Owner _____ Registration No. N _____

Performance/Specifications: Model AA-1A

		Trainer	Cruise Trainer*
GROSS WEIGHT		1500 lbs AA-1B 1560	1500 lbs
SPEED:	Top Speed at Sea Level	138 MPH	144 MPH
	Cruise, 75% Power at 3000 ft	125 MPH	134 MPH
	Cruise, 65% Power at 8000 ft	119 MPH	123 MPH
RANGE:	Cruise, 75% Power at 3000 ft	440 mi	466 mi
	22.0 Gallons, No Reserve	3.52 hrs	3.48 hrs
	Cruise, 65% Power at 8,000 ft	488 mi	501 mi
	22.0 Gallons, No Reserve	4.1 hrs	4.07 hrs
	Optimum Range at 10,000 ft	500 mi	516 mi
	22.0 Gallons, No Reserve	4.5 hrs	4.52 hrs
RATE OF CLIMB AT SEA LEVEL		765 fpm	720 fpm
SERVICE CEILING		13,750 ft	12,425 ft
TAKE OFF:	Ground Roll	725 ft	800 ft
	Total Distance Over 50-ft Obstacle	1400 ft	1440 ft
LANDING:	Ground Roll	395 ft	395 ft
	Total Distance Over 50-ft Obstacle	1065 ft	1065 ft
WING LOADING		14.9 lb/sq ft	14.9 lb/sq ft
POWER LOADING		13.9 lb/bhp	13.9 lb/bhp
BAGGAGE		100 lbs	100 lbs
FUEL CAPACITY, TOTAL		24 gal	24 gal
OIL CAPACITY, TOTAL		6 qts	6 qts
PROPELLER:	McCauley Fixed Pitch (Diameter/Pitch)	71/53	71/57
ENGINE:	Lycoming 108HP at 2600 RPM	O-235-C2C	O-235-C2C

*Cruise Trainer equipped with cruise propeller and wheel fairings.

Table of Contents

NOTE:
Range and endurance figures do not include take-off and climb allowance.

Welcome Aboard!

You are about to meet a fast, tough aircraft designed *by* pilot-engineers *for* pilots...the kind of pilots who enjoy flying more than they enjoy spending. The American Trainer is the most responsive, high performing light aircraft on the scene today; yet it offers the lowest hourly cost in flight, and the least expense to maintain it in top condition. And the materials, techniques and design innovations which made this double-breakthrough possible also made the Trainer much stronger and more handsome than any light aircraft near its class.

The American Trainer's unique construction deserves a close look. Metal-to-metal *bonding* eliminates the thousands of sources of drag and stress concentration built into other light aircraft, and leaves the aerodynamic surfaces as smooth as glass. Aluminum honeycomb completely surrounds the cabin, providing incredible strength and rigidity at very little weight, and preserving the exact design contours.

Your Trainer's combination of strength, performance, agility, and economy makes it a superb utility aircraft, an excellent trainer, a great cross-country/sport plane, *and an unusually economical instrument trainer.*

Your Owners Manual has been written and organized to help you get the most from your Trainer. We suggest that you keep it as a permanent reference, on board at all times. As you get to know your Trainer better, your respect for its performance, reliability and simplicity will grow.

Get to know your authorized American Aviation Dealer. He can provide the rapid, expert service that will keep your Trainer young for many, many years. His factory-trained service people are professionals.

So-Welcome Aboard! We hope that your spirit of adventure gets the same boost that ours did when we first flew the Trainer.

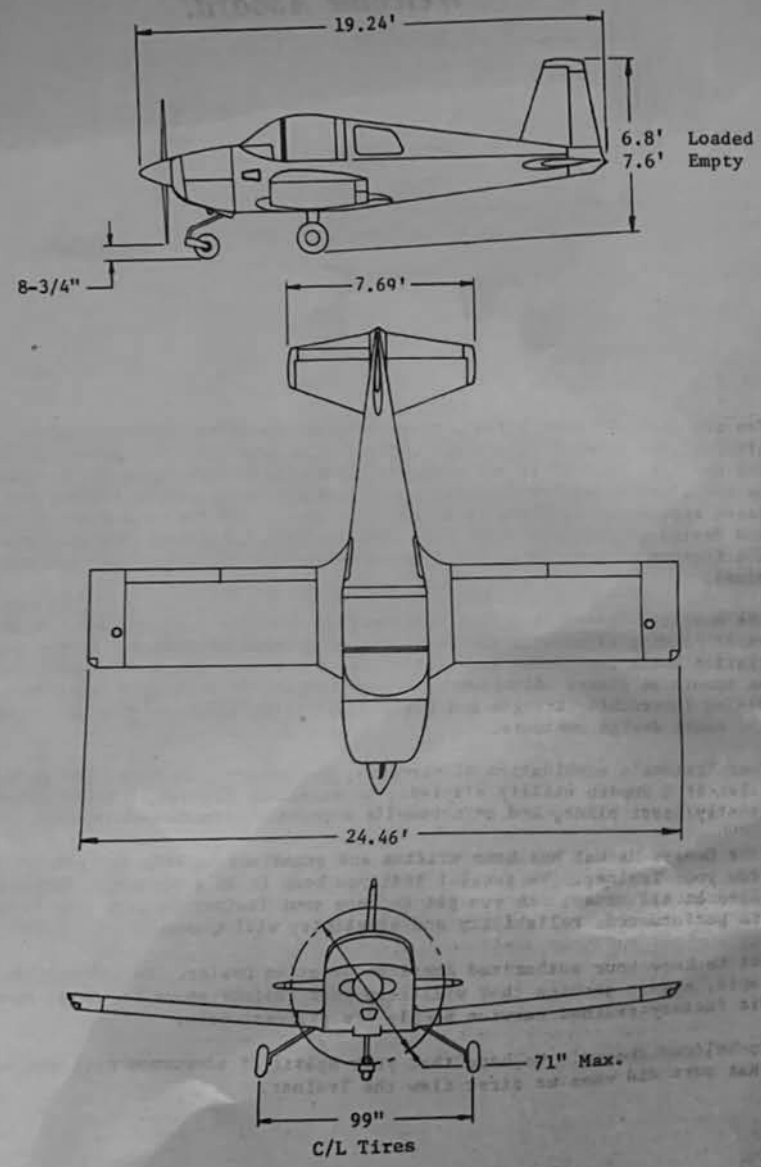


Figure 1. Trainer principal dimensions.

