SECTION 10

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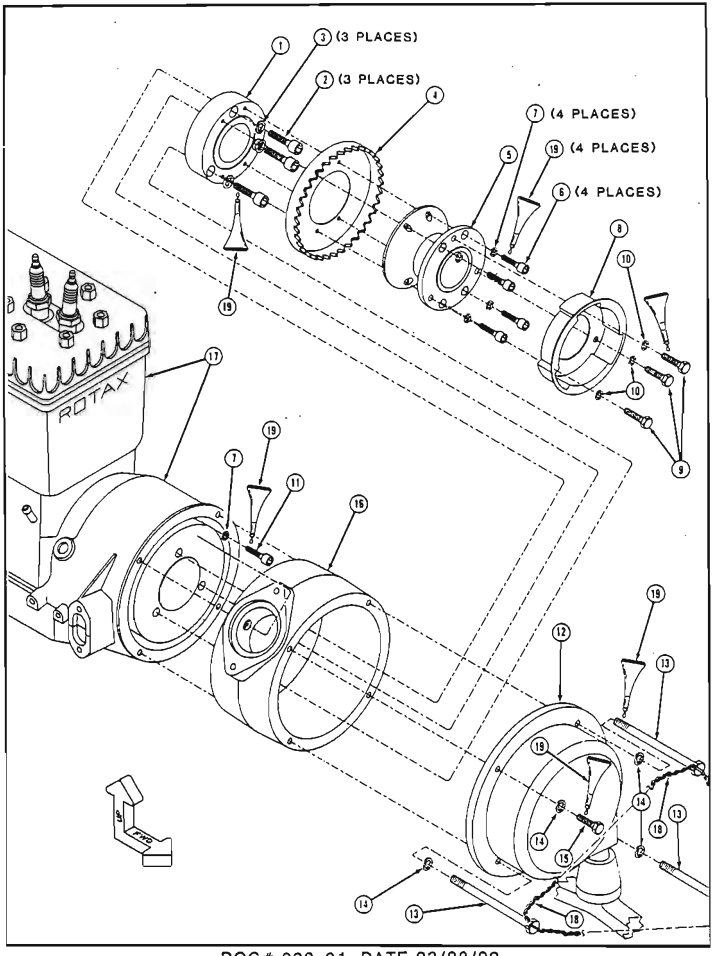
ELECTRIC STARTER ATTACHMENT:
ELECTRIC STARTER TO POWERPLANT ATTACHMENT

1. Remove the Pull Starter (12) and the Starter Pulley (8). Assemble the Starter Mount Ring (16) and the Pull Starter (12) LAST.

NOTE: Ensure the Pull Starter (12) is oriented as illustrated. Assemble the remaiing components as illustrated. Torque ALL Bolts to proper specifications. Use Thread Adhesive (Loctite) on ALL Bolts and Screws.

2. Use Safety Wire (18) to secure the Bolts (13) to each other.

Item	P/N	Qty	Description
1	61420	1	Inner Hub Spacer, Dual CDI
2	10461	3	8mm x 25mm Socket Head Cap Screw
3	10584	3	8mm Lock Washer (Hi-Collar)
4	61430	1	Cranking Ring Gear
5	61450	1	Outer Hub Spacer
6	10394	4	1/4-20 x 1.0 Socket Head Cap Screw
7	10583	4	1/4" Hi-Collar Lock Washer
8	00852322	1	Starter Pulley
9	00940850	3	8mm x 16mm Hex Screw
10	00945752	3	8mm Lock Washer
11	10463	1	6mm x 20mm Socket Head Cap Screw
12	00994872	1	Rewind Starter Assembly
13	10642	3	6mm x 100mm Hex Bolt, Drilled Head
14	00945751	4	6mm Lock Washer
15	00240911	1	6mm x 14mm Hex Screw
16	61440	1	Starter Mount Ring (Main Casting)
17			PowerPlant
18	20467	A/R	Safety Wire, 48" (121.92 cm)
19	60591	1	Thread Adhesive (Loctite)


1
3 (3 PLACES)
2 (3 PLACES)
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7 (4 PLACES)
19 (4 PLACES)
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ROTAX
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ELECTRIC STARTER ATTACHMENT:
STARTER MOTOR AND STARTER RELAY TO POWERPLANT ATTACHMENT

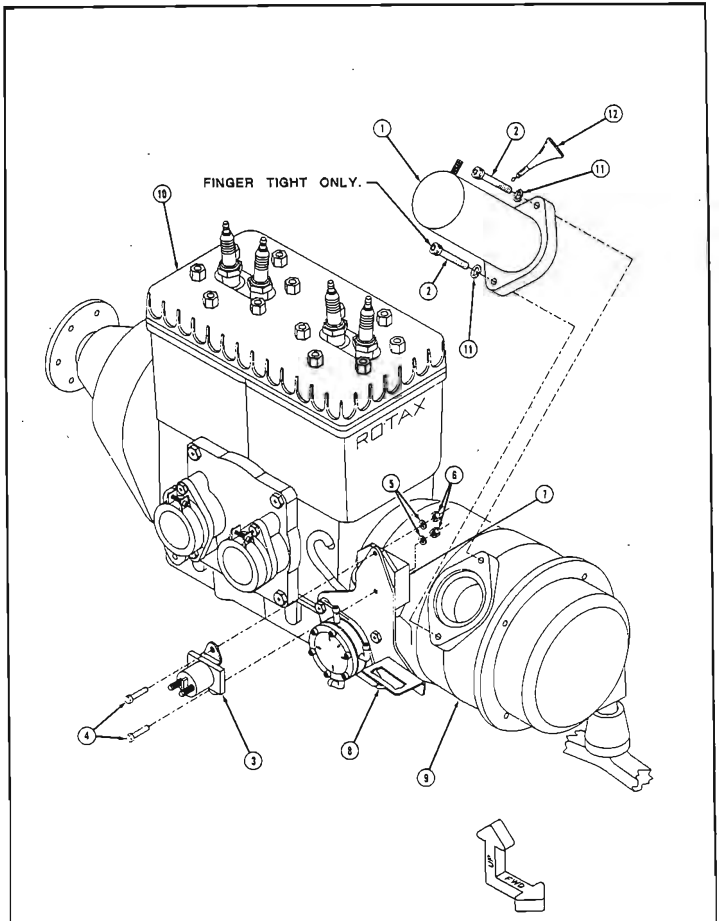
NOTE: The following assembly sequence requires a 6 mm Allen or Hex Head Wrench.

1. Position the Starter Motor (1) onto the Powerplant with the "Stud" located UPWARD. Ensure the Starter Motor (1) is mounted with the electrical post UP.

NOTE: The LOWER Socket Head Cap Screw (2) should be installed FINGER TIGHT ONLY! Install the UPPER Cap Screw (2) with Thread Adhesive (Loctite). Remove the EXISTING Bolts (4) and re-install as illustrated. The Bolts (4) are located in the Powerplant Kit.

2. Torque ALL Bolts to proper specificatons.

Item	P/N	Qty	Description
1.	61410.	1.	Starter Motor
2.	10460.	2.	8mm x 25mm Machined Socket Head Cap Screw
3.	61411.	1.	Starter Relay
4.	10015.	2.	AN3-6A Bolt
5.	10550.	2.	3/16 Washer
6.	10500.	2.	3/16 Locknut
7.	00866080.	1.	Rectifier/Regulator
8.	45859.	1.	Fuel Pump Mount Plate
9.	61440.		Starter Mount Ring
10.			Powerplant
11.	10584.	2.	5/16" Hi-Collar Lock Washer
12.	60591.	A/R.	Thread Adhesive (Loctite)


FINGER TIGHT ONLY.
ROTAX
FWD

ELECTRIC STARTER ATTACHMENT:
ELECTRICAL WIRING TO THE POWERPLANT

1. Cut THREE [3] 12" (30.48 cm) pieces of Wire (6). Slide a 1" (25.4 mm) piece of Heat Shrink Tubing (13) on BOTH ends of ALL THREE [3] pieces (6). Install Female Q.D. Connectors (7) on ONE end of TWO [2] pieces (6). Install a Ring Connector (10) to ONE end of the 3rd piece (6). Install a piece of Heat Shrink Tubing (13) to ends with the Connectors.

NOTE: Ensure the Heat Shrink Tubing covers only the round shank part of connectors (7) and NOT the "plug-in" portion.

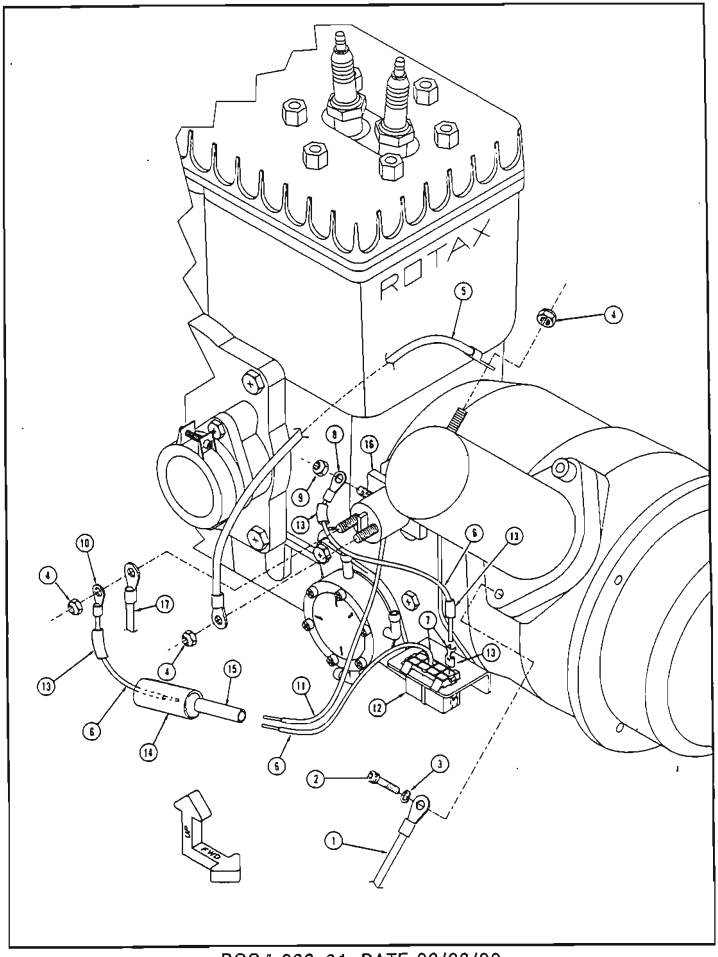
2. Take ONE Wire (6) with a Female Q.D. Connector (7) on ONE end and install a Ring Connector (8). Install Heat Shrink (13). Connect the Ring Connector to the Starter Relay (16) (SMALL post) as illustrated and insert the other end into item (12) as illustrated.

