALONG THE LEFT HAND SIDE TAIL WIRE AND THE AXLE STRUT IN THE APPROX. LOCATIONS AS SHOWN.





B

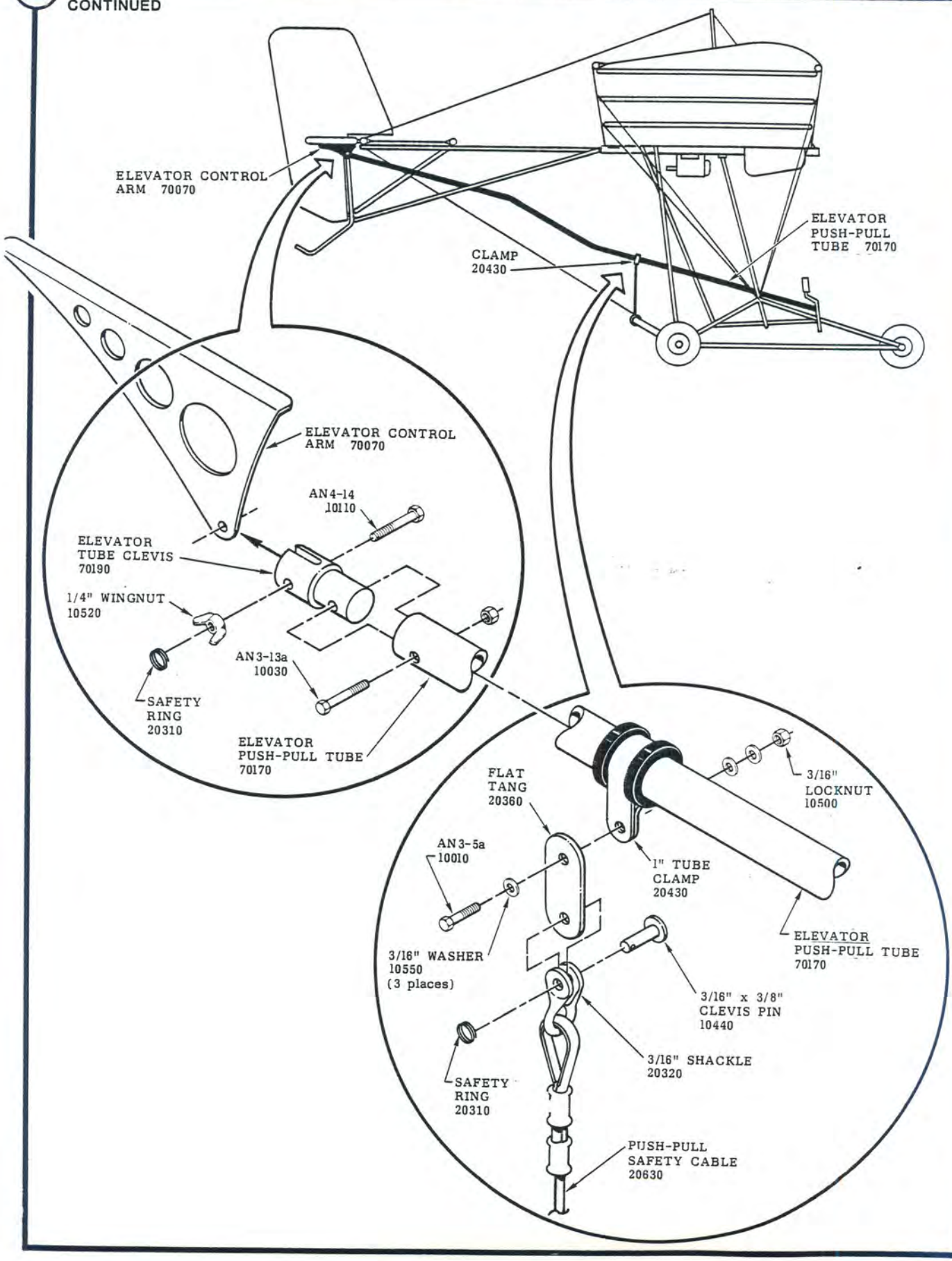


NOTE: FISH MOUTH FRONT END OF THE ELEVATOR ADJUST TUBE 40135 IN ORDER TO CLEAR THE 1-75 CHANNEL MOUNTING BOLT. THIS WILL ALLOW FULL TRAVEL OF THE ELEVATOR CONTROL ARM. (USE A RAT TAIL FILE).

DETAIL "B" CONTINUED NEXT PAGE

B

CONTINUED


ELEVATOR CONTROL ARM 70070
CLAMP 20430
ELEVATOR PUSH-PULL TUBE 70170
ELEVATOR CONTROL ARM 70070
AN4-14 10110
ELEVATOR TUBE CLEVIS 70190
1/4" WINGNUT 10520
AN3-13a 10030
SAFETY RING 20310
ELEVATOR PUSH-PULL TUBE 70170
FLAT TANG 20360
3/16" LOCKNUT 10500
AN3-5a 10010
1" TUBE CLAMP 20430
3/16" WASHER 10550 (3 places)
ELEVATOR PUSH-PULL TUBE 70170
3/16" x 3/8" CLEVIS PIN 10440
3/16" SHACKLE 20320
SAFETY RING 20310
PUSH-PULL SAFETY CABLE 20630

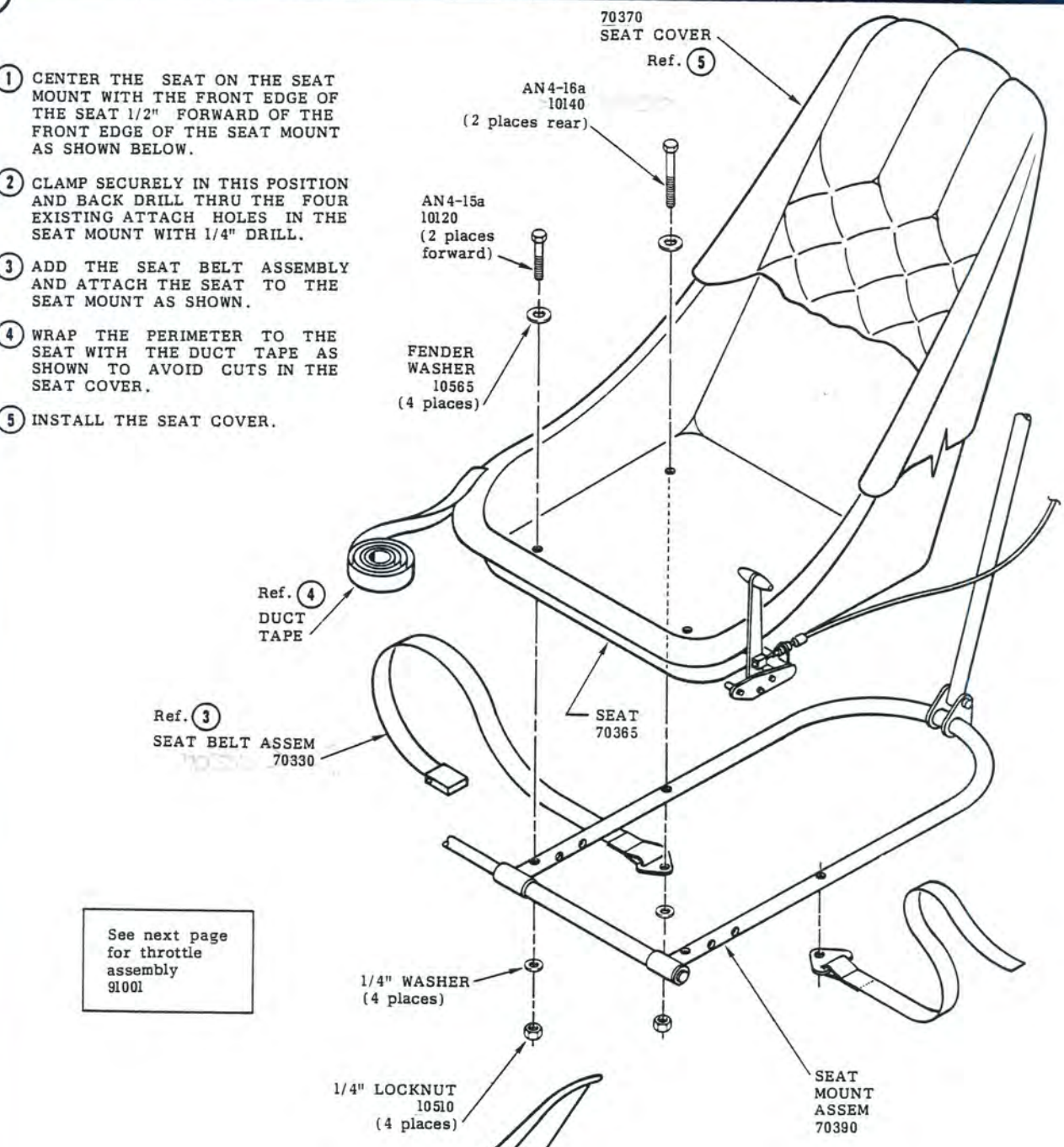
(1) CENTER THE SEAT ON THE SEAT MOUNT WITH THE FRONT EDGE OF THE SEAT 1/2" FORWARD OF THE FRONT EDGE OF THE SEAT MOUNT AS SHOWN BELOW.

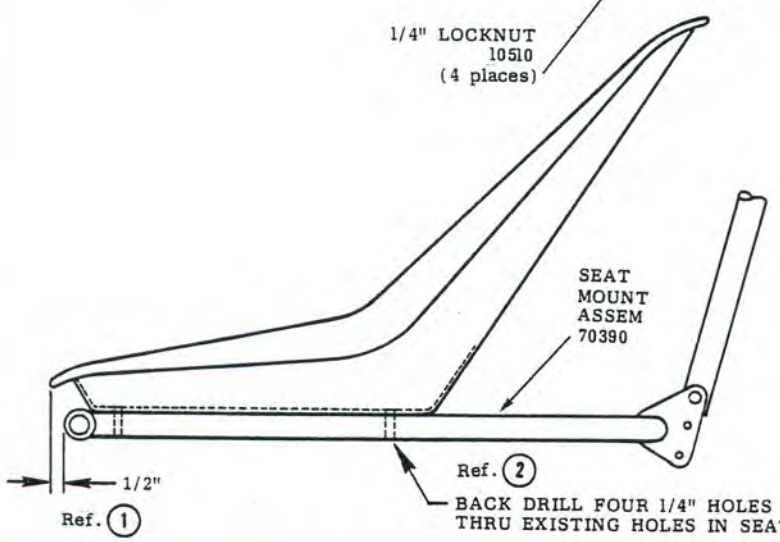
(2) CLAMP SECURELY IN THIS POSITION AND BACK DRILL THRU THE FOUR EXISTING ATTACH HOLES IN THE SEAT MOUNT WITH 1/4" DRILL.

(3) ADD THE SEAT BELT ASSEMBLY AND ATTACH THE SEAT TO THE SEAT MOUNT AS SHOWN.

(4) WRAP THE PERIMETER TO THE SEAT WITH THE DUCT TAPE AS SHOWN TO AVOID CUTS IN THE SEAT COVER.

(5) INSTALL THE SEAT COVER.

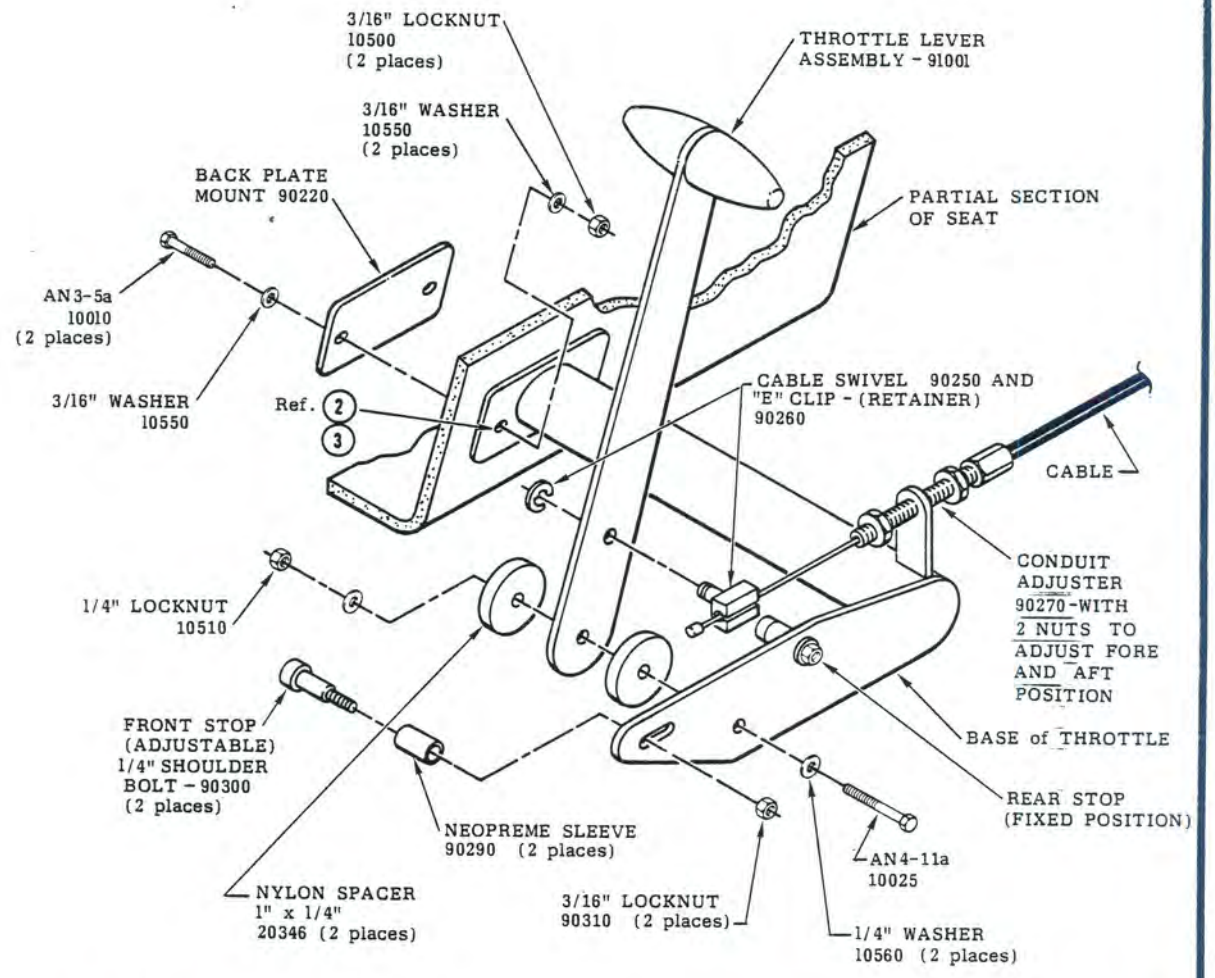




DETAIL "C" CONTINUED
ON NEXT PAGE

C

CONTINUED



TO ATTACH THE THROTTLE ASSEMBLY TO THE SEAT:

1. DRILL ONE 3/16" HOLE IN THE SEAT (FORWARD HOLE) TO THE DIMENSIONS SHOWN BELOW.
2. ATTACH THE THROTTLE THRU THIS HOLE AND ALIGN THE BASE OF THE THROTTLE PARALLEL TO THE BOTTOM OF THE SEAT.
3. NOW DRILL THE SECOND 3/16" HOLE (REAR) BY BACK DRILLING THRU THE EXISTING ATTACH HOLE IN THE THROTTLE MOUNTING PLATE.
4. SECURELY ATTACH THE THROTTLE ASSEMBLY.

FWD.

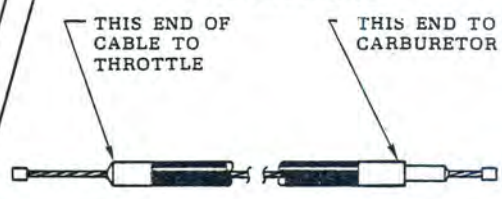
NOTE:

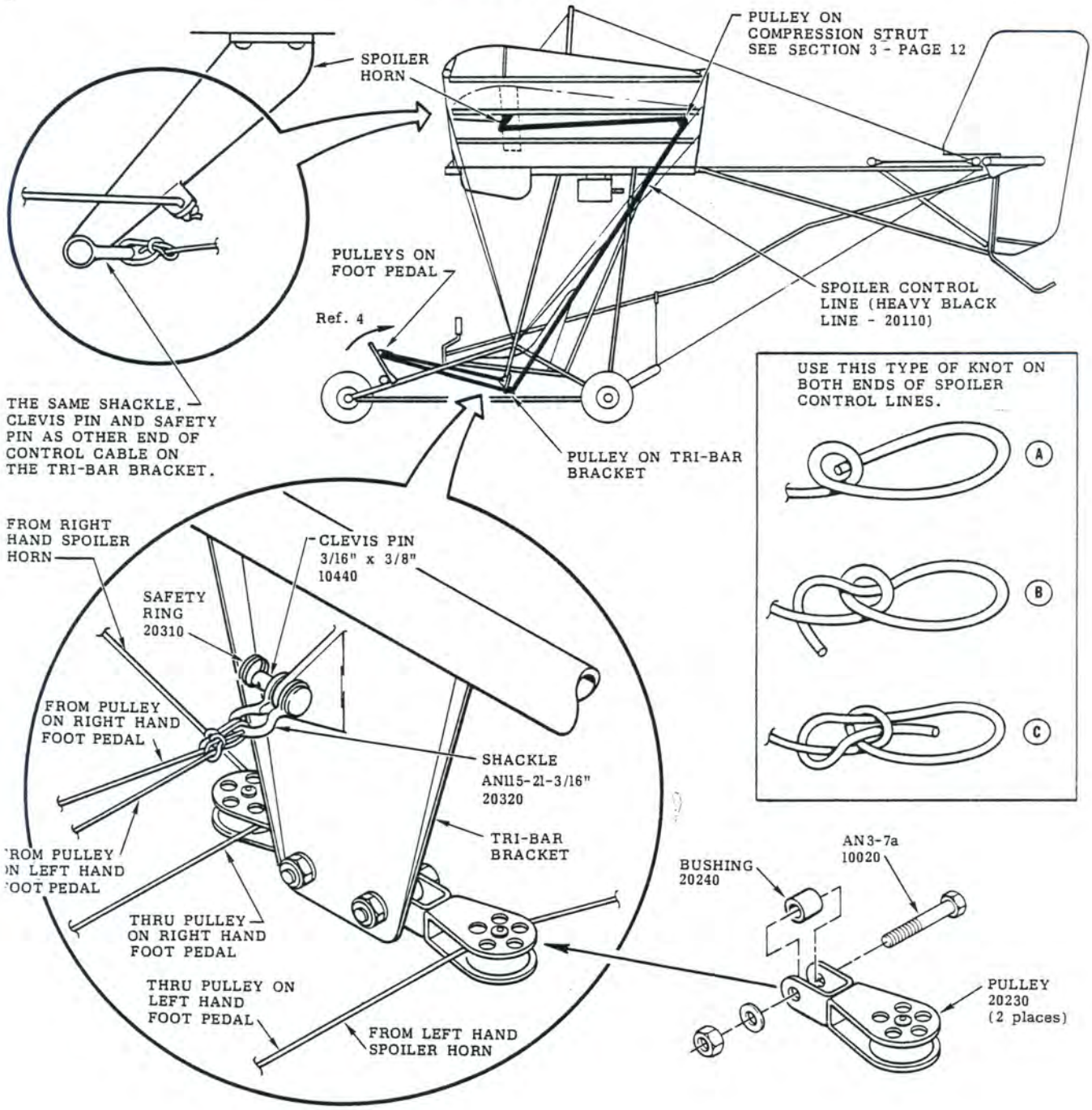
AFTER ASSEMBLY IS COMPLETED, ADJUST THE CABLE AS FOLLOWS:

PULL THE THROTTLE LEVER FULLY AFT. NOW PULL THE CONDUIT ADJUSTER AFT UNTIL THE CABLE WIRE IS TAUT. NOW LOCK THE ADJUSTER IN PLACE WITH THE 2 ADJUSTING NUTS. PUSH LEVER FORWARD AS FAR AS THE CABLE WILL GO. ADJUST AND LOCK FRONT STOP TO THIS LEVER POSITION



NOTE DIFFERENCE





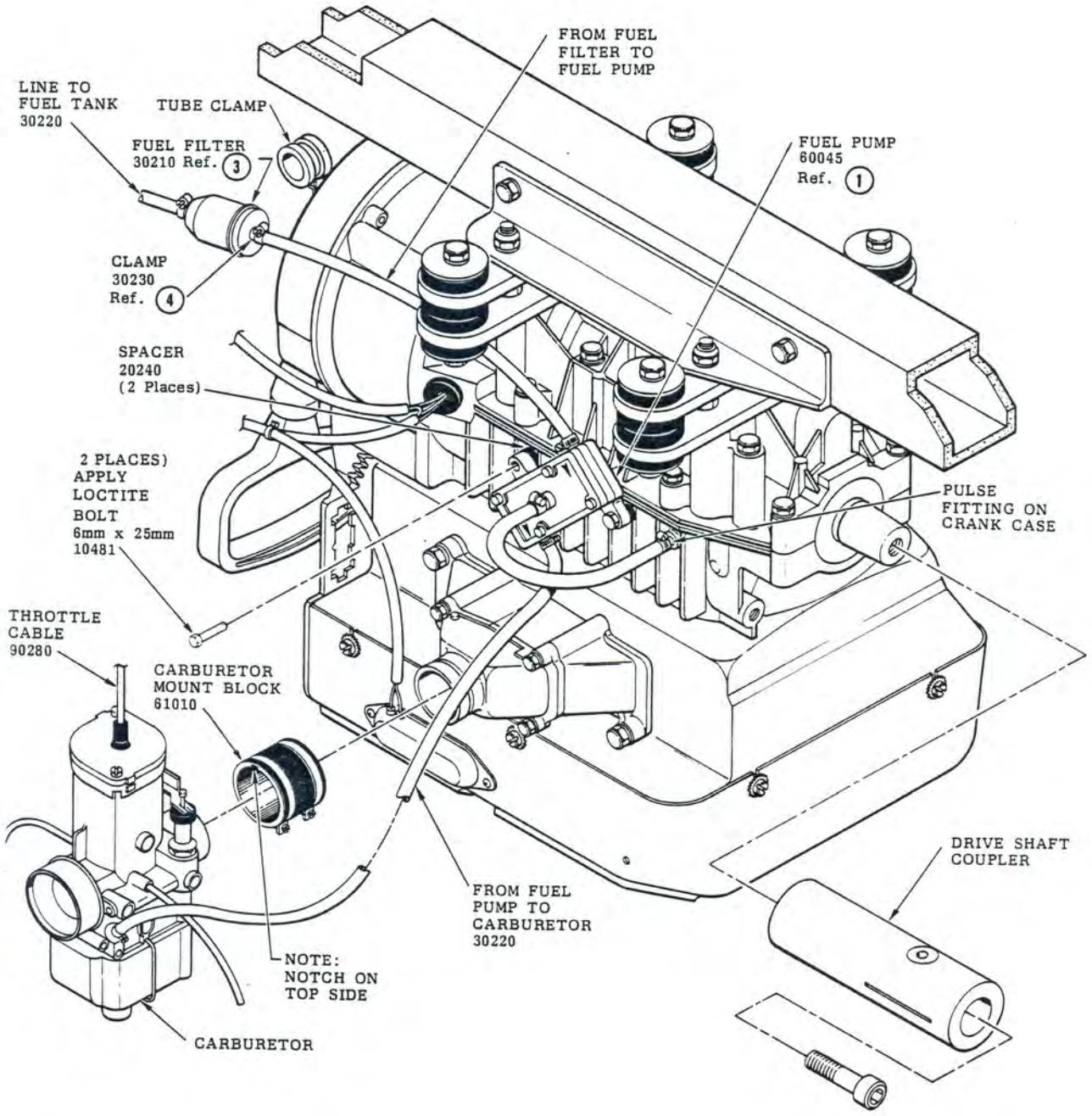
(1) TIE ONE END OF THE SPOILER CONTROL CABLE (LINE) TO THE SHACKLE ON THE SPOILER HORN.

