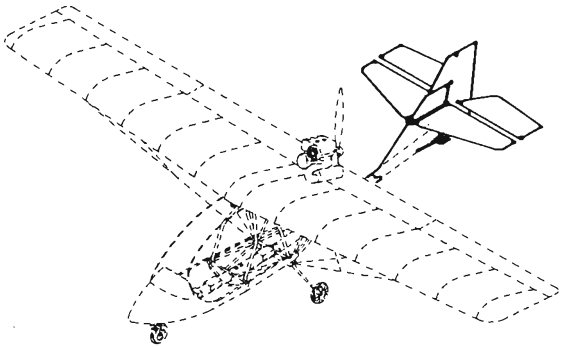
SECTION 3 - EMPENNAGE



DOC # 902-1 DATE 03/28/90

EMPENNAGE

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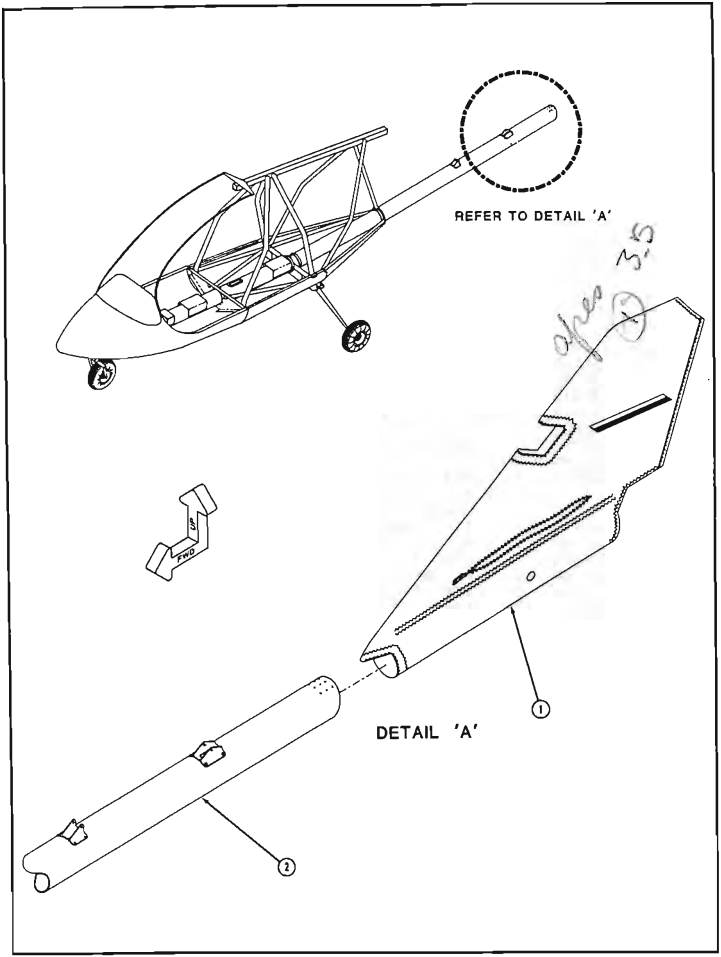
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VERTICAL STABILIZER COVER ATTACHMENT

1. Assemble as illustrated.

Item	P/N	Qty	Description
1	45642	1	Vertical Stabilizer Cover
2	45012		Tail Boom Assembly


REFER TO DETAIL 'A'
DETAIL 'A'
1
2

AFT TRIM PUSH/PULL TUBE TO TRIM BELLCRANK ATTACHMENT

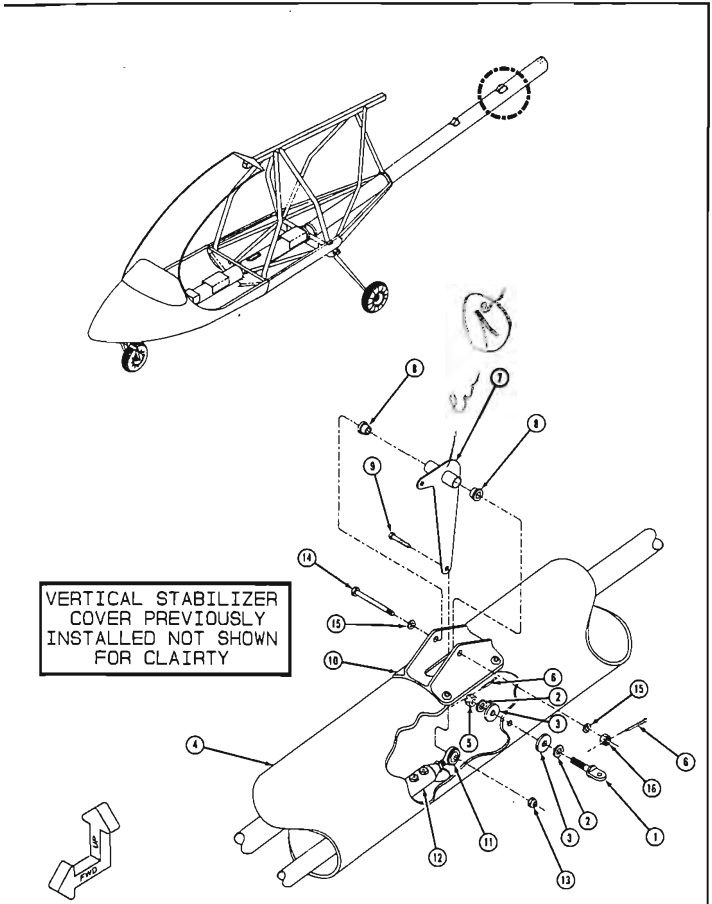
1. Assemble as illustrated. Bend ALL Cotter Pins correctly.

IMPORTANT: DO NOT OVER TORQUE the Castle Nut (16) attached to Eyebolt (1) as it must be allowed to rotate FREELY.

NOTE: RIGHT side Eyebolt (1) attachment not shown for clarity.

2. Attach Items (1,2,3,5 and 6) on the opposite (RIGHT) side in 'mirror image'.

Item	P/N	Qty	Description
1	11080	2	AN42B-4 Eyebolt
2	10550	1	3/16" Washer
3	45095	4	Contour Washer
4	45012		Tail Boom Tube Assembly
5	10517	2	3/16" Castle Nut
6	10635	3	Cotter Pin
7	45097	1	Aft Bellcrank Trim Assembly
8	30005	2	FF312 Oilite Bearing
9	10020	1	AN3-7A Bolt
10			Aft Bellcrank Trim Bracket (part of P/N 45012)
11	10700	1	1/4" Male Rod End Bearing
12	45447		Aft Trim Push/Pull Tube
13	10500	1	3/16" Locknut
14	10180	1	AN4-20 Bolt
15	10560	2	1/4" Washer
16	10521	1	1/4" Castle Nut


VERTICAL STABILIZER COVER PREVIOUSLY INSTALLED NOT SHOWN FOR CLAIRTY
FWD

UPPER AND LOWER RUDDER POST
ATTACH BRACKET AND ELEVATOR HORN BRACKET ATTACHMENT

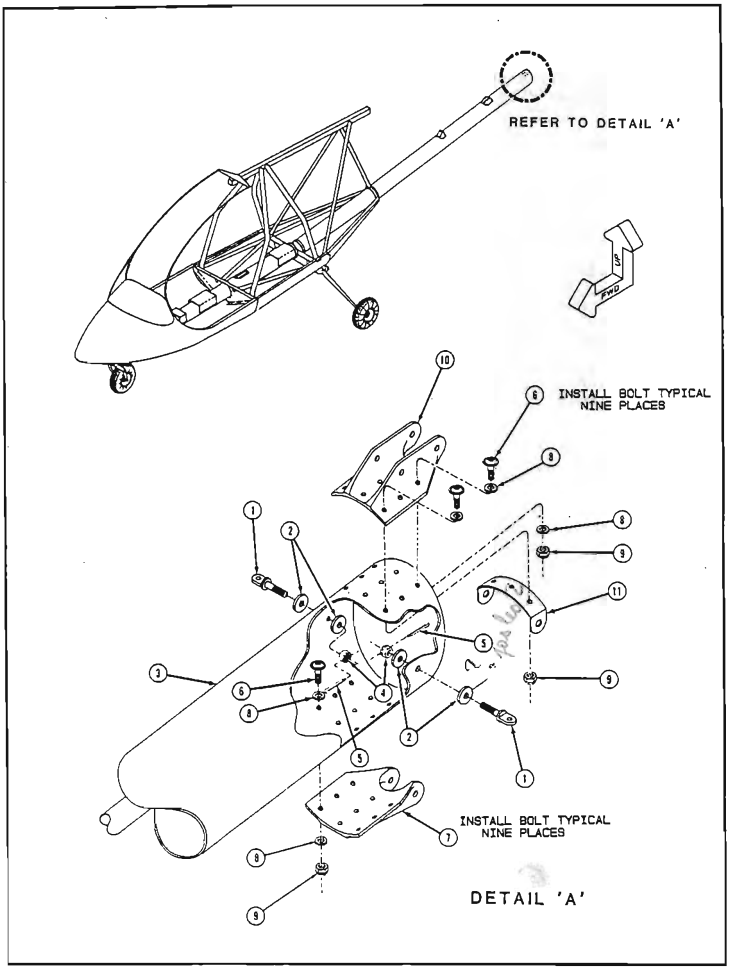
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1. Assemble as illustrated. Tighten ALL Locknuts to proper torque.

IMPORTANT: DO NOT OVER TORQUE the Castle Nuts (4) as the Eyebolts (1) MUST be allowed to rotate FREELY.