3. Join the RED Wire (11) from the Regulator/Rectifier with the RED Wire (6) with the Q. D. Connector as illustrated. Connect BOTH to the THIRD Wire (6). Attach as illustrated.

4. Slide Heat Shrink Tubing (14) OVER the Butt Connector (15) and Wires (6) and (11). Install the LAST Wire (6) with the Ring Connector (10) to the Butt Connector (15). Install Heat Shrink OVER the Wires and the Butt Connector.

5. Install Cables (5,10,17 and 1) as illustrated.

Item	P/N	Qty	Description
1	61416	1	Battery Ground Cable (BLACK)
2	10460	1	8mm x 25mm Machined Socket Head Cap Screw
3	10584	1	8mm Lock Washer (Hi-Collar)
4	10511	3	1/4-20 Nylock Nut
5	61413	1	Positive Starter Cable #1
6	81502	A/R	16 Amp Red Wire, 36" (91.44 cm)
7	30075	2	Female Q.D. Connectors
8	30073	1	Ring Connector with #10 Hole
9	11002	1	8-32 Nylock Nut
10	30077	1	Ring Connector with 1/4" Hole
11			Red Wire From Regulator/Rectifier
12	00866025	1	Female Connector Housing
13	20105	6"	3/16" Heat Shrink Tubing
14	20103	6"	3/8" Heat Shrink Tubing
15	30076	1	Butt Connector
16	61411		Starter Relay
17	61414	1	Battery Positive Cable 50" (127.0 cm)


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ELECTRIC STARTER ATTACHMENT:
BATTERY INSTALLATION

NOTE: Step 1. DOES NOT APPLY to GT500 aircraft Serial Numbers 0001 thru 0052. Those aircraft have a factory installed Forward Seat Track Channel (1) located where the Aft Seat Track Channel (2) (which is LONGER) is presently located.

1. Position the Aft Seat Track Channel (1) CENTERED and LEVEL OVER the Tail Boom Tube (13) "butted" up against the factory installed Aft Seat Track Channel (2) as illustrated. Drill THREE [3] 3/16" diameter holes thru the BOTTOM of the Battery Mount (3) to match the Channel (1). Deburr the holes. Measure, mark, drill and deburr the Tail Boom Tube as illustrated for the Channel (1). Attach with the Rivets (12) as illustrated.

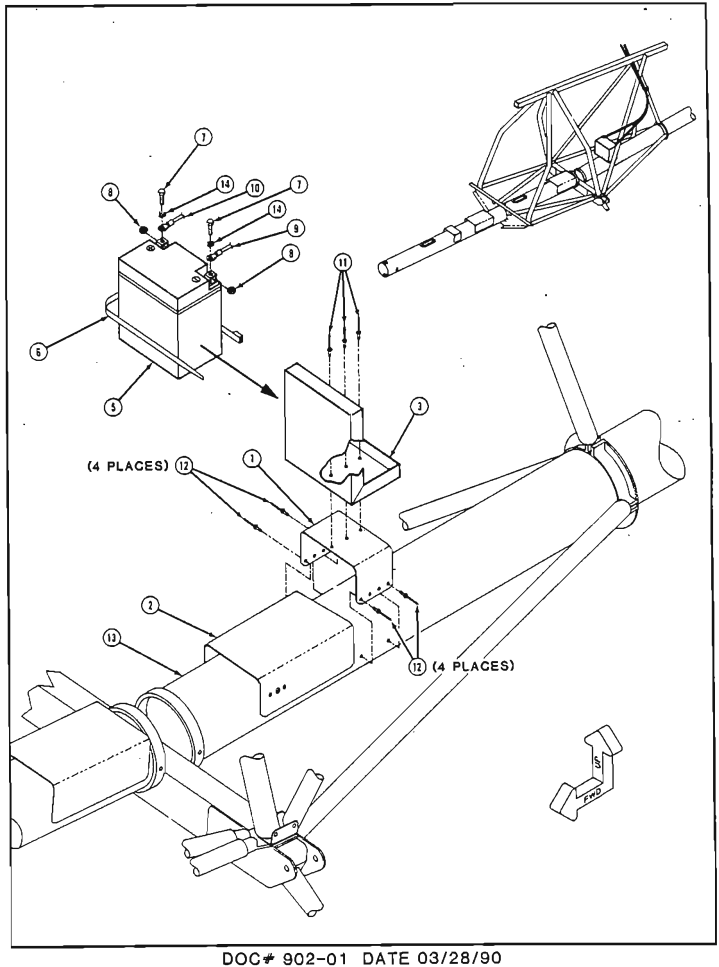
2. Place the Battery Lining (4) [cut to fit] in the BOTTOM, FORWARD, and SIDE areas of Battery Mount (3). Drill, deburr and attach the Battery Mount as illustrated.

3. Install the Battery (5) as illustrated and secure with TWO Tie Wraps (6) attached to each other. Make sure the Tie Wraps are properly installed so that they LOCK and WILL NOT release.

4. Install the Battery Cables (9) and (10) (previously installed to the Starter and Relay) with the Hardware as illustated.

NOTE: Ensure the POSITIVE and NEGATIVE Cables are installed to the POSITIVE and NEGATIVE posts of the Battery accordingly.

Item	P/N	Qty	Description
1.	45407.	1.	Forward Seat Track Channel
2.	45410.		Aft Seat Track Channel Assembly (factory installed)
3.	61417.	1.	Battery Mount
4.	61418.	A/R.	Battery Mount Lining, 28 sq.in.
5.	30330.	1.	12 Volt Battery ,11 Amp
6.	30490.	2.	Tie Wrap 15"
7.		2.	Screws in Battery Box
8.		2.	Nuts in Battery Box
9.	61416.		Battery Ground Cable (BLACK)
10.	61414.		Battery Positive Cable (RED)
11.	20193.	3.	3/16" x 1/4" Grip Stainless Steel Rivet (BSPQ-64)
12.	20214.	8.	3/16" x 1/8" Grip Aluminum Rivet (AAPQ-62)
13.	45012.		Tail Boom Tube Assembly


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(4 PLACES) 12
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12 (4 PLACES)
FWD

ELECTRIC STARTER ATTACHMENT:
ELECTRICAL WIRING TO THE INSTRUMENT PANEL

IMPORTANT: Verify ALL Female Snap Connectors (9) are securely attached and that they have been attached ("crimped") to the "bare" wire and NOT the insulation around the Wire. To check the security of the Snap Connectors "crimp" GENTLY tug on the Connector AFTER it has been "crimped" with the proper "crimping tool.

Identify the "ON" and "OFF" positions on the Toggle Switch (1) with a Continuity Checker (Ohm Meter) if the positions ARE NOT indicated on the Switch as Switches may vary. "ON" should be the "UP" position. DO NOT INSTALL THE FUSE (4) UNTIL STEP 4.

1. Identify the RED Wire in the Wiring Harness (10). Cut off the Ring Connector. Attach a Female Snap Connector (9). Attach the RED Wire to the BOTTOM post of the Toggle Switch (1).

2. Cut an EIGHT inch (8")(20.32 cm) piece of RED Wire (11). Attach a Female Snap Connector (9) to ONE end. Push this end onto the TOP of the post of the Toggle Switch (1). Solder the opposite end to the Fuse Holder (3).

3. Cut a TWELVE inch (12") piece of RED Wire (14). Attach a Ring Connector (16). Attach to the "Batt" terminal on the Ignition Switch. Join the opposite end with ONE Wire from the Light (13). Solder to the other post on the Fuse Holder (3).

4. Take the remaining wire from the Light (15) and attach it to the BLACK Wire from the Hour Meter (not illustrated) by attaching a Connector (16) to BOTH. Attach these wires to the "GROUND" post on the Ignition Switch (12). Install Fuse (4).

Item	P/N	Qty	Description
1	30312	1	Switch Toggle
2		1	Ring Nut for Toggle Switch
3	30307	1	Fuse Holder
4	30308	1	15 Amp Fuse
5		1	Fuse Holder Cap
6		1	Ring Nut for Fuse Holder
7	30306	1	Master Indicator Light
8	45574		Instrument Panel
9	30070		Female Snap Connector
10			Red Wiring from Wiring Harness
11	81502	A/R	Red Wire, 16 AGW insulated, 8" (20.32 cm)
12	30315	1	Ignition Switch
13			Wire from Light
14	81502	A/R	Red Wire, 16 AGW isulated, 12" (30.48 cm)
15			Wire from Light
16	30073	2	Ring Connector with #6 hole

FIG. 1

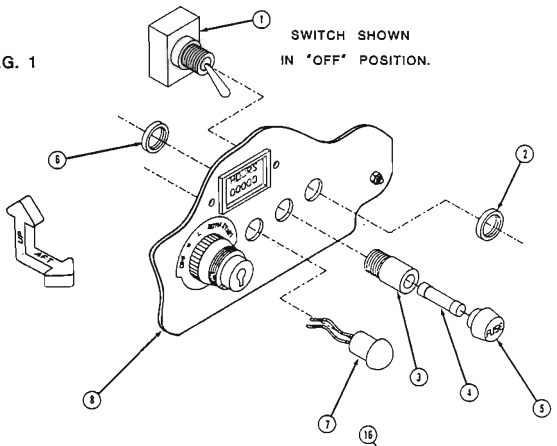
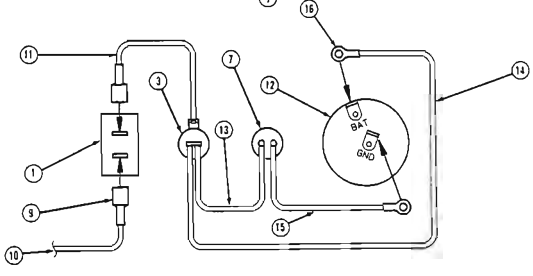


FIG. 2



REAR VIEW

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SECTION 10

OPTIONS AND ACCESSORIES

DOOR ENCLOSURE KIT

DOOR ENCLOSURE KIT:
DOORPOST DOWNTUBE ATTACHMENT

1. Refer to Page 2-115, Detail 'A'. Locate the AN3-16A Bolt (3). Remove the previously installed Bolts (3), Washers (4) and Locknuts (7) from each side of the Fuselage and discard them.

2. Enlarge and deburr the EXISTING hole thru (3,4 and 6) to 1/4" (6.4 mm) on each side of the Fuselage.

3. Refer to Pages 10-16 and 10-17, Figure 1 and Detail 'A'. Attach the Channel (2) to the Pilot Enclosure (3) with Hardware (1,7 and 8) as illustrated. Tighten to correct torque. DO NOT DISTORT THE TUBE.

4. Attach the LOWER end of the LEFT Doorpost Downtube (10) to the Channel (2) with Hardware (1,7 and 8) as illustrated. Tighten to correct torque. DO NOT DISTORT THE TUBE.