(2) ROUTE THE LINE THRU THE PULLEY ON THE COMPRESSION STRUT. (SEE SECTION 5 - PAGE 24)

(3) NOW RUN THE LINE DIRECTLY DOWN AND INBOARD THRU THE PULLEY ON THE TRI-BAR BRACKET. FROM THIS POINT TAKE THE LINE FORWARD THRU THE PULLEY ON THE FOOT PEDAL AND BACK TO THE SHACKLE ON THE TRI-BAR BRACKET.

(4) WITH THE TIP OF THE FOOT PEDAL AS FAR BACK AS THE STOP ALLOWS, TAKE ALL THE SLACK OUT OF THE LINE AND TIE THE END OF THE LINE TO THE SHACKLE ON THE TRI-BAR BRACKET.

(5) ATTACH BOTH RIGHT AND LEFT HAND SPOILER LINES IN THIS SAME MANNER.

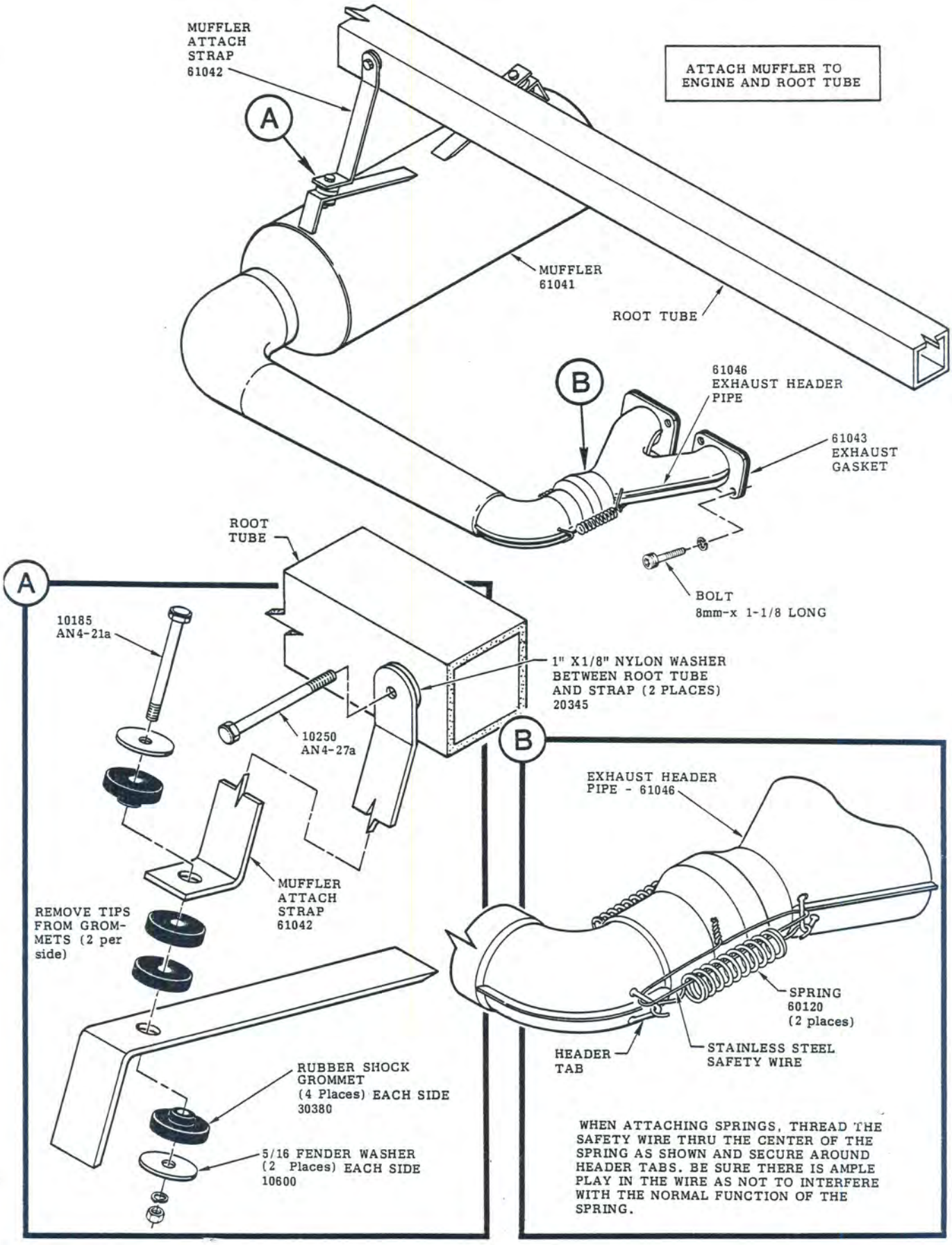


(1) ATTACH THE CARBURETOR ASSEMBLY AND FUEL PUMP AS SHOWN, WHEN MOUNTING THE FUEL PUMP BE SURE THE FUEL FLOW DIRECTION IS CORRECT AS INDICATED BY THE ARROWS ON TOP OF THE PUMP.

(2) ROUTE THE FILTER FUEL LINE AND ELECTRICAL WIRES THRU THE TUBE CLAMP AS SHOWN BACK ON PAGE FOUR.

(3) INSTALL THE FUEL FILTER WITH THE TAPERED END TOWARDS THE FUEL TANK AND BE SURE ALL FUEL LINE ENDS ARE SECURED WITH CLAMPS 30230.

(4) THE DRIVE SHAFT COUPLER IS INSTALLED AT THE FACTORY. IF FOR ANY REASON IT HAS TO BE REMOVED AT A LATER DATE FOR REPLACEMENT, ETC., BE SURE AND USE A SHAFT PULLER. DO NOT PRY AGAINST THE SHAFT, ENGINE FACE OR BEARING SEAL AS DAMAGE MAY OCCUR.


MUFFLER ATTACH STRAP 61042
A
ATTACH MUFFLER TO ENGINE AND ROOT TUBE
MUFFLER 61041
ROOT TUBE
B
61046 EXHAUST HEADER PIPE
61043 EXHAUST GASKET
BOLT 8mm-x 1-1/8 LONG
ROOT TUBE
A
10185 AN4-21a
1" X1/8" NYLON WASHER BETWEEN ROOT TUBE AND STRAP (2 PLACES) 20345
10250 AN4-27a
MUFFLER ATTACH STRAP 61042
REMOVE TIPS FROM GROM-METS (2 per side)
RUBBER SHOCK GROMMET (4 Places) EACH SIDE 30380
5/16 FENDER WASHER (2 Places) EACH SIDE 10600
B
EXHAUST HEADER PIPE - 61046
SPRING 60120 (2 places)
HEADER TAB
STAINLESS STEEL SAFETY WIRE
WHEN ATTACHING SPRINGS, THREAD THE SAFETY WIRE THRU THE CENTER OF THE SPRING AS SHOWN AND SECURE AROUND HEADER TABS. BE SURE THERE IS AMPLE PLAY IN THE WIRE AS NOT TO INTERFERE WITH THE NORMAL FUNCTION OF THE SPRING.

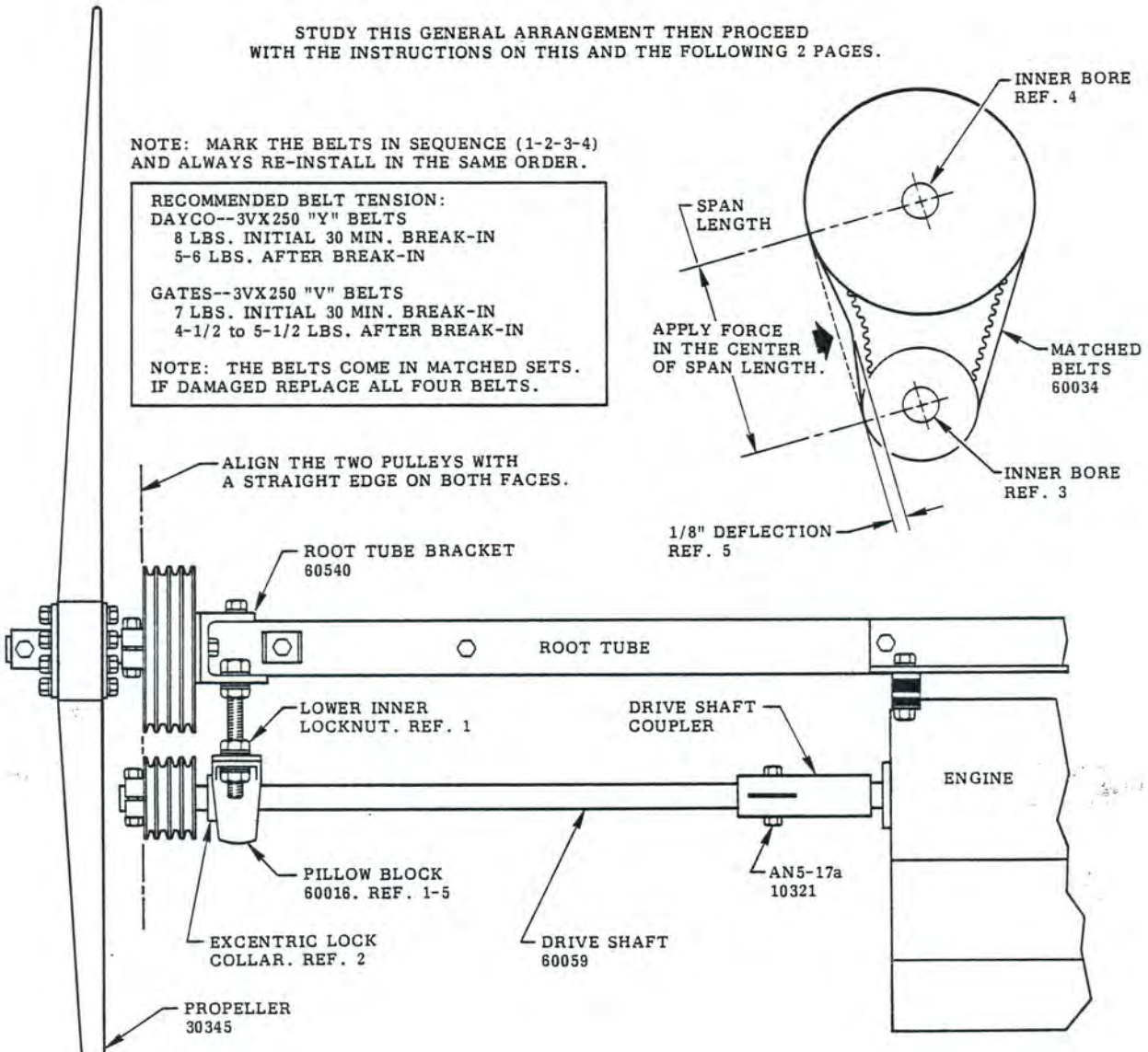
STUDY THIS GENERAL ARRANGEMENT THEN PROCEED
WITH THE INSTRUCTIONS ON THIS AND THE FOLLOWING 2 PAGES.

NOTE: MARK THE BELTS IN SEQUENCE (1-2-3-4)
AND ALWAYS RE-INSTALL IN THE SAME ORDER.

RECOMMENDED BELT TENSION:
DAYCO--3VX250 "Y" BELTS
8 LBS. INITIAL 30 MIN. BREAK-IN
5-6 LBS. AFTER BREAK-IN

GATES--3VX250 "V" BELTS
7 LBS. INITIAL 30 MIN. BREAK-IN
4-1/2 to 5-1/2 LBS. AFTER BREAK-IN

NOTE: THE BELTS COME IN MATCHED SETS.
IF DAMAGED REPLACE ALL FOUR BELTS.



USE THESE INSTRUCTIONS WITH THE BREAKDOWN VIEW ON THE NEXT PAGE.

(1) SLIP THE PILLOW BLOCK 60016 ON THE DRIVE SHAFT AND SECURE IN PLACE WITH ALL ATTACHING HARDWARE AS SHOWN. LEAVE LOWER INNER LOCKNUT LOOSE UNTIL BELTS ARE ATTACHED.

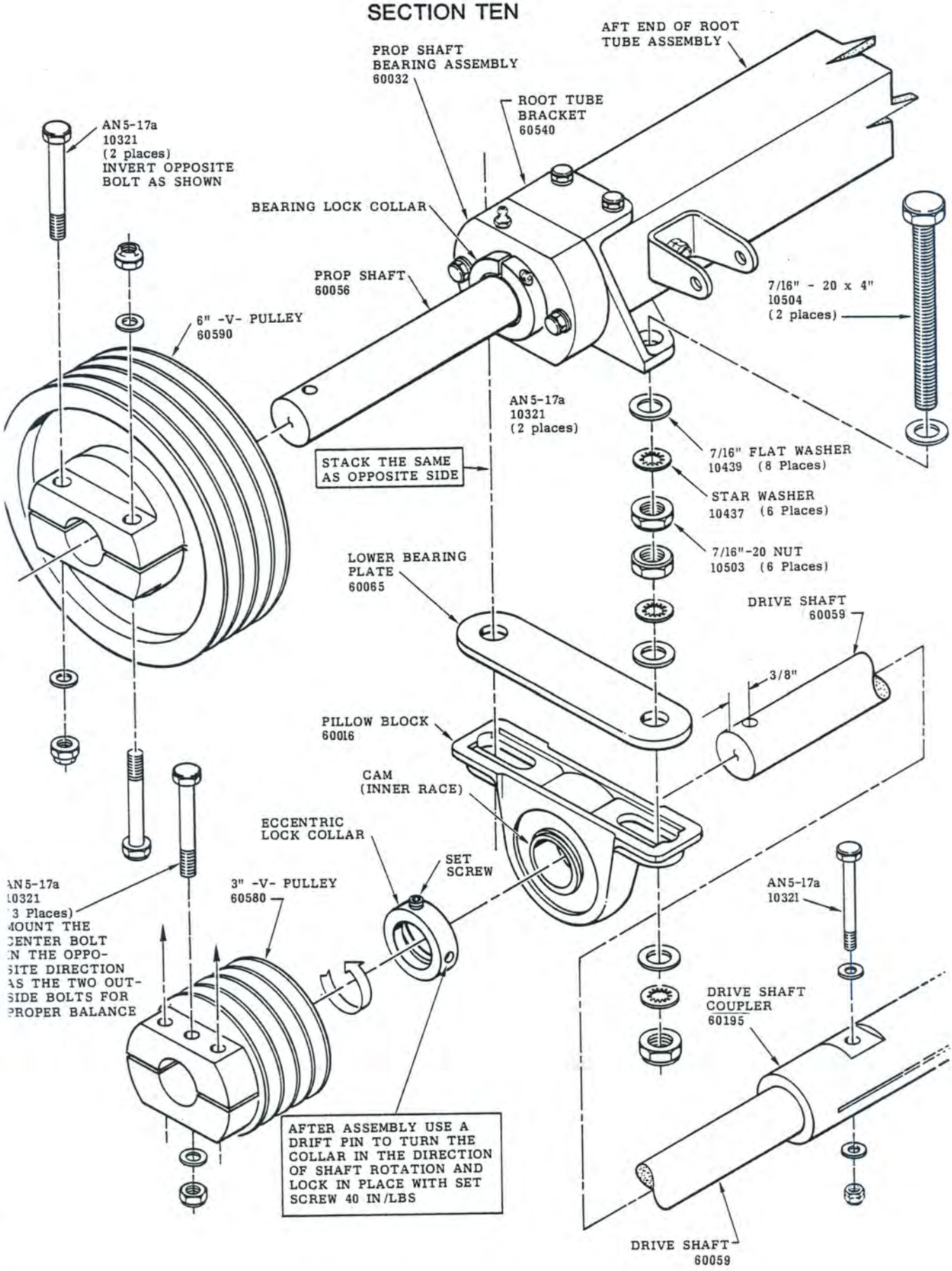
(2) SLIDE THE EXCENTRIC LOCK COLLAR ON THE DRIVE SHAFT TO THE POSITION WHERE IT ENGAGES THE CAM ON THE PILLOW BLOCK INNER RACE. ROTATE THE COLLAR UNTIL IT SLIDES OVER THE CAMMED END OF THE INNER RACE. LOCK COLLAR BY TAPPING LIGHTLY WITH A DRIFT PIN IN THE DIRECTION OF SHAFT ROTATION AND TIGHTEN SET SCREW.

(3) APPLY LOCTITE TO INNER BORE OF THE 3" PULLEY AND SLIDE IT ON THE DRIVE SHAFT. SECURE WITH 3 BOLTS: MOUNT THE CENTER BOLT IN THE OPPOSITE DIRECTION AS THE OUTSIDE BOLTS FOR PROPER BALANCE. TORQUE TO 140 INCH LBS.

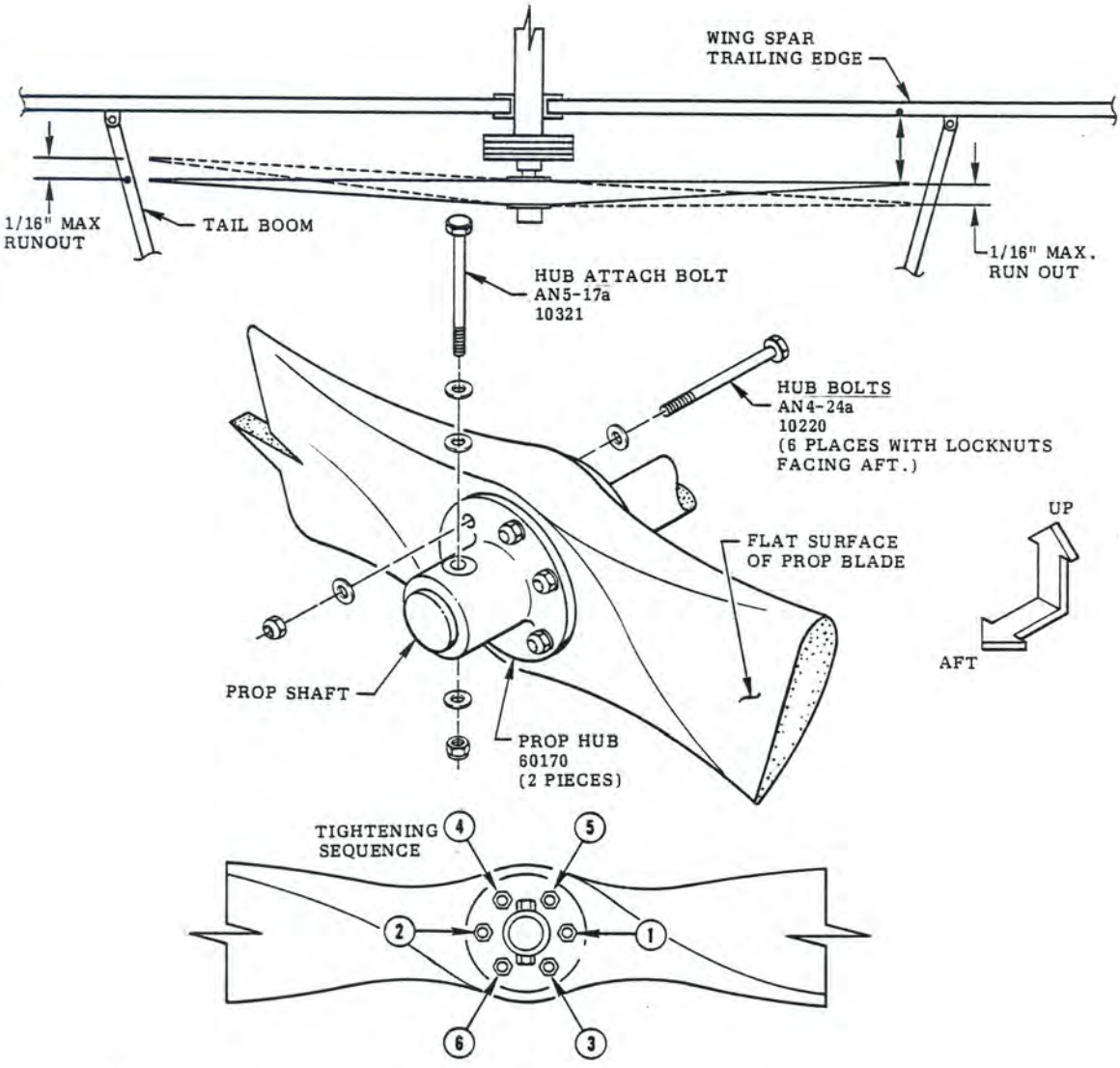
(4) APPLY LOCKTITE TO THE INNER BORE OF THE 6" PULLEY AND SLIDE IT ONTO THE PROP SHAFT. MOUNT BELTS AND ALIGN THE 2 PULLEYS WITH A STRAIGHT EDGE AS SHOWN. ATTACH 6" PULLEY WITH 2 BOLTS MOUNTED IN OPPOSITE DIRECTIONS (FOR BALANCE) AND TORQUE TO 140 INCE LBS.