Section I
Description of Systems and Structures

The Model AA-1A American Trainer is a two-place, all-metal, low-wing monoplane with unique "Face-Saver" tricycle landing gear. The Trainer gets more performance from its 108 horsepower Lycoming four-cylinder, horizontally opposed engine than any aircraft in the record books...and does it with a fixed-pitch metal propeller.

Airframe components such as wings, fuselage and tail assemblies employ high-strength adhesive bonding of aluminum sheet metal to ribs or bulkheads. The same bonding technique employed in aluminum honeycomb sandwich panels, provides the Trainer with a fuselage cabin area tougher, stronger and more rigid than any light aircraft near its class.

Cabin Description:

The Trainer's instrument panel employs a unique "eyebrow" design to shield the windshield from panel reflections during night flights. This eyebrow also houses the panel lights which are turned on and their intensity controlled by a switch-rheostat located just above the throttle. The fuel quantity sight gauges are individually lighted by lamps which are also controlled by the instrument light switch-rheostat. Other panel switches are of the rocker type, combining the convenience of pushbutton operation with the positive action of the toggle.

A cabin dome light for illuminating the baggage compartment and to aid in map reading is located over the baggage compartment and controlled by a switch mounted adjacent to the light. It is energized from the battery regardless of the master switch position.

The center console serves as a seat divider; provides out-of-the-way storage for the microphone; and houses the flap switch and flap position indicator, the trim wheel and trim position indicator, ash tray, fuel selector valve, and the inboard seat belt holders.

The Trainer's contoured seats are individually adjustable in a forward/up, rearward/down travel. The seat bottoms should be flipped up during entry and exit to expose a non-slip step on the main spar. Each seat back folds forward for easy access to the baggage compartment.

The Trainer's baggage compartment is accessible during flight to either the pilot or passenger. It is certified for 100 pounds capacity or 90 pounds with the child's seat installed. (Refer to the weight and balance Section IV for proper loading.)

Shoulder harnesses are provided for both occupants, and a storage receptacle is located on each side panel next to the seats.

Heating and Ventilating:

Cabin heat and defroster air are supplied by a heat exchanger on the engine exhaust system. This system heats a continuous flow of fresh air, and provides heating and defrosting by diverting the desired portion of that continuous supply into the cabin and bypassing the balance directly overboard.

Fresh air ventilation is provided by adjustable vents located just below the instrument panel, with the air supply being ducted in from inlets in the fuselage. Maximum ventilation may be obtained by sliding the canopy open half-way at speeds up to 130 MPH. A thumbscrew is provided to hold the canopy in intermediate open positions. Always leave the thumbscrew disengaged *except* when flying with the canopy partially open.

To obtain warm defrost air, pull out the cabin heat control (on the right side of the instrument panel) and slide open the defroster vent near the lower edge of the windshield. The fresh air vents also provide good defrost action when partially opened and the louvers directed toward the side canopy.

When cool and high-humidity conditions exist, do not use partial defrost as windshield may fog rapidly on take-off. Always check defroster position before flight.

NOTE:
The heater system and fresh air system can be turned on simultaneously during cold weather operations to provide a comfortable cabin atmosphere.

Flight Controls:

The control surfaces are operated by a combination of torque tubes and conventional cable systems. The right elevator includes an adjustable trim tab controlled by a trim wheel on the center console. Ground-adjustable tabs on the rudder and ailerons provide a simple means for adjusting directional and lateral trim.

Electrically operated flaps offer a full range of settings by means of a spring-loaded, two-position switch. This flap actuator switch is held down until the flap position indicator shows the desired flap angle; when released, it returns to neutral, and flap travel stops. (Caution: Abruptly releasing the switch may cause it to snap *through* the neutral detent, into the retract position.) To retract flaps, push the switch forward and release it; the flaps retract fully with no further attention, and the flap drive motor shuts off automatically (very handy on a full-flap go-around). Flap position is clearly indicated on the center console.

Engine Controls:

The push-pull type throttle, located in the lower center instrument panel, is equipped with a friction lock to prevent creeping (but which can be overridden manually). The mixture control and carburetor heat control, to the right and left of the throttle, respectively, are also of the push-pull design.

Fuel System:

The Trainer's fuel system (Fig. 2) is one of the simplest, and therefore one of the most reliable, in aviation. The tubular main wing spar also serves as a two-cell fuel tank, with each cell holding 11 gallons (useable) or 12 gallons (total). The 22 useable gallons are managed by a fuel selector valve on the center console, clearly marked OFF-LEFT-RIGHT. Fuel quantity is reliably indicated in vertical sight gauges on the left and right cabin walls. Each wing tank has its own quick drain located on the bottom inboard trailing edge of each wing.

NOTE:
Check fuel sight gauges while in level, balanced flight to avoid mis-reading fuel quantity indications.

An auxiliary electric fuel pump supplements the engine-driven pump. Fuel pressure is indicated on a gauge in the engine instrument cluster, located to the right of the radio section of the instrument panel. The electric pump should be turned on if the engine-driven pump fails as noted by a loss of fuel pressure. The electric fuel pump can also be used to provide fuel pressure redundancy during low altitude operation, such as during take-off and landing.