NOTE: Attach the Elevator Horn Bracket (11) THREE places. DO NOT torque the Washer Head Screws (6) during installation. Torque the Locknuts (9).

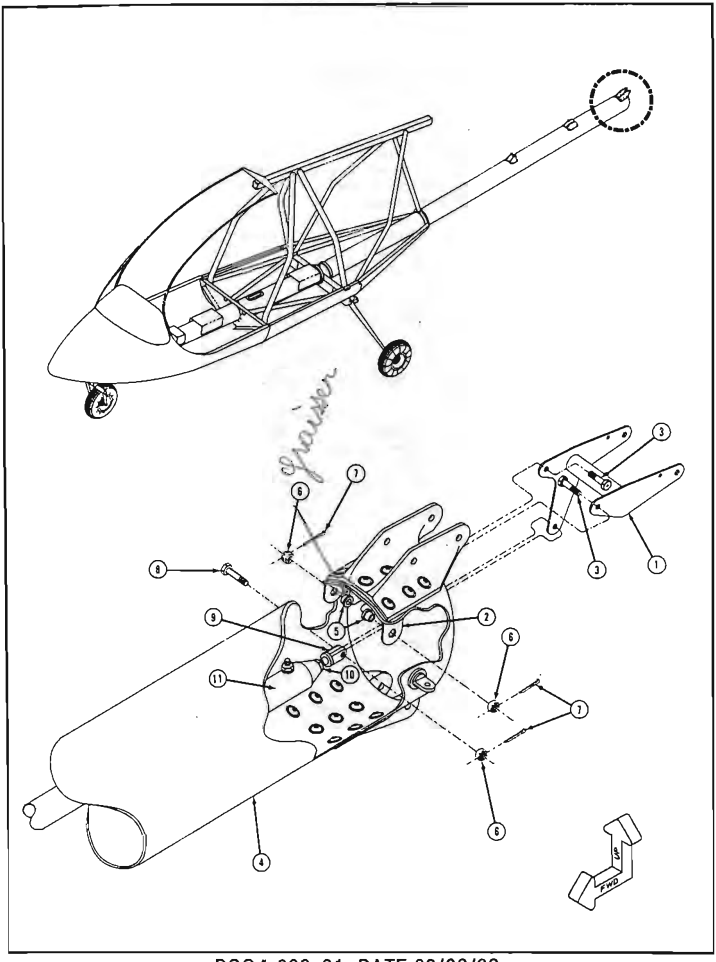
Item	P/N	Qty	Description
1	11080	2	AN42B-4 Eyebolt
2	45095	4	Contour Washer
3	45012		Tail Boom Tube Assembly
4	10517	2	3/16" Castle Nut
5	10635	2	Cotter Pin
6	11075	18	AN525-10R10 Washer Head Screw
7	45072	1	Lower Rudder Post Attach Channel
8	10550	36	3/16" Washer
9	10500	18	3/16" Locknut
10	45071	1	Upper Rudder Post Attach Bracket
11	45076	1	Elevator Horn Bracket


REFER TO DETAIL 'A'
INSTALL BOLT TYPICAL NINE PLACES
INSTALL BOLT TYPICAL NINE PLACES
DETAIL 'A'

ELEVATOR BELLCRANK ATTACHMENT TO
AFT ELEVATOR PUSH/PULL TUBE AND TAIL BOOM TUBE ASSEMBLY

1. Assemble as illustrated. DO NOT OVER TORQUE. Bend ALL Cotter Pins (7) correctly.

Item	P/N	Qty	Description
1	45074	1	Elevator Bellcrank Assembly
2	45076		Elevator Horn Bracket
3	10007	2	AN3-4 Bolt
4	45012		Tail Boom Tube Assembly
5	30004	2	.31 O.D. x .191 I.D. Flange Bearing
6	10517	2	3/16" Castle Nut
7	10635	2	Cotter Pin
8	10009	1	AN3-5 Bolt
9	10388		1/4" x 1" Full Thread Forkbolt
10	10631		1/4" - 28 Jam Nut
11	45013		Aft Elevator Push/Pull Tube


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FWD

TAIL SKID TO VERTICAL STABILIZER TRAILING EDGE ASSEMBLY ATTACHMENT

1. Refer to Detail 'A'. Use an Eyebolt (3) to position and align the Anchor Nut (3) on the TOP end of the FORWARD side of the Vertical Stabilizer Trailing Edge Assembly (2). The TOP end has TWO [2] 3/16" (4.8 mm) diameter holes. The FORWARD side has the factory installed rivets.

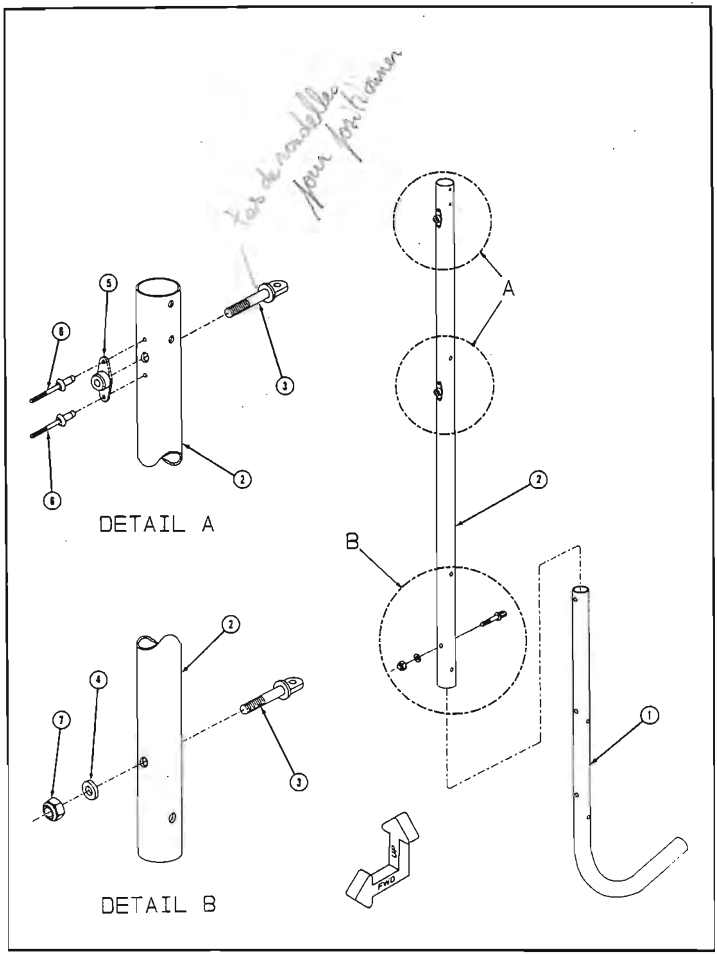
2. Drill and deburr FOUR [4] 1/8" (3.2 mm) diameter holes as illustrated. Refer to Detail 'A' TWO [2] places. Attach the Anchor Nuts (5) as illustrated.

3. Slide the Tail Skid (1) into the Vertical Stabilizer Trailing Edge Assembly (2) and align the holes.

4. Refer to Detail 'B' and attach the LOWER Eyebolt (3) ONLY at this time. Align the Eyebolt (3) as illustrated. DO NOT OVER TORQUE the Eyebolt and DISTORT the tube.

IMPORTANT: DO NOT attach the Eyebolts (3) in the Detail 'A' locations at this time. They are to be used for Anchor Nut (5) alignment ONLY. They are to be installed in a later sequence AFTER the Vertical Stabilizer Cover (not illustrated) has been attached. Heat cut as required at these hole locations at the appropriate time and attach the Eyebolts (3) as illustrated in Details 'A'. DO NOT OVER TORQUE the Eyebolts and DISTORT the tube.

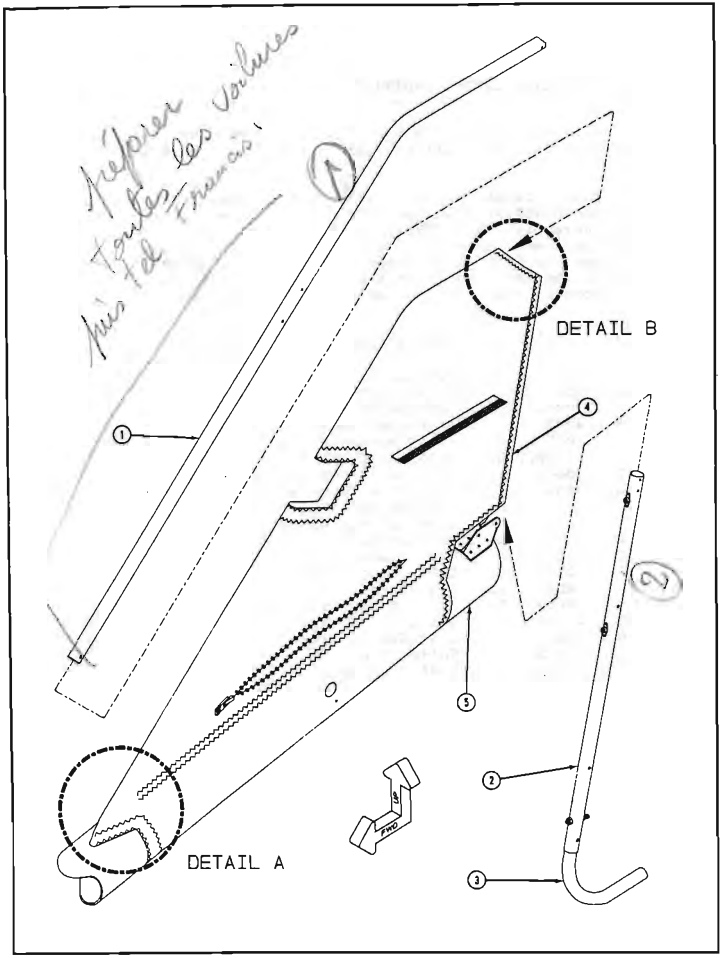
Item	P/N	Qty	Description
1	45060	1	Tail Skid
2	45063	1	Vertical Stabilizer Trailing Edge Assembly
3	10370	3	AN43B-15A Eyebolt
4	10560	1	1/4" Washer
5	10530	2	1/4" - 28 Anchor Nut
6	20201	4	1/8" x 1/4" Grip Stainless Steel Rivet (CCPQ-44)
7	10560	1	1/4" Locknut