(5) ADJUST BELT TENSION AND LOCK PILLOW BLOCK IN PLACE.

CONTINUED ON NEXT PAGE.


AFT END OF ROOT TUBE ASSEMBLY
PROP SHAFT BEARING ASSEMBLY 60032
ROOT TUBE BRACKET 60540
AN5-17a 10321 (2 places) INVERT OPPOSITE BOLT AS SHOWN
BEARING LOCK COLLAR
PROP SHAFT 60056
6" -V- PULLEY 60590
7/16" - 20 x 4" 10504 (2 places)
AN5-17a 10321 (2 places)
STACK THE SAME AS OPPOSITE SIDE
7/16" FLAT WASHER 10439 (8 Places)
STAR WASHER 10437 (6 Places)
7/16"-20 NUT 10503 (6 Places)
LOWER BEARING PLATE 60065
DRIVE SHAFT 60059
3/8"
PILLOW BLOCK 60016
CAM (INNER RACE)
ECCENTRIC LOCK COLLAR
SET SCREW
AN5-17a 10321 (3 Places) MOUNT THE CENTER BOLT IN THE OPPOSITE DIRECTION AS THE TWO OUTSIDE BOLTS FOR PROPER BALANCE
3" -V- PULLEY 60580
AN5-17a 10321
DRIVE SHAFT COUPLER 60195
AFTER ASSEMBLY USE A DRIFT PIN TO TURN THE COLLAR IN THE DIRECTION OF SHAFT ROTATION AND LOCK IN PLACE WITH SET SCREW 40 IN/LBS
DRIVE SHAFT 60059

TO CHECK THE RUNOUT ON THE PROP, MEASURE FROM A FIXED POINT ON THE TRAILING EDGE SPAR OR THE TAIL BOOM.

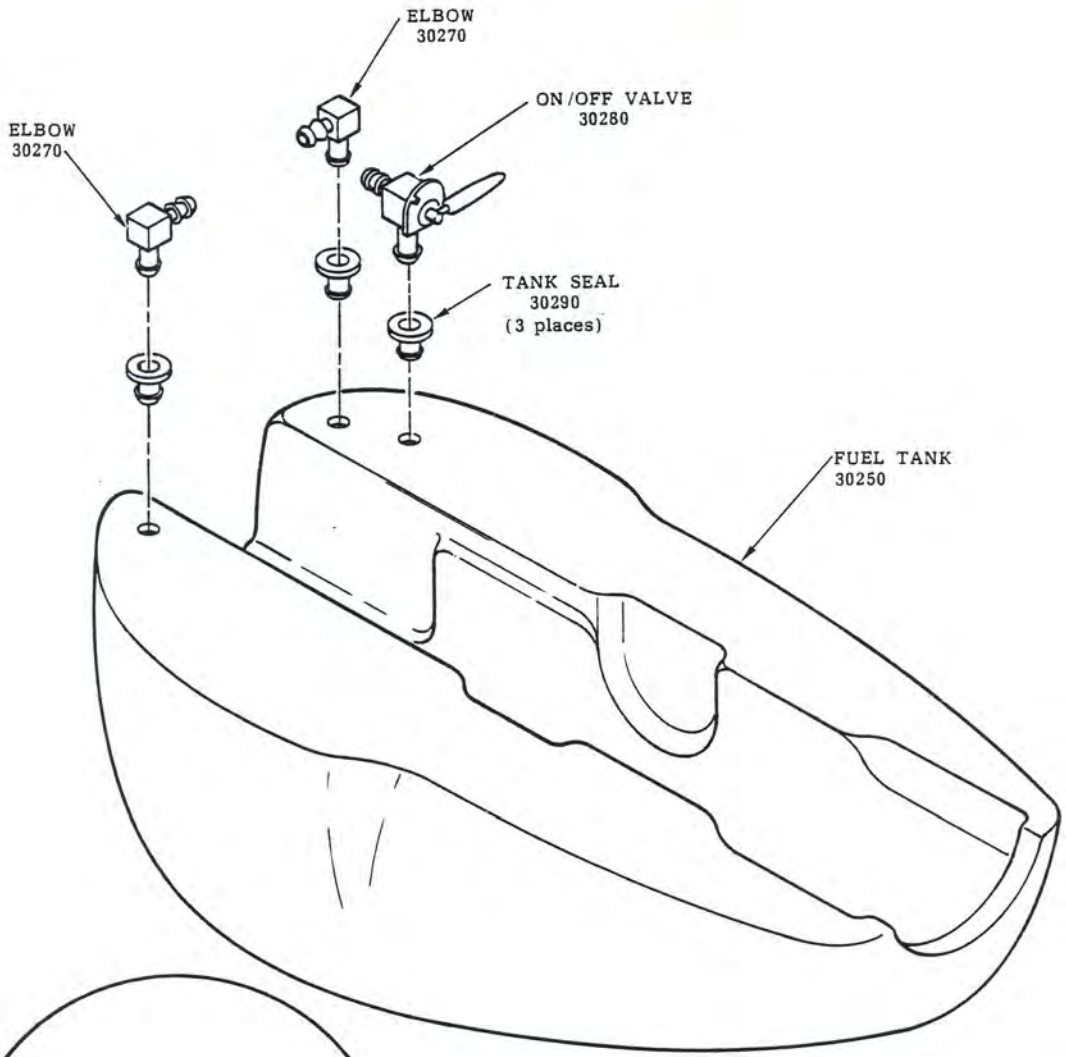


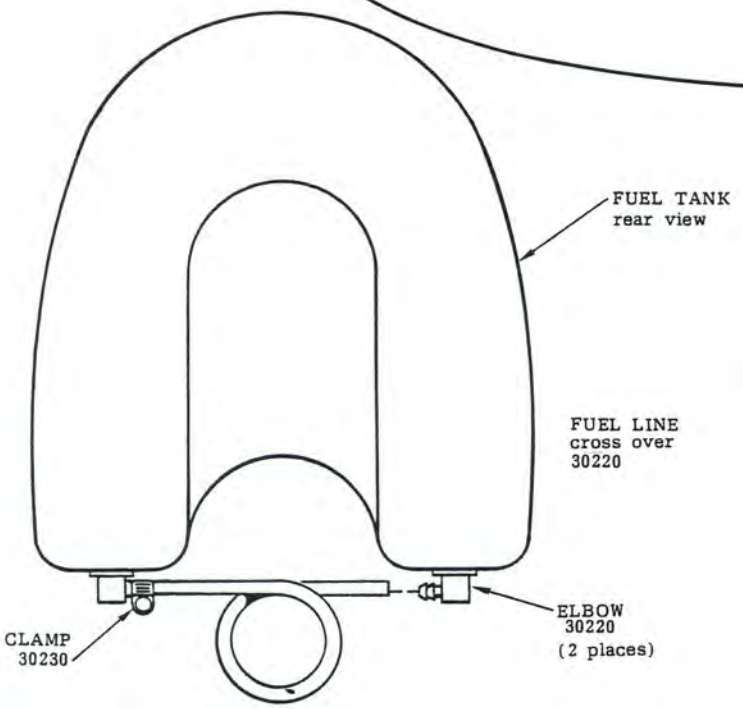
(1) ASSEMBLE THE PROP AND PROP HUB (2 PIECES) AS SHOWN AND MOUNT ON THE PROP SHAFT. BE SURE YOU HAVE THE FLAT SURFACE OF THE PROP BLADE FACING AFT.

(2) TORQUE THE HUB BOLTS, 10220 TO 30-50 IN. LBS. (6 PLACES)
TORQUE THE HUB ATTACH BOLT, 10321, TO 140 - 150 IN. LBS.
USE THE PROPER SEQUENCE, 1 THRU 6 AS SHOWN ABOVE WHEN TIGHTENING THE PROP BOLTS.
IF FOR ANY REASON YOU HAVE TO REMOVE THE HUB FROM THE SHAFT AT A LATER TIME, REPLACE THE LOCKNUT ON THE ATTACH BOLT 10321 WITH A NEW LOCKNUT.

(3) IF THE PROPELLOR HAS EXCESSIVE RUNOUT, TIGHTEN 3 BOLTS (10220 TOWARDS ONE TIP OR THE OTHER TO BRING BOTH TIPS INTO PROPER TRACK. USE A FIXED MARK ON THE WING SPAR OR TAIL BOOM TO MEASURE RUNOUT.

(4) NOTE:
AFTER THE PROP HUB HAS HAD A CHANCE TO "SEAT" ITSELF (24 HRS. OR MORE) RETIGHTEN THE HUB BOLTS 10220 WITH THE SAME PROCEDURE AS ABOVE.

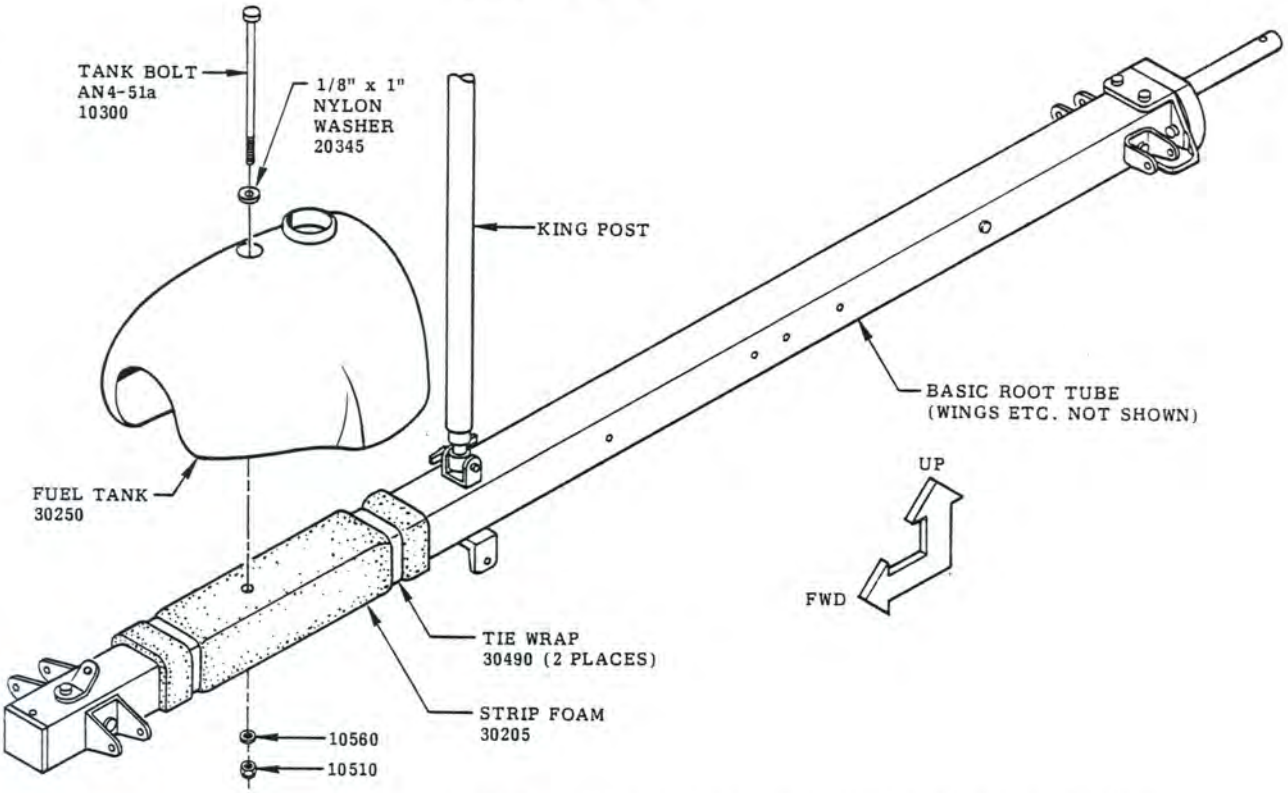




PUT A LOOP IN THE CROSS OVER FUEL LINE APX. AS SHOWN. THIS WILL GIVE YOU A VISUAL REFERANCE IF THERE IS WATER OR SEDIMATE IN THE FUEL.

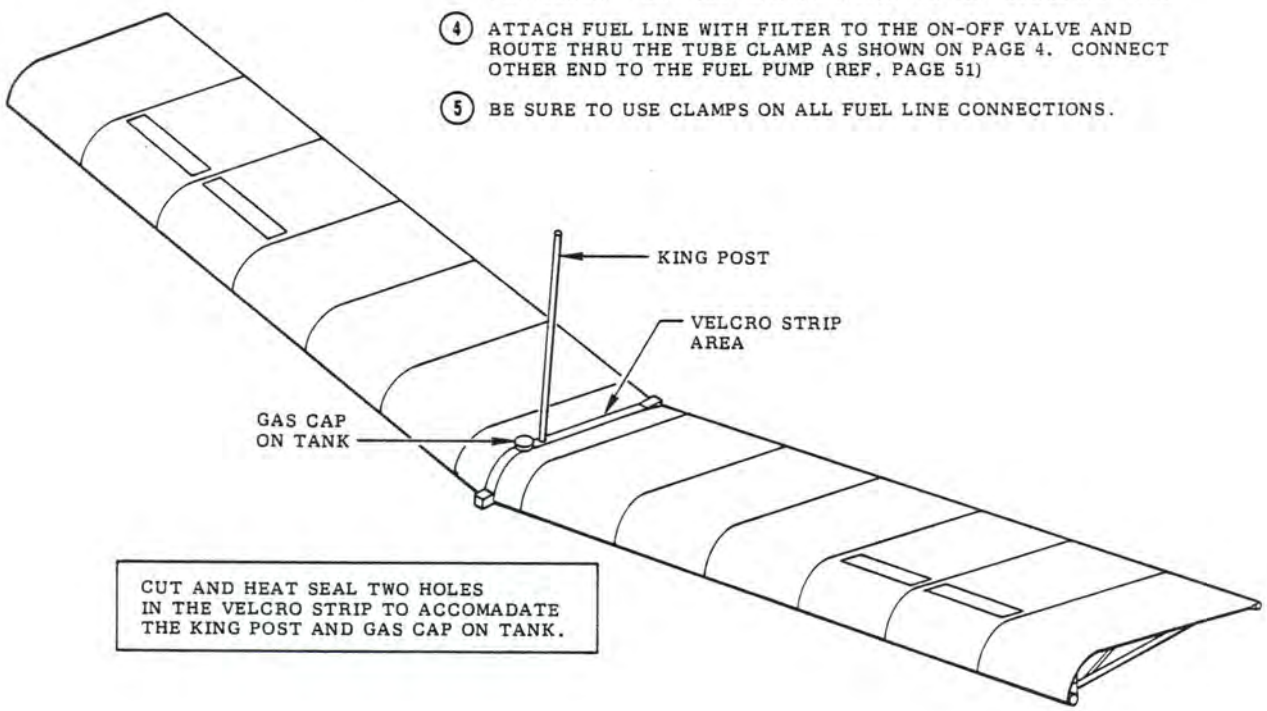
(1) INSERT THE VALVE, ELBOWS AND SEALS IN THE FUEL TANK IN THE POSITIONS SHOWN. USE OIL TO EASE THE INSTALLATION.

(2) CLAMP ONE END OF THE CROSS OVER FUEL LINE TO ONE OF THE ELBOWS. AFTER THE FUEL TANK IS ATTACHED TO THE ROOT TUBE CLAMP ON THE OTHER END OF THE CROSS OVER FUEL LINE TO THE OPPOSITE ELBOW



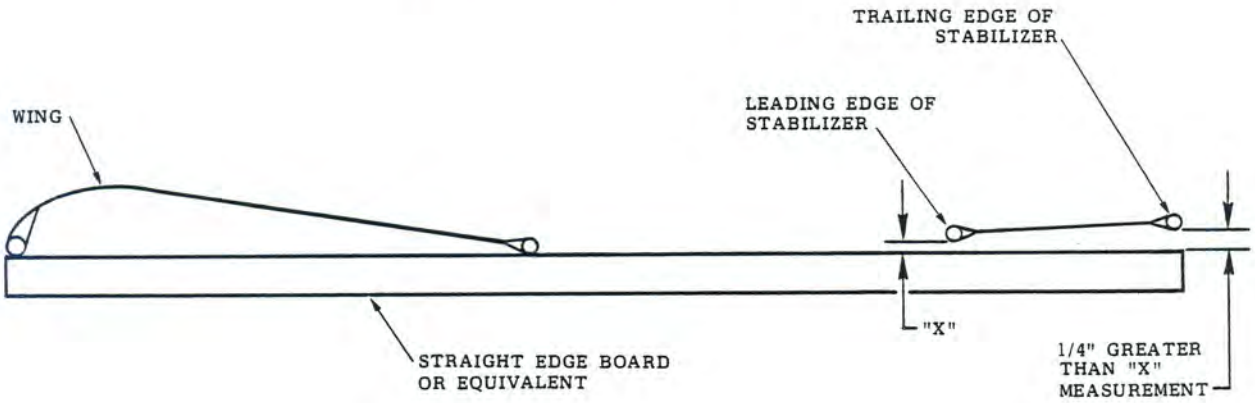
TO VISUALLY SIMPLIFY THE INSTALLATION OF THE GAS TANK, THE WINGS ETC ARE NOT SHOWN IN THE ABOVE ILLUSTRATION.

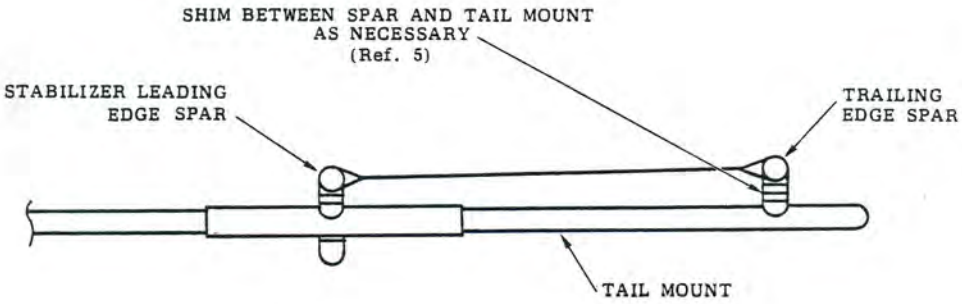
1. WRAP STRIP FOAM ON THE ROOT TUBE AS SHOWN AND SECURE WITH TWO TIE WRAPS.
2. CUT A HOLE IN THE STRIP FOAM TO ACCEPT THE TANK BOLT.
3. ATTACH TANK AS SHOWN AND CONNECT THE LOOSE END OF THE CROSS OVER FUEL LINE AS INDICATED ON PROCEDING PAGE.
4. ATTACH FUEL LINE WITH FILTER TO THE ON-OFF VALVE AND ROUTE THRU THE TUBE CLAMP AS SHOWN ON PAGE 4. CONNECT OTHER END TO THE FUEL PUMP (REF. PAGE 51)
5. BE SURE TO USE CLAMPS ON ALL FUEL LINE CONNECTIONS.



CUT AND HEAT SEAL TWO HOLES IN THE VELCRO STRIP TO ACCOMADATE THE KING POST AND GAS CAP ON TANK.

WING/STABILIZER INCIDENCE



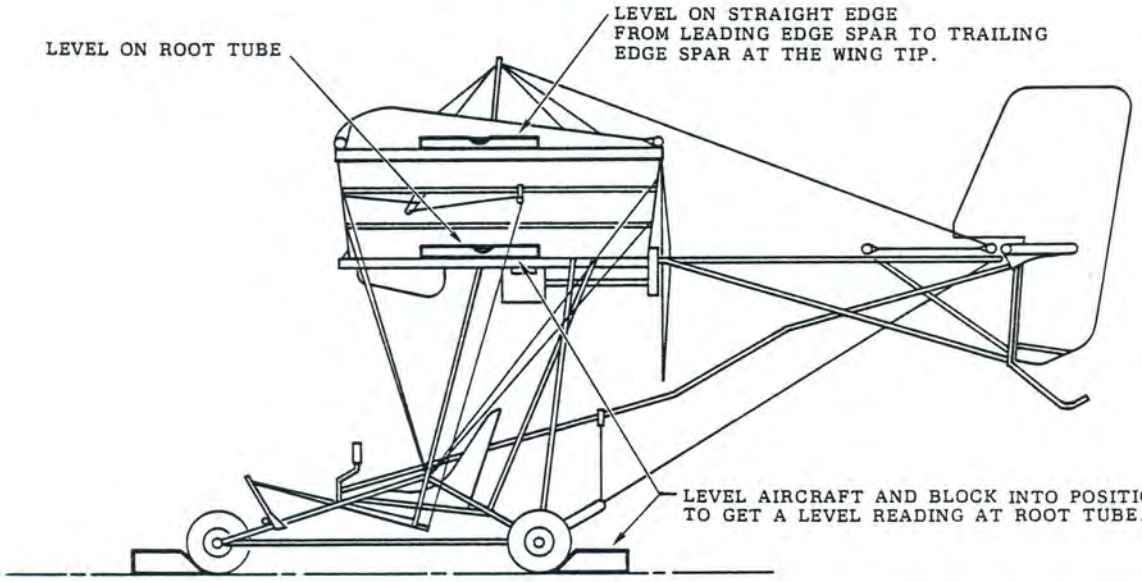


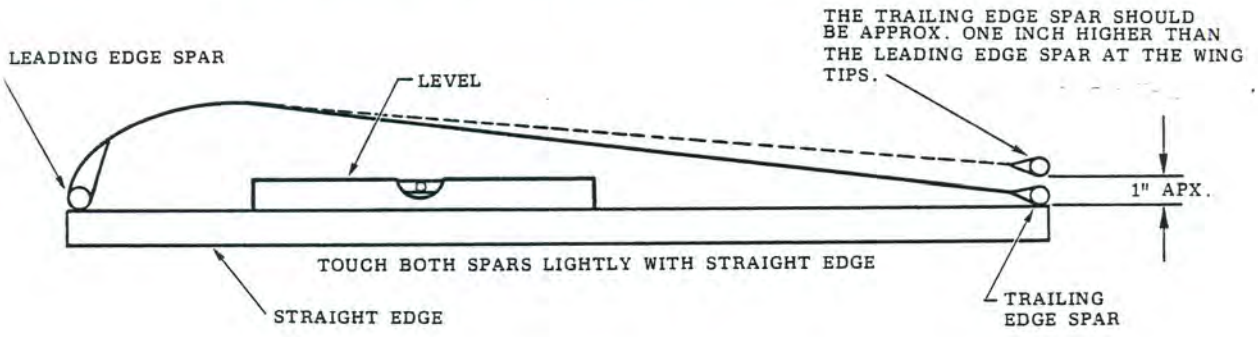
1. TO MEASURE THE INCIDENCE, WEIGHT THE NOSE WHEEL TO THE GROUND SO THAT THE UPPER TAIL WIRES ARE TAUT.
2. MAKE SURE THE KING POST IS ADJUSTED TO REMOVE ALL SLACK FROM WIRES.
3. PLACE A STRAIGHT EDGE ACROSS THE BOTTOM OF THE WING SPARS NEAR THE ROOT OF THE WING. THE STRAIGHT EDGE SHOULD LIGHTLY TOUCH BOTH SPARS AND CONTINUE BACK UNDER BOTH STABILIZER SPARS. (2 PEOPLE ON THIS OPERATION.)
4. STABILIZER TRAILING EDGE SHOULD BE 1/4" HIGHER THAN THE STABILIZER LEADING EDGE.
5. IF YOU DO NOT GET THE PROPER DIFFERENCE, IT WILL BE NECESSARY TO SHIM THE STABILIZER SPARS WITH WASHERS TO ACHIEVE THE PROPER ANGLE.
6. LONGER BOLTS (AN-40a) AND EXTRA 1/4" NYLON WASHERS ARE PROVIDED IN KIT FOR THIS.