5. Refer to Figure 1 and Detail 'B'. Align the CENTERLINE of the LEFT Doorpost Downtube (10) over the 1/4" (6.4 mm) attachment hole in the Shoulder Belt Attachment Plate (12) as illustrated. Using the EXISTING hole in the Shoulder Belt Attachment Plate as a guide, back-drill thru BOTH walls of the Doorpost Downtube. Deburr the holes. Attach the UPPER end of the Doorpost Downtube (10) to the Shoulder Belt Attachment Plate (12) with hardware (9,11,7 and 8) as illustrated. Attach FINGER TIGHT ONLY at this time.

NOTE: The LEFT Door Enclosure is NOT shown for Clarity.

4. Repeat the assembly sequence on the opposite (RIGHT) side in "mirror image".

Item	P/N	Qty	Description
1	10140	4	AN4-16A Bolt
2	20080	2	I-75 Channel
3	45578		Pilot Enclosure
4	45856		Fuselage Support Tube
5	20265		7/8" x .25" H x .15" Thick Saddle
6	45404		Forward Fuselage Bulkhead
7	10560	14	1/4" Washer
8	10510	10	1/4" Locknut
9	10120	2	AN4-15A Bolt
10	46320	2	Doorpost Downtube
11	20270	2	1" x .125" Thick Saddle
12	45429		Shoulder Belt Attachment Plate

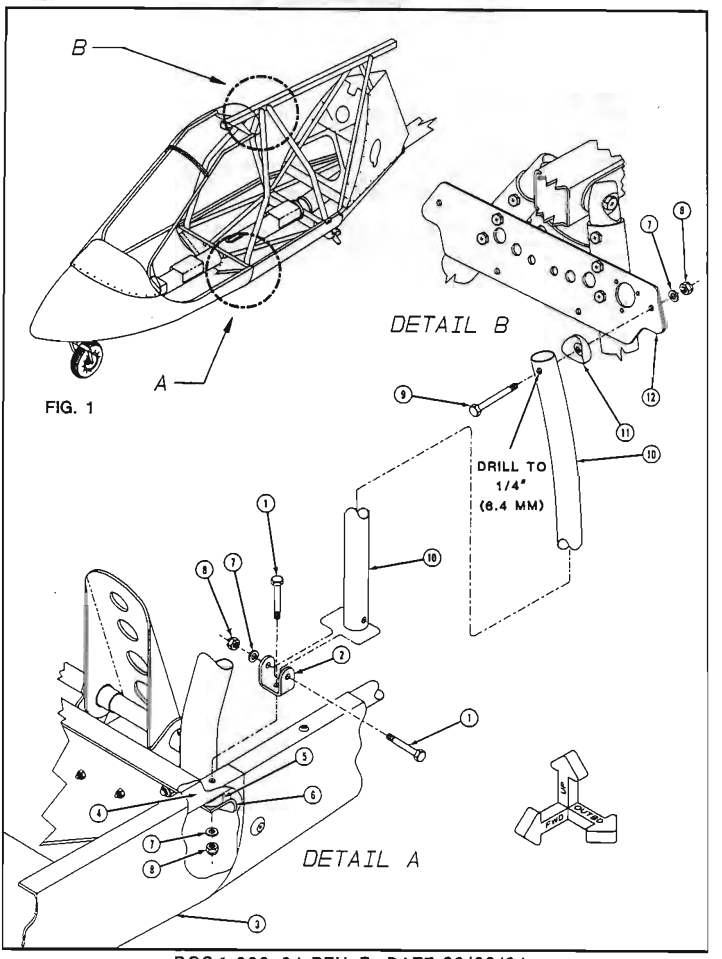


FIG. 1

DOOR ENCLOSURE KIT:
DOORPOST DOWNTUBE ATTACHMENT (CONT'D.)

NOTE: Before starting the following sequence note the correct orientation of the LEFT and RIGHT Doorpost Downtubes (1). The Doorpost Downtubes are bowed OUTWARD.

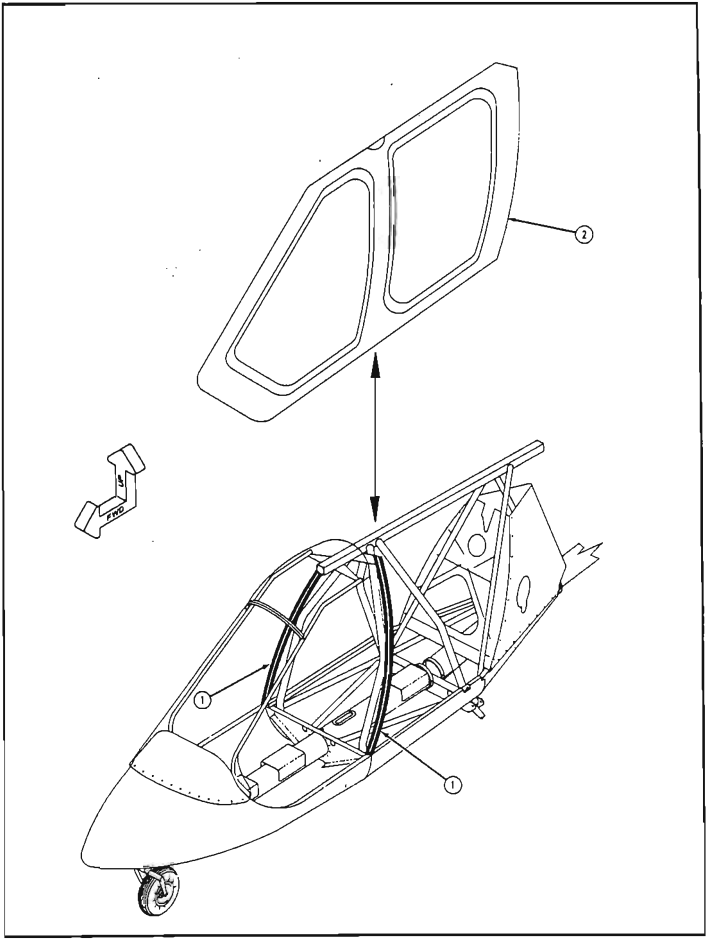
1. Remove the UPPER Doorpost Bolt (previously attached and not illustrated) and slide the LEFT Doorpost Downtube (1) INSIDE the CENTER VERTICAL pocket of the Left Door Enclosure (2).

2. Repeat on the opposite (RIGHT) side.

3. Reinstall the UPPER Doorpost Bolt and tighten to correct torque. DO NOT DISTORT THE TUBE.

4. Repeat for the opposite (RIGHT) side.

Item	P/N	Qty	Description
1	46320	2	Doorpost Downtube
2	46330	1	Left Door Enclosure
	46331	1	Right Door Enclosure (not illustrated)


2
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1
FWD

DOOR ENCLOSURE KIT:
FORWARD AND LOWER REINFORCEMENT STRIP INSERTION

1. Refer to Figure 1 and Detail 'A'. Locate the "slit" or opening (1) on the INBOARD side of the FORWARD Pocket (2) of the Left Door Enclosure (3). TEMPORARILY insert a Reinforcement Strip (5) into the Pocket (2) as far as it will go. Mark and trim off the EXCESS Reinforcement Strip. File any sharp edge.

2. Repeat Step 1 for the LOWER Door Enclosure Pocket (2) and Reinforcement Strip (4).

3. Insert the Reinforcement Strips (4) in Details 'B' thru 'E' in the SAME manner as Detail 'A'.

4. Repeat Steps 1 thru 3 for the opposite (RIGHT) side in "mirror image".

Item	P/N	Qty	Description
1			"Slit" or opening in Pocket
2			Door Enclosure Pocket
3	46330		Left Door Enclosure
	46331		Right Door Enclosure (not illustrated)
4	45754	A/R*	Reinforcement Strip

* As Required

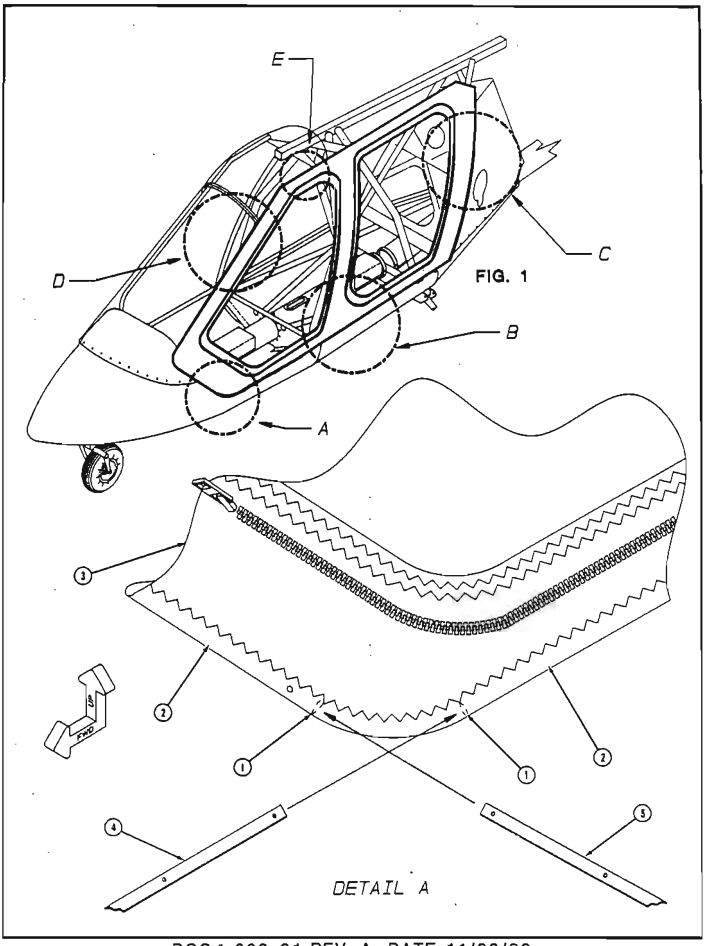


FIG. 1

DOOR ENCLOSURE KIT:
CONNECTING BUCKLE ROUTING AND ATTACHMENT

1. Refer to Figure 1 and Detail 'A'. Align and attach the Velcro (hook) on the UPPER edge of the Left Door Enclosure (1) to the Velcro (loop) on the BOTTOM or UNDERSIDE of the Wing (2).

2. Route the connecting Buckles (3 and 4) attached to the Straps (5) of the Door Enclosure UNDER BOTH of the Push/Pull Control Cables (7) at this location on the Root Tube (6).

IMPORTANT: Ensure ALL Buckles DO NOT interfere with the operation of any part of the Flight Control System AFTER they are connected.