A
B
DETAIL A
DETAIL B

VERTICAL STABILIZER LEADING EDGE AND
TRAILING EDGE INSERTION INTO VERTICAL STABILIZER COVER

1. Assemble as illustrated.

Item	P/N	Qty	Description
1	45066	1	Vertical Stabilizer Leading Edge
2	45063		Vertical Stabilizer Trailing Edge Assembly
3	45060		Tail Skid
4	45642	1	Vertical Stabilizer Cover
5	45012		Tail Boom Tube Assembly


DETAIL B
DETAIL A
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FWD

VERTICAL STABILIZER LEADING EDGE ATTACHMENT

1. Assemble Bolt (3) with hardware FIRST then Bolt (10) with Hardware SECOND as illustrated. Tighten ALL Locknuts to proper torque.

2. Push UPWARD on the Tail Skid to tension the Cover (7). Measure DOWNWARD from the TOP edge of the Stabilizer Trailing Edge Assembly (2) APPROXIMATELY 12" (30.48 cm) and locate the 1/4" (6.4 mm) diameter hole. Reveal and heat-seal the hole through the Stabilizer Cover (7). DO NOT BREATHE THE FUMES. Attach the Bolt (13) with the Hardware (11,14,15,16 and 17) as illustrated. Bend the Cotter Pin (17) correctly.

Item	P/N	Qty	Description
1.	45066	1	Vertical Stabilizer Leading Edge Assembly
2.	45063		Vertical Stabilizer Trailing Edge Assembly
3.	10050	3	AN3-17A Bolt
4.	45083	2	#1 Rudder Gusset Plate
5.	10550	8	3/16" Washer
6.	10500	3	3/16" Locknut
7.	45642		Vertical Stabilizer Cover
8.	45012		Tail Boom Tube Assembly
9.			Leading Edge Vertical Stabilizer Channel (part of P/N 45012)
10.	10170	1	AN4-20A Bolt
11.	10560	4	1/4" Washer
12.	20340	2	5/8" x 1/16" Nylon Washer
13.	10205	1	AN4-23 Bolt
14.	20060	2	S-1.125 Channel
15.	20289	2	1 1/2" x .25 H x .20 THK Saddle
16.	10521	1	1/4" Castle Nut
17.	10635	1	Cotter Pin
18.	10560	1	1/4" Locknut
19.	20415	1	1 1/4" x .035 Tube Cap
20.	20200	1	1/8" x 1/4" Grip Aluminum Rivet (AAP-44)

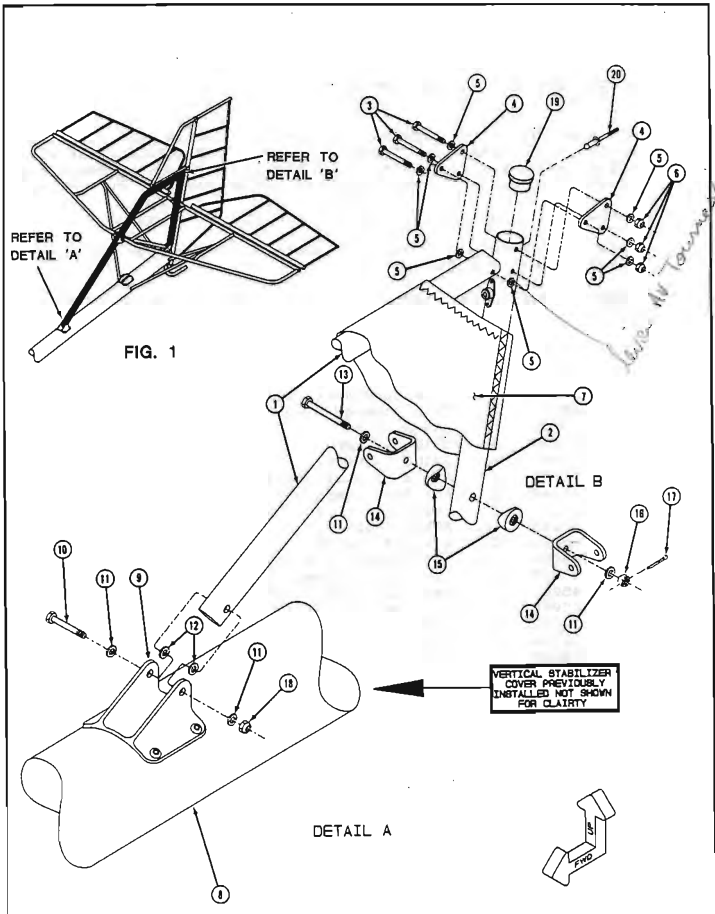

REFER TO DETAIL 'B'
REFER TO DETAIL 'A'
DETAIL B
DETAIL A
VERTICAL STABILIZER COVER PREVIOUSLY INSTALLED NOT SHOWN FOR CLARITY
FWD

FIG. 1

UPPER TRIM ASSEMBLY ATTACHMENT

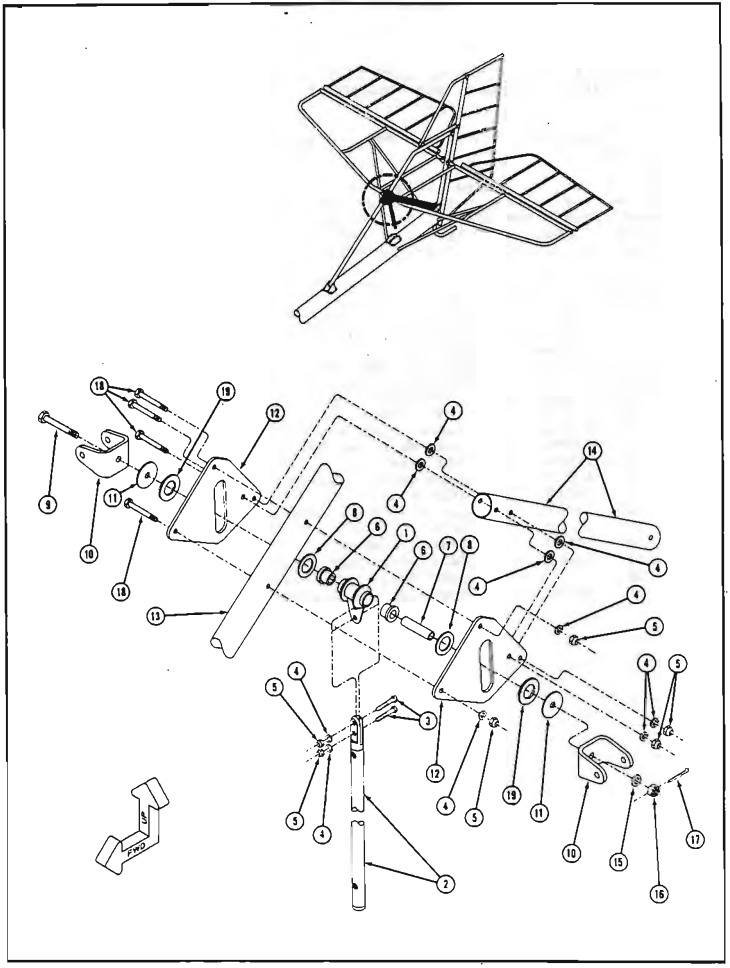
1. Assemble as illustrated. Tighten the Castle Nut (16) only "snug" to eliminate any "slop". DO NOT OVER TORQUE with will allow excess friction in the Trim System. Tighten ALL remaining Locknuts to proper torque. Bend the Cotter Pin (17) correctly.

IMPORTANT: Install the Bolts (3) EXACTLY as illustrated.

NOTE 1: Attach the Vertical Stabilizer Compression Strut with the "notched" end DOWN and AFT.

NOTE 2: Remove the protective paper from the Washers (8) and (19).