NOTE:

DO NOT NEGLECT THIS PROCEDURE. IT HAS AN EFFECT ON FLIGHT PERFORMANCE.

WING WASHOUT





(1) LEVEL AND BLOCK THE AIRCRAFT AS SHOWN ABOVE TO GET A LEVEL READING ACROSS THE ROOT TUBE FORWARD AND AFT.

(2) USE SAME LEVEL ON A STRAIGHT EDGE TO GET READING AT WING TIPS FORWARD AND AFT. AS SHOWN ABOVE.

CORRECT WING WASHOUT IS AN IMPORTANT FACTOR IN THE STALLING CHARACTERISTICS AND LOW SPEED HANDLING OF YOUR AIRCRAFT. WASHOUT 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.

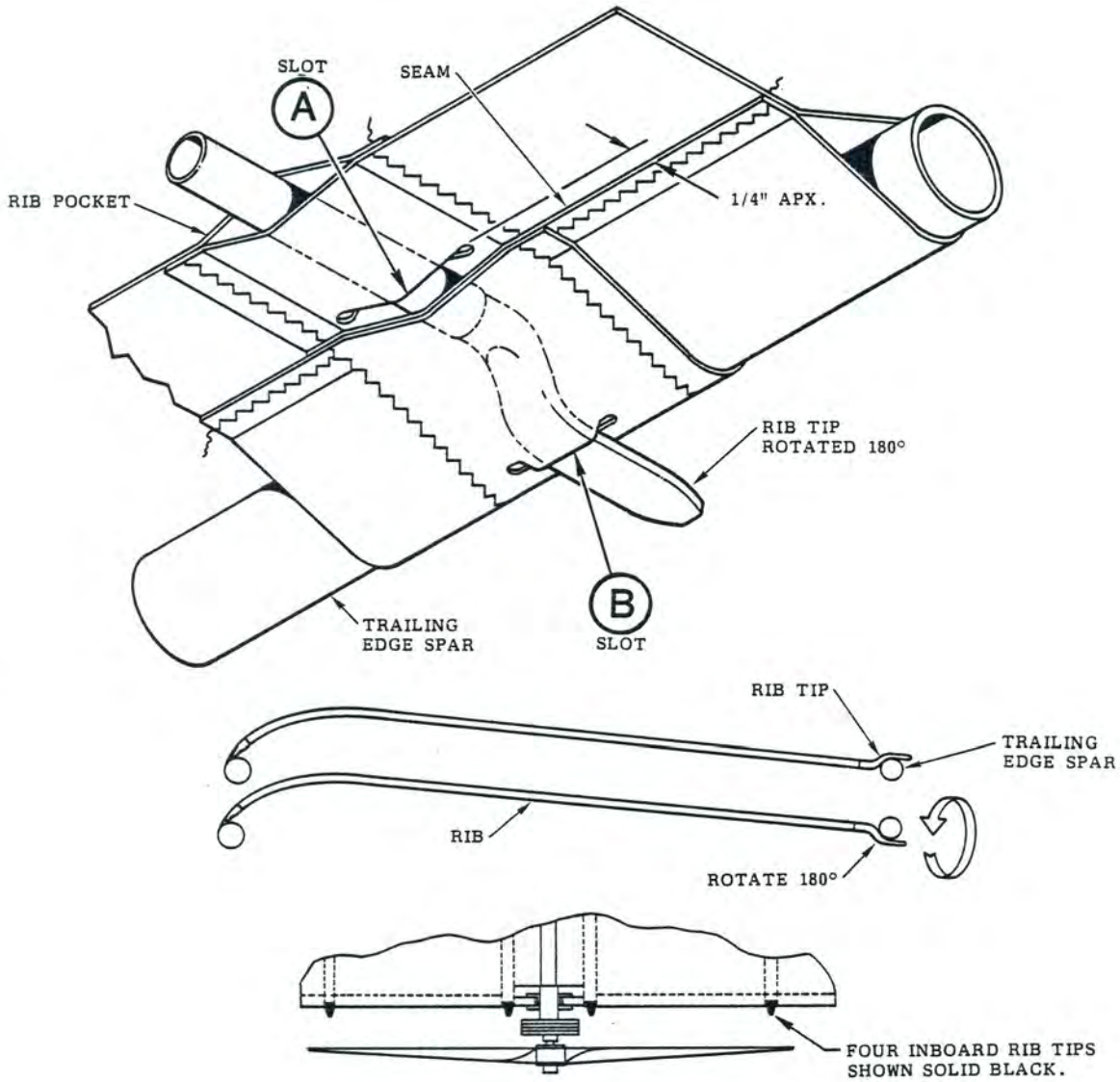
(3) MAKE SURE THE KING POST IS ADJUSTED AND ALL THE SLACK IS OUT OF THE WIRES.

(4) CHECK ALL WIRES FOR IMPROPER LOCATION, TWIST ETC.

WASHOUT AT THE TRAILING EDGE APX. 1"

IF PROBLEMS OCCUR FEEL FREE TO CONTACT YOUR DEALER.

UNDERSIDE VIEW OF RIB POCKET

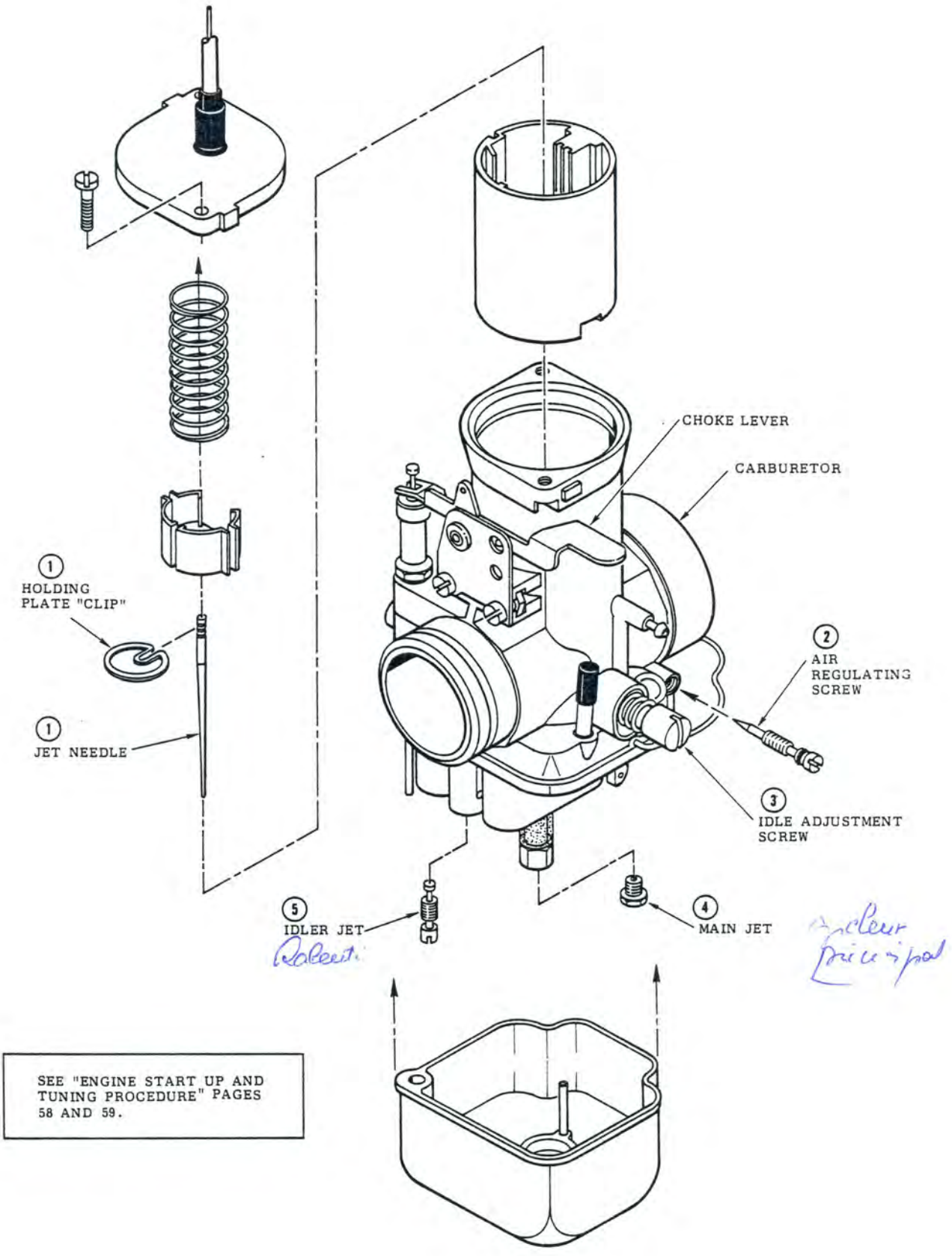


WITH RIB INSERTED IN RIB POCKET ON TOP SIDE OF WING, CUT AND HEAT SEAL TWO SLOTS IN THE RIB POCKET ON THE UNDERSIDE OF WING AS FOLLOWS.

1. CUT "A" THRU ONE LAYER OF CLOTH ONLY, APPROXIMATELY 1/4" FORWARD OF THE SEAM. CUT SLOT "B" 180° OPPOSITE ORIGINAL SLOT ON TOP SIDE OF SPAR. THRU TWO LAYERS OF CLOTH.
2. REMOVE RIB FROM POCKET AND TURN THE RIB TIP 180° AS SHOWN.
3. RE-INSTALL RIB THRU THE TWO NEW SLOTS SO THAT THE RIB TIP NOW RESTS ON THE BOTTOM OF THE TRAILING EDGE SPAR.
4. REPEAT THIS PROCEDURE ON THE 4 INBOARD RIBS.

THIS OPERATION WILL HELP TO KEEP THE 4 INBOARD RIBS FROM VIBRATING OUT OF THE RIB POCKETS AND INTO THE PROPELLAR. ANOTHER METHOD IS TO DRILL A SMALL HOLE IN THE TIP END AND SAFETY WIRE IT TO THE TRAILING EDGE SPAR.

4 ribs/tips
rivets @ 3,2



SEE "ENGINE START UP AND TUNING PROCEDURE" PAGES 58 AND 59.

SECTION TEN

ENGINE START UP AND TUNING PROCEDURE

To tune the carburetor you will be concerned with 5 adjustments:

1. Main Jet
2. Idler Jet
3. Idler Adjustment Screw
4. Air Regulating Screw
5. Jet Needle and Clip

The main jet in the carburetor will vary in size depending on altitude and atmospheric conditions in your local area. Contact your dealer regarding normal main jet size for your location.

START UP

Close the throttle and depress the choke lever. Start the engine and as it warms up release the choke.

Let the engine warm up for approximately 5 minutes then run at full throttle for about 15 seconds to "clean out engine".

Back off the throttle and adjust the idle adjustment screw to a fast idle, approximately 1200 R.P.M. not so fast; however, that the plane wants to taxi away.

Now adjust the air regulating screw to get a smooth idle.

If the idle runs rough, it is either too "rich" or too "lean". Too rich a mixture will cause heavy smoking and a too lean mixture will cause the engine to want to die out. To correct this, turn your attention to the idler jet. For a too "rich" mixture (smoking) install a smaller numbered idler jet. If the engine runs "lean" install a larger numbered jet.

Now turn to full throttle and mid-range tuning.

Your concern here will be the "main jet". This jet is similar to the idler jet with regards to running too rich or too lean. Generally, use the largest main jet that the engine will run smoothly on. It is advised that a head temperature gauge be used and with the engine at full throttle or at mid-range (1/2 to 3/4 throttle). The temperature should not exceed 400° F. in a 4-5 minute run up.

If the temperature exceeds 400° F. during this run up procedure change the holding plate "clip" on the jet needle to a lower groove on the jet needle.

If at full throttle the engine "4 cycles" (fires every other time) or emits heavy blue or black smoke or stutters, change the main jet to a smaller size. If the engine R.P.M. increases when the throttle is backed off slightly from full throttle, the main jet is too small. This causes overheating and could lead to piston seizure.

If at full throttle the engine R.P.M. drops when the throttle is backed off slightly, the main jet is correct or slightly large. This is acceptable.

ENGINE START UP AND PROCEDURE CONTINUED

If the engine runs smooth and strong at full throttle, but stutters in the mid-range area, the holding plate "clip" should be raised to allow smooth running and fast acceleration. The normal setting for this clip is in the center groove on the jet needle.

Now recheck the idle adjustment. Back off the throttle and turn the idle adjustment screw in as far as it will go.- (bottom out on spring) now back it out about 1/2 a turn or until you get a slow idle. Turn the air regulating screw in or out until you get a smooth idle.

Feel free to contact your dealer or the factory, if you have need for additional assistance or information.

SECTION TEN

BEARING LUBRICATION

BOTH THE DRIVE SHAFT AND THE PROPELLAR SHAFT MUST BE PERIODICALLY RE-LUBRICATED TO ASSURE LONG LIFE. THE BEARINGS SHOULD BE LUBRICATED EVERY 50 HOURS OF OPERATION OR EVERY 30 HOURS IF OPERATED IN EXTREME DIRT/DUST INVIRONMENT.

1. REMOVE THE PROPELLAR AND BELTS.
2. TURN THE PROPELLAR SHAFT BY HAND AND LISTEN FOR ANY UNUSUAL SOUNDS SUCH AS GRINDING, CLICKING ETC. IF ANY ABNORMAL SOUNDS ARE HEARD THE BEARING MUST BE REPLACED. CONTACT YOU DEALER.
3. IF SHAFT RUNS SMOOTHLY, REPLACE AND ADJUST THE BELTS.
4. WIPE ALL SURFACES CLEAN.
5. START THE ENGINE AND RUN AT IDLE SPEED (DO NOT REV. UP)
6. FEED THE SPECIFIED LUBRICANT INTO THE BEARING SLOWLY UNTIL A SLIGHT BEAD OF LUBRICANT FORMS AROUND THE SEAL..
7. REPLACE THE PROPELLAR AND ALIGN AS PER PAGE 54.
8. USE ONLY A LUBRICANT CONFORMING TO A NLGI GRADE TWO CONSISTANCY. IDEALLY A LITHIUM BASED LUBRICANT.

SECTION TEN

Be sure the throttle cable, gas lines and ignition wires are secured with tie tabs and/or velcro strips to a suitable anchor (down tubes, frame, etc.) to eliminate excessive movement.

Check all gas lines and connections for signs of leakage before flight. Make sure that all pip pins are bottomed out and that all wing nuts and safety bolts have safety rings or pins.

Before engine start-up be certain you read the engine owners manual. Pay particular attention to the break-in procedures and fuel mixtures.

Remember your Quicksilver MX is not an acrobatic aircraft. Abrupt maneuvers and undo stresses put on the plane should always be avoided.

Before your first flight, go through the pre-flight check list found in your owners manual. This is very important and should become a ritual before each flight thereafter.

Our interest in your flying pleasure and experiences is an ongoing thing, so let us hear from you if we can be of any further assistance.

Eipper aircraft inc.
World's Largest Manufacturer of Ultralight Aircraft

SUPPLEMENT

TO PARTS LIST AND ASSEMBLY INSTRUCTIONS

PARTS AND INSTRUCTIONS / MODEL # MX, MXL, MXII DATE 5-31-83

EDA # 109-83
118-83

DOC # 833-4

COARSE THREAD BOLT CHANGE

EIPPER IS IN THE PROCESS OF CHANGING FROM GRADE 8 COARSE THREAD BOLTS TO GRADE 5 COARSE THREAD BOLTS. YOUR ASSEMBLY INSTRUCTIONS DO NOT REPRESENT THIS CHANGE. YOUR KIT MAY CONTAIN BOTH GRADE 8 AND GRADE 5 COARSE THREAD BOLTS AS THE CHANGE IS BEING MADE WITH DEPLETION OF EXISTING STOCK. BOTH BOLTS ARE ACCEPTABLE (THE GRADE NUMBER IS NOT A QUALITY RATING).

USE THE LENGTH SPECIFIED AS YOUR MAIN GUIDE TO PUT THE PROPER COARSE THREAD BOLT IN THE PROPER LOCATION (GRADE 8 or 5).

Copyright ©1983, Eipper Aircraft

SUPPLEMENT

TO PARTS LIST AND ASSEMBLY INSTRUCTIONS

PARTS AND INSTRUCTIONS / MODEL # MX MXII MXL DATE 8-26-83

EDA # 132-83

Doc# 833-12

LOCTITE SHOULD BE USED ON BOLT THREADS

LOCTITE (Part # 60591) SHOULD be applied to the threads of all bolts that DO NOT have a locking device.

Locknuts, Wingnuts and Castlenuts with safety ring are considered to be locking devices and DO NOT require the application of LOCTITE.

A small tube of LOCTITE has been included in your Kit. This is not reflected in the Assembly Instructions.

SUPPLEMENT

TO PARTS LIST AND ASSEMBLY INSTRUCTIONS

PARTS AND INSTRUCTIONS / MODEL # ALL MODELS DATE 3-8-84

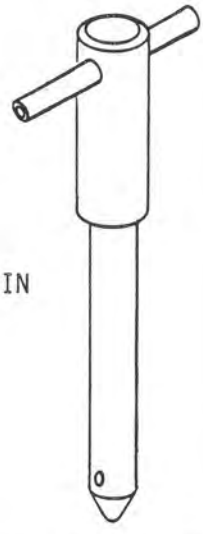
EDA# 10-84 DOC # 833-17 "B"

"T" HANDLE PIN

ALL PIP PINS (PART NUMBERS 10470 AND 10471) ARE BEING REPLACED BY "T" HANDLE PIN (PART NUMBER 10472). YOUR KIT WILL HAVE THE NEW "T" HANDLE PIN BUT YOUR ASSEMBLY INSTRUCTIONS DO NOT REFLECT THIS CHANGE. PLEASE INSTALL THE NEW PIN AND USE A SAFETY RING (PART NUMBER 20310) TO LOCK IT IN PLACE.

DELETIONS

QTY.	P/N	DESCRIPTION
13	10470	PIP PIN
	OR	
13	10471	PIP PIN
1	833-17	DOC."T" HANDLE PIN REV. "A"



T-HANDLE PIN

(10472)

ADDITIONS

QTY.	P/N	DESCRIPTION
13	10472	"T" PIN
13	20310	SAFETY RING
1	833-17	DOC."T" HANDLE PIN REV. "B"

Copyright © 1983, Eipper Aircraft

SUPPLEMENT

TO PARTS LIST AND ASSEMBLY INSTRUCTIONS

PARTS AND INSTRUCTIONS / MODEL #MX, MXL, MX II DATE 7-12-83

EDA #128-83 Doc# 833-96

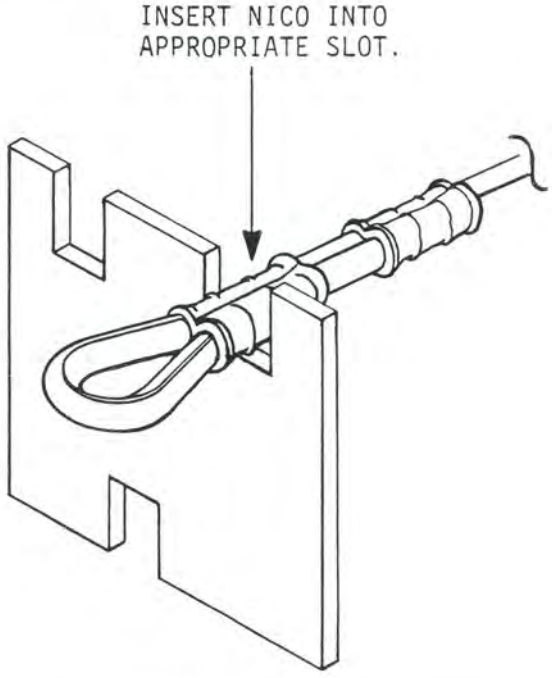
NICO SLEEVE GAUGE PROCEDURE

The nico sleeve gauge(20447) is a"GO/NO GO"measuring device which determines the size accuracy of sleeves swaging various dimension cables to thimbles, cable bushings, tangs etc.

The gauge has precision machined notches for measuring swaged nico sleeves having 1/8"(3.175 mm), 1/16"(1.587 mm), and 3/32"(2.381 mm)sizes. It should be used when making a cable inventory upon receipt of your aircraft assembly kit.

TO USE...

1. Insert the swaged portions of the sleeve into the appropriate notch on the sleeve gauge.
2. Inability to insert the swaged part of the sleeve indicates improper swage. REPLACE THROUGH YOUR DEALER.
3. In addition, check the positioning of the cables swaged within the sleeve. Cables are properly swaged when they lie directly side-by-side and the sleeve opening has a symmetrical shape.