Item	P/N	Qty	Description
1	46330	1	Left Door Enclosure
	46331	1	Right Door Enclosure (not illustrated)
2	45640		Left Wing Cover
	45641		Right Wing Cover (not illustrated)
3			Male Connecting Buckle
4			Female Connecting Buckle
5			Nylon Webbing (Connecting Strap)
6	45668		Root Tube
7			Push/Pull Control Cable

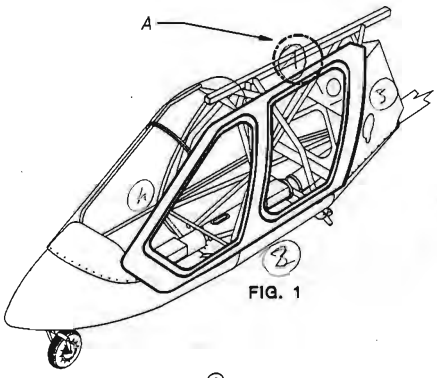
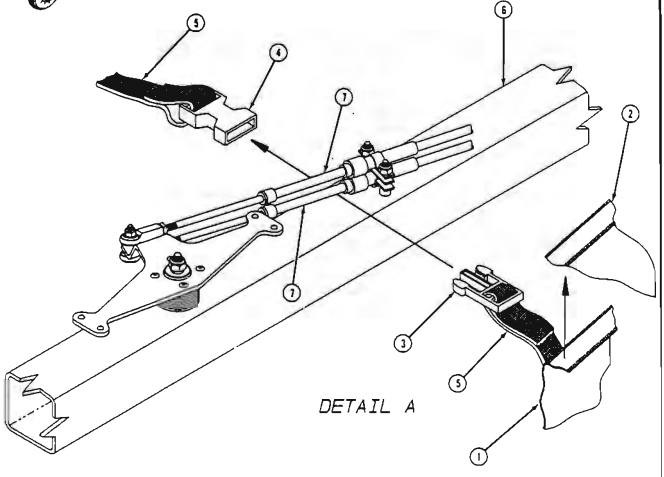


FIG. 1



DOOR ENCLOSURE KIT:
DOOR ENCLOSURE ATTACHMENT

1. Refer to Figure 1 and Detail 'A'. Insert a Reinforcement Strip (not illustrated) into the LOWER Door Enclosure Pocket (1). Trim the EXCESS. Insert another piece of Reinforcement Strip into the AFT Pocket (2). Trim the excess. Locate the 3/16" (4.8 mm) diameter holes in the Reinforcement Strip thru the pocket. Heat cut and reveal the holes.

2. Thread some 1/8" (3.2 mm) diameter Nylon Leech Line (3) thru the attachment holes as illustrated. Pull DOWNWARD on the Line removing any wrinkles which may be present.

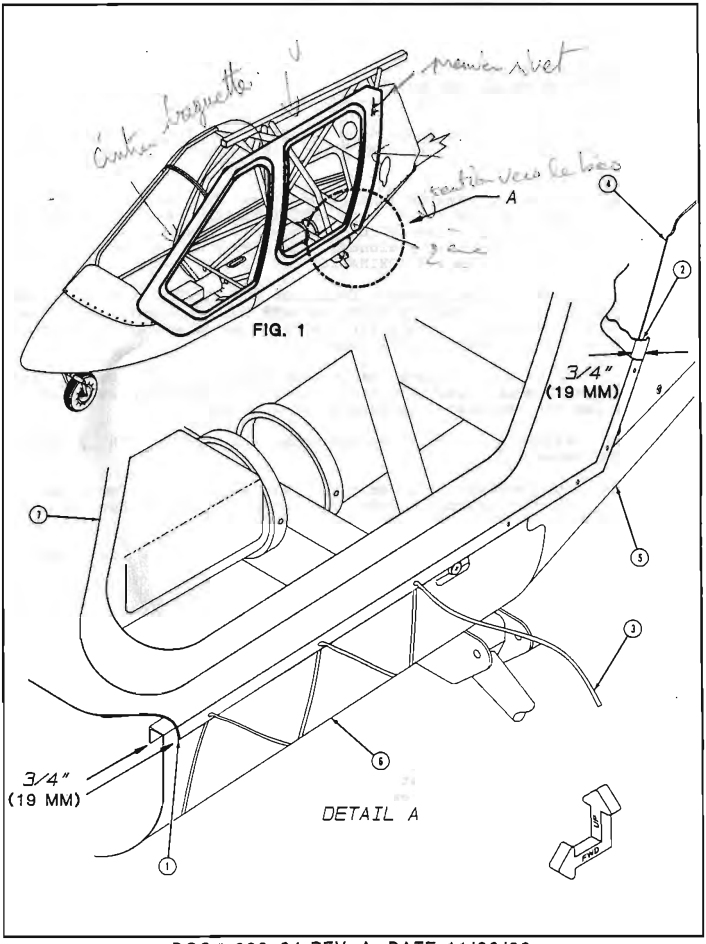
NOTE: A good technique is to thread the Line (3) as illustrated to the opposite Door Enclosure as this will ensure BOTH Door Enclosures are pulled or tensioned EVENLY.

Another method is to heat-cut a piece of Nylon Line (3) APPROXIMATELY 12" (30.48 cm) and tie a knot at ONE (1) end only. Thread the Line thru a hole in the Reinforcement Strip until it reaches the knot at the end of the Line. Now you have a "handle" with which to pull the Door in the direction desired to remove any wrinkles before attachment. For best results pull DOWNWARD on the next hole FORWARD of the hole you wish to use for attachment.

3. Allow the Left Door Enclosure to OVER LAP the LEFT side of the Left Lower Center Fairing (6) by 3/4" (19.1 mm). Allow the AFT edge of the Left Door Enclosure (7) to overlap the FORWARD edge of the Aluminum Pylon Cover (4) 3/4" (19.1 mm) as illustrated.

4. Repeat Steps 1 thru 3 for the opposite (RIGHT) side.

Item	P/N	Qty	Description
1.			Lower Door Enclosure Pocket
2.			Aft Pocket
3.			Nylon Leech Line
4.	46340		Aluminum Pylon Cover
5.	46110		Lower Aft Left Fairing
	46111		Lower Aft Right Fairing (not illustrated)
6.	46105		Left Lower Center Fairing
	46106		Right Lower Center Fairing (not illustrated)
7.	46330		Left Door Enclosure
	46331		Right Door Enclosure (not illustrated)


A
FIG. 1
3/4"
(19 MM)
3/4"
(19 MM)
DETAIL A
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DOOR ENCLOSURE KIT:
DOORPOST CROSSTUBE ATTACHMENT

1. Insert an Expansion Plug (1) into each Tube Connector (3) orientated as illustrated. Ensure that the Plug is securely in place.

2. Ensure the Velcro (not illustrated) located at the TOP of the Door Enclosure and the BOTTOM of the Wing is attached securely. Pull DOWNWARD on the Door Enclosure at this CENTER location. The Door Enclosure should OVERLAP the edge of the Pilot Enclosure by APPROXIMATELY 3/4" (19.05 cm).

3. Position the Doorpost Crosstube (2) BETWEEN BOTH Doorpost Downtubes (6). Pull DOWNWARD on BOTH Door Enclosures to remove excess wrinkles. Locate the 1/4" (6.4 mm) diameter attachment hole. Reveal and heat-seal the hole.

4. TEMPORARILY remove the Doorpost Crosstube (2). Reveal the INBOARD most holes thru the Pocket of the Door Enclosure as to allow the Doorpost Crosstube to be attached.

5. Reattach the Doorpost Crosstube (2) BETWEEN BOTH Doorpost Downtubes (6).

6. Add a Washer (5) to Bolt (4). Add a drop of Thread Adhesive (8) to the Threads of Bolt. Tighten to correct torque. DO NOT DISTORT THE TUBE.

7. Repeat Step 6 on the opposite (RIGHT) side in "mirror image".

Item	P/N	Qty	Description
1	20130	2	1" Expansion Plug
2	46325	1	Doorpost Crosstube
3	20450	2	1" Tube Connector
4	10400	2	1/4" - 20 x 1 3/4" Grade 5 Bolt
5	10560	2	1/4" Washer
6	46320	2	Doorpost Downtube
7	45471		Left Forward Fuselage Downtube
	45469		Right Forward Fuselage Downtube (not illustrated)
8	60591	A/R*	Thread Adhesive (Loctite)

* As Required

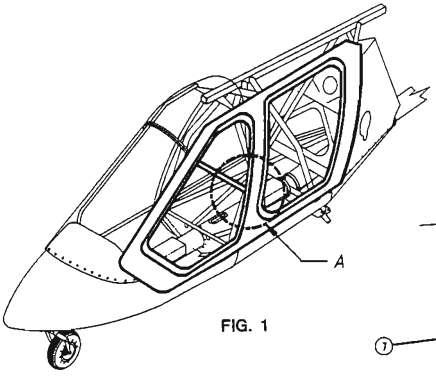
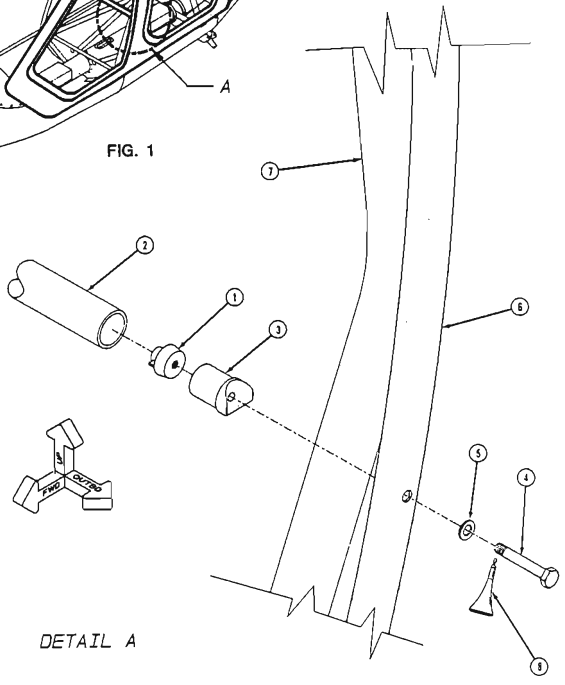


FIG. 1



DETAIL A

DOOR ENCLOSURE KIT:
DOOR ENCLOSURE ATTACHMENT

NOTE: Before starting the following assembly sequence ensure the Velcro is attached on the UPPER edge of the Left Door Enclosure (1) and the Right Door Enclosure (not illustrated) to the Velcro on the BOTTOM edge of the Wing (INBOARD edge) as illustrated on Page 10-23.

1. Refer to Figure 1 and Detail 'A'. Locate the 3/16" (4.8 mm) diameter attachment holes in the Reinforcement Strip in the AFT and LOWER Door Enclosure Pockets (2). Using the Nylon Leech Line (3), pull DOWNWARD and FORWARD, if necessary on the Door Enclosure (1) keeping it TIGHT as required to remove any wrinkles.

2. Attach the AFT end of the LEFT Door Enclosure (1) to the Aluminum Pylon Cover (4) with Rivets (5) as illustrated.

3. Attach the BOTTOM of the Left Door Enclosure (1) to the Lower Left Center Fairing (6) with Rivets (5) as illustrated. Working from the AFT end moving FORWARD. Stop when you reach the Doorpost Downtube (not illustrated).