Electrical System:

The electrical system (Fig. 3) is extremely simple, yet is quite sophisticated in its approach to reliability. It employs a brushless 14-volt, 40-amp alternator. Internal power diodes in the alternator deliver DC power direct to the main bus through a 40-amp circuit breaker. An external transistorized voltage regulator controls the alternator's output voltage, and *automatically* adjusts the battery charging voltage to maintain proper charge. The alternator ammeter is located in the engine instrument cluster and indicates alternator output to the electrical bus and the battery.

The 25-ampere-hour battery, located on the upper right firewall in the engine compartment, is connected to the electrical bus through the battery solenoid when the master switch is in the ON position. The master switch also energizes the voltage regulator, and all electrical loads connected to the bus through their individual switches. With the master switch in the OFF position, the alternator is de-energized, and all electrical loads *except the cabin dome light* are de-energized. Note that it is possible to disconnect the alternator load from the bus by manually pulling the 40-amp circuit breaker, yet continue to feed the bus loads from the battery by leaving the master switch in the ON position.

Stalls:

The Trainer's stall characteristics are conventional in all configurations. Elevator buffeting occurs approximately 3 MPH above the stall and becomes more pronounced as the stall occurs. An audible stall warning horn begins to blow steadily 5 to 10 MPH above the actual stall. Aileron and rudder controls remain effective throughout the stall, and both should be used as necessary to control roll and yaw respectively.

The table below indicates stalling speed as a function of bank angle and flap setting at maximum weight and a forward center of gravity loading. Note that the stalling speed markedly increases with bank angles.

MODEL AA-1A				
STALL SPEED - MPH CAS				
CONDITION	BANK ANGLE			
	0°	20°	40°	60°
FLAPS UP	63	65	72	89
FLAPS DN	60	62	69	85
1500LBS. POWER OFF				

63

Avoid uncoordinated use of the controls at the stalling speed as this may result in a spin. SPINS ARE PROHIBITED.

Figure 8. Trainer's visibility is excellent for sight-seeing.

Normal Approach and Landing:

The Trainer should be trimmed to an approach speed between 70 and 80 MPH, depending on weight and wind conditions. Normal approach speed is 75 MPH. Maximum flap extension speed is 115 MPH. Any flap setting may be used for landings.

As a general rule, it is good practice to contact the ground at a minimum safe speed consistent with existing conditions. After touchdown, hold the nose wheel off as long as possible on roll-out. Lower the nose gently and apply brakes as needed. Retract the flaps after touchdown to minimize the possibility of skidding when braking. In gusty or crosswind conditions, many pilots prefer to increase their airspeed slightly above the normal approach speed; this decision, however, can only be made by the pilot in the light of his own experience and training.

NOTE:

A pilot-induced porpoise maneuver may be entered during landing by contacting the nose wheel first with excessive touchdown speed. The porpoise could be accentuated by a wavy or rolling runway surface. Should a porpoise occur, use the following technique to recover.

1. *Apply full power.*
2. *Maintain steady elevator-back pressure for a normal climb.*
3. *Normal climb - 95 MPH.*
4. *Carburetor heat - OFF.*
5. *Retract flaps.*
6. *Execute normal go-round.*

A power-off tail-low touchdown attitude is the best assurance of a porpoise-free landing, and excessive touchdown speed is not required with direct crosswinds up to 13 MPH. Use normal crab or wing-low side-slip landing approach techniques under these conditions.

Short Field Landing:

When making a landing where obstacle clearance or ground roll is a factor, the Trainer should be trimmed to an approach speed of 70 MPH with flaps fully extended. Touchdown should be made on the main gear at the slowest safe airspeed. Use braking as necessary while holding the control wheel full back to increase brake effectiveness. Best braking action can be obtained by applying light pressure immediately after touchdown and continuously increasing brake pressure just enough so the wheels do not skid.

Soft Field Landing:

For soft fields, the Trainer should be trimmed to an approach speed of 70 MPH with flaps fully extended. Use power as necessary to control glide path and rate of descent, and use the shallowest possible glide path consistent with existing conditions. Touchdown in a rough or soft field should be in a nose-high pitch attitude at the slowest safe airspeed. The nose wheel should be held off the surface as long as possible, and braking should be the *minimum* required for directional control and safety. (Maximum braking on soft surfaces may lead to excessive gear loads.)

Spins are Prohibited

In the event of an inadvertent spin, use the following recovery technique with *brisk* application of anti-spin controls:

1. Simultaneously apply full down elevator and full rudder opposite to the spin rotation while neutralizing the aileron.
2. Hold anti-spin controls until rotation stops.
3. When rotation has stopped, neutralize the anti-spin rudder and elevator, then apply *smooth* elevator back pressure to bring the nose up to a level flight attitude.

NOTE:

If recovery controls are not briskly applied in the first turn, more than one additional turn will be required for recovery. For quick recovery, apply full anti-spin controls as the spin begins, before one turn is completed.

Airspeed Limitations:

Maximum Glide or Dive, Smooth Air (red line)	195 MPH - CAS
Caution Range (Yellow Arc)	144-195 MPH - CAS
Normal Range (Green Arc)	63-144 MPH - CAS
Flap Operating Range (White Arc)	60-115 MPH - CAS
Maneuvering Speed - Normal Category	120 MPH - CAS
Utility Category	127 MPH - CAS
Maximum Canopy Half Open	130 MPH - CAS