Copyright ©1983, Flapar Aircraft

SUPPLEMENT

TO PARTS LIST AND ASSEMBLY INSTRUCTIONS

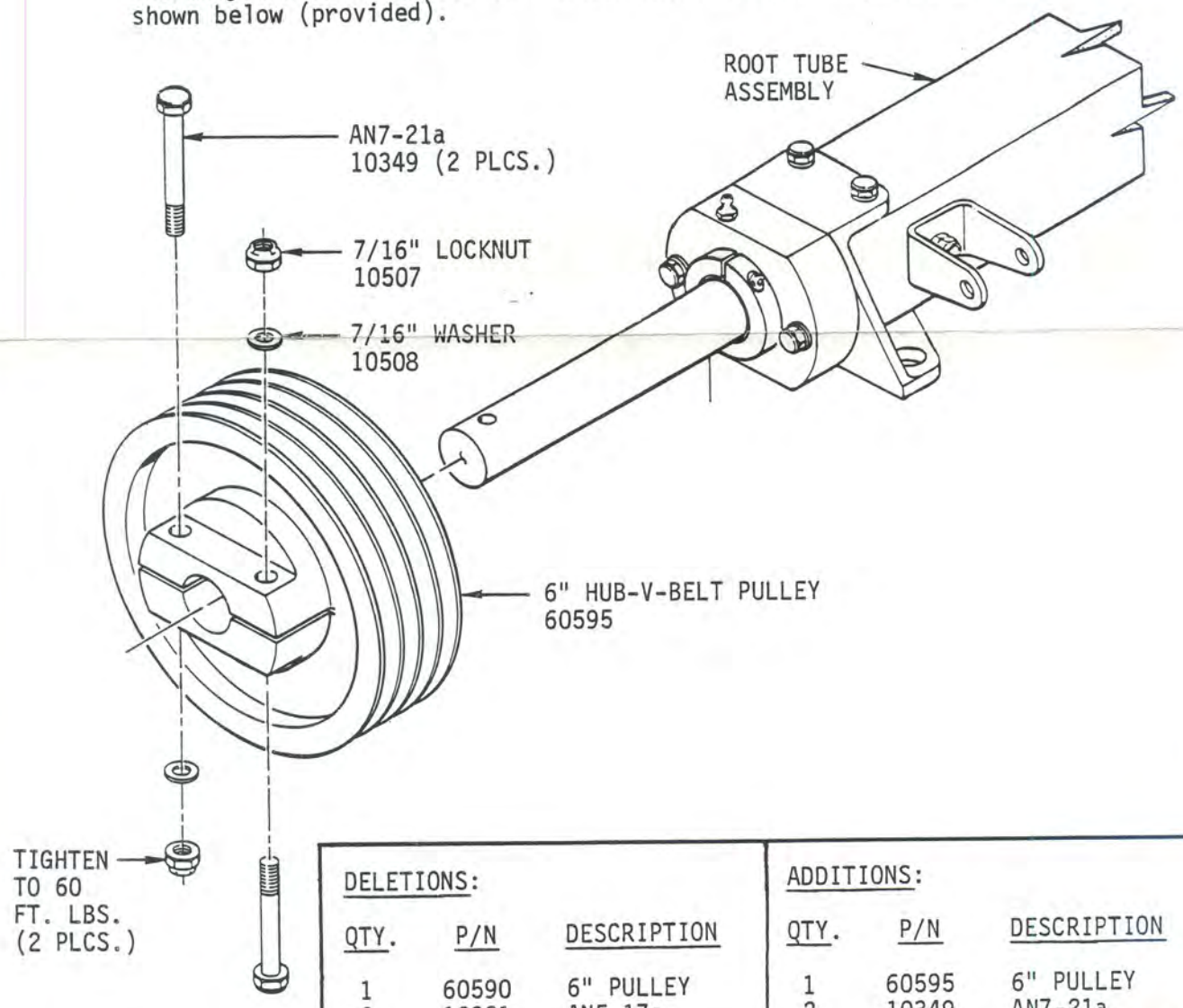
PARTS AND INSTRUCTIONS / MODEL # MX, MXL DATE 7-16-83

EDA # 135-83

Doc# 833-2

6" PULLEY CHANGE

The 6" PULLEY (60590) has been replaced by 6" PULLEY (60595). Your Assembly Instructions do not reflect this change. Use the hardware shown below (provided).



DELETIONS:

QTY.	P/N	DESCRIPTION
1	60590	6" PULLEY
2	10321	AN5-17a
2	10570	5/16" WASHER
2	10321	5/16" LOCKNUT

ADDITIONS:

QTY.	P/N	DESCRIPTION
1	60595	6" PULLEY
2	10349	AN7-21a
2	10508	7/16" WASHER
2	10507	7/16" LOCKNUT

Copyright ©1983, Eipper Aircraft

SUPPLEMENT

TO PARTS LIST AND ASSEMBLY INSTRUCTIONS

PARTS AND INSTRUCTIONS / MODEL # MX DATE 5-14-83

EDA # 115-83

THE ASSY. INSTRUCTIONS DO NOT SHOW THE HARDWARE CHANGE BELOW. MAKE THE CHANGES SHOWN BELOW IN BOLD TYPE. THE HARDWARE NECESSARY HAS BEEN INCLUDED IN YOUR KIT. USE ORIGINAL PAGES OF INSTRUCTIONS FOR REMAINING PROCEDURES AND CALLOUTS.

DELETIONS

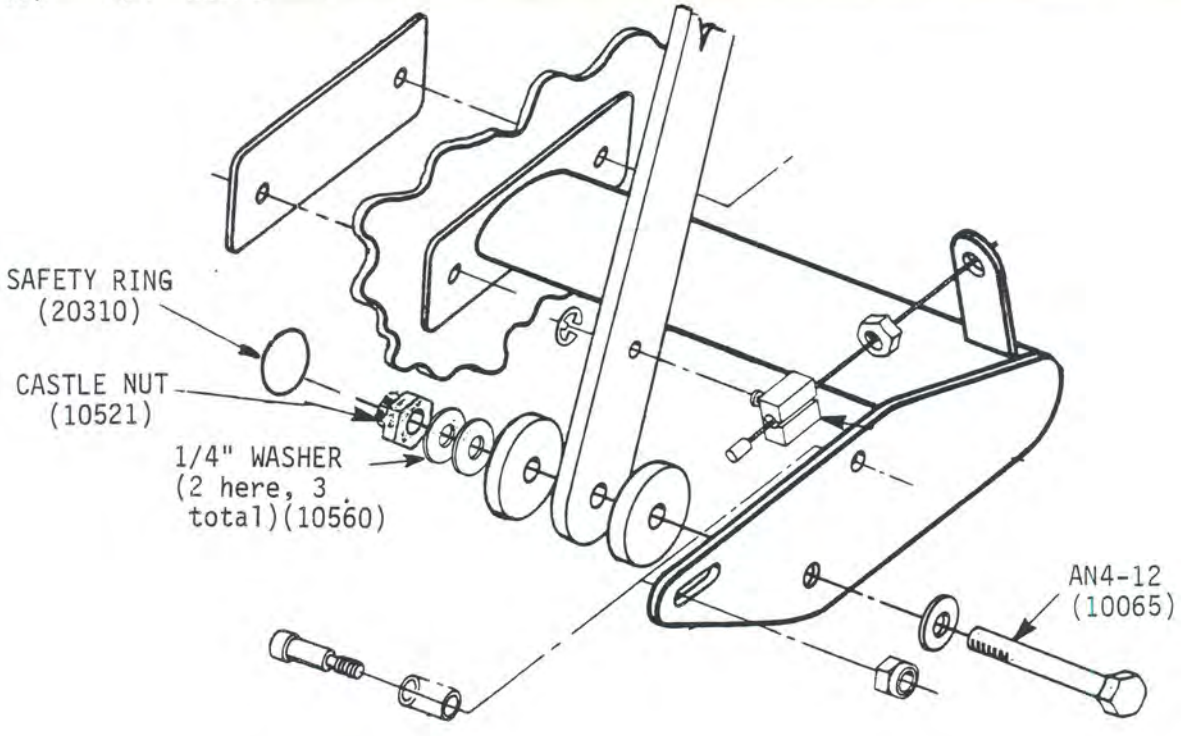
P/N	Description	Qty.
(10064)	AN 4-11a	1
(10510)	1/4" Locknut	1

ADDITIONS

P/N	Description	Qty.
(10065)	AN4-12	1
(10521)	Castle Nut	1
(20310)	Safety Ring	1
(10560)	1/4" Washer	1

CASTLE NUT NOTE:

TIGHTEN CASTLE NUT UNTIL DESIRED FRICTION OBTAINED. LINE UP "SLOT" IN NUT WITH HOLE IN BOLT AND SECURE WITH SAFETY RING.



Doc # 833-19

Copyright ©1983, Eipper Aircraft

SUPPLEMENT

TO PARTS LIST AND ASSEMBLY INSTRUCTIONS

PARTS AND INSTRUCTIONS / MODEL # MX DATE 12/21/83

EDA# 155-83 DOC # 833-10 'A'

SEAT BELT REPLACEMENT

THE ASSEMBLY INSTRUCTIONS DO NOT REFLECT THE FOLLOWING CHANGES:

THE SEAT BELT SET (P/N 70330) HAS BEEN REPLACED BY LAP BELT SET (P/N 70335). THE TWO RETAINING BOLTS HAVE BEEN CHANGED FROM AN AN4-16A (P/N 10140) TO AN AN4-17A (P/N 10150). REFER TO THIS SUPPLEMENT WHEN ATTACHING THE LAP BELT SET, PAGE 48 OF YOUR ASSEMBLY INSTRUCTIONS.

DELETIONS

QTY.	P/N	DESCRIPTION
1	70330	SEAT BELT SET
2	10140	AN4-16A BOLT

ADDITIONS

QTY.	P/N	DESCRIPTION
1	70335	LAP BELT SET
2	10150	AN4-17A

Copyright © 1983, Elpper Aircraft

SUPPLEMENT

TO PARTS LIST AND ASSEMBLY INSTRUCTIONS

PARTS AND INSTRUCTIONS / MODEL # MX DATE 11-7-83

EDA# 139-83 DOC # 833-16

ELEVATOR LEADING EDGE TUBE P/N CHANGE

On page 40 of your Assembly Instructions, P/N 70130 ELEVATOR LEADING EDGE TUBE has been replaced by P/N 70131 ELEVATOR LEADING EDGE TUBE. All fittings and attachment bolts remain the same.

DELETIONS

QTY.	P/N	DESCRIPTION
(1)	70130	ELEVATOR L.E. TUBE

ADDITIONS

QTY.	P/N	DESCRIPTION
(1)	70131	ELEVATOR L.E. TUBE

SL

Copyright ©1983, Eipper Aircraft

SUPPLEMENT

TO PARTS LIST AND ASSEMBLY INSTRUCTIONS

PARTS AND INSTRUCTIONS / MODEL # MX DATE 11-7-83

EDA# 126-83 DOC # 833-26

ELEVATOR FRAME P/N CHANGE

On page 40 of your Assembly Instructions, P/N 70110 ELEVATOR FRAME has been replaced by P/N 70111 ELEVATOR FRAME. All fittings and attachment bolts remain the same.

DELETIONS			ADDITIONS		
QTY.	P/N	DESCRIPTION	QTY.	P/N	DESCRIPTION
(2)	70110	ELEVATOR FRAME	(2)	70111	ELEVATOR FRAME

SL

Copyright ©1983, Eipper Aircraft

SUPPLEMENT

TO PARTS LIST AND ASSEMBLY INSTRUCTIONS

PARTS AND INSTRUCTIONS / MODEL # MX DATE 11-5-83

EDA # 108-83 DOC# 833-39

RUDDER FRAME P/N CHANGE

ON PAGES 38 AND 39 OF YOUR ASSEMBLY INSTRUCTIONS PART NUMBER 40331 RUDDER FRAME HAS BEEN REPLACED BY PART NUMBER 40329 RUDDER FRAME. ALL FITTINGS AND ASSEMBLY INSTRUCTIONS REMAIN THE SAME.

DELETIONS	ADDITIONS
(1) 40331 RUDDER FRAME	(1) 40329 RUDDER FRAME

SL

SUPPLEMENT

TO PARTS LIST AND ASSEMBLY INSTRUCTIONS

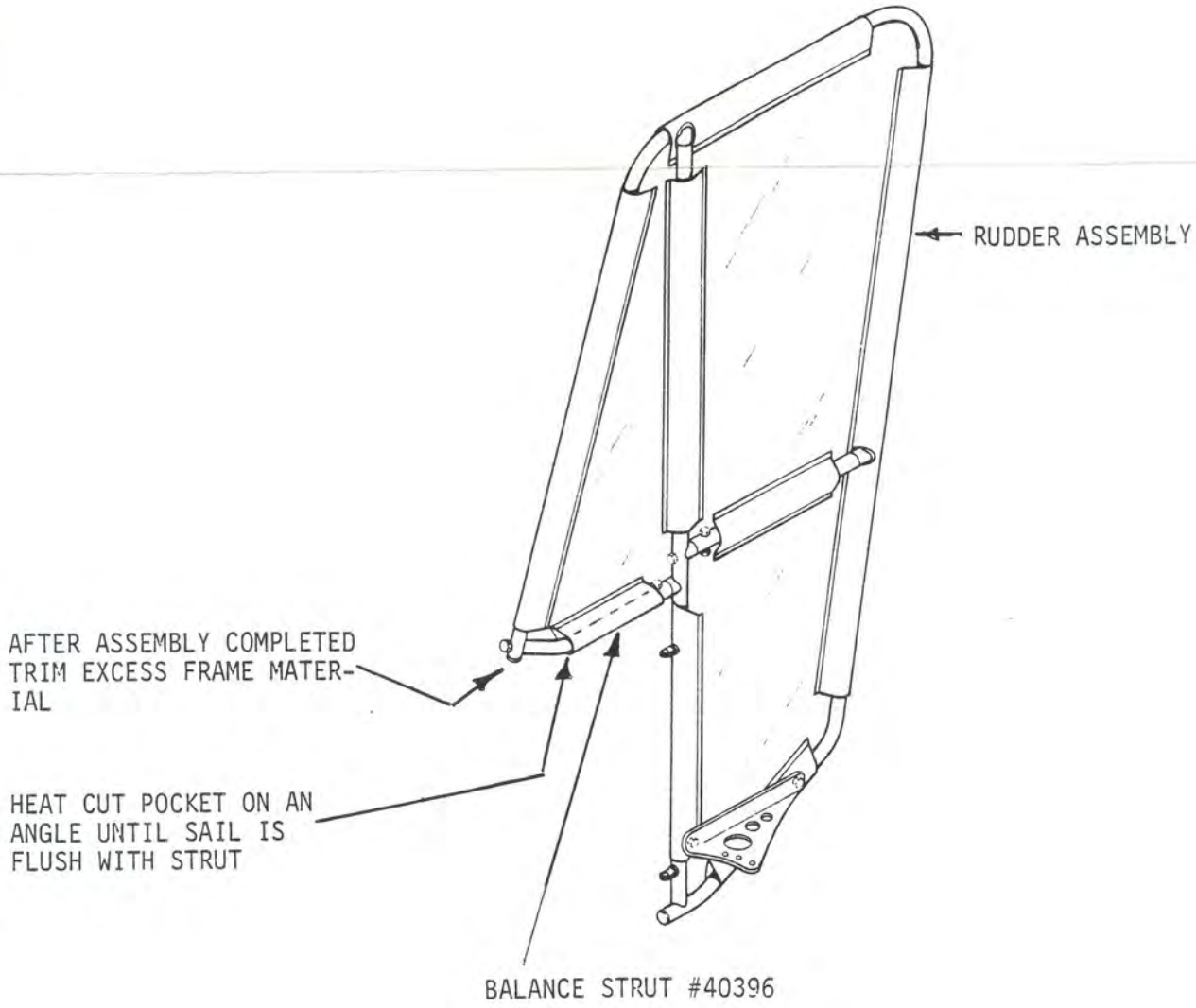
PARTS AND INSTRUCTIONS / MODEL # MX, MXL DATE 6-30-83

EDA # 121-83

Doc # 833-32

BALANCE STRUT CHANGE

BALANCE STRUT #40395 HAS BEEN REPLACED BY BALANCE STRUT (BENT) #40396. ALL HARDWARE AND ASSEMBLY PROCEEDURES REMAIN THE SAME AS THOSE CALLED OUT IN YOUR ASSEMBLY INSTRUCTIONS EXCEPT AS NOTED BELOW.



Copyright ©1983, Eipper Aircraft

SUPPLEMENT

TO PARTS LIST AND ASSEMBLY INSTRUCTIONS

PARTS AND INSTRUCTIONS / MODEL # MX DATE 12-14-83

EDA# 151-83 DOC # 833-38

NOSE WHEEL BRAKE & FOOT PEDAL CHANGE

THE ASSEMBLY INSTRUCTIONS DO NOT REFLECT THE FOLLOWING TWO CHANGES: 1) NOSE WHEEL BRAKE CHANGE AND 2) FOOT PEDAL CHANGE. A REDESIGNED NOSE WHEEL BRAKE HAS BEEN INCLUDED IN YOUR MX KIT ALONG WITH THE NEW FOOT PEDALS, P/N 70231. REFER TO THIS SUPPLEMENT WHEN ASSEMBLING NOSE WHEEL BRAKE, HOLE DRILLING INSTRUCTIONS AND HARDWARE CHANGES. THIS SUPPLEMENT REFERS TO PAGE 36 OF YOUR ASSEMBLY INSTRUCTIONS.

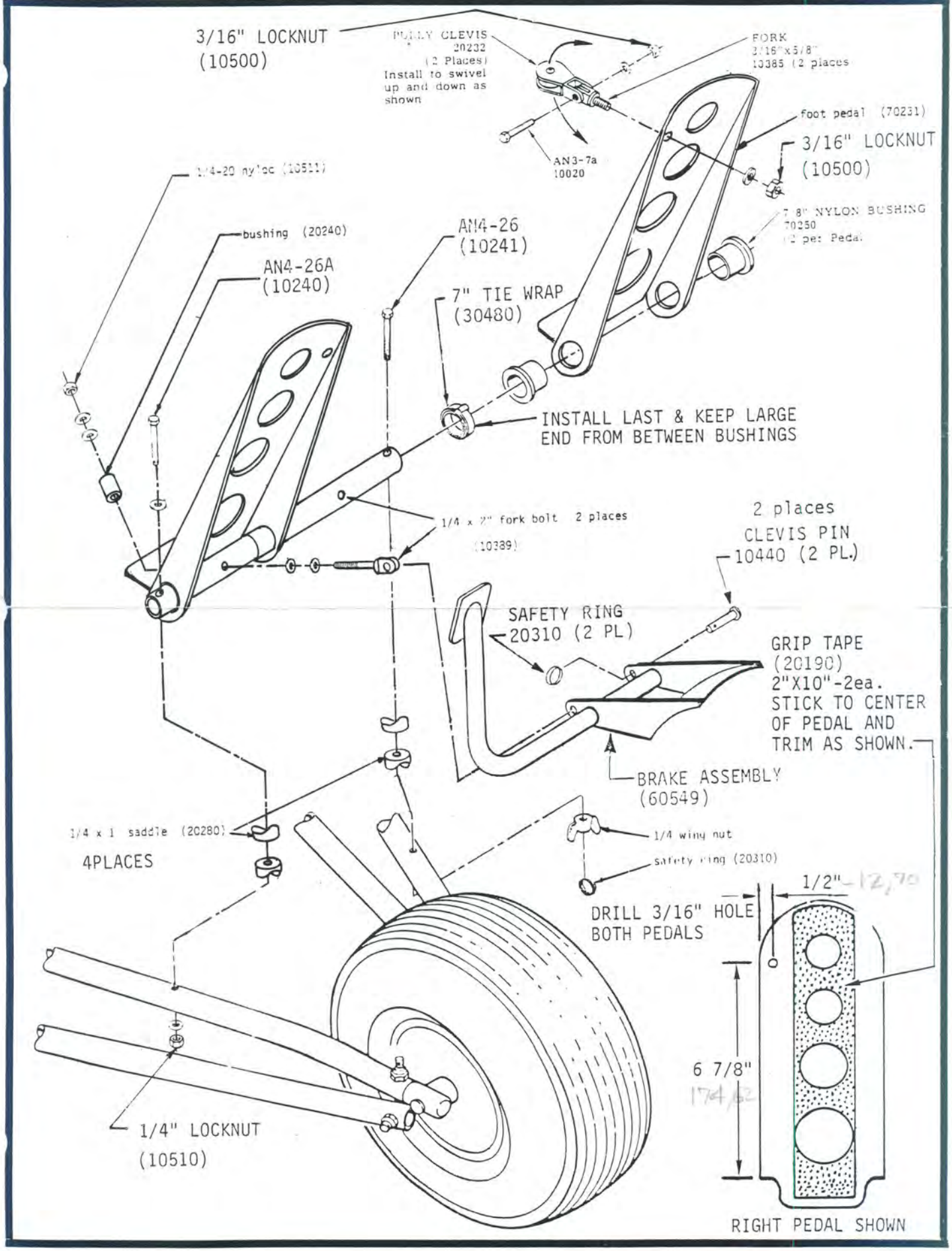
DELETIONS

QTY.	P/N	DESCRIPTION
2	70230	FOOT PEDAL
2	10350	EYE BOLT
1	10205	AN4-23 BOLT
1	10210	AN4-23A BOLT
2	10510	1/4" LOCKNUT
1	60570	FOOT RUBBER
1	60550	BRAKE ASS'Y
1	60560	NOSE BRAKE PAD

ADDITIONS

QTY.	P/N	DESCRIPTION
2	70231	FOOT PEDALS
2	10389	FORK BOLT
1	10241	AN4-26 BOLT
1	10240	AN4-26A BOLT
2	10511	1/4"- 20 NYLOCK
2	20240	BUSHING
2	20190	GRIP TAPE
4	20280	SADDLE, 1/4" X 1
2	10560	1/4" WASHERS
1	60549	BRAKE ASS'Y

Copyright ©1983, Eipper Aircraft


3/16" LOCKNUT
(10500)
PULLY CLEVIS
20232
(2 Places)
Install to swivel
up and down as
shown
FORK
3/16"x5/8"
10385 (2 places
foot pedal (70231)
3/16" LOCKNUT
(10500)
AN3-7a
10020
1/4-20 nyloc (10511)
bushing (20240)
AN4-26A
(10240)
AN4-26
(10241)
7" TIE WRAP
(30480)
7/8" NYLON BUSHING
70250
(2 per Pedal
INSTALL LAST & KEEP LARGE
END FROM BETWEEN BUSHINGS
1/4 x 2" fork bolt 2 places
(10339)
2 places
CLEVIS PIN
10440 (2 PL.)
SAFETY RING
20310 (2 PL)
GRIP TAPE
(20190)
2"X10"-2ea.
STICK TO CENTER
OF PEDAL AND
TRIM AS SHOWN.
BRAKE ASSEMBLY
(60549)
1/4 x 1 saddle (20280)
4PLACES
1/4 wing nut
Safety ring (20310)
DRILL 3/16" HOLE
BOTH PEDALS
1/2"
12,70
6 7/8"
174,62
1/4" LOCKNUT
(10510)
RIGHT PEDAL SHOWN

SUPPLEMENT

TO PARTS LIST AND ASSEMBLY INSTRUCTIONS

PARTS AND INSTRUCTIONS / MODEL # MX DATE 9-12-83

EDA # 133-83 Doc# 833-29

LANDING GEAR DOWNTUBE P/N CHANGE

On pages 25, 26, & 28 of the Assembly Instructions, P/N 40291 LANDING GEAR DOWN TUBE has been replaced by P/N 40296 LANDING GEAR DOWN TUBE.