Item	P/N	Qty	Description
1	45041	1	Trim Component Slider Assembly
2	45040	1	Trim Pushrod Assembly
3	10010	2	AN3-5A Bolt
4	10550	10	3/16" Washer
5	10500	6	3/16" Locknut
6	30003	2	FF520-15 Oilite Bearing
7	45042	1	Aft Trim Component Bushing
8	20336	2	.63" x 1" x .06" Thick Plastic Washer
9	10205	1	AN4-23 Bolt
10	20060	2	S-1.125 Channel
11	10565	2	1/4" Fender Washer
12	45085	2	Slotted Incidence Adjust Plate
13	45066		Vertical Stabilizer Leading Edge Assembly
14	45065		Vertical Stabilizer Compression Strut
15	10560	1	1/4" Washer
16	10521	1	1/4" Castle Nut
17	10635	1	Cotter Pin
18	10045	4	AN3-16A Bolt
19	20338	2	.375" x 1" x .06" Plastic Washer

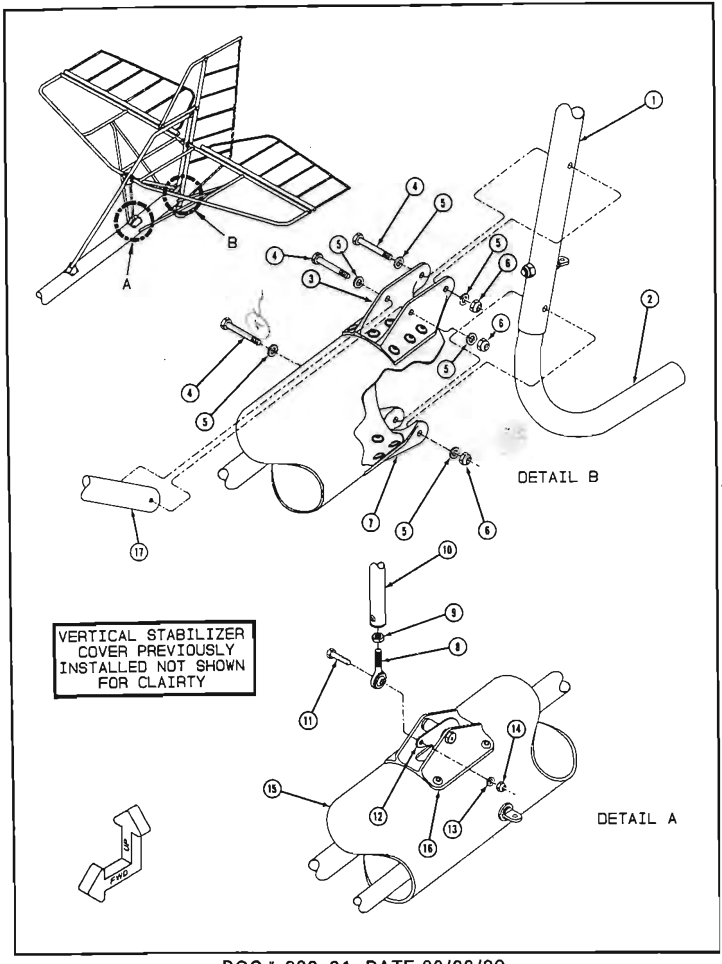

FWD

VERTICAL STABILIZER TRAILING EDGE AND TAIL SKID ATTACHMENT TO TAIL BOOM TUBE / TRIM PUSHROD ATTACHMENT TO TRIM BELLCRANK

1. Assemble as illustrated. Tighten ALL Locknuts to proper torque.

2. Refer to pages 3-10 and 3-11, Detail 'A'. Locate the holes for the Eyebolts through the Vertical Stabilizer Cover and reveal them with a Hot Knife. Attach the Eyebolts. DO NOT OVER TORQUE the Eyebolts and DISTORT the tube. Align the Eyebolts HORIZONTALLY as illustrated.

Item	P/N	Qty	Description
1.	45063		Vertical Stabilizer Trailing Edge Assembly
2.	45060		Tail Skid
3.	45071		Upper Rudder Post Attach Bracket
4.	10170	3.	AN4-20A Bolt
5.	10560	6.	1/4" Washer
6.	10510	3.	1/4" Locknut
7.	45072		Rudder Post Attach Channel
8.	10700	1.	1/4" Male Rod End Bearing
9.	10631	1.	1/4" Jam Nut
10.	45040		Trim Pushrod Assembly
11.	10015	1.	AN3-6A Bolt
12.	45097		Aft Trim Bellcrank Assembly
13.	10550	1.	3/16" Washer
14.	10500	1.	3/16" Locknut
15.	45012		Tail Boom Tube Assembly
16.			Trim Bellcrank Bracket (part of P/N 45012)
17.	45065		Vertical Stabilizer Compression Strut


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DETAIL B
DETAIL A
VERTICAL STABILIZER COVER PREVIOUSLY INSTALLED NOT SHOWN FOR CLAIRTY
FWD

HORIZONTAL STABILIZER
LEADING EDGE AND COMPRESSION STRUT ASSEMBLY

1. Assemble as illustrated. Tighten ALL Locknuts to proper torque. DO NOT DISTORT THE TUBE.

2. Repeat for the opposite side 'mirror image'.

Item	P/N	Qty	Description
1	45014	2	Horizontal Stabilizer Leading Edge
2	20446	2	1" x 1" Tube Connector
3	10030	2	AN3-13A Bolt
4	10550	20	3/16" Washer
5	10500	10	3/16" Locknut
6	45027	2	Outboard Stabilizer Compression Strut
7	20445	8	7/8" x 1" Aluminum Tube Connector
8	10027	8	AN3-12A Bolt
9	10359	2	AN43B-13 Eyebolt
10	10560	4	1/4" Washer
11	10521	2	1/4" Castle Nut
12	45026	2	Inboard Stabilizer Compression Strut
13	10635	2	Cotter Pin

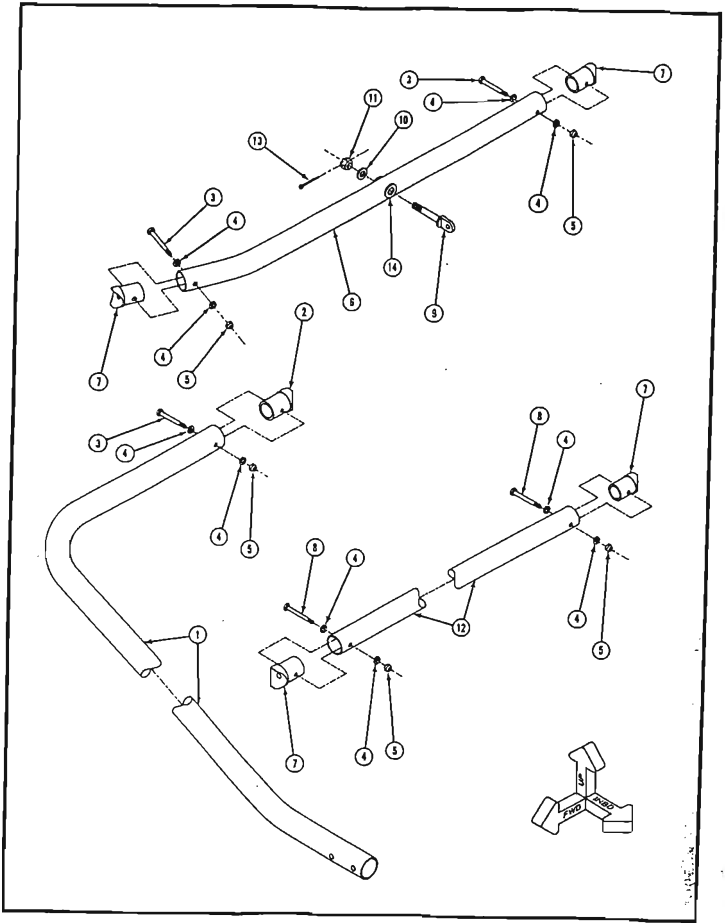
HORIZONTAL STABILIZER
LEADING EDGE AND COMPRESSION STRUT ASSEMBLY

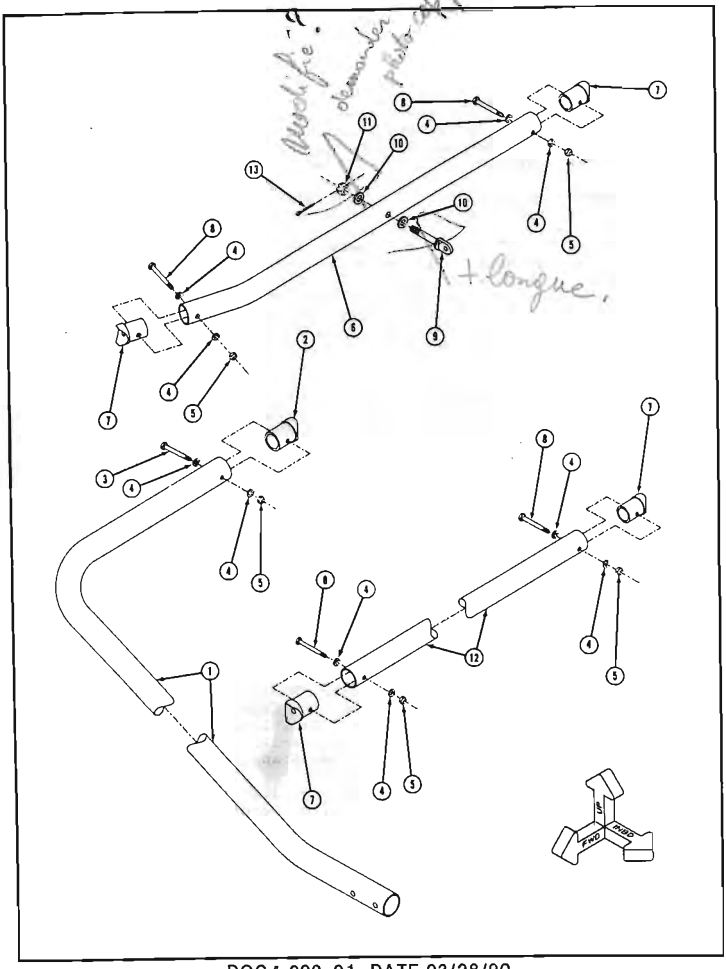
1. Assemble as illustrated. Tighten ALL Locknuts to proper torque. DO NOT distort the tube.

NOTE: Tighten the Castle Nut (11) until snug. DO NOT over torque. The Eyebolt (9) must be allowed to rotate freely. Secure the Castle Nut with a Cotter Pin (13) bent corectly.