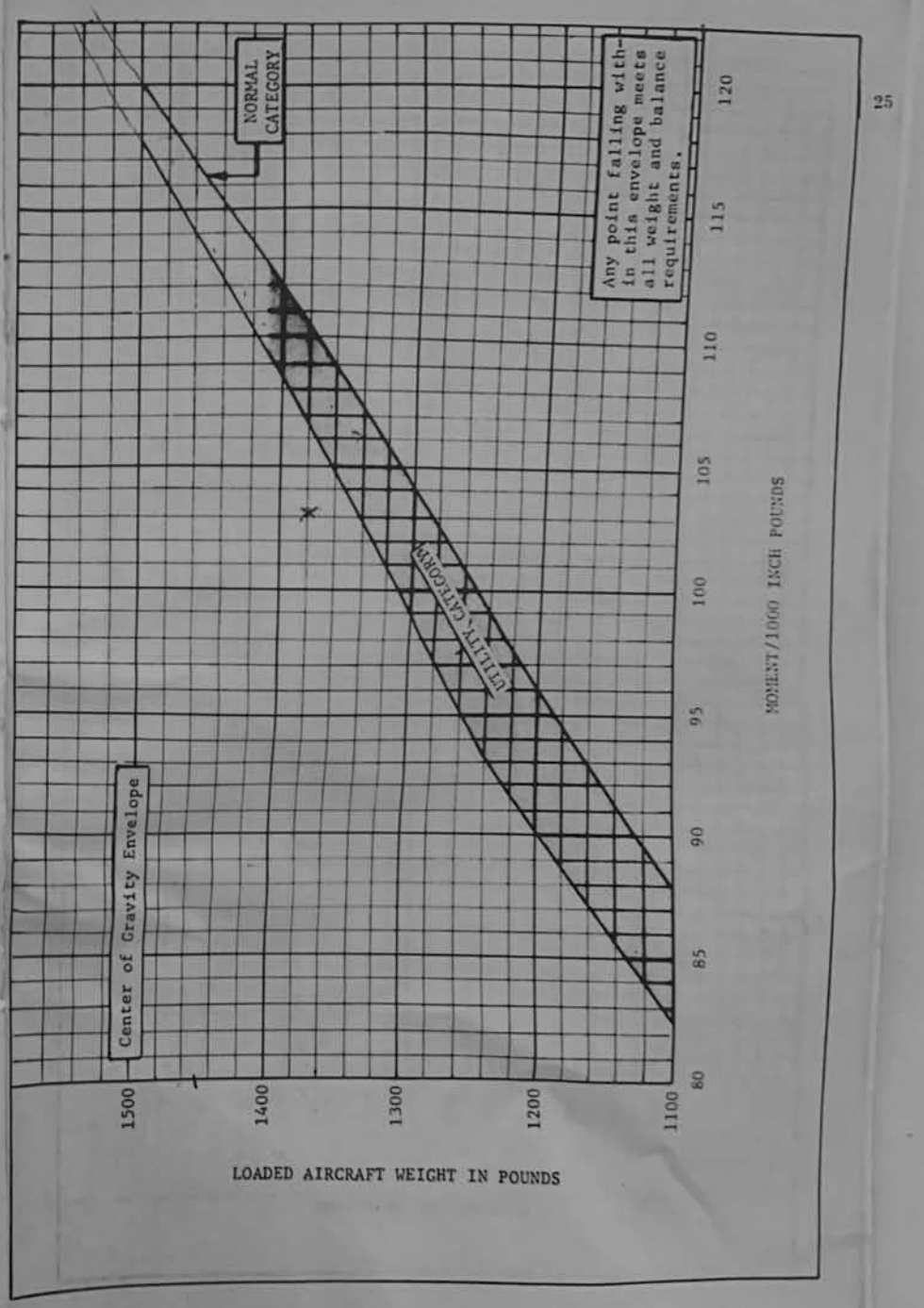
Engine Instrument Markings:

Oil Temperature Gauge - Normal operating range	Green Arc
Maximum allowable	245°F. (Red Line)
Oil Pressure Gauge - Minimum idling	25 PSI
Normal operating range	60-90 PSI
Maximum	100 PSI
Fuel Quantity Indicators - 0 means one gallon unuseable fuel remaining in the tank.	
Tachometer - Normal operating range	2000-2600 RPM

Weight and Balance:

In order to facilitate computation of the weight and balance of a particular Trainer, an example is given on page 26. All procedures for use of the charts are outlined in the weight and balance section. Remember, *always refer to the weight and balance of the Trainer you are flying - variations do exist from aircraft to aircraft.* The data given here is for a sample aircraft only. Add all applicable weights together in one column and total up the moments in the other. For convenience, a loading graph is provided giving the moment for each item.

Refer to the center of gravity envelope on page 25. Find the intersection of the total weight and moment on the graph. If this point is within the envelope, the loading is acceptable.



3-70 VERTICAL STABILIZER ASSEMBLY (Continued)

3-70-00 DESCRIPTION

is controlled by the pilot's feet on the rudder pedals located on the cabin floor.

The rudder, on aircraft not equipped with a flashing beacon, contains a mass balance weight. On aircraft equipped with a flashing beacon, a smaller mass balance weight is used.

3-70-01 VERTICAL STABILIZER ASSEMBLY REMOVAL AND INSTALLATION

a. Remove the tailcone.

b. Remove the inspection covers at the base of the vertical stabilizer.

c. Tie off the rudder cables to prevent them from entering the fuselage (they are spring loaded) and disconnect them.

d. Remove the navigation antenna cable, the ELT antenna cable (if installed) and the flashing beacon lead wires (if installed).

e. Remove the bolt attaching the forward stabilizer support to the fuselage bulkhead.

f. Remove the four bolts attaching the rear stabilizer spar to the aft fuselage and remove the stabilizer.

g. Reassemble in the reverse order.

3-80 CANOPY

3-80-00 DESCRIPTION

These aircraft employ a Plexiglas and aluminum canopy assembly which slides on teflon runners and provides easy access to and from the cockpit.

3-80-01 CANOPY MAINTENANCE

Field experience has shown that after extended operation, the canopy may become difficult to open and close. The following suggestions are provided to aid in maintaining satisfactory freedom of operation of the canopy:

1. DO NOT use the canopy as a hand hold during entry to and exit from the aircraft as bending of the inner tracks can result.