Item	P/N	Qty	Description
1	46330		Left Door Enclosure
	46331		Right Door Enclosure (not illustrated)
2			Door Enclosure Pocket
3			1/8" Nylon Leech Line
4			Aluminum Pylon Cover
5	20195	A/R*	3/16" x 1/4" Grip Aluminum Rivet (AAP-64)
6	46105		Left Lower Center Fairing
	46106		Right Lower Center Fairing (not illustrated)

* As Required

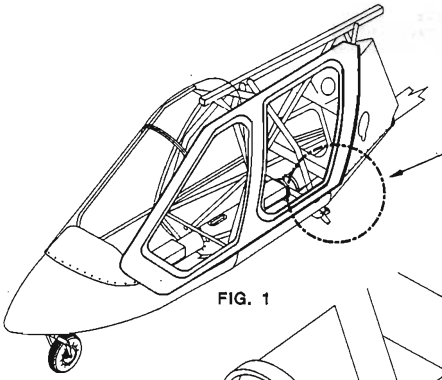
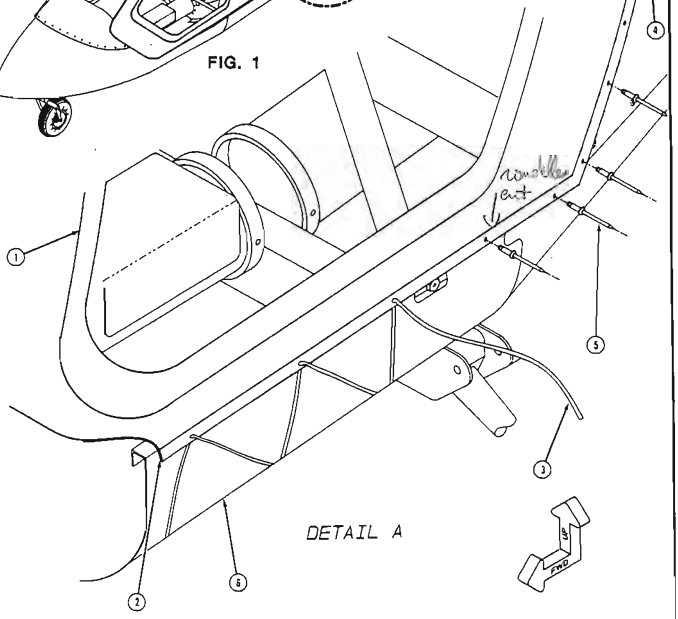


FIG. 1



DOOR ENCLOSURE KIT:
DOOR ENCLOSURE ATTACHMENT (CONT'D.)

NOTE: The end of the UPPER Reinforcement Strip should NOT stick out past the Door Enclosure Pocket.

1. Locate the 3/16" (4.8 mm) diameter holes thru the dacron. Reveal the holes and heat seal.

2. Keeping the UPPER edge of the Left Door Enclosure (3) ALIGNED and PARALLEL with the Windshield Frame Tube (5). Use a 3/16" (4.8 mm) drill bit and back-drill thru the EXISTING holes in the Reinforcement Strip (1) and thru ONE [1] wall ONLY of the Windshield Frame Tube working your way FORWARD. Attach the UPPER edge of the Left Door Enclosure with Rivets (4) as illustrated.

3. Repeat Steps 1 and 2 for the opposite (RIGHT) side.

Item	P/N	Qty	Description
1	45754	A/R*	Reinforcement Strip
2			Upper Pocket
3	46330		Left Door Enclosure
	46331		Right Door Enclosure (not illustrated)
4	20195	A/R*	3/16" x 1/4" Grip Aluminum Rivet (AAP-64)
5			Windshield Frame Tube

* As Required

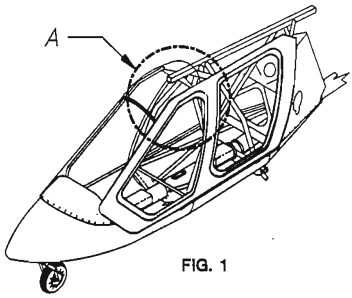
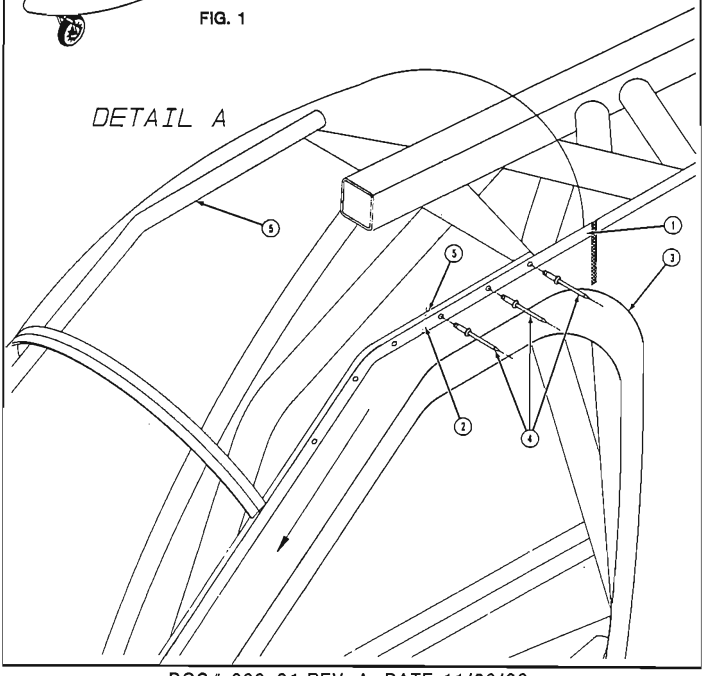




FIG. 1



DOOR ENCLOSURE KIT:
DOOR ENCLOSURE ATTACHMENT (CONT'D.)

1. Pull the Left Door Enclosure (1) DOWNWARD and FORWARD to correctly tension the Door and remove any wrinkles which may occur.

2. Refer to Figure 1 and Detail 'A'. Starting at the Doorpost Downtube, work your way FORWARD and attach the Left Door Enclosure (1) to the Left Lower Center Fairing (3) and Pilot Enclosure (4) with Rivets (5) as illustrated.

Item	P/N	Qty	Description
1	46330		Left Door Enclosure
	46331		Right Door Enclosure (not illustrated)
3	46105		Left Lower Center Fairing
	46106		Right Lower Center Fairing (not illustrated)
4	45578		Pilot Enclosure
	45754		Reinforcement Strip
			Door Enclosure Pocket
5	20195	A/R*	3/16" x 1/4" Grip Aluminum Rivet (AAP-64)

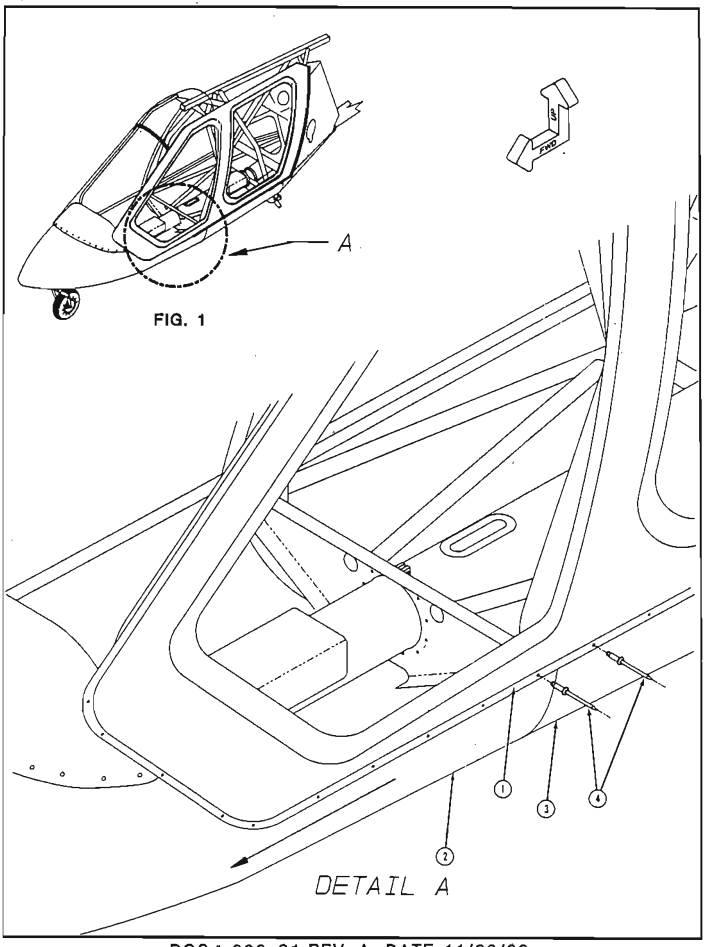


FIG. 1

DOOR ENCLOSURE KIT:
RIB INSERTION

1. Refer to Figure 1. and Detail 'A'. Temporarily slide a Rib (1) into the FORWARD Door Enclosure Rib Pocket (2) as far as it will go.

2. Measure and mark the end of the Rib (1) that protrudes past the Rib Pocket (2). Remove the Rib. Cut off the EXCESS Rib material. Deburr the tube.

3. Reinsert the Rib (1) and secure it in place with a Rivet (4) (not illustrated) from the INBOARD side of the Door Enclosure at the AFT end of the Rib.

4. Repeat the sequence for the Left FORWARD Door.

5. Repeat Steps 1 thru 4 on the opposite (RIGHT) side.

Item	P/N	Qty	Description
1	45707	4	Rib
2			Rib Pocket
3	46330		Left Door Enclosure
	46331		Right Door Enclosure (not illustrated)
4	20195	4	3/16" x 1/4" Grip Aluminum Rivet (AAP-64) (not illustrated)

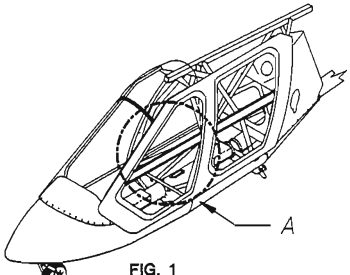
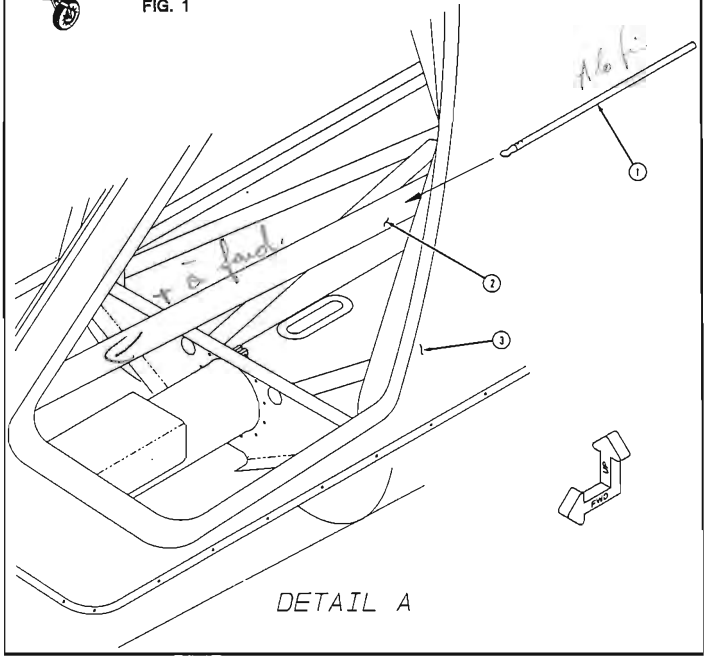


FIG. 1



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OPTIONS

ALUMINUM MAIN WHEELS

ALUMINUM MAIN WHEEL ASSSEMBLY.....10-38
ALUMINUM MAIN WHEEL TO AXLE SHAFT ATTACHMENT.....10-40

ALUMINUM MAIN WHEEL ASSSEMBLY

NOTE: During the followimg assembly sequence you will need a 1/4" (6.4 mm) Allen or Hex Wrench.