2. Repeat for the opposite side in "mirror image".

Item	P/N	Qty	Description
1	45014	2	Horizontal Stabilizer Leading Edge
2	20446	2	1" x 1" Tube Connector
3	10030	6	AN3-13A Bolt
4	10550	20	3/16" Washer
5	10500	10	3/16" Locknut
6	45027	2	Outboard Stabilizer Compression Strut
7	20445	8	7/8" x 1" Aluminum Tube Connector
8	10027	4	AN3-12A Bolt
9	10360	2	AN43B-14 Eyebolt
10	10560	2	1/4" Washer
11	10521	2	1/4" Castle Nut
12	45026	2	Inboard Stabilizer Compression Strut
13	10635	2	Cotter Pin
14	30001		FF310-2 Oilite Bearing (factory installed) (part of P/N 45027)


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STBD
AFT


FWD
AFT
PORT

HORIZONTAL STABILIZER ASSEMBLY

Before starting the following sequence drill out the TWO (2) attachment holes in the SIX (6) Anchor Nuts (1) (THREE (3) per Stabilizer Assembly) to 1/8" (3.2 mm).

1. Locate the Stabilizer Trailing Edge (2). Ensure the INBOARD end of the tube has a 1/4" (6.4 mm) diameter hole at 3/8" (9.5 mm) and 1 1/2" (3.81 cm). A factory installed Rivet is located at 2 1/2" (6.35 cm). Refer to Detail 'A'. TEMPORARILY insert an Forkbolt (11) to align the Anchor Nuts (1). Attach the Anchor Nuts with Rivets (3) to the FORWARD edge of the Trailing Edge (2) at the following locations as measured from the INBOARD end of the tube: 6 3/8" (16.19 cm), 29 3/4" (75.56 cm) and at 52 1/8" (132.39 cm). NOTE: The factory installed "existing" Rivets should be located on the FORWARD edge of the tube.

2. Assemble as illustrated. Add a drop of Thread Adhesive to the threads of ALL of the Grade 5 Bolts (8) and (10). Tighten the Bolts (8) to correct torque. DO NOT DISTORT THE TUBE.

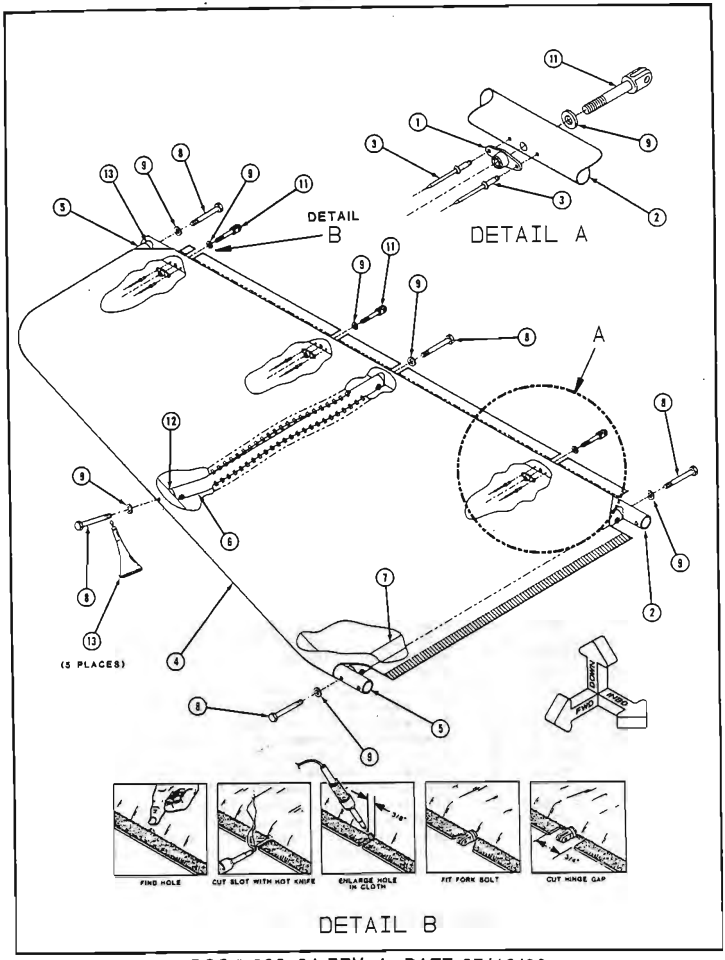
3. Tighten the Forkbolts (11) to correct torque. Align the Forkbolts as illustrated. DO NOT DISTORT THE TUBE.

IMPORTANT: If the Forkbolt CANNOT reach the VERTICAL position at correct torque "back-off" on the Forkbolt to the NEXT VERTICAL position.

4. Repeat on the opposite (RIGHT) Stabilizer in "mirror image".

Metric Conversion: 3/8" = (9.5 mm), 3/4" = (19.05 mm)

Item	P/N	Qty	Description
1	10530	3	1/4" - 28 Anchor (Plate) Nut
2	45016		Stabilizer Trailing Edge
3	20201	6	1/8" x 1/4 Grip Stainless Steel Rivet
4	45646	1	Left Horizontal Stabilizer Cover
	45647		Right Horizontal Stabilizer Cover (not illustrated)
5	45014		Stabilizer Leading Edge
6	45027		Outboard Stabilizer Compression Strut
7	45026		Inboard Stabilizer Compression Strut
8	10400	5	1/4" x 1 3/4" Grade 5 Bolt
9	10560	8	1/4" Washer
10	60591		Thread Adhesive
11	10390	3	1/4" x 1 1/2" Forkbolt
12	20445		7/8" Tube Connector


DETAIL A
DETAIL B
DETAIL
B
A
(5 PLACES)
FIND HOLE
CUT SLOT WITH HOT KNIFE
ENLARGE HOLE IN CLOTH
FIT FORK BOLT
CUT HINGE GAP
DOWN
AFT
PORT
STBD

ELEVATOR ASSEMBLY

NOTE 1: Before attaching each of the Elevator Covers (15) and (16) onto the Elevator Frame you may wish to remove ALL part number labels and any reside left by the labels with some cleaning solvent. The labels will bleed thru if you have a light colored Wing Cover and will be visible thru the Cover if an ultra violet inhibitor such as "Stits" is applied later.

NOTE 2: To ease installation if the Elevator Covers apply a thin coat of Silicone Spray to the Elevator Frame.

1. Refer to Figure 1 and Detail 'A'. Attach the Anchor Nuts (1) to the AFT side of the LEFT Elevator Leading Edge (2) as illustrated. Align the Anchor Nut with an Eyebolt (4). Drill TWO [2] 1/8" (3.2 mm) diameter holes per Anchor Nut. Deburr the holes. Assemble as illustrated.

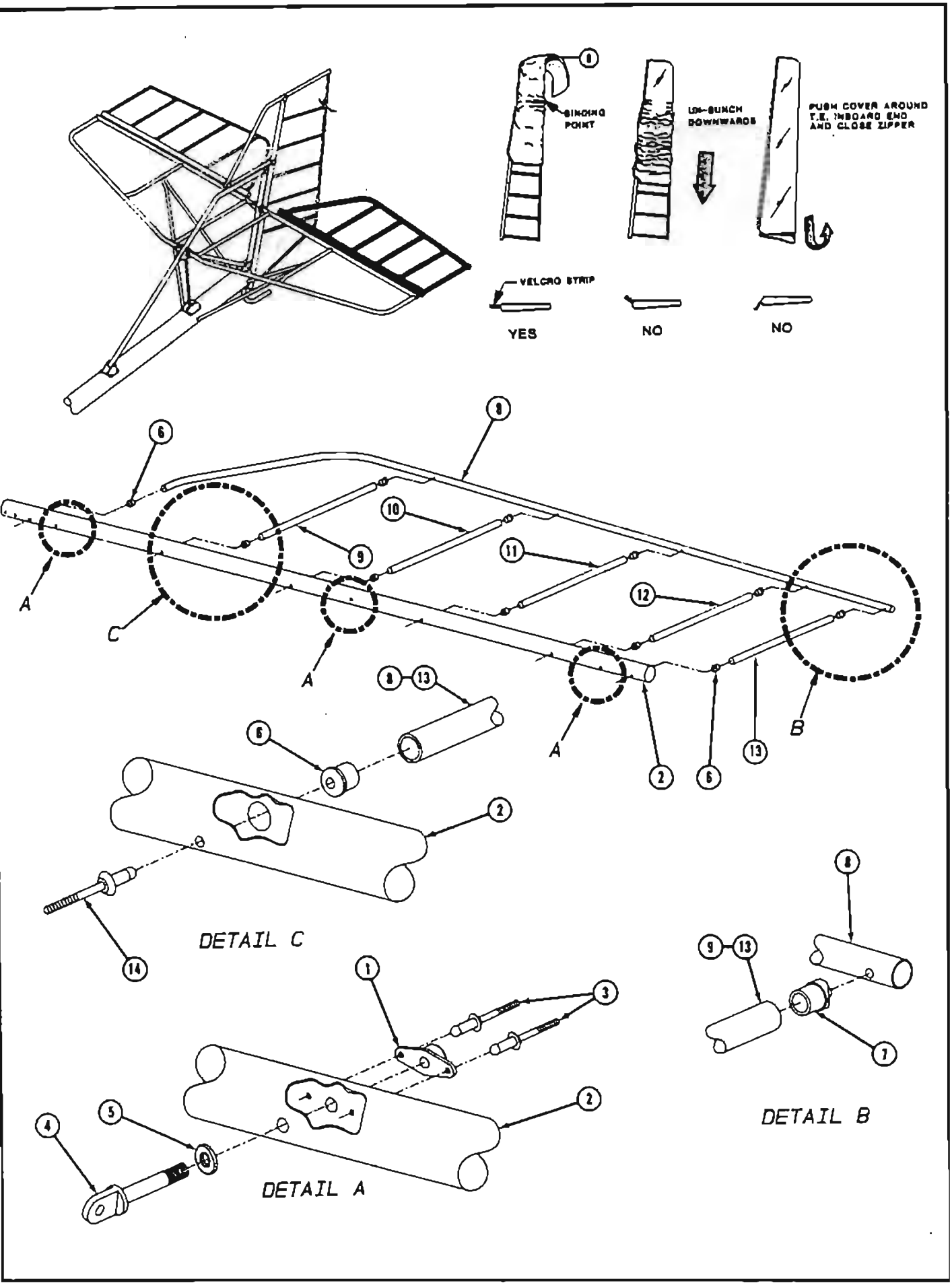
2. Repeat for the opposite (RIGHT) side.