2. The inner canopy tracks must be perfectly straight. If the tracks are bent, they should be straightened or replaced.

3-80-01 CANOPY MAINTENANCE (Continued)

3. The sliding surfaces of the canopy inner tracks and the teflon runners in the canopy outer tracks must be kept clean and lightly lubricated. Smoother operation may be achieved by cleaning the sliding surfaces with isopropyl alcohol and a small brush and then injecting a small amount of spray lubricant into the sliding surfaces. Production aircraft canopy tracks are lubricated with E-Z Free lubricant which is available in 6 or 16 oz. spray cans from the Customer Service Department or from XIM Products, Inc., 1169 Bassett Road, Westlake, Ohio 44145.

4. If external cleaning and lubricating does not satisfactorily eliminate canopy stocking or binding, the canopy should be removed from the tracks (ref. 3-80-02) and the tracks slid completely out of the airplane. All sliding surfaces should then be carefully cleaned with isopropyl alcohol and re-lubricated with a very thin film of lubricant. If the teflon runners are galled or severely worn, they should be replaced. The teflon runners are secured in the outer tracks with roll pins Esna part number 52-012-062-0500, inserted at the forward end of each channel.

5. A canopy track sizing tool, Part No. ST-1064, is available which may be used to resize the teflon runners when the tracks are removed for cleaning or when the teflon runners are replaced in the field. This tool is simply inserted into the outer track in place of the sliding inner track and forced through the entire length of the outer track to force the teflon runners tightly into the retaining channels (See Figure 3-3). Properly installed teflon runners allow a 1/32" to 1/16" vertical clearance between the inner canopy track and the runners. This clearance can be checked with the canopy installed by moving it up and down and measuring the inner track movement. Clean, lubricated teflon runners installed with the correct clearance are essential for smooth, free canopy operation.

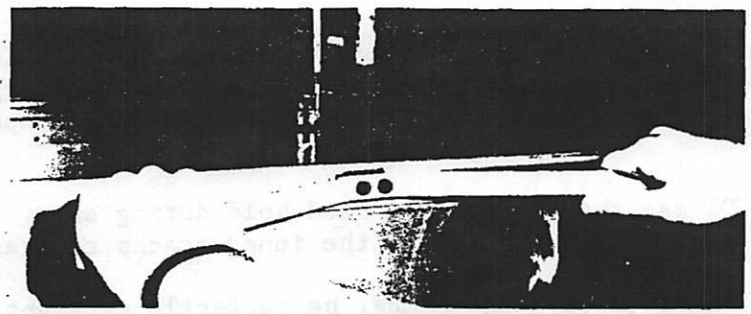
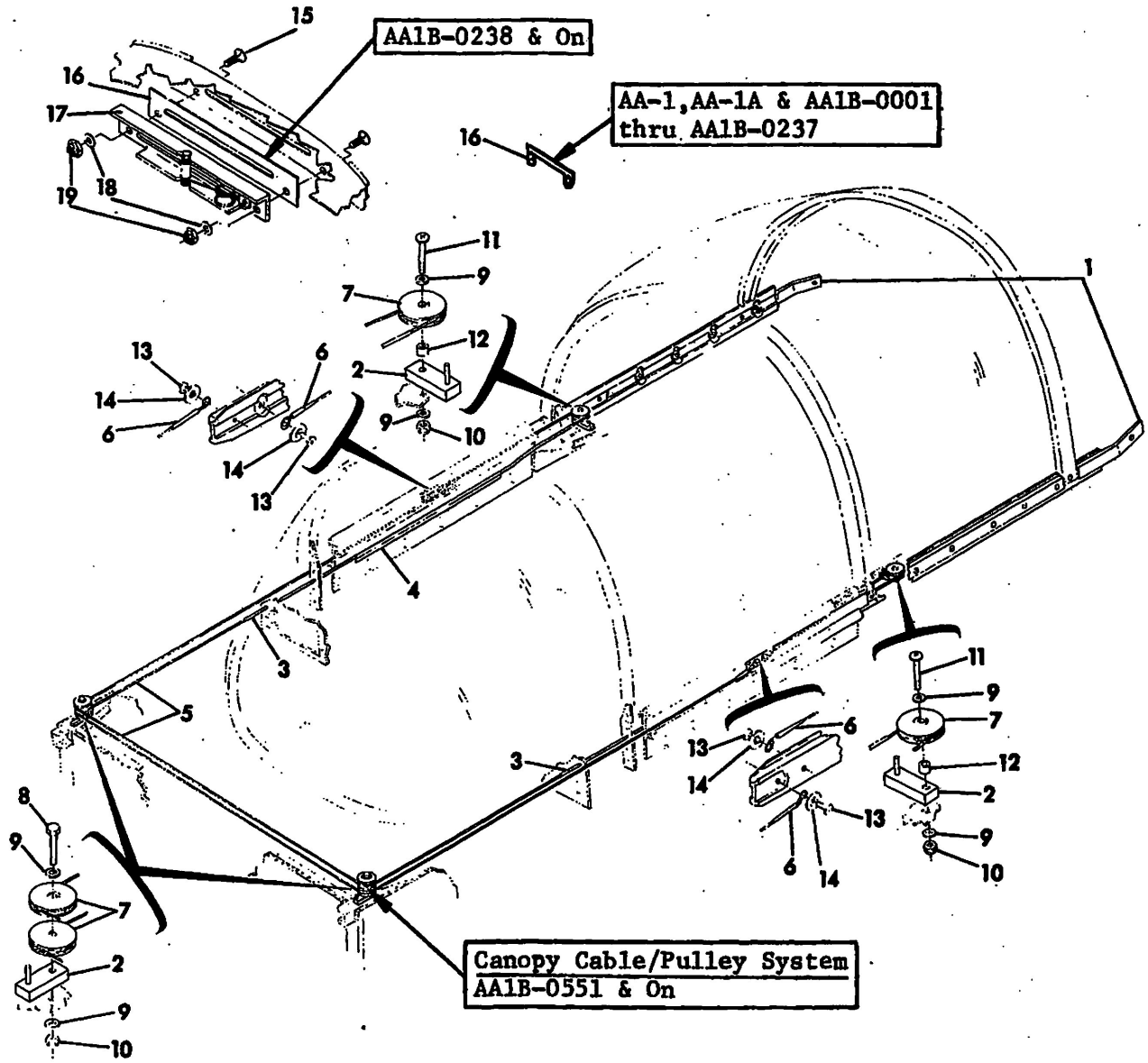