1. Insert the Inner Tube (1) into the Tire (2) with the Valve Stem (2) orientated OUTBOARD.

2. Roll an O-Ring (11) (not illustrated) onto the OUTER Wheel Rim (4) to the location indicated.

3. Insert the Valve Stem (3) thru the hole in the OUTER Rim (4).

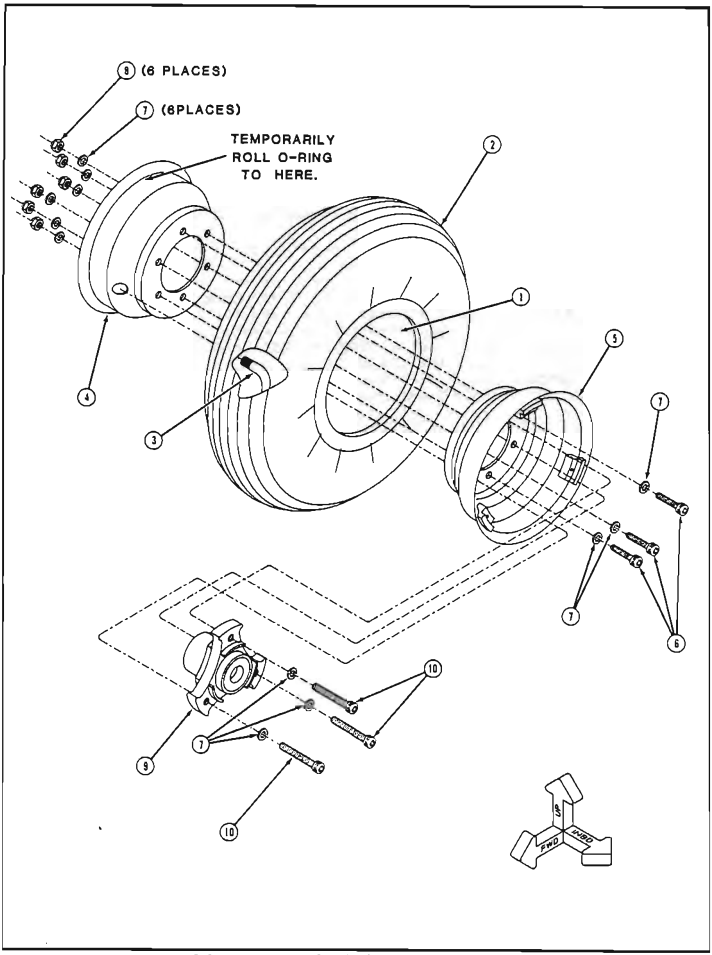
4. After BOTH Wheel Rims (4) and (5) are together reposition the O-Ring so that it rides on TOP of the groove BETWEEN the Rims (4) and (5) and NOT BETWEEN the Rims.

5. Assemble BOTH Rims (4 and 5) together with Hardware (6,7 and 8). Tighten to proper torque.

6. Thread the Socket Head Cap Screw (10) completely thru the Hub Assembly (9) and attach the Hub Assembly to the Rims (4) and (5) with Hardware (10,7 and 8). Torque to proper torque.

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

Item	P/N	Qty	Description
1	20394	2	4.10/3.50 - 6 Inner Tube
2	20393	2	4.00 - 6 Tire
3			Valve Stem (part of P/N 20394)
4	91260	2	Outer Wheel Rim
5	91259	2	Inner Wheel Rim with Disc Mounts
6	11006	6	5/16" - 18 x 3/4" Socket Head Cap Screw
7	10576		5/16" Thin Washer
8	10396	12	5/16" - 18 Thin Lock Nut
9	91261	2	Hub Assembly with 3/4" Bearing
10	11005	6	5/16" - 18 x 1 1/4" Socket Head Cap Screw
11	91267	2	6" Wheel O-Ring (not illustrated)


8 (6 PLACES)
7 (6PLACES)
TEMPORARILY ROLL O-RING TO HERE.
2
1
5
4
3
7
6
10
9
FWD
PORT
STBD

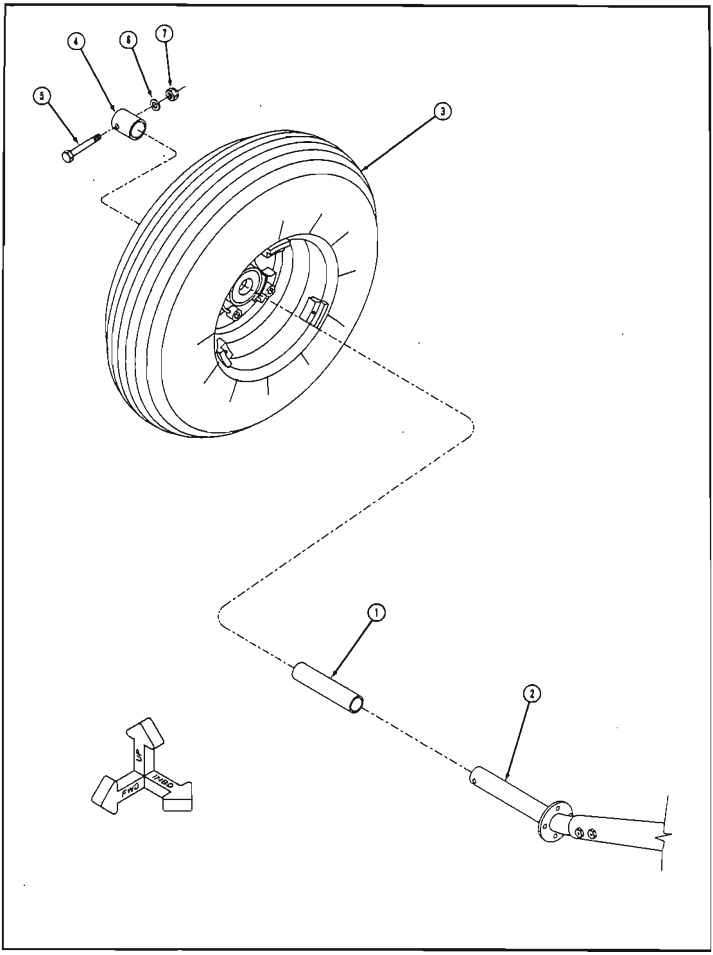
ALUMINUM MAIN WHEEL TO AXLE SHAFT ATTACHMENT

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

2. Repeat for the opposite (LEFT) side.

NOTE: Quantity below reflects attachment of ONE [1] side only.

Item	P/N	Qty	Description
1	91269	1	7/8" x .049" x 1.80" Long spacer
2	45369		3/4" Axle Shaft Assembly
3			Main Wheel/Tire Assembly
4	91263	1	7/8" x .049" x .75" Long Collar
5	10027	1	AN3-12A Bolt
6	10550	1	3/16" Washer
7	10500	1	3/16" Locknut


4
6
7
5
3
1
2
FWD
OUTBD
IN

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OPTIONS

MAIN WHEEL BRAKE KIT

BRAKE CALIPER ASSEMBLY.....10-44

ALUMINUM MAIN WHEEL AND BRAKE CALIPER ATTACHMENT.....10-46

MASTER CYLINDER/FORWARD AND
AFT BRAKE LEVER AND BRAKE LINK TUBE ATTACHMENT.....10-48

BRAKE RESERVOIR ATTACHMENT.....10-50

PARKING BRAKE ATTACHMENT.....10-52

HYDRAULIC BRAKE LINE ROUTING AND ATTACHMENT.....10-54

BRAKE CALIPER ASSEMBLY

NOTE: You will need a 5/32" (4 mm) Allen or Hex wrench to complete the following assembly sequence.

1. Carefully disassemble the RIGHT Brake Caliper Assembly. Insert the Spacer (4) BETWEEN the Stationary Brake Lining (3) and the Caliper Piston Housing (6). Reassemble the Brake Caliper Assembly. Tighten ALL Locknuts (12) to proper torque.

NOTE: The complete Brake Caliper Assembly is listed as P/N 91256.

2. Locate the holes in the head of each Socket Head Cap Screw (1). AFTER the Socket Head Cap Screws (1) are properly torqued Safety Wire (11) (not illustrated) each of the heads to each other.

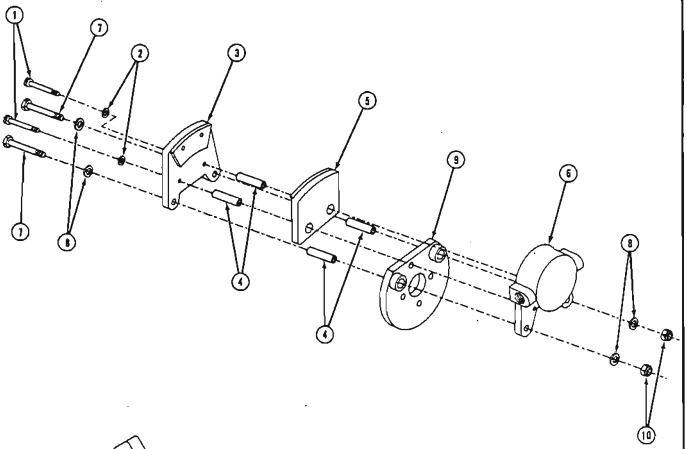
3. Insert the remaining TWO [2] Spacers (4) through Item (9) orientated as illustrated. Attach with Hardware (7,8 and 10).

4. Repeat for the remaining (LEFT) Brake Caliper Assembly. Assemble in "mirror image".

NOTE: The quantity below is for ONE [1] Brake Caliper Assembly.