3. Slide the Left Elevator Cover (15) onto the Elevator Frame.

NOTE: Both Elevator Frames are symetrical. Zippers are located on the BOTTOM or LOWER surface.

4. Slide the Right Elevator Cover (16) onto the remaining Elevator Frame.

Item	P/N	Qty	Description
1	10530	6	1/4" - 28 Anchor Nut
2	45017	2	Elevator Leading Edge
3	20201	12	1/8" x 1/4" Stainless Steel Rivet
4	10370	6	AN43B-15A Eyebolt
5	10560	6	1/4" Washer
6	71001	12	Forward Aileron Compression Strut Tip
7	71002	10	Aft Aileron Compression Strut Tip
8	45019	2	Elevator Trailing Edge
9	45028	2	Elevator Compression Strut 19.94" Long
10	45029	2	Elevator Compression Strut 18.92" Long
11	45031	2	Elevator Compression Strut 18.09" Long
12	45032	2	Elevator Compression Strut 17.02" Long
13	45033	2	Elevator Compression Strut 16.26" Long
14	20225	12	3/16" x 1/2" Grip Aluminum Rivet (AAP-68)
15	.....	1	Left Elevator Cover (not illustrated)
16	.....	1	Right Elevator Cover (not illustrated)

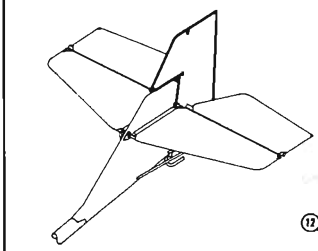

SINDING POINT
UN-BUNCH DOWNWARDS
PUSH COVER AROUND T.E. INBOARD END AND CLOSE ZIPPER
VELCRO STRIP
YES
NO
NO
A
C
A
A
B
DETAIL C
DETAIL A
DETAIL B

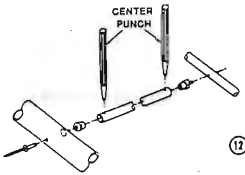
RUDDER ASSEMBLY

1. Assemble as illustrated.

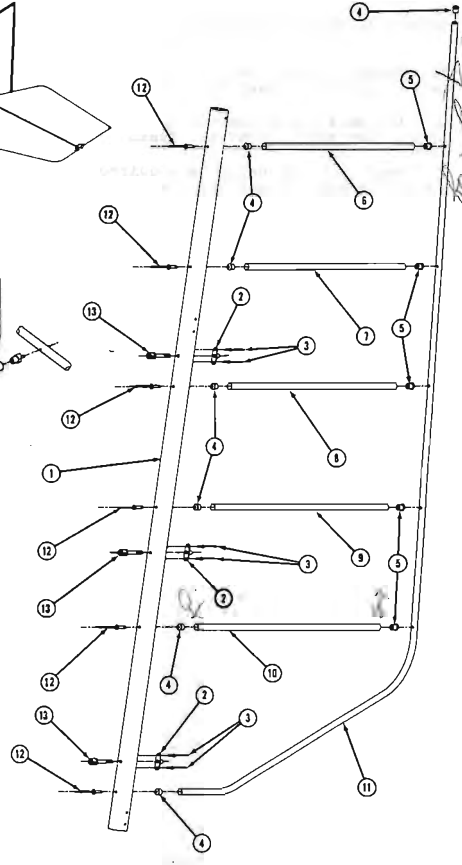
NOTE: DO NOT Install the Forkbolts (13) at this time. Use ONLY for alignment of Anchor Nuts (2).

Item	P/N	Qty	Description
1	45001	1	Rudder Leading Edge
2	10530	3	1/4" - 28 Anchor Nut
3	20201	6	1/8" x 1/4" Grip Stainless Steel Rivet
4	71001	7	Forward Aileron Compression Strut Tip
5	71002	5	Aft Aileron Compression Strut Tip
6	45055	1	Rudder Compression Strut 17.02
7	45056	1	Rudder Compression Strut 18.04
8	45057	1	Rudder Compression Strut 19.02
9	45058	1	Rudder Compression Strut 20.04
10	45059	1	Rudder Compression Strut 21.04
11	45003	1	Rudder Trailing Edge
12	20225	6	3/16" x 1/2" Grip Aluminum Rivet (AAP-68)
13	10390	3	1/4" x 1 1/2" Forkbolt




CENTER
PUNCH

DETAIL 'A'


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

RUDDER ASSEMBLY (CONT'D.)

1. Insert the sub-assembly from the previous Pages (3-26 and 3-27) into the Rudder Cover (10).

2. Assemble as illustrated. Tighten ALL Locknuts to correct torque. DO NOT DISTORT THE TUBES.

3. Heat cut the holes as required and install the Forkbolts (9) AFTER the assembly is complete. DO NOT BREATHE THE FUMES.

Item	P/N	Qty	Description
1	45004	1	Rudder Top Tube
2	45001		Rudder Leading Edge
3	10030	3	AN3-13A Bolt
4	45083	6	#1 Rudder Gusset Plate
5	10550	21	3/16" Washer
6	10500	9	3/16" Locknut
7	20225	1	3/16" x 1/2" Grip Aluminum Rivet (AAP-68)
8	45002	1	Balance Strut
9	10390	3	1/4" x 1 1/2" Forkbolt
10	45643	1	Rudder Cover
11	10040	6	AN3-15A Bolt

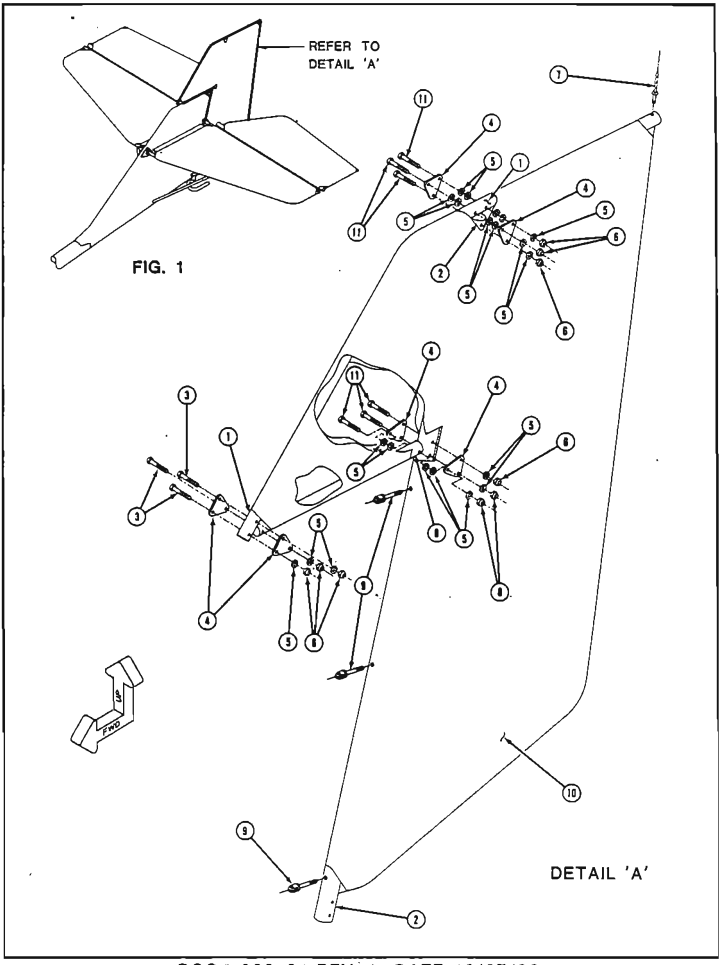
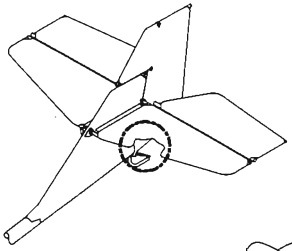


FIG. 1

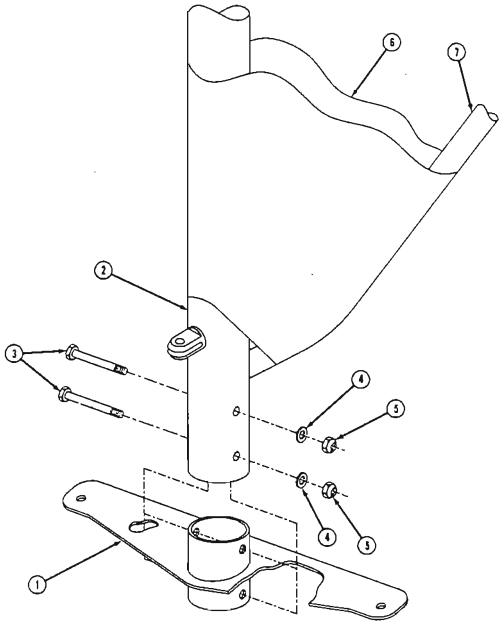
RUDDER BELLCRANK ATTACHMENT

1. Assemble as illustrated. Tighten ALL Locknuts to correct torque.

Item	P/N	Qty	Description
1	45087	1	Rudder Bellcrank Assembly
2	45001		Rudder Leading Edge Assembly
3	10040	2	AN3-15A Bolt
4	10550	2	3/16" Washer
5	10500	2	3/16" Locknut
6	45643		Rudder Cover
7	45003		Rudder Trailing Edge




UP
FWD


6
7
2
3
4
5
4
5
1

HORIZONTAL STABILIZER STRUT ASSEMBLY

1. Refer to Figure 1. Thread a Jam Nut (2) "ALL THE WAY" onto the Forkbolt (2). Assemble as illustrated. Tighten ALL Locknuts (7) to proper torque.