EXCEPT for the deletion of the two 1"x 1/8" SADDLES P/N 20270, page 28, all fittings and Assembly Instructions remain the same.

DELETIONS:

QTY.	P/N	DESCRIPTION
2	40291	LANDING GEAR DOWNTUBE
2	20270	1"x 1/8" SADDLE

ADDITIONS:

QTY.	P/N	DESCRIPTION
2	40296	LANDING GEAR DOWNTUBE

Copyright ©1983, Eipper Aircraft

SUPPLEMENT

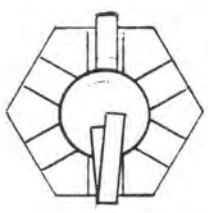
TO PARTS LIST AND ASSEMBLY INSTRUCTIONS

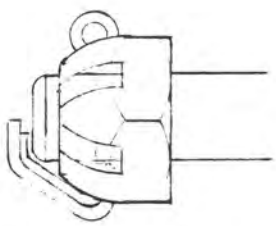
PARTS AND INSTRUCTIONS / MODEL # MX DATE 11-16-83

EDA# 146-83 DOC # 833-37

TAIL WIRE EYEBOLT

AN-43B-23a EYEBOLT (UNDRILLED) P/N 10375 HAS BEEN CHANGED TO AN-43B-23 (DRILLED FOR PIN) P/N 10374 AND WILL HAVE TO BE SECURED WITH A 1/4" CASTLE NUT P/N 10521 AND COTTER PIN P/N 10635. TIGHTEN CASTLE NUT TO TORQUE SPEC. AND BACK OFF JUST ENOUGH TO LINE UP HOLE IN EYEBOLT WITH NEAREST SLOT IN CASTLE NUT. INSERT COTTER PIN TO MAXIMUM DEPTH AND BEND ENDS OVER BOLT END AS FAR AS POSSIBLE (SEE DETAIL). WHEN AXLE STRUT P/N 40381 IS INSTALLED MAKE SURE IT PIVOTS FREELY AND DOES NOT INTERFERE OR BIND ON CASTLE NUT OR COTTER PIN. ALL OTHER ATTACHMENTS AND FITTINGS REMAIN THE SAME. REF. PAGE 27 (MX)





DELETIONS

QTY.	P/N	DESCRIPTION
(2)	10375	AN 43B-23a EYEBOLT
(2)	10510	1/4" LOCKNUT

ADDITIONS

QTY.	P/N	DESCRIPTION
(2)	10374	AN 43B-23 EYEBOLT
(2)	10521	1/4" CASTLE NUT
(2)	10635	COTTER PIN

SL

Copyright 1983, Eipper Aircraft

SUPPLEMENT

TO PARTS LIST AND ASSEMBLY INSTRUCTIONS

PARTS AND INSTRUCTIONS / MODEL # MX MXII MXL DATE 8-25-83

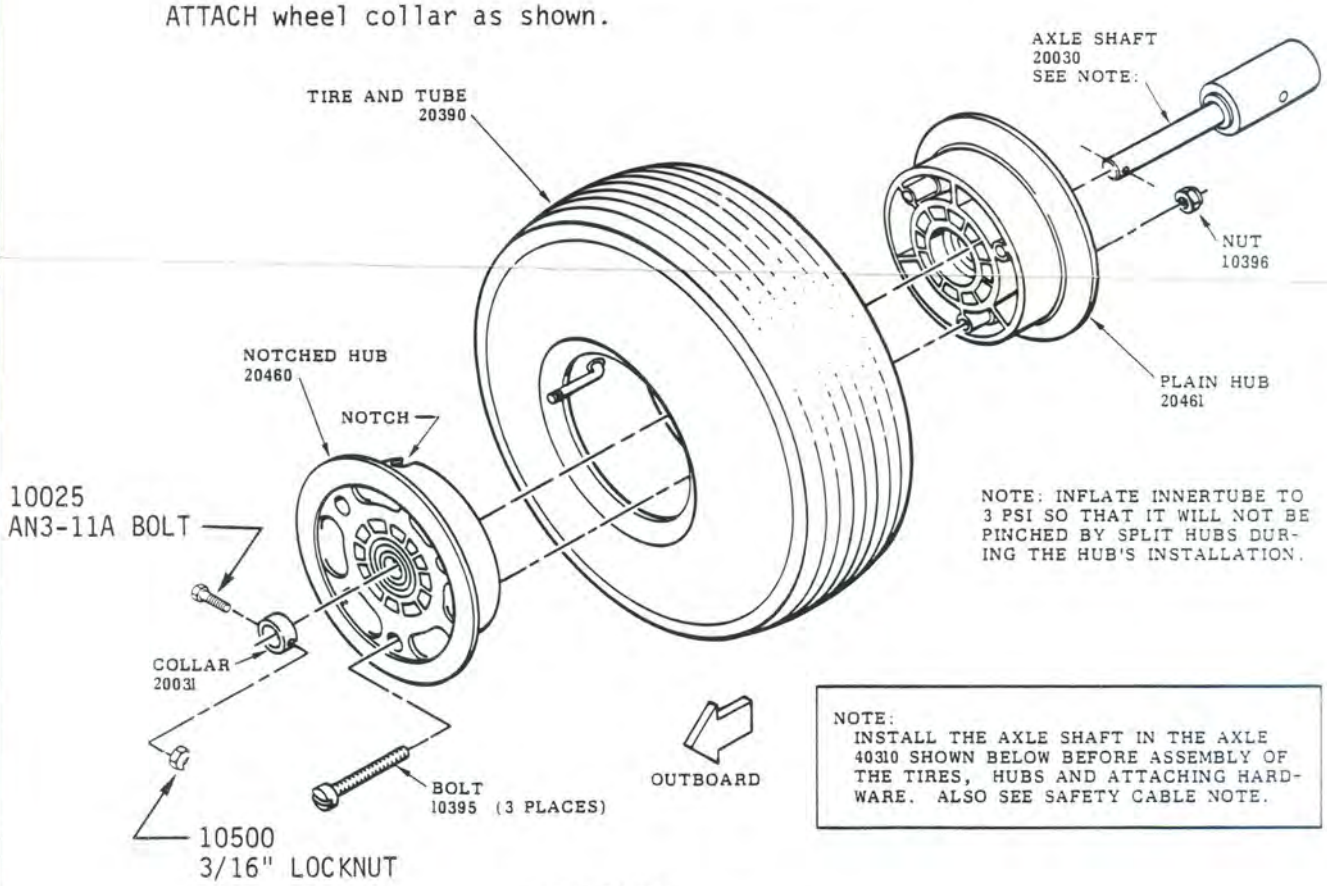
EDA # 110-83
131-83

Doc # 833-11

WHEEL COLLAR ATTACH CHANGE

The CLEVIS PIN that attaches the collar to the axle shaft has been CHANGED. This is not reflected in the Assembly Instructions.

ATTACH wheel collar as shown.



NOTE: INFLATE INNERTUBE TO 3 PSI SO THAT IT WILL NOT BE PINCHED BY SPLIT HUBS DURING THE HUB'S INSTALLATION.

NOTE:
INSTALL THE AXLE SHAFT IN THE AXLE 40310 SHOWN BELOW BEFORE ASSEMBLY OF THE TIRES, HUBS AND ATTACHING HARDWARE. ALSO SEE SAFETY CABLE NOTE.

DELETIONS

2 - 10450 CLEVIS PIN
2 - 20310 SAFETY RING

ADDITIONS

2 - 10025 AN3-11A BOLT
2 - 10500 3/16" LOCKNUT

SUPPLEMENT

TO PARTS LIST AND ASSEMBLY INSTRUCTIONS

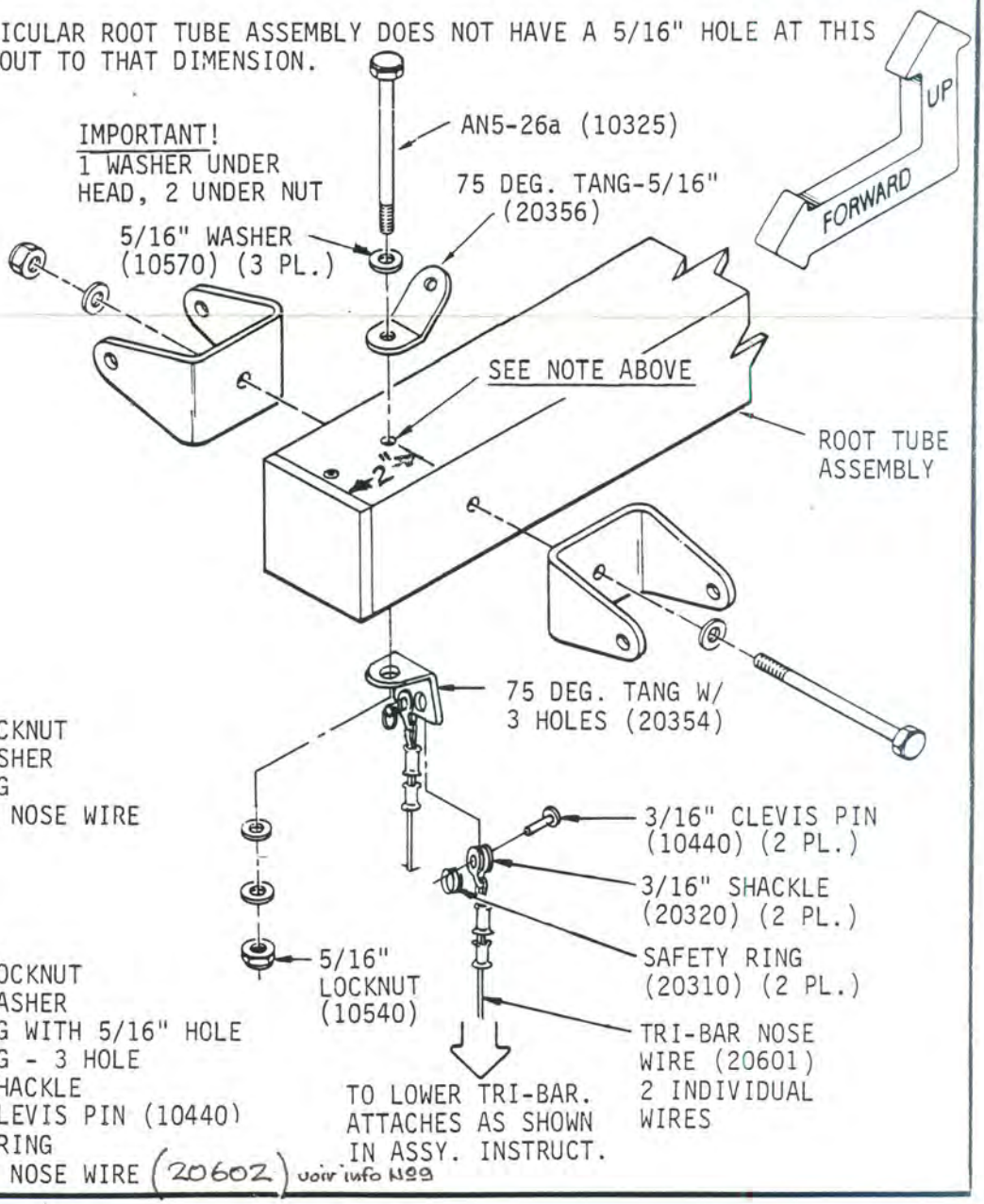
PARTS AND INSTRUCTIONS / MODEL # MX, MXL DATE 8-2-83

EDA # 130-83

NOSE WIRE ASSEMBLY CHANGE

THE LOWER TRI-BAR NOSE WIRE AND THE ATTACHMENT METHOD HAVE BEEN CHANGED. THIS CHANGE IS NOT REFLECTED IN YOUR ASSEMBLY INSTRUCTIONS. FOLLOW THE DIAGRAM AND CALLOUTS BELOW TO CORRECTLY PUT TOGETHER THE ASSEMBLY. ALL HARDWARE REQUIRED IS INCLUDED IN YOUR KIT. THE CHANNELS AND OTHER HARDWARE SHOWN IS FOR REFERENCE ONLY.

NOTE: IF YOUR PARTICULAR ROOT TUBE ASSEMBLY DOES NOT HAVE A 5/16" HOLE AT THIS LOCATION, DRILL IT OUT TO THAT DIMENSION.



DELETIONS

1 - 10240 - AN4-26a
1 - 10510 - 1/4" LOCKNUT
2 - 10560 - 1/4" WASHER
2 - 20355 - 75° TANG
1 - 20600 - TRI-BAR NOSE WIRE

ADDITIONS

1 - 10325 - AN5-26a
1 - 10540 - 5/16" LOCKNUT
3 - 10570 - 5/16" WASHER
1 - 20356 - 75° TANG WITH 5/16" HOLE
1 - 20354 - 75° TANG - 3 HOLE
- 20320 - 3/16" SHACKLE
- 10440 - 3/16" CLEVIS PIN (10440)
- 20310 - SAFETY RING
2 - 20601 - TRI-BAR NOSE WIRE (20602) voir info N99

Doc# 833-28

SUPPLEMENT

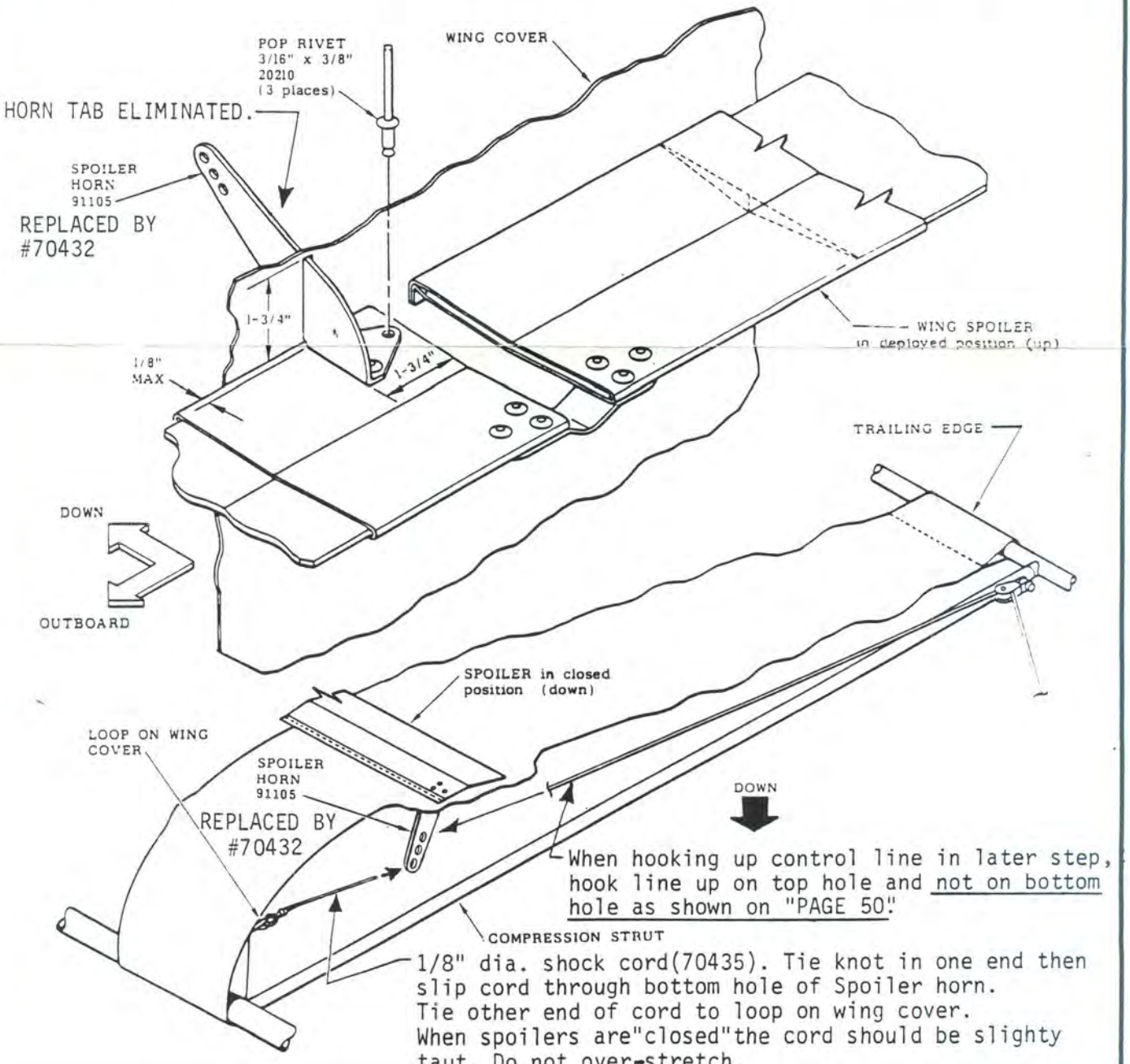
TO PARTS LIST AND ASSEMBLY INSTRUCTIONS

PARTS AND INSTRUCTIONS / MODEL # MX DATE 5/25/83

EDA # 117-83

Doc# 833 SS

THE SPOILER HORN SHOWN ON PAGES 23, 24, AND 50 HAS TAB ELIMINATED, BUT YOUR INSTRUCTION MANUAL DOES NOT REFLECT THE CHANGE. FOLLOW THE UPDATED PROCEDURE FOR THE HORN RIGGING AS DESCRIBED BELOW.



Copyright ©1983, Eipper Aircraft

MX

SUPPLEMENT

TO PARTS LIST AND ASSEMBLY INSTRUCTIONS

PARTS AND INSTRUCTIONS / MODEL # ~~MX, MXL, MXII~~ DATE ~~6/1683~~

EDA # 120-83

Doc # 833-22

AIR FILTER CHANGE

AIR FILTER #60010 HAS BEEN REPLACED BY AIR FILTER #60000.

THIS CHANGE IS NOT REFLECTED IN YOUR ASSEMBLY INSTRUCTIONS.

NO HARDWARE OR PROCEEDURE CHANGE IS REQUIRED.

Copyright ©1983, Eipper Aircraft

SUPPLEMENT

TO PARTS LIST AND ASSEMBLY INSTRUCTIONS

PARTS AND INSTRUCTIONS / MODEL # MX DATE 7-7-83

EDA # 124-83 Doc # 833-25

TENSION STRUT P/N CHANGE

On pages 27, 35, & 37 of your Assembly Instructions, P/N 40301 TENSION STRUT has been replaced by P/N 40302 TENSION STRUT. All fittings and attachment bolts remain the same.