Item	P/N	Qty	Description
1		2	10-24 Socket Head Cap Screw (part of P/N 91256)
2		2	3/16" Thin Washer (part of P/N 91256)
3			Stationary Brake Lining (part of P/N 91256)
4		4	Steel Spacer (part of P/N 91256)
5			Movable Brake Lining (part of P/N 91256)
6			Brake Caliper Piston Housing (part of P/N 91256)
7	10030	2	AN3-13A Bolt
8	10550	4	3/16" Washer
9	91265	1	Brake Plate w/.75" hole
10	10500	2	3/16" Locknut
11	20467	A/R*	.041" Safety Wire

* As Required


1
7
2
3
5
9
6
8
7
8
4
4
10


UP
PORT
PAD

ALUMINUM MAIN WHEEL AND BRAKE CALIPER ATTACHMENT

1. Refer to Figure 1. Use Teflon Tape or Thread Sealant (not illustrated) and attach the Fittings (2) and (3) to the Brake Caliper (1).

2. Slide the Brake Caliper Assembly (1) onto the Axle Shaft Assembly (4). Secure it with Hardware (6, 7 and 8) as illustrated. Tighten to proper torque.

3. Position the Brake Disc (9) between the Brake Linings (10) on the Brake Caliper Assembly (1). Add a Spacer (11) to the Axle Shaft Assembly (4) seated AGAINST the Brake Plate (12). Add the Wheel/Tire Assembly (14) and (16).

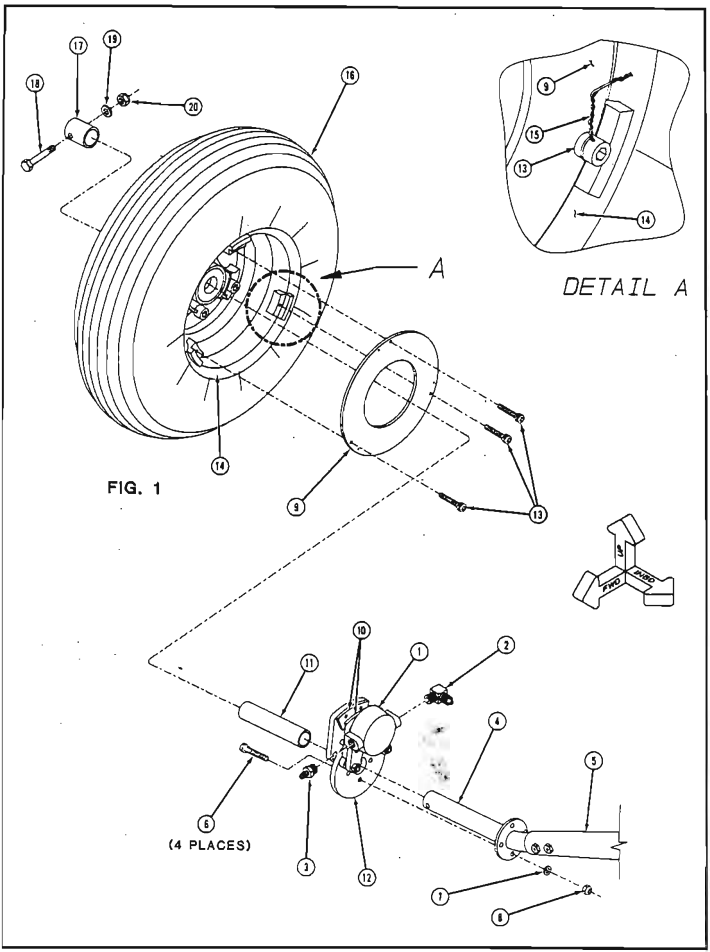
4. Refer to Figure 1 and Detail 'A'. Attach the Brake Disc (9) to the Inner Rim (14) with THREE [3] Socket Head Cap Screws (13) as illustrated. Tighten to proper torque. Secure each Socket Head Cap Screw to the Brake Disk with Safety Wire (15) as illustrated THREE [3] places. Rotate the Wheel/Tire Assembly to ensure the Safety Wire clears the Brake Linings (10).

5. Refer to Figure 1. Attach the Collar (17) with Hardware (18, 19 and 20). Tighten to proper torque.

6. Repeat on the opposite (LEFT) side in "mirror image".

Item	P/N	Qty	Description
1	91256	2	Brake Caliper Assembly (complete)
2	91271	2	90 Degree Hydrualic Tube Fitting
3	.....	2	Brake Caliper Bleeder Valve
4	45369	.....	20 Degree, 3/4" Axle Shaft Assembly
5	45365	.....	Landing Gear Leg with .75" Socket
6	11019	8	10 - 24 x 3/4" Socket Head Cap Screw
7	10572	8	3/16" Thin Washer
8	10532	8	10 - 24 Locknut
9	91257	2	Brake Disc
10	.....	.....	Brake Lining
11	91262	2	7/8" x .049" x 1.54" Long Spacer
12	91265	.....	Brake Plate w/ .75" hole
13	11020	6	10 - 24 x 3/4" Drilled Head Socket Head Cap Screw
14	91259	.....	Inner Rim with Disc Mounts
15	20476	A/R*	.041" Safety Wire
16	20393	2	4.00 - 6 Tire
17	91263	2	7/8" x .049" Collar
18	10027	2	AN3-12A Bolt
19	10550	2	3/16" Washer
20	10500	2	3/16" Locknut

* As Required


17
19
18
20
16
A
14
9
13
9
15
13
14
DETAIL A
FIG. 1
10
11
1
2
4
5
6
(4 PLACES)
3
12
7
8

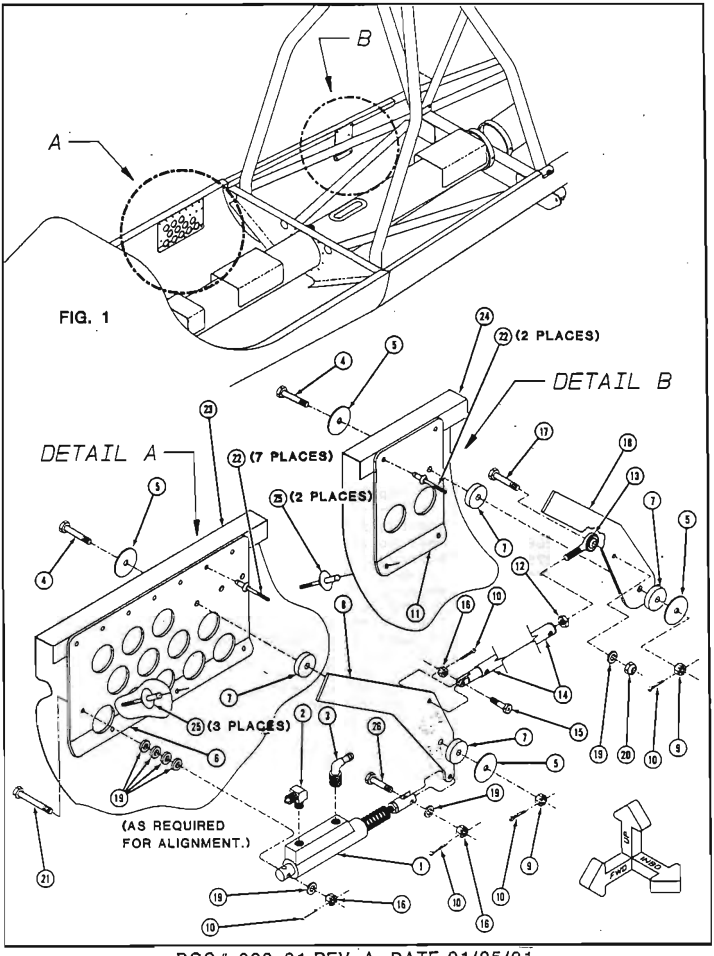
MASTER BRAKE CYLINDER/
FORWARD AND AFT BRAKE LEVER AND BRAKE LINK TUBE ATTACHMENT

1. Sub-assemble the following items as per the illustration: Master Brake Cylinder (1), attach the Forward and Aft Brake Levers (8) and (18) to the Forward and Aft Brake Mount Plates (6) and (11), assemble the Brake Link Tube Assembly (14). **NOTE 1:** Thread the Bearing (13) APPROXIMATELY "HALF WAY" into the Brake Link Tube Assembly (14).

2. Position the Forward Brake Lever Mount Plate (6) such that the Handle of the Forward Brake Lever (8) is just AFT of the FORWARD Throttle Lever when the Throttle Lever is in the "CLOSED" position. Attach the Link Tube (14). This will determine the location of the Aft Brake Handle Mount Plate (11). Using the Mount Plates (6) and (11) as guides, drill 3/16" (4.8 mm) diameter holes for the Rivets (22) along the TOP edge of the Plates and for Rivets (25) along the LOWER edge.

3. Refer to Figure 1 and Details 'A' and 'B'. Assemble the remaining items as illustrated. Tighten ALL Locknuts to proper torque. Bend ALL Cotter Pins (10) correctly.

Item	P/N	Qty	Description
1	91255	1	Master Brake Cylinder
2	91271	1	90 Degree Elbow Fitting for Hydraulic Tubing
3	91275	1	90 Degree Elbow Fitting for 5/16" Hose
4	10065	2	AN4-12 Bolt
5	10565	4	1/4" Fender Washer
6	91253	1	Forward Brake Handle Mount Plate
7	20346	4	1/4" Nylon Washer
8	91252	1	Forward Brake Lever
9	10521	2	1/4" Castle Nut
10	10635	5	Cotter Pin
11	91254	1	Aft Brake Handle Mount Plate
12	10631	1	1/4" Jam Nut
13	10700	1	1/4" Male Rod End Bearing
14	91264	1	Brake Link Tube Assembly
15	10009	1	AN3-5 Bolt
16	10517	2	3/16" Castle Nut
17	10020	1	AN3-7A Bolt
18	91251	1	Aft Brake Lever
19	10550	A/R*	3/16" Washer
20	10500	1	3/16" Locknut
21	10026	1	AN3-11 Bolt
22	20193	9	3/16" x 1/4" Grip Rivet (BSPQ-64)
23	45578		Pilot Enclosure
24	46106		Right Lower Center Fairing
25	20194	5	3/6" x 1/4" Al. Large Flange Rivet (AAL-64)
26	10018	1	AN3-7 Bolt


B
A
FIG. 1
24
22 (2 PLACES)
4
5
DETAIL B
DETAIL A
23
22 (7 PLACES)
17
18
13
7
5
25 (2 PLACES)
4
5
7
12
11
16
10
8
14
15
19
20
10
9
25 (3 PLACES)
6
2
3
26
7
5
19
(AS REQUIRED
FOR ALIGNMENT.)
21
1
9
19
16
10
10
16
FWD

BRAKE RESERVOIR ATTACHMENT

1. Refer to Figure 1 and Details 'A' and 'B'. Assemble as illustrated. Tighten ALL Locknuts (9) to proper torque.

NOTE: DO NOT drill any holes thru the side of the Pilot Enclosure (13). Insert the Bolts (6) from INSIDE the Pilot Enclosure (13) and from the OUTBOARD side of the Brake Lever Mount Plate (8).