2. Refer to Figure 2. Assemble the Strut (10) as illustrated.

3. Repeat for the opposite (LEFT) side in "mirror image".

NOTE: All Locknuts (7) should be facing DOWNWARD.

Item	P/N	Qty	Description
1	10631	6	1/4" - 28 Jam Nut
2	10388	6	1/4" x 1" Full Thread Forkbolt
3	45658	6	1/4" - 28 x .75" Streamlined Tube Fitting
4	45118	2	Streamlined Horizontal Stabilizer Drag Strut
5	10025	8	AN3-11A Bolt
6	10550	12	3/16" Washer
7	10500	12	3/16" Locknut
8	10027	4	AN3-12A Bolt
9	45125	4	42 Degree Gusset Plate
10	45119	2	Streamlined Horizontal Stabilizer Support Strut

FIG. 1

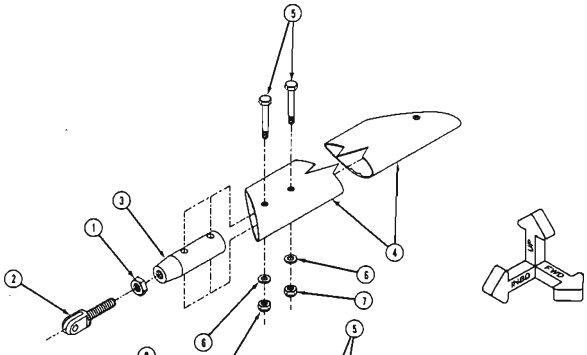
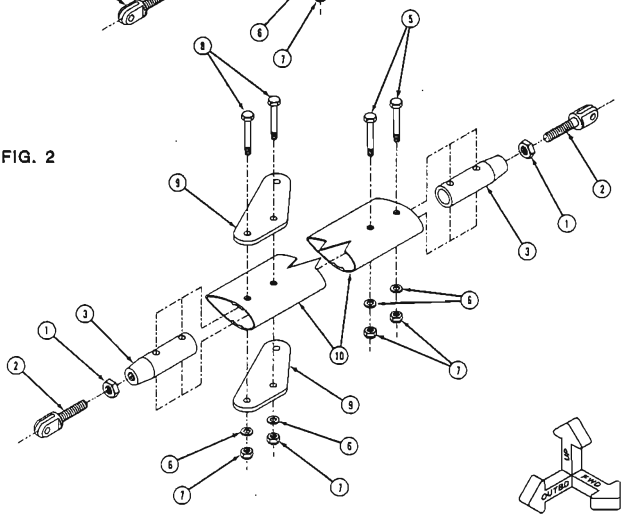


FIG. 2



STABILIZER DRAG STRUT AND
TAIL SUPPORT STRUT TO TAIL BOOM ASSEMBLY ATTACHMENT

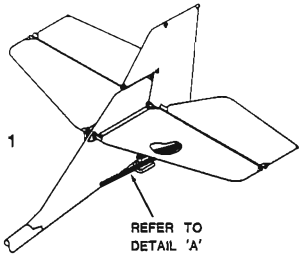
1. Refer to Figure 1 and Detail 'A'. Assemble as illustrated however tighten only the Locknut (6) to correct torque. DO NOT DISTORT THE TUBE. DO NOT tighten the Jam Nuts (13) or bend the Cotter Pins (11) at this time as they will be secured in a later sequence.

NOTE: Slip a Washer (5) INSIDE each Forkbolt (8) BEFORE attaching them to the Eyebolts (9), if necessary, to remove any slopiness or "slack" in the system.

2. Repeat on the opposite (RIGHT) side in "mirror image".

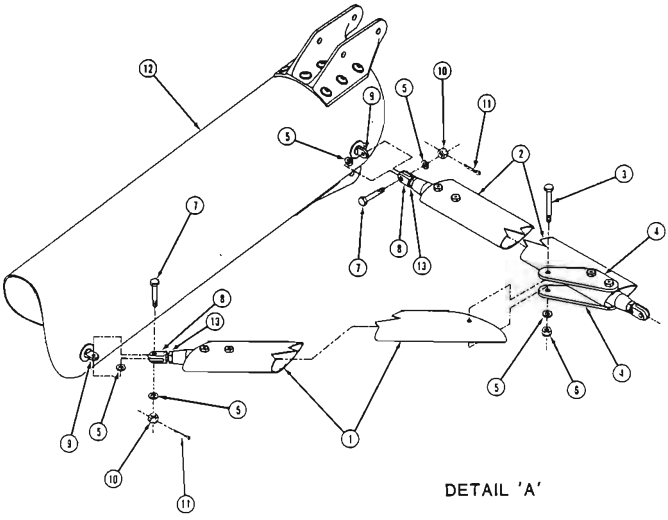
Item	P/N	Qty	Description
1	45118		Streamlined Horizontal Stabilizer Drag Strut
2	45119		Streamlined Horizontal Stabilizer Support Strut
3	10027	2	AN3-12A Bolt
4	45125		42 Degree Gusset Plate
5	10550	10	3/16" Washer
6	10500	2	3/16" Locknut
7	10009	4	AN3-5 Bolt
8	10388		1/4" x 1" Full Thread Forkbolt
9	11080		AN42B-4 Eyebolt
10	10517	4	3/16" Castle Nut
11	10635	4	Cotter Pin
12	45012		Tail Boom Tube Assembly
13	10631		1/4" - 28 Jam Nut

FIG. 1





CERTAIN PARTS NOT SHOWN FOR CLARITY



DETAIL 'A'

HORIZONTAL STABILIZER ATTACHMENT

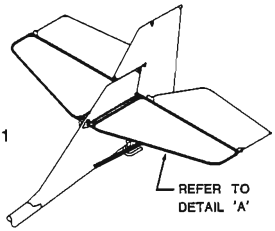
1. Assemble as illustrated. Bend ALL Cotter Pins (13) correctly.

NOTE: You will need to heat-cut a SMALL hole (not illustrated) in the BOTTOM or LOWER surface of each Stabilizer Cover (17) and (18) large enough to attach the Fork (10) at the end of the Streamlined Horizontal Stabilizer Support Strut (9) to the Eyebolt (12). The Stabilizer Covers are reinforced at this location. DO NOT BREATHE THE FUMES.

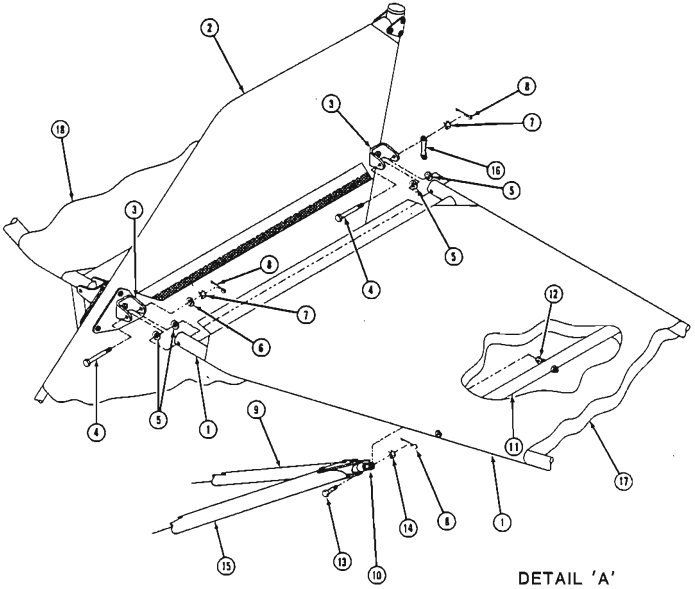
2. Attach the opposite (RIGHT) side in "mirror image".