Figure 3-3. Canopy Track Sizing Tool



1. Inner track assembly
2. Spacer assembly
3. Housing
4. Duct tape
5. Cable
6. Shrink tubing
7. Pulley
8. Bolt
9. Washer
10. Nut
11. Screw
12. Spacer
13. Screw
14. Washer
15. Screw
16. Shim
17. Bearing block
18. Washer
19. Nut

Figure 3-4. Canopy Adjustment

3-80-01 CANOPY MAINTENANCE (Continued)

6. Aircraft delivered from the factory after April 21, 1970 have the teflon glide material secured in the outer tracks with a roll pin, Esna Part No. 52-012-062-0500, inserted at the forward end of each channel. Aircraft delivered prior to April 21, 1970 can be modified in the field to incorporate this improvement. A Canopy Track Drill Jig, Part No. St-1074, is available which may be used to assist in locating and drilling holes for field installation of the roll pins.

3-80-02 CANOPY REMOVAL AND INSTALLATION

a. Remove the screws on each side which attach the canopy Plexiglas to the canopy slides.

b. Lift the canopy off.

c. Reinstall in reverse of the removal procedure. Torque Plexiglas attach screws to 8-12 inch lbs. (Do not exceed this value).

3-80-03 CANOPY ADJUSTMENT

The canopy latch assembly can be adjusted for a tighter seal between the canopy and windshield by installing additional shims (16, Figure 3-4), as required.

3-80-04 CANOPY CABLE/PULLEY SYSTEM - AA1B-0551 & ON

The canopy cable/pulley system (Figure 3-4) provides interconnecting cables and pulleys which forces both sides of the canopy to move together, thus eliminating binding due to wracking.

N O T E

Cable tension must be maintained to allow smooth operation of the canopy. Adjust cable tension by locating lower ends of canopy bow at an equal distance from lower ends of windshield bow and removing all slack from system at both outboard cable attach screws (13, Figure 3-4). If a cable is removed, install cable and rerig system as follows:

a. Wrap cable counterclockwise around inboard cable attach screw (13, Figure 3-4) and tighten screw. Looped end of cable to be approximately 2.25 inches from screw. Secure end with shrink tubing.

b. Install inner canopy track (1) and route cable aft around pulley, then forward through housing (3). If cable is being routed through left housing, position cable around upper forward pulleys; if cable is being routed through right housing, position cable around lower forward pulleys.

c. Install canopy.

3-80-04 CANOPY CABLE/PULLEY SYSTEM - AA1B-0551 & ON (Continued)

d. Wrap cable counterclockwise around outboard cable attach screw (13) and tighten screw after removing all slack from system and insuring squareness of canopy to windshield. Looped end of cable to be approximately 2.25 inches from screw. Secure end with shrink tubing.

3-90 WINDSHIELD

3-90-00 GENERAL

The Plexiglas windshield is sealed and bolted into the forward fuselage windshield lip along the lower edge and bolted (Bonded-1974 and on) to a support bow along the aft edge.

3-90-01 WINDSHIELD REMOVAL

a. Remove the cowl deck.

b. Remove the 12 screws which attach the windshield to the windshield bow. (Remove bonded bow with windshield on 1974 and on models).

c. Remove the 5 screws which attach the windshield to the windshield fairing.

d. Carefully pull the windshield out from under fairing, cleaning away the sealant as required.

3-90-02 WINDSHIELD INSTALLATION

a. Thoroughly clean all adhesive, sealant, dirt and grease, from the inner surface of the windshield fairing.

b. Repeat step (a) to the windshield.

c. Repeat step (a) to the windshield bow. (Not required with bonded bow).

d. Apply a 1.00 inch by .063 inch vinyl foam tape (3M Company Y-9132D) or an equivalent to the windshield along the windshield bow mating surface. (Not required with bonded bow).

e. Apply a 1.00 inch by .063 inch vinyl foam tape (3M Company Y-9132A) or an equivalent along the windshield on the windshield fairing mating surface.

f. Locate the windshield or windshield and bow assembly in its proper position.

g. Insert sealant* between the windshield and the windshield fairing.