IMPORTANT: Ensure the Reservoir Fluid Filter (1) is properly located UNDER the Reservoir Cap (3) and in the Reservoir (2).

CAUTION: ALL BRAKE COMPONENTS CONTAIN BUNA-N O-RINGS, AND ARE NOT COMPATIBLE WITH AUTOMOTIVE GLYCOL BASED BRAKE FLUID. A PETROLEUM BASED RED AIRCRAFT BRAKE FLUID OR AUTOMOTIVE AUTOMATIC TRANSMISSION FLUID MUST BE USED OR THE INSTALLED O-RINGS WILL SWELL UP AND BE DESTROYED.

IMPORTANT: Remove any part number label attached to the Reservoir Fluid Filter (1) BEFORE adding any Brake Fluid to the Reservoir.

Item	P/N	Qty	Description
1	91278	1	Reservoir Fluid Filter
2	91266	1	Reservoir
3	91279	1	Reservoir Cap
4	91276	1	Clamp
5	91277	1	Reservoir Bracket
6	10060	2	AN4-6A Bolt
7	10560	4	1/4" Washer
8	91253	1	Forward Brake Lever Mount Plate
9	10515	2	1/4" Thin Locknut
10	70580	2	Control Stick Grip
11	91252		Forward Brake Lever
12	91251		Aft Brake Lever
13	45578		Pilot Enclosure

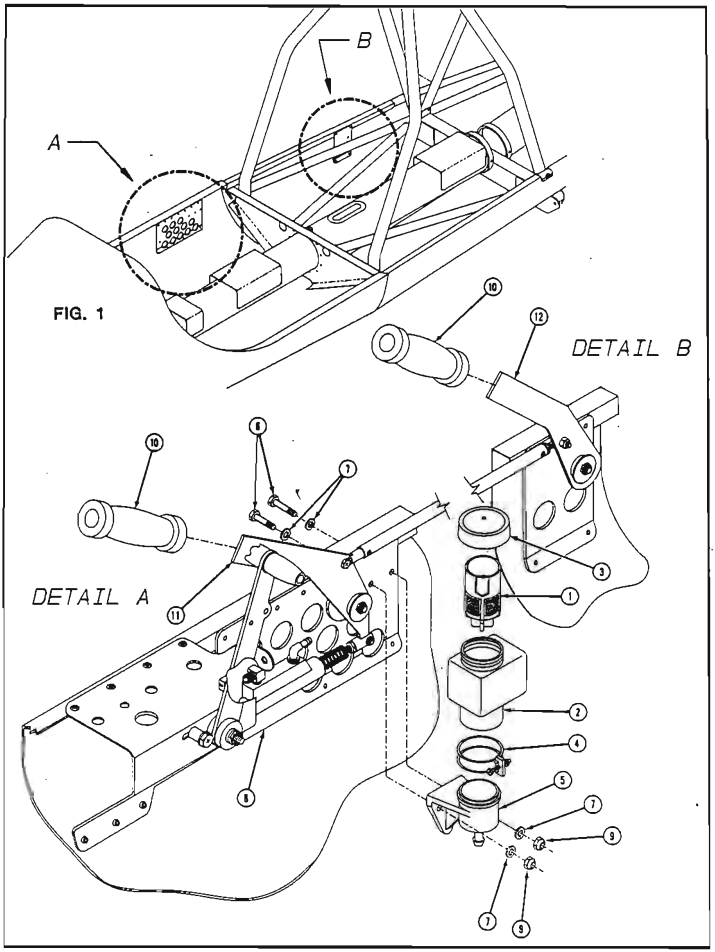


FIG. 1

PARKING BRAKE ATTACHMENT

1. Disassemble the EXISTING Parking Brake (1) as required for proper installation. Discard the EXISTING Fittings and reassemble as illustrated.

NOTE: Apply a small amount of Teflon Tape (not illustrated) around the threads of the 90 Degree Elbow Fittings (2) in the direction of thread rotation.

IMPORTANT: In ALL cases, DO NOT use Teflon Tape on the Hydraulic Tubing end of the Fittings (2).

2. Add Washers (5) as required for proper alignment of the Parking Brake Handle (3) and the appropriate attachment hole in the Forward Throttle Mount Plate (6). Assemble as illustrated. Tighten ALL Locknuts (7) to proper torque.

NOTE: Ensure the direction arrows on the side of the Parking Brake (1) are pointing in the proper direction.

CAUTION: DO NOT OVERTIGHTEN the Elbows to attempt proper alignment.

Item	P/N	Qty	Description
1	91274	1	Parking Brake
2	91271	2	90 Degree Elbow for Hydraulic Tubing
3	.....	.....	Parking Brake Handle (part of P/N 91274)
4	10120	2	AN4-15A Bolt
5	10560	A/R*	1/4" Washer
6	45482	.....	Forward Throttle Mount Plate
7	10510	2	1/4" Locknut
8	30230	2	Fuel Line Clamp
9	91272	8"	5/16" I.D. Hydraulic Fluid Hose
10	91277	.....	Hydraulic Fluid Reservoir Bracket
11	91275	.....	90 Degree, 1/8" NPT x 5/16" Hose Fitting
12	91258	9"	Hydraulic Brake Line

Metric Conversion

8" = (203.2 mm)
9" = (228.6 mm)

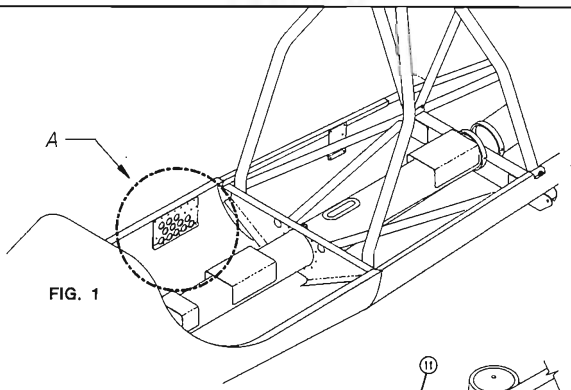
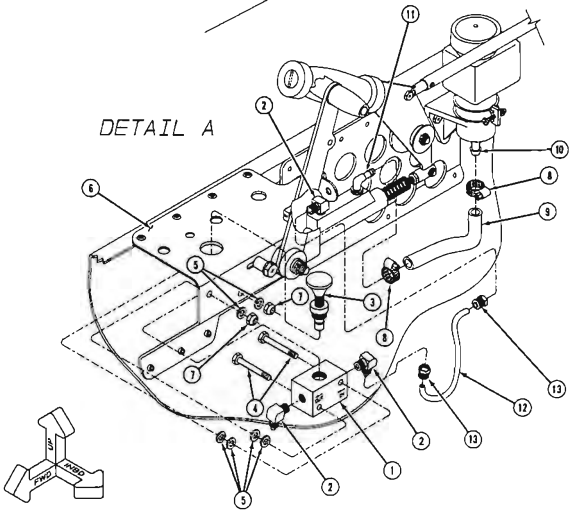


FIG. 1



(AS REQUIRED)

HYDRAULIC BRAKE LINE ROUTING AND ATTACHMENT

1. Refer to Figure 1 and Details 'A'. 'B' and 'C'. Assemble as illustrated. Route the Hydraulic Brake Lines (1) in Details 'B' and 'C' to the Main Wheels AFT or BEHIND the Landing Gear Carry Thru (5) and Landing Gear Leg (8).

NOTE 1: Cut TWO [2] pieces of Fuel Line (6) 6" (152.4 mm) in length and slide each piece over each of the Hydraulic Brake Lines (1) BEFORE attaching the ends to the Fittings (3) to keep the Brake Line from coming into direct contact or rubbing against the any sharp edges on the Aluminum Fairings.

IMPORTANT: Always keep the Brake Line (1) away from direct contact with any sharp edges, moving parts and/or extreme temperature.

2. Add Hydraulic Brake Fluid (not illustrated).

CAUTION: ALL BRAKE COMPONENTS CONTAIN BUNA-N O-RINGS, AND ARE NOT COMPATIBLE WITH AUTOMOTIVE GLYCOL BASED BRAKE FLUID. A PETROLEUM BASED RED AIRCRAFT BRAKE FLUID OR AUTOMOTIVE AUTOMATIC TRANSMISSION FLUID MUST BE USED OR THE INSTALLED O-RINGS WILL SWELL UP AND BE DESTROYED.

3. Bleed the Brake system accordingly. Bleeding the location FARTHEST from the Master Brake Cylinder (not illustrated) FIRST.

4. Verify BOTH Main Wheel Brakes are operating correctly.

Item	P/N	Qty	Description
1.	91258	A/R*	Hydraulic Brake Line
2.		6	Knurled Nut (part of P/N 91271 or P/N 91270)
3.	91271	3	90 Degree Elbow Fitting
4.	91270	1	"T" Fitting
5.			Landing Gear Carry Thru
6.	30220	12"*	Fuel Line (304.8 mm)*
7.	91256		Brake Caliper Assembly
8.	45365		Landing Gear Leg with .75" Socket
9.		A/R	Fuel Line Stand-Off
10.	30480	4	7" Tie Wrap

* As Required

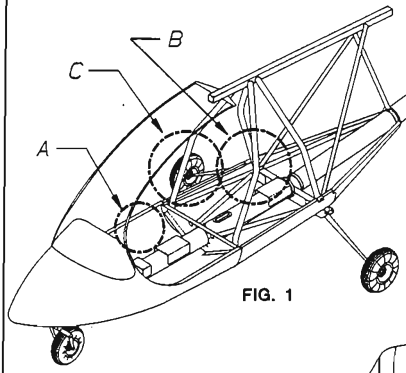
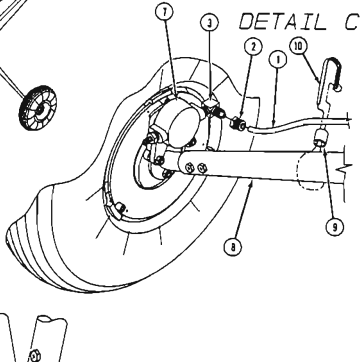
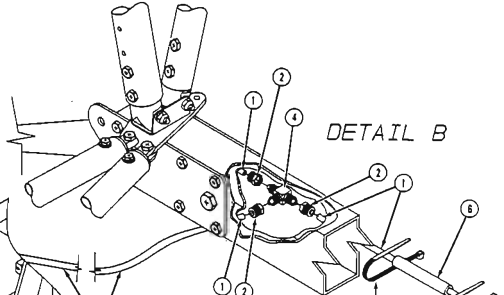
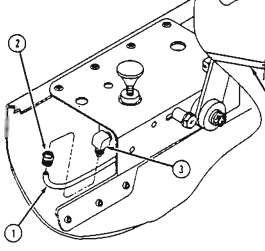

B
C
A

FIG. 1


DETAIL C
7
3
2
1
10
9
8


FWD
AUSS


DETAIL B
2
1
4
2
1
6
1
2
10


DETAIL A
2
3
1

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