DELETIONS:

40301 TENSION STRUT

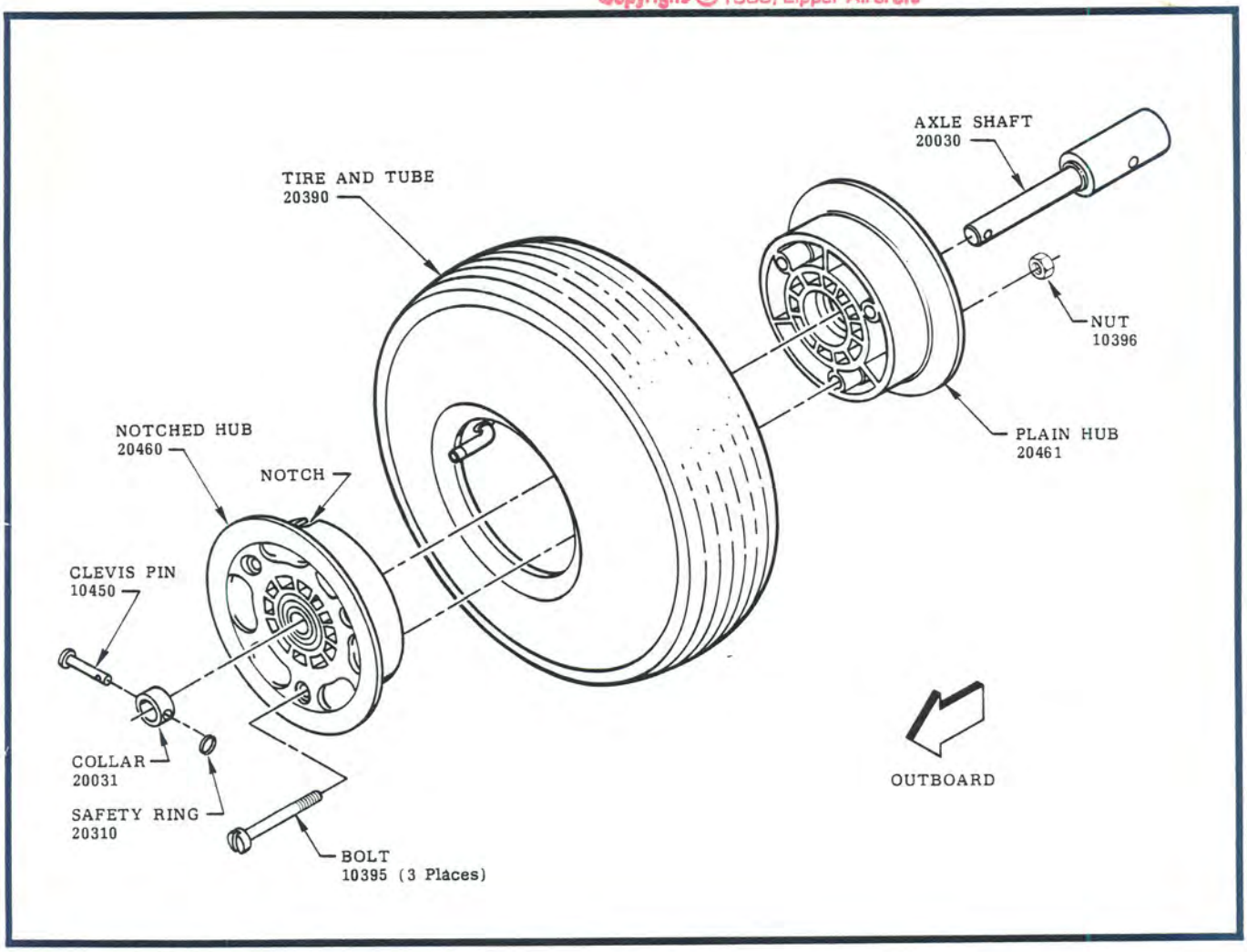
ADDITIONS:

40302 TENSION STRUT

Copyright ©1983, Eipper Aircraft

QUICKSILVER MX
'THE ORIGINAL'

Copyright ©1983, Eipper Aircraft



ASSEMBLY AND PARTS MANUAL

MANUAL 50250

QUALITY ASSURANCE ACCEPTED
3/2/83 ACCEPTED
E.C.O. # 084 REV. A

Eipper aircraft inc.
World's Largest Manufacturer of Ultralight Aircraft
1080 Linda Vista Drive, San Marcos, CA 92069 • (714) 744-1514

SUPPLEMENT

TO PARTS LIST AND ASSEMBLY INSTRUCTIONS

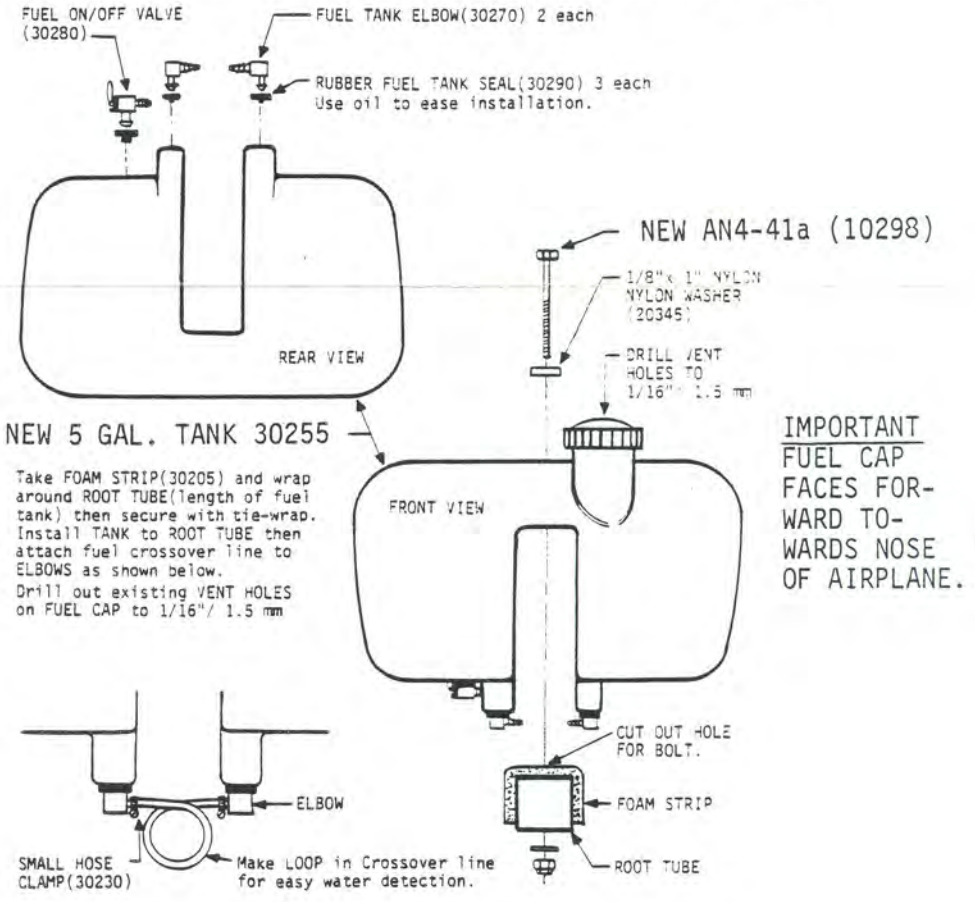
PARTS AND INSTRUCTIONS / MODEL # MX DATE

EDA # 119-83

Doc#833-21

FUEL TANK CHANGE

FUEL TANK 30250 SHOWN IN YOUR MX ASSEMBLY INSTRUCTIONS HAS BEEN REPLACED BY OUR 5 GALLON TANK 30255. REFER TO THE DRAWING BELOW TO AID YOU IN PROPER FUEL FITTING INSTALLATION. NOTE THE NEW ATTACH BOLT REQUIRED (AN4-41a) TO MOUNT THE TANK. FOAM MOUNTING AND FUEL FITTING NUMBERS AND ROUTING REMAIN UNCHANGED.



DELETE			ADD		
PT. #	DESC.	QTY.	PT. #	DESC.	QTY.
30250	FUEL TANK	1	30255	FUEL TANK- 5 GAL.	1
10300	AN4-51a	1	10298	AN4-41a	1

Copyright ©1983, Eipper Aircraft

SUPPLEMENT

TO PARTS LIST AND ASSEMBLY INSTRUCTIONS

PARTS AND INSTRUCTIONS / MODEL # MX DATE 7-11-83

EDA # 137-83

Doc # 833-34

COMPRESSION STRUT CHANGE

ON PAGES 11, 12, & 16 OF YOUR ASSEMBLY INSTRUCTIONS, THE INBOARD AND MIDDLE COMPRESSION STRUTS HAVE BEEN CHANGED AND THE ASSEMBLY INSTRUCTIONS DO NOT REFLECT THE CHANGE. FOLLOW THE ACCOMPANYING INSTRUCTIONS TO ASSEMBLE THE NEW PARTS.

DELETIONS:

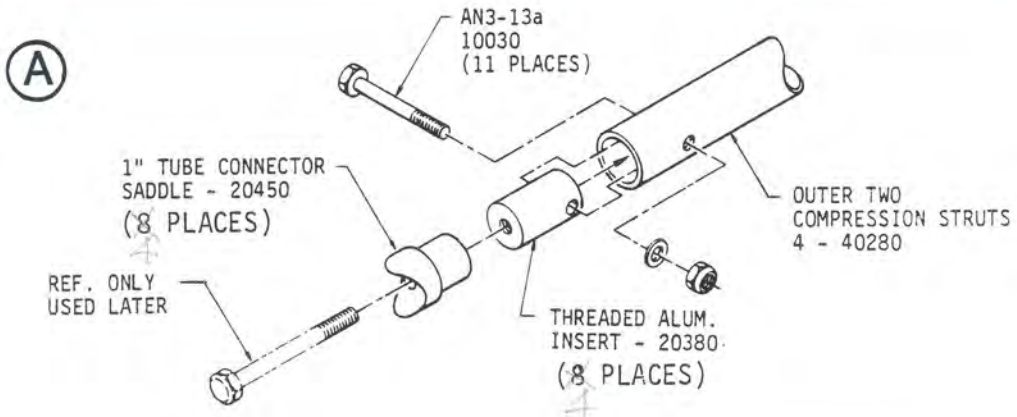
4 40284 COMPRESSION STRUT
4 20380 THREADED ALUM. INSERT
4 20450 1" TUBE CONNECTOR SADDLE
4 10030 AN 3-13a

ADDITIONS:

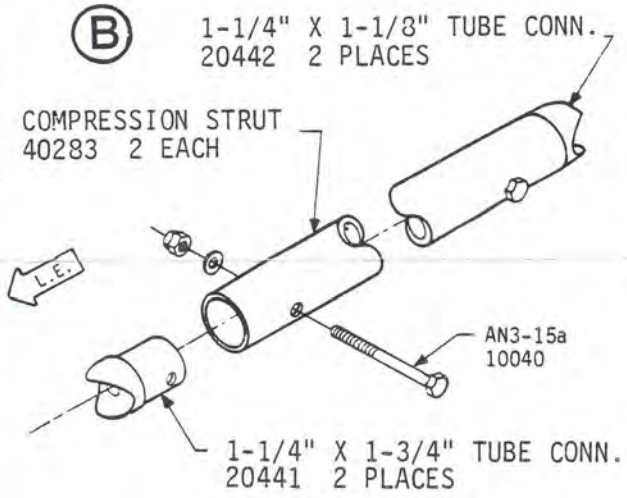
2 - 40283 COMPRESSION STRUT
2- 20441 1 3/4 TUBE CONNECTOR
2- 20442 1 1/8 " "
2 - 40280 COMPRESSION STRUT
4- 10040 AN 3-15a

SL

Copyright ©1983, Eipper Aircraft

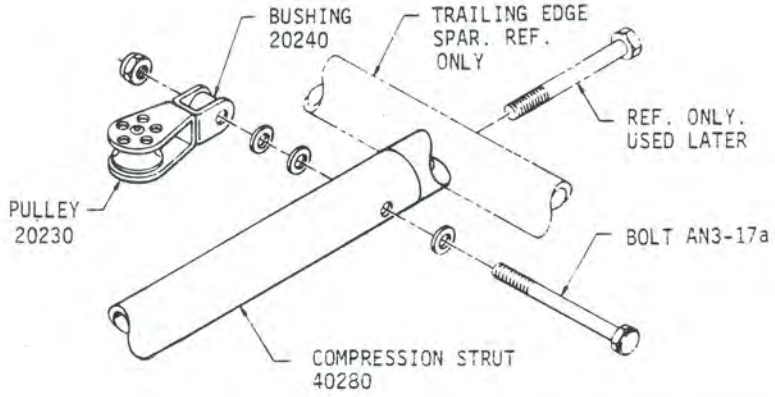


INBOARD COMPRESSION STRUTS



ASSEMBLE 6 COMPRESSION STRUTS AS SHOWN (3 EACH WING) AND SET ASIDE FOR LATER INSTALLATION.

ATTACH THE PULLEY (20230) TO THE END OF ONE OF THE COMPRESSION STRUTS AS ILLUSTRATED.



EDA#137-83 THIS PAGE SUPERCEDES PAGE 12.

SUPP. DOC# 833-34

SUPPLEMENT

TO PARTS LIST AND ASSEMBLY INSTRUCTIONS

PARTS AND INSTRUCTIONS / MODEL # MX DATE 7-11-83

EDA # 129-83

Doc# 633-35

DIAGONAL STRUT CHANGE

ON PAGES 11, 15 OF YOUR ASSEMBLY INSTRUCTIONS THE SLEEVED DIAGONAL STRUTS HAVE BEEN REPLACED BY 1 1/4 DIA. TUBES. THE ASSEMBLY INSTRUCTIONS DO NOT REFLECT THIS CHANGE. FOLLOW THE ACCOMPANYING INSTRUCTIONS TO ASSEMBLE THE NEW PARTS.



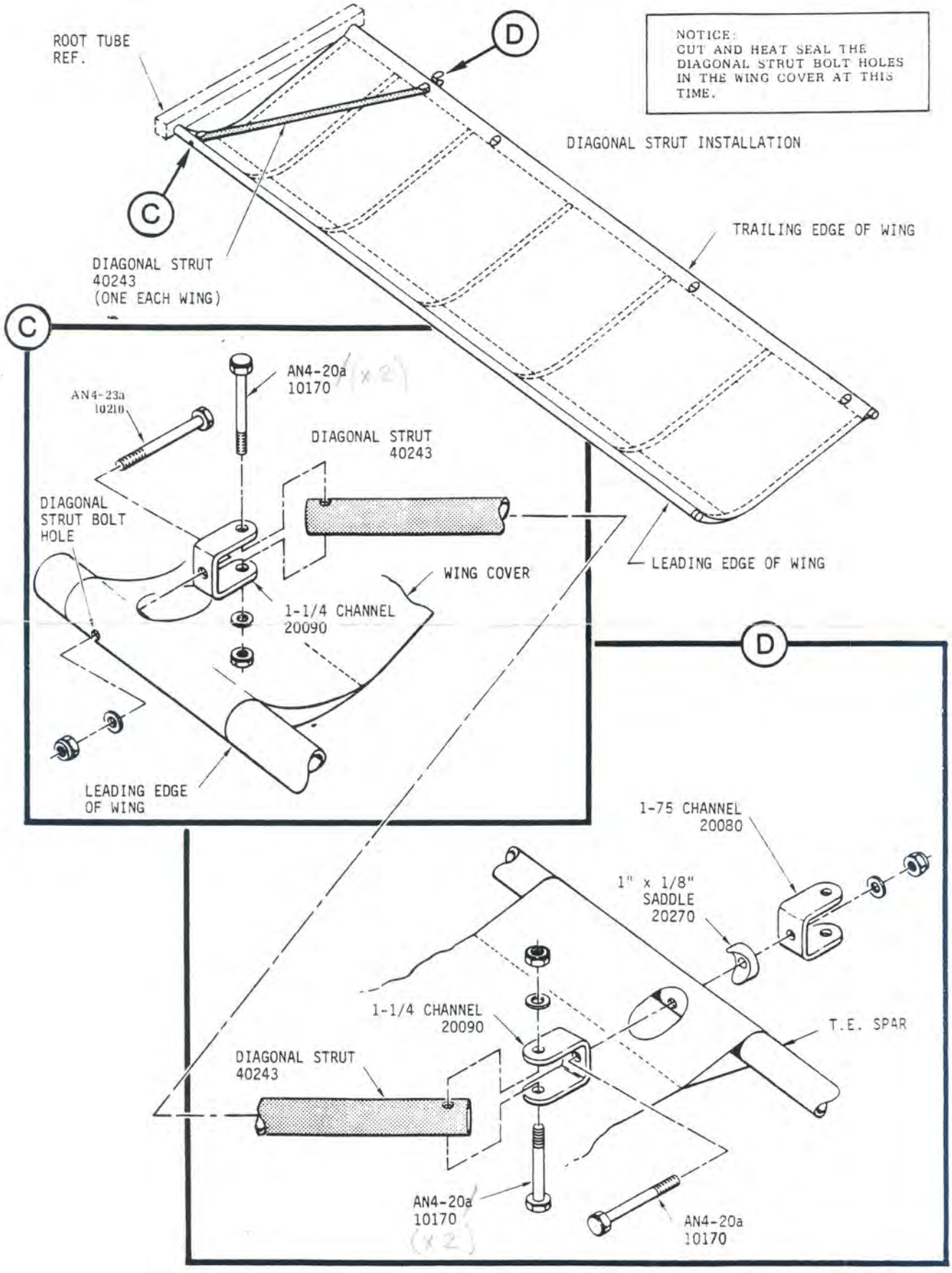
DELETIONS:

4 - 20080 1-75 CHANNEL
2 - 40244 DIAGONAL STRUT
4 - 10140 AN 4-16a

ADDITIONS:

4 - 20090 1 1/4 CHANNEL
2 - 40243 DIAGONAL STRUT
4 - 10170 AN 4-20a

Copyright ©1983, Eipper Aircraft



THIS PAGE SUPERCEDES PAGE 15.
Pg 2 of 2

SUPPLEMENT

TO PARTS LIST AND ASSEMBLY INSTRUCTIONS

PARTS AND INSTRUCTIONS / MODEL # MX DATE 7-7-83

EDA # 123-83 Doc# 833-24

SEAT MOUNT ASSEMBLY P/N CHANGE

On pages 43 & 48 of your Assembly Instructions, P/N 70390 SEAT MOUNT ASSEMBLY has been replaced by P/N 70389 SEAT MOUNT ASSEMBLY. All attachment bolts and fittings remain the same.

DELETIONS:	ADDITIONS:
70390 SEAT MOUNT ASSEMBLY	70389 SEAT MOUNT ASSEMBLY

Copyright ©1983, Eipper Aircraft

SUPPLEMENT

TO PARTS LIST AND ASSEMBLY INSTRUCTIONS

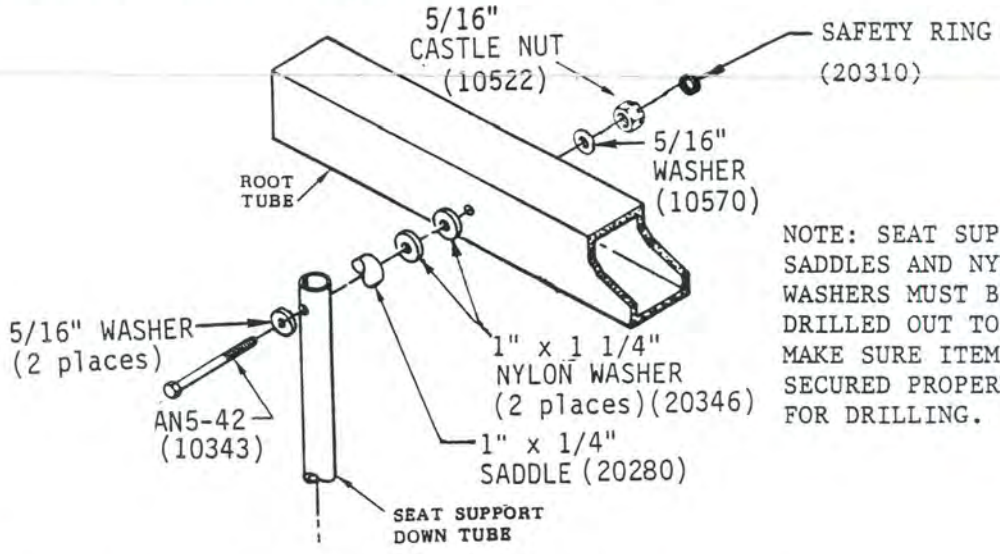
PARTS AND INSTRUCTIONS / MODEL # MX DATE 12-16-83

EDA# 153-83 DOC # 833-45

SEAT SUPPORT DOWNTUBE CHANGE

ATTENTION 10343 à compenser avec nylon washer

THE ASSEMBLY INSTRUCTIONS DO NOT REFLECT THE FOLLOWING CHANGES: THE ATTACHMENT BOLT FOR THE SEAT SUPPORT DOWNTUBE HAS BEEN CHANGED FROM AN AN4-36 BOLT (P/N 10239) TO AN AN5-42 BOLT (P/N 10343). THE WING NUT (P/N 10520) HAS BEEN REPLACED BY A 5/16" CASTLE NUT (P/N 10522). THE 1" x 1/8" SADDLE (P/N 20270) HAS BEEN CHANGED TO A 1" x 1/4" SADDLE (P/N 20280). THE 1/4" WASHERS (P/N 10510) HAVE BEEN CHANGED TO 5/16" WASHERS (P/N 10570). THIS SUPPLEMENT REFERS TO PAGE 43 OF YOUR ASSEMBLY INSTRUCTIONS.



NOTE: SEAT SUPPORT, SADDLES AND NYLON WASHERS MUST BE DRILLED OUT TO 5/16". MAKE SURE ITEMS ARE SECURED PROPERLY FOR DRILLING.

DELETIONS

QTY.	P/N	DESCRIPTION
1	10293	AN4-36 BOLT
1	10520	1/4" WING NUT
1	20270	1" x 1/8" SADDLE
2	10510	1/4" WASHER

ADDITIONS

QTY.	P/N	DESCRIPTION
1	10343	AN5-42 BOLT
1	20346	1/4" NYLON WASHER
1	20280	1" x 1/4" SADDLE
2	10570	5/16" WASHERS
1	10522	5/16" CASTLE NUT

Copyright © 1983. Eipper Aircraft

SUPPLEMENT

TO PARTS LIST AND ASSEMBLY INSTRUCTIONS

PARTS AND INSTRUCTIONS / MODEL # MX DATE 2/2/84

EDA# 09-84 DOC # 833-20 "A"

CONTROL STICK BOLT/NUT CHANGE

YOUR ASSEMBLY INSTRUCTIONS DO NOT REFLECT THE CHANGES LISTED BELOW. PLEASE IMPLEMENT THE LISTED CHANGES IN THE AREAS INDICATED. THIS SUPPLEMENT REFERS TO PAGES 44 & 46 OF YOUR ASSEMBLY MANUAL.