Item	P/N	Qty	Description
1.	45014		Horizontal Stabilizer Leading Edge
2.			Vertical Stabilizer
3.	20060		S-1.25 Channel
4.	10160	4	AN4-17 Bolt
5.	20340	8	1/16" Thick x 5/8" O.D. Nylon Washer
6.	10560	2	1/4" Washer
7.	10521	4	1/4" Castle Nut
8.	10635	6	Cotter Pin
9.	45119		Streamlined Horizontal Stabilizer Support Strut
10.	42006		Pushrod End Fork with 3/16" hole
11.	45027		Outboard Horizontal Stabilizer Compression Strut
12.	10359		AN43B-13 Eyebolt
13.	10009	2	AN3-5 Bolt
14.	10517	2	3/16" Castle Nut
15.	45118		Streamlined Horizontal Stabilizer Drag Strut
16.	20361	2	Light Weight Flat Tang
17.	45646		Left Horizontal Stabilizer Cover
18.	45647		Right Horizontal Stabilizer Cover

FIG. 1





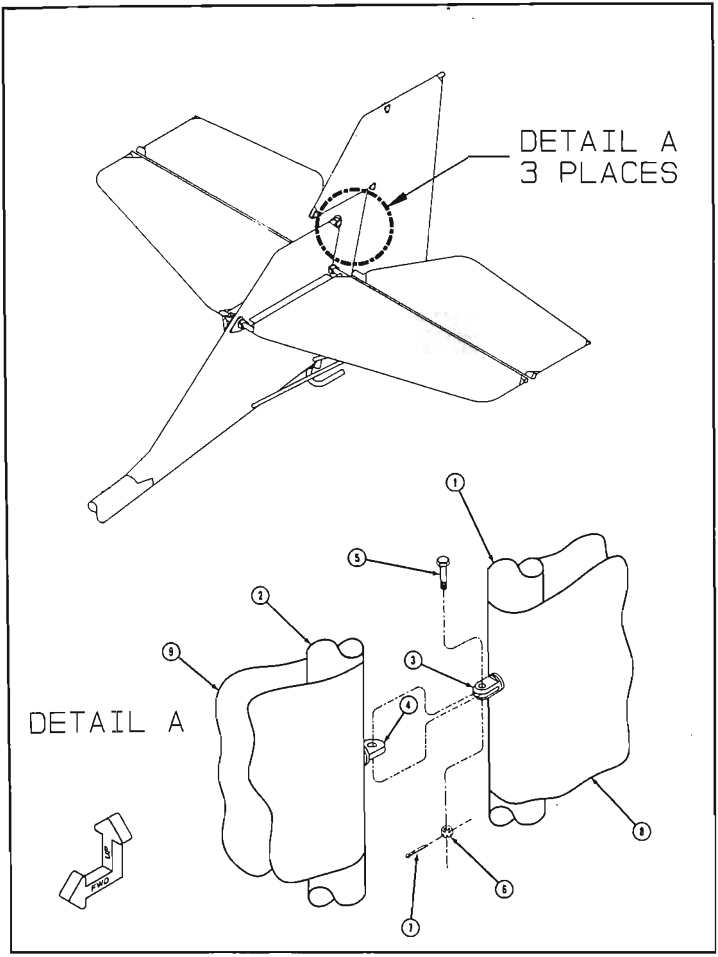


RUDDER ATTACHMENT

1. Assemble as illustrated. Bend ALL Cotter Pins correctly.

NOTE: Align the Eyebolt (4) and the Forkbolt (3) holes VERTICALLY.

Item	P/N	Qty	Description
1	45001		Rudder Leading Edge
2	45063		Vertical Stabilizer Trailing Edge Assembly
3	10390		1/4" x 1 1/2" Forkbolt
4	10370		AN43B-15A Eyebolt
5	10009	3	AN3-5 Bolt
6	10517	3	3/16" Castle Nut
7	10635	3	Cotter Pin
8	45643		Rudder Cover
9	45642		Vertical Stabilizer Cover

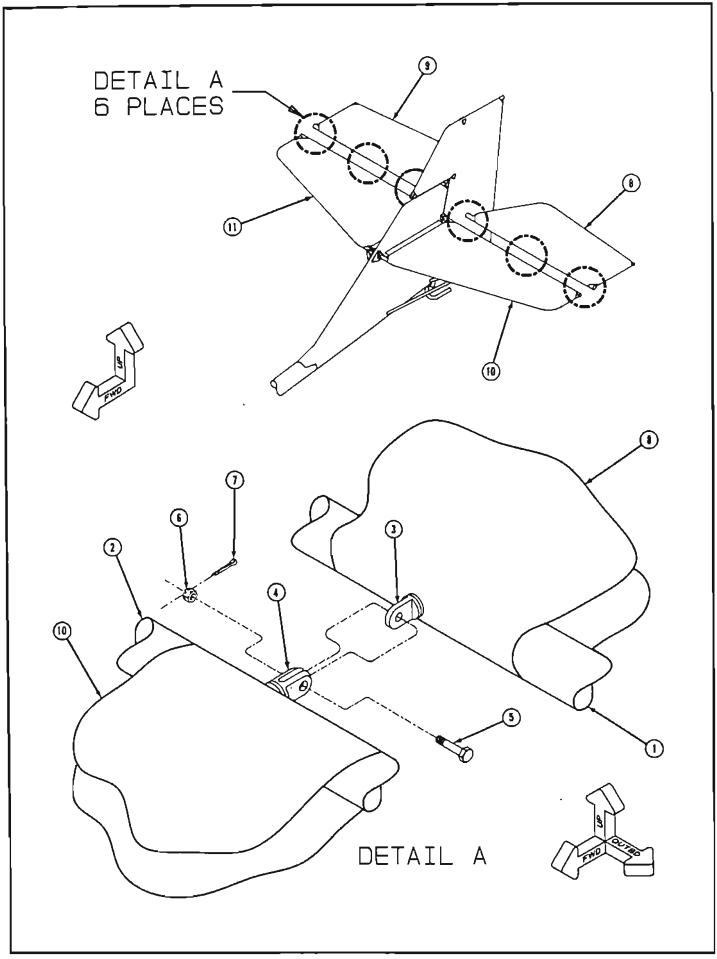

DETAIL A
3 PLACES
DETAIL A
1
2
3
4
5
6
7
8
9
UP
FWD

ELEVATOR ATTACHMENT

1. Assemble as illustrated. Bend ALL Cotter Pins correctly.

NOTE: Align the holes in the Eyebolts (3) and the Forkbolts (4) HORIZONTALLY.

Item	P/N	Qty	Description
1	45017		Elevator Leading Edge
2	45016		Stabilizer Trailing Edge
3	10370		AN43B-15A Eyebolt
4	10390		1/4" x 1 1/2" Forkbolt
5	10009	6	AN3-5 Bolt
6	10517	6	3/16" Castle Nut
7	10635	6	Cotter Pin
8	45644		Elevator Cover (Left)
9	45645		Elevator Cover (Right)
10	45646		Horizontal Stabilizer Cover (Left)
11	45647		Horizontal Stabilizer Cover (Right)


DETAIL A
6 PLACES
9
11
8
10
FWD
1
2
3
4
5
6
7
10
DETAIL A
FWD
OUTBD

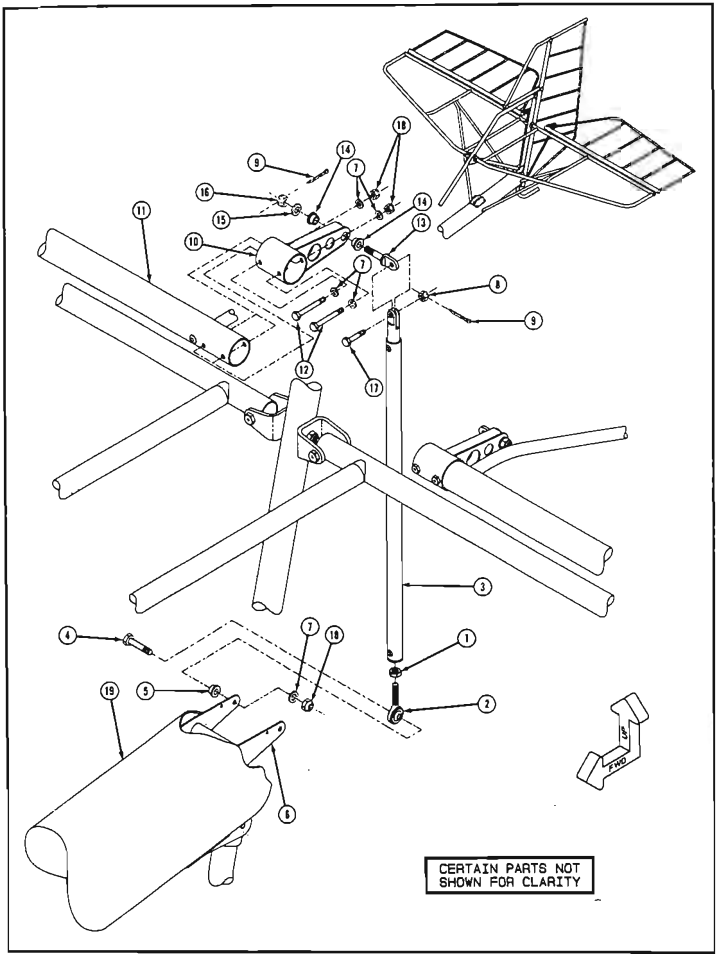
ELEVATOR PUSHROD ATTACHMENT

1. Assemble as illustrated. Bend ALL Cotter Pins correctly. DO NOT OVER TORQUE the Castle Nuts (8).

IMPORTANT: The Elevator Assembly MUST pivot FREELY.

NOTE: The Horizontal Stabilizer Cover, Elevator Cover and LEFT side attachment are NOT shown for clarity. Attach the LEFT side Elevator Pushrod in 'mirror image'.

Item	P/N	Qty	Description
1	10631	2	1/4" - 28 Jam Nut
2	10700	2	1/4" Male Rod End Bearing
3	45039	2	Elevator Pushrod Assembly
4	10024	2	AN3-10A Bolt
5	20241	2	"T" Bushing
6	45074	.....	Elevator Bellcrank
7	10550	1	3/16" Washer
8	10517	2	3/16" Castle Nut
9	10635	4	Cottter Pin
10	45089	2	Elevator Control Arm
11	45017	.....	Elevator Leading Edge
12	10045	4	AN3-16A Bolt
13	10361	2	AN43B-10 Eyebolt
14	30005	4	FF312 Dilite Bearing
15	10560	2	1/4" Washer
16	10521	2	1/4" Castle Nut
17	10009	2	AN3-5 Bolt
18	10550	4	3/16" Locknut
19	45012	.....	Tail Boom Tube Assembly


CERTAIN PARTS NOT SHOWN FOR CLARITY

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