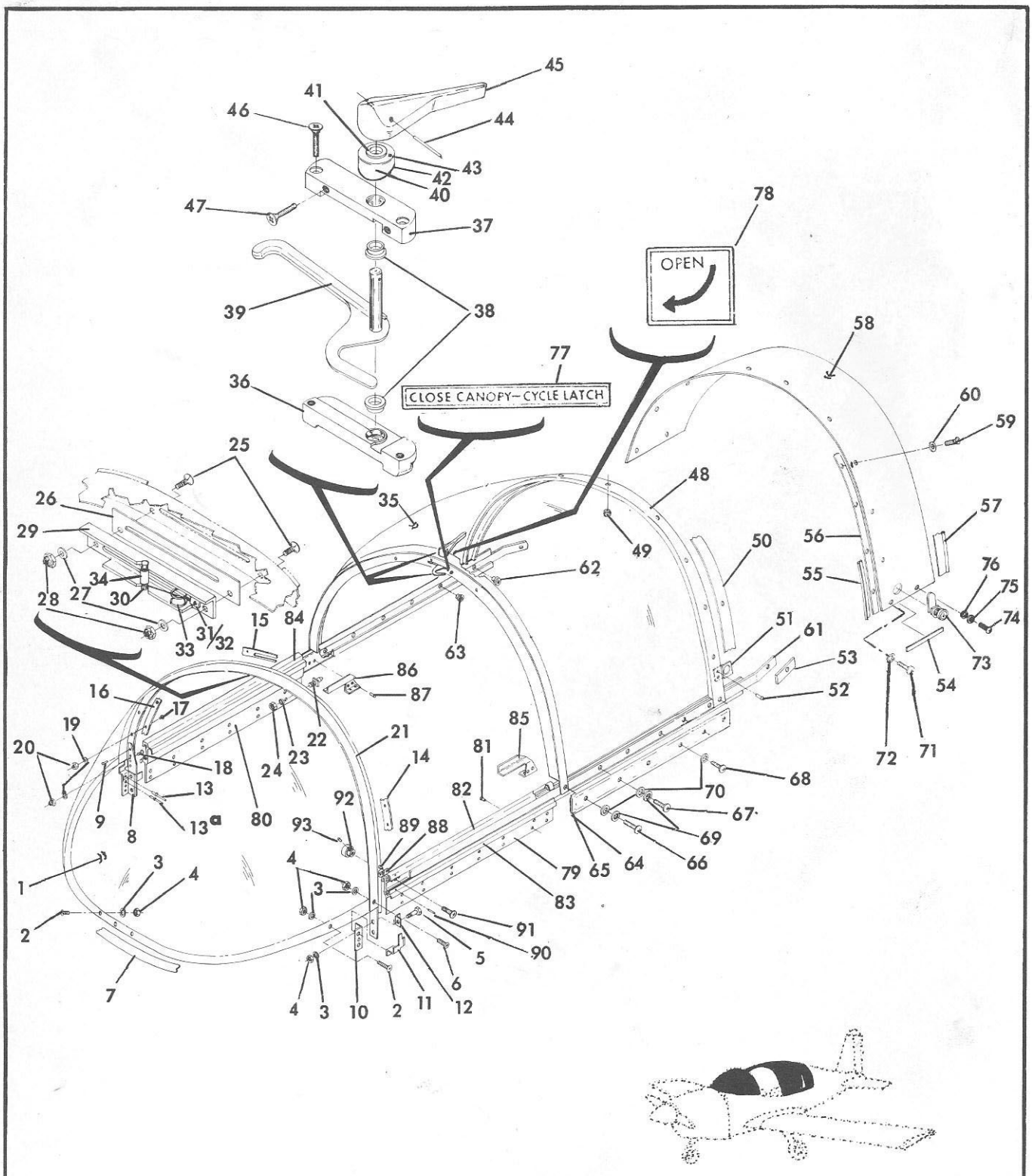


FIGURE 6A. WINDSHIELD AND CANOPY ASSEMBLY & INSTALLATION (1974)
AA1B-0238 and on.

FIGURE AND INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USABLE ON CODE
6A		WINDSHIELD & CANOPY INSTALLATION (1974) (AA1B-0238 & On.)		
	102393-502	Windshield Assembly-STD. (Clear) - - - - - - -	1	A
	102393-504	Windshield Assembly-OPT. (Tinted) - - - - - - -	1	A
	102393-505	Windshield Assembly-STD. (Clear) - - - - - - -	1	B
	102393-506	Windshield Assembly-OPT. (Tinted) - - - - - - -	1	B
	904007-901	Windshield Assembly-OPT. (Tinted w/O.A.T.) - -	1	
-1	102393-901	Windshield & Bow Assembly-STD. (Clear) - - -	1	
	102393-902	Windshield & Bow Assembly-OPT. (Tinted) - -	1	
	904007-903	Windshield & Bow Assembly-(Tinted w/ O.A.T. Hole) -	1	
		ATTACHING PARTS		
-2	MS24693-S272	Screw -	5	
-3	AN960-10L	Washer -	11	
-4	MS20364-1032	Nut -	11	
-5	AN3-5A	Bolt -	4	
-6	MS35207-264	Screw -	2	
-7	Y9132A	Vinyl Foam Tape (1.00 x 75.00) (3M or Equiv.) - - - * - - -	1	
-8	102282-1	Support-Windshield Frame - - - - - - - - -	2	
-9	MS20426AD5-8	Rivet - - - - - - - - - - - - - - - - - - -	8	
-10	102277-1	Bracket - - - - - - - - - - - - - - - - - -	2	
-11	102444-1	Retainer (LH) - - - - - - - - - - - - - - -	1	
	102444-2	Retainer (RH) - - - - - - - - - - - - - - -	1	
-12	102443-1	Bracket - - - - - - - - - - - - - - - - - -	2	
-13	CR-2249-4-4	Rivet - - - - - - - - - - - - - - - - - - -	2	
-13a	CR-2249-4-3	Rivet - - - - - - - - - - - - - - - - - - -	6	
-14	102394-1	Retainer - - - - - - - - - - - - - - - - - -	1	
-15	102394-2	Retainer - - - - - - - - - - - - - - - - - -	1	
-16	102394-3	Retainer - - - - - - - - - - - - - - - - - -	1	
-17	MS24693-S27	Screw - - - - - - - - - - - - - - - - - - -	16	
-18	MS24693-S29	Screw - - - - - - - - - - - - - - - - - - -	2	
-19	AN960-6L	Washer - - - - - - - - - - - - - - - - - - -	18	
-20	MS20364-632	Nut -	18	
-21	AES414-2	Seal (1.00 x 68.50) - - - - - - - - - - - -	1	
	576.1	Presstite - - - - - - - - - - - - - - - - -	A/R	
-22	102325-2	Pin-Guide - - - - - - - - - - - - - - - - -	2	
-23	AN960-416L	Washer - - - - - - - - - - - - - - - - - - -	2	
-24	22K2-048	Nut, Hex Metal Cap (Esna) - - - - - - - - -	2	
	102441-501	Bearing Block Assembly - - - - - - - - - - -	1	A
	102441-502	Bearing Block Assembly - - - - - - - - - - -	1	B
		ATTACHING PARTS		
-25	MS24693-S271	Screw -	2	A
	MS24693-S51	Screw -	2	B
-26	102398-1	Shim -	A/R	A
	102398-2	Shim -	A/R	B
-27	AN960-8L	Washer - - - - - - - - - - - - - - - - - - -	2	
-28	MS20364-1032	Nut -	2	A
	MS20364-832	Nut -	2	B
		- - - * - - -		