DELETIONS

QTY.	P/N	DESCRIPTION
1	10270	AN 4-30A BOLT
1	10170	AN 4-20A BOLT
1	10140	AN 4-16A BOLT
3	10510	1/4" LOCKNUT

ADDITIONS

QTY.	P/N	DESCRIPTION
1	10260	AN 4-27 BOLT
1	10160	AN 4-17 BOLT
1	10121	AN 4-15 BOLT
3	10521	1/4" CASTLE NUT
3	20310	SAFETY RING

Copyright ©1983, Eipper Aircraft

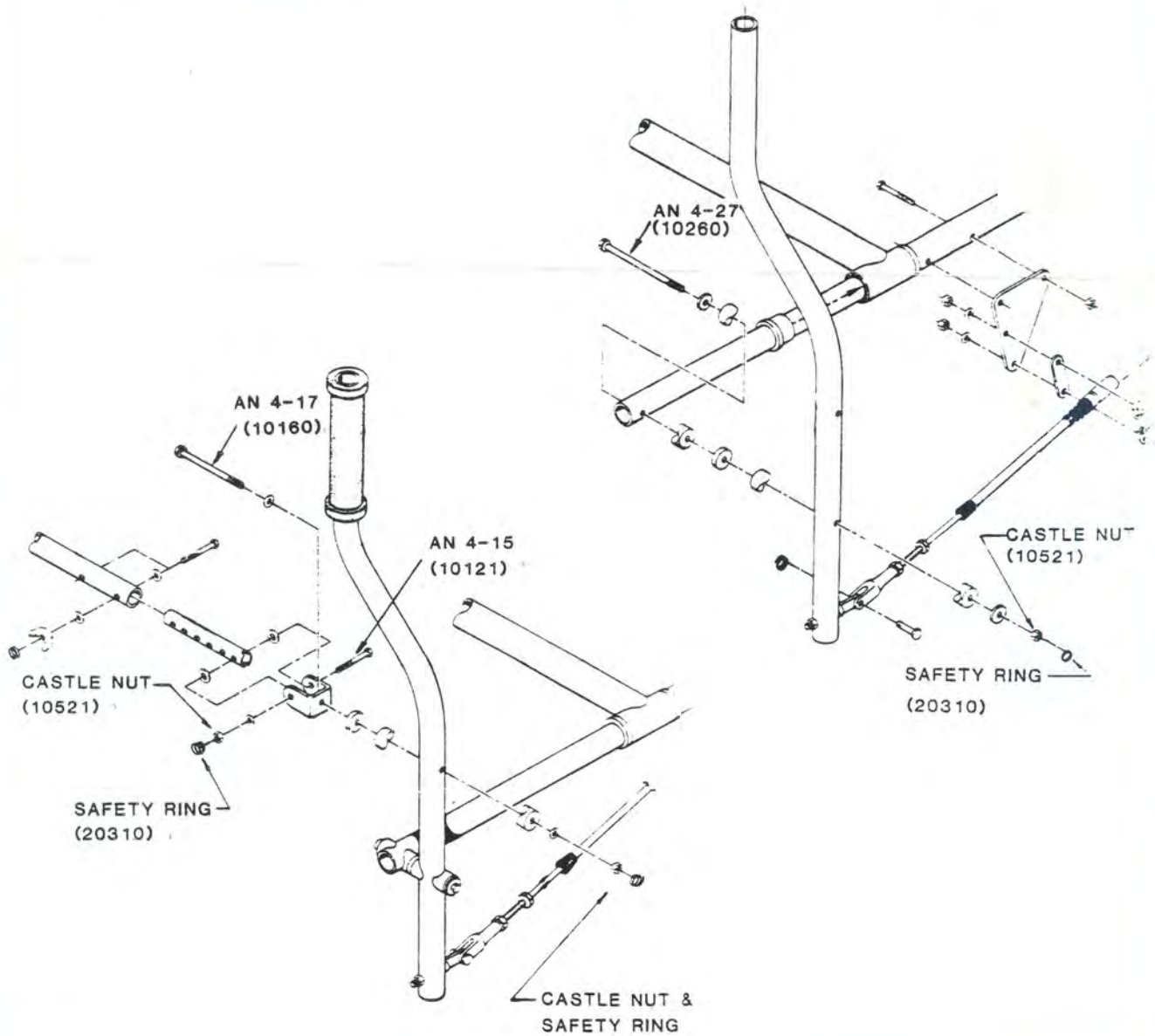
SUPPLEMENT

TO PARTS LIST AND ASSEMBLY INSTRUCTIONS

PARTS AND INSTRUCTIONS / MODEL # MX DATE 2-2-84

EDA# 09-84 DOC # 833-20 "A"

CONTROL STICK BOLT/NUT CHANGE



Copyright ©1983, Eipper Aircraft

SUPPLEMENT

TO PARTS LIST AND ASSEMBLY INSTRUCTIONS

PARTS AND INSTRUCTIONS / MODEL # MX MXII DATE 9-15-83

EDA # 111-83
134-83

Doc# 833-13

CLEVIS PIN PART NUMBER CHANGE

The part number of the 3/16"X 1/2" Clevis pins used to connect both end forks of the Tele-Flex cable has been changed. This change is not reflected in your assembly instructions. The new part number is 10441.

MX assembly instructions pages 44 and 45.

MXII assembly instructions pages 54 and 62.

SUPPLEMENT

TO PARTS LIST AND ASSEMBLY INSTRUCTIONS

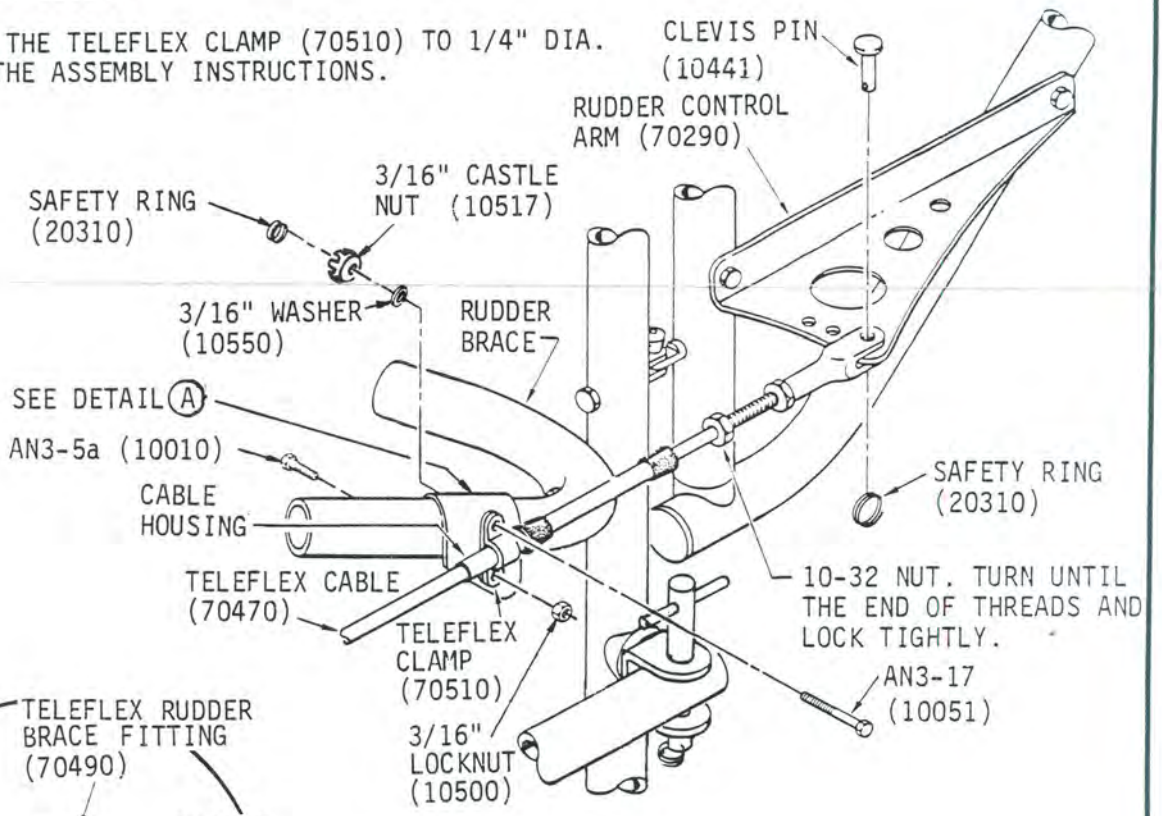
PARTS AND INSTRUCTIONS / MODEL # MX, MXII DATE 8/24/83

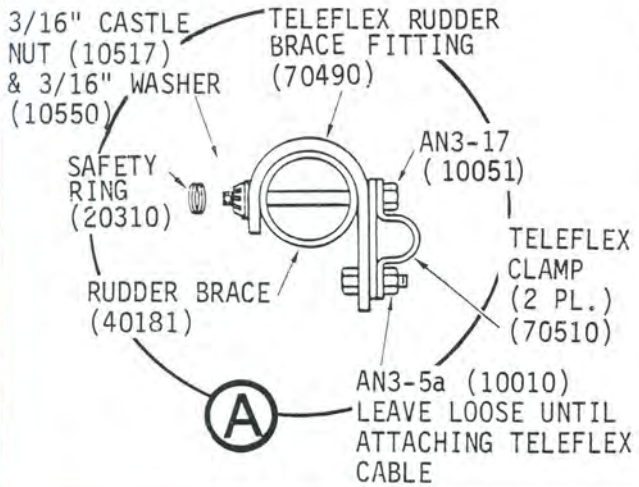
EDA # 136-83, 112-83 Doc# 833-1

RUDDER BRACE FITTING BOLT CHANGE

THE BOLT ATTACHING THE TELEFLEX RUDDER BRACE FITTING HAS BEEN CHANGED. THIS IS NOT REFLECTED IN THE ASSEMBLY INSTRUCTIONS. ASSEMBLE THE FITTING/TELEFLEX CABLE AS SHOWN BELOW.

DO NOT DRILL THE TELEFLEX CLAMP (70510) TO 1/4" DIA. AS SHOWN IN THE ASSEMBLY INSTRUCTIONS.





DELETIONS

1 - 10180 - AN4-20
1 - 10520 - 1/4" WINGNUT

ADDITIONS

1 - 10051 - AN3-17
1 - 10517 - 3/16" CASTLE NUT
1 - 10550 - 3/16" WASHER

SUPPLEMENT

TO PARTS LIST AND ASSEMBLY INSTRUCTIONS

PARTS AND INSTRUCTIONS / MODEL # MX DATE 11-9-83

EDA# 141-83 DOC # 833-56

MAIN AXLE P/N CHANGE

On pages 25, 26, 27, and 33 of your ASSEMBLY INSTRUCTIONS, P/N 40310 MAIN AXLE has been replaced by P/N 40311 MAIN AXLE. All fittings and assembly instructions remain the same.

DELETIONS

QTY.	P/N	DESCRIPTION
(1)	40310	MAIN AXLE

ADDITIONS

QTY.	P/N	DESCRIPTION
(1)	40311	MAIN AXLE

SL

Copyright 1983, Eipper Aircraft

SUPPLEMENT

TO PARTS LIST AND ASSEMBLY INSTRUCTIONS

PARTS AND INSTRUCTIONS / MODEL # MX DATE 7-7-83

EDA # 127-83 Doc# 833-27

PUSH/PULL SAFETY CABLE P/N CHANGE

On pages 25, 26, & 47 of your Assembly Instructions, P/N 20630 PUSH/PULL SAFETY CABLE has been replaced by 20828 PUSH/PULL SAFETY CABLE. Assemble as per this Supplement.

DELETIONS

QTY.	P/N	DESCRIPTION
1	10010	AN3-5a
1	10440	CLEVIS PIN
1	10500	3/16" LOCKNUT
3	10550	3/16" WASHER
1	20310	SAFETY RING
1	20320	3/16" SHACKLE
1	20360	FLAT TANG
1	20430	1" TUBE CLAMP
1	20630	PUSH/PULL SAFETY CABLE

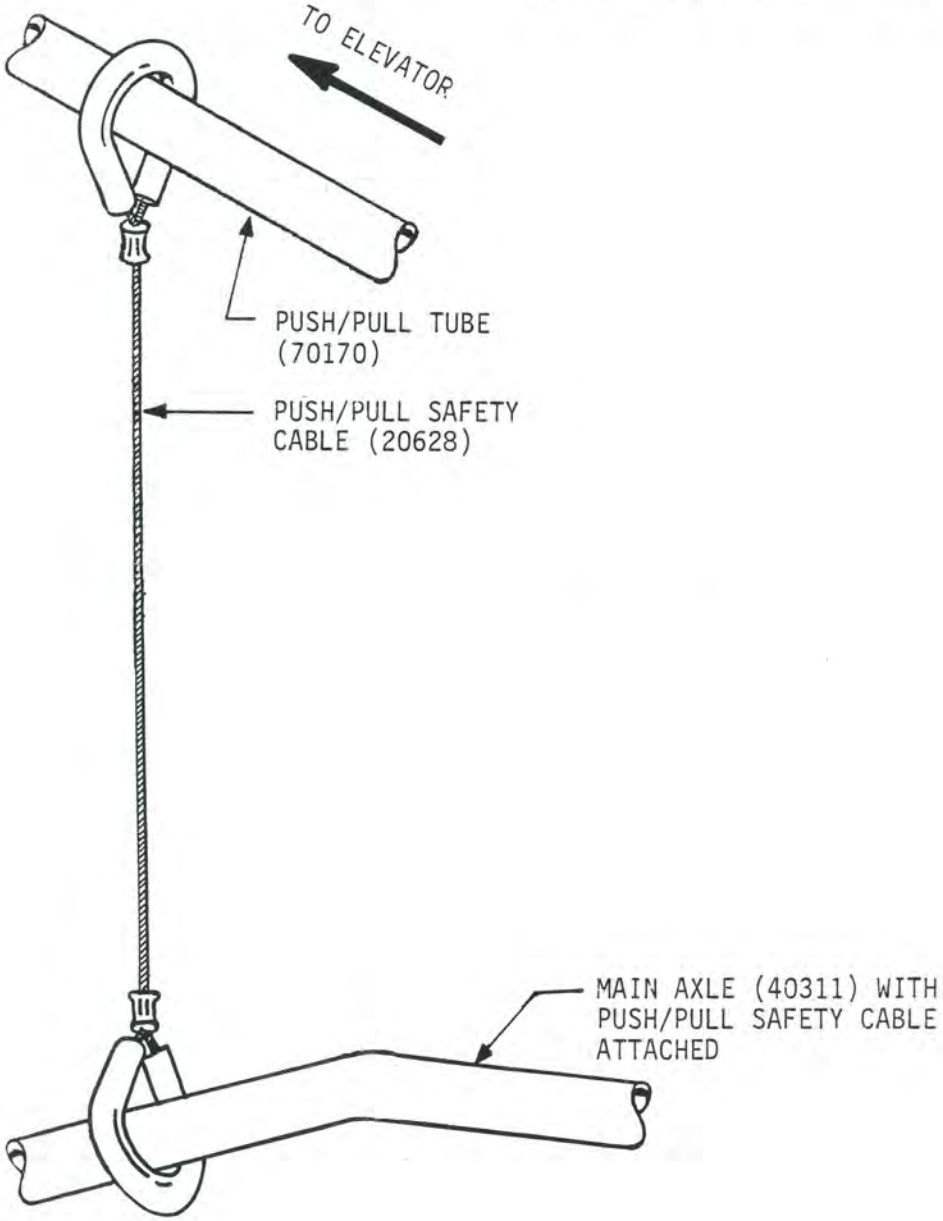
ADDITIONS

QTY.	P/N	DESCRIPTION
1	20628	PUSH/PULL SAFETY CABLE

Copyright ©1983, Eipper Aircraft

NOTE:

SLIDE PUSH/PULL TUBE THRU PUSH/PULL SAFETY CABLE (ATTACHED TO AXLE) BEFORE ASSEMBLING TUBE TO AIRCRAFT.



(62A) Procédure de mise en route et de réglage du moteur

Pour mettre le carburateur au point, vous concentrerez votre attention sur 5 réglages :

1. Le gicleur principal
2. Le gicleur de ralenti
3. La vis de réglage du ralenti
4. La vis de réglage de l'admission d'air
5. Le pointeau et le "clip"

La dimension du gicleur principal variera en fonction de l'altitude et des conditions atmosphériques de votre région - Contactez votre distributeur à ce sujet, il vous indiquera la dimension recommandée pour votre région -

MISE EN ROUTE

Fermer la manette des gaz et tirer le "choke". Mettre le moteur en route et repousser le "choke" au fur et à mesure de la montée en température du moteur -
Laisser le moteur se réchauffer durant environ 5 minutes après quoi tourner à plein régime durant environ 15 secondes pour "décrasser"
Réduire les gaz au minimum et ajuster la vis de ralenti pour obtenir un ralenti rapide, environ 1200 RPM, mais pas ~~trop~~ rapide au point que l'avion veuille taxier seul !

Maintenant, ajuster la vis de réglage de l'admission d'air pour obtenir un ralenti tout en douceur et sans acoup.

Si le ralenti est "grossier" et avec acoup, celà signifie qu'il est ou trop "riche" ou trop "pauvre". Un mélange trop riche engendre de fortes fumées d'échappement tandis qu'un mélange trop pauvre provoque une tendance du moteur à "mourir". Pour corriger celà, voyez le gicleur de ralenti. Si le mélange est trop "riche", installer un gicleur de calibre (numérotation) inférieur. Si le mélange est trop "pauvre", installer un gicleur de calibre (numérotation) supérieur.

Maintenant, voyons les réglages à "plein-gaz" et à "mi-gaz"

Ici, il faudra se préoccuper du gicleur principal. En ce qui concerne le réglage de ce gicleur si le mélange est "trop riche" ou "trop pauvre", le procédé du choix du gicleur principal est identique à celui du gicleur de ralenti. Généralement, c'est en utilisant le plus gros gicleur que le moteur tourne le mieux. Il est recommandé de mesurer la température de la culasse à "plein-gaz" et à "mi-gaz" (1/2 et 3/4 gaz) et elle ne devrait pas dépasser 400° F. lors d'un essai de 4 à 5 minutes.

62C

Si la température excède 400°F durant cet essai, il faudra changer la position du "clip" sur le pointeau du gicleur en le déplaçant vers une position (rainure) inférieure.

Si à plein régime, le moteur "détonne" ou émet de fortes fumées bleues ou noires. ou encore si le moteur "tousse", changez le gicleur principal pour un plus petit.
Si les RPM du moteur augmentent lorsque la manette des gaz est doucement ramenée depuis la pleine puissance vers la diminution de puissance, celà indique que le gicleur principal est trop petit. Celà peut engendrer une surchauffe et peut conduire au grippage du piston.

Si à plein régime, les RPM du moteur chutent lorsque la manette des gaz est doucement réduite, le gicleur principal est correct ou légèrement trop grand. Ceci est acceptable

Si le moteur tourne "rond" et avec une impression de puissance avec la manette des gaz à fond, mais "tousse" (vibre) à mi-puissance, le "clip" devrait être mis en position plus haute pour permettre que le moteur tourne "rond" et accélère vite. La position normale du "clip" est la gorge centrale sur le pointeau du gicleur.

Maintenant contrôlez à nouveau l'ajustement du ralenti. Réduisez la manette des gaz au minimum et visser la vis de réglage de ralenti à fond, ensuite la dévisser de 1/2 tour ou jusqu'à obtenir un ralenti lent. Ajuster la vis d'admission d'air plus ou moins jusqu'à obtenir un ralenti "doux"

N'hésitez pas à contacter votre agent ou le constructeur pour toute assistance ou information complémentaire.

Dimensions en pouces

Dimensions sur plats		Diamètre du boulon													Dimensions sur plats		Diamètre boulon		
		Système unifié G.B.-Canada-U.S.A.						U.S.A.			Suède		Norvège				Grande-Bretagne		
		BS.1769 (1951) ASA B 18-2-1 (1972) série lourde	BS.1768 (1963) ASA B 18-2-1 (1972) série normale		BS.1981 (1972)			ASA B 18-2-2 (1972)	ASA B 18-2-1 (1972)		SMS 1943 (1969) (UNC)	SMS 1944 (1970) (UNF)	NS 962 à 964 (1970-1972) (UNC)	NS 965 et 966 (1972) (UNF)			BSW BS916 BSF (1953)	BSW BS 1083 BSF (1965)	BA BS 57 (1951)
								Série lourde	Tête carrée										
Pouces	mm	Vis et écrous	Vis	Écrous	Vis	Écrous décolletés	Écrous matricés	Écrous	Vis	Tire-fond	Vis et écrous	Vis et écrous	Vis et écrous	Vis et écrous	Millièmes de pouces	mm	Vis et écrous	Vis et écrous	Vis et écrous
															.117	2,97			10
															.131	3,32			9
1/8	3,17				2										.152	3,86			8
															.172	4,37			7
3/16	4,76				3-4-5	2-3									.193	4,90			6
															.220	5,59			5
1/4	6,35				6-8	4	4								.248	6,30			4
9/32	7,14									10					.282	7,16			3
5/16	7,94				10-12	5-6	5-6								.324	8,23			2
11/32	8,73					8	8												
3/8	9,52					10	10		1/4	1/4					.365	9,27			1
7/16	11,11	1/4	1/4				1/4-12				1/4	1/4	1/4	1/4	.413	10,49			0
1/2	12,70	5/16	5/16					1/4	5/16	5/16	5/16	5/16	5/16	5/16	.445	11,30	1/4	1/4	
9/16	14,29	3/8	3/8				5/16	5/16	3/8	3/8	3/8	3/8	3/8	3/8	.525	13,33	5/16	5/16	
5/8	15,87	7/16					3/8		7/16	7/16			7/16	7/16	.600	15,24	3/8	3/8	
11/16	17,46		7/16					3/8					9/16		.710	18,03	7/16	7/16	
3/4	19,05	1/2	1/2					7/16	1/2	1/2	1/2	1/2	1/2	1/2					
13/16	20,64	9/16												9/16	.820	20,83	1/2	1/2	
7/8	22,22	1/2	9/16					1/2											
15/16	23,81	5/8	5/8					9/16	5/8	5/8	5/8	5/8	5/8	5/8	.920	23,37	9/16	9/16	
1.1/16	26,99	5/8						5/8							1.010	25,65	5/8	5/8	
1.1/8	28,57		3/4	3/4					3/4	3/4	3/4	3/4	3/4	3/4					
1.1/4	31,75	3/4						3/4							1.200	30,48	3/4	3/4	
1.5/16	33,34		7/8	7/8					7/8	7/8	7/8	7/8	7/8	7/8	1.300	33,02	7/8	7/8	
1.7/16	36,51	7/8						7/8											
1.1/2	38,10		1.	1.					1	1	1	1	1	1	1.480	37,59	1	1	
1.5/8	41,27	1.						1.											
1.11/16	42,86		1 1/8	1.1/8					1.1/8	1.1/8			1.1/8	1.1/8	1.670	42,42	1.1/8	1.1/8	
1.13/16	46,04	1.1/8						1.1/8											
1.7/8	47,62		1.1/4	1.1/4					1.1/4	1.1/4	1.1/4	1.1/4	1.1/4	1.1/4	1.860	47,24	1.1/4	1.1/4	
2	50,80	1.1/4						1.1/4											
2.1/16	52,39		1.3/8	1.3/8					1.3/8				1.3/8	1.3/8	2.050	52,07	1.3/8	1.3/8	
2.3/16	55,56	1.3/8						1.3/8											
2.1/4	57,15		1.1/2	1.1/2					1.1/2		1.1/2	1.1/2	1.1/2	1.1/2	2.220	56,39	1.1/2	1.1/2	
2.3/8	60,32	1.1/2						1.1/2							2.410	61,22	1.5/8		
2.9/16	65,09							1.5/8							2.580	65,53	1.3/4	1.3/4	
2.5/8	66,67		1.3/4	1.3/4							1.3/4								
2.3/4	69,85	1.3/4						1.3/4							2.760	70,10	2	2	
2.15/16	74,61							1.7/8											
3	76,20		2.	2.							2								
3.1/8	79,37	2						2							3.150	80,01	2.1/4		
3.3/8	85,72		2.1/4																
3.1/2	88,90							2.1/4							3.550	90,17	2.1/2		
3.3/4	95,25		2.1/2																
3.7/8	98,42							2.1/2							3.890	98,81	2.3/4		
4.1/8	104,80		2.3/4																
4.1/4	107,95							2.3/4							4.180	106,20	3		
4.1/2	114,30		3												4.530	115,06	3.1/4		
4.5/8	117,50							3											
															4.850	123,20	3.1/2		
															5.180	131,60	3.3/4		
															5.550	141	4		
															6.380	162	4.1/2		