(Continued on Next Page)

FIGURE AND INDEX NO.	PART NUMBER	1 2 3 4 5 6 7 DESCRIPTION	UNITS PER ASSY	USABLE ON CODE
6A		WINDSHIELD & CANOPY INSTALLATION (1974) (AA1B-0238 & On) (Cont'd)		
-29	102432-1	Block, Bearing	1	A
	102432-2	Block, Bearing	1	B
-30	102428-1	Retainer, Bearing	1	
-31	102440-1	Spring, Retainer	1	
-32	1604-0412	Rivet, (Avex)	1	
-33	102436-1	Spring	1	
-34	102429-1	Bearing	1	
	904007-904	Canopy Assembly-STD. (Clear) (Complete)	1	
	904007-905	Canopy Assembly-OPT. (Tinted)(Complete)	1	
	102395-502	Canopy Assembly-STD. (Clear) (Partial)	1	
	102395-504	Canopy Assembly-OPT. (Tinted)(Partial)	1	
	904007-902	Canopy, Bow & Latch Assembly (Tinted)	1	
-35	102395-901	Canopy & Bow Assembly-STD. (Clear)	1	
	102395-902	Canopy & Bow Assembly-OPT. (Tinted)	1	
-36	102439-502	Block Assembly	1	A
	102439-504	Block Assembly	1	B
	3591-3CN0190	Helicoil Insert	2	
-37	102439-501	Block Assembly	1	A
	102439-503	Block Assembly	1	B
	3591-3CN0190	Helicoil Insert	2	A
	3585-2CN0164	Helicoil Insert	2	B
-38	F-037-1A	Bearing	2	
-39	102431-501	Handle Assembly-Canopy	1	
-40	102413-501	Locater Assembly-Canopy Latch	1	A
	102413-502	Locator Assembly-Canopy Latch	1	B
-41	F-037-1A	Bearing	1	A
	F-037-4A	Bearing	1	B
-42	102442-1	Seal	1	
-43	52-028-093-0750	Roll Pin	1	
-44	52-028-125-0750	Roll Pin	1	
-45	102430-1	Handle-Upper Canopy	1	
-46	MS24693-S275	Screw	2	
-47	MS24693-S48	Screw	2	
-48	102278-502	Frame Assembly-Canopy, AFT.	1	
-49	22ND8-02	Nut Spline (Esna)	12	
-50	102395-4	Vinyl Foam Tape (1.00 x 67.00)	1	
-51	102284-1	Bracket - Canopy Lock	1	
-52	MS20426AD4-5	Rivet	2	
-53	102395-6	Urethane Foam (1.00 x 3.00)	2	
-54	102395-1	Vinyl Foam Tape (.50 x 5.70) (Norton or Equiv.)	2	
-55	AES405-17	Seal (68.66)	1	
-56	102395-2	Vinyl Foam Tape (.75 x 68.66)	1	
-57	1803-4	Seal (Sterling Alderfer)	1	
-58	102280-2	Fairing-Canopy	1	

(Continued on Next Page)

FIGURE AND INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USABLE ON CODE
6A		WINDSHIELD & CANOPY INSTALLATION (1974) (AA1B-0238 & On) (Cont'd)		
-59	AN526-1032-R9	Screw	12	
-60	902024-1	Washer	12	
-61	102270-501	Inner Track Assembly (Use 102276-901)	NP	
	102276-901	Inner Track Assembly	2	C
	REF. FIG. 5A	Inner Track Assembly	2	D
-62	K-7000-3-6	Nut Spline (Kaylock)	1	
-63	22ND8-02	Nut Spline (Esna)	3	
-64	102271-501	Strap Assembly	2	
-65	102395-3	Vinyl Foam Tape (.75 x 24.75)	2	
-66	AN526-1032-R12	Screw	2	
-67	AN526-1032-R11	Screw	2	
-68	AN526-1032R9	Screw	8	
-69	MS35333-39	L'washer	4	
-70	AN960C10L	L'washer	12	
-71	AN526-1032R10	Screw	2	
-72	902024-1	Washer	2	
-73	D-5412-L	Camlock (Illinois Lock Co.)	1	
-74	AN526-1032R4	Screw	2	
-75	MS35333-39	L'washer	2	
-76	902024-1	Washer	2	
-77	803007-58	Placard	1	
-78	803007-59	Placard	1	
-79	102269-503	Outer Track Assembly, LH	1	
-80	102269-504	Outer Track Assembly, RH	1	
		ATTACHING PARTS		
-81	CR2163-4-2	Rivet (Cherry)	24	
		- - - * - - -		
-82	102269-1	Runner (26.94) Upper, LH	1	
-83	102269-2	Runner (31.87) Lower, LH & RH	2	
-84	102269-5	Runner (28.23) Upper, RH	1	
-85	102313-3	Bracket - Canopy Stop, LH	1	
-86	102313-4	Bracket - Canopy Stop, RH	1	
-87	MS20426-AD4-4	Rivet	4	
-88	22A8-02BC	Nut Plate (Esna)	1	
-89	1202-0306	Rivet (Chobert)	2	
-90	52-012-062-0500	Roll Pin (Esna)	1	
-91	MS24693-S275	Screw	1	
-92	116-1032	Knob (Dimco-Gray)	1	
-93	52-012-062-0500	Roll Pin (Esna)	1	

(A) AA1B-0238 thru AA1B-0392.
(B) AA1B-0393 and on.
(C) AA1B-0238 thru AA1B-0550.
(D) AA1B-0551 and on.